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## Foreign Documents Branch C-I A Periodical Abstracts

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SCIENTIFIC

Number 48

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"Acta Physicochimica URSS" (Physico-Chemical Works of the USSR)* Cards 4-13, 94-96	Vol XXI No 3	May/June 1946
"Artogennoye Delo" (Autogenous Welding) Cards 21-28	No 12	Dec 1947
"Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Novaya Seriya, Otdel Biologicheskii" (Bulletin of the Moscow Society of Naturalists, New Series, Biological Section) Cards 15, 79-82	Vol LII No 6	Dec 1947
"Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Novaya Seriya, Otdel Geologicheskii" (Bulletin of the Moscow Society of Naturalists, New Series, Geological Section) Cards 29-32, 83	Vol XXII No 6	Dec 1947
"Doklady Vsesoyuznoy Akademii Sel'skokhozyaystvennykh Nauk imeni V. I. Lenin" (Reports of the All-Union Academy of Agricultural Sciences imeni V. I. Lenin) Cards 49, 50	No 10	Oct 1947
"Journal of Physics of the Academy of Sciences of the USSR" * Cards 14, 93	Vol X No 3	May/June 1946
"Meditsinskaya Parazitologiya i Parazitarnyye Bolezni" (Medical Parasitology and Parasitic Diseases) Cards 61-78	No 1	Jan 1946
"Priroda" (Nature) Cards 1, 17, 33, 34, 51-54, 84, 85, 88, 89, 91, 92	No 4	Apr 1946
"Priroda" (Nature) Cards 2, 3, 16, 35, 55-60, 86, 87, 90	No 6	Jun 1946
"Sovetskaya Botanika" (Soviet Botany) Cards 36-41	Vol XIV No 2	Apr 1946
"Sovetskaya Botanika" (Soviet Botany) Cards 42-48	Vol XIV No 3	Jun 1946
"Vestnik Mashinostroyeniya" (Herald of Machine Building) Cards 18-20	No 12	Dec 1947

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NOTE

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<del>RECEIVED</del>		FDB Periodical Abstracts Scientific No 48		<del>RECEIVED</del>	
USSR/Academy of Sciences	Apr 1946	USSR/Arctic Studies Permafrost			Jun 1946
<p>"Significant Jubilee Days of the Military Medical Academy (meni S. M. Kirov," Acad Ye. N. Pavlovskiy, 6 1/2 pp</p> <p>"Priroda" No 4</p> <p>Short article written in honor of 60th Anniversary of service for Academician N. N. Anichkov, and 50th Anniversary of service for members of Academy of Sciences USSR, Professors V. P. Osipov, V. N. Tonkov, and V. N. Shevkunenko. Briefly discusses more important contributions of above-mentioned men.</p>		<p>"Secondary Mirabilit Deposits in the Arctic," K. A. Baranov, 1 1/2 pp</p> <p>"Priroda" No 6</p> <p>Deposit of secondary mirabilit discovered on shores of Laptev Sea, in Nordvik Gulf. Discovery has excited much interest since it will be very helpful to determine reasons for mineralization of waters of frozen soil zones. Gives geographical location and size of deposit. Gives chemical composition in tabular form of the mirabilit which was obtained from four of the many bores.</p>			
LC	48T1	LC		48T2	
USSR/Arctic Studies Geology	Jun 1946	USSR/Chemistry - Catalysts Chemistry - Catalase			May/Jun 1946
<p>"Cryosphere Structure of Quaternary Deposits in the Arctic," K. A. Baranov, 1 p</p> <p>"Priroda" No 6</p> <p>Brief article gives data obtained from drilling in Nordvik-Khatanga Region (Laptev Sea). Particular attention given to structure of the cryosphere or frozen soil layer, in some places as far down as 500 meters. Discusses two types of structures found in frozen black clay near Kozhevnikova Bay: compact, and stratified-lattice type.</p>		<p>"On the Mechanism of the Catalase Action of Various Catalysts. The Catalytic Activity and Structure," N. Kobosev, Lab of Catalysis and Electrochem of Gases, Lomonosov Moscow State U, 50 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Study of the various constants absolute activities, and free energies of 22 catalysts; of relationship between energy of the interaction of oxygen atoms in intermediate products and catalyst activity, the exceptional position of catalase in the catalytic series, and of relationship between the catalase,</p>			
LC	48T3	FDB		48T4	
USSR/Chemistry - Entropy Chemistry - Periodic Law	May/Jun 1946	USSR/Chemistry - Catalysts (Contd)			May/Jun 1946
<p>"The Entropy of Chemical Elements and the Periodic Law," V. Kiryev, Dept of Chem, Moscow Engin Econ Inst, 8 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Calculations of the entropy <math>S^1</math>, the state of a monatomic ideal gas under standard conditions and expressed in entropy units per gram-atom, for various groups of elements. Received, 19 May 1945.</p>		<p>oxidase and peroxidase functions. Received, 15 Jun 1945.</p>			
FDB	48T5	FDB		48T4	
USSR/Chemistry - Aromatic Compounds Chemistry - Steric Effect	May/Jun 1946	USSR/Chemistry - Adsorption, Measurement of Chemistry - Kinetics			May/Jun 1946
<p>"The Steric Factor in Aromatic Compounds with Uncondensed Benzene Nuclei," A. Kitaygorodsky, Inst of Org Chem, Acad Sci USSR, Moscow, 2 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Study concludes that the steric factor in aromatic compounds with uncondensed benzene nuclei resulting from the interaction of the ortho-hydrogens is not an unconditional factor. It is effective only in case the molecule preserves its symmetry when the nuclei are displaced out of the plane. Received, 4 Feb 1946.</p>		<p>"On the Limits of the Applicability of Statistical Methods in the Analysis of Adsorption Phenomena," S. Roginsky, O. Todes, Sec of Catalysis and Topochem, Inst of Colloid and Electrochem, Acad Sci USSR, Moscow, 20 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Study of deviations, of adsorption, kinetic and thermal measurements, observed from Langmuir adsorption isotherm, derived on assumption that the surface is homogeneous and that the adsorbed</p>			
FDB	48T6	FDB		48T7	

