FEDOROV, S.F.

ODINTSOV, M.M.; PAVLOVSKIY, Ye.V.

Book of V.T.Mordovskii, M.V.Kravchenko, and S.F.Fedorov "Geological structure of the southern part of the Siberian Platform." Reviewed by M.M.Odintsov, M.V.Pavlovskii. Izv. AN SSSR. Ser.geol. 19 no.2: 161-163 Mr-Ap '54. (MLRA 7:7)
(Siberian Platform--Geology, Structural) (Geology, Structural--Siberian Platform) (Mordovskii, V.T.) (Kravchenko, M.V.) (Fedorov, S.F.)

FEDOROV, S.F.

SOKOLOV, V.A.

How one should not write about the history of a science ("Outline history of petroleum geology." S.F.Fedorov. Reviewed by V.A.Sokolov). Neft.khoz. 32 no.8:94-96 Ag '54. (MLRA 7:8)
(Petroleum geology) (Fedorov, Sergei Filippovich, 1896-)

FEDOROV, S.F.

Results of operating the small model (GPI-51) hydrmulic soil surface evaporimeter. Trudy GGI no.45:121-141 '54. (MLRA 8:11)
(Atmometer)

FEDOROV, S.F.

Experimental study of infiltration in slightly podsolic soils.
Trudy GOI no.46:48-72 '54. (MLRA 8:11)
(Podsol) (Soil percolation)

AVDUSIN, P.P.; TSVETKOVA, M.A.; KONDRAT'YEVA, M.G.; FEDOROV, S.F., POLYAKOVA, T.V., tekhnicheskiy redaktor.

[Lithology and facies of Paleozoic deposits in the Saratov and Kuybyshev areas of the Volga Valley] Litologiia i fatsii paleozoiskikh otlozhenii Saratovskogo i Kuibyshevskogo Povolzh'ia. Moskva, Izd-vo Akademii nauk SSSR, 1955. 137 p. 22 plates. [Microfilm] (MLRA 8:9)

1. Akademiya nauk SSSR, Institut nefti. 2. Chlen-korrespondent Akademii nauk SSSR (for Fedorov).
(Volga Valley--Petrology)

FEDOROV, S. F.

AID P - 2729

Subject : USSR/Mining

Card 1/1 Pub. 78 - 26/27

Author : Fedorov, S. F.

Title : Letter to the editor

Periodical : Neft. khoz. v. 33, #6, 95, Je 1955

Abstract : The author answers I. O. Broda and V. A. Sokolov who critically reviewed his brochure "Essays on the history of petroleum geology" in which he claimed that Russian scientists have created a new branch of science, the geology of petroleum, in which the greatest contribution was made by I. M. Gubkin.

Institution : None

Submitted : No date

FEDOROV, S.F.

Principles of oil pool formation. Dokl.AN SSSR 101 no.5:1019-1022 Ag. 1956. (MLRA9:10)

1. Chlen-korrespondent Akademii nauk SSSR. 2. Institut nefti Akademii nauk SSSR. (Petroleum geology)

FEDOROV, S.F.

CHIKOVA-ZALESSKAYA, Yelena Fedorovna; FEDOROV, S.F., otvetstvennyy redaktor, KUN, M.R., redaktor izdatel'stva; ZELENKOVA, Ye.V., tekhnicheskiy redaktor.

[Division on the basis of fossil plants of the terrigeneous Devonian of the Ural and Volga regions; data on fossil plants of the terrigeneous Devonian of the Ural and Volga regions] Delenie terrigennogo devona Uralo-Povolsh'ia na osnovanii iskopaemykh rastenii; materialy po iskopaemym rasteniiam terrigennogo devona Uralo-Povolsh'ia. Moskva, Izd-vo Akad.nauk SSSR, 1957. 139 p. (MIRA 10:10)

(Ural Mountain region--Geology, Stratigraphic)
(Ural Mountain region--Paleobotany)

Fedorov, S. F.

AUTHOR: **Fedorov**, S. F., Corresponding Member of the AN USSR 30-11-9/23

TITLE: The Development of the Theory Concerning the Formation of the Petroleum and Gas Deposits (Razvitiye teorii formirovaniya zalezhey nefti i gaza)

PERIODICAL: Vestnik AN SSSR, 1957, Vol. 27, Nr 11, pp. 83-88 (USSR)

ABSTRACT: It is assumed that the hydrological factor exterts an essential influence upon the position and the formation of the above-mentioned deposits in the Ural-Volga districts. The Canadian geologist V.K.Gassou determined the existence of such an influence near Kirkuk (Iraq). V.P,Savchenko occupied himself with the conditions and requirements for the formationof petroleum and natural gas in terraces and anticlinal flexures, and even in very precipitous structures. The papers by M.K.Habbert (Khabbert) and A.P. van Mils are also cited. M.A.Kapelyushnikov occupies himself with the elaboration of a promissing andinteresting theory. Based on the laboratory-investigations it was found that petroleum (and its heavy residues) dissolve in compressed gas at a temperature not exceeding 100°C and subjected to a pressure of 500 to 1000 atmospheres. At a reduced pressure it should be possible at first to catch the heavy fractions and then the lighter ones in special "traps". Another relevant task

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consists in working out the theory of differential trapping (differentsial'naya trappirovka). It was found that the gases under certain conditions gather in the lower structures, but the petroleum in the higher ones. Finally the problem of the absolute age of the petroleum remains open. But this problem considered important by the author can also be solved. The geologists already employ the methods of isotopes in other cases, but none of the hitherto- existing methods is applicable to petroleum. Therfore a new method has to be found. Especially the chemistry of isotopes as nuclear physics in connection with gas- and hydrodynamics may be of greatest use to the geology of petroleum. There are 13 references 1o of which are Slavic.

ASSOCIATION: AN SSSR (AS USSR)

AVAILABLE: Library of Congress

FEDOROV, S.F.

Evaporation in forests. Trudy GOI no.59:74-133 '57. (MIRA 11:3)
(Forest influences) (Evaporation)

SARKISYAN, Sergey Galustovich,; FEDOROV, S.F., otv. red.; SHAPOVALOVA, G.A., red. izd-va,; KISELEVA, A.A., tekhn. red.

