33585
S/204/61/001/005/003/008
E075/E484

11.0132

AUTHORS Freydlin, L.Kh., Nazarova, N.M.

TITLE Alkylation of cycloparaffinic ring in tetralin with olefins

PERIODICAL Neftekhimiya, v.1, no.5, 1961, 619-623

TEXT: It was observed recently that alkylation of cyclohexane can be accomplished under conditions (high temperatures and pressures) at which benzene is not alkylated. It was expected therefore that the saturated ring in tetraline will be selectively alkylated under similar conditions. The experiments were carried out in a flow apparatus described previously (Ref.5 Dokl. AN SSSR, v.37, no.5, 1961, 1125), the reactor (120 ml) being filled with crushed quartz. Tetraline used had a boiling point 78°C/12 mm Hg, d_4^{20} 0.9677 and n_D^{20} 1.5440. The ethylene contained 7% ethane, the propylene contained 12% propane. The reaction with tetralin was studied at 400 and 450°C and 50 to 200 atm pressure. The reaction with propylene was conducted under optimum conditions for the alkylation with ethylene, i.e. 450°C, initial pressure of 200 atm and mole ratio of tetralin to propylene of 2.3. The degree of

Card 1/

33585
S/204/61/001/005/003/008
E075/E484

Alkylation of cycloparaffinic .

conversion of propylene in one cycle was 51% and that for tetraline 29%. The yield of alkylate was 150% of propylene mixed with tetralin. Products obtained by the alkylation with ethylene are given in Table 1. The main product is 1-ethyltetralin. The products of the reaction with propylene are mainly mixed propyltetralins. It was not possible to obtain any information about the structure and position of the side chains in the constituents of the mixture but it is expected that mainly 1 n propyltetralin is formed. Acknowledgments are expressed to G.K.Gayvoronska and I.N.Lifanova for assistance. There are 3 tables and 15 references 3 Soviet-bloc and 12 non-Soviet-bloc. The four most recent references to English language publications read as follows. Ref.7: H. Pines, C.N.Pillai. J. Amer. Chem. Soc., v.81. 1959, 3629 Ref.8 R. Closson. J. Napolitano, J. Ecke A. Kolka. J. Organ. Chem., v.22. 1957, 646. Ref.9 C.M.Staveley T.C.Smith. J. Inst. Petrol v.42 no.386, 1956, 55. Ref.10. G.F.Hinsher P.H.Wise. J. Amer. Chem. Soc., v.76. 1954, 1747

Card 2/6

33585

S/204/61/001/005/003/008

Alkylation of cycloparaffini E075/E484

ASSOCIATION: Institut organicheskoy khimii AN SSSR im. N. D. Zelinskogo (Institute of Organic Chemistry AS USSR imeni N. D. Zelinskiy)

SUBMITTED: August 21, 1961

Table 1

Conditions	Experiments			
	1	2	3	4
Temperature, °C	450	450	450	400
Pressure, atm	200	200	50	200
Molar ratio tetralin/ethylene	0.75	1.6	2.6	2.2
Space velocity of feed, ml/min	3	7	7	9
Yield of products, g	234	543	355	445
Distilled tetralin, g	103	313		325
Degree of conversion of ethylene, % wt	95	94	60	71
Degree of conversion of tetralin % wt	44	36		18

Card 3/0

L

11.1210 also 2209

AUTHORS: Nazarova, N.M. and [illegible], L.K.

TITLE: Thermal [illegible]

PERIODICAL: Doklady Akademii nauk SSSR, [illegible]

TEXT: The authors [illegible] 1) ethylene, 2) [illegible], and 3) [illegible]. [illegible] used by them has already [illegible] (DAN, [illegible]). $Ca_3(PO_4)_2$ and porcelain [illegible] action vessel. The [illegible] resultant aromatic [illegible] lica gel. The [illegible] hexanes by dehydrogenation [illegible] corresponding aromatic [illegible] acids. Ad 1). Ethylene was [illegible] of 200 and 450 atm, [illegible] hexane from the [illegible]

Card 1/10

S/ ... B/ ... B.

Thermal alkylation ...

cyclohexane (boiling ... C, ... %) ... II, ... cyclohexane (170-18... C), ... %, and a higher-boiling residue. I corresponded to ethyl cyclohexane ... fraction was chromatographically isolated from II after dehydrogenation (80%, boiling point ... C/... mm Hg, ... diethyl benzene. ... sulted therefrom by ... fractions I and II ... zation products of the ... consisted of ... high-boiling residue. ... fractions 185-220° and ... polyethyl cyclohexanes. ... bons. By increasing ... reducing the volume ... while that of the higher-boiling residue ... -propane fraction with ... propane content was ... Table ... shows the

Card 2/10

results. The following was identified in the [illegible] I, [illegible] fraction of the cracking product, II [illegible] 150-157°C, and the residue. [illegible] (5%), dehydrogenation, fractionation, [illegible] product (48%) with a boiling point of [illegible]°C was obtained which corresponds to n-propyl benzene. From the residue a hydrocarbon boiling at 209-211°C/739 mmHg (about 3 wt% of the residue) was obtained whose properties resemble those of di-n-propyl [illegible]. Experiments no. 9 and 11 were made with quartz, mesh 10 and 20 with $Ca_3(PO_4)_2$. Ad %. In these experiments quartz was used. The degree of conversion of isobutylene was lower than that of propylene. The fraction isolated from the alkylate by distillation boiled at 168 - 68°C. After elimination of unsaturated compounds and fractionation a hydrocarbon (2%) with a boiling point of 171-172°C/742 mmHg resulted which is closely related to isobutyl cyclohexane. Table 3 gives the constants of this [illegible] with normal and with iso-structure (partly from published data). It may be seen from it that the constants of propylates obtained by the author represent those of hydrocarbon with a normal side chain. The constants of the resultant hy-

Card 3/10

Thermal alkylation ...

tyl cyclohexane resembles ... assumed that in both ... saturated C-atom of the olefin. ... hexane with propylene, ... obtained, this means, ... C-atom of the olefin. ... Mamedaliyev, Aladdin Kuliyev (Ref. ... DAN, ..., Z.A. Mamedaliyev (Ref. ... DAN, ...; L.F. Freydlin, A.A. Baladin, N.M. Nazarova (DAN, ...). There are 1 figure, ... Soviet-bloc. The ... cations read as follows: H. ..., N. ... (Ref. ... J.Am.Chem.Soc., 67, 1631, 1945), J.F. ..., G.I. Vaala (Ref. ... J.Am.Chem.Soc., ..., 1939), B.B. Elsner, H.E. Strouse, T.J. Fortune, (J.Am.Chem.Soc., ...

ASSOCIATION: Institut organicheskoy ... nauk SSSR (Institute of Organic Chemistry ... Zelinskiy of the Academy of Sciences USSR)

Card 4/10

NAZAROVA, N.M.; FREYDLIN, L.Kh.; SHAFRAN, R.N.; LOGINOV, G.A.

Alkylation of cyclohexene by ethylene at elevated temperatures and pressures. Neftekhimiia 3 no.1:66-70 Ja-F '63. (MIRA 16:2)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo.
(Cyclohexene) (Ethylene) (Alkylation)

FREYDLIN, L.Kh.; NAZAROVA, N.N.; LITVIN, Ye.F.; GAYVORONSKAYA, G.K.

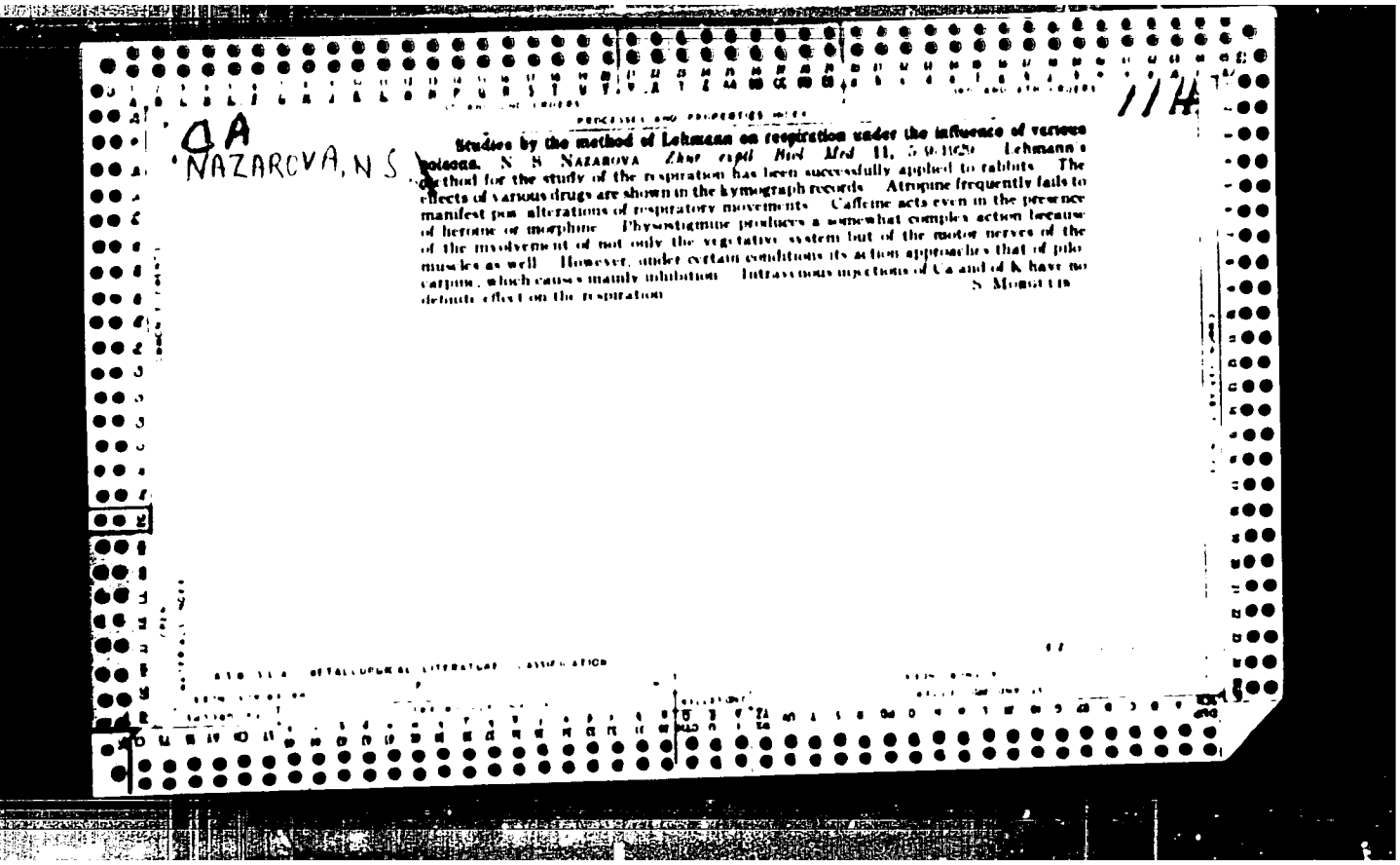
Reaction of cyclohexane with 3-methylbutene-1 and 2-methylbutadiene-1,3. Neftekhimiia 4 no.2:246-251 Mr-Ap'64 (MIRA 17:8)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo.

VLODAVETS, M.L.; GOL'BERT, K.A.; CHERVINSKAYA, Ye.Ya.; NAZAROVA, N.N.

Determination of the content of carbonyl compounds and allyl alcohol formed in the contract reduction of acrolein by ethyl and isopropyl alcohols. Trudy Kom.anal.khim. 13:209-216 '63. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov.
(Carbonyl compounds) (Allyl alcohol) (Acrolein)

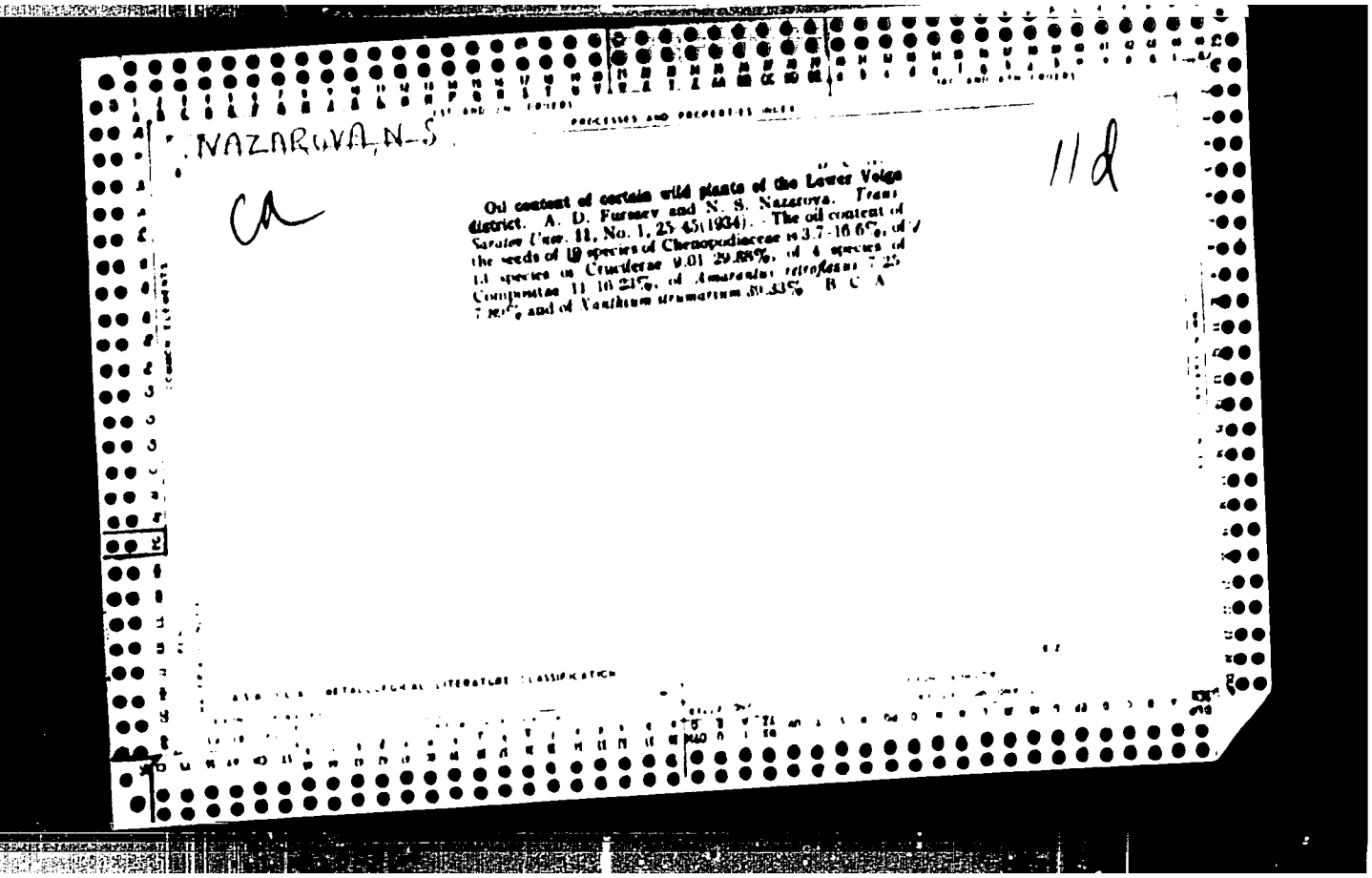


QA
NAZAROVA, N S

11A

Studies by the method of Lehmann on respiration under the influence of various poisons. N S NAZAROVA *Zhur eksptl Med Med* 11, 5-9 1929. Lehmann's method for the study of the respiration has been successfully applied to rabbits. The effects of various drugs are shown in the kymograph records. Atropine frequently fails to manifest pos alterations of respiratory movements. Caffeine acts even in the presence of heroine or morphine. Physostigmine produces a somewhat complex action because of the involvement of not only the vegetative system but of the motor nerves of the muscles as well. However, under certain conditions its action approaches that of pilocarpine, which causes mainly inhibition. Intravenous injections of Ca and of K have no definite effect on the respiration.