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<p>USSR/Chemistry - Anthracene Chemistry - Structural Analysis</p> <p>May/June 1946</p> <p>"The Structure of Anthracene," B. Mikhaylov, Inst of Org Chem, Acad Sci USSR, Moscow, 14 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Calculations of the resonance energy, percentage of various structural types in the normal state, and interatomic distances in anthracene. Received, 10 Jul 1945.</p>		<p>USSR/Chemistry - Adsorption, Measurement of (Contd)</p> <p>May/June 1946</p> <p>molecules do not interact. Experiments on adsorption of weighed and radio-active isotopes are suggested as possible means of distinguishing between the two cases. Received, 7 Jun 1945.</p>
<p>FDB 48T8</p> <p>USSR/Chemistry - Ethylene Oxide Chemistry - Structure of</p> <p>May/June 1946</p> <p>"On the Peculiarities of the Structure and Properties of Ethylene Oxide," P. Zimakov, 8 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>New conception of structure of ethylene oxide, a consideration of the structure from viewpoint of resonance, calculation of resonance, and examples explaining characteristic properties on basis of new conception of its structure are given. Received, 14 Apr 1945.</p>		<p>FDB 48T7</p> <p>USSR/Chemistry - Heats of Formation Chemistry - Bonds, Energies of</p> <p>May/June 1946</p> <p>"On the Critical Heats of Formation and Critical Bond Energies of Chemical Compounds," B. Ormont, Lab of Solid and Complex Compounds, Karpov Inst of Phys Chem, Moscow, 14 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Calculation of critical heats of formation and determination of total energies of bonds, which throws new light on conditions of formation of chemically stable, as yet unreported, carbonyls. Received, 6 Apr 1945.</p>
<p>FDB 48T9</p> <p>USSR/Chemistry - Azlactones Chemistry - Spectra Analysis of</p> <p>May/June 1946</p> <p>"Raman Spectra of Azlactones and Amido-Imidol Tautomerism," L. Shigorim, Ya. Syrkin, Karpov Inst of Phys Chem, Moscow, 7 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>In a study of the Raman spectra of three azlactones, the high value of the C = N bond frequency is attributed to the partial occurrence of structures of the inner salt type. The occurrence of the C = N frequency in the spectrum of the sodium salt of the <math>\alpha</math>-(N-benzoyl)-amino-<math>\beta</math>-methyl-crotonic acid is considered as evidence of the occurrence of amido-imidol tautomerism. Received, 30 Jul 1945.</p>		<p>FDB 48T10</p> <p>USSR/Chemistry - Cyanine Dyes Chemistry - Silver Nitride</p> <p>May/June 1946</p> <p>"The Interaction of Sensitizing Dyes with Silver Ions," S. Natanson, Res Inst of Cinematog and Photog, Moscow, 7 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Study of capacity of certain cyanine dyes to form complex compounds with silver nitrate which is related to their fog-forming capacities but has no connection with the sensitizing action. Received, 12 Jun 1945.</p>
<p>FDB 48T11</p> <p>USSR/Chemistry - Thiocarbocyanines Chemistry - Sensitization</p> <p>May/June 1946</p> <p>"The Relation Between the Structure of Thiocarbocyanines and Their Capacity for Second Type Sensitization," I. Levkoyev, S. Natanson, Res Inst of Cinematog and Photog, Moscow, 14 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Study of over 500 dyes of various structures to determine relative capacity for sensitization of the second type in the series of thiocarbocyanines. Received, 12 Jun 1945.</p>		<p>FDB 48T12</p> <p>USSR/Chemistry - Helium, Liquid Chemistry - Precipitates</p> <p>May/June 1946</p> <p>"Coagulation of Fog in the Liquid Helium II," P. Savich, A. Shalnikov, Inst for Phys Problems, Acad Sci USSR, 1 p</p> <p>"Journal of Physics USSR" Vol X, No 3</p> <p>Discussion of difference in particle size, color, etc., of the precipitate of gaseous helium admitted to the surface of overcooled liquid helium at 2.5° and 2.19° K. Received, 26 Mar 1946.</p>
<p>FDB 48T13</p>		<p>FDB 48T14</p>

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USSR/Chemistry - Atabrine Chemistry - Isomers	Dec 1947	USSR/Chemistry - Periodic System Chemistry - Elements	Jun 1946
"The Inversions in Sensitivity of Plants and Animals to the Optical Isomers of Atabrine," V. V. Alpatov, O. K. Nast'yukova, 7½ pp		"In Search for New Chemical Elements," E. Ye. Vaynshteyn, 9½ pp	
"Byulleten' M O-va Isp Prirody - Otd Biologii" Vol LII, No 6		"Priroda" No 6	
In 1946 the authors in a published article discussed results of experiments they conducted to determine effect of visible (optical) isomers of atabrine on bacteria, simple organisms, birds, and mice. All showed greater sensitivity to the left isomer than to the right. During winter 1946-1947 and spring 1947,		General discussion on methods which might be used for classification of new chemical elements. Work is based on system suggested by Mendeleev, where chemical elements were classed according to their atomic weights. Author shows shortcomings of this system, especially with regard to some of the newer compounds developed, such as Ea, and Es, which are boundary cases and therefore difficult to place in a particular category.	
LC	48T15	LC	48T16
USSR/Chemistry - Atabrine (Contd)	Dec 1947	USSR/Chemistry - Silicon Compounds Chemistry - Industry	Apr 1946
the authors' made further experiments to more fully confirm their previous findings. Experiments were on 12 different types of plants and animals, among them Hirudo medicinalis, Limnaea stagnalis, Rhizopus sp, Spinus spinus. They concluded that the left albumin and amino acid of the left configuration meet more frequently than the right albumin and the amino acid of the right configuration.		"Silicon-Organic Compounds in Industry," Yu. S. Zal'kind, 1 p	
		"Priroda" No 4	
		Briefly describes renewed interest given to silicon-organic compounds, because of their adaptability in plastics. Discusses first such compound produced R <sub>2</sub> Si Cl <sub>2</sub> and RSiCl <sub>3</sub> . Discusses basic steps in manufacture of this compound.	
LC	48T15	LC	48T17
USSR/Engineering Foundry Practice Sand, Foundry	Dec 1947	USSR/Engineering Machine Construction Die Casting	Dec 1947
"Electroseparation of Scorched Earth at Foundries," N. F. Olofinskiy, Candidate in Tech Sci, 10 pp		"Innovations in the Process of Casting under Pressure," V. M. Plyatskiy, Candidate in Tech Sci; Ya. Ya. Neyman, Engr, 8 pp	
"Vest Mashinostroyeniya" No 12		"Vest Mashinostroyeniya" No 12	
With increase of foundries in the Soviet Union, it is most important to adopt new methods for greater economy in use of molding sand. Average is one ton of molding sand for each ton of cast iron produced. Author discusses a new method developed for cleansing and restoring molding sand, with the aid of a DC corona. This new method had not been used anywhere		This method of casting under pressure has one great advantage--it permits casting of metal parts which do not require finishing. Authors discuss process of casting under pressure, advantages and shortcomings of various US and European equipment for casting under pressure. Brief mention made of some	
LC	48T18	LC	48T19
USSR/Engineering (Contd)	Dec 1947	USSR/Engineering (Contd)	Dec 1947
prior to 1947. Most research and experimental work was conducted at the SoyuzForMolite Laboratory, Ministry of Machine and Apparatus Construction. Names engineers involved in project. Describes the operation of this new system.		measures adopted in Soviet plants and factories to solve the more important problems.	
LC	48T18	LC	48T19

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<p>USSR/Engineering Machinery Construction Inspectoscopes</p> <p>Dec 1947</p> <p>"Utilization of Ultra-Acoustical Defectoscopy in Machine Construction," Prof L. S. Freyman, 6 pp</p> <p>"Vest Mashinostroyeniya" No 12</p> <p>Gives short summary of data contained in several foreign articles on new process of supersonic inspection of steel in machine construction. Data gathered from US, German, and Soviet articles. S. Ya. Sokolov credited with starting this technique in the Soviet Union in 1929. Briefly describes physical fundamentals of method, and various fields in which this method of inspection can be utilized.</p> <p>LC 48T20</p>	<p>USSR/Engineering Welding, Electric Welding, Safety Measures</p> <p>Dec 1947</p> <p>"Electric Welding With Reversing Polarity," I. I. Mishchenko, Electric Welder, 1 p</p> <p>"Avtogennoye Delo" No 12</p> <p>This welding method used for DC welding of thin parts when deep penetration is not desired. Very short article outlines important factors to which attention must be paid when using reversing-polarity electric welding.</p> <p>LC 48T21</p>	
<p>USSR/Engineering Welding, Arc Welding - Applications</p> <p>Dec 1947</p> <p>"Welding With an Independent Arc," P. I. Shorin, Engr, 1 p</p> <p>"Avtogennoye Delo" No 12</p> <p>In small plants where neither oxygen nor other necessary material is available, gas welding cannot be carried out. In such cases, welding with independent arc becomes most important. Discusses uses to which an independent arc can be put and briefly discusses the circuit in this type of welding. However, it must be noted that quality of work does not approach</p> <p>LC 48T22</p>	<p>USSR/Engineering Welding, Gas Welding, Applications</p> <p>Dec 1947</p> <p>"Gas-Pressure Welding for Constructing Pipelines," A. S. Fal'kevich, Engr, 3 1/2 pp</p> <p>"Avtogennoye Delo" No 12</p> <p>Gas-pressure welding used for first time in the Soviet Union during the welding and laying of the Saratov-Moscow gas main. In 25.5 km there were about 2,100 welds. This method now being used on a gas main from Dashava to Kiev, and Estonia to Leningrad, and several in vicinity of Saratov. Discusses advantages of using gas-pressure welding</p> <p>LC 48T23</p>	
<p>USSR/Engineering (Contd)</p> <p>Dec 1947</p> <p>that done by a regular arc and must never be used in place of the latter.</p> <p>LC 48T22</p>	<p>USSR/Engineering (Contd)</p> <p>Dec 1947</p> <p>and lists equipment required for carrying out this type of welding.</p> <p>LC 48T23</p>	
<p>USSR/Engineering Welding - Strength Welding, Low Temperature</p> <p>Dec 1947</p> <p>"Intense Disintegration of Welded Constructions Due to Very Low Temperatures," Prof A. S. Ogiyevetskiy, 2 pp</p> <p>"Avtogennoye Delo" No 12</p> <p>General discussion on some reasons which lead to breakdown of welded constructions from very low temperatures. Solution to this problem is vital due to large amount of welding carried out in localities where temperatures drop far below freezing. General discussion presents no concrete points concerning improvement of welding quality so that it will withstand</p> <p>LC 48T24</p>	<p>USSR/Engineering Welding, Autogenous Welding, Low Temperature</p> <p>Dec 1947</p> <p>"The Margin of Error During Automatic Welding of Low-Carbon Steel Construction at Low Temperatures," B. I. Medobar, A. Ye. Asnis, Candidates Tech Sci, Inst of Electrowelding imeni Acad Ye. O. Paton, Acad Sci USSR, 3 pp</p> <p>"Avtogennoye Delo" No 12</p> <p>Several plants which do welding located in zone where temperature falls to -50° C. As a rule these welding works are unheated so that frequently there is distortion in the metal body due to cold. In-</p> <p>LC 48T25</p>	