[Mesozoic and Tertiary deposits in the Baikal region] Mezozoiskie i tretichnye otlozheniia Pribaikal'ia, Zabaikal'ia i Dal'nego Vostoka. Moskva, Izd-vo Akad. nauk SSSR, 1958. 336 p. (MIRA 11:10)

1. Chlen-korrespondent AN SSSR (for Fedorov).
(Geology, Stratigraphic)

AUTHOR: Fedorov, S. F., Corresponding Member, Academy of Sciences, USSR 2o-119-6-45/56

TITLE: The Conditions for the Formation of Petroleum and Gas Fields in Various Petroleum-Bearing Areas of the USSR
(Usloviya obrazovaniya neftyanykh i gazovykh mestorozhdeniy v ryade neftenosnykh oblastey USSR)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 119, Nr 6, pp. 1212-1215 (USSR)

ABSTRACT: Every mineral oil- and gas-bearing area is different from others with respect to structural particulars. These geological particulars are also connected with those of the field formation of mineral oil and -gas. However, besides the differences also a number of common rules governing can be determined. The following regions are discussed: 1) Ukhto-Pechorskaya, 2) Povolzh'ye of Kuybyshev, 3) Povolzh'ye of Saratov and 4) the mineral oil-bearing area of Kuban'. The author determines the following rules governing the formation of mineral oil- and -gas

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fields: Mineral oil and gas were produced in depression zones. In an upward motion according to the regional rise of the layers, the layers first found during migration are saturated with gas, the following ones with gas and mineral oil (if the gas was not consumed for the purpose of saturating the structures found first) and the following ones with mineral oil only. In other words, the mineral oil and gas fields in the discussed regions were formed according to the law of differential "trapping" (Refs. 2, 4). This rule governing can only be modified in some measure, or complicated by the unequal history of development of this or that region, however, never essentially be modified. It can be employed as guide on the occasion of searching for new mineral oil- and-gas fields. Naturally, besides the total geological rules governing each region also local complications, so-called microzones, possibly can exist, which contradict to the total rules governing. Consequently, the causes of this phenomenon are to be found in the geological history of the region referred to.

The Conditions for the Formation of Mineral Oil and Gas Fields in Various Mineral Oil-Bearing Areas of the USSR 20-119-6-45/56

There are 4 figures and 12 references, 11 of which are Soviet.

ASSOCIATION: Institut nefti Akademii nauk SSSR (Petroleum Institute AS USSR)

SUBMITTED: December 30, 1957

Card 3/3

FEDOROV, S.F.

Comparative evaluation of oil and gas potentials of Siberia and the Far East. Trudy Inst.nefti 9:5-35 '58. (MIRA 12:4)
(Siberia--Petroleum geology)
(Siberia--Gas, Natural--Geology)

YURKEVICH, Iosif Andreyevich. Prinimali uchastiye: FEDOROV, S.F.; VINOGRADOV, V.L., nauchnyy sotrudnik; KOZYREVA, N.A., nauchnyy sotrudnik; PEREVEDENTSEVA, M.I., nauchnyy sotrudnik; FEYRABENT, V.A., nauchnyy sotrudnik. MIRONOV, S.I., akademik, otv.red.; SHOBOLOV, S.P., red. izd-va; GUSEVA, A.P., tekhn.red.

[Facies and geochemical characteristics of Meso-Cenozoic deposits of the eastern part of Western Siberia] Fatsial'no-geokhimicheskaia kharakteristika mezo-kainozoiskikh otlozhenii Vostochnogo Zaural'ia. Moskva, Izd-vo Akad.nauk SSSR, 1959. 114 p. (MIRA 12:4)

1. Rukovoditel' Vostochnoy kompleksnoy nefte-gazovoy ekspeditsii AN SSSR (for Fedorov). 2. Chlen-korrespondent AN SSSR (for Fedorov). 3. Laboratoriya genezisa nefti (for Mironov, Vinogradov, Kozyreva, Perevedentseva, Feyrabent).
(Siberia, Western--Geology, Stratigraphic)

BUBLIKOV, Yevgeniy Vladimirovich, inzh.; VINARSKIY, Yerim Naumovich, inzh.; DANCHICH, Valeriy Valerianovich, inzh.; DOKUKIN, Oleg Semenovich, inzh.; LINKOV, Aleksandr Viktorovich, inzh.; TELEPNEV, Dmitriy Yakovlevich, inzh.; FEDOROV, Sergey Vasil'yevich, inzh.; FEDOROV, Georgiy Dmitriyevich, inzh.; YAKUSHIN, Nikolay Petrovich, kand.tekhn. nauk, inzh.; ZHADAYEV, V.G., otv.red.; SMIRNOV, L.V., red.izd-va; SABITOV, A., tekhn.red.

[Selection of equipment for vertical shaft sinking] Vygor oborudovaniia dlia prokhodki vertikal'nykh stvolov shakht. Moskva, Ugletekhizdat, 1959. 251 p. (MIRA 12:8)

1. Sotrudniki Ukrainskogo Nauchno-issledovatel'skogo instituta organizatsii i mekhanizatsii shakhtnogo stroitel'stva (UkrNIIOMShS) (for all except Zhadayev, Smirnov, Sabitov).

(Shaft sinking) (Mining machinery)

Fedorov, S.F.

3(4,7) PHASE I BOOK EXPLOITATION SOV/2440

Vsesoyuznyy gidrologicheskiy s"yezd, 3rd, Leningrad, 1957.

Trudy...t. III: Sektsiya gidrofiziki (Transactions of the 3rd All-Union Hydrological Convention. v. 3: Hydrophysics Section) Leningrad, Gidrometeoizdat, 1959. 470 p. Errata slip inserted. 2,000 copies printed.

Sponsoring agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR.

Resp. Ed.: V.A. Uryvayev; Ed.: V.S. Protopopov; Tech. Ed.: M.I. Braynina.

PURPOSE: This work is intended for meteorologists, hydrologists, and hydrophysicists, particularly those engaged in the study of snow and ice and evaporation processes.

COVERAGE: This book contains papers on hydrophysics which were presented and discussed at the Third All-Union Hydrological Conference in Leningrad, October 1957. The Conference published 10 volumes on various aspects of hydrology of which this is number 3. The editorial board in charge of the series include: V.A. Uryvayev (Chairman), O.A. Alekin, Ye.V. Bliznyak (deceased), O.N. Borsuk, M.A. Velikanov, L.K. Davydov, A.P. Domanitskiy, G.P. Kalinin, S.N. Kritskiy, B.I. Kudelin, L.F. Manoim, M.F. Menkel', B.F. Orlov, I. V. Popov, A.K. Proskuryakov, D.L. Sokolovskiy, O.A. Spengler, A.I. Chebotarev, and S.K. Cherkavskiy. This volume is divided into 2 sections: the first contains reports from the subsection for the study of evaporation processes, and the second contains reports from the snow and ice subsection. References accompany each article.

(9)

FEDOROV, S.F.