S Morgulis



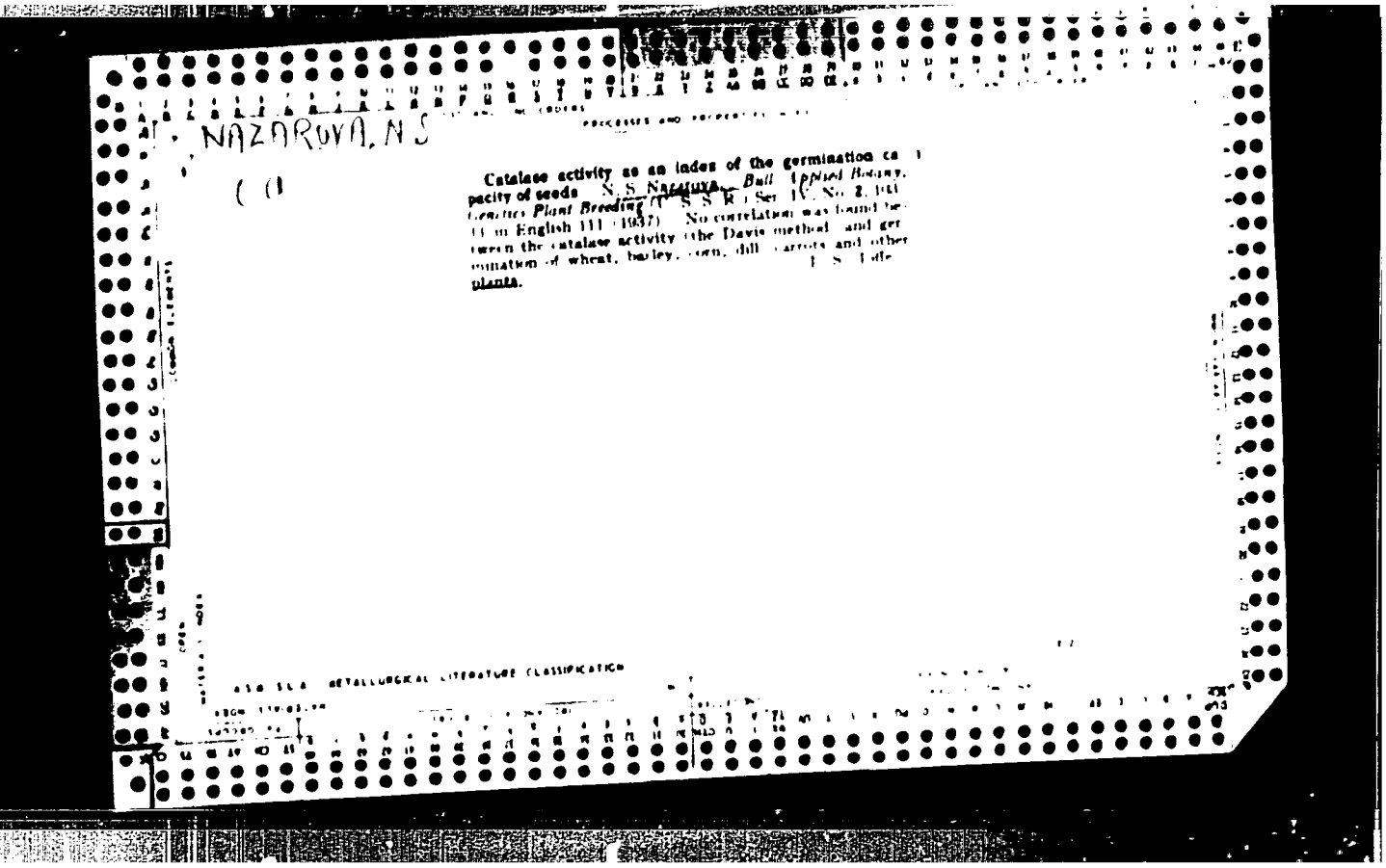
NAZAROVA, N-S

CA

11d

Oil content of certain wild plants of the Lower Volga district. A. D. Fursaev and N. S. Nazarova. *Trans. Saratov Univ.* 11, No. 1, 25-45(1934). - The oil content of the seeds of 19 species of Chenopodiaceae is 3.7-16.6%, of 11 species in Cruciferae 9.01-29.88%, of 4 species of Compositae 11.10-21%, of *Amaranthus retroflexus* 7.25% and of *Xanthium strumarium* 30.33%. B. C. A.

METALLURGICAL LITERATURE CLASSIFICATION



NAZAROVA, N S

((1

Catalase activity as an index of the germination ca
pacity of seeds. N. S. Nazarova. *Bull. Applied Botany, Genetics Plant Breeding* (U. S. S. R.), Ser. II, No. 2, 101-(in English 111-1937). No correlation was found be-
tween the catalase activity (the Davis method) and ger-
mination of wheat, barley, corn, dill, carrots and other
plants.

NAZAROVA, N.S.

A new intermediate host of the proboscis worm Moniliformis monili-formis (Bremser, 1811). Trudy Gel'm. lab. 9:203-205 '59. (MIRA 13:3)

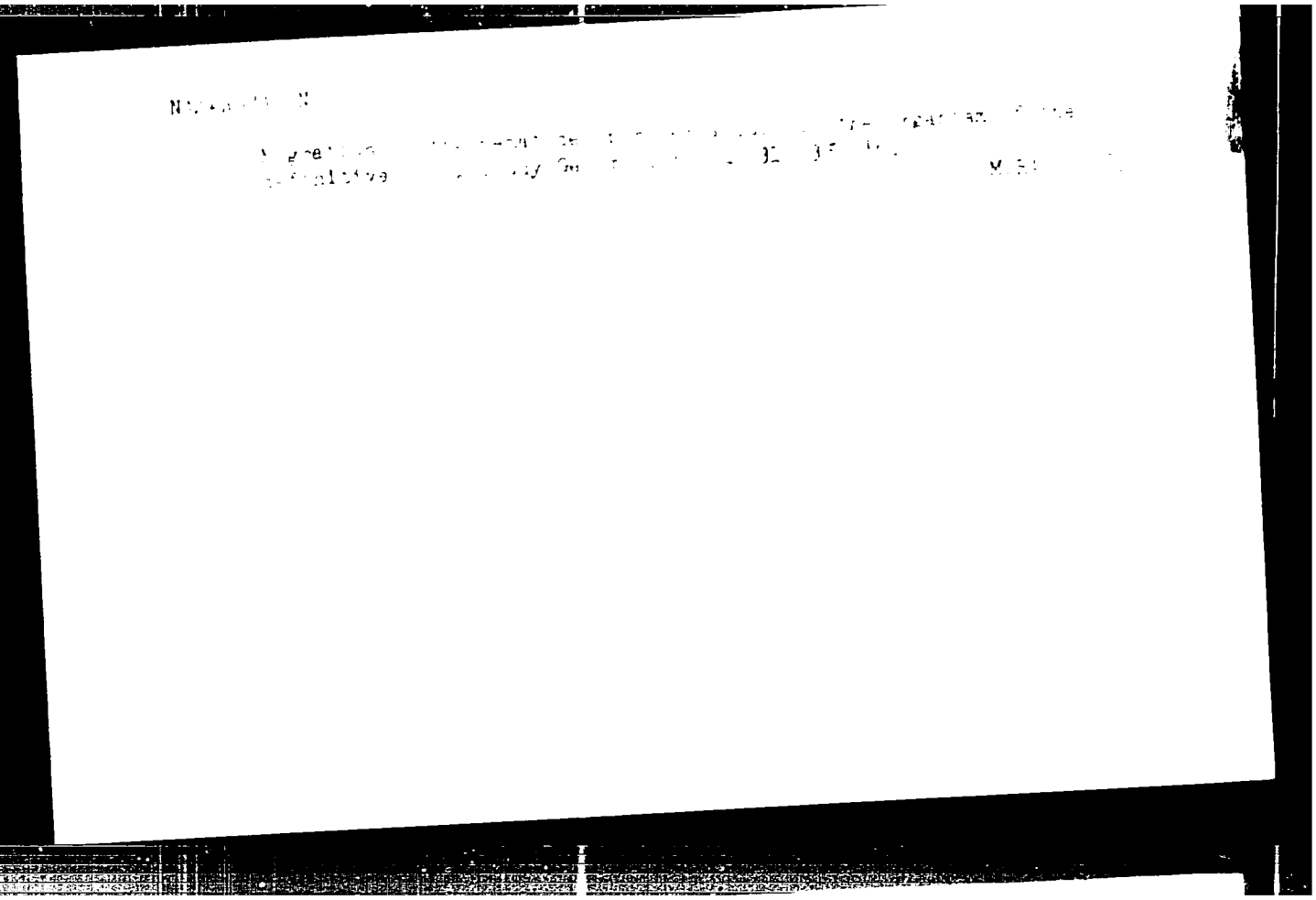
(Krasno-Perekopsk District--Acanthocephala)
(Parasites--Scarabaeidae)

RYZHIKOV, K.M.; NAZAROVA, N.S.

Physocephalus sexalatus and Spirocerca lupi as reservoir parasites. (MIRA 13:3)
Trudy Gel'm. lab. 9:249-252 '59.
(Nematoda)

NAZAROVA, N.S.

Biological cycle of Spirocerca lupi (Rudolphi, 1809), (Nematoda, Spirurata). Uch.zap.GGPI no.27:121-132 '60. (MIRA 15:3)
(Nematoda)



NAZAROVA, Ogul'Bostan

Dissertation: "The Enzyme Hyaluronidase in Inflammatory Diseases of the Female Genital Zone." Cand Med Sci, Turkmen State Medical Inst, Ashknabad, 1954. Referativnyy Zhurnal--Khimiya, Moscow, No 14, Jul 54.

SO: SUM No. 356, 25 Jan 1955

NAZAROVA, O.M.; LOKSHINA, M.D.; POGORELKO, L.V.; TYMYANSKAYA, Ye.A.; TIKHOMIROVA, T.S.; MODILEVSKAYA, P.A.; KHARLAMOVA, K.S., LAVOCHKIN, M.P., otvetstvennyy redaktor; LIL'YE, A., tekhnicheskiy redaktor

[Moscow; a concise commercial and cultural directory. As of July 15, 1956] Moskva; kratkaia adresno-spravochnaia kniga. Po sostoianiiu na 15 iiulia 1956. [Moskva] 1956. 495 p. (MLRA 10:1)

1. Moskovskaya gorodskaya spravochno-informatsionnaya kontora "Mosgorespravka," Moscow.
(Moscow--Directories)

KULIYEV, S.M.; KULIYEV, A.E.; NAZAROVA, R.G.

Calculating the diameter of bit nozzles for turbodrilling [in Azerbaijani with summary in Russian]. Azerb.neft.khoz. 39 no.9:16-17 S'60. (MIRA 13:10)

(Turbodrills)

L 4943-66 EWT(l)/EWT(m)/EPF(c)/EWP(i)/EWP(j)/T/EWP(t)/EWP(z)/EWP(b)/EWA(h)
ACC NR: AP5025697 IJP(c) JD/HM/JG/ SOURCE CODE: UR/0286/65/000/018/0047/0047
RM

AUTHORS: Artemov, A. N.; Yermolayev, V. I.; Nazarova, R. G.; Petukhov, G. G.; Razuvayev, G. A.; Solov'yev, I. F.; Solov'yeva, N. A.; Sorokin, Yu. A.; Tyutyayev, I. N.

ORG: none

TITLE: Method for manufacturing film type electrical resistors. Class 21, No. 174697

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 47

TOPIC TAGS: electric resistor, chromium, nickel

ABSTRACT: This Author Certificate presents a method for manufacturing thin film electrical resistors by vacuum deposition of Cr and Ni onto an insulating base. To improve the adhesion of the metal film to the insulating base and to decrease the thermal resistance coefficient, dibenzylchromium $(C_6H_6)_2$ Cr is mixed with dicyclopentadienylcarbonylnickel $(C_5H_5Ni(C\emptyset))_2$ in the ratio 1:(2.5-2.7), and the

UDC: 621.316.849.539.216.2.002.2

Card 1/2

L 4943-66

ACC NR: AP5025697

mixture is heated to the temperature of thermal decomposition.

SUB CODE: EC/ SUBM DATE: 12Mar64

Card 2/2

KULIYEV, A.S.; NAZAROVA, R.G.

Determining the number of the revolutions of a rotary bit required for the complete cleaning of a borehole. Izv.AN Azerb.SSR. Ser. geol.-geograf.nauk no.3:80-84 '58. (MIRA 12:8)

A 4 7 4 1 [illegible] N I

AUTHOR: Nazarova, R. I.

TITLE: A Study of the Oxidation of [illegible] a Glow Discharge in Oxygen (Issledovaniye [illegible] usloviyakh tleyushchego razryada v kislorode)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 19[illegible], V[illegible], Nr 1, [illegible] (USSR)

ABSTRACT: Some data are given which characterize the oxidation of aluminium, iron, copper, [illegible] and zinc subject to a glow discharge in oxygen. The author refers to the work of P. D. Dankov and D. V. Ignatov (Ref. 1[illegible]) who, according to the electronographic method, [illegible] on aluminium an oxidation layer is formed [illegible] fact if it is an anode [illegible] discharge in oxygen. The present investigation was carried out in accordance with P. D. Dankov's [illegible] to obtain quantitative data on the characteristics [illegible] ocess of some metals serving as anode or cathode in a glow discharge in oxygen. The [illegible] were carried out according to the weight - [quartz micro balance with a sensitiveness of 1.10^{-7} g] [illegible] as well as [illegible] the volume method. 1.- Metals [illegible] by means of the volume method

Card 1/5

A S [illegible] of the Oxidation [illegible]

Discharge in Oxygen

the oxidation velocities of [illegible], zinc, aluminum, [illegible] zinc were investigated by means of the weight loss [illegible] velocities were investigated with copper, aluminum, [illegible] iron. With the oxidation [illegible], in a maximum [illegible] zinc with both methods an oxidation limit was stated at 0 minutes. When the [illegible] of the discharge [illegible] increased 1,5 - 2 fold the process continued. With [illegible] an oxidation limit was not even [illegible] 24 hours after the beginning of the experiment. [illegible] Metal as cathode. The influence of the discharge at the cathode on the velocity of oxidation was determined by means of the volume method. The intensity of the [illegible] current was the same as with the oxidation of the anode. The number shows that the conditions for the oxidation at the cathode were essentially different from those at the anode. At the cathode the development of a boundary-oxidation membrane was stated in all cases. With a subsequent increase of the intensity of current [illegible] the 1,5-2 fold no renovation of the oxidation [illegible] was observed. According to the experimental data the conclusion

Card 2/5

A Study of the Oxidation of Metals Subject to a Glow Discharge in Oxygen

must be drawn that, however, in the case of the metal investigated is an anode or a cathode in the glow discharge in oxygen, the thickness of the membrane on the metal exceeds tenfold that obtained with oxydation in air. An increase of the oxidation rate can develop for the following reasons: 1.- Influence of the ionized oxidizing gas medium (at the anode: O^-, O_2^-, O, at the cathode: O_2^+, O_3, O). 2.- The concentration of the active oxygen particles in a discharge near the electrode surface. 3.- Influence of the electric field in the oxide on the oxidation membrane (movement of electrons, metal ions and of oxygen ions). 4.- Influence of ion bombardment because of the bombardment of oxygen ions on the surface, which becomes particularly marked with the oxidation process at the cathode .- A different character of the oxidation process at the anode as well as at the cathode was established. On an oxidation of the metal serving as anodes the metal reacts differently, apparently according to the characteristics of the oxide forming on it, and

Card 3/5

A Study of the Oxidation of Metals Subjected to a Glow Discharge in Oxygen

oxidation of metals serving as cathodes as if almost the same character with all metals investigated. The data obtained show a great difference between the reaction of copper and the other three metals, if the metal serves as the anode. The oxidation of copper takes place according to the cubic law, as the corresponding calculations show. The reaction of Fe, Al, Mg and Zn follows the logarithmic law, with an average of 0,06 mA/cm^2 for samples for the volume method and of 0,6 mA/cm^2 for samples for the weight method showing down of the oxidation process occured after about 10 to 20 minutes. The difference in the reaction of the single metals with their use as anode in the circuit of a glow discharge in oxygen can, apparently, be understood by means of the different characteristics of the oxides forming on them. The electric field levels in the oxide can, in dependence on the kind of oxide, show in different ways in relation to the movement of the positive and the negative ions.
There are 8 figures, and 17 references, 6 of which are Soviet.

