

The Ukrainian Academy of Sciences

Compiled by

Jack L. Cross



The Ukrainian Academy of Science

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General Observations

Preface

There are a number of people whose help and encouragement I must acknowledge in the creation of this Guide to the Ukrainian Academy of Sciences. About twelve years ago, I began working on a study of the Soviet Academy of Sciences--which at that time included the Ukrainian Academy among the 15 academies comprising the Republics of the Soviet Union--toward the end of my academic career. I was confused by the scope and organization of the Soviet Academy and my curiosity was awakened. During my researches on the Soviet Academy and about at the time that I had finished my first draft of this larger study--perestroika and glasnost and Gorbachev appeared, the Berlin wall came down, and Russia was reborn and the Ukraine asserted its independence. For some three years I watched in dismay as various other republics became independent and my manuscript was coming apart at the seams just as the Soviet Union was doing. In desperation I cut back on the work, concentrating on reorganizing my work so that all would not be lost. Some of my correspondence with various institute directors and officials in the Presidium of the Russian Academy led to an invitation to visit Russia to bring my information on the Siberian Department up to date, and--at the same time I received an invitation to attend a conference on the history of science in the Ukraine. I accepted both invitations, and I spent almost two weeks in Novosibirsk at the invitation one of the Vice Presidents of the Academy--Valentin Koptuyug, who is also the chairman of the Siberian Department. I was also able to visit with various persons in the Presidium in Moscow who grew interested in my efforts. President Iuri Osipov of the Academy designated me head of a project, along with Valerii Sokolov, Head of the Scientific Management Department of the Presidium, to develop a guide to the academy. During this time, I was also able to visit Kiev and do some basic research on the Ukrainian Academy. While this present volume lacks up-to-date information on the biographical information on Ukrainian scientists and a later description of the structure and personnel of the 80-odd research institutes under the Ukrainian Academy subject matter departments of the academy in Kiev, it represents the best available material on the academy available to me at the present time. I want to express the deepest thanks to those scientists in Kiev who provided me with much vital information. I need also to express my gratitude to the directors of the individual institutes who responded to my questions about their institutes with results which are uneven from institute to institute but which provide a clearer picture of the kind and extent of scientific research going on in those laboratories and departments. I have coordinated the material I have used from that correspondence with each of them and can vouch for the accuracy of most of the entries I have used from them.

Western knowledge about the engineering and hard sciences in the Soviet Union and in the Ukraine has always been greater than that about the humanities and the social sciences--a situation which was corrected with the publication of the Scholars' Guide to the Humanities and Social Sciences published in 1994. I have included much of that material in this study. Blair Ruble, a pioneer in this kind of research, has been supportive of my efforts. It is good to know someone who understands what you are trying to do and who is not afraid to tell you how far short you fall from the goal and understand why that may happen. I can only express my thanks to him for his understanding.

Fred Giessler, Bill Manthorpe, and James Westwood have encouraged me along the way and have often provided me with insights which have proved to be valuable. And perhaps none of this could have been done without the encouragement and support of Andrew Marshall--he and these others made possible my work on Occasional Paper No. 4, *The Academies of Sciences in the Soviet Union: An Overview of Soviet Research and Development* (July 1982) 226 pp. which was printed by the Center for Strategic Technology under Dick Thomas at Texas A&M University. This present guide to the Ukrainian Academy suggests that additional information material on the Ukrainian Academy is needed.

In late December of 1992, in the *Rossiyskaia gazeta* (29 December), Iurii Osipov, President of the Academy, described the difficult situation the Academy was facing in the coming year: financing had dropped precipitously while inflation had wreaked havoc with finances of all the research institutes of the Academy; young scientists were leaving the system for greener fields abroad in growing numbers, creating great concern; and the publishing situation for scientific works was in a disastrous state. Yet, as he pointed out, the Academy was surviving, and cooperation among most of the former Republic Academies was beginning to be developed under a suggestion from Ye. Paton, President of the Ukrainian Academy of Sciences, and joint research project development among these academies Osipov believed to be a real possibility. This guide will give the interested reader a better idea of the scope of scientific activity in Ukraine and some notion of how important this system is to that nation..

Jack L. Cross
Austin, Texas

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The Ukrainian Academy of Sciences is the largest and most complex of the other former republic academies. In 1972, it counted 45,000 scientific workers in its 36 research institutes and their laboratories, of whom 5,000 had either doctor's or candidate's degrees.¹ There were seven subject-matter departments at that time, one computer center and an Astronomical Observatory and Botanical Garden. By 1987, the Ukrainian Academy had expanded to 12 subject-matter departments with six regional "scientific centers," and with 59 scientific research institutes subordinate to the centers or departments. Scientific personnel had increased commensurately. In 1990, the Ukraine Academy had 76 research institutes, and a membership of 399 academicians and corresponding members.



Scientific Achievements: The Ukrainian Academy boasts of many scientific achievements that include: the Dnepr-2, the Promin, and Mir computer systems, a two-billion electron volt linear accelerator, and a radio telescope which penetrates 10 billion light years into space and by which over 300 new radio stars had been discovered by 1972. Ukrainian scientists researched cybernetics, semiconductors, radiophysics, electronics, chemistry of molecular compounds, low temperature physics, solid state physics, micro-electronics, bionics, new aspects of theoretical physics, quantum chemistry, geochemistry, physics of minerals, mathematical work on oscillation of synchro-phastrons and satellite orbits, controlled thermonuclear fusion, mechanized engineering and radio engineering and automatic control theory. They mounted investigations in applied gas dynamics, aerohydraulics, solid state mechanics, thermal engines, and hydraulic engines of high parameters, problems of the "boundary layer" in aerodynamics and aerodynamic wing theory.

Some Accomplishments of Ukrainian Scientists: Ukrainian scientists built the space welding machine "Vulkan," developed a continuous "teeming" of steel in blast furnaces using natural gas and pure oxygen, and made progress in the secondary reprocessing and refining of metals. One institute produced artificial diamonds successfully. Others developed new catalysts, polymers, fiber-glasses, dyes and insecticides. Geologists and geophysicists studied tectonic movements of the earth's crust, origins of the continental shelf troughs and looked for new mineral reserves. Academy laboratories studied or produced proteins, enzymes, antibiotics, hormones and vitamins in their efforts to control disease. Ukrainian scientists worked on economic reform, the improvement of production and the utilization and distribution of production, a trend that has assumed increased importance in the latest Five-Year Plan.

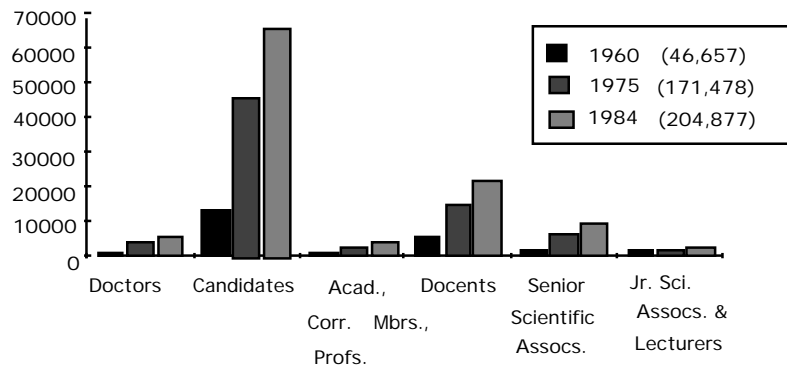
Research Ties: According to Academy President Boris E. Paton, the 1970s saw a greater effort to coordinate scientific research in the Ukrainian Academy with that of other academies, including the national academy, and with the "ministerial" Scientific Research Institutes, and with the scientific research in the higher educational institutions in the region and the country. He observed that joint scientific research investigations had increased greatly.

General Observations

Organization of the Ukrainian Academy: The Ukrainian Academy of Sciences has nine divisions: (1) mathematics, mechanics, and cybernetics; (2) physics; (3) physics and engineering problems; (4) earth sciences and space sciences; (5) chemistry and chemical engineering; (6) general biology; (7) biochemistry, biophysics, and physiology; (8) economics, history, archaeology, philosophy, and law; and (9) literature, language, and art criticism. The academy has a large computer center, observatories, botanical gardens, national forest parks, and branches and divisions of the institutes. It is the headquarters for the Council for the Study of Ukrainian Productive Forces and for the editorial board of the Ukrainian Soviet Encyclopedia. It maintains a library of more than 7 million volumes and controls a large experimental plant for the scientific research institutes. It coordinates scientific and technological research and development throughout the Ukraine through some 55 scientific councils.² The academy publishes more than 24 scientific periodicals and more than 700 other major scientific works each year. Its past presidents have included such distinguished scientists as V. I. Vernadskii, V. I. Lipskii, D. K. Zabolotnii, A. A. Bogomolets, A. V. Palladin, and its current president since 1962, B. E. Paton.

Scientists in the Ukraine: Ukraine boasts of the second largest number of scientists among the former republic academies.³ It also has the largest number of scientists with advanced degrees

Figure 1
Scientists in the Ukrainian Academy of
Sciences, 1960-1984



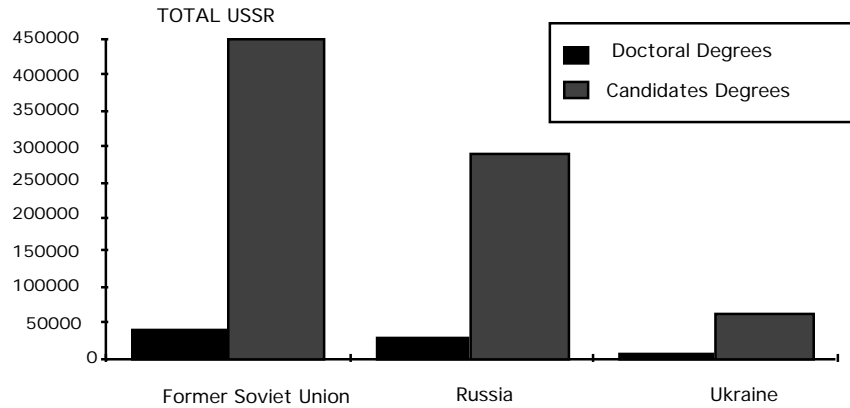
Numbers in parentheses in legend box = total scientists in the Ukrainian SSR.

among the other former republics. In 1984, there were 5595 doctoral degree holders and 66,422 candidate degree holders working in Ukraine. Of these, 4,234 were classified as academicians, corresponding members, and professors. Many of these were teachers in the VUZy system which also included 22,455 docents; senior scientific associates, researchers in the scientific research institutes in the academic and in the ministerial institutes, numbered 9868; and junior scientific associates and assistant lecturers in these same institutions totaled 3,644.⁴

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Figure 2

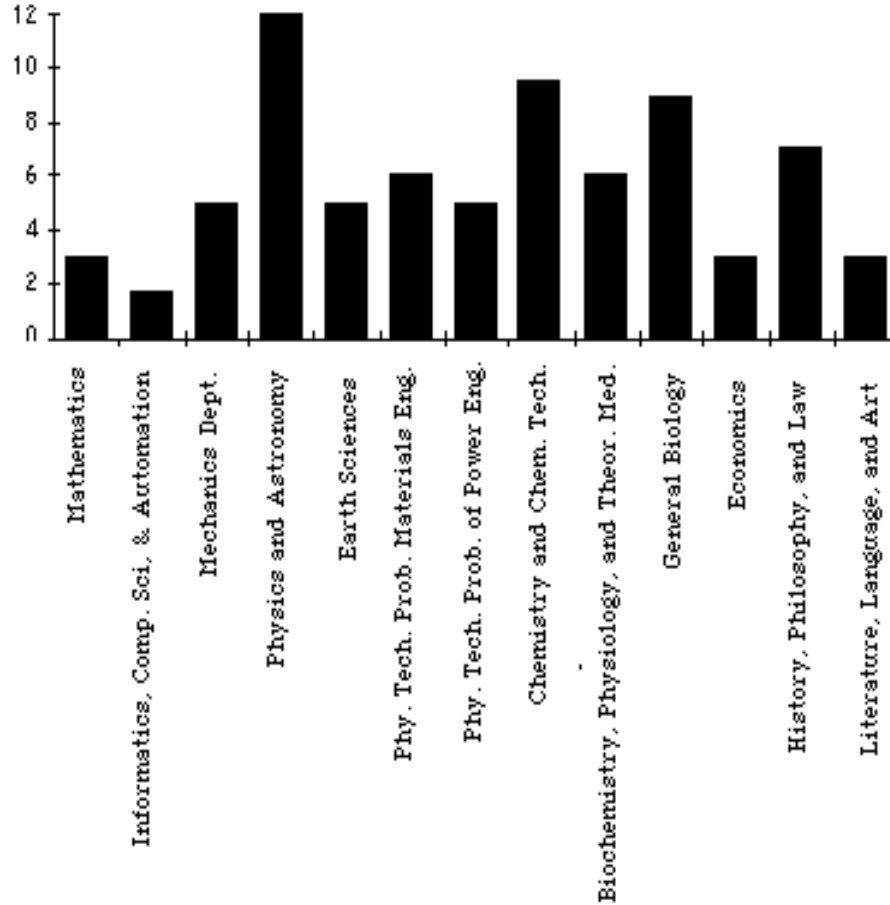
Degree Distribution in the Two Largest Former Republic Academies, 1984



Ukrainian Scientific Research Institutes: The seventy-odd scientific research institutes under the subordination of the 13 academy subject-matter departments as shown in figures 52 and 53 reveal the relative importance given to the various research disciplines by the Ukrainian Academy of Sciences. In this regard Ukrainian scientists do not differ greatly from those belonging to the Russian Academy.⁵

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Figure 3
Ukraine Scientific Research Institutes in 1990

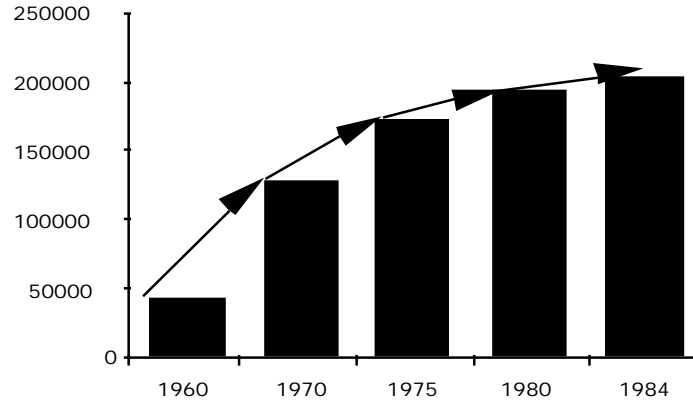


Growth of Scientific Activity in the Ukraine: The number of scientific workers in Ukraine from 1960 to 1984 increased five-fold (439 percent), an enormous increase for a twenty-five year period. During this same period, academicians, corresponding members and professors increased their numbers some 323 percent; holders of doctoral degrees, some 416 percent; and, candidate degree holders, almost 500 percent. As figure 53 illustrates, the rate of growth of all categories of scientists in the republic is beginning to level out. The critical mass of scientists and research institutes exists now to achieve scientific progress more rapidly than in the past.

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Figure 4

Growth of Number of Scientists in the Ukrainian Academy, 1960-1984

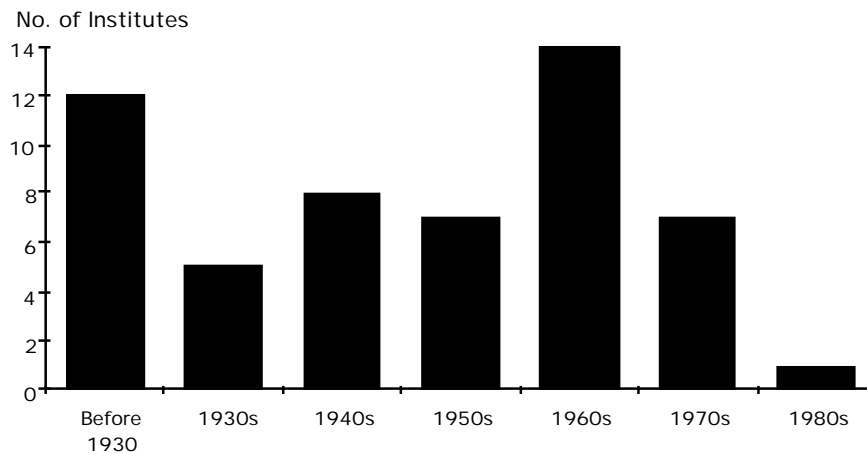


Compiled from: Vestnik statistiki, No. 12, December 1985, pp. 69-72.

The Coordinating Role: That the Ukrainian Academy of Sciences is older as well as more complex in structure than most of the former republic academies is shown in Figure 54 below. Its greatest growth was in the 1960s.⁶ Ukrainian scientists and administrators played an important role in coordinating scientific research between its own researchers, scientists of the other republic academies and the scientists of the Eastern European academies. The Ukrainian academy has acted as a focal point for the exchange of scientific research findings, scientific personnel, and materials. It has maintained and strengthened its ties with its European neighbors. It served as a port of entry for scientists from beyond the Soviet borders, who came to its laboratories to work and to research. Over the years, 55 Ukrainian scientists have been academicians of both the Russian Academy of Sciences in Moscow and the Ukrainian Academy of Sciences in Kiev; 27 scientists have been corresponding members of both bodies.

Figure 5

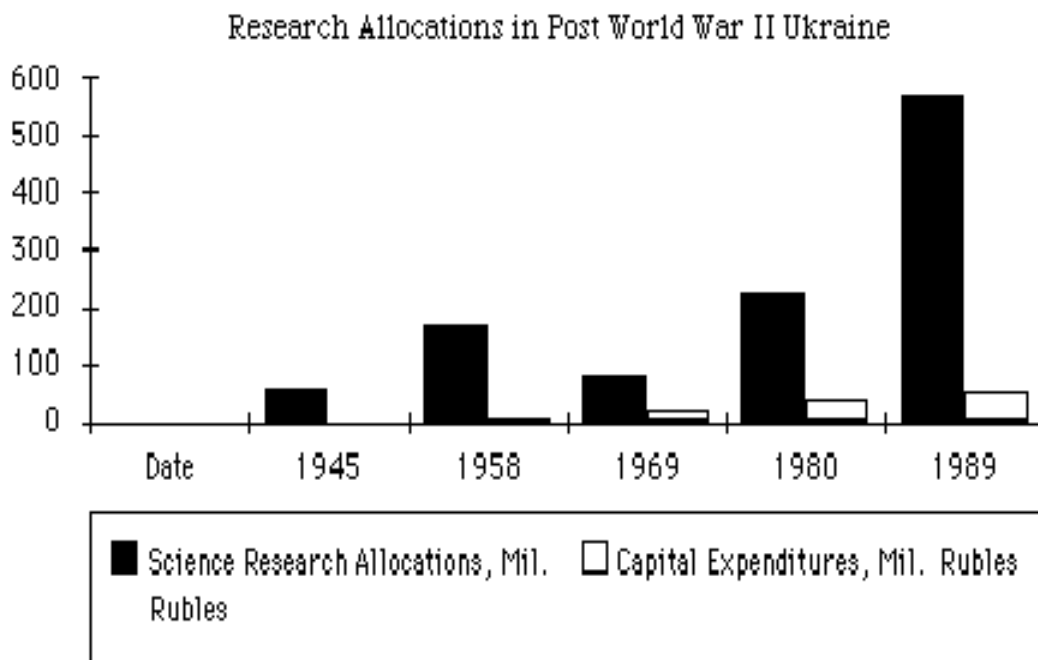
Establishment of SRIs in the Ukrainian Academy of Sciences, by Decades



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Scientific Research and Technological Development: The Ukrainian Academy of Sciences took the lead among the academies in the Soviet Union in coordinating and experimenting with the development of interdepartmental special-purpose Scientific Production Associations, intersectoral scientific production complexes, educational-scientific production associations--all in the name of scientific and technological progress. As Boris Paton observed in an article appearing in *Materialno-tekhnicheskoye snabzheniye* in 1986, the Ukrainian Academy of Sciences experimental production base included 10 pilot plants, 27 pilot and experimental works, 32 design bureaus, and 5 computer centers. This base had begun in 1960s. Then it counted only 16 facilities. This union between science and production, Paton believed, would make restructuring of the Soviet society possible. The development, too, of "engineering centers" of the academy represented a new step in resolving technological problems of improving production.⁷

Figure 6



Source: B. S. Stognii, *op. cit.* pp. 418-419.

Scientific Development in Higher Education in the Ukraine: Scientists in the VUZy system play a major role in scientific development. As one author observed, "eighty-five percent of the scientists with scientific degrees and titles work at higher educational institutions, 10 percent work in the system of the Ukrainian Academy of Sciences and five percent work at ministerial scientific research institutes."⁸ Thus, at that time some 12,000 scientific and scientific teaching personnel worked at 25 higher educational institutions and at some 50 academy and ministerial scientific research institutes, in the western Ukraine alone. Another author noted that in the western Ukraine there were 18 academy SRIs, 24 ministerial SRIs, and 25 higher educational institutions in which some 16,000 scientists and scientific teaching personnel worked--550 of whom held doctors degrees and 6,000 of whom had candidates degrees. Their work was coordinated by the academy's Western Scientific Center established in 1971.⁹

The Ukrainian Academy as a Link: The pulling together of people and resources in the Ukraine for purposes of long-range planning and forecasting for republic and national economic development was

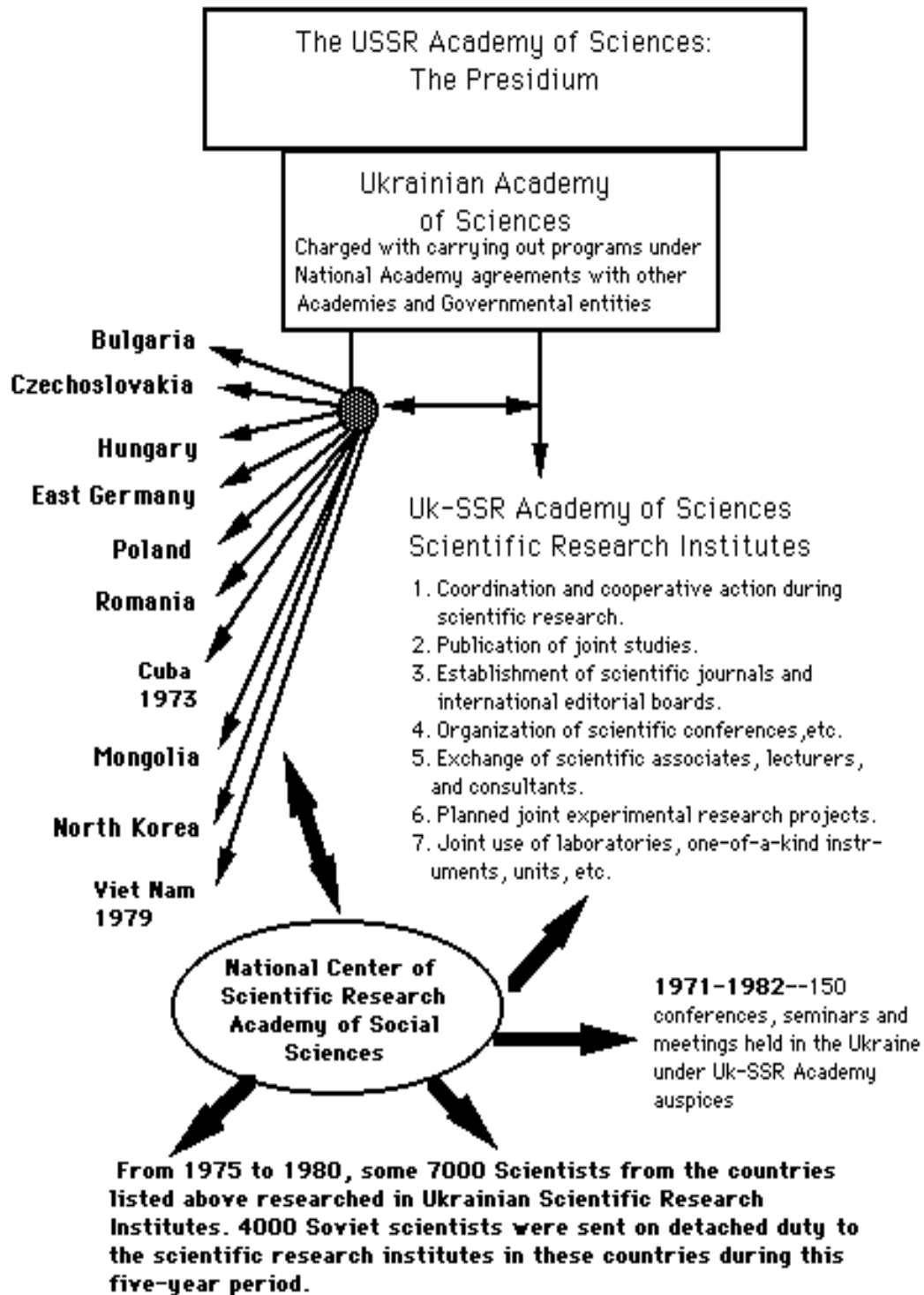
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the hallmark of activities of the Ukrainian Academy of Sciences in the 1980s. While exercising an ever larger role in the coordination of scientific and technical development among the former republic academies in the Soviet Union, the Ukrainian Academy of Sciences played an increasingly important role in the international coordination of Soviet scientific effort as shown in the chart 1 below.¹⁰ In 1992, Dr. Paton, President of the Ukrainian Academy suggested that this coordinating role of the Ukrainian Academy be used again to pull the former Republic Academies back together as a unit.

General Observations

Chart 1

The Role of the Ukrainian Academy in Scientific Research Integration



Whether the role of coordinator with Eastern European and other academies of sciences will continue as Russia and the Ukraine continue their restructuring, remains to be seen. The links which have been forged by the coordinating activities of the past several years may prove to be more enduring than are the political or economic ties.

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The Ukrainian Academy and the Other Republic Academies: As early as April 1982, President Paton of the Academy of Sciences observed at the academy's annual meeting that "productive relations between the USSR Academy of Sciences and the republic academies of sciences continue to broaden and deepen"--a development in which the Ukrainian academy would play an increasingly important role of coordination.¹¹

The Ukrainian Academy Thrusts in Research: While the scientists in the departments of the Ukrainian academy conduct research in all branches of modern science, the thrusts of their research efforts, according to the summary article about the academy in the Great Soviet Encyclopedia (26, p. 598), are in the theory of numbers, functional analysis, nonlinear differential equations, mathematical logic, probability theory (mathematics); theory of digital automata, teaching and self-teaching machines, problem-solving in the automated design of new computers and computing machinery (cybernetics); the theory of accelerators, theory of deformed nuclei, and others (nuclear physics); physics of the exciton state, electronic theory of metals, theory of polarons (solid state physics); fundamentals of the design of refractory and ultrahigh-strength materials and compounds, powder metallurgy (materials science problems); and radio astronomy, the earth sciences, the development of the bases of the welding processes, the chemistry of free radicals and stable isotopes, catalysis and its industrial applications, the chemistry of organophosphoric compounds, and colloidal chemistry; human, animal, and plant physiology, biochemistry, biophysics, economics; and, the history, language and literature of the Ukrainian people.

