JPRS: 4869

14 August 1961

BIOGRAPHIES OF SOVIET SCIENTISTS

(Selected Translations)

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WASHINGTON 25, D. C.

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WASHINGTON 25, D. C.

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JPRS: 4869

CSO: 1878-S

BIOGRAPHIES OF SOVIET SCIENTISTS
(Selected Translations)

[This report contains the translations of biographies of selected Soviet scientists, names listed in the table of contents, as published in various USSR publications. Complete bibliographic information accompanies each biography.]

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PETR PORFIR'YEVICH ARKHANGEL'SKIY

/Following is the translation of an article by a "Group of Comrades" in Zashchita Rasteniy ot Vrediteley i Bolezney (Protection of Plants from Pests and Diseases), Moscow, No 2, February 1961, page 58./

On 28 October, in the 67th year of his life, Honored Agronomist of the Uzbek SSR, member of the All-Union Entomological Society, member of the Uzbekistan Agricultural Society, Petr Porfir'yevich Arkhangel'skiy, passed.

Since 1916, having finished the Higher Peterburg Agronomical School, P. P. Arkhangel'skiy worked as a practitioner at the Turkestan Entomological Station under the direction of V. I. Plotnikov. His future career, that of an enthusiastic entomologist, to which he dedicated his entire life, was determined here. During this early period of his life he studied dried fruit pests and published a scientific paper on this subject. In 1923 he developed for the first time in Central Asia the new method of combatting locusts by means of poisoned bait.

From 1935 to the most recent time Petr Porfir'yevich worked at the quarantine laboratory of the UzSSR and was one of its initiators. In 1935 he proved the feasibility of the acclimatization of the woolly aphid parasite and used it extensively in the fight against the woolly apple aphid. In the years 1940-1952 he studied the biology of the principal varieties of thick-stemmed dodders of Central Asia, citrus pests in Uzbekistan, the species found among the floriculture pests. During recent years, under his direction barns and warehouses were extensively inspected for objects requiring quarantine and species found among the barn pests in Uzbekistan were identified.

P. P. Arkhangel'skiy published 88 papers. He was one of the top experts in Central Asia on the garden coccids, barn pests, plant eating molluscs, and constantly participated in training personnel for the protection of vegetation.

For his fruitful and faultless work P. P. Arkhangel'skiy was awarded several decorations and was three times the recipient of Honorary Attestations of the Presidium of the

Supreme Soviet of Uzbekistan.

The memory of P. P. Arkhangel'skiy, modest, hard-working, constantly seeking the new in science and exceptionally sincere, will live for a long time in the hearts of all who knew him in his work and in his personal life.

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KONSTANTIN VLADIMIROVICH ARNOL'DI

/Following is the translation of an article by M. S. Gilyarov in Zashchita Rasteniy ot Vrediteley i Bolezney, Moscow, No 4, 1961, page 27./

In January the well-known Soviet entomologist, Doctor of Biology Konstantin Vladimirovich Arnol'di, passed his 60th birthday. Having graduated from Moscow University in 1926 and achieving the title of Aspirant there in 1930, Konstantin Vladimirovich taught at Moscow State University until 1934, and then transferred to the Zoological Institute of the Academy of Sciences USSR. From 1942 until the present he has been working in the Institute of Animal Morphology AS USSR. In 1944 he brilliantly defended his doctorate thesis on the small harmful turtle found in the mountainous regions of Central Asia.

K. V. Arnol'di is a top expert in the taxonomy and faunistics of a number of insect groups (ants, beetles, bugs). His works on the formation of the complexes of insects in windbreak strips, the theory of the species and of the specific areal in insects are well known. Taxonomists value greatly the tables on ants compiled by him, which have been included in all insect classification keys published in our country since the revolution. He has published a total of more than 60 scientific papers.

Konstantin Vladimirovich participated in many large combined expeditions of the Academy of Sciences USSR (in Turkmenia, South Kirghiziya, in the expedition for planting windbreaks, and others), has directed and organized a number of entomological expeditionary parties of the AS USSR in the South Eastern sector of the European USSR and in the Caucasus.

At the present time he is occupied by such problems as the utilization of insect complexes for the characterization of the soil and botanical zones, compilation of a new classification key for identifying ants, and many others.

K. V. Arnol'di is performing vast social work. For many years he has been a member of the Council of the All-Union Entomological Society. Since 1952 he has been Assistant to the Editor of Zoologicheskiy Zhurnal (Zoological Journal).

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ARTUR IVANOVICH BRENING

/Following is the translation of an article by Reader N. M. Kovyazin (Kazan') in Kazanskiy Meditsinskiy Zhurnal (Kazan' Medical Journal), Kazan', No 5, 1961, page 118./

On 1 July 1960, after a long and serious illness, the Head of the Department of Propedeutics of Internal Diseases of the Kazan' Medical Institute, Doctor of Medical Sciences, Professor Artur Ivanovich Brening, passed away.

He was born in Kazan' in 1877; here he received his high school education and graduated from the Natural Science Department of the Physico-Mathematical Faculty and the Medical Faculty of Kazan' University. After completing his medical education he served as physician in the 38th Tobol'sk Regiment. Following demobilization he completee advanced courses for physicians in Berlin.

In the autumn of 1910 he began to work in the Faculty Therapeutics Clinic of Prof A. N. Kazem-Bek, at first as an external student, and then as a laboratory assistant; here he completed his first two scientific papers. From 1914 to 1918 he served as physician in the medical-sanitary units at the front.

From 1918 until his retirement (1 December 1959) he continuously worked in the Department of Propedeutics of Internal Diseases. At first he was Assistant at the Department of Medical Diagnostics headed by Prof M. N. Cheboksarov, then by Prof P. N. Nikolayev (1920-1926). From 1926 to 1928 he was Assistant to Prof S. S. Zimnitskiy, and from 1929 to 1944 he worked in the same department with Prof A. G. Teregulov, first as Assistant, from 1940 as Reader, and from 1943 as Professor of the Department.

From 1944 to 1954 he worked as Second Professor of the Department (headed by Prof K. A. Dryagin). From 1954 to 1 December 1959 he performed the duties of Head of the Department. Artur Ivanovich was assigned this duty several times before: in 1920 following the transfer of Prof M. N. Cheboksarov to the Department of Faculty Therapeutics until the arrival of Prof P. N. Nikolayev and in 1928 after the death of Prof S. S. Zimnitskiy until Prof A. G. Teregulov

assumed the duties of Head of the Department.

In 1924 Artur Ivanovich defended his doctorate thesis on the subject of "Oxygen Exchange in the Suprarenal Gland" (prepared at the Department of Physiology under the direction of Prof N. A. Mislavskiy).

From 1936 to 1954 he read the regular course of lectures on clinical laboratory which he had organized, and conducted independent practical laboratory work with the students.

In the 1933-34 school year he read the course of propedeutics of internal diseases to the students of the evening faculty; in the 1945-1946 school year he lectured on clinical pharmacology; in the 1947-1948 school year he delivered the course on infectious diseases to the students of the Stomatological Institute.

During his 49 years of work Artur Ivanovich gained the reputation of a highly educated scientific worker (who knew three foreign languages), and erudite biochemist, a clinician-physician, and pedagogue.

We must note his continuous efforts toward perfecting the technique of teaching the diagnostic methods of research, especially in the clinical laboratory. In his lectures, in practical work with students and physicians, he strove to share with them his wealth of theoretical information and great practical experience.

As a biochemist Artur Ivanovich enjoyed great authority, and scientific workers often sought his advice on biochemical problems.

Artur Ivanovich was a modest man who constantly sought to perfect his specialized knowledge and enjoyed great prestige and the respect of students, physicians, and patients. During World War II he was a consultant physician at evacuation hospitals. He was awarded the medal "For the Victory Over Germany" and an "Excellent Health Worker" badge.

A. I. Brening completed more than 15 scientific papers, most of them on biochemistry and some of them on methods of teaching in the clinical laboratory.

The fond memory of Artur Ivanovich Brening will live long in our hearts.

BORIS NIKOLAYEVICH DOLGOV

[Following is the translation of an unsigned article in Kinetika i Kataliz (Kinetics and Catalysis), Moscow, Vol 1, No 2, July/August 1960, pages 334-335.]

On 6 December 1959 Boris Nikolayevich Dolgov, one of the most prominent organic chemists, died in his 66th year after a prolonged illness.

Through the death of Boris Nikolayevich Dolgov we have lost a remarkable man, a widely known scientist and an excellent teacher who devoted many years of his working life to research in the field of catalysis.

Boris Nikolayevich Dolgov was born on 14 August 1894 in St. Petersburg in the family of an art teacher. In 1912 he entered the Philological Faculty of the St. Petersburg University and in 1914 transferred to the Chemical Division of the Physical-Mathematical Faculty, from which he graduated in 1925, having defended his thesis on the subject of "Isomerization of Six-Member Cycles into Seven-Member Cycles." During the subsequent three years B. N. Dolgov worked as a scientific worker of the Chemical Institute of the Academy of Sciences. For 11 years, beginning with 1928, he directed the Gas Reaction Laboratory in the newly organized State Institute for High Pressures. In 1938 Boris Nikolayevich defended his doctorate thesis and received the title of Professor. In the same year he was appointed to the Chair of Organic Chemistry at Leningrad State University. From this time B. N. Dolgov's scientific and educational activity has been continuously associated with Leningrad University.

Simultaneously with his work in the University, Boris Nikolayevich rendered great help to industrial chemical institutes [GIVD, GIPKh, Khimgaz, Forestry Technological Institute, etc.], taking part in their scientific work and in the education of the cadres of young scientists. In 1953 B. N. Dolgov was appointed Director of the Laboratory of Silicon-Organic Compounds of the Institute of Silicate Chemistry AS USSR, which he directed to the very end of his life.

Boris Nikolayevich was a scientist of exceptional scope and depth; his scientific activity was extensive and many-sided. It included research (which had great significance for organic catalysis) in various regions of organic chemistry and especially of chemistry of the silicones.

Beginning with 1928 Boris Nikolayevich was engaged in the State Institute of High Pressures in the development of catalytic hydrogenation of organic compounds under pressure and directed operations in the synthesis of organic compounds on the basis of the oxides of carbon. As the result of this work active catalysts were found and the conditions for obtaining carbohydrates, alcohols, and other oxygen-containing organic compounds were studied. The industrial catalyst developed by Boris Nikolayevich for the synthesis of methanol was used when the first synthetic methanol plant in this country was put into operation.

The work of many years performed by Boris Nikolayevich in the field of catalytic syntheses on the carbon oxide base is reflected in his major monograph Khimicheskoye Ispol'zovaniye Okislov Ugleroda (Utilization of Oxides of Carbon in Chemistry).

The work performed by Boris Nikolayevich in research on catalytic transformations of aliphatic oxygen-containing compounds is of significant theoretical and practical interest. In the study of the catalytic transformations of primary alcohols and aldehydes he discovered a new reaction -- an acidless esterification of alcohols.

Boris Nikolayevich showed that the reaction of dehydrocyclization which was studied on the example of saturated carbohydrates can be achieved with acid-containing aliphatic compounds. He discovered a new course of forming phenols from alcohols, aldehydes, and ketones and established the probable mechanism of these complicated transformations.

The research performed by Boris Nikolayevich Dolgov in the field of silicone chemistry is of exceptional significance. His works, which opened the first page of the chemistry of silicones in this country, were begun in 1928, continued till his last days and made a great contribution to that branch of science. Among the works published after 1925, the research on replacing the atom of hydrogen connected with silicon in the aloxy-, acyloxy-, amino-, alkyl-, and other groups manifests great theoretical and practical interest. These works showed that silicon-organic hydrides are suitable for introducing various substitutes in the presence of the silicon atom.

Boris Nikolayevich was a prominent propagandist and popularizer of silicone chemistry. He was the first to appreciate the increasing applied value of silicones and

pointed out the possibilities of their utilization in the national economy. Boris Nikolayevich had written many surveys on this subject and a monograph "Khimiya Kremneorganicheskikh Soyedineniy" (Silicone Chemistry), which was published in 1933.

During the period of his scientific activity Boris Nikolayevich Dolgov published more than 200 scientific articles and author's certificates for inventions created by him personally and in collaboration with his students.

In 1949 Boris Nikolayevich wrote a textbook, Kataliz v organicheskoy khimii (Catalysis in Organic Chemistry), and in 1959 the second revised and appreciably expanded edition was published. This textbook enjoys well-deserved popularity in the Soviet Union and in a number of the people's democracies.

Boris Nikolayevich Dolgov was an outstanding educator. The young generation always worked with him, and to these young people he passed on his knowledge and thereby educated experts on organic catalysis and silicones, who are now working at plants, in scientific-research institutes and in colleges.

Boris Nikolayevich was awarded several government prizes. The fond memory of Boris Nikolayevich Dolgov, a remarkable speaker, will remain forever in the hearts of those who knew him, studied under him, or worked with him.

ALEKSANDR KIRILLOVICH GORCHAKOV

/Following is the translation of an article signed by "Co-workers and Students" in Problemy Endokrinologii i Gormonoterapii (Problems of Endocrinology and Hormone Therapy), Vol 7, No 1, Moscow, January-February 1961, pages 123-124./

In August 1960 Honored Scientists, Doctor of Medical Sciences, Professor Aleksandr Kirillovich Gorchakov, died prematurely at the age of 60.

A. K. Gorchakov was born in 1900 in Krasnodar in the family of a laborer. In 1918, upon graduating from high school, he entered the Medical Institute.

However, the events which developed in those years in the territory of the young Soviet Republic forced him to cut short the medical education he had begun.

In 1919 A. K. Gorchakov enlisted in the Red Army as volunteer, where he served as doctor's aid and later as junior doctor in the cavalry units of the combined Khar'kov Student Brigade.

Only in 1921, following demobilization, could Aleksandr Kirillovich continue his education. In 1924 he graduated from the Khar'kov Medical Institute; subsequently he worked for approximately 10 years as Surgeon in regional hospitals of Khar'kovskaya Oblast. During these years A. K. Gorchakov became a skilled surgeon, having mastered the methods of operating techniques and obtained the necessary experience in administrative work by serving as head of a number of medical institutions in Khar'kovskaya Oblast.

In the early thirties A. K. Gorchakov was transferred to Khar'kov where he worked as surgeon and Assistant Director of the 2nd Soviet Hospital. Taking most active part in the organization of the II Khar'kov Medical Institute, K. A. Gorchakov in the autumn of 1933 began his work at the Chair of Faculty Surgery as Senior Assistant. Here, simultaneously with medical and pedagogic activity, Aleksandr Kirillovich pursued important scientific work, the result of which was his Candidate's thesis on the theme "Plastic Surgery Using the Abdominal Omentum", which he successfully defended in 1937.

The first part of 1940 and the war with the White-Finns found A. K. Gorchakov in the ranks of the Soviet Army, in which he, along with his surgical activity, performed the duties of Head of the Medical Section of the Khar'kov Regional Military Hospital. After the end of the war with the White-Finns, Aleksandr Kirillovich returned into the Khar'kov Medical Institute where he occupied the post of Reader of the Faculty Surgical Clinic.

During the years of the World War II, A. K. Gorchakov, for the third time in his life, joined the ranks of the Soviet Army, holding the position of the Head Surgeon of the Distribution Evacuation Station of Evacuation Hospitals. A serious illness put him temporarily out of commission and his subsequent activity took place in the Tashkent Medical Institute and then in Frunze, where the II Khar'kov Medical Institute was located during the war years. In September 1943 A. K. Gorchakov returned to the ranks of the Army and, following the victorious advance of the Soviet Army at the beginning of 1944, on the order of the Ministry of Health USSR, went to work in Khar'kov where he performed the duties first of Reader and then of Director of the Department of General Surgery of the Khar'kov Medical Institute. Simultaneously Aleksandr Kirillovich worked as Assistant to the Director of the Khar'kov Medical Institute in scientific and educational work, taking active part in the restoration of the Institute destroyed by the war.

