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Foreign Documents Branch C I A Periodical Abstracts

31 December 1948 SCIENTIFIC Number 78

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NOTE: All periodicals listed below are available in the Foreign Documents Branch of the CIA, except those indicated by an asterisk (*) which are available in the Department of the Army.

Abstracted in this issue:

Russian Periodicals		Issue	Date
"Doklady Akademii Nauk SSSR, Novaya Seriya" (Reports of the Academy of Sciences of the USSR, New Series) Cards 12, 14-16, 21, 23, 24, 30-32, 34-50, 68-70	Vol LX	No 8	Jun 1948
"Kolloidnyy Zhurnal" (Colloid Journal) Cards 4-11	Vol X	No 3	May/Jun 1948
"Priroda" (Nature) Cards 1-3, 13, 17, 22, 25-29, 33, 51-67, 71-74		No 4	Apr 1948
"Radio" (Radio) Cards 18, 19, 76-90		No 2*	Feb 1948
Cards 20, 75, 91-105		No 3*	Mar 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	9
Army	29
Navy	30
Air Force	6
AEC	4
RDB	7
CIA	32
FDB	
Total	117
CIA	
FDB	

USSR/Academy of Sciences Apr 1948
Bibliography

"Nikolay Fyodorovich Gamaleya's Book, 'Data for a Bibliography of the Scientists of the USSR. Series of Biological Sciences, Microbiology,' and Konstantin Ivanovich Skryabin's Book, 'Helminthology' in Same Series," Prof A. I. Metelkin, 1½ pp

"Priroda" No 4

These books are well written. Skryabin's work is model in its field. This cannot be said of Gamaleya's, which contains many inaccuracies. Critic accuses Gamaleya of adopting style of Paul de Kruif's "Microbe Hunters."

FDB 78T1

USSR/Academy of Sciences Apr 1948
Biography

"The 'Tetractys' of Yakov Kaydanov," B. M. Kozo-Polyanskiy, Corr Mem, Acad Sci USSR, 3 pp

"Priroda" No 4

Briefs the life, sources of, and teachings of Prof Ya. K. Kaydanov (1799 - 1855), Russian doctor and philosopher.

FDB 78T2

USSR/Academy of Sciences (Contd) Apr 1948

"Microbiology," Acad Sci USSR, 1947, 43 pp, 1 portrait.
"Helminthology," Acad Sci USSR, 1947, 83 pp, 1 portrait

FDB 78T1

USSR/Aeronautics Apr 1948
Oxygen Liquid
Airplanes - Equipment

"Liquid Oxygen in Aviation," V. V. Razumovskiy, 2 pp

"Priroda" No 4

Discusses subject generally, then describes RCAF apparatus designed by Toronto University.

FDB 78T3

USSR/Chemistry - Mixing, Of Gases May/Jun 1948
Chemistry - Mists

"The Formation of Interspersion Vapor and Aerosols During the Mixing of Gases Containing Vapors of Various Temperatures," A. G. Amelin, Lab of Contact Sulfuric Acid, NIUIF, Moscow, 11 pp

"Kolloid Zhur" Vol X, No 3

Studies the case where supersaturated vapor is formed as result of the mixing of gases which contain vapors of various temperatures. Uses Mol's diagrams to make calculations based on the thermal and material balance. Submitted 27 Jan 1948.

FDB 78T4

USSR/Chemistry - Colloids May/Jun 1948
Chemistry - Polymers

"Research on the Lyophilic Colloid Systems, II, Lyophilic and Lyophobic Sols of High Polymers," S. A. Glikman, L. V. Komarova, Lab of Colloidal Chem, Saratov State U, 13 pp

"Kolloid Zhur" Vol X, No 3

Details studies of the lyophobic colloidal systems of high polymers. Used nephelometric system to determine the degree of dispersion in the sols. Submitted 26 Dec 1946.

FDB 78T5

USSR/Chemistry - Emulsions May/Jun 1948
Chemistry - Homogenization

"The Homogenization of Highly Concentrated Emulsions," L. Ya. Kremnev, S. A. Soskin, Leningrad Tech Inst imeni Lensovet, 2¼ pp

"Kolloid Zhur" Vol X, No 3

Establish that at passage through capillaries at low pressures, homogenization of highly concentrated emulsions occurs. Study process of homogenization as result of the expansion of intense deformation of droplets until they disintegrate into smaller droplets. Submitted 2 Jun 1947.

FDB 78T6

USSR/Chemistry - Rubber, Oxidation of May/Jun 1948
Chemistry - Rubber, Properties of

"Research in the Field of the Oxidation of Polydienes, III, Variation in the Physical Properties of Na-Butadiene Rubber During Oxidation by Molecular Oxygen," A. S. Kuz'minskiy, L. L. Shanin, Moscow Inst of Fine Chem Tech imeni M. V. Lomonosov; Phys Chem Inst iemni L. Ya. Karpov, Moscow, 6 pp

"Kolloid Zhur" Vol X, No 3

Experimental data illustrate the changes of the mechanical and colloidochemical properties of Na-butadiene rubber during oxidation. Submitted 5 Feb 1947.

FDB 78T7

USSR/Chemistry - Emulsions May/Jun 1948
Chemistry - Dispersion

"The Critical Dispersion of Highly Concentrated Emulsions," V. M. Martynov, Cen Inst of Aviation Fuels and Lubricants, TsIATiM, 5 pp

"Kolloid Zhur" Vol X, No 3

Explains method whereby it is possible to determine the critical dispersion of highly concentrated emulsions on the basis of their relative viscosity, and conversely to determine the viscosity of the system on the basis of its critical dispersion. Submitted 12 Mar 1947.

FDB 78T8

USSR/Chemistry - Colloids, Structure of May/Jun 1948
Chemistry - Thixotropy

"Research on the Structural and Mechanical Properties and on Thixotropia in Oleocolloidal Systems," Ye. Ye. Segalova, P. A. Rebinder, Moscow State U imeni M. V. Lomonosov, Chair of Colloidal Chem, 17½ pp

"Kolloid Zhur" Vol X, No 3

Used method of measuring plastic stability to determine the qualitative nature of the thixotropia of calcium stearate systems. Necessary to differentiate between condensing and dispersion structures. Established the effect of small additions of surface-active ingredients on the stability and thixotropia of these structures. Submitted 22 Oct 1947.