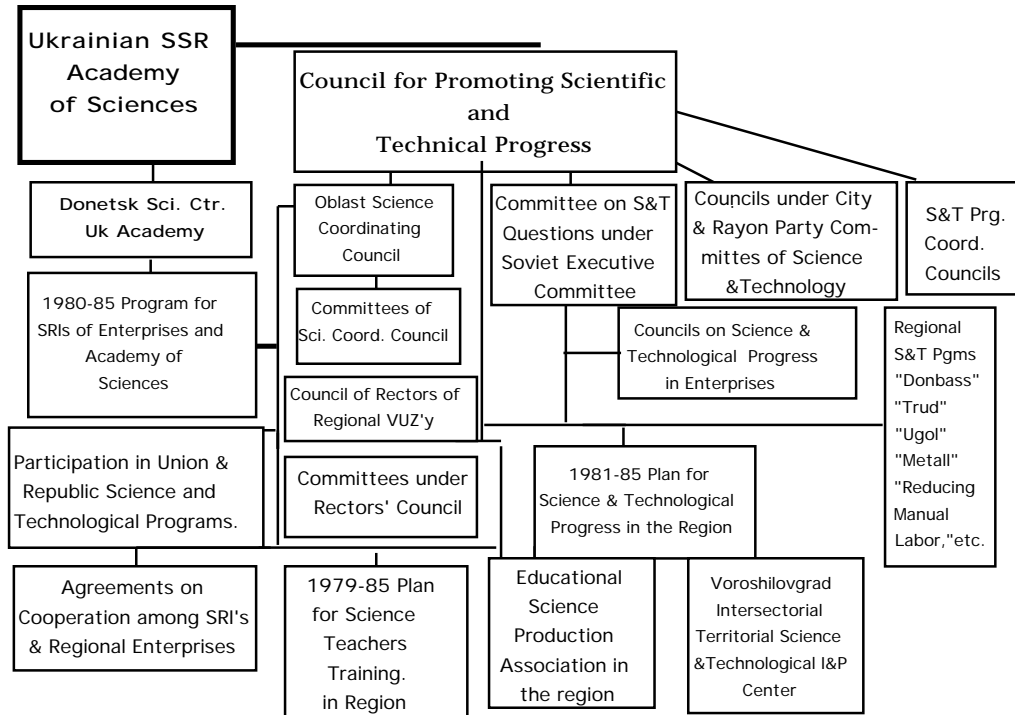
The Ukrainian Academy in Planning: In February 1985, in a conference held in Kiev, the scientific secretaries of the problem commissions of the Interdepartmental Scientific Council for the Problems of Scientific, Technical and Socioeconomic Forecasting--a council jointly attached to the presidium of the Ukrainian SSR Academy of Sciences and to the Ukrainian SSR State Planning Committee (GOSPLAN)--met to discuss the plans for scientific and technological progress for the years 1991-2010 for the Ukrainian Republic. Thus, scientists were involved in a very structured way in developing the plans for economic, technological, scientific, and social change for the future.¹²

The Work of the Academy in Regional Scientific and Technological Progress: Chart 11 illustrates the manner in which the Ukrainian Academy of Sciences took the lead in developing regional scientific and technical progress. This was a new departure for the academy and its work became a model to be imitated by other academies. This activity established relationships with ministerial scientific laboratories and their scientists, with city and oblast coordinating councils, with various science and technology councils in the enterprises themselves, and with regional and national coordinating councils. The Ukrainian Academy seems to be straddling the independent, confederative, and national impulses struggling for supremacy in Russia at the moment.

General Observations

Chart 2

Organization of Regional Management of Scientific and Technical Progress



V. Bogachev, "Improving Regional Control Over Scientific and Technical Progress," *Ekonomika Sovetskoyo Ukrainy*, No. 11, 1983, pp. 49-52. JPRS-UIST-84-010, 24 April 1984, pp. 64-70. Chart on p. 66.

Membership of the Ukrainian Academy: Many of the scientists of the Ukrainian Academy of Sciences were directors or deputy director of the scientific research institutes under academy jurisdiction and control. In 1989, some 70 members of the academy were or had been scientific research institute directors and 25 were deputy directors of institutes. In mid-1990, there were 399 members of the Ukrainian academy, of whom 179 were academicians and 220 were corresponding members.

Presidium: The presidium of the Ukrainian Academy of Sciences includes the officers listed below, the academician secretaries of each of the subject-matter departments, and scientists elected by the general assembly of the academy.

President

1. Paton, Boris E., D. Tech. S. Born November 1918 in Kiev. Soviet metallurgist and specialist in welding technology. Son of E. O. Paton. Since 1958, he has been an academician of the Physical and Technical Problems of Materials Science department of the Ukrainian Academy of Sciences. Since 1962, he has been an academician of the Physical Chemistry and Technology of Inorganic Materials department of the national academy (elected originally to the Technical Sciences department). Since 1963, he has been a member of the presidium of the national academy of sciences. He graduated from Kiev Industrial Institute in 1941. He has been affiliated with the E. O. Paton Institute of Electrical Welding of the Ukrainian Academy of Sciences since 1942. He headed a laboratory there from 1942-50, was assistant director of the institute from 1950-53, and has been director since 1953. Recipient of the State Prize in 1950. From 1961 to 1966, he was a candidate member of the CC CPSU, and he has

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been a member of the Central Committee of the CPSU since 1966. Since 1962, he has served as president of the Ukrainian Academy of Sciences. Since 1964, he has been a member of the Presidium of the Committee for Lenin Prizes and State Prizes in Science and Technology. Since 1966, he has been one of five deputy chairmen of the Council of the Soviet Union. In 1973 and 1974, he was deputy chairman of the Soviet of the Union of the Supreme Soviet of the USSR. Since 1977, he has served as a board member of the GKNT General Assembly. His works have included: developing electroslag welding, producing unique high-pressure vessels for the power and chemical industries and the manufacture of large assemblies for ships and hydroelectric generators and for other purposes; developing programs for improving the welding industry in the USSR and accelerating technical progress; developing special purpose smelting plants and creation of a new branch of quality metallurgy known as special-purpose electrometallurgy. He is a member of the Bulgarian (1969) and the Czechoslovakian (1973) academies of sciences. Current member of the Editorial board of Science in the USSR. State Prize, 1950; the Lenin prize, 1957. In 1990 Paton headed the Interdepartmental Scientific Council on Scientific and Technological Development and the Scientific Council on Complex Problems of Technical Diagnosis and Remote Control. (GSE 19, p. 339.)

Vice Presidents

2. Bar'iakhtar, V. G. (March 1990). Born in 1930. Awarded the K. D. Sinel'nikova Prize for Physics in 1978. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1985.

3. Kukhar', Valerii P., D. Chem. S. Born in 1942. Vice president since 1988. Secretary of the Chemistry and Chemical Technology Department from 1978 to 1990. Academician since 1985. Head of the Scientific Council on the Biosphere in 1990. B. S. Stognii, *History of the Contemporary Ukraine Academy of Sciences*. Scientific Publishing House: Kiev, 1990. 320 pp.

4. Lukinov, Ivan I., D. Econ. S. Born in 1927. Academician of the Economics Department since 1976; and academician of the Economics Department of the AN SSSR since 1984. He has been the director of the Economics Institute in Kiev since 1976. The institute conducts research on the economics of industry and agriculture and the history of the Ukrainian economy. He has served as vice president of the academy since 1979 and was reelected in 1988. Recipient of the State Prize for Science and Technology in 1979. Head of the Scientific Council on Economic Normality and Mature Socialism in 1990. The Council is located in the Economics Department.

5. Skok, Vladimir I., D. Bio. S. Born in 1932. Corresponding member of the Biochemistry, Physiology, and Experimental Medicine Department since 1973. Academician of the Physiology Department of the AN SSSR since December 1987. Secretary of the Ukrainian Department since 1974. Vice president of the Ukrainian academy since 1988. Recipient of the SSSR State Prize in 1989. In 1990, he was head of the Council on Problems of Biotechnology

6. Skopenko, Viktor V., D. Chem. S. Born in 1935. Corresponding member of the Chemistry and Chemistry Technology Department of the Ukrainian academy since 1978. Since 1985, he has served as rector of the T. G. Shevchenko Kiev State University in Kiev which was established in 1834. He was named vice president of the Ukrainian academy in 1989.

7. Trefilov, Viktor I., D. PM. S. Born in 1930. Academician since 1973. Recipient of the State Prize for Science and Technology in 1974. Awarded the E. O Paton Prize for the Creation of New Metals and Metal Processes in 1987. Academician of the Physical Chemistry and Technology of Inorganic Materials Department of the AN SSSR since 1987. Since 1973, director of the Problems of Material Science Institute in Kiev which was established in 1955 to develop high temperature materials to conduct studies on problems of the structure of solids, and to coordinate all Soviet powder metallurgy research in the USSR. Vice president of the Academy since 1974 and reelected in 1988. Member of CPSU.

Advisors to the Presidium:

8. Babichev, Fedor S., D. Chem. S. Born in 1917. Academician of the Chemistry and Chemical Technology Department since 1974. Vice president of the Ukrainian Academy since 1978. Awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1986.

9. Babii, Boris M., D. Jur. S. Born in 1914. Academician Secretary since 1970. Academician since 1972. Director of the State and Law Institute in Kiev since 1974. Established in 1949, the institute

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consults regularly with several Ukrainian government agencies and produces various handbooks and reference guides.

10. Pisarenko, Georgii S., D. Tech. S. Born in 1910. Academician of the Mechanics Department since 1964. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1968. Recipient of the State Prize for Science and Technology in 1969. Director of the Strength Problems Institute in Kiev since 1966. The institute was created in 1966 to concentrate on mechanical failure of all types of materials as influenced by temperature, strain rate, state of stress, and environment. Member of the Presidium since 1978. Chairman of the Northwestern Scientific Center since 1982. Recipient of the SSSR State Prize in 1982.

11. Pukhov, Georgii E., D. Tech. S. Born in 1916. Secretary and Academician since 1978. Awarded the S. A. Lebedev Prize in Computer Technology and Automatic Control Systems in 1981. Recipient of the State Prize for Science and Technology in 1982.

12. Fedorchenko, Ivan M., D. Tech. S. Born in 1909. Academician since 1961. Academic secretary of the Physical and Technical Problems of Materials Department since 1964. Awarded the E. O Paton Prize for the Creation of New Metals and Metal Processes in 1968. Recipient of the State Prize for Science and Technology in 1979.

Academy Chief Scientific Secretary:

13. Stognii, Boris S. Recipient of the State Prize for Science and Technology in 1985. Since April 1988, he has been the scientific secretary of the Ukrainian Academy of Sciences.

Academic Secretaries of the Academy Departments

Mathematics Department:

14. Mitropol'skii, Iurii A., D. Tech. S. Born in 1917. Academician of the Ukrainian academy since 1961. Recipient of the Lenin Prize in 1965. Since 1966, academician secretary of the Mathematics and Cybernetics Department of the Ukrainian Academy of Sciences. Recipient of the State Prize for Science and Technology in 1980. Academician of the Mathematics Department of the AN SSSR since 1984. Since 1958, he has been director of the Mathematics Institute in Kiev subordinate to the Mathematics Department of the Ukrainian Academy of Sciences. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1985. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1986.

Informatics, Computer Technology and Automation Department:

15. Mikhalevich, Vladimir S., D. PM. S. Born in 1930. Recipient of the State Prize for Science and Technology in 1973. Since 1973, academician of the Mathematics, Mechanics, and Cybernetics Department of the Ukrainian Academy of Sciences. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1984. Academician of the Information Science, Computer Technology, and Automation Department of the AN SSSR since 1984. In 1971, he was awarded the N. M. Krylov Ukrainian SSR Academy of Sciences Prize for his work on methods of optimization. In 1973, he received the Ukrainian SSR State Prize for undesigned research. In 1981, he was awarded--among a group of authors--the USSR State Prize for series of work on development and widespread introduction of modern mathematical methods of optimization published from 1962-79. Recipient of the SSSR State Prize in 1981. Since 1982, he has been director of the V. M. Glushkov Cybernetics Institute in Kiev which was established in 1957 and given its present name in 1961. The institute researches in theoretical and economic cybernetics, computer engineering and design, system engineering, automatic control design, biomedical cybernetics, and science policy.

Mechanics Department:

16. Troshchenko, Valerii T. Born in 1929. Recipient of the State Prize for Science and Technology in 1969; elected in 1979. Recipient of the SSSR State Prize in 1982.

Physics and Astronomy Department :

17. Bar'iakhtar, V. G. Born in 1930. Awarded the K. D. Sinel'nikova Prize for Physics in 1978. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1989. Academic secretary of the Physics Department since 1989. Also a vice president.

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18. Brodin, Mikhail S., D. PM. S. Born in 1931. Recipient of the State Prize for Science and Technology in 1974. Academician since 1982. Academic secretary of the Physics and Astronomy Department since March 1990.

Earth Sciences Department:

19. Starostenko, Vitalii I. Born in 1934. Recipient of the State Prize for Science and Technology in 1984. Corresponding member since 1985; elected academician in 1990. Deputy director of the S. I. Subbotin Geophysics Institute in Kiev since 1983. The institute was established in 1960 and does research in theoretical and applied geophysics. Academic secretary of the Earth Sciences Department in 1990.

Physical Technical Problems of Materials Department:

20. Zelenskii, Viktor F. Born in 1929, elected in 1988.

Physical-Technical Problems of Energetics Department:

21. Shidlovskii, Anatolii K., D. Tech. S. Born in 1933. Academician since 1985. Awarded the S. A. Lebedev Prize in Computer Technology and Automatic Control Systems in 1986. Director of the Electrodynamics Institute in Kiev since 1974. Founded in 1939, the institute is concerned with methods, devices, and systems used in the prevention of short circuits. Academic secretary to the Physical Technical Problems of Energetics Department in 1990.

Chemistry and Chemical Technology Department:

22. Pokhodenko, Vitalii D., D. Chem. S. Born in 1936. Academician since 1985. Deputy director of the L. V. Pisarzhevskii Physical Chemistry Institute in Kiev since 1971. Awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1979. Academic secretary to the Department of Chemistry and Chemical Technology in 1990.

Biochemistry, Physiology, and Theoretical Medicine Department:

23. Matsuka, Gennadii Kh., D. Bio. S. Born in 1930. Awarded the A. V. Palladin Prize for Biology and Molecular Biology in 1979. Academician since 1985. He served as director of the Molecular Biology and Genetics Institute in Kiev from 1975 to 1977. Founded in 1973, the institute researches the laws of heredity variability of organisms, the structure and function of proteins and nucleic acids and studies genetic information transfer. Secretary to the Biochemistry, Physiology and Theoretical Medicine Department in 1990. Recipient of the State Prize for Science and Technology in 1986.

The General Biology Department:

24. Gleba, Iurii Iu. D. Bio. S. Born in 1949. Deputy director of the N. G. Kholodnii Botany Institute in Kiev since 1983. Awarded the V. Ia. Iur'eva Prize for Genetics--the creation of new methods of acclimatization, selection, and hybridization of plants and animals and the development of more productive animal species--in 1983. Recipient of the SSSR State Prize in 1984. Corresponding member since 1985; elected academic secretary to the General Biology Department in 1988. Recipient of the State Prize for Science and Technology in 1989.

Economics Department:

25. Pakhomov, Iurii N. Born in 1928, elected in 1988. He became academic secretary to the department in 1990.

History, Philosophy and Law Department:

26. Kuras, Ivan F. Born in 1939, elected in 1988. Academic secretary of the History, Philosophy and Law Department in 1990.

Literature, Linguistics, and Fine Arts Department:

27. Rusanovskii, Vitalii M., D. Phil. S. Born in 1931. Academic secretary since of the department since 1978. Academician since 1982. Recipient of the SSSR State Prize in 1983.

General Assembly Elected Members of the Presidium

28. Andronati, Sergei A. Born in 1940, corresponding member since 1982; elected an academician in 1988. Member of the Presidium since 1990.

29. Chumachenko, Nikolai G., D. Econ. S. Born in 1925. Awarded the A. G. Shlikhtera Prize for Economics in 1980. Academician of the Economics Department since 1982. Director of the Industrial Economics Institute in Donetsk since 1974. The institute is concerned with improved management and planning and with the economic stimulation of production, quality control, and technical progress in

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industry. Since 1986, he has served as chairman of the Donetsk Scientific Center. He was elected a member of the presidium in 1990.

30. Pilipenko, Anatolii T., D. Chem. S. Born in 1914. Recipient of the State Prize for Science and Technology in 1973. Academician since 1976. Director of the A. V. Dumanskii Colloidal Chemistry and Hydrochemistry Institute in Kiev since 1975. The institute was established in 1968 and its research involves theoretical and technical aspects of colloid chemistry and hydrochemistry such as the regulation of water quality. Since 1979, prorector of the T. G. Shevchenko Kiev State University in Kiev, established in 1834. Awarded the L. V. Pisarzhenkii Prize for Chemistry and Chemical Technology in 1984. He was elected to the Presidium in 1990.

31. Smirnov, Valerii V. Born in 1937. Awarded the D. K. Zabolotii Prize in Microbiology, Virology, Epideomology, and Zoology in 1984. Academician since 1985. Recipient of the State Prize for Science and Technology in 1987. Director of the D.K. Zabolotnii Microbiology and Virology Institute in Kiev since 1977. The institute was founded in 1929 and conducts research on the physiology and biochemistry of microorganisms, molecular biology, and microbiological synthesis of protein and other products from hydrocarbons. He was elected to the Presidium in 1990.

Scientific Councils of the Presidium

The organization of the research effort in Ukraine has been through the use of Scientific Councils. Several members of the Presidium itself head up some of these councils--and those are indicated in the brief biographical notes on members of the Presidium above--others are managed through the Presidium by scientists selected by that body, and others are located for various reasons to the appropriate department of the Ukrainian Academy of Sciences. The Scientific Councils under the Presidium include: Interdepartmental Technical Scientific Council for Increasing the Life of Construction Machinery under **V. T. Troshchenko**--recipient of the State Prize for Science and Technology in 1969; Council on Scientific Instruments under **V. T. Cherepin**--corresponding member of the Physical and Technical Problems of Materials Department and recipient of the State Prize for Science and Technology in 1980; Council on Automation of Scientific Research under **V. S. Mikhalevich**--recipient of the State Prize for Science and Technology in 1973; Interdepartmental Council on Thermodynamic Processes of the Earth in Ukraine under Academician **E. F. Shniukov**--recipient of the State Prize for Science and Technology in 1989; Council on Philosophical and Social Problems of Science and Technology under Academician **V. I. Shinkaruk**--awarded the Manuil'skii Prize for History, Philosophy, and Law in 1977 and recipient of the State Prize for Science and Technology in 1982; Council on Problems of Socialistic Competition Among Workers of Manufacturing Enterprises under Academician **V. K. Mamutov**--awarded the A. G. Shlikhtera Prize for Economics in 1982; Council on Automatic Systems for Data Processing in the Central Computer Center under **A. I. Nikitin**, D. Tech. S.--recipient of the State Prize for Science and Technology in 1972 and he was awarded the S. A. Lebedev Prize in Computer Technology and Automatic Control Systems in 1985; Interdepartmental Council on Problems of National Attitudes, Soviet Patriotism, and the Socialist International Proletariat under Academician **Iu. Iu. Kondufor**--recipient of the State Prize for Science and Technology in 1980.

Scientific Institutions Subordinate to the Presidium: The Ukrainian academy has a large number of scientific research institutes subordinate to it, located in several different parts of the republic as the insert map shows. Research in many of the institutes located in these areas is coordinated by the Scientific Centers located within each major region.

Age of Directors at time of Appointment: The birthdates of the directors of 51 of these institutes is known. In 1989, four of these 51 directors were in their 80s; eight were in their 70s. The oldest was 89 and the youngest director was 51 years. The average age of the remaining 39 was 61 years. The average age of these directors upon the assumption of their directorships, however, was 46 years of age. Research in the scientific research institutes of the Ukrainian Academy of Sciences is not under the direction of the very elderly, though a large number of academicians and corresponding members of the various subject-matter departments are quite old. The Soviets have made way for their younger colleagues.



Scientific Centers Subordinate to the Presidium of the Ukrainian Academy

1. Donetsk Scientific Center

Chairman: **Chumachenko, Nikolai G.**, D. Econ. S. Born in 1925. Awarded the A. G. Shlikhtera Prize for Economics in 1980. Academician of the Economics Department since 1982. Director of the Industrial Economics Institute in Donetsk since 1974. The institute is concerned with improved management and planning and with the economic stimulation of production, quality control, and technical progress in industry. Since 1986, he has served as chairman of the Donetsk Scientific Center. He was elected a member of the presidium in 1990.

2. Northeastern Scientific Center

Chairman: **Shestopalov, Victor P.**, D. PM. S. Born in 1923. Recipient of the State Prize for Science and Technology in 1972. Academician of the Physics and Astronomy Department since 1979. He has served as chairman of the Northeastern Scientific Center since 1983. Director of the Radio Physics and Electronics Institute in Kharkov since 1973. The institute was created in 1955 to study physical and quantum electronics, the dissemination of radio waves, the scattering of radar signals from the sea surface, high frequency characteristics of solids, electron optics, decametric radioastronomy, and long distance radio communications. Recipient of the SSSR State Prize in 1987.

3. Northwestern Scientific Center

Chairman: **Pisarenko, Georgii S.**, D. Tech. S. Born in 1910. Academician of the Mechanics Department since 1964. Recipient of the State Prize for Science and Technology in 1969. Director of the Strength Problems Institute in Kiev since 1966. The institute was created in 1966 to concentrate on mechanical failure of all types of materials as influenced by temperature, strain rate, state of stress, and environment. Member of the Presidium since 1978. Chairman of the Northwestern Scientific Center since 1982. Recipient of the SSSR State Prize in 1982.

4. Pridneprovskii Scientific Center

Chairman: **Poturaev, Valentin N.**, D. Tech. S. Born in 1922. Recipient of the State Prize for Science and Technology in 1975. Academician of the Mechanics Department since 1979. Member of the Presidium from 1979 to 1990. He has been the director of the Geotechnical Mechanics Institute in Dnepropetrovsk since 1975. This institute was established in 1962 and studies the physics and mechanics of rocks and the development of new geotechnical techniques and scientific instruments. He has served as chairman of the Pridneprovskii Scientific Center since 1983. He was awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1982.

5. Southern Scientific Center--Chairman: (Vacant).

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6. Western Scientific Center--Chairman (Vacant).

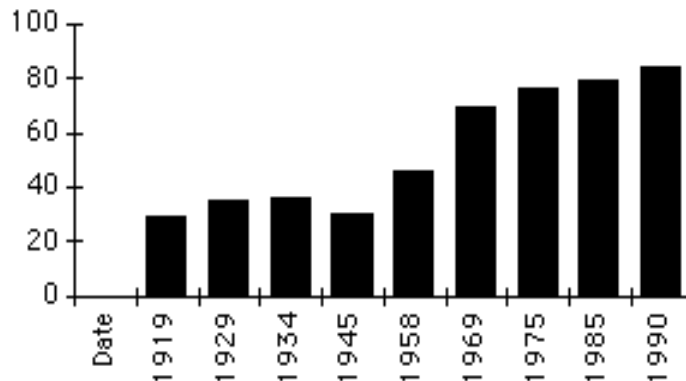
In addition to these scientific centers subordinate to the Presidium of the Ukraine Academy, there are five other scientific units under its direct jurisdiction: The **Central Natural History Museum** in Kiev, the **Central V. I. Vernadskii Scientific Library** in Kiev, the **L'vovsk V. Stefanika Scientific Library** in L'vov, the **Science Pavilion** in Kiev, and the **Science Center**--an exhibition hall.

Research Institutes and Scientific Institutions

In January 1990, there were some 76 scientific research institutes under the 13 subject matter departments of the Ukraine Academy of Sciences. The 1990 Annual Report of the Academy lists a total of 84 scientific "institutions" under control of the presidium, which includes more than the research institutes subordinate to each of the subject-matter departments.

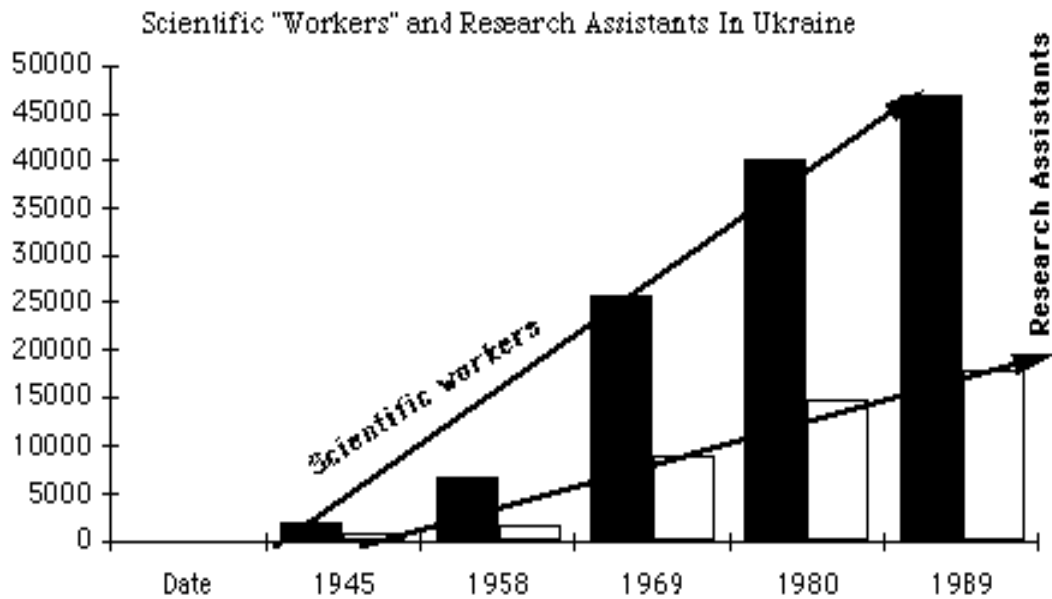
The 13 departments are described below in the order in which the Academy annual report lists them. Following a description of the scientific councils under the aegis of each department, the research institutes subordinate to it is described in the order in which they were founded, and following that, the academicians and corresponding members of each department are listed with a brief biographical background sketch.

Figure 7
Research Institutes in Ukraine, 1919-1990



Source: B. S. Stognii, editor, *Akademiya Nauk Ukrainskii SSR*. Kiev: Science House, 1990, 432 pp. See pages 418-419.

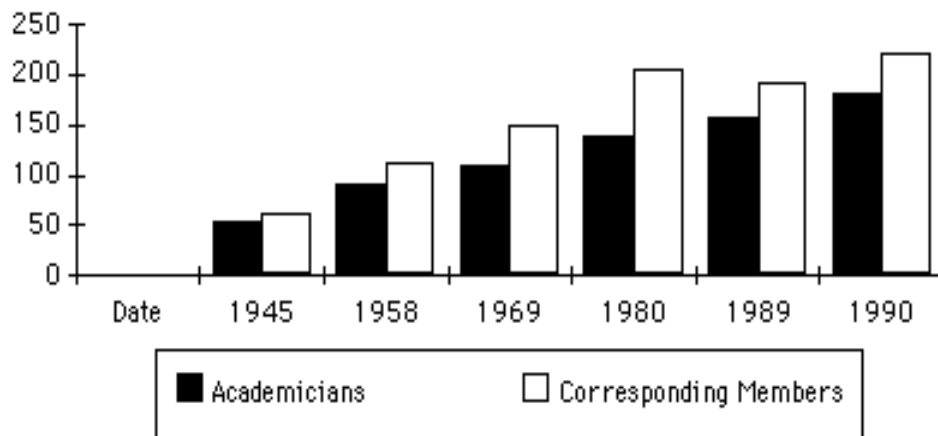
Figure 8



Source: B. S. Stognii, *op. cit.*, pp. 418-419.

Figure 9

Ukraine Academy Membership, 1945-1990



Source: B. S. Stognii, *op. cit.*

Scientific Workers and Research

1. Mathematics Department

Members of the Mathematics Department: The Mathematics Department counted 25 members in 1990--12 academicians and 13 corresponding members. There were two directors and two deputy directors of institutes among this membership. Five of the members of this department were also either academicians or corresponding members of the Mathematics or the Information Sciences, Computer Technology, and Automation department of the AN SSSR.

