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Foreign Documents Branch C I A Periodical Abstracts

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Number 46

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NOTE: All periodicals listed below are available in the Foreign Documents Branch, CIA.

Abstracted in this issue:

<u>Title</u>	<u>Issue</u>	<u>Date</u>
<u>Russian Periodicals</u>		
"Avtomatika i Telemekhanika" (Automatics and Telemechanics) Cards 7-10	Vol IX No 1	Jan 1948
"Elektrichestvo" (Electricity) Cards 15-23	No 2	Feb 1948
"Fel'dsher i Akusherka" (Medical Assistant and Midwife) Cards 72-74	No 2	Feb 1948
"Gigiyena i Sanitariya" (Hygiene and Sanitation) Cards 75-85	No 3	Mar 1948
"Khirurgiya" (Surgery) Cards 48-50	No 2	Feb 1948
"Kolloidnyy Zhurnal" (Colloid Journal) Cards 4-6, 95, 96	Vol X No 1	Jan/Feb 1948
"Meditsinskaya Sestra" (Medical Nurse) Cards 64, 65	No 3	Mar 1948
"Ogneupory" (Fireproofing) Cards 29-31	No 3	Mar 1948
"Prikladnaya Matematika i Mekhanika" (Applied Mathematics and Mechanics) Cards 27, 28	Vol XII No 1	Feb 1948
"Priroda" (Nature) Cards 1, 2, 32-47, 91-94, 101	No 1	Jan 1948
"Problemy Tuberkuleza" (Problems of Tuberculosis) Cards 86-90	No 1	Jan/Feb 1948
"Sovetskoye Zdravookhraneniye" (Soviet Public Health) Cards 66-71	No 1	Jan/Feb 1948
"Stomatologiya" (Stomatology) Cards 51-54	No 1	Jan 1948
"Tsement" (Cement) Cards 24-26	No 1	Jan/Feb 1948

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"Vestnik Akademii Meditsinskikh Nauk SSSR" (Herald of the Academy of Medical Sciences of the USSR) Cards 55-59	No 1	Feb 1948
"Vestnik Svyazi - Elektro-Svyaz'" (Herald of Communications - Electrocommunications) Cards 3, 11-14, 97-100	No 3 (96)	Mar 1948
"Voprosy Neyrokhirurgii" (Problems of Neurosurgery) Card 60	No 1	Jan/Feb 1948
"Zhurnal Obshchey Biologii" (Journal of General Biology) Cards 61-63	Vol IX No 1	Jan/Feb 1948

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

State	6
Army	24
Navy	20
Air Force	6
Library of Congress	5
AEC	3
RDB	2
CIA	16
FDB	<u>20</u>
Total	102

RESURICATED		FDB Periodicals Abstracts Scientific No 46		RESURICATED	
POLAND/Academy of Sciences		Jan 1948		USSR/Arotic Studies Geography Ice Formation	
"New Successes of Revived Polish Science," D. V. Lebedev, 2 1/2 pp				"Geographic Distribution of Ice and Clay Hummocks in Northern Eurasia," B. A. Tikhomirov, 2 pp	
"Priroda" No 1				"Priroda" No 1	
Poland, under democratic government, has made great strides in field of science. Discusses higher scientific attainments in education, briefly commenting on Polish Academy of Sciences, 5 May 1946 and 29 Sep 1946 scientific session, Polish Scientific and Research Institute, scientific conferences, and some of the more important scientific journals published in Poland.				Briefly describes distribution of ice and clay hummocks (bugrov-baydzharokhov) in northern Eurasia. Notes that they have increased on Dikson Island, and author attributes this to increased economy (agriculture and industry) causing greater erosion in that area. States that this phenomenon is found in Arotic permafrost regions and in those mountainous regions favorable for formation of fossil ice.	
FDB		46T1		FDB	46T2
USSR/Communications Telegraphy Telephony		Mar 1948		USSR/Chemistry - Emulsions Chemistry - Colloidal Chemistry	
"Order No 75: Working Program for Communications Organizations in 1948" 2 pp				"Basic Principles of Formation of Highly Stable Concentrated Emulsions," L. Ya. Kremnev, Leningrad Tech Inst imeni Lensovet, 8 pp	
"Vest Svyazi - Elektro-Svyaz" No 3 (96)				"Kolloid Zhur" Vol X, No 1	
Order calls for all workers to unite for further increases in production of all branches of communications in order to guarantee a completion and overfulfillment of Five-Year Plan. Gives most attention to completion of revenue and exchange plans, to sharp improvement of quality of work, and servicing all means of communications. Telegraph workers must out delay in telegram				Presents two methods to produce highly stable concentrated emulsions. Deals particularly with stabilizing properties of mixtures of oleic acid sodium and aliphatic esters, for purpose of manufacturing concentrated emulsions. Experiments show that mixtures of sodium oleate and cetyl alcohol produce highly stable concentrated emulsions that do not	
FDB		46T3		FDB	46T4
USSR/Communications (Contd)		Mar 1948		USSR/Chemistry - Emulsions (Contd)	
deliveries in half in comparison with last quarter of 1947. Intercity telephone stations must improve service to subscribers. Line workers must improve technical conditions of lines and cables. City telephone workers sharply to improve technical exploitation of lines. Radio workers to guarantee uninterrupted service of radio networks.				disintegrate for long periods. Submitted for publication, 5 Jan 1947.	
FDB		46T3		FDB	46T4
USSR/Chemistry - Colloidal Chemistry Chemistry - Sorption		Jan/Feb 1948		USSR/Chemistry - Rubber Chemistry - Oxidation	
"Sorption Phenomenon in Capillary Systems," K. V. Chmatov, Mil Acad Chem Defense, Lab Colloidal Chem, 10 pp				"Research in the Field of Oxidation of Polydienes: II, Modification of Chemical Properties of Na-butadiene Rubber during Oxidation by Molecular Oxygen," A. S. Kuz'minskiy, L. L. Shanin, T. G. Degteva, K. A. Lapteva, Phys Chem Inst imeni Karpov, Lab Polymerization Processes, 7 pp	
"Kolloid Zhur" Vol X, No 1				"Kolloid Zhur" Vol X, No 1	
Shows principle method to determine limits within which Calvin's equations can be applied with reference to phenomenon of capillary condensation. Describes apparatus for creating synthetic capillary system. Submitted for publication, 23 Jan 1947.				Data obtained shows that oxidation destruction basically occurs along double bond of linear polymer chain. Show that heating of Na-butadiene polymers in high vacuum at 100° results in remarkable	
FDB		46T5		FDB	46T6

