

SOV/133-38-10-3/10

AUTHOR: Petrenko, A. P.

TITLE: Trends in the Development of the Chemical Industry  
in the Voronezh Council of National Economy During  
1959 - 1965 (Perspektivy razvitiya khimicheskoy promy-  
shlennosti Voronezhskogo sovnarkhoza v 1959 - 1965 gg.)

PERIODICAL: Kauchuk i Rezina, 1958, Nr 10, pp 32 - 33 (USSR)

ABSTRACT: The Department for the Chemical Industry of the Voronezh  
Council of National Economy manufacture synthetic rubbers,  
latexes, styrene, butyl alcohol, acetylene, iron oxides  
and tyres for cars and for agricultural machinery. During  
the years 1959 - 1965 the Voronezh Council of National  
Economy plans to increase the output of synthetic rubber  
by 34% and of styrene by 66%. New developments planned  
in the synthetic rubber plant im. S. M. Kirov include  
the production of synthetic latexes for tyres, of oil-  
filled rubbers, and of plastics based on styrene. A  
plant for the reconditioning of tyres is to be erected.  
As a result of various modifications and improvements,  
the production of rubber will be increased by 30%, of  
styrene by 25% and of tyres by 60%. By using rosin  
soaps as new emulsifier during the emulsion polymerisa-  
tion, and by substituting calcium chloride by other

Card 1/3

Trends in the Development of the Chemical Industry in the Voronezh  
Council of National Economy During 1959 - 1965

SOV/138-59-10-a/10

coagulents, it will be possible to improve the properties of rubber. A new type of rubber - isoprene rubber SKI - has recently been synthesised by the VNIISK. By the use of very active polymerisation initiators, it will be possible to increase the output of rubber by 15 - 20%. Modified distillation columns and more active catalysts for the production of styrene are to be used. A 30 - 40% improvement in output of the tyre factory will be achieved by using new types of rubbers and latexes, viscose cords etc. Investigations are to be carried out into the construction of tyres for cars and agricultural machinery such as for tyres used on the combine SK-3 and on the tractors of the Minsk Tractor Factory etc. The vulcanisation process is to be improved by using steam with very high parameters. All these problems are to be investigated by VNIISK, NIIShP, Giprotauchnik,

Card 2/3

SOV/138-58-10-8/10  
Trends in the Development of the Chemical Industry in the Voronezh  
Council of National Economy During 1959 - 1965

Rezinoproyekt, OKBA and NIISS.

ASSOCIATION: Voronezhskiy sovnarkhoz (Voronezh Council of National  
Economy)

Card 3/3

PETRENKO, Aleksey Petrovich; PESTROV, N.P., redaktor; CHUMAYEVA, Z.V.,  
tehnicheskij redaktor

[Tomato growing in non-Chernozem regions of the U.S.S.R.] Vyra-  
shchivaniye tomatov v nechernozemnoi polose SSSR. Izd. 2-e. Moskva,  
Gos. izd.-vo sel'shkhz.lit-ry, 1957. 123 p.  
(Tomatoes)

KOMMOOV, V.V., kand.sel'skokhoz. nauk; PETRENKO, A.T.; OVCHINNIKOV, I.A.

Components of grass mixtures for slopes. Zemledelie 25 no.12:  
26-30 D '63. (MIRA 17:4)

1. Institut sel'skogo khozyaystva TSentral'no-chernozemnoy polosy  
imeni V.V.Dokuchayeva.

SOV/137 58 11 230<sup>a</sup>6

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 161 'USSR'

AUTHORS: Antropov, L. I., Grigor'yev, V. P., Petrenko, A. T.

TITLE: Utilization of the Data of Electrocapillary Measurements in the Investigation of Inhibitors of Acid Corrosion of Metals (Ispol'zovaniye dannykh elektrokapillyarnykh izmereniy pri issledovanii ingibitorov kislotnoy korrozii metallov)

PERIODICAL: Tr. Novocherk. politekhn. in-ta, 1958, Vol 69/83, pp 129-147

ABSTRACT: An investigation with the aid of the plotting of electrocapillary curves of the inhibiting action of 19 various classes of organic compounds on the corrosion of Fe in 1N H<sub>2</sub>SO<sub>4</sub> solution at 20°C has established a regularity in the increase of the inhibiting action upon an increase of the surface activity of the compound introduced into the acid. It was noted that a departure from the regularity found upon comparison with corrosion tests can serve as a basis for a qualitative study of the inhibiting effect of separate functional groups of organic compounds and for the explanation of the process of the inhibition of acid corrosion of metals. An analysis of electrocapillary curves plotted for Hg in 1N HCl solutions with additions of caffeine.

Card 1/2

SOV/137 58 11 23096  
Utilization of the Data of Electrocapillary Measurements in the Investigation 'cor- )

sulgine, norsulfasole, sulfidine, o-hydroxyquinoline, anthranilic acid, pyramiden, bis(tetramethylsilyl methyl) ethyl-methyl ammonium, and iodide (trimethylsilyl methyl) diethylallylammonium, and the determination of the rate of corrosion of Fe in the same solutions indicated that the existence of a linear relationship between the coefficient of corrosion inhibition and the magnitude of the decrease in the surface tension affords a quantitative determination of the inhibiting effect caused by a compound or by every functional group entering into the make up of that compound. The variation in the inhibiting effect on the metal corrosion caused by the variation in the concentration of an inhibitor can be calculated from the electro-capillary curves and from the inhibition coefficient determined in the presence of one of the additives  
Bibliography: 31 references.

P S

Card 2/2

ANTROPOV, L.I.; GRIGOR'YEV, V.P.; PETRENKO, A.T.

Utilizing data of electrocapillary measurements for investigating  
inhibitors of acid corrosion of metals. Zhur. prikl. khim. 31  
no.10:1497-1503 O '58. (MIRA 12:1)

1. Noveocherkasskiy politekhnicheskiy institut imeni S. Ordzhonikidze.  
(Electrocapillary phenomena)  
(Corrosion and anticorrosives)

ANTROPOV, I.I.; PETRENKO, A.T.

Corrosion of iron and zinc in 1 N. H<sub>2</sub>SO<sub>4</sub>. Zhur.prikl.khim. 31  
no.12:1849-1856 D '58. (MIRA 12:2)

1. Novocherkasskiy politekhnicheskiy institu imeni S. Ordzhonikidze.  
(Iron--Corrosion) (Zinc--Corrosion) (Sulfuric acid)

PETRENKO, A. T.

PETREKO, A. T.: "The effect of certain additives on the corrosion of iron and zinc in acid media." Min Higher Education USSR. Novocherkassk Polytechnic Inst imeni S. Ordzhonikidze. Novocherkassk, 1956.  
(Dissertation for the Degree of Candidate in Chemical Sciences.)

SO: Knizhnaya Letopis', No. 26, 1956

PETRENKO, A.T.

Relation between the nature of hydrogen overvoltage and the metal position in the D.I, Mendeleyev periodic system of elements. Zhur. fiz. khim. 39 no.9:2097-2102 S '65.

(MIRA 18:10)

1. Rostovskiy-na-Donu filial Vsesoyuznogo zaochnogo instituta pishchevoy promyshlennosti.

PETRENKO, A.V.

SOV-91-58-9-17/29

AUTHORS: Tselikovskiy, I.I. and Petrenko, A.V., Technicians

TITLE: Checking Suspended Insulators in Open Substations (Ispytaniye podvesnykh izolyatorov na otkrytykh podstantsiyakh)

PERIODICAL: Energetik, 1958, Nr 9, pp 24-25 (USSR)

ABSTRACT: The authors describe a device for checking suspended insulators in open transformer substation. It consists of a bakelite tube, to each end of which are fixed metal prongs made from 4-5 mm wire and shaped to fit the metal cap of the insulator - the whole thing being attached to a normal 10 kv serviceing rod. To check the insulators, one man climbs up and grasps the insulator caps with the two prongs, which are in turn connected to a 2,500 v megohmmeter operated by another man on the ground. The state of the insulation can thus be checked. There are 2 photos.

1. Insulation (Electric)--Test methods    2. Insulation (Electric)  
--Testing equipment

Card 1/1

PETRENKO, A.V.

"Shoemaker's handbook," vol. 1, edited by D.S.Murvanidze. Re-  
viewed by A.V.Petrenko. Kozh.-obuv.prom. 2 no.2:38-40  
F '60. (MIRA 13:5)  
(Shoe manufacture--Handbooks, manuals, etc.)  
(Muravnidze, D.S.)

TSERLIKOVSKIY, I.I., tekhnik; PETRENKO, A.V., tekhnik

Testing suspension insulators of open substations. Energetik 6 no.9:  
54-25 S '58. (MIEA 11:11)  
(Electric insulators and insulation--Testing)

**Synthetic rubber industry in the Soviet Union** A. V. Petrenko. *Carbide & Rubber* (U. S. S. R.) No 4, 3, 1-3 (1940).—Some tech. developments in the synthetic rubber industry in the Soviet Union during 1939 are mentioned. During 1939 the yield of bivinyl from alc. rose to 36.25%, compared to 32.5% in 1938, while the consumption of alc. per ton of rubber decreased from 4280 tons in 1938 to 2860 tons in 1939. At the end of 1939 the yields of bivinyl increased to 40-41%, or 70% of the theoretical. B. Z. Kamich

B. Z. Kamičić

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001240

PETRENKO, A.V., tekhnik; TSMLIKOVSKIY I.I., tekhnik.

Complete automatic control of the AF-18 electric separator unit.  
Energetik 4 no.1~~b~~25-26 M '56. (MLRA 9:12)  
(Separators(Machines)) (Automatic control)

Removal by distillation of easily volatile gases from  
unrectified butadiene. A V. Petrenko. Soviet Patent  
1958, No. 11,12,340. A second column to remove  
volatile gases should be installed. A Pestoff.

BAKULOV, I.A., kand. veterin. nauk; GNATOVA, O.V., kand. veterin. nauk;  
PETRENKO, A.Ye. vrach-laborant

Conjunctival test on guinea pigs and rabbits in the diagnosis  
of listeriosis. Veterinaria 39 no.8:75-77 Ag '62.

i. Moskovskaya veterinarnaya akademiya.

MIRA 17:12

GOLUBOVSKIY, V.A.; ZAYTSEV, Yu.A.; PETRENKO, A.Z.; YURINA, A.L.

Structure of Devonian red beds in the Ekskulinsk dome.  
Bull. MGIP. Otd. geol. 39 no.1:57-74 Ja-F '64. (MIRA 18:4)

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

BAKULOV, I. A. and IGNATOVA, O. V. (Candidates of Veterinary Sciences), PETRENKO, A. Ye.  
(Physician-Laboratory Technician, Moscow Veterinary Academy).

"Conjunctival test made on guinea pigs and rabbits in the diagnosis of  
listerellosis"

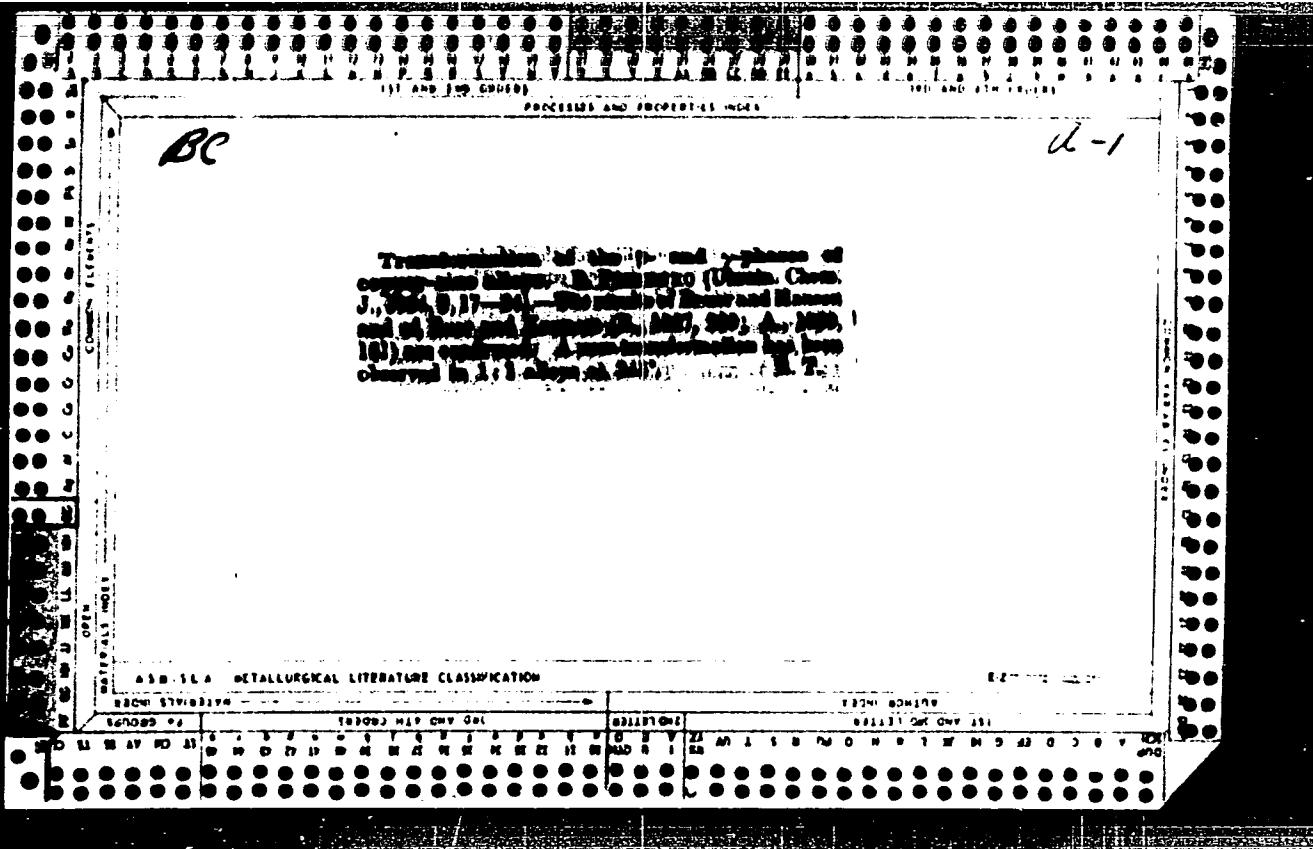
Veterinariya, vol. 39, no. 8, August 1962, p. 75

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

**Recrystallisation of Rail Steel During Hot Working.** M. Vratchiy, B. Petrenko, and P. Rozlymakha. (*Stal*, 1938, No. 7, pp. 29-36). (In Russian). The authors consider the effect of heat and the rate of deformation on the changes in the grain size and the number of recrystallisation nuclei in rail steel, the process of recrystallisation itself, and the influence of microstructure on the mechanical properties, the whole being illustrated by experimental results. They conclude that the size of the grains formed as a result of recrystallisation during hot-working depends on the original grain size, and the temperature, rate and degree of deformation. The final grain size is larger, the larger the original grain size and the more rapid the deformation. The maximum grain-refining effect is produced under all conditions by high degrees of deformation. The temperature of the last pass should be such that in the colder end of the rail it is some 30-50° C. above the Ar<sub>3</sub> point. Rolling at temperatures corresponding to the critical points should be avoided as the metal is less ductile at these temperatures. In the drafting of the rolls the temperature and the amount of deformation must be taken into account with a view to producing the minimum grain size in the rolled steel.

