

KIRILLOV, A.A.; NIKIFOROV, Ye.G.

Conference of research workers from Arctic observatories. Probl.  
Arkt. i Antarkt. no.12:139-141 '63. (MIRA 16:7)  
(Arctic regions)

KUDRYAVTSEV, M.F.; NIKIFOROV, Ye.I.

Selection of rational constructions and optimum parameters of instruments for measuring currents in a layer enveloped by wave action. Okeanologiya, no. 3, 1964 (MIRA 1331)

1. Analiticheskiy i artfatsialnyy naukoissledovatel'skiy tsentr.

NIKIFOROV, Ye.G.

Nonstationary phenomena in baroclinic seas and the problem of  
current forecasting. Okeanologia 4 no.5:914 '64 (MIRA 18:1)

GUDKOVICH, Z.M.; NIKIFOROV, Ye.G.

Model study of the nature of water circulation of the Arctic  
Basin. Okeanologiya 5 no.1:73-83 '65. (MIRA 18:4)

1. Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy  
institut.

GUDKOVICH, Z.M.; NIKIFOROV, Ye.G.

Some important characteristics of the formation of water density anomalies and their effects on ice and hydrologic conditions in the Arctic basin and bordering seas.

Okeanologia 5 no.2:250-260 '65.

(MIRA 18:6)

1. Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy institut.

1. 23378-66 SW(1) GW  
ACC NR: AP6007650 (N) SOURCE CODE: UR/0213/66/006/001/0076/0081

AUTHOR: Nikiforov, Ye. G.; Belyshava, Ye. V.; Blinov, N. I.

ORG: Arctic and Antarctic Scientific Research Institute (Arkticheskiy i Antarkti-  
cheskiy nauchno-issledovatel'skiy institut)

TITLE: Structure of water masses in the eastern part of the Arctic basin

SOURCE: Okeanologiya, v. 6, no. 1, 1966, 76-81

TOPIC TAGS: ocean dynamics, sea water, ocean current., ocean property

ABSTRACT: Earlier investigators (Nansen, Shirokov, Shtokman) identified surface, deep, and bottom water masses in the Arctic. However, a study made in 1941 and investigations conducted by Maksimov (1946) Timofeyev (1946, 1951), and others have revealed the presence of an underwater rise impeding water exchange at the bottom water level in the Nansen depression. Tudkovich (1955), Treshnikov (1959), and Coachman and Barnes (1961) investigated Arctic water characteristics and established the existence of Pacific Ocean waters in the basin. A study made between 1951 and 1963 showed that 1) the intermediate temperature minimum found at 100 to 150 m water levels in the eastern part of the Arctic basin, and the interlayer are of the Pacific Ocean origin; 2) the composition of the two layers entering the Arctic basin from the Pacific Ocean through the Bering Strait are substantially different in temperature, salinity, and

Card 1/2

NIKIFOROV, Ye.K. (Sverdlovsk).

Diagnosis of gastric calculi. Vest.rent. i rad. 32 no.1:83-85

Ja-F '57.

(MLRA 10:6)

(STOMACH, calculi  
diag.)

NIKIFOROV, Ye M

MAKSIMOV, Vasilii Mikhailovich, dotsent, kand.geologo-miner.nauk; ASATUR, K.G., dotsent, kand.tekhn.nauk; DAVIDOVICH, V.I., dotsent, kand.tekhn.nauk; ALBUL, S.P., kand.geologo-miner.nauk; PAUKER, N.G., inzh.-gidrogeolog; OSTROUMOV, B.P., gidrotekhnik; ZAYTSEV, I.K., doktor geologo-miner.nauk; TOLSTIKHIN, N.I., prof., doktor geologo-mineral.nauk; REZNIKOV, A.A., kand.khim.nauk, starshiy nauchnyy sotrudnik; MERSHALOV, A.F., assistent; VOROTYNTSEV, V.T., dotsent, kand.tekhn.nauk; MARKOV, I.A., dotsent, kand.geologo-miner.nauk; KERKIS, Ye.Ye., dotsent, kand.geologo-miner.nauk; KHITROV, I.N., inzh.-geolog; BOROVITSKIY, V.P., kand.geologo-miner.nauk; RAVDONIKAS, O.V., kand.geologo-miner.nauk; ONIN, N.M., kand.geologo-miner.nauk; BASKOV, Ye.A., inzh.-gidrogeolog; NOVOZHILOV, V.N., dotsent, kand.geologo-miner.nauk; PEKEL'NIYY, I.S., inzh.-gidrogeolog; NEVEL'SHTEYN, Yu.G., inzh.-gidrogeolog; BOSKIS, S.G., inzh.-gidrotekhnik; NIKIFOROV, Ye.M., inzh.-gidrogeolog; GATAL'SKIY, M.A., prof., doktor geologo-miner.nauk, nauchnyy red.; DOLMATOV, P.S., vedushchiy red.; GEN-NAD'YEVA, I.M., tekhn.red.

[Hydrologist's handbook] Spravochnoe rukovodstvo gidrogeologa. Leningrad, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Leningr.otd-nie, 1959. 836 p. (MIRA 12:4)

1. Vsesoyuznyy geologicheskii nauchno-issledovatel'skiy institut (for Reznikov). (Hydrology)



NIKIFOROV, Ye.M., inst.

Evaluation of the influence of the form of torsion vibrations  
and finiteness of ship length on the value of the inertia  
moment of an added liquid mass. Sudostroenie 30 no.11:  
16-18 N '64. (MIRA 18 3)

SOV/91-59-3-13/82

8(3)

AUTHOR: Nikiforov, Ye.P., Engineer

TITLE: Control of Ice and Hoarfrost Forming on Cables of  
Electric Transmission Lines (Gololed i izmoroz'  
na provodakh liniy elektroperedachi i bor'ba s nimi)

PERIODICAL: Energetik, 1959, Nr 3, pp. 25-30 (USSR)

ABSTRACT: The author describes the ice formation on cables of electric power transmission lines and analyzes the factors causing its formation, such as velocity of wind, temperature, air humidity, and diameter of cable. The USSR is divided into four ice-forming regions, depending on the thickness of ice shell formed around the cable. i.e.: I - region with ice shell up to 0.5 cm; II - up to 1 cm; III - up to 1.5 cm; IV - up to 2 cm. Also, there are regions in USSR having ice formations above 2 cm. In general, the ice formations do not exceed 4-5 kg/m, however, in some regions they are up to 50 kg/m, e.g.: Beshtau Mountain in 1954. The most efficient way to control ice formations is by the

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Control of Ice and Hoarfrost Forming on Cables of Electric  
Transmission Lines

use of an electric current to melt the ice. The following basic methods are used to obtain necessary currents for melting: 1) short-circuit; 2) reversing of phase connections; 3) redistribution of the load and change of the network connections; 4) the connection of additional e.m.f. in series with the heated cable; 5) a reactor circuit. Among other methods, the author mentions mechanical means, still in use in some power systems, and the preventive coating with hydrophobic components. There are 6 diagrams and 6 circuits.

Card 2/2

IZRAILEV, R.A., inzh.; NIKIFOROV, Ya.P., inzh.

Device for signaling the appearance of ice crust on electric  
power transmission lines. Energetik 9 no.9:6-9 S '61. (MIRA 14:9)  
(Electric lines--Overhead)

NIKIFOROV, Ye.P., inzh.

Effect of an a.c. field on the weight of sleet accumulation on overhead electric power transmission lines. Elektrichestvo no.6:52-57  
Je '62. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki.  
(Electric lines—Overhead)

NIKIFOROV, Ye.P., inzh.

Effect of the height of overhead power transmission lines on the  
weight of the ice crust. Elek. sta. 33 no.4:62-66 Ap '62.  
(MIRA 15:7)

(Electric lines--Overhead)

IZRAILEV, R.A., inzh.; NIKIFOROV, Ye.P., inzh.; IGLITSYN, I.L., red.;  
PAVLOVA, T.I., tekhn. red.

[Distance-type device for signaling ice crust formation on  
overhead power transmission lines.] Distantсионnyi signaliza-  
tor gololeda na liniak elektroperedachi Moskva, Gosenergoiz-  
dat, 1960. 26 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'-  
skii institut elektroenergetiki. Informatsionnye materialy,  
no.48) (MIRA 16:8)

NIKIFOROV, Ye.P., inzh.

Effect of the twisting of a wire on the weight of the ice crust  
formation. Trudy VNIIE no.15:220-227 '63. (MIRA 16:12)



NIKIFOROV, Ye.P., kand. techn. nauk

Devices for measuring and registering the current in overhead  
wires. Trudy Vuzovsk. 1971-1972. No. 1. P. 1-4.

SOLOV'YEV, M., ZUKHOVITSKIY, M.; NIKIFOROV, Yu., aspirant

Large panels made of foamed polystyrene. Na stroi.Ros. no.4:26-27  
Ap '61. (MIRA 14:6)

1. Leningradskiy nauchno-issledovatel'skiy institut polimeri-  
zatsionnykh plastmass (for Solov'yev). Nachal'nik laboratorii  
Domostroitel'nogo kombinata No.1 Glavleningradstroya (for  
Zukhovitskiy). 3. Leningradskiy inzhenerno-stroitel'nyy institut  
(for Nikiforov).

(Plastics)

S/137/62/000/005/010/150  
A006/A101

AUTHORS: Nikiforov, Yu. A., Ponomarev, V. D.

TITLE: On the interaction of calcium oxide with sulfurous anhydride at elevated temperatures

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 18, abstract 9A89  
("Izv. AN KazSSR, Ser. metallurgii, obogashch. i ogneporov", 1962, no. 3 (12), 27-34, Kaz. summary)

TEXT: For the purpose of studying processes of metal extraction from gases which are formed during the pyrometallurgical processing of sulfide Cu and Mo concentrates, the authors investigated interaction of CaO at 100 - 500°C with sulfurous anhydride, at 0.5 - 2.0% concentration of the latter in gas. Initial materials were CaO of -2+1 mm size, and gas obtained by mixing purified argon with SO<sub>2</sub>. The experiments were made with 2g-batches placed in a tubular furnace on the grid of a quartz reaction tube. A beginning interaction of CaO with SO<sub>2</sub> was noted at 100°C. An intensive increase of the process rate was observed only at > 400°C. SO<sub>2</sub> contained in the gas increases the degree of CaO transformation. The necessary duration of the contact is 5 - 15 minutes under laboratory

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On the interaction of calcium ...