Beginning with 1950 the scientific and practical activity of A. K. Gorchakov took place in Kiev, Capital of the Ukraine.

In the same year Aleksandr Kirillovich defended his doctorate thesis on pathogenesis and treatment of shock.

From 1951 he held the Chair of Surgery of the Stomatological Institute and from 1955, after the amalgamation of this school with the Kiev Medical Institute, he headed the Department of Surgery of the Stomatological Faculty of the Institute.

A. K. Gorchakov was a member of the CPSU. Being a communist scientist, he devoted all his knowledge and experience to the cause of the development of Soviet medicine and health. He was deservedly held in respect not only as a clinician but also as a scientist who applied the results of his scientific research to the needs of public health.

He has published more than 70 papers. Most of them are on the subject of endocrinology, which had long ago determined the principal scientific goals of Aleksandr Kirillovich. A. K. Gorchakov devoted his principal attention to the surgery of the thyroid gland, to the problems of pathogenesis, clinic, and prophylactics of the goiter. His papers include a detailed examination and description of methods of

radical operation of subtotal strumectomy which today is firmly included in clinical practice.

A. K. Gorchakov has written a number of papers on the subject of pathogenic classification of diseases of the thyroid gland. Aleksandr Kirillovich did much for the introduction of radioactive iodine into medical practice.

The significant work conducted by endocrinologists of the Ukraine under the direction of A. K. Gorchakov brought about an appreciable decrease in the spreading of endemic goiter in a relatively short period of time.

The fruitful pedagogic activity of A. K. Gorchakov lasted for more than a quarter of a century.

Aleksandr Kirillovich performed great organizational and social work. For a number of years he was Head Endocrinologist of the Ministry of Health Ukrainian SSR, Chairman of the Republic's Anti-Goiter Committee, headed the Investigating Committee on the Problems of Goiter of the Scientific Medical Council of the Ministry of Health Ukrainian SSR, was a Member of the Presidium of the Scientific Council, was elected Member of the Board of the All-Union Scientific Society of Surgeons and Assistant Chairman of the Republic's Society of Surgeons, was Member of the Presidium of the Republic's Committee of that Society. At various times he was elected Deputy of the City and Regional Councils of Khar'kov and Kiev.

For his prominent services in the field of medicine Aleksandr Kirillovich was awarded the respected title of Honored Scientist of the Ukrainian SSR. The Soviet government valued highly the work of the scientist and awarded him the Order of Lenin and several medals.

From 1950 Aleksandr Kirillovich was the Editor of the periodical Vrachebnoye delo (Medical Work). Under his direction a number of symposia of scientific papers on various problems of surgical pathology were published.

The fond memory of Aleksandr Kirillovich Gorchakov will live forever in the hearts of all who knew him.

NIKOLAY IL'ICH GUREVICH

/Following is the translation of an unsigned article in Khirurgiya (Surgery), Vol 37, No 2, Moscow, 8 February 1961, Section "Obituaries", pages 147-148./

On 25 October 1960, after a serious illness, one of the representatives of the renowned galaxy of the older generation of surgeons, Professor Nikolay Il'ich Gurevich, passed away.

Nikolay Il'ich was born in Kiev in 1871. At the age of 23 he graduated from the faculty of medicine in the same city. From that time and almost to the end of his long life he dedicated himself to the service of surgery in his country with all the energy and endeavor characteristic of him.

N. I. Gurevich absorbed the most valuable features of the Russian medical school; in his subsequent independent career he was not a passive observer of the progress of medicine but became the co-worker of the best surgeons of our country and an active participant in the solution of the pressing problems of surgery.

Upon graduating from the University he worked for seven years in St. Petersburg in the Obukhovskaya Hospital under the direction of Prof Tseydler and simultaneously in Prof N. A. Vel'yaminov's clinic in the Military Medical Academy. For two years he served as dissector at the Chair of Normal Anatomy with Prof Tonkov. In 1898 Nikolay Il'ich defended the doctorate thesis "On the Treatment of Simple Fractures With Massage -- A Clinical and Experimental Research."

During his stay in St. Petersburg he worked experimentally on the problem which is of great importance to surgeons, namely, Zhiznesposobnost' niskhodyashchey obodochnoy kishki pri otdelenii yeye ot bryzheyki (Viability of the Descending Colon Upon Its Separation From the Mesocolon). This work was awarded the Prize imeni N. V. Sklifosovskiy.

Having received in the course of the seven years a substantial anatomic and clinical training in surgery, Nikolay Il'ich declined the academic career proffered to him by Prof N. A. Vel'yaminov and left St. Petersburg for the provinces and independent work. In 1902 he became the Director

of the Division of Surgery of the Provincial Zemstvo (District Council) Hospital in Petrozavodsk where he worked seven years. Since 1908 he worked at the Smolensk Provincial Zemstvo Hospital at the post of the Director of the Division of Surgery where he replaced S. I. Spasokukotskiy.

During his 14 years' activity as the Zemstvo surgeon he amassed great clinical experience as well as excellent operating technique. His favorite was abdominal surgery, to which he remained faithful to the end of his activity. Nikolay Il'ich devoted a number of papers to the problem of emergency surgery, ulcers, diaphragmatoceles, appendicites, periviscerites, and fecal fistulae.

N. I. Gurevich was always an innovator. In the treatment of ulcers he was one of the first propagandists of resection of the stomach at a time when gastroenteroanastomosis was an optional operation. As far as we know the first operation of stomach resection for the treatment of an ulcer in Moscow was performed by Nikolay Il'ich.

He proved himself as a military surgeon by directing hospitals for the seriously wounded during World War I. During World War II he worked in Moscow as Chief Surgeon of the Hospital for the Invalids of the Patriotic War. A number of his papers deal with the problems of military field surgery, such as, O pronikayushchikh raneniyakh grudnoy i bryushnoy polosti (On Penetrating Wounds of the Thoracic and Abdominal Cavity) (1905), K lecheniyu ognestrel'nykh ran po Karrel'-Dakenu (On the Treatment of Gunshot Wounds According to Karrel'-Daken) (1915), Sluchai diafragmal'noy gryzhi ognestrel'nogo proiskhozhdeniya (Instances of Diaphragmatoceles Caused by Gunshot Wounds) (1916); Ob ushchemlennykh diafragmal'nykh gryzhakh ognestrel'nogo proiskhozhdeniya (On Strangulated Hernias of the Diaphragm Caused by Gunshot Wounds) (1936); K lecheniyu kalovykh svishchey ognestrel'nogo proiskhozhdeleniya (On the Treatment of Fecal Fistulae Caused by Gunshot Wounds) (1946); Klinika i lecheniye ostatochnykh yavleniy posle ognestrel'nykh raneniy bryushnoy polosti (Clinic and Treatment of Residual Phenomena Subsequent to Gunshot Wounds in the Abdominal Cavity) (1947).

Nikolay Il'ich worked in Moscow from 1918. Until 1922 he was the Chief Physician of the Surgical Hospital imeni Berezkin. From 1922 to 1930 he was Scientific Director of two surgical hospitals in Orenburg. In 1930 he was back in Moscow as the Scientific Director of the Blagushinskaya Hospital.

His academic activity began in 1934 when he was selected for the Chair of Hospital Surgery in the newly organized III Moscow Medical Institute based on the Basmannaya Hospital. He remained at this post until the beginning of World War II. In 1952 Nikolay Il'ich became Chief Surgeon

of the Hospital imeni Bauman. During his work in this hospital he published three editions of the monograph Ostryye zabolevaniya bryushnoy polosti -- klinika i lecheniye (Acute Diseases of the Abdominal Cavity -- Clinic and Treatment Thereof) in which the author's enormous personal experience in the surgery of acute abdominal cases is presented in a very condensed form. This small book is a reference manual for both the beginner and the experienced surgeon.

In surgical circles Nikolay Il'ich was highly regarded as a physician and scientist who actively participated in the triumphant march of our country's surgery by his work, his scientific papers and public activity. He was an Honorary Member of the Society of Tadzhik Surgeons, the Moscow Surgical Society, the Moscow Urological Society; he was repeatedly elected Member of the Board and the Assistant Chairman of the Moscow Surgical Society. Nikolay Il'ich directed the Polyclinical Section of the Surgical Society of which he was the initiator. His lectures and speeches at the meetings and congresses of surgeons are unforgettable. Nikolay Il'ich was a great connoisseur of artistic literature and music. He loved the skill and beauty of surgery.

N. I. Gurevich did not limit himself to purely academic and practical activity. He always was a publically active physician. While in Petrozavodsk he spoke repeatedly in the Zemstvo Administrative Office in defense of registered and practical nurses for which he was even prosecuted in court. The Petrograd Court sentenced Nikolay Il'ich to a one-year confinement in the Citadel but the Senate revoked this sentence. In Petrozavodsk and Smolensk he organized surgical societies which he directed personally. During the Soviet epoch he was one of the founders of Professional Unions of Medical Workers in Moscow.

Nikolay Il'ich always took active part in the activities of the institutions in which he worked. He was always occupied by the problems of training and educating personnel. He published an article on this subject in the journal Khirurgiya (Surgery).

Nikolay Il'ich was a man of excellent spiritual qualities. Everyone who knew him called him "physicians' conscience". He was a just and loyal friend, a valuable director in the everyday responsible and difficult work. Throughout our country his pupils are working, who always remember him with the deepest respect and gratitude.

The memory of Nikolay Il'ich Gurevich will live long in the hearts of Soviet surgeons.

VSEVOLOD ALEKSANDROVICH IZMAIL'SKIY

/Following is the translation of an unsigned article in Khimiya v Shkole (Chemistry in the School), Moscow, No 2, February/March 1961, page 96./

On 23 December 1960, at the session of the Academic Council of the Scientific Research Institute of Semi-Products and Dyes im K. V. Voroshilov, the chemical workers and educators of the capital celebrated the 75th birthday and 50th anniversary of scientific-pedagogical activity of Honored Scientist and Technologist, Doctor of Chemical Sciences, Professor Vsevolod Akeksandrovich Izmail'skiy.

All those who congratulated him unanimously noted the great services rendered by the object of the celebration to the development of the science of chemistry, the chemical industry and training of scientific-pedagogic personnel in this country. Izmail'skiy has truly performed gigantic work, manifested by 150 papers of great theoretical value and vital significance.

One of the principal trends of his scientific work is the study of the chemistry of organic dyes and chromatic properties of organic compounds. As early as in the years 1913-1915, long before the appearance of the works of German, American, and British chemists, V. A. arrived on the conclusion that the true structure of the dye is characterized by a certain intermediate state termed "mesostate" by the author and that the colors of the compounds are associated with precisely this state. Further work permitted V. A. to establish a law governing the relationship of the bathochromic displacements of the absorption and the degree of the electronic displacement in the molecule. As the principal result of these works, the opinion is established today that the cause of the chromatic property is the fine structure of the molecules of organic compounds. On the basis of electronic structures of the chromophores V. A. introduced a new classification thereof, which received unanimous recognition in the scientific world.

V. A.'s entire scientific activity in the field of dyes proceeded in close connection with the problems of this

country's chemical industry. He was one of the pioneers who created the aniline dye industry in our country.

V. A. was equally successful in research work on the production of drugs, many of which are currently used in medicine. He conducted research in the field of compounds of bismuth and tartaric acid and obtained a valuable compound, bismoverol; in the investigation of arsinic acids in connection with the chemistry of salvarsan he obtained valuable medicinal compounds, for example, stovarsolan, which was later named osarsol. During the years of the Second World War, he obtained a preparation of water-soluble camphor (VI camphor) for intravenous or hypodermic injection for prevention of shock resultant from wounds and complicated operations.

His scientific work cannot be examined apart from his parallely conducted pedagogic activity. A veritible army of students in the Industrial Pedagogic Institute im. K. Libknekht and in the Pedagogic Institute im. V. P. Potemkin, who studied under him, are now working as teachers of chemistry in the colleges and high schools of our country. To improve the instruction of future chemists-educators, he compiled several manuals, including a collection of exercises in organic chemistry which was duly recognized not only in our country but abroad as well.

YURIY ARKAD'YEVICH KLYACHKO

/Following is the translation of an article by the committee on Analytical Chemistry, AS USSR in Zhurnal Analiticheskoy Khimii (Journal of Analytical Chemistry), Vol 16, No 1, Jan/Feb 1961, page 120./

The fiftieth birthday of Yu. A. Klyachko was recently observed.

Yuriy Arkad'yevich Klyachko began his scientific and teaching career in the early 'thirties, during the establishment and rapid development of our national science and industry. Until 1939 Yu. A. Klyachko worked in a factory and taught at the same time. Many of his works concerning colloidal phenomena in metals can be traced to this period. In the field of analytical chemistry, Yu. A. Klyachko devotes his main efforts to the development of methods for determining gases and impurities in light metals.

In the post-war period Yu. A. Klyachko developed the use of the periodic law in analytical chemistry and the ory of development of precipitates.

Many of Yuriy Arkad'yevich's works are dedicated to physico-chemical investigation of processes occurring in the analysis of gases in metals and in anode dissolving of alloys for the analysis of gases in them. Special attention was given by Yu. A. Klyachko to the origin and behavior of hydrogen in metals. Much was done by him in the invention of analytical apparatus.

Yuriy Arkad'yevich Klyachko wrote the following books: Oksidimetriya (Oxidemetry) (in collaboration with L. V. Timofeyev), Kurs kachestvennogo analiza (A Course in Qualitative Analysis) (in collaboration with S. A. Shapiro), and Analiz gazov i vklyucheniy v stalyakh (Analysis of Gases and Impurities in Steels).

Yu. A. Klyachko was always noted for his ebullient energy and tremendous capacity for work. Since 1933 he has been taking active part in editing the magazine Zavodskaya Laboratoriya (The Industrial Laboratory) in the All-Union Chemical Society imeni D. I. Mendeleyev, the Commission of Analytical Chemistry of the Academy of Sciences USSR, and

in the work of editorial councils of a number of magazines and publications.

More than 150 scientific works belong to the pen of Yuriy Arkad'yevich Klyachko.

From the bottom of our hearts we wish Yuriy Arkad'yevich new creative successes, health, and many years of a fruitful career.

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VSEVOLOD MAVRIKIYEVICH KLECHKOVSKIY

/Following is the translation of an unsigned article in Pochvovedeniye (Pedology), Moscow, No 3, March 1961, pages 113-115./

At the end of the year 1960 we celebrated the sixtieth birthday and the thirty-fifth anniversary of the scientific-pedagogical and public career of Academician of the All-Union Agricultural Academy imeni Lenin, Associate Member of the Agricultural Academy GDR, Doctor of Technology, Professor Vsevolod Mavrikiyevich Klechkovskiy.

In the course of 35 years the scientific and pedagogical activity of V. M. Klechkovskiy proceeded within the walls of the Moscow Agricultural Academy imeni K. A. Timiryazev. Even as a student, V. M. Klechkovskiy proved to be an able researcher and drew the attention of D. N. Pryanishnikov, who invited him as an Assistant to the Chair of Agricultural Chemistry after his graduation from the Academy.

Vsevolod Mavrikiyevich is the author of more than 200 published works in the field of agricultural chemistry and biophysics as well as on certain problems of chemistry and physics. He is the author and co-author of a number of textbooks and teaching aids on agricultural chemistry for agricultural colleges and technical schools. Many-sided knowledge and wide erudition permit V. M. Klechkovskiy to solve successfully problems of agricultural science by using the achievements of physics and chemistry.