Card 4/5

76-1-12/32

A Study of the Oxidation of Metals Subjected to a Glow Discharge in Oxygen

ASSOCIATION: Institute of Physical Chemistry, Moscow, AS USSR (Akademiya nauk SSSR. Institut fizicheskoy khimii. Moskva).

SUBMITTED: October 3, 1956

AVAILABLE: Library of Congress

Card 5/5

37930
S/076/62/036/005/005/013
B101/B110

34,7700

AUTHOR: Nazarova, R. I.

TITLE: Oxidation of germanium and silicon during glow discharge in oxygen

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 5, 1962, 1001 - 1004

TEXT: By means of a vacuum quartz microbalance (Gulbransen, E. A. Rev. Sci. Instrum., 15, 201, 1944; Advances in Catalysis, 5, 119, 1953) the change in weight of thin plates of n- or p-type Ge and Si (total surface 10 - 12 cm^2, purified by etching and discharge in Ar medium) was investigated at $0.6 \leq P_{O_2} \leq 1.2$ mm Hg, current density $1 \leq i \leq 9$ ma/cm^2, voltage 300 - 600 v. The samples were connected into the glow discharge circuit as anode or cathode, electrode spacing 20 cm. Results: (1) Ge connected as anode showed insignificant oxidation at $i = 1.2$ ma/cm^2, $P_{O_2} = 1.15$ mm Hg, and 340 - 360 v. At equal i, $P_{O_2} = 0.84$ mm Hg, and 380 - 390 v, the

Card 1/3

S/076/62/036/005/005/013
B101/B110

Oxidation of germanium and...

weight increased by 6 $\mu g/cm^2$ after 5 hr. An increase of 1 to 2 ma/cm^2, P_{O_2} = 1.15 mm Hg, 360 - 370 v, increased the weight by 3.3 $\mu g/cm^2$ after 5 hr. Intensive oxidation was observed at 0.7 mm Hg, i = 1.2 ma/cm^2, and 400 - 420 v (weight increase 25 $\mu g/cm^2$ after 3 hr). Oxidation decreased only slightly at constant voltage (390 v) and P_{O_2}, dropping from 1.15 to 0.7 mm Hg. (2) Si connected as anode also showed intensive oxidation at high voltage. Oxidation was insignificant for p-type Si, i = 2 ma/cm^2, 300 - 330 v, P_{O_2} = 1.2 mm Hg. At P_{O_2} = 0.04 mm Hg, 300 - 370 v, the weight increased by 4.5 $\mu g/cm^2$; at 0.7 mm Hg, 300 - 430 v, continuous oxidation occurred (weight increase 25 $\mu g/cm^2$ after 10 hr). The surface conductivity of p-type Si connected as anode converted to n-type. The measured increases in weight agreed with optical measurements of the oxide layer thickness. (3) With n-type Si as anode, oxidation was more intensive (i = 1 - 1.1 ma/cm^2 even at P_{O_2} = 0.3 mm Hg) than with p-type Si, owing

4

S/076/62/036/005/005/013
B101/B110

Oxidation of germanium and...

to the increase in voltage during oxidation. A change of the surface conductivity from n- to p-type was observed. (4) Anodically oxidized Ge samples (weight increase 54 $\mu g/cm^2$, were connected as cathodes. The ... layer evaporated within 2 hr (i = 0.4 ma/cm^2, 580 - 590 v). (5) A comparison of anodically oxidized Si samples with non-oxidized commercial Si triodes showed a considerable reduction of the current-amplification coefficient without any change of the other parameters. There are 3 figures.

ASSOCIATION: Akademiya nauk SSSR, Institut fizicheskoy khimii (Academy of Sciences USSR, Institute of Physical Chemistry)

SUBMITTED: July 22, 1960

Card 3/3

L 8447-65 EWT(m)/EPR/EWP(q)/EWP(b) Ps-4/Pad AFWL/ASD(a)-5/ESD(dp)/ESD(t)/RAEM(t)
ACCESSION NR: AP4042868 S/0062/64/000/007/1164/1167 JD/HW/WB

AUTHOR: Nazarova, R. I.

TITLE: Electronographic study of the oxidation processes of thin films of intermetallic compounds of the nickel-aluminum system

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 7, 1964, 1164-1167

TOPIC TAGS: nickel aluminum system, nickel aluminum intermetallic compound, thin film compound, thin film, thin film oxidation, oxidized film structure, oxidized film composition

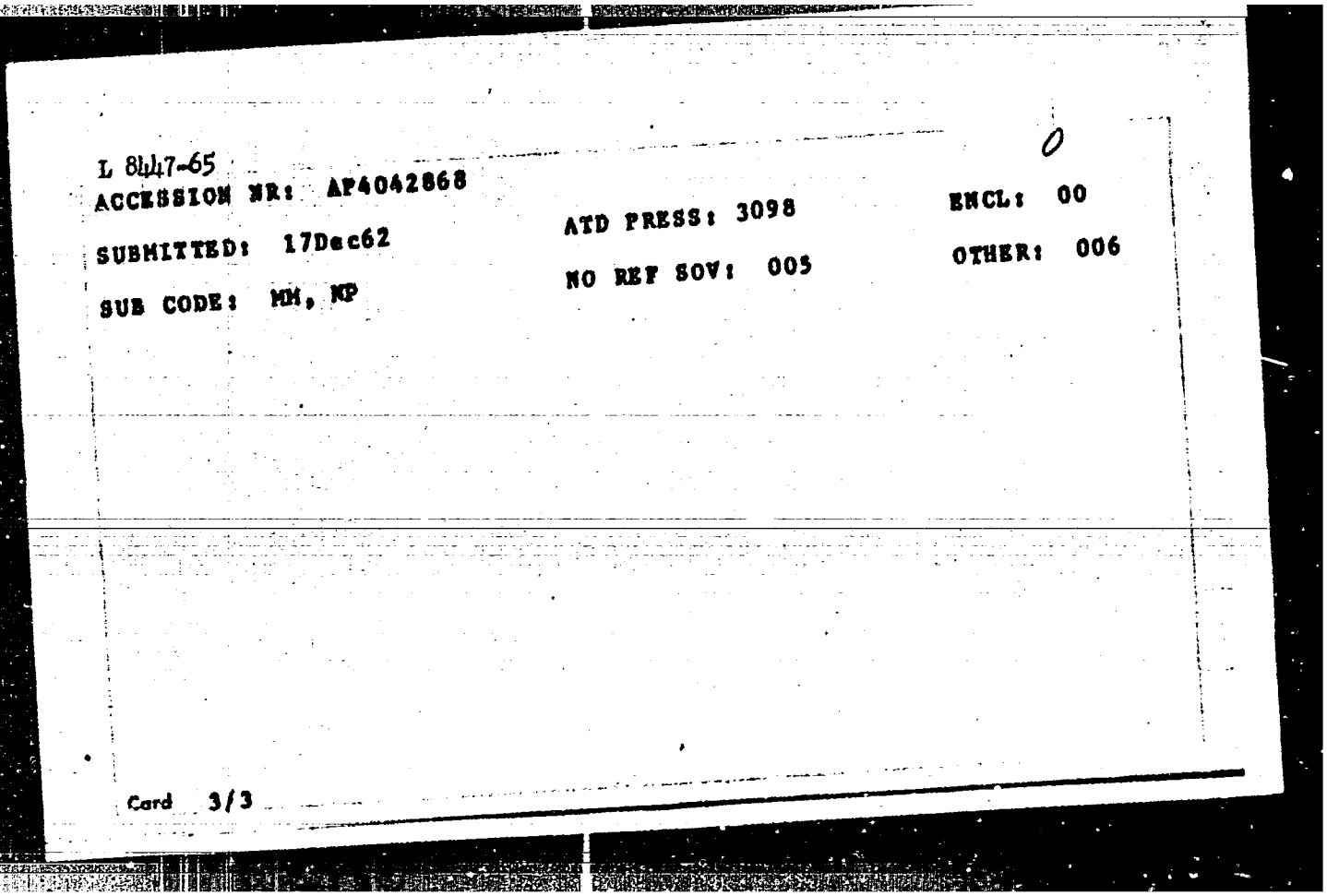
ABSTRACT: Vacuum-deposited films of Ni-Al alloys, 350—400μ thick and containing 42, 57, 67, 85, or 90% Ni (with a composition corresponding to $NiAl_3$, Ni_2Al_3, NiAl, and a mixture of $NiAl_3$ and Ni_2Al_3) have been oxidized at temperatures up to 920C, and their structure and the structural changes with increasing oxidation temperature studied by examination of electron diffraction patterns. In the diffraction pattern of a 42% Ni alloy γ-Al_2O_3 lines begin to appear at 540C (in addition to the characteristic diffraction

Card 1/3

lines). At 700C, only Al_2O_3 lines are observed; lines of the double spinel $NiO \cdot Al_2O_3$ begin to appear at 860C, and at 920C, the diffraction pattern consists primarily of Al_2O_3 lines and some $NiO \cdot Al_2O_3$ lines. In the diffraction pattern of a 57% Ni alloy, γ-Al_2O_3 begins to appear at 540C, nickel oxide (NiO) and $NiO \cdot Al_2O_3$ at 700C, and at 860C only the $NiO \cdot Al_2O_3$ lines are present. In a 67% Ni alloy, Al_2O_3 begins to appear at 540C, NiO is formed at 700C, and at 860 and 920C both NiO and $NiO \cdot Al_2O_3$ are present. In the diffraction pattern of an 85% Ni alloy, in addition to the characteristic lines of the NiAl alloy, lines of Al begin to appear at 540C, NiAl and NiO lines are observed at 700C, and NiO and $NiO \cdot Al_2O_3$ lines at 860 and 920C. In the diffraction pattern of a 90% Ni alloy, NiAl and Al lines appear at 540C, NiO and NiAl lines at 700C, and NiO and $NiO \cdot Al_2O_3$ lines at 860C. The 67%Ni-33%Al (50 at.%) alloy was found to be distillable in vacuum. Orig. art. has: 20 figures and 1 table.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry, Academy of Sciences SSSR

Card 2/3



L 8447-65

ACCESSION NR: AP4042868

SUBMITTED: 17Dec62 ATD PRESS: 3098 ENCL: 00

SUB CODE: MM, NP NO REF SOV: 005 OTHER: 006

Card 3/3

NAZAROVA, S.A.

BLOKH, R.L.; NAZAROVA, S.A.; SYPCHENKO, O.A.; YEREMEYEV, Yu.N.; YAKSANOVA, A.M.; RUBINSKIY, S.I.

Outdoor day naps during the cold season in the treatment of night sleep disorders. Vop.kur., fizioter. i lech.fiz.kul't. 22 no.3: 17-21 My-Je '57. (MIRA 11:1)

1. Iz Pyatigorskogo klinicheskogo otdeleniya (zav. - prof. Ye.Ya. Stavskaya) Bal'neologicheskogo instituta na Kavkazskikh Mineral'nykh Vodakh (dir. - dotsent I.S.Savoshchenko) i klinicheskogo sanatoriya Pyatigorskogo kurorta (glavnyy vrach O.N.Smolenskaya)
(INSOMNIA) (SLEEP)

GULYAYEVA, L.I.; NAZAROVA, S.S.; KUZ'MINA, N.A.; GLEBOVSKIY, D.N.

On the composition and causes of the formation of polymers and acid condensates in the gas pipeline and apparatus of the oil-shale combine in Kohtla-Järve. Trudy VNIIPS no.7:174-197 '59. (MIRA 12:9)

(Kohtla-Järve--Oil shales) (Polymers)

GULYAYEVA, L.I.; NAZAROVA, S.S.

Group chemical composition and flotation properties of neutral oxygen compounds of shale oil from semicoking. Trudy VNIIT no.8:142-153 '59. (MIRA 13:4)
(Oil shales--Analysis) (Oxygen compounds)

LAPIN, V.N.; NAZAROVA, S.S.

Ways of increasing the production of surface active agents from shale oil. Trudy VNIIT no.8:176-188 '59. (MIRA 13:4)

(Surface active agents) (Oil shales)

TSYSKOVSKIY, V.K., kand.tekhn.nauk; NERYLOVA, Ye.M., insh.; NAZAROVA, S.S.

Latest development in the preparation of primary alcohols and their derivatives by the direct oxidation of short-chain n-paraffins. Masl.-zhir.prom. 25 no.12:16-20 '59. (MIRA 13:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftyanoy khimii.
(Alcohols) (Paraffins) (Oxidation)

NAZAROVA, S.S.

Action of sulfuric acid on trimethylpentenes. Khim.i tekh. topl.i masel 5 no.5:41-45 My '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftyanoy khimii.
(Pentene) (Sulfuric acid)

NAZAROVA, S.S.

Production of secondary butyl alcohol from gases obtained in the processing of petroleum by sulfuric acid method. Khim.i tekh.topl.i masel 5 no.9:10-16 S '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i polucheniyu iskusstvennogo topliva.
(Butyl alcohol) (Petroleum—Refining)

5.3300

77658
SOV/80-33-2-33/52

AUTHOR: Nazarova, S. S.