S/137/62/000/005/010/150  
A006/A101

conditions; during this time 80% of the theoretically permissible S amount are reacting. Gas humidity at 200°C does not affect the degree of interaction between SO<sub>2</sub> and CaO.

T. Kolesnikova

[Abstracter's note: Complete translation]

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NIKIFOROV, Yu.A.; PONOMAREV, V.D.

Interaction of rhenium heptoxide with calcium oxide in the  
presence of sulfurous anhydride. Trudy Inst. met. i obog.  
AN Kazakh. SSR 6:51-54 '63. (MIRA 16:10)

MENZHULIN, Yu.N.; NIKIFOROV, Yu.A.; SHABDENOV, B.A.; PONOMAREVA, Ye.I.

Alkali processing of flue dust. Trudy Inst.met.i obog. AN Kazakh.  
SSR 11:145-149 '64. (MIRA 18:4)

NIKIFOROV, Yu.A.; SHABDENOV, B.A.

Decomposition of indium phosphate in caustic soda solutions. Trudy  
Inst. met. i obog. AN Kazakh. SSR 12:23-25 '65.

(MIRA 18:10)

SAZONOV, Anatoliy Yefimovich; NIKIFOROV, Yu.F., inzh., spetsred.; DENISOV, K.N., inzh., red.izd-va; KOFLYAKOVA, O.I., tekhn.red.

[Electronic digital computers and their use on ocean-going vessels]  
Elektronnyye tsifrovye vychislitel'nye mashiny i ikh ispol'zovanie  
na morskikh sudakh. Leningrad, Izd-vo "Morskoi transport," 1960.  
107 p. (MIRA 13:5)

(Electronic digital computers)  
(Electronics in navigation)



L 10449-66 EWT(d)/EWP(1) IJP(e) BB/CG

ACC NR: AR5027564

SOURCE CODE: UR/0274/65/000/008/B033/B033

SOURCE: Ref. zh. Radiotekhnika i elektrosvyas', Abs. 88243

AUTHOR: Nikiforov, Yu. F. 44, 55

31

TITLE: Combining "Don" radar with navigation digital computer 16C, 44

CITED SOURCE: Sb. po obzoru opytom primeneniya vychisl. tekhn. na vodn. transp. M.-L., Transport, 1964, 172-188

TOPIC TAGS: radar, navigation radar, radar computer

TRANSLATION: A digital attachment for a "Don" radar and a navigation computer is described which is used to forestall ship collision in the sea. The attachment permits "capturing" a ship echo, selecting it with respect to its range and direction, and converting the present ship coordinates into a computer code. The computer calculates necessary maneuvers. Target detection is attained by means of binary quantization of echo pulses. Bib 4, figs 8.

SUB CODE: 17

Card 1/1 pw

UDC: 621.396.967.3:681.14

ACC NR: AR6035393

(N)

SOURCE CODE: UR/0398/66/000/009/v023/v023

AUTHOR: Nikiforov, Yu. F.; Filippov, Yu. M.

TITLE: Determination of dimensions of the range and bearing strobes in the case of automatic operation of a radar station with a digital computer

SOURCE: Ref. zh. Vodnyy transport, Abs. 9V166

REF SOURCE: Sb. Vychisl. tekhn. na morsk. transp. M., Transport, 1966, 62-66

TOPIC TAGS: navigation radar, digital computer, gate signal

ABSTRACT: During automatic tracking of the target with the aid of circular-scan radar, an increase in the strobe dimension leads to an increase in the probability of obtaining the vessel and simultaneously to an increase in the probability of a false signal, and also to a decrease of the resolution of the radar. To increase the probability of correct observation of the target, the strobe should include both the last determined point and the extrapolated point. The dimensions of the strobe are determined by the semi-axis of the overall error ellipse of the measurements, equal to the sum of the measurement-error ellipses between the point of the last observation and the extrapolated point during one revolution of the antenna. After choosing the coordinate system, one records the measurement-error tensor (ellipse) in the form of a matrix, in which the bearings of the last determined point still remain unknown, and the semi-axes of the error ellipses remain constant. We calculate the values of the major and minor semi-axes of the error ellipse, characterizing the position and dimensions of the

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UDC: 621.396.969.3: 347.799

ACC NR: AR6035393

strobe relative to the last determination of the ship position. We then determine the initial and final limits in bearing, the initial and final limits in range, the number of added error ellipses, and the length of the radius vector in the direction of relative motion. 1 illustration. Bibliography, 2 titles. V. Makarov [Translation of abstract]

SUB CODE: 09, 17

Card 2/2

NIKIFOROV, Yd.L.

Cytochemistry of nucleic acids in the process of the development of archesporial cells of the cotton plant anther. Izv. AN Turk. SSR. Ser; biol. nauk no.6:7-17 '61. (MIRA 15:1)

1. Institut botaniki AN Turkmenskoy SSR.  
(NUCLEIC ACIDS) (PLANT CELLS AND TISSUES)  
(COTTON)

NIKIFOROV, YU. L.

Dissertation defended in the Botanical Institute imeni V. L. Komarov  
for the academic degree of Candidate of Biological Sciences:

"Several Cytochemical Characteristics of the Development of the  
Cotton Pollen Grain."

Vestnik Akad Nauk No. 4, 1963, pp. 119-145

NIKIFOROV, Yu.L.

Significance of the intermediate layer in the anther of the cotton  
plant. Izv. AN Turk. SSR. Ser. biol. nauk no.2:63-65 '62.

(MIRA 17:10)

1. Institut botaniki AN Turkmenskoy SSR.

NIKIFOROV, Yu.L.

Cell differentiation as a key problem of cytology. Izv. AN  
Turk. SSR. Ser. biol. nauk no.3:18-26 '63.

(MIRA 17:1)

1. Institut botaniki AN Turkmenskoy SSR.

NIKIFOROV, Yu.I., BELYAYEVA, N.S.

Concerning M.I. VIKHOVA's article. *Psitologiya* 5 1963  
705-706 N-D '63.

MIFF 11 11



NEKIPU

Development of the ...  
Ser. Biol. Rank ...  
1. Institut ...

NIKIFOROV, Yu.N., agronom

High pea yields on the Il'ich Collective Farm. Zemledelie P  
no.1:81-82 Ja 60. (MIRA 13:4)

1. Kolkhoz imeni Il'icha, Ibrsinskogo rayona, Chuvashskoy ASSR.  
(Ibrsi District--Peas)

NIKIFOROV, Yu. N., inzh.

Motorboat for amateur boatbuilding. Sudostroenie 28 no.10:  
31-34 0 '62. (MIRA 16:1)

(Boatbuilding) (Motorboats)

NIKIFOROV, Yu.N., mladshiy nauchnyy sotrudnik

Automatic correlator. Nauch.-issl. trudy TSNIILV 16:138-150 '62.  
(MIRA 16:10)

NIKIFOROV, Yu. M., inzhener, laureat Stalinskoy premii; ROMASHINA, N. F.,  
inzhener.

Comparative tests for wood glues. Trudy TSNIS MPS no.9:130-135  
'53. (MLRA 8:1)  
(Adhesives) (Woodwork)

NIKIFOROV, Yu.N., inzhener, laureat Stalinskoy premii.

Investigation of mechanical methods of gluing wooden pieces.  
Trudy **TSNIS MPS** no.9:136-153 '53. (MLBA 9:1)  
(Gluing) (Woodwork)

POPOV, K.A., professor; ~~NIKIFOROV~~, Yu.N., inzhener, laureat Stalinskoy  
premi; TIMOFEYEVA, O.G.

Investigation of a method of deep impregnation of wooden boards by  
means of a preliminary injection. Trudy TSNIS MPS no.9:154-164 '53.  
(Wood--Preservation) (MLBA 8:1)

NIKIFOROV, Yu. N., inzhener, laureat Stalinskoy premii.

Gluing wood impregnated with water and oil repellents. Trudy  
TSNIS MPS no. 9:165-174 '53. (MIRA 8:1)  
(Gluing) (Woodwork)



NIKIFOROV, Yu.N., inzhener, laureat Stalinskoy premii; SOKOLOVA, T.Ye.,  
inzhener.

Gluing metal to wood impregnated with an oil repellent. Trudy TSNIS  
MPS no.9:175-178 '53. (MIRA 8:1)  
(Gluing) (Woodwork)

NIKIFOROV, Yuriy Nikolayevich, kandidat tekhnicheskikh nauk; MALYNICH, Vyacheslav Iosipovich, inzhener; LUKASHEV, A.A., inzhener, redaktor; BOBROVA, Ye.N., tekhnicheskiiy redaktor

[Technology of woodworking] Tekhnologiya obrabotki drevesiny.  
Moskva, Gos. transp. zhel-dor. izd-vo, 1956. 243 p. (MLRA 10:3)  
(Woodwork)

*Авторы: Ю.Н. Никифоров, Н.Ф. Ромашина, А.К. Киракосян*

NIKIFOROV, Yu.N.; ROMASHINA, N.F.; KIRAKOSYAN, A.K.

Experience using glued girders. Put' i put. khoz. no.7:9 JI '57.  
(Girders) (MLRA 10:8)

BELOZEROVA, Anastasiya Sergeyevna; VETRYUK, Ivan Martynovich; GODILO, Petr Viktorovich; ZUBAREV, Georgiy Nikolayevich; KOVAL'CHUK, Leonid Mikhaylovich; KSYUNINA, Nina Grigor'yevna; NIKIFOROV, Yuriy Nikolayevich; PARINI, Yevgeniy Pavlovich; PATUROYEV, Vasil'y Vasil'yevich; PETROV, Igor' Stepanovich; CHERNYI, Boris Grigor'yevich; GUBENKO, A.B., doktor tekhn. nauk, red.; SAKHAROV, M.D., red.; MAKSAKOVA, A.M., red.1zd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Glued wooden elements and techniques for their manufacture]  
Kleeny dereviannye konstruktsii i tekhnologiya ikh izgotovleniia.  
[By] A.S.Belozeroval. i dr. Moskva, Goslestumizdat, 1962. 180 p.  
(MIRA 16:5)

(Gluing)

NIKIFOROV, Yuriy Nikolayevich; MALYNICH, Vyacheslav Iosifovich;  
DURANIN, S.I., inzh., retsenzent; BRAYLOVSKIY, N.G., inzh.,  
red.; MEDVEDEVA, M.A., tekhn. red.