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USSR/Engineering (Contd)	Dec 1947	USSR/Engineering (Contd) Dec 1947
low temperatures. Article related to one entitled "Welding Under Winter Conditions," by Dr Tech Sci V. D. Taran, published in "Avtogennoye Delo," No 9, 1947.		vestigations conducted at Welding Institute to determine error in welding steel at very low temperatures. Formation of sweat from welding cold steel also results in errors in welding as well as formation of poor seams.
LC	48T24	LC
USSR/Engineering Welding - Spot Welding - Inspection	Dec 1947	USSR/Engineering Welding, Arc Chemistry
"Methods of Controlling Spot Welding," D. S. Balkovets, Candidate Tech Sci, 6 pp		"Elasticity of a Welding Arc Operating Under Flux," N. G. Ostapenko, Inst of Electric Welding imeni Acad Ye. O. Paton, Acad Sci USSR, 3 pp
"Avtogennoye Delo" No 12		"Avtogennoye Delo" No 12
Presents results of work conducted to determine method for control over quality of spot welding. However, author's findings do not fill need of study in this field and he suggests further study with aid of flaw-detecting machinery. States that further study will permit two-way check over welding, by appearance of the weld and a double check with aid of flaw-detecting		Chemical composition of the flux being used has great effect on absolute length of the arc at moment of break of operation. In using flux with low-stabilizing characteristics, elasticity of the arc can be increased relative to the charge of the idle power source. Degree of induction of the welding
LC	48T26	LC
USSR/Engineering (Contd)	Dec 1947	USSR/Engineering (Contd) Dec 1947
machine. Development of efficient method of dilatometric control of spot welding is most important.		circuit has little effect on the size of $l_{max}$ . During rapid welding, at the rate of several hundred meters per hour, elasticity of the arc decreases.
LC	48T26	LC
USSR/Engineering Welding - Distortion Welding - Effects	Dec 1947	USSR/Geology Sand
"Deformation of Welded T-Beams," Prof N. O. Okerblom, Dr Tech Sci, Leningrad Polytech Inst, 4½ pp		"The Phenomenon of Amagmatic Intrusions in a Flat-form," V. V. Bronguleyev, 12½ pp
"Avtogennoye Delo" No 12		"Byulleten' M O-va Isp Prirody Otd Geologii" Vol XXII, No 6
Briefly discusses deformation occurring in T-beams from welding. Degree of welding greatly dependent on character of beam, dimensions of beam, and conditions under which welding is done. Presents certain methods for proper welding of beams, and states that following them will cut to a minimum deformation in welded T-beams.		Sheds new light on sandy dikes of central Volga regions, which until recently were thought to have formed by a process of settling. Author forms direct union between dikes and those horizons in which there occurred a gradual cumulation of the material forming the layers. Data presented shows shortcomings of theory of neptunian genesis of these
LC	48T28	LC

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<p>USSR/Geology Glaciers Dec 1947</p> <p>"Kanev Disturbances of the Central Pre-Dnepr Regions," G. Ye. Ryabukhin, 8 pp</p> <p>"Byulleten' M O-va Isp Prirody - Otd Geologii" Vol XXII, No 6</p> <p>Describes some factors which lead to formation of the Kanev disturbances. Author bases data on evidences observed with regard to endogenous (tectonic) as well as exogenous (glacial) forces. States that in the Dnepr-Donets depression he was able to find very good indications of the past presence of huge glaciers. Gives outline of work which should be conducted at present for a fuller understanding of this region.</p> <p>LC 48T30</p>	<p>USSR/Geology (Contd) Dec 1947</p> <p>intrusions. Author claims they were formed by compression of stratified layers with a simultaneous local vertical displacement of the earth's crust.</p> <p>LC 48T29</p>	
<p>USSR/Geology Structural Analysis Dec 1947</p> <p>"Tectonics of the Polaznensko-Krasnokamsk Anticline Region," N. D. Kovan'ko, 26 pp</p> <p>"Byulleten' M O-va Isp Prirody - Otd Geologii" Vol XXII, No 6</p> <p>Discusses particulars of tectonic structure of the Molotov Prikam', and briefly discusses geological development of this territory. States that basically structure of the Molotov Prikam' shows evidence of being part of the Polaznensko-Krasnokamsk anticline, which at first was active in the formation of the pre-Ural ranges and at a later age in the formation of the</p> <p>LC 48T31</p>	<p>USSR/Geology Terminology Dec 1947</p> <p>"Structural Type of the Transbaikalian Relief, and the Terms 'Mountain Ranges'," N. A. Florensov, 13 1/2 pp</p> <p>"Byulleten' M O-va Isp Prirody - Otd Geologii" Vol XXII, No 6</p> <p>Discusses exact definition of term "mountain range." States that this term should be applied only to mountains with height greater than 500 meters. Discusses relief and tectonic structure of Transbaikalian Region. States that, from data he presents, term "mountain ranges" can be applied to the Transbaikalian mountains.</p> <p>LC 48T32</p>	
<p>USSR/Geology (Contd) Dec 1947</p> <p>Urals themselves. The formation of the Polaznensko-Krasnokamsk anticline explains to a great degree formation of the platforms located in this area.</p> <p>LC 48T31</p>	<p>USSR/Geology Glaciers Apr 1946</p> <p>"Traces of Ancient Glaciers and Karsts in the Rocky Ranges of the Caucasians," N. A. Gvozdetskiy, 2 p</p> <p>"Priroda" No 4</p> <p>Brief article describes glacial and karst characteristics of Gud-gora (2,483 meters), the Bermamyt (2,591 meters), and the Kanzhal (2,829 meters) studied by the Geomorphological Party, Mineral Studies Expedition, Scientific Research Sector, Moscow Geological Studies Institute, in the course of their expedition to western part of Kabardinsk ASSR during summer 1939.</p> <p>LC 48T33</p>	
<p>USSR/Geology Mineral Resources Apr 1946</p> <p>"Mineral Resources of the Carpathians," A. Ye. Fersman, Acad (Deceased), 6 pp</p> <p>"Priroda" No 4</p> <p>Discusses role of mineral wealth in life of the peoples; gives short historical sketch of Carpathians, the Western Carpathians (Polish), the Eastern Carpathians (western Ukraine), the Southeastern Carpathians (Bukovina). Notes mineral sources of Carpathians, and in conclusion Fersman states that Carpathians are unique and present unlimited possibilities for further exploration.</p> <p>LC 48T34</p>	<p>USSR/Hydrology Limnology Jun 1946</p> <p>"Three Types of Lakes in the Amur River Valley," Ye. F. Maleyev, 1 p</p> <p>"Priroda" No 6</p> <p>Three distinct types of lakes found in lower reaches of Amur River are: lakes which once were old rivers, lakes which joined together by small streams and empty into Amur, and lakes which formed from tectonic deformations of small sections of the earth's crust. Briefly describes principal characteristics of each type and cites examples of each.</p> <p>LC 48T35</p>	



