Carborundum-graphite crucibles for ...

crucibles showed the following properties: apparent porosity 19.8%, compressive strength 145 kg/cm^2, electrical volume resistivity 0.0044 ohm · mm^2/m, permeability to gas 0.02 l·m/m^2·hr·mm water column, depth of cavity in a sandblast wearability test 4.9 mm, coefficient of thermal conductivity at 800°C λ= 8.5 kcal/m·hr·degree. Microscopic examination showed that the crucibles contained no metal after use in the OKB-281 furnace. 500 kg carborundum-graphite crucibles have a life of 35-40 copper-chromium melts, and up to 75 for the БХ-08 (BKh-08) bronze. Because of the low resistivity of the crucibles, the furnace could be finely adjusted, the metal melted more rapidly and, besides this, the electro corundum crucible bedding was well fritted. These crucibles are suitable for the producing copper-base alloys with a permissible silicon content of up to 0.02 - 0.03%. There are 2 figures and 5 tables.

Carborundum-graphite crucibles for ...

S/131/62/000/005/001/004
B105/B138

ASSOCIATION: Vsesoyuznyy institut ogneuporov (All-Union Institute of Refractory Materials) (Aleksandrova, T. A., Prokhorova, I. Ya.); Zavod "Krasnyy Tigel'" (Plant "Krasnyy Tigel'") (Galushko, N. A.); Zavod "Krasnyy Vyborzhets" (Plant "Krasnyy Vyborzhets") (Shabashov, Ya. F., Frumkina, Yu. A.).

Card 3/3

ALEKSANDROVA, T.A.; NOVIKOV, O.V.; PILOYAN, G.A.; GEVORKYAN, Kh.D.; BABYSHEV, I.V.

Forsterite refractories from Shorzha dunites. Ogneupory 28 no.11:493-494 '63. (MIRA 16:12)

1. Vsesoyuznyy institut ogneuporov (for Aleksandrova, Novikov).
2. Sevanskaya geologorazvedochnaya partiya (for Piloyan, Gevorkyan, Babyshev).

GOLUSHKO, N.A.; ALEKSANDROVA, T.A.; PROKHOROVA, I.Ya.; NOVIKOVA, O.V.

Graphite-containing crucibles. Ogneupory 29 no.1:5-11 '64.
(MIRA 17:3)

1. Luzhskiy zavod "Krasnyy Tigel'" (for Golushko). 2. Vsesoyuznyy institut ogneuporov (for Aleksandrova, Prokhorova, Novikova).

GLEYM, V.G.; TERESHCHENKO, S.G.; ALEKSANDROVA, T.A.

Process of air bubbling through mineral oil emulsion. Zhur. prikl. khim. 37 no. 5:1014-1020 My '64. (MIRA 17:7)

1. Rostovskiy-na Donu institut inzhenerov zheleznodorozhnogo transporta.

ALEKSANDROVA, T.A., kand. tekhn. nauk; PROKHOROVA, I.Ya., inzh.

Russian and imported graphite-containing crucibles. Trudy Inst. ogneup. no.35:127-136 '63. (MIRA 17:12)

ALEKSANDROVA, T.A.; PROKHOROVA, I.Ya.

Investigating the daub used for the lining of electric channel furnaces. TSvet. met. 37 no.9:88-90 S '64. (MIRA 18:7)

GLEYM, V.G.; ALEKSANDROVA, T.A.; TERESHCHENKO, S.G.

Air bubbling through hydrocarbons and their mixtures.
Khim. i tekh.topl. i masel 10 no.11:23-25 N '65.
(MIRA 19:1)

ALEKSANDROVA, T.A.; PROKHOROVA, I.Ya.; SHAPIRO, Ye.Ya.; [illegible], A.V.; POPEREKOV, V.A.

Manufacture and testing of high-alumina hearth bottom blocks for channel type induction furnaces. TSvet.met. 38 no.7:89-90 Jl '65. (MIRA 18:8)

ALEKSANDROVA, T.D.

Seminar on the use of punched cards in geology and geography.
Izv. AN SSSR. Ser. geog. no.4:145-147 Jl-Ag '65.
(MIRA 18:8)

PREOBRAZHENSKIY, V.S., kand.geogr.nauk; ZHUKOV, V.M., kand.geogr. nauk; MUKHINA, L.I., kand.geogr.nauk; NEDESHEV, A.A., kand. geogr.nauk; ALEKSANDROVA, T.D.; GOVSH, R.K., inzh.; LEYTES, A.M., nauchnyy sotr.; CHEKMENEV, V.Ye., red. izd-va; TIKHOMIROVA, S.G., tekhn. red.

[Natural conditions of the reclamation of the northern part of Chita Province] Prirodnye usloviia osvoeniia Severa Chitinskoi oblasti. Moskva, Izd-vo Akad. nauk SSSR, 1962. 125 p. (MIRA 15:7)

1. Akademiya nauk SSSR. Institut geografii. 2. Institut geografii Akademii nauk SSSR (for Zhukov, Mukhina). 3. Zabaykal'skiy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya (for Nedeshev, Aleksandrova). 4. Zabaykal'skoye upravleniye Gidrometeorologicheskoy sluzhby (for Govsh). 5. Institut geologii Akademii nauk SSSR (for Leytes).

(Chita Province--Physical geography)

ALEKSANDROVA, T.D.; MUKHINA, L.I.; PREOBRAZHENSKIY, V.S.

"Collection of regional studies." Reviewed by T.D.Aleksandrova, L.I.Mukhina, V.S.Preobrazhenskii. Izv. AN SSSR. Ser. geog. no.2:131-132 Mr-Ap '62. (MIRA 15:3)
(Buryat-Mongolia--Geography)

ALEKSANDROVA, Tat'yana Davydovna; PREOBRAZHENSKIY, Vladimir Sergeyevich; MUKHINA, L.I., kand. geogr. nauk, otv. red.

[Landforms of the small depressions of mountain taigas] Landshafty malykh kotlovin gornoi taigi. Moskva, Izd-vo "Nauka," 1964. 86 p. (MIRA 17:4)

ALEKSANDROVA, T.D.

Practice in using perforated cards with marginal perforation in landform studies. Izv. AN SSSR Ser. geog. no.6:92-97 N-D '64 (MIRA 18:1)

1. Institut geografii AN SSSR.

ALEKSANDROVA, T.D.

Natural conditions of the Dzhemku-Kitemyakhta Depression. Zap. Zabaik. otd. Geog. ob-va SSSR no. 24:87-98 '64 (MIRA 19:1)

25(1) PHASE I BOOK EXPLOITATION SOV/1878

Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Institut stali

Prokatnoye i truboprokatnoye proizvodstvo (Rolling and Tube Rolling) Moscow, Metallurgizdat, 1959. 268 p. (Series: Its: Stornik trudov, vyp. 15) Errata slip inserted. 2,500 copies printed.

Sponsoring Agency: USSR. Gosudarstvennyy planovyy komitet.

Ed.: I. P. Bardin; Ed. of Publishing House: E. A. Valov; Tech. Ed.: A. I. Rudov.

PURPOSE: This collection of articles may be of interest to scientific workers, process engineers in rolling and tube-rolling plants, and students of metallurgical theme.

COVERAGE: The articles describe work done at the laboratory for metal forming at the Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute of Ferrous Metallurgy). Some theoretical and practical problems of hot and cold rolling of simple and intricate shape and tubes are considered. Many of the articles discuss results of scientific research carried out under actual operating conditions.

ALEKSANDROVA, T.K.

ALEKSANDROVA, T.K., inzh.

Designing rolls for cold rolling. Sbor.trud.TSNIICHM no.16:102-110 '59. (MIRA 12:5)
(Rolls (Iron mills))

L 36138-66 EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HM
ACC NR: AT6016764 (N) SOURCE CODE: UR/2776/65/000/042/0077/0084

AUTHOR: Aleksandrova, T. K.; Kanunnikova, A. M.