Formation of oil and gas pools. Sov.geol. 2 no.4:3-20 Ap '59.
(MIRA 12:7)

1. Institut nefti AN SSSR.
(Petroleum geology) (Gas, Natural--Geology)

NUSIMOVICH, Georgiy Yakovlevich; NIKITIN, Mikhail Dmitriyevich; FEDOROV, Sergey Fedorovich; SLITSKAYA, I.M., inzh., red.; SHILLING, V.A., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Centrifugal casting of supercharger wheels] TSentrobezhnoe lit'e koles nagnetatelei. Leningrad, 1961. 17 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Liteinoe proizvodstvo, no.1) (MIRA 14:7)
(Centrifugal casting)

SARKISYAN, Sergey Galustovich; MIKHAYLOVA, Nelli Aleksandrovna, Prinimali uchastiye: NIKITINA, R.G., nauchnyy sotr.; TROFIMU, I.A., nauchnyy sotr.; FEDOROV, S.F., otv. red.; STOLYAROV, A.G., red. izd-va; VOLKOVA, V.G., tekhn. red.

[Paleogeography of the period of the formation of the terrigenous Devonian stratum in Bashkiria and Tatar A.S.S.R.] Paleogeografiia vremeni obrazovaniia terrigennoi tolshchi devona Bashkirii i Tatarii. Moskva, Izd-vo Akad. nauk SSSR, 1961. 231 p. (MIRA 15:1)

1. Chlen-korrespondent AN SSSR (for Fedorov).
(Bashkiria—Paleogeography) (Tatar A.S.S.R.—Paleogeography)

YEREMENKO, Nikolay Andreyevich; FEDOROV, S.F., retsenzent; MEKHTIYEV, Sh.F., akad., retsenzent; VASSOYEVICH, N.B., doktor geol.-mineral. nauk, prof., retsenzent; BROD, I.O., doktor geol.-mineral. nauk, prof., red.; IONEL', A.G., ved. red.; VORONOVA, V.V., tekhn. red.

[Petroleum and gas geology] Geologiia nefti i gaza. Pod red. I.O.Broda. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1961. 372 p. (MIRA 14:11)

1. Chlen-korrespondent AN SSSR (for Fedorov). 2. AN Azerbaydzhanskoy SSR (for Mekhtiyev).
(Petroleum geology) (Gas, Natural—Geology)

FAYNSHTEYN, David L'vovich; FEDOROV, S.F., red.

[Use of geometric loci in solving problems in descriptive geometry] Primenenie geometricheskikh mest v resheniiakh zadach nachertatel'noi geometrii; uchebnoe posobie po kursu "Nachertatel'naia geometriia." Leningrad, Leningr. politekhn. in-t M.I.Kalinina, 1962. 37 p. (MIRA 16:10)
(Geometry, Descriptive)

BELYANKIN, D.S., akademik; BETEKHTIN, A.G., akademik; BORISYAK, A.A., akademik; GRIGOR'YEV, A.A., akademik; NALIVKIN, D.V., akademik; SHATSKIY, N.S., akademik; VLASOV, K.V.; ZHEMCHUZHNIKOV, Yu.A.; ORLOV, Yu.A.; FEDOROV, S.F.; KUZNETSOV, I.V., red.; MIKULINSKIY, S.R., red.; KUZNETSOVA-YERMOLOVA, Ye.B., red.; KRYUCHKOVA, V.N., tekhn. red.

[Russian scientists; sketches about outstanding workers in natural sciences and technology; geology and geography] Liudi russkoi nauki; ocherki o vydaiushchikhsia deiateliakh estestvoznaniia i tekhniki. Geologiia, geografiia. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1962. 579 p. (MIRA 15:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Vlasov, Zhemchuzhnikov, Orlov, Fedorov).
(Geology) (Geography)

YERSHOV, Ye.M.; SUCHKOV, V.I.; SHUMOV, V.P.; FEDOROV, S.F.

Apparatus for amplitude and phase measurements in the inductive method. Geofiz.razved. no.4:48-64 '61. (MIRA 14:7)
(Electromagnetic prospecting)

FEDOROV, S. F.

Principles governing the formation of petroleum and gas deposits.
Dokl. AN SSSR 141 no.1:185-188 N '61. (MIRA 14:11)

1. Chlen-korrespondent AN SSSR.
(Petroleum geology)
(Gas, Natural--Geology)

FEDOROV, S.F.

Effect of forests on the water balance of small drainage basins according to the data of the Valdai Hydrological Research Laboratory. Trudy GGI no.95:55-100 '62. (MIRA 15:6)
(Forest influences) (Valdai Hills—Hydrology)

BORD, I.O.; BURLIN, Yu.K.; KOROTKOV, S.T.; PUSTIL'NIKOV, M.R.; FEDOROV, S.F.; KHAKIMOV, M.Yu.; SHARDANOV, A.N.

Azov-Kuban oil- and gas-bearing basin. Zakonom. razm. polezn. iskop. 5:536-548 '62. (MIRA 15:12)

1. Moskovskiy gosudarstvennyy universitet, Krasnodarskiy sovet narodnogo khozyaystva (tresty "Krasnodarneft'" i "Krasnodarneftegeofizika"), Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR i Kompleksnaya neftegazovaya geologicheskaya ekspeditsiya AN SSSR.
(Azov-Kuban region—Petroleum geology)
(Azov-Kuban region—Gas, Natrual—Geology)

FEDOROV, S.F.

Stepwise migration of oil and gas. Sov. geol. 5 no.7:8-25 Jl '62. (MIRA 15:7)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR.
(Petroleum geology) (Gas, Natural—Geology)

FEDOROV, S.F.; DIENT, K.Ye., KHARIONOVSKIY, R.A.

Geological characteristics, and oil and gas potentials of the Ural Mountain portion of Perm Province. Geol. nefti i gaza 6 no.6:5-11 Je '62. (MIRA 15:6)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR.
(Perm Province--Petroleum geology)
(Perm Province--Gas, Natural--Geology)

FEDOROV, S.F.; OVANESOV, G.P.; VINNITSKIY, Yu.S.; DIMENT, K.Ye.

Geology and prospects for finding oil and gas in Bashkiria.
Sov. geol. 7 no.10:88-97 O '64.
(MIRA 17:11)

1. Institut geologii i razrabotki goryuchikh iskopayemykh.

FEDOROV, S.F.; DIMENT, K.Ye.

Arch uplift in the Ural mountain region of Perm Province.
Dokl. AN SSSR 157 no. 2:341-344 Jl '64. (MIRA 17:7)

1. Chlen-korrespondent AN SSSR (for Fedorov).

FEDOROV, S.F.

Heat balance of forest and field. Trudy GGI no.109:
85-139 '64. (MIRA 17:9)

FEDOROV, S.F., aspirant

Statistical investigation of the dependence of the accuracy of the measurement of horizontal angles on the altitude of trihedral signals. Izv. vys. ucheb. zav.; geod. i aerof. no.3:47-50 '64. (MIRA 18:3)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii.

FEDOROV, S.F.; CHAKHMAKHCHEV, V.A.

Recent data on the regularities of the formation of gas-condensate pools. Neftegaz. geol. i geofiz. no.11:12-16 '64. (MIRA 18:3)

1. Institut geologii i razrabotki goryuchikh iskopayemykh.

FEYGIN, Moisey Vladimirovich; FEDOROV, S.F., otv. red.