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
<p>USSR/Electricity Circuits, Ferroresonant Stabilizers</p> <p>Jan 1948</p> <p>"Influence of Frequency Fluctuation in the Operation of Ferroresonant Voltage Stabilizers," B. V. Belyayev, Inst Automatics and Telemekh, Acad Sci USSR, 15 pp</p> <p>"Avtomatika i Telemekh" Vol IX, No 1</p> <p>Examines causes of dependence of magnitude of output voltage of ferroresonant stabilizers upon change of frequency of input voltage. Makes analysis by graphic and analytic methods for plan based on ferroresonant voltages and for plan using ferroresonant cur-</p> <p>FDB 46T7</p>	<p>USSR/Chemistry - Rubber (Contd) Jan/Feb 1948</p> <p>(up to 20%) decrease in unsaturated nature of the material. Decrease due to structure of polymer. Submitted for publication, 5 Feb 1947.</p> <p>FDB 46T6</p>	
<p>USSR/Electricity (Contd) Jan 1948</p> <p>rents. Shows qualitative and quantitative influence of basic parameters of the stabilizer on this dependence. Examines existing methods of decreasing dependence of magnitude of output voltage upon change in frequency together with author's plan.</p> <p>FDB 46T7</p>	<p>USSR/Electricity Resistors, Nonlinear Systems, Electric Jan 1948</p> <p>"Thermistors and Their Application in Systems," B. S. Sotskov, Inst Automatics and Telemekh, Acad Sci USSR, 20 pp</p> <p>"Avtomatika i Telemekh" Vol IX, No 1</p> <p>Treats thermistors one of the new elements of electrotechnical systems. Thermistors have resistance changing considerably on heating. Change can be 10 - 1,000 times. Very diverse applications of thermistors possible, depending on method of heating, i.e., by some external source of heat or by</p> <p>FDB 46T8</p>	
<p>USSR/Electricity Cables Mathematics, Applied Jan 1948</p> <p>"Application of 'Resolution of Equations' Method to Analysis of Lines Operating in Bunched Cables," V. I. Kovalenkov, Inst Automatics and Telemekh, Acad Sci USSR, 9 pp</p> <p>"Avtomatika i Telemekh" Vol IX, No 1</p> <p>Explains conditions in resolution of system of equations expressing development of electromagnetic processes along two interacting lines.</p> <p>FDB 46T9</p>	<p>USSR/Electricity (Contd) Jan 1948</p> <p>passing current through thermistor. Points out most common applications of thermistors and methods to determine currents and voltage in circuits with thermistors.</p> <p>FDB 46T8</p>	
<p>USSR/Electricity Circuits, Nonlinear Mathematics, Applied Jan 1948</p> <p>"Oscillation Method of Linearization of Some Nonlinear Systems," A. A. Krasovskiy, 10 pp</p> <p>"Avtomatika i Telemekh" Vol IX, No 1</p> <p>Examines method to change properties of several nonlinear systems by means of applying periodic forces of high frequencies to these systems. On the basis of known theorem on neutralization of an equation with a small parameter, shows that with sufficiently high frequencies and amplitudes of the exciting force, behavior of some nonlinear systems approximates be-</p> <p>FDB 46T10</p>	<p>USSR/Electricity Generators, Electric Amplifiers Mar 1948</p> <p>"Generator for Regulating AC Amplifiers in Main Receivers," A. Ya. Stukman, Engr, 2 pp</p> <p>"Vest Svyazi - Elektro-Svyaz'" No 3 (96)</p> <p>To obtain a curve on oscillograph screen showing dependence of voltage at the output of the intermediate frequency amplifier upon frequency of signal fed to the input, calibrated frequency modulation oscillator needed, making it possible to adjust and read off deviations in frequency. Principal diagram for such a generator to be used for testing receivers of the main trunk lines shown and discussed.</p> <p>FDB 46T11</p>	

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
USSR/Electricity (Contd) havior of a linear system. Examines method of technical linearization of system of automatic regulation.	Jan 1948	USSR/Electricity Currents, Electric - High Frequency Circuits, Volume Compressor "Preparation of Steel Circuits for Compressing High Frequency Currents," P. A. Frolov, Engr, 1 p "Vest Svyazi - Elektro-Svyaz" No 3 (96) Compression of steel circuits possible only by fulfilling following conditions: 1) maintaining specific lengths of boosting sectors, asymmetric ohmic values, and asymmetric insulation of conductors; 2) satisfactory attenuation characteristics, without peaks or dips; 3) maintenance of minimum level of transmission attenuation in the frequency range up
FDB	46T10	FDB
USSR/Electricity Cables, Communication Coils "Choice of Coil Loading System for Communication Cables," V. N. Kuleshov, Candidate Tech Sci, V. V. Sokolov, Engr, 3½ pp "Vest Svyazi - Elektro-Svyaz" No 3 (96) Recommends coil loading system of intercity, city and suburban cables as result of analysis. Coils with inductance of 100/79 millihenrys inserted at intervals of 1.7 kilometers in coil loading of audio frequency circuit cable having cord-paper insulation and capacity of $26.5 \cdot 10^{-9}$ farads per kilometer.	Mar 1948	USSR/Electricity (Contd) to 9,000 cycles if two or more circuits being compressed, and if light circuits hung on the same pole; 4) construction of input circuit in boosting points, as a rule, on separate lines.
FDB	46T13	FDB
USSR/Electricity Batteries Corrosion - Prevention "Improvement in the Operation of Alkaline Batteries," I. M. Sirota, Engr, 1½ pp "Vest Svyazi - Elektro-Svyaz" No 3 (96) In charging alkaline batteries the strong gas current arising in "boiling" carries particles of alkali out of the batteries. Particles settle on iron cups and wooden boxes in which batteries are mounted and become salts. Salts then cause corrosion in the parts of the battery. Special type of hole for the battery designed to prevent salt formation is illustrated.	Mar 1948	USSR/Electricity Synchronizers Synchronous Machines "Characteristics of an Amplidyne-Selsyn Synchronizing System," D. A. Popov, Candidate Tech Sci, Moscow, 2½ pp "Elektrichestvo" No 2 Angle of congruence in amplidyne-selsyn synchronizing system linearly dependent on speed of transmission and moment of load. System has high coefficient of quality in the order of 600 sec^{-1} , and thus requires high degree of precision in operation. From standpoint of rapid operation of the driving
FDB	46T14	FDB
USSR/Electricity Terminology "Problem of New Electrical Engineering Terms," L. P. Podol'skiy, Candidate Tech Sci, All-Union Corr Energetics Inst, ¼ p "Elektrichestvo" No 2 With rapid expansion of electrical engineering, Soviet scientists forced to make use of foreign terms rather than develop a term of Russian origin fitting the case. Suggests that committee be set up to develop new Soviet terminology and that one of main tasks of committee be to publish new terms at least twice yearly in the journal, "Elektrichestvo."	Feb 1948	USSR/Electricity (Contd) gear, the time constant for stabilization of the circuit is very important. This time is about 0.1 sec for a 0.5 kw drive. The best stability for this system is $T_{ak} = 0.15 \text{ sec}$.
FDB	46T16	FDB
		46T15

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
USSR/Electricity Generators, Electric Insulation, Electric	Feb 1948	USSR/Electricity Electric Systems - Protection Lightning
"Method of Computing Protection of Generators against Short Circuiting to Ground," A. B. Barzam, Engr, Moscow, 6 pp		"Estimation of Reliability of Storm Protection at High Voltage Substations," M. V. Kostenko, Candidate Tech Sci; V. M. Nashatyr', Engr, O. V. Shcherbachev, Engr, Leningrad Polytech Inst imeni Kalinin, 5 pp
"Elektrichestvo" No 2		"Elektrichestvo" No 2
Describes method to calculate protection of generators against short circuiting to ground permitting easy and fairly accurate selection of parameters, and also simple means of comparing value of various types of protection. Experimental means to determine amount of current unbalance and the coefficient of		Describes methods to evaluate effectiveness and selection of lightning protection for substations. Explains construction of circuit model to determine the "curve for dangerous lightning" for substation serving the Institute. Gives fundamentals for se-
FDB	46T17	FDB
USSR/Electricity (Contd)	Feb 1948	USSR/Electricity (Contd)
leakage of transformer currents necessary for construction and calculation of the protection.		lecting length of lightning rods taking into account deformation of lightning waves as result of corona impulses.
FDB	46T17	FDB
USSR/Electricity Electrical Equipment Insulation, Electric	Feb 1948	USSR/Electricity Generators, Electric Commutation
"Preventive Testing of Insulation in Electrical Machines," Prof A. M. Zalesskiy, Dr Tech Sci, Leningrad Polytech Inst imeni Kalinin, 6 pp		"Commutator-Type Alternating Current Generator with Frequency Regulation Independent of Speed of Rotation," M. P. Kostenko, Corr Mem Acad Sci USSR, Energetics Inst imeni Krzhizhanovskiy, Acad Sci USSR, Leningrad Polytech Inst imeni Kalinin, 21 pp
"Elektrichestvo" No 2		"Elektrichestvo" No 2
Shows importance of further study on problem of preventive testing of insulation of electric machinery (generators and motors). Recommends method of using high voltage rectifiers. Discusses various types for preventive testing of insulation, and notes deficiencies of these types.		Discusses various systems of exciter circuits for driving commutator-type generators, induction of emf in the coils, methods to make additions to windings and methods for generating commutator fields for
FDB	46T19	FDB
USSR/Electricity Electrification Agriculture	Feb 1948	USSR/Electricity (Contd)
"State of and Prospects for Development of Agricultural Electrification in the USSR," G. K. Susloparov, Engr, Electrification Adm, Ministry Agr USSR, 4 pp		Improved commutation. Briefly mentions power capacity of commutator-type generators in comparison to DC machinery. Discusses basic fields for use of commutator-type generators. Submitted at 9 Jun 1947 session of Section of Technical Sciences, Academy of Sciences, USSR.
"Elektrichestvo" No 2		
One of greatest postwar plans is greater development of agricultural electrification. Briefly gives data on growth of agricultural electrification during pre-war and first two postwar years. Discusses importance of small hydroelectric stations and thermoelectric stations using local fuels. Lists most impor-		
FDB	46T21	FDB
		46T20