ORG: none

TITLE: Rolling of titanium-iron bimetal

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 42, 1965. Proizvodstvo bimetallov (Production of bimetals), 77-84

TOPIC TAGS: metal cladding, bimetal, titanium, iron, hot rolling

ABSTRACT: The object of this investigation was to obtain bimetal strips up to 0.1 mm thick on using armco iron and VT1-1 titanium. Comparative rolling at normal and elevated temperatures was performed. The assembled and welded strips were hot-rolled in a two-high mill or cold-rolled in a strip mill, and annealed to increase their plasticity. These experiments demonstrated the possibility of the hot pack rolling of bimetal titanium-iron strip at temperatures of ~700°C contrary to the established opinion that the optimal temperatures of such rolling are 950-1000°C; the strength of adhesion between iron and Ti then remains adequate provided that: the gas content of Ti is confined to 0.068% O, 0.0084% H, 0.044% N; the welded surfaces of Ti and iron are thoroughly cleaned with a brush just prior to their rolling; and iron is annealed at 600-650°C in order to maximally adjust its plasticity to that of titanium prior to rolling. Mechanical tests of the hot-rolled bimetal strip were satisfactory :

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L 36138-66

ACC NR: AT6016764 1

twisting and bending of specimens through an angle of 180°C produced no exfoliation. Subsequent cold rolling of the specimens resulted in a strip 0.1-0.3 mm thick which, after annealing, displayed satisfactory plasticity. The possibility of obtaining 0.1 mm thick cold-rolled bimetal strip by combined rolling of titanium strip and iron strip was confirmed. Orig. art. has: 7 figures, 2 tables.

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 004

Joining of Dissimilar Metals

Card 2/2

L 36142-66 EWT(m)/EWP(w)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW/WB/EM/JT

ACC NR: AT6016768 (N) SOURCE CODE: UR/2776/65/000/042/0127/0132

AUTHOR: Aleksandrova, T. K.; Balakina, I. A.; Kanunnikova, A. M.

ORG: none

TITLE: New All-Union State Standard for hot-rolled corrosion-resistant laminated steel plate

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 42, 1965. Proizvodstvo bimetallov (Production of bimetals), 127-132

TOPIC TAGS: SCIENTIFIC STANDARD, chromium steel, nickel steel, low alloy steel, bimetal, metal cladding, industrial condition / Kh18N10T steel, Kh18N9T steel, Kh17N13M2T steel, OKh13 steel, 16GS low alloy steel, 09G2S low alloy steel, 09G2 low alloy steel

ABSTRACT: Owing to the sharp expansion of the output of laminated stainless steel plate beginning with 1960, it became necessary to establish a special GOST (All-Union State Standard) for this plate. This new GOST (GOST 10885-64, issued in 1964) specifies the technical conditions and requirements for the fabrication of laminated steel plate and sheets 4 to 160 mm thick, with the cladding layer being represented by the

Card 1/2

L 36142-66

ACC NR: AT6016768

the Cr-Ni and Ni steels Kh18N10T, Kh18N9T, OKh13 and Kh17N13M2T as well as by nickel, and the base layer, by low-alloy steels 16GS, 09G2S, 09G2 and 10KhSND, along with simple carbon steels of the St. class. The new GOST also includes such innovations as the determination of the tenacity of the welding of the base and cladding layers; it is highly important to users that bimetal sheets behave like solid sheets and do not split during their cutting, stamping and other operations involved in constructing chemical and electronic apparatus from these steels: the shear strength of the cladding layer must be at least 15 kg/mm^2. The introduction of this new GOST will doubtless create the conditions for improving the quality and broadening the variety of the output of bimetals and offer a broader selection of laminated plate and sheets to users. Orig. art. has: 5 figures, 1 table.

SUB CODE: 13, 11, 05 / SUBM DATE: none/ ORIG REF: 002

Joining of Dissimilar Metals

Card 2/2

L 36141-66 EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HM

ACC NR: AT6016767 (N) SOURCE CODE: UR/2776/65/000/042/0115/0119

AUTHOR: Kokorin, G. A.; Aleksandrova, T. K.

ORG: none

TITLE: Investigation of the transition layer in iron-titanium bimetal

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 42, 1965. Proizvodstvo bimetallov (Production of bimetals), 115-119

TOPIC TAGS: phase composition, metal rolling, titanium, iron, bimetal, metal cladding, metal diffusion, metal film, solid solution, nitride / VT1-1 titanium

ABSTRACT: A fine transition layer of interdiffusion forms between iron and titanium in the course of hot cladding. In this connection, the authors present the results of radiographic, electronmicroscopic and electron-diffraction analyses of the microstructure and phase composition of this layer in hot-pack-rolled iron-titanium bimetal strip (armco iron and VT1-1 titanium) 0.2-0.3 mm thick which had been annealed at 550-700°C for 30 min and subsequently cold-rolled. It is established that this interdiffusion layer consists of solid Fe- and Ti-base solid solutions and its overall thickness is 4-5 μ. The bimetal obtained by hot cladding was cold-rolled into thin bimetal strip. In some cases this caused Ti to peel off the base layer. It was estab-

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L 36141-66

ACC NR: AT6016767

lished that this exfoliation occurs in cases where the reduction in the area of the annealed bimetal specimens during the first roll pass is less than 45-50%. If the reduction in area during the first roll pass exceeds 50%, there is no exfoliation and the bimetal may be further rolled to the desired dimensions. A thin separating film of titanium nitrides is found to exist at the Fe-Ti interface; it forms during the assembling and welding of the laminated strip prior to its rolling. The presence of titanium nitrides in the form of this discontinuous thin film strongly reduces the strength of adhesion between the cladding layer and the base layer. As a result, during final rolling Ti peels off the Fe layer. This film may be eliminated or prevented by performing the final rolling in a vacuum or by resorting to cold cladding of thoroughly cleaned surfaces. Orig. art. has: 5 figures.

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 004

Joining of Dissimilar Metals

Card 2/2

ALEKSANDROV, B.M., nauchnyy sotrudnik; ALEKSANDROVA, T.N., nauchnyy sotrudnik; BELYAYEVA, K.I., nauchnyy sotrudnik; GORBUNOVA, Z.A., nauchnyy sotrudnik; GORDEYEVA-PERTSEVA, L.I., nauchnyy sotrudnik; GORDEYEVA, L.N., nauchnyy sotrudnik; GULYAYEVA, A.M., nauchnyy sotrudnik; DMITRENKO, Yu.S., nauchnyy sotrudnik; ZABOLOTSKIY, A.A., nauchnyy sotrudnik; MAKAROVA, Ye.F., nauchnyy sotrudnik; NOVIKOV, P.I., nauchnyy sotrudnik; POKROVSKIY, V.V., nauchnyy sotrudnik; SMIRNOV, A.F., nauchnyy sotrudnik; STEFANOVSKAYA, A.F., nauchnyy sotrudnik; URBAN, V.V., nauchnyy sotrudnik. Prinimali uchastiye: BALAGUROVA, M.V., nauchnyy sotrudnik; VEBER, D.G., nauchnyy sotrudnik; POTAPOVA, O.I., nauchnyy sotrudnik; SOKOLOVA, V.A., nauchnyy sotrudnik; FILIMONOVA, Z.I., nauchnyy sotrudnik; POPENKO, L.K., nauchnyy sotrudnik; ZYTSAR', N.A., red.; PRAVDIN, I.F., red.; PANKRASHOV, A.P., red.; SHEVCHENKO, L.V., tekhn.red.

[Lakes of Karelia; natural features, fishes, and fisheries] Ozera Karelii; priroda, ryby i rybnoe khoziaistvo; spravochnik. Petroza-vodsk, Gos.izd-vo Karel'skoi ASSR, 1959. 618 p. (MIRA 13:8)

(Continued on next card)

ALEKSANDROV, B.M. --- (continued) Card 2.
1. Russia (1917- R.S.F.S.R.) Karel'skiy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva. 2. Karel'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva (for Aleksandrov, Aleksandrova, Belyayeva, Gorbunova, Gordeyeva-Pertseva, Gordeyeva, Gulyayeva, Dmitrenko, Zabolotskiy, Makarova, Novikov, Pokrovskiy, Smirnov, Stefanovskaya, Urban). 3. Karel'skiy filial AN SSSR (for Balagurova, Veber, Potapova, Sokolova, Filimonova, Popenko).
(Karelia--Lakes)

ALEKSANDROVA, T. S.