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

PETRENKO, B.

G. PETRENKO, Ukr Khim Zhur, 1949, 4, 429-437

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

PETROVIC, I.

I. PETROVIC, Attaché, Stat., 1 BC, No. 1, 9-4-5

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

PETROV, V.

~. PETROV, Ukrainskii Zhurn. Zhurn. 4, 420-32, 1920

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

PETREJKO, D.,  
M. VnATZKII, Kacnestvennaya Stal 1935, No. 1, 36-45.

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

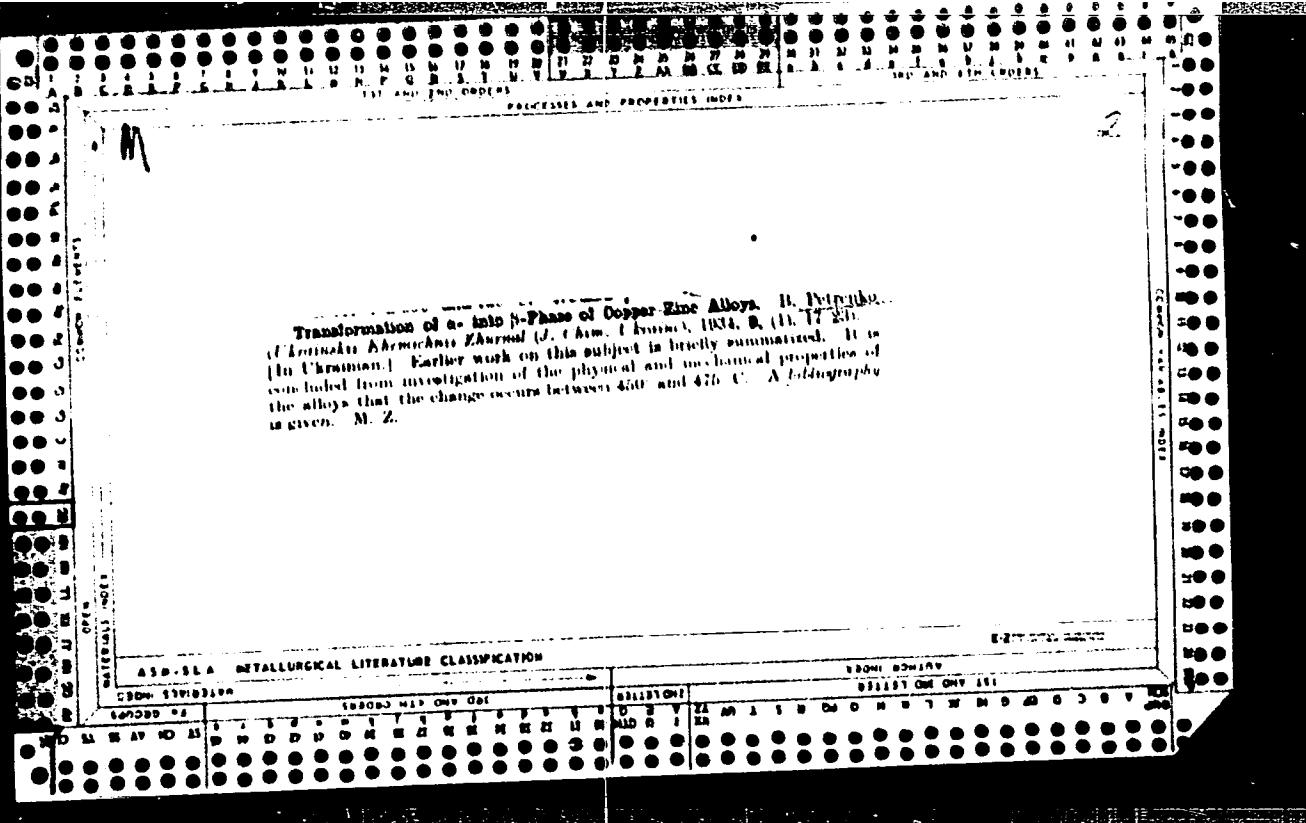
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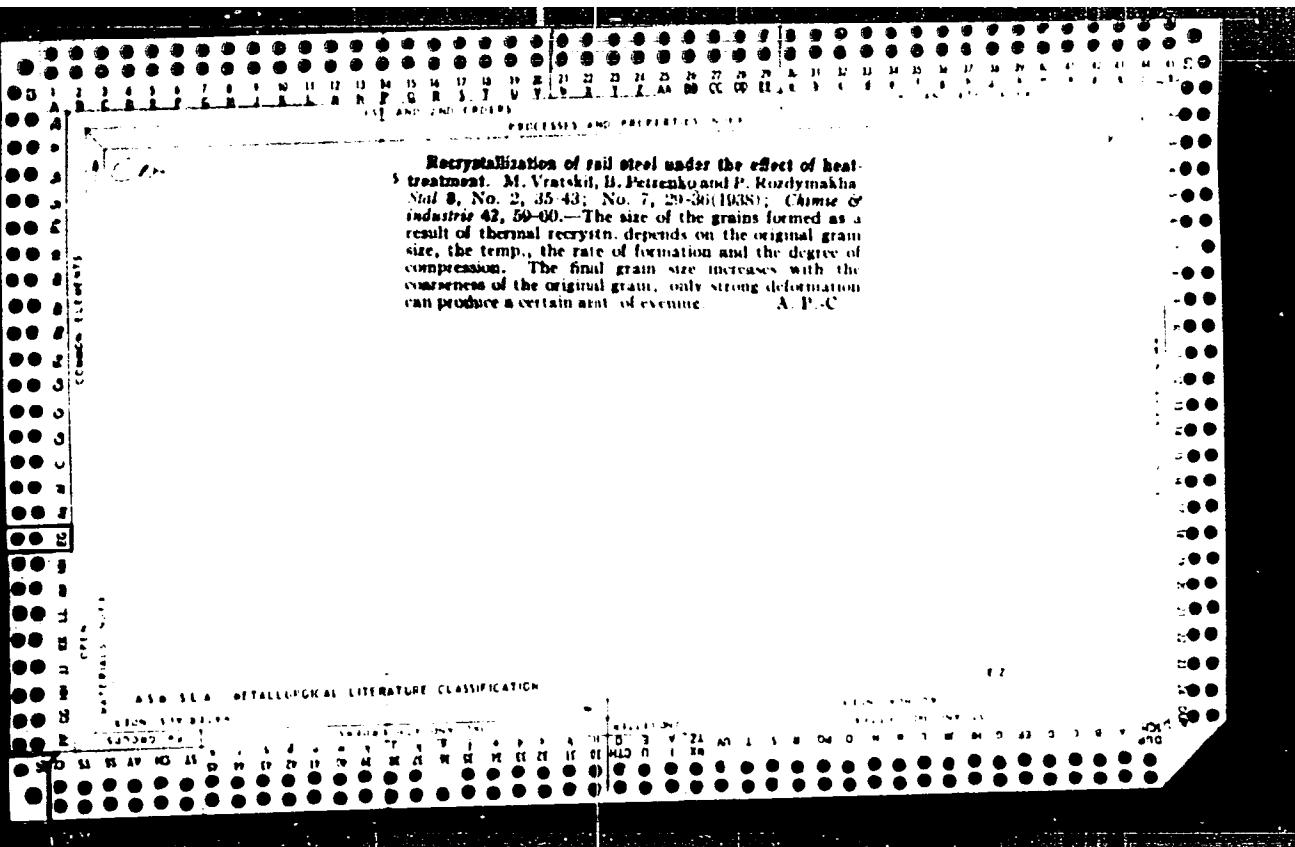
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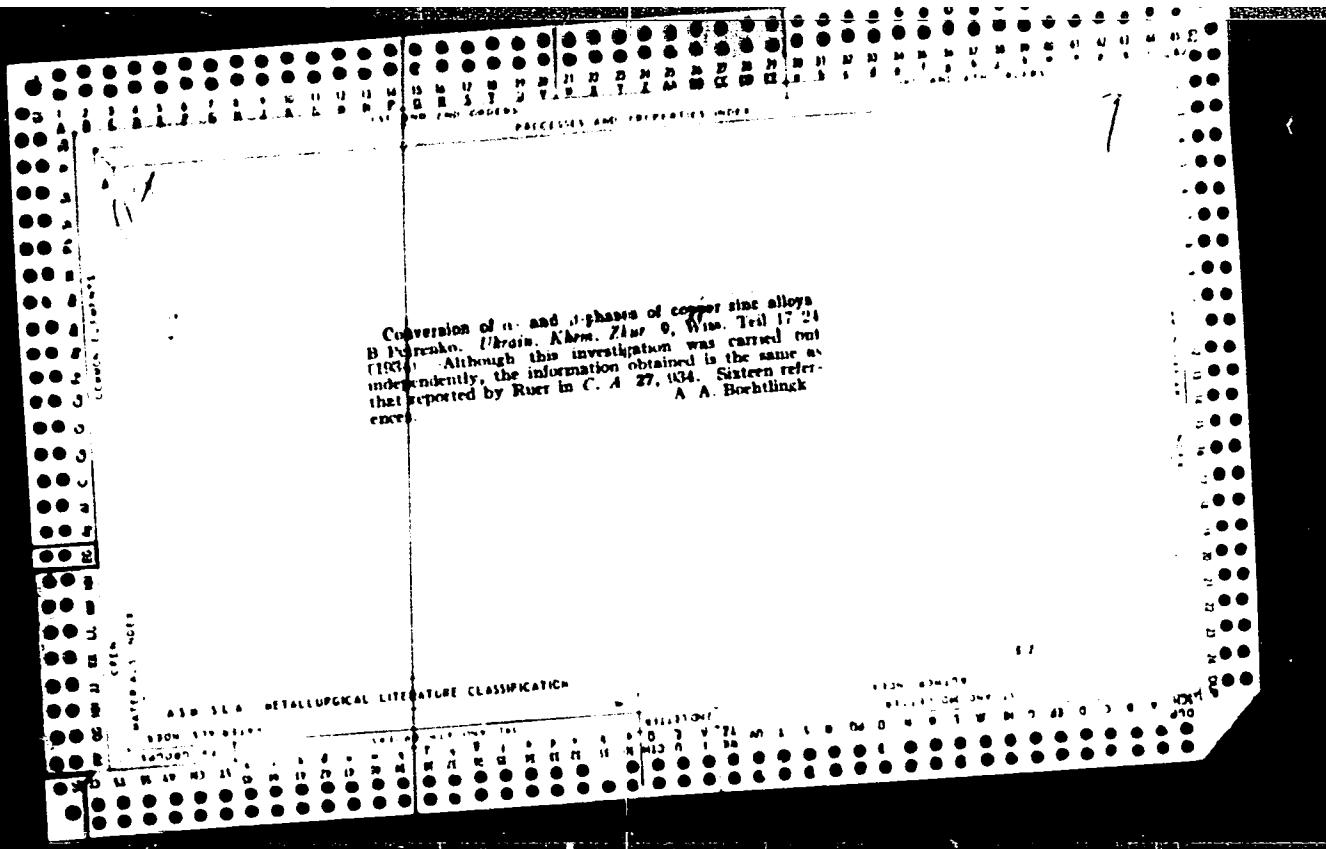
P. Tchernko, D.,  
M. Vratchali, Kachestvennaya Stal 1935, No. 1, 36-45.

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240







PETRENKO, B.A., kand.tekhn.nauk; SEROV, V.I., kand.tekhn.nauk

Features of igniting explosionproof media by electric discharges  
in sparkproof circuits. Mekh. i avtom. v gor. prom. no.3:318-331  
'63. (MIRA 16:10)

PONOMARENKO, Fedor Mikhaylovich, prof.; YATSYSHIN, Anatoliy  
Iosifovich [IAtsyshev, A.I.]; NASTENKO, Kuz'ma Afanas'yevich;  
REVENKO, Ivan Petrovich, kand. veter. nauk; SKIMKA, Ol'ga  
Mikhaylovna [Skyrta, O.M.]; PETRENKO, B.G. [Petrenko, B.H.],  
doktor veter. nauk, prof., red.; DOBRZHANSKIY, V.M.  
[Dobrzhans'kyi, V.M.], red.; MANOYLO, Z.T., tekhn. red.

[Edema disease in swine] Nabriakova khvoroba svinei. Kyiv,  
Vyd-vo Ukrains'koi Akad. sil's'kohospodars'kykh nauk, 1961.  
(MIRA 17:3)  
69 p.

PETRENKO, B. A., kand. tekhn. nauk

Problems in the theory and design of sparkproof electric circuits.  
Mekh. i avtom. v gornoi prom. no.2:334-353 '62.  
(MIRA 16:1)

(Electricity in mining--Safety measures)

PETRENKO, B. A. Cand Tech Sci -- "Problems of the theory of ~~non-sparking~~  
electric circuits." Mos, 1961 (Min of Higher and Secondary Specialized Education  
RSFSR. Mos Mining Inst im I. V. Stalin). (KL, 4-61, 199)

*sparks proof*

-294-

1. PETRENKO, B. G.; GOVOROV, A. M.
2. USSR (600)
4. Heart
7. Sarcosporidia in the heart muscle of cattle suffering from chronic hematuria.  
Much. trudy UIEV 18 1951..
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

PETRENKO, B. G.

Ukrainian Inst. of Exptl. Vet. Med.

"Chronic uro-vesical hematuria - an epidemic illness of cattle." \*

SO: Veterinariia 28(2), 1951, p. 26

\*Also reported as "Chronic Endemic Hematuria"-Vet.28, No.2, p.26, 1951

PETRENKO, B.G., prof. doktor veterinarnykh nauk; LIMANOVA, M.I., tekhn.red.

[Work of the Ukrainian Research Institute of Experimental Veterinary Medicine, 1946-1956] Nauchnaya deiatel'nost' Ukrainskogo nauchno-issledovatel'skogo instituta eksperimental'noi veterinarii (1946-1956). Khar'kov, Ukrainskia akad. sov'et'khoz.nauk, 1957. 26 p. (MIRA 11:5)

1. Zamestitel' direktora Ukrainskogo nauchno-issledovatel'skogo instituta eksperimental'noi veterinarii po nauchnoy chasti (for Petrenko)  
(Kharkov--Veterinary medicine)

USSR/Diseases of Farm Animals. Diseases of Ukraine. R-3  
Etiology.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R0012

Ref Zhur-Bill., No 20, 1957, 11-12

Author : Potrenko, B. G.  
Inst : Ukrainian Scientific Research Institute of  
Experimental Veterinary Science.  
Title : Biophysical Investigations in the Study of  
Chronic Hematuria in Bovines.

