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Number 66

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NOTE: All Russian periodicals listed below are available in Foreign Documents Branch, CIA, except those indicated by an asterisk (*) which are available in the Library of Congress. The Japanese periodical listed below is available in the Department of State.

Abstracted in this issue:

<u>Title</u>	<u>Issue</u>	<u>Date</u>
<u>Russian Periodicals</u>		
"Arkhiv Patologii" (Archive of Pathology) Cards 81-90	Vol I No 2	Mar/Apr 1948
"Avtogennoye Delo" (Autogenous Welding) Cards 46-50	No 4	Apr 1948
"Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Novaya Seriya, Otdeleniye Geologicheskoy" (Bulletin of the Moscow Society of Naturalists, New Series, Geological Section) Cards 54-58, 68	Vol XXIII No 2	Mar/Apr 1948
"Energeticheskoy Byulleten'" (Power Engineering Bulletin) Cards 44, 45, 104	No 1	Jan 1948
"Gornyy Zhurnal" (Mining Journal)* Cards 97-103	No 4	Apr 1948
"Izvestiya Akademii Nauk SSSR, Seriya Geograficheskaya i Geofizicheskaya" (News of the Academy of Sciences of the USSR, Geography and Geophysics Series) Cards 59-66, 95, 96, 105	Vol XII No 3	May/June 1948
"Izvestiya Akademii Nauk SSSR, Seriya Matematicheskaya" (News of the Academy of Sciences of the USSR, Mathematics Series) Cards 69-71	Vol XII No 2	Mar/Apr 1948
"Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk" (News of the Academy of Sciences of the USSR, Department of Chemical Sciences) Cards 24-38	No 1	Jan/Feb 1948
"Matematicheskoy Sbornik, Novaya Seriya" (Mathematics Symposium, New Series) Card 72	Vol XXII No 2	Mar/Apr 1948
"Meditsinskaya Sestra" (Medical Nurse) Cards 91-94	No 4	Apr 1948

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"Vestnik Akademii Nauk SSSR" (Herald of the Academy of Sciences of the USSR) Cards 1-10, 39, 40, 67, 77-80	No 1	Jan 1948
Cards 11, 12, 76	No 2	Feb 1948
Cards 13-23, 41, 51-53, 106	No 3	Mar 1948
"Vestnik Elektro-Promyshlennosti" (Herald of the Electrical Industry)* Cards 42, 43	No 3	Mar 1948

Japanese Periodical

"Nihon Iji Shimpo" (Japanese Medical Journal) Cards 73-75	No 1260	19 Jun 1948
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NOTE

In indexing these abstracts the following guides are used: **MEDICINE** - "Quarterly Cumulative Index Medicus," American Medical Association; **CHEMISTRY** - "Chemical Abstracts Subject Index," American Chemical Society; **GENERAL** - "Subject Headings for Technical Libraries," US Department of Commerce, Office of Technical Services.

Distribution

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NACA	1
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RDB	2
CIA	10
FDB	<u>20</u>
Total	115

FDB Periodical Abstracts Scientific No 66		RESTRICTED
<p>USSR/Academy of Sciences Jan 1948</p> <p>"The Dagestan Scientific Research Base of the Academy of Sciences USSR," R. M. Magomedov, 3 pp</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Organizational work of the Dagestan Base was completed in Jun 1946. Installation serves in the development of the Republic's economy, with particular emphasis on electric power, petroleum, gas, farming, and animal husbandry.</p> <p>FDB 66T1</p>	<p>USSR/Academy of Sciences Minerals Jan 1948</p> <p>"Academician V. M. Severgin and the Study of the Paragenesis of Minerals (150th Anniversary of 'First Principles of Mineralogy')," Prof I. D. Sedletskiy, 2 pp</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Geologo-mineralogical circles accepted the opinion that the study of the paragenesis of minerals was first formulated by the German, Breithaupt, in 1849. However, this is not the case. Study of the paragenesis of minerals was formulated in 1798 by the Russian scholar, V. M. Severgin.</p> <p>FDB 66T2</p>	
<p>USSR/Academy of Sciences Chemistry Jan 1948</p> <p>"Aleksandr Yermingel'dovich Arbuzov (For the 70th Anniversary of His Birth)," Academician V. M. Rodionov, 5 pp</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Presents resume in some detail of Arbuzov's accomplishments in organic chemistry.</p> <p>FDB 66T3</p>	<p>USSR/Academy of Sciences Jan 1948</p> <p>"The Preparation of Young Soviet Scholars," N. K. Karatayev, 10 pp</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Presents development of the education of scientific personnel by Acad Sci USSR from the period of socialistic reform through recent reorganization, and the new system of doctorate study.</p> <p>FDB 66T4</p>	
<p>USSR/Academy of Sciences Jan 1948</p> <p>"Telegrams From the Participants in the Jubilee Sessions of the Academies of Sciences of the Union Republics to the President of the Academy of Sciences USSR, Academician S. I. Vavilov" 2 pp</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Presents telegrams of greeting to Vavilov from the Presidents of the Academies of Science of the Kazakh, Latvian, and Uzbek SSR's; thanking him for his aid and the aid of the Acad Sci USSR in their achievements, and promising greater advances in the future.</p> <p>FDB 66T5</p>	<p>USSR/Academy of Sciences Jan 1948</p> <p>"In the Presidium of the Academy of Sciences USSR" 2 pp</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Reports action taken by the Presidium in matters concerning assignment of scientific workers to doctorate study in the Academy, candidates for postgraduate study, directives to various institutes, and awarding of prizes.</p> <p>FDB 66T6</p>	
<p>USSR/Academy of Sciences Mathematics Jan 1948</p> <p>"Competition for the Prize imeni P. L. Chebyshev" $\frac{1}{2}$ p</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Dept of Physicomath Sci, Acad Sci USSR, has announced competition for the prize imeni P. L. Chebyshev for the best work in mathematics during 1946-1948. Amount of the prize is 20,000 rubles, to be awarded at the end of 1948.</p> <p>FDB 66T7</p>	<p>USSR/Academy of Sciences Physics Jan 1948</p> <p>"Competition for the Prize imeni N. D. Papaleksi" $\frac{1}{2}$ p</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Dept of Physicomath Sci, Acad Sci USSR, has announced competition for the prize imeni N. D. Papaleksi for the best work in physics during 1946-1948. Amount of the prize is 20,000 rubles, to be awarded in the beginning of 1949.</p> <p>FDB 66T8</p>	