Academicians: All birthdates of the 12 academicians of this department are known. In 1991, one academician was in his 90s; one in his 80s; nine in their 70s; seven in their 60s; and two in their 50s.

Corresponding Members: The birthdates of all of the 13 corresponding members is known. The oldest of the corresponding members was 81; eight were in their 60s; and five were in their 50s.

Academician Secretary

Mitropol'skii, Iurii A., D. Tech. S. Born in 1917. Academician of the Ukrainian academy since 1961. Since 1966, academician secretary of the Mathematics and Cybernetics Department of the Ukrainian Academy of Sciences. Academician of the Mathematics Department of the AN SSSR since 1984. Recipient of the State Prize for Science and Technology in 1980. Since 1958, he has been director of the Mathematics Institute in Kiev subordinate to the Mathematics Department of the Ukrainian Academy of Sciences. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1985. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1986.

Academicians

1. Berezanskii, Iurii M. (Differential Equations) Born in 1925. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1980; elected in 1988.

2. Bogolubov, Nikolai N. (Mathematical Physics) Born in 1909, elected in 1948.

3. Gnedenko, Boris V., D. PM. S. (Mathematics) Born in 1912. Academician since 1948. Recipient of the SSSR State Prize in 1976.

4. Ishlinskii, Aleksandr Iu. (Mechanics) Born in 1913, elected in 1948. Recipient of the Lenin Prize in 1960. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1961. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1981.

5. Koroliuk, Vladimir S. D. PM. S. (Mathematics) Born in 1925. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1976. Academician since 1976. Recipient of the State Prize for Science and Technology in 1978. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1988.

6. Marchenko, Vladimir A., D. PM. S. (Mathematical Physics) Born in 1922. Recipient of the Lenin Prize in 1962. Academician of the Mathematics and Cybernetics Department of the Ukrainian Academy of Sciences since 1969. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1983. Academician of the Mathematics Department of the AN SSSR since December 1987. Recipient of the State Prize for Science and Technology in 1989.

7. Mitropolskii, Iu. A. D. Tech. S. (See above.)

8. Pastiur, Leonid A. (Mathematics) Born in 1937, elected in 1990.

9. Pogorelov, Aleksei V., D. PM. S. (Geometry) Born in March 1919 in Korocha in what is now Belgorod Oblast. Soviet mathematician. Recipient of the SSSR State Prize in 1950. He has been a corresponding member of the Ukrainian academy since 1951 and an academician of the Mathematics and Cybernetics department of the Ukrainian academy since 1961. He has been a corresponding member of the Mathematics department of the AN SSSR since 1960, and an academician since 1976. He was originally elected to the Physical Mathematical Sciences department. From 1978 to 1990, he was been a member of the presidium of the Ukrainian Academy of Sciences. He graduated from the N. E. Zhukhovskii Air Force Engineering Academy in 1945, and taught at the University of Kharkov from 1947. He joined the Physics Technical Institute of Low Temperatures of the Ukrainian AN SSSR in 1960. He developed a complete theory of convex surfaces and has done research on bending

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of surfaces. He has published studies on the foundations of geometry and on the development and successful application of far-reaching geometric methods for the study of deformations of thin shells. He was a deputy to the 8th Convocation of the Supreme Soviet of the Ukrainian SSR. State Prize, 1950; the N. I. Lobachevskii Prize, 1959; and the Lenin Prize, 1962. Recipient of the State Prize for Science and Technology in 1973. He was awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1988. (GSE 20, p. 260.)

10. Sergeev, Vladimir G., C. Tech. S. (Automatation Management) Born in 1914. Recipient of the Lenin Prize in 1957. Recipient of the SSSR State Prize in 1967. Awarded the M. K. Iangel Prize for Applied and Technical Mechanics in 1981. Academician since 1982.

11. Skorokhod, Anatolii V., D. Tech. S. (Mathematics) Born in 1930. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1970. Recipient of the State Prize for Science and Technology in 1982. Academician since 1985.

12. Skripnik, Igor V. (Mathematics) Born in 1940. Academician since 1985. Director of the Applied Mathematics and Mechanics Institute in Donetsk since 1977. The institute was founded in 1971 and is responsible for scientific research into nonlinear problems of mathematical physics having free boundaries, applied hydraulics, metal welding, rock stress, and automated planning and control systems for industrial enterprises. Recipient of the State Prize for Science and Technology in 1989.

Corresponding Members

1. Bogoliubov, Aleksei I. (Mechanics) Born in 1911, elected in 1969.

2. Dziadik, Vladislav A., D. PM. S. (Mathematics--Computer Science) Born in 1919. Corresponding member since 1969.

3. Fushchich, Vil'gel'm I. (Mathematical Physics) Born in 1936, elected in 1988.

4. Iadrenko, Mikhail I. (Mathematics) Born in 1932, elected in 1990.

5. Kharlamov, Pavel V. (Mechanics) Born in 1924, elected in 1965.

6. Kit, Grigorii S. (Mathematical Problems of Mechanics) Born in 1930. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1987; elected in 1990.

7. Korneichuk, Nikolai P., D. PM. S. (Mathematics) Born in 1920. Corresponding member since 1972.

8. Koshliakov, Vladimir N., D. PM. S. (Mechanics) Born in 1922. Recipient of the SSSR State Prize in 1976; elected in 1978. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1987.

9. Lukovskii, Ivan A., D. PM. S. (Mathematics) Born in 1935. Corresponding member since 1985.

10. Ostrovskii, Iosif V., D. PM. S. (Mathematics) Born in 1934. Corresponding member since 1978.

11. Petrina, Dmitrii Ia. (Mathematical Physics) Born in 1934. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1984; elected in 1988.

12. Samoilenko, Anatolii M. (Mathematics) Born in 1938; elected in 1978.

13. Sharkovskii, Aleksandr N., D. PM. S. (Mathematics) Born in 1936. Corresponding member since 1978.

Research Institutes: The Mathematics Department manages two Scientific Councils: the scientific council on common mechanics under V. N. Koshliakov--recipient of the SSSR State Prize in 1976; and the council on program development of fundamental and practical research in the mathematical sciences in Ukraine under Iu. A. Mitropol'skii--recipient of the State Prize for Science and Technology in 1980. Although there are only three scientific research institutes subordinate to the Mathematics Department, these 360 mathematicians in these three institutes are among the leading scientists in Ukraine. The institutes are presented below in the order of their founding:

1. Mathematics Institute in Kiev. Founded in 1934 from several existing commissions. Its first director was D. A. Grave. Others were: A. M. Samoilenko and Iurii A. Mitropolskii. In 1990, the institute had three academicians on the staff whose researchers numbered 165 of whom 45 held the doctorate and 120 the candidate degree. Research priorities in the institute include: theory of differential equations, mathematics of physics, statistical theory, theory of functions, topology, algebra, the dynamics of special mechanical systems, computer programming and the institute

Ukrainian Scientific Research Institutes

Mathematics Department

develops various fields of mathematics for the natural sciences and technology. Since its inception in 1934, the institute has graduated 82 doctorates and 748 candidates of mathematics. Director: Mitropolskii, Iurii A., D. Tech. S., 1958. The present director is Iurii A. Mitropolskii.

2. Applied Mathematics and Mechanics Institute in Donetsk. Founded in 1965. Its first director was Academician I. I. Daniliuk. The staff of the institute numbers 69 of whom 15 hold the doctorate and 54 the candidate degree. Research emphasis includes: nonlinear problems of mathematical physics having free boundaries, theory of the structure of differential equations, applied hydraulics, metal welding, rock stress, and automated planning and control systems for industrial enterprises. The present director is Igor V. Skripnik--recipient of the State Prize for Science and Technology in 1989.

3. Applied Problems of Mechanics and Mathematics Institute in L'vov. Founded in 1978 on the L'vov branch of the Mathematical Physics Institute of Mathematics of the Ukraine Academy of Sciences. Two corresponding members of the Ukraine Academy are on the staff which totals 126 researchers of whom 15 hold doctorates and 111 candidate degrees. The institute studies functional analysis, fundamental and applied problems of algebra, solid state mechanics and mathematical physics, including the theory of differential and integral equations and matrix polynomials. The present director of the institute is unknown.

2. Informatics, Computer Science, and Automation Department

Membership in the department totalled 24 scientists in 1990, of whom nine are academicians and 15 are corresponding members. Three academicians were in their 50s, two in their 60s, and three in their 70s. The corresponding members, on the other hand, were younger: 11 were in their 50s, one in his 60s, and three in their 70s.

Academicians.

1. Ermol'ev, Iurii M., D. PM. S. (Mathematical Cybernetics) Born in 1936. Corresponding member since 1976. Recipient of the SSSR State Prize in 1981. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1987.

2. Kovalenko, Igor' N. (Theory of Mathematical Reliability) Born in 1935, elected in 1978. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1984.

3. Kukhtenko, Aleksandr I. (Technical Cybernetics) Born in 1914, elected in 1972. Recipient of the State Prize for Science and Technology in 1978. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1986.

4. Liashko, Ivan I. D. PM. S. (Economic Cybernetics) Born in 1922. Academician of the Mathematics and Cybernetics Department since 1973. Awarded the N. M. Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1975. Recipient of the State Prize for Science and Technology in 1981. Member of the Presidium from 1978 to 1990.

5. Mikhalevich, Vladimir S., D. PM. S. (Economic Cybernetics) Born in 1930. Recipient of the State Prize for Science and Technology in 1973. Since 1973, academician of the Mathematics, Mechanics, and Cybernetics Department of the Ukrainian Academy of Sciences. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1984. Academician of the Information Science, Computer Technology, and Automation Department of the AN SSSR since 1984. In 1971, he was awarded the N. M. Krylov Ukrainian SSR Academy of Sciences Prize for his work on methods of optimization. In 1973, he received the Ukrainian SSR State Prize for undesignated research. In 1981, he was awarded--among a group of authors--the USSR State Prize for series of work on development and widespread introduction of modern mathematical methods of optimization published from 1962-79. Since 1982, he has been director of the V. M. Glushkov Cybernetics Institute in Kiev which was established in 1957 and given its present name in 1961. The institute researches in theoretical and economic cybernetics, computer engineering and design, system engineering, automatic control design, biomedical cybernetics, and science policy.

6. Skurikhin, Vladimir I., D. Tech. S. (Systems Theory and Technology) Born in 1926, elected in 1978. Deputy director of the V. M. Glushkov Cybernetics Institute in Kiev since 1971. Recipient of the SSSR State Prize in 1984. Awarded the S. A. Lebedev Prize in Computer Technology and

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Automatic Control Systems in 1987. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1990.

7. Sergienko, Ivan V., D. PM. S. (Computer Mathematics) Born in 1936. Recipient of the State Prize for Science and Technology in 1972. Corresponding member since 1978. Recipient of the SSSR State Prize in 1981. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1986. elected an academician in 1988.

8. Timofeev, Boris B., D. Tech. S. (Systems Theory and Technology) Born in 1915. Recipient of the State Prize for Science and Technology in 1973. Academician of the Mathematics and Cybernetics Department of the Ukrainian academy since 1978. Since 1964, he has been the director of the Automation Scientific Research Center in Kiev which was founded in 1957 to assist in automating industry throughout the Soviet Union and which is subordinate to the Ministry of Instrument Making, Automation Equipment, and Control Systems. Recipient of the SSSR State Prize in 1980. Awarded the S. A. Lebedev Prize in Computer Technology and Automatic Control Systems in 1982.

9. Toma, Manfred. (Management Systems) Born in 1929, elected in 1990.

Corresponding Members:

1. Andron, Filipp I. (Informatics) Born in 1938. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1989; elected in 1990.

2. Bublik, Boris N., D. PM. S. (Construction Mechanics) Born in 1936, elected in 1978.

3. Gasonov, Lev G. (Computer and Information Technology) Born in 1936, elected in 1990.

4. Iushchenko, Ekaterina L. (Automatic Data Processing Systems) Born in 1919, elected in 1976. Recipient of the State Prize for Science and Technology in 1978. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1985.

5. Ivakhnenko, Aleksei G. Born in 1913, elected in 1961.

6. Kuchtsevich, Vsevolod M. (Cybernetics) Born in 1929, elected in 1988.

7. Letichevskii, Aleksandr A. (Informatics) Born in 1935. Recipient of the SSSR State Prize in 1968. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1985. Elected a corresponding member in 1990.

8. Malinovskii, Boris N. (Computer Technology) Born in 1921, elected in 1969. Recipient of the State Prize for Science and Technology in 1977. Awarded the S. A. Lebedev Prize in Computer Technology and Automatic Control Systems in 1978. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1990.

9. Morozov, Anatolii A. (Management of Complex Automatic Systems) Born in 1939. Recipient of the State Prize for Science and Technology in 1970. Recipient of the SSSR State Prize in 1977. Awarded the S. A. Lebedev Prize in Computer Technology and Automatic Control Systems in 1987; elected a corresponding member in 1988.

10. Palagin, Aleksandr V. (Computer and Information Technology) Born in 1939. Awarded the S. A. Lebedev Prize in Computer Technology and Automatic Control Systems in 1983. Recipient of the State Prize for Science and Technology in 1988; elected in 1990.

11. Petrov, Viacheslav V. (Optical Information Storage) Born in 1940, elected in 1988.

12. Pshenichnii, Boris N., D. PM. S. (Mathematics) Born in 1937. Recipient of the State Prize for Science and Technology in 1978. Recipient of the SSSR State Prize in 1981. Corresponding member since 1985.

13. Samoilenko, Anatolii M., D. PM. S. (Mathematical Modeling of Physical Processes) Born in 1938. Corresponding member since 1978. Awarded the N. M. Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1981. Recipient of the State Prize for Science and Technology in 1985.

14. Stognii, Anatolii A., D. PM. S. (Automatic Data Processing Systems) Born in 1932. Since 1976, he has been a corresponding member of the Mathematics, Mechanics, and Cybernetics Department of the Ukrainian Academy of Sciences; and since 1984, he has been a corresponding member of the Information Sciences, Computer Technology, and Automation Department of the AN SSSR. Since 1964, he has been deputy director of the V. M. Glushkov Cybernetics Institute at Kiev. In 1967, he was awarded the N. Ostrovskii Ukrainian Lenin Komsomol Central Committee prize for his work on

Informatics, Computer Science, and Automation Department

digital computer software. In 1968, he received the SSSR State prize for software incorporated into the Mir computer.

15. Shor, Naum Z. (Mathematical Cybernetics) Born in 1937. Recipient of the State Prize for Science and Technology in 1973. Recipient of the SSSR State Prize in 1981. Awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1987; elected corresponding member in 1990.

Research Institutes: This institute was previously part of the Mathematics and Cybernetics Department. In 1989, it became a separate department of the Ukraine Academy. It brought with it, in addition to personnel and institutes, the Scientific Council on Cybernetics which is headquartered in this department under the chairmanship of V. S. Mikhalevich--awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1984. The department has two scientific research institutes directly subordinate to it.

1. V. M. Glushkov Cybernetics Institute in Kiev Founded in 1962. This is the largest of the Ukrainian Academy Institutes with a staff which numbered 828 in 1990, of whom 73 held the doctorate and 555 the candidate degree. Six academicians and 12 corresponding members of the Ukraine Academy were on the staff. The researchers held some 52 science medals and prizes among themselves. Researches theoretical and economic cybernetics, computer engineering and design, system engineering, automatic control design, biomedical cybernetics, and science policy. The present director is Vladimir S. Mikhalevich, D. PM. S.--awarded the V. M. Glushkov Prize for Cybernetics, Computer Machine and Systems Theory in 1984.

2. Problems of Information Registration Institute in Kiev. The institute was founded in 1987. The staff of the institute numbers 36 of whom five hold the doctorate and 31 the candidate degree. Institute scientists are developing the principles of optical scanning, the development of optical storage systems, and work on computer programming. Its first and present director is V. V. Petrov, corresponding member of the Ukraine Academy.

3. Mechanics Department

Members of the department: With only one research institute under its jurisdiction, the Mechanics Department is one of the older departments in the Ukrainian academy with the result that it has a rather high membership of some 37 persons. In 1989, five of the 13 academicians were directors of SRIs; two corresponding members were directors of institutes; and, two corresponding members were deputy directors of scientific research institutes. Obviously these scientists directed institutes under the jurisdiction of other departments of the academy or of governmental ministries. One rector and one prorector of Ukrainian institutions of higher learning belonged to this department.

Academicians: The birthdates of all 15 academicians belonging to the Mechanics Department are known. Three academicians were in their 80s; six in their 70s; three in their 60s; and one in his 50s.

Corresponding Members: The birthdates of 22 corresponding members is known. In 1991, one was in his 90s; three in their 80s; seven in their 70s; five in their 60s; and six in their 50s.

Academician Secretary: Vacant

Academicians

1. Bondar', Nikolai G., D. Tech. S.(Construction Mechanics) Born in 1920. Academician since 1979. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1986.

2. Budnik, Vasili S., D. Tech. S. (Mechanics, Machinery Construction) Born in 1913. Academician since 1967. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1959. Recipient of the Lenin Prize in 1960. Awarded the M. K. Iangel Prize for Applied and Technical Mechanics in 1982.

3. Guz', Aleksandr N., D. Tech. S. (Mechanics) Born in 1939. Academician since 1978. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1979. Director of the Mechanics Institute in Kiev since 1976. Established in 1919, the institute works on problems of thermoelasticity, vibrations, static stability, modeling of polymer designs, and the plasticity of materials. Recipient of

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the State Prize for Science and Technology in 1979 and 1988. Awarded the M. K. Iangel Prize for Applied and Technical Mechanics in 1983. Recipient of the SSSR State Prize in 1985.

4. Kosmodamianskii, Aleksandr S. D. Tech. S. (Mining Engineering) Born in 1923. Corresponding member since 1965; elected academician in 1990. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1983. Since 1979, he has been prorector of the Donetsk State University in Donetsk which was established in 1965.

5. Lebedev, Anatolii A. D. Tech S.(Mechanics) Born in 1931. Corresponding member since 1978; elected academician in 1988.

6. Logvinovich, Georgii V., D. Tech. S.(Hydromechanics) Born in 1913. Academician since 1967. Recipient of the Lenin Prize in 1978.

7. Lotarev, Vladimir A., D. Tech S.(Machine Construction) Born in 1914. Recipient of the Lenin Prize in 1960. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1974. Recipient of the SSSR State Prize in 1948 and 1976. Academician since 1985. Awarded the M. K. Iangel Prize for Applied and Technical Mechanics in 1987.

8. Mossakovskii, Vladimir I., D. PM. S.(Mechanics and Machine Construction) Born in 1919. Recipient of the SSSR State Prize in 1970. Academician since 1972. Since 1967, rector of the 300th Anniversary of the Union of the Ukraine and Russia Dnepropetrovsk State University in Dnepropetrovsk, established in 1918. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1982.

9. Pilipenko, Viktor V. (Engine Dynamics) Born in 1935, elected in 1982.

10. Pisarenko, Georgii S., D. Tech. S.(Mechanics, Machinery Stability) Born in 1910. Academician since 1964. Recipient of the State Prize for Science and Technology in 1969. He was elected to the presidium of the academy in 1978. He has been the director of the Strength Problems Institute in Kiev since 1977. The institute was created in 1966 and does research in mechanical failure of all types of materials as influenced by temperature, strain rate, state of stress, and environment. Since 1982, he has served as chairman of the Northwestern Science center of the Ukrainian academy.

11. Poliakov, Nikolai S. (Mining) Born in 1903, elected in 1967.

12. Poturaev, Valentin N. (Mining Mechanics) Born in 1922. Recipient of the State Prize for Science and Technology in 1975; acadecian since 1979. Director of the Geotechnical Mechanics Institute in Dnepropetrovsk since 1975.

13. Prisniakov, Vladimir F. (Mechanics) Born in 1937, elected in 1990.

14. Troshchenko, Valerii T. (Structural Mechanics) Born in 1929. Recipient of the State Prize for Science and Technology in 1969; elected in 1979.

15. Utkin, Vladimir F., D. Tech. S.(Mechanics) Born in 1923. Academician of the Mechanics Department of the Ukrainian Academy of Sciences since 1976. Awarded the M. K. Iangel Prize for Applied and Technical Mechanics in 1980. Academician since 1984--of the Problems of Machine Building, Mechanics and Control Processes Department of the An SSSR. Member of the presidium since October 1988. Recipient of the Lenin Prize in 1964. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1969 and 1976.

Corresponding Members

1. Bublik, Boris N. (Structural Mechanics) Born in 1936, elected in 1979.

2. Burak, Ia. I. (Mechanics) Born in 1936. Recipient of the State Prize for Science and Technology in 1975. Corresponding member since 1985.

3. Dadenkov, Iurii N. (Hydraulics) Born in 1911, elected in 1961.

4. Efremov, Ernest I., D. Tech S. (Mechanics, Geodynamic Explosions) Recipient of the State Prize for Science and Technology in 1983. Corresponding member since 1985. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1989.

5. Fedorovskii, Aleksandr D. (Geodynamics) Born in 1931, elected in 1982.

6. Golego, Nikolai L., D. Tech. S.(Mechanics, Machine Construction) Born in 1914. Corresponding member since 1967.

7. Grigorenko, Ia. M., D. Tech. S.(Mechanics) Born in 1927. Corresponding member since 1978. Deputy director of the Mechanics Institute in Kiev since 1977. Established in 1919, the institute works on problems of thermoelasticity, vibrations, static stability, modeling of polymer designs, and

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Mechanics Department

the plasticity of materials. Recipient of the State Prize for Science and Technology in 1979. Awarded the M. K. Iangel Prize for Applied and Technical Mechanics in 1985.

8. Ivanchenko, Fedor K. (Mechanics) Born in 1918. Corresponding member since 1982.

9. Kovtunencko, Viacheslav M., D. Tech. S. (Mechanics) Born in 1921. Corresponding member since 1972. Corresponding member of the General Physics and Astronomy Department of the AN SSSR since 1984. Scientific director of the Babakin Testing Center. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1961.

10. Martiniuk, Anatolii A. (Dynamic Transportation Facilities) Born in 1941. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1981; elected in 1988.

11. Matveev, Valentin V. (Dynamics, Machine Stability) Born in 1929. Recipient of the SSSR State Prize in 1982. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1985; elected corresponding member in 1990.

12. Nikitin, Pavel I., D. Tech. S. (Mechanics) Born in 1916. Awarded the M. K. Iangel Prize for Applied and Technical Mechanics in 1978. Corresponding member since 1982.

13. Oleinik, Aleksandr Ia. (Hydromechanics) Born in 1929. Corresponding member since 1973. Director of the Hydromechanics Scientific Research Center in Kiev since 1972. The institute studies high velocity hydrodynamics. Recipient of the State Prize for Science and Technology in 1981. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1990.

14. Povkh, Ivan L., D. Tech. S. (Aerogas dynamics) Born in 1909. Corresponding member since 1961.

15. Shevchenko, Iu. N., D. Tech. S. (Mechanics) Born ;in 1926. Recipient of the State Prize for Science and Technology in 1986. Corresponding member since 1982. Awarded the M. K. Iangel Prize for Applied and Technical Mechanics in 1985.

16. Shimanovskii, Vitalii N. (Structural Mechanics) Born in 1928. Corresponding member since 1982.

17. Shul'ga, Nikolai A. (Mechanics) Born in 1938. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1986; elected in 1990.

18. Smitanin, Iurii A. (Hydraulic Mechanics) Born in 1925, elected in 1988.

19. Ulitko, Andrei F., D. PM. S. (Mechanics) Born in 1934. Corresponding member since 1982. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1984. Recipient of the State Prize for Science and Technology in 1988.

20. Ushkalov, Viktor F. (Mechanics) Born in 1936, elected in 1990.

21. Vaslenko, Petr M., D. Tech. S. (Machine Control, Agricultural Mechanics) Born in 1900. Corresponding member since 1939.

Research Institutes: The Scientific Council on Solid State Mechanical Deformations is headed by personnel from this department. In 1990, there were five scientific research institutes subordinate to the department: Membership in the department totalled 37, of whom 15 were academicians and 22 were corresponding members.

1. Mechanics Institute in Kiev. Although founded in 1919, the institute has functioned under several different names over the years. Its directors have included: Academician S. P. Timoshenko, D. A. Grave, K. K. Siminskii, S. V. Serensen, N. V. Kornoukhov, F. P. Beliankin, G. N. Savin, A. D. Kovalenko, and V. O. Kononenko. The staff numbered 206 in 1990, of whom 16 held the doctorate and 132 the candidate degree. Five corresponding members of the Ukrainian Academy are on the staff. The institute's researchers work on problems of thermoelasticity, vibrations, static stability, modeling of polymer designs, and the plasticity of materials. The present director is Aleksandr N. Guz', D. Tech. S.--Recipient of the State Prize for Science and Technology in 1979 and 1988. Awarded the M. K. Iangel Prize for Applied and Technical Mechanics in 1983.

2. Hydromechanics Institute in Kiev was founded in 1926, joining the Ukrainian Academy in 1934. In 1938, it was called the Hydrology Institute; in 1944, the Hydrology and Hydrotechnical Institute, and, finally, in 1963, it received its present name. Its first director was Academician E. V. Oppokov. The staff of the institute numbered 84 in 1990, of whom 14 held the doctorate and 70 the candidate degree. The institute's scientists research hydroacoustics, the hydrodynamics of various objects,

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turbulence and stratification of water, water hydrodynamics and hydrotechniques. The present director is V. T. Grinchenko, corresponding member of the Ukraine Academy.

3. Strength Problems Institute in Kiev. Founded in 1966 from a sector on stability of the Materials Problems Institute. It was renamed in 1988. Its first director was Georgii S. Pisarenko. In 1990, Three academicians and one corresponding member of the Ukraine Academy were on its staff which numbered 182 of whom 28 held doctorates and 154 candidate degrees. Research efforts concentrate on mechanical failure of all types of materials as influenced by temperature, strain rate, state of stress, and environment. The present director is Academician V. T. Troshchenko.

4. Geotechnical Mechanics Institute in Dnepropetrovsk. Founded in 1967. Its first director was Academician N. S. Poliakov. The staff numbered 164 in 1990. Twenty of the staff held doctorates and 144 held candidate degrees. Institute staff studies the physics and mechanics of rocks and the development of new geotechnical techniques and develops new geotechnical scientific instruments, and specializes on research on mineral resources and characteristics and metallurgical problems. The present director is Valentin N. Poturaev, D. Tech. S.--recipient of the State Prize for Science and Technology in 1975.

5. Technical Mechanics Institute in Dnepropetrovsk was founded in 1980. The staff of the institute numbered 148 researchers in 1990, of whom 16 held the doctorate and 132 the candidate degree. Two academicians and one corresponding member of the Ukraine Academy were on its staff. The institute does research; on; regional dynamics, complex mechanical and hydromechanical systems, stability, carrying capacity and reliability of complex mechanical systems. Academician V. V. Pilinenko is the present director.

4. Physics and Astronomy Department

Members of the Physics and Astronomy Department: In 1987, the Physics and Astronomy Department counted the largest membership of the 12 subject-matter departments in the Ukrainian Academy of Sciences--62--of whom, 28 were academicians and 34 were corresponding members. The department also controlled the largest number of SRIs (nine). In January of 1990, membership in the Physics and Astronomy department totalled 58, of whom 30 were academicians and 28 were corresponding members. In 1987, 18 of the members of this department were or had been directors or deputy directors of SRIs--11 of the academicians and seven of the corresponding members. Only one member of this department was also a member of a department of the AN SSSR, despite the sophisticated development of physics research in the Ukraine.

Academicians: All of the 30 academicians' birthdates are known. In 1990, one academician was in his 90s, 9 academicians of this department were in their 80s; six were in their 70s; 10 were in their 60s; and four were in their 50s.