Orig Pub : Byul. nauchno-tehn. inform. Ukr. n.-i.  
in-t eksperim. veterinarii, 1957, No 3,  
11-12

Abstract : It was demonstrated that the content of lead,  
silver, etc., in the organism of the animals  
sick with chronic hematuria was increased,  
whereas the amount of calcium, copper, cobalt,  
etc., was decreased. The soil analysis in the

Card : 1/2

Ukr/Diseases of Non-Animals. Diseases of Unknown R-3  
Biology.

Abs Jour : Ref Zbir-Biol., № 20, 1953, 92749

Author : Petrenko, B. G.  
Inst : Ukrainian Scientific Research Institute of  
Experimental Veterinary Science.

Title : Distribution of Ca, K, Mg, Na, and Fe in the  
Organs of Healthy Cattle and Those with Chro-  
nic Hematuria.

Orig Pub : Byul. nauchno-tehn. inform. Ukr. n.-i. in-  
st. eksperim. veterinarii, 1957, № 3, 12-14

Abstract : Examination of various organs (spleen, li-  
ver, lungs, kidneys, bladder, heart, and ske-  
letal muscles) in healthy cattle and those  
with hematuria showed that the Ca level in

Cond : 1/2

32

PETRENKO, Boris Grigor'yevich [Petranko, B.H.], prof.; GORBAN', M.I.  
[Horban', M.I.], kand.veterin.nauk, red.; TUBOLEVA, M.V.  
[Tubolieva, M.V.], red.

[Achievements of Soviet veterinary medicine] Dosiahnennia  
redians'koi vetyvnerii. Kyiv, 1958. 32 p. (Tovarystvo dlia  
poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR,  
Ser.3, no.21) (MIRA 12:2)

(Veterinary medicine)

76-32-3-38/43

AUTHORS: Lutsiky, A. Ya., Ovchinnova, Ye. M., Petrenko, E. S.

TITLE: The Heat of Mixing and the Dipole Moment of Component Molecules (Teplota smeshaniya i dipol'nyy moment sudimikh komponentov)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 3,  
pp. 720-721 (USSR)

ABSTRACT: According to the statistical theory of nonideal electrolyte mixtures a certain connection between the mixing temperature  $\Delta E_{mix}$  and the difference of properties of the molecules of the components is assumed. Different possibilities are given for the various differences of properties. Macrophysical properties of the bodies (such as the molar volume and the boiling point), rather than corresponding properties of the molecules, are used. Determinations of the mixing temperature of binary mixtures were performed at 20°C, benzene serving as one component, and substances from the series of isoperiodic compounds of the composition  $C_6H_5X$ , whose

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76-32-3-38/43

The Heat of Mixing and the Dipole Moment of Component Molecules

molecules except for the dipole moment, possessed similar properties, were used as the second component. The measuring method was already described earlier and the obtained results are given in a table. It is noticed that, for still unknown reasons the mixing temperature of a number of components increases with the dipole moment, while it drops in others. In this connection a sharp insensitivity of the linear form is observed in compounds with a content of hydroxyl groups, which show a sharp increase in the heat of mixing. This is explained by the destruction of complexes formed by hydrogen bonds. There are 1 figure, 1 table, and 12 references, 2 of which are Soviet.

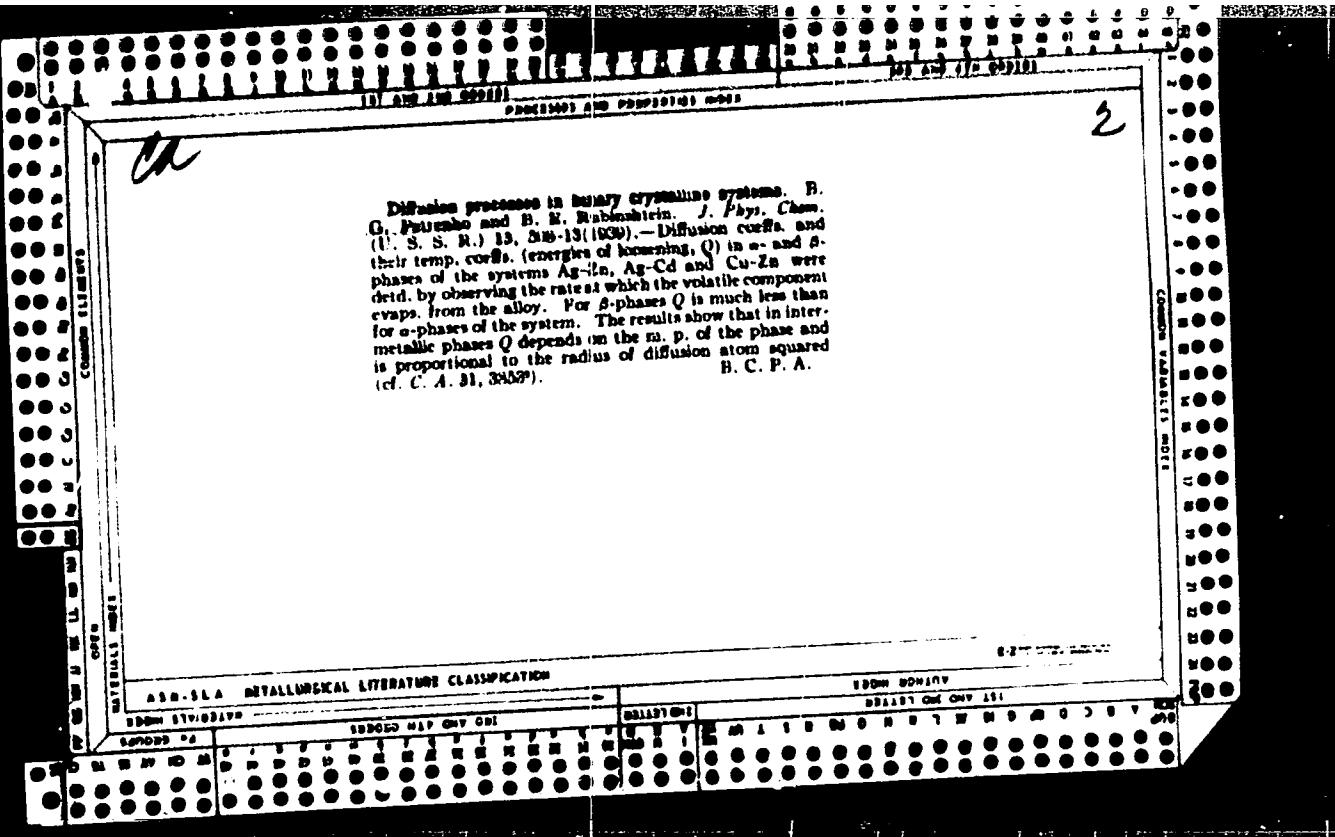
ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. V.I. Lenina  
(Khar'kov Polytechnical Institute imeni V.I. Lenina)

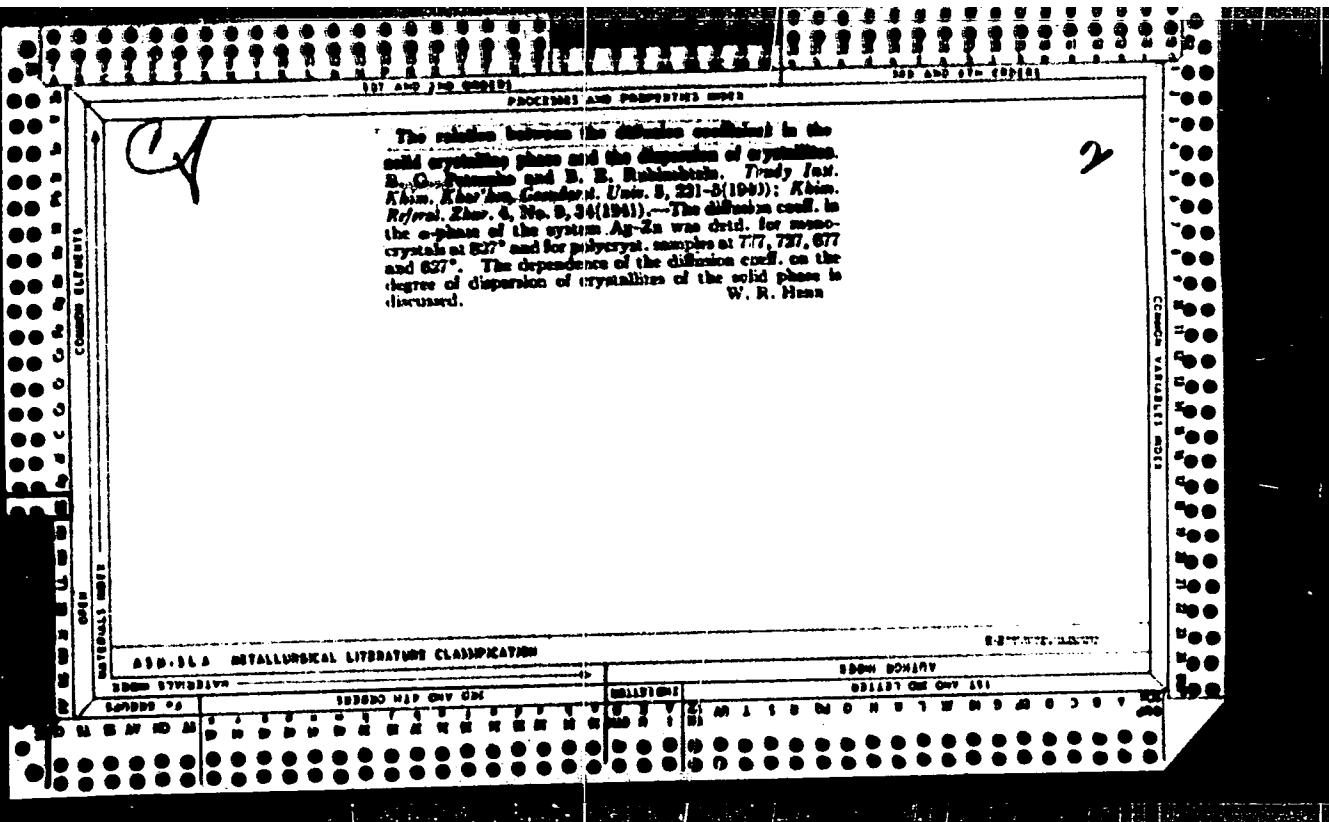
SUBMITTED: March 3, 1957

AVAILABILITY:

Card 2/2

**Diffusion processes in binary crystalline systems.** B. G. Peshchenko and B. N. Rubashkin. *J. Phys. Chem. (U.S.S.R.)* 13, 510-13 (1939).—Diffusion coeffs. and their temp. coeffs. (energies of homogenization,  $Q$ ) in  $\alpha$ - and  $\beta$ -phases of the systems Ag-In, Ag-Cd and Cu-Zn were determined by observing the rates at which the volatile component evaps. from the alloy. For  $\beta$ -phases  $Q$  is much less than for  $\alpha$ -phases of the system. The results show that in intermetallic phases  $Q$  depends on the m. p. of the phase and is proportional to the radius of diffusion atom squared (cf. *C. A.* 31, 334529). B. C. P. A.





State of Atoms in Plastically Deformed Metals." N. F. Lozhko and B. I. Velyanko. (*Trans. Ind. Chem. Kharkov Univ.*, 1938, **4**, (13), 65-70; *Bull. Chem. Abstr.*, 1939, [A1], 408).—[In Russian.] Theoretical. No analogy exists

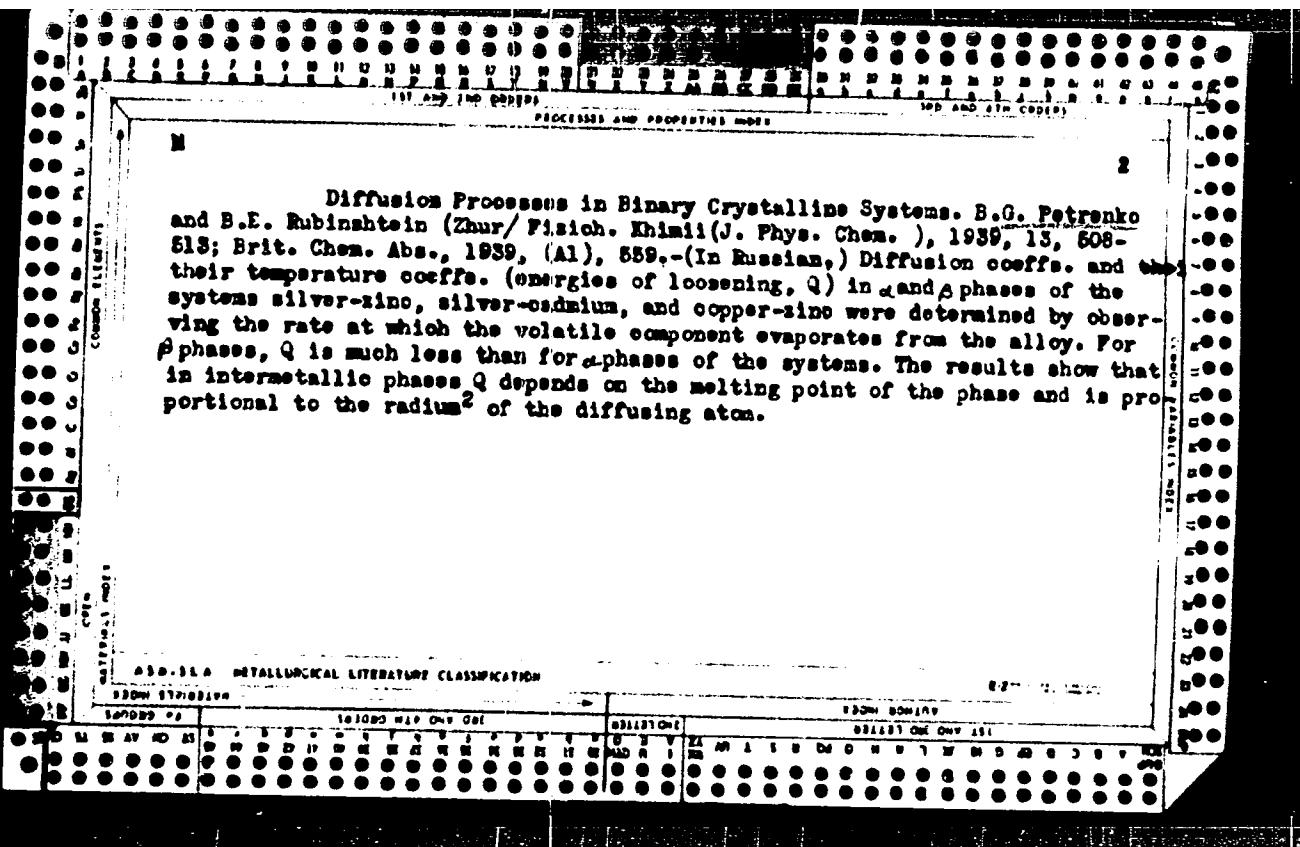
between modifications of the state of atoms owing to temperature change or to plastic deformation.

