

1224

S/181/62/004/010/003/063  
B108/B186

AUTHORS: Kuz'menko, P. P., Novikov, N. N., and Gorid'ko, N. Ya.

TITLE: The photomechanical effect in antimony

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2656-2659

TEXT: Earlier studies (G. C. Kuczynski, R. H. Hochman. J. Appl. Phys., 30, 267, 1959) revealed a photomechanical effect (reduction in microhardness) in germanium in the range of intrinsic absorption (2 - 4 $\mu$ ). Attempts were made to find out whether this effect occurs in other materials with similar intrinsic absorption bands, e. g. in Sb or Bi. To study this effect in antimony, ~~small specimens~~ of high purity (99.999%)

were hardness-tested at an approximately constant temperature of 15-16<sup>o</sup>C using a ПМТ-3 (PMT-3) device with a diamond pyramid. The microhardness was found to decrease linearly with the intensity of light in the visible and near infrared region used for illuminating the sample. This decrease, however, continues only to about 30,000 lux, and the microhardness which up to there has dropped by 45% remains constant at higher illuminances. Tests with filtered light showed that the

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The photomechanical effect in antimony

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photomechanical effect is due only to infrared radiation, which proves some semiconducting property of antimony. The infrared light transfers electrons to higher energy levels thus changing the dislocation mobility and, consequently, also the mechanical properties of antimony. Careful examination of Cu revealed no photomechanical effect. There are 4 figures.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: April 23, 1962 (initially)  
June 12, 1962 (after revision)

Card 2/2



AMZ017026

BOOK EXPLOITATION

S/

Gertserikun, S. D.; Dekhtyar, I. Ya.; Krivoglas, M. A.; Larikov, L. N.; Lybak,  
L. I.; Nesterenko, Ye. G.; Novikov, N. N.; Sosnina, Ye. I.; Silyuzar, P. P.;  
Tikhonov, L. V.; Trofílov, V. I.; Chaistov, K. V.

Physical bases of the strength and ductility of metals (Fizicheskiye osnovy  
prochnosti i plastichnosti metallov) Moscow, Metallurgizdat, 1963. 321 p.  
illus., biblio. Errata slip inserted. 4250 copies printed. Editor of the  
publishing house: Ye. N. Berlin; Technical editor: L. V. Dobuzhinskaya;  
Bindery artist: Yu. M. Vashchenko

TOPIC TAGS: strength of metals, ductility, crystal lattice, dislocations, metal  
failure, strain hardening, solid solution, microstress, lattice defect, plastic  
strain, relaxation, polygonization, recrystallization, grain growth

PURPOSE AND COVERAGE: This collection of articles is intended for scientific  
personnel and for engineers and metals physicists; it also may be useful to stu-  
dents at metallurgical and machine-building vuzes. The results of study of  
crystal-lattice imperfections and the dislocation theory of metal failure are

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JN4017066

presented. Contemporary concepts of the nature and mechanism of different weakening processes in metals are expounded, as well as present-day thinking concerning the effect of impurities on the kinetics of the weakening processes. The articles in this collection are principally the original results of research performed in recent years at the Institut Metallofiziki AN USSR.

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SUB CODE: ML, AP

SUBMITTED: 23Aug63

NR REF SOV: 253

OTHER: 463

DATE ACQ: 17Jan64

Card 3/3

KUZ'MENKO, P.P.; NOVIKOV, N.N. [Novykov, M.M.]; GORID'KO, N.Ya.  
[Horyd'ko, M.IA.]

Photomechanical effect in titanium. Ukr. fiz. zhur. 8 no.1:  
116-120 Ja '63. (MIRA 16:5)

1. Kiyevskiy gosudarstvennyy universitet im. Shevchenko.  
(Titanium) (Metals, Effect of radiation on)

NOVIKOV, M. M.

L 17027-63

EWP(q)/EWT(m)/BDS AFFTC/ASD Pad JD/HW

S/185/63/008/004/013/015

59  
58

AUTHOR: Hartsrikan, S. D. /Deceased/, Larykov, L. N., and Novykov, M. M.

TITLE: Volumetric changes in the low-temperature phase conversion in nichromes

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 4, April 1963, 494-496

TEXT: The purpose of the research was to confirm the possibility of using a rapid dilatometric method to study the processes of regulations in NiCr alloys, which offers the possibility of continuously detecting volumetric changes which occurs in the annealing of NiCr samples. The principle of action of this dilatometer is based on the quadratic dependence of the deflection value  $\lambda$  of the chain line to its length  $l$ . To put the method into practice a frame in the form of a square bar 10-15 cm long is used. The ends of the investigated wire sample 0.5 mm in dia., bent along the chain line, are electrically point welded to the frame. The relative change in volume is determined by the formula

$$\frac{\Delta V}{V} = 8 \frac{\lambda^2 - \lambda_0^2}{l^2}$$

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L 17027-63

S/185/63/008/004/013/015

Volumetric changes in the ...

The frame was made of the alloy Ni + 18.9% Cr whose K-state was produced by annealing at a temperature of 450° C over 250 hours. The authors claim that the method of studying the volumetric changes in the annealing process described in the report was effective even for studying the kinetics of the regulation processes. The sensitivity of the method is quite high: the relative measurement error of approximately  $10^{-5}$  is claimed.

ASSOCIATION: Instytut metalofizyky AN URSR; Derzhuniversytet im. T. H. Shevchenka (Institute for the Physics of Metals, Ukrainian Academy of Sciences; State University im. T. G. Shevchenko, Kiev)

SUBMITTED: January 4, 1962

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RYKALIN, N.N.; PODZEY, A.V., doktor tekhn.nauk, prof.; NOVIKOV, N.N., kand.tekhn.  
nauk; LOGINOV, V.Ye., inzh.

Calculation and simulation of the temperature field in a part subjected  
to grinding and milling. Vest.mashinostr. 43 no.11:74-80 N '63.  
(MIRA 17:2)

1. Chlen-korrespondent AN SSSR (for Rykalin).

L 13816-65 EWT(m)/EWP(t)/EWP(b) IJP(c)/ASD(a)-5/ESD(c)/ESD(gs) JD  
S/0139/64/000/004/0022/0026

ACCESSION NR: AP4043864

AUTHOR: Novikov, N. N.; Gorid'ko, N. Ya.; Rudenko, A. G. B

TITLE: Photomechanical effect in cadmium sulfide 27 27

SOURCE: IVUZ. Fizika, no. 4, 1964, 22-26

TOPIC TAGS: cadmium sulfide, microhardness, temperature dependence, frequency dependence, carrier density

ABSTRACT: Changes in plastic properties of cadmium sulfide (such as microhardness under the influence of illumination were investigated to check whether this photomechanical effect, heretofore observed in materials having an absorption band in the same spectral region (germanium, antimony, titanium) is indeed due to the excitation of the carrier, or it might also be caused by infrared heating of a thin surface layer. The test equipment and procedures are described. The tests show that the surface microhardness decreases

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ACCESSION NR: AP4043864

by approximately 40% when the surface receives an integral illumination on the order of 40,000 lux. This confirms the presence of the photomechanical effect in Cds. Tests of the frequency dependence of the effect have shown it to occur only in the region of intrinsic absorption. Orig. art. has: 3 figures.