TITLE: Obtaining Trimethylcarbinol From Petroleum Processing Gases By Means of Sulfuric Acid Method, And Its Dehydration Into Isobutylene

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 448-454 (USSR)

ABSTRACT: Sulfuric acid used in the absorption of isobutylene from petroleum cracking gases must be periodically evaporated to restore the required acid concentration. To avoid this costly procedure, a continuous method has been developed by the authors which allows for the direct re-use of the spent acid. Investigation of reaction (1) showed that the amount of isobutylene which combined with H_2SO_4 was 2.4 to 10.6 times higher than theoretically possible. It can be presumed, therefore, that the reaction (1) is accom-

Card 1/6

Obtaining Trimethyl [illegible] From Petr[illegible] [illegible] -58-2-[illegible]
Process In [illegible] M[illegible] [illegible] Sulf[illegible] A[illegible]
Method, And [illegible]

[illegible] by the [illegible] of isobutyl[illegible] [illegible] trimethyl[illegible] [illegible] reaction (2). [illegible] slow, however, [illegible] water [illegible] hydrolysis of [illegible] sulfuric acid, [illegible] that the [illegible] (5) and (6).

$$CH_3-\overset{\displaystyle CH_3}{\overset{|}{C}}=CH_2 + HOSO_2OH \rightleftarrows CH_3-\underset{\displaystyle CH_3}{\underset{|}{\overset{\displaystyle CH_3}{\overset{|}{C}}}}-OSO_2OH, \qquad (1)$$

$$CH_3-\underset{\displaystyle CH_3}{\underset{|}{\overset{\displaystyle CH_3}{\overset{|}{C}}}}-OSO_2OH + HOH \rightleftarrows CH_3-\underset{\displaystyle CH_3}{\underset{|}{\overset{\displaystyle CH_3}{\overset{|}{C}}}}-OH + HOSO_2OH. \qquad (2)$$

Card 2/[illegible]

Obtaining Trimethylcarbinol From Petroleum Processing Gases By Means of Sulfuric Acid Method, And Its Dehydration. Isobutylene

77658
SOV/80-33-2-33/52

$$CH_3-\overset{CH_3}{\underset{}{C}}=CH_2 + H^+ \rightarrow CH_3-\overset{CH_3}{\underset{+}{C}}-CH_3 \qquad (3)$$

$$CH_3-\overset{CH_3}{\underset{+}{C}}-CH_3 + HOH \rightarrow CH_3-\overset{CH_3}{\underset{OH}{C}}-CH_3 + H^+ \qquad (4)$$

Experiments on the extraction of isobutylene from gases was made on a liquefied butane-butylene fraction consisting of propylene (1.1-3.0% based on weight), propane (0.2-1.8%), divinyl (1-2%), isobutylene (44.5-46.8%), n-butylenes (37.5-42.0%), butanes (5.0-5.1%) and hydrocarbons above C_4 (5.8-6.5%). The experiments were conducted at 40-50° C, under 3-5.8 atm. pressure; molar ratio

Card 3/6

Obtaining Trimethylcarbinol From Petroleum Processing Gases By Means of Sulfuric Acid Method, And Its Dehydration Into Isobutylene

77[illegible]
SOV/80[illegible]-2-33/52

[illegible] of isobutylene [illegible] sulfuric acid was [illegible]. It was established that the increase of the acid concentration from [illegible] raised the degree of isobutylene extraction. The latter depended with [illegible] isobutylene content in the gas. Therefore, obtaining of isobutylene carbinol from the gases and simultaneously a high degree of [illegible] with isobutylene, the authors devised a [illegible] extraction in a column packed with Raschig rings. Saturated sulfuric acid was supplied to the top, and live stream at 100-120° C to the bottom of the column. The temperature at the top was 87-[illegible] C. Spent acid was collected in a flask; carbinol and water vapors as well as isobutylene were removed at the column's top. The highest trimethylcarbinol yield was achieved with 33-35% concentration of the sulfuric acid. At 40% acid concentration the yield was somewhat lower (70% of the possible content).

Card 4/6

Obtainin Trimethylcarbinol ... Processing Gases By Means ... Method, And Its Dehydration ...

[illegible]

[illegible]

was used instead of ... Simultaneously the temperature ... °C and the ... There are ... tables and ... references: 6 U.S., 1 U.K., ... French, ... Japanese, ... The most recent U.S. and U.K. references are: ... Steele, E. A. Epp..., U.S. Pat. ...; W. Fitzroy, U.S. Pat. ...; ... Frederickson, U.S. Pat. ...

Card 5/...

Obtaining Trimet[illegible] From [illegible]
Processing Gase[illegible] By M[illegible]
Method, And Its [illegible]

Ipat[illegible], R. [illegible]
(1[illegible]): [illegible]
[illegible]).

SUBMITTED: Ap[illegible]

Card [illegible]

NAZAROVA, S.S.

Density of the solutions sec. butyl alcohol - water and water - sec. butyl alcohol. Zhur. prikl. khim. 33 no.12:2780-2781 D '60. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.

(Butyl alcohol)

NAZAROVA, S. S.

Cand Chem Sci - (diss) "Several reactions of the hydration and copolymerization of unsaturated components of gases in petroleum refining." Leningrad, 1961. 19 pp; 1 page of diagrams; (Leningrad Order of Lenin State Univ imeni A. A. Zhdanov); 180 copies; price not given; list of author's works on p 19 (10 entries); (KL, 7-61 sup, 222)

NAZAROVA, S.S.

Letters to the editor. Zhur.prikl.khim. 34 no.11:2588 N '61. (MIRA 15:1)

(Hydrogen peroxide) (Chlorine)

PIGULEVSKIY, V.V.; NAZAROVA, S.S.

Density, viscosity, and electric conductivity of products of interaction between n. butylenes and sulfuric acid. Zhur. prikl.khim. 35 no.5:1077-1082 My '62. (MIRA 15:5)

1. Leningradskiy institut kinoinzhenerov.
(Butene)
(Sulfuric acid)

L 18850-63

ACCESSION NR: AP3006037 S/0064/63/000/006/0015/0017 45

AUTHORS: Tsy*skovskiy, V. K.; Schegoleva, Ts. N.; Nazarova, S. S.

TITLE: Continuous catalytic oxidation of liquid paraffins at an elevated temperature.

SOURCE: Khimicheskaya promy*shlennost', no. 6, 1963, 15-17

TOPIC TAGS: paraffin, liquid paraffin, continuous oxidation, carbonyl compounds, Mn, K

ABSTRACT: Tsy*skovskiy, V. K., previously showed the possibility of increasing the reaction rate during the continuous oxidation of liquid paraffins by means of a continuous addition of catalyst. The present article is a detailed study of the specifics of the catalytic reaction during the continuous oxidation of liquid paraffins. Also, the study was made on the possibility of lowering the concentration of carbonyl compounds in the oxide as a means of increasing their rate of oxidation into fatty acids by means of a continuous introduction of catalysts in the form of Mn and K salts. It was found

Card 1/2

L 18850-63

ACCESSION NR: AP3006037

that the continuous introduction of catalytic additions into the oxidizing zone results in a considerable increase in rate of oxide formation, improvement of quality, and increase of distilled acid yields. It was also shown that, at a low level of oxidation of liquid paraffins and an increased temperature, the obtained fatty acids are of high quality which are obtained in maximum yields and at a maximum rate. Orig. art. has: 3 tables.

ASSOCIATION: None

SUBMITTED: 00	DATE ACQ: 11Sep63		ENCL: 00
SUB CODE: CH, PH	NO REF SOV: 007		OTHER: 000

Card 2/2

ROZENFEL'D, B.A.; YEZHOVA-GUSEVA, L.M.; NAZAROVA, T.A.

Metric invariants of planes in hyperspaces. Uch. zap. MGPI no.208:278-287 '63. (MIRA 17:6)

NAZAROVA, T.A.

Reflexes of the carotid sinus following stimulation of splenic interoceptors with heterologous blood [with summary in English]. Biul.eksp.biol. i med. 44 no.7:41-44 Jl '57. (MIRA 10:12)

1. Iz kafedry patofiziologii (zav. - prof. A.N.Gordiyenko) Rostovskogo meditsinskogo instituta (dir. - prof. Ye.M.Gubarev). Predstavlena deystvitel'nym chlenom AMN SSSR prof. V.N.Chernigovskim.

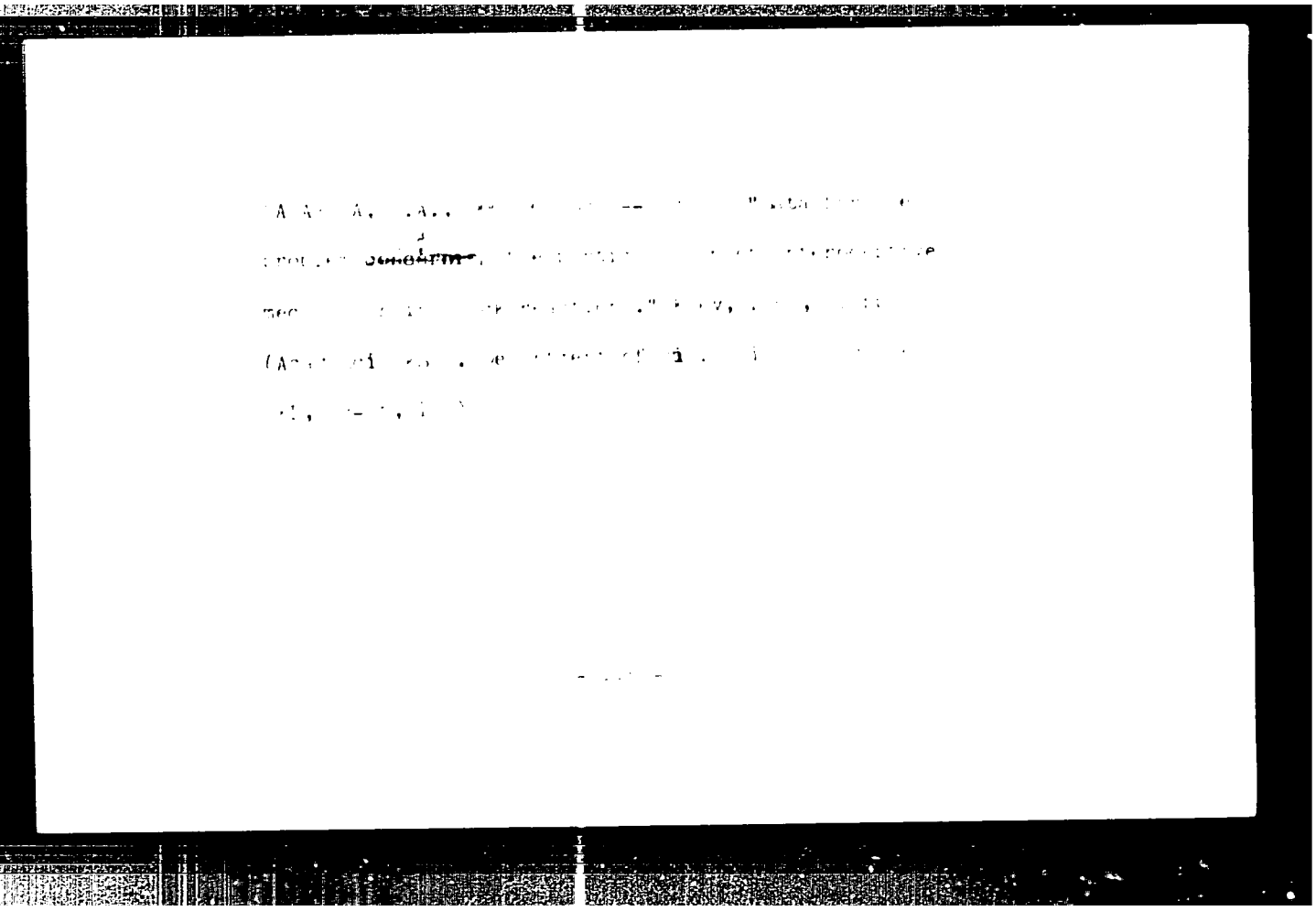
(CAROTID SINUS, physiology,
reflexes after stimulation of splenic interoceptors with heterologous blood (Rus))
(SPLEEN, physiology,
eff. of stimulation of interoceptors with heterologous blood on carotid sinus reflexes (Rus))
(BLOOD TRANSFUSION, experimental,
eff. of splenic interoceptors responses to heterologous blood on carotid sinus reflexes (Rus))

NAZAROVA, T.A.

Electrophysiological characteristics of the action of neterologous blood on splenic interoceptors [with summary in English]. Biul. eksp.biol.med. 44 no.8:29-35 Ag '57. (MIRA 10:11)

1. Iz kafedry patofiziologii (zav. - prof. A.N.Gordiyenko) Rostovskogo meditsinskogo instituta. Predstavlena deystvitel'nym chlenom AMN SSSR prof. V.N.Chernigovskim.

(SPLEEN, physiology
eff. of heterogenous blood applies to interoceptors on brain electrophysiol. in dogs (Rus))
(BLOOD,
eff. of heterogenous blood applied to splenic interoceptors on brain electrophysiol. in dogs (Rus))
(BLOOD,
eff. of heterogenous blood applied to splenic interoceptors on brain electrophysiol. in dogs (Rus))



NAZAROVA, T.A., dotsent

Bioelectrical activity of some subcortical formations during stimulation by a peptone from the interoceptors of the intestines. Trudy Semipal. med. inst. 2:53-66 '59. (MIRA 15:4)

1. Kafedra patofiziologii Semipalatinskogo gosudarstvennogo meditsinskogo instituta (zav.kafedroy T.A.Nazarova).
(PEPTONES) (ELECTROENCEPHALOGRAPHY)

NAZAROVA, T.F., vrach-kosmetolog

Is it possible to get rid of red birthmarks? Zdorov'e 5 no.3:31 Mr '59. (MIRA 12:3)

(BIRTHMARKS)

NAZAROVA, T.F.

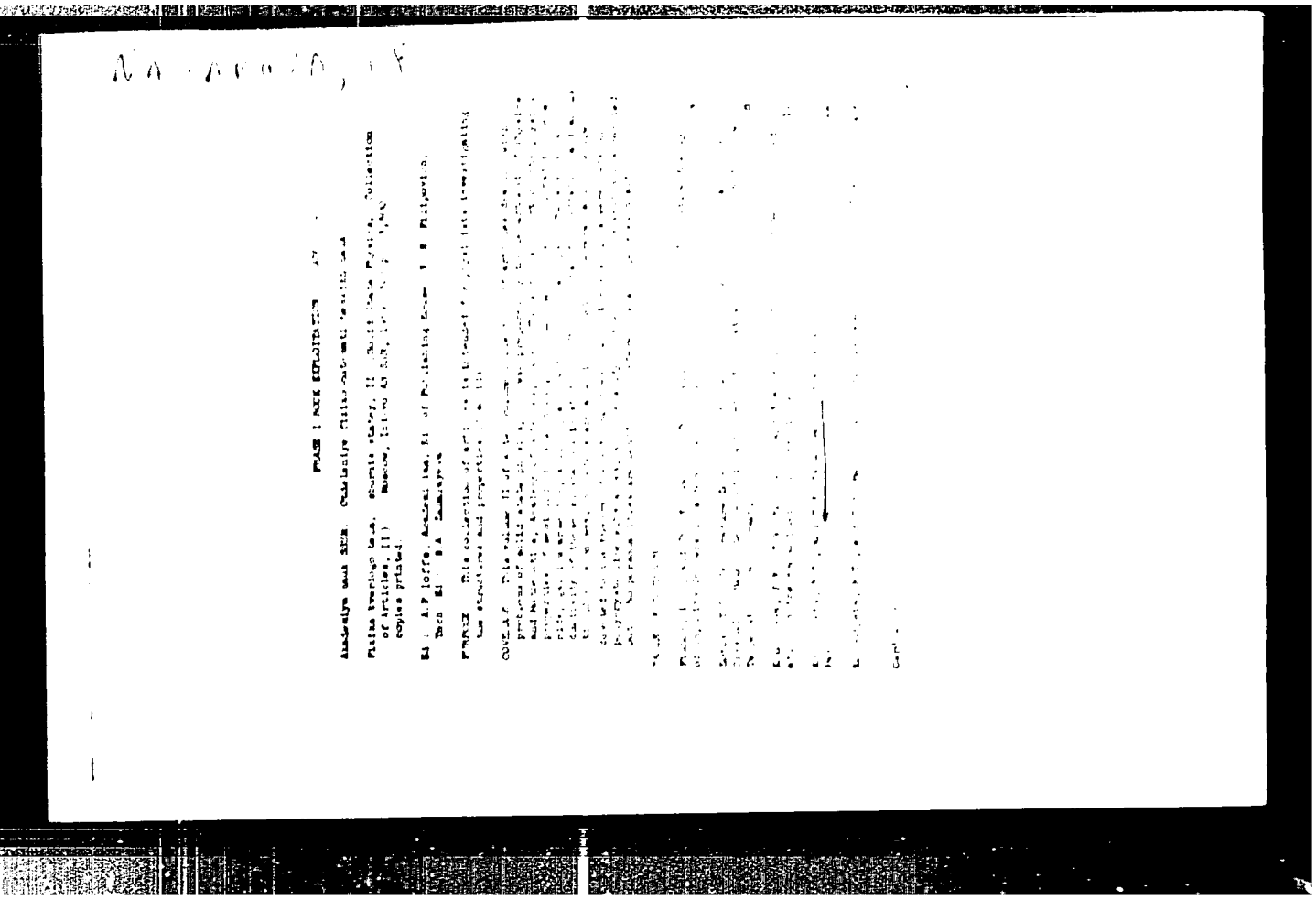
Method for the removal of coal and gunpowder dust from the skin.
Khirurgiia 35 no. 5:80-84 My '59. (MIRA 13:1

1. Iz Instituta vrachebnoy kosmetiki (dir. I.V. Kurkovskiy) Ministerstva zdravookhraneniya RSFSR.
(SKIN--WOUNDS AND INJURIES) (DUST)

NAZAROVA, Taisiya Fedorovna; KARAPETYAN, Margarita Karpovna; ROZENTUL, Lidiya Moiseyevna; MASHKILLEYSON, A.L., red.; MATVEYEVA, M.M., tekhn. red.

