

NIKIFOROVA, O.A.

Ultrastructure of thrombocytes in healthy subjects and in those
with cancer (electron microscopic study). Probl. gemat. i perel.
krovi 5 no. 9:34-39 '60. (MIRA 14:1)
(BLOOD PLATELETS) (CANCER)

NIKIFOROVA, O.A.

Quantity of thrombocytes and the thrombocytic formula of the
peripheral blood in healthy persons. Lab.delo 6 no.2:32-34
Mr-Ap '60. (MIRA 13:6)

1. Kliniko-ekspertnyy otdel (zav. - prof. M.I. Khvilivitskaya)
Leningradskogo nauchno-issledovatel'skogo instituta ekspertizy
trudospособности i организаций труда инвалидов.
* (BLOOD PLATELETS)

ACC NR: AP6036804

SOURCE CODE: UR/0240/66/000/011/0078/0081

AUTHOR: Bashmakova, T. A.; Sukal'skaya, S. Ya.; Nikiferova, O. A.; Permyakov, A. A.

CRG: none

TITLE: Radiation-hygienic evaluation of ground in which radioactive wastes are buried

SOURCE: Gigiyana i sanitariya, no. 11, 1966, 78-81

TOPIC TAGS: radioactive waste disposal, radioactive waste disposal equipment, radioactivity measurement

ABSTRACT: The area observed, in use since 1962 has a complex of installations, including depositories for fluid and solid waste products, a place for decontaminating machines, and containers, etc. The study tested air pollution and variations in the radioactivity rate in operations connected with the transport and disposal of the waste products. Two main sources of pollution were the ventilation systems in the buildings and the sewage where it reached open reservoirs. Sr⁹⁰, Cs¹³⁷, Ce¹⁴⁴, and Ra²²⁶ were used as indicators. For control of the radioactivity level determined by aerial fallout activity of the deposits and the settled dust, density fallout rate of Sr⁹⁰ and Cs¹³⁷, aerosol air activity on the studied territory, adjacent ground, including plants, were measured. Samples were selected at various times of year. The control point was 8 km from the object. A total of 107 deposit and dust samples and 48 plant

UDC: 614.73:621.039.7

Card 1/2

ACC NR: AP6036804

samples were investigated. In two years, the untreated sewage produced no observable effects on the zone adjacent to the open reservoir. Occasional pollution of the territory and sanitary-protective zone was effected by the ventilation exhaust. The pollution was insignificant (within permissible limits) and did not exceed the limits of the sanitary-protective zone. The working personnel revealed no specific health impairment in the course of the three year study, and the exposure to radiation doses was within permissible limits. Orig. art. has: 3 tables.

SUB CODE: 18,06/ SUBM DATE: 03Jun65/ ORIG REF: 002

Card 2/2

I. 5268-66 FBD/EWT(1)/FCS(k) GW/WS-2/wR
ACCESSION NR: AP5022800

UR/0141/65/008/004/0768/0770
621.396.677.497:523.164

AUTHOR: Grigor'yev, G. I.; Kovner, M. S.; Nikiforova, O. G.; Obolenskiy, L. M.;
Samsomov, A. V.; Trakhtengerts, V. Yu.

TITLE: Logarithmic-periodic helical exciter for a paraboloid with 1:7 frequency coverage

SOURCE: IVUZ. Radiofizika, v. 8, no. 4, 1965, 768-770

TOPIC TAGS: antenna directivity, conic antenna, antenna polarization, radio telescope antenna

ABSTRACT: The authors present the results of tests on a model of a broadband exciter for the 15-meter paraboloid of the Zimenki radio telescope. The model scale was 1:10. The reflector used was a parabolic cylinder with focal distance 0.525 m, height 1 m, and aperture D = 1.5 m. The exciter was a conical bifilar-wound cable helix with vertex angle 90° and pitch angle 7°. The vertex of the cone was at the focus of the paraboloid. The directional pattern and the standing wave ratio of the system were measured in the range $1.5 < D/\lambda < 10$, where λ is the working wavelength. The results are shown in Fig. 1 of the Enclosure. The fact that a directivity angle of 10° can be obtained with D/λ close to 2 is taken as an indi-

Card 1/3

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L 5268-66

ACCESSION NR: AP5022800

cation that such a system can ensure high directivity with small antenna dimensions. It is emphasized, however, that no final conclusions can be drawn until phase-distribution measurements are made. The results for horizontally polarized radiation differ little from those for vertical polarization, except that side lobes appear at some frequencies. "The authors thank Yu. M. Zhidko for a discussion of the results." Orig. art.has: 2 figures.

44 55

[02]

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet (Gor'kiy State University) 44

55

SUBMITTED: 08Jul64

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SUB CODE: AA, EC

NO REF Sov: 001

OTHER: 004

ATD PRESS: 4137

Card 2/3

L 5268-66

ACCESSION NR: AP5022800

ENCLOSURE: 01 8

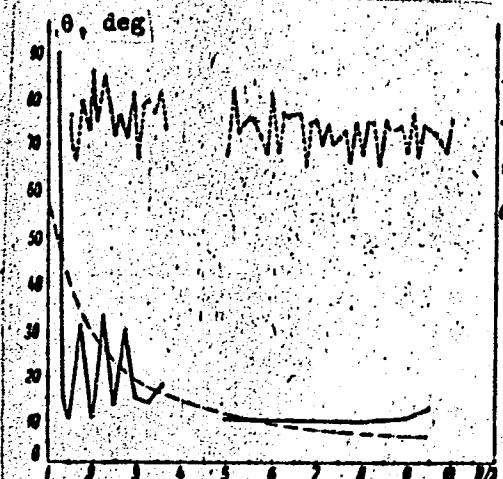


Fig. 1. Width of directivity pattern
(θ , degrees) and standing wave ratio
plotted against the aperture-to-wavelength
ratio D/λ

Card 3/3

VIKIFEROVA, O.G.; RABNOVICH, B.D.

Standardization and production quality. Standardizatsiya
29 no. 11:61-62 N 165 (MIRA 1981)

NIKIFOROV A. L.

Soviet psychological studies on the interpretation of fictional literature. Vop.psikh. 3 no.3:88-96 My-Je '57. (MLRA 10:8)

1.Kafedra psikhologii Moskovskogo universiteta.
(Literature--Psychology)

MAIFEROV, O.I.

Role of mass media in maintaining the Hitler regime
source). Verlag Kl. Sch. - 1955. St.-A-75. 111: 12

1. Kafedra psichologii vissovskogo posuniversiteta.
(Reconstruction (Psychology))

NIKIFOROVA, O.I.(Moskva)

Significance of speech for accuracy in the reproduction of a visual
image. Vop.psikhол. 7 no.1:133-140 Ja-F '61. (MIRA 14:3)
(Speech) (Reproduction(Psychology))

BOGOMOLOVA, S.N.; VAYTKUNENE, L.I.; KRASNOSEL'SKIKH, A.A.; MIKIFOROVA,
O.I.

Development of imagination in law students during the practical
study of criminology. Vop.psikhол. no.6:117-123 N-D '62.
(MIRA 16:2)

1. Moskovskiy gosudarstvennyy universitet.
(Criminal investigation—Study and teaching)

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3

NIKIFOROV, O.I.

Stratigraphic plan of the upper Silurian in Podolia. Mat. VSEGI. Ob.
ser. no.8:43-54 '48. (MIRA 11:4)
(Podolia--Geology, Stratigraphic)

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3"

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3

NIKIFOROVA, Ol'ga Ivanovna, 1905-

Stratigraphy and Brachiopoda of Silurian deposits in Podolia. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geologii i okhrane nedr, 1954. 217 p. (Trudy Vsesotsuznogo nauchno-issledovatel'sko-go geologicheskogo instituta) (54-44197)

QE796.N5

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3"

NIKIFOROVA, O.J.

New data on the stratigraphy and paleogeography of Ordovician
and Silurian deposits in the Siberian Platform. Mat. VSEGEI
no.7:50-106 '55. (MLRA 10:4)
(Siberian Platform--Geology, Stratigraphic)

NIKIFOROV, O.I.; OBUT, A.M.

Correlation of Silurian sediments in the European part of the
U.S.S.R. with those in Central Europe. Sov.geol. 2 no.1:56-
61 Ja '59. (MIRA 12:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut
i Leningradskiy gosudarstvennyy universitet.
(Geology, Stratigraphic)

NIKIFOROVA, O. I.

Kulumbella, a new genus of the family Stricklandiidae. Paleont. zhur.
no. 3:61-65 '60. (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.
(Siberian Platform--Brachiopoda, Fossil)

NIKIFOROVA, O.I.; ANDREYEVA, O.N.; DOLMATOV, P.S., vedushchiy red.;
BRUSHKIN, D.M., vedushchiy red.; SAFRONOVA, I.M., tekhn.red.

[Paleozoic biostratigraphy of the Siberian Platform.
Report No.1: Ordovician and Silurian stratigraphy of
the Siberian Platform and its paleontological basis
(brachiopods)] Stratigrafija ordovika i silura Sibirsкої
platformy i ee paleontologicheskoe oboznanie. (brakhiopody).
Leningrad. Gos. nauch.-tekhn. izd-vo neft.i gorno-toplivnoi
lit-ry, Leningr. otd-nie 1961. 289 p. 54 plates. (Leningrad.
Vsesoiuznyi geologicheskii institut. Trudy, vol.56).
(MIRA 15:11)

(Siberian Platform—Geology, Stratigraphic)
(Siberian Platform—Brachiopa, Fossil)

NIKIFOROVA, O.I.; OBUT, A.M.