[Technology of wood processing] Tekhnologiya obrabotki drevesiny.  
2. izd. Moskva, Transzheldorizdat, 1962. 215 p. (MIRA 15:5)

(Woodwork)

(Railroads--Cars)

BARAKS, Aleksandr Markovich; ~~NIKIFOROV~~, Yuriy Nikolayevich; POPOV,  
K.A., prof., retsenzent; KLOPNIK, G.P., inzh., red.

[Deep impregnation of wood by the use of incisions] Glu-  
bokaia propitka drevesiny putem primeneniia nakolov. Mo-  
skva, Izd-vo "Lebnaya promyshlennost'," 1964. 155 p.  
(MIRA 17:5)

NIKIFOROV, Yu.N.; SIBINA, L.I., *ibidem* *ibidem* *ibidem*

Use of electronic analog computer for establishing the dynamic characteristics of the products of spinning. Tekst. pr. n. n. no. 7:38-46. 1961. *ibidem* *ibidem* *ibidem*

1. *Rukovoditel' laboratorii teoretiki Tsentral'nogo nauchno-issledovatel'skogo instituta proizvodnosti i dyal'skogo volokna (TsNIIIV)* (for Nikiforov). 2. *Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskogo volokna (VNIIV)* (for Sibina).

KOGAN, L.S.; NIKIFOROV, Yu.V.

Effect of some factors on results of testing cements in auto-  
claves. Trudy Giprotsement no.24:3-13 '62. (MIRA 16:4)  
(Cement—Testing) (Autoclaves)



KOGAN, L.S.; NIKIFOROV, Yu.V.

Problem of the permissible magnesium oxide content in portland  
cement clinker. Trudy Giprotsement no.27:90-106 '63.

(MIRA 17:12)

KOGAN, L.S., kand.tekhn.nauk [deceased]; NIKIFOROV, Yu.V., inzh.

Specifications for the manufacture of portland cement with increased magnesium oxide content. Tsement 31 no.1:9-11 Ja-F '65.

(MIRA 18:4)

1. Gosudarstvennyy vsesoyuznyy institut po proyektirovaniyu i nauchno-issledovatel'skim rabotam tsementnoy promyshlennosti.

ACC NR: AR6035392

(N)

SOURCE CODE: UR/0398/66/000/009/0025/0025

AUTHOR: Nikiforov, Yu. V.

TITLE: Algorithm for the processing of radar information and analysis of the possibility of solving the problem of drift of ships in a sea

SOURCE: Ref. zh. Vodnyy transport, Abs. 9V165

REF SOURCE: Sb. Vychisl. tekhn. na morsk. transp. M., Transport, 1966, 53-62

TOPIC TAGS: algorithm, navigation radar, ship navigation, computer coding, gate signal, mean square error

ABSTRACT: In automatic detection and conversion of the incoming navigational information into digital code, use is made of mathematical manipulation that increases the accuracy and reliability of the inserted information. The entire information is divided into measurement groups, in which the range, bearing, and time are averaged in accordance with a sequential-calculation formula which is suitable for the digital computer. After the formation of the group is finished, the mean-square range and bearing errors are determined and used to obtain the distance of the shortest approach with specified accuracy and reliability. An analysis of the possibility of solving the problem is then made, the elements of ship motion are calculated, and the actual shortest distance is calculated from the increments of the differences in the bearings and of the running values of the range. The program of the obtained algorithm makes it possible to analyze the presence of a ship in the gate with visual indication, pro-

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UDC: 621.396.969.3: 347.799

ACC NR: AR6035392

cess the radar information, and calculate the relative course and elements of approach. The synchronization of the operation of the radar - navigational computer system proceeds in a programmed manner: the algorithm for the processing of the initial information is executed in the form of a standard program; provision is made in the tracking system to permit readout of the numbers from the circuit which carries out the ship-target gating in bearing, by assigning to the circuit a definite address in the converter block. Bibliography, 3 titles. V. Makarov. [Translation of abstract]

SUB CODE: 09, 17

Card 2/2

LIPOVSKIY, M., kand.tekhn.nauk; NIKIFOROV, Yu.Ye., inzh.; SPIVAKOV, M.S., inzh.

For further lowering of the weight and construction costs of apartment  
houses. Biul.tekh.inform. 5 no.1:6-8 Ja '59. (MIRA 12:4)  
(Precast concrete)

NIKIFOROV, Yuriy Yefimovich, inzh.; SOLOV'YEV, Mikhail Ivanovich; ZUKHOVITS-  
KIY, Moisey Yefimovich; KOMAROVSKIY, M.F., red.; GVIRTS, V.L., red.  
izd-va

[Using foamed polystyrene to insulate exterior wall panels] Opyt  
primeneniia penopolistirola v kachestve uteplitelia naruzhnykh  
stenovykh panelei. Leningrad, 1961. 14 p. (Leningradskii Dom nauchno-  
tekhnicheskoi propagandy. Obmen peredovym opytom. Seria: Stroitel'naia  
promyshlennost', no.9) (MIRA 14:7)  
(Insulation (Heat)) (Concrete walls) (Styrene)

NIKIFOROV, Yu. Ye., Cand. Tech. Sci. (diss) "Investigation of  
Assembly Method of Manufacture of Three-layer Reinforced Concrete  
Wall Panels," Leningrad, 1961, 17 pp (Acad. Construc. and Architec.  
USSR, Leningrad Branch) 200 copies (KL Supp 12-61, 271).

GAYSANYUK, Vasilii Fedorovich, ABOVSKIY, Vladimir Petrovich;  
YEROMEYEV, Valentin Ivanovich, znan. tekhn. nauk;  
NIKIFOROV, Yuriy Yefimovich, dots.

[Improvement in the preparation and assembling of large-panel buildings; practices of the Korkinskiy Housing Construction Combine in the city of Krasnoyarsk] Sovetskoye stroitel'stvo i arkhitektura. 1977. No. 1. S. 10-12. (Soviet construction and architecture. 1977. No. 1. P. 10-12.)

1. Moscow. Nauchno-issledovatel'skiy institut stroitel'stva, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stva. Tsentral'noye byuro tekhnicheskoy informatsii. (Central office of technical information. Director: V. I. Yermeyev, Chief of the Administration of Civil Construction in the City of Krasnoyarsk (for Abovskiy)). 3. Glavnyy inzhener Korkinskogo domostroitel'nogo kombinata v gorode Krasnoyarske (for Yermeyev).
4. Nachal'nik Korkinskogo domostroitel'nogo kombinata v gorode Krasnoyarske (for Yermeyev). 5. Krasnoyarskiy politekhnicheskii institut (for Nikiforov).



**NIKIFOROV-DENISOV, N.**

~~NIKIFOROV-DENISOV, N.~~  
We must train thousands of new athletes. Prof.-tekh. obr. 12  
no.5:24-25 My '55. (MIRA 8:8)

1. Zamestitel' predsedatelya Tsentral'nogo soveta dobrovol'nogo  
sportivnogo obshchestva "Trudovyye rezervy"  
(Physical education and training)

SHKLYAYEV, V.V., dotsent, NIKIFOROVA, A.A., professor

Reentecnological and histological characteristics of the reaction of  
a fractured bone and its elements to the introduction of an intra-  
medullary rod made of EL-1-T stainless steel. Ortop.travm. i protez.  
18 no. 12-18 My-Je '57. (USSR 1017)

1. Iz kliniki gospiatal'noy retri (i.o.zav. - dotsent V. Shklyayev)  
i kafedry gnetologii (zav. - prof. A.A. Nikiforova) Omskogo gospi-  
tala im. M. I. Khuzina (dir. - dots. A.N. Kuznetsov)  
Surg. surr.

reaction of bone tissue to bolt from stainless steel)

USSR/Pharmacology and Toxicology: Toxicology.

Abstract: Ref Zhur-B. 1. No. 10, 1978, 90012.

Author: Nikiferova, A.M.; Silyarenok, N.O.  
Inst.: Omsk Medical Institute.

Title: Morphological Changes in the Cerebral Cortex Caused  
By the Action of Carbon Monoxide Under Various Temper-  
ature Conditions.

Original: Tr. Omsk gos. med. in-sta. 1977, N. 21, 200-205.

Abstract: Experiments were carried out on rats exposed for  
1½ months to the action of high temperatures (32-  
35° C) for periods of 4 hours/24 hours (the first  
group); to poisoning with CO in concentrations of  
1.2-2.2 ml/l, at a T° of 18-20° for periods of  
30 minutes daily (the second group); and to the  
combined effect of CO in the same concentration at

Card: 1/3

v-48

USSR/Pharmacology and Toxicology. Toxicology.

V

Ibs Jour: Ref Zhur-Biol., No 19, 1958, 90012.

32-35°C for 30 minutes daily (the third group).  
The experiments were carried out at intervals of  
1-2 days. Histological investigations of the brain  
of the animals of the first group showed hyperemia  
of the vascular cerebral membranes and of the white  
and gray cerebral matter; in the second group,  
loosening of the pia mater and an increase of its  
strata of connective tissue; a ramification of the  
capillary network and small hemorrhages in the  
deep layers; changes in the form of the pyramids;  
in the cerebral matter and now and then, manifestations  
of neuronophagia. In the third group, a more intensely  
manifested vascular reaction in the pia mater and in  
all the cerebral layers; a leucocytic infiltration

Card : 2/3

**NIKIFOROVA, A.**

Factory broadcasts in the effort for technical progress. Radio  
no.7:12 J1'55. (MIRA 8:10)

1. Redaktor zavodskoy radioinformatsii zavoda "Dinamo"  
(Radio)

157 AND 159 (22955)

CA

Electrolytic production of "bright" zinc plate from weakly acid electrolytes. N. I. Kudryavtsov and A. A. Nihilavaya, *Khimiya i Metallurgiya*, No. 5, 1972 (1973); *Novaya Tekhnol. i Organizatsiya*, *Prilozhenie k Prilozheniu NKAP, Kabinat Obshchestva* (Optim. po Novoi Tekhnol. i Organizatsii Proizvodstva 1970), No. 4, 79-89. *Khim. Referat. Zhur.* 1960, No. 2, 89. K and N selected a 3 N soln. of  $ZnSO_4 \cdot xH_2O$ ,  $18H_2O$  +  $Na_2SO_4 \cdot 10H_2O$ , pH 4.0 to 4.5, bath temp. not over 25°, cathode c. of 1.7 amp./sq. dm., stirring with compressed air. The effects of 10 addns. of org. and inorg. origin were investigated. Na 2,6- or 2,7-naphthalenedisulfonate and thiourea gave best results. The purity of the electrolyte is very important for "bright" plate. Three types of anodes were tried. Best anodes were: Zn + Al (~0.5%) + Hg (~0.3%). To brighten dull Zn deposits dip them into  $CrO_3$  (150 g/l  $H_2SO_4$ , 4 g/l).