[Annastasiyevsko-Troitskoye gas and oil deposit of western Ciscaucasia] Anastasievsko-Troitskoe gazoneftianoe mestorozhdenie Zapadnogo Predkavkaz'ia. Moskva, Nauka, 1965. 85 p. (MIRA 18:9)

1. Chlen-korrespondent AN SSSR (for Fedorov).

FEDOROV, S.F.

Evaporation from forest and field in years different in humidification. Trudy GGI no.123:22-35 '65. (MIRA 18:10)

FEDOROV, S.F., nauchn. sotr., otv. red.

[Tectonic development and the recent structure of oil- and gas-bearing regions in the East European (Russian) Platform] Tektonicheskoe razvitie i sovremennaia struktura neftegazonosnykh oblastei Vostochnoevropeiskoi (Russkoi) platformy. Moskva, Nauka, 1965. 192 p. (MIRA 19:1)

1. Moscow. Institut geologii i razrabotki goryuchikh iskopayemykh.

A new mechanism of plasticity of metallic solid solutions. K. A. Odinov, S. G. [redacted]ov, and K. G. Tatinskii (Inst. Machine Practice, Acad. Sci. U.S.S.R.). *Doklady Akad. Nauk S.S.S.R.* 89, 67–70 (1953) (Engl. translation issued by *Natl. Sci. Foundation, Wash., D.C.* as NSF-tr-19, 5 pp. (June, 1953)).—Alloys in the α-solid soln. region of the Cu-Pb system contg. 2, 5, 8, and 12% Pb were melted and then annealed at 650–700° for 300 hrs. Cylindrical samples were prepd. and annealed *in vacuo* at 700° for 6 hrs. to remove work hardening. The hardness was detd. by impressing for 5 min. *in vacuo* a 4-sided diamond pyramid with a 1-kg. load. Each sample was tested for hardness at 20, 200, 350, 500, 600, 700, and 800°. All hardness indentations were heated to 800° then cooled and measured at room temp. Below 425–525°, depending on the compn., the log of hardness is linear with temp. At higher temp. the log of hardness drops sharply. The deviation from linearity coincides with changes in microstructure in the vicinity of the hardness indents. Below 425–525° slip bands were observed while at a higher temp. instead of slip bands the impressions were surrounded by many small cells considerably smaller than the original course grains. Two limiting hypotheses are: (a) there are no small cells in the original grains and they come into existence in the process of deformation; (b) the cells exist in the original grains and are revealed during deformation. The authors favor the latter hypothesis and cite as evidence the appearance of small grains within larger grains after prolonged electrolytic etching of a cast Ni-5 at. % Cr alloy annealed at 1250° for 10 hrs.

Don T. Cromer

C.A. V-48
Jan 10, 1954
Physical Metallurgy & Physicallography

(3)

FEDOROV, S.G.

Auxiliary tables for selecting sizes of wires and cables for low voltage electric power wiring taking their reactive resistance into account. Prom.energ. 15 no.5:33-35 My '60. (MIRA 13:7)
(Electric wiring--Tables, calculations, etc.)

FEDOROV, S.G., inzh.

Determination of voltage losses in 6 to 10 kv. aluminum cables.
Energetik 9 no.1:32-33 Ja '61. (MIRA 16:7)

(Electric lines)

FEDOROV, S. G.

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Nuclear Sci Abs.
V-7 Nov 30, 1953
Mineralogy,
Metallurgy &
Ceramics

DISPLACEMENT OF GRAIN BOUNDARIES IN ANNEALED METAL. I. A. Oding, M. G. Lozinskii [Lozinsky], and S. G. Fedorov. Translated from Doklady Akad. Nauk S.S.S.R. 91, 75-7(1953). 4p. (NSF-tr-73; D-81-75)

Samples of U-12 steel and Sn bronze were annealed in vacuo by serving as conductors of an a-c current of industrial frequency. The following conclusions were drawn from a photographic examination of the samples. When the grain boundaries are displaced, they preserve their curvilinear shape. The inequality of the contact angles of three adjoining grains also causes displacement. The displacement of the grain boundaries is not continuous but discrete. In U-12 steel the grain boundary "jumps" about 5 to 6 μ; in Sn bronze, about 3.0 to 4.5 μ. (J.S.R.)

S/062/60/000/007/010/017/XX
B004/B064

53630 2209, 1231, 1266

AUTHORS: Kuskov, V. K., Fedorov, S. G., and Vol'fkovich, S. I.

TITLE: The Synthesis of Organic Phosphorus Compounds by Means of Interaction of Phosphoric Anhydride With Aluminum Phenolates

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 7, pp. 1200 - 1205

TEXT: The authors aimed at synthesizing high-molecular organic phosphorus compounds which are stable to high temperatures. They proceeded from phosphoric anhydride, aluminum phenolates, and m-cresolates. An exothermic reaction occurred at 50°C when heating approximately equimolecular quantities of P_2O_5 (7.1 g) and aluminum phenolate (18.3 g) on a sand bath in the presence of 1 g NaOH. After 10 minutes, the mixture attained a temperature of 255°C. After another 15 minutes, heating was interrupted. The reaction product

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The Synthesis of Organic Phosphorus Compounds by Means of Interaction of Phosphoric Anhydride With Aluminum Phenolates

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was extracted with 5% NaOH under shaking. When acidifying with 2 N HCl, a white crystalline powder precipitated. This substance was soluble in alkalies and could be precipitated again by acids. It was insoluble in water and organic solvents and only after long heating dissolved in ethanol amine or pyridine. On cooling the alkaline solution to -2°C, crystals of sodium salt precipitated as long colorless prisms. The phosphorus content of the substance was approximately 12%. Above 350°C, the substance melted and decomposed. It can be readily acetylized. The molecular weight determined from the hydroxyl number was 254 - 258. Picric acid was obtained on nitrating. Decomposition occurred with concentrated sulfuric acid, and a mixture of sulfonic acids and resins formed. Bromination yielded a substance with approximately 47% bromine content which, as far as the outer appearance is concerned, did not differ from the initial substance. The same results were obtained with aluminum-m-cresolate; NaOH as catalyst was not necessary. The authors suggest

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The Synthesis of Organic Phosphorus Compounds by Means of Interaction of Phosphoric Anhydride With Aluminum Phenolates

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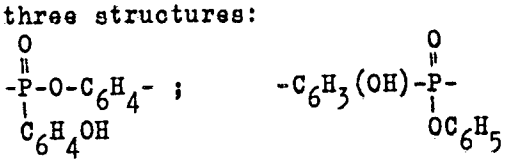
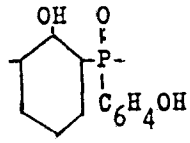
B004/B064

three structures:



(I)

(II)



(III)

Structure III is regarded as the most probable one since it is similar to the structure of the products of the phenol formaldehyde condensation. The joint polycondensation of phenol, paraform, Al-phenolate, and P_2O_5 could be easily carried out. On the other hand, it was not possible to obtain a grafted product from Al-phenolate, P_2O_5 and novolak resin. There are 1 table and 13 references: 1 Soviet, 6 US, 6 German, and 1 Swiss.