ASSOCIATION: Kiyevskiy gosuniversitet imeni T. G. Shevchenko (Kiev State University)

SUBMITTED: 03Jan63

ENCL: 01

SUB CODE: SS, OP

NO REF SOV: 011

OTHER: 002

Card 2/3

L 13816-65  
ACCESSION NR: AP4043864

ENCLOSURE: 01

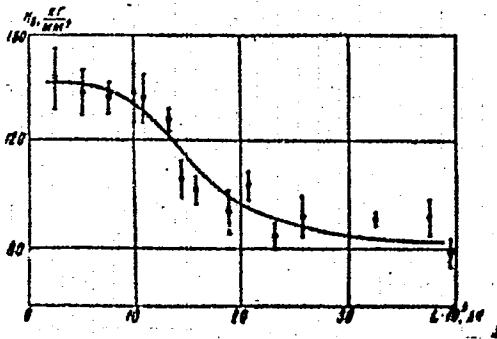


Fig. 1. The dependence of photomechanical effect on the illumination.

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L 9049-65 FSD(t)/ESD(sp)/AS(ep)-2/RAFM(t)/SSD/AFWL/AFETR  
ACCESSION NR: AP4044924

8/0181/64/006/009/2580/2582

AUTHOR: Kuz'menko, P. P.; Novikov, N. N.; Gorid'ko, N. Ya. B

TITLE: The temperature range of the existence of the photomechanical effect

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2580-2582<sup>5</sup>

TOPIC TAGS: solid state physics, photomechanical effect, temperature range, hardness, germanium, antimony, extrinsic conductivity, dislocation

ABSTRACT: An attempt is made to determine the conditions under which the photomechanical effect occurs by means of investigating hardness as a function of the temperature of illuminated germanium and antimony. According to the authors, the photomechanical effect which they observed not only in semiconductors but also in metallic materials must be connected with changes in the electronic structure. They consider this firmly established by their own earlier experiments (FTT, 3, 1961; 3650; FTT, 4, 1962; 2656; UFZh, 8, 1963, 1) and by the work of other Soviet researchers (V. M. Baylin, Yu. Kh. Vakilov, FTT, 5, 1963; 2372; T. A. Kontorova, FTT, 4, 1962; 1328; M. S. Ablova, A. R. Regel', FTT, 4, 1962; 1053; V. V. Zhdanova, FTT, 5, 1963, 3341). In particular, they connect the phenomenon with a photon-

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ACCESSION NR: AP4044924

induced rise in dislocation mobility, the mechanism of the process remaining still unexplained. In their last experiments, changes in the hardness of n-type germanium and of antimony samples were measured in a temperature range of -60 to 220C for Ge, and of 0 to 144C for Sb, under 30,000 lux illumination, and in the absence of light. The measurements showed that until a certain critical temperature is reached — about 130 to 140C for Ge and 60C for Sb — the hardness of the illuminated samples is independent of, or only slightly dependent on the temperature, while in the same temperature range, the dark hardness is strongly temperature dependent. The previously insignificant dependence of the illuminated samples on temperature becomes noticeable only in the region where the two curves merge, that is, at reaching the critical temperatures. Once that point is attained, the hardness depends only on the temperature, not on illumination. The authors interpret the above results by proposing that there are two different causes which play a part in the decrease in the hardness of illuminated Ge and Sb with increasing temperature. One of these causes acts as the only factor in the case of temperature changes as well as in the case of surface illumination. It ceases to act at temperatures higher than 130—140C for Ge and 60C for Sb. when the other

which may be a result of the passage from extrinsic to intrinsic conductivity,

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ACCESSION NR: AP4044924

which occurs at 100-110C in the case of germanium, that is, when a temperature dependence of the illuminated sample begins to show before the merging of the two curves. Orig. art. has: 3 figures.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet imeni T.G. Shevchenko  
(Kiev State University)

SUBMITTED: 13Feb64

ATD PRESS: 3110

ENCL: 00

SUB CODE: SS

NO REF SOV: 007

OTHER: 002



И. В. Шендеров. [Navykov, I.V.]

Relation between the thermal activation energy of softening  
processes and the extent of the deformation. Izv. Fiz. Zhur.  
no. 11:1201-1206, N 164. (MIRA 18:1)

- Ижевский государственный университет им. Шувалова.

KUZ'MENKO, P.P.; NOVIKOV, N.N. [Novykov, M.M.]; GORID'KO, N.Ya.  
[Horid'ko, M.IA.]; SALEY, V.S.

Use of the infrared polariscopy method in studying photo-  
mechanical and electromechanical effects. Ur. fiz. zhur. 10  
no. 11:1258-1259 N '65. (MIRA 18:12)

1. Kiyevskiy gosudarstvennyy universitet imeni Shevchenko.  
Submitted February 15, 1965.

L 24453-66 ENT(1)/ENT(m)/ENP(w)/T/ENP(t) IJP(c) JD/GS/AT

ACC NR: AT6010577 (N) SOURCE CODE: UR/0000/65/000/000/0096/0105

AUTHOR: Kuz'menko, P. P. (Doctor of physico-mathematical sciences); Novikov, N. N.; Gorid'ko, N. Ya.

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet)

TITLE: The photomechanical effect in crystals and its physical nature

SOURCE: AN UkrSSR. Mekhanizm plasticheskoy deformatsii metallov (Mechanism of the plastic deformation of metals). Kiev, Naukova dumka, 1965, 96-105

TOPIC TAGS: photoeffect, semiconductor crystal, IR radiation, germanium, cadmium sulfide, antimony, titanium, hardness

ABSTRACT: The authors study the photomechanical effect (a reduction in the hardness of a material under illumination at room temperature) in *n*- and *p*-Ge, dislocationless *n*-Ge, CdS, antimony and titanium. The microhardness of the specimens was measured as a function of illumination intensity. The curves for *n*- and *p*-germanium and dislocationless germanium are all similar. The change in hardness for *p*-germanium is approximately 1/2 that for *n*-germanium. The surface hardness of *n*-

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L 24453-66

ACC NR: AT6010577

germanium decreases with an increase in illumination by approximately 57-60%, while that of p- germanium changes by 40%. The curves show saturation at approximately 20,000 lux. The softened layer extends to a depth of 1-2  $\mu$ . The photomechanical effect takes place only in the infrared region of the spectrum where the natural absorption region lies. The surface hardness of cadmium sulfide is reduced by approximately 40% with an increase in illumination intensity. Saturation begins at approximately 40,000 lux. The photomechanical effect in antimony reaches 45% with saturation at 30,000 lux. The depth of the softened layer is approximately 3  $\mu$ . Titanium shows an effect of 30% with saturation at 25,000 lux. The depth of the softened layer is 2.6  $\mu$ . The effect takes place in the infrared region of the spectrum in all specimens except cadmium sulfide. This is probably due to the fact that acceptor levels of dislocations in CdS lie rather deep with respect to the bottom of the conduction band, as distinct from germanium. A curve for microhardness in n-germanium as a function of current carrier concentration shows that an increase in current carriers reduces microhardness. It is suggested that a study should be made of the magnitude of the photomechanical effect as a function of light frequency. Orig. art. has: 8 figures.