PA 243T36

USSR/Engineering - Construction, Materials 31 Aug 52

"Fabrication of Wallboards From Waste of Natural Rubber (Slimes)," Cand Tech Sci A. G. Shatagina, Engr T. S. Aleksandrova, ROSNIIMS

"Byul Stroit Tekh" No 16, p 26

Briefly describes technology of fabricating heat-insulation plates from slimes which represent fibrous portion of roots of rubber-bearing plants. Technology was developed at Laboratory of Heat Insulating Materials of ROSNIIMS. States that each natural rubber factory of standard productive capacity gives several thousand tons of fibrous material during each season of 6-7 months and utilization of slime of only single factory would permit annual production of 1.0-1.5 million sq m of insulating plates.

243T36

ALEKSANDROVA, T.S.; SHMUROVA, E.M.

Biological activity of forest soils in the Voronezh State Preserve. Trudy Vor. gos. zap. no.13:175-178 '61. (MIRA 16:8)

(Voronezh Preserve—Soil biology)

ALEKSANDROVA, T.S.; KIRYUNINA, Ye.I.; ZASYPKINA, Z.V.; GURKINA, A.N.

Two bacteriologically confirmed cases of listeriosis in newborn infants. Zhur. mikrobiol., epid. i immun. 43 no. 1: 142-144 Ja '66. (MIRA 19:1)

1. Tul'skaya oblastnaya sanitarno-epidemiologicheskaya stantsiya. Submitted June 6, 1965.

KALENOV, Aleksandr Kirillovich; VORONIN, Yuriy Alekseyevich; ALEKSANDROVA, V., red.

[Inspection and analysis of the financial and administrative operations of the "Sel'khoztekhnika" organizations; a practical aid] Proverka i analiz finansovo-khoziaistvennoi deiatel'nosti organizatsii "Sel'khoztekhniki"; prakticheskoe posobie. Moskva, Finansy, 1964. 215 p. (MIRA 18:1)

ALEKSANDROVA, V. A., DOLMATOVA, T. V. and KOSSOVSKAYA, Anna G.

"Concerning the character of the changes in clays of trioctahedral, hydromicaceous composition under different environmental conditions"
(Section VIII)

report to be submitted for the Second Conference on Clay Mineralogy and Petrography, Prague, Czech., 10-17 May 1961.

Inst. of Geology, Acad. Sci. USSR, Moscow (for Kossovskaya)

KOSTOVSKAYA, T.G.; DRITS, V.A.; ALEKSANDROVA, V.A.

History of trioctahedral micas in sedimentary rocks. Lit.i pol. iskop. no.2:178-196 '63. (MIRA 17:10)

1. Geologicheskiy institut AN SSSR, Moskva.

KOSSOVSKAYA, A.G.; SHUTOV, V.D.; ALEKSANDROVA, V.A.

Dependence of the mineral composition of clays in coal-bearing formations on the conditions of sedimentation. Lit. i pol. iskop. no.2:20-38 Mr-Ap '64. (MIRA 17:6)

1. Geologicheskiy institut AN SSSR.

MIRCHINK, T.G.; ALEKSANDROVSKAYA, L.F.

Effect of soil fungi toxins on the sugar content in peas. Nauch. dokl. vys. shkoly; biol. nauki no.1:147-150 '65. (MIRA 18:2)

1. Rekomendovana kafedroy biologii pochv Moskovskogo gosudarstvennogo universiteta.

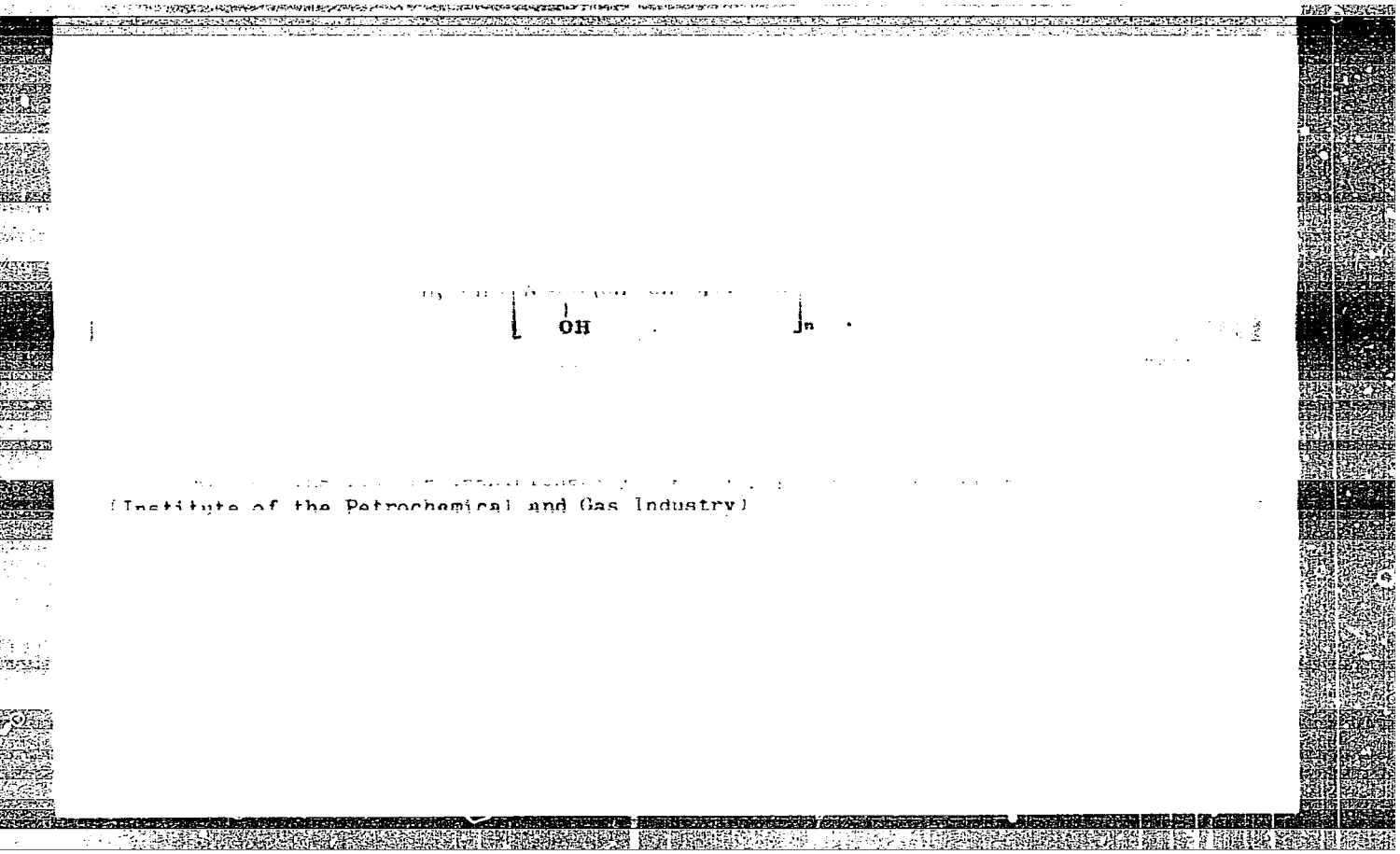
ALEKSANDROVICH, V.A.

Double chlorination of the water of the Grodno water supply system. Zdrav.Belor. 4 no.3:45-47 Mr '58. (MIRA 13:7)

1. Glavnyy vrach Grodnenskoy oblastnoy sanepidstantsii.
(GRODNO--WATER--CHLORINATION)

TOPIC TAGS: [illegible] semiconductor, [illegible] polycondensation, [illegible]

ABSTRACT: A study has shown the feasibility of polycondensation of ammonium bicarbonate with [illegible]



(Institute of the Petrochemical and Gas Industry)

ALEKSANDROVA, V.A.