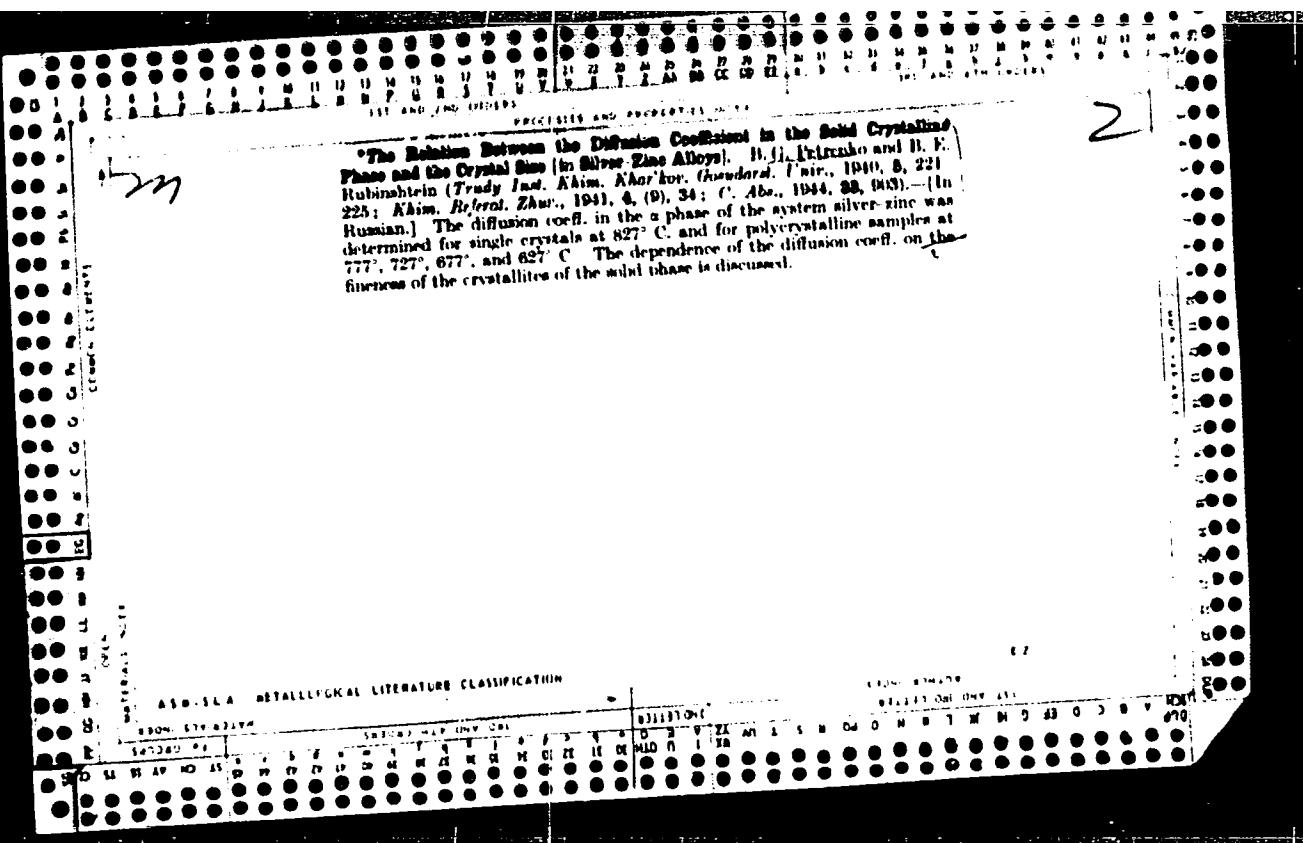
11 THE NATURE OF THE HARDNESS OF ELECTRODEPOSITS (OF COPPER) N.F. LASUPO  
AND V.G. PETRENKO (TRUDY INST. KHIM. KHAR'KOV SOSUDARST., UNIV., 1940, 6

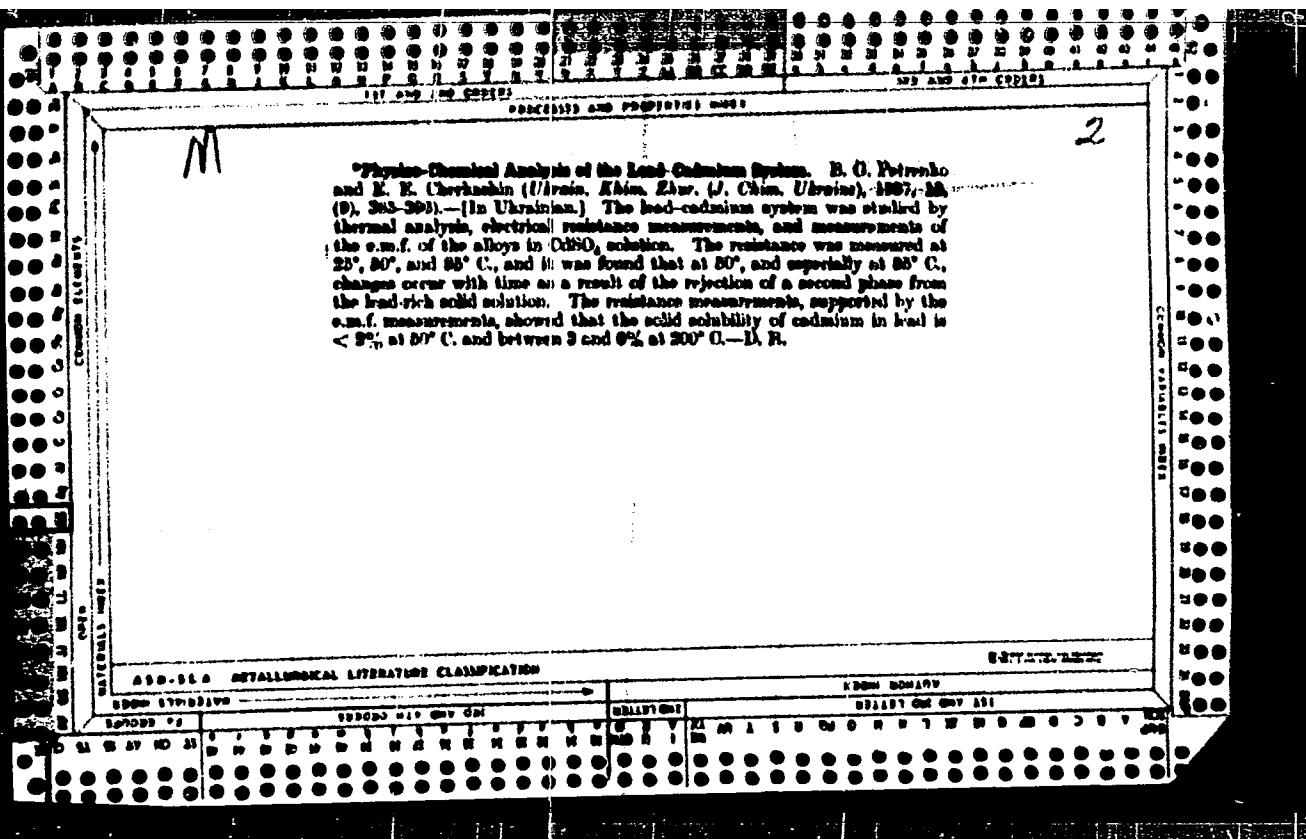
227 233; Akad. Relyash. Zhur., 1941, 6, (7-8), 3; C. Abn., 1944, 28, 684.  
(In Russian.) The effect of the basis metal on the hardness of the electrodeposited metal was studied. In the deposition of copper from  $CuSO_4$  solution on an annealed copper cathode the hardness of the deposit was equal to that of the basis metal. Deposition on a harder surface (obtained by polishing) resulted in a considerably harder deposit. This effect was observed only at low cat. (0.375 amp. dim.<sup>2</sup>). A second annealing of the cathode reduced the hardness of the deposit to its normal value. The increased

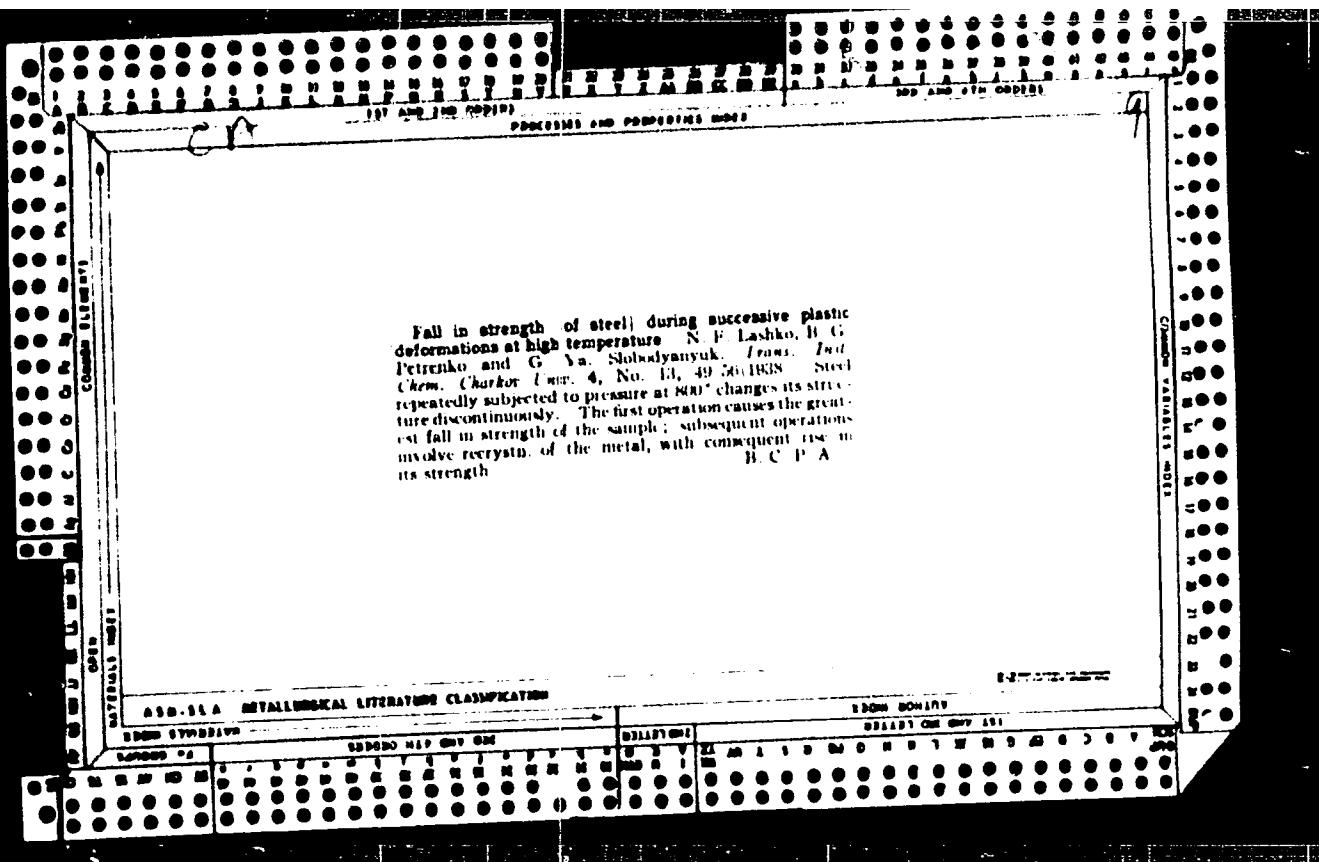
hardness of the electrodeposits is attributed to the distortion of the structure of the deposited metal, which "adapts" itself to the structure of the basis metal.

ASD SLA METALLURGICAL LITERATURE CLASSIFICATION









CA

## PREDICTION AND PREDATORS WITH

The physical-mechanical properties of Armco iron at high temperatures. N. F. Lashko, B. G. Petrenko and G. V. Slobodyanyuk. Metallurg 13, No. 6, 67-70 (1958); Chem. Zent. 1959, I, 1045; cf. C. A. 54, 3641. The exponential relationship between the tensile strength and the temp. when the  $\alpha$ ,  $\beta$  and  $\gamma$  phases are present is discussed. The predominant influence of polymorphous transitions in the Fe on its mech. properties and compared to the effect of the solid  $\alpha$ -solid. of cementite on these properties is demonstrated. The softn. of a solid  $\alpha$ -solid. is accompanied by a reduction in the plasticity of the metal. The most satisfactory temp. for the hot-working of Armco iron is below 1000°. M. G. Moore

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#### **3.3.3.4. BITALAMBEAL LITERATURE CLASSIFICATION**