FDB 78T9

USSR/Chemistry - Gelatin May/Jun 1948
Chemistry - Deformation

"The Deformation of Molecules of Gelatin in Solution During Changes in Their Charge," R. Chernyak, A. Pasynskiy, Lab of Structure of Albumins, Inst of Biochem, Acad Sci USSR, Moscow, 3 pp

"Kolloid Zhur" Vol X, No 3

Experimental studies of the relationship between the discharge and configuration of the gelatin molecule in buffer and nonbuffer solutions. Submitted 13 May 1947.

FDB 78T10

USSR/Chemistry - Dispersed Systems May/Jun 1948
Chemistry - Electric Moments

"Electrical Parameters of Dispersed Systems," Ya. I. Frenkel', E. M. Fradkina, Phys Tech Inst, Acad Sci USSR, Leningrad, 4 pp

"Kolloid Zhur" Vol X, No 3

Show how Frenkel's formula for electrical moments induced in conducting ball-shaped drop can be used for making subject calculations. Submitted 28 Aug 1947.

FDB 78T11

USSR/Chemistry - Surface, Reactions at Jun 1948
Chemistry - Reactions, At Surface

"New Type of Topochemical Reaction," M. B. Neyman, V. A. Shushunov, Inst of Phys Chem, Acad Sci USSR; Chem Inst, Gor'kiy State U, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Topochemical reactions occur on surface of the division between two phases, and are usually associated with the formation of new phase. Describe new-type topochemical reaction observed by authors; characterized by slowing down process at high temperatures. Submitted by Acad N. N. Semenov 23 Mar 1948.

FDB 78T12

USSR/Chemistry - Penicillin Apr 1948
Chemistry - Analysis

"Quick Microchemical Method of Determining Penicillin," Prof I. F. Leont'yev, 1 p

"Priroda" No 4

Describes Scudi and Jelinek's method in detail: Condenses fluorescent substance 2-metoxy-6-chloro-9 (beta-amino-ethyl)-aminoacridin by penicillin to mepacrin homologue. Then measures intensity of fluorescence of product by fluorophotometer. Requires 2 hours. Accuracy is ± 10% for penicillin concentrations of 0.06 - 0.6 micrograms per cu mm of solution.

FDB 78T13

USSR/Chemistry - Ethane, 1,2-Dichloro Jun 1948
Chemistry - Ethane, 1,2-Dibromo

"Rotational Isomers of 1,2-Dichloroethane and 1,2-Dibromoethane in Solution at Different Temperatures," O. L. Aronov, V. M. Tatevskiy, A. V. Frost, Moscow State U imeni M. V. Lomonosov, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Study the spectra of subject substances to explain the effect of various factors on the equilibrium of rotational isomers in these compounds. Submitted by Acad A. A. Balandin 13 Apr 1948.

FDB 78T14

USSR/Chemistry - Chlorophyll, Oxidation of Jun 1948
Chemistry - Glycolic Acid, As Catalyst

"The Catalytic Action of Glycolic Acid on the Oxidation of Chlorophyll in Pulverized Leaves," P. A. Kolesnikov, Inst of Biochem imeni A. N. Bakh, Acad Sci USSR, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Show that pulverized barley leaves in suspension oxidize glycolic acid. Tests determine the effect of centrifuging the suspension on the causes for increased absorption of oxygen by glycolic acid. Submitted by Acad A. I. Oparin 26 Mar 1948.

FDB 78T15

USSR/Chemistry - Oils, Essential Jun 1948
Medicine - Plant Physiology

"The Effect of Potassium on the Storage of Essential Oils in the Leaves of the Camphor Basil (Ocimum canum Sims.)," M. I. Kalinkevich, Moscow Agr Acad imeni K. A. Timiryazev, 2½ pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Conducted experiments to show that decrease of the amount of essential oils in the leaves of subject plant can lead to an increased potassium requirement by the plant, when subjected to large potassium supply. Submitted by Acad N. A. Maksimov 7 Apr 1948.

FDB 78T16

USSR/Chemistry - Air, Gases of Apr 1948
Medicine - Respiration

"Atmospheric Gases," Acad A. Ye. Fersman, 4 pp

"Priroda" No 4

Discusses gases in the air, respiration (oxygen and carbon dioxide), the inert gases, nitrogen fixation, etc.

FDB 78T17

USSR/Electricity Feb 1948
Inductance - Measuring
Coils, Inductance

"Easy Method for Calculating the Inductances of Coils," A. Gorshkov, 1½ pp

"Radio" No 2

Describes simple method to make subject calculations.

ID 78T18

USSR/Electricity Feb 1948
Electrical Equipment
Ohmmeters

"AC-Operated Ohmmeter," B N. Khitrov, 2½ pp

"Radio" No 2

Describes construction of an ohmmeter which operates from AC circuit.

ID 78T19

USSR/Electricity Mar 1948
Batteries
Cells, Dry

"Sandwich-Type Battery" 2 pp

"Radio" No 3

Describes the construction of the so-called 'Galet' (sandwich-type) battery: Laminated drycell, using thin zinc plate as the negative element and agglomerate as the positive element, has an emf of 37 volts.

ID 78T20

USSR/Engineering Jun 1948
Shear, Distribution
Mathematics, Applied

"The Propagation of Cylindrical Waves of Shear in an Elasticoviscous Plastic Medium," Corr Mem, Acad Sci USSR, V. V. Sokolovskiy, Inst of Mech, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Explains axial symmetry problem of the propagation of cylindrical shear waves in medium which has elastic and viscous plastic properties. Submitted 12 Apr 1948.

FDB 78T21

USSR/Engineering Apr 1948
Diving Equipment
Diving

"Utilization of Diving Technique in Hydrobiology," R. S. Den'gina, 1 p

"Priroda" No 4

Describes special apparatus to collect benthonic specimens; lowered and raised by windlass, various appliances manipulated by diver. Successfully used in Lake Baikal.