[Physical therapy in cosmetics; practical manual for physicians] Fizioterapiia v kosmetike; prakticheskoe posobie dlia vrachei. Moskva, Medgiz, 1963. 114 p. (MIRA 16:6)

(PHYSICAL THERAPY) (COSMETICS)



15(0), 15(2)

AUTHOR: Kolomiyets, B. T., Doctor of Technical Sciences SOV/30-59-2-43/60

TITLE: The Investigation of Vitreous Semi-Conductors (Issledovaniye stekloobraznykh poluprovodnikov)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 2, pp 103-104 (USSR)

ABSTRACT: From December 1 to 2, 1958 a conference took place on this problem at the Fiziko-tekhnicheskiy institut Akademii nauk SSSR (Physicotechnical Institute of the Academy of Sciences, USSR). It dealt with the discussion of the experiments carried out, mutual information on the course of experiments and their general coordination. Representatives from 11 scientific institutions attended the conference. The following lectures were heard: V. V. Tarasov, Moskovskiy khimiko-tekhnologicheskiy institut (Moscow Chemicotechnological Institute) spoke of experimental results connected with the investigation of heat capacity at low temperatures of As_2S_3 and As_2Se_3. His second report dealt with the polymeric concept of glass formation and semiconductors in general.

R. L. Myuller, Gosudarstvennyy opticheskiy institut (State Optical Institute) emphasized the decisive role played by the covalent bond in glass formation.

A. A. Vaypolin, Institut khimii silikatov Akademii nauk SSSR (Institute of Silicate Chemistry of the AS USSR) described the investigation of the structure of the system As_2Se_3-As_2Te_3 by X-ray methods.

L. I. Tatarinova, Institut kristallografii Akademii nauk SSSR (Crystallographical Institute of the AS USSR) reported on the structural investigation of some chalcogenide by electron-diffraction.

A. I. Gubanov and Ye. Ya. Charlaiyan, Fiziko-tekhnicheskiy institut (Physicotechnical Institute) reported on theoretical problems of the semiconductor properties of glass types.

V. P. Zhilo discussed working results in the determination of boundaries in glass formation in the As_2S_3 and As_2Se_3 systems.

N. A. Goryunova compared the boundaries of vitreous state in these systems with the criteria of glass formation obtained by Sakhariasen and Vinter-Kleyn and found that there exists no correlation between them.

T. F. Mazarova investigated the electric properties of semiconductor glass types in the $TlSe$ - As_2Se_3 system.

B. T. Kolomiyets spoke of research work in the field of inner photoelectric effect done by T. N. Mazetova.

B. V. Pavlov discussed experimental results of the position of the absorption boundary as dependent on the change of composition of glass types.

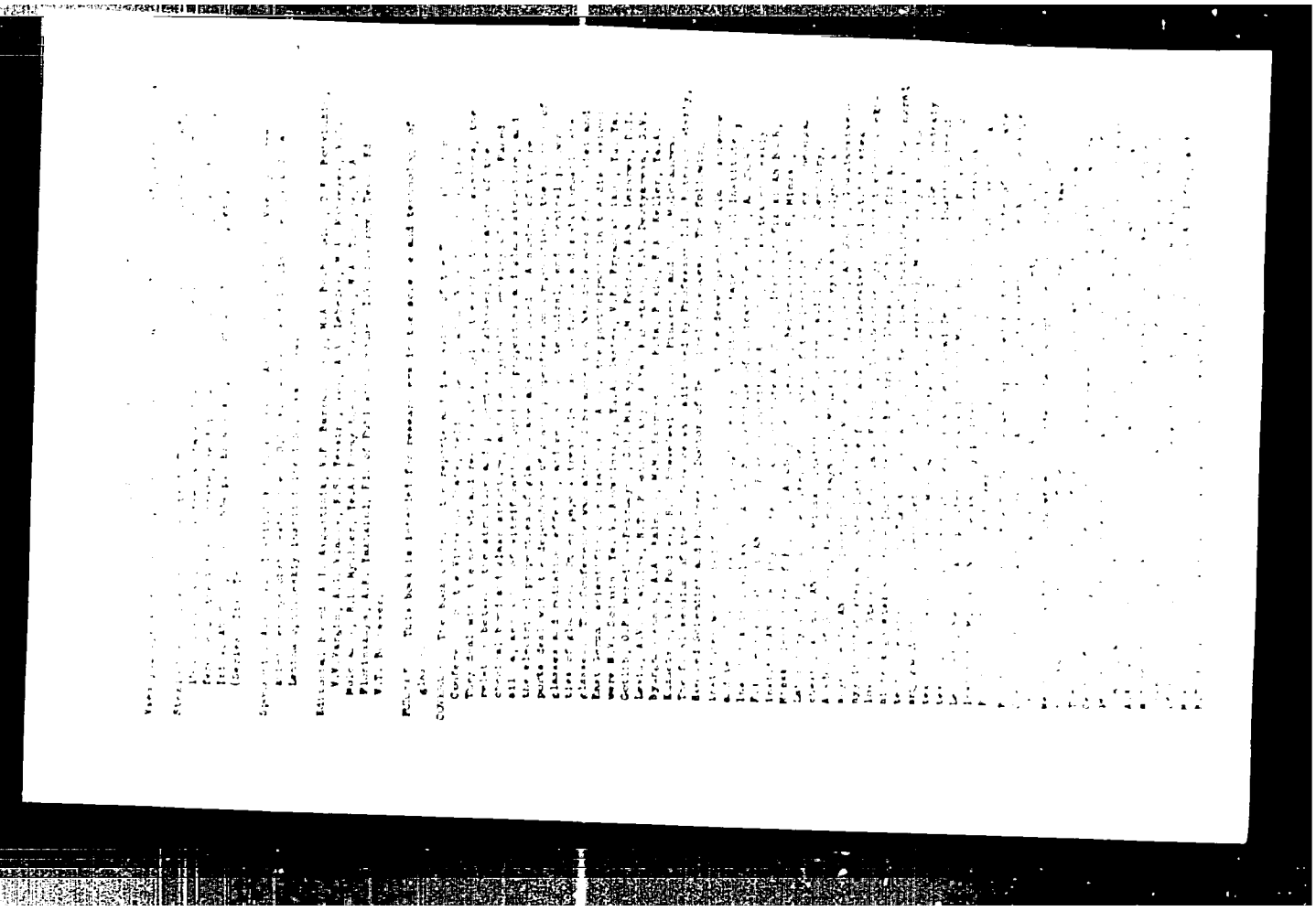
V. P. Pozdnev reported on material he obtained in the investigation of the viscosity of glass types in the As_2Se_3 - As_2Te_3 system.

B. T. Kolomiyets summarized the working results obtained by the Physicotechnical Institute and found that in the materials investigated the short-range order is not changed in the transition from the vitreous into the crystalline state.

O. V. Mazurin, Leningradskiy khimiko-tekhnologicheskiy institut (Leningrad Chemicotechnical Institute) described the investigation of the semiconductor properties of silicate and borosilicate glass types with the addition of iron-cobalt and titanium oxides.

E. V. Paiskaryan, Moskovskiy institut elektrotekhnicheskogo stekla (Moscow Institute of Electrotechnical Glass) outlined the investigation results of the boundaries of glass formation and the electric properties of configuran semiconductor glass types of the composition V_2O_5 - P_2O_5 - R_xO_y (R- elements of the I, II, III, IV and V groups of the periodic system). The next conference on semi-conductor glass types will probably be held in 1959.

Card 1/4



KOLOMIYETS, B.T.; NAZAROVA, T.F.

Role of impurities in the conductivity of vitreous As_2SeTe_2.
Fiz. tver. tela 2 no.1:174-176 Jan '60. (MIRA 14:9)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.
(Arsenic selenide--Electric properties)
(Arsenic telluride--Electric properties)

81349

S/181/60/002/03/03/028
B006/B017

24.7600

AUTHORS: Kolomiyets, B. T., Nazarova, T. F.

TITLE: II. Hall Effect in Vitreous Materials of the System $Tl_2Se.As_2(Se,Te)_3$

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 3, pp. 395-396

TEXT: In this paper, the authors present the first results obtained from investigations of the Hall effect in amorphous semiconductors. Because of their high electrical conductivity materials of the system $Tl_2Se.As_2(Se,Te)_3$ were chosen. It was between 10^{-3} to $10^{-9}ohm^{-1}cm^{-1}$, depending on the Te content. The measurements were made by means of an ИНХ-1 (INKh-1) instrument resembling a Hall voltmeter; the Hall effect was measured by the well-known method in variable electric and magnetic fields. This instrument permitted measurements in the resistivity range $10^{-1} \div 10^{-5}ohm^{-1}cm^{-1}$. The Hall voltage was measured in the range 0.2 - 3,000 μv, the maximum magnetic field strength attained 1,800 oe. The samples were parallelepipedons of 12 · 4 · 1.5 mm. Fig. 1 illustrates

Card 1/2

81349

II. Hall Effect in Vitreous Materials of the System $Tl_2Se.As_2(Se,Te)_3$

S/181/60/002/03/03/.28
B006/B017

the final results of the measurements; it was found that with increasing tellurium concentration the carrier concentration increases monotonically (from $5 \cdot 10^{11}$ to $6 \cdot 10^{17}$ cm^{-3}) and, accordingly, conductivity as well. The data refer to room temperature. Fig. 2 shows the dependence of mobility on the composition. If the sign of the carrier is determined from the sign of the thermo-emf, result differs from the determination of the carrier sign from that of the Hall effect: in the former case, p-type, and n-type in the latter. It may be concluded from the results that the change in conductivity with the composition of vitreous semiconductors of the system investigated, which is brought about by the change in concentration and mobility of the carrier, is very low. Similar conditions are expected for other vitreous semiconductors. V. Ogorodnikov, graduate student of LGU (Leningrad State University), assisted in the work. There are 2 figures and 4 Soviet references.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR Leningrad (Institute of Physics and Technology of the AS USSR, Leningrad)

SUBMITTED: August 1, 1959

Card 2/2

S/181/62/004/008/041/041
B108/B102

AUTHORS: Andriyesh, A. M., Kolomiyets, B. T., and Nazarova, T. F.

TITLE: Effect of iodine and germanium admixtures on the spectral distribution of the photoconductive effect in vitreous $TlAsSe_2$

PERIODICAL: Fizika tverdogo tela, v. 4, no. 8, 1962, 2266 - 2268

TEXT: The effect of iodine (up to 6.2 at-%) and germanium (up to 35 at-%) admixtures on the spectral distribution of the photoconductive effect and on the conductivity of vitreous $TlAsSe_2$ ($Tl_2SeAs_2Se_3$) was studied. Both iodine and germanium shift the maximum of photosensitivity to shorter wavelengths and increase conductivity. The activation energy increases, too. Germanium also increased the softening temperature of $TlAsSe_2$ which is attributed to the formation of covalent bonds between the chains and to an increase in bonding strength of the chains along which the carriers move. This effect was not observed when iodine was introduced. There are 2 figures.

Card 1/2

NAZAROVA, T. I.

USSR/Chemistry - Vanadium Compounds Jan/Feb 51

"Investigations in the Field of the Coulometric Method of Analysis. Development of a New Type Titration Coulometer -- the Vanadium Coulometer," V. S. Syrokomskiy, T. I. Nazarova, Chair of Anal Chem, Ural State U imeni A. M. Gor'kiy, Sverdlovsk

"Zhur Analit Khim" Vol VI, No 1, pp 15-23

Studied electrochem oxidation and reduction of VO^{++} ion. Developed new-type vanadium titration coulometer, based on oxidation of VO^{++} to VO^{+++}, which is simpler and more accurate than silver

177T8

USSR/Chemistry - Vanadium Compounds Jan/Feb 51
(Contd)

coulometer. Only one titration is needed, and process takes only 10-15 min. Ce^{+++} salts gave best results with respect to use for cerium coulometer.

177T8

ITKINA, D.Ya.; MINIVOVICH, M.A.; NAZAROVA, T.I.

Reaction rate of decomposition of ammonium nitrite solutions. Zhur. prikl.khim. 35 no.1:43-47 Ja '62. (MIRA 15:1)
(Ammonium nitrite) (Chemical reaction, Rate of)

PETROSYAN, M.A., red.; KOZIK, E.M.; PSHENICHNYY, A.Ya.; ROMANOV, N.N., red.; BUGAYEV, V.A., red.; DZHORDZHIO, N.A., red.; NAZAROVA, T.L.; CHERNYSHOVA, O.N.; STRAUMAL, O.N., red. izd-va.

[Atlas of typical synoptic processes over Central Asia] Atlas tipichnykh sinopticheskikh protsessov nad Srednei Aziei. Tashkent, 1954. 116 maps (in portfolio). (MIRA 11:7)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut matematiki i mekhaniki.
(Soviet Central Asia--Climatology--Charts, diagrams, etc.)

L 32735-66 EWT(1)/FCC GW

ACC NR: AT6011800 SOURCE CODE: UR/2648/66/000/025/0031/0041

AUTHOR: Nazarova, T. L.