Silurian and Devonian boundary in the U.S.S.R. Sov. ~~geol.~~
4 no.2:86-91 F '61. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy
institut i Leningradskiy gosudarstvennyy universitet.
(Paleontology, Stratigraphic)

MYAGKOVA, Ye.I.; NIKIFOROVA, O.I.; VYSOTSKIY, A.A.; IVANOVSKIY, A.B.; SOKOLOV, B.S., otv. red.; KOTLYAREVSKAYA, P.S., red.izd-va; GALUSHKO, Ya.A., red.izd-va; MATYUKHINA, L.I., tekhn. red.; YEGOROVA, N.F., tekhn. red.

[Stratigraphy of Ordovician and Silurian sediments in the Moyero Valley; Siberian Platform] Stratigrafiia ordovik-skikh i siluriiskikh otlozhenii doliny reki Moiero; Sibirskaia platforma. Moskva, Izd-vo AN SSSR, 1963. 63 p.
(MIRA 16:12)

1. Vsesoyuznyy geologicheskiy nauchno-issledovatel'skiy institut (for V. sotskiy, Nikiforova). 2. Institut geologii i geofiziki Sibirskego otdeleniya AN SSSR (for Myagkova).
3. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya (for Ivanovskiy).
(Moyero Valley--Geology, Stratigraphic)

NIKIFOROVA, O.I.; OBUT, A.M.

New stage between the Silurian and Devonian. Geol.i geofiz.
no.7:75-79 '63. (MIRA 16:10)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

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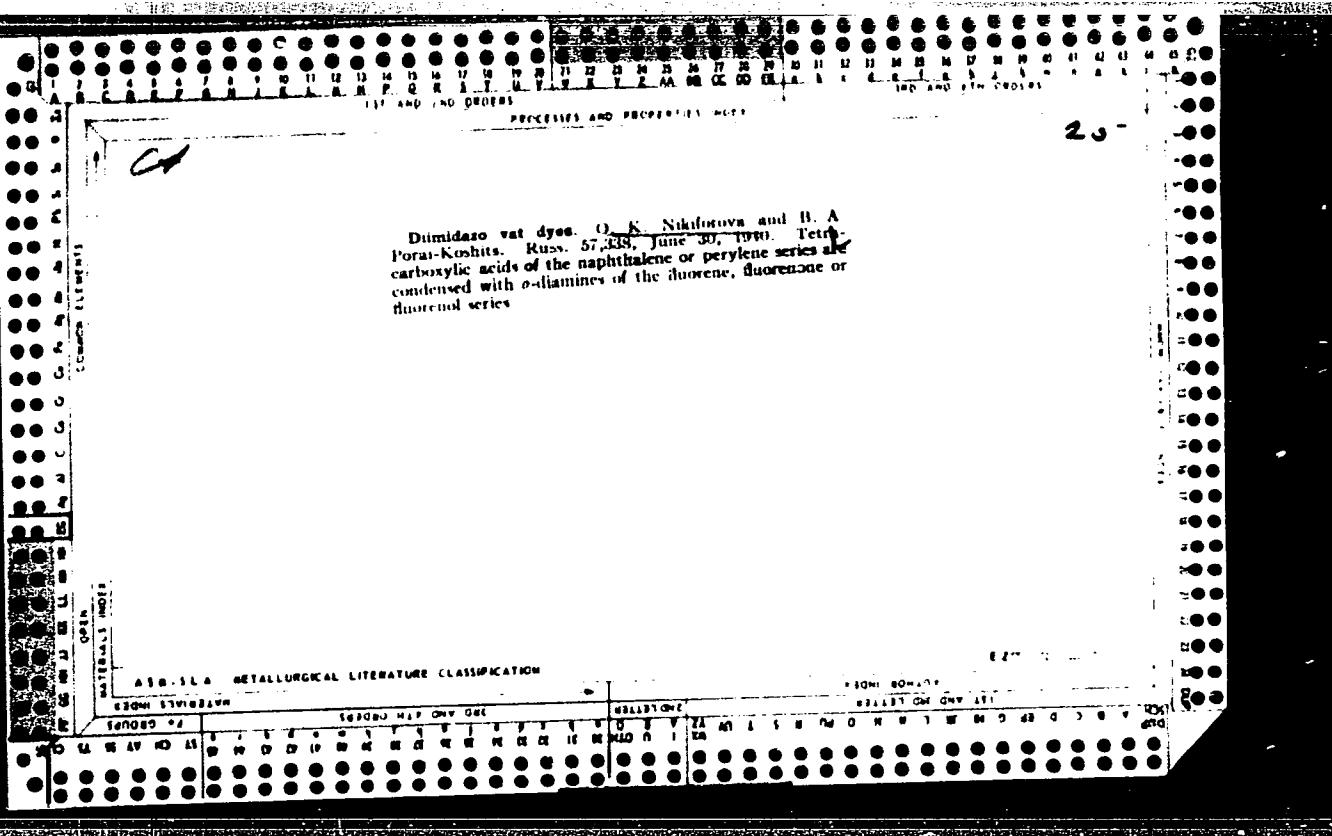
CIA-RDP86-00513R001136920015-3

MIRI: GUL, A. M.

Fig. 4 of new Shallow Brain Report on the Chitral Range, Tracy VERGEL
(81-6-164.)
'MIRA .R(7)

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3"



Investigation of the fluorene series. II. Preparation of new dinitroazole dyes of the fluorene series. B. A. Porai-Koshits and O. K. Nikiforova. *J. Applied Chem. (U. S. S. R.)* 13, 215-219 (Chemical, 231) (1940); cf. *C. A.* 32, 68009. The possibility of application of the more complex α -diazines to the synthesis of dinitroazole dyes was investigated. As an initial substance 2,3-diaminofluorene (I), m. 198°, was prep'd. as follows: Fluorene was nitrated, the 2-nitrofluorene was reduced with Zn dust in alc. soln. in the presence of aq. CaCl_2 . The 2-amino-fluorene (20.3 g.) was boiled with 150 cc. of glacial AcOH under a reflux condenser for 7 hrs. The hot reaction mixt. treated with boiling water yielded 2-acetylaminofluorene (100%), m. 180°, after washing with 50% AcOH and then, with water. The product (25.2 g.) was dissolved in hot glacial AcOH (270 cc.) and, after cooling to 50°, was nitrated with 12.0 cc. of HNO_3 (d. 1.42), yielding 83% of a mixt. (m. 180-191°) of 2-acetylamo-3-nitrofluorene and 2-acetylamo-7-nitrofluorene. The mixt. of isomers (22.3 g.) was suspended in 920 cc. of abn. alc. and boiled in the presence of 40 cc. concd. HCl for 1 hr. under the reflux condenser. After diahn. of $\frac{1}{2}$ of the alc., the reaction mixt. was allowed to stand for 12 hrs. The ppt. was filtered and boiled with 100 cc. concd. HCl in 2 l. of water for 2 hrs. This operation was repeated 6 times; the 2-amino-3-nitrofluorene, m. 187°, formed was filtered out, washed with NH_4Cl soln. and dried. The 2,7-isomer can be ppt'd. from the filtrate with NH_4OH . The 2,3-isomer (11 g.) was reduced with 50 g. of Zn dust by boiling in 250 cc. of 78% alc. in the presence of CaCl_2 (4 g. in 5 cc. of water) for 3 hrs. yielding 78% of I. The condensation of 4 g. of I with 1.70 g. of naphthalenetetracarboxylic acid in 16 cc. of water in a sealed tube at 170-80° for 12 hrs. yielded 3.9 g. of dinitroazole vat dye, m. above 300°. The dye was sepd. from unchanged reagents by boiling with 10% soda and then with HCl soln. The fluorene dye was oxidized with $\text{Na}_2\text{Cr}_2\text{O}_7$ to a fluoresque dye ($\text{C}_{14}\text{H}_10\text{N}_2\text{O}_4$, insol. in alc., Me_2CO , ether, MeCO_2Et , C_6H_6 , toluene, and xylene, sol. in boiling PhNO_2 , pyridine and PhNM_e). The fluoresque dye was a mixt. of cis and trans isomers. One colored cotton brownish yellow and other violet. The first had a max absorption at 4000 Å. and the second at 5500 Å. The isomers were sepd. by treatment with H_2SO_4 (d. 1.84). The second isomer was less sol. in H_2SO_4 than the first. Treatment of 1 g. of fluoresque dye with a mixt. of 3 cc. of HOSO_2Cl in 15 cc. of pyridine in the presence of 2 g. Fe filings at 60° for 7 hrs. yielded "kubozol," an acil sulfonic acid ester of leuco compds. of the fluorene dye, which dyed wool bright yellow.

COMPTON ELEMENTS
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25

A. A. Podgorny

Niki Forova, O.R.

U.S.S.R.