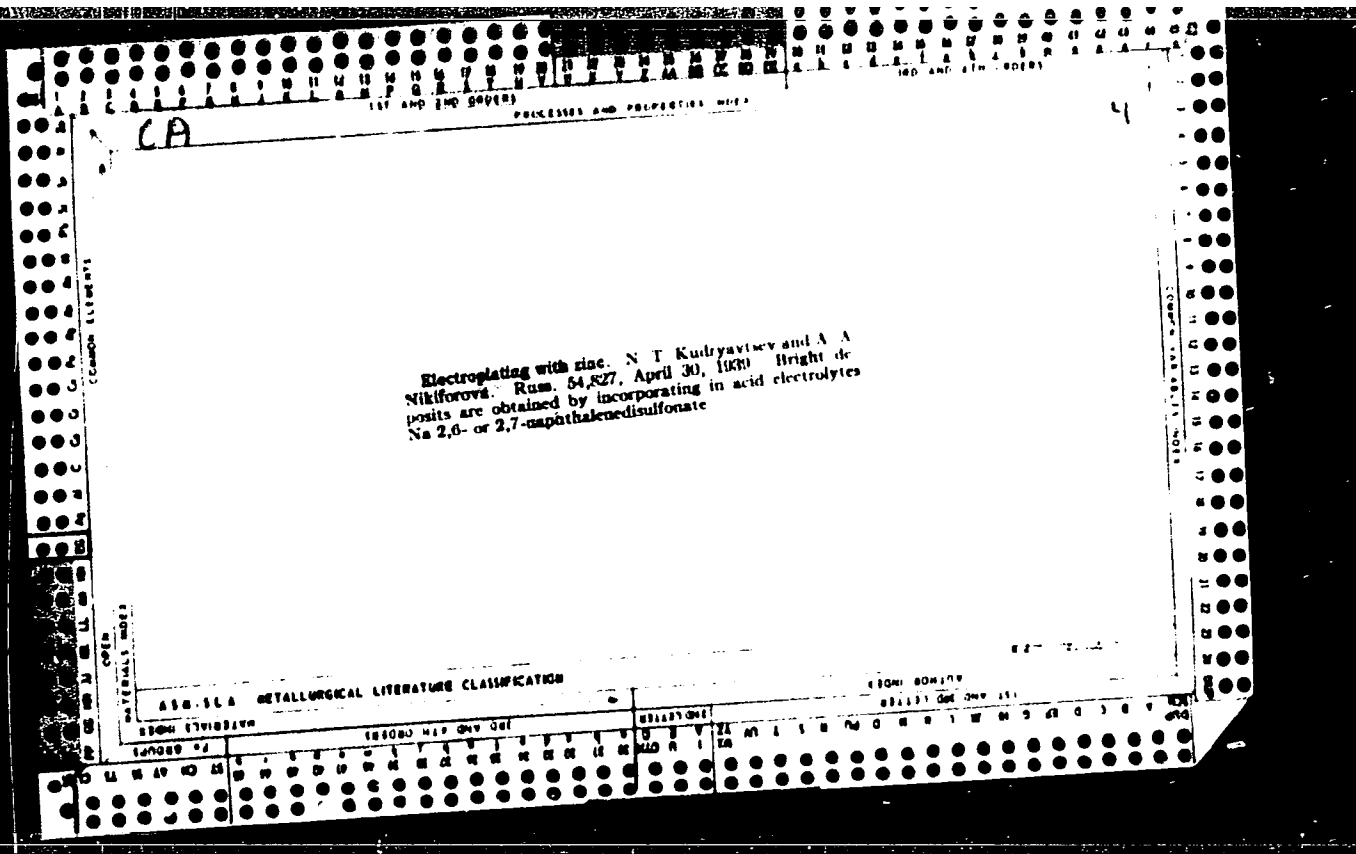
W. R. Henn

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000-554 METALLURGICAL LITERATURE CLASSIFICATION

157 AND 159 (22955)

157 AND 159 (22955)	000-554 METALLURGICAL LITERATURE CLASSIFICATION	157 AND 159 (22955)
157 AND 159 (22955)	000-554 METALLURGICAL LITERATURE CLASSIFICATION	157 AND 159 (22955)

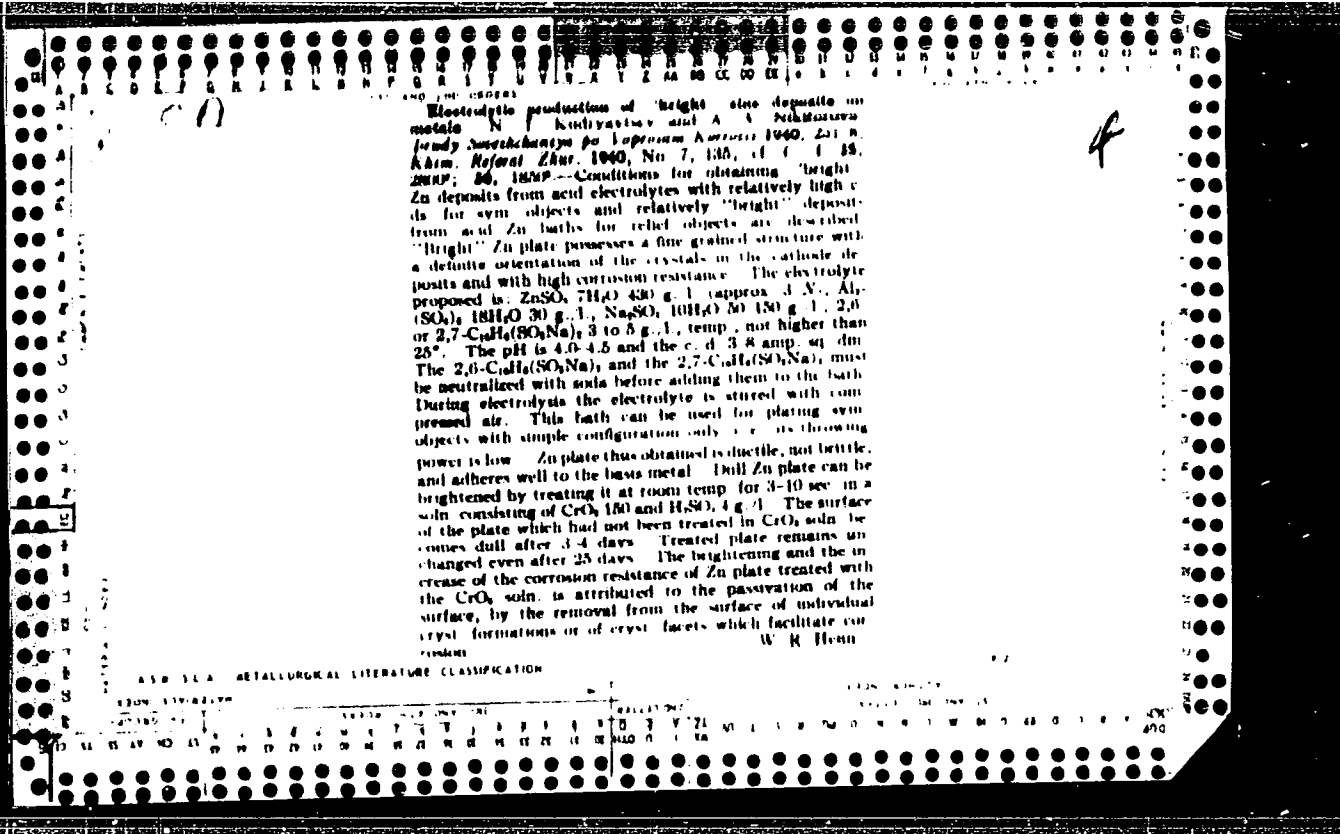


Electrodeposition

Met Abs

\*Electrolytic Production of "Bright" Zinc Plate from Weakly Acid Electrolytes. N. T. Kudryatov and A. A. Nikiforova (*Korroziya i Bor'ba s Net* (Corrosion and the Fight Against It), 1960; 8: (33), 86-72; *Novaya Tekhnol. i Aviatronika, Pervoe Glavnoe Upravlenie NKAP, Kabinetskiy Otdel Otkrytiya i Novoy Tekhnol. i Organizatsii Proizvodstva*, 1960, (4), 74-80; *Khim. Referat Zhur.*, 1960, (2), 88; *C. Abs.*, 1962, 26, 1850). [In Russian.] K. and N. selected a 3N solution of  $ZnSO_4 + Al_2(SO_4)_3 \cdot 18H_2O + Na_2SO_4 \cdot 10H_2O$ ,  $pH$  4.0-4.5, bath temperature  $>25^\circ C$ ., cathode c.d. 3-7 amp./dm<sup>2</sup>, stirring with compressed air. The effects of forty additions of organic and inorganic urea were investigated. Na 2:6- or 2:7-naphthalenedisulphonate and thiourea gave best results. The purity of the electrolyte is very important for "bright" plate. Three types of anodes were tried; the best were Zn + Al (~0.5%) - Hg (~0.3%). To brighten dull zinc deposits dip them into  $CrO_3$  (150 grm./litre with  $H_2SO_4$ , 4 grm./litre).





CA

Zinc plating from alkaline electrolytes N. I. Kudryavtsev and A. A. Nikiforova. *Avtorizatsiya*, No. 6, No. 2, 44-6 (1940); cf. C. A. 36, 1854P. — The method proposed produces bright, dense Zn deposits quite satisfactory for industrial use. The main factor in the new electrolyte is the presence of  $\text{Sn}^{2+}$  ions. The relative effect of coating of  $\text{Sn}^{2+}$ ,  $\text{OH}^-$  and  $\text{Zn}^{2+}$  on the quality of the deposit was thoroughly investigated. The best results were obtained with a plating bath of  $\text{Zn}$  0.25 N,  $\text{KOH}$  1.0 N,  $\text{Sn}$  0.25 g/l. The beneficial effect of  $\text{Sn}$  salts is limited to the common range of 0.1–0.25 g/l, as metals  $\text{Sn}$ ,  $\text{Hg}$  and  $\text{Pb}$  salts may be added with good results, although their effectiveness is less than that of  $\text{Sn}$ . Very good deposits result when both  $\text{Sn}$  and  $\text{Pb}$  salts are present.  $\text{CO}_2$  and  $\text{SO}_2$  in the electrolytes along with  $\text{Sn}$  reduce the quality of the Zn deposit slightly. The dependence of the throwing power of the various Zn baths on temp., pH, and composition of the electrolyte was studied. The acid and alkali electrolytes were compared with each other and with the cyanide baths. The throwing power of the alkali cyanide baths is intermediate between that of the acid and that of the cyanide baths, approaching the latter more closely. The throwing power was detd. by measuring directly the thickness of the film at different areas of the surface. Both sides of the cathode were thus investigated.