ORG: None

TITLE: Thunderstorms over the Tashkent region and their forecast

SOURCE: Tashkent. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy, no. 25(40), 1966. Voprosy regional'noy sinoptiki Sredney Azii (Problems of regional synoptics in Central Asia), 31-41

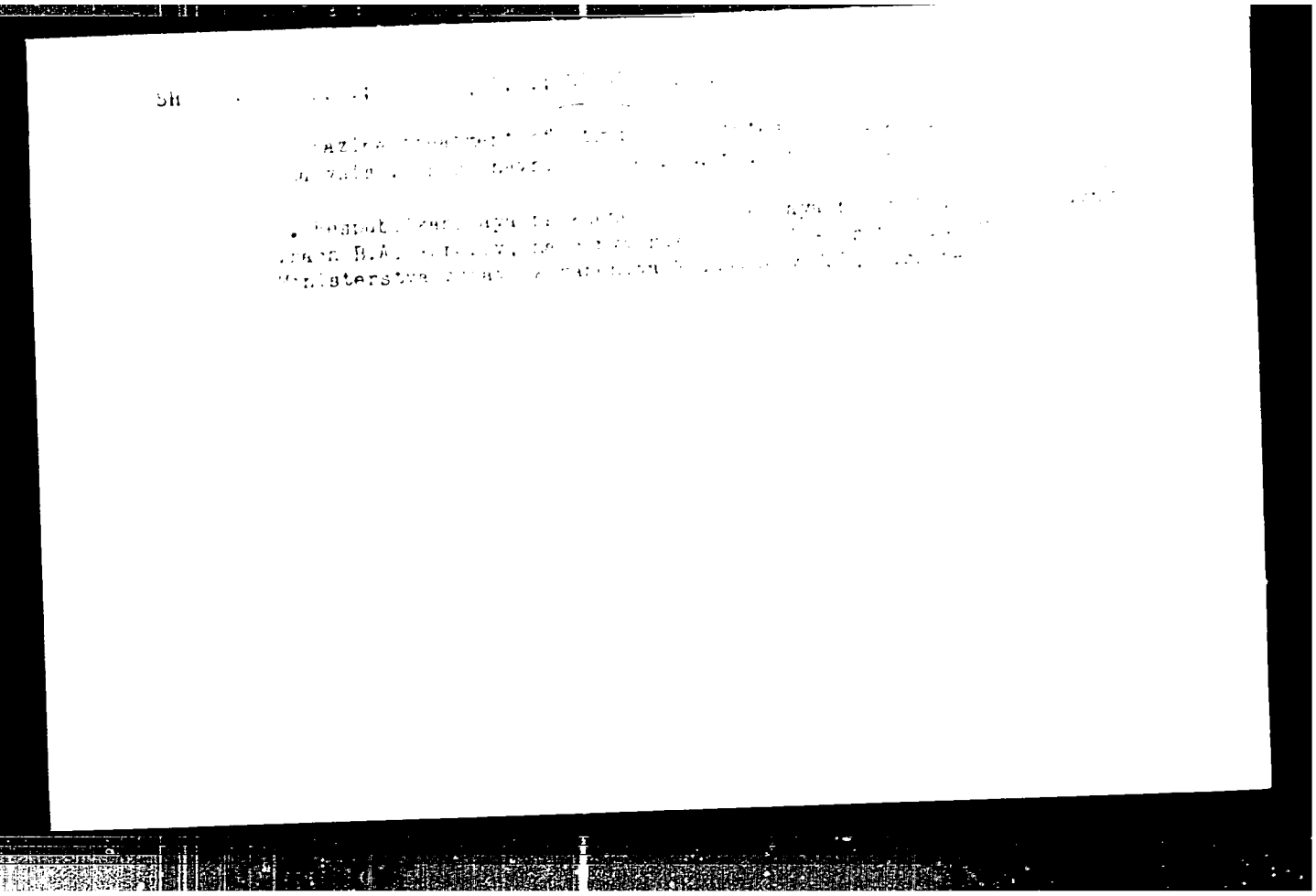
TOPIC TAGS: storm, weather forecasting, weather chart

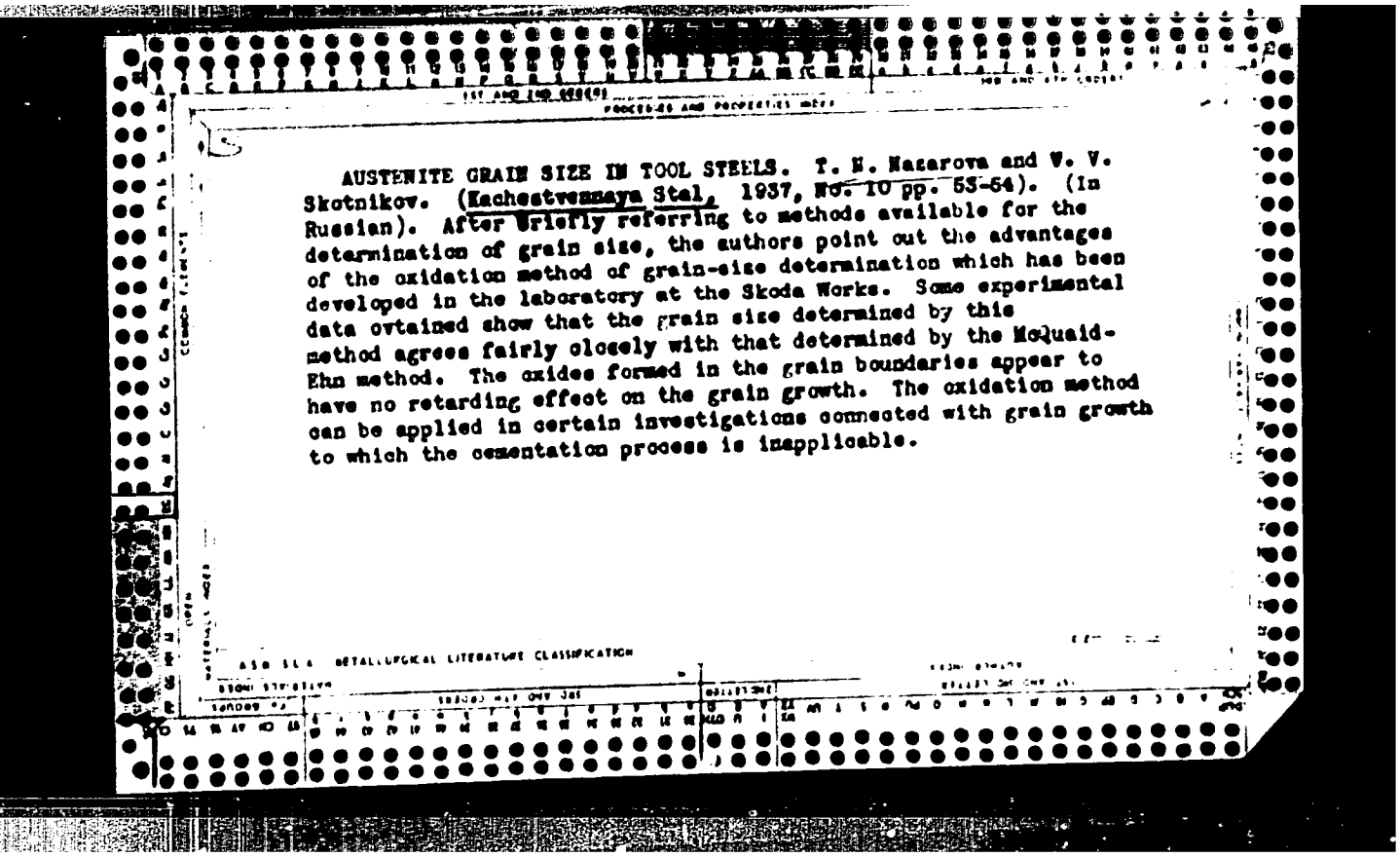
ABSTRACT: The purpose of this investigation is to give the synoptic-climatic characteristics of thunderstorms over Tashkent, to elicit the most favorable conditions for convection leading to a thunderstorm, and to give a method for forecasting thunderstorms over Tashkent. The investigations utilized the material of the 1954—1963 observations of the sounding station of the Tashkent Hydrometeorological Observatory (zondiruyushaya stantsiya Tashkentskoy gidrometeorologicheskoy observatorii), the meteorological stations of Tashkent Airport (meteorologicheskiye stantsii aeroporta Tashkent), and the Bozsu

Card 1/2

NAZAROVA, T.N., aspirant

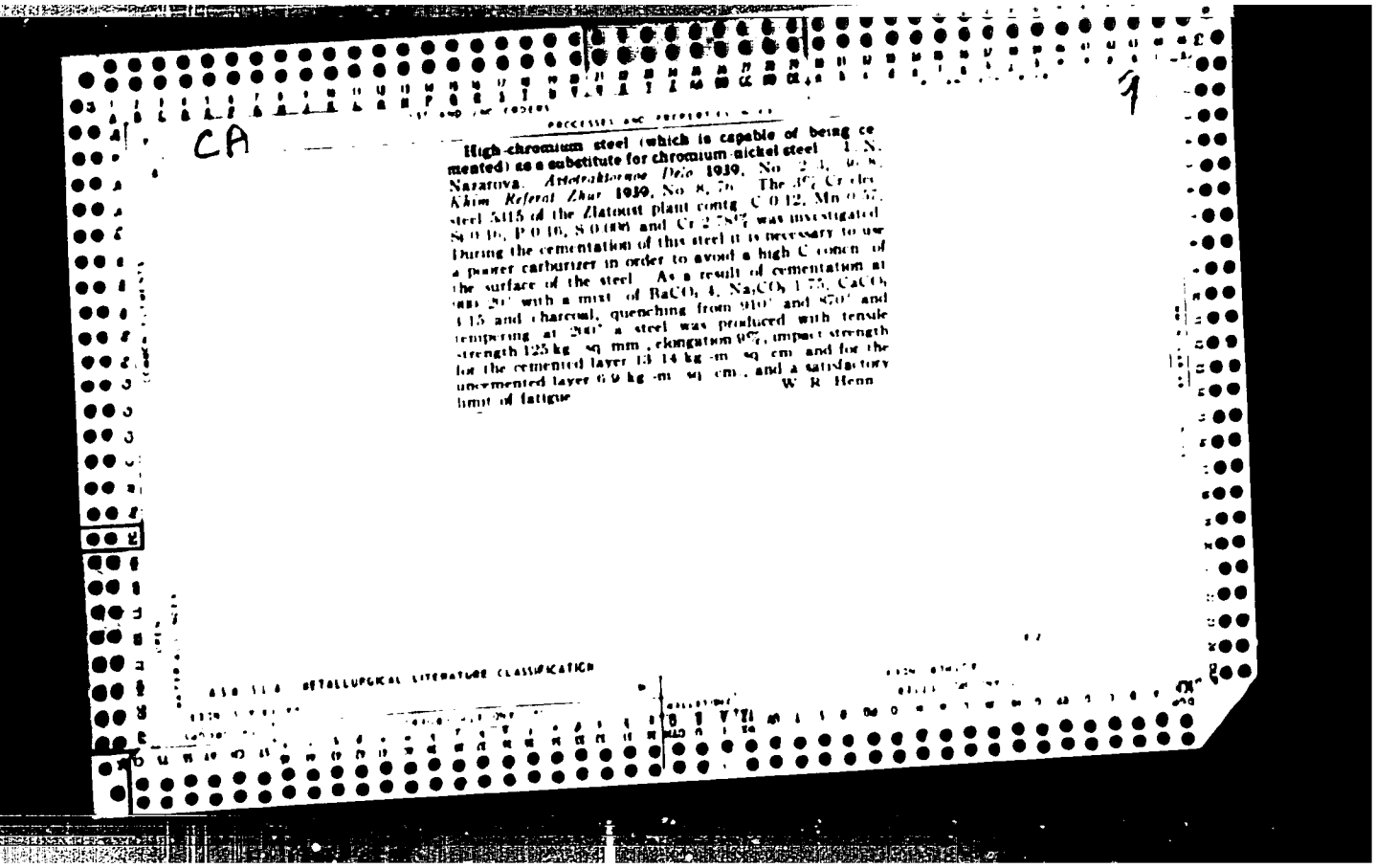
Clarification of house sewage with suspended precipitate. Trudy Ural.politekh.inst. no.85:12-27 '60. (MIRA 14:8)
(Sewage—Purification)





AUSTENITE GRAIN SIZE IN TOOL STEELS. T. N. Nazarova and V. V. Skotnikov. (Kachestvennaya Stal, 1937, No. 10 pp. 53-64). (In Russian). After briefly referring to methods available for the determination of grain size, the authors point out the advantages of the oxidation method of grain-size determination which has been developed in the laboratory at the Skoda Works. Some experimental data ovtained show that the grain size determined by this method agrees fairly closely with that determined by the McQuaid-Ehn method. The oxides formed in the grain boundaries appear to have no retarding effect on the grain growth. The oxidation method can be applied in certain investigations connected with grain growth to which the cementation process is inapplicable.

ASM METALLURGICAL LITERATURE CLASSIFICATION



CA

High-chromium steel (which is capable of being ce mented) as a substitute for chromium-nickel steel I. N. Nazarova. *Avtogennoe Delo* **1939**, No [illegible]. The [illegible] Cr steel *Khim. Referat. Zhur.* **1939**, No 8, 70. The [illegible] Cr steel 5315 of the Zlatoust plant contg C 0.12, Mn 0.57, Si 0.16, P 0.16, S 0.030 and Cr 2.78% was investigated. During the cementation of this steel it is necessary to use a power carburizer in order to avoid a high C concn. of the surface of the steel. As a result of cementation at [illegible] with a mixt. of $BaCO_3$ 4, Na_2CO_3 1.75, $CaCO_3$ 1.15 and charcoal, quenching from 910° and 870° and tempering at 200° a steel was produced with tensile strength 125 kg./sq. mm., elongation 9%, impact strength for the cemented layer 13.14 kg.-m./sq. cm. and for the uncemented layer 6.6 kg.-m./sq. cm., and a satisfactory limit of fatigue. W. R. Henn

NAZAROVA, T. N.