Corresponding Members: In 1990, among the corresponding members, the age distribution was as follows: two were in their 80s; four were in their 70s; 11 were in their 60s; and 11 were in their 50s.

Academician Secretary:

Brodin, Mikhail S., D. PM. S.(Solid State Physics) Born in 1931. Academician since 1982. Academic secretary of the Physics and Astronomy Department since March 1990.

Academicians

1. Akhiezer, Aleksandr I., D. PM. S.(Theoretical Physics) Born in 1911. Academician since 1964. Recipient of the State Prize for Science and Technology in 1986.

2. Bar'iakhtar, Viktor G. (Solid State Physics) Born in 1930, elected in 1978. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1985. (Academic secretary of the Mechanics Department since 1989.??)

3. Bogoliubov, Nikolai N., D. PM. S. (Mathematical Physics) Born in 1909 in Nizhny Novgorod. Soviet mathematician and theoretical physicist. He has been a corresponding member of the AN SSSR since 1946 and since 1948, an academician of the Physics and Astronomy Department of the Ukrainian Academy of Sciences. Since 1953, he has been an academician of the Nuclear Physics Department of the AN SSSR. He has served as academician secretary of the Mathematics Department of the AN SSSR since 1963. He went directly into graduate work at the Ukrainian Academy of

Physics and Astronomy Department

Sciences in 1925. Following that, he worked at both the Ukrainian academy and Academy of Sciences of the USSR. Since 1965, he has been director of the Joint Institute for Nuclear Research at Dubna which was established in 1956 by an agreement between the USSR and 10 bloc country members for collaboration in nuclear physics development. His works have included approximation methods of mathematical analysis, mathematical physics, asymptotic methods of nonlinear mechanics, the theory of dynamic systems, statistical physics, and quantum field theory. He developed a method for distributing function chains for non-equilibrium processes in 1946, provided mathematical grounds for microscopic theory of super fluidity in 1947, provided the first proof of dispersion ratios in quantum field theory in 1956, and constructed a mathematical theory of superconductivity in 1958. He has founded schools of non-linear mechanics, statistical physics, and quantum field theory. He was awarded the State Prizes in 1947, 1953 and 1984 and the Lenin Prize in 1958. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1969 and 1979. Recipient of the State Prize for Science and Technology in 1987. From 1937 to 1958 he produced eight major monographs. He was a participant in the Pugwash movement. In 1984, he was recipient of the USSR State Prize in Science and Technology for works published from 1955 to 1956 and co-authored by Shirkov and Logunov. The papers were entitled "The Renormalization Group Method in Field Theory." In 1988, he was appointed advisor to the national academy's presidium. (GSE 3, p. 396. See also: GSE, 18, pp. 135-136 for article on the Joint Institute for Nuclear Research in Dubna.)

4. Braude, Semen Ia., D. Tech. S.(Radioastronomy) Born in 1911. Recipient of the SSSR State Prize in 1952. Academician since 1969. Deputy director of the Radio Physics and Electronics Institute in Kharkov since 1957. The institute was created in 1955 to research physical and quantum electronics, the dissemination of radio waves, the scattering of radar signals from the sea surface, high frequency characteristics of solids, electron optics, decametric radio astronomy, and long distance radio communication.

5. Brodin, Mikhail S., D. PM. S.(Solid State Physics) Born in 1931. Recipient of the Lenin Prize in 1966. Recipient of the SSSR State Prize in 1982. Academician since 1982. Academic secretary of the Physics and Astronomy Department since March 1990.

6. Davidov, Aleksandr S., D. PM. S. Born in 1912. Academician since 1964. Recipient of the Lenin Prize in 1966. Recipient of the State Prize for Science and Technology in 1969. Director of the Theoretical Physics Institute in Kiev since 1973. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1982.

7. Dmitrenko, Igor M., D. PM. S.(Physics of Low Temperature) Born in 1928. Corresponding member since 1976. Academician since 1988. Deputy director of the Low Temperature Physical Technical Institute in Kharkov since 1970.

8. Eremenko, Viktor V., D. PM. S.(Solid State Physics) Born in 1932. Recipient of the State Prize for Science and Technology in 1971. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1973. Academician since 1978. Awarded the K. D. Sinel'nikova Prize for Physics in 1985.

9. Fainberg, Ia. B., D. PM. S.(Theoretical Radio Physics) Born in 1918. Academician since 1979.

10. Gaiyko, Vladimir (Solid State Physics) Born in 1920, elected in 1990.

11. Iatskiv, Ia. S., C. PM. S.(Astronomy) Born in 1940. Recipient of the State Prize for Science and Technology in 1983. Academician since 1985. Director of the Main Astronomical Observatory at Kiev since 1976. It was founded in 1944 and its research centers on terrestrial rotation measurement, construction of coordinate systems in outer space, planetary atmosphere physics, and stellar physics. Since 1985, vice president of the International Astronomical Union. Recipient of the SSSR State Prize in 1986.

12. Iukhnovskii, Igor R., D. PM. S.(Theoretical Physics) Born in 1925. Academician since 1982. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1986.

13. Kasha, Mikhail. (Molecular Electroscopy) Born in 1920, elected in 1990.

14. Kurdiunov, Georgii V. (Metal Physics) Born in 1902, elected in 1939. Recipient of the SSSR State Prize in 1949. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1969. Recipient of the State Prize for Science and Technology in 1984.

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- 15. Lazarev, Boris G.**, D. PM. S.(Physics) Born in 1906. Recipient of the SSSR State Prize in 1951. Academician since 1951. Recipient of the State Prize for Science and Technology in 1982.
- 16. Lisitsa, Mikhail P.**, D. PM. S.(Solid State Physics, Spectroscopy, Optical Electronics) Born in 1921. Recipient of the State Prize for Science and Technology in 1981. Academician since 1982.
- 17. Manshelii, Vadim G.** (Experimental Physics) Born in 1933, elected in 1990.
- 18. Nakhodkin, Nikolai G.** (Radiophysics, Radioastronomy) Born in 1925. Recipient of the State Prize for Science and Technology in 1970; elected in 1990.
- 19. Nasechnik, Mitrofan V.** Born in 1912, elected in 1961.
- 20. Nemoshkalenko, Vladimir V.**, D. PM. S.(Solid State Physics, Spectroscopy, Optic Electronics) Born in 1933. Recipient of the State Prize for Science and Technology in 1980. Awarded the K. D. Sinel'nikova Prize for Physics in 1977. Academician since 1982. Deputy director of the Metal Physics Institute in Kiev since 1974. The institute was established in 1945 and studies phase transformations in a solid state, crystallization and structures of melts, and diffusion in metals and alloys. Recipient of the SSSR State Prize in 1985.
- 21. Nemets, Oleg F.**, D. PM. S. (Experimental Nuclear Physics) Born in 1922. Academician since 1978. Director of the Nuclear Research Institute in Kiev since 1974. Awarded the K. D. Sinel'nikova Prize for Physics in 1983.
- 22. Parasiuk, Ostap S.**(Mathematical Physics) Born in 1921, elected in 1964.
- 23. Peletminskii, Sergei V.** (Theoretical Physics) Born in 1931. Awarded the K. D. Sinel'nikova Prize for Physics in 1978. Recipient of the State Prize for Science and Technology in 1986. Awarded the N. M Krilov Prize in Mathematics, Mathematical Physics and Theoretical Cybernetics in 1986; elected in 1990.
- 24. Prikhot'ko, Antonina F.**, D. PM. S.(Solid State Physics) Born in 1906. Academician since 1964. Recipient of the Lenin Prize in 1966. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1976. Recipient of the State Prize for Science and Technology in 1977.
- 25. Shestopalov, Viktor P.**(Theoretical Radiophysics) Born in 1923. Recipient of the State Prize for Science and Technology in 1972; elected in 1979. Recipient of the SSSR State Prize in 1987.
- 26. Shpak, Marat T.**, D. PM. S. (Experimental Physics) Born in 1926. Corresponding member since 1969. Director of the Physics Institute in Kiev since 1970. Founded in 1929, the institute studies solid state and plasma physics, physical and quantum electronics, and holography. Recipient of the State Prize for Science and Technology in 1974. Academician since 1990.
- 27. Sitenko, Aleksei G.**, D. PM. S.(Theoretical Physics) Born in 1927. Awarded the K. D. Sinel'nikova Prize for Physics in 1976. Academician since 1982.
- 28. Smirnov, Adrian A.**, D. PM. S.(Metallurgy and Mineral Law) Born in 1908. Academician since 1967. Recipient of the State Prizes for Science and Technology in 1978 and 1988. Awarded the K. D. Sinel'nikova Prize for Physics in 1981.
- 29. Svechnikov, Sergei V.** D. Tech. S.(Optoelectronic Material) Born in 1926. Corresponding member since 1973. Recipient of the State Prizes for Science and Technology in 1973 and 1983; elected an academician in 1988. Recipient of the SSSR State Prize in 1986.
- 30. Usikov, Aleksandr Ia.** D. PM. S.(Radiophysics and Electronics) Born in 1904. Recipient of the Lenin Prize in 1960. Academician since 1964.
- 31. Volkov, Dmitrii V.**, D. PM. S.(Theoretical Physics) Born in 1925. Corresponding member since 1976. Academician since 1988.

Corresponding Members

- 1. Belii, Mikhail U.**, D. PM. S.(Optiks and Spectroscopy) Born in 1922. Corresponding member since 1969.
- 2. Borziak, Petr G.**, D. PM. S.(Physical Electronics) Born in 1903. Corresponding member since 1961. Recipient of the State Prize for Science and Technology in 1986.
- 3. Fomin, Petr I.**(Astrophysics and Astronomy) Born in 1930, elected in 1990. Ukraine Academy of Sciences N. P. Barabashov Prize for Theoretical Physics recipient in 1989.
- 4. Gorban', Ivan S.**, D. PM. S.(Solid State Physics and Low Temperature Physics) Born in 1928. Corresponding member since 1982.

Physics and Astronomy Department

5. **Iakovenko, Vladimir M.**(Physics of Semiconductors) Born in 1938. Awarded the K. D. Sinel'nikova Prize for Physics in 1987; elected in 1990.
6. **Ianson, Igor K.**, D. PM. S.(Physics of Instrument Making) Born in 1838. Corresponding member since 1979. Recipient of the State Prize for Science and Technology in 1980.
7. **Kliucharev, Aleksei P.**, D. PM. S.(Atomic Core Physics) Born in 1910. Corresponding member since 1969.
8. **Kondilenko, Ivan I.**, D. PM. S.(Solid State Physics and Physical Optics) Born in 1919. Corresponding member since 1967.
9. **Koroliuk, Aleksei P.**, D. PM. S. (Experimental Solid State Physics) Born in 1926. Recipient of the State Prize for Science and Technology in 1980. Corresponding member since 1985.
10. **Kosevich, Arnol'd M.** (Solid State Physics) Born in 1928, elected in 1990.
11. **Kulik, Igor O.**, D. PM. S.(Physics) Born in 1935. Corresponding member since 1978. Recipient of the State Prize for Science and Technology in 1980.
12. **Lesnik, Andrei G.**, D. PM. S.(Metal Physics) Born in 1916. Corresponding member since 1976. Awarded the K. D. Sinel'nikova Prize for Physics in 1979.
13. **Litovchenko, Vladimir G.** (Radiophysics and Radioastronomy) Born in 1931. Recipient of the State Prize for Science and Technology in 1970. Corresponding member since 1985. Awarded the K. D. Sinel'nikova Prize for Physics in 1989.
14. **Litvinenko, Leonid N.**, D. PM. S.(Electronics) Born in 1938. Awarded the L. V. Pisarzhenkii Prize for Chemistry and Chemical Technology in 1969. Corresponding member since 1982. Recipient of the State Prize for Science and Technology in 1987.
15. **Men', Anatolii V.** (Astronomy) Born in 1927, elected in 1988.
16. **Naumobets, Aanton G.** (Surface Physics and Electronics) Born in 1936, elected in 1990.
17. **Ptushinskii, Iu. G.**, D. PM. S.(Physical Electronics) Born in 1927. Corresponding member since 1978. Deputy director of the Physics Institute in Kiev since 1970. Founded in 1929, the institute studies solid state and plasma physics, physical and quantum electronics, and holography. Recipient of the SSSR State Prize in 1988.
18. **Sheinkman, Moiseii K.**(Electronics) Born in 1929. Recipient of the State Prize for Science and Technology in 1981; elected in 1988.
19. **Shelest, Vitalii P.** D. PM. S.(Elementary Particle Theory) Born in 1940. Corresponding member since 1969.
20. **Soskin, Marat S.**(Solid State Physics) Born in 1929. Recipient of the State Prize for Science and Technology in 1974. Recipient of the SSSR State Prize in 1982; elected a corresponding member in 1988.
21. **Strutinskii, Vilen M.**, D. PM. S.(Physics and Core Theory) Born in 1929. Corresponding member since 19782.
22. **Tolok, Vladimir T.**, D. PM. S. (Plasma Physics) Born in 1926. Corresponding member since 1972. Deputy director of the Physical Technical Institute in Kharkov since 1970. Established in 1928, the institute specializes in plasma, nuclear, solid state, particle, and materials science physics.
23. **Tolpigo, Kirill B.**, D. PM. S.(Theoretical Physics) Born in 1916. Corresponding member since 1965.
24. **Tsimbal, Liudmila T.** (Physical Electronics) Born in 1937. Recipient of the State Prize for Science and Technology in 1980; elected in 1988.
25. **Vishnevskii, Ivan N.** (Experimental Physics) Born in 1938. Awarded the K. D. Sinel'nikova Prize for Physics in 1990; elected in 1990.
26. **Zaliubovskii, Il'ia I.** (Experimental Nuclear Physics) Born in 1938. Awarded the K. D. Sinel'nikova Prize for Physics in 1983; elected in 1990.
27. **Zavadskii, Edvald A.**, D. PM. S.(Solid State Physics) Born in 1927. Corresponding member since 1978.
28. **Zviagin, Anatolii I.** (Experimental Solid State Physics) Born in 1937. Corresponding member since 1985. Deputy director of the Low Temperature Physical Technical Institute in Kharkov since 1977.

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Research Institutes: This department is the largest of the academy departments, having 12 scientific research institutes under its jurisdiction. The responsibility for directing the research of several important scientific councils is lodged with personnel of this department: the council on solid-state physics; the council on semiconductor physics; the council on astronomy; the council on low temperature physics and cryogenetic engineering; the council on quantum electronics; and the council on the physics of low and high frequency waves. Subordinate institutes are listed below in the order of their establishment:

1. Physical Technical Institute in Kharkov. Founded in 1928, the institute joined the Ukraine Academy System in 1938. Its first director was Academician I. V. Obreimov. This large and important institute had a staff in 1990 of 505 researchers of whom 80 held the doctorate and 425 held the candidate degree. Six academicians and one corresponding member of the Ukraine Academy were on the staff. The institute specializes in plasma, nuclear, solid state, particle, and materials science physics, physical quantum electronics and holography. The present director is Academician Viktor F. Zelenskii, D. Tech. S.

2. Physics Institute in Kiev. Founded in 1929. Its first director was A. G. Gol'dman. The institute has a large special design bureau and pilot plant. The staff numbered 237 in 1990, of whom 40 held the doctorate and 197 held the candidate degree. Three academicians and four corresponding members of the academy were on the staff. The institute studies solid state and plasma physics, physical and quantum electronic physics, and holography. The present director is Academician M. S. Brodin.

3. Astronomical Observatory (Main) in Kiev. Founded in 1944. Its first director was Academician A. Ya. Orlov. The staff of the observatory numbered 67 in 1990, of whom 12 held the doctorate and 55 the candidate degree. The observatory's research centers on terrestrial rotation measurement, construction of coordinate systems in outer space, planetary atmosphere physics, and stellar physics. The present director is Academician Yaroslav S. Iatskiv, C. PM. S.--recipient of the SSSR State Prize in 1986.

4. Metal Physics Institute in Kiev. Founded in 1945 from the crystallization laboratory of the the Dnepropetrovsk Physical Technical Institute, the department of metal physics of the Ferrous Metallurgy Institute, and the Diffusion Processes department of the Physics Institute which were consolidated into a metallurgy laboratory in Kiev. In 1955, this laboratory became the Metal Physics Institute of the Ukrainian Academy and its head was Academician V. N. Gridnev. In 1990, researchers in the institute numbered 293, of whom 54 held the doctorate and 239 held the candidate degree. Two academicians and two corresponding members were on the staff. Institute scientists study phase transformations in a solid state, crystallization and structures of melts, and diffusion in metals and alloys. The institute maintains a large technical design bureau and production plant which develops scientific instruments, develops new technological and metallurgical processes, and introduces scientific and technological discoveries into production. The present director is V. G. Sumakh.

5. Radio Physics and Electronics Institute in Kharkov. Founded in 1955 from the radio engineering sector of the Khar'kovskogo Physical Technical Institute. Its first director was Academician A. Ya. Usikov. In 1990, the staff numbered 174, of whom 30 held the doctorate and 144 the candidate degree. Two academicians and two corresponding members were on the staff. The institute does research in physical and quantum electronics, dissemination of radio waves, scattering of radar signals from the sea surface, high frequency characteristics of solids, electron optics, decametric radioastronomy, and long distance radio communications. The institute maintains a large design bureau and pilot plant for experimental production. The present director is Viktor P. Shestopalov, D. PM. S.--recipient of the SSSR State Prize in 1987.

6. Low Temperature Physical Technical Institute in Kharkov. Founded in 1960 from a section of the Kharkov Physical Technical Institute. Academician B. E. Verkin was its director until 1988. In 1990, the staff numbered 373 researchers of whom 73 held the doctorate and 300 the candidate degree. Four academicians and five corresponding members of the academy were on the staff. The institute researches basic and applied superconductivity, electronic properties of solid bodies, molecular physics, processes of heat exchange, physical properties of biological macromolecules, new problems of mathematics, and cryogenic technology. The present director is A. I. Zviagin, corresponding member of the Ukraine Academy.

Physics and Astronomy Department

7. Semiconductor Institute in Kiev. Founded in 1960 from a laboratory of the Physics Institute. Its first director was V. E. Lashkarev. The institute staff numbered 269 in 1990, of whom 61 held the doctorate and 208 the candidate degree. The institute conducts research on electromagnetic wave interaction with semiconductors and develops photoelectric and optical instruments. Since 1970 the institute has been headed by Academician O. V. Snitko.

8. Physical Technical Institute in Donetsk. Founded in 1965 from the department of resonance phenomenon of the Low Temperature Physical-Technical Institute of the Ukraine Academy. Its first director was Academician A. A. Galkin. In 1990, the staff of the institute numbered 197, of whom 30 held the doctorate and 167 the candidate degree. The institute researches the optical and magnetic characteristics of solids, superconductivity, the electronic power spectra of metals and semiconductors, and the physical foundations of the strength and plasticity of solids. The institute has a special design bureau and a pilot plant. The present director is E. A. Zavadskii, corresponding member of the Ukraine Academy.

9. Theoretical Physics Institute in Kiev. Founded in 1966 from the theoretical department of the Physics Institute. Its first director was Academician N. N. Bogoliubov. The staff of the institute numbered 125 in 1990, of whom 33 held the doctorate and 92 the candidate degree. Three academicians and two corresponding members of the academy are on the staff. The institute develops basic research in atomic nucleus theory, statistical mechanics, and elementary particles. The present director of the institute is Academician V. V. Nemoshkalenko.

10. Nuclear Research Institute in Kiev. Founded in 1970. The first director of the institute was Academician M. V. Pacechnik. The staff of this important institute numbered 269 in 1990, of whom 61 held the doctorate and 208 the candidate degree. Two academicians and two corresponding members of the academy were on the staff. The institute conducts research on nuclear, solid state, and plasma physics, atomic power engineering, and the use of isotopes and nuclear radiation in the national economy. The institute has a special technical design bureau for experimental production. It maintains a scientific research center to monitor the effects on the environment of nuclear energy use. The experimental base is equipped with a U-240 Cyclotron, a U-120 Cyclotron, an ESG-5 Electrostatic Generator, and a microtron. The present director is I. N. Vishnevskii.

11. Radio Astronomy Institute in Kiev was founded in 1985 on the foundation of the radioastronomy department of the Radio Physics and Electronics Institute. Several scientists from the Kiev department of Radio Interference research were transferred to the new institute. In 1990, the staff numbered 77, of whom 17 held the doctorate and 60 the candidate degree. The institute researches radioastronomy of sonic and ultrasonic waves, develops scientific detection and measurement apparatus, studies the ionosphere, and develops methods of radioastronomical research. Its scientists have catalogued more than 2000 spectra, of which 100 represent new discoveries. The present director is L. N. Litvinenko, corresponding member of the Ukraine Academy.

12. The Physics of Condensation Systems Institute in L'vov was founded in 1990 from the L'vov department of physics statistics of the Theoretical Physics Institute of the Ukraine Academy. The director of the institute is Academician I. R. Iukhnovskii.

5. Earth Sciences Department

Members of the department: Membership in the Earth Sciences Department totalled 27 in 1990, of whom 13 were academicians and 14 were corresponding members. In 1987, five of the members were directors of SRIs and two were deputy directors of research institutes. There are no joint memberships with the AN SSSR departments in the Earth Sciences section of the national academy in this Ukrainian Academy department.

Academicians: The birthdates of all of the academicians of the Earth Sciences Department are known. In 1990, four of them were in their 80s; one in his 70s; six in their 60s; and two in their 50s.

Corresponding Members: One of the corresponding members was in his 80s; three in their 70s; seven in their 60s; and three in their 50s.

Academician Secretary

Starostenko, Vitalii I. Born in 1934. Recipient of the State Prize for Science and Technology in 1984. Corresponding member since 1985; elected academician in 1990. Deputy director of the S. I.

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Subbotin Geophysics Institute in Kiev since 1983. The institute was established in 1960 and does research in theoretical and applied geophysics. Academic secretary of the Earth Sciences Department in 1990.

Academicians

- 1. Belevtsev, Iakov N.**, D. GM. S. (Geology of Mine Pits) Born in 1912. Academician since 1967. Deputy director of the Geochemistry and Mineral Physics Institute in Kiev since 1983. The institute was established in 1969 and studies the laws of chemical composition of the earth's core, processes of migration and concentration of chemical elements, and the nature and properties of mineral matter. Recipient of the SSSR State Prizes in 1951 and 1974. Recipient of the State Prize for Science and Technology in 1973. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1983.
- 2. Beliaev, Valerii I. D.** PM. S. (Geophysics) Born in 1931. Corresponding member since 1969; elected academician in 1988.
- 3. Bondarchuk, Vladimir G.**, D. GM. S. (General Geology) Born in 1905. Academician since 1951. Recipient of the State Prize for Science and Technology in 1976.
- 4. Chebanenko, Ivan I.** (Geology) Born in 1925, elected in 1982.
- 5. Chekunov, Anatolii V.** (Geophysics and Geology) Born in 1932. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1976; elected in 1982. Recipient of the State Prize for Science and Technology in 1984.
- 6. Dolenko, Grigorii N.**, D. GM. S. (Geology and Geophysics) Born in 1917. Academician since 1979. Director of the Geology and Geochemistry of Combustible Materials Institute in L'vov since 1963. Established in 1946, the institute conducts research on the problems of geology and the geochemistry of combustible materials. Recipient of the State Prize for Science and Technology in 1971. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1977j.
- 7. Malakhov, Georgii M.**, D. Tech. S. (Mining) Born in 1907. Recipient of the SSSR State Prize in 1948. Academician since 1967. Recipient of the State Prize for Science and Technology in 1970. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1988.
- 8. Nelepo, Boris A.** (Physics of the Sea) Born in 1932, elected in 1978. Recipient of the State Prize for Science and Technology in 1980.
- 9. Semenenko, Nikolai P.**, D. GM. S. (Petrography and Ore Deposits) Born in 1905. Academician since 1948. Recipient of the State Prize for Science and Technology in 1973. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1981.
- 10. Shcherbak, Nikolai P.**, D. GM. S. (Geochemistry) Born in 1924. Since 1977, director of the Geochemistry and Mineral Physics Institute in Kiev. Secretary of the Department from 1978 to 1990. Academician since 1979. Recipient of the State Prize for Science and Technology in 1981.
- 11. Shniukov, Evgenii F.**, D. GM. S. (Geology) Born in 1930. Academician since 1982. Director of the Geological Sciences Institute in Kiev since 1977. Recipient of the State Prize for Science and Technology in 1989.
- 12. Starostenko, Vitalii I.** (Geophysics) Born in 1934. Recipient of the State Prize for Science and Technology in 1984. Corresponding member since 1985; elected academician in in 1990. Deputy director of the S. I. Subbotin Geophysics Institute in Kiev since 1983. The institute was established in 1960 and does research in theoretical and applied geophysics. Academic secretary of the Earth Sciences Department in 1990.
- 13. Zabigailo, Vladimir E.** (Geology) Born in 1934; elected in 1990.

Corresponding Members

- 1. Belevtsev, Rudol'f Iu.** (Petrography and Ore Deposits) Born in 1937, elected in 1990.
- 2. Bulgakov, Nikolai P.** (Hydrophysics and Hydrodynamics) Born in 1929, elected in 1982.
- 3. Cherkesov, Leonid V.** (Geology and Geophysics) Born in 1933. Corresponding member since 1979.
- 4. Didkovskii, Valentin Ia.**, D. GM. S. (Geology) Born in 1914. Corresponding member since 1973. Recipient of the State Prize for Science and Technology in 1976.

Earth Sciences Department

5. **Gavrish, Vladimir K.**, D. GM. S. (Oil and Gas Geology) Born in 1925. Corresponding member since 1982.
6. **Glushko, Vasilii V.**, D. GM. S. (Geology) Born in 1920. Corresponding member since 1967. Recipient of the State Prize for Science and Technology in 1986.
7. **Marinich, Aleksandr M.** (Physical Geology) Born in 1920, elected in 1969.
8. **Matiash, Ivan V.** (Mineral Physics) Born in 1930, elected in 1988.
9. **Mel'nik, Iurii P.**, D. GM. S. (Geology and Geophysics) Born in 1931. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1974. Corresponding member since 1979.
10. **Shestopalov, Viacheslav M.** (Regional Hydrogeology) Born in 1936, elected in 1988.
11. **Shirokov, Aleksandr Z.**, D. GM. S. (Geology of Coal Deposits) Born in 1905. Corresponding member since 1957. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1986.
12. **Shpak, Petr F.** (Lithography and Mining Geology) Born in 1931. Awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1989; elected in 1990.
13. **Sobotovich, Emlen V.** (Regional Hydrogeology) Born in 1927; elected in 1988.
14. **Tiapkin, Konstantin F.** (Geophysics) Born in 1927; elected in 1990.

Research Institutes: Five important Scientific Councils are located in this department. They include: council on geology and geotechnology of combustion research under Academician V. E. Zabigailo--awarded the V. I Vernadskii Prize for Geology, Geochemistry and Hydrophysics in 1986; council on Ukrainian Tectonics under Academician A. V. Chekunov--recipient of the State Prize for Science and Technology in 1984; council on hydrogeology and geological engineering under corresponding member V. M. Shestopalov; council on the geology of useful minerals of the oceans and seas under academician E. F. Shnukov; council on studying resources by remote control under V. I. Lial'ko, D. Geol/Mineralogical S.--Recipient of the State Prize for Science and Technology in 1989; and the council on geodynamics and earthquake forecasting. The department had five scientific research institutes directly subordinate to it in 1990.