Increasing the fruit yield of Feijoa by spraying the flowering shrub with water. Biul.Glav.bot.sada no.37:104-107 '60. (MIRA 13:11)

1. Sochinskaya opytnaya stantsiya.
(Feijoa) (Fertilization of plants)

ALEKSANDROVA, V. A.; KOSSOVSKAYA, A. G.; DRITS, V. A.

"About the history of trioctahedral micas in sedimentary rocks."

Report submitted for the International Clay Conference, Stockholm, Sweden, 12-16 Aug 63.

GAVRILOV, A.A.; ALEKSANDROVA, V.A.

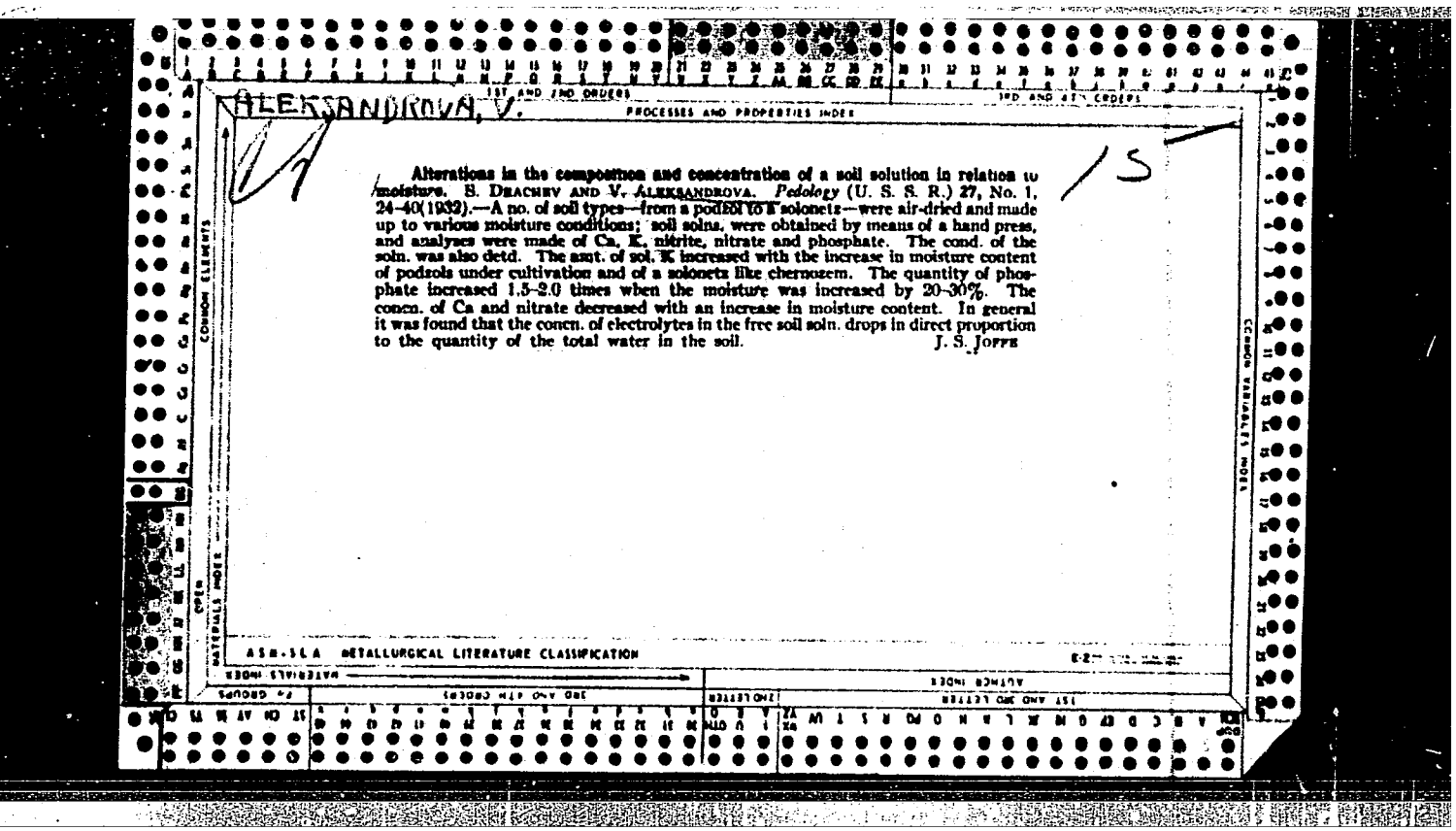
Clay minerals of the Ordovician argillites of the Southern Urals. Dokl. AN SSSR 157 no.4:870-872 Ag '64 (MIRA 17:8)

1. Geologicheskiy institut AN SSSR. Predstavleno akademikom N.M. Strakhovym.

ZALESSKAYA, L.S., kand.arkh.; ALEKSANDROVA, V.D., arkh.; SHKVARIKOV, V.A., red.; DYURNBAUM, N.S., red. [deceased]; KOLESNIKOV, A.I., red.; DOMSHLAK, I.P., red.; BALAKSHINA, Ye.S., arkhitektor, red.; FRIDBERG, G.V., inzh., red.; BRUSINA, L.N., tekhn.red.

[Manual for architects] Spravochnik arkhitektora. Red.V.A. Shkvarikov i dr. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam. Vol.3., pt.2. [Landscaping of cities] Ozelenenie gorodov. Sost. L.S.Zalesskaia i V.D.Aleksandrova. 1960. 463 p. (MIRA 13:9)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut gradostroitel'stva i rayonnoy planirovki.
(Landscape gardening)



ALEKSANDROVA, V.

PROCESSES AND PROPERTIES INDEX

Alterations in the composition and concentration of a soil solution in relation to moisture. S. Dracheev and V. Aleksandrova. *Pedology* (U. S. S. R.) **27**, No. 1, 24–40(1932).—A no. of soil types—from a podsol to a solonetz—were air-dried and made up to various moisture conditions; soil solns. were obtained by means of a hand press, and analyses were made of Ca, K, nitrite, nitrate and phosphate. The cond. of the soln. was also detd. The amt. of sol. K increased with the increase in moisture content of podsols under cultivation and of a solonetz like chernozem. The quantity of phosphate increased 1.5–2.0 times when the moisture was increased by 20–30%. The concn. of Ca and nitrate decreased with an increase in moisture content. In general it was found that the concn. of electrolytes in the free soil soln. drops in direct proportion to the quantity of the total water in the soil. J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ALEKSANDROVA, V. D.

USSR/Geography - Vegetation Jan/Feb 53

"Boundaries of Vegetational Subzones in the Downstream Area of the Yana River," V.D. Aleksandrova

"Iz V-S Geograf Obshch" Vol 85, No 1, pp 98-101

Boundaries of the forest along the Yana extend south to 70° N Lat. The delta of the Yana beginning at its channel lies within the limits of the Arctic tundra. Along the Yana south of the channel of the delta is a narrow zone of "submerged meadows" with brush and forests (mainly willows and poplars).

246T67

ALEKSANDROVA, V.D.

Brief outline of the vegetation along the Don from Voronezh to Rostov-on-Don. Trudy Bot.inst. Ser.3 no.9:545-577 '54. (MLRA 8:4)
(Don Valley--Steppe flora)

ALEKSANDROVA, V.D.

Diversity in the vegetative cover of artificial forest plantations in the southeastern European part of the U.S.S.R. Bot.zhur. 39 no.1:58-75 Ja-F '54. (MLRA 7:3)

1. Kompleksnaya ekspeditsiya Akademii nauk SSSR, Moskva. (Phytogeography)

ALEKSANDROVA, V.D.

ZANIN,G.V.; ALEKSANDROVA,V.D.; KRAVTSOVA,V.I.; SHAVRYGIN,P.I.

Division into natural regions of the new reclaimed farm lands in the Altai Territory. Izv.AN SSSR. Ser.geog. no.2:69-72 Mr-Ap '55. (Altai Territory—Physical geography) (MLRA 8:6)

ALEKSANDROVA, V.D.