SUB CODE: 20/ SUBM DATE: 23Jul64/ ORIG REF: 005/ OTH REF: 002

Card 2/2 dda

ACC NR: A1601036

SOURCE CODE: UR/104/16/003/000/1752/1752

AUTHOR: Kuz'menko, P. P.; Kovalev, N. N.; Gorid'ko, N. Ya.; Pedorenko, L. I.  
ORG: Kiev State University Im. T. G. Shevchenko (Kievskiy gosudarstvennyy universitet)  
TITLE: Photomechanical effect in germanium doped with easily soluble elements  
SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1752-1758  
TOPIC TAGS: germanium, hardening, photomechanical effect

ABSTRACT: The purpose of the investigation was to clarify the physical nature of the decrease in hardness of illuminated Ge, in view of the lack of information on the influence of impurities on this process and the lack of systematic research on the influence of impurities on the hardness of Ge, in general. Tests were made on samples containing small concentrations of Sb, In, and Ga, and also on Sb containing Ge as an impurity. The Ge host in all tests was standard single crystal with carrier density not higher than  $5 \times 10^{13} \text{ cm}^{-3}$ . The photochemical effect was measured with the FMT-3 instrument using a procedure described elsewhere (Izv. Vuzov. Fizika, No. 4, 22, 1964). In all cases it was found that the decrease in the hardness of the illuminated surface was strongly dependent on the amount of impurity. When the impurity concentration reached the solubility limit, the photomechanical effect decreased to zero. The character of the impurity had no influence, within the limits of errors, on either the characteristics of the photomechanical effect or the microhardness of the samples in darkness. It is therefore concluded that the governing factor in the

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ACC NR: AF6018534

properties of Ge is the quantity and not the type of impurity. In view of the complicated nature of the phenomenon, however, the authors caution that the results should be regarded only as preliminary. Orig. art. has: 8 figures and 2 tables.

SUB CODE: 20/    SUBM DATE: 01Nov65/    ORIG REF: 011/    OTH REF: 004

Card 2/2/11/11

NOVIKOV, N.P. (Moskva)

Fast cumulative jets. PMTF no. 22-23 N-D '62. (MIRA 1962)

1. Moskovskiy gosudarstvennyy universitet.  
(Explosions) (Hydrodynamics)

NOVIKOV, N.P.

Generation of strong shock waves in the laboratory. Dokl. AN  
SSSR 147 no.3:597-599 N '62. (MIRA 15:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
Predstavleno akademikom Ya.B. Zel'dovichem.  
(Shock waves)



NOVIKOV, N.P. (Moskva)

Some properties of fast cumulative jets. PMTF no.1:3-13 Ja-F  
'63. (MIRA 16:2)

1. Moskovskiy universitet.  
(Jets--Fluid dynamics) (Detonation)

NOVIKOV, N.P.

Fresh-water fishes on some islands off the coast of the Sea of Japan  
[with summary in English]. Zool. zhur. 37 no.3:461-463 Mr '58.

(MIRA 11:4)

1. Vsesoyuznyy Tikhookeanskiy nauchno-issledovatel'skiy institut  
rybnogo khozyaystva i okeanografii, Vladivostok.  
(Putyatn Island--Fishes, Fresh-water)  
(Popov Island--Fishes, Fresh-water)

NOVIKOV, N.P.

Recent data on the distribution of halibut and some other commercial  
fishes in the Bering Sea. Zool. zhur. 40 no.10:1510-1515 0 '61.  
(MIRA 14:9)

1. Pacific Research Institute of Fishery Management and Oceanography,  
Vladivostok.

(Bering Sea--Fishes)

NOVIKOV, N.P.

Probability of gynogenesis in the arrow-toothed halibut  
(*Atheresthes stomias* Jord. et Gilb.) in the Bering Sea.  
Dokl. AN SSSR 147 no.1:215-216 N '62. (MIRA 15:11)

1. Tikhookeanskiy nauchno-issledovatel'skiy institut  
rybnogo khozyaystva i okeanografii. Predstavleno akademikom  
Ye.N. Pavlovskim.

(Bering Sea--Halibut)  
(Reproduction)

NOVIKOV, H.P.

Attacks of the lamprey *Pentosphenus tridentatus* (Gairdner) on  
halibut and other fishes of the Bering Sea. Vop. ikht. 3  
no.3:567-569 '63. (MIRA 16:10)

1. Tikhookeanskiy nauchno-issledovatel'skiy institut rybnogo  
khozyaystva i okeanografiy. TINCO, Vladivostok.  
(Bering Sea - Lampreys)

NOVIKOV, N. P.

Abundance of the Halibut *Hippoglossus hippoglossus stenolepis*  
Schm. in the Bering Sea. Zool. zhurn. 42 no. 3:1183-1187 '63.  
(MIRA 10:9)

1. Pacific Research Institute of Fishery Management and  
Oceanography, Vladivostok.  
(Bering Sea--Halibut)

ACVIBOV, N. .

Basic characteristics of the biology of the Pacific halibut  
(Hippoglossus platycentrus) in the Bering Sea. Trudy Nauchno-Issledovatel'skogo Instituta Morskoy Biologii, Leningrad, 1964, 11: 1-10.

1. First observations on the biology of the Pacific halibut  
in the Bering Sea. Trudy Nauchno-Issledovatel'skogo Instituta Morskoy Biologii, Leningrad, 1964, 11: 1-10.

TROP, A.Ye., prof.; NOVIKOV, N.P., inzh.

Providing for a potential performance increase in mine hoisting.  
Izv.vys.ucheb.zav.; gor.zhur. no.7:149-156 '59.  
(MIRA 13:4)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrushova.  
Rekomendovana kafedroy obshchey elektrotekhniki.  
(Mine hoisting)



TROP, A. Ye., prof.; NOVIKOV, N. P., inzh.

Design of hoisting rigs in working a mine area with several levels.  
Izv. vys. ucheb. zav.; gor. zhur. no.9:135-141 '59. (MIRA 14:6)

1. Sverdlovskiy gornyy institut imeni V. V. Vakhrusheva. Rekomendovana  
kafedroy gornoy elektrotekhniki.  
(Mine hoisting)

ACC NR: AP7003261

(A)

SOURCE CODE: UR/0207/66/000/006/0125/0128

AUTHOR: Mirkin, L. I. (Moscow); Novikov, N. P. (Moscow)

ORG: none

TITLE: Strengthening of steel in cumulative explosion

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 6, 1966, 125-128

TOPIC TAGS: shock wave, steel property, metal deformation

ABSTRACT: This work studies the results of reducing the lining of a cumulative depression and the structural changes in the ram material involved. This study ensues from the well-known fact that cumulative explosion forms a cumulative jet which spreads with great velocity and determines the breakthrough of the obstacle and the ram in which the bulk of the lining material reduced in every direction by the explosion products is concentrated. The experiments were conducted with TG50/50 explosive. The charges were 76 mm in diameter and 240 mm high; taper angle of the cumulative depression was 30°. The depression was lined with 0.10% C steel 2.5 mm thick. The charge was ignited from the face opposite the depression. A cumulative jet and ram resulted from the blast. Isoscleres resulted from the impact. Microstructural study of the metal shows that it was subjected to high pressures and temperatures. The grain structure shows that the whole material of the ram was subjected to "turbulent" flow in the solid state; the regions between the isoscleres were

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ACC NR: AP7003261

evidently first greatly deformed and then rapidly heated. The same effect is observed on impact at 4000 m/sec. The absolute steel hardness values derived in this work are higher than those earlier obtained in pulse deformation; this is probably the result of reduction on all sides. Apparently the dislocations in plastic deformation cannot exit to the interface and there is a higher dislocation density in the metal, leading to great hardening without residual phase transitions. The authors thank B. I. Shekhter and I. M. Gryaznov for their interest in the work and discussion of results and T. M. Aver'yanov for aid in the experiments. Orig. art. has: 6 figures.