During the pre-war period the scientific research of V. M. Klechkovskiy pertained mainly to the problems of agricultural chemistry. During the first years of his work at the chair he devoted much attention to the continuation of research which he had begun while preparing his thesis, namely, the study of quantitative laws governing the action of doses of fertilizer. During this period he published a number of papers which presented the experimental and theoretical solutions to the problem of changeability of the efficiency coefficient of fertilizers. On this problem, which was controversial at that time, contradictory points of view were expressed in foreign literature in the course of a decade.

In the field of agricultural chemistry V. M. Klechkovskiy established the significance of physico-chemical properties and mineralogical composition of soils in their interaction with fertilizers. He established the part played by specific biological features of various cultured plants in their assimilation of phosphorus which is in the state of adsorption by the soil. These works contributed materially to our understanding of complex relationships between soil, plant, and fertilizer, which determine the effectiveness of fertilizers.

During the same period V. M. Klechkovskiy completed a series of experimental and theoretical works pertaining to the nutrition of plants and the use of fertilizers for various crops. This extensive research was generalized by V. M. Klechkovskiy and included by D. N. Pryanishnikov into his classical work Agrokhimiya (Agricultural Chemistry) as a separate chapter titled "A System for Using Fertilizers in Specialized Crop Rotation" which was published in 1940. The concepts exposed in this chapter on the use of fertilizer in specialized crop rotations are of appreciable scientific and practical value even today.

After World War II the range of problems from various branches of science in which Klechkovskiy conducted theoretical and experimental research was appreciably extended. He was one of the first in our country to turn his attention to the vital importance and vast possibilities of utilizing the method of tagged atoms in agriculture and was the first scientist to use this method in agricultural chemical research, in 1946.

The use of tagged atoms in agricultural chemical research opened new possibilities for a profound experimental study of the processes of nutrition and metabolism in plants, for expanding and extending our knowledge of the nature of these processes. Moreover, the use of tagged atoms permits us to study rapidly and with a greater degree of accuracy the movement of substances in the soils, absorption and exchange of ions, and other processes occurring in the reactions of fertilizers with the soil. Prior to adoption of the isotope methods many of the important problems of agricultural chemistry could not be developed and solved correctly.

In 1947 V. M. Klechkovskiy became the Head of the Biophysical Laboratory newly organized at the Academy. Being one of the first laboratories of its type to be established in our country, it became the center of method development and initiated the extensive introduction of atomic technology into the practice of scientific and educational agricultural establishments.

The collective of the laboratory, using the tagged

atom method, conducted extensive research on the problems pertaining to plant nutrition, use of fertilizers, and also the radioactive fission products in agriculture and obtained results which manifest great theoretical and practical signigicance. That research by the laboratory made an important contribution to science and received a high award from the government.

The great theoretical and practical significance of the research in the agronomical aspect of the problem of radioactive fission products is motivated by the fact that these products are spreading in nature. The danger of an extensive distribution of such substances as strontium 90 and cesium 137 and their inclusion into the biological cycle are connected primarily with atomic weapon testing. Since the principal course for inclusion of the fission products in the biological chain is through the soil-plant link, the significance of establishing the laws governing the behavior of these substances in soils and plants and the examination of conditions which can either reduce or, to the contrary, intensify accumulation of fission products in plants is quite evident.

In order to ascertain the significance of various fission products as agricultural contaminators it is necessary to organize a comparative study of their behavior in the interaction with soils and entry into plants.

The laboratory headed by Klechkovskiy began to work on the solution of these problems which were so important for the Soviet Union. During a relatively short period they fulfilled a great program of scientific work which established the specific character of the behavior of radioactive fission products in soils and plants.

V. M. Klechkovskiy conducted extensive experimental, methodological and theoretical research which permits us to begin a systematic study of the behavior of micro-quantities of radioactive fission products in the soils and thereby lay the foundation for a new branch of the doctrine on the absorptive capacity of soils.

Agricultural chemistry and biophysical research on radioactive fission products induced Vsevolod Mavrikiyevich to study certain general theoretical problems of chemistry and atomic physics. His papers on theoretical research pertaining to the laws governing the structure of the electronic shell of the atoms, especially of the atoms of the center of Mendeleyev's periodic system, have been published during the last decade. As we well know, deviations from the "normal" (from the point of view of the classical theory) sequence of filling the electronic levels in atoms, exist in this zone. These deviations were usually interrupted as anomalies of the periodic system, as disruptions of the correct-

ness of its structure in comparison with a certain imaginary "ideal system of elements" in which the sequence of filling the quantum levels corresponds to the sequential increase of the value of the principal quantum number.

As the result of meticulous theoreticll research, V. M. Klechkovskiy succeeded in solving these contradictions.

V. M. Klechkovskiy discovered the existence of a certain region of atomic states of multi-electron atoms, within the boundaries of which the energy is determined to a greater degree by the sum of the main and orbital quantum number and not by the main quantum number alone as it was assumed previously.

He discovered a number of significant natural laws in atomic spectra and structure of electronic shells of atoms, which provide essentially new solutions for problems and permit us to predict with a greater degree of accuracy the distribution of electrons in the atom not only in the beginning of the periodic system but throughout its extent, including that portion of the periodic table which comprises the radioactive products of the fission of heavy nuclei (strontium, cesium, and others) and also the natural radioactive elements, transuranium elements and the yet undiscovered heavy and extra-heavy elements beyond the actinium series.

The research on the important scientific problems performed by Vsevolod Mavrikiyevich Klechkovskiy is known extensively not only within the Soviet Union but also abroad. A number of his scientific papers have been translated into English, French, German, Chinese, Polish, Hungarian, Rumanian, and other languages.

V. M. Klechkovskiy strives to be a worthy follower of his teacher, D. N. Pryanishnikov, who always quoted K. A. Timiryazev's words: "The duty of every scientist consists not on striving to prove the infallibility of his point of view but in being always able to renounce any opinion which remains unproven, any experiment which was proved erroneous. There is something that is higher than the scientists, be they geniuses -- that is, science itself in its advancing evolutionary movement" (Vol V, page 215).

V. M. Klechkovskiy devotes much of his attention to educational work. He has trained large numbers of agricultural chemists, Candidates of Science, Doctors. Vsevolod Mavrikiyevich contributed a great volume of work to the cause of improved training of agricultural chemists and dissemenation of knowledge of agricultural chemistry in our country.

Vsevolod Mavrikiyevich performs extensive public work. During recent years he has taken part in the Permanent Committee on Radiation of the UN as a member of the Soviet Union delegation where he actively upholds the noble proposal of

our Government on the prohibition of nuclear armaments and atomic explosions. He is a member of the Editorial Boards of the magazines Pochvovedeniye (Pedology) and Izvestiya Timiryazevskoy Sel'skokhozyaystvennoy Akademii (Herald of the Timiryazev Agricultural Academy). Klechkovskiy's public activity is as versatile as his scientific-educational work.

The collectives of the Agricultural Academy imeni K. A. Timiryazev, the Soil Institute imeni V. V. Dokuchayev AS USSR and the Editorial Board of Pochvovedeniye greet and congratulate Vsevolod Mavrikiyevich on his glorious anniversary and wish him health and further creative successes in his eminently fruitful scientific and public activities.

PAVEL DMITRIYEVICH KOLCHENOGOV

/Following is the translation of an unsigned article in Khirurgiya (Surgery), Vol 37, No 2, Moscow, 8 February 1961, Section "Obituaries", pages 149-150./

On 6 September 1960 the Reader of the Faculty Surgery Department of the Therapeutic Faculty of the I Moscow, Order of Lenin Medical Institute imeni I. M. Sechenov, Candidate of Medicine Pavel Dmitriyevich Kolchenogov, died after a prolonged and severe illness.

Having graduated in 1926 from the Faculty of Medicine of the Irkutsk State University and completed in 1929 his service as Hospital Surgeon at the Faculty Surgery Department, he worked for ten years as Hospital Surgeon and subsequently as the Director of the Surgical Department of the Railroad Hospital at the Irkutsk II Station.

Beginning with 1939 the life and activity of P. D. Kolchenogov was for 15 years, i.e., until his transfer to Moscow, intimately connected with the Irkutsk Medical Institute, where he worked at first as Assistant, then as Reader of the Faculty's Surgical Clinic headed by Prof K. P. Sapozhkov.

During these years P. D. Kolchenogov wrote 20 scientific papers on various problems of clinical surgery. In 1943 he defended his candidate's thesis on the subject of "Local Anesthesia by High-Pressure Apparatuses." The apparatus for the application of local anesthesia under high pressure invented by Pavel Dmitriyevich is widely used in hospitals of the Soviet Union and was awarded the prize of the Ministry of Health USSR.

In the years of World War II P. D. Kolchenogov was a leading surgeon of an evacuation hospital. During this period he carried out important work on the treatment of the consequences of gunshot injuries to the organs of the abdominal cavity. His colossal experience in the treatment of intestinal fistulas was summarized by him in the monograph: Obturatsiya kishechnykh svishchey (Obturation of Intestinal Fistulas) (1957) and in the paper submitted for approval as a doctorate thesis, Kishechnyye svishchi (Intestinal Fistu-

las), which he completed when he was already seriously ill.

After being demobilized from the Army, P.D. Kolchenogov returned to the Irkutsk Medical Institute and worked until 1954 as the Reader of the Department of the Faculty Surgery. Simultaneously he was the Chief Physician of the clinic hospital for several years.

A striking proof of the love and authority which P. D. Kolchenogov won among the medical workers and inhabitants of Irkutsk is the fact that he was thrice elected as Representative of the Irkutskaya Oblast' Soviet; he was assistant Chairman of the constantly active Health Commission.

In 1954 he was chosen for the post of Reader of the Department of the Faculty Surgery I MOLMI imeni I. M. Sechenov where he continued to work until his death.

During this period, despite his serious illness, he wrote a number of papers on various problems of surgery, developed an original method of utilization of a muff made of the transverse mesocolon for covering the esophagus-intestinal anastomosis in the gastroectomy operation, generalized the experience of using the small intestine for the formation of an artificial esophagus, wrote a number of papers on the diagnosis and treatment of intestinal fistulas, etc.

A humane phusician, a wonderful comrade and person, a remarkable surgeon and teacher, Pavel Dmitriyevich is the example of a true Soviet man, whose entire life was dedicated to the service of his beloved work and science.

LEV IVANOVICH KURSANOV

/Following is the translation of an article by Ye. A. Chinnov in Zashchita Rasteniy ot Vrediteley i Bolezney (Protection of Plants From Pests and Diseases), No 9, Moscow, September 1961, page 60./

Caption under photograph: L. I. Kursanov

Among the scientists of the Soviet Union engaged in the study of fungi a special place belongs to Lev Ivanovich Kursanov (1877-1954). He contributed in equal measure to the theory and practice of the science and to the training of phytopathologists.

In the pre-revolutionary period L. I. Kursanov was engaged in the study of the morphology and cytology of algae and fungi, principally those causing rust. His master's thesis: "Morphologic and Cytologic Research in the Uredineae group" (1915) received an honored place among the classical works on mycology. At that time L. I. Kursanov was already a major scientist, well known in our country and abroad. His vast erudition, great and versatile knowledge, and his sincerity attracted students, many of whom became his pupils.

Upon becoming the Head of the Department of Lower Plants newly organized in 1918 at Moscow University, L. I. Kursanov proceeded with assurance toward rapprochement of his profession with practice, primarily with phytopathology, the relationship with which constantly grew and strengthened. For a number of years he lectured at the University on general phytopathology, published papers on the morphology of rust-propucing fungi, the potato blight, the Physoderma zeae -- maydis Shaw corn parasite. These works played an important part in the protection of plants from diseases. He also studied fungi which attack buildings, railroad ties, wooden airplane parts, etc. Special mycological laboratories were organized at certain industrial branch institutes and at industrial plants.

L. I. Kursanov's attention was drawn to the physiological processes characteristic to the organisms being inves-

tigated. He developed and introduced into mycology a number of experimental physiological and biochemical methods. He was interested in the problem of parasites, in particular in the effect of the parasite on the plant on which it feeds. In this field also Lev Ivanovich and his students made a number of important discoveries.

The work on fungus physiology included also the investigation of pure fungus cultures. It was established that the fungi which cause green and blue mold on citrus fruit exhibit tremendous adaptability to the substratum on which they develop and successfully use citric acid as the source of carbon. Their development on citrus fruit causes the latter to lose their valuable properties and renders them unfit even for processing.

During the late 'thirties L. I. Kursanov actively participated in the liquidation of dangerous diseases of horses which were found to have begun as the result of using fodder infected with the Stachybotrys-alternans Bonord fungus. During the post-war years he devoted much of his attention to the study of mycorrhiza and fungi which produce antibiotics, in particular penicillin.

The scientist is the author of many textbooks and manuals, many articles in the Great Soviet, the Agricultural, and the Medical Encyclopedia.

In combining the work of the scientist and that of the educator, Lev Ivanovich trained a galaxy of disciples who successfully continue the work initiated by him throughout our vast land.

/Note/ A detailed biography of L. I. Kursanov was written by N. A. Komarnitskiy (Vestnik MGU /Herald of the Moscow State University/ No 1, 1956).

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SERGEY MIKHAYLOVICH LIPATOV

/Following is the translation of an unsigned article in Vysokomolekulyarnyye soyedineniya (High-molecular Compounds), Vol 3, No 3, May 1961, pages 488-489./

On 8 January 1961, following a short but serious illness, the prominent scientist, Academician of the Belorussian Academy of Sciences, Doctor of Chemical Sciences, Professor of the Moscow Textile Institute, Sergey Mikhaylovich Lipatov, passed away.

S. M. Lipatov was born in 1899. In 1923 he graduated from the 1st Moscow State University and thereupon began his successful scientific career.

In 1927-1929 Sergey Mikhaylovich worked in Ivanovo-Voznesensk, at first in the laboratory of the Ivanovo-Voznesensk Textile Trust, then as the Reader of the Ivanovo-Voznesensk Polytechnic Institute. During this period he devoted much of his attention to the study of the properties of dye solutions and the basic problems of dyeing and created the theory of syneresis. His original research, which had a great theoretical and practical significance, became the foundation of the course on the theory of dyeing which he created, and of the monograph which he published in 1929 Kolloidno-khimicheskiye osnovy krasheniya (Colloidal-chemical Basis of Dyeing). This monograph is even now the only existing manual by a Soviet author on the theory of dyeing.

In 1929 S. M. Lipatov began to work in Moscow. Here, on the assignment of Academician A. N. Bak, he organized at the Physico-Chemical Institute imeni L. Ya. Karpova the first Scientific Research Laboratory of Artificial Fiber in the USSR. Since that time he conducted systematic research in the field of physics and chemistry of polymers.

In 1931 Sergey Mikhaylovich organized at the All-Union Institute of Leather Industry the Laboratory of High-Molecule Compounds, the first one of its kind in the Soviet Union, and proceeded, for the first time in our country, to read a course of lectures on high-molecule compounds. In 1938 Sergey Mikhaylovich was transferred to the Colloidal Electrochemical Institute AS USSR, where he continued his

work in the direction selected.

In 1940 S. M. Lipatov was elected Academician and Vice President of the AS BSSR (Belorussian SSR). In this connection he moved to Minsk, where he performed important work in organizing at the AS BSSR a laboratory of high-molecule compounds and in training national scientific cadres.

In 1941 S. M. Lipatov was sent to Tashkent for the organization of the work of the Belorussian Academy of Sciences. Here, simultaneously with his work for the Academy, he was the Professor of the Central Asiatic State Institute.

In 1944 S. M. Lipatov transferred to work for the Moscow Textile Institute where for 17 years he held the Chair of Physical and Colloidal Chemistry. During these years he performed thermodynamic and thermochemical research in the field of polymers, recognizing the thermochemical method to be an important structural method in polymer research. In addition to theoretical research S. M. Lipatov always conducted projects of great practical significance.