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USSR/Academy of Sciences Physics Jan 1948 "Competition for the Prize imeni F. A. Bredikhin" $\frac{1}{2}$ p "Vest Ak Nauk SSSR" No 1 Dept of Physicomath Sci, Acad Sci USSR, has announced competition for the prize imeni F. A. Bredikhin for the most outstanding work in astronomy during 1947-1948. Amount of the prize is 10,000 rubles, to be awarded at the end of 1948.	USSR/Academy of Sciences Soil Science Jan 1948 "Extension of the Competition for the Gold Medal and Prize imeni V. V. Dokuchayev" $\frac{1}{4}$ p "Vest Ak Nauk SSSR" No 1 Dept of Geol-Geog Sci, Acad Sci USSR, announces that the date for presentation of work in competition for the gold medal and prize imeni V. V. Dokuchayev for the most outstanding achievements in soil science has been extended to 1 Mar 1948.	
FDB 66T9	FDB 66T10	
USSR/Academy of Sciences Physics Mathematics Feb 1948 "Jubilee Session of the Department of Physicomathematical Sciences" 3 pp "Vest Ak Nauk SSSR" No 2 Session held 28-29 Oct 1947. The following scientists submitted works: A. F. Ioffe, "Trends of Development of Soviet Physics," M. A. Lavrent'yeva, "Trends of Development of Soviet Mathematics," V. V. Shuleykin, "Trends of Development of Soviet Geophysics," and A. A. Mikhaylov, "Trends of Development of Soviet Astronomy."	USSR/Academy of Sciences Engineering Feb 1948 "Jubilee Session of the Department of Technical Sciences" 2 pp "Vest Ak Nauk SSSR" No 2 Session held 28-29 Oct 1947. M. A. Pavlov submitted "Development of Metallurgy as a Science During 30 Years of Soviet Rule," A. I. Nekrasov, "Works of Academician S. A. Chaplygin in the Field of Aerodynamics," and V. V. Sokolovskiy, "Works of Academician B. G. Galerkin on the Theory of Elasticity."	
FDB 66T11	FDB 66T12	
USSR/Academy of Sciences Medicine - Biology Mar 1948 "The Interspecific Struggle for Existence Among Organisms (Resolution by the Bureau of the Department of Biological Sciences, Academy of Sciences USSR)" 1 p "Vest Ak Nauk SSSR" No 3 Question discussed at the 11 Dec 1947 session of the Dept of Biol Sci. Academicians Lysenko, Shmal'gauzen, Pavlovskiy and Sukachev played prominent roles in the proceedings.	USSR/Academy of Sciences Physics Mathematics Mar 1948 "In the Department of Physicomathematical Sciences," Yu. D. Balanzhe, $6\frac{1}{2}$ pp "Vest Ak Nauk SSSR" No 3 Nov session held in the House of Science. S. E. Frish and Yu. M. Kagan submitted article, "Spectroscopic Study of Ion Movement in the Positive Pole of a Gas Discharge," and S. I. Pekar, "Theory of Boundary Crystals." At the Dec session one of the papers submitted was "Direction of the Discharge"	
FDB 66T13	FDB 66T14	
USSR/Academy of Sciences Bibliography Mar 1948 "New Books Available From the Press of the Academy of Sciences USSR" $2\frac{1}{4}$ pp "Vest Ak Nauk SSSR" No 3 Lists books available in the following fields: physicomathematical sciences, chemical sciences, geologogeographical sciences, biological sciences, technical sciences, history and philosophical sciences, material on Soviet scientific bibliography, books of the series, "Classics of Science," and some popular science series.	USSR/Academy of Sciences (Contd) Mar 1948 of Cosmic Rays and Studies of the Structure of the Earth," by Ye. F. Savarenskiy. At the Jan session B. V. Kukarkin submitted paper, "Structure and Development of the Astral System." Briefs findings of seismological expedition that studied the heavy tremors in Transcaucasus felt during the early part of 1947. Further reports of the Gram Expedition to study the nature of earthquakes in the Obi-Gram region.	
FDB 66T15	FDB 66T14	

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USSR/Academy of Sciences Mar 1948 "In the Presidium of the Academy of Sciences USSR" 2 1/4 pp "Vest Ak Nauk SSSR" No 3 Presidium in 1948 hopes to review applications of 200 doctoral candidates and 330 candidate aspirants. Of the latter, 142 have applied for admission to various bases and branches of Acad Sci USSR. Emphasis is being placed on the study of logic and psychology. Institute of Geography organized commission for study of flood currents. Reorganization of the Econ Inst to include 15 departments. Recommends institution of	USSR/Academy of Sciences Mar 1948 "Selection of Comrades I. V. Stalin, V. M. Molotov, A. A. Zhdanov, Academicians N. D. Zelinskiy, V. A. Obruchev, and D. N. Pryanishnikov as Honorary Members of the All-Union Society for the Propagation of Political and Scientific Knowledge" 2 pp "Vest Ak Nauk SSSR" No 3 First meeting of the All-Union Society for the Propagation of Political and Scientific Knowledge was held 26-27 Jan 1948. Above were awarded their honorary titles at that time.	USSR/Academy of Sciences Mar 1948 "First Results of the Creative Discussion" 11 pp "Vest Ak Nauk SSSR" No 3 For the past few months the institutes of Acad Sci USSR have been meeting and evaluating papers submitted by various scientists, candidates, and students of upper educational institutions. Briefs some of the evaluations.
FDB 66T16	FDB 66T17	FDB 66T18
USSR/Academy of Sciences (Contd) Mar 1948 Petroleum Inst in the Academy which will cooperate with the laboratories at the various oil fields. Outlines program for the newly organized Crimean Scientific Research Base of Acad Sci USSR. Deplores improper training of personnel in the scientific Russian language.	USSR/Academy of Sciences Mar 1948 "Opening Remarks of the President of the Academy of Sciences USSR, Academician S. I. Vavilov, at the Annual Assembly of the Academy (10 February 1948)" 3 1/2 pp "Vest Ak Nauk SSSR" No 3 Presents opening speech by Vavilov on 223d anniversary of Acad Sci USSR. Speech is purely political, with very little factual information.	USSR/Academy of Sciences Mar 1948 "Basic Results of the Scientific Activity of the Academy of Sciences USSR in 1947," Academician N. G. Bruyevich, Academician Secy, Acad Sci USSR, 9 pp "Vest Ak Nauk SSSR" No 3 Summary of some of the more important contributions made by the Dept of Physicomath Sci by solving 45 problems; Dept of Chem Sci, 31 problems; Dept of Geol-Geog Sci, 36 problems; Dept of Biol Sci, 83 problems; Dept of Tech Sci with 36; Dept of Hist and Phil with 42; and the Dept of Lit and Lang with 33 solutions.
FDB 66T16	FDB 66T19	FDB 66T20
USSR/Academy of Sciences Mar 1948 "Awarding of the Gold Medals and Certificates for 'Imeni' Prizes" 2 1/4 pp "Vest Ak Nauk SSSR" No 3 Lists winners who competed for prizes imeni Karpinskiy (geology), imeni Mandel'shtam (mathematics), imeni Fedorov, imeni Lebedev (chemistry), imeni Mendeleev (chemistry), imeni Kurnakov, imeni Kirov (geology), imeni Karpinskiy, imeni Vil'yams (biology), imeni Komarov (biology), imeni Pavlov (biology), imeni Bakh (biology), imeni Severtsov (biology), imeni Chaplygin (physics), and imeni Miklukho-Makla (history).	USSR/Academy of Sciences Mar 1948 "The Plan for Scientific Research Work of the Academy of Sciences USSR for 1948," Academician V. P. Nikitin, Ex-Officio Academician Secy, 2 pp "Vest Ak Nauk SSSR" No 3 Urges the Dept of Physicomath Sci to dig deeper into the mystery surrounding cosmic rays. Dept of Chem Sci is to study the various bonds that hold matter together. Dept of Geol-Geog Sci is to clarify problems in tectonics. Dept of Biol Sci is urged to clear up many problems surrounding the structure, nature, etc., of albumin.	USSR/Academy of Sciences Mar 1948 "The Plan for Scientific Research Work of the Academy of Sciences USSR for 1948," Academician V. P. Nikitin, Ex-Officio Academician Secy, 2 pp "Vest Ak Nauk SSSR" No 3 Urges the Dept of Physicomath Sci to dig deeper into the mystery surrounding cosmic rays. Dept of Chem Sci is to study the various bonds that hold matter together. Dept of Geol-Geog Sci is to clarify problems in tectonics. Dept of Biol Sci is urged to clear up many problems surrounding the structure, nature, etc., of albumin.
FDB 66T21	FDB 66T22	FDB 66T22