FDB 78T22

USSR/Geological Prospecting Jun 1948
Quartz

"The So-Called 'Quartz Porphyry' of the Little Caucasus (Azerbaydzhan SSR)," A. N. Solovkin, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Region encompasses about 15% of territory that falls under the classification of the Mesozoic complex of the Shakhdagskiy and Murovdatskiy ranges. Briefly describes some characteristics of this quartz porphyry. Submitted by Acad D. S. Belyankin 19 Apr 1948.

FDB 78T23

USSR/Geological Prospecting Jun 1948
Petroleum

"Solution of the Problem of the Contour on the Oil-Bearing Capacity of an Area," P. P. Kufarev, Phys Tech Inst, Tomsk State U imeni V. V. Kuybyshev, 2 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Explains formulas which permit obtaining the crude oil capacity of an area on the basis of the contours of the region. Submitted by Acad S. L. Sobolev 12 Apr 1948.

FDB 78T24

USSR/Geology Apr 1948
Tectonics
Astronomy

"V. A. Varsenof'yeva's Book: 'Origin and Structure of the Earth,'" Editorial, ½ p

"Priroda" No 4

Book has attracted much attention from wide circle of readers. First Russian work to give detailed but popular treatment of subject on the basis of modern astronomical, physical and geophysical achievements. Very well received by eminent geologists and geographers (c.f. "Priroda" No 3, 1947). Unfortunately, author is not expert on physics and astronomy, and has made certain errors in discussing them.

FDB 78T26

USSR/Geophysics Apr 1948
Atmosphere - Disturbances

"Observations of Local Atmospheric Disturbances From an Aircraft," Yu. S. Dobrokhotov, 1 p

"Priroda" No 4

Author took part in the air volcanological expedition to Kamchatka organized by Acad Sci USSR in 1946. Here he describes "bumps" of aircraft when flying over volcanoes and elsewhere.

FDB 78T28

USSR/Geophysics Apr 1948
Snow
Erosion

"Late Spring Snows as a Geomorphological Factor in the Russian Plain," F. N. Mil'kov, 1 p

"Priroda" No 4

Reports observations in Volga region. Pockets of spring snow lodging in hollows of slopes enlarge such hollows. This is due to two processes: deepening of hollow by suffusion, and ground subsidence in the path of upper edge of snow.

FDB 78T29

USSR/Geology Apr 1948
Tectonics
Astronomy

"V. A. Varsenof'yeva's Book 'Origin and Structure of the Earth,'" P. P. Dobronravin, E. R. Mustel, Crimean Astrophys Obs, Acad Sci USSR, 2 pp

"Priroda" No 4

Book's sections on astronomy and physics are full of obsolete material, inaccuracies, and false assertions, e.g., on page 190 we read that the internal solar corona "is visible as a ring 5 - 6 feet (!) wide." Evidently symbol (') has been misinterpreted; it is used for both minutes of arc and feet. Quotes numerous other errors.

FDB 78T25

USSR/Geological Prospecting Apr 1948
Tectonics
Minerals

"Relief and Structure of the Pre-Cambrian Base of the Russian Platform," A. A. Shirokov, 8 pp

"Priroda" No 4

Importance of Pre-Cambrian deposits lies in their mineral wealth. Examples are Kriviy Rog and Kursk in USSR, Lake Superior in America, and Kirun in Sweden. In recent years, interest in Pre-Cambrian matters has increased in USSR and abroad, as shown by discovery of the Grenville iron deposits in Labrador, and the

FDB 78T27

USSR/Geological Prospecting (Contd) Apr 1948

titanomagnetite ores near Lake Nyassa. Unfortunately, in Russia Pre-Cambrian deposits are usually very deep. Discusses location, giving views of various geologists, illustrated by hypsometric diagram.

FDB 78T27

USSR/Hydrology Jun 1948
Water, Underground

"Subterranean Waters of the Lower Pre-Cambrian," B. M. Yusupov, Geol Inst, Kazan Affiliate, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Gives results of explorations and studies conducted during the past ten years on the Lower Pre-Cambrian along the borders of Tatar ASSR. Submitted by Acad D. S. Belyankin 18 Apr 1948.

FDB 78T30

USSR/Hydrology Jun 1948
Water, Underground

"Vertical Zonality of the Subterranean Water of the Northeastern Part of Central Asia," N. A. Marinov, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Gives results of studies conducted to determine the nature of the distribution of subterranean waters in subject region. Submitted by Acad V. A. Obruchev 15 Apr 1948.

FDB 78T31

USSR/Metals Jun 1948
Iron Ores

"The Genesis of the Chatakhsk Iron Ore Deposits," A. Ye. Bendeliani, 2 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Author gives his views on the formation of subject deposits. Submitted by Acad D. S. Belyankin 9 Apr 1948.

FDB 78T32

USSR/Medicine - Plants Apr 1948
Medicine - Tissues

"N. P. Krenke's Book, 'Chimeras of Plants,'" D. V. Lebedev, 1 p

"Priroda" No 4

N. P. Krenke, who died in 1939, was expert on subject. Material for this work was assembled by V. L. Ryzhkov, who has contributed two supplementary articles. Review is extremely favorable. Pub by Acad Sci USSR, 1947, 386 pp, 86 drawings.

FDB 78T33

USSR/Medicine - Xanthophyll Jun 1948
Chemistry - Analysis, Quantitative

"New Method of Separation and Quantitative Determination of Xanthophyll," D. I. Sapozhnikov, Lab imeni V. N. Lyubimenko, Bot Inst imeni V. L. Komarov, Acad Sci USSR, 2 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Method, based on previous work by authors ("Dok Ak Nauk" Vol LX, No 6, 1948), is simpler than the one developed previously. Submitted by Acad N. A. Maksimov 9 Apr 1948.

FDB 78T34

USSR/Medicine - Marine Organisms Jun 1948
Medicine - Physiology

"Oxidization Change of the Ovocytes of Triton in Connection With the Synthesis of Plasma and Yolk," T. P. Platova, Inst of Cytol, Histol, and Embryol, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Conducted studies during 1944 and 1945 showing that the yolk is inert as far as oxidation is concerned. Process of formation of the yolk is very closely related to the morphological changes in the nucleus. Submitted by Acad L. A. Orbeli 1 Apr 1948.