ZANIN,G.V.; ALEKSANDROVA,V.D.

Physical geographical characteristics of reclaimed virgin and idle lands in the Altai Territory. Izv.Vses.geog.ob-va 87 no.3:205-219 My-Je '55. (MLRA 8:9)
(Altai Territory--Physical geography)

ALEKSANDROVA, V.D.

The vegetation of the southern island of Novaya Zemlya between 70 56 and 72 12' n.l. Rast. Krain.Ser.SSSR i ee osv. no.2:187-306 '56. (MLRA 10:3)

(Novaya Zemlya--Phytogeography)

Aleksandrova, V.D.

USSR/Forestry. Forest Biology and Typology. J-2

Abs Jour: Referat Zh-Biol., No 6, 1957, 22551

Author : Aleksandrova, V.D.
Inst : 0
Title : Damage to Oaks by the Frost of May 9, 1952 in the Sal'sk Forest Report.

Orig Pub: Soobshch. In-ta lesa AN SSSR, 1956, No 6, 34-44.

Abstract: An account is given of observations on the consequences of a very strong (up to -5° on the ground) late spring frost in the Sal'sk resort of the Romanov forest in the Rostov oblast. The degree of frost damage on oak shoots and oak leaves and some other woody-bushy plants, also of the intensity of rousing of dormant buds and growth of new shoots place of the dying ones on 3 different sections of forest plantings was studied. The damage was noted in the lower portions of crests at a height of 1.5-6 m above soil level. The heaviest damage was noted at the

Card : 1/2

edges of glades, in spots of cold air stagnation, less so on forested borders of open steppes and still less under canopy. In thicker plantings less damage was observed and a fuller and faster restoration of shoots from dormant buds, in place of the dead spring ones, occurred. On the elevated portions of the mycorelief on spots with strongly saline argillaceous dark chestnut soils in a complex with salty marshes, where plantings are thin and low-growing, the damage was significant. Thus, a strong influence is exerted by conditions of humidity and nutrition on the degree of damage of oak plantings and on the energy necessary for restoration of damaged organs.

AIEKSANDROVA, V. D. (Cand. Biol. Sci.) Leningrad

"Phenology of Vegetation."

report presented at a Phenological Conference, Leningrad, Nov 1957.
by the USSR Geographcial Soc, together with Inst. Botany and Zoology AS USSR

ALEKSANDROVA, V.D.

Grass sod in the forest plantations, at their borders and in the steppe glades of the Sal forest tract. Trudy Bot. inst. Ser. 3 no.11: 254-308 '57. (MLRA 10:8)
(Sal Steppe--Steppe flora) (Forest influences)

ALEKSANDROVA, V.D.

Ecological series of plant formations in the Arctic tundra subzone. (MLRA 10:9)
Zemlevedenie 4:208-213 '57.
(Arctic regions--Botany)

ALEKSANDROVA, V.D.

Some features of the distribution of vegetation in the Arctic tundra. Probl.Sev. no.1:173-187 '58. (MIRA 11:12)

1. Botanicheskiy institut im. V.L.Komarova AN SSSR.
(Novaya Zemlya--Tundras)

ALEKSANDROVA, V.D.

Experiment in determining surface and underground resources of vegetable matter in the Arctic tundra. Bot.zhur. 43 no.12: 1748-1761 D '58. (MIRA 11:12)

1. Botanicheskiy institut imeni V.L.Komarova AN SSSR, Leningrad.
(Tundras) (Russia, Northern--Botanical research)

ALEKSANDROVA, V.D.

Significance of B.A. Tikhomirov's work for the study of vegetation in the Soviet North. Biul.MOIP. Otd.biol. 64 no.5:160-163 S-O '59. (MIRA 13:6)
(TIKHOMIROV, BORIS ANATOL'EVICH, 1909-)
(RUSSIA, NORTHERN--BOTANICAL RESEARCH)

ALEKSANDROVA, V.D.

"The concept of climax in Arctic and Alpine vegetation" [in English] by E. Churchill, H. Hanson. Reviewed by V.D. Aleksandrova. Bot. zhur. 44 no.7:1018-1023 Jl '59. (MIRA 12:12)

1.Botanicheskiy institut im. V.L. Komarova AN SSSR, Leningrad.
(Arctic regions--Plant communities)
(Churchill, E.) (Hanson, H.)

ALEKSANDROVA, V.D.

Academician Vladimir Nikolaevich Sukachev; on his 80th birthday and 60th anniversary of scientific activities. Bot. zhur. 45 no.10:1568-1582 O '60. (MIRA 13:11)

1. Botanicheskiy institut imeni V.L.Komarova Akademii nauk SSSR, Leningrad.
(Sukachev, Vladimir Nikolaevich, 1880-)

ALEKSANDROVA, V.D.

Flora of vascular plants of Bol'shoy Lyakhov Island (Novosibirskiye Islands). Bot. zhur. 45 no.11:1687-1693 N '60. (MIRA 13:11)

1. Botanicheskiy institut imeni V.L.Komarova Akademii nauk SSSR, Leningrad.

(Bol'shoy Lyakhov Island--Botany)

ALEKSANDROVA, V.D.

Seasonal dynamics of plant associations in the Arctic. Probl. Sev. no.4:59-74 '61. (MIRA 15:1)
(Bol'shoy Lyakhov Island--Plant communities)

ALEKSANDROVA, V.D.

Plant associations in the light of some cybernetic concepts. Biul. MOIP. Otd. biol. 66 no.3:101-113 My-Je '61. (MIRA 14:6)
(PLANT COMMUNITIES)

RS

ALEXANDROVA, V.D. [Aleksandrova, V.D.]

Problem of development in geobotany. Analele biol 16 no.5:123-147 S-O '62.

ALEKSANDROVA, V.D.

Underground structure of some plant communities of the Arctic tundra on Bol'shoy Lyakhov Island. Probl. bot. 6:148-160 '62.
(MIRA 16:5)

(Lyakhov Islands—Tundras) (Roots (Botany))

AIEKSANDROVA, V.D. (Leningrad)

"Analysis of the Effects of Autoregulation in Phytocoenosis from the Standpoint of Some Notions of Cybernetics"

Report presented at the 3rd Conference on the use of Mathemetics in Biology, Leningrad University, 23-28 Jan. 1961.
(Primeneniye matematicheskikh Metodov v Biologii. II, Leningrad, 1963 pp 5-11)

ALEKSANDROVA, V.D.

Analysis of self-regulation phenomena in the phytocenosis as related to some theories of cybernetics. Prim. mat. metod. v biol. no.2:37-46 '63. (MIRA 16:11)

ALEKSANDROVA, V.D.

A sketch of the flora and vegetation of Bol'shoy Lyakhov Island. Trudy AANII 224:6-35 '63 (MIRA 18:1)

ALEKSANDROVA, V.D.; ZHADRINSKAYA, N.G.

Change of aspects in the tundras of Bol'shoy Lyakhov Island.
Trudy AANII 224:37-53 '63 (MIRA 18:1)

REMEZOV, N.P. [deceased]; RODIN, L.Ye.; BAZILEVICH, N.I.; Prinimali uchastiye: ALEKSANDROVA, V.D.; BORISOVA, I.V.; BYKOVA, L.N.; ZONNA, S.V.; KARPOVA, V.G.; MINA, V.N.; NECHAYEVA, N.T.; PONYATOVSKAYA, V.M.; REMEZOVA, G.L.; SAMOYLOVA, Ye.M.; SMIRNOVA, K.M.; SUKHOVERKO, R.V.

Methodological instructions for studying the biological cycle of ash substances and nitrogen of terrestrial plant communities in the main natural zones of the temperate zone. Bot. zhur. 48 no.6:869-877 Je '63. (MIRA 17:1)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad i Pochvennyy institut imeni V.V. Dokuchayeva Ministerstva sel'skogo khozyaystva SSSR, Moskva.

ALEKSANDROVA, V. D.

"The plant community as an integral system."

report submitted to 10th Intl Botanical Cong, Edinburgh, 3-12 Aug 64.