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USSR/Academy of Sciences "Decrees of the General Assembly of the Academy of Sciences USSR, 11 February 1948" 1 p "Vest Ak Nauk SSSR" No 3 Records minutes of the meetings on 11 Feb 1948.	Mar 1948 FDB 66T23	USSR/Academy of Sciences "Academician Aleksandr Erminingel'dovich Arbuzov," B. A. Kazanskiy, M. I. Kabachnik, 6 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Written in honor of A. Ye. Arbuzov's 70th birthday, with summary of his scientific activities to date. Includes details of his method of synthesis and other experimental data.
USSR/Academy of Sciences "Academician Evgen'yevich Poray-Koshits," V. Rodionov, 3½ pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Written in honor of A. Ye. Poray-Koshits' 70th birthday, with summary of his scientific activities to date. Includes details of his work on dyes.	Jan/Feb 1948 FDB 66T25	USSR/Chemistry - Diazo Compounds Chemistry - Titration, Potentiometric "Composition and Transformation of Diazo Compounds," B. A. Poray-Koshits, I. V. Grachev, Inst of Org Chem, Acad Sci USSR, 14 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Using potentiometric titration method with glass anode, authors established number of basic laws and constructed new theory on the structure of diazo compounds. Theory has clarified number of previously incomprehensible phenomena.
USSR/Chemistry - Organic Compounds Chemistry - Lead Compounds "Quasi-Complex Lead Compounds," A. I. Nesmeyanov, P. Kh. Freydlina, A. Kochetov, Inst of Org Chem, Acad Sci USSR, 7 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Describes how lead organic compounds belonging to the β -vinyl chloride group are obtained. Gives details of research on the interaction of these compounds with mercury and chloride of tin, and on their reaction to the action of alkalis, water, Grignard reagent, and hydrazidine.	Jan/Feb 1948 FDB 66T27	USSR/Chemistry - Ketones, 1,3-Butadiene Chemistry - Acetylene, Derivatives "Acetylene Derivatives, Part LVIII: The Chemistry of Divinyl Ketones, X, the Addition of Hydrogen Sulfide to β , β -Dimethyldivinylketone," I. N. Nazarov, A. I. Kuznetsova, Inst of Org Chem, Acad Sci USSR, 9 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Details study of the mechanism of the compounding of hydrogen sulfide with β , β -dimethyldivinylketone, showing simple method of obtaining unsaturated ketothiol (II), thiopyron (V), and diketosulfide (VII).
USSR/Chemistry - Acetylene, Derivatives Chemistry - Heterocyclic Compounds "Acetylene Derivatives, Part LVII: The Mechanism for Forming Oxygen Heterocycles. Ring Formation of Unsaturated α -Ketone Alcohols Into Tetrahydrous β -Furanons," I. N. Nazarov, Inst of Org Chem, Acad Sci USSR, 11 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Describes ring formation of unsaturated α -ketone alcohol into tetrahydrous- β -furanons, and development of the ion mechanism of the formation of oxygen heterocycles by means of the ring formation of unsaturated hydro-acid-containing compounds and the 1,4- or 1,5-glycols corresponding to them.	Jan/Feb 1948 FDB 66T29	USSR/Chemistry - Acetonitrile Chemistry - Mixtures "Some Physical Qualities of a Mixture of Acetonitrile With Water, and the Azeotropic Mixture of Acetonitrile - Water," A. L. Liberman, Z. N. Parnes, D. N. Kursanov, Inst of Org Chem, Acad Sci USSR, 5 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Describes experiments and research that show the nature of the azeotropic mixture of acetonitrile with water at atmospheric pressure, and establish its composition and physical qualities.

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USSR/Chemistry - Phosphorous Acid, Ethers of Chemistry - Organic Compounds "Investigation in the Field of Phosphororganic Compounds, Part IX: The Miscellaneous β -Chloroethyl-ethyl Ethers of Phosphorous Acid," M. I. Kabachnik, P. A. Rossiyskaya, Inst of Org Chem, Acad Sci USSR, 5 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Detailed description of how to obtain β -chloroethyl-ethyl ethers of phosphorous acid, and of the isomerization during heating. FDB 66T31	USSR/Chemistry - Systems, Ternary Chemistry - Thermal Analysis "Ternary System, Aluminum - Magnesium - Lithium, Part II: Diagrams Showing Composition of Subsidiary Cross Sections," F. I. Shamray, Inst of Gen and Inorg Chem, Acad Sci USSR, 14 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Subsidiary cross sections of ternary system aluminum-magnesium-lithium studied by methods of thermal analysis and microstructure, and photographs of resultant diagrams included. FDB 66T32	
USSR/Chemistry - Platinum Compounds Chemistry - Valency "The Theory of Cis- and Trans-Conversion in Complex Platinum Compounds," Ya. K. Syrkin, Phys Chem Inst imeni Karpov, 14 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Studies this question in the light of the theory of directional valences, and shows that the presence of the ds of hybridization permits clarification of cis- and trans-orientation during intraspherical replacement reactions. FDB 66T33	USSR/Chemistry - Acetaldehyde Chemistry - Oxidation "The Kinetics of Acetaldehyde Oxidization in the Gas Stage, I," Z. K. Mayzus, N. M. Emanuel', Inst of Chem Phys, Acad Sci USSR, 12 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Describes experiments conducted in the gas phase of acetaldehyde oxidization, and indicates the unusual character of the kinetic curve of pressure change where drop in pressure at the beginning of the process subsequently gives way to increase. FDB 66T34	
USSR/Chemistry - Coatings, on Metals Chemistry - Scratching, Resistance to "New Method of Determining the Thickness of Natural Passivating Coatings on Metals," I. V. Krotov, T. M. Khachadurova, Moscow Aviation Inst imeni Serge Ordzhonikidze, 7 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Describes new method to determine the thickness of coatings on metals by determining the depth of scratches produced on metal by means of simple instrument. Includes diagram of latter. FDB 66T35	USSR/Chemistry - Systems, Ternary Chemistry - Conductivity, Electric "Investigation of Anhydrous Solutions by Physical Chemical Analysis, Part III: Triple System, Aniline - Acetic Anhydride - Water; Fusibility, Conductivity, Viscosity," M. A. Klochko, O. P. Chanukvadze, Inst of Gen and Inorg Chem, Acad Sci USSR, 9 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Describes study of electroconductivity and viscosity at temperatures of 0 ^o -75 ^o , and also of fusibility in triple system, aniline - acetic anhydride - water. FDB 66T36	
USSR/Chemistry - Coatings, Oxide on Aluminum Chemistry - Coatings, Anodic on Aluminum "Oxide Coatings on Metals, Part III: Electronographic Investigation of Oxide Coatings Produced on Aluminum During Gas Discharge," F. D. Dankov, D. V. Ignatov, Inst Phys Chem, Acad Sci USSR, 10 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Examination of the question of the structure and mechanism of the formation of anode coatings on aluminum led to the conclusion that it was necessary to carry out experiments under conditions free from the dissolving action of the electrolyte. Describes experiments. FDB 66T37	USSR/Chemistry - Aluminum, Crystals Chemistry - Electrons "Experimental Study of Electron Density in Crystals, Part I: Electron Density of Aluminum," N. V. Ageyev, D. L. Ageyeva, Inst Gen and Inorg Chem, Acad Sci USSR, 10 pp "Iz Ak Nauk SSSR, Otdel Khim Nauk" No 1 Describes experimental determination of the f-curve of aluminum, and calculation of the division of electron density in aluminum crystal by Fourier's triple series method. FDB 66T38	