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
USSR/Electricity (Contd) Feb 1948 tant tasks facing "Sel'elektro" Industry, particularly on research in agricultural electrification.	USSR/Electricity Feb 1948 Dryers, Electric Lumber "Problem of High-Frequency Lumber Drying," A. V. Netushil, Candidate Tech Sci, TsNILEPS, 4 p "Elektrichestvo" No 2 Lists various journals containing articles on subject of high-frequency drying of lumber and stresses economy of this method.	
FDB 46T21	FDB 46T22	
USSR/Engineering Feb 1948 Magnetic Treatment - Ships Degaussing "Degaussing Ships," V. A. Govorkov, Candidate Tech Sci, 4 pp "Elektrichestvo" No 2 Reviews process of degaussing ships, with data obtained from JIEE, Vol 93, No 70, 71 (1946). Generally describes reasons for magnetizing a ship, basic fundamentals of degaussing, and types of magnetism which may be present in ship. Methods to determine surface of magnetic field of ship (while ship is in water). Method to degauss by coils. Temporary	USSR/Engineering Jan/Feb 1948 Cement Efficiency, Industrial "Tasks of the Cement Industry for 1948" 2 pp "Tsement" No 1 Cement industry produced 40% more cement in 1947 than in 1946. However, plan set for 1947 was not fulfilled. Plants fully capable of fulfilling plan. Many cement works received government aid in form of mechanized equipment during 1947. Main reason for nonfulfillment of plan: unsatisfactory operation of some cement mills, due to lack of preparation for winter operations. Unskilled personnel also attrib-	
FDB 46T23	FDB 46T24	
USSR/Engineering (Contd) Feb 1948 changes in magnetism of ship due to "rubbing." Temporary change of magnetism of ship by impulse current. Transverse and diagonal degaussing of ship and correction of ship's magnetic compass after degaussing process.	USSR/Engineering (Contd) Jan/Feb 1948 uted to this shortcoming. Urges that 1948 be year where all these little kinks be ironed out so that industry can redeem itself during 1948.	
FDB 46T23	FDB 46T24	
USSR/Engineering Jan/Feb 1948 Cement Bauxite "Substitute for Bauxite in Production of Aluminous Cement" 1 1/2 pp "Tsement" No 1	USSR/Engineering Jan/Feb 1948 Welding - Equipment Furnaces "Rotating Furnace of Welded Construction" 3 1/2 pp "Tsement" No 1 Describes various methods instituted to expedite process of welding together tubular sections for rotating furnace. Principle of this aid is series of rollers on which sections are placed, and then sections rotated on rollers to produce a continuous seam, without moving the welding apparatus. Describes welding on outside surface of the tubes, as well as from inside.	
FDB 46T25	FDB 46T26	

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<p>USSR/Engineering Feb 1948 Plates - Bending Mechanics, Applied</p> <p>"Review of Works Published in the USSR on the Bending Theory of Thick and Thin Plates," G. Yu. Dzhanelidze, Leningrad, 17 pp</p> <p>"Prik Matematika i Mekh" Vol XII, No 1</p> <p>Gives bibliography of 69 works and discusses under following three headings: 1) research on the theory of thick plates and plates of variable thickness, 2) studies tending in a classical direction, and 3) studies on the theory of thin plates conducted according to new method.</p> <p>FDB 46T27</p>	<p>USSR/Engineering Feb 1948 Mechanics Dynamics</p> <p>"Investigation of Dynamic 'Degeneration' Systems by Means of 'Discontinuity' Hypothesis," N. V. Butenin, Leningrad Mil Air Engin Acad, 20 pp</p> <p>"Prik Matematika i Mekh" Vol XII, No 1</p> <p>Attempts to show that "discontinuity" hypothesis very useful in examining movement of some mechanical systems, while maintaining simplest mathematical model of the studied object, i.e., "discontinuity" hypothesis makes it possible to overcome those internal discrepancies arising in idealization of</p> <p>FDB 46T28</p>	
<p>USSR/Engineering Mar 1948 Bricks Refractory Materials</p> <p>"Problems of Utilization of Statistical Method for Control of Quality of Refractory Materials," Prof S. V. Glebov, 9 1/2 pp</p> <p>"Ogneupory" No 3</p> <p>Describes advantages of statistical method for control of production, especially mass production. Discusses: basic uses of statistical analysis of data for control of quality, use of statistical methods for control of quality of blast-furnace brick, and coefficients for correlation and equation of regres-</p> <p>FDB 46T29</p>	<p>USSR/Engineering (Contd) Feb 1948</p> <p>dynamic system being examined. Illustrates those questions of idealization of some mechanical systems A. A. Andronov formulated.</p> <p>FDB 46T28</p>	
<p>USSR/Engineering (Contd) Mar 1948</p> <p>sion. Terms method new weapon toward increasing quality of industrial products in refractory materials.</p> <p>FDB 46T29</p>	<p>USSR/Engineering Mar 1948 Foundries Refractory Materials</p> <p>"Production of Foundry Ladle Brick Utilizing Nev'yansk Kaolin," D. I. Gavrish, D. P. Zegzhda, Engineers, 6 pp</p> <p>"Ogneupory" No 3</p> <p>Ural Refractory Works add 30 - 35% Nev'yansk kaolin to their slate for purpose of manufacturing low porous foundry ladle. Discusses historical development of use of this material as part of the composition for substance used in production of foundry ladles. Most of tests conducted at N-Tagil' Refrac-</p> <p>FDB 46T30</p>	
<p>USSR/Engineering Mar 1948 Refractory Materials Clay</p> <p>"New Method for Control of Properties of Refractory Materials," Prof P. S. Mamykin, Dr Tech Sci; B. A. Loshkarev, Engr, 3 1/2 pp</p> <p>"Ogneupory" No 3</p> <p>One of basic methods for controlling quality of refractory materials is determination of amount of clay and fireproofing material contained in the mass. This method applies principle of precipitation. Raw refractory material mixed with water and observations made on speed of settlement of components of the re-</p> <p>FDB 46T31</p>	<p>USSR/Engineering (Contd) Mar 1948</p> <p>tory Works, and showed that permissible and advantageous to add Nev'yansk kaolin to hard baking clays.</p> <p>FDB 46T30</p>	

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USSR/Engineering (Contd)	Mar 1948	USSR/Geological Prospecting Barium Sulfate
fractory material. Also possible to determine amount of refractory material as it precipitates faster than the clay. Describes experiments and results.		"Formation Temperature of Barite Veins of the Western Kopet-Daga," A. V. Sidorenko, $\frac{1}{2}$ p
		"Priroda" No 1 Presents data obtained during studies of formation of barite deposits at Kopet-Daga making it possible to arrive at determination of the temperature of formation of these deposits. Determines that temperature lies in vicinity of 105°.
FDB	46T31	FDB
USSR/Hydrology Ice Formation Arctic Studies	Jan 1948	USSR/Medicine - Tubercle Bacilli Medicine - Vitamins
"Anomalies in the Ice Cover of Vym' River," I. V. Zykov, 1 p		"Vitamins in Tubercle Bacillus," Prof I. F. Leont'yev, $\frac{1}{2}$ p
"Priroda" No 1		"Priroda" No 1
On 2 May 1942 author made flight over Vym' River to determine state and nature of the debacle. At that time he was able to determine anomalous nature of the ice cover from the mouth of Vym' River up to the mouth of the source of Vym' River in vicinity of Chetlaskiy Kamen at Timan. Expresses surprise that in spite of the season (May) very few sections of the		Recently it was determined that tubercle bacillus contained p-aminobenzote acid, one of the components of water soluble vitamin B-complex. Conducted further experiments using Mycobacterium tuberculosis (var homis) cultured for three weeks. Made tests on original culture and on filtered culture. Some of vitamins determined: vitamin B ₆ , nicotinic acid, biotin, and riboflavin.
FDB	46T33	FDB
USSR/Hydrology (Contd)	Jan 1948	USSR/Medicine - Adrenal Preparations, Effects
river were open, and even surrounding marshes frozen over. Describes winter of 1942 very briefly.		Medicine - Blood
		"Behavior of Adrenalin in Human Blood," Prof I. F. Leont'yev, $\frac{1}{2}$ p
		"Priroda" No 1
		Up to now, positively reliable method to determine small amounts (less than 1 g) of adrenalin in blood has not been developed. Briefly describes improvements made in colorimetric method to determine adrenalin (Whitehorn's micromethod) through increased sensitivity. Describes results obtained from use of method.
FDB	46T33	FDB
USSR/Medicine - Anaphylaxis and Allergy Medicine - Dogs	Jan 1948	USSR/Medicine - Seasons Medicine - Biology
"Inhibiting Effect of Thorotrast on Anaphylaxis in Dogs," Prof I. F. Leont'yev, 1 p		"Seasonal Growth in Yakutsk in 1946," M. I. Matosov, 4 pp
"Priroda" No 1		"Priroda" No 1
Many studies have shown that anaphylactic shock in dogs is result of release in their bodies of pharmacologically active substances. However, source of this secretion is unknown. Directs attention to activity of reticulo-endothelial system of dogs showing anaphylactic reaction.		Attempts to show great significance of phenologic studies and the degree to which they can be used. Gives various data for 1946, such as the first debacle, appearance of first flight of geese Anser fabulis, and day when temperature first hit new high, etc.
FDB	46T36	FDB
		46T37