Rearrangement of *N*-nitrosodiphenylamine and method of derivation of *N*-nitroso-*m*-nitrobenzene hydrochloride from diphenylamine. O. K. Nikitina, Irina K. Kostyleva, N. V. Kostyleva, T. A. Zabudko, S. G. Krasil'nikov. *Zhur. Neorg. Khim.* 1953, 8, No. 7, 153-5 (1953). — *N*-Nitrosodiphenylamine-HCl (I) may be obtained in 82.2-8.9% yield by rearrangement of Ph₂NNO (II) in the presence of dry HCl not only in *anhyd.* EtOH-abs. Et₂O, but also in 98% EtOH-cont. grade EtO (1:5:1) and in EtOH-C₂H₅ (1:2) mixts. When concd. HCl is used, only 17-43% yield of I is obtainable. When the reaction is carried out in C₂H₅ alone (24% yield), this yield may be markedly increased by adding small amounts (% of the vol. of C₂H₅) of EtI (84.7%), and MeI (83%), EtOH (96%) (425 ml.) said, with dry gaseous HCl is added to 100 g. II in 300 ml. Et₂O and dry HCl is slowly bubbled through until I crystals appear. After 30-40 min., standing at room temp. and 1 hr. on ice, the pptd. I is filtered off, washed several times with Et₂O, and dried at 50-60° (82% yield). I may be conveniently prep'd. directly from Ph₂NH (III) without isolating II from the alc. soln. To 100 g. III in 900 ml. 90% EtOH cooled to 0° is added in one step 80 ml. concd. HCl and 55 g. NaNO₂ in 80 ml. H₂O. After 1.5 hrs. stirring, dry gaseous HCl is bubbled through at temp. below 65°, until yellow ppt. of II is completely dissolved. After cooling at room temp., and 1 hr. on ice, 250 ml. H₂O contg. HCl is added with stirring, and the pptd. I is filtered off and heated with 400 ml. C₂H₅, is isolated and dried (92.7% yield). Cf. M. Icata, *Analyst* 243, 272 (1888). Elisabeth Barbash.

NIKIFOROVA, O. K.

Production and properties of 3-amino-10-(*p*-aminophenyl)phenazolum chloride. O. K. Nikiforova. 1954

1953, No. 7, 63-74; Referat. Zhur. Khim. 1954, No. 4440. — The purpose of this investigation was to study the properties of the violet dye which is formed in the dye vat when wool is dyed black with 4-nitrosodiphenylamine-HCl. It was assumed that this violet product is an intermediate in the formation of the black dye. By boiling 7 g. of wool with 20 g. of 4-nitrosodiphenylamine-HCl in 4 l. distd. H₂O for 1 hr. 10 min., followed by filtration and salting out of the dye with NaCl, there was obtained 1.96 g. of 3-amino-10-(*p*-aminophenyl)phenazolum chloride (I), which was purified by reprecip. with extn. of admnts. with ether, and recryst. from BuOH. The product consisted of black-violet small crystals. From I by the action of ca. 40% soln. of soda followed by extn. with ether was septd. 3-amino-10-(*p*-nitrophenyl)phenazamine (II), m. p. 222°, λ_{max} 860 m μ ; I and II dyed silk, wool, and tannin-treated cotton in a clear, violet color which did not darken under any circumstances. Thus, I is not an intermediate in the formation of the black dye. I also acted as a photographic desensitizer. Boiling 8 g. of II in 55 ml. of (MeCO)₂O for 4 hrs. gave the dicetyl deriv. m. p. 318°, λ_{max} 820 m μ . The latter dyed silk, wool, and tannin-treated cotton brown; it also had weak sensitizing effect. M. Horsch.

NIKIFOROV, O.K.

USSR/Chemistry - Organic synthesis

Card 1/1 Pub. 151 - 32/37

Author : Nikiforova, O. K.

Title : Derivation of 4,(5)-imidoazolylmethyl esters of 4-amino- and 4-butylamino-benzoic acids

Periodical : Zhur. ob. khim. 24/10, 1866-1870, Oct 1954

Abstract : The synthesis of hitherto unknown 4,(5)-imidoazolylmethyl 4-aminobenzoate and 4,(5)-imidoazolylmethyl 4-butylaminobenzoate, is described. The synthesis of the above mentioned compounds was realized through condensation of 4,(5)-chloromethylimidazole with silver salt of 4-aminobenzoic acid, condensation of 4,(5)-hydroxymethylimidazole with 4-butylaminobenzoyl chloride, butylation of the 4,(5)-imidoazolylmethyl 4-aminobenzoate with butyric aldehyde and reduction of the formed azomethin. The local anesthetic properties of these esters were established through pharmacological tests. Seven references: 3-USSR, 2-USA and 2-German (1905-1949).

Institution : Acad. of Sc. USSR, West Siberian Branch, Laboratory of Organic Synthesis

Submitted : May 14, 1954

NIKIFOROVA, O. K.

N,N'-Diphenylbenzidine. O. K. Nikiforova, U.S. P.
S.H. 104, III, Oct. 25, 1955. (PhCH₂NHCH₂)₂ in a me-
dium of abs. MeOH is catalytically reduced at 78-80°
with Raney Ni and H under 135 atm. pressure. From the
alc. soln. (PhCH₂NHCH₂)₂ is removed in the usual way.

M. Hoseh

NIKIFOROVA, O.K.

The preparation of *N,N'*-dibenzyloethylenediamine. O.K.
NIKIFOROVA. Med. Prom. 16, No. 1, 13-16 (1955).—(CH₃—NHCH₂—Ph)₂ (I) is prep'd. by reducing (CH₃N—CHPh₂)₂ (II)—(CH₃NH₂, HCl), (300 g.), and 900 cc. H₂O in a flask equipped with a condenser, thermometer, and stirrer, treated with 180 g. NaOH with const. stirring and cooling, then at 19-20° with 475 g. BzH in 1000 cc. ether, the mixt. stirred intensively during 2 hrs. at 29-30°, the ether layer removed, 1/4 of the Et₂O distd., and the solid cryst. residue carefully mixed with 160-200 cc. aviation gasoline, filtered off, and vacuum-dried at 30-5° yields 430-80 g. (81-86%) II, m. 51-2°. II (100 g.) in 250 cc. abs. alc. with 4 g. of a Ni catalyst in a dry autoclave is hydrogenated at 75-80° and 134-145 atm. pressure, and when the pressure drops to 110-15 atm. more H is introduced until the original level is reached; after 4-4.5 hrs. no more H is absorbed. The alc. soln. filtered from the catalyst and allowed to stand 10-15 hrs. deposits crystals of 1,3-dibenzylo-2-phenyltetrahydropyridazole (III), which is filtered off, the filtrate evapd., and the oily residue distd. at 202°/6 mm., yielding 49 g. II; another 8 g. is obtained from III, giving a total yield of 55 g. (55%). I is a mobile, yellowish, water-insol. oil, sol. in acetone, alc., ether, and C₆H₆. I carbonate, obtained by passing CO₂ through a soln. of 8 g. I in 12 cc. abs. ether, washing the pptd. salt twice with ether, and drying it in an evacuated desiccator, is sol. with difficulty in acetone, alc., C₆H₆, and xylene. A. S. Mirkin

A-U. Sci Res Chem. Pharm. And
in. S. Orlzonikidze

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3

ONISHCHUK, A.Ye.; NIKIFOROV, O.K.

Synthesis of histamine from invert sugar. Zhur.prikl.khim. 29
no.5:789-793 My '56. (MLRA 9:8)
(Histamine) (Sugar)

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3"

AUTHORS: Nikiforova, O. K., Suvorov, M. V. SCV/71-25-7-56,14

TITLE: I.The Synthesis of 21-Bromopregnanol-17 α -Trione-5,11,20 From
Pregnanol-3 β -Dione-5,11,20 (I. Reac eniye 21-bromopregnanol-17 α -
triona-3,11,20 iz pregnola-3 β -diona-5,11,20)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 18, Nr 7,
pp 1964 - 1967 (USSR)

ABSTRACT: Different from Gallagher's ethyl (Gallagher)(Refs 1-3) of the
bromination of pregnanol-3 α ,17 α -dione-5,11,20, and further
conversion into the 21-bromine derivative it was converted by
subsequent or simultaneous bromination and oxidation into the
21-bromopregnanol-17 α -trione-5,11,20; the substitution of
bromine in the position 21 by the acetoxy group yielded the
acetate of dihydrocortisone. In patent literature [it is mentioned
in one place that the selective reduction of pregnenitrone does
not cause pregnanol-3 α -dione-5,11,20 to form, but pregnol-3 β -
dione-5,11,20 (Ref 4). In another place of patent literature
the general scheme for the conversion of the acetate of pregnanol-
3 β -dione-5,11,20 into the pregnanol-5,17 α -dione-5,11,20 is given

Card 1/3

I. The Synthesis of 21-Bromo- α -Androstanol- β , γ -Triol- δ , ϵ , ζ -3,11,20 From Pregnanol- β -Dione- δ , ϵ , ζ ,20

SOV 77-23-7-36/64

without the constants being mentioned. The possibility of the construction of the dioxycetone side chain from pregnanol- β -dione- δ , ϵ , ζ ,20 is of great interest as it substitutes the expensive NaBH_4 by nickel and also considerably increases the yields (96% with Ni as compared to 70-72% with NaBH_4), which fact is very important for the production of such an expensive preparation as cortisone. The synthesis of 21-bromopregnanol- β , γ -triol- δ , ϵ , ζ -3,11,20(VII) from pregnantriol- δ , ϵ , ζ ,20 is shown by the given scheme. Different from patent 1116 the epoxidation of (II) to acetic anhydride and toluene was carried out with sulfuric acid. The formed compound (III) was converted into salicylic acid. The formed compound (III) was converted into (IV) by oxidation with monoperphthalic acid. The aqueous methanol solution of sodium was used for the saponification of the oxide (IV) and for the reduction of (V). The compound (VI) was obtained from the bromination of (V) with dioxane dibromide in methanol; this product was again oxidized easily into compound (VII) by means of N-bromosuccinimide. The same references, 4 of which are Soviet.