Subordinate Research Institutes: They are listed below in the order of their founding:

1. Geological Sciences Institute in Kiev. Founded in 1926 from the geological branch academy of the People's Commisariat of the Ukrainian SSR. It joined the Ukrainian Academy System in 1934. Its first director was Academician P. A. Tutkovskii. The staff of the institute numbered 161 researchers in 1990, of whom 31 held the doctorate and 130 the candidate degree. Four academicians and three corresponding members were on the staff. The institute studies paleontological stratification, lithology and tectonic structures of the earth's core in Ukraine, geological resources of oil and gas, mining methods, geological engineering and geocological matters, and the geological mineral resources of the world's oceans, and the flora and fauna, of Ukraine. The present director is Academician E. F. Shniukov, D. GM. S.

2. Hydrophysical Institute in Sevastopol was established in Moscow in 1948, and joined the Ukrainian Academy System in 1961. The institute was shifted to Sevastopol in 1963. Its first director was Academician V. V. Shuleikin. The staff of the institute numbered 117 scientists in 1990, of whom 19 held the doctorate and 98 the candidate degree. One academician and three corresponding members of the academy are on the staff. The research of the institute centers on physical oceanography, optics, temperature, hydrochemistry, and radiochemistry as well as special hydrophysical studies of the ocean platform. It develops methods of automating oceanographic informations. The institute maintains a scientific technical base from which eight flying laboratories are operated. The present director is V. N. Ereemeev, D. PM. S.

3. Geology and Geochemistry of Combustible Materials Institute in Lvov. Founded in 1951 from the Lvov department of the Geological Sciences Institute. In 1962, it was called the Geology of Combustible Materials Institute; in 1963, it received its present name. Its first director was Academician V. B. Porfir'ev. The staff numbered 82 in 1990, of whom 10 held the doctorate and 72 the candidate degree. Two academicians were on the staff. The institute studies the complex problems of fossil fuels, the formation of oil and gas, the development of criteria for interconnecting regions of Ukraine, the problems of the production and conservation of fuel resources and production and

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gasification methods, and it conducts research on combustible materials. The present director is Academician V. E. Zabigailo.

4. S. I. Subbotin Geophysics Institute in Kiev. Founded in 1961 from a geophysical group of the Institute of Geological Sciences. Its first director was Academician S. I. Subbotin. The institute staff numbered 196 in 1990, of whom 26 held the doctorate and 170 the candidate degree. The institute maintains field stations in Yalta, Simferopol, Alushte, Fedosii, L'vov and Uzhgorod. Three academicians and one corresponding member of the academy are on the staff. The institute does research in theoretical and applied geophysics, the theory and complexity of the geophysical poles, the geodynamics of mining and the theory and methods of predicting earthquakes, the irregular movement of the earth, latitudinous polar variations, and the deformations of the earth's core, cosmic rays, methods of geophysical explorations using explosive techniques, and the lithology of Central and Eastern Europe. The present director is Anatolii V. Chekunov, D. GM. S.--recipient of the State Prize for Science and Technology in 1984.

5. Geochemistry and Mineral Physics Institute in Kiev. Founded in 1969 from a sector of geochemistry and mineralogy and a sector of metallogeny of the Geological Sciences Institute of the Ukraine Academy. The first director of the institute was Academician N. P. Semenko. The staff of the institute numbered 188 in 1990, of whom 31 held the doctorate and 157 the candidate degree. One corresponding member of the Russian Academy of Sciences, three academicians and four corresponding members of the Ukraine Academy were on the staff. The institute studies the laws of the chemical composition of the earth's core, processes of migration and concentration of chemical elements, and the nature and properties of mineral matter. The present director is Nikolai P. Shcherbak, D. GM. S.--recipient of the State Prize for Science and Technology in 1981.

6. Physical and Technical Problems of Materials Department

Membership of the Physical and Technical Problems of Materials Department:

With 44 members, this is one of the larger departments of the academy. Twenty-one of these are academicians and 23 are corresponding members. In 1987, 11 of these members were either directors or deputy directors of the several Scientific Research Institutes under the department's jurisdiction.

Academicians: Four of the academicians of this department were in their 80s in 1991; five in their 70s; 11 in their 60s; and one in his 50s.

Corresponding Members: One corresponding member was in his 80s; seven in their 70s; five in their 60s; nine in their 50s; and, one in his 40s.

Academician Secretary

Fedorchenko, Ivan M., D. Tech. S. Born in 1909. Academician since 1961. Academic secretary of the Physical and Technical Problems of Materials Department since 1964. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1968. Recipient of the State Prize for Science and Technology in 1979.

Academicians

1. Arkharov, Vladimir I. (Solid State Physics) Born in 1907, elected in 1965.

2. Gasik, Mikhail I. (Steel and Ferrous Metals) Born in 1929, elected in 1990.

3. Dudko, Daniil A., C. Tech. S. (Material Process Control) Born in 1921. Recipient of the SSSR State Prize in 1950. Deputy director of the Electric Welding Institute in Kiev since 1962. Recipient of the Lenin Prize in 1963. Recipient of the State Prize for Science and Technology in 1972.

4. Efimov, Viktor A., D. Tech. S. (Metallurgy and Metals Technology) Born in 1921. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1969. Academician since 1973. Director of the Casting Problems Institute in Kiev since 1965. The institute was founded in 1958 and is involved in the development of theoretical and technological bases of casting steel and forming steel ingots. It is subordinate to the Physical and Technical Problems of Materials Science Department of the Ukrainian academy. Recipient of the SSSR State Prize in 1981.

5. Eremenko, Valentin N. (Cover Materials and Powder Metallurgy) Born in 1911, elected in 1969. Recipient of the State Prizes for Science and Technology in 1975 and 1985. Awarded the I. N. Frantsevich Prize in Physical Materials in 1988.

Physical and Technical Problems of Materials Department

- 6. Fedorchenko, Ivan M.** (Powder Metallurgy) Born in 1909, elected in 1961. Recipient of the State Prize for Science and Technology in 1979.
- 7. Kuchuk-Iatsenko, Sergei I.** (Metallurgy and Metal Technology) Born in 1930, elected in 1988.
- 8. Lebedev, Vladimir K.** (Electrometry) Born in 1922. Recipient of the Lenin Prize in 1966. Elected an academician in 1972. Recipient of the State Prize for Science and Technology in 1976.
- 9. Makhnenko, Vladimir I.** (Materials and Material Sciences) Born in 1931, elected in 1990.
- 10. Medovar, Boris I., D. Tech. S.**(Metallurgy and Metal Technology) Born in 1916. Recipient of the Lenin Prize in 1963. Academician since 1973. Recipient of the State Prize for Science and Technology in 1978. Deputy director of the Paton Electric Welding Institute in Kiev since 1980. Recipient of the SSSR State Prize in 1950 and 1987. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1990.
- 11. Movchan, Boris A., D. Tech. S.** (Materials and Materials Sciences) Born in 1928. Recipient of the State Prize for Science and Technology in 1974. Academician since 1978. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1989.
- 12. Naidich, Iurii V.** (Materials Sciences and Materials Soldering) Born in 1928. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1973; elected in 1988.
- 13. Nekrasov, Zot I., D. Tech. S.**(Cast Iron Metallurgy) Born in 1908. Recipient of the SSSR State Prize in 1941. Recipient of the Lenin Prize in 1960. Academician since 1961. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1969.
- 14. Novikov, Nikolai V., D. Tech. S.**(Materials Sciences and Metals Technology) Born in 1932. Recipient of the State Prize for Science and Technology in 1973 and of the SSSR State Prize in 1981. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1983. Academician since 1985. Director of the Superhard Materials Institute in Kiev since 1977. The institute was created in 1961 for the development of superhard materials, tools made from them, and equipment fabricated for their production.
- 15. Panasiuk, Vladimir V.** (Materials Sciences and Durability of Metals) Born in 1926. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1974. Recipient of the State Prize for Science and Technology in 1977; academician since 1978.
- 16. Paton, Boris E., D. Tech. S.** (See above.)
- 17. Pokhodnia, Igor K., D. Tech. S.**(Metallurgy and Metals Technology) Born in 1927. Academician of the Physical and Technical Problems of Materials Science Department since 1976. Vice president of the academy from 1983 to 1990. In 1990, he headed the Technical Scientific Council on Corrosion of Protection of Corrosion in Metals. This Council was subordinate to both the Presidium of the Ukrainian Academy and GOSPLAN. Recipient of the SSSR State Prizes in 1971 and 1978.
- 18. Skorokhod, Valerii V.** (Materials Sciences and Metals Technology) D. Tech. S. Born in 1934. Corresponding member since 1985; elected an academician in 1990.
- 19. Taran-Zhovnir, Iurii N., (Metals Sciences and Metals Technology) D. Tech. S.** Born in 1927. Academician since 1985.
- 20. Trefilov, Viktor I., D. PM. S.**(Physics of Durability) Born in 1930. Recipient of the State Prize for Science and Technology in 1974. Academician of the Ukrainian department since 1973; and academician of the Physical Chemistry and Technology of Inorganic Materials department of the AN SSSR since 1987. Since 1973, he has been the director of the Problems of Material Science Institute in Kiev which was established in 1955 to develop high temperature materials to conduct studies on problems of the structure of solids, and to coordinate all Soviet powder metallurgy research in the USSR. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1987.
- 21. Zelenskii, Viktor F.** (Radiation Materials Sciences) Born in 1929, elected in 1988.

Corresponding Members

- 1. Cherepin, Valentin T.** (Materials Sciences) Born in 1930. Recipient of the State Prize for Science and Technology in 1980; elected in 1982.
- 2. Efimenko, Georgii G.** (Metallurgy) Born in 1917. Corresponding member since 1973. Recipient of the State Prize for Science and Technology in 1983.
- 3. Firstov, Sergei A.** (Materials Sciences and Materials Durability) Born in 1940. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1967; elected in 1988.

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4. **Gnesin, Georgii C.** (Materials Sciences and Metals Durability) Born in 1932, elected in 1990.
5. **Gritsik, Vladimir V.** (Scientific Instrument Making) Born in 1941, elected in 1990.
6. **Iushchenko, Konstantin A.** (Materials Sciences and Metal Welding) Born in 1935, elected in 1990.
7. **Kasatkin, Boris S.**, D. Tech. S. (Materials Sciences) Born in 1919. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1975. Corresponding member since 1976. Recipient of the State Prize for Science and Technology in 1979.
8. **Kislii, Pavel S.**, D. Tech. S. (Materials Sciences) Born in 1933. Corresponding member since 1982. Deputy director of the Superhard Materials Institute in Kiev since 1978. The institute was created in 1961 to develop superhard materials, tools to be made from them, and equipment fabricated for their production.
9. **Kudinov, Vladimir M.**, D. Tech. S. (Materials Sciences) Born in 1934. Corresponding member of the Physical and Technical Problems of the Ukrainian academy since 1982. Since 1980, he has been a deputy chairman of the GKNT (State Committee for Science and Technology.) This important committee develops and monitors the implementation of a unified state policy for science and technology. Recipient of the SSSR State Prize in 1985.
10. **Lobanov, Leonid M.** (Materials Sciences and Material Durability) Born in 1940, elected in 1990.
11. **Maksimovich, Georgii G.** (Materials Sciences and Material Durability) Born in 1922, elected in 1978. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1979.
12. **Mil'man, Iulii V.** (Materials Sciences and the Physics of Durability) Born in 1930, elected in 1990.
13. **Naidek, Vladimir L.**, D. Tech. S. (Casting Manufacture) Born in 1937. Corresponding member since 1988.
14. **Ostrenko, Viktor Ia.**, D. Tech. S. (Metallurgy and Metals Technology) Born in 1917. Recipient of the SSSR State Prize in 1968. Corresponding member since 1978.
15. **Pereloma, Vitalii A.** (Steel and Ferrous Metallurgy) Born in 1934, elected in 1990.
16. **Pokhmurskii, Vasili I.** (Materials Sciences and Metals Durability) Born in 1933. Awarded the G. V. Karpenko Prize in Physical Chemistry in 1989; elected in 1990.
17. **Pozniak, Leonid A.** (Materials Sciences) Born in 1929. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1984; elected in 1990.
18. **Rodin, Petr R.**, D. Tech. S. (Metal Processing) Born in 1922. Corresponding member since 1976.
19. **Romaniv, Oleg N.** (Materials Sciences) Born in 1928. Recipient of the State Prize for Science and Technology in 1976; elected in 1985. Awarded the G. V. Karpenko Prize in Physical Chemistry in 1988.
20. **Seminozhenko, Vladimir P.** (Ceramic Materials) Born in 1950, elected in 1988.
21. **Shul'te, Iu. A.**, D. Tech. S. (Electrometallurgy) Born in 1910. Corresponding member since 1969.
22. **Tovstiuk, Kornii D.** (Conductive Materials) Born in 1922. Recipient of the State Prize for Science and Technology in 1973; elected in 1978.
23. **Trufiakov, Vladimir I.**, D. Tech. S. (Construction Materials Durability) Born in 1918. Recipient of the State Prize for Science and Technology in 1972. Corresponding member since 1976. Awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1978. Recipient of the SSSR State Prize in 1985.

Research Institutes: Three scientific councils are managed through this department: the scientific council on the physical chemistry of mechanical materials under Academician V. V. Panachiuk; scientific council on surface phenomena of contact fusion in the solid phase under Academician Iu. V. Naidich--awarded the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1973; and the scientific council on high pressure materials under Academician N. V. Novikov--Recipient of the State Prize for Science and Technology in 1973, the SSSR State Prize in 1981, and the E. O. Paton Prize for the Creation of New Metals and Metal Processes in 1983. There are seven scientific research institutes directly subordinate to the department and they are given below in the order of their founding:

Ukrainian Scientific Research Institutes

Physical and Technical Problems of Materials Department

1. E. O. Paton Electric Welding Institute in Kiev. Established in 1934. Its first director was Academician E. O. Paton who directed its work until his death in 1953. The institute coordinates research and design applications in welding techniques in Ukraine. The present director is Academician Boris E. Paton D. Tech. S., who also president of the Ukrainian Academy of Sciences.

2. G. V. Karpenko Physical Mechanical Institute in Lvov. Established in 1951 from a L'vov department of elasticity theory of the Mathematics Institute of the Ukraine Academy. Its first director was N. N. Shiemilovskii, D. Tech. S. One academician and five corresponding members of the Ukraine Academy are on the staff which numbered 192 in 1990, of whom 22 held the doctorate and 170 held the candidate degree. The institute is responsible for theoretical studies of deformation, and fracture mechanics of materials under stress. The present director is Vladimir V. Panasiuk, D. Tech. S.--recipient of the State Prize for Science and Technology in 1977 and awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1974.

3. I. N. Frantsevich Materials Problems Institute in Kiev. was established in 1955 from a special fusion laboratory of the Feffous Metallurgy Institute of the Ukraine Academy. Its first director was Academician I. N. Frantsevich. This large institute has a scientific-technical complex, a design bureau, a special information system bureau, and a scientific base for filament research. Four academicians and six corresponding members are on the staff which numbered 660 in 1990, of whom 60 held the doctorate and 600 the candidate degree. The institute develops high temperature materials, studies problems of the structure of solids, and coordinates all Soviet powder metallurgy research. The present director is Academician Viktor I. Trefilov, D. PM. S.--recipient of the State Prize for Science and Technology in 1974. Awarded the E. O Paton Prize for the Creation of New Metals and Metal Processes in 1987.

4. Casting Problems Institute in Kiev. Established in 1958 from the Machine and Agricultural Mechanical Institute of the Ukraine Academy. Its first director was A. A. Gorshkov, corresponding member of the Ukraine Academy. The staff of the institute numbered 135 in 1990, of whom 15 held the doctorate and 120 held the candidate degree. One academician and three corresponding members were on the staff. The institute is involved in the development of theoretical and technological bases of casting steel and forming steel ingots. The present director is V. L. Naidek.

5. Superhard Materials Institute in Kiev. Established in 1961 from the Central Design Bureau of the Alloy Hardening and Diamond Institute of the Ukraine Academy. Its first director was V. N. Bakul', D. Tech. S. One academician is on the staff which in 1990 numbered 242 of whom 21 held the doctorate and 221 the candidate degree. The institute is involved in the development of superhard materials, tools made from them, and equipment fabricated for their production. The present director is Nikolai V. Novikov, D. Tech. S.--Awarded the E. O Paton Prize for the Creation of New Metals and Metal Processes in 1983 and recipient of the SSSR State Prize in 1981.

6. Electrohydraulic Design Bureau in Nikolaev was established in 1962, becoming a part of the Ukrainian Academy System in 1972 with independent institute status. Its first director was A. P. Sorochinskii, C. Tech. S. The staff of the institute numbered 65 in 1990, of whom three held the doctorate and 62 the candidate degree. The present director is G. A. Gulin, D. Tech. S.

7. Monocrystal Institute in Kharkov was established in 1989. Its director is V. P. Seminozhenko, whose field is ceramic materials.

7. Physical and Technical Problems of Power Engineering Department

Members of the department: This department counted only 11 members in 1987--four academicians and seven corresponding members, it has control over four large Scientific Research Institutes.. There were four directors and deputy directors from the department's membership. In 1990, however membership in this department had grown to 24, of whom 10 were academicians and 14 were corresponding members.

Academicians: Two of the academicians were in their 80s; three in their 70s; three were in their 60s; and two were in their 50s.

Corresponding Members: In 1990, one was in his 80s; two in their 70s; and, three in their 60s; and eight in their 50s.

Academician Secretary

The Ukrainian Academy of Science

Shidlovskii, Anatolii K., D. Tech. S. (Power Machine Construction and Machine Durability) Born in 1933. Academician since 1985. Director of the Electrodynamics Institute in Kiev since 1974. Founded in 1939, the institute is concerned with methods, devices, and systems used in the prevention of short circuits. Academic secretary to the Physical Technical Problems of Energetics (Power Engineering) Department in 1990.

Academicians

1. Chizhenko, Ivan M. D. Tech. S. (Power Transistor Transformers) Born in 1916. Recipient of the Lenin Prize in 1962. Corresponding member since 1972; elected an academician in 1988.

2. Grinevich, Feodosii B., D. Tech S. (Electrical Measurement) Born in 1922. Recipient of the SSSR State Prize in 1976. Academician since 1979.

3. Dolinskii, Anatolii A. D. Tech. S. (Heat Engineering) Born in 1931. Corresponding member since 1978; elected an academician in 1988. Director of the Technical Thermal Physics Institute in Kiev since 1982. The institute was established in 1964 to do research on heat and mass exchange in technological processes, heat processes in MHD systems, and in the earth's core, and thermometric instruments. Recipient of the State Prize for Science and Technology in 1984.

4. Pukhov, Georgii E. (Mathematics and Computer Technology) Born in 1916, elected in 1967. Recipient of the State Prize for Science and Technology in 1982. Until 1990 he was academic secretary to the department.

5. Rvachev, Vladimir L. (Mechanics) Born in 1926. Awarded the A. N. Dinnik Prize for Mechanics and Machine Building in 1976; elected in 1978. Recipient of the State Prize for Science and Technology in 1980.

6. Schastlivii, Gennadii G. D. Tech. S. (Durability of Electrical Machines) Born in 1930. Awarded the G. F. Proskuri Prize for Power Engineering in 1979. Corresponding member since 1985; elected an academician in 1988. Deputy director of the Electrodynamics Institute in Kiev since 1974.

7. Shchervan', Aleksandr N. (Mining Pit Ventilation) Born in 1906, elected in 1957.

8. Shidlovskii, Anatolii K., D. Tech. S. (Electric Machine Construction and Durability) Born in 1933. Academician since 1985. Director of the Electrodynamics Institute in Kiev since 1974. Founded in 1939, the institute is concerned with methods, devices, and systems used in the prevention of short circuits. Academic secretary to the Physical Technical Problems of Power Engineering Department in 1990.

9. Shubenko-Shubin, Leonid A. (Energetics) Born in 1906. Recipient of the SSSR State Prize in 1947; elected in 1957. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1962. Awarded the G. F. Proskuri Prize for Power Engineering in 1982.

10. Stognii, Boris S. (Energetics) Born in 1936. Recipient of the State Prize for Science and Technology in 1985; elected in 1990.

Corresponding Members

1. Denisenko, Grigorii I., D. Tech. S. (Electrical Circuits and Systems) Born in 1919. Corresponding member since 1969.

2. Diban, E. P., D. Tech. S. (Electrical Currents) Born in 1925. Corresponding member since 1985. Awarded the G. F. Proskuri Prize for Power Engineering in 1977.

3. Evdokimov, Viktor F. (Heat Exchange) Born in 1941. Awarded the S. A. Lebedev Prize in Computer Technology and Automatic Control Systems in 1984; elected in 1990.

4. Gerashchenko, Oleg A. (Current Stabilization of Power Systems) Born in 1925, elected in 1976.

5. Khalatov, Artem A. (Heat Engineering) Born in 1942, elected in 1990.

6. Kuznetsov, Vladimir G. (Electrical Engineering) Born in 1935, elected in 1990.

7. Matsevitii, Iurii M. (Heat Accumulation in Technological Processes) Born in 1934, elected in 1982. Awarded the G. F. Proskuri Prize for Power Engineering in 1984.

8. Podgornii, Anatolii N. (Dynamics and Machine Durability) Born in 1932, elected in 1973. Recipient of the State Prize for Science and Technology in 1984.

9. Povkh, Ivan L. (Gas Aerodynamics) Born in 1909, elected in 1961.

10. Samofalov, Konstantin G. (Electrical Engineering and Modeling of Power Systems) Born in 1921, elected in 1982.

Physical Technical Problems of Energetics Department

- 11. Stoian, Iu. G.**, D. Tech. S. (Electrical Engineering and Power Plant Modeling) Born in; 1935. Recipient of the State Prize for Science and Technology in 1980. Corresponding member since 1985.
- 12. Tonkal', Vladimir E.** (Power Transistors and Transformers) Born in 1936, elected in 1982.
- 13. Vasil'ev, Vsevolod V.** (Electronics and Modeling of Energy Systems) Born in 1935, elected in 1982. Awarded the S. A. Lebedev Prize in Computer Technology and Automatic Control Systems in 1988.
- 14. Volkov, Igor' V.** (Current Stabilization Systems) Born in 1936. Recipient of the State Prize for Science and Technology in 1975; elected in 1988.

Research Institutes: Four scientific councils are coordinated through personnel of this department: the scientific council on the scientific principles of electricity under Academician A. K. Shidlovskii; the scientific council on the principles of energy conservation under Corresponding Member V. E. Tonkal'; the scientific council on the theoretical principles of power engineering and electrometry modeling under Academician G. E. Pukhov--recipient of the State Prize for Science and Technology in 1982; and the scientific council on heat technology under Academician A. A. Dolinskii--Recipient of the State Prize for Science and Technology in 1984. There are five scientific research institutes directly subordinate to this department and they are given below in the order of their founding:

1. Electrodynamics Institute in Kiev. Founded in 1947 from the electrotechnical department of the Power Engineering Institute of the Ukrainian Academy. It received its present name in 1963. Its first director was Academician S. A. Lebedev. In 1990, the staff numbered 197 of whom 28 held the doctorate and 169 the candidate degree. Four academicians and four corresponding members are on the staff. The institute is primarily concerned with methods, devices, and systems used in the prevention of short circuits. The institute maintains a special design bureau. The present director is Anatolii K. Shidlovskii, D. Tech. S.

2. Technical Thermal Physics Institute in Kiev. Founded in 1947 from a department of the Power Engineering Institute of the Ukrainian Academy. From 1963 to 1987, it was called the Thermal Power Engineering Institute. In 1987, it received its present name. Its first director was Academician I. T. Shvets. The institute is a part of a scientific-technical complex which includes a design bureau, an experimental thermal physics design bureau, and an experimental mechanics plant. In 1990., the institute had a staff which numbered 170 of whom 21 held the doctorate and 149 the candidate degree. Two academicians and two corresponding members of the Ukraine Academy are on the staff. The institute does research in heat and mass exchange in technological processes, heat processes in MHD systems, and in the earth's core, and thermometric instruments. The present director is Anatolii A. Dolinskii, D. Tech S.--Recipient of the State Prize for Science and Technology in 1984.

3. Problems of Machine Building Institute in Kharkov. Founded in 1972. The staff of the institute numbered 121 in 1990, of whom 18 held the doctorate and 103 held the candidate degree. The institute conducts research on improving methods of designing machines using mathematics, mechanics, and computer assisted design technology. The present director is Anatolii N. Podgornii, D. Tech. S.--Recipient of the State Prize for Science and Technology in 1984.

4. Problems of Modeling in Power Engineering Institute in Kiev. Founded in 1981 from an electricity modeling sector of the Electrodynamics Institute of the Ukrainian Academy. Its first director was Academician G. E. Pukhov. Its staff numbered 93 in 1990, of whom 17 held the doctorate and 76 the candidate degree. This institute formulates computer models to investigate the reliability of regional power systems and coordinates research in the Ukraine on theoretical power engineering, electronics, and power system modeling. The institute maintains a special design bureau. The present director is V. F. Evdokimov, corresponding member of the Ukraine Academy.

5. Problems of Power Conservation Institute in Kiev was established in 1988 from the department of problems of conservation and research in electric energy of the Electrodynamics Institute of the Problems of Modeling in Power Engineering and from the Heat and Power Complex of the Technical Thermal Bureau. The staff of the institute numbered 81 in 1990, of whom nine held the doctorate and 72 the candidate degree. The present director is V. E. Tonkal'.

8. Chemistry and Chemical Technology Department

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Membership of the department: The Chemistry and Chemical Technology Department of the Ukrainian academy counted a total of 39 members in 1990, 17 of whom were academicians and 22 were corresponding members. In 1987, 12 members of this department were or had been directors or deputy directors of eight of the scientific research institutes under departmental control. None of the academicians or corresponding members of this department share a membership in any of the subject-matter departments of the AN SSSR. The academy membership included a rector and a prorector of the Kiev State University.

Academicians: In 1990, two academicians were in their 90s; two academicians were in their 80s; five were in their 70s; four in their 60s; and, five were in their 50s.

Corresponding Members: Two corresponding members were in their 80s; three were in their 70s; six were in their 60s; 10 were in their 50s; and, one was in his 40s. This old and traditional department was consciously attempting to bring in younger scientists.

Academician Secretary

Pokhodenko, Vitalii D., D. Chem. S. (Physical Chemistry) Born in 1936. Academician since 1985. Deputy director of the L. V. Pisarzhevskii Physical Chemistry Institute in Kiev since 1971. Academic secretary to the Department of Chemistry and Chemical Technology in 1990.

Academicians

1. Andronati, Sergei A. (Bioorganic Chemistry) Born in 1940, corresponding member since 1982; elected an academician in 1988. Member of the Presidium since 1990.

2. Atroshchenko, Vasili I., D. Tech. S. (Chemical Technology) Born in 1906. Recipient of the SSSR State Prize in 1969. Academician since 1972. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1971.

3. Babichev, Fedor S., D. Chem. S. (Organic Chemistry and Heterocyclical Compounds) Born in 1917. Academician of the Chemistry and Chemical Technology Department since 1974. Vice president of the Ukrainian Academy since 1978. Awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1986.

4. Berezhnoi, Anatolii S., D. Tech. S. (Chemistry and the Technology of Inorganic Structural Materials) Born in 1910. Academician since 1979.

5. Chuiko, Aleksei A., D. Chem S. (Surface Chemistry) Born in 1930. Recipient of the State Prize for Science and Technology in 1972. Corresponding member since 1979; elected an academician in 1988. Deputy director of the L. V. Pisarzhevskii Physical Chemistry Institute in Kiev since 1972.

6. Gorodiskii, Aleksandr V., D. Chem. S. (Electrochemistry) Born in 1930. Awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1972. Academician since 1978. From 1972 to 1973, he was deputy director of the N. S. Kurnakov General and Inorganic Chemistry Institute in Moscow which was founded in 1934 to study metal alloys, rare earth elements, and the chemistry of complex compounds and polymers. He has been director of the General and Inorganic Chemistry Institute in Kiev since 1973. This institute was founded in 1919 and its research includes chemistry, electrochemistry of melted, aqueous and nonaqueous electrolytes, and coordination chemistry.