FDB 78T35

USSR/Medicine - Seeds Jun 1948
Medicines - Minerals

"The Effect of Mineral Supply on the Storage and Conversion of Plastic Substances During the Ripening of the Seeds at Conditions of Low Temperature," S. A. Kasparov, P. G. Usov, Kola Sci Res Base imeni S. M. Kirov, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Study to determine the effect of various mineral substances on the anatomic and physiological changes in cereal plants growing in near polar regions. Submitted by Acad N. A. Maksimov 19 Apr 1948.

FDB 78T36

USSR/Medicine - Algae Jun 1948
Medicine - Secretion

"Lifetime Secretion of Vegetable Acids in the Surrounding Water Medium by Blue-Green Algae 'Oscillatoria,'" S. V. Goryunova, Microbiol Inst, Acad Sci USSR, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Data on the secretion of various vegetable acids by subject algae is first published discussing the capability of water plants to secrete these vegetable acids during the process of converting the media surrounding the plant. Submitted by Acad B. L. Isachenko 3 Apr 1948.

FDB 78T37

USSR/Medicine - Chromosomes Jun 1948
Medicine - Plants

"Differential Colorability of the Chromosomes in the Nuclei of the Lining Cells in Poppies," Ye. N. Volotov, Inst of Cytol, Histol, and Embryol, Acad Sci USSR, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Studies related to N. K. Kol'tsov and A. A. Prokof'yev's hypotheses on the difference between new chromosomes and the old ones from which they originated. Submitted by Acad L. A. Orbeli 1 Apr 1948.

FDB 78T38

USSR/Medicine - Plant, Physiology Jun 1948
Medicine - Botany

"An Analysis of the Phenomenon of Vegetative Growth," L. P. Zhdanova, Inst of Plant Physiol imeni K. A. Timiryazev, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Results of experiments conducted during 1947 to obtain artificial vegetative growth. Submitted by Acad N. A. Maksimov 19 Apr 1948.

FDB 78T39

USSR/Medicine - Fish Jun 1948
Medicine - Intestines

"Growth of Loach Intestines," N. O. Lange, Inst of Evolutionary Morph imeni A. N. Severtsov, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Studies resulted in obtaining data permitting determination of growth and development of the intestines of loaches on the basis of their feeding habits. Submitted by Acad I. I. Shmal'gauzen 13 Apr 1948.

FDB 78T40

USSR/Medicine - Flies Jun 1948
Medicine - Nutrition

"The Physiology of the Nutrition of the Gad Fly Larva (Oedemagena Tarandi L.) of Northern Deer," S. G. Grebel'skiy, Kola Sci Res Base imeni S. M. Kirov, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Briefly describes physiological characteristics of the subject larva. Data collected intended for use in study of the nature of the so-called "gad fly disease." Submitted by Acad L. A. Orbeli 20 Apr 1948.

FDB 78T41

USSR/Medicine - Blood, Coagulation Jun 1948
Medicine - Agglutins and Agglutination

"A New Component in the Process of the Coagulation of Blood," B. A. Kudryashov, Inst of Zool, Moscow State U imeni M. V. Lomonosov, 3½ pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Describes characteristics and nature of "trombotropia," substance that authors claim greatly facilitates the coagulation processes of blood. Submitted by Acad I. I. Shmal'gauzen 12 Apr 1948.

FDB 78T42

USSR/Medicine - Adrenal Preparations, Effect Jun 1948
Medicine - Hibernation

"Effect of Temperature on the General Action of Acetylcholine and Adrenalin on the Heart of Hibernating Mammals," T. M. Turpayev, Inst of Evolutionary Morph imeni A. N. Severtsov, Acad Sci USSR, 3¼ pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Tests on the effect of subject substances on the heart of hibernating mammals indicate clearer picture of the dynamics of physiological changes in the heart of hibernating animals, in regard to the ectocardial nerves during the period of hibernation, and due to excitation caused by the injection of these substances. Submitted by Acad I. I. Shmal'gauzen 20 Apr 1948.

FDB 78T43

USSR/Medicine - Flies Jun 1948
Medicines - Embryology

"The Problem of the Embryonal Development of Ichneumon Flies," N. A. Ioff Inst of Bot and Zool, Acad Sci, Uzbek SSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Results of studies conducted by Ioff in 1946 and 1947 to determine the evolutionary morphology and comparative embryology of ichneumon flies. Much of the data obtained was based on and compared to data obtained by Davydov, Ganin and Marechal. Submitted by Acad I. I. Shmal'gauzen 16 Apr 1948.

FDB 78T44

USSR/Medicine - Flies Jun 1948
Medicine - Taxonomy

"New Genus and Species of May Fly From the Amur Basin (Ephemeroptera, Amertropodidae)," O. A. Chernova, Inst of Zool, Moscow State U imeni M. V. Lomonosov, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Characteristics of the new species discovered in 1947 by the Amur Ichthyological Expedition of the Sci Res Inst, Moscow State U. Submitted by Acad K. I. Skryabin 8 Apr 1948.

FDB 78T45

USSR/Medicine - Plants, Physiology Jun 1948
Medicine - Effects, Light

"The Importance of the Interruption of Light Periods by Darkness in Photoperiodic Reactions of Plants," M. Kh. Chaylakhyan, I. A. Rupcheva, Inst of Plant Physiol imeni K. A. Timiryazev, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Results of experiments conducted to determine the effect of the length of light periods on the development of plants. Submitted by Acad N. A. Maksimov 19 Apr 1948.

FDB 78T46

USSR/Medicine - Flies Jun 1948
Medicine - Heredity, Mechanism

"Genotypic Dependence of Increased Variability on the Border Area of the Habitat of the Species Drosophila Melanogaster," N. P. Dubinin, Corr Mem, Acad Sci USSR, V. V. Khvostova, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Apply new theories of evolution to solve the problem of the factors of evolution on the basic genetic processes, especially those occurring in the main classes of species. Submitted 17 Apr 1948.

FDB 78T47

USSR/Medicine - Plants, Physiology Jun 1948
Medicine - Light, Effects

"Nitrogen Supply and the Light Adaptation of Plants," N. P. Voskresenskaya, A. A. Nichiporovich, Inst of Physiol of Plants imeni K. A. Timiryazev, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Conducted tests to determine methods to adapt plants for growth under conditions of dim light. Submitted by Acad N. A. Maksimov 9 Apr 1948.