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USSR/Chemistry - Photochemistry Chemistry - Dyes	Jan 1948	USSR/Chemistry - Photochemistry Chemistry - Electrodes	Jan 1948
"Book Reviews" 2 pp		"Jubilee Sessions of the Departments: The Department of Chemical Sciences" 4 pp	
"Vest Ak Nauk SSSR" No 1		"Vest Ak Nauk SSSR" No 1	
M. V. Savost'yanova reviews "Photochemistry of Dye-stuffs and Related Organic Compounds," by Academician A. N. Terenin. Book discusses photoreaction of molecular oxygen, and photooxidation and photoreduction, said by the reviewer to be the most interesting and original portions.		Records events of the meeting of the Dept of Chem Sci. Gives summaries of papers presented on photochemical processes in the movement of protons; neutral points, contact potentials, and the kinetics of electrode processes; problem of rare elements in the USSR; new system of thermochemistry; symmetry and reaction capacity of the molecules in compounds	
FDB	66T39	FDB	66T40
USSR/Chemistry - Isomers Chemistry - Films	Mar 1948	USSR/Chemistry - Photochemistry (Contd) Jan 1948	
"In the Department of Chemical Sciences" 3½ pp		of platinum; nature of photographic sensitivity; action of acetyl chloride on sodium diethylphosphite; the study of the mechanisms of several chemical reactions by the isotope method; new investigations of alkaloids of series 1-methylpyrrolizidine.	
"Vest Ak Nauk SSSR" No 3			
Dec session held 30-31 Dec 1947. M. A. Poray-Koshits submitted paper, "New Possible Aspects on Isomers in Inorganic Compounds," and A. N. Krotova, "Electrical Nature of Tearing Films From Various Surfaces." Laboratory of Intermediary Products submitted report on the kinetics of some oxidizing actions in mixtures subjected to cooling.			
FDB	66T41	FDB	66T40
USSR/Electricity Circuit Breakers Mathematics, Applied	Mar 1948	USSR/Electricity Motors, Electric Testing Equipment, Electrical	Mar 1948
"The Gas Dynamics of a Pneumatic Circuit Breaker," N. N. Linnichenko, Candidate Tech Sci, All-Union Electrotech Inst imeni V. I. Lenin, 3 pp		"An Apparatus for Testing Three-Phase Asynchronous Electric Motors," M. M. Zil'bersheyd, Engr, Tech Adm MEP, 6 pp	
"Vest Elektro-Prom" No 3		"Vest Elektro-Prom" No 3	
Examines some of the gas dynamic problems concerned with the initial mechanical operation in the process of circuit disconnection in highly theoretical mathematical discussion.		Specification of methods for testing electrical machines makes it necessary to develop testing apparatus capable of carrying out all the tests demanded by the Government All-Union Standards and maintain high productivity with minimum expenditure	
LC	66T42	LC	66T43
USSR/Engineering Turbines, Gas Pipe	Jan 1948	USSR/Electricity (Contd) Mar 1948	
"Concrete Pillars, and the Installation of Gas and Air Pipes for Gas Turbines," M. V. Gladkov, OrgEnergoneft, 4 pp		of work. Discusses problems arising in measuring control devices, electrical feeding systems, and automatic control and signal systems, with complete mathematical appendix.	
"Energet Byul" No 1			
Discusses: 1) concrete pillars for foundations, and 2) gas and air pipes for turbocompressors. In particular, discusses some of the basic facts about installation of concrete pillars underneath gas-turbine unit. Explains such details as the type of pillars			
FDB	66T44	LC	66T43

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USSR/Engineering (Contd)	Jan 1948	USSR/Engineering Power Plants, Diesel Electric Systems, Air	Jan 1948
and the matter in which the foot should be set. Turbines and compressors have to be serviced with efficient air pipes. Briefly discusses some factors that enter into installation of turbine units, with particular emphasis on gas and air pipes.		"The Air Systems of Diesel Power Stations," B. A. Rusanov, GiprovostokNef't, 5 pp	
"Energet Byul" No 1		Discusses role of the air systems at Diesel power stations. Air plays very important part: 1) for oxidizing the fuel within the cylinders, 2) vaporization of the fuel in compression-type Diesels, 3) exhausting of the cylinders in two-cycle engine, 4) starting the engines, and 5) technological	
FDB	66T44	FDB	66T45
USSR/Engineering Welding, Spot Steel Welds	Apr 1948	USSR/Engineering (Contd)	Jan 1948
"Spot Welding of SKhLF Steel," A. S. Gel'man, Candidate Tech Sci; S. S. Astaf'yev, Engr, TsNIITMASH, 9 1/2 pp		processes for reclaimed oil. Thus it can be seen that proper air supply is most important at Diesel power station. Briefly describes the highlights and requirements for each of the five above-mentioned facts.	
"Avtogen Delo" No 4		FDB 66T45	
Use of spot welding on low alloyed steel in building means of transportation led to series of tests on SKhLF steel. Describes characteristics of subject steel, apparatus and equipment used in the tests, and methods used for the experiments. Discusses results of welding 4-mm plates, and 8-mm plates. Determined that thermal treatment is necessary to insure the quality of spot welds on 4-mm SKhLF steel.		USSR/Engineering Welding, Gas Gas Pipes	
FDB	66T46	FDB	66T45
USSR/Engineering Welding, Seam Welding - Equipment	Apr 1948	"Mechanical Properties of Welded Joints Produced by Gas Pressure Welding During Assembly of Pipe Lines," A. S. Fal'kevich, Engr, Welding and Repair Trust GlavNefteGazProm, 2 1/4 pp	Apr 1948
"Contact Seam Welding at High Speeds," G. V. Nedzvet'skiy, Candidate Tech Sci, 2 pp		"Avtogen Delo" No 4	
High-speed contact seam welding is necessary for such production operations as the welding of the pipes in the radiator of an automobile. Describes tests conducted on rapid welding where author was able to attain 30 m/min using seaming equipment AShB-50, produced by the "Elektrik" Works.		Tests conducted on gas-pressure welded joints used for the construction of the gas pipe from Dashava to Kiev, and Estonia to Leningrad in 1947. Briefs information on the pipes used, and the technological	
FDB	66T47	FDB	66T48
USSR/Engineering Welding, Arc Welding, Electrodes	Apr 1948	USSR/Engineering (Contd)	Apr 1948
"Producing Cutting Machines for Electric Arc Weld Seams With Specially Insulated Electrodes," Z. M. Ryzhik, Engr, 1 1/2 pp		parameters of the gas-pressure welding system on thin-walled pipes. Tests also conducted on the mechanical properties of the pipe: expansion, bending, and breakage. Metallographic studies conducted to determine external defects of seams welded by gas-pressure method.	
"Avtogen Delo" No 4		FDB 66T48	
Describes various steps and actual performance of the steps in the subject method for producing cutting machines. Describes method to insulate electrodes, technology of the process of welding, mechanical and thermal processing of the miller, and methods to control the quality of the finished product.		FDB 66T48	
FDB	66T49	FDB	66T48

RESTRICTED	FDB Periodical Abstracts Scientific No 66	RESTRICTED
<p>USSR/Engineering Welding - Strength Steel Welds</p> <p>Apr 1948</p> <p>"The Effect of Heat Treatment on the Durability of Welded Points in Welding Chromansil Steel," F. Yo. Tret'yakov, Engr, 2 pp</p> <p>"Avtogen Delo" No 4</p> <p>Results obtained from studies conducted to determine the durability of welded point and the effect of thermal treatment after welding. Gives operations prior to carrying out the experiments, and the actual experiments.</p> <p>FDB 66T50</p>	<p>USSR/Engineering Fuels Conductors</p> <p>Mar 1948</p> <p>"In the Department of Technical Sciences" 1 1/2 pp</p> <p>"Vest Ak Nauk SSSR" No 3</p> <p>Dec session convened toward end of Dec. Two papers submitted: 1) V. I. Popkov, "Theory of Bipolar Coronas on Conductors," and 2) A. B. Chernyshev, "Energochemical Use of Solid Fuels After Passed Through a Semicooking Process."</p> <p>FDB 66T51</p>	
<p>USSR/Geology Ore Deposits Soil Studies</p> <p>Mar 1948</p> <p>"Jubilee Session of the Department of Geologo-Geographical Sciences" 5 pp</p> <p>"Vest Ak Nauk SSSR" No 3</p> <p>Session convened in honor of the 30th Anniversary of the Great October Revolution. Briefs progress achieved by subject department. V. A. Obruchev submitted "The Role and Significance of Young Faulting Processes in the Formation of Relief and Rare Metal Deposits in Siberia." A. N. Zavaritskiy</p> <p>FDB 66T52</p>	<p>USSR/Geology Petrology Tectonics</p> <p>Mar 1948</p> <p>"Department of Geologo-Geographical Sciences" 3 1/2 pp</p> <p>"Vest Ak Nauk SSSR" No 3</p> <p>Ye. V. Shantser's "Regularities in the Construction and Formation of Alluvial Schists" was one of the articles submitted to the Geological Institute. In Jan Petrography Section met; among papers evaluated was one by V. I. Luchitskiy, "Hybridism in the Granites of the Western Ukraine." On 26 Jan the Inst of Geol Sci convened to celebrate the 70th</p> <p>FDB 66T53</p>	
<p>USSR/Geology (Contd)</p> <p>Mar 1948</p> <p>submitted paper on historical development of vulcanology in Russia. I. P. Gerasimov presented new state soil chart on the Soviet Union (RF 1:1,000,000). There are 200 maps to the series.</p> <p>FDB 66T52</p>	<p>USSR/Geology (Contd)</p> <p>Mar 1948</p> <p>birthday of Ivan Aleksandrovich Preobrazhenskiy. I. I. Ginzburg at that time published his work on the "Life and Works of I. A. Preobrazhenskiy."</p> <p>FDB 66T53</p>	
<p>USSR/Geology Tectonics Stratification</p> <p>Mar/Apr 1948</p> <p>"The Paleogeography of Southeastern Caucasia in the Upper Albian Epoch," V. A. Grossgeym, 17 1/2 pp</p> <p>"Byul Mosk Obsh Ispy Prirod, Otdel Geolog" Vol XXIII, No 2</p> <p>Author bases attempt to give the character of the basin and the nature of the residue accumulation in the Upper Albian epoch of southeastern Caucasia on material and data he collected. Draws some conclusions on the presence of currents and several sources of material deposited in the basin.</p> <p>FDB 66T54</p>	<p>USSR/Geology Tectonics Stratification</p> <p>Mar/Apr 1948</p> <p>"On the Possible Character of Deformations in the Deep Layers of the Earth's Crust and the Layers Below the Crust," V. A. Magnitskiy, 20 pp</p> <p>"Byul Mosk Obsh Ispy Prirod, Otdel Geolog" Vol XXIII, No 2</p> <p>Tests conducted to compare gravimetric and seismic data on the nature of the deformations deep in the layers of the earth. Tests were based on Maxwell's theory on elastic-viscous deformations, tests conducted by Indian scientists to determine the</p> <p>FDB 66T55</p>	