Card 2/3

I. The Synthesis of 21-Bromopregnanol-17 α -Trione-
3,11,20 From Pregnanol-3 β -Dione-11,20

SOV/72-28-7-58/64

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S.Ordzhonikidze (All-Union Scientific Chemical
and Pharmaceutical Research Institute imeni S.Ordzhonikidze)

SUBMITTED: May 25, 1957

1. Bromopregnanol--Synthesis
2. Substitution reactions
3. Cyclic compounds--Chemical reactions

Card 3/3

5.(3)
AUTHORS:

Nikiforova, O. K., Suvorov, N. N.

SOV/79-29-7-71/87

TITLE:

Steroids (Steroidy). IV. Synthesis of 11-Dehydro Corticosterone
From 11-Ketoprogesterone (IV. Sintez 11-degidrokortikosterona
iz 11-ketoprogesterona)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 7, pp 2428-2431 (USSR)

ABSTRACT:

In the report by I. A. Hogg (Ref 2) and co-workers as well as in American patents (Refs 3, 4) it is indicated in brief that it may be possible to obtain the 11-dehydro corticosterone acetate by condensation of 11-ketoprogesterone with diethyl oxalate. The resultant 21-ethoxy derivative was subjected to further transformations and finally yielded the wanted product. Also similar syntheses according to H. Ruschig (Ref 5) and F. Ruggieri (Ref 6) have to be mentioned. In the report by Hogg no experimental data are given. Besides, the authors had to carry out the synthesis of 11-dehydro corticosterone for pharmacological purposes and further investigations. They synthesized this compound from 11-ketoprogesterone according to the given scheme. The 11-ketoprogesterone (I) was synthesized by oxidation of the acetic acid solution of 11 α -oxy-progesterone (Ref 7) with the chromium mixture. The condensation of compound (I) with excess

Card 1/3

Steroids. IV. Synthesis of 11-Dehydro Corticosterone
From 11-Ketoprogesterone

SOV/79-29-7-71/83

diethyl oxalate was carried out in benzene at room temperature with freshly prepared sodium methylate. The aqueous solution of the enolate (II) was transformed into the free ketoester (III) by treating it with dilute hydrochloric acid, for purification reasons. Compound (III) was dissolved in methanol, treated with a calculated quantity of alcoholic sodium hydroxide and re-transformed to give (II). The iodination of (II) with iodine at -20° yields (IV) which was subjected unseparately to saponification, under formation of (V), and to a keto cleavage with sodium methylate in methanol at 0°. The substitution of the acetoxy group for the iodine in (VI) by means of potassium acetate in acetone yielded (VII). The technical (VII) was purified by means of adsorption and saponified according to T. Reichstein (Ref 8). The end product is the free hormone (VIII). There are 9 references, 4 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut im. S. Ordzhonikidze (All-Union Scientific Chemical-
pharmaceutical Research Institute imeni S. Ordzhonikidze)

Card 2/3

Steroids. IV. Synthesis of 11-Dehydro Corticosterone
From 11-Ketoprogesterone 507/79-29-7-71/87

SUBMITTED: June 2, 1958

Card 3/3

SUVOROV, N.N.; NIKIFOROVA, O.K.; SOKOLOVA, L.V.; KOVYLKINA, N.F.; LEYBEL'MAN,
F.Ya.

New synthesis of Reichstein's substance "S." Med.prom. SSSR 14 no.12:
9-12 D '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(CORTICOSTERONE)

NIKIFOROV, P.G.

Views of S.A.Sukhanov on the clinical aspects of involutional psychoses. Zhur.nevr.i psich. 55 no.6:465-467 - 1953 (MLRA R;R)

1. Psichiatricheskaya klinika Odesskogo meditsinskogo instituta imeni N.I. Pirogova.

(PSYCHOSES, INVOLUNTIONAL.)

NIKIFOROVA, P.G.

Systematized form of late paraphrenia. Zhur. nerv. i psikh. 60
no. 6:724-730 '60. (MIRA 13:12)

1. Psichiatriceskaya klinika (zav. - prof. L.A. Mirel'zon)
Odesskogo meditsinskogo instituta imeni N.I. Pirogova.
(PARANOIA)

PYATYSHKIN, N.M.; NIKIFOROVA, R.A.

Improving gas burning in heating boilers and in small district heating installations. Gas. prem. 4 no. 2:24-27 F '59. (MIRA 12:3)
(Kiev--Gas--Heating and cooking)

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3

WIKIPEDIA, THE FREE ENCYCLOPEDIA

Category: Soviet Union–United States relations
Subcategory: Soviet–U.S. relations by year

From the American Encyclopedia of Politics, 1988, p. 103.

Instituted by the Soviet Foreign Ministry in 1943.

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3"

NIKIFOROV, S.F.; SHOSHENKO, K.A.

Some principles of the structure and function of the capillary bed.
Biul. eksp. biol. i med. 5' no. 45-46 F '65.

(MIRA 18:7)

i. Kabinet mikrofiziologii (zav. - K.A. Snoshenko) otdele eksperimental'noy biologii i patologii zav. B.B. Fuks' Instituta tsitologii i genetiki (dir. N.Z. Belyayev) Sibirsogo otdeleniya AN SSSR, Novosibirsk.

NIKIFOROVA, S.F.; SHOSHENKO, K.A.

Structure and development of the capillary bed in the skin of the
frog. Arkh. anat., glist. i embr. 47 no.9:92-98 S 14.
(MIRA 18:11)

1. Kabinet mikrofiziologii (zav. - kand.med.nauk K.A.Shoshenko)
Instituta tsitologii i genetiki Sibirskogo otdeleniya AN SSSR,
Novosibirsk. Submitted Sept. 21, 1963. .

BURGSDORF, M.V., prof. NIKIFOROVA, T.A. (Chelyabinsk)

State of arterial pressure in mitral stenosis. Klin.med. 35 [i.e. 34]
no.1 Supplement:10 Ja '57. (MIRA 11:2)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. M.V.Burgsdorf)
Chelyabinskogo meditsinskogo instituta.
(HEART--VALVES—DISEASES) (BLOOD PRESSURE)

ACC NR: AP6033465

SOURCE CODE: UR/0413/66/000/018/0042/0043

INVENTOR: Gatsenko, L. G.; Sigal, B. M.; Nikiforova, T. A.; Shipova, S. N.; Munyakova, Z. N.; Petrova, M. F.

ORG: none

TITLE: Preparation of 1-methyl-4-dichlorocarbamylpiperazine salts.
Class 12, No. 185926 [announced by "Akrikhin" Chemical and Pharmaceutical Plant (Khimiko-farmatsevticheskiy zavod "Akrikhin")]

SOURCE: Izobret prom obraz tav zn, no. 18, 1966, 42-43

TOPIC TAGS: methyl dichlorocarbamyl piperazine and phosphoric acid, alcohol, organic salt

ABSTRACT: To simplify the preparation of 1-methyl-4-diethylcarbamyl-piperazine salts by the reaction of ditrazine with acids (phosphoric or citric) and to increase the yield of the salts, the reaction is carried out in isopropyl alcohol. [W.A. 50]

SUB CODE: 07/ SUBM DATE: 22Jul65

Card 1/1

UDC: 615.45;547.861.3

NIKIFOROVA, T.B.; SOLDATKINA, L.V.

Cardiac aneurysm in rheumatism. Trudy MONIKI no 5:251-257 '62.
(MIR 16:4)
(ANEURYSMS) (RHEUMATIC HEART DISEASE)

Nikitinaya, I. F.

5-149-494/2001-47035/Rev
I.P. Nikitinaya, I.F. Nikitina, V.N. Slobodchikov
Institute of Rubber and Latex Articles Research

A Method for the Determination of the Tendency for Free Formation in Rubber Mixtures During Vulcanization

PERIODICAL: Kaučuk i Rezina, 1959, No. 12, pp. 25-28

TEXT: The authors stress the importance of controlling the rubber mixture during vulcanization to avoid swelling and the formation of pores and to ensure the production of monolithic rubber articles. The free formation can be harmful in this connection, since causes of pore formation are listed. The geometric method for vulcanization determination is used (Ref. 1). The duration of this method is 10 minutes. The ratio of specific gravity, measured at 20° C, to the specific gravity measured at 0° C, is determined by the specific gravity method (Ref. 2). However, the specific gravity changes during vulcanization, particularly if free formations occur. The ratio of the specific gravities of the vulcanizate

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and the rubber mixture is given in Formula 1. The relation between the solubility of the rubber mixture, the K value, i.e., the above-measured ratio, and the porosity of the vulcanizate was studied. The experimental procedure is outlined. The value of K was computed according to experimental data. Fig. 1 shows the relationship used for the determination of the specific gravity. The formula for the determination of the specific gravity before heating is given in Formula 2 and for determination after heating in Formula 3. The values of K obtained are listed in Table 1. The authors used the geometric method for determining the mixture in the water mixture. Fig. 2 shows the relationship between the value of K and the solubility content of the initial rubber mixture according to the composition No. 15. The relationship which is obtained is explained by the fact that during the heating and vulcanization under relatively hard conditions (temperature 170-180°C) part of the moisture content in the rubber mixture volatilizes. A special method was applied to the determination of the solubility content and the dependence of the porosity on the K value and the solubility content in the case of pressure-cooked elastomers at the "Kharkov" vulcanite plant. It was applied in production to the control of rubber