1332

**APPROVED FOR RELEASE: Wednesday, June 21, 2000**

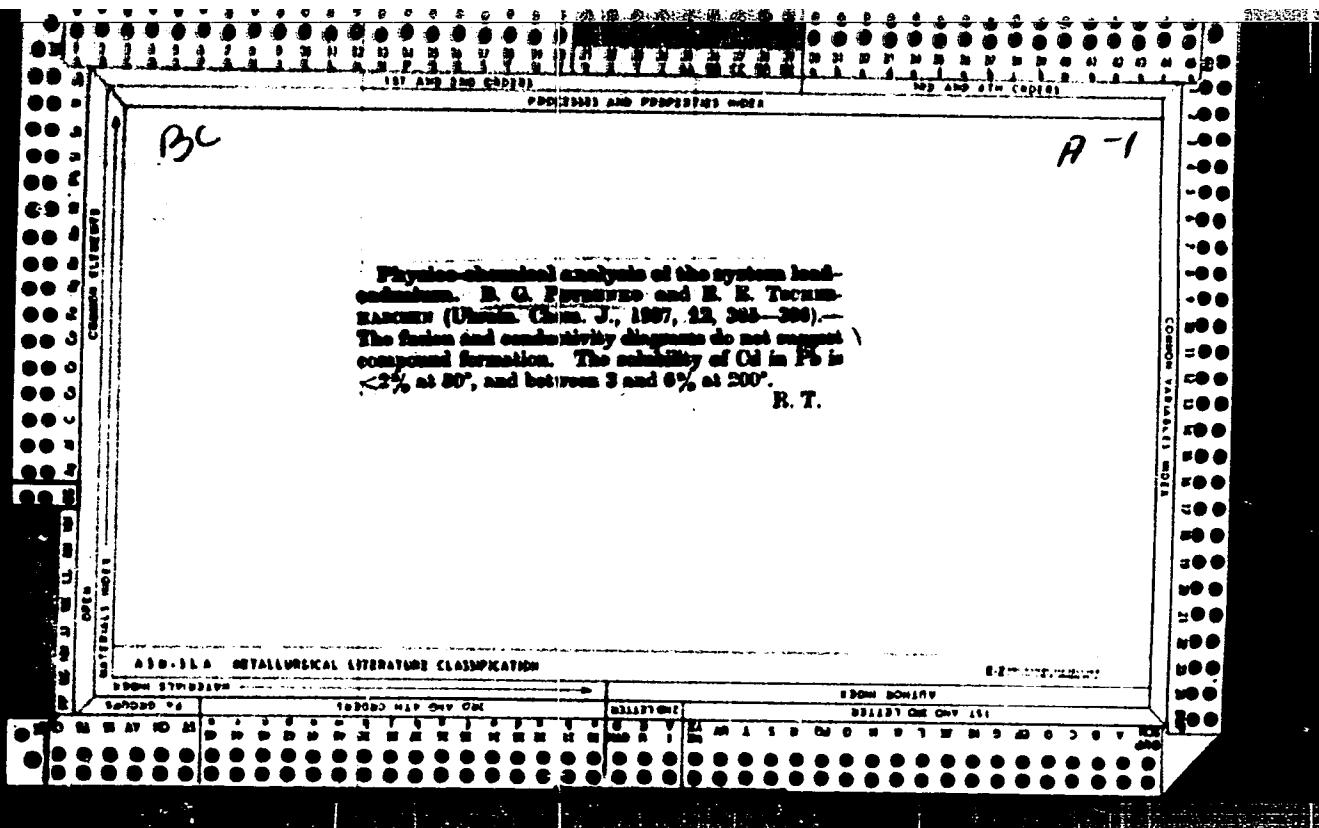
CIA-RDP86-00513R001240

BC

B-1-5

Fall in strength [of steel] during successive plastic deformations at high temperature. N. P. LASCHKO, B. G. PAVLENKO, and G. J. SLOBODJANENK (Trans. Inst. Chem. Chernov Univ., 1938, 4, No. 13, 49-56).—Steel repeatedly subjected to pressure at 800° changes its structure discontinuously. The first operation causes the greatest fall in strength of the sample; subsequent operations involve recrystallisation of the metal, with consequent rise in its strength.

R. T.



Diffusion processes in binary crystalline systems. B. G. PARRANZO and B. E. RUBINSTEIN (J. Phys. Chem., Russ., 1939, 23, 606-613).—Diffusion coefficients and their temp. coeffs. (energy of ionizing, Q) in  $\alpha$ - and  $\beta$ -phases of the systems Ag-Zn, Ag-Cd, and Cu-Zn have been determined by observing the rate at which the volatile component evaporates from the alloy. For  $\beta$ -phase, Q is < C for  $\alpha$ -phase of the system. The results show that in intermetallic phases Q depends on the m.p. of the phase and is  $\propto$  (radius of diffusing atom)<sup>2</sup> (cf. A., 1937, I, 206). R. C.

H. C.

**APPROVED FOR RELEASE: Wednesday, June 21, 2000**

CIA-RDP86-00513R001240

CA

EXCELSIOR AND FAXIMILE 1980

The nature of the hardness of electrolytic deposits. N. V. Lashko and B. G. Petrenko. *Izdat. Akad. Nauk SSSR, Izd. Akad. Nauk SSSR, No. 7-8, 3(1960); Khim. Referat. Zhur.*, 4, No. 7-8, 3(1961).—The effect of the basis metal on the hardness of the electrodeposited metal was studied. In the deposition of Cu from  $CuSO_4$  soln. on an annealed Cu cathode the hardness of the deposit was equal to that of the basis metal. Deposition on a harder surface (obtained by polishing) resulted in a considerably harder deposit. This effect was observed only at low c. d. (0.376 amp./sq. dm.). A 2nd annealing of the cathode reduced the hardness of the deposit to its normal value. The increased hardness of the electrodeposit is attributed to the distortion of the structure of the deposited metal, which "adapts" itself to the structure of the basis metal.

W. H. Henn

4

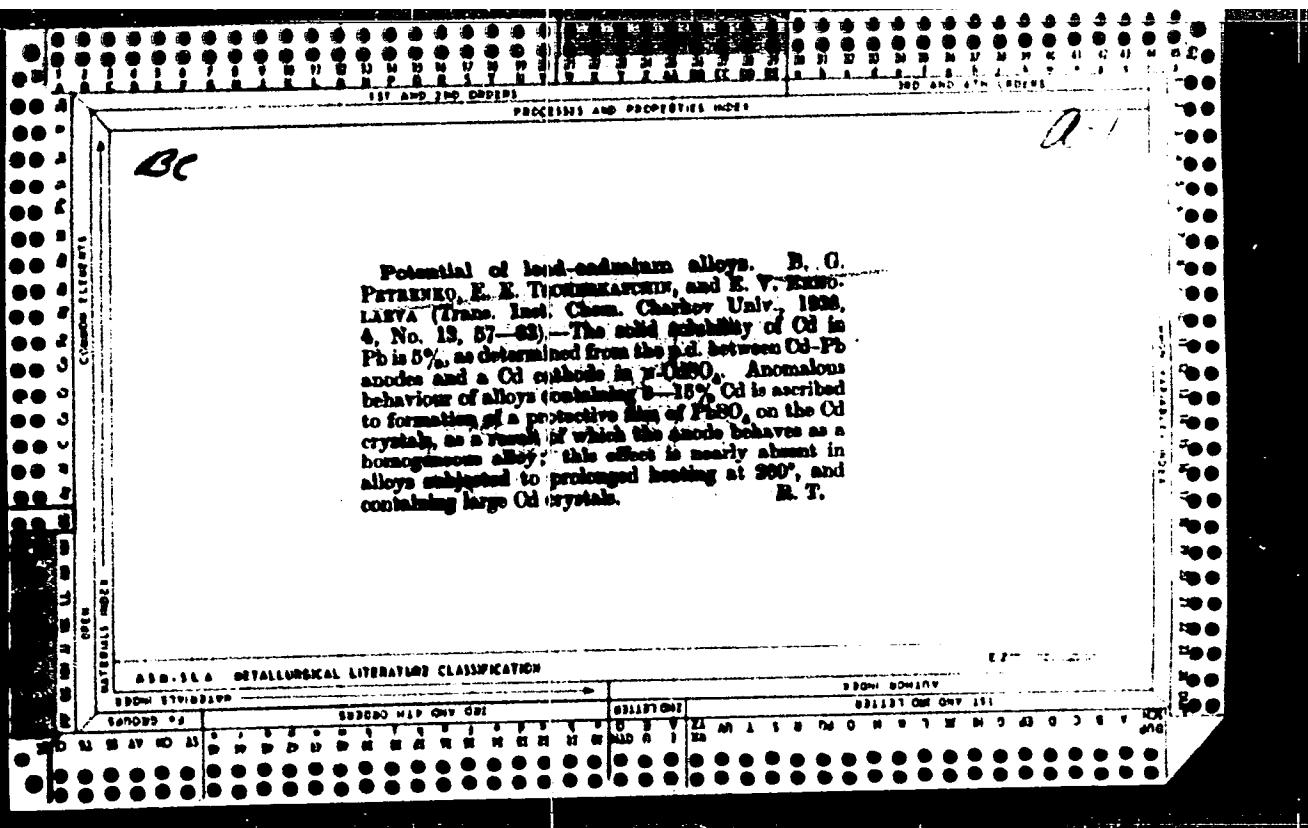
## ASLIB METALLURGICAL LITERATURE CLASSIFICATION

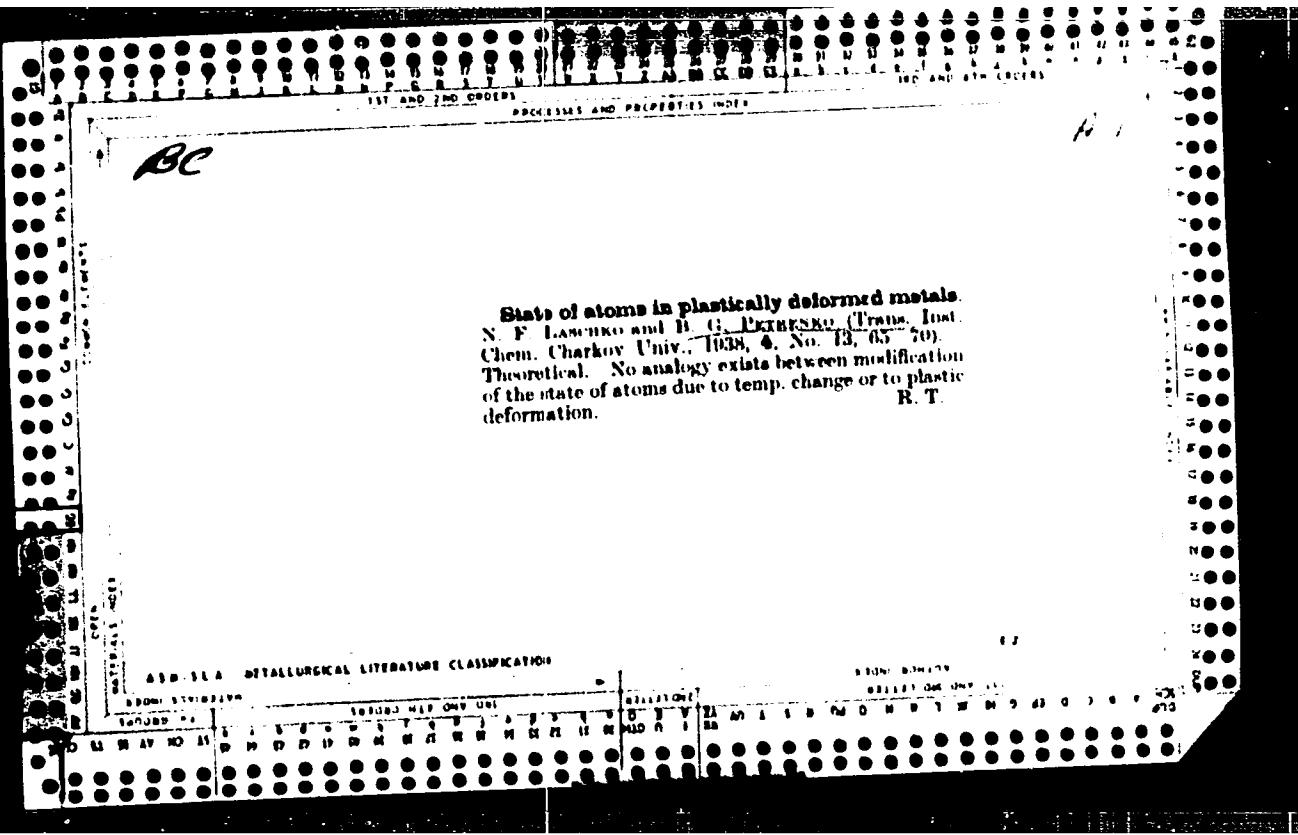
STANDARD C2

STANDARD C2

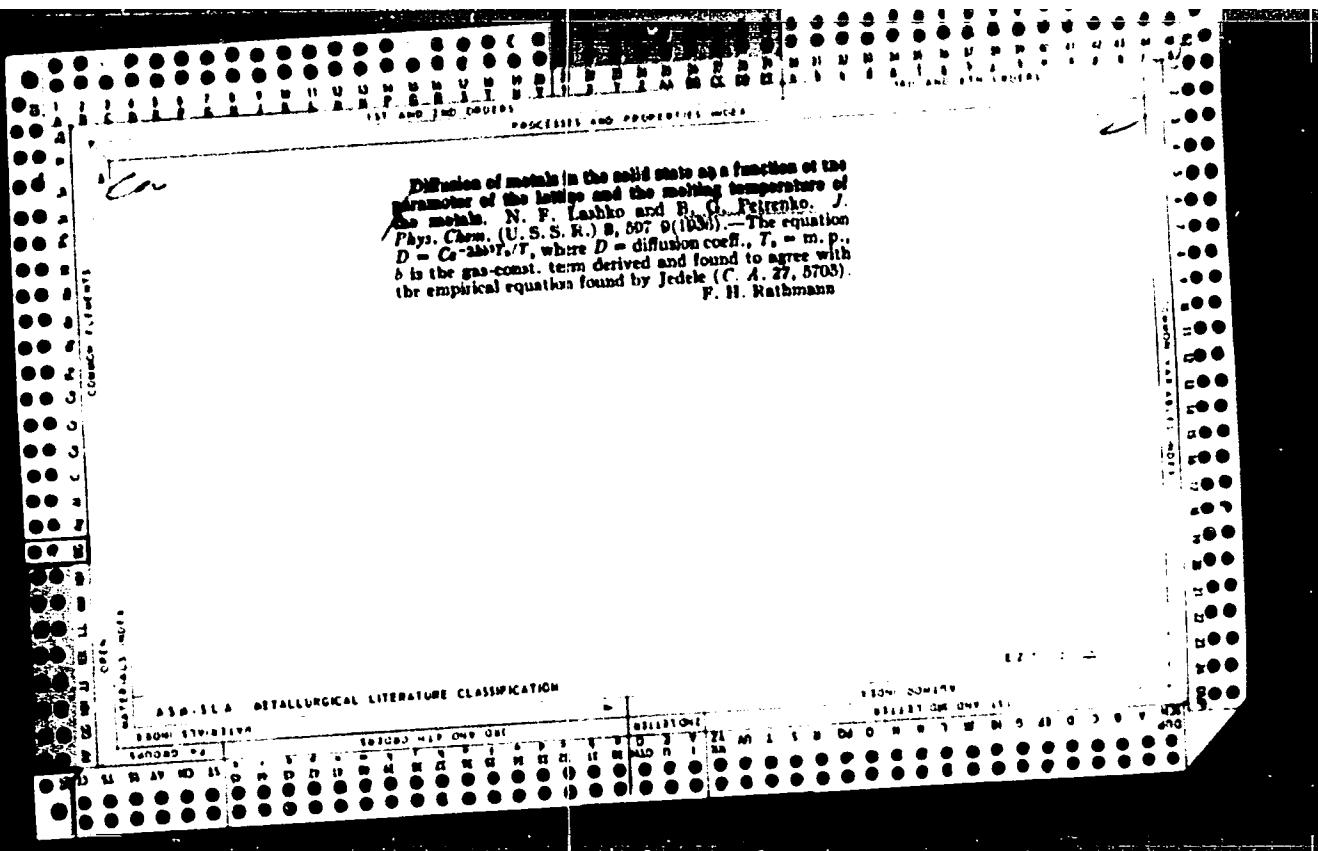
Physical-chemical analysis of the system of lead-cadmium alloys. N. G. Petrenko and R. E. Cherkashin. *Ukrain. Khim. Zhurn.* 1937, 13, 389-391 (1937). The system Pb-Cd was investigated by thermal analysis and by elec. cond. and potential measurements. A bend was noticed on the liquidus curve of the primary eutectic of Cd but no thermal effects were observed that could account for chem. reasons for the bend. Elec. cond. was measured at 25°, 50° and 85°. At 25° the cond. does not vary with time. At 50°, the resistance of alloys contg. 2 and 3% Cd decreases gradually, but rises sharply at 85°, and rapidly reaches a const. Resistance of alloys contg. 6 and 8% Cd rises weakly and reaches rapidly a const. at both 50° and 85°.