Card 3/4

85667

The Synthesis of Organic Phosphorus Compounds by Means of Interaction of Phosphoric Anhydride With Aluminum Phenolates

S/062/60/000/007/010/017/XX
B004/B064

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: January 28, 1959

Card 4/4

...orous and phosphonic acids. A novolac (molecular weight 030) reacted quantitatively at 150-170C with a three-fold excess of ...ethyl ester of methylphosphonic [illegible]

L 23040-65
ACCESSION NR: AP4044081

[illegible] of the novolac at 140-150C with [illegible]

FEDOROV, S.G.; KUSKOV, V.K. [deceased]; MATVEYEVA, L.P.

Azo coupling of novolak resins. Vest. Mosk. un. ser. 2, Khim. 19 no.6:34-36 N-D '64. (MIRA 18:3)

1. Kafedra khimicheskoy tekhnologii Moskovskogo universiteta.

ENT(m) EPF(c)/EWP(j) [illegible]

[illegible]/0071

[illegible] Fedorov, S. G.; Kuskov, V.K. [illegible]

TITLE: Nitration and nitrosation of novolak resins

[illegible] Moscow. Universitet. Vestnik. Seriya 2. Khimiya, no. 2, 1965, 69-71

[illegible] azo

[illegible]

[illegible] of novolak resins were carried out to obtain

produced either by the method of A. A. Vanshteyde, ... and O. Zh. Simonov (Plast. massy, No. 3, 17, 1934), or of D. A. Fraser, R. W. Hall, ... Nitration was started by adding ...

Its physical properties and chemical composition are presented. ...

Card 1/2

ACCESSION NR: AP5011855

aminonovolaks, 10 g of nitronovolak suspension in 100 ml of methano were reacted with $SnCl_2 \cdot H_2O$ solution in concentrated HCl. After warming, filter ng, and partially evaporating, 150 ml of concentrated HCl were added. The tained aminonovolak chlorohydrate was dissolved in methanol and neutralis with sodium acetate to produce light yellow aminonovolak. Azo coupling of the diazotized aminonovolak with an R-salt and with naphthol, and also azo couplin of the diazotized aniline and diazotized n-nitroaniline with aminonovolak, are described, and the products of these reactions are listed. The nitrosation wa started by

and the products of these reactions are listed. The nitrosation wa started by adding 6.7 ml of concentrated HCl to a solution of 5 g in 50 ml of ethanol. Next, 3.7 g of sodium nitrate dissolved in 10 ml of water were added, pro cing the desired precipitate. Its nitrogen contents, obtained by various au horities, are given. Orig. art. has: 2 formulas.

ASSOCIATION: Moskovskiy universitet. Kafedra khimicheskoy tekhnol gii (Moscow University. Department of Chemical Engineering)

SUBMITTED: 01Jun64 ENCL: 00 SUB CODE: OC, MT

NO REF SOV: 001 OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000412630002-3"

L 5101-66 EWT(m)/EPF(c)/T/EWP(j) RM

ACC NR: AP5027230 SOURCE CODE: UR/0020/65/164/006/1327/1330

AUTHOR: Nifant'yev, E. Ye.; Fedorov, S. G.

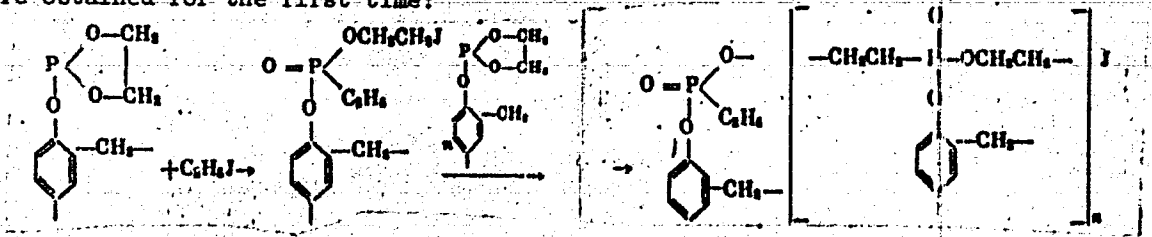
ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Synthetic application of novolak phosphites

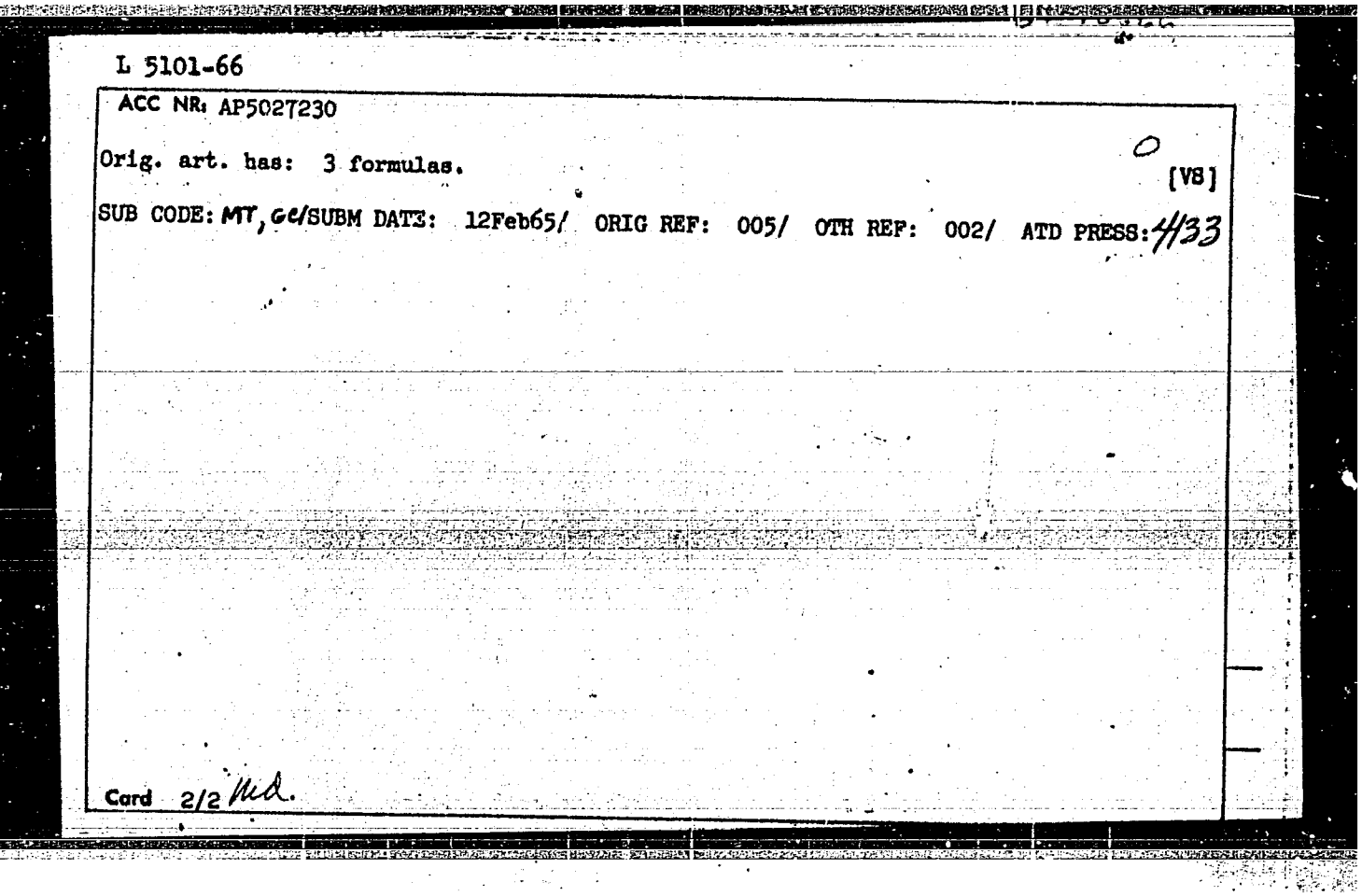
SOURCE: AN SSSR. Doklady, v. 164, no. 6, 1965, 1327-1330