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<p>USSR/Medicine - Botany Medicine - Environment Jun 1946</p> <p>"Synusiosis," T. M. Lippmaa (Deceased), Bot Gardens, Tartuskiy U, Estonia, 6½ pp</p> <p>"Sovetskaya Botanika" Vol XIV, No 3</p> <p>Discusses association of various forms of life for consubstantial living. This can be divided into a simple and complex association. Synusiosis is homogeneous in the dominating living form. Classification of synusiosis is based on the dominating living form and its habitat. Several synusioses can exist in one stage, however, it is usual to find only one synusiosis in each stage. Synusiosis shows evidence of clearly defined phytosynusiosis.</p> <p>LC 48T43</p>	<p>USSR/Medicine - Carrots (Contd) Jun 1946</p> <p>erone. The volatile oils of Ferula are in close genetic union with resins.</p> <p>LC 48T42</p>	
<p>USSR/Medicine - Botany Geography Jun 1946</p> <p>"Some Botanical and Geographical Data Which Were Collected by the 1945 Expedition of the Academy of Sciences to the Northwestern Part of Caucasia," V. B. Sochava, Bot Inst imeni V. L. Komarov, Acad Sci USSR, Leningrad, 4½ pp</p> <p>"Sovetskaya Botanika" Vol XIV, No 3</p> <p>Expedition, led by Prof L. V. Pustovalov, had the chief objective of gathering data to contribute to the SOPS plan, which was a council organized to study the industrial power of the Soviet Union. Discusses watershed of the Urup and B. Laba rivers as a botanical as</p> <p>LC 48T44</p>	<p>USSR/Medicine - Botany Medicine - Arctic Studies Jun 1946</p> <p>"Significance of the Work Done by B. N. Gorodkov in His Study of the Vegetation of Russia," Ye. Lavrenko, V. Sochava, Bot Inst imeni Acad V. L. Komarov, Acad Sci USSR, Leningrad, 6 pp</p> <p>"Sovetskaya Botanika" Vol XIV, No 3</p> <p>Written in honor of the 35th anniversary of Gorodkov's service with the Botanical Institute imeni Acad V. L. Komarov. Gorodkov's main field was botany of the far north; spent considerable time around Wrangel Island, the Chukotsk coast, and Northern Yakut around Tiksi Bay. Lists some books</p> <p>LC 48T45</p>	
<p>USSR/Medicine - Botany (Contd) Jun 1946</p> <p>well as geographical boundary, valleys and their plant growths, woods of Urup River basin, plant formations of the type found in Alps, and briefly some pleistocene elements of vegetation. Submitted, 7 Nov 1945.</p> <p>LC 48T44</p>	<p>USSR/Medicine - Botany (Contd) Jun 1946</p> <p>and article he published as result of his investigations.</p> <p>LC 48T45</p>	
<p>USSR/Medicine - Agriculture Geography Jun 1946</p> <p>"Mountain Meadows of Eurasia as an Agricultural and Geographical Phenomenon," R. A. Yelenevskiy, 28 pp</p> <p>"Sovetskaya Botanika" Vol XIV, No 3</p> <p>Ye. M. Lavrenko of the Botanical Institute imeni Acad V. L. Komarov, Academy of Sciences USSR, Leningrad, reviews this article by Yelenevskiy. It is one of the most comprehensive works on the mountain meadows of Eurasia. Study of article permits understanding not only of mountain meadows of southern parts of Far East, but also permits understanding of a typical mountain of northern parts of the palaeartic.</p> <p>LC 48T46</p>	<p>USSR/Medicine - Botany Medicine - Geography Jun 1946</p> <p>"Flora of the Betpak-Dala Wastes," N. I. Rubtsov, Kazakh Br, Acad Sci Alma-Ata, 3½ pp</p> <p>"Sovetskaya Botanika" Vol XIV, No 3</p> <p>Not too long ago the Betpak-Dala wastes were just a white spot on the map. Article very briefly discusses expeditions sent to this area to study its flora. Article lists a few hundred plants and shrubs found and classified.</p> <p>LC 48T47</p>	

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USSR/Medicine - Botany Medicine - Microorganisms	Jun 1946	USSR/Medicine - Albumin Medicine - Biology	Oct 1947
"Understanding the Lower Plant Types," L. I. Kursanov, 4 pp		"Colloidal Properties of the Albumin Which is De- rived From Animal and Plant Tissues," S. S. Perov, Active Mem All-Union Acad Agr Sci imeni Lenin, 9 pp	
"Sovetskaya Botanika" Vol XIV, No 3		"Dok VseSoyuz Ak Sel'khoz Nauk" No 10	
N. N. Voronikhin, of the Botanical Institute imeni Acad V. L. Komarov, reviews article by Kursanov which appeared in Vol XIV, No 4, 1945, of the journal "Mikrobiologiya." For the first time some concrete data is presented concerning a field which, until this article, was almost totally ignored. Kursanov dis- cusses his subject from morphological and geographical sides.		Author states it is possible to isolate an acid albumin out of most native albumins. Biological sensitivity is increased with an increase of the anionic state of the albumin. On the other hand, an acid state will greatly hinder the transfer of albumin, but assists plastic phenomenon of the albumin. Very important to watch the acid-alkali balance in the feed, as well as in organs of animals.	
LC	48T48	LC	48T49
USSR/Medicine - Plant Medicine - Nutrition	Oct 1947	USSR/Medicine - Plants - Diseases Medicine - Terminology	Apr 1946
"Effect of Humic Acid on Growth of Plants, Where Var- ious Types of Nutrients Were Used at Beginning of the Development of Plants," L. A. Khristeva, Candidate Agr Sci, 7 pp		"Phytocides and Their Presumptive Role in Nature," Prof B. P. Tokin, 10 pp	
"Dok VseSoyuz Ak Sel'khoz Nauk" No 10		"Priroda" No 4	
Humic acid has positive effect on growth of plants which lacked phosphorus at beginning of development. At the same time treatment with humic acid in solution with trichloroacetic acid increased the phosphorous content. Thus improved growing conditions of the plant. Increasing phosphorus at beginning of develop-		Author prefaces article with description of term phytocides. Discusses bacterial properties, chem- istry, and the biologic role of these phytocides in nature. Reference made to work in this field by Karpov and Tonkin at Tomsk in 1944.	
LC	48T50	LC	48T51
USSR/Medicine - Plant (Contd)	Oct 1947	USSR/Medicine - Animals Medicine - Food	Apr 1946
ment of the plant results in a greater ability to carry out operation of oxygen reduction.		"Winter Feed for Kamchatka Sable," A. P. Kazarinov, 1 p	
		"Priroda" No 4	
		Discusses habitat of Kamchatka sable ( <i>Martes zibilline chamtchadalica</i> ) and briefly notes feeding habits during winter. Data obtained by studying contents of some 57 sables.	
LC	48T50	LC	48T52
USSR/Medicine - Rickettsia Medicine - Microscopy	Apr 1946	USSR/Medicine - Insecticides Chemistry - Biphenyl, Chloro Derivatives	Apr 1946
"Morphological Structure of Rickettsia," Dr I. F. Leyont'yev, 4 p		"Diphenyl-Trichlorethane as an Insecticide," Dr I. F. Leyont'yev, 2 p	
"Priroda" No 4		"Priroda" No 4	
States there are four types of known rickettsia, and that under a superhigh-power microscope they show considerable morphological variations differing from one another. In general, however, they possess gen- eral characteristics of elementary virus antibodies and all bacteria, i.e., they all contain an inner sac containing a protoplasmic substance in which are found many dark bodies.		Brief description of use as an insecticide. No pertinent information except that US Army has used it in powder form and obtained excellent results. Mentions chemical formula of new insecticide pro- duced by English firm under Patent No 547,871, granted to Swedish firm, A. G. Geigy.	
LC	48T53	LC	48T54