SUB CODE: 11, 20/ SUBM DATE: 24May66/ ORIG REF: 008/ OTH REF: 001

Card 2/2

KALASHNIKOV, S.N., kand. tekhn. nauk; NOVIKOV, N.S.

Increasing the efficiency of machining splined shafts. Avt.  
prom. 29 no.7:37-40 JI '63. (MIRA 16:8)

1. Moskovskiy avtozavod imeni Likhacheva.  
(Milling machines)

NOVIKOV, N.S.

Effectiveness of photographic records of a workday. Leg.prom.16  
no.2:49-50 P '56. (MLRA 9:7)

1.Nachal'nik otdela truda i zarabotnoy platy fabriki "Bol'shevichka".  
(Clothing industry) (Labor productivity)

NOVIKOV, N.S.

Without interoperational controllers. Leg. prom. 18 no.1:47-48  
Ju '58. (MIRA 11:2)

1. Nachal'nik otдела truda Leningradskoy fabрики "Bol'shevichka."  
(Factory management)

NOVIKOV, N.S.

Improve the operation of production control. Leg.prom. 18 no.10:48-49  
0 '58. (MIRA 11:11)

(Clothing industry) (Production control)

NOVIKOV, Nikolay Sergeevich; BYKASOVA, G.I., inzh., red.; FREGER,  
D.P., red.izd-va; BELGOUROVA, I.A., tekhn.red.

[Manufacture of articles from artificial fur; practices of  
the Leningrad Clothing Factory "Bol'shevichka"] Izgotovlenie  
izdelii iz iskusstvennogo mekha; opyt leningradskoi shveinoi  
fabriki "Bol'shevichka." Leningrad, 1961. 19 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriya: Shveinaia promyshlennost', no.3).

(MIRA 14:12)

(Fur, Artificial)  
(Leningrad---Clothing industry)



NOVIKOV, Nikolay Sergeyevich; KRASNOSHCHIEKOV, M.M., kand. ekon. nauk,  
red.; FREGER, D.P., red. izd-va; GVIRTIS, V.L., tekhn. red.

[Organization of the work for the exchange of practices in  
the "Bol'shevichka" Clothing Factory in Leningrad] Organizatsiia  
raboty po obmenu peredovym opytom na leningradskoi shveinoi  
fabrike "Bol'shevichka"; stenogramma leksii, pročitannoi v  
LDKTP na seminare dlia rabotnikov shveinoi promyshlennosti. Lo-  
ningrad, 1962. 26 p. (MIRA 15:11)  
(Leningrad--Clothing industry)

NOVIKOV, N.S. (Leningrad)

Practices in the work of informative meetings. Shvein.prom.  
no.2:35 Mr-Ap '62. (MIRA 1962)  
(Leningrad--Clothing industry--Management)



SUKHAREV, Mikhail Ivanovich, kand. tekhn. nauk; NOVIKOV, Nikolay  
Sergeyevich, inzh.; KARASEV, V.K., red.

[Technology of manufacturing clothing of "povinol" and  
tekstovinit"] Tekhnologiya izgotovleniya shveinykh izdelii  
iz povinola i tekstovinita. Leningrad, 1964. 26 p.  
(MIRA 18:3)

KORENEV, V.F.; NOVIKOV, N.S.

Glued and finishing materials used in furniture manufacture in  
Czechoslovakia. Bum. 1 der. prom. no. 4:56-58 O-D '64  
(MIRA 18:2)

KRASNYANSKAYA, Tamara Mikhaylovna, kand. ekon. nauk; NOVIKOV,  
h.S., red.

[New methods for establishing the norms of fabric expenditure in clothing factories] Novoe v formirovani ras-  
khoda tkani na shveinykh fabrikakh. Leningrad, 1965. 34 p.  
(MIRA 18:10)

SOV/137-57-10-19480

Translation from Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 148 (USSR)

AUTHORS Slutskaya, T. M., Gomal'skiy, Yu. N., Novikov, N. V.

TITLE Notch Toughness of Weld Metal in High-alloyed Chromium-nickel Welds Performed by the Method of Electrical Slag Welding (Udarnaya vyazkost' metalla vysokolegirovannykh khromonikelevykh shvov vypolnennykh elektroshlakovym sposobom)

PERIODICAL V sb. Probl. dugovoy i kontakt. elektrosvark: Kiyev-Moscow, Mashgiz, 1956 pp 176-181

ABSTRACT Notch toughness ( $\sigma_k$ ) and microstructure of vertical welds (W) were investigated on welded specimens of thick Cr-Ni steel. The W were performed by the method of electrical slag welding (ESW) utilizing welding electrodes of the Kh18N9T, Kh20N10G6, Kh20N10G6T, and Kh25N15 types (3 mm in diameter) in conjunction with AN-22 flux containing up to 7% of MnO. Studies of the chemical composition and microstructural analyses of the W in their original and hardened states permitted

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SOV/137-57-10-19480

## Notch Toughness of Weld Metal (cont.)

certain deductions concerning the nature and composition of the second phase. The W under investigation may be divided into three groups according to their composition, their magnetic properties, and the shape and nature of precipitation of the second phase. The W in the first group were performed with welding electrodes of the Kh18N9T type, the  $a_k$  of these W amounts to  $15 \text{ kg/cm}^2$  at a temperature of  $-70^\circ\text{C}$ , but diminishes to  $7 \text{ kg/cm}^2$  as the temperature is lowered to  $-183^\circ$ . The W of the second group were executed with welding electrodes of the Kh20N10G6 and Kh20N10G6T types, the  $a_k$  of these W decreases sharply with decreasing temperatures and has a minimum value of  $2.8 \text{ kg/cm}^2$  at  $-183^\circ$ . Ti tends to reduce the  $a_k$  of these W particularly if they have been subjected to hardening. W of the third group were performed with welding electrodes of the Kh20N14G6 and Kh20N15 types; the chemical composition of these W is characterized by a high content of austenite-forming elements. Down to a temperature of  $-70^\circ$ , the  $a_k$  ( $30 \text{ kg/cm}^2$ ) of these W remains unchanged but diminishes somewhat ( $20 \text{ kg/cm}^2$ ) at  $-183^\circ$ . During ESW the transition of Ti amounts to 30%. If the W are alloyed with Ti (0.2%) or Mn only, their properties may be improved by quenching from  $1100^\circ$ . In the case of complex alloying with both Ti and Mn

Card 2/3



SOV/137-57-10-19480

Notch Toughness of Weld Metal (cont.)