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FDB Periodical Abstracts Scientific No 46

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USSR/Medicine - Agriculture
Deserts

Jan 1948

"Scientific Experiments in Reclaiming Deserts," A. G. Gayel, 5 pp

"Priroda" No 1

Briefly describes some of work done by Pri-Aral Experimental Station of All-Union Institute for Agriculture in Desert areas, in attempt to use various desert areas around Aral Sea for agriculture. Describes successes attained with wheat, oats, rye, and potatoes. Also lists articles published by Pri-Aral Experimental Station.

FDB

46T38

USSR/Medicine - Immunity
Medicine - Antibiotics

Jan 1948

"Plant Immunity and Antibiotics," D. V. Lebedev, 1 p

"Priroda" No 1

Gives general summary of work by various scientists (Tokin, USSR, and other foreign scientists) on question of plant immunity to various diseases and their antibiotic activity. Tokin was first to make any research in field of plant resistance to pathogenic microorganisms. Other scientists who conducted research in this field are Gottlieb, Fontaine, etc.

FDB

46T40

USSR/Medicine - Bacteria
Medicine - Microorganisms

Jan 1948

"Microflora of the Human Organism and Enteric Bacilli," Yu. I. Milenushkin, 7 pp

"Priroda" No 1

Discusses various types of microflora found in human body. Notes organs having greatest bacteria content, e.g., the large intestine has some 17,000,000,000,000 microorganisms. Prof L. G. Peretts gave much assistance.

FDB

46T42

USSR/Medicine - Vitamins
Medicine - Research

Jan 1948

"Vitamin T," Prof I. I. Kanayev, 1/2 p

"Priroda" No 1

Vitamin isolated by Goetsch in 1946. First discovered vitamin in termites as well as in certain mushrooms (penicillium hypomyces). Called it Termitin, or Penicin or Insectin, but finally called it Vitamin T-complex. Main effect of vitamin: stimulation of process of assimilation. Briefly describes vitamin.

FDB

46T44

USSR/Medicine - Botany

Jan 1948

"Results of the Geobotanical Conference in Moscow," Prof N. Ya. Kats, 1 p

"Priroda" No 1

Conference held, 5 - 8 Apr 1947, at Botanical Institute, Moscow State University. V. N. Sukachev, G. I. Dokhman, A. A. Shakhov among those who played leading roles during conference.

FDB

46T39

USSR/Medicine - Antibiotics
Medicine - Fungi

Jan 1948

"Antibiotics among Hymenomyces," N. M. Konvalova, 1/2 p

"Priroda" No 1

Briefly describes research by two Swedish scientists, Wiken and Oblom, on the antibiotic action hymenomyces have toward Staphylococcus aureus. Experiments conducted on fungus. Only two types of fungus extracts (Boletus bovinus, and Gomphidius glutinosus) showed constant antifungus effects.

FDB

46T41

USSR/Medicine - Plants, Growth
Medicine - Arctic Regions

Jan 1948

"Growth of Arctic Plants and Weather," B. A. Tikhomirov, 2 1/2 pp

"Priroda" No 1

Presents some data obtained by research conducted to determine effect of climatic conditions on growth. Discusses studies of some 25 types of plants found in northern regions of USSR.

FDB

46T43

USSR/Medicine - Cells
Medicine - Albumin

Jan 1948

"Reaction of a Cell to Destructive Action," Prof V. Ya. Aleksandrov, 10 pp

"Priroda" No 1

Studies on cell destruction show that due to inherent nature of the live form, reaction is already present in very albumin component of the protoplasm. These particulars discerned as result of study of cells. Describes importance of study of reaction of cells to destructive influences, cytological changes due to destructive influences, and theory of cytological destruction.

FDB

46T45

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
USSR/Medicine - Nervous System	Jan 1948	USSR/Medicine - Anesthesia
"Second Conference on Problem of Direct Action on Nervous Centers," Prof G. N. Kassil', 2 pp		Medicine - Narcotics
"Priroda" No 1		"Steroids as Anesthetics," Prof I. F. Leont'yev, 1/2 p
Second Conference held, 8 - 10 Jan 1947, in Moscow. Various articles read. L. S. Shtern submitted article explaining theoretical side of the question of spontaneous action in nerve centers. G. N. Kassil', S. O. Badyl'kes, D. I. Gimpel'son, M. S. Malinovskiy, etc., submitted works.		"Priroda" No 1
		Describes effects and doses necessary to obtain anesthesia with such substances as nambutol, deoxy-corticosterone, and progesterone. Conducted experiments to determine doses necessary to produce surgical anesthesia in mice.
FDB	46T46	FDB
USSR/Medicine - Purpura, Schonlein-Henoch	Feb 1948	USSR/Medicine - Injections
Medicine - Surgery		Medicine - Sternum
"Surgical Significance, Diagnosis, and Treatment of Henoch's Purpura," V. I. Parmenov, Surgical Dept, Gomel' RR Hosp; Surgical Dept, Unech RR Hosp Belorussian RR, 5 pp		"Introduction of Medicinal and Diagnostic Substances into Red Bone Marrow of Lower Part of the Sternum," F. L. Leont'yev, First Surgical Clinic, Cent Inst Advancement of Doctors; Base of Surgical Dept, Cent Clinical Hosp of Ministry of Roads imeni N. A. Semashko, 9 pp
"Khirurgiya" No 2		"Khirurgiya" No 2
Not rare disease, but difficult to diagnose. Patients must be given same type care given to those having undergone serious abdominal operations. Appearance of disease greatly influenced by time of year. Author observes that disease due to decrease in vitamin content during winter which plays impor-		Discusses method to introduce into the sternum various liquids, ordinarily introduced intravenously. Method proved quite successful in newborn babies; also useful in shock cases. Shows apparatus in use,
FDB	46T48	FDB
USSR/Medicine - Purpura, Schonlein-Henoch (Contd)	Feb 1948	USSR/Medicine - Injections (Contd)
tant role in etiology and pathogenesis of abdominal purpura, and that most cases appear in spring. Deputy of Surgical Department, Gomel' Railroad Hospital: Docent G. N. Ambrumyants (deceased). Deputy of Surgical Department, Unech Railroad Hospital of Belorussian Railroad: Ye. M. Zabusova.		some of needles, and describes application of method. Deputy of Chair of Central Institute for Advancement of Doctors: Prof V. R. Braytsev. Chief of Central Clinical Hospital of Ministry of Roads imeni N. A. Semashko: Director-General Administrator III Rank A. A. Sergeev.
FDB	46T48	FDB
USSR/Medicine - Calcification	Feb 1948	USSR/Medicine - Teeth, Diseases
Medicine - Irrigation		Medicine - Teeth, Fillings
"Hundred Cases Show Calcification of 'Noncalcified' Pleural Growths by Bogush's Method of Irrigation," Maj A. A. Glasson, Med Corps, Chief, Surgical Dept, Cent Clinical Sosnovo Sanitarium of Red Army, 10 1/2 pp		"Effect of Filling Materials on Microflora of Carious Dentine," T. G. Gol'dova, Chair Therapeutic Stomatol, Chair Microbiol, Khar'kov Stomatol Inst, 5 pp
"Khirurgiya" No 2		"Stomatol" No 1
Method completely harmless and will not bring about deleterious effects. Irrigation makes unnecessary serious surgical operations, such as surgical incision of calcified joint, as well as many operations involving thoracoplasty. Chief of Central Clinical Sosnovo Sanitarium of Red Army: Colonel I. I. Nissel'son, Medical Corps.		Dentine microflora in carious teeth decreases with depth from surface. Tests show that cement fillings do not have bactericidal effects. Lead amalgam has greatest bactericidal effect. Bactericidal qualities of cement increase by addition of antiseptic materials. Deputy of Chair of Therapeutic Stomatol-
FDB	46T50	FDB
		46T51