In recent years Sergey Mikhaylovich organized at the Physico-Organic Institute of the AS BSSR the Laboratory of High-Molecular Compounds, in which the problems of the compatibility of polymers were examined and the properties of multicomponent systems were studied.

Systematic research in the field of polymers permitted S. M. Lipatov to write the Soviet Union's first monographs on the physics and chemistry of polymers Vysokopolimernyye soyedineniya (High-Polymer Compounds), 1934; Problemy ucheniya o liofil'nykh kolloidakh (Problems of the Doctrine on Lyophilic Colloids) AS BSSR Publishing House, 1941; Vysokopolimernyye soyedineniya (High-Polymer Compounds), AS BSSR Publisheng House, 1943.

During the many years of his activities, Sergey Mikhaylovich published approximately 200 papers on the problems of colloidal chemistry, physico-chemistry of the polymers, and chemical technology. During the 35 years of his scientific and educational activities, S. M. Lipatov trained many young experts and scientific workers, including 25 Candidates and 6 Doctors of Sciences.

Sergey Mikhaylovich was an excellent pedagogue and talented lecturer. He loved young people and devoted to them all his knowledge and strength. A great talent, self-discipline, singleness of purpose, adherence to scientific principles, and dedicated work of the scientist brought wide renown for S. M. Lipatov among the society of scientists and won him universal recognition. S. M. Lipatov was a sensitive and responsive man, unpretentious and modest, a true Communist, who gave all his life, all his knowledge, all his talent to our country. He left us at the apex of his creative powers without having completed the work he had begun, not having

finished the interesting research he planned.

The fond memory of Sergey Mikhaylovich Lipatov, a talented scientist and pedagogue, will live forever in the hearts of his students, his co-workers, and his friends.

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ALEKSANDR L'VOVICH MARKMAN

/Following is the translation of an unsigned article in Maloboyno-Zhirovaya Promyshlennost' (The Oil and Fat Industry), Moscow, No 2, February 1961, pages 47-48./

It is the 70th Birthday and the 45th Anniversary of the industrial, scientific and pedagogic activity of Honored Scientist and Technical Worker of the Uzbek SSR, Doctor of Chemistry, Professor Aleksandr L'vovich Markman.

The name of Aleksandr L'vovich is well-known in the wide circles of workers of the Soviet oil and fat industry.

From the very first days of the nationalization of the oil and fat industry in the Kuban', A. L. Markman began his work at the Krasnodar Oil and Fat Combine (1918-1930). All these years A. L. Markman was Chief Engineer of the Krasnodar Combine and directed the rehabilitation and the subsequent reconstruction of this establishment, which is the largest in the country. Aleksandr L'vovich was also the Chief Engineer in the construction of the Extraction Plant in Kropotkin, the first one built in the USSR.

In 1930 A. L. Markman went to live in Moscow where, as Chief Engineer of Soyuzmaslostroy (State Oil Extraction Plant-Building Corporation) and subsequently of Soyuzmargarin (State Margarine Corp.), he directed planning, developing, and mastering of the margarine industry, a branch of the oil and fat industry which was new to the Soviet Union, and also headed the first factories producing edible salomas (hydrogenated vegetable oil). Under his direction the plans for the Krasnodar, Khar'kov, Troitsk, and other margarine factories were developed, as well as of the Moscow and Gomel' hydrogenation plants. A. L. Markman directs the installation, starting and adjustment of the Yevdakov Fat Combine.

Beginning with 1935 A. L. Markman started his work in Uzbekistan, where for almost 15 years he held the post of Chief Engineer of the Uzbekrasmaslo (Uzbek Vegetable Oil) Trust and in the years 1942-1948 was the Director of the Industrial and Technical Department and a member of the staff of the Ministry of Food Industry, Uzbek SSR.

A. L. Markman always combined production work with scientific and teaching activities. He published more than 140 papers, many of which were written in collaboration with a group of his students.

It is notable that over the years of the existence of the Masloboyno-zhirovaya Promyshlennost' (Masloboyno-zhirovoye delo) [Oil and Fat Industry [Oil and Fat Production], since the publication of its first issue in 1925, A. L. Markman has been an active contributor to the magazine, and at one time was a member of the editorial staff.

Many of the articles by Professor Markman published in our magazine deal with most essential matters, such as extraction of vegetable oils (7 articles), hydrogenation of fats (22), production of margarine (6), and subsequently, processing of cottonseed (23).

During the post-war years A. L. Markman headed the Department of Analytical Chemistry at the Central Asian Polytechnic Institute, dedicating numerous works (22) to polarography, combining this analytical method with research on the hydrogenation of organic compounds. In 1953 Professor Markman was awarded the degree of Doctor of Chemistry for his brilliant work Polyarograficheskoye issledovaniye protsessa gidrogenizatsii organicheskikh soyedineniy (Polarographic Investigations of the Hydrogenation of Organic Compounds).

Of the works published by Professor Markman and his students in the last few years in the field of the chemistry and technology of fats, those concerning investigation of methods for determining gossypol in seeds and oils, methods of fractionating fatty acids of cottonseed oil, the development of an efficient technological system for complex processing of cottonseed, and others (15), are of great industrial significance.

A. L. Markman's teaching activities began in the year 1921 in the Moscow Technical School of the Fat Industry. Subsequently Aleksandr L'vovich has worked in the Kuban' Agricultural Institute (1923-1930), in the Moscow Chemical and Technological Institute imeni Mendeleyev (1930-1932), in the Krasnodar Chemical and Technological Institute of the Oil and Fat Industry (1939-1942), and in the Central Asian Polytechnic Institute (from 1944).

In 1932, in cooperation with Prof B. N. Tyutyunnikov, Prof A. L. Markman published the first Soviet two-volume work Tekhnologiya zhirov (Technology of Fats). In 1950, in collaboration with B. N. Tyutyunnikov and G. L. Yukhnovskiy he published a college textbook Tekhnologiya pererabotki zhirov (Technology of Fat Processing), and in 1952 a textbook Osnovy proektirovaniya predpriyatiy maslozhirovoy promyshlennosti (Fundamentals of Planning Oil and Fat Industry

Plants). Several generations of students and young specialists of the oil and fat industry were trained with the aid of these books. Moreover, between 1925 and 1938 A. L. Markman translated from the German, French, and English languages 13 books on chemistry and technology of fats, including such fundamental works as Mylovareniye (Soapmaking) by Martin in two volumes, Tekhnologiya zhirov (Technology of Fats) by Ubellode, and others.

At the present time Prof Markman is conducting extensive scientific work as Director of Laboratory of the Chemistry of Fats at the Institute of Chemistry of Vegetable Substances, Academy of Sciences Uzbek SSR, and is continuing his work in the education of young cadres of scientific workers -- 12 post-graduate students are working under his direction.

The workers of the oil and fat industry send Aleksandr L'vovich their sincere and warm congratulations on the occasion of his glorious jubilee and wish him many years of good health and creative successes for the welfare of our great Country.

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ALEKSANDR VASIL'YEVICH MUKHLYA

/Following is the translation of an article by the Collective of the Chair of Pedology of the Kazakh Agricultural Institute in Pochvovedeniye (Pedology), Moscow, No 3, March 1961, page 123./

On 14 September 1960 Professor Aleksandr Vasil'yevich Mukhlya, one of the oldest workers of the Kazakh Agricultural Institute, Honored Scientist of the Kazakh SSR, Doctor of Agriculture, died in his 73rd year after a prolonged and serious illness.

A. V. Mukhlya was born on 14 September 1887 in Alma Ata (formerly Vernyy). After graduating from the Agricultural Institute, Aleksandr Vasil'yevich specialized in pedology and dedicated more than 40 years of his creative life to the study of soils of Kazakhstan. He examined the soils of Semirech'ye, Bek-Pak-Dala, Southern Kazakhstan, valleys of Syr-Dar'ya, the Chu and Ili rivers. Using the data obtained from this research, A. V. Mukhlya published over 30 magazine articles and special papers, among which "The Soils of Dzhetysu" (1929), "Irrigation of the Agricultural Crops of Kazakhstan" (1934), "Soils of the Golodnaya Step', Their Improvement and Development" (1935), "Soils of Kazakhstan and Their Agricultural Utilization" (1936), "Principles of Geology and Minerology" (1957), and others are well-known.

In his doctorate thesis "Desert Massifs of Central Kazakhstan" (1947) A. V. Mukhlya described the natural and soil conditions of Bet-Pak-Dala and outlined the means for efficient utilization thereof for the development of distant pastures for livestock breeding.

Aleksandr Vasil'yevich successfully combined his scientific work with teaching activity, being for 25 years the Director of the Chair of Pedology at the Kazakh Agricultural Institute. Twenty graduating classes of agronomists, ten graduating classes of hydraulic engineers, and three graduating classes of foresters listened to his lectures.

Many of the students who attended the sessions of the Scientific Pedological Society of Students organized and

headed by A. V. Mukhlya became qualified pedologists and are now working in scientific research institutes and schools of the Republic.

The Soviet government valued highly the services of A. V. Mukhlya and rewarded him with the Orders of the Red Banner of Labor and Badge of Honor. He was awarded the honorary title of Honored Scientist of the Kazakh SSR. He was elected more than ten times as representative of the Alma Ata City Soviet.

An outstanding pedagogue and communist scientist has left our ranks. The fond memory of Aleksandr Vasil'yevich will live for a long time in the hearts of his pupils an co-workers.

PETR NIKOLAYEVICH PALEY

[Following is the translation of an unsigned article in Zhurnal Analiticheskoy Khimii (Journal of Analytical Chemistry), Moscow, Vol 16, No 2, March/April 1961, page 256.]

On 19 October 1960 Petr Nikolayevich Paley, one of the greatest analytical chemists, became sixty years old.

Petr Nikolayevich Paley was born on 19 October 1900 in the Ukraine, in the city of Zhitomir. Even in 1922, while a student of Leningrad State University, he taught chemistry in the Artillery Pyrotechnic School and in 1924 he began to conduct hydrochemical research using the colorimetric and electrometric methods of determining pH (which were new at that time) in connection with photochemical activity of plants. Since 1926 he has also worked in the Geological Committee on the Chemistry of Natural Waters.

P. N. Paley designed new types of portable hydrochemical laboratories and determined the chemical composition of the water of many of our country's springs. From 1929 to 1937 Petr Nikolayevich directed the Hydrochemical Laboratory of the All-Union Institute of Health Resorts. Among the many hydrochemical investigations of Petr Nikolayevich we should especially note his works on the study of the hydrogen sulfide waters of the Psekuns and Matsesta Rivers, the mineral waters of Osetiya, Dagestan, Kareliya, the Far East and the Urals, of the geochemistry of the bottom muds of the lakes of the Transural Region, the Crimea, and the Far Eastern region, and also his works on the evolution of hydrogen sulfide from the waters of the Matsesta River and the study of the sulfide-carbonate equilibrium.

Petr Nikolayevich also published several works on balneothechnology; a method devised by him for preparation of artificial hydrogen sulfide waters has been put to practical use in the health resorts of the USSR. P. N. Paley published a series of textbooks on methods of field hydrochemical analysis.

In 1937 Petr Nikolayevich went to work in the Biogeochemical Laboratory of the Academy of Sciences USSR, which was subsequently reorganized as the Geochemistry and Analy-

tical Chemistry Institute imeni V. I. Vernadskiy of the Academy of Sciences USSR, where he studied the distribution of rare and dispersed elements in mineral waters.

In 1937-1939 Petr Nikolayevich worked on methods for determining small amounts of beryllium.

In the past 15 years, while working in the Geochemistry and Analytical Chemistry Institute imeni V. I. Vernadskiy, Academy of Sciences USSR, Petr Nikolayevich concentrated on the improvement, development, and introduction of new precision methods of analysis. Concurrently, Petr Nikolayevich conducted profound and systematic research in the analytical chemistry of actinium group elements.

Petr Nikolayevich has published over 200 works. He constantly maintains close contact with many industrial laboratories and institutions, providing them with necessary assistance. He has educated a large number of young scientists, especially in the sphere of precision methods of analysis and in the analytical chemistry of the elements of the actinium group. P. N. Paley also participates in publich work, being a Member of the Commission of Analytical Chemistry. For his fruitful work P. N. Paley has received several decorations.

The Commission of Analytical Chemistry of the Academy of Sciences USSR, the editorial staff of the Journal of Analytical Chemistry, chemists-analysts, co-workers, and students wish you, Petr Nikolayevich, long years of productive scientific work.

GRIGORIY SEMENOVICH PETROV

/Following is the translation of an unsigned article in Plasticheskiye Massy (Plastics), Moscow, No 12, 1960, page 69./

On 29 October 1960 a session of the Council of Scientists of the Scientific Research Institute of Plastics took place, dedicated to the memory of the prominent scientist, one of the organizers of the plastics industry in the Soviet Union, Professor G. S. Petrov.

Beginning with 1904 Grigoriy Semenivich Petrov performed important work in splitting fats and created the "kontakt" (contact) which merited extensive renown in the USSR and abroad. Petrov's "kontakt" is obtained as the result of treatment of various petroleum fractions with fuming sulfuric acid or sulfuric anhydride. Even today Petrov's "kontakt" is used in the USSR and abroad for splitting fats and also in the textile and chemical industry.

In 1911-1914 G. S. Petrov with his co-workers initiated the establishment of the domestic plastics industry. For the first time in Russia the production of phenolaldehyde plastics was organized at the Orekhovo-Zuyevo "Karbolit" Plant. G. S. Petrov is rightfully considered the founder of this large plant.

After the October Socialist Revolution G. S. Petrov conducted research in the Institute imeni Karpov on the synthesis of carboxylic acids by oxidation of petroleum distillation products. The result of this work found practical application.

However, the principal trend of the scientific activities of G. S. Petrov was the synthesis of and research on various high-molecule substances. His work was devoted mainly to polycondensation reactions. G. S. Petrov synthesized many high-molecule products from phenols and aldehydes, urea, melamine and aldehydes, glycols, and carboxylic acids, and others.

Grigoriy Semenovich established the specific features of the behavior of high-molecule substances at high temperatures in relation to the coking ratio.

He assigned great significance to phenol-formaldehyde

condensation products as heat resistant materials with a great future.

G. S. Petrov studied in detail the process of formation of high-molecule substances in condensation reaction relative to the conditions under which the process was conducted and to the various catalysts used.

Professor Petrov's work on combining the phenol-formaldehyde condensation products with highly elastic polymers is of great value. That work enables us to combine the heat resistance of rubber.

In the last years of his life Grigoriy Semenovich performed extensive research in the field of oxydation of high molecule substances. He established the fact that oxidized condensation products are distinguished by an increased hardening rate.

G. S. Petrov has written many books and articles on the technology of plastics, fats, and petroleum. More than 200 author's invention certificates have been issued in his name. An appreciable number of G. S. Petrov's inventions are used in industry.

Professor G. S. Petrov together with Professor I. P. Losev organized the Department of Plastics in the Moscow Chemical Technological Institute imeni Mendeleyev.

G. S. Petrov has educated many pupils who are working in scientific institutions, at plants, and in schools and are continuing scientific work which they had begun during the lifetime of G. S. Petrov under his direction.

The pupils and co-workers of Grigoriy Semenovich who spoke at the meeting noted his prominent qualities as a scientist, teacher, civic leader and man.

The Council of Scientists of the Plastics Institute resolved to conduct daily reading sessions dedicated to the memory of G. S. Petrov with lectures on the best works performed by the Institute.

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VLADIMIR VENIAMINOVICH POPOV

[Following is the translation of an article by G. Ya. Bey-Biyenko and A. A. Shtakel'berg in Zashchita Rasteniy ot Vrediteley i Bolezney, Moscow, No 3, March 1961, page 63.]