(0.3% Ti), the properties of the W are not significantly improved by this procedure. Apparently the complex Ti and Mn carbides do not dissolve at 1100<sup>o</sup>, and quench-hardening does not produce a single-phase structure. When fabricating structures intended for operation under dynamic loading at very low temperatures, ESW utilizing welding electrodes with large quantities of austenite-forming elements (Kh20815, Kh20N14G6) is recommended. Welding electrodes Kh18N9T and Kh20N10G6 are suitable for welded connections which may be quenched from 1100<sup>o</sup> after the completion of welding operations. The coarse columnar structure of the austenitic weld metal does not reduce its  $a_k$ , nor does it raise the temperature threshold of cold-shortness, providing the weld structure possesses single-phase characteristics.

A R

Card 3/3

NOVIKOV, N. V.: Master Tech Sci (1980) -- "Investigation of the effect of the type of stressed state and temperature on the dispersion of energy in material with oscillations". Kiev, 1976. 100 pp (Min Higher Educ Ukr SSR, Kiev center of Lenin Polytech Inst, Chair of Strength of Materials), 196 copies (ZL, No 1, 1980, 110)

PHASE I BOOK EXPLOITATION 50V/5303

Kauchno-tekhnicheskoye sovedshchaniye po dempfirovaniyu kolebaniy. Kiev, 1958.

Trud. Nauchno-tekhnicheskogo soveshchaniya po dempfirovaniyu kolebaniy, 17 - 19 dekabrya 1958 g. (Transactions of the Scientific and Technical Conference on the Dampings of Vibrations, Held 17 - 19 December, 1958) Kiev, Izd-vo AN UkrSSR, 1960. 178 p. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainckoy SSR Institut metallokeramiki i spetsial'nykh splavov.

Editorial Board: I. M. Prantsevich, G. S. Pisarenko (Resp. Ed.), G. V. Sansonov, V. F. Grigor'yev, and A. F. Yakovlev, Ed. of Publishing House: I. V. Kisina; Tech. Ed.: A. A. Katsyrenchuk.

COVERAGE: The book contains 27 articles dealing with principal results of theoretical and experimental investigations of energy dissipation in mechanical vibrations carried out in the Soviet Union from 1956 to 1959. Problems of energy dissipation in materials and factors affecting it are discussed. Purportedly new methods of experimental investigation of damping of vibrations are presented. Attention is given to the recently developed nonlinear theory of calculating vibrations in elastic systems, taking energy dissipation into account. Attempts to analyze internal energy dissipation in materials using methods of mathematical statistics are discussed. Some articles deal with engineering problems in dynamics, in which damping is claimed to play a highly substantial part. Applicant: M. I. Mikhlin, of the Kiev Polytechnic Institute, is mentioned. References accompany some of the articles.

50V/5303

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AC/INTL/NI

PHASE I BOOK EXPLOITATION SOV/5303

Nauchno-tekhnicheskoye soveshchaniye po dempfirovaniyu kolebaniy. Kiyev, 1958.

Trudy Nauchno-tekhnicheskogo soveshchaniya po dempfirovaniyu kolebaniy, 17 - 19 dekabrya 1958 g. (Transactions of the Scientific and Technical Conference on the Damping of Vibrations, Held 17 - 19 December, 1958) Kiyev, Izd-vo AN UkrSSR, 1960. 178 p. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainakoy SSR. Institut metal- lokamniki i spetsial'nykh splavov.

Editorial Board: I. M. Frantsovich, G. S. Pisarenko (Resp. Ed.), G. V. Samonov, V. V. Grigor'yeva, and A. P. Yakovlev; Ed. of Publishing House: I. V. Kisina; Tech. Ed.: A. A. Matveychuk.

CONTENTS: The book contains 27 articles dealing with principal results of theoretical and experimental investigations of energy dissipation in technical vibrations carried out in the Soviet Union from 1956 to 1958. Problems of energy dissipation in materials and factors affecting it are discussed. Surprisingly new methods of experimental investigation of damping properties are described. The author takes into account the frequency dependence of internal energy dissipation in elastic systems taking theory of calculation into account. Attempts to analyze internal energy dissipation in materials using methods of mathematical statistics are discussed. Some articles deal with engineering problems in dynamics, in which damping is claimed to play a highly substantial part. Applicant M. I. Kishin, of the Kiyev Polytechnic Institute, is mentioned. References accompany some of the articles.

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AVAILABLE: Library of Congress

AC/INTL/NI

29(5)

SOV/ 32-25-9-34/53

AUTHOR:

Novikov, N. V.

TITLE:

Determination of Energy Dissipation in the Material During Longitudinal Torsional Oscillations of Bars

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 9, pp 1113-1117 (USSR)

ABSTRACT:

The most reliable and absolute values of specific energy dissipation (ED) (also referred to as damping capacity or internal friction), which are of especially great importance for parts of fast running machinery, can only be obtained in a homogeneous state of tension. In the present case a system was devised for tests of this kind, which is an improved modification of the system by V. G. Timoshenko and which allows investigations of the (ED) in the material during longitudinal and torsional vibration (separately and jointly). Tests are made during a homogeneous state of tension on the level of the limit of strength. From the scheme (Fig 1) and the description of the system it is noted that the excitation vibrations are excited by two generators type ZG-10 (one for the longitudinal and the other for the torsional vibrations), the signal is transferred to an amplifier TU-5-3b, which acts on a system of electromagnets. On the sample there is a capacity exciter

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Determination of Energy Dissipation in the Material During Longitudinal  
Torsional Oscillations of Bars

(Fig 2), whose signal is recorded by a valve voltmeter LV-9 and which is taken on cinematic film by a loop oscillograph MPO-2 in the form of vibrograms. A relay MKU-48 is connected with the exciter circuit which switches off the excitation at the moment of vibrogram recording and the sample exhibits free damping vibrations. Test results obtained from samples of steel 20 (0.12% C, 0.40% Mn, 0.032% S and 0.0035% P) are quoted (Fig 4). The following facts are noted: With longitudinal and torsional vibrations occurring at the same time the sample likewise exhibited (after excitation had been stopped) damping vibrations in the longitudinal and torsional direction of the same frequency. The damping value (D) of the torsional vibrations  $\delta_t$  is greater than the (D) of the longitudinal vibrations  $\delta_o$  within the test range of the relevant octahedric tensions. An excitation through torsional vibrations of different tension amplitudes from  $\tau_{min}$  to  $\tau_{max}$  do not cause any change of the longitudinal vibrations. Excitation through longitudinal vibrations causes an increase of the damping of the torsional

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Determination of Energy Dissipation in the Material During Longitudinal  
Torsional Oscillations of Bars

vibrations corresponding to the increase of the amplitude  
of normal tensions. Assuming that microplastic deformation is  
the main factor determining the (ED) in the material within  
the tested range of tension, the test results are explained.  
There are 4 figures and 7 references, 5 of which are Soviet.

ASSOCIATION: Institut metallokeramiki i spetsial'nykh splavov Akademii  
nauk Ukrainskoy SSR  
(Institute of Cermets and Special Alloys of the Academy of  
Sciences of the Ukrainskaya SSR)

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S/124/61/000/009/057/058  
D234/D303

26 2/2 ✓

AUTHOR: Novikov, N.V.