ALEKSANDROVA, V.D.; ANDREYEV, V.N.; VAKHTINA, T.V.; DYDINA, R.A.; KAREV, G.I. PETROVSKIY, V.V.; SHAMURIN, V.F.

[Forage characteristics of the plants of the Far North] Kormovaia kharakteristika Krainego Severa. Moskva, Nauka, 1964. 483 p. (Rastitel'nost' Krainego Severa SSSR i ee primenenie, no.5).
(MIRA 18:1)

SUKACHEV, V.N., akademik; MOLCHANOV, A.A.; DYLIS, N.V., doktor biol. nauk; TSEL'NIKER, Yu.L.; KARPOV, V.G.; RAFES, P.M.; DINESMAN, L.G.; PEREL', T.S.; YEGOROVA, S.A.; YENIKEYEVA, M.G.; BOL'SHAKOVA, V.S.; ZONN, S.V.; ALEKSANDROVA, V.D.; LEBEDEV, D.V., red.

[Fundamentals of forest biogeocenology] Osnovy lesnoi biogeotsenologii. Moskva, Nauka, 1964. 573 p. (MIRA 18:2)

1. Akademiya nauk SSSR. Laboratoriya lesovedeniya.

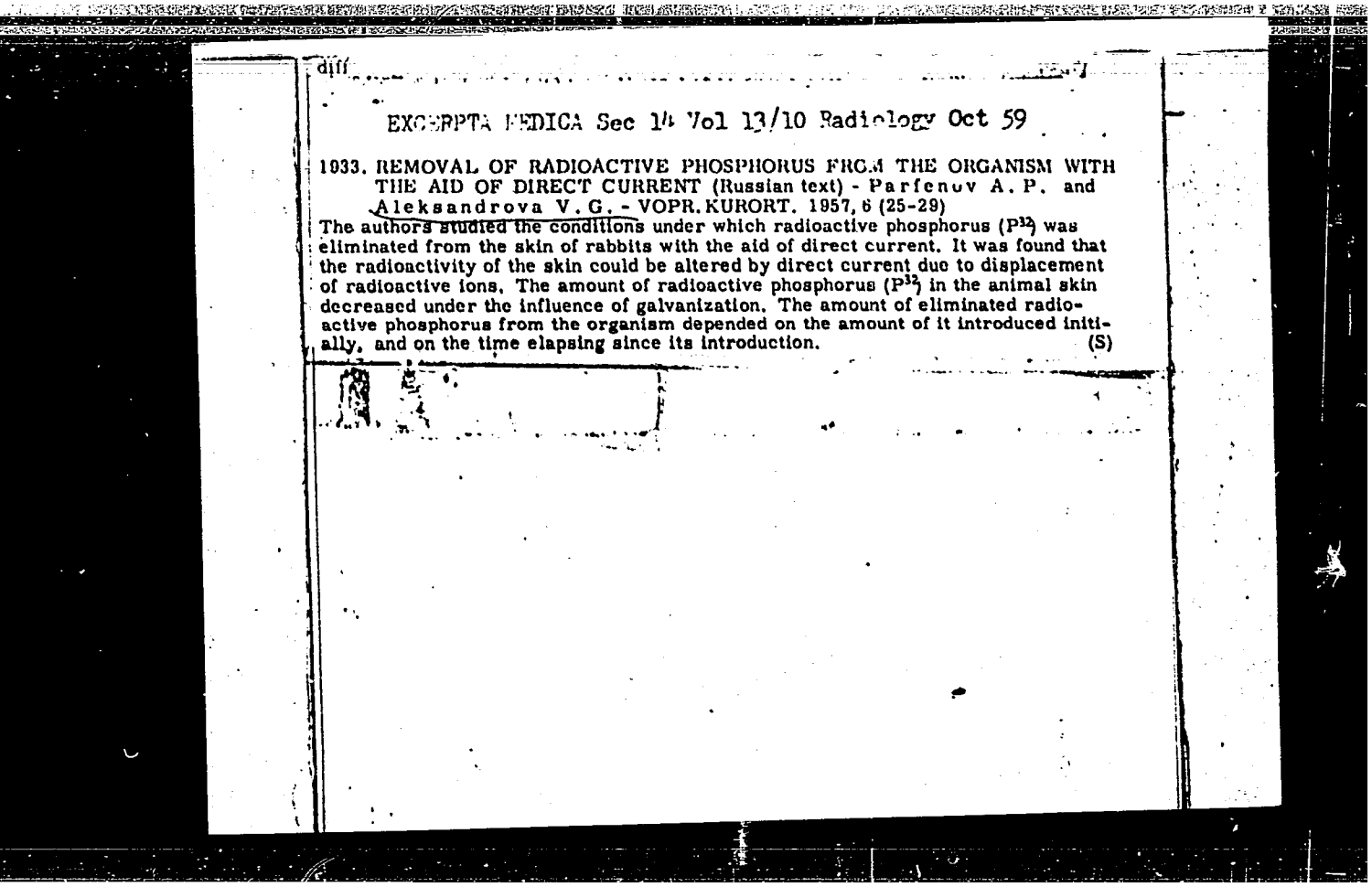
ALEKSANDROVA, V.D. (Leningrad); ARKAD'YEV, G.V. (Leningrad)

Large center of botanical research; the 250th anniversary of the Botanical Institute of the Academy of Sciences of the U.S.S.R. Priroda 54 no.11:121-123 '65. (MIRA 18:11)

ALEKSANDROVA, V.D.

Distinguishing plant communities in a vegetative continuum.
Bot. zhur. 50 no.9:1248-1259 S '65. (MIRA 18:10)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.



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EXCERPTA MEDICA Sec 14 Vol 13/10 Radiology Oct 59

1933. REMOVAL OF RADIOACTIVE PHOSPHORUS FROM THE ORGANISM WITH THE AID OF DIRECT CURRENT (Russian text) - Parfenov A. P. and Aleksandrova V. G. - VOPR. KURORT. 1957, 6 (25-29)

The authors studied the conditions under which radioactive phosphorus (P^{32}) was eliminated from the skin of rabbits with the aid of direct current. It was found that the radioactivity of the skin could be altered by direct current due to displacement of radioactive ions. The amount of radioactive phosphorus (P^{32}) in the animal skin decreased under the influence of galvanization. The amount of eliminated radioactive phosphorus from the organism depended on the amount of it introduced initially, and on the time elapsing since its introduction. (S)

ALEKSANDROVA, V.G.

ALEKSANDROVA, V.G.

Comparative rating of the effect of climatic factors in Pyarnu and Gurzuf on the activity of the alkaline phosphatase of the blood. Vop.kur., fizioter. i lech.fiz.kul't. 22 no.3:11-12 My-Je '57. (MIRA 11:1)

1. Iz kafedry obshchey fizioterapii i kurortologii Voyenno-morskoy meditsinskoy akademii (nachal'nik - prof. A.P.Parfenov)
(PHOSPHATASE) (CLIMATOLOGY, MEDICAL)

L 43898-66 EWI(m)/EWP(j)/T IJP(c) DS/WW/JWD/RM
AP6015658(A) SOURCE CODE: UR/0413/66/000/009/0073/0073

43
B

INVENTOR: Pashkov, A. B.; Itkina, M. I.; Aleksandrova, V. G.

ORG: none

TITLE: Method of obtaining organomercury macromolecular compounds. Class 39, No. 181277 15

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 73

TOPIC TAGS: macromolecular compound, organomercury compound, heat resistant material

ABSTRACT: An Author Certificate has been issued for a method of obtaining organomercury macromolecular compounds by mercurizing vinyl-series polymers with mercury salts in the presence of organic solvents. To obtain a high-capacity and heat-resistant product possessing a functional anion-exchange group, insoluble copolymers of aromatic vinyl and divinyl derivatives are the polymers used. [Translation] [NT]

SUB CODE: 11/07/ SUBM DATE: 05Jun62/

Card 1/1 UDC: 547,559.49.05:678.746.22-136.622

KOROSTASH, Anatoliy Ivanovich; ALEKSANDROVA, V.I., otv. red.; TEPLYAKOVA, A.S., red.