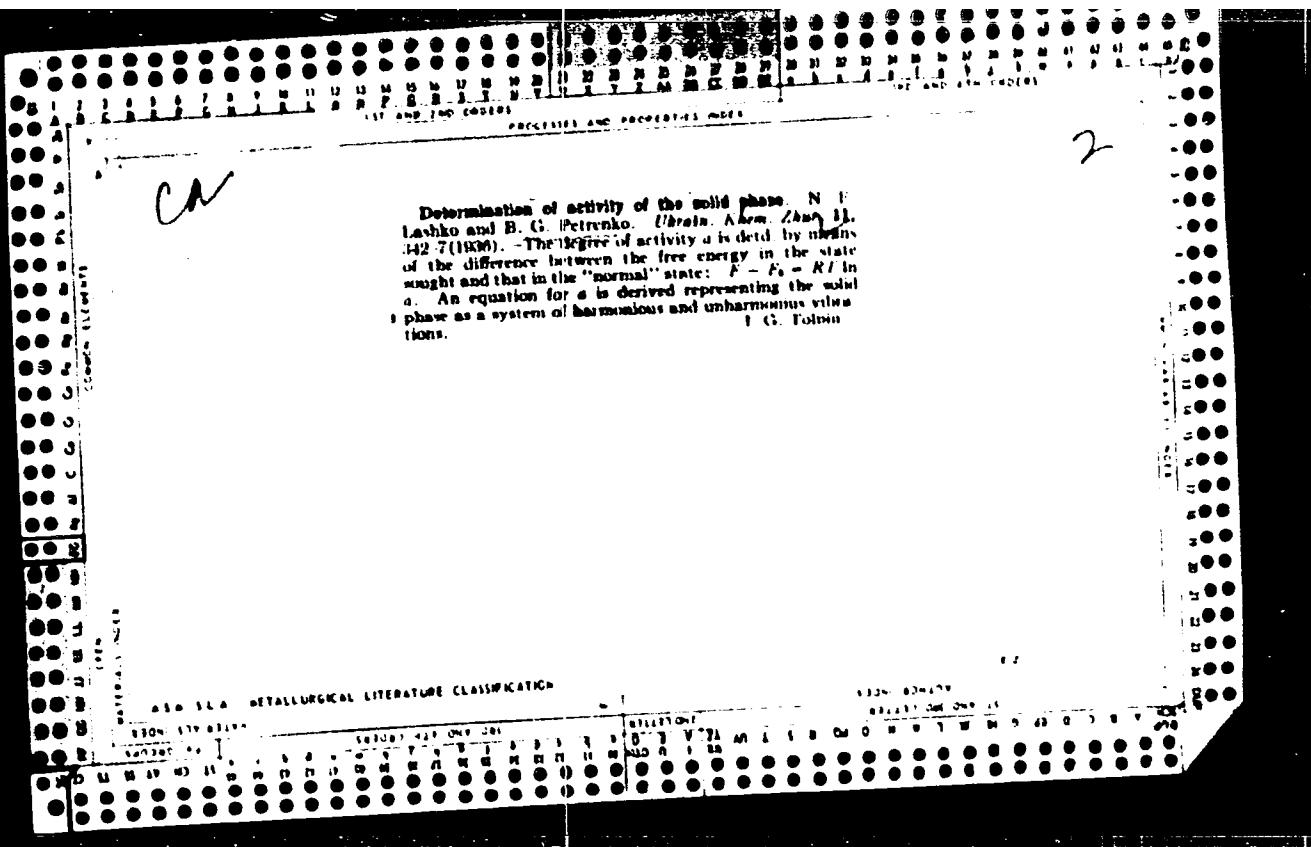
The soln. of Cd in solid Pb as obtained by potential measurements is less than 2% at 50°, and at 200° it is over 3 but less than 6% by wt. B. Z. Kamach





Diffusion of metals in the solid state as a function of the parameters of the lattice and the melting temperature of the metals. N. F. Lashko and B. I. Petrenko. *J. Phys. Chem. (U.S. S. R.)* 8, 607-9 (1933). The equation  $D = Ce^{-\frac{1}{2}bT_0^2/T}$ , where  $D$  = diffusion coeff.,  $T_0$  = m. p.  $b$  is the gas-const. term derived and found to agree with the empirical equation found by Jedeck (C. A. 27, 5705). F. H. Raibmanne.





ZHERDEV, A.M.; PETRENKO, B.Ya.

Tubes for X-ray spectral analysis of deflection in metals and  
alloys. Zav. lab. 31 no.8:1029 '65. (MIRA 18:9)

1. Kirgizskiy gosudarstvennyy universitet.

PETRENKO, B. G. & RUFINSHIEYN, B. Ye.

"Diffusion Processes in Binary Crystalline Systems"; 13, No. 4, 1939; Khar'kov State Univ.,  
Insti. of Chem., Lab. of Metallurgy; rec 29 May 1938.

Report U-1613, 3 Jan. 1952.

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

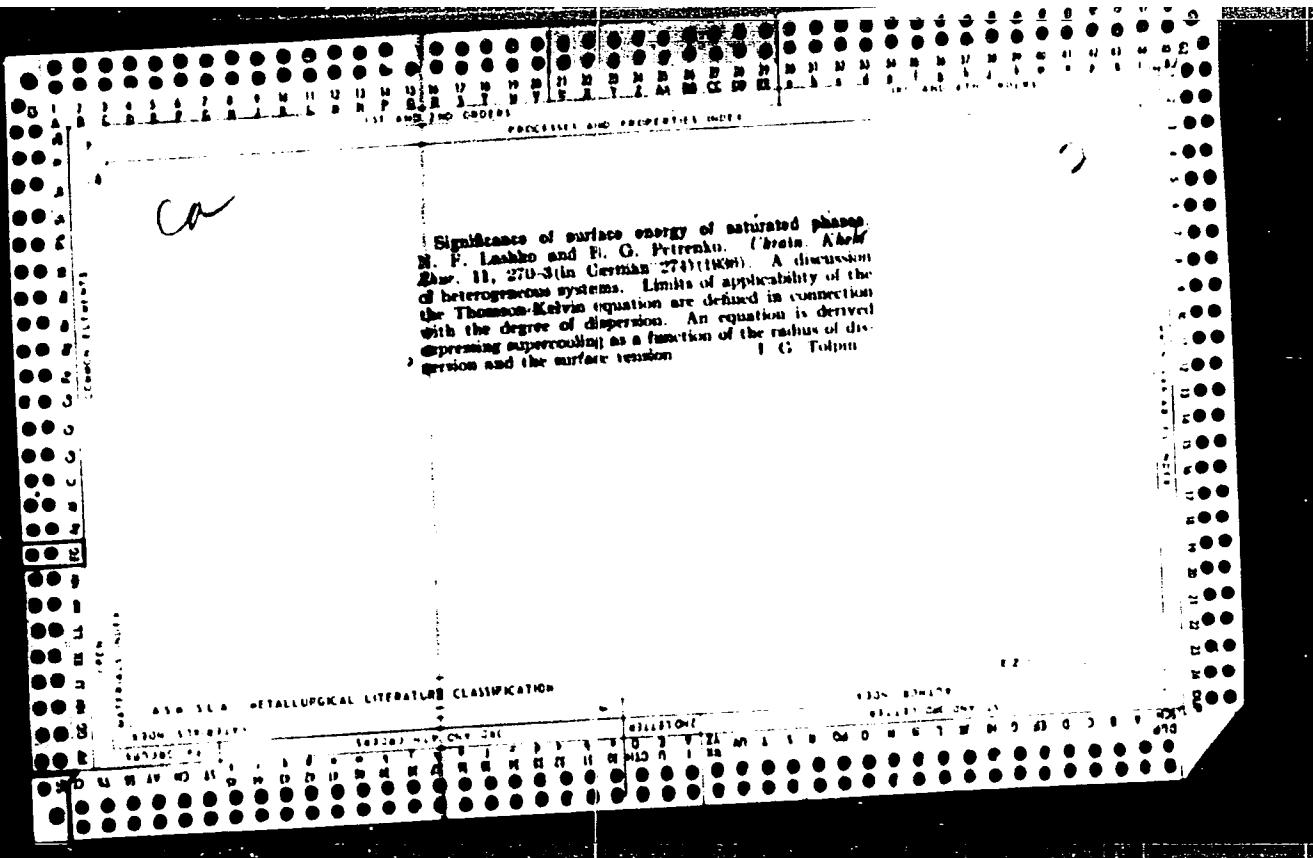
БАТЮКЕВ, Б. Г. & РУДНЯНСКИЙ, Б. Ве.

"Diffusion Processes in Binary Crystalline Systems"; 13, No. 4, 1959; Kharkov State Univ., Insti. of Chem., Lab. of Metallography; Ref. 29 May 1959.

Report U-1/13, 3 Jan 1960.

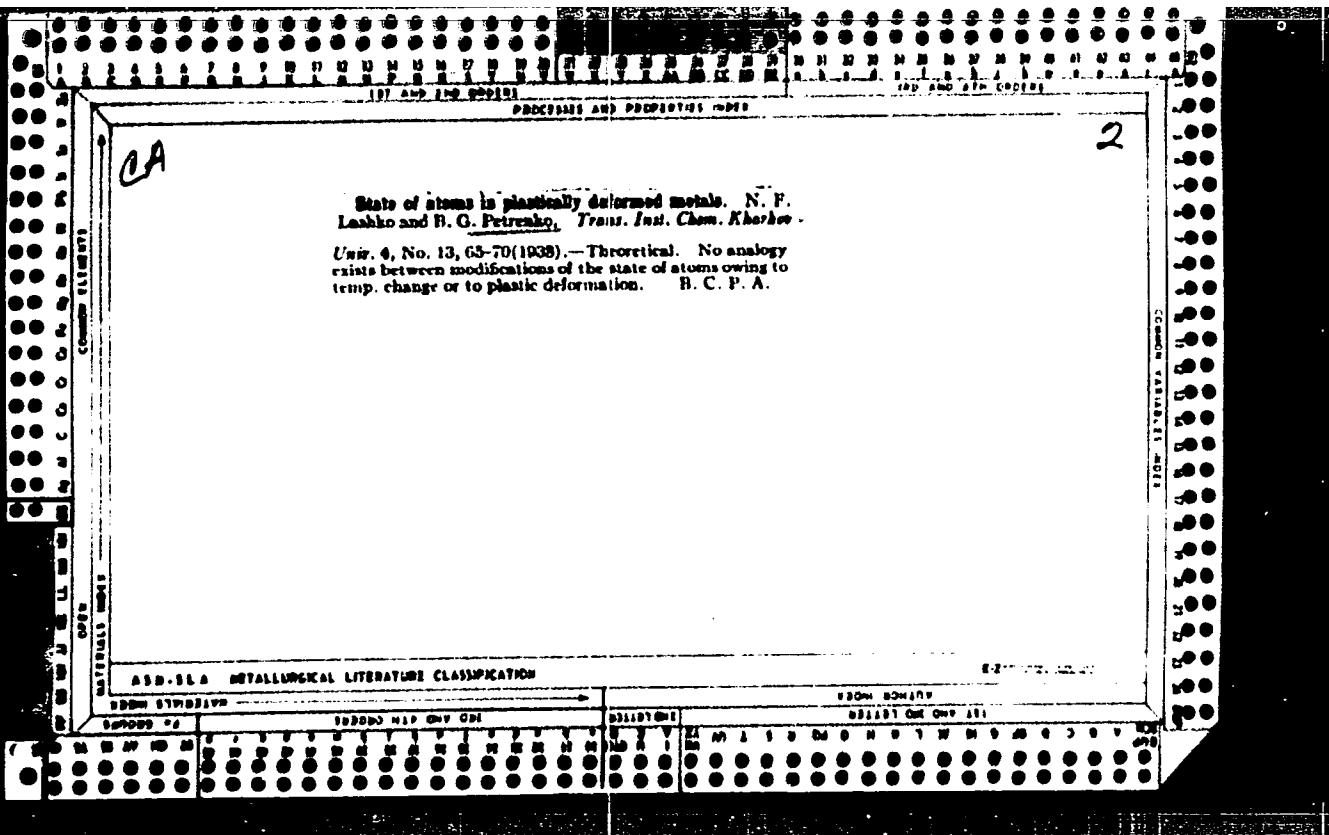
APPROVED FOR RELEASE: Wednesday, June 21, 2000