TITLE: On energy dissipation in refractory alloys during vibrations in the conditions of high temperatures

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 9, 1961, 56, abstract 9 V514 (Tr. Nauchno-tekhn. soveshchaniya po dempfirovaniyu kolebaniy, 1958, Kiyev, AN USSR, 1960, 130-133)

TEXT: The author gives data on the damping capacity of four refractory turbine blade materials, represented in the form of graphs of the dependence of logarithmic decrement on normal stress, obtained on the basis of data processing of vibrograms of free damped transverse vibrations of specimens in the conditions of pure bending at normal and elevated (up to 600°) temperatures, also at normal temperatures after heating. [Abstracter's note: Complete translation]

X

Card 1/1



NOVIKOV, N. V.  
ISAKHANOV, G. V.

5

PHASE I BOOK EXPLOITATION

SOV/6342

Pisarenko, Georgiy Stepanovich, Valeriy Trofimovich Troshchenko, Vsevolod Georgiyevich Timoshenko, Vasilii Aleksandrovich Kuz'menko, Georgiy Vakhtangovich Isakhanov, Georgiy Nikolayevich Tret'yachenko, Boris Alekseyevich Gryaznov, Nikolay Vasil'yevich Novikov, Vasilii Nikitich Rudenko, and Rufina Gerasimovna Shumilova

Prochnost' metallokeramicheskikh materialov i splavov pri normal'nykh i vysokikh temperaturakh (Strength of Sintered Materials and Alloys at Room and High Temperatures) Kiyev, Izd-vo Akademii nauk UkrSSR, 1962. 274 p. Errata slip inserted. 2400 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Institut metallokeramiki i spetsial'nykh splavov.

Resp. Ed.: G. S. Pisarenko, Corresponding Member, Academy of Sciences USSR; Ed.: I. V. Lebedev; Tech. Ed.: Yu. B. Dakhno.

Card 1/9

1/2

Strength of Sintered Materials (Cont.)

SG7/2342

**PURPOSE:** The book is intended for engineers, scientific research workers, aspirants, and students concerned with problems of the strength of sintered materials and structural parts.

**COVERAGE:** The book reviews the results of studying the strength, ductility, and elasticity of materials and structures produced by powder-metallurgy methods and presents a critical evaluation on these methods. Particular attention is given to the results of experimental investigation of physical and mechanical characteristics of heat-resistant sintered materials, their properties, and to the description of a number of methods developed for these investigations. Some problems of the theory of the strength of brittle sintered materials and high-porosity ductile materials are discussed. Laws governing changes in characteristics of strength and elasticity under the effect of various factors are outlined. The appendix includes reference tables with data on the basic mechanical characteristics of a number of sintered materials. The assistance of members of the Powder Metallurgy Institute V. I. Kovpak, Yu. A. Kashtalyan, L. V. Kravchuk, A. P. Yakovlev, V. K. Kharchenko, V. K. Kuz'menko, and V. A. Chebotarev is acknowledged. There are 141 references, mostly Soviet.

Card 2/3 2

11/10/62/00 7-12/62 1007  
1105/0075

AUTHORS: BOVIKOV, A.A. Graduate of Technical Sciences, Institute of Metals, USSR Academy of Sciences, Moscow, USSR.

TITLE: Investigation of the fatigue strength and the damping properties of some materials used in turbine engineering.

PERIODICAL: Energomashtroyeniye, no. 12, 1962, 50 - 53.

TEXT: Investigations were carried out on the steel 1Kh13 (1Kh13) (hardened from 1000°C, oil-quenched, followed by tempering at 430, 650 and 750°C, respectively), 0Xh11A2 (0Xh11A2) (hardened in oil from 970°C, then tempered at 600°C and air-cooled), 7Xh13 (7Xh13) (hardened from 950°C in oil, followed by tempering at 600°C and cooling in air) and the titanium alloy Ti-6Al-2V (Ti-6Al-2V) (annealed at 550°C for 2 hours followed by cooling in air). In the experiments, the effective temperature (20 - 500°C), cycle asymmetry, stress concentration, surface quality as well as the irreversible energy dissipation in the material during vibration were taken into account. The fatigue limit of the steel 1Kh13 decreased appreciably from 500°C upwards; for the steel 0Xh11A2 the fatigue limit began to

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5/117/62/000/012/000/0.7  
2194/8535

Investigation of ....

decrease from the yield point to the maximum stress of the cycle in excess of the yield point of the material did not lead to an appreciable drop in the fatigue limit of the steel 14115 (specimens tempered at 750 °C). The surface quality had a considerable influence on the fatigue limit of the steel 14115, particularly at room temperature and especially for specimens subjected to low-temperature tempering; in this case, the fatigue limit increased by 15% as a result of increasing the surface quality from class 4 to class 11. The effect of the surface quality decreased with temperature. For the steel 14115, tempered at 750 °C, the energy dissipation of the material was high and decreased with decreasing tempering temperature; the behaviour was somewhat unusual in as much that in a certain range it increased with decreasing stress; this was attributed to magnetostriction effects and magnetomechanical hysteresis associated therewith. An intensive increase in the logarithmic damping decrement began from 500 - 550 °C with increasing temperature, regardless of heat treatment. A lowering of the energy dissipation in the temperature range 400 - 500 °C was attributed to dispersion-hardening. For the

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S/114/62/000/012/006/007  
E194/E335

Investigation of ....

steels CAHNEFA and OKHNEFA the logarithmic damping decrement increased almost linearly with increasing stress and temperature; a sharp increase in the logarithmic damping decrement was observed above 400 - 450 °C. It was established that there was a definite relationship between the fatigue failure and the change in the logarithmic damping decrement of the steels investigated. The fatigue limit dropped considerably in the same range in which a sharp increase in the logarithmic damping decrement was observed. The sensitivity of the steels to cycle asymmetry increased with increasing value of the latter and their sensitivity to stress-concentration and to surface quality decreased. There are 5 figures and 4 tables.

Card 3/3

NOVIKOV, N.V.

Studied in the theory of materials: Review of papers delivered at  
the Third International Conference on Interactions of the  
United Nations on Peaceful Uses of Atomic Energy, Fiz.-atm. energ.  
mat. 1 no. 1:107-113, 1974. (MIR) 10

1. Institut problem materialov nauki "MIRAN", Moscow, U.S.S.R.  
Submitted December 10, 1974.

NOVIKOV, M.V., SHUL'TS, Sh.T.

Field loader and cleaner of beets equipped with a grab crane  
(from "Sucrierie Francaise," Ap., 1959). Sakh.prom. 34 no.7:72  
Jl '60. (MIRA 13:7)  
(Sugar beets) (Loading and unloading)

NOVIKOV, N.V., inzh.

Industrial testing of BU-1 drilling equipment. Ugol' 38 no. 3:12-  
49 Mr '63. (MIRA 18:3)

1. Trest Kadiyevpodzemshakhtostroy.



NOVIKOV, N.V., inzhener.

Revising instructions for the determination of stopes which  
a danger of silicosis. Ugol' 32 no.2:40-41 F '57.

(MLRA 10:3)

1. Treat Kadiyevshakhtostroy.  
(Coal mines and mining--Safety measures)  
(Mine dusts)

TOROPOV, P.I., inzh.; NOVIKOV, N.V.