7. Iatsimirskii, Konstantin B., D. Chem. S. (Inorganic Chemistry) Born in 1916. Academician since 1964. Director of the L. V. Pisarzhevskii Physical Chemistry Institute in Kiev since 1968. Awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1970.

8. Kirsanov, Aleksandr V., D. Chem. S. (Organic Chemistry) Born in 1902. Academician since 1961. Director of the Organic Chemistry Institute in Kiev since 1960. The institute conducts research on elementally based organic compounds, photosynthesis, polymerization reactions, and heterocyclical compounds. Recipient of the Lenin Prize in 1974.

9. Kucher, Roman V., D. Chem. S. (Physical Chemistry) Born in 1925. Academician since 1972. Awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1975.

10. Kukhar', Valerii P., D. Chem. S. (Organic Chemistry) Born in 1942. Secretary of the Chemistry and Chemical Technology Department from 1978 to 1990. Academician since 1985. Awarded the G. V. Karpenko Prize in Physical Chemistry in 1989.

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11. Kul'skii, Leonid A., D. Tech. S. (Chemistry and the Technology of Water Purification) Born in 1903. Academician since 1969. Awarded the L. V. Pisarzhenskii Prize for Chemistry and Chemical Technology in 1985.

12. Lipatov, Iurii S., D. Chem S. (Chemistry of High Molecular Compounds) Born in 1927. Academician since 1973. Director of the High Molecular Compounds Institute in Kiev since 1965. The institute was established in 1959 and studies the chemistry of high molecular compounds for both basic purposes and for the production of new types of monomers, polymers, and synthetic fiber. Awarded the L. V. Pisarzhenskii Prize for Chemistry and Chemical Technology in 1980 and recipient of the State Prize for Science and Technology in 1981.

13. Markovskii, Leonid N., D. Chem. S. (Organic Chemistry) Born in 1939. Corresponding member since 1939; elected an academician in 1988. Deputy director of the Organic Chemistry Institute in Kiev since 1981. Director of the institute since 1991. The institute conducts research on elementally based organic compounds, photosynthesis, polymerization reactions, and heterocyclical compounds.

14. Ovcharenko, Fedor D., D. Chem. S. (Colloidal Chemistry) Born in 1913. Academician since 1961. Recipient of the State Prize for Science and Technology in 1969. Awarded the L. V. Pisarzhenskii Prize for Chemistry and Chemical Technology in 1981.

15. Pilipenko, Anatolii T., D. Chem. S. (Analytical Chemistry) Born in 1914. Academician since 1976. Director of the A. V. Dumanskii Colloidal Chemistry and Hydrochemistry Institute in Kiev since 1975. The institute was established in 1968 and its research involves theoretical and technical aspects of colloid chemistry and hydrochemistry such as the regulation of water quality. Since 1979, prorector of the T. G. Shevchenko Kiev State University in Kiev, established in 1834. Awarded the L. V. Pisarzhenskii Prize for Chemistry and Chemical Technology in 1984. He was elected to the Presidium in 1990.

16. Pokhodenko, Vitalii D., D. Chem. S. (Physical Chemistry) (See above.)

17. Skopenko, Viktor V., D. Chem. S. (Inorganic Chemistry) Born in 1935. Corresponding member of the Chemistry and Chemistry Technology Department of the Ukrainian academy since 1978; elected an academician in 1988. Since 1985, he has served as rector of the T. G. Shevchenko Kiev State University in Kiev which was established in 1834. He was named vice president of the Ukrainian academy in 1988.

Corresponding Members

1. Antropov, Lev I. (Chemical Technology) Born in 1913. Corresponding member since 1982.

2. Baranov, Sergei N., D. Chem. S. (Organic Chemistry) Born in 1918. Corresponding member since 1965.

3. Golodets, Grigorii I. (Physical Chemistry) Born in 1936. Awarded the L. V. Pisarzhenskii Prize for Chemistry and Chemical Technology in 1973; elected in 1990.

4. Gololobov, Iu. G., D. Chem. S. (Organic Chemistry) Born in 1930. Corresponding member since 1976. Deputy director of the Organic Chemistry Institute in Kiev since 1972. The institute conducts research on elementally based organic compounds, photosynthesis, polymerization reactions, and heterocyclical compounds.

5. Goncharuk, Vladislav V. (Chemistry and the Technology of Water Purification) Born in 1941, elected in 1990.

6. Iasnikov, Aleksandr A., D. Chem. S. (Chemistry of Natural Compounds) Born in 1923. Corresponding member since 1969. Awarded the L. V. Pisarzhenskii Prize for Chemistry and Chemical Technology in 1971.

7. Karp, Igor' N. (Chemical Technology and Gas Technology) Born in 1932, elected in 1988.

8. Kercha, Iurii Iu. (Chemistry of High Molecular Compounds) Born in 1936. Awarded the L. V. Pisarzhenskii Prize for Chemistry and Chemical Technology in 1987; elected in 1990.

9. Klimov, Vsevolod V., D. Chem. S. (Physical Chemistry and the Technology of Inorganic Materials) Born in 1930. Recipient of the SSSR State Prize in 1975. Corresponding member since 1978.

10. Koshenko, Viachslav G. (Physical Chemistry) Born in 1946, elected in 1990.

11. Lebedev, Evgenii V. (Chemistry of High Molecular Compounds) Born in 1941, elected in 1988.

12. Lozinskii, Miron O. (Organic Chemistry) Born in 1938, elected in 1990.

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- 13. Makhorin, Konstantin E.** (Oil Chemistry and the Technology of Oil and Gas) Born in 1928. Recipient of the SSSR State Prize in 1986; elected corresponding member in 1972.
- 14. Nazarenko, Vasili A.,** D. Chem. S. (Technical Chemistry) Born in 1908. Recipient of the SSSR State Prize in 1952. Corresponding member since 1972.
- 15. Popov, Anatolii F.** (Physico-organic Chemistry) Born in 1937, elected in 1988.
- 16. Prisiazhnii, Vitalii D.** (Inorganic Chemistry) Born in 1935, elected in 1990.
- 17. Rudakov, Elisey S.,** D. Chem. S. (Physical Chemistry and Catalysis and Kinetics) Born in 1929. Corresponding member since 1972. Awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1982.
- 18. Sheka, Ivan A.,** D. Chem. S. (Inorganic Chemistry and Chemistry Technology) Born in 1907. Corresponding member since 1967.
- 19. Strelko, Vladimir V.** (Processing of Compounds) Born in 1937. Recipient of the SSSR State Prize in 1979; elected in 1988.
- 20. Vlasenko, Vasili M.,** D. Chem. S. (Chemical Technology) Born in 1921. Recipient of the State Prize for Science and Technology in 1970. Corresponding member since 1976. Awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1984.
- 21. Volkov, Sergei V.,** D. Chem. S. (Inorganic Chemistry) Born in 1935. Corresponding member since 1978. Deputy director of the General and Inorganic Chemistry Institute in Kiev since 1974. Awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1983.
- 22. Zarubitskii, Oleg G.** (Chemical Technology, Inorganic Materials) Born 1936; elected in 1985.

Research Institutes: This department's personnel head up seven important scientific councils for the Ukrainian Academy of Sciences: the scientific council on the synthesis and deep cleaning of inorganic compounds under Corresponding Member I. A. Sheka; the scientific council on the chemistry and technology of surface modification under Academician A. A. Chuiko--recipient of the State Prize for Science and Technology in 1972; the scientific council on the chemistry of the modification of polymers under Corresponding Member E. V. Lebedev; the scientific council on chemical kinetics and structure under Academician V. D. Pokhodenko; the scientific council on electrochemical kinetics and electrodynamic control processes under Academician A. V. Gorodiskii--awarded the L. V. Pisarzhevskii Prize for Chemistry and Chemical Technology in 1972; the scientific council on the chemistry of biopolymer regulation under Academician V. P. Kukhar'--awarded the G. V. Karpenko Prize in Physical Chemistry in 1989; and the scientific council on the problems of oil chemistry and oil refining under Academician V. P. Kukhar'. There were 10 scientific research institutes directly subordinate to the Chemistry and Chemical Technology Department in 1990. They are given below in the order of founding:

- 1. L. V. Pisarzhevskii Physical Chemistry Institute** in Kiev. Founded in 1927 from the Dnepropetrovsk scientific research base rostrum of the electron chemistry commissariat of the Ukraine Academy, joining the Akademiya Science System in 1934. Its first director was Academician L. V. Pisarzhevskii. Two academicians and three corresponding members were on the staff in 1990 when it numbered 120 researchers of whom 26 held doctorates and 94 held candidate degrees. Research is done on the theory of chemical structures, kinetics, catalysis, high energy chemistry, synthesis, inorganic and bioinorganic chemistry. It is the lead organization in implementing the basic research program on macrocyclic complexions and their analogs. The present director is V. D. Pokhodenko.
- 2. General and Inorganic Chemistry Institute** in Kiev. Founded in 1931 from a rostrum of scientists of the People's Commissariat of the Ukraine SSR and a chemistry laboratory of the the academy headed by V. I. Vernadskii. The first director of the institute was Academician V. A. Plotnikov. One academician and five corresponding members of the Ukraine Academy were on the staff in 1990 which numbered 155 researchers of whom 26 held the doctorate and 129 the candidate degree. The staff studies electrochemistry, the physical chemistry of ionic transfer and electrolysis, synthesis, adsorption, inorganic synthesis, and aqueous and nonaqueous electrolytes. The present director is Academician Aleksandr V. Gorodetskii, D. Chem. S.
- 3. Organic Chemistry Institute** in Kiev. Founded in 1939 from the Chemistry Technology Institute and a sector of organic chemistry of the Chemistry Institute of the Ukraine Academy. Its first director

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was Academician V. P. Iavorskii. . Scientists at the institute conduct basic research in organophosphorus compounds, organofluorine compounds, cyanine dyes, heterocyclic compounds, polymers based on isocyanates. Its scientists and the personnel in the experimental plant produce drugs for human and veterinary medicine, plant growth regulators and pesticides, sensitizers for photosensitive materials, cyanine dyes for laser technics, stabilizers and lubricants for polyvinylchloride, antimicrobial additives for lubricant-coolants protection, complexation (trialkylphosphinoxides) from hydrometallurgy, and medical glues and biodestructive materials of polyurethane composition. In 1992, there were 350 research workers at the institute and 320 at the experimental plant which manufactures a number of different products each year. A second building of the production plant is currently under construction. Institute scientists maintain relations with scientific and commercial foreign partners in Bulgaria, Czechoslovakia, Poland, West Germany, Hungary, France, and Japan. The institute is interested in the establishment of joint ventures for the commercial production and sale of pharmaceuticals, stabilizers for PVC or other fine organic chemicals. Institute structure: the institute is organized in 11 Research Departments among which some 10 laboratories are distributed with an analytical laboratory available to all Departments. The Departments are: 1) the Chemistry of Organophosphorus Compounds Department with the Heterocumulenes Aimed Synthesis laboratory since 1978 under Professor A. M. Pinchuk, D. Chem. S., who was born in 1938 and graduated from the Dnepropetrovsk Metallurgical Institute in 1960--the department has two laboratories: the Laboratory of Heterocumulenes Aimed Synthesis since 1981 under Professor L. I. Samarai, D. Chem. S. who was born in 1935 and graduated from Lvov State University in 1958; and the Laboratory of Complexing Organophosphorus Compounds since 1966 under Professor N. G. Fashchenko, D. Chem. S. who was born in 1929 and graduated from Kiev State University in 1954; 2) the Organic Compounds Color and Structure Department, since 1976 under Professor A. I. Tolmachev who was born in 1929 and graduated from the Kiev State University in 1954; 3) the Organoelement Compounds Department since 1981 under A. D. Sinitsa, D. Chem. S., who was born in 1941 and graduated from Kiev Polytechnical Institute in 1965--with the fluorine-containing heterocyclic compounds laboratory, since 1984 under V. P. Nazaretian who was born in 1943 and graduated from Kiev State University in 1969; 4) the Complexing Organophosphorus Compounds Department since 1973 under Professor V. I. Staninets, D. Chem. S., who was born in 1934 and graduated from Uzhgorod University in 1957--with the laboratory of Mechanisms of Organic Compounds Halogenation which, since 1973 has been under Professor Yu. A. Serguchev, D. Chem. S., who was born in 1934 and graduated from Dnepropetrovsk Pharmaceutical Institute in 1958; 5) the Phosphoranes Chemistry Department since 1975 under the direction of Professor L. N. Markoviski who was born in 1939 and graduated from the Lvov Polytechnical Institute in 1981--with the laboratory of the chemistry of sulphur organic compounds which since 1986 has been under Yu. G. Shermolovich, D. Chem. S., who was born in 1948 and graduated from the Lvov Polytechnical Institute in 1971 and the laboratory of low-coordinate phosphorus which since 1988 has been under V. D. Romanenko, D. Chem. S., who was born in 1946 and graduated from the Dnepropetrovsk Chemical and Technological Institute in 1969; 6) the Bioactive Substances Department which since 1980 has been under Professor M. O. Lozinski, D. Chem. S., who was born in 1933 and graduated from the Lvov Polytechnical Institute in 1956; 7) the Acetylene Compounds Department which; since 1984 has been under Professor A. Ya. Ilchenko, D. Chem. S., who was born in 1934 and graduated from the Kiev Polytechnical Institute in 1956--with the radiospectroscopy laboratory which since 1988 has been under V. M. Bzhezovski, C. Chem. S. who was born in 1946 and graduated from the Kiev Polytechnical Institute in 1971, and the Laboratory of X-Ray Structure Analysis which since 1990 has been under A. N. Chernega, C. Chem. S. who was born in 1955 and graduated from Kiev State University in 1971; 8) the Organofluorine Compounds Department which since 1988 has been under Yu. L. Yagupolski, D. Chem. S., who was born in 1949 and graduated from the Kiev State University in 1971; 9) the Medico-Biological Research Department which since 1983 has been under B. M. Kebanov, D. NMed. S., who was born in 1935 and graduated from the Kiev Medical Institute in 1958--with the chemical compounds biological trials laboratory which, since 1981 has been under V. S. Petrenko, C. Bio. S. who was born in 1937 and graduated from Kiev State University in 1965. The institute has two deputy directors--M. O. Lozinskii, D. Chem. S., Associate Member of the Ukrainian Academy, and A. D. Sinitsa, D. Chem. S., a learned secretary, a director of the

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Experimental or Pilot Plant, and a Chief Engineer. There are several in-house support departments which include: the Scientific Information and International Relations Department, the Metrology Department, the Operation and Technical Services Department, the Administrative Services Department, the Planning Department, the Material and Technical Supply Department, and the Personnel Department. There is an institute-wide bookkeeping section, a patent group, a new developments introduction group, and a standardization group. In 1990, the director was V. V. Goncharuk. Professor **L. N. Markovskii** academician of the Ukrainian Academy is the present director of the institute. (This material included in letters dated 29 January 1992 and February 24, 1992 from Professor Director L. N. Markovskii.)

4. Gas Institute in Kiev. Founded in 1949. The first director was Academician N. N. Dobrokhotov. The staff numbered 81 in 1990, of whom 12 held the doctorate and 69 the candidate degree. The institute studies the efficiency of the uses of gas in industry and techniques to prevent air pollution from chemical processing of hydrocarbons. In 1990, the director was I. N. Karp, corresponding member of the Ukraine Academy.

5. High Molecular Compounds Chemistry Institute in Kiev. Founded in 1958 from a high molecular compounds laboratory of the Organic Chemistry Institute of the Ukraine Academy. Its first director was K. A. Kornev, corresponding member of the academy. In 1990, two corresponding members were on the staff which numbered 98 scientists of whom 17 held the doctorate and 81 the candidate degree. It studies the chemistry of high molecular compounds for both basic purposes and for the production of new types of monomers, polymers, and synthetic fiber. In 1990, the director was E. V. Lebedev.

6. A. V. Dumanskii Colloidal Chemistry and Hydrochemistry Institute in Kiev. Founded in 1968 from a sector of chemistry and water technology and a physical chemistry dispersion system of the General and Inorganic Chemistry Institute of the Ukrainian Academy. Its first director was Academician F. D. Ovcharenko. Two academicians and two corresponding members were on the staff in 1990 which numbered 209 researchers of whom 25 held the doctorate and 184 the candidate degree. The institute researches the theoretical and technical aspects of colloid chemistry and hydrochemistry and develops guidelines for the regulation of water quality. In 1990, the director was V. V. Goncharuk, corresponding member of the academy.

7. Physical Organic Chemistry and Coal Chemistry Institute in Donetsk. Founded in 1975 from the Donetsk department of organic physical chemistry of the L. V. Pizarzhevskii Institute of Physical Chemistry. The first director of the institute was Academician L. M. Litavinenko. The staff of the institute numbered 126 in 1990, of whom 13 held the doctorate and 113 the candidate degree. Three corresponding members of the academy were on the staff. The institute studies physical organic chemistry and the use of coke and chemical raw material and chemical refining of solid mineral fuels. The present director is A. F. Popov, corresponding member of the Ukraine Academy.

8. A. V. Bogatskii Physical Chemistry Institute in Odessa. Founded in 1977 from a laboratory of the General and Inorganic Chemistry Institute of the Ukraine Academy. The first director was Academician A. V. Bogatskii. The staff of the institute numbered 131 in 1990 of whom 18 held the doctorate and 113 the candidate degree. Two academicians and one corresponding member were on the staff. The institute performs research on methods for directed production of small-tonnage chemical products and research in the field of catalysts. The present director is Academician S. A. Andronati.

9. Surface Chemistry Institute in Kiev was founded in 1986 from the department of surface chemistry of the L. V. Pizarzhevskii Physical Chemistry Institute. The staff numbered 119 in 1990 of whom four held the doctorate and 115 the candidate degree. One academician was on the staff. The director of the institute in 1990 was Academician A. A. Chuiko.

10. Bioorganic Chemistry and Oil Technology Institute in Kiev was organized in 1987 from a bioorganic chemistry department of the Organic Chemistry Institute of the Ukraine Academy. In 1990, the staff numbered 154, of whom 27 held the doctorate and 127 the candidate degree. One academician and one corresponding member were on the staff. The institute staff models biological processes, researches and develops synthetics from oil and other organic materials, and develops practical products such as medicine from petroleum derivatives. The director of the institute in 1990 was Academician V. P. Kukhar'.

9. Biochemistry, Physiology, and Theoretical Medicine Department

Members of the Biochemistry, Physiology, and Experimental Medicine Department: There were 18 academicians and 19 corresponding members of the Biochemistry, Physiology, and Experimental Medicine Department of the Ukrainian Academy of Sciences in 1990. In 1987, five of the academicians were directors of scientific research institutes under the department and one academician was a deputy director of an institute. Four of the corresponding members of the department were or had been institute directors. Two members of the department were also corresponding members of the Physiology Department of the AN SSSR in Moscow; and two others were also members of the Lenin Academy of Medical Sciences.

Academicians: Academicians and corresponding members of this department include a sizeable number of scientists of advanced age. Among the academicians, five were in their 80s; two were in their 70s; nine were in their 60s; and two were in their 50s.

Corresponding Members: Among the 19 corresponding members: four were in the 80s; three were in their 70s; six were in their 60s; three were in their 50s; and, three were in their 40s.

Academician Secretary

Skok, Vladimir I., D. Bio. S. (Physiology and Medicine) Born in 1932. Corresponding member of the Biochemistry, Physiology, and Experimental Medicine Department since 1973; elected an academician in 1979. Academician of the Physiology Department of the AN SSSR since December 1987. Secretary of the Ukrainian Department since 1974. Vice president of the Ukrainian academy since 1988. Recipient of the SSSR State Prize in 1989.

Academicians

1. Amosov, Nikolai M., D. Med. S. (Surgery) Born in 1913. Corresponding member of the Clinical Medicine Department of the Lenin Academy of Medical Sciences since 1961. Academician since 1969. Recipient of the Lenin Prize in 1961. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1973. Recipient of the State Prize for Science and Technology in 1978 and 1988.

2. Butenko, Zoia A., D. Med. S. (Experimental Oncology) Born in 1928. Corresponding member since 1978. Recipient of the State Prize for Science and Technology in 1981; elected an academician in 1990.

3. Frol'kis, Vladimir V. D. Med. S. (Physiology) Born in 1924. Awarded the A. A. Bogomol'ts Prize in Physiology and Theoretical Medicine in 1970. Corresponding member since 1978; elected an academician in 1988.

4. Gershenson, Sergei M. (Genetics). Born in 1906. Academician since 1976.

5. Grishchenko, Valentin I. (Cryobiology and Cryomedicine) Born in 1928, elected in 1988.

6. Gulii, Maksim F., D. Bio. S. (Biochemistry) Born in 1905. Recipient of the SSSR State Prize in 1952. Academician since 1957. Awarded the A. V. Palladin Prize for Biology and Molecular Biology in 1974. Recipient of the State Prize for Science and Technology in 1978.

7. Komissarenko, Vasili P., D. Med. S. (Pathophysiology and Endocrinology) Born in 1907. Academician since 1951. Awarded the A. A. Bogomol'ts Prize in Physiology and Theoretical Medicine in 1961. Recipient of the State Prize for Science and Technology in 1976.

8. Kostjuk, Platon G., D. Bio. S. (Human and Animal Physiology) Born in 1924 in Kiev. Soviet physiologist and a specialist in neurophysiology and electrophysiology. Member of the presidium of the academy since August of 1988. He has been a corresponding member of the Physiology Department of the AN SSSR since 1966; and, academician since 1974. He has served as academician secretary of the Physiology department since 1975. He was a recipient of the State Prize for Science and Technology in 1976. He has also been an academician of the Biochemistry, Physics, and Theoretical Medicine department of the Ukrainian academy of sciences since 1969 and a member of the GDR Republic Academy of Naturalists since 1966. He graduated from the University of Kiev in

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1946 and from the Kiev Medical Institute in 1949. He became head of the Institute of Animal Physiology of the University of Kiev in 1956. In 1958, he became head of the division of general physiology of the nervous system which he had organized at the A. A. Bogomolets Institute of Physiology of the Ukrainian AN SSR. Since 1966, he has been director of that Institute in Kiev. Established in 1953, the institute does research on basic and applied problems of physiology. His works have included work on cellular mechanism of nervous activity. He was the first in the USSR to use microelectrodes in the study of nerve cells. He was awarded the I. P. Pavlov Prize in 1962. Recipient of the SSSR State Prize in 1983. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1984. Awarded the A. A. Bogomol's Prize in Physiology and Theoretical Medicine in 1987. Since 1970, he has been director of the Experimental Medical Institute in St. Petersburg. (GSE 13, p. 439.)

9. Kundiev, Iurii I. (Hygiene) Born in 1927. Academician since 1979.

10. Lishko, Valerii K., D. Bio. S. (Molecular Biology and Genetics) Born in 1937. Awarded the A. V. Palladin Prize for Biology and Molecular Biology in 1980. Academician since 1982. He has been director of the A. V. Palladin Biochemistry Institute in Kiev since 1977. The institute was founded in 1925 and conducts extensive research in the field of biochemistry and trains scientific workers and higher school instructors. Recipient of the SSSR State Prize in 1985.

11. Matsuka, Gennadii Kh., D. Bio. S. (Molecular Biology and Genetics) Born in 1930. Awarded the A. V. Palladin Prize for Biology and Molecular Biology in 1979. Academician since 1985. He served as director of the Molecular Biology and Genetics Institute in Kiev from 1975 to 1977. Founded in 1973, the institute researches the laws of heredity variability of organisms, the structure and function of proteins and nucleic acids and studies genetic information transfer. Secretary to the Biochemistry, Physiology and Theoretical Medicine Department in 1990. Recipient of the State Prize for Science and Technology in 1986.

12. Nikitin, Vladimir N., D. Bio. S. (Physiology) Born in 1907. Academician since 1969. Awarded the A. A. Bogomol's Prize in Physiology and Theoretical Medicine in 1974. Recipient of the State Prize for Science and Technology in 1984.

13. Serkov, Filipp N., D. Bio. S. (Physiology and Medicine) Born in 1908. Recipient of the State Prize for Science and Technology in 1978. Academician since 1978. Awarded the A. A. Bogomol's Prize in Physiology and Theoretical Medicine in 1982.

14. Shalimov, Aleksandr A. (Physiology and Medicine) Born in 1918. Recipient of the State Prize for Science and Technology in 1977; elected in 1978. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1982. Recipient of the SSSR State Prize in 1985.

15. Shuba, Mikhail F., C. Bio. S. (Biophysics) Born in 1928. Corresponding member since 1982; elected an academician in 1990.

16. Skok, Vladimir I. (See above.)

17. Smirnov, Valerii V. (Virology and Microbiology) Born in 1937. Awarded the D. K. Zabolotii Prize in Microbiology, Virology, Epideomology, and Zoology in 1984. Academician since 1985. Recipient of the State Prize for Science and Technology in 1987. Director of the D.K. Zabolotnii Microbiology and Virology Institute in Kiev since 1977. The institute was founded in 1929 and conducts research on the physiology and biochemistry of microorganisms, molecular biology, and microbiological synthesis of protein and other products from hydrocarbons. He was elected to the Presidium in 1990.

18. Ternovoi, Konstantin S. (Pathophysiology) Born; in 1924. Academician since 1982. Recipient of the SSSR State Prize in 1985.

Corresponding Members

1. Andreiuk, Evgenii I., D. Bio. S. (Microbiology) Born in; 1927. Awarded the D. K. Zabolotii Prize in Microbiology, Virology, Epideomology, and Zoology in 1974. Corresponding member since 1982.

2. Belous, Apollon M. (Cryobiology) Born in 1929, elected in 1988. Awarded the A. A. Bogomol's Prize for Physiology and Theoretical Medicine in 1980. Awarded the A. V. Palladin Prize for Biology and Molecular Biology in 1990.

3. Bilai, Vera I., D. Bio. S. (Antibiotics) Born in 1908. Recipient of the SSSR State Prize in 1952. Corresponding member since 1961. Awarded the D. K. Zabolotii Prize in Microbiology, Virology,

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Epideomology, and Zoology in 1970. Recipient of the State Prize for Science and Technology in 1978.

4. Bogomolets, Oleg A., D. Med. S. (Pathophysiology) Born in 1911. Corresponding member since 1964.

5. Bratus', Vasilii D., D. Med. S. (Physiology and Medicine) Born in 1916. Corresponding member since 1972. Recipient of the State Prize for Science and Technology in 1982.

6. El'skaia, Anna V. (Molecular Biology) Born in 1940. Awarded the A. V. Palladin Prize for Biology and Molecular Biology in 1979; elected in 1988.

7. Komissarenko, Sergei V. (Pathophysiology and Endocrinology) Born in 1943, Recipient of the State Prize for Science and Technology in 1979; elected in 1990.

8. Krishtal', Oleg A., D. Bio. S. (Physical Chemical Membrane Biology) Born in 1945. Recipient of the SSSR State Prize in 1983. Corresponding member since 1985.

9. Kvasnikov, Evgenii I. (Microbiology) Born in 1906; academician since 1967.

10. Lavrik, Semen S. (Pathophysiology and Pharmacology) Born in 1915. Awarded the A. A. Bogomol'ts Prize in Physiology and Theoretical Medicine in 1977; elected in 1979.

11. Matseliukh, Bogdan P. (Molecular Genetics) Born in 1932. Awarded the D. K. Zabolotii Prize in Microbiology, Virology, Epideomology, and Zoology in 1990; elected in 1990.