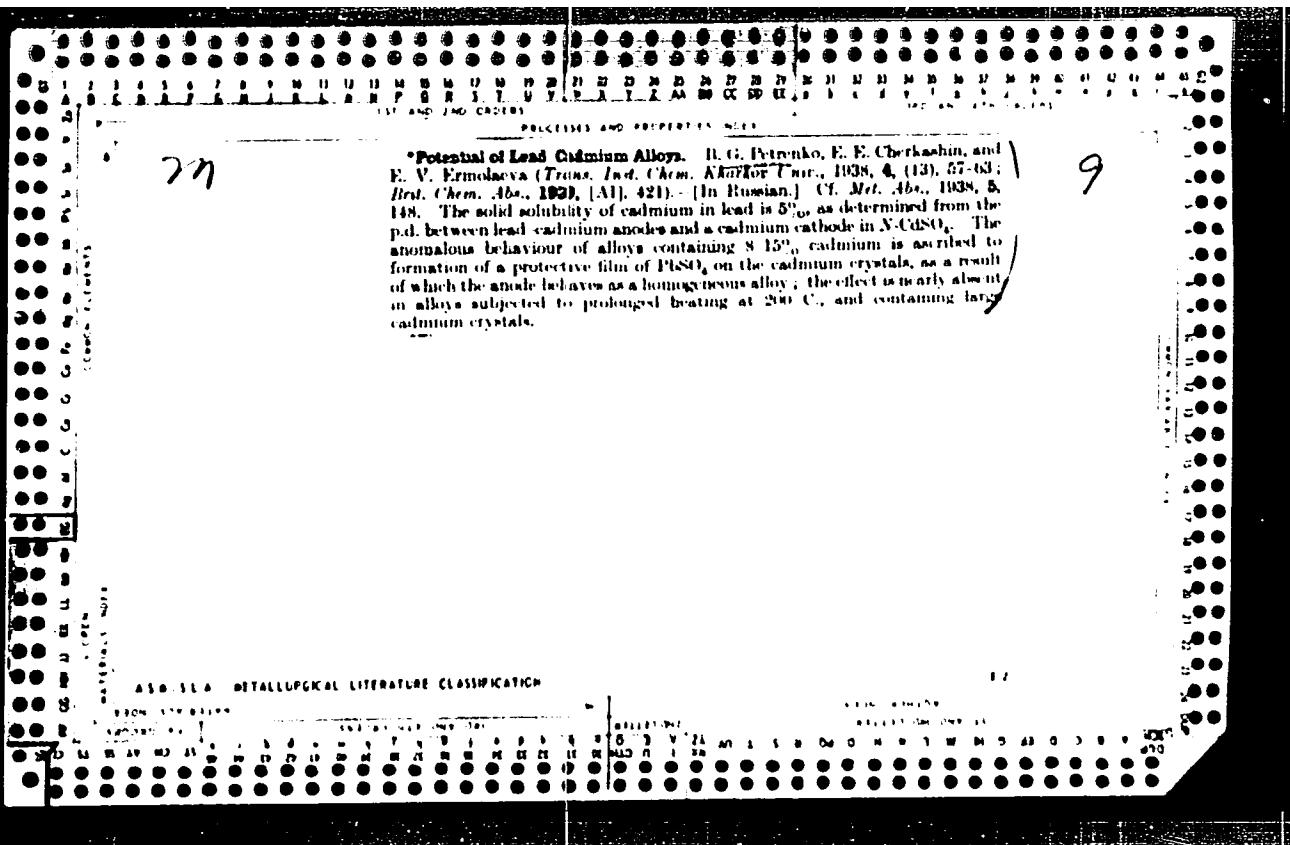
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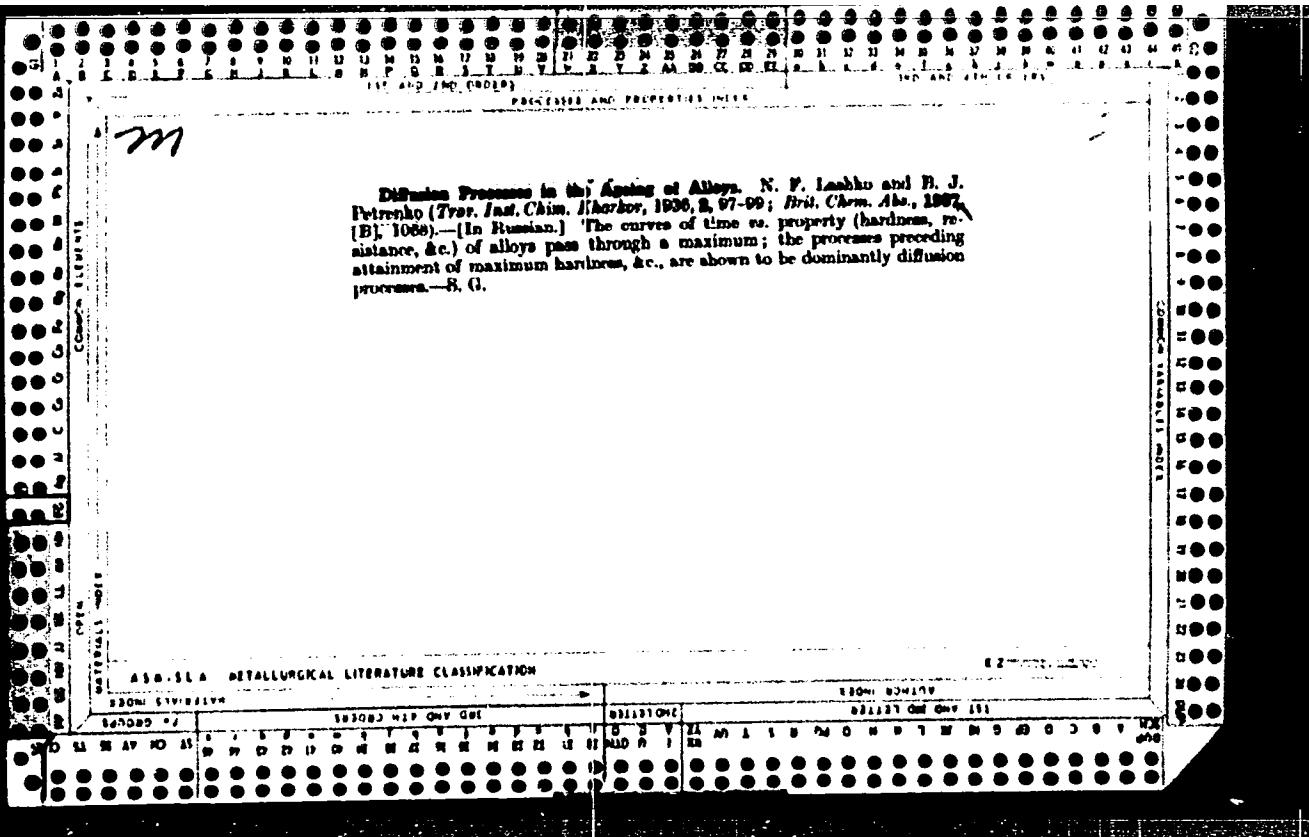


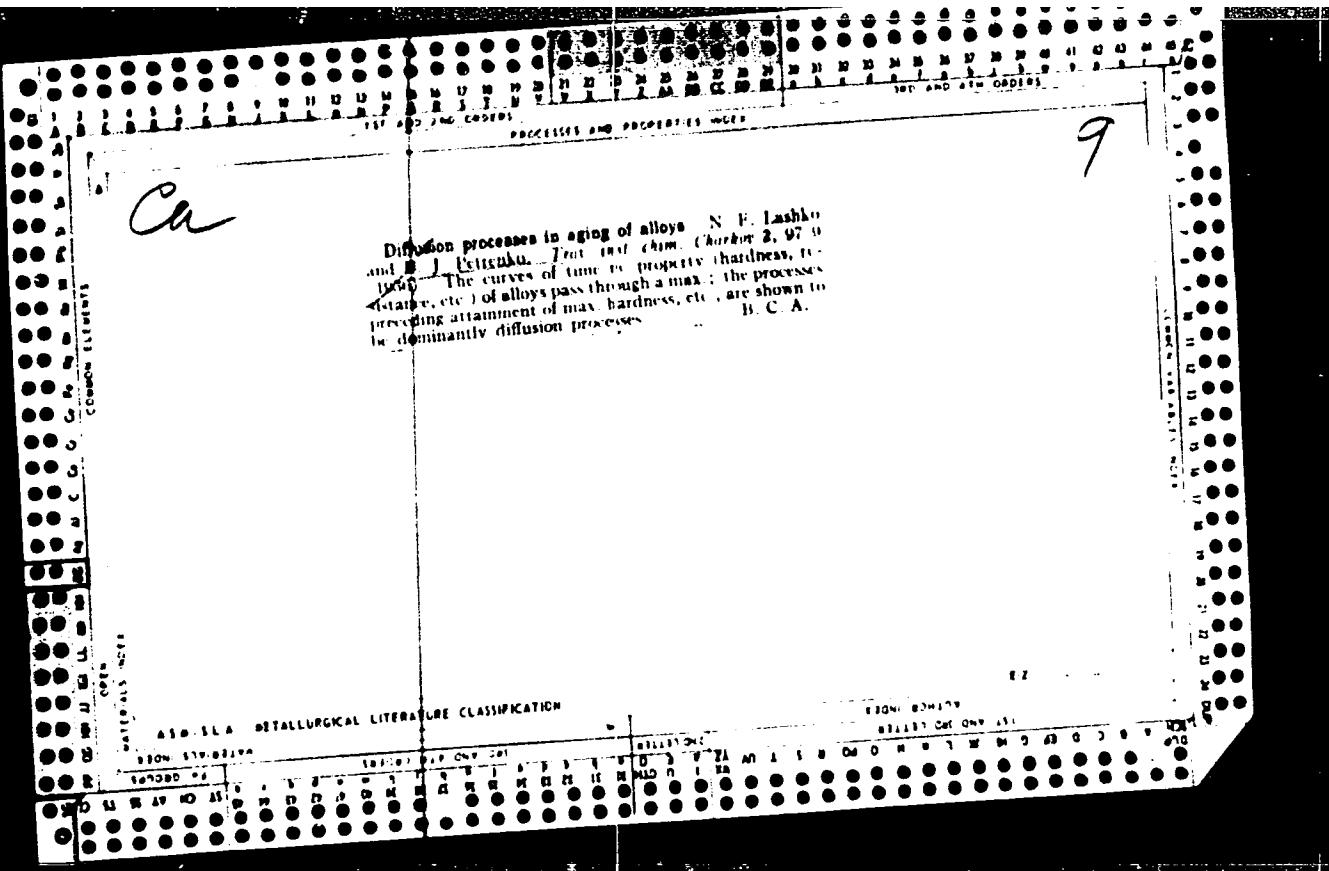
Potential of lead-cadmium alloys. II. G. Petropavlov, P. N. Cherkashin and B. V. Kurnakov. *Transl. Inst. Chem. Khar'kov Univ.*, 4, No. 13, 57-63 (1938); cf. C. A. 31, 2071. The solid solv. of Cd in Pb is 55%; and a Cd cathode from the p.d. between Cd-Pb electrodes and a Cd cathode in  $\text{CdSO}_4$ . Anomalous behavior of alloys contg. 8-15% Cd is ascribed to formation of a protective film of  $\text{PbSO}_4$  on the Cd crystals, as a result of which the anode behaves as a homogeneous alloy; this effect is nearly absent in alloys subjected to prolonged heating at 200°, and contg. large Cd crystals. B. C. P. A.

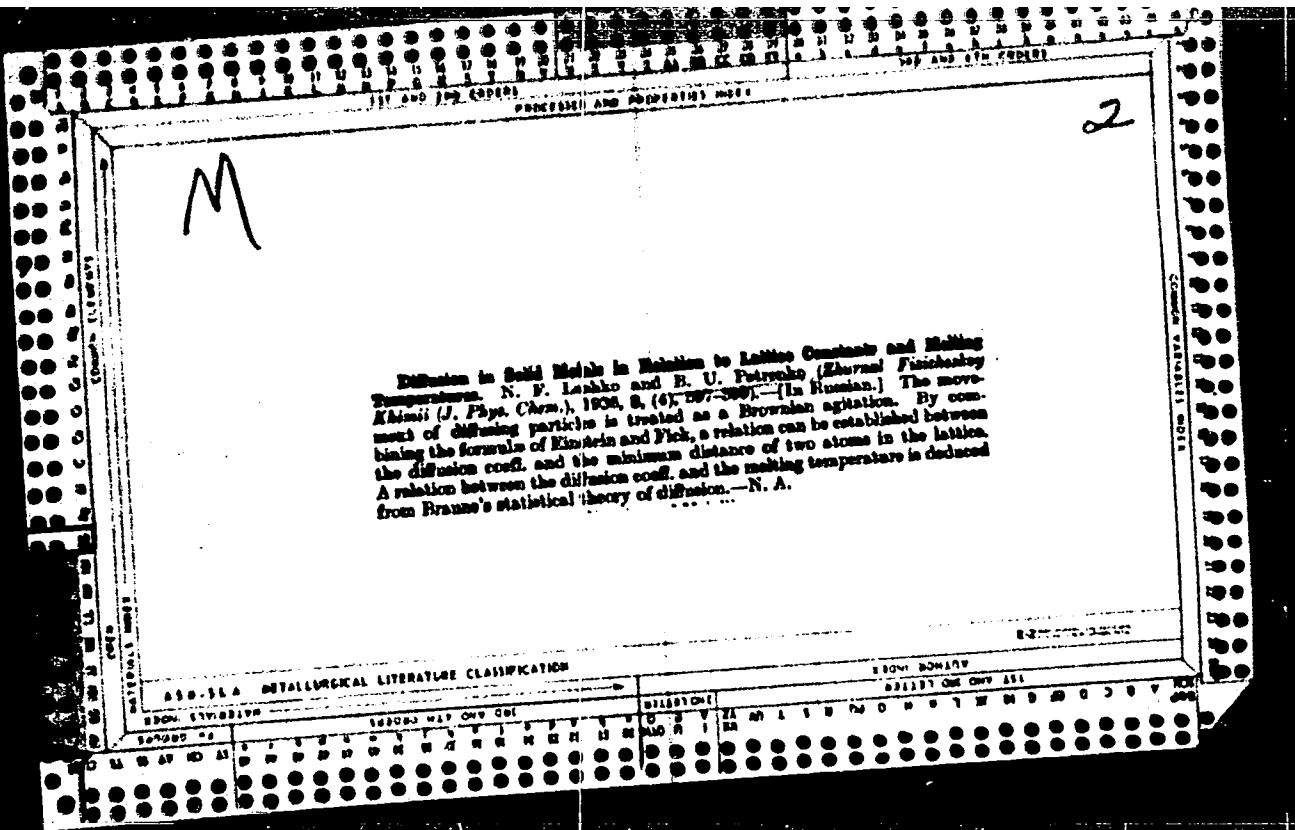
2











~~PETRENIKO~~

Attachment to the PMT-3 apparatus for automatizing the  
process of applying stress. Zav.lab. 23 no.7:869 '57. (MLRA 10:8)  
(Testing machines--Attachments)  
(Automatic control)

PETRENKO, B.YA

32-7-35/49

AUTHOR: Petrenko, B.Ya.

TITLE: A Supplementary Device Attached to the P M T-3 Apparatus for the  
Automation of the Load Process  
(Prisposobleniye k priboru P M T-3 dlya avtomatizatsii protessa  
nagruzheniya)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 7, pp. 869 - 869 (USSR)

ABSTRACT: The above device permits steady work with diamond pyramid, con-  
tinuous effect, load brought to bear on the sample uniform re-  
moval of load and the automatic switching off of the load mechani-  
sm. This supplementary device consists of a electromotor (by  
Worren) on the axle of which a cardioid-shaped "fist" is mount-  
ed. When this "fist" rotates, a lever is lowered in that it ro-  
tates in the ball bearings together with its axle. A rod with the  
diamond pyramid is forced down by the load. As soon as the pyra-  
mid reaches the sample, the rod removes the load from the sample.  
Additional contact switches enable this device to work automatic-  
ally. There are 2 figures.