On 3 November 1960 the prominent entomologist, associate member of the Academy of Sciences USSR, Professor Vladimir Veniaminovich Popov, died suddenly in the 59th year of his life.

For over 30 years until the last day of his life V. V. Popov worked in the Zoological Institute of the AS USSR in Leningrad, having started as a laboratory assistant. In 1940 he was appointed Director of the Department of Hymenoptera. In 1948 he became Director of the Department of Land Invertebrates, and in 1960 the Director of the Laboratory of Higher Insects.

V. V. Popov was a prominent expert on hymenoptera, especially of the Apidae (bee superfamily), to the study of which he devoted his entire life. He discovered and described more than 100 species and subspecies new to science. The result of the work of Vladimir Veniaminovich on taxonomy is the almost completed major work -- a catalog of the apidae of Central Asia. V. V. Popov laid a solid foundation for the ecological study of the apidae of the USSR, especially of their role in plant pollination. The papers of this cycle have a great practical significance in agriculture. In them it is proved beyond doubt that the wild bees play an important and in a number of instances a dominant role in the pollination of certain cultured plants, of alfalfa in particular. Therefore, the protection of population of such insects in nature and contribution to their propagation attain a great significance.

As an evolutionist-biologist, Vladimir Veniaminovich was interested in the interrelated evolution of the bees and the flowering plants visited by them and also in the origin and evolution of unique parasitism phenomenon in some of these insects. He published a total of more than 120 scientific papers on the problems of taxonomy, morphology, zoogeography, evolution, and ecology of insects (a complete list

of these papers is being published in the Entomologicheskoye obozreniye (Entomological Review), Vol XL, No 1, 1961.

V. V. Popov combined in himself the exceptional diligence of an armchair scientist and a field explorer. He participated in many expeditions in Kazakhstan, Central Asia, and the Transcaucasus, and in 1955-1956 he led the Soviet group of the Sino-Soviet expedition into South-western China. As a prominent Soviet scientist he was a representative at the Xth and XIth International Entomological Congresses in Canada in 1956 and in Vienna in 1960 and at the IIIrd Congress of the International Union for the Study of Social Insects (in Paris, 1957).

During many years V. V. Popov was an active member of the All-Union Entomological Society. He was elected to various posts. In 1933 he was member of the Board and Treasurer, in 1944 the accounting secretary, in the years 1949-1952 -- editor of the Entomological Review, and from 1948 -- member of the Presidium of the Society. Death has taken him at the peak of his creative powers. This is a grave loss to Soviet entomology and to all of his comrades.

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ALEKSEY ALEKSEYEVICH SMIRNOV

/Following is the translation of an article by Yu. V. Bukin, N. M. Bykov, N. P. Veresh-chagina, A. I. Kobzin, A. G. Oshchenkov, and N. P. Sokolov in the Arkhiv Anatomii, Gistologii i Embriologii (Archives of Anatomy, Histology, and Embryology), Vol XL, No 2, Leningrad, 1961, pages 126-127./

This year we celebrate the 65th birthday and 37th anniversary of the scientific, pedagogical, and civic activity of the prominent Soviet anatomist, Doctor of Medical Sciences, Professor Aleksey Alekseyevich Smirnov.

Aleksey Alekseyevich Smirnov was born on 23 January 1895. After graduation from the Military Medical Academy in 1922 he served in the Workers' and Peasants' Red Army as regimental surgeon and in 1924 published his first paper, K voprosu o sheynykh rebrakh (On the Cervical Ribs). Beginning with 1929 he dedicated himself to scientific and pedagogic work in the field of anatomy. At first (1929-1931) he worked in the Department of Normal Anatomy of the Military Medical Academy under the direction of Professor V. N. Tonkov, then (1931-1932) as Assistant in the Department of Normal Anatomy of the 1st Moscow Medical Institute (The Chair was held by Prof G. F. Ivanov), subsequently (1932-1937) as Assistant in the Department of Normal Anatomy of the 1st Leningrad Medical Institute (directed by Prof V. I. Oshkaderov) and later (1937-1941) as Reader in the same Department (directed by Prof M. G. Privés).

Simultaneously (1933-1938) Aleksey Alekseyevich was scientific worker of the Department of Human Morphology (directed by Prof N. D. Bushmakin) of the All- Union Institute of Experimental Medicine and also Assistant in the Department of Normal Anatomy (directed by Prof B. A. Dolgo-Saburov) of the 3rd Leningrad Medical Institute (1937-1940) and scientific worker of the Laboratory of Normal and Pathological Morphology of the Nervous System (directed by Prof B. S. Doynikov) of the Leningrad Branch of the All-Union Institute of Experimental Medicine (1938-1941).

In September 1940, in connection with the organization

of the Naval Medical Academy based on the 3rd Leningrad Medical Institute, Aleksey Alekseyevich was appointed Assistant and later Reader of the Department of Normal Anatomy (directed by Prof D. A. Dolgo-Saburov) of the Academy and enrolled in the Navy.

In 1936 A. A. Smirnov was awarded the degree of Candidate of Medicine and in 1943 the degree of Doctor of Medical Sciences. His doctorate thesis on the subject of "Innervation of the Carotid Reflexogenic Zone" published in the form of a monograph under the title Karotidnaya refleksogennaya zona (Carotid Reflexogenic Zone) (1945) is a valuable contribution to science and is the only work on that subject in our literature. This monograph is a valuable reference book for anatomists, histologists, and clinicians on innervation of the sinocarotid zone and outlines great long-term plans for further research in this field.

In 1945 Aleksey Alekseyevich held the Chair of Anatomy of the State Order of Lenin and Order of Red Banner Institute of Physical Culture imeni P. F. Lesgaft (Leningrad) which he has directed up to the present. In 1946 he was awarded the title of Professor. In the above-named institute, on the initiative and with the active participation of A. A. Smirnov, who had demonstrated great organized capabilities, the Department of Anatomy, which was damaged during the war, was reconstructed in a relatively short period of time and in essence was formed anew. The Histological Laboratory, Anatomical Museum (over 500 specimens), and X-Ray Department, which is extensively used in teaching anatomy on a live subject and for the study of the effects of various types of sports on the human organism (directed by Reader P. N. Sokolov), were organized.

Having established the Department Aleksey Alekseyevich organized scientific-research work in it, subordinating the subjects studied to the requirements of theory and practice of physical culture. Simultaneously with the continuation of the work on the specific features of the nervous system of the sinocarotid reflexogenic zone he began to study with his co-workers the specific characteristics of the innervation of the fascial formations in man.

The great merit of the scientific research and generalizations of Prof A. A. Smirnov consists in the fact that he always coordinates morphological data with the functional manifestations of the corresponding structures, thereby developing successfully the morpho-functional trend of Soviet morphology. The results of the scientific work of A. A. Smirnov and his co-workers are well known through oral lectures and through the press. Three candidates' theses were completed under the direction of Aleksey Alekseyevich.

Prof A. A. Smirnov is not only an experienced, fine,

exacting pedagogue and researcher but also a civic figure. He was elected repeatedly as member of the Party Bureau of the Institute, Chairman of Competition Committees and Member and Chairman of the Regional Election Committees on the Elections for Local and Republic Soviets of Workers' Deputies, Member of the Board of the Leningrad Scientific Society of Anatomists, Histologists, and Embryologists. At the Vth and VIth All-Union Congresses of Anatomists, Histologists, and Embryologists Aleksey Alekseyevich was elected Chairman of the Inspection Committee of the Board of the All-Union Society of Anatomists, Histologists, and Embryologists. In 1949 Aleksey Alekseyevich became a member of the CPSU. The fruitful scientific, educational, and civic activity of Prof A. A. Smirnov is valued highly by our Government, which has awarded him the orders of the Red Star, Badge of Honor, and the medal "For the Victory Over Germany in Great Patriotic War of 1941-1945".

A. A. Smirnov celebrated his 65th birthday at the height of his creative powers and energy.

The editorial board of the periodical Arkhiv AGE (Archives of Anatomists, Histologists, and Embryologists) wishes Aleksey Alekseyevich Smirnov further success in the cause of the development of Soviet anatomy and education of young experts in physical culture and sports.

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13. "On the Collateral and Reduced Circulation in Rabbits", Same as above, pages 138-152.
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KONSTANTIN MIKHAYLOVICH STEPANOV

/Following is the translation of an article by M. V. Gorlenko in Zashchita Rasteniy ot Vrediteley i Bolezney, Moscow, No 2, February 1961, page 57./

In 1960 we observed the sixtieth birthday of the well-known Soviet phytopathologist, Konstantin Mikhaylovich Stepanov.

After graduating from the University in 1922 he began his industrious career at the Astrakhan' Plant Protection Station (under the direction of S. Yu. Shumben'). In 1929 K. M. Stepanov went to work for the All-Union Institute for Plant Protection.

The principal trend of his research is the study of the natural laws governing the spreading of plant diseases. He studied apple scab, black stem rust, lemon mal secco, wheat root rot and others. We must note especially his work on the spread of plant diseases by air currents, development of the method of predicting the appearance of brown rust, and, of course, the summary work Gribnyye epifitotii (Fungus Epiphytotics) for which he was awarded the degree of Doctor of Biology (1958). He has published a total of more than 50 papers.

K. M. Stepanov is a man of extensive erudition in the field of phytopathology. He readily shares his knowledge with anyone who asks his advice. He has trained many candidates of sciences who are working in various institutions of the Soviet Union.

K. M. Stepanov has rendered great services to Soviet phytopathology. He is still full of strength and creative plans and without doubt will yet do much more for the cause to which he has dedicated his life.

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SERGEY DMITRIYEVICH TERNOVSKIY

/Following is the translation of an article by the Collective of the Clinic of Pediatric Surgery and Orthopedics of 2 MGMI imeni N. I. Pirogov in Ortopediya, Travmatologiya i Protezirovaniye (Orthopedics, Traumatology, and Prosthetics), Moscow, No 2, February 1961, pages 93-94./

On 19 January 1960, in the 65th year of his life, Sergey Dmitriyevich Ternovskiy, a prominent Soviet scientist passed away. He was Chairman of the Society of Orthopedic and Traumatic Surgeons of Moscow and Moskovskaya Oblast, an Associate Member of the Academy of Medical Sciences USSR, and an Honored Scientist of the RSFSR. He was a student of T. P. Krasnobayev -- the founder of pediatric surgery in our country --, and continued the work of his teacher; he was an active organizer of surgical, traumatological and orthopedic treatment for the children of the Soviet Union.

Having lost his parents while still young, S. D. Ternovskiy even during his High School and College years earned a subsistence as a masseur and tutor. In 1919, having graduated from the Medical Department of the University of Moscow, Sergey Dmitriyevich joined the Red Army and served in the Xth Army, in the ranks of which he participated in the defense of Tsaritsin. After demobilization Sergey Dmitriyevich's greatest wish came true -- he became an Assistant Surgeon in the Surgical Clinic of Moscow University, directed by one of the greatest surgeons of that time, A. V. Martynov.

The sound surgical school helped develop the correct clinical train of thought and in the long run determined S. D. Ternovskiy's desire for a scientific and teaching career. In 1925 S. D. Ternovskiy organized the Children's Division of Surgery at the Scientific Research Institute of Maternity and Child Protection of the People's Commissariat of Public Health USSR, and became its Director; concurrently he was assistant to the greatest pediatrician of our country, Academician G. N. Speranskiy. The schools of

Professors A. V. Martynov and G. N. Speranskiy played a tremendous role in helping Sergey Dmitriyevich become a children's surgeon; love of surgery combined in him with an exclusive kindness to children and an inborn gentleness and tactfulness.

Beginning in 1927 S. D. Ternovskiy worked for 18 years in the Surgical Department of the Moscow Clinical Hospital No 1 under the direction of Prof T. P. Krasnobayev. During these years Sergey Dmitriyevich acquired vast experience in surgery, traumatology, orthopedics and in the bone-and-joint tuberculosis of children, gaining authority and recognition as the greatest specialist on pediatric surgery in our country.

S. D. Ternovskiy's scientific activity, which began in 1924, is extremely diversified. To his pen belong the monographs Gnoynyy plevrit u detey i yego lecheniye (Purulent Pleurosy in Children and Its Treatment) (1938); doctorate thesis Diagnostika nekotorykh khirurgicheskikh zabolevaniy u detey (Diagnosis of Certain Surgical Diseases in Children), which was published in two editions in 1943 and 1948; Nezarashchivaniye verkhney guby u detey (Harelip in Children), and the ready for print monograph Ozhogi pishchevoda u detey (Burns of the Esophagus in Children).

Upon becoming in 1943 Head of the Department of Pediatric Surgery and Orthopedics at the 2nd Moscow Medical Institute, Sergey Dmitriyevich educated with enthusiasm the scientific-pedagogic and medical cadres of pediatric surgeons, traumatologists and orthopedists. A large number of Candidates and Doctors of Medical Sciences were trained under his direction.

A textbook on pediatric surgery for college students appeared in three editions in 1949, 1953, and 1959. The textbook also treats the problems of traumatology, orthopedics and bone-and-joint tuberculosis in children. Its style is concise and laconic to the utmost, and it is a good manual for practicing surgeons and pediatricians. Today it has been translated into many foreign languages and the languages of the Union republics. There is hardly any region of pediatric surgery to which Sergey Dmitriyevich has not contributed. Under his direction chest surgery for children became extensively used in the clinic.

Among the problems which predominantly interested S. D. Ternovskiy and to which he frequently returned during the many years of his activity we must note such diseases as bone-and-joint tuberculosis and traumatic and orthopedic illnesses in children. Sergey Dmitriyevich described the unique diagnostic symptom of the affection of the hip joint ("symptom of raising the buttock") known as the "Ternovskiy's symptom". S. D. Ternovskiy has written a number of papers

on the treatment of burns on children and he read lectures on this subject at a meeting of the Academy of Medical Sciences USSR and at other scientific conferences. The clinic headed by S. D. Ternovskiy during recent years has attained significant success in the treatment of diseases caused by burns in children, through advocating the Nikol'skiy-Betman method and the method of paraffine bandage.

S. d. Ternovskiy was the first scientist in this country to perform skin transplantation on children by the sieve graft method, which was subsequently extensively used in the clinic. An extremely interesting work by Ternovskiy concerns the application of the preservation principle in treating serious affections of the limbs of children in peace time, which affords in a number of instances to preserve the outwardly lifeless limbs. A number of works by Ternovskiy on which he spoke at conferences and sessions of orthopedists-traumatologists are devoted to the principle of treatment of fractures of children's limbs and also to the organization of traumatological help to children. The following interesting papers on pediatric traumatology have been completed by the students of Sergey Dmitriyevich under his direction: the monograph Amputatsiya konechnostey u detey (Amputation of Children's Limbs), Povrezhdeniya sukhozhiliy kisti i pal'tsev i ikh lecheniye u detey (Tendon Injury in the Hand and Fingers and Its Treatment in Children), Vnutrivennaya i vnutrikostnaya anesteziya pri operatsiyakh na konechnostyakh u detey (Intravenous and Intraosteal Anesthesia in Operations of Children's Limbs), and others.

S. D. Ternovskiy devoted much of his attention to the scientific solution of the problems of general pediatric surgery and was at the same time an extensively educated orthopedist and a worthy pupil of T. P. Krasnobayev in this branch of medicine. He proposed and introduced into practice the method of surgical treatment of the congenital high scapula position known as "S. D. Ternovskiy's method".