[Experience of innovators is an inexaustible source for the growth of labor productivity] Dosvid novatoriv-nevycherpne dzherelo pidvyshchennia produktyvnosti pratsi. Kyiv, 1961. 42 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.3, no.6) (MIRA 14:8)
(Ukraine—Efficiency, Industrial) (Technological innovations)

ALEKSANDROVA, V.I., kand. ist. nauk, starshiy nauchnyy sotr.; PETRASH, V.V., starshiy nauchnyy sotr.; BOGDANOVA, A.A., starshiy nauchnyy sotr.; LIVSHITS, I.A., starshiy nauchnyy sotr.; NIKUL'CHENKOV, K.I., polkovnik, red. [deceased]; SOLOV'YEV, N.I., red.; SOKOLOVA, G.F., tekhn. red.

[M.P.Lazarev; documents] M.P.Lazarev; dokumenty. Pod red. K.I.Nikul'chenkova. Moskva, Voen. izd-vo M-va obor. SSSR. (Russkie flotovodtsy). Vol.3. 1961. 576 p. (MIRA 15:2)

1. Russia (1923- U.S.S.R.) TSentral'nyy gosudarstvennyy arkhiv Voyenno-Morskogo Flota. 2. TSentral'nyy gosudarstvennyy arkhiv Voyenno-Morskogo Flota SSSR (for Aleksandrova, Petrash, Bogdanova).
(Lazarev, Mikhail Petrovich, 1778-1851)

GERASIMOV, V.V.; ALEKSANDROVA, V.I.; GROMOVA, A.I.; POPOVA, K.A.; SHAPOVALOV, E.T.

[Investigating the electrochemical and corrosion behavior or 1Kh18N9T stainless stell in water of various composition] Issledovanie elektrokhimicheskogo i korrozionnogo povedeniia nerzhaveiushchei stali 1Kh18N9T v vode razlichnoho sostava. Moskva, Glav.upr. po ispol'zovaniiu atomnoi energii, 1960. 17 p. (MIRA 17:1)
(Steel, Stainless--Corrosion) (Electrochemistry)

ALEKSANDROV, V.N.

36

PHASE I BOOK EXPLOITATION SOV/5256

Gerasimov, Valentin Vladimirovich, ed., Candidate of Chemical Sciences.

Korroziya reaktornykh materialov; sbornik statey (Corrosion of Nuclear-Reactor Materials; a Collection of Articles) Moscow, Atomizdat, 1960. 284 p. 3,700 copies printed.

Ed.: A.I. Zavodchikova; Tech. Ed.: Ye.I. Mazel'.

PURPOSE: This collection of articles is intended [illegible] mechanical and metallurgical engineers as well as for scientific [illegible] search workers concerned with the construction of nuclear reactors.

COVERAGE: The water corrosion of various types of stainless steel and alloys under high pressures and temperatures is investigated from the point of view of the use of these materials for the construction of nuclear reactors. Attention is given to the following: the use of oxygen for protecting steel against corrosion, the behavior of steel in high-temperature

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Corrosion of Nuclear- (Cont.) SOV/5256

water with various compositions, factors of metal stress corrosion, intergranular corrosion, the mechanism of corrosion cracking, and the corrosion resistance of aluminum and zirconium alloys. Conclusions based on test results are included. No personalities are mentioned. Most of the articles are accompanied by references. Of 238 references 97 are Soviet.

TABLE OF CONTENTS:

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AVAILABLE: Library of Congress (TA462.G4)

Card 9/9

VK/wrc/bc
10-12-61

S/081/61/000/020/049/089
B107/B101

AUTHORS: Gerasimov, V. V., Aleksandrova, V. N., Gromova, A. I., Popova, K. A. Shapovalov, E. T.

TITLE: Study of the electrochemical behavior and the corrosion behavior of 1Х18Н9Т (1Kh18N9T) stainless steel in water of different compositions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 259, abstract 20I146 (Sb. "Korroziya reaktorn. materialov". M., Atomizdat, 1960, 52-63)

TEXT: The authors studied the kinetics of electrode processes of 1Х18Н9Т (1Kh18N9T) stainless steel in distilled water and in solutions of Na_2SO_3 and Na_2SO_4, HNO_3, HCl and H_2SO_4, NaOH, NaCl at room temperature and 300°C, and at 87 atm pressure. It was shown that in all media, except for 0.15 N HCl, the 1Kh18N9T steel was in a passive state at corresponding potential values; in the solutions mentioned, the rate of dissolution was 0.016 - 0.020 μa/cm².

Card 1/2

Study of the electrochemical behavior...

S/081/61/000/020/049/089
B107/B101

[Abstracter's note: Complete translation.]

Card 2/2

5.4700
18.1271

S/081/62/000/001/008/067
B156/B101

AUTHORS: Gerasimov, V. V., Aleksandrova, V. N.

TITLE: Investigation of the electrochemical behavior of zirconium

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1962, 84, abstract 1B260 (Sb. "Korroziya reaktorn. materialov". M., Atomizdat, 1960, 274-277)

TEXT: The behavior of Zr which has undergone various preliminary treatments (mechanical dressing, etching in a solution of 5 ml HF + 45 ml HNO_3 + 50 ml H_2O, and oxidation in the air of 350, 650 or 750°C) during cathodic and anodic polarization in solutions of 0.01 N NaCl, 0.01 N Na_2SO_4, 0.1 and 0.01 N NaF, 0.025 N HF, 0.01 N NaF + 0.05 N HNO_3, and in distilled water, was studied. The composition of the solution and the preliminary surface treatment do not affect the rate of cathodic reduction of O_2. The exception is the oxidation of Zr at 750°C, which greatly increases the overvoltage

Card 1/2

S/081/62/000/001/008/067
B156/B101

Investigation of the electrochemical ...

of this reaction. In all the solutions except those containing HF, Zr is passivated during anodic polarization. If there is an oxide film, formed during the prolonged anodic polarization of Zr or during its oxidation in the air, at the surface, the passive state region is wider, and the rate of the anodic process in this region is lower. [Abstracter's note: Complete translation.]

Card 2/2

89360

S/089/61/010/002/010/018
B102/B209

18.1130

AUTHORS: Gerasimov, V. V., Aleksandrova, V. N.

TITLE: The effect of radiation on the electrochemical behavior of steel of the type 1X18H9T (1Kh18N9T)

PERIODICAL: Atomnaya energiya, v. 10, no. 2, 1961, 164-166

TEXT: This is a report of investigations on the electrochemical behavior of steel of the type 1Kh18N9T under irradiation by thermal neutrons. The studies were made with a electrolytic glass cell (400 mm long, diameter 20 mm, wall thickness about 1 mm) shown in Fig. 1. In the upper part of the cell, a calomel electrode and an electrolytic switch are located. The steel samples were 1 x 10 x 235 mm large and had the following composition (in % by weight): 0.07 C, 1.23 Mn, 19.1 Cr, 10.5 Ni, 0.53 Ti. The specimen potential was compared with the potential of the saturated calomel electrode; at maximum distance of the specimen from the switch the potential was lower by only 0.015 v than at minimum distance and, moreover, was practically independent of the length of the sample. A 1 mm thick steel wire (of the same type) which was isolated from the test sample by a glass pipe was used as an auxil-

Card 1/4

The effect of radiation ...

iary sample. The investigations were made in 0.01 N sodium-sulfate solution and in 0.01 N NaCl solution (about 20 ml). M-82 (M-82) and M-91 (M-91) milliammeters served for the current measurements, a ЛП-5(Pl-5) potentiometer for potential measurements БАС-80(BAS-80) storage batteries served as current supply. The cell was irradiated by thermal neutrons (10^{12} n/cm^2·sec, 80-90°C) in reactor core. Every experiment was carried out twice and, for comparison, was repeated in a thermostat (85°C) without irradiation. The following were the results: The stationary potential of the beam in volts with respect to a hydrogen standard electrode

	not irradiated		irradiated	
medium	a	b	a	b
0.01 N Na_2SO_4 solution	0.133	0.318	0.403	0.673
0.01 N NaCl solution	0.083	0.243	0.503	0.538