C. S. Shapiro

ASB 514 METALLURGICAL LITERATURE CLASSIFICATION

Electrodeposition

N. T. Gbs  
v 9

**Zinc Plating from Alkaline Electrolytes.** N. T. Kudryavtsev and A. A. Nikiforova (*Korroziya i Korrozivnaya Nit* (Corrosion and the Fight Against It 1940, 6, (8), 44-46; *C. Abn.*, 1942, 86, 3734). [In Russian.] *U.S. Abn.*, this vol., p. 174. The method proposed produces bright, dense zinc deposits quite satisfactory for industrial use. The main factor in the new electrolyte is the presence of tin ions. The relative effect of various concentrations of  $\text{Sn}^{++}$ ,  $\text{OH}^-$ , and  $\text{Zn}^{++}$  on the quality of the deposit, was thoroughly investigated. The best results were obtained with a plating bath of zinc 0.25% KOH 1.0N, tin 0.25 grm./litre. The beneficial effect of tin salts is limited to the concentration range of 0.1-0.25 grm. litre as metallic tin. Mercuric and lead salts may be added with good results, although their effectiveness is less than that of tin. Very good deposits result when both tin and lead salts are present.  $\text{CO}_2$  and  $\text{SO}_2$  in the electrolyte along with tin, reduce the quality of the zinc deposit slightly. The dependence of the throwing power of the various zinc baths on temperature, pH and composition of the electrolyte, was studied. The acid and alkaline electrolytes were compared with each other and with the cyanide baths. The throwing power of the alkaline (sulfate) baths is intermediate between that of the acid and that of the cyanide baths, approaching the latter more closely. The throwing power was determined by measuring directly the thickness of the film at different areas of the surface. Both sides of the cathode were thus investigated.

Distribution of metal on the surface of the cathode in

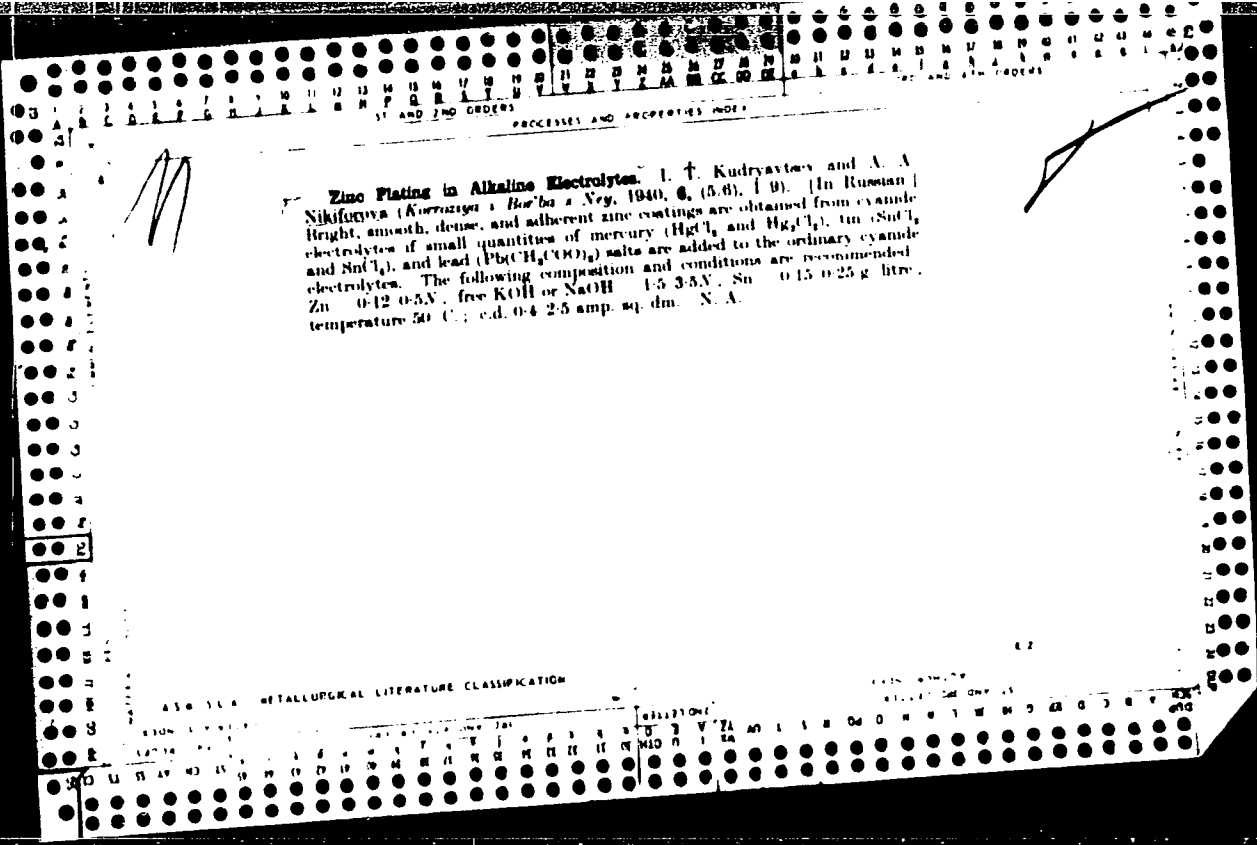
zincate electrolysis N. I. Kudryavtsev and A. A. Nikiiforova *Zhur Priklad. Khim.* (J. Applied Chem.) 22, 307-76 (1949). The distribution of metal over a sheet cathode bent twice at an angle of 60° was det. by thick-  
 ness measurements based on the rate of soln. of the de-  
 posit on the given part of the cathode, in  $NH_4Cl + NH_4NO_3$  70 g. l. +  $CuSO_4 \cdot 5H_2O$  7 g./l. repeated detns. gave fairly close results. The throwing power  $P$  is expressed by the ratio  $R$  of the thicknesses at two extreme points of the cathode (nearest to and farthest from the anode) in % of the ideal, i.e. equal distribution of thickness. In elec-  
 trolytes contg. Zn 0.15-0.5 N, free KOH 1.25-4.35 N, and Sn about 0.25 g. l., length of electrolysis calcd. so as to deposit about 20  $\mu$  at the nearest point,  $P$  is improved by increased content of free KOH. Thus, at 50°, c.d. 0.5 amp./sq. dm., with a cathode of 8 cm. side length of the regular triangle, distance of the corner to the anode 7 cm., increase of KOH from 1.25 to 1.6 N raised  $P$  from 21 to 29%; at 1 amp./sq. dm., increase of free KOH from 1.9 to 4.0 N raised  $P$  from 8.5 to 23%. Higher temp. (80°) lowers  $P$ , higher c.d. improves it somewhat. At const. temp. and c.d.,  $P$  increases markedly with decreasing Zn content, thus, at 50°, c.d. 0.5, free KOH 1.6-3.5 N, Zn

0.5 and 0.15 N,  $P = 10$  and 15%, resp. At equal c.d., 0.5, with Zn 0.25 N, the zincate electrolyte has  $P$  close to that of a cyanide electrolyte (Zn/CN = 1 N, KCN 0.5 N, KOH 1.38 N,  $P = 31.5\%$  and 18%, resp. at c.d. 0.5 and 1.0 amp./sq. dm., at room temp.), and a somewhat better  $P$  with Zn 0.15 N. The acid electrolyte ( $ZnSO_4 \cdot 7H_2O$  215,  $Al_2(SO_4)_3 \cdot 18H_2O$  30,  $Na_2SO_4 \cdot 10H_2O$  50, dextrin 10 g. l., pH 3.8-4.3) has a much lower  $P = 8.5\%$  at room temp., c.d. 1 amp./sq. dm.). The high  $P$  of zincate electrolytes is paralleled by their high cathodic polariza-  
 tion. From the point of view of throwing power, the most favorable compn. of a zincate electrolyte is Zn 0.1-0.2 N, free KOH 1.4-1.7 N, with a permissible c.d. up to 0.4-0.7 amp./sq. dm. Stirring will permit a somewhat higher c.d. at room temp. but will decrease  $P$ . With an addn. of Sn 0.25-0.5 g. l., at 50°, the deposit is smooth and light, independently of the thickness.

450-55A METALLURGICAL LITERATURE CLASSIFICATION

W/A

**Electrolytic Production of Bright Zinc Deposits on Metals.** N. I. Kudryavtsev, V. A. Nikiforova *Trudy Sverdlovskogo gos. univ. Seriya Khim. Nauki* 1940, 135, 7-10 (1942, 30, 1957). In Russian. *Chem. Abstr.* 1942, 9, 411. *Electrochim. Technol.* 1942, 30, 1957. Conditions for obtaining bright zinc deposits from a relatively high e.d.s. for symmetrical objects and relatively bright deposits from a low e.d.s. bath for relief objects, are described. Bright zinc plate possesses a fine grained structure with a definite orientation of the crystals. The electrolyte consists of:  $ZnSO_4 \cdot 7H_2O$  49g,  $Al_2(SO_4)_3 \cdot 18H_2O$  3g,  $Na_2SO_4 \cdot 10H_2O$  5g-12g,  $H_2SO_4$  2-7 g,  $H_2SO_4(Na_2)$  3 to 5 gm. litre; temperature not higher than 25°C. The p.d.s. is 1.0-4.5 and the e.d. 3-8 amp. dm<sup>2</sup>. The  $H_2SO_4(Na_2)$  must be neutralized with soda before adding them to the bath. During electrolysis the electrolyte is agitated by compressed air. This bath can be used only for plating symmetrical objects with simple configuration, i.e. its throwing power is low. Zinc plate thus obtained is not brittle and adheres well to the basis metal. The zinc coating is obtained by treating it at room temperature for 3-10 seconds in a solution consisting of  $CrO_3$  1.5g and  $H_2SO_4$  4 gm. litre. The surface of the plate which has not been treated in  $CrO_3$  solution becomes dull after 1-4 days. Treated plate remains unchanged even after 25 days. The brightening and the increase of the corrosion-resistance of zinc plate treated with the  $CrO_3$  solution is attributed to the passivation of the surface, by the removal from the surface of individual crystalline formations or of crystal facets which facilitate corrosion.