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mixture used in the manufacture of those operations which, in turn, were vulcanized at atmospheric pressure and also in the manufacture of strips for shaped boots. As many as 89 rubber mixtures were tested in total. The K values from the table can be used in order to obtain monolithic overcrosses vulcanized at atmospheric pressure. The rubber mixture must be characterized by a value of K > 0.965. The processing of rubber by the "Kharkov" vulcanite plant does not increase the K value but, to the contrary, both in industry and under laboratory conditions. Other tests were carried out for the K determination of rubber mixtures used in the manufacture of boot heels. The results are given in Table 6. A linear relationship exists between K and the solubility content of the boot heel mixture produced by mixing according to modern standard industrial procedures. The authors conclude that they were able to develop a qualitative method for the determination of the tendency of rubber mixtures for pore formation during vulcanization, and that this tendency is characterized by the value of K which, in turn, depends on the solubility of the rubber mixture. The method proposed was tested in industry in CCB-60 (SKB-60) and CMC-10 (SKS-10) rubber-based materials and was found

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to be applicable to the control of rubber mixtures. The admissible minimum value of K can be made part of the technological regulations, since it is one of the indices characterizing the quality of rubber mixtures. The numerical value of this figure depends on the composition, processing conditions and vulcanization of the rubber mixture and, in particular, according to the composition of the rubber mixture used and applicable to the specific production conditions. There are 6 tables, 2 figures and 6 references [5 Soviet and 1 English].

ASSOCIATION: Nudochindrevnayaki Institut nauchno-tekhnicheskogo i tekhnologicheskogo issledovaniya i razvitiya vodorazvodnykh i latexnykh polimerov i polimernykh materialov (Scientific-Research Institute of Rubber and Latex Articles and their Technology)

TRANSLATOR: Plant

Card 4/4

VOL'KENSTEYN, V.S.; GAL'BRAYKH, I.Ye.; GEL'MAN, A.A.; MEDVEDEV, N.N.;
NIKIFOROV, T.F.; RAVDEL', A.A.

Development and application of the method of express-control
of moisture in crude rubber mixtures under production conditions.
Kauch.i rez. 21 no.5:55-57 My '62. (MIRA 15:5)

1. Zavod "Krasnyy treugol'nik" i Leningradskiy tekhnologicheskiy
institut imeni Lensoveta.
(Rubber—Moisture)

PESCHANSKAYA, R.Ya.; GOL'DREYEF, N.I.; FORER, Ye.R.; SHUBERBAKOVA, L.F.;
GAL'BRAYKH, I.Ye.; MIKIFOROVA, T.F.; FILIUPINA, A.V.

New softeners for the manufacture of rubber footwear. Kachn. i
rez. 23 no.5:20-24 My '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut nezinyovykh i lateksnykh
izdeliy i zavod "Krasnyy treugol'nik".

NIKIFOROVA, T.I. [translator]; ZOLOTAREV, G.S., red.; MAKSIMOV,S.N.,
red.; KARASEV, A.D., red.; POTAPENKOVA, Ye.S., tekhn. red.;
REZOUKHOVA, A.G., tekhn. red.

[Problems of engineering geology; collected studies. Trans-
lated from the English and French] Problemy inzhenernoi
geologii; sbornik statei. Pod red.i s pred. G.S.Zolotareva
i S.N.Maksimova. Moskva, Izd-vo inostr. lit-ry. No. 2.
1960. 382 p.

(Engineering geology)

NIKIFOROVA, T.K. (Leningrad 215, ul. Z. Portnovoy, d. 26, kv.1)

Clinical aspects and treatment of dislocations of the hip joint
in congenital multiple arthrogryposis. Ortop., travm. i protez.
27 no. 1:9-14 Ja '66 (MIRA 19:1)

1. Iz kursa ortopedii (rukovoditel' - dotsent V.A. Shturm)
Leningradskogo pediatriceskogo meditsinskogo instituta i or-
topedicheskogo otdeleniya Detskoy b-l'nitsy Moskovskogo rayona
Leningrada (glavnnyy vrach -V.M. Koroleva). Submitted October 31, 1964.

NIKIFOROVA, Tamara Romanovna; GRIGOR'YAN, A.T., doktor fiz
~~mat. nauk~~, otv. red.

Osip Ivanovich Somov. Moskva, Izd-vo "Nauka," 1965. 147 p.
(MIRA 18.3)

LOSEV, V.I.; MIKIFOROVA, T.S.

Germanium in coal. Zbir.prikl.khim. 33 no.3:730-732
(MIRA 13:6)
Mr '60.
(Germanium)

MIL'CHENKO, V.A.; NIKIFOROVA, T.S.; SUKHOSTAT, G.G.

Psychoses in bronchial asthma. Vop.psikh.i nevr. no.7:189-199 '61.
(MIRA 15:8)

1. Iz psichiatricheskoy bol'nitsy imeni P.P.Kashchenko (glavnnyy
vrach kand.med.nauk V.I.Bondarev, nauchnyy rukovoditel' prof. Ye.S.
Averbukh).

(ASTHMA) (PSYCHOSES)

St. Petersburg, Russia.

Determination of the cause of death: the primary causality is infection,
possibly septic. Very probable cause of death - pneumonia.

(MIR/ 18:14)

1. Leningradskaya oblast' hospital Kirovka (glavnyy vrach,
Glavnyy lekar' - Dr. V. V. Chistov, MSc., Dr. Chistovich).

MAKAROV, S.P.; YAKUBOVICH, A.Ya.; GINSBURG, V.A.; FILATOV, A.S.; ENGLIN,
M.A.; PRIVEZENTSEVA, N.F.; PRIVEZENTSEVA, N.F.; NIKIFOROVA, T.Ya.

Reactions of polyfluorinated nitrosoalkanes with amines. Dokl.
AN SSSR 141 no.2:357-360 N '61. (MIRA 14:11)

1. Predstavleno akademikami I.L.Knunyantsem i M.I.Kabachnikom.
(Nitroso compounds) (Amines)

ENGLIN, M.A.; YAKUBOVICH, A.Ya.; MAKAROV, S.P.; NIKIFOROVA, T.Ya.;
LYSENKO, V.V.; DUBOV, S.S.

Heterogeneous fluorination with elementary fluorine. Part 7:
Fluorination of hydrochlorides of aliphatic amines. Zhur. ob.
khim. 35 no.7:1167-1171 Jl '65. (MIRA 18:8)

NIKI FOKOVA, D.A.

AUTHORS: V. N. Vertesov, M. G. Knekin, V. V. Bogdanov, G. A. Yarob'yev, Yu. V. Klyukin, V. Ye. Nefedova, V. A. Chernov, Yu. V. The Series Electron Microscope EM-5 (Serijskij elektronnyj mikroskop EM-5)

SOV/UD-2-4-18/2
Vol 23, Nr 4, pp 465 - 489 (USRR)

Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1959 .

PERIODICALS:

ABSTRACT:

The electron microscope EM-5 is a high-resolution instrument (Fig. 1). The principal elements are arranged vertically and the image screen exhibits high resolution. There is a camera and various adjusting facilities allow good working conditions. In the object, the particle by the electron beam has a diameter of 1-5 Å. The object is situated on an object stage, which is movable from outside. The object lens and its stopper or consisting of abbe coils are accurately described, as well as the intermediate and projecting lenses. The diffraction system allows electron microscopy with penetrating and reflected beams. The electron source has a cathode diameter of 1.5 mm and 1.0 cm. The instrument can be used at a special vacuum system. Acceleration taken place by the voltage steps 40, 50, and 60 kv. The current source is stabilized, its

fluctuation amounting to 0.0001. The electrical supplies are discussed. The electron microscope EM-5 allows a bright and dark field illumination, microscopie investigations, microdiffraction, images, dark field investigations of the diffraction reflexes, etc. On focusing, the image screen is observed through a binocular microscope with a 9-fold magnification. The resolving power amounts to 20 Å. There are 3 figures and 3 Soviet references.

Card V2

Card V2

NIKIFOROVA, V.D.

Geological structure and oil-bearing prospects of the middle part
of the Lena-Aldan Depression. Avtoref. nauch. trud. VNIGRI no.17:
117-120 '56. (MIRA 11:6)
(Lena Valley--Petroleum geology)

NIKIFOROVA, V.D.; GAVRILOV, B.P.

Permian and Triassic sediments in the western Verkhoyansk Range.
Trudy VNIGRI no. 130:125-157 '59. (MIRA 14:4)
(Verkhoyansk Range—Geology, Stratigraphic)

24891

S 109 61 006 008 011 018
D207 D314

24.3300

AUTHORS: Vertsner, V.N., Nikiforov, V.G., Bogdanovskiy, G.A.,
Kozelkin, V.V., Shcheglov, V.I.F.

TITLE: Optical-electron-micros (pe EM-6 (EM-6))

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 8, 1961.
1965 - 1969

TEXT: This paper was presented at the 3rd All Union Conference on electron microscopy, Leningrad, October 1960. This is a description of an electron microscope as based on the proposal of V.N. Vertsner. It is a simple instrument, the resolution of which is half-way between that of an optical and an electron microscope, and which has been called the optical (light)-electron microscope. The production type is designated EM-6 (EM-6). It incorporates an electromagnetic objective, which produces a magnified electron picture of the sample on a high-resolution monocrystalline screen, the picture being subsequently observed by an optical microscope.