For a number of years S. D. Ternovskiy showed interest in the problem of conservative and surgical treatment of congenital dislocation of the hip, on which he has written a number of papers. He was the first in this country to use the conservative functional treatment of the congenital hip dislocation in a bandage-bed which replaced Lorents' method. In recent years S. D. Ternovskiy was interested in problems of osteoma in children, on which he wrote a number of papers, among them a report made at the 27th All-Union Surgeons' Congress. S. D. Ternovskiy also contributed many new and interesting observations to other branches of pediatric surgery. He proposed original methods for operative treatment of the frontal cerebral hernia, of upper harelip and cleft palate, and others. In recent years S. D. Ternov-

skiy published a number of papers of organizational nature pertaining to the principles of development of pediatric surgery, orthopedics and traumatology in our country.

In 1952 Sergey Dmitriyevich organized the Section of Pediatric Surgery at the Surgical Society of Moscow and its oblast. At the 26th All-Union Surgeons' Congress a Section of Pediatric Surgery of the Congress was organized on his initiative.

Professor S. D. Ternovskiy gained authority and affection among the workers of the 2nd Moscow Medical Institute imeni N. I. Pirogov as Dean of the Pediatrics Department, having shown in this work his administrative capabilities, skill, and tact in dealing with people. The young students showed exceptional affection and respect toward Sergey Dmitriyevich. His lectures always attracted many listeners not only among students but among physicians as well. He devoted much of his strength, love, and warmth to his favorite creation, the Students' Scientific Society, which he directed personally. On his initiative four All-Union Scientific Students' Conferences were conducted on the subjects of pediatric surgery, traumatology, and orthopedics. The participants of these conferences subsequently became members of the new and rapidly developing branch of pediatric surgery.

For a number of years S. D. Ternovskiy was elected to the following posts: Member of the Board of the Moscow Surgeons' Society where he was Assistant Chairman; Member of the Board of the Moscow Traumatic and Orthopedic Surgeons' Society, Moscow Pediatricians' Society; Member of the Board of the All-Union Society of Surgeons and Traumatologists-Orthopedists. S. D. Ternovskiy was Member of the Board of the All-Russian Society for the Dissemination of Scientific and Political Knowledge. The civic activities of Ternovskiy are as widely known as his tremendous scientific work. He was elected repeatedly as Representative of the Moscow City and Oblast Soviets.

The Government valued greatly the work of the prominent scientist and awarded him the Order of Lenin and USSR medals. S. D. Ternovskiy was Associate Member of the Academy of Medical Sciences and Honored Scientist of the RSFSR.

Death overtook S. D. Ternovskiy at the post of Chairman of the Society of Traumatic and Orthopedic Surgeons of Moscow and Moskovskaya Oblast, in the work of which he always actively participated.

S. D. Ternovskiy repeatedly represented our country at international conferences (England, Denmark) and visited socialist countries (Poland, Bulgaria) on a number of scientific missions.

Our country has lost a prominent scientist, originator

of pediatric surgery as a science, and a remarkable patriot-physician and organizer. S. D. Ternovskiy's pupils have lost an attentive and tactful teacher, a fascinating person, and their great friend whose distinctive feature was his exceptional love of the young people who always responded in kind toward their dear teacher.

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YA. YA. TOMASHEVSKIY

/Following is the translation of an article by the Polish Society of Pedologists, All-Union Society of Pedologists in Pochvovedeniye (Pedology), Moscow, No 3, March 1961, page 116./

Ya. Ya. Tomashevskiy was born on 30 December, 1884 in Ganatsevichi, former Minsk Guberniya (Province). In 1905, upon graduation from the Pinsk Secondary School, he entered the Agricultural and Forestry Institute in Pulavy (Novo-Aleksandiya). Upon graduation from the Forestry Division he specialized for two years in pedology under the direction of Professor K. D. Glinka.

In 1910 he worked in the Far East as a pedologist of the Amur Expedition on the compilation of a soil map of the Zeya-Bureya water divide and the investigation of the "Amur black soil". From 1911 to 1922 Tomashevskiy worked in the Organization for Reinforcing Sands and Gullies, Ministry of Agriculture. For 11 years he performed stationary research at the Khosheutov Experimental Field (Southern sector of the former Astrakhan' Province). During this period he published nine scientific papers, including three monographs.

In the summer of 1922 Ya. Ya. Tomashevskiy returned to his country, Poland, where he entered the Scientific-Research Agricultural Institute in Pulavy. In this Institute he worked for 23 years on the problems of scientific and applied pedology, hydrology and the improvement of meadow and swamp soils.

In 1945 Ya. Ya. Tomashevskiy was invited to the Chair of Pedology at Lyublin University and a year later was transferred to a similar Chair in the Wroclaw University where he is working even now developing stationary soil and hydrological research, studying the soil processes, origin and evolution of soils. In his recent papers on the dynamics and evolution of soils he makes an attempt to establish a new, "bio-ecological" trend in pedology, starting with the premise that the most important factor in the formation, development, and evolution of soils is the bio-ecological factor.

The All-Union Society of Pedologists congratulates Professor Ya. Ya. Tomashevskiy, an Honorary Member of the Society, on his Fiftieth Anniversary of scientific activity and wishes him many years of fruitful work.

GUSTAV YANOVICH VANAG

/Following is the translation of an article by E. Gudrinietse in the Zhurnal Obshchey Khimii (Journal of General Chemistry), Volume XXXI, No 4, Moscow, April 1961, pages 1047-1051./

10 March 1961 marked the seventieth birthday of Member of the Academy of Sciences of the Latvian SSR, Professor, Doctor of Chemistry, Honored Scientist and Technologist of the Latvian SSR, Laureate of the Prize of the Republic, Deputy of the Supreme Soviet of the Latvian SSR, Gustav Yanovich Vanag.

G. Ya. Vanag was born in Tukumskiy Uyezd of Kurland Guberniya. Upon graduating from Mitava High School, he entered the Chemical Division of the Riga Polytechnic Institute in 1910. During World War I G. Ya. Vanag worked in Moscow at a chemical-pharmaceutical plant (later known as the Chemical-Pharmaceutical Plant No 2 VSNKh, today the Salycilic Acid Plant) as chemist in charge of the production of novocain. In 1921 he graduated from the Department of Chemistry of the Latvian University, and all the subsequent years of his working life are connected with this Department. While still a student of the Riga Polytechnic Institute, he began to work as laboratory assistant to Prof O. Luts. Beginning in 1921 he worked as Assistant, Reader, and Professor at the Chair of Organic Chemistry of the Latvian Institute. From 1945 he worked in the same capacity at the Latvian State University and from 1958 in the Riga Polytechnic Institute.

In 1932 he defended the thesis on the subject of "Oxidation of the Active Methylene Group"; on 8 July 1946 the Supreme Certifying Commission ratified his degree of Doctor of Chemistry and title of Professor. From 15 July 1945 he occupied the Chair of Organic Chemistry of the Department of Chemistry in the Latvian State University, and from 1958 -- in the Riga Polytechnic Institute. For two years (from 1 July 1948 to 22 August 1950) G. Ya. was Dean of the Department of Chemistry.

From the first days of the establishment of the

Academy of Sciences Latvian SSR he has directed the Diketone Research Laboratory. Gustav Yanovich successfully combines his pedagogic and scientific research work. A large number of theses for the candidate's degrees has been completed under his direction. He successfully directs the graduate students and educates them in thd spirit of Communist morality and love for Soviet science.

G. Ya. Vanag's scientific activity is connected mainly with research in the field of β-diketones, especially in the series of indadione-1,3. As a result of this work many physiologically active substances were discovered, some of which are used in medicine and are produced on industrial scale. G. Ya. Vanag's first works pertained to oxidation of the active methylene group (1-3), bindone's derivatives (4-7), and determination of the nature of amines with the aid of phthalic anhydride.

His numerous subsequent works pertained mainly to the investigation of the cyclic β-diketones, improvement of the methods of the synthesis thereof, investigation of their reactive capacity, structure, physiological activity, their utilization in analyses, etc.

Nitroderivatives of cyclic β-diketones [8-34]. Under the direction of G. Ya. Vanag methods were developed for obtaining a number of cyclic 2-nitrodiketones-1,3. All the nitrodiketones obtained are strong acids exhibiting great reactive capacities; they can be used for the synthesis of many compounds, including those of the heterocyclic series. 2-Nitroindandione-1,3(Ia) was investigated in greater detail.

I

It is a good reagent for quantitative determination of organic bases [8], for the determination of formaldehyde [9], etc. 2-nitroindandione-1,3 can be used extensively as the original raw material in organic synthesis [8, 10-19]. With halogens it readily forms 2-halogen-2-nitroindandiones-1,3 (IIa), in which the halogen atom is very mobile.

II

Boiling 2-brom-2-nitroindandione-1,3 in a nitrobenzene solution produces ninhydrin with a 40% yield. 2-Nitroindandione-1,3 readily forms keto-group derivatives. The oxime of 2-nitroindandione-1,3 forms isoquinoline derivatives in Beckman regrouping reaction. 2-Nitroindandione-1,3 itself under the action of acetic or other anhydrides of carboxylic acids, and upon reacting with sulfuric acid forms N-oxyphthalonimide. From 2-nitroindandione-1,3, benzhydrol,

xanthydrol, fluorenol, and others, the corresponding arylhydrylnitromethanes were obtained.

Aliphatic alcohols, depending upon the quantity of the alcohol used, form esters of ω-nitroacetophenon-o-carboxylic acid or isonitrosoindandione [8] which has also been investigated by G. Ya. Vanag [20-23].

Under G. Ya.'s direction, other cyclic 2-nitro derivatives of β-diketones were investigated, namely, dimedon (1b) [24-26], 5-phenylcyclohexandione-1,3 (1c) [27], perinaphthindandione-1,3 (1d) [28], dimethoxyindandione-1,3, and bindone [29-34].

Sulfo acids of cyclic β-diketones [35-41]

Cyclic β-diketones, indandione-1,3, dimedon, phenidon (5-phenylcyclohexandione-1,3), perinaphthindandione-1,3, 2-arylindandiones-1,3, and others easily form the corresponding 2-sulfo acids (III) [35-44].

III

The sulfonation reactions occur with dioxansulfotrioxide (D-SO_3), with a mixture of suffuric acid and carboxylic acid anhydrides, chlorosulfonic acid and sulfur trioxide. Sulfo acids form benzylthiuronic salts which can be used for identifying the sulfo acids of β-diketones. By sulfonating 2-phenylinandione-1,3 with chlorosulfonic acid a red 2-phenylindandione-1,3 sulfo-4'-acid (IV) was prepared the properties of which are somewhat similar to aromatic sulfo acids.

IV

Multi-ring derivatives of cyclic β-diketones [45-61]

Cyclic β-diketones, indandione-1,3, and dimedon enter into condensation reactions with carboxylic compounds with the formation of 2-aryliden- -diketones, as well as heminal diindaldionyl-, and also bisdimedonyl derivatives. Heminal derivatives readily form the corresponding pyran derivatives. The latter, upon reaction with ammonia or amines, form dihydropyridine derivatives. It was found that dihydropyridines are easily obtained both from diidandiones and from indandione-1,3 upon being heated in the presence of a corresponding carboxyl compound and ammonium acetate in glacial acetic acid solution. Dimedon acts similarly to indandione-1,3; here acridine derivatives are obtained. Ammonium acetate also reacts with aryl-, alkyl-, and other 2-substituted indandiones and forms corresponding imines.

2-Arylhydrazono-β-diketones [62-69]. Indandione-1,3 and other cyclic β-diketones are easily condensed with diazotized aromatic amines. 2-Arylhydrazoindandiones-1,3 and 2-arylhydrazono-dimedons in pyridine solution form complexes

with salts of silver, copper, cobalt, nickel and others. These complexes can be used as mordant dyes. The sodium salt of the ethyl ester of the indandione-caboxylic acid forms with diazotized aromatic amines the corresponding ethyl esters of arylazoindandionecarboxylic acid. Azo compounds were also obtained from 2-aryldimedons.

Physiologically active substances in the indandione-1,3 series [70-84]. Of the greatest practical interest is 2-phenylindandione-1,3 (phenylin) which is a good blood anticoagulant. Anticoagulating properties are also exhibited by the following phenylin derivatives: halogen-, nitro-, oxymethyl-, and other derivatives. The above-mentioned properties are inherent in 2-acylindandiones-1,3. It was found that the latter can be successfully used as rodenticides (2-diphenylacetylindandione-1,3, pivalylindandione, and others).

The new class of compounds of the indandione series is of great interest. These are 2-amino-2-arylindandiones-1,3. Among them were found substances manifesting marcotic, anti-spasmodic, and other properties. The hydrochlorides of 2-methylamino-2-phenylindandione-1,3 ("metamfidon") and 2-ethylamino-2-phenylindandione-1,3 ("etamfon") can be classified in this group.

Under the direction of G. Ya. Vanag work is also performed on a wide scale on the investigation of iodonium derivatives of dimedon [85-90], the synthesis of new β-diketones [91-95], the chloromethylating of aromatic compounds [96-99], the study of the pyridine fraction of sapropelic pitch [100-102], the amine derivatives of fluorene [103-104], and others.

G. Ya. Vanag has published more than 200 scientific papers and five textbooks.

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Received by the Editor
14 January 1961

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MARTYN SEMENOVICH VARDANYAN

/Following is the translation of an unsigned article in Plasticheskiye Massy (Plastics), Moscow, No 12, 1960, page 68./

In October 1960 the plastics industry community marked the sixtieth birthday and the thirtieth anniversary of work in this branch of industry of the Director of the Kuskovo Chemical Plant, Martyn Semenovich Vardanyan.

Upon his graduation in 1929 from the Chemical Faculty of the Leningrad Polytechnic Institute imeni Kalinin, Martyn Semenovich began his work in the capacity of technologist at the "Krasnyy Treugol'nik" Plant.

In 1932 M. S. Vardanyan organized in the Scientific Research Institute of Plastics in Leningrad an Anti-Corrosion Materials Laboratory, where under his direction a series of works on the introduction of plastics into the national economy were performed. These works attained special significance in connection with starting operations at synthetic rubber plants.

In the same laboratory, for the first time in the Soviet Union a new chemically stable construction plastic, "faolit", was developed; production of apparatus made of this plastic material was organized on an industrial scale.

Thereupon M. S. Vardanyan participated actively in the organization of the production of vinyl acetate and of products based on it (Yerevan, Kuskovo).

Since 1940 M. S. Vardanyan has held a responsible post on the staff of the Main Administration of the Plastics Industry.

At the beginning of World War II, on the decision of the People's Commissariat of the Chemical Industry, M. S. Vardanyan was assigned the organization of production of new chemical products.

In April 1942 M. S. Vardanyan was appointed Chief Engineer and then Director of a battery tank plant, and in 1945 the Director of the Kuskovo Chemical Plant, where he is working today. Under his direction, during the past 16 years the Kuskovo Chemical Plant has become a modern enterprise with an original complex of chemical factories. The plant

has been reconstructed and outfitted with modern equipment.

At the Kuskovo Chemical Plant, for the first time in the USSR the production of cut sheet and emulsion polystyrene, styroflex films and fibers, and other products has been organized.

In collaboration with the Institute of Chemical Physics of the As USSR and the Scientific Research Institute of Plastics the collective of the Kuskovo Chemical Plant is successfully working on the production of new polymers.

In addition to his production work. M. S. Vardanyan participates extensively in civic activities. For 16 years he has been continously elected member of the Perovsk City Party Committee and Deputy of the City Soviet.

Martyn Semenovich Vardanyan has been awarded the Order of Lenin, Order of the Red Banner of Labor, Order "Honor Badge" and medals by the government of the USSR.

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DMITRIY AVERKIYEVICH VASILENKO

/Following is the translation of an unsigned article in Khirurgiya (Surgery), Vol 37, No 2, Moscow, 8 February 1961, Section "Obituaries", pages 148-149./

On 20 August 1960, in his 77th year, Honored Scientist, Doctor of Medicine, Professor Dmitriy Averkiyevich Vasilenko, Head of the Department of General Surgery of the Dnepropetrovsk Medical Institite, passed away.