Boring and blasting in mines under construction. Bezop.truda v prom.  
2 no.9:10-11 S '58. (MIRA 11:9)

1.Kombinat Liganskshakhtostroy (for Toropov). 2.Trest Kadiyevshakhtostroy (for Novikov).

(Mining engineering)

GREKOV, A.G.; REPIN, I.V.; NOVIKOV, N.V.

Rapid ventilation crosscutting. Shakht. stroi. no.5:23-25 '58.  
(MIRA 11:6)

1. Kombinat Luganskshakhtostroy.  
(Mining engineering)

GREKOV, A.G., inzh.; KOVLIKOV, M.F., inzh.

Controlling methane emanations during development mining operations.  
Shakht. stroi. no.6:4-6 '58. (MIRA 11:6)

1.Kombinat Luganskshakhtostroy.  
(Mine gases)

VELIKIY, I.G., inzh.; NOVIKOV, N.V., inzh.

Driving inclines in gas-bearing rocks. Shakht. stroi. no.12:1P-20  
D '59. (MIRA 13:3)

1. Trest Kadiyevshakhtostroy.  
(Mining engineering) (Mine gases)

GREKOV, A.G., inzh.; RYBALEIN, G.I., inzh.; NOVIEOV, N.V., inzh.

Stope mining with hydraulic breaking down of the coal and rock.  
Shakht. stroi. no.12:20-22 D '59. (MIRA 13:3)

1. Kombinat Luganskshakhtostroy.  
(Hydraulic mining)

NOVIKOV, N.V.; REPIN, I.V.

Roof bolting of Kadievshakhtroi trust mines in the Lugansk Economic  
Council. Ugol' 34 no.1:38-41 Ja '59. (MIRA 12:1)  
(Donets Basin--Mine roof bolting)

NOVIKOV, N.V., inzh.

Developing mining in water-bearing ground with help of drainage  
boreholes. Shakht.stroi. no.1:21-23 Ja '60.

(MIRA 13:5)

1. Treat Kadiyevshakhtostroy.  
(Mining engineering) (Mine drainage)



NOVIKOV, N.V.; MASHKOV, M.P.

Compressed-air pusher for mine cars. Shakht.stroi. 4 no.2:23-24  
P '60. (MIRA 13:5)

1. Trest Kadievshakhtostroy.  
(Mine railroads--Cars)  
(Pneumatic machinery)

NOV. 07, 1961, 10:00 AM.

Info. from. Subject. Ref. 5. No. 2: 11/1/61. 1: 1  
(See also and also. —Hydro. — 1/1/61)

VELIKIY, I.G., inzh.; NOVIKOV, N.V., inzh.; SOKOLOV, A.Kh.;  
SIRCHENKO, I.P.

I.S. Rod'kin's book "Ventilation in the course of mine building."  
Shakht. stroi. 5 no.8:30 Ag '61. (MIRA 16:7)

1. Treat Kadiyevpodzemshakhtostroy (for Velikiy, Novikov).
2. Shakhta Mariya-Glubokaya (for Sokolov). 3. Shakhta  
Krasnopol'ye-Glubokaya (for Sirchenko).  
(Mine ventilation)

VELIKIY, N.V., inzh.; NOVIKOV, N.V., inzh.

Experiment in using explosive cartridges with a larger diameter.  
Shakht.stroi. 6 no.1.25-26 Ja '62. (MIRA 14:12)

1. Trest Kadiyevpodzemshakhtostroy.  
(Coal mines and mining--Explosives)

VELIKIY, I.G., inzh.; NOVIKOV, N.V., inzh.

Rapid sinking of ship shafts in the Mel'nikov No. 7 Mine. Start.  
stroi. 6 no.3:23-24 Mr '62. (MIRA 1962)

1. Trest kadiyevpodzemshakhtostroy.  
(Shaft sinking)

VELIKIY, I.G., inzh.; NOVIKOV, N.V., inzh.; VEREMEYEVA, L.V., inzh.

Operating the BU-1 drill. Shakht. stroi. 6 no.5:28-29 My '62.  
(MIRA 15-7)

1. Trest Kadiyevpodzemshakhtostroy.  
(Boring machinery)

NOVIKOV, N.V., inzh.; GRIGOR'YEV, L.K., inzh.

The "BU-1" drill in the Lugansk mines. Ugol' Ukr. 6 no.6:29-30  
Je '62. (MIRA 15:7)

(Donets Basin--Rock drills)

NOVIKOV, N.V., gornyy inzh.; SHIL'MAN, Ye.L., gornyy inzh.

Radio communication in ~~shaft~~ sinking in the Mel'nikov Mine  
No.7. Ugol' Ukr. 6 no.11:36 N '62. (MIRA 15:12)

1. Trest Kadiyevpodzemshakhtostroy.  
(Donets Basin--Radio in mining)



VELIKIY, I. G., inzh.; NOVIKOV, N. V., inzh.

Experience in the work with explosive charges with an increased diameter. Ugol' 37 no.10:30 0 '62. (MIRA 15:10)

1. Trest Kadiyevpodzemshakhtostroy.

(Donets Basin—Coal mines and mining—Explosives)

SHIL'MAN, Ye.L., inzh.; NOVIKOV, N.V., inzh.; BARDANOV, B.P., inzh.

Sinking of vertical shafts with the help of deep, blastholes.  
Shakht. stroi. 8 no.9:26-27 s. 124. MIRA 17:12

1. Treat Kadiyevpodzemshakhtostroy.

NOVIKOV, N.V.

Mining with the help of the BOS machine. Shakht. stroi. 9 no.3:  
25 Mr 165. (MIRA 1947)

1. Trest Kadiyevpodzemshakhtostroy.

NOVIKOV, N.V., kandidat meditsinskikh nauk (Stalino)

Professor A.G. Eltskii. Ortop., travm. i protez. i7 no.4:71-72 J1-Ag  
'56. (MIFA 9:12)

(ELTSKII, ALEKSANDR GRIGOR'EVICH, 1884- )

NOVIKOV, N.V., kandidat meditsinskikh nauk

Use of a fibrin film for interposition in arthroplasty. Ortop.  
travm. i protez. 17 no.6:65-66 N-D '56. (MIRA 10:2)

1. Iz kafedry gosptital'noy khirurgii No.2 (zav. - prof. A.G.Yeletskiy)  
Kiyevskogo meditsinskogo instituta im. akad. A.A.Bogomol'tsa (dir. -  
dotsent I.P.Aleksyenko)

(JOINTS, surg.

arthroplasty, interposition of fibrin film)

NOVIKOV, N.V., kandidat meditsinskikh nauk

Surgical treatment of congenital pseudoarthrosis of the shin bones.  
Ortop., travm. i protez. 18 no.2:48-49 Mr-Ap '57. (MIRA 10:8)

1. Iz kafedry gosptal'noy khirurgii No.2. (zav. - prof. A.G.Yeletkiy)  
Kiyevskoye meditsinskogo institute im. akad. A.A.Bogomol'tsa (dir. -  
detsent I.P.Aleksayenko)

(TIBIA, abnorm.  
congen. pseudoarthrosis, surg.)