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USSR/Medicine - Botany Geography	Jun 1946	USSR/Medicine - Biology Medicine - Birds	Jun 1946
"Brief Notes on Vegetation in the Kuriles," V. N. Vasil'yev, Dr of Biol Sci, 14 pp		"Biology of the Emberiza Bruniceps," A. S. Mal'-chevskiy, 2 p	
"Priroda" No 6		"Priroda" No 6	
Discusses general physical geographical status of the islands, and gives short account of exploratory trips. Treats each island individually and discusses flora. Also briefly mentions predominant geographical features of each island. Author gives opinions regarding reasons for peculiarities of plant-cover distribution.		First discovery of the Emberiza bruniceps in the trans-Volga region was made during summer 1940. These birds found in the semiarid regions 14 km south of Baskunchak Lake. Author submits list of publications which treat on subject at greater length than the summary.	
LC	48T55	LC	48T56
USSR/Medicine - Deer Geography	Jun 1946	USSR/Medicine - Plants Medicine - Poisonous	Jun 1946
"Increasing the Range of the Capreolus Pygargus Pall in Siberia," V. N. Skalon, 1/2 p		"Toxicity of Vicia Sativa," I. P. Zapaonyuk, 1 1/2 pp	
"Priroda" No 6		"Priroda" No 6	
Short article gives various indications to substantiate the fact that the Capreolus pygargus Pall, doe, is moving its range farther north. Author claims one of main reason for northward trek is that the south is becoming more populated and farmers are burning off rangeland.		Poisoning from eating certain types of legumes has been recognized for a long time. Most common in domestic animals. Author discusses incidences in 1944 when several horses were poisoned from eating feed which contained Vicia sativa. Discusses main symptoms, and some general factors pertaining to treatment. In many cases bone spavin is an after-effect.	
LC	48T57	LC	48T58
USSR/Medicine - Rats Medicine - Population	Jun 1946	USSR/Medicine - Parasitology Medicine - Teachers	Jun 1946
"The Spread of Rats on the Northern Maritime Coasts," V. S. Bazhanov, 1/2 p		"Twenty-five Years Experience in Teaching Parasitology Specialists," Acad Ye. N. Pavlovskiy, Lt Gen Med Corps, 7 pp	
"Priroda" No 6		"Priroda" No 6	
In 1933, traces of rattus rattus discovered at Apuka on coast of Bering Sea. In 1934, rattus norvegicus caraco Pall discovered in Slautnoy River region. This shows that recently rats in the coastal regions have spread out. Points out it is most important to study this migration and devise methods for ending it. Lists articles by authors who have made research in this field.		Briefly discusses instruction given at Military Medical Academy imeni S. M. Kirov, for the training of parasitologists. Course consists of four main sections: basic instruction in the general field, period of classification of students, studies conducted in chosen field specialization, and final training and trial period. Gives history of Mili-	
LC	48T59	LC	48T60
USSR/Medicine - Malaria Medicine - Coma	Jan 1946	USSR/Medicine - Parasitology (Contd)	Jun 1946
"Neurological Symptoms of Comatosa Malaria," Docent F. M. Lisitsa, Inst of Malaria and Med Parasitol NKZdrav Tadzhik SSR (Dir-Prof L. I. Leyzerman) Chair of Nervous Diseases (Dep-Prof A. S. Pentsik), Stalina-bad Med Inst, 6 1/2 pp		tary Medical Academy and mentions names of scientists responsible for huge success of institution.	
"Medits Parazitologiya" No 1			
In localities where malaria is complicated with various infectious diseases of the brain, it is important to differentiate between malarial coma and other coma. Loss of reasoning in itself is not a symptom of comatosa malaria, but when it appears, further exami-			
LC	48T61	LC	48T60

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<p>USSR/Medicine - Malaria (Contd) Jan 1946</p> <p>nation should be conducted to determine whether or not the coma is actually due to malaria. One of best treatments for comatosa malaria is blood transfusion.</p> <p>LC 48T61</p>	<p>USSR/Medicine - Malaria Jan 1946 Medicine - Immunity</p> <p>"Questions of Immunity in Experimental Malaria of Monkeys (Macacus rhesus)," Ye. V. Ekzempl'yarskaya, Inst Med Parasitol (Dir-Docent V. I. Biryukov) and Sec of Med Parasitol VIEM (Dep-Acad Ye. N. Pavlovskiy, Lt Gen Med Corps), 3 pp</p> <p>"Medits Parazitologiya" No 1</p> <p>Experiments conducted at Base of the Sukhum Branch of VIEM. Similar to malaria in man, nonsterile homologous immunity in monkeys causes not only visible specificity, but also specificity to type. Titration of agglutinins is very low - 1:64.</p> <p>LC 48T62</p>	
<p>USSR/Medicine - Tularemia Jan 1946 Medicine - Fleas</p> <p>"Epizootology of Tularemia," A. A. Vol'ferts, S. A. Kolpakova, State Sci Res Inst of Microbiol and Epidemiol of Southeastern USSR, 5 1/4 pp</p> <p>"Medits Parazitologiya" No 1</p> <p>Article, Part 3 of series, on epizootology of tularemia. Authors discuss role of Stenophtalmus orientalis Wagn fleas in epizootology of tularemia. Conducted experiments to solve two questions: length of the period fleas are able to harbor tularemia bacillus, and the minimum number of fleas necessary to cause infection in an animal. Discovered that fleas were</p> <p>LC 48T63</p>	<p>USSR/Medicine - Malaria (Contd) Jan 1946</p> <p>States that ability of the reticulo-endothelium to carry out hyperfunction is a very great factor in further development and emergence of infection.</p> <p>LC 48T62</p>	
<p>USSR/Medicine - Tularemia (Contd) Jan 1946</p> <p>active carriers from 1 1/2 to 2 1/2 months, and that as few as two C. orientalis fleas were able to infect a healthy animal.</p> <p>LC 48T63</p>	<p>USSR/Medicine - Malaria Jan 1946 Medicine - Mosquitoes - Breeding Places</p> <p>"Physiographic Classification of Malaria Areas in Abkhaz," A. A. Ustinov, Entomological Sec, Republic Malaria Sta NKZdrav, Abkhaz ASSR (Dir-Docent P. S. Dzhaparidze), 7 1/2 pp</p> <p>"Medits Parazitologiya" No 1</p> <p>Collection of some work which the author conducted concerning research of malaria areas of Abkhaz. Most work done 1937-1941 at former Abkhaz Tropic Institute. Discusses climate, geographical situation, topography, flora and fauna, as well as malaria breeding places of the low coastal terraces,</p> <p>LC 48T64</p>	
<p>USSR/Medicine - Malaria Jan 1946 Medicine - Prevention</p> <p>"Twenty-five Years of Work of the Institute of Malaria, Medical Parasitology, and Helminthology, Academy of Medical Sciences USSR," P. G. Sergiyev, Active Mem Acad Med Sci, and Dir of Inst, 14 1/4 pp</p> <p>"Medits Parazitologiya" No 1</p> <p>History of Academy of Medical Sciences developed as result of fulfilling three very important tasks: (1) organized and practical assistance to Ministry of Public Health, especially in malaria control; (2) training of a competent staff of specialists to combat malaria; (3) solution of various problems met in field of medical parasitology. Presents some of the more important work of institution. LC 48T65</p>	<p>USSR/Medicine - Malaria (Contd) Jan 1946</p> <p>damp grass lands and woods, mountainous regions, and high regions of unexplored mountain ranges.</p> <p>LC 48T64</p>	