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24891

Optical-electron-microscope ..

S/1C9/61.006-008 CII, 018
D207/D204

of small magnification and photographed by a camera, type "Zenit C" (Zenit S). The source of electrons is the electron gun 1 (Fig. 2). The anode diaphragm is 1 mm in diameter and the cathode wire may be centered together with the modulating electrode, with respect to the anode. The focussing diaphragm 2 is directly behind the anode. The illumination system allows a narrow beam of electrons to reach the sample (about 10⁴ μ A) without additional lenses. The samples are introduced through the lock 3. The sample in a cylindrical holder is placed in the gap between the magnets, the holder being fixed at each end with rubber washers. The aperture diaphragm 4 is introduced into the gap behind the sample. The electron beam after passing through the sample reaches a second lens 5, whose magnification can be varied in three steps. The final electron image is formed at a monocrystalline screen 6, the side on which the beam impinges is covered by a thin layer of aluminum to prevent the charge built up. The screen is only 4 mm thick because of the properties of fluorite. The optical microscope 7 is fixed to the instrument by a hinge to facilitate access to the screen.

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10841

S-95-116-008 CIA/CIA
D-1 D-14

Optical-electron-microscope ...
For photographs the best film is fluorographic film P-1 (RF-3) but other films having sensitivity of 1900 units of FOCT (GOST) e.g. type A-2, may be used. The exposure times vary from 2 to 25 sec. depending on the sample density and overall magnification, which at an optical magnification of 40 can be 10,000, 5,000 or 2,000. The adjustment of the instrument consists of directing the electrons along the optical axis of the objective by adjusting the tilt of the gun and the axial adjustment of the two diaphragms. The vacuum system consists of a distributor, a small rotary pump VH-494 (VN-494) and a diffusion pump HBO (NVO-40) with air cooling. The silicone oil and the diffusion pump is type BKH-44 (VKZh-94) and does not oxidize in air when heated. The power supply is from 220 V mains through a ferraresonant voltage stabilizer. HF, EHT supply is used. The HF oscillator utilizes a FY 50 (GU-50) tube, working at 60 Kc/s at an amplitude of 8.4 kV. This voltage is applied to a voltage multiplier where it reaches 35 kV. The optical electron microscope type EM-6 which is now being produced has a resolution of 150 Å for photography and 80-100 Å for visual obser-

Card 3/5

2-84.

S 139 61 006 105 011-C18

D207-D204

Optical-electron-microscope ..

vations. With very accurately manufactured magnet tips the resolution can be increased to 60 Å. It is stated in conclusion that the simple construction and easy use of the instrument will make it widely adopted, to obtain magnifications between those of the optical and of the pure electron microscope. There are 6 figures and 3 references; 2 Soviet bloc and 1 non Soviet bloc

SUBMITTED: February 7, 1961

Card 4/5

VERTSNER, V.N.; IVANOV, M.G.; VORONA, Yu.M.; NIKIFOROVA, V.G.; VOROB'IEV, Yu.V.;
KLYUKIN, V.Ye.

EM-7 electron microscope. Izv. AN SSSR. Ser. fiz. 27 no.9:1193-
1195 S '63. (MIRA 16:9)
(Electron microscope)

NIKIFOROVA, V.I.; IL'INA, L.I.; KONSTANTINOV, A.P., kand. istor.nauk,
nauchnyy red.; YEGOROVA, K.I., red.; POL'SKAYA, R.G., tekhn.red.

[Live and work the communist way; collected documents and materials
on the brigades of communist labor in the industrial enterprises
of Leningrad] Zhit' i rabotat' po-kommunisticheski; sbornik doku-
mentov i materialov o brigadakh kommunisticheskogo truda na predpri-
atiyah Leningrada. Leningrad, Lenizdat, 1960. 309 p.
(MIRA 14:4)

1. Leningrad. Institut istorii partii.
(Leningrad--Efficiency, Industrial)

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3

NIKIFOROVА, V.L.

Rate of drug resistance and its effect on the course of
osteoarticular tuberculosis. Probl. tub. 44 no.2:2-... 1986.
(MIRA 18:1).
1. Kazakhskiy nauchno-issledovatel'skiy institut tuberkuleza
(direktor - A.A.Terlikbayev), Alma-Ata.

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001136920015-3"

NIKIFOROVA, V.M., kand.tekhn.nauk

Impact of tank cars when rolling stock is set in motion in
hump yards. Sbor.LIIZHT no.160:66-81 '58. (MIRA 12:5)
(Tank cars) (Railroads--Hump yards)

YABLONSKIY, Aleksandr Aleksandrovich; NIKIFOROVA, Valentina Mikhaylovna;
AYZENBERG, T.B., nauchnyy red.; OVSYANNIKOVA, Z.G., red.;
GOROKHOVA, S.S., tekhn. red.

[Course in theoretical mechanics]Kurs teoreticheskoi mekhaniki.
Moskva, Vysshiaia shkola. Pt.1.[Statics, kinematics]Statika, ki-
nematika. 1962. 430 p. (MIRA 16:2)
(Mechanics, Analytic)

NIKIFOROV, V. M. and VEDENKIN, C. G.

"Corrosion of Metals Under Stress and Methods of Protection," Mashgiz, Moscow, 1950.

NIKIFOROVA, V. M., Engineer

"Investigations in the Field of Boiler Fragility." Sub 26 Feb 51, Central Sci
Res Inst of Technology and Machine Building (TsNIIIMASH)

Dissertations presented for science and engineering degrees in Moscow during
1951.

SO: Sum No. 480, 9 May 55

Nikiforova, V. M.

USSR

V. Causes of boiler failure. V. M. Nikiforova and S. G. Vedenkin. *Izdatelstvo Korrone-Mashgiz "Sopostojchim"*, Moscow (Moskva) 1953, 21-45; *Refrat. Zhar., Khim.* 1955, No. 33073. A no. of marine boilers damaged by corrosion and cracking was studied. In all cases but one the compd. and mech. properties of the steel were in accordance with the requirements. In the one case the S content was too high (0.08%). In another case decarbon. of perlite and formation of cendrite indicated overheating of the metal caused by a thick layer of scale. The cracks were intercrys. indicating alk. brittleness as well as intracrys. analogous to cracks formed by corrosion fatigue. Corrosion damage was both on the water side and fire side of the boiler. To prevent corrosion and cracking it is suggested to use a plate of greater corrosion resistance and improve the construction of the boiler to reduce strains and stresses. It is further recommended to decarbonate the feed water and add to the boiler water corrosion and cracking retardants as well as to prevent scale formation. M. Fisch

RYABCHENKOV, A.V., doktor khimicheskikh nauk; NIKIFOROVA, V.M., kandidat
tekhnicheskikh nauk.

Testing machines for and methods of testing the long-term corrosion
resistance of steel. [Trudy] TSNIITMASH no.77:41-49 '55.(MLRA 9:7)
(Steel alloys--Testing)

NIKIFOROV, V.M., kandidat tekhnicheskikh nauk.

Rapid method for determining the cracking tendency of metals following
corrosion. [Trudy] TSNIITMASH no.77:50-57 '55. (MIRA 9:7)
(Steel alloys--Corrosion)

NIKIFOROVA, V.M., kandidat tekhnicheskikh nauk; RYABCHENKO, A.V., doktor
khimicheskikh nauk; RESHETKINA, N.A., inzhener.

Investigating the resistance of steel to corrosion cracking in
saturated hydrogen sulfide solutions. [Trudy] TSNIITMASH no.77:
58-78 '55.
(Steel alloys--Corrosion)

NIKIFOROVA, V.M., kandidat tekhnicheskikh nauk; RESHETKINA, N.A., inzhener.

Investigating the EIAIT steel for corrosion cracking in hydrogen sulfide solutions. [Trudy] TSNIITMASH no.77:79-102 '55.(MIRA 9:7)
(Steel alloys--Corrosion)

RYABCHENKOV, A.V., dekter khimicheskikh nauk, professor; NIKIFOROVA, V.M.,
Kandidat tekhnicheskikh nauk.

Mechanics of corrosion cracking of austenitic steels. Metalleved. i
ebr.met. no.8:2-11 Ag '56. (MIRA 9:10)

L, Tsentral'nyy Nauchno-issledovatel'skiy institut tekhnologii i
maschinostroyeniya.
(Steel--Corrosion)

NIKIFOROVA, V.M., kand. tekhn. nauk; RESHETKINA, N.A., inzh.

Investigation of corrosion cracking of steam turbine disks. Energo-mashinostroenie 3 no.10:19-22 O '57. (MIRA 10:12)
(Steel--Metallography) (Steam turbine disks)

AUTHORS: Nikiforova, V.M., Candidate of Technical Sciences,
and Reshetkina, N.A., Ing. (TsNIITMASH). 621

TITLE: Corrosion stability of metals in a petroleum gas medium
containing H₂S. (Korrozionnaya stoykost' metallov v
srede neftyanogo gaza, soderzhashchego serovodorod).

PERIODICAL: "Metallovedenie i Obrabotka Metallov" (Metallurgy and
Metal Treatment), 1957, No.5, pp.55-62 (U.S.S.R.)