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<p>USSR/Geology Tectonics Oil Regions</p> <p>Mar/Apr 1948</p> <p>"The Paleogeographical Conditions of Deposits in Upper Melovian Time in the Emba Oil Fields," Yu. P. Nikitina, 20 pp</p> <p>"Byul Mosk Obsh Ispy Prirod, Otdel Geolog" Vol XXIII, No 2</p> <p>Summary of lengthy descriptions of the stratigraphy of the Lower Cretaceous deposits of the Emba petroleum deposits. Author bases on this summary the paleogeographic characteristics of the nature of the formation of deposits in the Lower Cretaceous deposits</p> <p>FDB 66T56</p>	<p>USSR/Geology (Contd)</p> <p>Mar/Apr 1948</p> <p>propagation of ultrahigh-frequency waves through liquid, tests on the deformation of materials due to high pressures and prolonged tensions, and analyses of data collected by gravimetric means from past data.</p> <p>FDB 66T55</p>	
<p>USSR/Geology (Contd)</p> <p>Mar/Apr 1948</p> <p>for all of the Ural-Emba region. Studies of facial character and changes in the width of the Lower Cretaceous horizons permit more efficient surveys for oil deposits in the Lower Cretaceous layers of the Emba Oil fields.</p> <p>FDB 66T56</p>	<p>USSR/Geology Tectonics</p> <p>Mar/Apr 1948</p> <p>"Some Regularities in the Distribution of Salt Domes in the South Emba Region," Yu. A. Kosygin, N. A. Shvemberger, Yu. P. Nokitina, 4 pp</p> <p>"Byul Mosk Obsh Ispy Prirod, Otdel Geolog" Vol XXIII, No 2</p> <p>Authors, taking as examples the distribution of domes in the periphery of the Baychunasskiy depression, show that the localization and orientation of salt domes in the western Transkazakhstan is closely connected to the formation of the contemporary depressions in the Pre-Caspian syncline.</p> <p>FDB 66T57</p>	
<p>USSR/Geology Stratification Petrology</p> <p>Mar/Apr 1948</p> <p>"New Data on the Stratigraphy of Eastern Alai," A. Ye. Mikhaylov, 9 1/2 pp</p> <p>"Byul Mosk Obsh Ispy Prirod, Otdel Geolog" Vol XXIII, No 2</p> <p>Stratigraphic division of the mineral rock which makes up the basin of the middle reaches of the Chalkuyryuk River in eastern Alai. Describes Upper Silurian, and Devonian, and the Lower and Upper Carboniferous deposits. First describes the above Jurassic deposits,</p> <p>FDB 66T58</p>	<p>USSR/Geology Caverns</p> <p>May/June 1948</p> <p>"On Some Problems of the Theory of Caves," V. A. Aprodov, Molotov State U, 11 pp</p> <p>"Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3</p> <p>Describes caverns as geomorphological process, thus leading to basic understanding of the dynamics of caverns and cavern formation. Discusses classification of cavern formation. Submitted by Academician A. A. Grigor'yev 19 Feb 1948.</p> <p>FDB 66T59</p>	
<p>USSR/Geology (Contd)</p> <p>Mar/Apr 1948</p> <p>and differentiates this stratum from the Upper Silurian under which it used to be classified. Determines the origin of the slate-clay layers of the Upper Carboniferous and presents characteristics of the fauna of the upper rock coal conglomerate, which previously had been classed as Permo-Carboniferous (C₃ + P).</p> <p>FDB 66T58</p>	<p>USSR/Geophysics Climate Snow</p> <p>May/June 1948</p> <p>"Physical Processes in Snow Cover," A. A. Shakhiv, Sci Res Aerodrome Sta, 9 1/2 pp</p> <p>"Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3</p> <p>Critically analyzes three theories of the hardening of snow cover. Pays most attention to the sublimation-thermodynamic theory, which best gives the characteristics of snow cover. New data confirms the process of sublimation in snow cover and the large significance of water vapors. Submitted by Academician L. S. Leybenzon 27 Jul 1946.</p> <p>FDB 66T60</p>	

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USSR/Geophysics Soundings, Meteorological May/June 1948	"Unipolar Electrical Sounding," B. S. Enenshteyn, Geophys Inst, Acad Sci USSR, 10 pp "Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3 Studies methods of unipolar electrical sounding, and describes results of practical application of subject method. Submitted by Academician L. S. Leybenzon 16 Jun 1947.	USSR/Geophysics Seismology May/June 1948
FDB 66T61	"Maintenance of the Principle of Reciprocity in Seismology," P. S. Veytsman, Geophys Inst, Acad Sci USSR, 6½ pp "Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3 Subject principle is common one used in physics. Better defines and generalizes theory used in seismic surveys up to now. Describes field experiments showing that real geologic medium is well adapted for calculations using the principle of reciprocity. Submitted by Academician O. Yu. Shmidt 6 Jul 1947.	FDB 66T62
USSR/Geophysics Magnetism, Terrestrial Magnetic Fields May/June 1948	"Heterogeneity of the Depth of the Earth and Geomagnetic Variations," Yu. D. Kalinin, Sci Res Inst of Terrestrial Magnetism, 4 pp "Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3 Studies of the fixed geomagnetic field and its secular variation led author to the conclusion that inside the earth at depths approximately equal to half of the earth's radius there is unequal distribution of electrical conductivity. Question is explained on the	USSR/Geophysics Gravimetry May/June 1948
FDB 66T63	"Research on the Extensive Undulations of a Geoid by Joint Utilization of Geodesic and Gravimetric Data," V. A. Magnitskiy, Geophys Inst, Acad Sci USSR, 4 pp "Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3 Discusses problem of obtaining the height of geoid by simultaneous use of data obtained by geodesic and gravimetric means. Submitted method permits obtaining wide waves of geoid without use of any	FDB 66T64
USSR/Geophysics (Contd) May/June 1948	basis of solar-diurnal variations. Submitted by Academician L. S. Leybenzon 2 Jun 1947.	USSR/Geophysics (Contd) May/June 1948
FDB 66T63	type of hypothesis on the structure of the earth's crust. Submitted by Academician L. S. Leybenzon 24 Apr 1947.	FDB 66T64
USSR/Geophysics Gravimetry May/June 1948	"The Outer Gravitational Field and the Shape of the Physical Surface of the Earth," M. S. Molodenskiy, Cent Sci Res Inst of Geod, Aerophotog and Cartog, Moscow, 19 pp "Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3 Studies conditions for solvability and unity of solution for integral equations, with whose aid it is possible to determine the outer gravitational field and shape of the earth. Submitted 13 Jan 1948.	USSR/Geophysics Climate Geology May/June 1948
FDB 66T65	"On the Connection Between the Properties of Argillaceous Rock and Climatic Conditions," N. Ya. Denisov, Chair of Geol Eng, Moscow Eng and Constr Inst imeni V. V. Kuybyshev, 5½ pp "Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3 Establishes effect of climatic conditions on the process of gravitational accumulation of clay rocks of subaerial origin. Brief explanation shows that	FDB 66T66