Card 1/2

SOV/68-59-8-29/32

AUTHORS: Ivanov, Ye. and Petrenko, D.

TITLE: Coke-Chemical Production of the Krivoy Rog  
Metallurgical Works (Na koksokhimicheskom proizvodstve  
Krivorozhskogo metallurgicheskogo zavoda)

PERIODICAL: Koks i khimiya, 1959, Nr 8, p 57 (USSR)

ABSTRACT: The Technical Council for Coke-Chemical Production  
decided on the advisability of the construction of a  
plant for the production of ammonia using hydrogen  
from coke oven gas and nitrogen from an oxygen plant.

Card 1/1

SOV/68-59-1-17/26

AUTHORS: Ivanov, Ye.B. and Petrenko, D.S.

TITLE: At the Coking Works of the Krivoy Rog Metallurgical Works (Na koksokhimicheskom proizvodstve Krivorozhskogo metallurgicheskogo zavoda)

PERIODICAL: Koks i Khimiya, 1959, Nr 1, pp 60 - 61 (USSR)

ABSTRACT: Technical council for coking production of the Krivoy Rog Works considered the results of investigation of the dephenolising plant and excessive corrosion on the benzole plant. Poor results obtained on the effluent dephenolising plant were found to be caused by partial blocking of hurdles in the absorber. Replacement of hurdles and an improvement in the effluent spraying system decreased phenol losses from 0.6 - 0.7 g/liter to 0.15 - 0.25 g/liter. In order to decrease corrosion on benzole plant, the effect of additions of calcined soda and gaseous ammonia will be tested. For oil cooling the use of zinc-coated tubes and testing of enamelled tubes is recommended. For the construction of the benzole plant, the use of the following materials is recommended: benzole column - cast iron, silumin for other parts of the column; cast iron and steels Kh13N, 15KhM, 12KhMZA and 18 KhNVA for

Card1/2

At the Coking Works of the Krivoy Rog Metallurgical Works  
SOV/68-59-1-17/26  
tubes in heat exchangers; steels 1Kh18N9T and Kh17T for  
tubes in pre-heaters; cast iron, low-alloy steel and  
St.3 steel for piping connections.

Card 2/2

PETRENKO, D.S.

Phenols in tar water. Met. i gornorud. prom. no. 3:43-44  
My-Je '64.  
(MTRA 17:10,

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

MAZUR, F.A., kand. ekonom. nauk; PETRENKO, D.S., kand. tekhn. nauk

Economical advantages of the utilization of the chemical resources  
in the Krivoy Rog Metallurgical Plant. Khim. prom. [Ukr.] no.3:  
68-70 Jl-S '64.  
(MIRA 17:12)

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

IVANOV, Ye.B.; PETRENKO, D.S.; PARTUSHNAYA, R.M.

Change of the flow system for processing flushing liquors.  
Koks i khim. no.5:41-43 '60. (MIRA 13:7)

1. Krivorozhskiy metallurgicheskiy zavod.  
(Krivoy Rog—Coke industry—By-products)

AUTHOR: Petrenko, D.S. SOV/68-59-5-12/25  
TITLE: Intensification of the Production of Raw Pyridine Bases  
(Intensifikatsiya proizvodstva syrykh piridinovykh  
osnovaniy)  
PERIODICAL: Koks i khimiya, 1959, Nr 5, pp 33-34 (USSR)  
ABSTRACT: The existing operating schemes of pyriding installations are usually mainly based on the utilisation of ammonia obtained by treatment of liquor from the primary condensers. The liquor from the collecting main is used only in a small quantity. Insufficiency of ammonia liquor from primary cooling causes serious difficulties in the production of pyridine bases. At the Krivoy Rog Works the production of pyridine bases was improved by utilising a considerable quantity of liquor from the collecting main. In order to improve the separation of the pyridine layer in the separator an addition of depyridinized liquor was introduced. The diagram of the installation is shown (see Fig). The measures taken  
Card 1/2

SOV/68-59-5-12/25  
Intensification of the Production of Raw Pyridine Bases  
considerably improved the output and quality of the  
pyridine bases.  
Card 2/2 There are 2 tables and 1 figure.

ASSOCIATION: Krivorozhskiy metallurgicheskiy zavod  
(Krivoy Rog Metallurgical Works)

PETRENKO, D.S.; GORITSKAYA, O.D.; SHAPIRO, M.D.

Efficient utilization of tar water ammonia in the production of light pyridine bases. Noks i khim. no.2:31-33 '62. (MIRA 15:3)

1. Krivorozhskiy metallurgicheskiy zavod (for Petrenko, Goritskaya). 2. Dnepropetrovskiy khimiko-tehnologicheskiy institut (for Shapiro).  
(Pyridine) (Coke industry—By-products)

PETRENKO, Dmitriy Sergeyevich; FOSS, E.I., otv. red.; LIBERMAN, S.S.,  
red. izd-va; ANDREYEV, S.P., tekhn. red.

[Production of pyridine bases in the by-product coke industry]  
Proizvodstvo piridinovykh osnovanii na koksokhimicheskikh zavo-  
dakh. Khar'kov, Metallurgizdat, 1961. 175 p. (MIRA 15:12)  
(Pyridine bases) (Coke industry--By-products)

PATENKO, D.S.

At the by-product coking section of the Krivey Rog Metallurgical Plant. Koks i khim. no.3:59-60 '59. (MIRA 12:3)

1. Krivorezhskiy metallurgicheskiy zaved.  
(Krivey Rog--Coke industry--Equipment and supplies)  
(Corrosion and anticorrosives)

IVANOV, Ye.B.; PETRENKO, D.S.; FARTUSHNAYA, R.M.

Introduction of a new flow chart into the practice of the ammonia-pyridine division. Koks i khim. no. 5:37-38 '61. (MIRA 14:4)

1. Krivorozhskiy metallurgicheskiy zavod.  
(Krivoy rog—Coke industry—By-products) (Ammonia)  
(Pyridine)

AUTHOR: Petrenko, D.S.

SOV/68-59-4-19/23

TITLE: On the Krivoy Rog Coking Works (Na Krivorozhskom  
Koksokhimicheskom proizvodstve)

PERIODICAL: Koks i Khimiya, 1959, Nr 4, p 60 (USSR)

ABSTRACT: The construction of a new battery of coke ovens of the  
FK-2K type has been started. It is planned that the  
battery will be automatised.

Card 1/1

SOV/68-59-3-18/23

AUTHOR: Petrenko, D.S.

TITLE: On the Coke Oven Plant of the Krivoy Rog Metallurgical Works (Na koksokhimicheskem proizvodstve Krivorozhskogo metallurgicheskogo zavoda)

PERIODICAL: Koks i Khimiya, 1959, Nr 3, pp 59-60 (USSR)

ABSTRACT: In order to decrease the corrosion of the benzole distillation column the behaviour of various steels, coatings and cast iron were investigated. For the investigation various parts of the column were made from different materials or differently coated. After one year of operation the column was examined. It was found that parts made from stainless steel Kh18N12M2T and cast iron were not corroded while parts made from ordinary carbon steel corroded badly. Aluminium coatings (electro-metallisation) disappeared but the same coating protected by three layers of bakelite lacquer remained in a good state; 90% of the surfaces covered with bakelite lacquer and a mixture of the lacquer with graphite remained in good order. Surfaces covered with an acid resistant concrete remained in good state. The investigation

Card 1/2

SOV/68-59-3-18/23

On the Coke Oven Plant of the Krivoy Rog Metallurgical Works  
will be continued with special attention to aluminium  
alloys coated with lacquer and aluminium and enamelled  
tubes and fittings.

ASSOCIATION: Krivorozhskiy metallurgicheskiy zavod (Krivoy Rog  
Metallurgical Works)

Card 2/2

PETRENKO, D.S.

Use of the separation water from the pyridine distillation apparatus as a reflux in the ammonium column. Koks i khim. no.12:50-51 '62.  
(MIRA 16:1)

1. Krivorozhskiy metallurgicheskiy zavod,  
(Coke industry--By-products)  
(Ammonium sulfate)

AUTHOR: Petrenko, D. S.

68-58-6-10/21

TITLE: From the Experience of Operation of Pyridine Recovery  
Plant Before and After its Reconstruction (Opyt  
raboty piridinovoy ustanovki do i posle yeye rekonstruktsii)

PERIODICAL: Koks i Khimiya, 1958, Nr 6, pp 40-44 (USA)

ABSTRACT: An outline of the redesigning of the pyridine plant  
(Fig.2) and a comparison of operating indices before  
and after the reconstruction are given. The coefficient  
of recovery of pyridine bases increased from 65% to 84%.  
There are 2 figures.

ASSOCIATION: Krivorozhskiy kol'zomkii khimicheskiy zavod  
(Krivoy Rog Coal-Tar Chemical Plant)

1. Pyridines--Recovery

Card 1/1

AUTHOR: Petrenko, D. S.

68-8-22/23

TITLE: Remarks on the paper "Final Cooling of Gas with the Extraction of Naphthalene from Water with Tar".  
(K stat'ye "Konechnoye okhlazhdeniye gaza s izvlecheniyem naftalina iz vody smoloy").

PERIODICAL: Koks i Khimiya, 1957, No.8, p. 62 (USSR)

ABSTRACT: It is pointed out that the authors of the original paper, published in "Koks i Khimiya", 1956, Nr. 7, stated that in the Krivoy Rog Coke Oven Works the naphthalene is extracted with tar from water which is in a closed circuit. However, this statement is not quite correct. This practice was abandoned after 6-7 months of operation, as after a period of operation the tar was emulsified with water. At present, a continuous flow of fresh tar is used. The best naphthalene recovery is obtained when tar is supplied to the second and third plates. The optimum temperature of the tar is 90-95° C and not 60-70° C as was stated in the paper. Otherwise, the review is favourable.

ASSOCIATION: Krivoy Rog Coke Oven Works. (Krivorozhskiy Koksokhimicheskiy Zavod).

AVAILABLE: Library of Congress

Card 1/1

PETRENKO, D.S.

PETRENKO, D.S.

Concerning the article "Final cooling of gas along with the  
use of tar for removing naphthalene from water". Koks i khim.  
no.8:62 '57. (MLRA 10:8)

1.Krivorozhskiy koksokhimicheskiy zavod.  
(Water--Purification) (Naphthalene)

PETRENKO, D.S.; STERLIY, K.T.  
APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001240

Operation of the ammonia-pyridine plant using the separator liquid  
from the pyridine unit as a reflux. Koks i khim. no.9:31-33 '60.  
(MIRA 13:9)

1.Krivorozhskiy metallurgicheskiy zavod.  
(Coke industry--By-products) (Ammonia)  
(Pyridine bases)

PETRENKO, F.F.

3462. MECHANIZED DRYING AND CUTTING OF BOG PEAT. Petrenko, F. F.  
(Torfyanaya Promyshlennost (Peat Industry), 1947, No. 9,  
5-9). Deals with large-scale draining of peat bogs and  
cutting of the dried peat in situ. Diagrams showing the  
method of procedure are given.

A

ACC NR: AP6035723

(N)

SOURCE CODE: UR/0413/66/000/019/0085/0085

INVENTOR: Puzev, I. M.; Petrenko, E. D.

ORG: none

TITLE: Iron-cobalt-nickel base magnetic alloy. Class 40, No. 186698 [announced by the Central Scientific Research Institute of Ferrous Metallurgy im. I. P. Bardin (Tsentralnyy nauchno-issledovatel'skiy institut chernoy metallurgii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 85

TOPIC TAGS: magnetic alloy, iron cobalt nickel alloy, molybdenum containing alloy, ferrobase alloy, ferromagnetic, cobalt alloy, magnetic property, electric property

ABSTRACT: This Author Certificate introduces an iron-cobalt-nickel base magnetic alloy. To combine the increased values of magnetic and electric properties in order to obtain rectangular hysteresis loops or a linear dependence of induction on the field intensity in the range of 0 to 10,000 gs, the alloy has the following chemical composition in %: 0.03 max carbon, 0.3 max silicon, 0.3—0.6 manganese, 27.5—31.0 iron, 24—27 cobalt, 4—6 molybdenum, remainder — nickel.

SUB CODE: 11/ SUBM DATE: 21Jul65/

Card 1/1

UDC: 669.018.5:669.15'24'25-194

PETRIN KO., kand.tekhn.nauk

Semiautomatic electric welding of automobile parts made of thin  
sheets. Avt.transp. 38 no.11:24-25 N '60. (MIRA 13:11)  
(Electric welding)

"APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

PETRENKO, P.A., inzh.

Increasing the wear resistance of untreated steels and irons.  
Trudy RIIZHT no.24:126-136 '58.  
(Steel--Hardening)

(MIRA 11:9)

APPROVED FOR RELEASE: Wednesday, June 21, 2000

CIA-RDP86-00513R001240

PETRENKO, F.A., assistant.

Wear resistance of cast iron in piston assembly parts of the steam engine of a locomotive. Trudy RIIZHT no.18:186-195 '54. (MLRA 9:3)  
(Cast iron--Fatigue)

PETROV, V. N.

Mashiny i apparyy dlia zashchity rastvorov ot vsekh infektsionnykh bol'ezней  
equipment for protecting plant from pests and diseases Moscow, Russia

o: Monthly list of Russian acquisitions, Vol. 6, No. January 1984

PETRENKO, F.

Pamphlets on communist morals. Sov. profsoiuzy 16 no.4:60-62 F '60.  
(MIRA 13:3)

(Communist ethics)

SOKOLOV, A.A.; PETRENKO, F.F.; KOVALEV, V.F.; YELISEYEV, M.A.;  
ROZENPLENTER, N.F.; YANCHUKOVICH, A.E.; CHUBAROV, N.D.; KONISEVOY,  
N.S.; PREOBRAZHENSKIY, V.A.; BOCHAROV, M.S.; KASHCHEYEV, G.G.;  
SELENNOV, G.V.; SAFONOV, K.Ye.; FUNIKOV, S.A.; RASKIN, G.I.;  
RABKIN, B.M.

Vadim Konstantinovich Gutsunaev; obituary. Torf.prom. 39  
(MIRA 15:4)  
no.3:37 '62.  
(Gutsunaev, Vadim Konstantinovich, 1914-1942)

PETRENKO, F.F., kand.tekhn.nauk

Pneumatic-tube transportation of high-concentration peat. Torf.  
prom. 38 no.5:8-10 '61. (MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut torfyanoy  
promyshlennosti.  
(Peat--Transportation)  
(Pneumatic-tube transportation)

PETRENKO, F. I. (Cand. Tech. Sci.)

"Application of Automatic Electric Arc Surfacing in Repairing Crankshafts and Other Automobile Parts," p. 156 in book Reports of the Interuniversity Conference on Welding, 1956. Moscow, Mashgiz, 1958, 266pp.