FDB 78T48

USSR/Medicine - Plants, Physiology Jun 1948
Medicine - Light, Effects

"Importance of the Intensity of Light in Unfavorable Photoperiods for the Growth of Rudbeckia and Perilla," G. A. Samygin, Inst of Plant Physiol imeni K. A. Timiryazev, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Conducted tests to determine the effect of these unfavorable photoperiods on the development of plants if during such periods the plants were exposed to light of varying intensities. Submitted by Acad N. A. Maksimov 22 Mar 1948.

FDB 78T49

USSR/Medicine - Zoology Jun 1948
Medicine - Botany

"The Zoogeography of Sakhalin Island," A. I. Kurentsov, Far Eastern Base, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Sakhalin is divided into six ecologogeographical regions. Author briefly discusses the wide-leaved forests of the island. Submitted by Acad L. A. Orbeli 10 Apr 1948.

FDB 78T50

USSR/Medicine - Fungi Apr 1948
Medicine - Environment

"Geotropism in the Fruit Bodies of Higher Fungi," G. D. Gal'pern, 1 p

"Priroda" No 4

Reports observations made on fungi growing on birch stumps. Geotropism in Polyporaceae is effected by altering direction of growth, while in Agaricaceae it is due to bending of stem tissue. Illustrates process with photographs and diagrams.

FDB 78T51

USSR/Medicine - Biology Apr 1948
Medicine - Parasites

"The Composition of Pelts of Mammals and Plumage of Birds as a Factor Determining the Species, Composition and the Localization of External Parasites," V. B. Dubinin, 5 pp

"Priroda" No 4

Discusses various types of body covering of mammals and birds: fur, hair feathers, etc. Shows that this largely determines the type of ectoparasites found on host.

FDB 78T52

USSR/Medicine - Microorganisms Apr 1948
Medicine - Transplantation

"The Problem of the 'Organizer' in Hydra," Prof I. I. Kanayev, 1 p

"Priroda" No 4

Describes experiments on subject carried out by T. Yao, Chinese scientist ("Jour of Experimental Biol," 1945). Method used was transplantation of hypostomes. Organizer problem still unsolved.

FDB 78T53

USSR/Medicine - Trypanosoma Apr 1948
Medicine - Antibiotic

"An Antiobiotic Acting on Trypanosoma," Prof I. F. Leont'yev, ½ p

"Priroda" No 4

Describes the microorganism, Phycomyces sp., which acts as antiobiotic in vitro on T. equiperdum.

FDB 78T54

USSR/Medicine - Malaria Apr 1948
Medicine - Erythrocytes

"Physical Properties of Erythrocytes During Malaria," Prof I. F. Leont'yev, 1 p

"Priroda" No 4

Infected monkeys (Macaca mulatta) with malaria (Plasmodium knowlesi) and tested erythrocytes. Those of the sick animals were twice as strong osmotically, and 3 - 4 times as strong mechanically as normal corpuscles.

FDB 78T55

USSR/Medicine - Plants, Diseases Apr 1948
Medicine - Wheat

"The Methods of Hibernation of Wheat Mildew Uromyces Fallens," K. S. Sergeeva, 1 p

"Priroda" No 4

Reports observations made at the Bot Inst, Acad Sci USSR, Leningrad. Results confirm possibility of Ur. Fallens hibernating by means of teliospores and uredomicellae.

FDB 78T56

USSR/Medicine - Penicillin Apr 1948
Medicine - Seeds

"Does Penicillin Affect Seed Germination?" D. V. Lebedev, ½ p

"Priroda" No 4

D. F. Ribeiro showed that clinical penicillin greatly lowers growth of seeds. W. J. Smith, however, proved that this does not occur with pure penicillin. Work of N. A. Krasil'nikov, Soviet microbiologist, shows that microorganisms can act not only as antibiotics, but as biotics on higher plants: They should not be used before seeding without exhaustive preliminary investigations.

FDB 78T57

USSR/Medicine - Botany Apr 1948
Medicine - Plants

"A Valuable Plant," B. M. Kozo-Polyanskiy, 3pp

"Priroda" No 4

Briefs the food value of the chufa plant (Cyperus esculentus). Includes photographs of the chufa plantation in botanical garden of Voronezh U from which cultivating data and planting material may be obtained.

FDB 78T58

USSR/Medicine - Mice Apr 1948
Medicine - Epidemiology

"New Data on the Spreading of the Wood Mouse," N. N. Rukovskiy, ½ p

"Priroda" No 4

The wood mouse has made its way down the valley of the Ural River almost as far as the Caspian Sea. It had not been previously found south of Kalmykovo village. This new fact may be of epidemiological importance.

FDB 78T59

USSR/Medicine - Flies Apr 1948
Medicine - Insecticides

"The Appearance of a Type of House Fly Resistant to DDT as a Result of a 3-Year Application of the Insecticide," Prof I. Rubtsov, 2 pp

"Priroda" No 4

Rubtsov has discussed this problem in Rome with Prof Missiroli of Instituto Superiore Sanita. In 1944, an isolated farm was cleared of flies by spraying with kerosene and 5% DDT. The following year, however, occasional flies were noticed; these were dealt with as previously, but destruction was not so complete as

FDB 78T60

USSR/Medicine - Cancer Apr 1948
Medicine - Vitamins

"Cancer and Vitamins of Group B," Prof I. F. Leont'yev, 1 p

"Priroda" No 4

Quotes and comments on tables produced by AAAS Research Conference on Cancer (Washington 1945) giving vitamin B contents of normal and cancerous tissues of men and rats.

FDB 78T61

USSR/Medicine - Flies (Contd) Apr 1948

before. In 1946 there were far more flies than in 1945, and of a type resistant to DDT. Problem of their control is still unsolved. Rubtsov comments on rapid operation of natural selection.

FDB 78T60

USSR/Medicine - Man, Primitive
Medicine - Environment
Apr 1948

"A New Neolithic Site on the Kuda River (Irkutsk Oblast')," Ye. V. Pavlovskiy, I. V. Arembovskiy, 1 p

"Priroda" No 4

Describes the site discovered by Prof Ye. V. Pavlovskiy in 1946. Stone tools and pottery fragments show that the place was permanently settled by neolithic fishermen and hunters.