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<p>USSR/Geophysics Stratosphere Ionosphere</p> <p>Jan 1948</p> <p>"Composition and Properties of the Stratosphere and Ionosphere," Prof I. A. Khvostikov, 14 pp</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Treats: the stratosphere and stratosphere theory, water vapor in the stratosphere, ozone in the stratosphere, temperature of the higher strata of the atmosphere, the ionosphere, composition of air in the ionosphere and problem of vertical intermixing, the ionosphere and the sun, temperature of the ionosphere, wind in the stratosphere, and the stratosphere and weather.</p> <p>FDB 66T67</p>	<p>USSR/Geophysics (Contd)</p> <p>May/June 1948</p> <p>in certain ways the process of the condensation of water vapors is connected with the high humidity found in the forest regions of the southern part of European USSR. Submitted by Academician A. A. Grigor'yev 10 Jun 1947.</p> <p>FDB 66T66</p>	
<p>USSR/Hydrology Limnology Clay</p> <p>Mar/Apr 1948</p> <p>"Modern Lime and Manganese Concretions and Oolites in the Lakes of the Kulundinsk Steppe," D. A. Vital', 17 pp</p> <p>"Byul Mosk Obsh Ispy Prirod, Otdel Geolog" Vol XXIII, No 2</p> <p>Describes contemporary clay and manganese concretions and oolites of the lakes in the Malinogo Kulundinsk steppe. They are connected with the emerging alkali ground waters, and do not have diagenetic origin, but are formed with material obtained from the ground waters.</p> <p>FDB 66T68</p>	<p>USSR/Mathematics - Series</p> <p>Mar/Apr 1948</p> <p>"On Val'sh Function Series With Monotonous Coefficients," A. A. Shneyder, 14 pp</p> <p>"Iz Ak Nauk SSSR, Ser Matemat" Vol XII, No 2</p> <p>Studies question of the convergence of series in Val'sh's series, which can be determined by using Paley's or Kaczmarz's methods. Submitted by Academician A. N. Kolmogorov 29 May 1947.</p> <p>FDB 66T69</p>	
<p>USSR/Mathematics - Approximation Mathematics - Inequalities</p> <p>Mar/Apr 1948</p> <p>"The Quantitative Conception of the Approximation Theory of Kroneker," A. Ya. Khinchin, 10 pp</p> <p>"Iz Ak Nauk SSSR, Ser Matemat" Vol XII, No 2</p> <p>One criterion necessary and sufficient for the solution of Kroneker's theory of approximation is that the system have inequality. Submitted 23 Dec 1947.</p> <p>FDB 66T70</p>	<p>USSR/Mathematics - Equations, Linear</p> <p>May/June 1948</p> <p>"Regular Systems in Linear Equations and the General Chebyshev Problem," A. Ya. Khinchin, 10 pp</p> <p>"Iz Ak Nauk SSSR, Ser Matemat" Vol XII, No 3</p> <p>Basic result obtained by Chebyshev in his well-known work, "An Arithmetic Question," is expanded so that it can be applied to system containing any number of equations with any number of unknowns. Submitted 8 Jan 1948.</p> <p>FDB 66T71</p>	
<p>USSR/Mathematics - Equations, Differential Mathematics - Boundary Problems</p> <p>Mar/Apr 1948</p> <p>"On the Relation of the Solutions of Differential Equations to a Small Parameter," A. Tikhonov, Moscow, 12 pp</p> <p>"Matemat Sbor, Nov Ser" Vol XXII (LXIV), No 2</p> <p>Explains the solution for $y(t, \mu)$ in the equation</p> $\mu \frac{d^n y}{dt^n} = F(t, y, \frac{dy}{dt}, \dots, \frac{d^{n-1} y}{dt^{n-1}}) (\mu > 0).$ <p>Submitted 14 Mar 1946.</p> <p>FDB 66T72</p>	<p>JAPAN/Medicine - Gonorrhea Medicine - Penicillin</p> <p>19 Jun 1948</p> <p>"Oral Penicillin Medication (Nikka) in Acute Gonorrhoeal Therapy," Ichikawa Tokuji, Kawai Hiroshi, 2 pp</p> <p>"Nihon Iji Shimpo" No 1260</p> <p>Essential condition in bringing about the effectiveness of penicillin in hypodermic and oral administrations is in maintaining effective penicillin concentration in the blood stream for specific period. Effective oral administration is possible by discovery of preparation that withstands gastric</p> <p>ST 66T73</p>	

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FDB Periodical Abstracts Scientific No 66

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<p>JAPAN/Medicine - Hygiene and Sanitation 19 Jun 1948 Medicine - Societies, Medical</p> <p>"Impressions of the Fourteenth Convention of the Japanese Society of National Hygiene and Sanitation," Usui Takejiro, 2 pp</p> <p>"Nihon Iji Shimpō" No 1260</p> <p>Some of the topics discussed at Convention: 1) study of the racial differences in fingerprints; 2) the Japanese and the evolution of mankind; 3) statistical research of typhoid and paratyphoid cases in Tokyo in recent years, etc.</p> <p>ST 66T74</p>	<p>JAPAN/Medicine - Gonorrhoea (Contd) 19 Jun 1948</p> <p>assimilation until it reaches the intestines. Authors proved that acute gonorrhoea is curable by oral administration of penicillin, prepared by Nikka Co.</p> <p>ST 66T73</p>
<p>JAPAN/Medicine - Whooping Cough 19 Jun 1948 Medicine - Vaccine</p> <p>"Preventive and Therapeutical Measures With Bordet-Gengou Bacillus Vaccine," Oyama Takeo, 3 pp</p> <p>"Nihon Iji Shimpō" No 1260</p> <p>Advocates use of Bordet-Gangou bacillus vaccine in controlling pertussis and emphasizes: 1) vaccine must be prepared with fresh bacterial strains, and 2) large vaccinal volume must be inoculated to produce effective immunity. Also gives various therapeutical methods.</p> <p>ST 66T75</p>	<p>USSR/Medicine - Botany Feb 1948 Medicine - Plants</p> <p>"Soviet Trends in Phytocoenology," Academician V. N. Sukachev, 7½ pp</p> <p>"Vest Ak Nauk SSSR" No 2</p> <p>Soviet Union leads in three fields of phytocoenology: 1) studies of the interrelation or the interaction of plants in phytocoenosis, 2) study of the relation of nature of structure and propagation of phytocoenes to physical and geographical conditions, and 3) study of the dynamics of phytocoenosis.</p> <p>FDB 66T76</p>
<p>USSR/Medicine - Paleontology Jan 1948 Medicine - Fossils</p> <p>"The First Mongolian Paleontological Expedition of the Academy of Sciences USSR," Prof I. A. Yefremov, 11½ pp</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Author describes expedition that he led. Includes brief summary of the history of paleontological exploration in the Mongolian Republic; missions, organization, and plan of operation of the first Mongolian expedition (1946); itineraries, and most important sites explored; work of the expedition in cultural relations with the Mongolian Republic; results of</p> <p>FDB 66T77</p>	<p>USSR/Medicine - Biology, History Jan 1948 Medicine - Biology, Studies</p> <p>"Seventy-Five Years of the Sevastopol Biological Station (1871-72--1947)," V. A. Vodyanitskiy, Dr Biolog Sci, 5½ pp</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Provides history of personnel and achievements of the station from the time of its founding to its present status.</p> <p>FDB 66T78</p>
<p>USSR/Medicine - Paleontology (Contd) Jan 1948</p> <p>investigations of fossil sites; ulterior aspects of the paleontological explorations in the Mongolian Republic.</p> <p>FDB 66T77</p>	<p>USSR/Medicine - Embryology Jan 1948 Medicine - Narcotics</p> <p>"The Commission for the History of Biological Sciences" 1 p</p> <p>"Vest Ak Nauk SSSR" No 1</p> <p>Briefs activities at meetings during 1946 and 1947. Gives points from two discourses presented in 1947: "Garvey as an Embryologist," and "The History of Narcosis in Russia: A. M. Filomafitskiy and the Study of the Effect of Narcosis at the Moscow University."</p> <p>FDB 66T79</p>