1ST AND 2ND ORDER)      1ST AND 2ND ORDER)

C-R      4

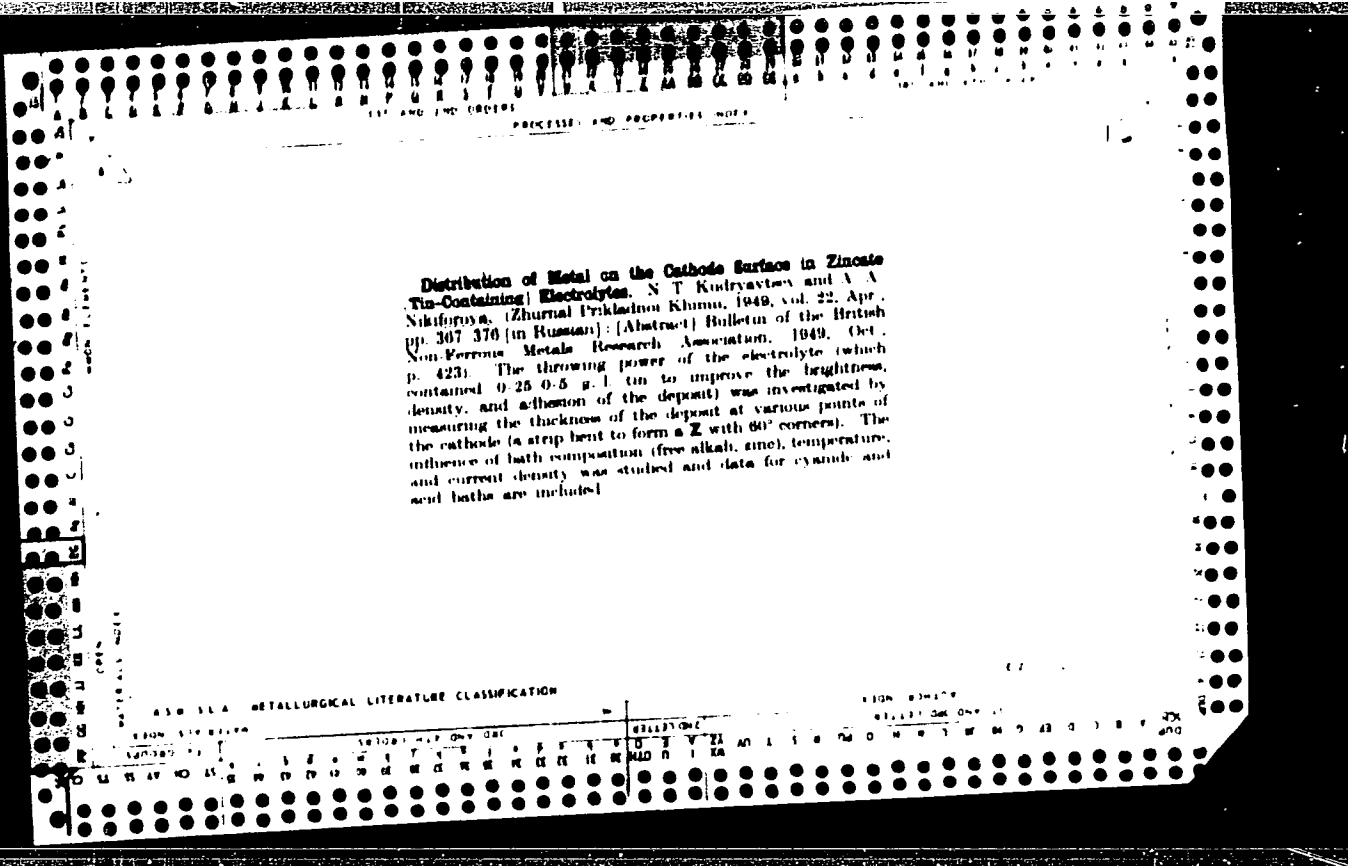
PROCESSING AND PROPERTIES INDEX

Electroplating with Zn. N. T. Kufryavtsev and A. A. Mikhailova. *Zh. Fiz. Khim.*, July 31, 1949. A fine-crystalline, dense and bright film is obtained by adding to the electrolyte a stannic salt.

MATERIAL INDEX

ASG-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGION 1												REGION 2											
SUBGROUP 1												SUBGROUP 2											
SUBGROUP 3												SUBGROUP 4											
SUBGROUP 5												SUBGROUP 6											
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62

M

**\*Distribution of Metal on the Cathode Surface in Zincate Electrolytes.** N. T. Kudryavtsev and A. A. Nikiforova (*Zhur. Priklad. Khim.*, 1949, **22**, (4), 367-376). [In Russian]. To study the throwing power ( $P$ ) of the baths, K. and N. used Z-shaped cathodes formed by bending 7.4 x 24-cm. iron strips twice at 90°. An anode was placed on either side of the cathode, which was so disposed that the bends were vertical and all the six faces symmetrically placed with relation to the anodes. After electrodeposition, the coating thickness was determined (by measuring the speed of dissolution in *N-HCl* containing 70 g./l.  $\text{NH}_4\text{NO}_3$ , 7 g./l.  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ ) at 5 points along a face, spaced 1.5 cm. apart. Curves were plotted showing the variations in thickness with distance from a bend, and  $P$  was calculated as the percentage (existing thickness at point farthest from anode  $\div$  100) (thickness at point nearest to anode). Using baths 0.15-0.5*N* in zinc, 1.25-4.35*N* in free *KOH*, and containing ~0.25 g./l. tin, at 50-80° C. and 0.5-1.0 amp./dm.<sup>2</sup>, K. and N. found that  $P$  increases with an increase in free *KOH* concentration or in c.d., but decreases with increase in zinc concentration or bath temp. Zinc concentration has the most influence.  $P$  varied from 8.0 to 45.9% for the range of conditions examined, being greatest for a bath of composition zinc 0.15*N*, free *KOH* 1.5*N*,  $\text{K}_2\text{CO}_3$  0.5*N*, tin 0.25 g./l., at 50° C. and 0.5 amp./dm.<sup>2</sup>. This compares with values for  $P$  of 48 and 33.5% for cyanide baths, and of 8.5% for a bath containing  $\text{ZnSO}_4$ ,  $\text{Al}_2(\text{SO}_4)_3$ , and  $\text{Na}_2\text{SO}_4$ . Three types of zincate bath are recommended, according to the degree of relief of the work.—G. V. E. T.

Aug. 1957

NIKIFOROVA, A. A.

USSR/Chemistry Reduction

Card 1/1

Authors : Gorbunova, K. M., and Nikiforova, A. A.

Title : Reduction of nickel with hypophosphite. Part 1. - State of formation and certain properties of coatings

Periodical : Zhur. Fiz. Khim., 28, Ed. 5, 883 - 896, May 1954

Abstract : The reaction conditions leading to the reduction of nickel in solutions containing hypophosphite, and the effect of individual factors such as temperature, pH, concentration of hypophosphite, nickel salts, etc. on the rate of nickel reduction were investigated. The reduction of nickel is followed by the oxidation of the hypophosphite and the formation of certain oxidation products. Coatings obtained by the chemical reduction process showed even and good cohesion with the basic metal, lower elasticity, increased wear resistance and highly protective properties. Nine references: 1-USSR, 1-USA Bur. of Standards, 5-German, 2-French. Tables, graphs, photos.

Institution : Acad. of Sc. USSR, Institute of Physical Chemistry, Moscow

Submitted : Sept. 30, 1953

NIKIFOROVA, A. A.

14891\* (Reduction of Nickel by Hypophosphate.) Vostanovlenie nikella gipofosfitom. I. (Conditions of Formation and Some Properties of Platings.) Usloviya obrazovaniya i nekotorye svoystva pokrytiy. II. (Problems of Reaction Mechanism.) Voprosy mekhanizma reaktsii. K. M. Gorbunov and A. A. Nikiforova. Zhurnal Fizicheskoi Khimii, v. 23, no. 5, May 1949, p. 833-801 + 1 plate. Factors affecting plating. Structure and properties of Ni plating. Tables, graphs, micrographs. 15 ref.

GORBUNOVA, K. M.; NIKIFOROVA, A. A.

"The Reduction of Nickel by Hypophosphite I and II," Journal of Physical Chemistry USSR, Vol 28, No 5, p 883-901, 1954.

Academy of Sciences USSR, Institute of Physical Chemistry, Moscow.

Evaluation B-84491, 26 Apr 55

NIKIFOROVA, A. A.

USSR/Chemistry - Reduction

Card 1/1

Authors : Gorbunova, K. M., and Nikiforova, A. A.

Title : Reduction of nickel with hypophosphite. Part 2. - Problems of the reaction mechanism

Periodical : Zhur. Fiz. Khim., 28, Ed. 5, 897 - 901, May 1954

Abstract : The first phase of the nickel reduction process consists, in catalytic decomposition, of the hypophosphite with water and the formation of hydrogen. The oxidation of the hypophosphite into hypophosphate and phosphate is considered a possibility. The second phase is the reaction of the active hydrogen with the nickel ion and the formation of metallic nickel. There is also an additional reaction, namely, the reaction between the hydrogen and the hypophosphite leading to the reduction of the phosphorus into an atom state. Six references: 2-USSR, 2-German, 2-USA. Table, graph.

Institution : Acad. of Sc. USSR, Institute of Physical Chemistry, Moscow

Submitted : Sent. 30, 1953

NIKIFOROVA, A.A.

25(1) PAGE I BOOK EXPLANATION 80V/161

Сучео-техническые обшчествэ машиностроителноу промышленности, Кыевское областное правительствэ

Научително-демонстративне и спещиальное полиграфическое издательство (Protective, Decorative, and Special Coatings for Metals) Kiyev, Masgid, 1955. 291 p. 4,400 copies printed.

Editorial Board: P. K. Lavruko, E. I. Litvak, and A. P. Kribis (Serp. M. I.) Ed. of Publishing House: M. S. Shvobin; Chief Ed. (Southern Division, Masgid): V. E. Stryukov, Engineer.

PURPOSE: This book is intended for technical personnel in the field of protective coatings for metals.