FDB 78T62

USSR/Minerals
Mica
X-Ray, Analysis
Apr 1948

"Chrome Micas," Prof I. D. Sedletskiy, ½ p

"Priroda" No 4

Describes work of Whitmore, Berry and Howley on this subject in USA. Investigations were chemical, optical and X-ray. Special attention was paid to fuchsite and mariposite.

FDB 78T63

USSR/Mining Methods
Diamonds
Apr 1948

"Mining and Use of Diamonds," Prof S. V. Obruchev, 2 pp

"Priroda" No 4

Analyzes 1946 world diamond production figures as given in the British "Mining Journal." Describes uses of diamonds.

FDB 78T64

USSR/Mining Methods
Mica
Apr 1948

"Ancient Subterranean Mining in Northern Karelia," K. K. Khazanovich, ½ p

"Priroda" No 4

Reports accidental discovery of abandoned mica mine during drilling operations in the Pulongsk Lake district. Investigation showed that mine was worked 15th - 18th century.

FDB 78T65

USSR/Nuclear Physics - Cosmic Radiation
Medicine - Tumors
Apr 1948

"The Action of Cosmic Radiation on Chemically Produced Tumors in Mice," Prof V. V. Alpatov, 1 p

"Priroda" No 4

Reports Figge's experiments on subject ("Science," 1947). Of 21 - 23 mice enclosed in 8 aluminum cubicles, five were covered with thin lead sheeting. Animals received injections of cancerogenous substance methylcholanthrene. Rate of development of tumors for each group is shown graphically, and was more rapid for mice under lead. Alpatov believes that

FDB 78T66

USSR/Petroleum
Medicine - Bacteria
Apr 1948

"The Role of Bacteria in the Formation and Accumulation of Petroleum," L. K. Osnitskaya, 5 pp

"Priroda" No 4

Outlines bacterial theory of petroleum formation, referring to recent work of American oceanographer Cl. E. ZoBell. Bacteria are known to exist at great depths. They can form hydrocarbons, hydrogen, and hydrogen sulfide. Movement of petroleum from place of formation may be due to pressure of carbon dioxide gas. Bacteria can transform paraffins into naphthenes ("ageing" of petroleum).

FDB 78T67

USSR/Nuclear Physics - Cosmic Radiation (Contd)
Apr 1948

thin lead increases intensity of cosmic rays, which in turn cause malignant tumors. Suggests that recent increases of this disease in humans may be due to working in ferroconcrete buildings.

FDB 78T66

USSR/Physics
Mechanical Analpgies
Jun 1948

"The Existence of Electromechanical Analogies," Corr Mem, Acad Sci USSR, G. A. Gamburtsev, 3 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Discusses plane and propagated systems, electromechanical analogies of the first and second degree, nature of 2-lamina mass, methods applicable to orthogonal lines and fission for S-systems, and the absence of analogues for the simple couplings of S-systems. Determined that S-systems do not have analogues of the first degree. Submitted 12 Apr 1948.

FDB 78T68

USSR/Physics Jun 1948
Meteorites
Microscopy

"Study of the Structure of the Sikhote Alin Meteorite," A. A. Yavnel', Inst of Astron and Phys, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Characterizes the fall and distribution after fracture of large meteorite which fell in the Sikhote Alin region 12 Feb 1947. Microscopic studies of the texture of various parts of the meteorite. Submitted by Acad V. G. Fesenkov 10 Apr 1948.

FDB 78T69

USSR/Physics Jun 1948
Filtration
Filters

"The Effect of the Form of the Granules of the Filtration Layer on the Speed of the Filtration Flow," V. A. Klyachko, All-Union Sci Res Inst, VODGEO, 4 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Formulas for determining the rate of the filtration flow theoretically under two different conditions: 1) where there is gap between the individual granules of the filtrating layer, and 2) where there is liquid in the gap between the granules. Submitted by Acad L. S. Leybenzon 20 Apr 1948.

FDB 78T70

USSR/Physics Apr 1948
Solar Phenomena
Solar Radiation

"Expedition of the Academy of Science USSR for the Observation of the Total Solar Eclipse of 20 May 1947 in South America," B. N. Gimmel'farb, 5 pp

"Priroda" No 4

Full account of preparations for expedition and places visited: Reception in Brazil was favorable, except for some provocative articles in the fascist press. In Rosario many Slavs manifested lively interest in everything connected with the great land of socialism.

FDB 78T71

USSR/Physics (Contd) Apr 1948

Comments on hostile attitude of Argentine authorities. Eclipse could not be observed in Aracha owing to clouds. Swedish, Canadian and Czech expeditions were likewise unfortunate.

FDB 78T71

USSR/Physics Apr 1948
Sound - Speed
Sound - Measurements

"The Speed of Sound in Free Atmosphere," V. I. Arabadzhi, 2 pp

"Priroda" No 4

Describes measurement of speed of sound from 18th century on. In 1939, Kukkamyaki obtained the mean values: 330.8 mm/sec for frequencies under 1,000 cycles, and 331.7 mm/sec for frequencies over 1,000 cycles. These, however, may vary by ± 0.3 mm/sec since the accuracy of the temperature measurement in free atmosphere is ± 0.5°C.

FDB 78T72

USSR/Physics Apr 1948
Corona, Solar
Solar Phenomena

"Two Solar Coronas," Prof V. A. Krat, 1 p

"Priroda" No 4

There are two solar coronas, not one, as previously thought. First discovered by the Soviet astronomer G. A. Tikhov, who described them as "spherical" and "radiant."

FDB 78T73

USSR/Physics Apr 1948
Infrared Receivers
Photoelectric Cells, Infrared

"The Development of Receivers of Infrared Radiation," A. K. Vishnevskiy, 5 pp

"Priroda" No 4

Describes heating and photoelectric effects of infrared rays. Among heating appliances mentioned: Langley's bolometer, Pringesheims' radiometer, Lebedev's thermopile. Describes photoelectric cell and explains its limitations. Outlines present-day development of photoelectric semiconductors with stress on work of Acad A. F. Ioffe.

FDB 78T74

USSR/Physics Mar 1948
Electrons
Electron Theory

"What Do We Need to Know About the Electron?" L. Polevoy, 3 pp

"Radio" No 3

Elementary discussion on the nature, operation, and functions of electrons.