RESTRICTED

FDB Periodical Abstracts Scientific No 46

RESTRICTED

USSR/Medicine - Stomatitis, Ulcerative Jan 1948
 Medicine - Cells

"Importance of Preparation for Taking Direct Smears of Ulcerative Stomatitis in Cytological Research," O. I. Agapova, Chair Therapeutic Stomatol, Moscow Stomatol Inst, 6½ pp

"Stomatol" No 1

From cytological characteristics in smear taken from prepared ulcerative stomatitis, possible to study systematically each stage of dynamics of recurrent ulcerative stomatitis. Suggested method gives proof of fact that cytological characteristics of prepared smears serve as correct and reliable method to study

FDB 46T52

USSR/Medicine - Stomatitis, Ulcerative Jan 1948
 (Contd)

each step in development of disease. Deputy of Chair of Therapeutic Stomatology: Docent Ya. S. Pekker. Director of Moscow Stomatological Institute: Prof A. I. Yevdokimov.

FDB 46T52

USSR/Medicine - Hygiene and Sanitation Jan 1948
 Medicine - Toothbrushes

"Bacteriological Research on Toothbrushes," Prof A. A. Minkh, Chair Hygiene, Moscow State Stomatol Inst, 5 pp

"Stomatol" No 1

Many scientists have stressed value of toothbrush in maintenance of dental hygiene. Very few, however, realize that the toothbrush is storehouse of various pathogens. Briefly describes some of studies conducted to show that use of toothbrushes harmful. Donovan said to have stated that some 90% of dental defects caused by toothbrushes. Minkh states that

FDB 46T54

USSR/Medicine - Hygiene and Sanitation Jan 1948
 (Contd)

one method of overcoming this drawback in using toothbrushes is use of good bactericidal tooth paste. Director of Moscow State Stomatological Institute: Prof A. I. Yevdokimov.

FDB

46T54

USSR/Medicine - Teeth, Diseases (Contd) Jan 1948

ogy: Ya. L. Fridman. Deputy of Chair of Microbiology: Prof S. L. Utevsckaya. Director of Khar'kov Stomatological Institute: Prof P. V. Vlasenko.

FDB 46T51

USSR/Medicine - Nerves, Facial Jan 1948
 Medicine - Paralysis

"Treatment of Peripheral Paralysis of Facial Nerve by Chemotherapy of Tissues According to Krauze," Capt I. N. Mukovozov, Med Corps, Chief, Stomatol Dept, Okrug Mil Hosp, 4 pp

"Stomatol" No 1

Discusses several experiments made and concludes that quite satisfactory to make use of Krauze's method to transplant chemically treated tissues as effective complex therapy of paralyzed facial nerves. Chief of Okrug Military Hospital: Lieutenant Colonel N. A. Koshik, Medical Corps.

FDB 46T53

USSR/Medicine - Hygiene and Sanitation, Feb 1948
 Industrial
 Medicine - Silicosis

"Basic Results of Work of Institute of Hygiene of Labor and Occupational Disease in 1947" 6 pp

"Vest Akad Medits Nauk SSSR" No 1

Work of Institute directly connected with Five-Year Plan for restoration and development of economy of USSR. Presents results of scientific research work on leading problems, development of which occupies considerable part of collective of scientific workers. Topics reported on: problem of silicosis, professional poisoning, dehydration of poison in

FDB 46T55

USSR/Medicine - Hygiene and Sanitation, Feb 1948
 Industrial (Contd)

organism, pathogenesis of tetraethyl lead poisoning, new methods of research, and important problems of the Plan for 1948.

FDB

46T55

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
USSR/Medicine - Antibiotics Medicine - Chemotherapy	Feb 1948	USSR/Medicine - Antibiotics Medicine - Microorganisms Feb 1948
"Research on Antibiotics as Problem of Medicine," V. L. Troitskiy, Corr Mem, Acad Med Sci USSR, 10 pp		"The Problem of Antibiotics in the Light of Theory," Prof G. F. Gauze, 8½ pp
"Vest Akad Medits Nauk SSSR" No 1		"Vest Akad Medits Nauk SSSR" No 1
Antibiotics of exceptional interest for medicine because of possibility of using them as chemical therapeutic agents. Progress in the last ten years summarized and several problems mentioned. Present problem not so much finding a rational way for searching for chemical therapeutic substances among antibiotics, but rather rationalization of empirical ways of making these searches.		Gives summary of theoretical aspects of antibiotics used for medical purposes and points out several fields in need of more complete theoretical development. Most important theoretical problem is study of the mechanism of the action of antibiotics on microbes. Summarizes directions of study in this field in recent years. Further development of morphologic methods of research has been of consid-
FDB	46T56	FDB
USSR/Medicine - Academy of Medical Sciences Feb 1948		USSR/Medicine - Antibiotics (Contd) Feb 1948
"Concerning Work of Members of the Academy not Belonging to the System of Institutes of the Academy of Medical Sciences" ½ p		erable interest in studying the mechanism of the action of medicinal antibiotics on pathogenic microbes.
"Vest Akad Medits Nauk SSSR" No 1		
Short summary of report given to Academy of Medical Sciences on work of active and corresponding members of the Academy, working in institutions outside the Academy system. One of problems mentioned is evaluation of scientific activities of these members to indicate what work has been done under auspices of the Academy and what has been done under auspices of the particular institute in which they work. Measures to be taken to aid these members.		
FDB	46T58	FDB
USSR/Medicine - Vision Medicine - Ophthalmology	Feb 1948	USSR/Medicine - Surgery Medicine - Brain Jan/Feb 1948
"Research on Light Vision," Corr Mem, Acad Sci USSR, S. V. Kravkov, 2 pp		"Future Results with Polymethylmethacrylate in Cranioplasty," N. D. Leybzon, Moscow, Nerve Surg Dept, Inst Nerve Surg imeni Academician N. N. Burdenko, Acad Med Sci USSR, 9½ pp
"Vest Akad Medits Nauk SSSR" No 1		"Vopros Neyrokhirur" No 1
In 1936 author established that light sensitivity of the human eye can change considerably under the influence of simultaneous auricular irritation. Since then he has carried out many experiments on the action of several secondary irritations on vision, such as olfactory, taste, postural, or electrical. Study also made of the action on light vision of number of pharmaceuticals. Reports general results of these experiments.		Describes operations conducted on several patients who had plastic plates inserted to replace part of the cranium which had been removed for one reason or another. Describes some of steps of the operation. States that of some 20 cases who had plates inserted, none showed evidence of any ill effects, due to
FDB	46T59	FDB
USSR/Medicine - Birds Medicine - Rats	Jan/Feb 1948	USSR/Medicine - Surgery (Contd) Jan/Feb 1948
"Carnivorous Birds as Factor of Natural Selection in the Wild Population of Small Rodents," S. S. Folitarek, Inst Evolutionary Morphol imeni Academician A. N. Severtsov, Acad Sci USSR, "Belovezhsk Pushcha" Game Preserve, 18 pp		either the operation or the material itself. No definite conclusions reached on this treatment though successful in all cases. Deputy of Nerve Surgery Department: Prof A. A. Arendt. Director of Institute of Nerve Surgery imeni Academician N. N. Burdenko: Prof B. G. Yegorov.
"Zhur Obshch Biol" Vol IX, No 1		
The theory of selectivity suggested by Shmal'gauzen presents a different view from that expressed by Darwin. Author takes up the relation of carnivorous birds to natural selection in small rodents. Gives data on some 15 rodents, of which fairly detailed de-		
FDB	46T61	FDB