COVERAGE: The papers in this collection, presented at a conference of the SPO Masgid held in Odessa, deal with the mechanism and acceleration of metal-coating and plating processes performed by spraying, electrolytic, and other methods. Quality control of protective coatings is also discussed. No personalities are mentioned. References follow several of the papers.

Kibicheva, T. V., Engineer (Cher'kov). Application of High-luster Nickel Plating in Mass Production 57

Zaval'eva, A. I., Candidate of Chemical Sciences, and G. S. Chernobrivsk (Moscow). Rev Electrolyte for High-luster Nickel Plating 55

Kuznetsov, A. G., Candidate of Chemical Sciences (Moscow). Intensification of the Nickel-plating Process Through the Use of a Fluoroborate Electrolyte 40

Wesil'yev, G. S., Engineer (Moscow). Effect of Processing Factors on the Porosity of Electrolytic Deposits of Nickel 55

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(Moscow), and V. M. Kalib, Engineer (Tula). High-luster Copper Plating from Acid Electrolytes 87

Podlubnaya, R. D., Engineer (Nepropetrovsk). Pyrophosphate Copper Plating of Aluminum Alloys 98

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Khalyuk, V. D., Engineer (Nepropetrovsk). Deep Anodizing of Aluminum Alloys with Automatic Regulation of the Process 108

Chebotarova, L. I., Engineer (Moscow). A Study of Processes of Depositing Anodized Coatings with High Electrical-insulating Properties on Aluminum and Its Alloys 112

Abramova, E. S., Engineer (Moscow). Deposition of Mixed Anodized Coatings on Aluminum and Some of Its Alloys 123

Rubchakovskiy, Yu. S. G., Candidate of Technical Sciences (Moscow). Electrochemical Passivation of Zinc Coating 131

Kholodovskiy, M. E., Engineer (Moscow). Electrolytic Polishing of Metal Shells and Wire Products 134

Shigorov, M. A., and A. I. Lipin. Electrolytic Deposition of the Lead-Indium Bearing Alloy 139

Ribikov, E. S., Engineer, and L. E. Shvartsh, Engineer (Leningrad). Electroplating with a Lead-Tin Alloy in a Fluoroborate Solution 146

Lerin, A. I., Doctor of Technical Sciences (Sverdlovsk). Mechanisms of the Action of Surface-active Substances in Electroplating 156

Lerin, A. I. On the Mechanism of Electrodeposition of Metals Contained in Solutions of  $SO_4^{2-}$  and Complex Salts 164

Shalozov, T. E., Engineer (Moscow). Palladium Coating of Precision-instru- ment Parts 172

*С. Г. Горбунова, А. А. Никиторова*  
GORBUNOVA, K.M.; NIKIFOROVA, A.A.

Studying the mechanism of inclusion of phosphorus in nickel platings by means of the radioactive isotope P32 [with summary in English]. Zhur.fiz.khim.31 no.8:1687-1692 Ag '57. (MIRA 10:12)

1. AN SSSR, Institut fizicheskoy khimii, Moskva.  
(Nickel plating) (Phosphorus--Isotopes)

SOV/123-59-15-59861

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 15, p 136 (USSR)

AUTHORS: Nikiforova, A.A., Gorbunova, K.M.

TITLE: Methods of Intensifying the Process of Chemical Nickel Plating

PERIODICAL: Fil. Vses. in-ta nauchn. i tekhn. inform. M., 1958, 20 pages, illustrated, 6 rubles.

ABSTRACT: The book has not been reviewed.

Card 1/1



NIKIFOROVA, A A

PHASE I BOOK EXPLOITATION

SOV/3951

Gorbunova, Kseniya Mikhaylovna, and Anna Aleksandrovna Nikiforova

Fiziko-khimicheskiye osnovy protsessy khimicheskogo nikelirovaniya (Physico-chemical Bases of the Process of Chemical Nickel Plating) Moscow, Izd-vo AN SSSR, 1960. 206 p. Errata slip inserted. 3,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut fizicheskoy khimii. Ed. of Publishing House: N.G. Yegorov; Tech. Ed.: S.T. Shikin.

PURPOSE: This book is intended for skilled **workers**, laboratory technicians, and mechanics of electroplating and electroforming shops.

COVERAGE: The book deals with a chemical nickel-plating process which reduces nickel salts by hypophosphite. It reviews the general results of investigations of plating conditions, reaction mechanisms, properties of nickel coatings, and the results of research done by the authors at the Institute for Physical Chemistry of the Academy of Sciences USSR and other researchers, both Soviet and non-Soviet. The reaction kinetics of that stage of the plating process when nickel ions react with intermediated agents satisfying

Card ~~1/6~~

GURBINOVA, G.M.; PIKUSOVA, A.A.; POLIKAROV, Yu.M.; POLJEYEV, V.I.

Cathodic properties of nickel reduced by hypophosphite from  
aqueous solutions. *Izv. Akad. Nauk SSSR Ser. Khim. Nauk.*

XIIA 1513

Institut fizicheskoy khimii AN SSSR, Moskva.

GORBUNOVA, K.M.; NIKIFOROVA, A.A.

Electrochemical characteristics of nickel in the process of its  
reduction by hypophosphites. Zashch.met. 1 no.1:63-69 Ja-F '65.  
(MIRA 18:5)

1. Institut fizicheskoy khimii AN SSSR.

NIKIFOROVA, A.I. (Vladivostok)

Carrying out the Third Conference of Subprofessional Medical Personnel  
of Health Resorts, Sanatoriums, and Rest Homes of the Far East.

Med. sestra 19 no.5:47 My '60. (MIRA 13:9)

(SOVIET FAR EAST--THERAPEUTICS, PHYSIOLOGICAL)

(SOVIET FAR EAST--HEALTH RESORTS, WATERING PLACES, ETC.)

*NIKIFOROVA, ANNA IVANOVNA*

BATALOV, Nikolay Mikhaylovich; YUR'YEV, Mikhail Grigor'yevich; MUSVIK, Boris Karlovich; DVORYANKIN, Mikhail Petrovich; GORNOV, Mikhail Maksimovich; ~~NIKIFOROVA, Anna Ivanovna~~; VINOGRADOV, N.V., redaktor; LARIONOV, G.I., *tekhnicheskii* redaktor

[Fifth five-year plan in progress; activity of the Kirov "Dinamo" plant in Moscow] *Piatata piatiletka v deistvii; opyt raboty Moskovskogo zavoda "Dinamo" imeni S.M.Kirova. Moskva, Gos. energ. izd-vo, 1954. 102 p. [Microfilm] (MLRA 8:2)*  
(Moscow--Electric industries)

YEVDOKIMOV, K.A., vrach; NIKIFOROVA, A.N., meditsinskaya sestra

Changes in the vital capacity of the lungs in patients with tuberculosis of the bones and joints during fresh air treatment. Med.sestra 18 no.10:15-17 0 '59. (MIRA 13:1)

1. Iz Vurnarskogo detskogo kostnotuberkuleznogo sanatoriya Ministerstva zdravookhraneniya Chuvashskoy ASSR. (JOINTS--TUBERCULOSIS) (LUNGS)

S/079/60/030/007/029/033, XX  
B001/B066

AUTHORS: Yur'yev, Yu. K., Zaytseva, Ye. L., and Nikiforova, A. N.

TITLE: Chemistry of Selenophene. XXVIII. Reactions of 4-Nitro- and 5-Nitro-2-acetoselenophene

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 7, pp. 2209-2214

TEXT: The authors of the present paper synthesized derivatives of 5-nitro- and 4-nitro-2-acetoselenophenes which they had obtained in Refs 1, 2. The former was condensed with various hydrazine derivatives by a method described in Ref. 3. The following compounds resulted: 4-phenyl semicarbazone (96%), isonicotinoyl hydrazone (60%), furoyl hydrazone (33.5%), and cyano-acetyl hydrazone (83.5%) of 5-nitro-2-acetoselenophene. Bromination of 5-nitro- and 4-nitro-2-acetoselenophene was made with bromine in glacial acetic acid and with dioxane dibromide. When treating 5-nitro-2-acetoselenophene with bromine in glacial acetic acid at 80°C, the authors obtained 5-nitro-2-bromo-acetoselenophene (73.5%), but also resinous by-products and, apparently, some dibromide. Bromination of this nitro ketone with dioxane dibromide at room temperature gave a fairly pure 5-nitro-2-bromo-acetoselenophene (80%). 4-nitro-2-acetoselenophene did not react

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Chemistry of Selenophene. XXVIII. Reactions S/079/60/030/007/029/539/XX  
of 4-Nitro- and 5-Nitro-2-acetoselenophene B001/B066

in this way. Its bromination was only possible with bromine in glacial acetic acid (85.5%). Both nitro-2-bromo-acetoselenophenes were allowed to react with urotropin to convert them to the corresponding  $\alpha$ -amino ketones of the selenophene series. In the first stage of this synthesis, the complex of 4-nitro-2-bromo-acetoselenophene with urotropin is formed easily (73%) when mixing the components in an equimolecular ratio in chloroform, and when the mixture is allowed to stand for two days at room temperature. This was not possible in the case of 5-nitro-2-acetoselenophene since the complex yield was only 38%. When the reaction was carried out in dry chloro benzene at 50° by the method of Ref. 7, the urotropin complex of 5-nitro-2-bromo-acetoselenophene was obtained in an 83% yield. Hydrolysis of the complex of 4-nitro-2-bromo-acetoselenophene with urotropin took place easily with a mixture of alcohol and concentrated hydrochloric acid in the cold within 48 hours (Ref. 7). Hydrolysis of the complex of 5-nitro-2-bromo-acetoselenophene with urotropin was only possible with a much smaller quantity of hydrochloric acid in alcohol and by distilling off the resultant diethyl formal. The hydrolysis of these two complexes, with subsequent acetylation, thus gives 4-nitro- and 5-nitro-2-acetyl-amino-aceto selenophenes. The authors mention a paper by N. O. Saldakol. There are 8 references:

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Chemistry of Selenophene. XXVIII. Reactions of 4-Nitro- and 5-Nitro-2-acetoseleco, ene S/079/60/030/007/029/039/XX  
B001/B066

4 Soviet, 1 US, 1 German, and 2 Italian.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet  
(Moscow State University)

SUBMITTED: July 10, 1959

Card 3/3

ACCESSION NR: AR4032165

S/0058/64/000/002/A046/A046

SOURCE: Ref. zh. Fiz., Abs. 2A388

AUTHORS: Gurvich, A. M.; Krongauz, A. N.; Lyapidevskiy, V. K.;  
Mandel'tsvayg, Yu. B.; Nikiforova, A. P.; Popov, V. I.; Titov, A. A.