12. Mel'nichuk, Dmitrii A. (Biology) Born in 1943, elected in 1990.

13. Moibenko, Aleksei A. (Pathophysiology) Born in 1931, elected in 1988.

14. Pinchuk, Vadim G., D. Med. S. (Experimental Oncology) Born in 1930. Corresponding member since 1973. Director of the R. E. Kavitskii Problems of Oncology Institute in Kiev since 1978. Awarded the A. A. Bogomol'ts Prize in Physiology and Theoretical Medicine in 1979. Recipient of the State Prize for Science and Technology in 1981.

15. Podgorskii, Valentin S. (Microbiology) Born in 1937, elected in 1990.

16. Pushkar', Nikolai S., D. Med. S. (Cryobiology) Born in 1930. Corresponding member since 1978. Director of the Cryobiology and Cryomedical Problems Institute in Kharkov since 1974. The institute was established in 1972 to study the action of cold on biological structures and the solution of problems in the use of low temperatures in biology and medicine, including the preservation of living tissues. Recipient of the SSSR State Prize in 1978. Awarded the A. A. Bogomol'ts Prize in Physiology and Theoretical Medicine in 1980.

17. Troitskii, German V. (Medical Biology) Born in 1913, elected in 1979. Awarded the A. V. Palladin Prize for Biology and Molecular Biology in 1984.

18. Tul'chinskaia, Vera P. (Microbiology) Born in 1907, elected in 1948.

19. Voizianov, Aleksandr F. (Physiology and Medicine) Born in 1938; elected in 1990.

Research Institutes: Six scientific councils are controlled by this department's scientists: the scientific council on molecular biology under Academician G. Kh. Matsuka; the scientific council on microbiology under Corresponding Member V. S. Podroskii; the scientific council on human and animal physiology under Academician P. G. Kostiuk--recipient of the SSSR State Prize in 1983; the scientific council on cryobiology and cryomedicine under Academician V. I. Grishchenko; the scientific council on animal and human biochemistry under S. A. Kudinov, D. Bio. S.--awarded the A. V. Palladin Prize for Biology and Molecular Biology in 1985--; and the scientific council on the problems of the sorption of toxins under the control of internal organisms under Academician K. S. Ternovoi--recipient of the SSSR State Prize in 1985. There are six Scientific Research Institutes subordinate to the Biochemistry, Physiology, and theoretical Medicine Department of the Ukrainian Academy of Sciences (AN UkSSR). Research Institutes Subordinate to the department by order of founding are given below:

1. A. V. Palladin Biochemistry Institute in Kiev. Founded by A. V. Palladin in 1925 from a rostrum of scientific researchers from the Kharkov Institute of Medicine. In 1931, the institute moved to Kiev and joined the academy as the biochemical institute. It was under Palladin's direction until 1969. The staff of the institute numbered 150 in 1990, of whom 25 held the doctorate and 125 the candidate degree. It conducts research into the field of biochemistry and trains scientific workers and higher school instructors. The director in 1990 was S. V. Komissarenko, coresponding member of the Ukraine Academy.

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2. D. K. Zabolotnii Microbiology and Virology Institute in Kiev was founded in 1928 as the Microbiology and Epidemiology Institute. In 1944, it received its present name. The first director of the institute was Academician D. K. Zabolotnii. In 1990, the research staff numbered 160 of whom 23 held the doctorate and 137 the candidate degree. One academician and five corresponding members of the academy were on the staff. The institute conducts research on the physiology and biochemistry of microorganisms, molecular biology, and microbiological synthesis of protein and other products from hydrocarbons. The present director of the institute is Academician Valerii V. Smirnov--recipient of the State Prize for Science and Technology in 1987;

3. A. A. Bogomolets Physiology Institute in Kiev was founded in 1953 from the Experimental Biology and Pathology Institute of the Ministry of Health and from the Clinical Physiology Institute of the Ukraine Academy. Its first director was A. M. Vorob'ev, corresponding member of the academy. The staff of the institute numbered 155 in 1990, of whom 30 held the doctorate and 125 the candidate degree. Two academicians and two corresponding members were on the staff. It does research on basic and applied problems of physiology. The present director of the institute is Platon G. Kostyuk, D. Bio. S.--recipient of the SSSR State Prize in 1983.

4. R. E. Kavetskii Problems of Oncology Institute in Kiev. Founded in 1960 from the Kiev Experimental and Clinical Oncology Scientific Research Institute of the Ukraine Ministry of Health. Its first director was Academician R. E. Kavetskii. The staff numbered 150 in 1990, of whom 26 held the doctorate and 124 the candidate degree. One academician and one corresponding member were on the staff. The institute studies the causes of cancer and was the first institute in the USSR to use lasers for the treatment of malignant tumors. The present director is Vadim G. Pinchuk, D. Med. S.--recipient of the State Prize for Science and Technology in 1981.

5. Cryobiology and Cryomedical Problems Institute in Kharkov. Established in 1972 from the department of Biophysics and the Production of Cryology Instruments of the Physical Technical Low Temperature Institute of the Ukraine Academy and from the problems scientific research laboratory of the Low Temperature Conservation of the Brain and Blood Marrow Department of the Ukraine Ministry of Health. Its first director was N. S. Pushkar', corresponding member of the academy. Its staff numbered 100 in 1990, of whom 12 held the doctorate and 88 the candidate degree. It studies the action of cold on biological structures and the solution of problems in the use of low temperatures in biology and medicine, including the preservation of living tissues. The present director is Academician V. I. Grishchenko.

6. Molecular Biology and Genetics Institute in Kiev. Founded in 1973 from a sector of molecular biology and genetics of the K. K. Zabolotnii. Microbiology and Virology Institute. The staff of the institute numbered 91 in 1990, of whom 11 held the doctorate and 80 held the candidate degree. Institute research is concerned with investigating the laws of heredity variability of organisms, the structure and function of proteins and nucleic acids, and the study of genetic information transfer. The director of the institute is Academician G. Kh. Matsuka.

10. General Biology Department

Members of the department: In 1987, there were 26 members of the General Biology Department--7 academicians and 19 corresponding members. Of this total, six were or had been directors or deputy directors of the five SRIs listed above. In 1990, there were 23 members, of whom 11 were academicians and 12 were corresponding members.

Academicians: In 1990, two were in their 80s; six in their 60s; two in their 50s; and one in his 40s.

Corresponding Members: Two were in their 80s; one in his 70s; three in their 60s; four in their 50s; and two in their 40s.

Academician Secretary: Vacant

Academicians

1. Gleba, Iurii Iu. D. Bio. S.(Plant Cell Engineering) Born in 1949. Awarded the V. Ia. Iur'eva Prize for Genetics--the creation of new methods of acclimitization, selection, and hybridization of plants and animals and the development of more productive animal species--in 1983. Deputy director of the N. G. Kholodnii Botany Institute in Kiev since 1983. Corresponding member since 1985; elected

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academic secretary to the General Biology Department in 1988. Recipient of the State Prize for Science and Technology in 1989.

2. Golubets, Mikhail A. D. Bio. S. (Geobotany) Born in 1930. Corresponding member since 1978; elected academician in 1990.

3. Grodzinskii, Dmitrii M. (Plant Physiology) Born in 1929. Awarded the N. G. Kholodnii Prize for Botany and Plant Physiology in 1980; elected in 1990.

4. Markevich, Aleksandr P., D. Bio. S. (Animal Zoology) Born in 1905. Academician since 1957. Recipient of the State Prize for Science and Technology in 1988.

5. Morgun, Vladimir V. (Genetics and Selection) Born in 1938. Recipient of the State Prize for Science and Technology in 1982. Corresponding member since 1985; elected academician in 1990. Recipient of the SSSR State Prize in 1986.

6. Polikarpov, Gennadii G. (Radiobiology) Born in 1929, elected in 1990.

7. Romanenko, Viktor D., D. Bio. S. (Freshwater Hydrobiology) Born in 1930. Corresponding member since 1978. Awarded the V. Ia. Iur'eva Prize for Genetics--the creation of new methods of acclimatization, selection, and hybridization of plants and animals and the development of more productive animal species--in 1984; elected an academician in 1988. Director of the Hydrobiology Institute in Kiev since 1979. This institute was organized in 1939 to research aquatic toxicology, mathematical modeling of biological processes in water bodies, and cytology of aquatic organisms.

8. Sozinov, Aleksei A., D. Agr. S. (Genetics) Born in 1930. Academician since 1978. Since 1981, director of the General Genetics Institute in Moscow which was founded in 1966 to study the selection, radiation, space, and evolutionary genetics of plants, animals and microorganisms. Awarded the V. Ia. Iur'eva Prize for Genetics--the creation of new methods of acclimatization, selection, and hybridization of plants and animals and the development of more productive animal species--in 1989.

9. Sitnik, Konstantin M. D. Bio. S. (Botany) Born in 1922. Academician of the the General Biology Department since 1973. Vice president of the academy since 1974. Awarded the N. G. Kholodnii Prize for Botany and Plant Physiology in 1975. Director of the N. G. Kholodnii Botany Institute in Kiev since 1970. The institute was founded in 1921 and studies the flora and vegetation of the Ukrainian Republic in order to find new and useful plant varieties. Recipient of the State Prize for Science and Technology in 1979. Recipient of the SSSR State Prize in 1984. In 1990, he headed the Ukrainian sector of the Scientific Council on the Vegetable World, and was leading a study on the Protection and Utilization of Vegetables under that Council.

10. Sheliag-Sosonko, Iurii R., D. Bio. S. (Geobotany) Born in 1933. Corresponding member since 1978. Awarded the N. G. Kholodnii Prize for Botany and Plant Physiology in 1988; elected an academician in 1990.

11. Vasil'ev, Vadim P., D. Bio. S. (Entomology). Born in 1912. Academician since 1964. Recipient of the State Prize for Science and Technology in 1976.

Corresponding Members

1. Akimov, Igor A. (Animal Zoology) Born in 1937, elected in 1990.

2. Dmitrenko, Petr A. (Agrochemistry) Born in 1909, elected in 1964.

3. Dolin, Vladimir G., C Bio. S. (Entomology) Born in 1933. Recipient of the State Prize for Science and Technology in 1976. Awarded the D. K. Zabolotii Prize in Microbiology, Virology, Epideomology, and Zoology in 1985. Corresponding member since 1985.

4. Frantsevich, Leonid I. (Animal Zoology) Born in 1935. Recipient of the SSSR State Prize in 1987; elected in 1990.

5. Kondratiuk, Evgenii N., D. Bio. S. (Botany) Born in 1914. Corresponding member since 1972. Awarded the N. G. Kholodnii Prize for Botany and Plant Physiology in 1978.

6. Petipa, Tamara S., D. Bio. S. (Hydrobiology) Born in 1927. Corresponding member since 1972.

7. Pidoplichko, Vladimir. (Cell Biology) Born in 1947, elected in 1990.

8. Shchepot'ev, Fedor L., D. Bio. S. (Animal Zoology) Born in 1906. Corresponding member since 1965.

9. Topachevskii, Vadim A., D. Bio. S.(Zoology) Born in 1930. Corresponding member since 1978. Director of the Zoology Institute in Kiev since 1973. The institute was established in 1930 to conduct

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research on the biological bases of development, rebuilding, and conservation of the fauna of the republic and neighboring regions.

10. Vasser, Solomon P. (Botany) Born in 1946. Awarded the N. G. Kholodnii Prize for Botany and Plant Physiology in 1982; elected in 1988.

11. Zaika, Viktor E., D. Bio. S. (Hydrobiology) Born in 1936. Corresponding member since 1978. Director of the A. O. Kovalevskii Biology of Southern Seas Institute in Sevastapol since 1977. The institute was founded in 1963 and does physical, chemical, and biological research of the seas and its marine life.

12. Zaitsev, Iu. P., D. Bio. S. (Hydrobiology) Born in 1924. Corresponding member since 1969. Director of the Odessa Branch of the A. O. Kovalevskii Biology of Southern Seas Institute since 1972.

Research Institutes: Six Scientific Councils are directed by personnel of this department: the scientific council on ecological forecasting and the preservation of the natural world under N. Iu. Evtushenko, D. Bio. S.; the scientific council on the rational use of animal resources and their preservation under Corresponding Member I. A. Akimov; the scientific council on the problems of genetic selection under Academician V. V. Morgun; the Ukrainian section of the Scientific Council on the Vegetable World, under Academician K. M. Sitnik who is heading a study on Plant Protection and Utilization--awarded the N. G. Kholodnii Prize for Botany and Plant Physiology in 1975; the Ukrainian sector on the problems of the physiology and biochemistry of plants under E. P. Starchenko, D. Bio. S.; and, the Ukrainian departmental scientific council on problems of the introduction and acclimitization of plants under T. N. Chevchenko, D. Bio. S. There were nine scientific research institutes subordinate to the department in 1990, and they are listed below by the order of their founding:

1. N. G. Kholodnii Botany Institute in Kiev. Established in 1921 as the Botany Museum and Garden. Its first director was Academician A. V. Fomin. The staff included three academicians and one corresponding member of the academy in 1990, and its staff numbered 170 scientists of whom 25 held the doctorate and 135 the candidate degree. It studies the flora and vegetation of the republic in order to find new and useful varieties of plants. It also performs research into factors affecting plant growth, such as climate. The institute has a branch in L'vov. The present director is Academician Konstantin M. Sitnik, D. Bio. S.--awarded the N. G. Kholodnii Prize for Botany and Plant Physiology in 1975 and recipient of the SSSR State Prize in 1984.

2. I. I. Shmal'gauzena Zoology Institute in Kiev was established in 1930 from the zoological museum and a rostrum of scientists from first rank laboratories in Ukraine. The institute bears the name of its first director. In 1990, the staff numbered 149 of whom 11 held the doctorate and 138 the candidate degree. One academician and four corresponding members were on the staff of the institute. It does research on the biological bases of development, rebuilding, and conservation of the fauna of the republic and neighboring regions. The present director is I. A. Akimov, corresponding member of the Ukraine Academy.

3. Central Republic Botanical Garden in Kiev was established in 1935 from the Botanical Institute, and since 1944 has functions as an independent research institute. Its first director was Academician N. N. Grishko. In 1990, the staff numbered 94 scientists of whom five held the doctorate and 89 the candidate degree. The present director is T. M. Cherevhenko, D. Biol. S.

4. Hydrobiology Institute in Kiev. Founded in 1909 as the Dnieper Biological Station which, in 1940 was reorganized as the Hydrobiological Institute of the Ukraine Academy. Its first director was Ya. V. Roll, corresponding member of the Ukraine Academy. In 1989, the institute incorporated hydrobiological stations in Kherson and Lyutezh, a pond station in Belaia Tserkov of the Kiev region, an expedition fleet and auxiliary divisions. The institute was organized into 12 scientific departments and five research laboratories. The staff of the institute numbered 101 scientists in 1990, of whom 15 held the doctorate and 90 the candidate degree. Two academicians of the Ukrainian Academy are on the staff: V. D. Romanenko, director of the institute since 1980, and A. P. Markevich. Scientists of the institute research water quality formation and bioproductivity of various types of fresh water ecological systems--reservoirs, small rivers, canals, cooling ponds of nuclear and thermal power stations--make ecological forecasts for large-scale hydrotechnical construction projects, and study the

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biological principles of acclimatization, reproductivity and rearing of commercial fish species. They work in aquatic toxicology, mathematical modeling of biological processes in water bodies, and the cytology of aquatic organisms. The present director is Viktor D. Romanenko, D. Bio. S.--awarded in 1984 the V. Ia. Iur'eva Prize in Genetics for the creation of new methods of acclimitization, selection, and hybridization of plants and animals and the development of more productive animal species. (See: *Institute of Hydrobiology*. Kiev: The Academy of Sciences of Ukraine, 1989. 12 pp.)

5. Government Natural History Museum in L'vov was organized in 1940 from the T. G. Shevchenko Science Association and from a part of the natural history museum. Its first director was P. P. Balabai, D. Bio. S. The staff consists of seven research scientists, all of whom hold the candidate degree. The present director is Iu. N. Cheenobai, C. Bio. S.

6. Plant Physiology and Genetics Institute in Kiev was founded in 1946 from the department of Plant Physiology and Agrochemistry of the Botany Institute of the Ukraine Academy. Its first director was Academician A. I. Dushechkin. Two academicians of the academy are on the staff which numbered 164 in 1990, of whom 17 held the doctorate and 147 the candidate degree. Institute research includes studies on photosynthesis in plants and the resistance of plants to environmental extremes. The present director is V. V. Morgun.

7. A. O. Kovalevskii Biology of Southern Seas Institute in Sevastopol. Founded in 1963 from the Sevastopol, Odessa, and Karadarskoi Biological Station of the Ukraine Academy. The institute has two Branches: Karadag Branch and the Odessa Branch. The first director was V. A. Vodianskii, corresponding member of the Ukraine Academy. The staff of the institute numbered 186 scientists in 1990, of whom 26 held the doctorate and 160 the candidate degree. The institute does physical, chemical, and biological investigations of the marine life of the seas. The present director is S. M. Konovalov, D. Biol. S. (Karadag Branch: director: Morozova, A. L., since 1975; Odessa Branch: director: Zaitsev, Iuvenalii P., D. Bio. S., since 1972.)

8. Donetsk Botanical Gardens in Donetsk were established in 1965. The first director of the gardens was E. N. Kondratiuk, corresponding member of the Ukraine Academy. The staff of the institute numbered 34 scientists in 1990, of whom two held the doctorate and 32 the candidate degree. The institute is organized into seven departments. The present director is A. Z. Glukhov.

9. Cellular Biology and Genetic Engineering Institute in Kiev was established in 1990 from the department of cellular biology and genetic engineering of the N. G. Kholodnii Botany Institute. Three academicians and one corresponding member of the academy are on the staff, which, in 1990, numbered 50 scientists of whom six held the doctorate and 44 the candidate degree. The institute is organized into four departments and 11 laboratories. Institute research includes molecular biology and molecular genetics, cell cultures and analysis, biotechnology, cell and genetic engineering, biochemical analytical methods, biophysics and immunology. The director of the institute is Academician Iu. Iu. Gleba.

11. Economics Department

Members of the department: The Economics Department in 1990 was a small department with only 20 members of whom 11 were academicians and nine were corresponding members. In 1987, four members were or had been directors or deputy directors of the two research institutes listed above. One member was chairman of the Donetsk Scientific Center and another was vice president of the Ukrainian academy, an academician of the Economics Department of the AN SSSR and head of the Economics Scientific Research Institute in Kiev.

Academicians: One academician was in his 80s; one in his 70s; and nine in their 60s.

Corresponding Members: One was in his 80s; four in their 60s; and four in their 50s. .

Academician Secretary

Pakhomov, Iurii N. (Political Economics and Problems of Socialist Economics) Born in 1928, elected in 1988. He became academic secretary to the department in 1990.

Academicians

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- 1. Alimov, Aleksandr N.**, C. Econ. S. (Industrial Economics) Born in 1923. Awarded the A. G. Shlikhtera Prize for Economics in 1973. Academician since 1973.
- 2. Bakaev, Aleksandr A. D.** Econ. S. (Agroindustrial Complex Economics) Born in 1927. Recipient of the State Prize for Science and Technology in 1973. Corresponding member since 1978. Awarded the A. G. Shlikhtera Prize for Economics in 1986; elected academician in 1990. Recipient of the SSSR State Prize in 1981.
- 3. Chumachenko, Nikolai G.**, D. Econ. S. (Economics) Born in 1925. Awarded the A. G. Shlikhtera Prize for Economics in 1980. Academician since 1982. Director of the Industrial Economics Institute in Donetsk since 1974. The institute is concerned with improved management and planning and with the economic stimulation of production, quality control, and technical progress in industry. Since 1986, he has served as chairman of the Donetsk Scientific Center.
- 4. Chukhno, Anatolii A. D.** Econ. S. (Political Economics and Problems of Socialist Economics) Born in 1926. Corresponding member since 1967; elected academician in 1988. Awarded the A. G. Shlikhtera Prize for Economics in 1989.
- 5. Gavrilishin, Bogan.** (Scientific Management) Born in 1926, elected in 1990.
- 6. Lukinov, Ivan I.**, D. Econ. S. (Agricultural Economics) Born in 1927. Academician of the Economics Department of the Ukrainian Academy since 1976; and, academician of the Economics Department of the AN SSSR since 1984. Recipient of the State Prize for Science and Technology in 1979. Since 1979, he has served as a vice president of the Ukrainian Academy. Since 1976, he has been the director of the Economics Institute in Kiev which is subordinate to the Economics Department of the Ukrainian Academy and which studies the economics of industry and agriculture and the history of the Ukrainian economy.
- 7. Onishchenko, Aleksei M.** (Agroindustrial Complex Economics) Born in 1928. Awarded the A. G. Shlikhtera Prize for Economics in 1984; corresponding member since 1985; elected academician in 1990.
- 8. Palamarchuk, Maksim M.**, D. Econ. S. (Industrial Economics) Born in 1916. Academician since 1973. Awarded the A. G. Shlikhtera Prize for Economics in 1977.
- 9. Pakhomov, Iurii N.** (Political Economics and Problems of Socialist Economics) (See above.)
- 10. Iampol'skii, Stefan M.**, D. Econ. S. (Industrial Economics) Born in 1906. Academician since 1967. Awarded the A. G. Shlikhtera Prize for Economics in 1981.

Corresponding Members

- 1. Belorus, Oleg G.** (Middle Management) Born in 1939. Awarded the A. G. Shlikhtera Prize for Economics in 1990; elected in 1990.
- 2. Beschastnii, Leonid K.** (Political Economics) Born in 1937, elected in 1988.
- 3. Dolishnii, Mar'ian I.** (Regional Economics) Born in 1936, elected in 1990.
- 4. Emel'ianov, Aleksandr S.** (Economics and Structural Organization) Born in 1932, elected in 1979.
- 5. Gerasimchuk, Nikolai S.** (Economics) Born in 1931, elected in 1990.
- 6. Golikov, Vladimir I.**, D. Econ. S. (Economics) Born in 1929. Corresponding member since 1982.
- 7. Ivanov, Nikolai I.** (Economics and Structural Organization) Born in 1923, elected in 1979. Awarded the A. G. Shlikhtera Prize for Economics in 1982.
- 8. Nesterenko, Aleksei A.**, D. Econ. S. (Economics) Born in 1904. Corresponding member since 1958.
- 9. Savchenko, Anatolii P.** (Industrial Economics) Born in 1937. Awarded the A. G. Shlikhtera Prize for Economics in 1973; elected in 1990.

Research Institutes: This department acts as coordinator for three major Scientific Councils: the council on economic normality of mature socialism under Academician I. I. Lukinov--Recipient of the State Prize for Science and Technology in 1979; the scientific council on conversion planning and the administration of national production under Academician N. G. Chumachenko--awarded the A. G. Shlikhtera Prize for Economics in 1980; and the scientific council on population and the availability of manpower under S. I. Doroguntsov, D. Econ. S. There are three scientific research institutes and

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Economics Department

three branches directly subordinate to the Economics department and they are listed below in the order of their founding:

1. Economics Institute in Kiev. Organized in 1930. Its first director was A. A. Asatkin. The institute has branches in L'vov, Odessa, and Kharkov. Structure of the Institute: the institute is organized into 20 departments: the methodology of political economy; economic mechanism and reproduction; forms and methods of socialist economic management; socioeconomic problems of the nonproduction sphere and consumption; history of the economy and history of economic thought; the efficiency of capital investment and the reproduction of basic funds; economic problems of scientific-technical progress; agroindustrial integration; socioeconomic problems of rural development; economics of utilization of natural resources; problems of the productivity of labor; demography and the reproduction of labor resources; problems of labor potential and professional retraining; theoretical and applied problems of economic management; economic development modeling; systems methods of studying the dynamics of the national economy; statistics and balance methods; socioeconomic bases for integration of science and production; and problems of economic analysis. The staff numbers 162 researchers of whom 21 hold the doctorate and 117 hold the candidate degree. There is one academician of the Russian Academy of Sciences; and there are two academician and two corresponding members of the Ukrainian Academy of Sciences on the staff. Research supervisors include: A. Revenko, L. K. Beschastnyi, V. V. Ivanov, A. N. Alymov, V. I. Kononenko, V. M. Geets. A. N. Alymov, D. P. Boginia, S. I. Pirozhkov, V. V. Ilarionov, V. S. Steshenko, V. M. Tregobchuk, V. E. Kozak, V. K. Cherniak, T. I. Dereviankin, A. M. Onishchenko--awarded the A. G. Shlikhtera Prize for Economics in 1984--B. I. Paskhaver, L. A. Shepot'ko--awarded the A. G. Shlikhtera Prize for Economics in 1984--and N. S. Gerasimchuk. Dr. Ivan I. Lukinov, D. Econ. S., has been director of the institute since 1976. The institute has branch institutes in L'vov, Khar'kov, and Odessa which are listed separately. The institute maintains close relations with institutes of the academies of sciences of Poland, Hungary and Czechoslovakia.

2. Industrial Economics Institute in Donetsk. Founded in 1969 upon the base of the Donetsk Department of the Economic Industrial Research institute of Economics of the Ukrainian Academy. The Lugansk Branch of the Institute was organized in 1970, using the Lugansk Branch of the Scientific Research Institute of Planning and Standards of GOSPLAN. The first director of the institute was A. N. Alymov. Since 1973, the institute has been headed by N. G. Chumachenko. Structure of the institute: the institute is organized into 15 departments--nine in Donetsk, five in Lugansk, and one in Zaporozh'e: 1.) problems of production management with sectors on regional problems of management in the national economy and problems of efficient utilization of material resources and waste; 2.) economic problems of scientific-technical progress in industry with sectors on problems of scientific-technical progress in various branches of industry and regional problems of scientific-technical progress; 3.) the methodology of planning and incentives in industry; 4.) problems of socioeconomic development; 5.) problems of regional economics with a sector on the efficiency in industrial production and a laboratory on the economic problems of special electrometallurgy; 6.) problems of efficient exploitation of production resources with sectors on problems of raising the productivity of labor in industry, problems of intensive renewal and exploitation of basic funds, and problems of raising the efficiency of the investment process; 7.) economic and social problems of automation with sectors on economic and social problems of integrated automated control systems, robot technology and automatization of production; analysis of exploitation of production resources with computers; and organization of automation processes; 8.) economic problems of labor protection with sectors on managing conditions of labor and recreational provision in industry; 9.) economic and legal problems with sectors on organization of economic-legal work in industry, economic-legal problems in the organization of socialist competition, and encouraging economic initiative in labor collectives; 10.) socioeconomic problems of eliminating heavy manual labor in industry; 11.) problems of accelerating the development of an industrial region (Lugansk), with a sector on management of scientific-technical progress; 12.) economic-legal problems of environmental protection and rational utilization of natural resources in Lugansk; 13.) economic-legal problems in raising the productivity of labor in Laguansk; 14.) problems of organization and utilization of reserves in industrial production in Laguansk; and 15.) sociological studies in Laguansk. The institute maintains a computer center. The institute is concerned with improved management and planning and

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with the economic stimulation of production, quality control, and technical progress in industry. The staff of this large institute numbers 189 (148 in Donetsk, 38 in Lugansk, and three in Zaporozh'e). Eleven of the staff hold the doctorate and 87 hold the candidate degree. There are two academicians and one corresponding member of the Ukrainian Academy of Sciences on the staff. Research supervisors include: A. I. Amosha--awarded the A. G. Shlikhtera Prize for Economics in 1987--L. N. Salomatina, N. D. Prokopenko--awarded the A. G. Shlikhtera Prize for Economics in 1987--F. E. Poklonskii, V. V. Finagin--awarded the A. G. Shlikhtera Prize for Economics in 1980--N. G. Chumachenko--awarded the A. G. Shlikhtera Prize for Economics in 1980--S. N. Katsura, M. D. Aizenstein, V. M. Degtiareva, G. A. Il'ina, V. K. Mamutov, G. A. Znamenskii, N. I. Konishcheva, N. I. Ivanov--awarded the A. G. Shlikhtera Prize for Economics in 1982--V. I. Bogachev, B. G. Rozovskii, B. M. Birenberg--awarded the A. G. Shlikhtera Prize for Economics in 1987--A. V. Bretslavtsev, V. S. Rubin, and I. E. Zarnoisii. Academician Dr. Nikolai G. Chumachenko, D. Econ. S., has been the director of the institute since 1974. (See: A Scholars' Guide. . . .)