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USSR/Medicine - Biology Chemistry - Synthesis	Jan 1948	USSR/Medicine - Cancer Medicine - Histology	Mar/Apr 1948
"The Theory of the Exothermic Nature of Biological Syntheses, and Its Founder (To the Memory of Professor V. O. Tauson)," Academician N. A. Maksimov, 4 1/2 pp		"The Problem of Histological Determination of the Stage of Malignancy in Cancer," O. M. Nosalevich, Ukrainian Cent Roentgenol and Oncol Inst, and Chair of Path Anat, Khar'kov Med Inst, 6 pp	
"Vest Ak Nauk SSSR" No 1		"Arkhir Patologii" Vol X, No 2	
Discourse on Darwinist Tauson and his theory on exothermic nature of biological syntheses, the fundamental aspect of which is that heterotrophic synthesis represents exothermic changeover of the original food matter to the integral parts of the living cell accompanied by oxidation, the discharge of oxidized		Making use of method developed by Hueper and Schmitz, the author evolves table of indexes of malignancy designated as a "Malignogram," and describes its application and results thereof in actual cases. Submitted 1947.	
FDB	66T80	FDB	66T81
USSR/Medicine - Biology (Contd)	Jan 1948	USSR/Medicine - Tumors, Classification Medicine - Tumors, Cells	Mar/Apr 1948
carbon as carbon dioxide, and the release of energy. Exothermic nature of these processes and their separate reactions requires no inflow of energy from without and consequently makes the "respiration process" unnecessary as source of energy. Tauson further theorizes that the first organisms were completely adapted to acetaldehyde and products of its condensation.		"A. D. Timofeyevskiy's Book, 'Explantation of Tumors in Man,' Moscow, 1947," Prof A. G. Andres, 2 pp	
FDB		FDB	
66T80		66T82	
USSR/Medicine - Nucleins Medicine - Uterus, Cervix	Mar/Apr 1948	USSR/Medicine - Tumors, Classification (Contd)	Mar/Apr 1948
"The Morphology of Phosphorous Exchange Under Normal and Pathological Conditions: II, Ribonucleic Acid in Inflammation, Necrosis and Cancer of Human Cervix Uteri," Prof A. G. Andres, Inst of Normal and Path Morph; K. A. Perevoshchikova, Cent Oncol Inst imeni I. A. Gertsen, 8 pp		brief data on the cultivation of tumors in animals; morphological character of explantations of tumors in man; biological nature of tumorous tissues.	
"Arkhir Patologii" Vol X, No 2		FDB	
Treats problem of detection of the content and distribution of ribonucleic acid histochemically in the various cellular elements of one organ, the human cer-		66T82	
FDB	66T83	USSR/Medicine - Tumors Medicine - Cancer	Mar/Apr 1948
USSR/Medicine - Nucleins (Contd)	Mar/Apr 1948	"On the Modifications in Epithelial Differentiation in Induced Cancerous Tumors," Ye. A. Popova, Chair of Path Anat, First Leningrad Med Inst, 5 pp	
vix uteri, under several pathological conditions: inflammation, necrosis, epithelial hyperplasia, and cancer.		"Arkhir Patologii" Vol X, No 2	
FDB		FDB	
66T83		66T84	

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USSR/Medicine - Tumors, Papilloma Medicine - Sulfanilamide and Derivatives	Mar/Apr 1948	USSR/Medicine - Tumors Medicine - Cholesterol, in Blood
<p>"The Effect of Some Sulfamine Preparations on the Dynamics of Development of Virus Papilloma (Shope Papilloma) in Rabbits," N. A. Krotkina, Lab of Exogenous Cancerogenous Substances, Inst of Oncol; Z. A. Postnikova, Sukhumi Biosta, Acad Med Sci USSR, 8 pp</p> <p>"Arkhir Patologii" Vol X, No 2</p> <p>Tabulates results of experiments with rabbits showing that certain sulfamine preparations visibly retard the development of virus papilloma, and its malignancy. Submitted 1947.</p>	66T85	<p>"The Cholesterol Content of the Blood in Experimental Tumors in Mice," F. M. Khaletskaya, Experimental Oncol Sec, Inst of Normal and Path Morph, Acad Med Sci USSR, 3 pp</p> <p>"Arkhir Patologii" Vol X, No 2</p> <p>Describes results of experiments with graphs giving the quantity of cholesterol in the blood of mice under normal conditions, with Ehrlich's carcinoma, and during development of aggravated cancerous growths. Submitted 1946.</p>
FDB	66T85	FDB
USSR/Medicine - Cancer Medicine - Breast, Cancer	Mar/Apr 1948	USSR/Medicine - Pneumonia Medicine - Measles
<p>"The Morphology of Mammary Gland Cancer in Mice of Breed A," S. A. Buvaylo, Lab of Oncol, Inst of Normal and Path Morph, Acad Med Sci USSR, 5½ pp</p> <p>"Arkhir Patologii" Vol X, No 2</p> <p>Records results of observations obtained over three-year period. Discusses advanced cancer; adenocarcinoma; cystoid adenocarcinoma; adenocarcinoid; mammary glands of mice not yet having tumors. Submitted 1947.</p>	66T87	<p>"The Pathological Anatomy of Pneumonia Relative to Focal Infections in Children," T. A. Shteyn, Path Anat Dept, Vasil Ostrov Children's Infectious Diseases Hospital, 7 pp</p> <p>"Arkhir Pathologii" Vol X, No 2</p> <p>Reports study of 50 cases of pneumonia, most of which occurred with scarlet fever, diphtheria, and measles in children. Treats pathology of infections from streptococcus, pneumococcus, the Loeffler bacillus, and of amicrobic lung infections relative to measles. Includes summary and analysis. Submitted 1946.</p>
FDB	66T87	FDB
USSR/Medicine - Stains and Staining Medicine - Bacteriology	Mar/Apr 1948	USSR/Medicine - Tumors Medicine - Cancer
<p>"In Vivo Staining as a Method of Diagnosing Anaerobic Infections," P. V. Makarov, Chair of Gen Biol, Second Leningrad Med Inst, 4 pp</p> <p>"Arkhir Patologii" Vol X, No 2</p> <p>Method is characterized as simple, requiring no special equipment other than microscope and renders bacteriological analysis possible in 1-1½ hours after obtaining the specimen. Submitted 1947.</p>	66T89	<p>"Malignant Tumors According to Sectional Data of Moscow Prosectorships for 1946," P. P. Dvishkov, Honored Dr, Chm, Commission on Prosector, Moscow Municipal Dept of Pub Health, 2 pp</p> <p>"Arkhir Patologii" Vol X, No 2</p> <p>Reports statistics on the occurrence of tumorous growths with percentage data on malignant neoplasm according to individual systems, percentage data on cancer cases according to their occurrence in individual organs, and percentage data on frequency of tumor in various age groups according to sex.</p>
FDB	66T89	FDB
USSR/Medicine - Dysentery Medicine - Bacteriophage, Dysentery	Apr 1948	USSR/Medicine - Skin Diseases Medicine - Impetigo
<p>"Dysentery Bacteriophage and Its Application in the Struggle With Dysentery," Prof B. I. Blankov, 3½ pp</p> <p>"Med Sestra" No 4</p> <p>Dysentery bacteriophage is much used in Russia in the prevention of dysentery. Studies the nature of bacteriophage and its application as preventive.</p>	66T91	<p>"The Struggle With Suppurative Infections of the Skin Among Collective Farm Workers During Field Agricultural Work," I. S. Liberman, Candidate Med Sci, 3 pp</p> <p>"Med Sestra" No 4</p> <p>Describes role of the medical nurse in the prevention and treatment of suppurative skin infections among collective farm workers. Prescribes specific measures for sanitary conditions and nutrition, and describes the symptoms and treatment for impetigo, furuncles, and hydradenitis.</p>
FDB	66T91	FDB
		66T92