USSR/Metals - Steel Alloys
Boron

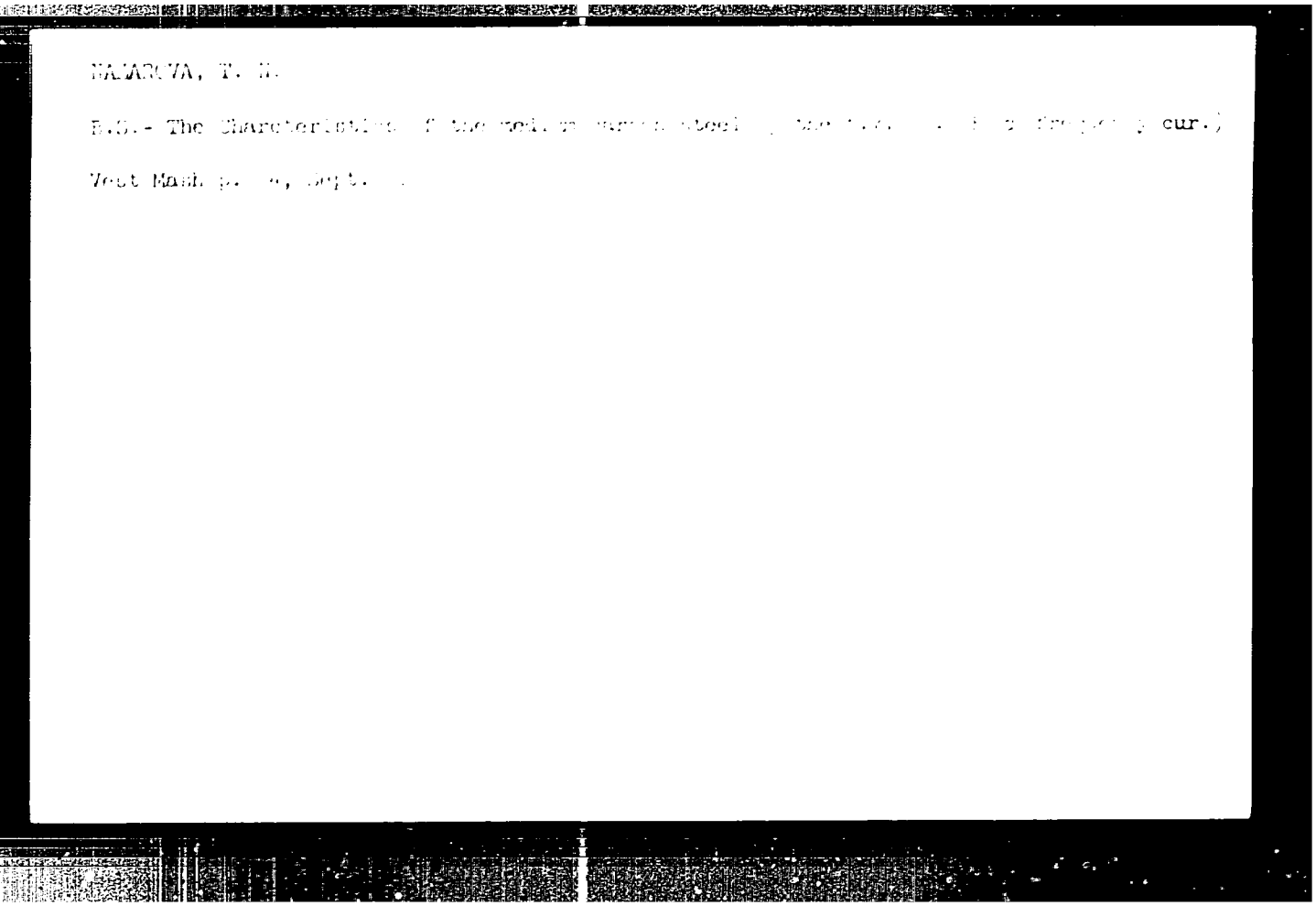
Mar 50

"Effect of Boron on Kinetics of Austenitic Transformation in Steel," Acad N. T. Gudtsov, T. N. Nazarova, Moscow Steel Inst imeni I. V. Stalin, 8 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 3 - Mp. 386-93

Conducted experiments for determining effect of boron on steel properties using medium-carbon chromium-silicon-manganese steel. Found addition of 0.001-0.003% boron causes decrease in grain growth of austenite, practically does not change position of critical points on cooling, and sharply increases hardenability.

158T70



NAZAROVA, T. N.

B.S.- The Characteristics [illegible] cur.)

West Mash. p. [illegible], Sept. [illegible]

1. NAZAROVA, T. N.; STEPANOV, YE. G.; TSYPKINA, YE D.

2. USSR (600)

4. Cranks and Crankshafts

7. Experience with reinforcing tractor-engine crankshafts by rolling the fillets. Avt. trakt. prom. no.9, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

NAZAROVA, T. N.

Metals - Fatigue

Effect of surface hardening under high-frequency current on the characteristics of fatigue strength in steel of average carbon content. Avt.trakt.prom. No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

SOV/129-58-11-10/13

AUTHOR: Nazarova, T. N. — Candidate of Technical Sciences

TITLE: Contact Fatigue of Medium Carbon Non-Case Hardened Steel After High Frequency Hardening (Kontaktnaya ustalost' sredneuglerodistoy netsementovannoy stali, zakalennoy pri nagreve T V Ch)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958 Nr 11, pp 57-59 (USSR)

ABSTRACT: The predominant character of failures of gears and tractors is the chipping out of the rubbing surfaces of gear teeth due to the fatigue of the metal caused by the large contact stresses. For solving the problem on whether it is advisable to use non-carburised induction hardened steel for gears operating at high contact stresses the author considered it advisable to study the contact fatigue of steel hardened according to various regimes. The contact fatigue was studied (5×10^6 cycles) by means of a NAMI roller test-stand on lubricated roller specimens of 89 and [illegible] mm dia working as a meshed pair, such a diameter ratio ensures a sliding, which approaches in value the sliding of gear teeth under real conditions. The tests were terminated when

Card 1/4

Contact Fatigue of Medium Carbon Non-Case-hardened Steel After High Frequency Hardening

the chipping out [illegible] of the rolls reached an area of 1 mm^2. The width studied the influence of the depth of the hardened layer [illegible] of the preliminary heat treatment and of differing variants of the meshing figure of the roller specimens. The specimens were made of Steel 45 (0.44% C) and the steel ASh (0.49% C). In Fig.1 the change is graphed of the hardness along the cross section of high frequency hardened specimens. In Fig. 2 the results are given which were obtained on heat treated and normalised "Steel 45" after high frequency hardening to a depth of 1.8 to 2 mm. It can be seen that the contact fatigue strength of "Steel 45" after preliminary heat treatment and high frequency hardening equals 21 000 kg/cm^2 and [illegible] kg/cm^2 if prior to high frequency hardening [illegible] annealed. The results [illegible] for hardening depths of 1.8 to 2 mm and [illegible] mm are compared in the graph, Fig.3. The maximum contact fatigue strength is obtained if the depth of the hardened layer is 2 mm and higher; Card 2/4 the contact fatigue [illegible] of the steel ASh hardened

Contact Fatigue of Medium Carbon Non-Case Hardened Steel After High Frequency Hardening

to a depth of 3-3.5 mm and meshing with a case hardened steel equals 23 200 kg/cm^2; for the Steel 45 the contact fatigue strength under the same conditions equals 22 000 kg/cm^2. Specimens of the Steel 45 had a slightly lower contact fatigue strength. Reduction to 1.8-2 mm of the depth of the hardened layer of heat treated Steel 45 does not bring about any change in the contact fatigue strength. However, at specific pressures exceeding 21 000 kg/cm^2 an appreciable reduction of the breaking strength is observed, which will be the more intensive the smaller the depth of the hardened layer. The hardness of the core does not influence the contact fatigue strength if the depth of the hardened layer is 3 mm and more. For a depth of the hardened layer of 1.8-2 mm the limit contact fatigue strength of normalised Steel 45 was found to be 17 500 kg/cm^2 and for the same steel in the heat treated state 21 000 kg/cm^2. After high frequency hardening to a depth of 3 mm and more, non-case hardened steel has a contact fatigue strength which is near to that of the

Card 3/4

SOV/129-58-11-10/13

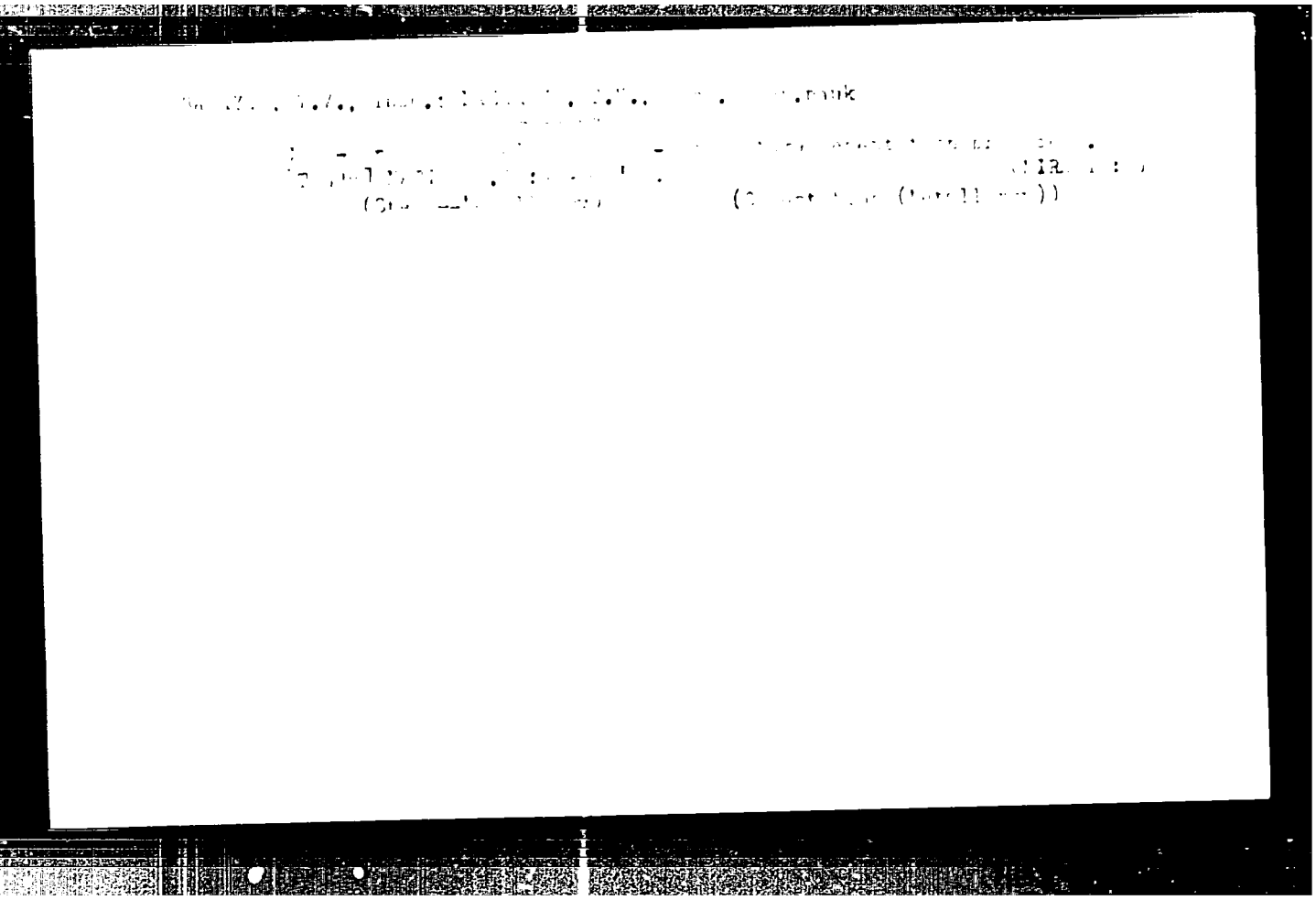
Contact Fatigue of Medium Carbon Non-Case Hardened Steel After High Frequency Hardening

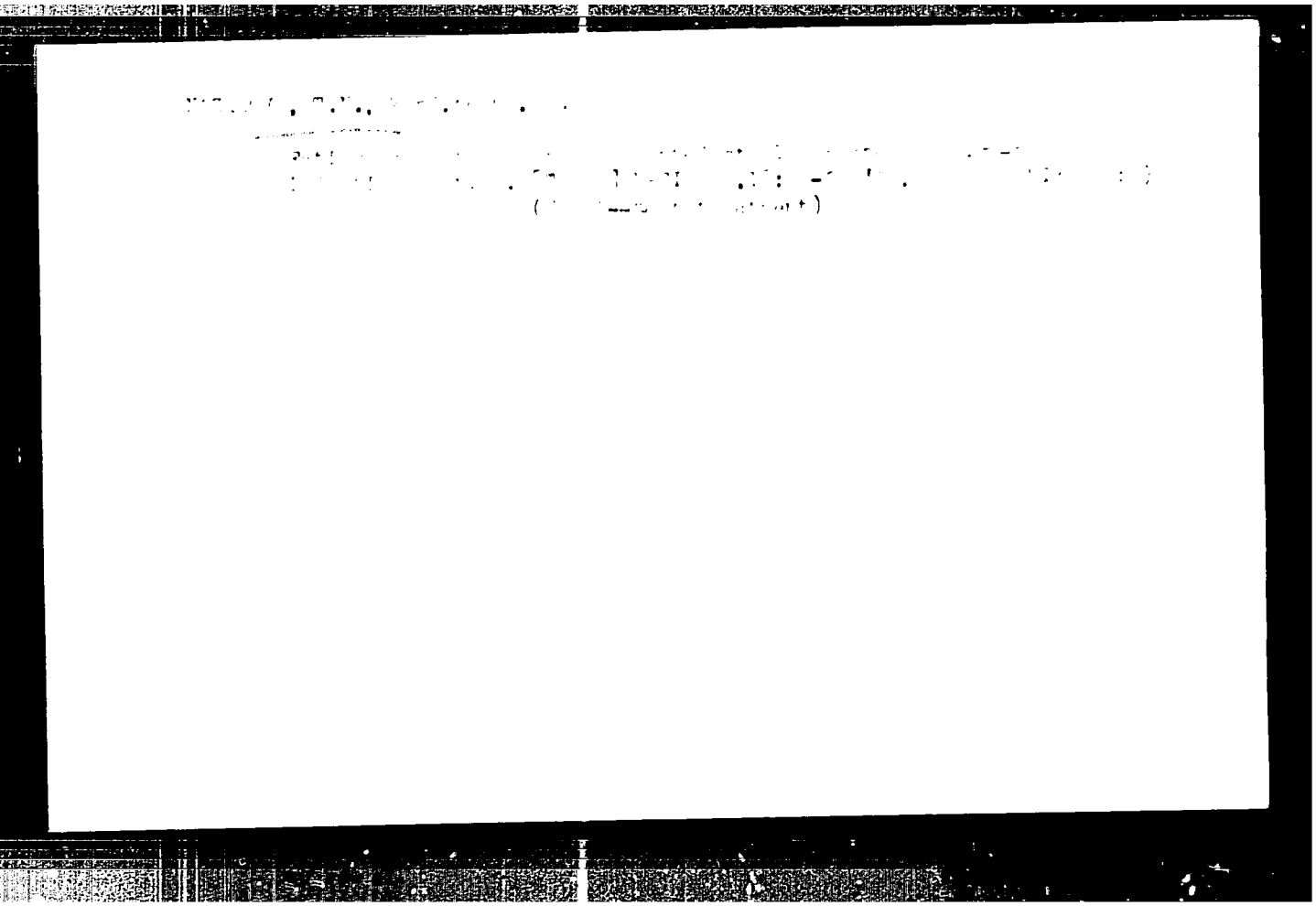
contact fatigue strength of case hardened alloy steel. There are 3 figures and 3 Soviet references

ASSOCIATION: NATI

1. Steel--Fatigue 2. Abrasion--Metallurgical effects
3. Steel--Hardening 4. Steel--Mechanical properties

Card 4/4





L 17465-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AR3001420 S/0277/63/000/005/0008/0008

SOURCE: RZh. Mashinostroitel'nyye materialy. Konstruktsii i raschet detaley mashin, 5.48.49

AUTHOR: Nazarova, T. N.

TITLE: New structural steels with inclusions of titanium and boron

63

CITED SOURCE: Tr. Gos. soyuzn. n.-i. trakt. int-t, vyp. 135, 1961-3-17

TOPIC TAGS: structural steel, carbon steel 45, 45Kh, 45T, 45KhT, 40Kh, critical temperature, austenite granule, boron alloy, titanium alloy

ABSTRACT: The results are presented of research on laboratory meltings of 45 and 45Kh medium carbon steels which are alloyed with 0.002-0.005% of boron and 0.05-0.1% of titanium. It is noted that the alloying of 45 and 45Kh steel with titanium increases the temperature of the beginning development of an austenite grain, the hardenability, and the impact strength at room temperature and at low temperatures. The hardenability of 45T steel is increased by 2.8 times and 45KhT steel by 1.6 times for the alloying of 45 steel with boron reduces the

Card 1/2

L 17465-63

ACCESSION NR: AR3001420 3

temperature of the intial growth of the austenite and increases the hardenability. The alloying of 40Kh and 45Kh steel with Ti and B causes an increase of the critical temperature of the initial growth of the austenite grain and increases the hardenability and impact strength. The critical temperature for transition to a brittle state is lower than -60°.