3. L'vov Branch of the Economics Institute in L'vov. This branch was founded in 1964 and is comprised of 11 departments: problems of regional development; territorial and branch problems of management; sociological research; sociopsychological problems of labor and management; regional problems of management of scientific-technical progress; problems of organizational and technical development of production; ecological and economic problems of the western region of the Ukraine; integrated scientific-technical programs; problems of comprehensive socioeconomic development of the Carpathian region; and regional resources for raising the efficiency of production. The institute has a computer center. The staff of the institute numbers 86 researchers of whom six hold the doctorate and 63 hold the candidate degree. Dr. Mar'ian I. Dolishnii, D. Econ. S., is director of the institute and was Awarded the A. G. Shlikhtera Prize for Economics in 1983. (See: A Scholars's Guide. . . .)

4. Khar'kov Branch of the Economics Institute in Khar'kov. Established in 1965. The institute is organized into five departments: socioeconomic problems of labor and employment of labor resources; problems of improving production planning; problems of industrial management; socioeconomic problems of accelerating scientific-technical progress; and economic problems of production organization. The staff of the institute numbers 39 researchers of whom two have the doctorate and 17 the candidate degree. Research supervisors include: G. S. Odintsova, A. N. Zolotarev--awarded the A. G. Shlikhtera Prize for Economics in 1988--I. N. Volik, V. F. Khalina, L. P. Miroshnikov, I. P. Ianova, and G. V. Chemyshev. The director of the institute is Anatolii N. Zolotarev, D. Econ. S.--awarded the A. G. Shlikhtera Prize for Economics in 1988.(See: A Scholars' Guide. . . .)

5. Odessa Branch of the Economics Institute in Odessa was founded in 1970 and is made up of eight departments: problems of the economics of the sea; problems of the establishment and development of the marine economic complex; problems of the economics of organization of management and planning of industrial production; socioeconomic problems of the perspective development in the southern region of the Ukraine; problems of the economics and organization of marine transport; mathematical modeling of production and economic-ecological systems; the theory of management and systems analysis; and situational management of socioeconomic and organizational and technical systems. The institute staff numbers 107 researchers of whom six hold the doctorate and 43 the candidate degree. Supervisors of research include D. V. Burkinskii, V. A. Dergachev, V. N. Stapanov, S. K. Kharichkov, R. A. Dryzhanovskii, and M. I. Kotlubia. Boris V. Burkinskii, C. Econ. S., is the director of the institute. (See: A Scholars' Guide. . . .)

6. Social and Economic Problems of Foreign Countries Institute in Kiev. The institute was founded in October 1978 by combining several units of the Institute of History and the Institute of Economics of the Ukrainian Academy. Structure of the institute: the institute is organized into 10 departments: world economy and international economic relations; regional problems of foreign economic relations; interantional scientific-technical ties and environmental protection; sociopolitical development of the Eastern European countries; sociopolitical movements and ethnic relations in Western countries; the countries of the Near and Middle East; foreign Ukrainian studies; concepts of foreign policy and international activity in the Ukraine. The institute also has departments (small branches) in Uzhgorod and Chernotsy. The staff of the institute numbers 71 researchers of whom 16

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hold doctorates and 52 hold candidate degrees. One academician of the Ukrainian Academy is on the staff. Academician Arnol'd N. Shlepakov is director of the institute--Awarded the Manuil'skii Prize for History, Philosophy, and Law in 1982. (See: A Scholars' Guide. . .)

12. History, Philosophy, and Law Department

Members of the department: In 1987, there were 19 members of the History Department--six academicians and 13 corresponding members. Two of the members were directors of SRIs subordinate to the department. In 1990, membership in the department totalled 24, of whom nine were academicians and 15 were corresponding members.

Academicians: In 1990, three were in their 70s; five were in their 60s; and two were in their 50s.

Corresponding Members: In 1990, five were in their 70s; six in their 60s; and, three were in their 50s. .

Academician Secretary

Kuras, Ivan F. (History of the Communist Party) Born in 1939, elected in 1988. Academic secretary of the History, Philosophy and Law Department in 1990. Possibly academician since 1989.

Academicians

1. **Babii, Boris M.** (History of the Ukraine State and Law) Born in 1914. Academician since 1972.
2. **German, Iokhim.** (Ancient History and Slavic Archeology) Born in 1932, elected in 1990.
3. **Kondufor, Iurii Iu.** (USSR History) Born in 1922. Academician since 1985. Director of the History Institute in Kiev since 1984. The institute dates back to 1919. Major historical research began there in the 1950s. Recipient of the State Prize for Science and Technology in 1980.
4. **Kutsenko, Vladimir I., D. Phil. S.** (Philosophy) Born in 1921. Awarded the Manuil'skii Prize for History, Philosophy, and Law in 1983. Academician since 1985.
5. **Mamutov, Valentin K.** D. Jur. S.(Law) Born in 1928. Corresponding member since 1972. Awarded the A. G. Shlikhtera Prize for Economics in 1982; elected academician in 1988.
6. **Shinkaruk, Vladimir I.** (Philosophy) Born in 1928, elected in 1978. Awarded the Manuil'skii Prize for History, Philosophy, and Law in 1977. Recipient of the State Prize for Science and Technology in 1982.
7. **Shlepakov, Arnold N.** (World History) Born in 1930. Awarded the Manuil'skii Prize for History, Philosophy, and Law in 1982. Academician since 1982.
8. **Tolochko, Petr P.** (Archeology) Born in 1938. Recipient of the State Prize for Science and Technology in 1983; elected in 1990.
9. **Tronko, Petr T., D. Hist. S.** (USSR History) Born in 1915. Academician since 1978.

Corresponding Members

1. **Goncharenko, Nikolai V.** (Philosophy and Esthetics) Born in 1924, elected in 1979. Awarded the I. Ia. Franko Prize for Philology, Ethnography and Linguistics in 1988.
2. **Isaevich, Iaroslav D.** (History of Culture) Born in 1936, elected in 1990.
3. **Iurchuk, Vasilii I.** (History of the Communist Party) Born in 1921, elected in 1973.
4. **Klovov, Vsevolod I., D. Hist. S.** (History) Born in 1917. Recipient of the Hero of the Soviet Union Medal in 1945. Recipient of the State Prize for Science and Technology in 1970. Corresponding member since 1978.
5. **Krizhitskii, Sergei D.** (Archeology) Born in 1932, elected in 1990.
6. **Mel'nikova, Irina N., D. Hist. S.** (History of the Socialist State) Born in 1918. Corresponding member since 1973. Awarded the Manuil'skii Prize for History, Philosophy, and Law in 1976.
7. **Onishchenko, Aleksei S.** (Philosophy and Atheism) Born in 1933. Corresponding member since 1985.
8. **Shemshuchenko, Iurii S.** Born in 1935, elected in 1988.
9. **Shevchenko, Fedor P., D. Hist. S.** (Historiography and Historical Method). Born in 1914. Corresponding member since 1969. Recipient of the State Prize for Science and Technology in 1984.
10. **Shevelev, Arnold G., D. Hist. S.** (History of the USSR) Born in 1928. Corresponding member since 1972.

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11. Sokhan', Pavel S., D. Hist. S. (Ancient History) Born in 1926. Awarded the Manuil'skii Prize for History, Philosophy, and Law in 1976. Recipient of the State Prize for Science and Technology in 1980. Corresponding member since 1985.

12. Sokhan, Lidia V. (Socialist Truth) Born in 1924, elected in 1990.

13. Tsvetkov, Viktor V., D. Jur. S. (Law and Management Problems) Born in 1923. Corresponding member since 1972. Awarded the Manuil'skii Prize for History, Philosophy, and Law in 1985.

14. Yurchuk, Vasilii I., D. Hist. S. (History of Law) Born in 1921. Corresponding member since 1973.

Research Institutes: Five major Scientific Councils are administered from this department: the scientific council on problems of history under Academician Iu. Iu. Kondufor'; the scientific council on the problems of philosophy under A. T. Gordnenko, D. Phil. S.; the scientific council on governmental development, management, and law under Academician B. M. Babii; the scientific council on the problems of sociology under Academician Iu. N. Pakhomov; and the scientific council on archeology and ancient history under Academician P. P. Tolochko--recipient of the State Prize for Science and Technology in 1983. There are six scientific research institutes and one archeology museum subordinate to the department and they are given below in the order of their founding:

1. Odessa Archeology Museum dates back to 1825, has a staff of six--all of whom hold candidate degrees--and is presently headed by V. P. Vanchugov, C. Hist. S.

2. Archeology Institute in Kiev was established in 1934. Initially it was called the History of Material Culture Institute. Directors of the institute have been F. A. Kozubovskii (1934-38), M. I. Iachmenev (1938-39), L. M. Slavin --recipient of the State Prize for Science and Technology in 1977--(1940-41, 1944-45), P. P. Efimenko (1945-54), S. N. Bibikov--recipient of the State Prize for Science and Technology in 1977 (1955-68), F. P. Shevchenko--recipient of the State Prize for Science and Technology in 1984 (1969-72), I. I. Artemenko--recipient of the State Prize for Science and Technology in 1980 (1973-88) and, since 1988, P. P. Tolochko. Structure of the institute: the institute is made up of nine departments: archeology of primitive society; ancient Scythian archeology; the archeology of the Lower Bug region: the Olvia Preserve; Slavic archeology; old Russian and medieval archeology; theory and methods of archeology; safety methods in archeological research and source studies; archeology of the Crimea; and archeology of the northwestern coastal regions of the Black Sea. The staff of the institute numbers 137 researchers of whom 18 hold the doctorate and 84 the candidate degree. There is one corresponding member of the Ukrainian Academy on the staff. Research emphasis in the 1990s will be on the study of economic issues and the historical-topographic structure of ancient and medieval Kiev, and the problems of the history and culture of the cities of classical antiquity in the northern coastal region of the Black Sea--5th century B. C. to the 4th century A. D. The holdings of the collections and archives of this institute are ancient, broad, and deep. The library has more than 130,000 items including 90,000 scientific books forty percent of which are rare. The archives house more than 1,000 archeological collections acquired on digs from the mid-1950s to the present. Relics from the Paleolithic, the Neolithic, the Aeneolithic, the Bronze Age and the Early Iron Age, and cultural materials of the ancient, early Slav and old Russian periods may be found among its collections. Petr P. Tolochko, corresponding member of the Ukrainian Academy is director of the institute. (See: A Scholars' Guide. . . .)

3. History Institute in Kiev. Established in 1936. The first director of the various units which eventually made up the institute was A. Kh. Saradzhev and after him the institute was headed by S. N. Belousov (1936-41), N. N. Petrovskii (1942-47), A. K. Kasimenko--recipient of the SSSR State Prize in 1976--(1947-64), K. K. Dubina (1964-67), A. D. Dkaba (1968-73), A. G. Shevelev (1973-78), and since 1978, the institute has been headed by Academician Iruui Iu. Kondufor. Structure of the institute: the institute is organized into 10 departments: the history of feudalism; the history of capitalism; the history of the Great October Socialist Revolution and Civil War; the history of World War II; the history of the construction of socialism; the history of relations among ethnic groups in the USSR; source studies and supplementary historical disciplines; the history of Ukrainian international relations; foreign historiography; and, historical and country studies. The staff of the institute numbers 157 researchers, of whom 29 hold the doctorate and 97 the candidate degree. Two academicians and four corresponding members of the Ukrainian Academy of Sciences are on the

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staff. Supervisors of major research projects in the institute include Iurii Iu. Kondufor, R. G. Simonenko--recipient of the State Prize for Science and Technology in 1984, P. T. Tron'ko--recipient of the SSSR State Prize in 1976--and V. A. Gorbik. Joint research is being conducted with institutes of the Bulgarian, Polish, and Czechoslovak Academies of Sciences.

4. Philosophy Institute in Kiev. Although the institute itself was established in 1946, it may be traced back to the first center for training specialists in Marxist-Leninist Philosophy in the Ukraine--the Philosophical-Sociological Unit of the Chair of Marxism and Marxist Studies organized in Khar'kov in 1921. After World War II a Philosophy Commission was organized and was converted to the Philosophy Institute in 1946. Directors of the institute have been M. E. Omel'ianovskii (1946-52), D. F. Ostrianin (1952-62), P. V. Kopnin (1962-68), and since 1968, Vladimir I. Shinkaruk, corresponding member of the Ukrainian Academy has been the director. Structure of the institute: the institute is organized into six departments: dialectical materialism; philosophy, logic, and the methodology of science; philosophical problems of sociohistorical processes; philosophical problems of culture; the history of philosophy in the Ukraine; and contemporary foreign philosophy. There is also a division of sociology whose head is Iu. N. Pakhomov, academician of the Ukrainian Academy. The Sociology Division has seven departments: researching social structures; sociology of mass information and public opinion; social problems of management; ;social problems of the upbringing of young people; sociology of labor; social psychology; and, methodological principles and methods of sociological studies. The staff of the institute numbers 128 researchers of whom 25 hold the doctorate and 101 hold candidate degrees. There are three academicians of the Ukrainian Academy on the staff. Supervisors of research in the institute include: V. G. Tabachkovskii--recipient of the State Prize for Science and Technology in 1982--, M. A. Bulatov, M. V. Popovich, P. F. Iolon--awarded the Manuil'skii Prize for History, Philosophy, and Law in 1990--E. K. Bystritskii; N. N. Kiselev, V. I. Mazepa--awarded the Manuil'skii Prize for History, Philosophy, and Law in 1977--V. M. Nichik, and A. T. Gordienko. Dr. Vladimir I. Shinkariuk, D. Phil. S., corresponding member of the Russian Academy of Sciences and academician of the Ukrainian Academy has been director of the institute since 1968. (See: A Scholars' Guide. . .)

5. State and Law Institute in Kiev. Founded in 1949. Heads of the institute have been V. M. Koretskii (1969-74), B. M. Babii (1974-88), and, since 1988, Iurii S. Shemshuchenko, corresponding member of the Ukrainian Academy has been the director of the institute. Structure of the institute: the institute is organized into eight departments: theory of state and law; historical and political studies of state and law in the Ukraine; ;constitutional law, formation of the Soviet state and problems of national-governmental relations; governmental-legal problems of management and problems of improving the economic mechanism; civil and labor law; legal problems of ecology and the agroindustrial complex; criminal-legal and criminological problems; international law and foreign policy of the Ukrainian Republic. The staff of the institute numbers 93 researchers of whom 21 hold the doctorate and 47 the candidate degree. Two corresponding members of the Ukrainian Academy are on the staff. The institute consults regularly with several Ukrainian government agencies and produces various handbooks and reference guides. Supervisors of major research in the institute include: N. I. Koziubra, B. M. Babii, A. N. Mironenko, B. M. Baru, A. N. Mironenko, A. P. Tkach, G. A. Murashin, L. T. Krivenko, V. F. Butko, V. F. Sirenko--Awarded the Manuil'skii Prize for History, Philosophy, and Law in 1985--V. B. Aver'ianov--awarded the Manuil'skii Prize for History, Philosophy, and Law in 1985--Ia. N. Shevchenko, Z. K. Simorot, Iurii S. Shemshuchenko, N. R. Malysheva, V. I. Semchik, A. Ia. Svetlov, G. I. Changuli, and V. N. Denisov. Iurii S. Shemshuchenko, corresponding member of the Ukrainian Academy of Sciences has been the director of the institute since 1988. (See: A Scholars' Guide. . . .)

6. Social Sciences Institute in L'vov. The institute was organized in June of 1951 on the basis of departments which had existed from 1940 in five institutes: economics; history; archeology; literature; and linguistics of the Ukrainian Academy of Sciences. From September 1963 to 1969, the Social Sciences Institute was incorporated into the Franko L'vov University under the Ministry of Higher and Secondary Special Education of the Ukrainian SSR. Heads of the institute have been: A. A. Nesterenko (1951-53), I. P. Kripiakovich (1953-63), M. M. Oleksiuk (1964-73), V. P. Chugaev--awarded the Manuil'skii Prize for History, Philosophy, and Law in 1986--(1973-82), M. V. Bryk (1982-88), and since 1989, the director has been Iaroslav D. Isaevich, corresponding member of the

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Ukrainian Academy. Structure of the institute: the institute is comprised of eight departments: philosophy with a group on religious studies; history with a sector on historical memoirs; the history of social movements; the history of culture; archeology with a group in Uzhgorod; Ukrainian literature; Linguistics; and a department of Archeographic Commission of the Ukrainian Academy of Sciences which is assigned to the institute. The staff of the institute numbers 80 researchers of whom nine hold the doctorate and 40 the candidate degree. There is one corresponding member of the Ukrainian Academy on the staff. Supervisors of major research projects include: M. V. Kashuba, Iu. Iu. Slivka--Awarded the Manuil'skii Prize for History, Philosophy, and Law in 1986--F. I. Stiblii, Ia. D. Isaevich, N. N. Il'nitskii, and D. G. Grinchisin. The institute maintains ties with the Harvard University Ukrainian Research Institute, the Canadian Institute of Ukrainian Studies at the University of Alberta, and the Slavonic Institute of the Polish Academy of Sciences. (See: A Scholars' Guide.)

7. Sociology Institute in Kiev was organized in 1990 from a department of sociology of the Philosophy Institute. The staff of the institute numbered 41 in 1990, of whom seven held the doctorate and 34 the candidate degree. One academician was on the staff. The institute researches social structure and socialization problems of people, social psychology and methods of sociological research. The present director is Academician Iu. N. Pakhomov.

13. Literature, Linguistics, and Art Department:

Members of the Literature and Linguistics, and Art Department:

There was a total of 15 members of this department in 1987, seven academicians and eight corresponding members, making it one of the smaller departments in the academy. The directors of two research institutes under departmental jurisdiction were members of the academy. Two of the members of this department were also corresponding members of AN SSSR departments. Membership totalled 14 in January of 1990--seven academicians and seven corresponding members..

Academicians: In 1990, four of the academicians were in their 70s; two were in their 60s; and one was in his 50s.

Corresponding Members: Among the seven corresponding members, two were in their 70s; two in their 60s; and three in their 50s.

Academician Secretary

Rusanovskii, Vitalii M., D. Phil. S. (Linguistics) Born in 1931. Academic secretary since of the department since 1978. Academician since 1982. Recipient of the SSSR State Prize in 1983.

Academicians

1. Gonchar, Aleksandr T. (Literary Method) Born in 1918. Recipient of the Lenin Prize in 1964. Academician since 1978. Ukraine Academy of Sciences Hero of Socialist Labor Prize recipient in 1978. Recipient of the SSSR State Prize in 1948, 1949, and 1982.

2. Dzeverin, Igor' A. D. Phil. S. (Theory of Literature) Born in 1929. Corresponding member since 1972; elected academician in 1988. Director of the T.G. Shevchenko Literature Institute in Kiev since 1978. The institute studies the theory, development, and achievements of literature.

3. Mel'nichuk, Aleksandr S., D. Phil. S. (Linguistics) Born in 1921. Academician of the Ukrainian Literature, Language, and Art Department since 1985. Corresponding member of the Literature and Language Department of the AN SSSR since 1981.

4. Novichenko, Leonid N., D. Phil. S. (Literary Method) Born in 1914. Awarded the I. Ia. Franko Prize for Philology, Ethnography and Linguistics in 1982. Academician since 1985.

5. Oleinik, Boris I. (Literary Method) Born in 1935, elected in 1990.

6. Rusanovskii, Vitalii M., D. Phil. S. (See above.)

7. Zatonskii, Dmitrii. (Literary Method) Born in 1922. Corresponding member since 1969; elected academician in 1990.

Corresponding Members

1. Akulenko, Valerii V. (Linguistics and German Language) Born in 1925, elected in 1988.

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2. **Kostiuk, Aleksandr G.** (Fine Arts) Born in 1933, elected in 1990.
3. **Krutikova, Nina E.**, D. Phlg. S. (Russian Literary Method) Born in 1913. Corresponding member since 1957.
4. **Nepokupnii, Anatolii P.** (Linguistics and German Language) Born in 1932, elected in 1988.
5. **Nimchuk, Vasili V.** (Linguistics) Born in 1933. Awarded the I. Ia. Franko Prize for Philology, Ethnography and Linguistics in 1985; elected in 1990.
6. **Verves, Grigorii D.**, D. Phlg. S. (Literary Method) Born in 1920. Corresponding member since 1978.
7. **Zhulinskii, Nikolai G.** (Literary Method) Born in 1940, elected in 1990.

Research Institutes: Three Scientific Councils are controlled by personnel in this department: the scientific council on the development of language and practical language activities under Academician V. M. Pusanovskii; the scientific council on classical studies and contemporary Belle Lettres under Academician I. A. Dzeverin; and the scientific council on the development of Belle Lettres and the traditional culture of the Soviet people under Corresponding Members A. G. Kostiuk. In 1990, there were three scientific research institutes subordinate to the Literature, Linguistics, and Art Department:

1. O. O. Potebni Linguistics Institute in Kiev. Founded in 1921. The institute was named in honor of the famous linguist O. O. Potebni in 1945. From 1941 to 1945, the institute was relocated to Ufa. Directors of the institute have been: A. E. Krymskii (1921-39), M. Ia. Kalinovich (1939-41), L. A. Bulakhovskii (1944-61), I. K. Beloded--recipient of the SSSR State Prize in 1983 and recipient of the State Prize for Science and Technology in 1971--(1961-81), and since 1981 Academician V. M. Rusanovskii--Recipient of the SSSR State Prize in 1983. Structure of the institute: the institute is comprised of six departments: theory and history of Ukrainian; lexicology and lexicography; culture of the Ukrainian language; general and Slavic linguistics; structural-mathematical linguistics; and comparative linguistics and linguistics of Romance and Germanic languages. The staff of the institute numbers 104 researchers of whom 22 hold the doctorate and 58 the candidate degree. Two academicians and one corresponding member of the Ukrainian Academy are on the staff. The institute studies the problems of applied and theoretical linguistics, works on scientific terminology, and creates sectorial dictionaries. Supervisors of major research included V. M. Rusanovskii and M. M. Peshchak. The institute maintains ties with the linguistic institutes of the Czechoslovak and Polish Academies of Sciences. Academician Vitalii M. Rusanovskii, has been the director of the institute since 1981. (See: A Scholars' Guide. . .)

2. T. G. Shevchenko Literature Institute in Kiev. From the Taras Shevchenko Scientific Research Institute (1926) within the system of the Ukrainian Commissariat of Education, the Shevchenko Institute of Ukrainian Literature was established in 1936. Since 1952, it has been called the Shevchenko Institute of Literature. Structure of the institute: the institute is organized into nine departments: the theory of literature, with a sector on sociology; Soviet Ukrainian literature; Ukrainian literature before 1917; Old Ukrainian literature; Shevchenko studies; Russian literature and literatures of the peoples of the USSR; Eastern European literatures; Western literature; and manuscript holdings. The staff of the institute numbers 101 of whom 26 hold the doctorate and 69 the candidate degree. Two academicians and four corresponding members of the Ukrainian Academy are on the staff. Major research supervisors are V. G. Konchik, M. T. Iatsenko, and G. M. Sivokon. The institute studies the theory, development, and achievements of literature. The collections and archives of this institute hold some 146 personal holdings and 8 holdings of institutions, and 12 collections--approximately 81,000 items. Other holdings include manuscripts and documents such as ancient manuscripts of the late 16th to 18th centuries. Academician Dr. Igor A. Dzeverin, D. Phlg. S., has been the director of the institute since 1978. (See: . . . Guide).

3. Ryl'skii Art Studies, Folklore, and Ethnography Institute in Kiev (1944). The institute was founded in 1936 on the basis of the Ethnographic Commission of the Ukrainian Academy of Sciences and its Office of Music Ethnography. The first director was A. A. Khvyliia. In 1942, the institute was reorganized and renamed the Institute of Folk Creativity and Art of the Ukrainian Academy of Sciences. Professor N. A. Grinchenko became its director, followed in 1942 by Academician M. F. Ryl'skii, a writer and literary figure who served as the institute's permanent directors until 1964. In

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1944, the institute was again reorganized and received its present name. Structure of the institute: the institute is comprised of 11 departments: fine arts; fine and folk arts abroad; music; theater studies; cinema studies; theory of art; folklore studies; theoretical problems in the artistic development of the masses; Soviet traditions and ceremonies; ethnography; and problems of ethnosociology. There is an independent sector on the art of the peoples of the USSR. The staff numbers 99 researchers of whom 84 hold advanced degrees. One corresponding member of the Ukrainian Academy is on the staff. Supervisors of major research include: N. M. Gordiichuk, M. M. Paziak, I. P. Berezovskii, Iu. A. Stanishevskii, A. V. Orlov, N. V. Goncharenko, A. K. Fedonuk, A. A. Kulik, S. D. Bezklubenko, V. N. Fomenko, I. F. Liashenko, and A. G. Kostiuk. The manuscript holdings of the Collections and Archives of the Institute include a rich collection of materials on verbal and musical folklore, ethnography, folk and professional art, theatrical culture, cinematography, and other subjects. More than one million archive sheets are in this collection. The institute has its own film and photographic laboratory. (See: A Scholars' Guide. . .)

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² *The Great Soviet Encyclopedia*. New York, 1983, Vol. I, p. 54; Vol. 26, p. 598.

³ "Breakdown of Scientists by Degrees, Titles," *Vestnik statistiki*, No. 12, Dec. 1985, p. 54.

⁴ *Ibid.*

⁵ *Directory of Soviet Officials: Science and Education*. Washington, 1987. LDA 87-11012, pp. 243-261.

⁶ *Ibid.*

⁷ B. Paton, "Scientific and technical Progress and the Decrease of the Materials-Output Ratio," *Materialno-tehnicheskoye snabzheniye*, No. 4., April 1986, pp. 19-25.

⁸ V. Dedekayev (of the Lvov Technical Institute), "Problems of the Development of Educational Scientific Production Associations," *Ekonomika Sovetskoy Ukrainy*, No. 10, October 1984, pp. 62-64.

⁹ M. Shvayka, "Interdepartmental Special Purpose Scientific Production Associations," *Ekonomika Sovetskoy Ukrainy*, No. 4, April 1984, pp. 48-52.

¹⁰ Primachenko, V., "Economy of the Countries in the Socialist Community: Inter Academy Cooperation among the CEMA Member Countries Under Conditions of Scientific-Technical Integration," *Ekonomika Sovetskoy Ukrainy*, No.9, September 1983, 76-81. A major work on scientific and technological integration of the CEMA countries by V. Ia. Mashtabei was published in Kiev in 1981 and reviewed in the *Ekonomika Sovetskoy Ukrainy* in October 1983. Another important article describing the establishment of the International Center of Scientific-Technical Information (MTsNTI) in 1969 by the signing of an international agreement between Bulgaria, Hungary, the GDR, Mongolia, Poland, Romania, Czechoslovakia and the USSR. In 1973, Cuba joined the consortium and in 1979 Vietnam became a member. See interview with Professor Leonid N. Sumarokov, director of MTsNTI in *Ekonomicheskoe sotrudnichestvo stran-chlenov*, No. 2, February 1984, 58-63.

¹¹ B. Paton, "Scientific Quest--in the Service of the Five-Year Plan," *Pravda Ukrainy*, 3 April 1982, pp. 1-2.

¹² V. Borisov and P. Popov, "The Organization of the Formulation of the Republic Program of Scientific and Technical Progress," *Ekonomika Sovetskoy Ukrainy*, No. 8, August 1985, pp. 93-94.