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
<p>USSR/Medicine - Birds (Contd) Jan/Feb 1948</p> <p>scriptions given for the <i>Microtus arvalis</i> Pall., <i>Arvicola terrestris</i> L., and <i>Clethrionomys glareolus</i> Schreb. Most of studies conducted at "Belovezhsk Pushcha" game preserve in Brest Oblast BSSR during the period, 13 Jun - 14 Aug 1946. Particular attention paid to the nests of two buzzards. Submitted for publication, 1 Feb 1947.</p> <p>FDB 46T61</p>	<p>USSR/Medicine - Cells Medicine - Growth Jan/Feb 1948</p> <p>"Possibility of Autogenesis in a Developing Cellular System," G. V. Lopashov, Inst Cytology, Acad Sci USSR, Moscow, 10 pp</p> <p>"Zhur Obshch Biol" Vol IX, No 1</p> <p>Collected information by various scientists who conducted studies to solve one very important problem: Is it possible for any lengthy nonhomogeneity to be generated along the axes of the eggs or any part of the organism without any outside stimulation, and only due to internal reasons? Submitted for publication, 25 Jan 1947.</p> <p>FDB 46T62</p>	
<p>USSR/Medicine - Thyroid Jan/Feb 1948 Medicine - Regeneration</p> <p>"Principles of Humoral Regulation of Postembryonic Morphogenesis," A. A. Voytkovich, Kazakh Med Inst, Alma-Ata, 18 pp</p> <p>"Zhur Obshch Biol" Vol IX, No 1</p> <p>Discusses the relation between function of the thyroid gland and the hypophysis and process of regeneration in the organism. Endocrinal factor is very important in physiological preparation of the tissues. Excessive decrease in the concentration of hormones in the organism, and related lowering of the activity of the gland can be studied as condi-</p> <p>FDB 46T63</p>	<p>USSR/Medicine - Intestinal Diseases Mar 1948 Medicine - Vaccine Therapy</p> <p>"Prophylactic Inoculation against Acute Enteric Infections," Prof B. I. Blankov, 7 pp</p> <p>"Medits Sestra" No 3</p> <p>Describes the more important vaccines used as inoculations against intestinal infections: Methods for subcutaneous inoculations of vaccines against typhoid fever, paratyphus, and dysentery. Methods of peros administration of antidysentery vaccine. Indicates several points to be borne in mind to assure efficacy of vaccines.</p> <p>FDB 46T64</p>	
<p>USSR/Medicine - Thyroid (Contd) Jan/Feb 1948</p> <p>tions similar to those belonging to functional impoverishment of the gland. Submitted for publication, 10 May 1946.</p> <p>FDB 46T63</p>	<p>USSR/Medicine - Typhus Mar 1948 Medicine - Insecticides</p> <p>"Method and Technology of Insect Eradication in the Nidus of Parasitic Typhus, and Sanitary Treatment of the Population," Docent B. I. Gandel'sman, 6 pp</p> <p>"Medits Sestra" No 3</p> <p>One of best methods for fighting spread of disease in community is disinfection. Discusses several methods to effect disinfection. Mentions type K soap, and SK preparation containing chlorinated turpentine, and DDT. Latter used in various concentrations.</p> <p>FDB 46T65</p>	
<p>USSR/Medicine - Pediatrics, Clinics Jan/Feb 1948 Medicine - Public Health</p> <p>"In the Collegium of the Ministry of Public Health of the USSR," S. Babichev, 1½ pp</p> <p>"Sovet Zdravookhran" No 1</p> <p>Summary of report delivered to the Ministry of Health of the USSR by Comrade M. D. Kovrigin on expanding the force of pediatricians in the Soviet Union. Briefly touches on problems of improving and expanding paediatric service.</p> <p>FDB 46T66</p>	<p>KOREA/Medicine - Public Health Jan/Feb 1948 Medicine - Medicine, State</p> <p>"Some Public Health Problems in Northern Korea," V. V. Gempel', 3 pp</p> <p>"Sovet Zdravookhran" No 1</p> <p>Describes the founding of public health service in northern Korea since the end of World War II, nationalization of medical institutions, institution of social insurance, provision of medical care and payments to expectant mothers. More than 60% of the medical personnel is at present in the government service. Discusses difficulties in establishing public health services where no previous provision for such care existed before.</p> <p>FDB 46T67</p>	

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
<p>USSR/Medicine - Pharmacy Medicine - Pharmacopeia, Russian Jan/Feb 1948</p> <p>"Thirty Years of Soviet Pharmacy," I. I. Levinshteyn, Moscow, 7 pp</p> <p>"Sovet Zdravookhran" No 1</p> <p>Account of production and distribution of pharmaceutical products in the Soviet Union since 1917, with tables on number of pharmacies, increased independence from imports of pharmaceutical products, etc. Mostly historical account of developing broader distribution system for drugs and establishment of pharmacies in small villages.</p> <p>FDB 46T68</p>	<p>USSR/Medicine - Measles Medicine - Serotherapy and Hemotherapy Jan/Feb 1948</p> <p>"Experiences with Protective Inoculation against Measles in Consultation and in Polyclinics," M. L. Yablokova, Ye. M. Ravikovich, Moscow State U Epidemiol and Bacteriol, 5½ pp</p> <p>"Sovet Zdravookhran" No 1</p> <p>Gives lengthy report on use of sulfur inoculations against measles. Attempt made to inoculate all children up to seven years of age and all others when they developed case of measles. Believe that with epidemiologists and pediatricians working together it will be entirely possible to organize complete sulfur prophylaxis among children.</p> <p>FDB 46T69</p>	
<p>USSR/Medicine - Public Health, Administration Medicine - Public Health, Training Jan/Feb 1948</p> <p>"Problems of Training Administrative Cadres of Public Health," Docent I. B. Rostotskiy, Moscow, 4 pp</p> <p>"Sovet Zdravookhran" No 1</p> <p>Taken from report on the work of preparing and increasing qualifications of administrative officers of the health service. Believed that graduates of Soviet medical schools do not have sufficient training in the organization of public clinics, hospitals, etc., which makes for poor and inefficient operation. Discusses problems in training medical students for administrative positions.</p> <p>FDB 46T70</p>	<p>USSR/Medicine - Hygiene and Sanitation Medicine - Epidemiology Jan/Feb 1948</p> <p>"Basic Results of the Twelfth All-Union Congress of Hygienists, Epidemiologists, Microbiologists and Infection Specialists," L. G. Veber, Moscow, 4½ pp</p> <p>"Sovet Zdravookhran" No 1</p> <p>Reports 12th All-Union Conference held Oct 1947, in Moscow. Discussed at the conference: Rational planning of villages, sanitation of air and water supplies, improvement of working conditions, and research for more effective means of prophylaxis against various infections.</p> <p>FDB 46T71</p>	
<p>USSR/Medicine - Mosquitoes Medicine - Malaria Feb 1948</p> <p>"The Struggle against Mosquitoes," M. A. Laryukhin, 6 pp</p> <p>"Fel'dsh i Akusher" No 2</p> <p>The struggle against malaria carriers and the disease itself not limited to the public health services, but one in which the Soviet and party organizations must cooperate wholeheartedly. Selection of control measures depends on character of the locality, but in any case combination of two or more of the suggested methods will always improve quality of control measures.</p> <p>FDB 46T72</p>	<p>USSR/Medicine - Vitamins Medicine - Ascorbic Acid Feb 1948</p> <p>"Application of Vitamins to Internal and Infectious Diseases," A. Ye. Segal, Candidate Med Sci, 1 p</p> <p>"Fel'dsh i Akusher" No 2</p> <p>Answers rhetorical question on which vitamins to use in treating internal or infectious diseases, with brief data on the effect and use of Vitamins C, B₁, and K.</p> <p>FDB 46T73</p>	
<p>USSR/Medicine - Malaria, Prevention Medicine - Prophylaxis Feb 1948</p> <p>"Organization and Execution of Antimalarial Therapeutic and Prophylactic Measures in a Village," M. A. Buslayev, 6 pp</p> <p>"Fel'dsh i Akusher" No 2</p> <p>Author set himself task of describing fundamental methods of therapy, medicinal prophylaxis of malaria, and organization necessary to effect these measures. Measures necessary in project to decrease malaria during 1948.</p> <p>FDB 46T74</p>	<p>USSR/Medicine - Hygiene and Sanitation Medicine - Silicosis Mar 1948</p> <p>"Scientific Conference of Institute of Labor Hygiene and Occupational Diseases, Academy of Medical Sciences, USSR," I. Ya. Sosnovik, 1½ pp</p> <p>"Gig i San" No 3</p> <p>Lists some of reports submitted by members in 1945 - 1946 including "Basic Problems of Labor Hygiene and Silicosis Prevention," by Prof Ts. D. Pik; "Silicosis Clinic," by Prof S. M. Genkin; and "New Data on Toxicology of Lead," by A. M. Rashevskaya and Prof Z. B. Smelyanskiy.</p> <p>FDB 46T75</p>	