RESTRICTED		FDB Periodical Abstracts Scientific No 66		RESTRICTED	
USSR/Medicine - Smallpox Medicine - Vaccination	Apr 1948	USSR/Medicine - Malaria Medicine - Nurses and Nursing	Apr 1948		
"Methods of Vaccination," M. L. Kavitskaya, 5 pp		"The Role of the Medical Nurse in Carrying Out Anti-malarial Measures," M. A. Buslayev, 6 pp			
"Med Sestra" No 4		"Med Sestra" No 4			
Short history of smallpox in Russia and summary of the measures provided for vaccination by the Council of Peoples Commissars. Describes preparations for mass inoculations, and procedures in vaccination and re-vaccination.		Next to grippe, malaria is the most widespread infectious disease in the USSR. Explains various aspects of the struggle against malaria in connection with the problems of the medical nurse carrying out antimalarial work.			
FDB	66T93	FDB	66T94		
USSR/Meteorological Research Clouds	May/June 1948	USSR/Meteorological Research Weather Charts	May/June 1948		
"The Problem of the Development of Droplets in Clouds and Fogs," N. S. Shishkin, Main Geophys Obs, Leningrad, 5 pp		"The Spring Cooling in Europe," Z. I. Gavrilova, Cent Weather Forecasting Inst, 12 pp			
"Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3		"Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3			
Discusses question of the coagulation of droplets in clouds and fogs due to variation in the speed of fall. Theoretical method to calculate the growth of drops during their continuous distribution. Data obtained theoretically conforms favorably to data obtained from microphotographic analysis of drops. Submitted by Academician L. S. Leybenzon 29 Mar 1947.		Applies V. V. Shuleykin's theory of "thermobaric waves" to spring cooling. Data obtained from studies corresponds favorably with theoretical data. Determines the cooling period. Defines circulatory movement over Europe which has two cold nuclei and two warm nuclei. Studies variations in location and			
FDB	66T95	FDB	66T96		
USSR/Mines and Mining Mining Methods	Apr 1948	USSR/Meteorological Research (Contd)	May/June 1948		
"Movement of Ores Under the Influence of Mining Exploitation," Prof I. M. Bakhurin, Corr Mem, Acad Sci USSR, Leningrad Mining Inst, 1 p		intensity of the nuclei with relation to the time of the year. Submitted by Academician V. V. Shuleykin 8 May 1947.			
"Gor Zhur" No 4					
Bakhurin is recognized authority on the movement of ores by exploitation of mines. His subject book discusses the movement of ore as an object of study, surveyor's observations of the movement of the surface and of the movement of the ore in the mine.					
LC	66T97	FDB	66T96		
USSR/Mines and Mining Mining Methods Electrification	Apr 1948	USSR/Mines and Mining Mining Methods Efficiency, Industrial	Apr 1948		
"Regularities of Mining Specifications Which Influence the Technology of Electrification of Open Working," S. A. Alatorstev, 5 pp		"Determination of the Productive Capacity of Open Mines," Ye. P. Zvyagintsev, GlavNeRuda, Kharkov, 2 pp			
"Gor Zhur" No 4		"Gor Zhur" No 4			
Specific mining conditions influence to large degree the electric power distribution system both for electrical equipment and for the lighting system of open pit mines. These conditions are reflected in the methods and technology of calculating the power loads,		In spite of its seeming simplicity, there still exists no recognized method for determining the productive capacity of open pit mines. Attempts to formulate basic method for determining productive capacity.			
LC	66T98	LC	66T99		

USSR/Mines and Mining	FDB Periodical Abstracts Scientific No 66	USSR/Mines and Mining
USSR/Mines and Mining (Contd) transformer capacities, etc., in connection with the operating schedule of the mining equipment. Discusses problem in detail.	Apr 1948	USSR/Mines and Mining Mining Methods Copper "Open Works as the First Stage in Exploiting Copper-Pyrite Deposits," Docent M. G. Novozhilov, Sverdlovsk Mining Inst, 2 pp "Gor Zhur" No 4 Exploitation of copper-pyrite deposits is complicated by underground fires caused by spontaneous combustion of the pyrite. Great advantage of open working in the exploitation of large copper-pyrite deposits lies in safety from fires. Open working
LC	66T98	LC 66T100
USSR/Mines and Mining Mining Methods Construction, Underground "Exploitation of the Upper Horizons of the Sokol'nyy Mine," V. R. Imenitov, Mining Engr, 7 pp "Gor Zhur" No 4 Describes in detail methods of working the upper strata of the Sokol'nyy mine, with several cross-sectional diagrams of the mine construction. Lists suggested changes in the method of operation.	Apr 1948	USSR/Mines and Mining (Contd) must be considered the first stage of exploitation of large copper-pyrite deposits and must be completely mechanized. Mechanization facilitates economical operations. During the exploitation of the upper zone of a deposit by open pit, the lower part can be prepared for underground exploitation at the lowest cost.
LC	66T101	LC 66T100
USSR/Mines and Mining Mining Methods Copper "The Possibility of Using 'Chinokal' Panels in Exploiting Copper-Pyrite Deposits," L. S. Shchetnikov, Engr, Gipromed'Ruda, 3 pp "Gor Zhur" No 4 Panels of Chinokal are used in steeply sloping strata of coal with width of 2.5-14 meters. Describes at length process of using this construction in exploitation, with analysis of its advantages and disadvantages. Then makes comparison with conditions in	Apr 1948	USSR/Mines and Mining Terminology "Classification of Exploitation Systems," V. N. Semevskiy, Candidate Tech Sci, 5 pp "Gor Zhur" No 4 Data presented confirms with concrete example the impossibility of transferring the American classification system of MacClelland into practice in the USSR. Borrowing this incomplete classification system is undesirable at the present time since the USSR has surpassed American technology in the construction of exploitation systems.
LC	66T102	LC 66T103
USSR/Mines and Mining (Contd) exploiting copper-pyrite deposits and the advantages of using this construction in such cases.	Apr 1948	USSR/Mines and Mining (Contd) Classification system is offered which is constructed on the basic criteria of existing productive operations.
LC	66T102	LC 66T103

FDB Periodical Abstracts Scientific No 66

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USSR/Petroleum Industry
Petroleum - Prospecting

Jan 1948

"Let Us Complete the Petroleum Five-Year Plan in Four Years" 1 1/2 pp

"Energet Byul" No 1

To complete the petroleum Five-Year Plan in 4 years it is necessary to have all the power industries and enterprises operate at higher rate of production. Particularly important is development of the Ural Petroleum Fields to point where they rank as a second Baku. Various industries are turning out new types of machinery and equipment to help the oil men of the Soviet Union accomplish this goal. No technical information.

FDB

66T104

USSR/Physics
Flow, Turbulent
Flow, Fluid

May/June 1948

"On the Effects of Roughness of the Walls on the Structure of Turbulent Flow," B. A. Fidman, Lab of Flow Processes, Inst of Geog, Acad Sci USSR, 7 pp

"Iz Ak Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 3

Photographs and statistical film processing were used in study of the pulsation fields that represent the speed in turbulent water current flowing past walls having macrocoarse outlines. Some conclusions

FDB

66T105

USSR/Soil Science
Erosion

Mar 1948

"Conference on the Control of Soil Erosion" 1 p

"Vest Ak Nauk SSSR" No 3

Soil Institute imeni V. V. Dokuchayev was organized by the All-Union Conference to study soil-erosion processes. The 1947 conference was called to collect facts on soil erosion, and to recommend the most effective methods for combating it.

FDB

66T106

USSR/Physics (Contd)

May/June 1948

on the effect of the coarseness on the intensity and scale of the turbulent agitation are obtained. Studies mechanisms of effect of the form of coarseness on the flow. Submitted by Academician A. N. Kolmogorov 5 Nov 1947.

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66T105

List of Abbreviations
used in FDB Periodical Abstracts

ID Intelligence Division Library
AMC Air Documents Division, Air Materiel Command
ST Reference Division, State Department
BM Bureau of Mines, Department of Interior
BS National Bureau of Standards
SI Smithsonian Institution
LC Library of Congress
FDB Foreign Documents Branch, CIA
COM Department of Commerce
AF A-2 Library, USAF

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