

LEVENEV, K.S., doktor med.nauk (Leningrad, Saburovskaya r.Moyki d.18,  
kv.24); STRUKOV, M.V.

Indices of the results of prosthesis following amputations,  
diseases and lesions of the locomotor apparatus. Ortop.,  
travm. i protez. 25 no.12:18-23 D '64.

(MIRA 19:1)

1. Iz Leningradskogo instituta protezirovaniya (direktor -  
dotsent M.V. Strukov). Submitted January 23, 1964.

Journal of the Iron and Steel  
Institute  
Vol. 175 Part 3  
Mar. 1954  
Foundry Practice

Mechanization of Making Up the Charge and of Charging  
Cupolas with Skip Hoists. I. Z. Belotat'ski and N. A.  
Serebrennikov. *Trudy Zavodskogo Nauchno-Issledovatskogo  
Instituta, 1953, 3, (3), 15-18.* [In  
Russian.] Mechanical methods for charging cupolas and  
making up the charge are compared, the rate of production for  
each method is best suited being considered. (R. K.)

Met 2

STRUKOV, N.A., inzhener.

Automatic forming of piston ring molds. Mekh.trud.rab. 7 no.5:44-45 My  
'53. (MLKA 6:5)  
(Founding)

GUBKIN, S.I.; YUSHKOV, A.V.; STRUKOV, N.A.

Changes in mechanical properties and plasticity of 40KhN and  
40Kh steels. Sbor.nauch.trud.Fiz.-tekh.inst.AN BSSR no.1:26-  
38 '54.

(MIRA 10:1)

(Steel alloys--testing) (Metals, Effect of temperature on)

51-4-9/26

**AUTHORS:** Nosenko, B. M., Strukov, N.A. and Yagudayev, M. D.

**TITLE:** Luminescence of Crystal Phosphors on Excitation with Ions.  
(Lyuminestsentsiya kristallofosforov pri vozbuzhdenii ionami.)

**PERIODICAL:** Optika i Spektroskopiya, 1957, Vol.III, Nr.4, pp.351-355. (USSR).

**ABSTRACT:** This paper was read at the Fifth All-Union Conference on Luminescence (Tartu, June 1956). It reports results of the work on luminescence on excitation with ions, carried out in the Department of Physics in Mid-Asian State University imeni V.I. Lenin, in Tashkent. The work was partly published in the local journals (Refs.1-4). Ions of "medium" energies were employed. These "medium" energies are defined as the energies at which no ionization occurs due to the Coulomb interaction in the motion of the particles. The upper limit of such "medium" energies is of the order of 5-100 keV, depending on the ionic mass. Only a small number of papers have appeared so far on luminescence due to ionic excitation

Card 1/6

01-4-9/26

## Luminescence of Crystal Phosphors on Excitation with Ions.

(Refs. 5-8). The present authors used comparison of ionoluminescence with cathodoluminescence as the basis of their measurement. The same place on the screen was irradiated by an ion beam and an electron beam. One source of ions and electrons was used, together with a focussing system and a receiver, which included the screen. Uniformity of the ionic beam was controlled by magnetic analysis. To avoid charging of the screen (on which phosphor was placed) by the ion beam, the phosphor was a thin layer (0.3-0.5 mg/cm<sup>2</sup>) on an aluminium base, and it was excited by ion pulses of low density. To improve the conductivity of the phosphor it was heated during measurement. The main series of measurement was made on willemite. Ionoluminescence of ZnS-Ag, ZnS ZnSCdS-Cu, CaSO<sub>4</sub>-Mn, CaMgSi<sub>2</sub>O<sub>6</sub>-Ti, and sublimates KI-Tl, NaI-Tl, CdBr<sub>2</sub> and CdI<sub>2</sub>, activated with Mn and Pb. The phosphors were excited with positive ions of alkali metals of energies from 0.5-6 keV. The spectral distribution and brightness of emission, and their dependences on the type of exciting ion, on its energy and on the degree of irradiation (ageing effect) were studied.

Card 2/6

31-4-9/26

Luminescence of Crystal Phosphors on Excitation with Ions.