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USSR/Medicine - Mosquitoes Medicine - Malaria	Jan 1946	USSR/Medicine - Mosquitoes Medicine - Breeding Places Jan 1946	
"Qualitative Analysis of Anopheles Production in Various Types of Waters, and an Evaluation of Its Epidemiological Significance," A. V. Ulitcheva (Samar-kand), Uzbek Inst of Malaria and Med Parasitol (Dir-Prof L. M. Isayev), 5 pp		"Behavior Peculiarities of Anopheles Plumbeus Larva, With Respect to Conditions of Their Habitat," L. V. Ivanova, Entomol Sec, Inst of Malaria and Med Parasitol, Acad Med Sci USSR (Dep-Mem Acad Med Sci V. N. Beklemishev; Dir Mem Acad Med Sci, P. G. Sergiyev), 10 1/2 pp	
"Medits Parazitologiya" No 1		"Medits Parazitologiya" No 1	
Gives results of studies conducted to determine various types of breeding waters for Anopheles. Conducted on basis of a quantitative study conducted on the number of pre-image forms of mosquitoes found in various waters, and was done to study the epidemiology		The A. plumbeus is able to utilize the water trapped in tree hollows as breeding ground for its larvae. Ivanova isolated some larvae and placed them in various types of containers to study the effect of var-	
LC 48T66		LC 48T67	
USSR/Medicine - Mosquitoes (Contd)	Jan 1946	USSR/Medicine - Mosquitoes (Contd)	Jan 1946
of malaria. It was found that A. maculipennis sacharovi, and A. superpictus existed in the following habitats: marshes 24% of the time, rice paddies 71%, and in water reservoirs 5%.		ious types of breeding places on mosquito growth. It was found that these larvae required absolutely calm water for proper metamorphosis. Also found that they had negative reaction to phototaxis and an intense reaction of photokinesis, when exposed to light.	
LC 48T66		LC 48T67	
USSR/Medicine - Mosquitoes Medicine - Eggs - Development	Jan 1946	USSR/Medicine - Mosquitoes Medicine - Breeding Places	Jan 1946
"Autogenesis of the Eggs of A. Bifurcatus of the Alma-Ata Population," Z. M. Denisova (Alma-Ata) Republic Tropical Sta (Dir L. A. Andreyev), 2 pp		"The Breeding of the Anopheles Plumbeus Steph in the Hollows of Trees," Z. F. Krivososova, Entomologist, Dagestan Malaria Sta (Chief V. I. Chaykin), 1 p	
"Medits Parazitologiya" No 1		"Medits Parazitologiya" No 1	
Mosquito found in the waters which originate in mountain regions of the Tarbatayskiy, Dzhungarskiy, and Kirgizskiy ranges. One of the most important factors in the spread of malaria is self-fertilization in some mosquitoes. Author conducted observations to determine whether the A. bifurcatus possessed this property. Discovered that the A. bifurcatus which is found in		During course of 2-year study of ecology of the Anopheles plumbeus, author observed breeding in one particular tree hollow. Discovered that breeding of mosquitoes is very intense in tree hollows and that this phenomenon is a very important factor in wide propagation of malaria. From data obtained it was possible to determine that, on the average, five mosquitoes hatch from every tree hollow.	
LC 48T68		LC 48T69	
USSR/Medicine - Mosquitoes (Contd)	Jan 1946	USSR/Medicine - Mosquitoes Medicine - Breeding Places	Jan 1946
Alma-Ata have ability of autogenesis, and therefore it is an important factor in spread of malaria.		"Copulation of the Anopheles Plumbeus Steph.," Z. F. Krivososova, Dagestan Republic Malaria Sta (Chief V. I. Chaykin), 1 p	
		"Medits Parazitologiya" No 1	
		Studies conducted at Andalal, Groznenskiy Oblast, in northeastern Dagestan. Particular attention paid to breeding of mosquitoes in tree hollows. Noticed that, after copulation, female mosquito went to hunt for blood. Author states that ability of the A. plumbeus to mate indiscriminately makes possible to study its habits all year round.	
LC 48T68		LC 48T70	



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USSR/Medicine - Spirochaetosis Medicine - Penicillin	Jan 1946	USSR/Medicine - Hookworm - Helminthology Medicine - Hygiene and Sanitation	Jan 1946
"Therapeutic Action of Penicillin in Tick Spirochaetosis," M. V. Pospelova-Shtrom, N. A. Tiburskaya, Sec of Entomol (Dep V. N. Beklemishev, Mem Acad Med Sci and Sec of Experimental Protozool (Dep-Prof Sh. D. Moshkovskiy), Cent Inst of Malaria and Med Parasitol, Acad Med Sci USSR (Dir-Mem Acad Med Sci P. G. Sergiyev), 1 p		"Experiment in Sanitation of an Ankylostomiasis Area," N. G. Kamalov, G. N. Gorbabze, T. N. Tsutsunava, A. O. Khizanishvili, A. G. Kamalova, Sh. M. Bugianishvili, Sec on Helminthol, Inst of Malaria and Med Parasitol, HKZdrav Gruzii SSR imeni Prof S. S. Vircaladze (Dep of Sec N. G. Kamalov Dr Med Sci, and Dir of Inst Prof S. P. Kandelaki), 10 $\frac{1}{2}$ pp	
"Medits Parazitologiya" No 1		"Medits Parazitologiya" No 1	
Penicillin therapy did not guarantee that there would not be later development of more serious stage of disease. A 2-unit penicillin application for every		In accordance with request of Second All-Union Conference on Helminthology in 1937, and the NKZdrav, authors were sent to one of the endemic localities	
LC	48T71	LC	48T72
USSR/Medicine - Spirochaetosis (Contd) Jan 1946		USSR/Medicine - Hookworm - Helminthology (Contd) Jan 1946	
gram of weight of guinea pigs did not show remarkable effect on spirochaetosis. A 10-fold increase in amount of the preparation at times resulted in lowering of temperature. Animals showed no ill effect from heavy doses.		in Gruzii to improve sanitary conditions in an area. Discusses organization of sanitation operation, characteristics of land, condition of inhabitants of area, clinical and hematological status. Short passage evaluating results of work done to improve sanitary conditions.	
LC	48T71	LC	48T72
USSR/Medicine - Trichinosis Medicine - Epizootic Diseases Jan 1946		USSR/Medicine - Helminthes and Helminthiasis Jan 1946 Medicine - Mines and Miners	
"Milk as a Transmitter of Trichinellosis," Docent V. P. Koryazhnov, Chair of Vet-Sanitary Exam, Moscow Vet Inst, 1 p		"Helminthic Fauna in Coal Mine Workers," L. K. Zerchaninov, N. A. Bulycheva, Sec on Parasitol (Dep L. K. Zerchaninov), Sverdlovsk Inst of Microbiol and Epidemiol (Prof I. I. Levin), $\frac{1}{4}$ p	
"Medits Parazitologiya" No 1		"Medits Parazitologiya" No 1	
No reports regarding transfer of trichinellosis through milk of infected sows in spite of well-known fact that trichinellosis can be transferred by larvae in milk of animals infected with this disease. Author conducted tests to determine effects caused by feeding. Discovered that milk of sick animals has no practical value as an epizootic factor. Pigs born of		Presents a table showing results of studies conducted to determine the helminthological status of shafts of the Bogoslov and Yegorshinsk mines. Examined 313 shafts and discovered six different types of worms. Comparison shown of results obtained from these shafts and results obtained by other scien-	
LC	48T73	LC	48T74
USSR/Medicine - Trichinosis (Contd) Jan 1946		USSR/Medicine - Helminthes and Helminthiasis (Contd) Jan 1946	
infected sows and fed on their mother's milk did not become infected.		tists in other shafts. Highest number of infections noticed in Ural region mine shafts.	
LC	48T73	LC	48T74