ABSTRACT: The aim of the work described in this paper was to find
materials which are corrosion resistant, do not develop
corrosion cracks and are suitable for manufacturing
equipment operating in a petroleum gas medium which also
contains H₂S. The corrosion stability of a number of
metals with various protective coatings was investigated
in petroleum gas and also the ability of some steels to
withstand simultaneously the chemical effects of the
medium containing H₂S and of tensile stresses. The
influence was investigated of the composition of the
air-H₂S mixture on the corrosion of the metal under a
film of moisture and it was found that the corrosion
speed is highest for a 1 to 2% H₂S content in the air;
the thereby forming film of corrosion products does not
possess protective properties. The corrosion stability
was investigated in a petroleum gas containing between
0.1 and 8% H₂S under laboratory conditions as well as
under operating conditions. The laboratory investigations

Card 1/3

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Corrosion stability of metals in a petroleum gas medium containing H₂S. (Cont.)

were carried out on a test set-up as shown in Fig.1, p.56, with town gas to which 8 vol.% of H₂S was added. The results of the laboratory tests are plotted in four graphs of Fig.2 and entered in Table 1, p.58. The results of tests under operating conditions obtained for test durations of about 2500 hours are summarised in Table 2, p.59. The tendency of the metal to develop corrosion cracking was also investigated and the results are plotted in Fig.3, p.60 and entered in Table 3, p.61. The corrosion stability of materials inside a petroleum gas depends to a considerable extent on the H₂S and the moisture contents. In view of the 100% relative humidity and the high content of H₂S, the laboratory tests were considerably more stringent than normal operating tests in which the relative humidity and the H₂S contents are lower. Of the investigated materials silicon cast iron and also cast iron containing 9% Al have a higher strength than grey iron and can be classified to the fourth Ball of the scale of corrosion stability. Chromating of cast iron and steel increases appreciably their corrosion resistance, whilst Zn coating and alitizing do not give positive results. In the cold worked state the steel 1X18H9T (0.11% C, 1.20% Mn, 0.42% Si, 17.9% Cr, 10.06% Ni, 0.50% Ti, 0.021% S and 0.02% P) is suitable

Second

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Corrosion stability of metals in a petroleum gas medium containing H₂S (Cont.)

for manufacturing springs in spite of the fact that it has a certain tendency to develop corrosion cracking. 3 figures and 3 tables. 6 Russian, 2 American references.

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NIKIFOROV, V.M.

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AUTHORS: Ryabchenkov, A.V., Dr. of Chemical Sciences Prof.,
Nikiforova, V. M., Candidate of Technical Sciences,
Nezvanova, N. V. and Samuylenkova, V.D., Engineers.

TITLE: Experience of the Czechoslovak industry in protecting equipment exported to countries with tropical climates.
(Opyt Chekhoslovatskoy promyshlennosti po zashchite oborudovaniya, eksportiruyemogo v strany s tropicheskim klimatom).

PERIODICAL: "Metallovedenie i Obrabotka Metallov" (Metallurgy and Metal Treatment), 1957, No.6, pp.59-63 (U.S.S.R.)

ABSTRACT: The authors of this paper became acquainted with Czech practice in a number of Czechoslovak works. In Czechoslovakia the corrosion conditions are subdivided into the following four groups: very favourable (closed dry spaces); favourable (spaces in which atmospheric conditions act periodically); average conditions and difficult corrosion conditions (industrial atmosphere of seaside regions). Equipment intended for tropical climates is treated as being subjected to the most severe conditions of corrosion. Czech practice is described as regards protective painting, electro-plating (3-layer Cu-Ni-Cr plating, cadmium plating followed by chromating, zinc plating followed by chromating and in some cases by coating with lacquer), copper-plating, nickel-plating,

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Experience of the Czechoslovak industry in protecting equipment exported to countries with tropical climates.
(Cont.)

chromating, cadmium-zinc plating, anodising of aluminium and its alloys, conservation and packing. Fundamentally the materials and technology do not differ greatly from those used for goods supplied to countries with temperate climates. The main differences are: the enamel is made one to two layers thicker; in the case of varnishing electrical equipment and machine tools, coating enamels are used which contain fungicide additions; oil bases are used having a high content of minium; in the case of synthetic enamels, enamels with aluminium powder as pigments are used and extreme care is taken to produce a good surface quality prior to coating. Highly qualified personnel is used for the painting and surface treatment work. For tropical conditions coatings consisting of copper-nickel-chromium layers of a total layer thickness of about 30 to 45 μ are widely used; cadmium coating (8 to 15 μ) with subsequent chromating is used for springs; zinc coating (8 to 35 μ) with subsequent chromating is used predominantly for small fixing components which after fitting are varnished. Vaseline with various

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Experience of the Czechoslovak industry in protecting equipment exported to countries with tropical climates.
(Cont.)

additions are used for conservation purposes. For protecting ferrous metals during storage and transportation a volatile inhibitor, dicyclohexo-aminonitride, is used.

AVAILABLE:

Card 3/3

Миронов В.И.

AUTH.: Byabchenkov, A. V., Min. r.vn. T.I., 2-1-56
Abra ova, T.F.

OBJ.: Micro-Electro - Apparatus for investigation of
the current in steel U. microelectromagnetic intensity
and its application in the metallography.

LOC.: Zavodskaya 1, Novotroitsk, Kemerovo ob., S. 104-172 (USSR)

An apparatus was developed which makes possible non-destructive
investigations of steel structures using the method of ultrasonic waves.
The device will determine the value of the electric current. In
printing the current value is determined based on various
parameters of the ultrasonic wave. First, the value of the
wave amplitude is determined by the time interval between the
samples; then the mean value of the amplitude is determined which is the
current to be measured. The apparatus is based on the
electric resonance - in accordance with the principle of
induction. The frequency of the oscillations were

as follows: 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, 9000, 10000, 11000, 12000, 13000, 14000, 15000, 16000, 17000, 18000, 19000, 20000, 21000, 22000, 23000, 24000, 25000, 26000, 27000, 28000, 29000, 30000, 31000, 32000, 33000, 34000, 35000, 36000, 37000, 38000, 39000, 40000, 41000, 42000, 43000, 44000, 45000, 46000, 47000, 48000, 49000, 50000, 51000, 52000, 53000, 54000, 55000, 56000, 57000, 58000, 59000, 60000, 61000, 62000, 63000, 64000, 65000, 66000, 67000, 68000, 69000, 70000, 71000, 72000, 73000, 74000, 75000, 76000, 77000, 78000, 79000, 80000, 81000, 82000, 83000, 84000, 85000, 86000, 87000, 88000, 89000, 90000, 91000, 92000, 93000, 94000, 95000, 96000, 97000, 98000, 99000, 100000, 101000, 102000, 103000, 104000, 105000, 106000, 107000, 108000, 109000, 110000, 111000, 112000, 113000, 114000, 115000, 116000, 117000, 118000, 119000, 120000, 121000, 122000, 123000, 124000, 125000, 126000, 127000, 128000, 129000, 130000, 131000, 132000, 133000, 134000, 135000, 136000, 137000, 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The Micro-Electro-Chemical Method for the Investigation of
the Corrosion of Metals under Stress

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can have a structure with two; and in this case, if the grain boundaries have different electrical potentials in relation to the matrix and in the system operate as cathodes. If the grain is of cast iron 1-1-31 the anodization was found that ferrite forms the cathodes in the microcell and is at the rate of 6 ferrite. In order to obtain a comparison between the grains under stress and those not under stress one sample after each between two samples, one under stress and one not under stress, were measured. For this purpose a special standard developed. From the measurements it was found that there is a potential shift which corresponds with the increase of the stress applied, and that this may be attributed to the extent of the corrosion. It is the so-called "anodization" a special tendency of intergranular corrosion was observed. The potential difference between the grain bodies and the grain boundaries leads to a serious corrosion in the case of crack corrosion. The electrons and ions, according to the theory of the microcell, can move in the anodization.

The Micro-Electro - Electrolytic Method for the Investigation of the
Corrosion of Metals under Stress.

of crack corrosion. Materials in Russian, with references,
3 of which are given.

A SOCIATION: Central Scientific Research Institute for Technologies
and Machine Building (Central'nyj nauchno-
issledovatel'skiy in-titut tekhnologii i mashinostroyeniya)

AVAILABILITY: Library of Congress

1. Metals-Corrosion
2. Corrosion research-USSR

Vik, Fyodor A., V. M.

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PHASE I BOOK EXPLOITATION

SOV/2296

Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya

Korroziya i zashchita metallov v mashinostroyenii (Corrosion and Protection
of Metals in the Machine-building Industry) Moscow, Mashgiz, 1959. 347 p.
(Series: Its: [Sbornik] kn. 92) 3,500 copies printed.

Ed.: A. V. Ryabchenkov, Doctor of Chemical Sciences, Professor; Ed. of Publishing House: A. I. Sirotin, Engineer; Tech. Ed.: B. I. Model'; Managing Ed. for Literature on Heavy Machine Building (Mashgiz); S. Ya. Golovin, Engineer.

PURPOSE: This collection of articles is intended for designers, technologists, and industrial and research workers concerned with corrosion and corrosion protection of metals.

COVERAGE: This collection of articles deals with problems of corrosion and metal protection under investigation at TsNIITMASH during the past two years. The articles discuss stress corrosion, intergranular corrosion, scale and heat resistance of austenitic steels in gaseous media, protective coating, fretting corrosion, and resistance of metals to cavitation. No personalities are

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mentioned. References follow each article.