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED	
<p>USSR/Medicine - Water Supply Medicine - Phosphorus</p> <p>Mar 1948</p> <p>"Phosphorus in the Sanitary Evaluation of Water," P. F. Obukhov, Chair General Hygiene, Molotov Med Inst, 3 pp</p> <p>"Gig i San" No 3</p> <p>Discusses sources and forms of phosphorus in natural waters and phosphorus in subterranean waters, and details of series of experiments carried out in 1941, 1942, and 1943. Tabulates results.</p>	46T76	<p>USSR/Medicine - Air, Bacteriology Medicine - Hygiene and Sanitation</p> <p>Mar 1948</p> <p>"Bacterial Contamination of Air in Inhabited Rooms with Various Densities of Population," F. S. Epshteyn, E. G. Salamandra, Cent Sci Res Sanitary Inst imeni Erisman, 8 pp</p> <p>"Gig i San" No 3</p> <p>Gives series of tables indicating bacterial content of the air in various types of living space for different times of the year.</p>	
<p>FDB</p> <p>USSR/Medicine - Hygiene and Sanitation, Industrial Medicine - Air, Impurities</p> <p>Mar 1948</p> <p>"Principles of Normalization of Industrial Microclimate," G. Kh. Shakhbazyan, N. K. Vitte, Kiev Inst Hygiene of Labor and Occupational Diseases, 7 pp</p> <p>"Gig i San" No 3</p> <p>Discusses research directed to find the physiological criteria and methods to discover unknown reactions and detailed processes taking place in organism in regard to microclimate, macroclimate, acclimatization, etc. Indicates that Dnepropetrovsk Institute has been working on the adaption factor in the action of cli-</p>	46T77	<p>FDB</p> <p>USSR/Medicine - Hygiene and Sanitation, Industrial Medicine - Ultraviolet Rays, Effects</p> <p>Mar 1948</p> <p>"Effectiveness of Ultraviolet Radiation in Underground Work," Z. D. Gorkin, Ya. M. Stanislavskiy, R. Yu. Govorchuk, Ukrainian Cent Inst Hygiene of Labor and Occupational Diseases, Khar'kov, 6 pp</p> <p>"Gig i San" No 3</p> <p>Describes condition of 122 underground workers subjected to repeated radiation and indicates that their general health improved and their tone and working capacity increased.</p>	
<p>FDB</p> <p>USSR/Medicine - Hygiene and Sanitation, Industrial (Contd)</p> <p>Mar 1948</p> <p>mate on workers at high temperatures, while Marshak Laboratory has been doing similar work for low temperatures.</p>	46T78	<p>FDB</p> <p>USSR/Medicine - Poisons and Poisoning, Metallic Medicine - Nutrition</p> <p>Mar 1948</p> <p>"Nutrition and Metabolism during Phosphorous Poisoning: I. Character of the Change in Hydrocarbon Metabolism and the Oxidizing Coefficient in Animals Poisoned by Phosphorus in Relation to Nutrition," G. P. Eremin, Inst Nutrition, Acad Med Sci USSR, 5 pp</p> <p>"Gig i San" No 3</p> <p>Describes experiments showing that with the systematic poisoning of animals by small doses of phosphorus, the character of nutrition had effect on the weakening of changes in hydrocarbon metabolism and in oxidizing processes.</p>	
<p>FDB</p> <p>IRAN/Medicine - Hygiene and Sanitation Medicine - Water Supply</p> <p>Mar 1948</p> <p>"Some Peculiarities of the Drinking Water Supply in North Iran," S. A. Dreyzin, Uzbekistan Sci Res Sanitary Inst, 2 pp</p> <p>"Gig i San" No 3</p> <p>Describes the subterranean water supply and reservoirs of North Iran, indicates that the temperature of the water unaffected by outside atmosphere but remains at +8°-14°, and tabulates chemical analysis of the water for various months.</p>	46T78	<p>FDB</p> <p>USSR/Medicine - Seaweed Medicine - Food</p> <p>Mar 1948</p> <p>"Test on the Utilization of Marine Seaweed for Food," N. I. Kovalov, M. S. Osmolovskaya, Ye. V. Lovyagina, Sci Res Lab, LenGlavRestoran, 2 1/2 pp</p> <p>"Gig i San" No 3</p> <p>Describes food conditions in Leningrad during the siege of 1942 and indicates that attempts made to use edible seaweed. Discusses food value of various-type seaweed and lists some methods of serving seaweed.</p>	
<p>FDB</p>	46T81	<p>FDB</p>	46T82

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
USSR/Medicine - Food Poisoning Medicine - Mastitis	Mar 1948	USSR/Medicine - Hygiene and Sanitation, Industrial
"Role of Staphylococcic Mastitis of Sheep as Source of Food Poisoning Caused by the Use of Contaminated Ewe's Milk Cheese," N. D. Trofimov, Crimean Inst Epidemiol and Microbiol, 3 pp		Power Plants, Electric
"Gig 1 San" No 3		"Dimensions of the Sanitary-Protective Zones for Electric Power Stations and Thermal Power Centers," M. S. Goldberg, Inst General and Community Hygiene, Acad Med Sci USSR, 5 pp
Describes experiments leading to the conclusion that sheep afflicted with staphylococcic mastitis evidently form the basic source of contamination of milk used to make ewe's milk cheese. Cheese prepared in the spring contaminated with pathogenic staphylococci in 26% of cases examined.		"Gig 1 San" No 3
FDB 46T83		Describes economic advantages of converting electric power stations and thermal power centers, at present using 60 million tons of coal and oil per year, so that they can use local fuel, and detailed analysis of the estimated dispersion area of the dust given off by fuel combustion from sanitary standpoint. FDB 46T84
USSR/Medicine - Hygiene and Sanitation, Industrial	Mar 1948	USSR/Medicine - Tuberculosis, Therapy Medicine - Respiratory Tract
Power Plants, Electric		"Treatment of Tuberculosis of the Upper Respiratory Tract with Mixture of Sulfuric Acid and Ether," A. S. Sherbud, Sanatorium No 14 VTsSPS, 3 pp
"Hygienic Problems at the Scientific Conference for Study of Productive Potential of Irkutsk Oblast," Ya. M. Grushko, 2 pp		"Prob Tuberkuleza" No 1
"Gig 1 San" No 3		Various materials used for treatment of tuberculosis of subject tract. Author presents method whereby mixture of ether and sulfuric acid used for such treatment. Mixture considered a bactericide. Treatment must be repeated several times to be effective. Director of Sanatorium No 14: P. I. Guzen, Chief Surgeon: A. V. Piletskiy.
FDB 46T85		FDB 46T86
USSR/Medicine - Hygiene and Sanitation, Industrial (Contd)	Mar 1948	USSR/Medicine - Tuberculosis Medicine - Penicillin
indicates that Scientific Research Sanitary-Hygiene Institute will be established in Irkutsk.		"Treatment of Empyema with Penicillin in Tubercular Patients," A. F. Lenovskiy, V. M. Pustovoytova, Lung Sec, Kazakh Tubercular Inst, Lung Sec, Alma-Ata Oblast Tubercular Dispensary, 1 p
FDB 46T85		"Prob Tuberkuleza" No 1
USSR/Medicine - Tuberculosis Medicine - Penicillin	Jan/Feb 1948	In most cases, barring recurrence of the disease, penicillin produced good results. Very prompt result obtained by simultaneous administration of large doses intramuscularly and into the pleura. Value of penicillin therapy evident in any stage of empyema. Director of Kazakh Tubercular Institute:
"Penicillin Notatum in the Treatment of Tuberculosis," Prof I. L. Tamarin, Director, Belorussian Tubercular Inst; Docent S. A. Agranovich, N. Ya. Entin, Candidate Med Sci, Belorussian Tubercular Inst; Belorussian Skin-Venereal Inst, 2 1/2 pp		FDB 46T87
"Prob Tuberkuleza" No 1		USSR/Medicine - Tuberculosis (Contd) Jan/Feb 1948
Penicillin ineffective against Rubrus Lupus vulgaris. Penicillin therapy effective for skin ulcers due to malignant Lupus vulgaris, and Scrofuloderma. Had no effect on specific tissues. In some cases the ulcerous growth diminished long after the start of penicil-		A. M. Zadvornyykh, Candidate of Medical Sciences. Chief Surgeon of Alma-Ata Oblast Tubercular Dispensary: A. F. Leonovskiy.
FDB 46T88		FDB 46T87