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<p>USSR/Medicine - Echinococcosis Medicine - Diagnosis Methods</p> <p>Jan 1946</p> <p>"Diagnostic Value of the Casoni Reaction," V. I. Zakharov, Candidate in Biol Sci, Sec on Parasitol, Kazakh Republic Tropical Sta, 2 pp</p> <p>"Medits Parazitologiya" No 1</p> <p>A thorough understanding of characteristics of the Casoni reaction - intracutaneous tests for presence of echinococcus - is necessary as it is the means by which the physician can determine his course of action. Nevertheless, this reaction has not been accepted too widely on the basis of its practical value. Author experimented on foxes to determine exact diag-</p>	<p>USSR/Medicine - Trichophyton Medicine - Carriers</p> <p>Jan 1946</p> <p>"Epidemiological and Ecological Data on Spreading of Trichophytions in Man and Animals," Prof D. L. Voronov, Dep of Sec of Phytoparasitol, State Inst of Vet Dermatology (Dir A. M. Priselkov), 5½ pp</p> <p>"Medits Parazitologiya" No 1</p> <p>Questions regarding biology and classification of sources of trichophytions and microspores have practical as well as theoretical value. In 1937-1941 author worked out system for sources of trichophytions and microspores on basis of their biology and ecology. One primary step was to determine</p>	
LC 48T75	LC 48T76	
<p>USSR/Medicine - Echinococcosis (Contd)</p> <p>Jan 1946</p> <p>nostic characteristics of this reaction. However, discovered that the test alone was not sensitive enough, and is not in itself a test to show presence of echinococcus. Nevertheless, diagnostic characteristics of this reaction are a great help in determining methods for the proper diagnosis and therapy of diseases caused by echinococcus.</p>	<p>USSR/Medicine - Trichophyton (Contd)</p> <p>Jan 1946</p> <p>reservoirs of dermatophytes. Discusses growth of dermatophytes on natural sterile substrata, and reasons why they cannot be raised under nonsterile conditions. Only certain types of man and animals can be carriers of this disease.</p>	
LC 48T75	LC 48T76	
<p>USSR/Medicine - Tularemia Medicine - Epidemiology</p> <p>Jan 1946</p> <p>"Regularities in Transmitted Outbreaks of Tularemia in Western Siberia," Yu. A. Isakov, O. N. Sazonova, Khanty-Mansiyskiy Tularemia Sta, 8 pp</p> <p>"Medits Parazitologiya" No 1</p> <p>Authors set out to study the epidemiology of transmitted outbreaks of tularemia. They discuss the significance of transmission of this disease by various insects of agricultural zones of western Siberia, the seasonal nature, the distribution, and intensity of the transmitted outbreaks. From the studies it was determined that bloodsucking insects are responsible</p>	<p>USSR/Medicine - Flies Medicine - Seasons</p> <p>Jan 1946</p> <p>"Seasonal Nature in the Size of Fly Populations in Ashkhabad," N. M. Razumov, Inst of Malaria and Med Parasitol NKZdrav, Turkmen SSR (Dir of Inst V. M. Remennikova), 2 pp</p> <p>"Medits Parazitologiya" No 1</p> <p>Reports results of studies conducted to determine seasonal nature of the size of fly populations in Ashkhabad. Count of flies made with glass-walled traps placed at five points. Traps set for period of 24-hour periods every 4 days from Apr 1941 to Oct 1942. Can conclude from these studies that best</p>	
LC 48T77	LC 48T78	
<p>USSR/Medicine - Tularemia (Contd)</p> <p>Jan 1946</p> <p>for transmission of tularemia in boggy and tundra regions. Seasonal nature of outbreaks can be determined by development of epizootics among water rats. Intensity and spread of outbreak dependent on number of water rats at the time when an epizootic develops among rat population.</p>	<p>USSR/Medicine - Flies (Contd)</p> <p>Jan 1946</p> <p>time to conduct anti-fly measures in Ashkhabad was during the summer, when the fly population was at its lowest and drying action of sun and wind assists in wiping out the pre-imag0 stage of flies.</p>	
LC 48T77	LC 48T78	

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USSR/Medicine - Plants Medicine - Growth	Dec 1947	USSR/Medicine - Plants Geography	Dec 1947
"Fundamental Notes on Distribution of Plant Growth in Polar Valleys of the Omolon River," F. S. Leyont'yev, 11 pp		"Plant Growth of the Steppe Region in the Basin of the Middle Reaches of the Osetra River in Moscow Oblast," A. K. Skvortsov, 11 pp	
"Byulleten' M O-va Isp Prirody - Otd Biologii" Vol LII, No 6		"Byulleten' M O-va Isp Prirody - Otd Biologii" Vol LII, No 6	
Discusses plant growth of northern valleys of the Omolon River which empties into East Siberian Sea. Discusses the vegetation based on four main divisions: woody forests, subalpine belt of cedar growth, alpine belt of mountainous tundra, and high above-timberline peaks. Plant growth of Omolon River valley related		First part of article gives geographical boundaries of area which author discusses and briefly describes topographical features. Discusses at great length plant growth on southern slopes near Podkhozhee Station (about 30 km northwest of Stalingorsk). Also briefly describes growth found on northern	
LC	48T79	LC	48T80
USSR/Medicine - Plants (Contd)	Dec 1947	USSR/Medicine - Plants (Contd)	Dec 1947
more closely to growth found in valleys of the Anadyr River than what is found in valleys of the Indigirka River.		slopes. Author very grateful for assistance of G. K. Khrushchov, P. A. Smirnov, P. P. Popov.	
LC	48T79	LC	48T80
USSR/Medicine - Insects Medicine - Fish	Dec 1947	USSR/Medicine - Plankton Hydrography	Dec 1947
"Feeding of the Dragonfly Nymph of the Suborder Anisoptera," N. A. Berszina, 11½ pp		"Reasons for the Periodical Nature of the Development of Phytoplankton in Uchinsk Water Basins," K. A. Guseva, 13¼ pp	
"Byulleten' M O-va Isp Prirody - Otd Biologii" Vol LII, No 6		"Byulleten' M O-va Isp Prirody - Otd Biologii" Vol LII, No 6	
Nymphs of the Anisoptera play very important part in trophodynamics of small water areas of pond type. Biro stated that the larger Anisoptera belong to the Aeschnidae, and it has been observed that in some ponds the nymphs of the latter have annihilated the fish. Thus, author states that it is most important to study the nymph of the Anisoptera as possible enemy		Development of phytoplankton in the Uchinsk water basins is inhibited during winter when water freezes, and reaches its most active point during spring and summer. Nature of development is, therefore, very periodic. First plankton to appear after winter period is the diatom. Presence of silicon in	
LC	48T81	LC	48T82
USSR/Medicine - Insects (Contd)	Dec 1947	USSR/Medicine - Plankton (Contd)	Dec 1947
of fish fry. For this the Chair of Hydrobiology of the Moscow Higher Technical Scientific Fish Institution studied to determine feeding habits of organisms which play basic roles in trophodynamics of water areas. The author briefly describes feeding habits of dragonfly nymphs.		water also great factor in periodicity of development of plankton. A lack of P and toxic effect of Mn do much to limit development of plankton in Uchinsk water basins.	
LC	48T81	LC	48T82