D. A. Vasilenko was born in Belen'koye village of Khortitskiy Rayon, Zaporozhskaya Oblast. In 1903 he graduated from the teacher's seminary and for eight years worked as a rural teacher in the villages of the former Yekaterinoslav District. In 1911 he was admitted as a student into the Faculty of Medicine of Novorossiysk University and in 1915 was drafted into the Army as an undergraduate physician. After demobiliaation he returned to the University. In the spring of 1918 he passed the government examinations and was appointed Hospital Surgeon of the Division of Surgery of the former Provincial Zemstvo Hospital in Yekaterinoslav. From April 1919 until the end of 1921 D. A. Vasilenko served in the Red Army. From 1922 to 1937 he worked as Hospital Surgeon and then as Assistant Physician at the Surgical Clinic of the Medical Faculty of the Dnepropetrovsk Medical Institute. In 1937 Dmitriy Averkiyevich defended his thesis for the degree of Candidate of Medicine on "Subcutaneous Injuries of Intestines" and was elected as a Reader for the Clinic.

During World War II he worked as a Reader in the Faculty's Surgical Clinic of the Kazakh Medical Institute. In October 1943 he was appointed Head Surgeon of the Evacuation Administration of the Kazakh Republic.

Upon his return to Dnepropetrovsk, Dmitriy Averkiyevich organized the work in the hospitals of the oblast with all the vigor, energy, and skill inherent in him.

In 1950 he defended his doctor's thesis, "Closed Lesions in the Kidneys". Soon thereafter he was selected for the post of Professor of the Faculty's Surgical Clinic and a year later the Head of the Department of General Surgery.

Dmitriy Averkiyevich wrote and published more than 50 scientific papers on various branches of surgery. During his entire career he showed especially great interest in the study of emergency surgery, and at a later period in the diseases of the thyroid gland.

Dmitriy Averkiyevich was a fine example of a physician-clinician, pedagogue, scientist, and social worker. He was a master surgeon who manifested perfect control of the technique of the most complicated operations. His exceptional attention to the patients and his invariably friendly attitude to his co-workers set an example to be followed by Soviet physicians.

For his part in the development of Soviet medicine, care of public health, and training of medical personnel, the government of the Ukrainian SSR awarded him the eminent title of Honored Scientist. As a sign of recognition of the merits of Dmitriy Averkiyevich, he was elected to the post of Chairman of the Oblast Scientific Society of Surgeons. He was a deputy in the Oblast Soviet and member of the Party City Committee.

The government awarded D. A. Vasilenko two orders of Lenin, an order of the Badge of Honor, medals and diplomas.

The death of D. A. Vasilenko is a grievous loss to Soviet public health.

IVAN VYACHESLAVOVICH YAKUSHKIN

/Following is the translation of an unsigned article in the Vestnik Sel'skokhozyaystvennoy Nauki (Herald of Agricultural Sciences), Moscow, No 9, September 1960, pages 153-154./

On 19 July 1960, in his 75th year, one of the most prominent scientists in the field of agronomy, Professor of the Agricultural Academy imeni K. A. Timiryazev, Member - Academician of the All-Union Academy of Agricultural Sciences imeni Lenina, Ivan Vyacheslavovich Yakushkin, passed away.

I. V. Yakushkin graduated in 1909 from the Moscow Agricultural Institute (today the Agricultural Academy imeni K. A. Timiryazev) with the degree of Scientist-Agronomist. Thereupon he worked for two years in Poltava Province as an Area Agronomist and later as District Agronomist. During these years Ivan Vyacheslavovich wrote and published more than 10 papers on various problems of agronomy. In 1912 I. V. Yakushkin began to work in the Moscow Agricultural Institute, and from 1914 to 1917 he worked as Assistant at the Chair of Phytotechny. In 1915 he won his Master's degree and in 1917 was selected as Professor and director of the Chair of Crop Husbandry at the Voronezh Agricultural Institute.

Here he began his research on the cultured plants and utilization of local varieties of crops of Voronezh Province. In 1918 he wrote the paper Nekotoryye cherty tverdykh pshenits (Certain Features of Hard Wheats). During the same period he developed the theoretical foundations for crop rotation and did much for increasing the number of varieties of field crops, for creating an agricultural complex with heavy yields of wheat, potatoes, oil-producing crops, grain and pod-bearing crops, sugar beets, corn, and Sudan-grass. In 1922, on the initiative of Ivan Vyacheslavovich, the Ramonskaya Experimental Plant-Breeding Station was established. I. V. Yakushkin proposed to use expanded nutrition areas as one of the methods for beet breeding.

In 1932 Ivan Vyacheslavovich held the Chair of Crop Husbandry in the Moscow Agricultural Academy imeni K. A.

Timiryazev. Here he worked with success for more than 25 years until his retirement in 1958.

I. V. Yakushkin considered the development of the principles of increasing the yield of collective and state farms to be a most urgent task. At the experimental station of the Timiryazev Agricultural Academy which he had organized he with his pupils developed an agricultural complex for producing heavy yields of field crops in accordance with the conditions of the non-black soil belt; the problems of expanding the assortment of crops and improving the methods of cultivation of wheat, corn, sunflower, soybean, and other crops; improvement of the seeds by methods other than selection; development of methods for a better utilization of solar radiation energy by field crops, and methods of economizing in seeds and planting stock.

In his first published papers Yakushkin exposed the problems of the loss of nitrogen by cyanamide, assimilability of phosphoric acid of phosphates by the arable soil layer, of the nutrient mixtures suitable for certain field crops.

While he was studying and developing various agonomical problems, I. V. Yakushkin wrote over 260 papers which expose the problems of the theory and practice of attaining heavy crop yields.

During recent years the principal scientific work of Ivan Vyacheslavovich was devoted to the study of the problems of serial liquid top-dressing of sugar beet, grain crops, and flax prior to harvesting; development of agricultural methods for attaining heavy yields in the regions outside the black soil belt.

He prepared the materials for the text book Rasteniyevodstvo (Crop Husbandry), published in 1947 for students of agricultural schools, which became the manual for agricultural specialists. In this work he summarized the results of the research performed in experimental institutions of the USSR and also the extremely rich experience of the leading agriculturists. For this work I. V. Yakushkin was awarded the Stalin Prize.

In recent years he edited many textbooks published for three-year agro-zootechnical courses.

Academician Yakushkin devoted approximately 50 years of his life to the education of highly qualified agricultural personnel. I. V. Yakushkin is the teacher of several generations of agronomists. Today many of them are Candidates and Doctors of Agricultural Sciences. I. V. Yakushkin participated actively in the work of the courses organized by him at the Agricultural Academy for agronomists, directors of machine-tractor stations and sovkhozes and collective farm chairmen; he lectured, conducted discussions and consultations.

For his successes in scientific research and pedagogy I. V. Yakushkin was awarded the Great Gold Medals of the All-Union Agricultural Exhibition in 1940, 1954, and 1955.

Ivan Vyacheslavovich was a spirited propagandist of the foremost agricultural techniques. He devoted much labor to editing the pamphlets of the series Peredovoy opyt v sel'skom khozyaystve (Advanced Experience in Agriculture) In the foreword of almost every booklet recommended by him he provided the theoretical foundation for the results obtained by the masters of heavy crop yields and advocated the adoption of the achievements of advanced science and practice by the collective and state farms.

Ivan Vyacheslavovich participated with great devotion in civic activities and always responded to the modern requirements of socialist agriculture. During his entire scientific and civic activities he maintained close relationship with agricultural industry, with the broad masses of the workers in agriculture.

In 1937 the Sovnarkom USSR confirmed I. V. Yakushkin as member of the Government Commission on Strain Testing of Crops at the People's Commissariat of Agriculture USSR. Since 1940 he was a member of the Main Committee of the All-Union Agricultural Exhibition. From 1947 he was representative of the Timiryazev Regional Council and was elected three times as Deputy of the Moskovskaya Oblast Council.

The fruitful scientific-educational, industrial and civic activities of Academician I. V. Yakushkin was highly appreciated by the Soviet government. Twice, in 1940 and 1945, he was awarded the Order of the Red Banner of Labor and twice in 1949 and 1950, the Order of Lenin. In 1945 he was awarded the title of Honored Scientist of the RSFSR.

A man of great virtues has left us, one who dedicated his entire life to the noble cause of education of specialists for socialist agriculture. Agronomists will hold Ivan Vyacheslavovich Yakushkin in fond remembrance.

NIKOLAY DMITRIYEVICH ZELINSKIY

/Following is the translation of an article by N. I. Shuykin in the Zhurnal Obshchey Khimii (Journal of General Chemistry), Vol XXXI, No 1, Moscow, January 1961, pages I-VIII./

Six February 1961 is the centennial of the birth of Academician Nikolay Dmitriyevich Zelinskiy, Professor at Moscow State University, educator and head of the largest Soviet school of organic chemists, founder of the doctrine of the catalytic transformations of hydrocarbons and creator of the first universal gas mask.

Having received his natural science education at the Novorossiyskiy (Odessa) University, he studied abroad (Leipzig, Göttingen) for a certain period of time. Until 1893 Nikolay Dmitriyevich conducted educational and scientific research work in organic chemistry at Novorossiyskiy University where he completed and brilliantly defended his Master's (1889) and his Doctor's (1891) theses.

Personal contact with his famous teachers (A. A. Vergio, I. G. Melikishvili, I. M. Sechenov, I. I. Mechnikov, A. O. Kovalevskiy, I. Vislitsenus, V. Mayer) and later his friendship with the leading figures of the Russian progressive natural sciences (K. A. Timiryazev, N. A. Umov, I. N. Lebedev, A. G. Stoletov, I. P. Pavlov) had a decisive effect on the formation of the materialistic outlook in N. D. Zelinskiy, a natural scientist with a sweeping range of scientific interests. From the second semester of 1893 to his death on 31 July 1953 Nikolay Dmitriyevich was engaged in scientific and educational work in Moscow University where prior to 1930 he headed the joint chair of organic and analytical chemistry and subsequently -- to the last days of his life -- the chair of petroleum chemistry. At the same time he was the Director of a large department of the Institute of Organic Chemistry of the Academy of Sciences USSR, which included the laboratories of the kinetics of catalytic organic reactions, catalytic synthesis, and organic catalysis and also a department of the Petroleum Institute of the AS USSR. In addition to the above te directed jointly with L. F. Vereshchagin the Laboratory of Suber-high Pressures which had been created

through his initiative at the Institute of Organic Chemistry AS USSR.

The principal trends of the extremely large-scale and vital scientific research work of N. D. Zelinskiy are the synthesis and contact-catalytic transformations of hydrocarbons, petroleum chemistry, organic catalysis and the development of scientific bases for the selection of hydrogenation and dehydrogenation catalysts, and also the chemistry of proteins. In collaboration with his students and co-workers he published approximately 600 scientific papers. It is necessary to note his remarkable work of cracking petroleum hydrocarbons in the presence of natural alumosilicate and synthetic oxide catalysts, which anticipated E. Houdry's invention by more than 20 years. [1,2]

On the basis of his experimental research and theoretical concepts, at the height of World War I he created the first universal carbon gas mask, which in 1916 was adopted in the equipment of the Russian Army and saved the lives and health of tens of thousands of Russian soldiers. [3, 5] We must also note the extremely important use of the fundamental works of N. D. Zelinskiy and his school in the production of modern high-quality aviation fuel and industrial catalytic synthesis of individual aromatic hydrocarbons from petroleum [6,9] and also his profound research on the nature of the chemical structure of protein [10].

We do not intend to present here the contents of the remarkable works of N. D. Zelinskiy, since such presentation has been done repeatedly, the last time in 1951 in connection with his 90th birthday. [11, 12] The list of his original investigations alone would take too much time and space. We only want to stress that he performed all his scientific work prompted by patriotic duty for his great Fatherland, in close cooperation with his numerous students whom he carefully educated in the spirit of the best traditions of advanced Soviet science, and whom he loved like a father.

In the process of creative and purposeful development of extremely important branches of chemistry and its applications, he created our country's largest school for organic chemists. Moreover, several generations of young chemists obtained their creative impetus and profound knowledge of organic chemistty at the remarkable inspired lectures and in the laboratories of N. D. Zelinskiy during the 60 years of his scientific and educational activity in Moscow State University.

It is difficult to find in the Soviet Union a single chemical college, scientific research institute or large chemical plant where former students of Zelinskiy or of his co-workers and followers would not be working. In the entire course of its development this school which has been

fostered and developed in the best traditions of the modern Soviet intelligentsia, represents a capable creative collective whose principal, most authoritative director, councilor and severe, sincere well-wisher and friend was N. D. Zelinskiy.

Even during the first, Odessa, period of his scientific educational activity, he succeeded in grouping around himself and educating a large number of talented students, among whom we must note A. M. Bezredka, A. A. Bychikhin, S. G. Krapivin, A. G. Doroshevskiy, and others.

His brilliant scientific, pedagogical, and organizational activity in Moscow University can be characterized by the single fact that more than twenty of his students of this first period prior to 1916, subsequently occupied chairs of chemistry in various universities and colleges of our couhtry. Among them we can point out such well-known names as L. A. Chugayev, A. N. Reformatskiy, N. A. Shilov, S. N. Naumov, Ye. S. Przheval'skiy, A. N. Lebedev, N. A. Rozanov, A. Ye. Uspenskiy, I. V. Kulikov, V. V. Longinov, N. A. Glinka, I. F. Gütt, A. Ye. Mozer, Na. A. Shlezinger, S. S. Nametkin, B. M. Berkengeym, A. V. Rakovskiy, N. A. Izgaryshev, V. V. Chelintsev, and a number of other prominent chemists.

The second, Moscow, period of the scientific, educational, and civic activities of N. D. Zelinskiy, which began after the victory of the Great October Socialist Revolution and encompassed more than one third of a century, is the most fruitful and filled with works of the greatest theoretical and national economic significance. During this Soviet period N. D. Zelinskiy's school produced a new large group of scientists who made their reputation by major investigations. This new group of pupils includes Academicians A. N. Nesmeyanov, A. A. Balandin, and B. A. Kazanskiy, associate members of the AS USSR K. A. Kocheshkov, K. P. Lavrovskiy, Yu. G. Mamedaliyev, A. P. Terent'yev, and N. I. Shuykin; Doctors of Chemistry, Professors Yu. A. Arbuzov, P. P. Borisov, N. I. Gavrilov, G. D. Gal'pern, Ya. I. Denisenko, Ye. D. Kaverzneva, N. S. Kozlov, R. Ya. Levina, B. V. Maksorov, B. M. Mikhaylov, S. S. Novikov, G. G. Pavlov, A. F. Platé, A. M. Rubinshteyn, V. S. Sadikov, M. B. Turova, M. I. Ushakov, Ya. T. Eydus, Yu. K. Yur'yev, and large group of readers -- candidates of chemistry.

We see that in addition to solving the very important problems of the development of science and practice, he thoughtfully, actively, and purposefully fulfilled the honorable duty of educating highly qualified cadres of research chemists who have the knowledge of and experience in educational work. He always ascribed extremely great significance to the important problem of educating future scien-

tists at all stages of training. The grateful students hold sacred the fine memory of their teacher. The most valuable memorial to N. D. Zelinskiy is the further creative development of his school. After the death of its prominent director it continues to flourish and, in addition to extending and deepening of the basic ideas of Zelinskiy, creates new original trends of scientific research on the basis of modern achievements of the natural sciences. We shall attempt to refer, necessarily in brief, to the most important successful scientific investigations of the students of N. D. Zelinskiy.