TOPIC TAGS: novolak, phosphite, ester, polymer, phosphorus containing polymer

ABSTRACT: Preparation of phosphites of novolaks had been described in previous publications. In this work, novolak phosphites were allowed to react with chloral, sulfuryl chloride, amines, and mercaptans. The general nature of the reactions and products is characterized. True cross-linked, high-molecular-weight polyphosphonates were obtained for the first time:



Card 1/2 UDC: 547.568.5



L 5101-66

ACC NR: AP5027230

Orig. art. has: 3 formulas. [V8]

SUB CODE: MT, GC/SUBM DATE: 12Feb65/ ORIG REF: 005/ OTH REF: 002/ ATD PRESS: 4133

Card 2/2 Md.

ACC NR: AP6030904 SOURCE CODE: UR/0080/66/039/008/1881/1884

AUTHOR: Fedorov, S. G.; Nifant'yev, E. Ye.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

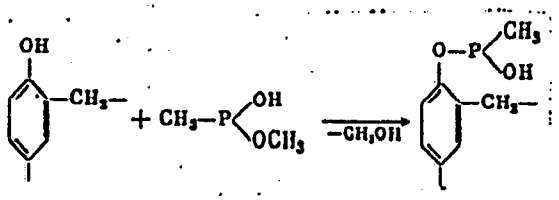
TITLE: Phosphites and phosphonites of novolak resins

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 8, 1966, 1881-1884

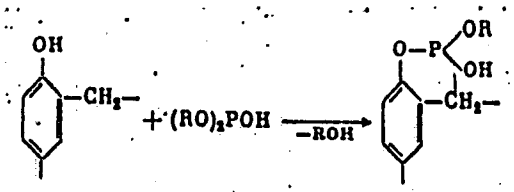
TOPIC TAGS: novolak resin, ~~phosphorylated novolak resin~~ RESIN, PHOSPHORYLATION, POLYMER CROSS LINKING

ABSTRACT: Previous studies of this series showed that new novolak resin-based polymers with desired properties, including thermostable biologically active polymers, may be prepared by replacing the hydroxyl groups of the novolak resin (I) with various functional groups. Eight previously unreported modified novolak resins were obtained by phosphorylation of the resin with esters and amides of phosphonous and phosphinous acids: methyl methylphosphonite (II), dimethyl phosphite (III), di(chloroethyl) phosphite (IV), and triphenyl phosphite (V). Phosphorylation of I with II, III, IV, and V is carried out in a distillation apparatus by heating the reaction mixture for 2 hr, at 170°C in the presence of Na in an inert gas. The reaction of I with II proceeds as follows:

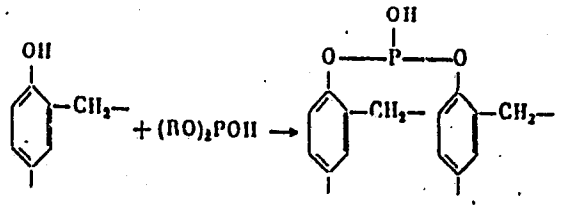
Card 1/5 UDC: 541.6+546.18



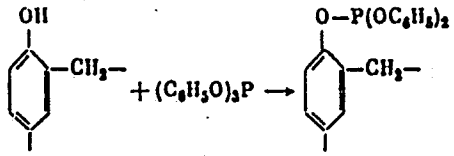
With dialkyl phosphites I reacts differently, depending on its relative amount in the mixture. At low concentration of I, a compound containing mainly fragments of alkylarylphosphosphites are formed:



When the reaction mixture contains an equal number of alkoxy and hydroxy groups, cross-linked phosphites containing mainly fragments of diarylphosphites, are formed:

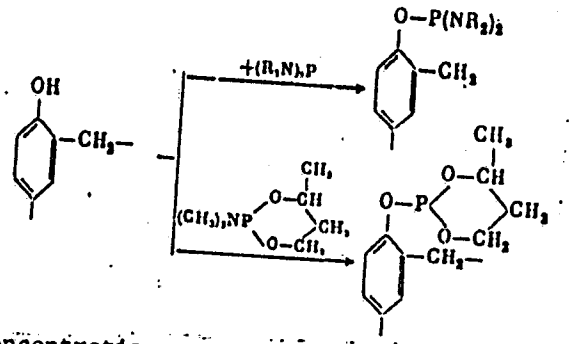


The phosphorylation products are insoluble in organic solvents and decompose on heating without melting. The reaction of I with V in mixtures containing 3 molecules of phosphite per each OH group of the resin yielded monosubstituted polymers:



At lower phosphite (V) concentration, cross-linked polymers are formed. The structure of the phosphorylation product was established by methanolysis and separation of the methanolysis products by paper chromatography. Reactivity of the phosphorylating agents in these reactions decreased in the order II>III>IV>V. Phosphorylation of I

with amides of 1,3-butylenephosphosphonous acid (hexamethyl amide VI, hexaethyl amide VII, and dimethyl amide VIII) proceeds under milder conditions than with the esters. At 100—130°C in an inert gas with an excess of the amide, the reaction proceeds with complete phosphorylation of the resin:



At low amide concentration, cross-linked polymers are formed. All phosphorylation products are solidified by usual methods, e.g., by heating with urotropine, to form thermostable plastics. They are highly reactive and may be used as starting materials in the preparation of polyphospates, polyesters, and other products. Physical

ACC NR: AP6030904

constants and reaction conditions under which the phosphorylated novolak resins are formed are given in the table. [WA-50; CBE No. 11]

Phosphorylating agent	Molar reagent ratio phosphorylating agent: resin (I)	Reaction conditions: Temperature (°C)	Reaction conditions: Time (hrs)	m.p. of reaction product (°C)	Specific viscosity*	Composition P and N in %: Found P	Found N	Calculated P	Calculated N
(II)	3:1	160—170	3	30—50	0.051	18.55 18.69	—	18.45	—
(III)	3:1	170—175	2	95—110	0.083	15.63 15.89	—	16.85	—
(III)	1:1	170—175	3	Decomposed above 360	—	13.32 13.58	—	16.85	—
(III)	1/2:1					10.82 11.26	—	12.01	—
(IV)	3:1	140—145	4	95—100	0.065	13.22 13.49	—	13.33	—
(V)	3:1	170	8	120—150	0.075	9.28 9.45	—	9.63	—
(VI)	3:1	100—110	0.75	—	0.032	12.78 12.83	11.60 11.75	13.84	12.50
(VII)	3:1	135	1.5	—	0.036	11.37 11.45	10.21 10.51	11.07	10.00
(VIII)	1.1:1	135—145	3	100—110	0.027	13.27 13.42	—	13.84	—

Table 1. Phosphorylation of novolak resin

SUB CODE: 07/
SUBM DATE: 20Jul64/
ORIG REF: 010/
OTH REF: 003/

* Solution concentration 0.1 g/10 mls solvent

Card 5/5

FEDOROV, Sergey Ivanovich; VINOGRAD, V.A., red.; IVANOV, V.N., nauchnyy red.

[Mar'ino country estate] Usad'ba Mar'ino. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 83 p. (MIRA 13:6)

(Mar'ino (Kursk Province)--Description)

VOSKRESENSKIY, D.I.; GRANOVSKAYA, R.A.; DERYUGIN, L.N.; FEDOROV, S.I.

Investigation of a delay system with noncontacting plates.
Trudy MAI no.125:43-66 '60. (MIRA 14:7)
(Wave guides) (Delay networks) (Traveling-wave tubes)

80156
S/105/60/000/05/17/028
B007/B008

9,4310

AUTHOR: Fedorov, S.I., Engineer (Moscow)

TITLE: Computation of the Cooling Systems for Semiconductor Triodes

PERIODICAL: Elektrichestvo, 1960, No. 5, pp. 73-76

TEXT: Formula (1) for the maximum dissipated power of a semiconductor triode is written down. The equivalent circuit diagram for the thermal processes in the system semiconductor triode - surrounding medium is shown in Fig. 1. The entire thermal resistance is composed of 4 thermal resistances: the internal one of the triode, that of the radiator, that of the passage from the triode housing to the radiator and that between the triode housing and the surrounding medium. A reduction of the total thermal resistance (Formula (2)) is only possible at the expense of a reduction of $R_{th.pass.}$ (thermal resistance of the passage from triode housing to radiator) and of $R_{th.r.}$ (thermal resistance between triode housing and surrounding medium), the remaining terms in formula (2) being parameters of the respective triode type. It is shown here that when observing the

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necessary conditions, $R_{th.pass.}$ is only a fraction of $R_{th.r.}$ in most cases, and can therefore be neglected. The computation of the radiator consists therefore in the determination of its surface according to its thermal resistance $R_{th.r.}$. If $R_{th.r.}$ is known, the surface of the radiator can be determined from the diagram given in Fig. 4. The formulas from which the curves of this diagram were computed are also written down. The investigations carried out showed that it is easier to compute the radiators according to the optimum equivalent radius: formula (12). In this case the radiator has moreover the smallest thermal resistance, with a given expenditure of metal weight. The correlations between the optimum equivalent radius and the thickness of the radiator material, as well as the correlations between the thermal resistance of the radiator and the optimum equivalent radius are shown in Fig. 6. Radiators with an optimum equivalent radius cannot always be used in practice. More complicated forms (than plates) are therefore also used. One of these radiators is shown in Fig. 7. The possibility of using the graphic method for the computation of the radiator was also tested on it. Some recommendations and hints for the construction of such radiators are given in this connection. The right selection of the maximum temperature for the collector junction is of great importance. The contact places

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Computation of the Cooling Systems for Semiconductor Triodes

S/105/60/000/05/17/028
B007/B008

between radiator and triode as well as those between the individual radiator parts between each other must be clean and have a smooth surface. There are 7 figures and 2 references, 1 of which is Soviet.

SUBMITTED: October 12, 1959

Card 3/3

KONSTANTINOV, A.R.; FEDOROV, S.I.

Using gradient masts to determine evaporation and heat exchange in forests. Trudy GGI no.81:91-114 '60. (MIRA 14:1)
(Valdai Hills—Meteorology—Observations)
(Forest influences)

FEDEROV, S. K.

USSR/Electricity
Heating
Concrete

Jun 49

"Use of a System of Maxwell's Equations for Computing the Resistance Between Electrodes in the Initial Electrical Heating of Concrete," Docent A. V. Netushil, Cand Tech Sci, K. B. Isayev, S. K. Fedorov, Students, Moscow Power Eng Inst imeni Molotov, 4 pp

"Elektrichestvo" No 6

Passing an electric current directly throughfreshly laid concrete reduces hardening time. Seasonality in concrete construction work and bricklaying has practically been eliminated due to use of electric heating. No calculations had been made for setting of electrodes, and thi s often led to nonuniform heating. Makes necessary calculations for several types of electrodes using Maxwell's equations.

PA 54/49T31

FEDOROV, S. K., and GERASIMOV, I. P.

"World's natural resources belonging to the whole of mankind"

report to be submitted for the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas - Geneva, Switzerland, 4-20 Feb 63.

1. FEDOROV, S. M.

2. USSR (600)

7. "Pests and Diseases of Tree Plantings in the Zheleznovodsk Health Resort Park", Materialy po Izucheniyu Stavropol'skogo Kraya, No 2-3, 1950, pp 85-101.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

FEDOROV, S.M.

Biological foundations of phylloxera control. Ent.obor. 38 no.1:82-97 '59. (MIRA 12:4)
(Phylloxera)

FEDOROV, S. M.[deceased]

Biology of the grasshoppers Bradyporus multituberculatus F.-W. and Onconotus laxmanni Pall. (Orthoptera, Tettigonoidea) in the steppes of Ciscaucasia. Ent. oboz. 41 no.4:751-762 '62. (MIRA 16:1)

(Caucasus, Northern--Locusts)

FEDOROV, S.N.