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REPRODUCED

USSR/Medicine - Fungi Medicine - Geology	Dec 1947	USSR/Meteorology Solar Radiation	Apr 1946
"New Syringospora of Taymyr," B. S. Sokolov, 10 pp "Byulleten' M O-va Isp Prirody - Otd Geologii" Vol XXII, No 6		"The Amount of Solar Radiation at Kuybyshev," V. G. Kastrov, 4 p	
First part of article describes four types of coal syringospora found in Taymyr: Syringospora, Tetraporinus, Kneichowpora, and Multithecopora. Last two never discussed in articles, and all except syringospora are new discoveries. Tabulata also discussed by author who treats it as an independent subclass Anthozoa of the order Auleporacea, Favositacea, and Tetradina Okalitch. Also includes a new diagnostic method for syringosporacea.		"Priroda" No 4	
LC	48T83	Reference made to solar radiation chart which is part of article by Prof N. N. Kalitin, "Priroda," No 2, 1945. Chart gives data on amount of solar radiation in European Russia. However, due to limited number of observation points and short period over which observations were made, Kalitin states that his chart is very rough approximation of actual conditions. Kastrov uses data kept by the Kuybyshev	LC
USSR/Meteorology Hydrology	Apr 1946	USSR/Meteorology (Contd)	Apr 1946
"The Importance of Snow Cover in Nature and Economy and Problems Connected With Its Study," G. D. Rikhter, 8 pp		Geophysical Observatory and compares it to data on chart. Actual recordings for 1942-1944 were 102.2, 99.5, and 100.8 Cal per sq cm. By interpolation on Kalitin's chart, Kastrov obtained 99 Cal per sq cm.	
"Priroda" No 4			
Discusses experiments conducted to explain following: effect of snow cover on climate, significance of snow cover in hydrologic processes, role of snow cover in geomorphological processes, effect of snow cover on soil forming processes, plant growth, and animal life.			
LC	48T85	LC	48T84
USSR/Nuclear Physics - Instruction Physics	Jun 1946	USSR/Nuclear Physics - Neutrons Nuclear Physics - Particle Accelerators	Jun 1946
"Twenty-five Years of the Leningrad Physical Technical Institute of the Academy of Sciences, USSR," M. S. Sominskiy, 4 pp		"Binding Energy of Neutrons in Nuclei," V. B. Berestetskiy, 1 1/2 pp	
"Priroda" No 6		"Priroda" No 6	
Gives teaching staff of institute, among which are such scientists as Semenov, Ioffe, and Mitkevich. Short history of development of school. Semenov responsible for courses in atomic energy. Author states it is impossible to give full account of work that this institute has accomplished during the past 25 years but presents main features of its development.		Summary of information obtained from articles by Baldwin and Koch published in "Physical Review," Vol 67, 1945, and an article in "Progress of Chemistry," Vol XII, No 3, 1943 (Uspekhi Khimi). Berestetskiy states that discovery of an induction method of accelerating electrons has made possible obtaining large amounts of high-energy particles. He explains construction of the betatron and discusses binding forces of neutrons.	
LC	48T86	LC	48T87
USSR/Nuclear Physics - Plutonium Nuclear Physics - Neptunium	Apr 1946	USSR/Oceanography Salinity	Apr 1946
"Neptunium and Plutonium," L. B. Ponizovskiy, 4 pp		"Salinity of the Northern Part of the Caspian Sea," Vs. A. Lebnev, 4 p	
"Priroda" No 4		"Priroda" No 4	
Reference made to H. D. Smyth's book "Atomic Energy," in which explanation is given concerning methods of obtaining certain uranium-type elements. Among these are plutonium and neptunium. Ponizovskiy discusses methods of obtaining the transuranium element plutonium. Article is elementary, designed for popular consumption.		In past few years, water level of the Caspian Sea has fallen as much as 180 cm. This caused great increase in the salinity of sea. Author cites figures showing percentage increase in salinity (from 14.66 to 15.40%), and names several scientists studying this phenomenon. Among these are Zaytsev and Shorygin.	
LC	48T88	LC	48T89

<del>RESTRICTED</del>		FDB Periodical Abstracts Scientific No 48	<del>RESTRICTED</del>	
USSR/Oceanography Meteorology	Jun 1946	USSR/Petroleum - Prospecting Soil Science	Apr 1946	
<p>"The Kurile Island Chain," Prof P. V. Ushakov, 11 pp</p> <p>"Priroda" No 6</p> <p>General description of chain. Discusses topography, brief explanation of flora and fauna, constant ocean currents, and charts showing average temperatures for Jan and Aug. and average temperature of the sea (upper layer of ocean). Most information obtained from long list of foreign publications, US Hydrographic, several by Japanese institutions, a few from Russian.</p>		<p>"The Speed of Soil Formation in the Arctic," K. A. Baranov, Nordvik Gulf, 1/4 p</p> <p>"Priroda" No 4</p> <p>Oil survey drilling was conducted on the Yurung-Tumus Peninsula (Laptev Sea) during Nov 1934. First hole sunk near Svodovoy River estuary. Operations shut down 1937, resumed 1942. Author makes brief comments regarding formation of soil. Data was obtained from study of drill cores.</p>		
LC	48T90	LC	48T91	
USSR/Petroleum - Sources Coal	Apr 1946	USSR/Physics Compounds, Condensation Mathematics, Applied	May/June 1946	
<p>"The Origin of Petroleum," L. K. Osnitckaya, Inst of Microbiol, Acad Sci USSR, 6 1/2 pp</p> <p>"Priroda" No 4</p> <p>Discusses method of determining origin of coal which was suggested by Pallas of the Peterburg Academy of Sciences. Suggested that petroleum is formed as a result of dry burning of coal. However, author also makes reference to methods suggested by other scientists such as Mendeleev, Arkhangel'skiy and others. States that mystery surrounding origin of petroleum will soon be clarified.</p>		<p>"Expansions Into a Series of Powers of a Small Parameter in the Theory of Statistical Equilibrium," N. Bogolubov, Moscow State U, 8 pp</p> <p>"Journal of Physics USSR" Vol X, No 3</p> <p>Derivation of equations connecting distribution functions of different orders in the case of statistical equilibrium, which are solved with aid of expansions into a series of powers of the density. Study of Ursel-Mayer theory, and Coulomb's interaction. Derivation of an approximate integral</p>		
LC	48T92	FDB	48T93	
USSR/Physics Adsorption Charcoal - Adsorption	May/June 1946	USSR/Physics (Contd)	May/June 1946	
<p>"Adsorptive Properties and Structure of Adsorbents. I. Limiting Adsorption From Solutions and Activated Charcoal," A. Kisselev, K. Shcherbakova, Lab of Phys Chem, Lab of Surface Phenomena, Moscow State U, 16 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Study of structure of adsorbents, especially area and structure of the interface and structure of the pores which are investigated by absorption methods. Study over wide concentration range of the adsorption isotherms of various organic substances, of absorption from aqueous solutions by ash-free charcoal. Received, 15 Jun 1945. FDB</p>		<p>equation for the binary distribution function which can be used for description of the condensed state. Received, 4 Jul 1945.</p>		
LC	48T94	FDB	48T93	
USSR/Physics Smokes - Particle Size Microscopes - Electron	May/June 1946	USSR/Physics Dyes, Cyanine Spectra Analysis	May/June 1946	
<p>"An Electron Microscopic Investigation of Smoke Deposits," A. Shekhter, S. Roginsky, S. Sakharova, Sec of Catalysis and Topochem, Inst of Phys Chem, Acad Sci USSR, Moscow, 8 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Electron microscopic study of smoke deposits of some solids of catalytic usage and some salts with well-known crystal forms, revealing quite peculiar structure of the deposits. Received, 15 Jan 1946.</p>		<p>"Structure of the Sensitization Spectra of Cyanine Dyes," S. Natanson, Res Inst of Cinematog and Photog, Moscow, 12 pp</p> <p>"Acta Physicochimica URSS" Vol XXI, No 3</p> <p>Study of sensitization spectra of cyanine dyes with regard to three types of bands observed; due to polymolecular, molecular, and highly aggregated states of the dye, and the displacement of the short wave-length sensitization band. Received, 12 Jun 1945.</p>		
FDB	48T95	FDB	48T96	