The Soviet school of the chemistry of organometallic compounds, initiated and directed by A. N. Nesmeyanov, originated with the first remarkable work in the laboratory of N. D. Zelinskiy in Moscow University, where A. N. Nesmeyanov discovered and developed the reaction known as the diazo method of synthesis of organometallic compounds. In the laboratories of the Institute of Organic Chemistry AS USSR, in Moscow State University and in the Institute of Organoelemental Compounds AS USSR A. N. Nesmeyanov with his students and co-workers worked out the scientific foundations of synthesis, chemical transformations, and reactive capacity of many organometallic compounds; however, their greatest contribution was made to the chemistry of organo-mercury and organo-iron compounds and metal carbonyls and, in collaboration with R. Kh. Freydlina, to the development of the so-called telomerization of olefins with carbon tetrachloride, which led to the synthesis of important amino acids serving as yhe material for production of synthetic fibers. This school is known far beyond the borders of the USSR. During the last decade it was developed further and today encompasses the chemistry of the organoelemental compounds on which A. N. Nesmeyanov with his students and co-workers (M. I. Kabachnik, R. Kh. Freydlina, O. A. Reutov, N. K. Kochetkov, and others) are conducting important research in advancing the theory of chemical structure and reactive capacity of organic compounds.

A significant contribution to the chemistry of organometallic compounds was made by another pupil of N. D. Zelinskiy, K. A. Kocheskov who, with his students, has performed brilliant research in the vast fields of organo-tin, -lead, and -lithium compounds.

A. A. Balandin, on the basis of data obtained by N. D. Zelinskiy in the field of hydrocarbon dehydrogenation and on the basis of his own research, extensively developed and perfected the multiplet theory of catalysis by introducing into it the theory of energy correspondence and finding the values of bond energy for a number of organogens with metals (in collaboration with A. A. Tolstopyatova, S. Kiper-

man, and others). Certain works begun in collaboration with Zelinskiy were advanced by Balandin to the stage of industrial adoption, for example, such modern processes as dehydrogenation of butenes into divinyl, of pentenes into isoprene (with O. K. Bogdanova and A. P. Shcheglova) and of diethylbenzol into divinylbenzol (with G. M. Marukyan). Together with G. M. Marukyan, he also developed the reactions of the catalytic dehydrogenation of α-ethylthiophene into α-vinylthiophene and ethylpyridine into vinylpyridine. In the process of directing the scientific activity of three large collectives of scientists in the AS USSR and in Moscow State University, A. A. Balandin created the school of catalytic chemistry which is working successfully on a number of important chemical problems and processes of great significance in the national economy. The works of L. Kh. Freydlin and co-workirs in the field of selective catalytic hydrogenation of organic compounds in the liquid phase under pressure are of great interest. Principal attention in these works is devoted to the chemical mechanisms of reactions and the mechanics of their activation.

B. A. Kazanskiy has extensively developed research begun together with N. D. Zelinskiy in the field of catalytic hydrogenolysis of the pentamethylene cycle. In cooperation with A. F. Platé and other collaborators he uncovered the extremely important natural laws of breaking the ring of various cyclopentane homologs in the presence of a number of catalysts in a hydrogen atmosphere. Also, with a large collective of co-workers, he studied in detail the reaction of the dehydrocyclization of individual alkanes and mixtures thereof (in benzines) with various catalysts. In conformance with the plan of the principal trends of N. D. Zelinskiy's school, B. A. Kazanskiy and A. L. Liberman have reaently discovered an extremely interesting reaction of closing certain alkanes with the formation of a five-member cycle in contact with platinized charcoal. Work in this direction is being successfully continued at the present time. The Laboratory of Catalytic Synthesis directed by B. A. Kazanskiy at the Institute of Organic Chemistry, AS USSR, has completed certain significant research and is carrying out a number of other important investigations which have originated in the general line of operations of N. D. Zelinskiy. Among these we must first of all mention the method developed in collaboration with G. S. Landsberg, A. F. Platé, and a collective of co-woreers for analyzing individual composition of directly distilled benzines used in the oil-refining industry. To supplement the above we must mention the work of M. Yu. Lukin on the synthesis and on establishing the laws governing breaking the rings of hydrocarbons of the cyclopropane and cyclobutane series, the investigations of Ya. T. Eydus in

the field of catalytic hydrocondensation of alkenes with carbon monoxide, the works of A. F. Plate on the synthesis of unsaturated cyclic systems, on the basis of cyclopentadiene and acetylene, and the research of M. G. Gonikberg in the field of thermal transformations of hydrocarbons of various groups under super-high pressures.

The classical works of N. D. Zelinskiy in the field of dehydrogenation catalysis were developed by N. I. Shuykin with Kh. M. Minachev and other co-workers in the direction of the research of transformations of various types of hydrocarbons under hydrogen pressure and elevated temperature on metals of the VIII group of the periodic system. As a result the fundamental laws governing the contact catalytic transformations of hydrocarbons with low-percentage catalysts were discovered and the scientific principles of catalytic reforming of benzines were developed with the purpose of refining. In collaboration with T. I. Naryshkina he is also successfully developing the reaction of catalytic dehydrogenation of five-member cyclenes and cyclanes into corresponding cyclopentadienes. N. I. Shuykin and I. F. Bel'skiy have profferred and are successfully developing a new trend in the chemistry of furan compounds, namely, the study of the laws governing selective catalytic hydrogenolysis of the furan ring in various furan derivatives. These investigations resulted in the establishment of new ways for the catalytic synthesis of difficultly accessible aliphatic ketones and diketones as well as of the alkyl-cyclohexazones and individual homologs of phenol on the furfurol basis. The laws discovered permitted the authors to develop fundamentally new methods for the synthesis of dialkyl- and trialkyl-tetrahydrofurans, amines of the furan series and their high yield transformation into homologs of pyrrolidine. Recently N. I. Shuydin and N. G. Bekauri discovered a new reaction of catalytic polycyclization of higher alkanes into condensed systems of phenanthrene, anthracene, chrysene, benzanthracene, and other more complex polycycles. On the basis of this reaction they developed an original method of catalytic reforming of kerosene with the formation of a new testing luminescent fluid, the "shubekol" used at many machine-building plants, for fault detection in important metal and non-metal articles and machine parts.

In Moscow University R. Ya. Levine made a valuable contribution to the development of the chemistry of hydrocarbons. She and her co-workers developed new methods of alkane and cyclane synthesis with one, two and three quaternary carbon atoms in the lateral chain. She profferred a method of synthesis of arylcyclobutanes based on the newly discovered reaction of catalytic decomposition of tetrahydropyridazines, while another reaction discovered by R. Ya.

Levina, namely, the aromatization of tetrahydrophthalic anhydrides, is a common method for the synthesis of aromatic hydrocarbons of the series of benzene, naphthalene, indan, phenanthrene, chrysene, fluorene and their incomplete hydrides. These investigations in their turn brought about the discovery of the reaction of splitting the three-member cycle with mercury salts, which demonstrates a profound analogy in the chemical and physical properties of the three-member cycle and the double bond. Investigation of the physical properties of arylcyclopropanes and arylcyclobutanes permitted R. Ya. Levina and her co-workers to establish the existence of conjugation between the benzene ring and the three-member cycle and also with the four-member cycle, although the latter is less pronounced.

The work of K. P. Lavrovskiy in the field of development of scientific bases of fuel technology are of great scientific and practical interest and have resulted in the development of new processes for the production of high-quality gasolines. He and his co-workers have also developed a process of high-speed cracking of heavy petroleum distillates, producing a high yield of olefins, which are a valuable raw material for the production of various high-molecular compounds.

Work in the field of alkylation and chlorination of hydrocarbons is being conducted over a broad front by Yu. G. Mamedaliyev with a large collective of co-workers in Baku. The principal results of this research have already been adopted by the oil-refining industry. The original investigations by Yu. G. Mamedaliyev in the production of carbon chlorides are of great interest.

The investigations of Yu. K. Yur'yev and co-workers in Moscow University in the field of chemistry of heterocyclic compounds have attained an extensive range. Yu. K. Yur'yev, who discovered the reaction of the catalytic transformation of heterocycles, has successfully used it for the synthesis of standard specimens of cyclic sulfides and also for the catalytic transformation of furanidine (tetrahydrofuran) and tetrahydropyran into the corresponging heterocyclic compounds containing silicon. Yu. K. Yur'yev and co-workers proposed a convenient method for the synthesis of ketones and ketonic acids of the furan, pyrrole, thiophene, and selenophene series and also of benzene by acylation of tetraacyloxy- and acyloxytrichlorsilanes, for the first time developed extensively and in detail the chemistry of selenophene, described methods for the synthesis of various compounds of the furan series, established the laws governing the synthesis of diene and the reactions of replacing addition in the furan series, investigated thoroughly the reactional capacity of ketones and α-diketones of the tetrahy-

drofuran series, and put into practice their transformation into mono- and diketones of the tetrahydropyran series.

A further creative development was attained through the efforts of N. I. Gavrilov, M. M. Botvinik, Ye. D. Kaverznava, K. T. Poroshin, A. B. Silayev, M. A. Prokof'yev, Ye. A. Morozova, and co-workers in research on the structure of the micromolecule of proteins and also in the synthesis of oxyaminoacids, establishment of optimum conditions for prot in hydrolysis, and the detailed study of the composition of the products of hydrolysis. This work has appreciably expanded our concepts on the possible structure of protein molecules.

Within the boundaries of the present article it is absolutely impossible to present even schematically the successes of numerous other pupils of N. D. Zelinskiy who are developing his creative ideas. Therefore, we have omitted to mention tht excellent work of A. P. Terent'yev and his pupils in the field of synthesis of physiologically active organic compounds, the interesting research of M. B. Turova-Polyak in the field of catalytic alkylation, the work of A. M. Rubinsteyn in the physi-chemical research on catalysts, the remarkable research of S. R. Sergiyenko on the chemistry of high-molecular hydrocarbons, of B. N. Mikhaylov on the synthesis and study of the properties of organo-boron compounds, of N. S. Kozlov's research on the synthesis of amines, of Yu. A. Arbuzov's work in the field of diene synthesis on the basis of nitroso derivatives of aromatic hydrocarbons, of F. L. Vereshchagin's research on the chemistry and physics of super-high pressures, of I. N. Tits-Skvortsova's investigation of catalytic transformation of organic sulfide compounds, of P. P. Borisov's work on the oxidation of oils and individual hydrocarbons.

In order to appreciate the extensive scale of development of N. D. Zelinskiy's school it is necessary to bear in mind that the pupils of several of his closest disciples became independent research siientists in their own right and are actively engaged in scientific research work along the directions suggested by the ideas and undertakings of N. D. Zelinskiy. Many of these "chemical grandchildren" of Zelinskiy have by this time defended their candidate's and doctor's theses and some of them are members of the Academy of Sciences or are directing work in chemical and oil-refining industries.

We must note that Zelinskiy was always a confirmed partisan of a broad natural science education for chemists. Taking fully into account the necessity and rationality of specialization in connection with the differentiation of the scientific disciplines, he always remained an adversary of narrow specialization in scientists. It is true that the

modern development of science, even in its separate special divisions, requires of the scientist a broad outlook and knowledge in the field of adjacent sciences so that he may achieve profound comprehension. Only in complete mutual understanding can the individual collectives of scientists of different branches successfully solve the pressing problems on the principles of science and fulfill the major economic tasks of national significance. As early as 1922 N. D. Zelinskiy said in his closing speech at the adjournment of the IIIrd Mendeleyev Congress: "The most important and fundamental problems of our concept of Nature require a joint solution. Here the participation of the mathematician, mechanic, physicist, chemist, biologist, bacteriologist, medic, mineralogist, geologist, and even the astronomer is necessary since the microcosmos of the chemical molecules and the structure of atoms cannot but reflect in them the elements of the structures of the universe."

What is then the essence of Zelinskiy's approach to the education of future scientists and what are the conditions which ensure the high level and the wide scope of training of the chemists-scientists under his leadership? In answer to all these questions we should first enumerate a great number of exceptional qualities characterizing him not only as a major scientist of a world-wide reputation and a prominent civic figure but also as a noble, sympathetically responsive man. By this very personal charm, in conjunction with an unshakable scientific authority, his high standards of work set for himself and his pupils, persistence, and amazing capacity for work, Zelinskiy always attracted the talented young people who decided to dedicate themselves to the service of science. In his memoirs the late Academician V. N. Rodionov wrote in 1951 of N. D. Zelinskiy:[137] "He was always original in his speech, listened attentively to the opinion of others, loved debates and was angry, or rather saddened only when his opponent permitted himself to make rude personal attacks. He himself was always very tactful, although this never prevented him from firmly defending his opinion."

The personal example of the teacher in the daily creative labor, the systematic contact with the pupils in this constructive work, constant stimulation of their thinking in the process of open discussion of his ideas and new projects in private conversations and at formal debates, nurturing lively initiative in his co-workers, -- all these features attracted a stream of pupils and followers to the great instructor. Such a true leader of a school did not have to seek out able and serious students, They strove for the great honor of working with N. D. Zelinskiy.

In his ideological-educational work, he pursued a

single fundamental idea: "Only a person who possesses an enthusiasm, a passion for science and its applications can become a true scientist. A scientist should lead a selfless life and devote it unreservedly to serving the people. Loyalty to science and dedication to the socialistic Fatherland -- these ideals should be the motto of the scientist if he sincerely wants to glorify the renown of Russian scientific thought."

As a true patriot he performed vast and responsible civic work. We may say without exaggeration that among the ranks of the older generation of scientists he was one of the most prominent civic personalities. During the Czarist regime he was active as a progressive public figure of the higher school. As a partisan of higher education for women he organized in the late nineties the Department of Organic Chemistry at the newly opened Higher Courses for Women in Moscow and was its first instructor. He actively participated in the organization of the People's University imeni Shanyavskiy in Moscow. Beginning with 1892 he was active in the work th the Moscow Society of Naturalists, which is the oldest in the country. In 1921 he was awarded the title of Honorary Member of this Society, and in 1935 he was elected its President. Beginning with the nineties he took active part in the work of the Society of Natural Science, Anthropology, and Ethnography and especially in the Russian Physical-Chemical Society. From 1934 he played a leading part in the work of the All-Union Chemical Society imeni D. I. Mendeleyev, which is the successor of the Russian Physical-Chemical Society. Here too he was awarded the title of Honorary Member of the Society.

The scientific-pedagogical activity of Zelinskiy is a striking example of innovation in science. He had that inherent sensitivity for the new, which is the powerful motive force of progress. Having foreseen the great significance of radioactive emanations in scientific research, he studied the action of radium rays on hydrocarbons as early as 1922. The results of this work were reported to the IIIrd Mendeleyev Congress.[14] Ascribing an extremely great significance to the utilization of modern methods by research chemist, Zelinskiy (together with G. S. Landsberg and B. A. Kazanskiy) utilized for the detailed analysis of benzines the native Russian method of analyzing hydrocarbons by means of spectra of the combined diffusion of light, which produced (in conjunction with catalysis, chromatographis adsorption and distinct rectification) extremely valuable scientific and practical results in the qualitative analysis of complex hydrocarbon mixtures.[15] In the USSR N. D. Zelinskiy pioneered in the study of organic reactions under super-high pressures, i.e., pressures exceeding 1,000 atm. In collabo-

ration with L. F. Vereshchagin he studied the transformations of organic substance under a wide range of pressures between 2,000 and 30,000 atm./167

N. D. Zelinskiy's example was and will always be followed by his numerous disciples. Paying tribute with profound respect to tht fond memory of the head of the largest Soviet school of organic chemists, Academician Nikolay Dmitriyevich Zelinskiy, his disciples and all chemical scientists and workers will devote all their strength and knowledge to the cause of glorification and prosperity of our beloved Fatherland.

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