DATE ACQ: 21May63 ENCL: 00 SUB CODE: ML

NR ART: 0549 ART NR: 001 NR ABSTR: 001

Card 2/2

S/129/62/000/010/002/006
E073/E335

AUTHOR: Nazarova, T.N., Candidate of Technical Sciences

TITLE: Critical temperature of brittle fracture of steel quenched using induction heating

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1962, 19 - 22

TEXT: Impact tests were made on notched specimens of rolled, 150-mm diameter, rods of open-hearth steel of the following compositions:

Type of steel	Composition, %									
	C	Mn	Si	Cr	Ni	P	S	Cu	B_{calc}	Ti
45 (45KhTR)	0.48	0.80	0.30	1.07	0.13	0.019	0.021	0.15	0.003	0.09
45 (45KhT)	0.42	0.76	0.32	1.01	0.20	0.016	0.022	0.23	-	0.1

One batch of specimens was heated in an electrically heated muffle furnace. Another was heated by a high-frequency

Card 1/3

Critical temperature ....

oscillator using an 8-turn inductor of 4 mm diameter copper tube, so that the entire specimen heated up simultaneously to 890 - 900 °C throughout its entire length. The specimen was held in the inductor for 8 sec. Quenching in oil at 25 to 30 °C was effected 2 sec after switching-off the current. The same quenching conditions were applied to the specimens which were heated in the muffle furnace to 850 °C. To prevent decarburization, the notch was protected during heating by a copper wire, the diameter of which was equal to the notch diameter. The specimens were subsequently tempered at various temperatures (10 specimens for each temperature) in steps of 20 °C up to 300 °C and in steps of 50 °C above 300 °C. The holding time was 90 min at each tempering temperature. Tempering was in an oil bath up to 220 °C - above 220 °C in a saltpetre bath. Results: induction-heated specimens showed a wider range of optimum tempering temperatures (180 - 240 °C) with maximum impact strength (for the steel 45KhTR - a_k = 3.5 kgm/cm^2 at 20 °C, which is about 20% above the respective value of specimens of the same steel quenched after

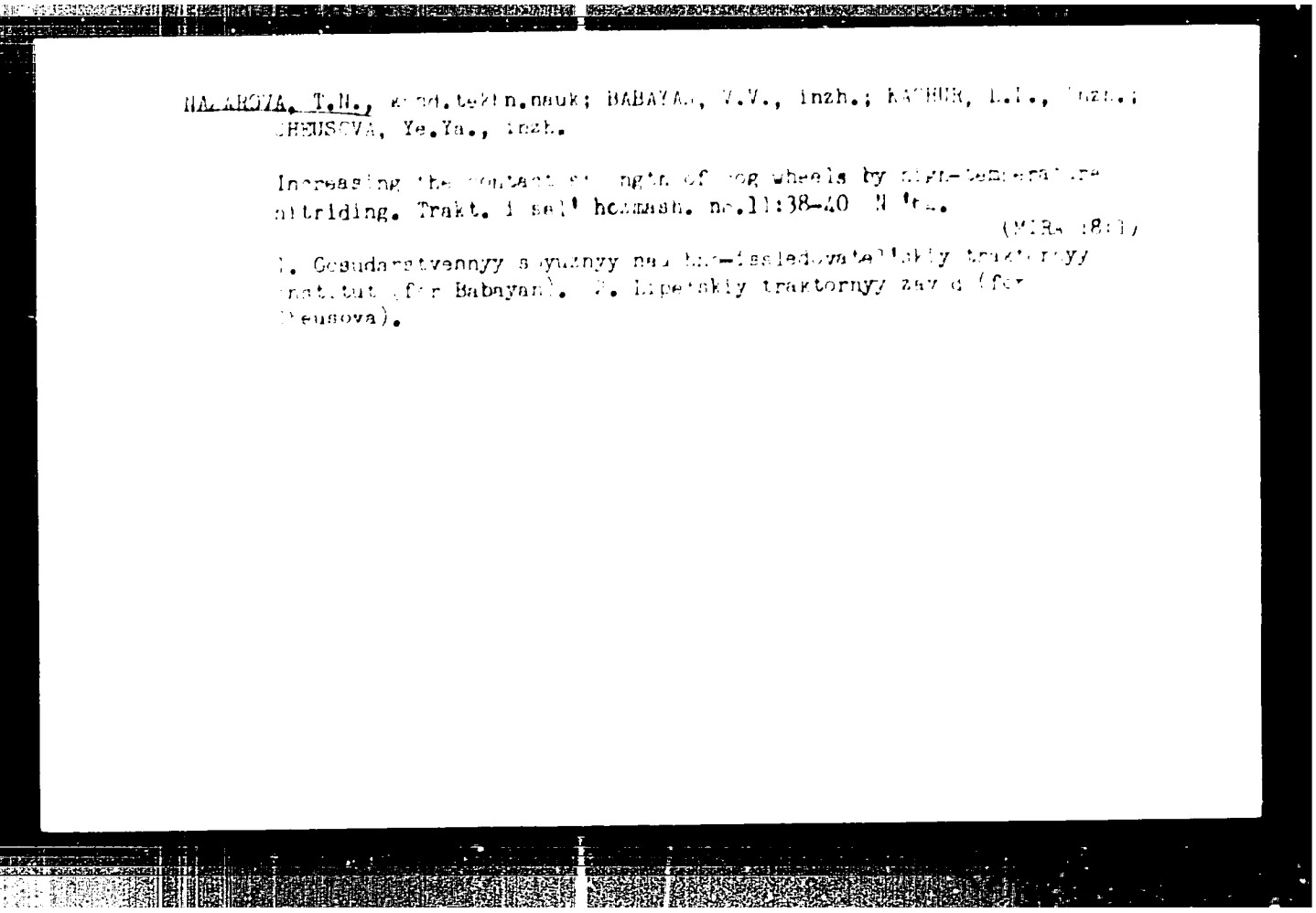
Card 2/3

Critical temperature ....

heating in the muffle furnace). The zone of temper-brittleness is considerably narrower. A sharp drop in impact strength was observed at -60 °C after induction hardening of the steel 45KhT and at -40 °C for the steel 45KhTR. The respective temperatures for the specimens quenched after heating in the muffle furnace were -20 °C for both steels. There are 3 figures and 2 tables.

ASSOCIATION: NATI

Card 3/3



NAZAROVA, T.N., kand.tekhn.nauk; BABAYAN, V.V., inzh.; KACHUR, L.I., inzh.; CHEUSOVA, Ye.Ya., inzh.

Increasing the contact strength of cog wheels by gas-temperature nitriding. Trakt. i sel'khozmash. no.11:38-40 N '64. (MIRA 18:1)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut (for Babayan). 2. Lipetskiy traktornyy zavod (for Cheusova).

NAZAROVA, T.N., kand. tekhn. nauk; BABAYAN, V.V., inzh.; T[illegible]ANOVA, G.A., kand. tekhn. nauk; KACH[illegible], L.[illegible], inzh.

New 25KhGNTTs case-hardened steel for the [illegible] tractor transmission. Trakt. i sel'khozmash. no.4:42-43 Ap '6[illegible]. (MIRA 1[illegible])

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut (for Nazarova, Babayan). 2. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni Bardina (for T[illegible]arova). 3. Lipetskiy traktornyy zavod (for Kachur).

NAZAROVA, T.V.

53-1b-17/18

AUTHOR: POLOSKOV, S.M., NAZAROVA, T.V.

TITLE: The Investigation of the Solid Component of Interplanetary Matter by Means of Rockets and Artificial Earth Satellites. (Issledovaniye tverdoy sostavlyayushchey mezhplanetnogo veshchestva s pomoshch'yu raket i iskusstvennykh sputnikov Zemli, Russian)

PERIODICAL: Uspekhi Fiz. Nauk, 1957, Vol 63, Nr 1b, pp 253 - 265 (U.S.S.R.)

ABSTRACT: The study of the meteoric matter entering into the terrestrial atmosphere is also of great geophysical importance. Special interest (with respect to the motion of rockets and artificial earth satellites) is caused by the following problems: 1) The determination of the flux of meteoric particles. 2) The study of their energy spectrum. The spectrum of the masses and the spectrum of the velocities should here be determined separately. The solid component of the interplanetary matter is investigated by direct methods (with rockets) and by indirect methods. The astronomical methods and the various methods for the study of meteoric matter falling onto the earth belong to the indirect methods. Hitherto only indirect methods have been applicable, their results are sparse and contradictory. Reliable results are probably obtained only by means of rockets and artificial earth satellites.

Card 1/4

53-[illegible]/58

The Investigation of the Solid Component of Interplanetary Matter by Means of Rockets and Artificial Earth Satellites.

The determination of the flux of meteoric particles:
Data on the solid components of interplanetary matter can be obtained in the following way: a) by the observation of the exterior corona of the sun, b) by observations of the meteors c) by the study of the meteoric substances falling onto the earth. These processes and the results obtained are discussed individually. It is estimated that from 4 to 15 tons of meteoric matter fall onto the earth in one day. According to estimates made by several investigators, 4000 to 6000 tons of cosmic dust fall onto the earth.

Determination of the kinetic energy (or motional quantity) of meteoric particles:
The relative velocities of meteoric particles (outside the atmosphere) in relation to a satellite or to a rocket are probably within the range of $70 \geqslant v \geqslant 11$ km/sec. The energies of $10 < E_{kin} < 10^{11}$ erg transferred by them can be measured without difficulty in the absence of any perturbations. The authors here discuss various methods for the investigation of micrometeors by means of rockets. Micrometeors were recorded by means of

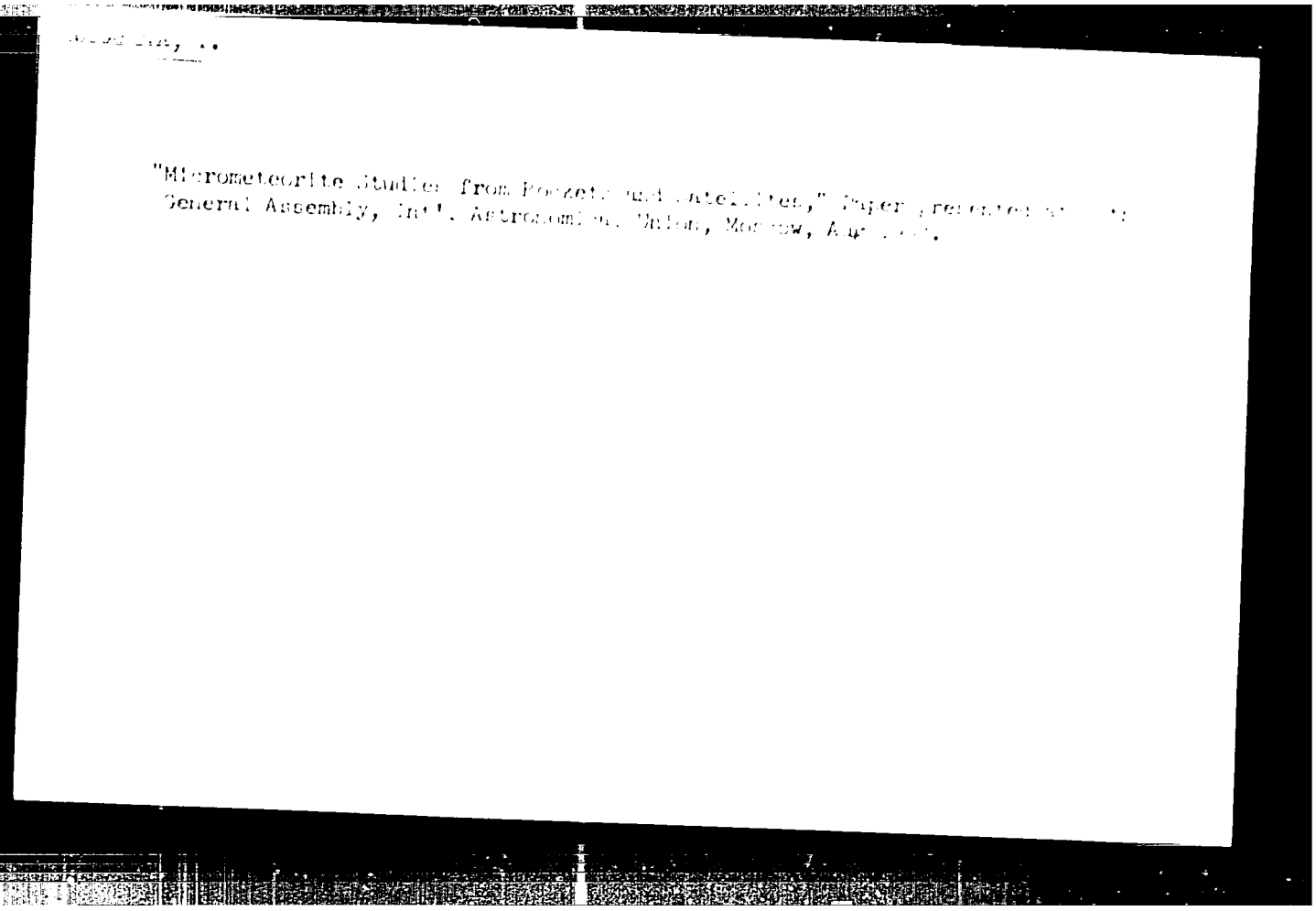
Card 2/4

The Investigation of the Solid Component of Interplanetary Matter by Means of Rockets and Artificial Earth Satellites.

scratched traces on the polished surface of the rockets, by recording the sound energy produced by collisions, as well as by recording light impulses by means of photomultipliers. The traces of the micrometeors consist of craters having a depth of some microns and a diameter of some millimeters. At the edges of the craters tempering colors are observed. Even these smallest particles may do serious damage to the surface of optical apparatus. On the occasion of acoustic experiments carried out with a V2 rocket in 1949 (1) 66 collisions were measured from the 70th up to the 214th second of its flight. Several other acoustic measurements are discussed, after which the device developed by O.E.BERG and L.H.MEREDITH(J. of Geoph. Res. Vol 61, Nr 4, 1956) is described. According to an American measuring test carried out with an Aerobee rocket a collision occurs on the averagy every 57 seconds on 1 cm^2. Meteorites do not come from a certain radiant. The factors by which these measurements are perturbed are then discussed. The rockets or satellites may also collide with corpuscles ejected by the sun or belonging to the primary cosmic

Card 3/4

Card 4/4



"Micrometeorite Studies from Vostok and Satellites," Paper presented at
General Assembly, Int'l. Astronomical Union, Moscow, Aug ....

KOMISSAROV, O.D.; NAZAROVA, T.N.; NEUGODOV, L.N.; POLOSKOV, S.M.; KUSAKOV, [redacted]

Studying micrometeorites by rockets and satellites. Isk.sput. Zem. no.2:54-58 '58. (MIRA 12:5)
(Meteorites) (Radio astronomy)

NAZAROVA, T. N., USSR.

"Research of Micrometeors with the Help of Artificial Satellites of the Earth and Space Probes."

report submitted at the 11th International Astronautical Federation Congress in Stockholm, 15-20 August 1960.