TITLE: Comparative dosimetric characteristics of single crystals  
of cadmium sulfide

CITED SOURCE: Tr. Vses. n.-i. in-ta med. instrumentov i oborud.,  
no. 5, 1962, 40-51

TOPIC TAGS: cadmium sulfide, single crystal cadmium sulfide,  
dosimetric characteristics, therapeutic x ray monitoring, radiation  
dose power, roentgen ampere characteristic, variation with hardness

TRANSLATION: The dosimetric characteristic of CdS single crystals,  
as applied to problems of x-ray therapy, were investigated. The

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ACCESSION NR: AR4032165

crystals used were grown either (a) by sublimation of luminor CdS by the Grillaud method (Group I) or (b) by sublimation of luminor CdS in a nitrogen jet (Group II). Crystals of the first group were activated with indium or gallium, and those of the second group with Cl or with AgCl, with a small amount of Zn introduced. The investigations were carried out with x-ray equipment RUM-7 ("soft" radiation, tube voltage 20--60 kV maximum) and RUM-3 ("hard" radiation, 100--200 kV maximum). The radiation dose power in air was measured with an ionization dosimeter. The sensitivity of crystals of Group I was 7--264  $\mu\text{A/r/min}$ , while those of group II occupied an intermediate position. A strictly linear roentgen-ampere characteristic was possessed by the least sensitive crystals. The "variation with hardness" was measured for the investigated crystals and the corresponding theoretical curve calculated. The results of the measurements and of the calculations are in satisfactory agreement in the region of strong absorption. In the region of weak absorption, the experimental "variation with hardness" is lower than the calcu-

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ACCESSION NR: AR4032165

lated value, owing to the inhomogeneity of the employed radiation. It is concluded that in the limited energy range used in x-ray therapy (at a generation voltage of 150--200 kV maximum), the investigated single crystals, particularly those of the first group, can be used successfully as detectors in clinical x-ray dosimeters. Yu. Mandel'tsveyg.

DATE ACQ: 31Mar64

SUB CODE: PH, SD

ENCL: 00

Card 3/3

GERVICH, A.M. (Moskva); APONCAIE, A.M. (Moskva); NIKIFOROVA, A.I. (Moskva);  
LITOV, A.A. (Moskva)

activation of single crystals on a Cd<sup>2+</sup> base. Study of their  
photoelectric properties. Trudy TSer. natn. inst. fizik.  
1 rad. 11 no.1:286-299 '64.

ACCESSION NR: AP4042991

S/0051/64/017/001/0137/0139

AUTHORS: Gurvich, A. M.; Nikiforova, A. P.; Il'ina, M. A.

TITLE: Luminescence in the cadmium sulfate-sulfide system

SOURCE: Optika i spektroskopiya, v. 17, no. 1, 1964, 137-139

TOPIC TAGS: luminor, luminescence research, spectrum luminescence, cadmium sulfide, excitation spectrum, recombination luminescence

ABSTRACT: Heating of nonluminescent CdS single crystals in CdSO<sub>4</sub> powder at 700° in a nitrogen atmosphere causes the place of contact between the cadmium sulfate powder and the single crystals to exhibit yellow-green photoluminescence. A luminor with similar glow ( $\lambda_{\text{max}} = 530 = 540 \text{ nm}$ ) was also observed when a mixture of CdSO<sub>4</sub> powder with a small amount (2--10%) of CdS powder was heated at 700--750°. It is shown that the only cause of this luminescence

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ACCESSION NR: AP4042991

S/0051/64/017/001/0137/0139

AUTHORS: Gurvich, A. M.; Nikiforova, A. P.; Il'ina, M. A.

TITLE: Luminescence in the cadmium sulfate-sulfide system

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TOPIC TAGS: luminor, luminescence research, spectrum luminescence, cadmium sulfide, excitation spectrum, recombination luminescence

ABSTRACT: Heating of nonluminescent CdS single crystals in CdSO<sub>4</sub> powder at 700° in a nitrogen atmosphere causes the place of contact between the cadmium sulfate powder and the single crystals to exhibit yellow-green photoluminescence. A luminor with similar glow ( $\lambda_{\text{max}} = 530 = 540 \text{ nm}$ ) was also observed when a mixture of CdSO<sub>4</sub> powder with a small amount (2--10%) of CdS powder was heated at 700--750°. It is shown that the only cause of this luminescence

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ACCESSION NR: AP4042991

can be the presence of the CdS. Luminors of this type are produced only in a narrow temperature range 700--750°, and have at room temperature a glow of much shorter wavelength than ordinary phosphors based on CdS. Unlike halogenide luminors activated with sulfides, the  $CdSO_4 \cdot CdO$ -CdS system exhibits attributes of recombination luminescence. The excitation spectrum consists of a broad band with two maxima and the intensity of the luminescence shows some temperature dependence. The luminer is compared with others in which cadmium sulfide serves as the emitting substance. Orig. art. has: 2 figures.

ASSOCIATION: None

SUBMITTED: 19Jul63

INCL: 01

SUB CODE: OP, IC

NR REF SOV: 007

OTHER: 002

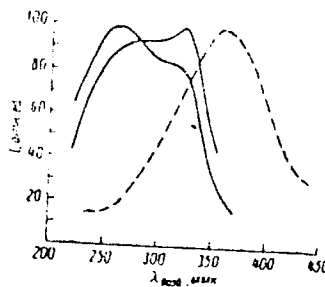
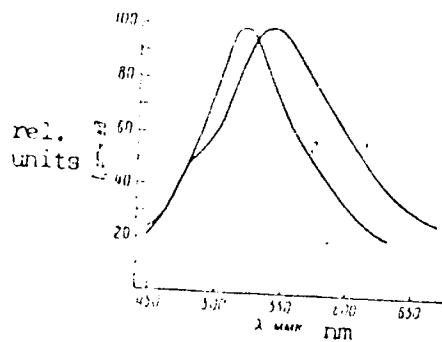
Card

2/3



ACCESSION NR: AP4042951

ENCLOSURE: 01



Left - spectral composition of radiation from  $CdSO_4.CdO-10\% CdS$  luminescence excited by 365 nm mercury line. 1 - room temperature, 2 - liquid nitrogen temperature

Right - excitation spectrum of two samples of  $CdSO_4.CdO.CdS$  luminescence. The dashed line shows, for comparison, the spectrum of the  $CdCl_2-3\% CdS$  luminescence

L-49267-65 EWT(l)/EWT(m)/EPR/EWP(t)/EWP(b) Ps-4/P1-4 IJP(c) JD

ACCESSION NR: AP600934

S/0048/85/029/003/0507/0811

AUTHOR: Gurvich, A.M.; Katomina, R.V.; Nikiforova, A.P.

44  
41  
B

TITLE: On the chemical nature of the luminescence centers in zinc sulfide and cadmium sulfide luminophors Report, 12th Conference on Luminescence held in L'vov 30 Jan-5 Feb 1964

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 3, 1965, 507-511

TOPIC TAGS: luminescence, zinc compound, cadmium compound, sulfide, chlorine, copper, oxygen, aluminum

ABSTRACT: On the basis of the assumption that common ZnS and CdS luminophors are solid solutions of a compound of the activator in the sulfide, the authors have attempted in certain cases to determine the activator compound involved by examining the influence of the synthesis conditions on the resulting luminescence. ZnS and CdS luminophors were synthesized in evacuated sealed quartz tubes. It was found that ZnS:Cl luminophors luminesced strongly in the blue only when ZnCl<sub>2</sub> was present. The presence of oxygen inhibited the luminescence, and it is concluded that the most advantageous conditions for the preparation of ZnS:Cl luminophors are

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ACCESSION NR: AP5009534

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those in which  $ZnCl_2$  is formed and penetrates into the lattice without the participation of oxygen. The red luminescence of  $CdS:Cl$  luminophors was obtained only when the synthesis included heating in the presence of  $CdCl_2$  vapor. The blue luminescence of  $ZnS:Cu$  was obtained only when  $Cl$  was present during the synthesis and is ascribed to  $ZnS:CuCl$ .  $ZnS:Cu:Al$  luminophors synthesized under chlorine-free conditions, however, also show the same blue luminescence. The similarities and differences between  $ZnS:CuCl$  and  $ZnS:Cu:Al$  (chlorine-free) luminophors are discussed at some length and are illustrated with luminescence spectra, but no general conclusions appear to emerge. "We express our gratitude to A.Ya.Gutner and M.A.Meyerov for measuring the spectral composition of the luminescence of the luminophors under cathode ray excitation." Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut (State Scientific Research X-Ray Radiological Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: OP, 88

NR REF SOV: 013

OTHER: 000

*ml*  
Card 2/3

L 26489-66 EWT(m)/ENP(t)/ETI IJP(c) JD

ACC NR: AP6013072

SOURCE CODE: UR/0048/66/030/004/0649/0653

AUTHOR: Gurvich, A. M.; Il'ina, M. A.; Katomina, R. V.; Nikiforova, A. P. 57  
BORG: State Scientific Research Roentgeno-radiological Institute (Gosudarstvennyy nauchno-issledovatel'skiy rentgeno-radiologicheskiy institut)TITLE: Activation of <sup>27</sup>zinc and <sup>27</sup>cadmium sulfides by halogens and Group III elements  
Report, Conference on Luminescence held in Riga, 16-23 September 1965

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 4, 1966, 649-653

TOPIC TAGS: crystal phosphor, zinc sulfide, cadmium sulfide, luminescence, *luminescence spectrum, forbidden band*

ABSTRACT: The work was concerned with investigation of activation of zinc and cadmium sulfides by elements that are usually termed coactivators; however, when the said element is the only real impurity present and is responsible for distinctive luminescence it is justifiable to call it an activator in its own right. To clarify the role of the heating medium there were sintered batches of equal amounts of ZnS and CdS with 5% NaCl, all at 950°C but in different gases. The luminescence spectra of the products under 365 mμ excitation at -180° exhibit all three characteristic bands, but with greatly varying relative intensities, depending on the medium. Potassium chloride and the alkali bromides and iodides yielded similar results. The formation of ZnCl<sub>2</sub> (or CdCl<sub>2</sub>) from NaCl in the sulfide is discussed, as is the solubility of ZnCl<sub>2</sub> in ZnS.

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