(FIBULA, abnorm.  
same)

(PSEUDOARTHROSIS, surg.  
congen. of tibia & fibula)

NOVIKOV, N.V., kand.med.nauk

Substitution of the fibula for clavicle. Ortop.travn. i protez.  
19 no.5:80-83 S-O '58 (MIRA 11:12)

1. Iz Stalinskogo nauchno-issledovatel'skogo instituta travmatologii  
ortopedii i protezirovaniya (dir. - kand.med.nauk N.V. Novikov).

(FIBULA, transpl.

clavicle substitution (Rus))

(CLAVICLE, surg.

substitution with fibula (Rus))

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(EPIPHYSIS--DISEASES)



NOVIKOV, N.V., dots.

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bones. Nov.khir,arkh. no.4:43-48 '62. (MIRA 15:5)

1. Kafedra ortopedii i travmatologii (zav. - chlen-korr. AMN SSSR,  
zastupitel' nauki, prof. F.R. Bogdanov) Kiyevskogo instituta  
usovershenstvovaniya vrachey.  
(BONES--DISEASES) (PSEUDARTHROSIS)

NOVIKOV, N.V. (Kiyev)

Viremia in influenzal infection. Vrach.delo no.3:101-104 Mr '63.  
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1. Institut infektsionnykh bolezney Ministerstva zdravookhraneniya  
UkrSSR.

(INFLUENZA)

NOVIKOV, N.V., prof.

Aleksandr Grigor'evich Eletskiĭ, 1884-1964; an obituary.  
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Bleaching

Peroxide bleaching of heavy shoe while stretched. Tekst. prom., 12, No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 195~~1~~<sup>2</sup>, Uncl.

NOVIKOV, N.V.; GOLUBEVA, S.K., inzhener-khimik.

Finishing mixed clothing fabrics made from staple thread. Tekst.  
prom. 14 no.8:45-48 Ag '54. (MLRA 7:10)

1. Zavednyushchiy krasil'no-otdelochnoy fabrikoy Yegor'yevskogo  
melanshevogo kombinata (for Novikov)  
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Emulsions for heavy suiting. Tekst.prom. 14 no.10:48 0 '54.  
(MLBA 7:10)

1. Zaveduyushchiy krasil'no-otdelochnoy fabrikoy Yegor'yevskogo melanzhevogo kombinata (for Novikov). 2. Zanesitel' zaveduyushche-go fabrikoy (for Golubev). 3. Zaveduyushchiy khimlaboratoriyey (for Mel'nikova).

(Sizing (Textile))

LAPSHIN, N.P.; CHELNOKOVA, L.M., inzhener; YEFIMOV, A.A., nachal'nik len-  
tochno-rovnihnogo tsakha; STERIN, L.I.; RYTOV, H.S.; NOVIKOV, H.V.;  
KABANOVA, Ye.V.; BASHKER, A.F.; KLEYENKINA, L.G.; IVANOV, N.Ye.;  
YUSHAKOV, A.N., inzhener.

Readers' efficiency suggestions. Tekst.prom.17 no.1:37-43 Ja '57.  
(KERA 10:2)

1. Fabrika "Krasnaya Talka (for Chelnokova). 2. Prepodavatel'  
Morshanskogo tekstil'nogo tekhnikuma (for Sterin). 3. Nachal'-  
nik otdel'nogo tsakha Shuyskoy ob'yedinennoy fabriki (for Iva-  
nov).

(Textile industry)

L 11224-67 ENT(1) CW

ACC NR: AP6029349

(A)

SOURCE CODE: UR/0256/66/000/006/0068/0069

AUTHOR: Novikov, N. V. (Engineer; Colonel)

12

ORG: None

TITLE: Soil compaction

SOURCE: Vestnik protivovozdushnoy oborony, no. 6, 1966, 68-69

TOPIC TAGS: runway construction, soil mechanics

ABSTRACT: The effect of rolling in compacting the soil for airstrips is considered in connection with the physical properties of the soil, its mechanics and granularity. The classification of soils is reviewed and various simple methods (by rubbing and feeling) for estimating properties of clay and sand are summarized in a table. The selection of roller pressure for various kinds of soil is also briefly discussed and reflected in a table. The effect of moisture is taken into account and the variation of the ultimate strength of cohesive soils with the increase of moisture is graphically illustrated. It is recommended that the cohesive soils be compacted during dry weather. In this case, heavy rollers can effectively be used. A 45 to 48-pct moisture content is recommended for compacting sands. In the case of variable moisture (rain, etc.), rollers of a suitable type and weight are to be applied. In general, it is desirable that an airfield be provided with a set of 5-ton rollers of metal type, two 10-ton rollers equipped with

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NOVIKOV, N.V., prof. (Kiyev 21, ul. Kirova dom 16, kv. 3)

Maluniting and malunited fractures of tubular bones. (ortop.,  
travm. i protez. 26 no. 1941-48 0 '65. (MIRA 18:12)

1. Iz kafedry ortopedii i travmatologii (zav. - chlen-korrespon-  
dent AMN SSSR - prof. F.R. Bogdanov) i kiyevskogo instituta  
usovershenstvovaniya vrachev (rektor - dozent M.N. Umorlat).  
Submitted Dec. 29, 1964.

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3/135/62/055/002/007/010  
AG06/A101

12300

1573

AUTHORS Kondrat'yev, B. V., Novikov, N. Ya., Andreyev, I. I., Engineers

TITLE Pipewelding with the aid of television technique

PERIODICAL Svarochnoye proizvodstvo, no. 2, 1962, 40

TEXT. To assure high-quality internal pipe welds, the Khartsyzsk Pipe Plant employed a ПТУ-ОМ1 (PTU-OM1) type television set on a machine intended for the high-speed two-sided welding of internal pipe joints. The TV set assures the necessary accuracy of image transmission. The transmission camera is equipped with lens ИО-3 (Yu3). It is rigidly connected with the welding torch and directed toward the edges of the blank to be welded. The device is designed in such a manner that the distance between the edge butt and the lens varies only slightly when welding pipes of various diameters. To eliminate the effect of distance variations, the lens is diaphragmed. The sight, which must coincide with the edge butt of the blank on the screen, is glued directly on the ЛИ-23 (LI-23) vidicon. The receiving TV set is built into the control desk containing the control mechanisms and the buttons to correct the location of the blank and to make the edge butts of the blank coincide with the sight axis and the

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Pipewelding with the aid of television technique

electrodes. Due to the tenfold magnification of the lens, even insignificant deviations of the edges from the required position can be observed. To assure 24-hour operation of the machine, both the transmission and the receiving camera are cooled with compressed air. The butt is illuminated (200 - 300 lux) by two 50-watt tubes. The use of TV for the internal welding of pipes raises the reliability of the weld joints, reduces rejects due to poor fusion and shifted welds, increases the welding speed, and facilitates operation. There are 2 figures. X

ASSOCIATION: Khartsyzskiy trubnyy zavod (Khartsyzsk Pipe Plant)

Card 2/2

NOVIKOV, N. Ye.

NOVIKOV, N. Ye. "Investigation of the Process of Pressing Paper and  
Cardboard on Two-roll Presses." Min Higher Education  
USSR. Leningrad Order of Lenin Forestry Engineering  
Academy imeni S. M. Kirov. Leningrad, 1956.  
(Dissertation for the Degree of Candidate in Technical  
Science)

So: Knizhnaya Letopis', No. 18, 1956,