ID 78T75

USSR/Radio Receivers Feb 1948
Radio - Nomenclature

"What Types of Receivers Are There?" L. Polevoy, 3 pp

"Radio" No 2

Gives fundamentals of various types of receivers.

ID 78T76

USSR/Radio Receivers Feb 1948
Vacuum Tubes

"What Do the Customers Want?" G. Sitnikov, 1 p

"Radio" No 2

Recently the Central UniVerMag of the GlavOsobTorg organized radio consultation setup to determine the desires of consumers, and to air their complaints. Discusses methods for the selection of radio receivers, the effects of various industrial interference, the lack of sufficient voltage in various power circuits, and the possibility of replacing some tubes with others.

ID 78T77

USSR/Radio Receivers Feb 1948
Transformers, Interphase

"New Receivers" ½ p

"Radio" No 2

Criticisms of several new receivers. "ElektroSignal" receiver has poor quality interphase transformers. "Partizan" receiver has poor quality audio-frequency transformer. Loudspeakers of the RadioMekhanik Factory in Ufa are useless. Of the latter, it is said that the springs for the vibrator, the windings, and the plug-in cords are all unsatisfactory. Critic says that they are absolutely the worst that he has ever seen.

ID 78T78

USSR/Radio Training Feb 1948
Communications

"Thirty Years of the Soviet Army" 2 pp

"Radio" No 2

Historical account of the organization of the Red Army. Role of communicators in the contemporary Army, and role of discharged communications personnel in the present-day era of peace. Prime duty of former communicators is to organize radio clubs and impress the youth of the Soviet nations with the importance of radio.

ID 78T79

USSR/Radio Feb 1948
Radio Equipment

"Our Plans," A. Kanayeva, Dir, All-Union Office, SoyuzTekhRadio, 1 p

"Radio" No 2

Briefly describes accomplishments in the field of radio as means of fulfilling Five-Year Plan for the radiofication of Russia in four years.

ID 78T80

USSR/Radio-Training Devices Feb 1948
Radio Waves, Propagation

"News of the Radio Clubs and Radio Enthusiasts" 2 pp

"Radio" No 2

Vil'nyus (Lithuanian SSR) radio club formed by Osoaviakhim is commended for its good work in training some 300 members in the intricacies of radio. There are some two thousand members in the whole of the SSR who are members of radio clubs. The Section on Short Waves, Central Radio Club is studying the propagation of waves in three amateur frequencies (7, 14 and 28 megacycles) and the reception of Soviet and foreign amateur stations in various parts of the USSR.

ID 78T81

USSR/Radio Stations Feb 1948
Radio Receivers

"News of the Soviet Union," 1 p

"Radio" No 2

During 1947, in Moscow Oblast 136 km of radio-subscriber service lines were installed, and 66 farms and 19 Motor-Tractor Stations were equipped with radio speakers. Several new radio centers have been established in Krasnopolyansk, Ostashev, Konstantinov, Stalinogorsk. Each are 0.5-kw stations. Minsk Radio Factory imeni Molotov has produced some 3,000 regenerative receivers, which were consigned to Kolkhoz in

ID 78T82

USSR/Radio Navigation Feb 1948
Navigation, Aerial

"Radio Navigation," N. A. Baykuzov, 7 pp

"Radio" No 2

Stresses the importance of radio navigation in present-day aviation. Discusses land-based RDF, its operation and function, the RPK (radio semicompass) which is plane-based RDF using a medium wave band and equipped with turnstile antenna, and the radio compass.

ID 78T83

USSR/Radio Stations (Contd) Feb 1948

Belorussian SSR. Also produces superheterodyne receivers. In January 1948, Moscow Artel Ind Coop RAAZ produced 5,000 new rectifier-type receivers. It is expected that they will produce some 50,000 in 1948. All-Union Sci Res Inst of Meteorol imeni Mendeleyev has put into operation a new time-signal station.

ID 78T82

USSR/Radio Equipment Feb 1948
Machines, Testing

"Tester TT-1," Ye. A. Levitin, M. Sh. Berkovich, 5 pp

"Radio" No 2

Describes TT-1 tester or multimeter which can be used to determine current, voltage and resistance of radio equipment. TT-1 has sensitivity of 5,000 ohms per volt. Gives performance data, the principles of the circuit, voltmeter for DC and AC, and briefly describes simple construction of the TT-1.

ID 78T84

USSR/Radio Feb 1948
Capacitors
Radio Receivers, Superheterodyne

"Tikond Condensers," K. A. Shchutskoy, 1 p

"Radio" No 2

Describes construction and performance of titanium dioxide condensers used in superheterodyne radio sets. These compensating condensers with positive temperature coefficient are included in sets to compensate for parameter changes in the heterodyne circuit.

ID 78T85

USSR/Radio Receivers - Battery Feb 1948
Radio Receivers, Regenerative

"Battery-Powered Super RL-9," B. Nikolayev, 5½ pp

"Radio" No 2

Gives circuit diagram, and describes component parts, assembly, and tuning of the RL-9. The RL-9 has four stages using small-size battery-type tubes, grid detection, and regenerative feedback circuit on medium waves. Tuning circuit is equipped with movable magnetic core which facilitates the construction, improves reception in short-wave ranges.

ID 78T86

USSR/Radio Transmission Feb 1948
Radio - Training

"Let Us Increase the Ideological and Educational Level of the Work of Short-Wave Amateurs," L. A. Gaukhman, Deputy Chm, Council of Cen Radio Club, 2 pp

"Radio" No 2

Suggests subject recommendations because of the task set before Soviet amateurs. They are charged with the duty of using the equipment that they have in the interests of labor, to solidify the Soviet Union, and to increase its power, authority, and blessings.

ID 78T87

USSR/Radio Feb 1948
Antennas - Measurements
Antennas - Controls

"Antenna Meters," A. S. Cherkasskiy, 4 pp

"Radio" No 2

Describes various indicators and meters which are attached to transmitter circuits to guarantee the good quality of transmissions. Fundamentally, they are resonance indicators of the antenna systems.