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
USSR/Medicine - Tuberculosis (Contd) Jan/Feb 1948	USSR/Medicine - Tuberculosis Medicine - Allergy	Jan/Feb 1948
lin treatment. Penicillin therapy recommended only as supplement to other methods in treating malignant Lupus vulgaris ulcers. Director of Belorussian Skin-Venereal Institute; Academician Prokopchuk.	"Concerning V. A. Ravich-Shcherbo's Article, 'Allergy in Tuberculosis'," R. O. Drabkina, Immunology Lab, Ukrainian Sci Res Tubercular Inst, 5 1/2 pp	
	"Prob Tuberkuleza" No 1	
	Article appeared in "Problemy Tuberkuleza" No 2, 1947. Drabkina makes following criticisms: 1) research on the course of reinfection in the zone of hypersensitization insufficient; 2) Ravich-Shcherbo does not recognize that allergic immunity imperfect and relative; 3) does not realize that no increase in the strength of the allergy occurs in	
FDB 46T88 USSR/Medicine - Tuberculosis Jan/Feb 1948 Medicine - Pneumonia	FDB 46T89 USSR/Medicine - Tuberculosis (Contd) Jan/Feb 1948	
"Differential Diagnosis of Infiltrative Outbreaks of Tuberculosis and Pneumonia," G. S. Yapol'skiy, Dr Med Sci, 5 pp	many infections; 4) does not understand the lethal properties of tuberculin. Director of Ukrainian Scientific Research Institute: A. S. Mamolat. Scientific Collaborator of Institute: Prof N. S. Morozovskiy.	
"Prob Tuberkuleza" No 1		
Frequently physicians called on to differentiate between tuberculosis and lobular pneumonia. Author shows various means of differentiating between the two diseases, and tabulates various symptoms which may be indicated in the same organ in tuberculosis and in pneumonia.		
FDB 46T90 USSR/Meteorology Jan 1948 Storms Solar Phenomena	FDB 46T89 USSR/Minerals Jan 1948 Silicates X-ray Analysis	
"Secular Periodicity of Thunderstorms in Moscow in Connection with Solar Activity," A. P. Moiseyev, 3 pp	"Atomic Structure of Epidote," Prof D. P. Grigor'yev, 2 pp	
"Priroda" No 1	"Priroda" No 1	
Comparison of graphs of solar activity and thunderstorm activity in vicinity of Moscow shows very definite relation between solar and thunderstorm activity. Urges further study in this field to be able to determine climatic conditions surrounding the two phenomena, and eventually be able to determine thunderstorm activity from climatic conditions.	Epidote is one of the more important minerals that is very widely distributed. Until recently, however, was not subjected to X-ray analysis. Describes results of studies making it possible to determine that this mineral presents a new structure for silicates.	
FDB 46T91 USSR/Nuclear Physics - Atomic Energy Jan 1948 Nuclear Physics - Radioactivity	FDB 46T92 USSR/Physics Jan 1948 Solar Phenomena Electromagnetic Waves	
"Role of Atomic Energy in the Life of the Earth," G. V. Voytkovich, 11 pp	"Radio Emissions from the Sun," A. I. Ol', 3 pp	
"Priroda" No 1	"Priroda" No 1	
Discusses role of atomic energy in the formation and history of the earth. Presents data from scientists all over the world with brief basic discussion on radioactivity of uranium, actinouranium, and thorium. Establishes spontaneous fission of heavy elements.	During the war short-wave receiver operators noticed much static, eventually traced to emissions from the sun. Determined that the sun emitted electromagnetic waves in the ranges of 20,000 - 30,000 megacycles. Discusses phenomenon, and states that studies on the electromagnetic emissions of the sun can be used as means of studying solar activity, as well as unlimited use in the study of weather.	
FDB 46T93	FDB 46T94	

RESTRICTED	FDB Periodical Abstracts Scientific No 46	RESTRICTED
USSR/Physics Dust - Measurement Measurements	Jan/Feb 1948	USSR/Physics Liquids Fields, Electrostatic
"Micromasurement of the Sizes of Dust Particles," Yu. O. Ran'ko, Lab NIOGAZ, 5 pp		"Current Potentials of an Anisotropic Liquid," S. Bulygin, V. Ostroumov, Phys Inst, Leningrad State U, 6 pp
"Kolloid Zhur" Vol X, No 1		"Kolloid Zhur" Vol X, No 1
Volume, or stereogrammetric measurement of the size of dust particles visible under the microscope per- mits very accurate determination, since the error in determining the size of the particles by a plane, or two-dimensional projection is thereby eliminated. Mathematical analysis of the errors possible in vol- ume measurement of dust particles shows that the mar-		Offers method to measure the current potential at temperatures above 100°. Within the range where the anisotropic liquid becomes clear (at about 132°) the size of E/P (E = current potentials, P = pres- sure) descends by skips. Movement of anisotropic liquid in electric field explained to some extent
FDB	46T95	FDB
USSR/Physics (Contd)	Jan/Feb 1948	USSR/Physics (Contd)
gin of error due to distance between the object and objective of the microscope is negligible. Use of modern optical and photographic equipment permits accurate measurement of particles 1-2 μ to 0.1 μ with less difficulty than before.		as phenomenon of electro-osmosis. Submitted for publication, 12 Mar 1947.
FDB	46T95	FDB
USSR/Radio Receivers Antennas	Mar 1948	USSR/Radio Broadcasting Attenuators, Radio Frequency
"Extensive Use of Short-Wave Receiving Aerials at a Radio Center," Ye. A. Khamel'nitskiy, Engr, 1 p		"Equalizing Frequency Characteristics of Broadcast Channels," G. I. Rabchinskaya, Engr, V. G. Zhirnov, Tech, 2 pp
"Vest Svyazi - Elektro-Svyaz'" No 3 (96)		"Vest Svyazi - Elektro-Svyaz'" No 3 (96)
Indicates two possible methods of extensive use of antennas: parallel connection of several receivers to one antenna, and connecting a special antenna am- plifier to the antenna outlet and then feed several receivers from this amplifier. Describes experience with the two methods at a receiving center and pre- sents results of study of the methods.		Describes simple method of measuring and correcting the frequency response of broadcasting channels de- veloped in the Moscow city rebroadcasting network. Without special expense, succeeded in greatly ex- panding the spectra of transmitted frequencies with a minimum of frequency distortion (up to 1 - 1.5 DB within the band of 150-7,000 cycles).
FDB	46T97	FDB
USSR/Radio Broadcasting Amplifiers, Radio Frequency	Mar 1948	USSR/Radio Broadcasting Radio Operation
"Method of Testing the Quality Characteristics of Broadcasting Stations" 2 pp		"Operation of Line-Subscription Installations in the Rebroadcasting Network," A. M. Flaman, Engr, 2pp
"Vest Svyazi - Elektro-Svyaz'" No 3 (96)		"Vest Svyazi - Elektro-Svyaz'" No 3 (96)
Discusses replies to the article by N. N. Pavlov which appeared in "Vestnik Svyazi - Elektro-Svyaz'" No 12, 1947. Presents several different opinions on some principal questions of measurement of amplifiers work- ing on line broadcasting network and on the methods of designing them. Conclusions of the discussion will be given in a later edition.		Reports the technical operation of the Moscow city rebroadcasting system network for the first two years of present Five-Year Plan. Presents three graphs of the daily electrical measurements of the station, which indicate the working condition of the entire network.
FDB	46T99	FDB
		46T100

FDB Periodical Abstracts Scientific No 46

USSR/Soil Science
Medicine - Bacteria

Jan 1948

"Zonality and Its Manifestation in the Microbiological Processes of the Soil," Prof Ye. N. Mishustin, 10 pp

"Priroda" No 1

Mesophylic forms of bacteria, characteristic of each climate, play most important role in the soil processes by bacteria. Bacteria with high temperature interval of development multiply faster at temperatures which are optimum for them than those bacteria which develop in colder climates. Describes conditions necessary for the humus-forming processes in soils.

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46T101

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, Dept of Interior
BS	National Bureau of Standards
SI	Smithsonian Institution
LC	Library of Congress
FDB	Foreign Documents Branch, CIA
COM	Department of Commerce
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