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89360
S/089/61/010/002/010/018
B102/B209

The effect of radiation ...

a) before polarization b) three hours after polarization

The kinetics of the electrode processes were investigated potentiostatically (measurement of current, potential, and temperature every 10 minutes), the current was assumed to be steady if it did not change within one hour in the case of given potential. The determination of anode and cathode polarization of the steel specimen in sodium-sulfate and sodium-chloride solutions resulted in the following: Irradiation does not affect the kinetics of the anodic process in sodium-sulfate solution. Also in sodium-chloride solution, the character of the anode polarization curves is maintained on irradiation as well as the rate of the anodic polarization process in the passive range. However, the breakdown voltage and that portion on the anodic polarization curve which corresponds to the trans-passivation range is shifted by 100 to 150 mv towards positive. Those portions of the cathodic polarization curves which correspond to oxygen ionization were shifted towards positive on irradiation in both solutions, i. e. the rate of the cathodic process rose. This, of course, entails a shift of the stationary potential of the steel into the positive direction thus reducing the passive region. If the passive-state region is very small (e. g. in chlorides),

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The effect of radiation ...

then as a consequence of the acting radiation the steel may get into the trans-passivation region, i. e. corrosion increases. There are 3 figures and 1 table.

SUBMITTED: September 1, 1960

Legend to Figure 1: 1) Sample;
2) auxiliary electrode;
3) calomel electrode;
4) electrolytic switch;
5) tube; 6) ampoule; 7) jacket;
8) to the circuit; 9) to the potentiometer.

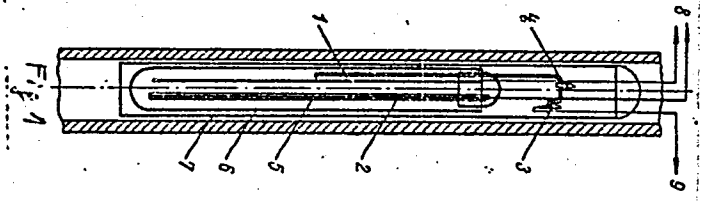

Fig. 1

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S/129/62/000/002/012/014
E073/E335

AUTHORS: Gerasimov, V.V., Candidate of Chemical Sciences and Aleksandrova, V.N., Engineer

TITLE: Intercrystallite corrosion of steel type 1X18H9T (1Kh18N9T) in distilled water

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1962, 53

TEXT: The intercrystallite corrosion of the steels 1Kh18N9T and 1X18H9 (1Kh18N9) was investigated at various temperatures in distilled water with various oxygen contents. After the corrosion tests the specimens were used for making polished sections for metallographic investigations. The results, which are tabulated in the paper, lead to the following conclusions:
1) neither of the two steels tends to develop intercrystallite corrosion in river water or in distilled water at 100 °C with free access to oxygen;
2) both steels are prone to develop intercrystallite corrosion in the temperature range 950 - 200 °C [Abstracter's note: the

Card 1/2

figure given in the table, i.e. 350 °C at a pressure of 200 kg/cm^2, appears to be the correct figure and not the figure of 950 °C given in the text] in distilled water containing Cl ions and 0.2 - 1 mg/litre O_2; the depth of penetration of the intercrystallite corrosion is 1 - 2 grains in 2 000 hours; 3) the steel 1Kh18N9T is resistant to intercrystallite corrosion in oxygen-free distilled water and steam at temperatures of 350 and 550 °C.
There is 1 table.

Card 2/2

GERASIMOV, V.V., kand.khimicheskikh nauk; ALEKSANDROVA, V.N., inzh.

Intercrystalline corrosion of type 1Kh18N9T steels in distilled water. Metalloved.i term.obr.met. no.2:53 F '62. (MIRA 15:3)
(Steel alloys--Corrosion)

39744
S/129/62/000/008/001/003
E073/E535

18 1130

AUTHORS: Gerasimov, V.V., Candidate of Chemical Sciences and Aleksandrova, V.N., Engineer

TITLE: Corrosion resistance of type 2X13 (2Kh13), X17 (Kh17) and X18 (Kh18) chromium steels

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no.8, 1962, 36-40

TEXT: The authors have studied the effect of heat treatment on the corrosion resistance in sodium sulphate and chloride solutions of three chromium steels which are considered as possible replacements for type 1X18N9T (1Kh18N9T) stainless steel, using a potentiostatic method. The anodic-solution process was found to depend especially on chlorine-ion concentration. There is no passive range if the chlorine-ion concentration is 0.01 N and over in the case of the steel 2Kh13 and over a few mg/litre in the case of the steels Kh17 and Kh18. Compositions: 2Kh13 - 0.21% C, 0.31% Si, 0.33% Mn, 13% Cr and 0.41% Ni; Kh17 - 0.14% C, 0.4% Si, 0.4% Mn, 17.8% Cr, <0.28% Ni; Kh18 - 0.9% C, 0.79% Si, 0.4% Mn, 19.0% Cr, <0.28% Ni. The kinetics of the anodic process depends

Card 1/2

on the condition of the steels. The steel Kh17 has a wide passive range (0.8 volt) after annealing at 760-780°C but the passive range is unstable after quenching and annealing. The Kh18 steel does not passivate in the annealed state but quenched with anodic polarization it has a passive range only in 0.01 N solutions of Na_2SO_4 with under 0.05 mg/litre chlorine-ion content. Generally, the tested chromium steels showed low corrosion resistance in solutions containing chlorine ions; Kh18, annealed at 150°C after hardening, had the highest corrosion resistance. In distilled water this steel had the highest corrosion resistance after annealing at 760-780°C. Conclusion: The tested steels are suitable as a substitute for the steel 1Kh18N9T only for operation in distilled water or in sodium sulphate solutions which are free from chlorine ions. There are 4 figures and 3 tables.

Card 2/2

GERASIMOV, V.V.; ALEKSANDROVA, V.N.

Intergranular corrosion of weld joints in stainless steel.
Metalloved. i term. obr. met. no.5:60 My '63. (MIRA 16:5)
(Steel, Stainless--Welding)
(Corrosion and anticorrosives)

L 06983-67 EWT(m)/EWP(t)/ETI IJP(c) JD/WB/GG

ACC NR: AP6018359 (N) SOURCE CODE: UR/0089/66/020/005/0435/0436

AUTHOR: Vasina, V. N.; Aleksandrova, V. N.; Gerasimov, V. V.

ORG: none

TITLE: Influence of gamma radiation on the process of scale formation

SOURCE: Atomnaya energiya, v. 20, no. 5, 1966, 435-436

TOPIC TAGS: gamma radiation, metal scaling, corrosion, stainless steel

ABSTRACT: In view of the lack of published data on the influence of mechanical, thermodynamic, and chemical factors on the formation of scale and the corrosion of cladding of fuel elements, the authors present the results of a study of the simultaneous heat flux and γ irradiation on scale formation. The study was made in a setup (Fig. 1) consisting of a stainless steel bath filled with an aqueous solution, in which the sample is placed. The sample is heated by electric current, the scale is produced by calcium sulfate in the water, and the γ radiation was obtained from a Co^{60} source (2 gram equivalent of radium). The scaling tests were made with and without the γ irradiation. The results show that for equal heating and for equal solution parameters, the rate of scale formation increases when the sample is exposed to γ rays. Furthermore, the scale produced under the influence of γ rays contains, in addition to the calcium sulfate deposit, also the products of corrosion of stainless

UDC: 621.039.544.5

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ACC NR: AP6018359

2

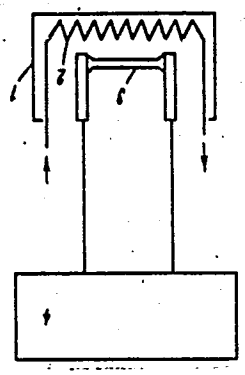

Fig. 1 Diagram of setup. 1 — Bath, 2 — refrigerator, 3 — sample of stainless steel (1Kh18N9T); 4 — control block

steel. Orig. art. has: 4 figures

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