ID 78T88

USSR/Radio Feb 1948
Vacuum Tubes
Radio - Nomenclature

"Our Pentode Oscillators," K. I. Drozdov, 3 pp

"Radio" No 2

Triode and tetrode oscillators were described in "Radio" No 12, 1947. Discusses nomenclature and data of pentode oscillators.

ID 78T89

USSR/Radio Stations Feb 1948
Radio Broadcasting

"Amateur Operators Who Were Adjudged the Best in the Fourth All-Union Tests in Celebration of Thirtieth Anniversary of Great October Revolution" 3 pp

"Radio" No 2

Winners in the 100-, 20- and 5-watt station classes: Calls, location and names of operators.

ID 78T90

USSR/Radio Equipment Mar 1948
Circuits, Tuned - Impedance

"Circuit 'Q,' Part I," A. Ye. Levitin, 3 pp

"Radio" No 3

Will be completed in the following issue. Discusses decrement of damping, various characteristic values of circuits or coils, voltage rise, selectivity band, and circuit impedance.

ID 78T91

USSR/Radio Broadcasting Mar 1948
Radio Stations

"More Organization in Industrial and Agricultural Radio Networks" 3 pp

"Radio" No 3

Radio centers of Ministry of Communications are the nucleus around which regional and municipal radiofication networks are organized. In addition, there are many other radio centers which belong to other ministries. Urges that all these stations be put under one administration to train personnel uniformly and grant all stations equal facilities for obtaining equipment.

ID 78T92

USSR/Radio Broadcasting Mar 1948
Radio Equipment

"The Five-Year Plan of Radiofication, Completed in Four Years," I. Tsingovatov, Chief, Cen Adm for Radiofication, Ministry of Communications USSR, 3 pp

"Radio" No 3

It is hoped that by 1950 there will be in operation a radio network which will be some 75% greater than the prewar net. Ministry of Communications will have to install some 3 million radio points, and increase the number of powerful broadcasting stations threefold. Briefly describes progress achieved in fulfilling the Five-Year Plan.

ID 78T93

USSR/Radio Receivers, Regenerative Mar 1948
Radio Receivers, Heterodyne

"More Regenerative-Type and Cheap Heterodyne Receivers," Ye. Shapiro, 1½ pp

"Radio" No 3

The war created large backlog of orders for radio receivers. Shapiro stresses the need of fulfilling these orders as quickly as possible.

ID 78T94

USSR/Radio Equipment Mar 1948
Radio - Training

"In the Soviet Union" 1 p

"Radio" No 3

Orel is witnessing oblast program for the improvement of radio equipment and personnel. Nine radio centers have been built or reconstructed, and some 42 km of lines added. Aleksandrov Radio factory has completed 10,000 'Rekord' type radio receivers above its assigned plans. Plant expects to turn out 158,000 receivers in 1948. Works imeni Kozitskiy (Omsk) is producing the ZhR-1, new radio set for use aboard trains. Radio cen-

ID 78T95

USSR/Radio Beacons Mar 1948
Radio - Homing Devices

"Radio Navigation," N. A. Baykuzov, 3 pp

"Radio" No 3

Concludes article begun in "Radio" No 2, 1948. Describes operation of radio beacons, homing stations (equipped with medium-wave transmitters with non-directional antennas).

ID 78T96

USSR/Radio Equipment (Contd) Mar 1948

ter Nar'yan-Mara is servicing some 1,200 radio points. There are radio centers at Amderma, Oksina, Pesh, and Khosed-Khard.

ID 78T95

USSR/Radio Mar 1948
Radiation,
Radio Operation

"Pulse Radiation," I. I. Teymin, Cand Phys Math Sci, 3 pp

"Radio" No 3

Describes nature and operation of pulse radiation in radio.

ID 78T97

USSR/Radio Measurements Mar 1948
Radio Equipment

"Radio Amateur's Multimeter," B. N. Khitrov, 4 pp

"Radio" No 3

Instrument permits measurement of voltage, current, and resistance. Describes the principles of the circuit, parts and assembly of the instrument, tuning and scales, and briefs the operation and performance.

ID 78T98

USSR/Radio Transmitters Mar 1948
Circuits, Oscillator

"Master Oscillators for Amateur Transmitters," N. Afonas'yev, 4 pp

"Radio" No 3

Concludes article begun in "Radio" No 1, 1948. Discusses the effect of the voltage supply, the operation of the final stage, the practical circuit of the master oscillator for the stable operation. Includes circuit diagrams.

ID 78T99

USSR/Radio Equipment Mar 1948
Circuits

"The New Model RSI-4" 4 pp

"Radio" No 3

In "Radio" No 1, 1947, circuit diagrams of the RSI-4 were described. Gives circuit diagrams with some of the changes made on the original set.

ID 78T100

USSR/Radio Transmitters Mar 1948
Circuits, Oscillator

"Making Calculations on an Amateur Transmitter," V. A. Yegorov, Engr, Sta UAZAV, 4 pp

"Radio" No 3

Discusses independent excitation, oscillator circuits, performance of the tubes in final stage, and so-called under-loading, overloading, and critical performance conditions.

ID 78T101

USSR/Radio Equipment Mar 1948
Circuits, Amplifier

"25-Watt Amplifier," K. I. Drozdov, 2 pp

"Radio" No 3

Gives circuit diagrams, performance, and two photographs of the assembled apparatus.

ID 78T102

USSR/Radio Receivers Mar 1948
Loudspeakers, Low Frequency

"Improving the Reproduction in the Low Frequencies," K. G., 1 p

"Radio" No 3

The small-size receivers have become popular lately. The problem is the poor quality of the low-frequency response in small loudspeakers. Presents methods to overcome this shortcoming.

ID 78T103

USSR/Radio Equipment Mar 1948
Transformers

"A Universal Auto-Transformer," 2 pp

"Radio" No 3

Describes the core and the shape of the transformer, the coils, the panel, and methods to test operation and performance.

ID 78T104

USSR/Radio Receivers Mar 1948
Circuits, Amplifier

"Circuits Employing Double-Frequency Conversion," Te. V. Andreyev, 3 pp

"Radio" No 3

Difficulties and problems encountered by Andreyev during his attempts to construct receiver which would have both amplification and the power to be used with loudspeakers. Includes circuit diagrams.

ID 78T105