VINTAYKIN, Ye.Z.; GHUZIN, P.L.; FEDOROV, S.N.

Determining sublimation temperatures by means of the mass-spectrograph. Zav.lab.21 no.7:835-837 '55. (MLRA 8:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Sublimation (Chemistry)) (Mass spectrometry)

FEDOROV, S.

Isayev, K. and Fedorov, S. - "The calculation of resistances in semi-conductor mediums aided by Maxwell's formulas," Trudy Studench. nauch.-tekhn. o-va (Mosk. energet. in-t im Molotova), Issue 3, 1949, p. 12-19

SO: U-4355, 14 August 53. (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

FEDOROV, S. M.

AID P - 3390

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 5/30

Author : Fedorov, S. M., Eng.

Title : Adjusting the operation of pneumatic stokers for anthracite

Periodical : Energetik, 10, 10-11, O 1955

Abstract : The author describes the adjusting work done in the boiler rooms of the Novocherkassk Electrode Plant and of the plant "Pobedit". The boilers adjusted were of the DKV 6.5/13 and Shuchov-Berlin A-5 types with pneumatic stokers of the PMZ and PMR^{V} types, operating on anthracite coal of the ARSh mark. The author describes the details of the adjustments and the results obtained.

Institution : None

Submitted : No date

FEDOROV, S.M. (Leningrad)

Using the method of logarithmic frequence characteristics for the synthesis of parallel corrective circuits of servosystems [with English summary in insert]. Avtom.i telem. 17 no.9:847-852 S '56. (MLRA 9:11)

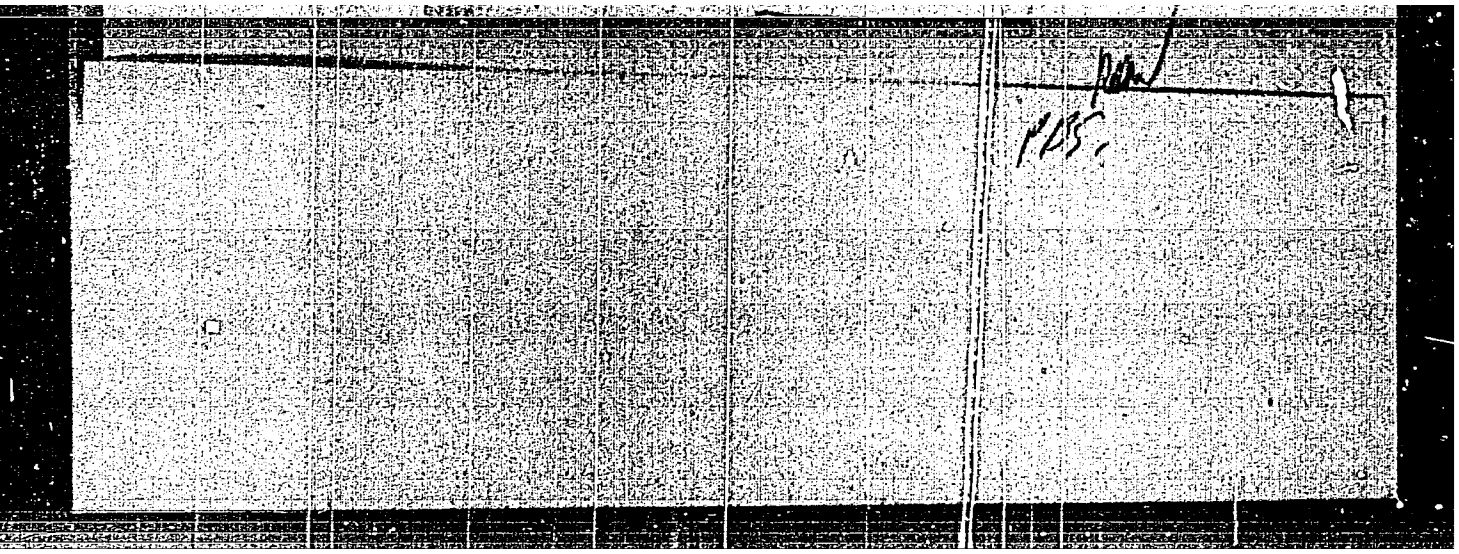
(Servomechanisms)

FEDOROV S. M.

Using Vibration amplifiers in Servomechanisms.

VIBRATSIONNYE USILITELI I IKH PRIMENENIE V SLEDIASHCHIKH SISTEMAKH. Ia. E. Gekallo and S. M. Fedorov. Avtomatika & Telemekhanika, Oct., 1956, pp. 921-928. In Russian. Investigation of the performance of some vibration amplifiers designed on polarized relays with self-excitation and with excitation from an external source. Application to servomechanisms is also analyzed.

2



FEDOROV, S.M., dots., kand. tekhn. nauk.

Dynamics of hydraulic drives. Trudy LVMI no.6:234-241 '57.
(Machine tools—Hydraulic driving) (MIRA 11:5)

8(2) PHASE I BOOK EXPLOITATION SOV/1290

Besekerskiy, Viktor Antonovich, V.P. Orlov, L.V. Polonskaya, and S.M. Fedorov. Proyektirovaniye sledyashchikh sistem maloy moshchnosti (Design of Low-power Servo Systems) Leningrad, Sudpromgiz, 1958. 508 p. 9,000 copies printed.

Ed. (title page); Besekerskiy, Viktor Antonovich; Scientific Ed.; Khrushchev, V.V.; Ed. (inside book): Shaurak, Ye. N.; Tech. Ed.: Levochkina, L.I.

PURPOSE: The book is intended for engineers engaged in the design and development of servo systems. It may also be useful to students of vuzes specializing in automatic control.

COVERAGE: The authors describe the principles of designing low-power servo systems (100-200 watts). The first part of the book deals with general problems of synthesizing servo systems. It also discusses the requirements for stability, accuracy, and smooth operation of servo systems at low speeds. The second part describes problems of synthesizing some special types of servo

Card 1/21

systems, such as gyrostabilizers, amplifiers with large feedback, and servos using stabilizing and integrating systems. The third part discusses problems of designing individual system components. The material of the first and second parts is based on a dissertation written by V.A. Besekerskiy. The book does not discuss the theory of automatic control. The authors assume that the reader has a sufficient background in the field of automatic control and telemechanics. They thank Professor D.V. Vasil'yev and Docent V.V. Khrushchev for reviewing the manuscript. There are 119 references of which 104 are Soviet (including 7 translations), and 15 English.

TABLE OF CONTENTS:

PART I. GENERAL PROBLEMS IN THE SYNTHESIS OF SERVO SYSTEMS

PART II. PROBLEMS IN THE SYNTHESIS OF SOME SPECIAL TYPES OF SERVO SYSTEMS

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