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PART I. STRESS CORROSION AND INTERGRANULAR CORROSION OF METALS

Ryabchenkov, A.V. [Doctor of Chemical Sciences, Professor], V.M. Nikiforova [Candidate of Technical Sciences], and V.F. Abramova [Engineer]. Microelectrochemical Investigation of Stress Corrosion of Metals	5
The authors developed instruments and a method for determining electrode potentials of metal structural components and electrochemical heterogeneity of a metal surface under tension in an electrolyte solution.	
Ryabchenkov, A. V., and V.M. Nikiforova. Role of Electrochemical Factors in the Process of Corrosion Cracking of Austenitic Steels	19
The authors study the cracking of high-alloy austenitic steels under the simultaneous effect of static tensile stresses and the corrosive medium of an electrolyte solution.	
Sidorov, V.P. [Engineer], and A.V. Ryabchenkov. Investigating the Effect of Certain Factors on the Corrosion Cracking of Austenitic Boiler Steels	42
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ature, and of heat treatment on corrosion cracking of austenitic boiler steels.

Nikiforova, V.M., and N.A. Reshetkina [Engineer]. Study of the Nature and Causes of Cracks in Steam Turbine Disks

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The authors attribute such phenomena to the salt and alkali content of steam.

Nikiforova, V.M., N.I. Yeremin [Candidate of Physical and Mathematical Sciences], N.A. Reshetkina, and A.V. Yevgrafov [Engineer]. Method of Determining the Tendency of Steel Toward Intergranular Corrosion by Utilizing High-frequency Resonance Instruments

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PART II. GAS CORROSION AND ITS EFFECT ON THE HEAT-RESISTANCE PROPERTIES OF AUSTENITIC STEELS

Davidovskaya, Ye.A. [Candidate of Technical Sciences], and L.P. Kestel' [Engineer]. Scale-resisting Alloy Steels in Different Gas Media

93

The authors discuss the mechanism of high-temperature oxidation of irons and steels in gas media, including temperatures, oxide films of austenitic steels, and rates of corrosion.

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Davidovskaya, Ye.A. Long-time Rupture Strength of Alloy Steels in Superheated Steam

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The author investigates the behavior of EYalt and EI724 steels under the effect of steam at 575° to 610°C.

Maksimov, A.I. [Engineer], P.V. Sorokin [Engineer], and S.G. Vedenkin, [Professor]. Effect of Corrosive Gas Media on Long-time Rupture Strength of Austenitic Sheet Steels

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The present investigation was made by the authors to determine the effect of fuel combustion products on three different cast steels used in gas turbine construction.

Nikiforova, V.M., N.A. Reshetkina, and V.S. Smurov [Engineer]. Study of Decay and Corrosion Resistance of Various Materials for Carbon Bisulfide Retorts Under Operating Conditions

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The authors make recommendations for the most suitable metals for inner and outer linings of carbon bisulfide retorts.

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Kovalev, Ye.A. [Engineer], and S.G. Vedenkin. Effect of Vanadium Contained in Heavy Fuel on Scale and Heat Resistance of Alloys Used in Gas Turbines

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The authors present a survey of Soviet and non-Soviet literature on this subject and discuss methods of investigation.

PART III. PROTECTIVE COATINGS

Rykova, A.V. [Candidate of Technical Sciences], E.F. Zommer [Candidate of Technical Science], V.Ye. Khromov [Engineer] and Ye.I. Ruday [Senior Technician]. Investigating the Possibility of Applying Wear-resistant Chrome Plating to Worm Gears

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Investigation is made on the basis of the similarity to the process of porous chrome plating of piston rings, cylinder sleeves of combustion engines, and other parts working under high friction.

Khromov, V.Ye. Effect of Chrome Plating on the Wear Resistance of Mat-ing parts

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Rykova, A.V., and Ye.I. Rudaya. Zinc Phosphate Electroplated Covering and Its Protective Properties

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The authors obtained zinc phosphate deposits from acid and alkali electrolytes. They describe the properties and characteristics of these deposits.

Rykova, A.V., I.A. Bilatov [Engineer], and D.M. Vedeneyev [Technician].

Chrome-plating Large Plates

233

The authors describe the experimental sectional chrome plating of 6000 x 1500 x 50 mm. plate by means of conventional industrial generators.

Rykova, A.V., and V.P. Osipova [Engineer]. Electroplating for Protection of Equipment in Tropical Climate (Survey of Non-Soviet Research)

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Leskov, A.E. [Engineer]. Protective Scale-resistant Ceramic Coating (Survey of Literature)

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PART IV. INVESTIGATIONS OF FRETTING CORROSION AND CAVITATION

Ryabchenkov, A.V., and O.N. Muravkin [Candidate of Technical Sciences].

Fretting Corrosion of Metals and Methods of Prevention

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The authors discuss information on fretting corrosion obtained from non-Soviet sources, mostly English.

Timerbulatov, M.G. [Candidate of Technical Sciences], and N.F. Bocharkov [Candidate of Technical Sciences]. Corrosion and Cavitation Resistance of Some Copper-base Alloys

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The authors discuss an investigation of a copper-base alloy developed by TsNIITMASH and give the chemical composition.

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AUTHORS: Nikiforova, V. M., Reshetkina, N. A., Smurov, V. S.

SOV/64-59-1-13/24

TITLE: A Study of Corrosion in Carbon Disulphide Retorts
(Izuchenie korrozi serouglerodnykh retort)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 1, pp 79-84 (USSR)

ABSTRACT: Carbon disulphide (I) which is much used in the manufacture of synthetic fibers is produced by direct synthesis from sulphur and coal (350-900°) in thick-walled retorts made of sulphurous cast iron or of steel 25L. As up to now there is no clear explanation for the fast destruction of these retorts, the present investigation concerned the kind of destruction in the gasification channels after an operation period of 106 to 216 days. The observations made as well as the chemical analyses (Table 1) lead to the statement that the principal causes of the short life of these retorts are to be found in a double-sided - outside and inside - intense corrosion on one hand, and in a variation of the metal structure caused by temperature changes on the other hand. Investigations of different metal samples were carried out. The samples of a silicic cast iron were obtained from the TsMIIT where parallel experiments on the technological and mechanical

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SOV/64-59-1-18/24

A Study of

Corrosion in Carbon Disulphide Retorts

properties of these steels were carried out by P. S. Durascv (deceased) and N. N. Aleksandrov. The individual metal samples were left in the retorts during the reaction for 60, 14 and 212 hours, and then the corrosion was determined by measuring the loss in weight. After the 212-hour test all metal samples would have to be assigned to group VI ("non-resistant") according to GOST 5272-50 except for the makhroti alloy (chromium-manganese steel) which belongs to group V. According to the absolute rate of corrosion, the metal samples can be divided into 4 groups: Most resistant are makhroti and fekhral (chrome aluminum steel). The second group includes the chrome steels Kh6S, Kh6M, Kh12YuS, Kh17, Kh25, Kh25T ($\text{Cr} = 6 - 25\%$), the corrosion resistance proportionally increasing with the chromium content. The third group comprises the poorly alloyed steels 30KhGS, 40KhN, 40KhNM, 35KhN2M and the steel 25L which is poor in carbon. The fourth group shows a particularly weak corrosion resistance, i.e. the highly alloyed chrome-nickel steels 16-13-3T, EI-257, EI-40, and 1Kh18Ni7T. The corrosion resistance of cast iron proved to be higher than that of the major part of steels. Particularly resistant are the silicic cast-iron types (Si 4.59-5.61%). Tables of the

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A Study of

Corrosion in Carbon Disulphide Retorts

SOV/64-50-1-18/24

steels and cast-iron types with indication of their chemical composition are given (Tables 1, 2). Further experiments were made in the heating chamber (outside corrosion of retorts), and it was found that at temperature 980° and at 1200° the corrosion resistance of the steel and cast-iron types (Tables 5, 6) was low. The steels fekhral, Kh25, Kh25T and Kh17 were most resistant at 1200°. Among the cast-iron types, a cast-iron with 28% Cr offered the best results. A table of the chemical and spectrum analyses of the corrosion products after the tests in the retort is given (Table 4); it shows that a saturation of the metal surface with sulphur and carbon takes place. The analysis of the products of combustion of the generator gas in the heating chamber was carried out by the Soyuztepstroy, and 2-4% oxygen were determined instead of the 0.2% permitted according to T.U. There are 6 tables and 4 references, 1 of which is Soviet.

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RYABCHENKOV, A.V., doktor khim. nauk, prof.; NIKIFOROVA, V.M., kand. tekhn. nauk; ABRAMOVA, V.F., inzh.

Methods of microelectrochemical analysis of corrosion of stressed metals. Trudy TSNIIITMASH 92:5-18 '59. (MIRA 12:8) (Microchemistry) (Corrosion and anticorrosives)

RYABCHENKOV, A.V., doktor khim. nauk, prof.; NIKIFOROVA, V.M., kand. tekhn.
nauk

Role of electrochemical factors in corrosion cracking of
austenitic steels. Trudy TSNIITMASH 92:19-41 '59.

(Steel--Corrosion)

(MIRA 12:8)

NIKIFOROVA, V.M., kand. tekhn. nauk; HESHETKINA, N.A., inzh.

Studying the nature and causes of cracking of steam-turbine
disks. Trudy TSNIITMASH 92:73-82 '59. (MIRA 12:8)
(Steel--Corrosion)
(Disks, Rotating--Testing)