The spectral distribution of emission was the same for  
iono- and cathodoluminescence. Ageing of phosphors under  
the action of ions does not change the spectral distri-  
bution of emission. Brightness of emission is proportion-  
al to ionic-current density (from  $10^{-10}$  to  $10^{-6}$  A/cm<sup>2</sup>).  
The light yield on ionoluminescence depends on the type of  
ion (heavier ions excite the phosphor less). Table 1  
gives values of the ratio of the light yield of iono-  
luminescence to the light yield of cathodoluminescence  
(at the same energies) for the phosphor Zn<sub>2</sub>SiO<sub>4</sub>-Mn,  
using Li, Na, K and Cs ions of 1.2-6.0 keV. For other  
phosphors the values of this ratio are of the same order.  
Under the action of ions the phosphor is decomposed and  
its luminescent properties deteriorate. The rate of  
decomposition of a phosphor by various ions of the same  
energy is the same; it rises with the ion energy. The  
rate of decomposition of various phosphors is very different.  
Nichtl (Ref.9) found that the rate of ageing on ion  
irradiation in phosphors based on zinc sulphide does not  
depend on the activator concentration. The present

Card 3/6

51-4-9/26

Luminescence of Crystal Phosphors on Excitation with Ions.

authors found the same to be true for the phosphor  $\text{CaSO}_4\text{-Mn}$ . Decomposition (ageing) due to Na, K and Cs ions is irreversible. Decomposition by Li ions is partly reversible. The process of ageing is due to structural damage produced by the moving ion in the crystal. The results obtained in the study of ionoluminescence may be used to explain certain aspects of interaction of ions with solids. Although the path of an ion in a crystal is much less than the path of an electron of the same energy, the density of ionization (or, more correctly, the density of excitation) due to an ion is of the same order as that of an electron. The mechanism of ionization proposed is that on approach of an ion to an atom in a crystal, and on displacement of such an atom, a strong deformation of the electron clouds occurs. In such a process the excess of potential energy may be transferred as the energy of excitation to the electrons in such clouds. Depth of the action of the ions in a crystal can also be found from ionoluminescence. This was done as follows. First the phosphor was irradiated with ions until luminescence was

Card 4/6



51-4-9/26

Luminescence of Crystal Phosphors on Excitation with Ions.

destroyed (the ageing effect discussed above) in the layer penetrated by ions. The depth of this layer was measured by comparing cathodoluminescence on a fresh and an aged phosphor; in the latter case electrons had to traverse the layer in which luminescence was destroyed by ions before they (electrons) could excite the phosphor. Table 2 shows the estimates of depth of penetration (in Å) of Li, Na, K and Cs ions of 2.4-6.0 keV in willemite. This depth of penetration by ions is found to increase with ion energy. Once again the behaviour of lithium was quite different from that of the other three ions. A method similar to that just described for measurement of the penetration depth can be used to find thickness of the layer removed (pulverized) by irradiation of a phosphor with ions. There are 2 tables and 11 references, 5 of which are Slavic.

Card 5/6

51-4-9/26

Luminescence of Crystal Phosphors on Excitation with Ions.

ASSOCIATION: Chair of General Physics, Central Asia State University,  
Tashkent. (Kafedra obshchey fiziki Sredneaziatskogo  
gosudarstvennogo universiteta, Tashkent.)

SUBMITTED: January 31, 1957; submitted to the Editor of  
"Izvestiya AN SSSR" on December 8, 1956.

AVAILABLE: Library of Congress.

Card 6/6

SUBJECT: USSR/Luminescence

48-011/FF

AUTHORS: Nosenko, B.M., Strukov, N.A. and Yagudayev, M.D.

TITLE: Luminescence of Crystallophosphors Excited by Ions (Lyuminest-sentsiya kristallofosforov pri vzbuzhdenii ionami)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21, #5, pp 701-703 (USSR)

ABSTRACT: The following phosphors:  $Zn_2SiO_4$ -Mn; ZnS-Ag;  $CaSO_4$ -Mn; CuS; CdS-Cu, and sublimate phosphors: KJ-Tl; NaJ-Tl;  $CdBr_2$ ;  $CdJ_2$ , activated by Mn and Pb were investigated. The excitation was performed by positive ions of Li, Na, K, Pb and Cs with energies from 0.5 to 6 kev.

The basic method of investigation was comparison of ionoluminescence with cathodoluminescence.

Results of this investigation are as follows:

The spectral composition of ionoluminescence does not differ from that obtained by electronic excitation.

Card 1/3

TITLE:

Luminescence of Crystallophosphors Excited by Ions (Lyuminest-sentsiya kristallofosforov pri vzbuzhdenii ionami)

The luminescence spectra of a "fresh" phosphor and a phosphor subjected to a prolonged irradiation by an ion beam are the same. The brightness of luminescence is proportional to the density of ion current and linearly depends on ion energy.

The light output of ionoluminescence depends on the mass of ions. For willemite it amounts to 4 % of cathodoluminescence output at excitation by  $\text{Li}^+$  and about 0.5 % at excitation by  $\text{Cs}^+$ . This quantity is different for various phosphors.

The deterioration of luminescence (aging) of a phosphor is determined by the density of irradiation. The speed of aging is different with various phosphors and does not depend on the concentration of activator. Zinc-sulfides are most liable to aging, and alkali-haloid sublimate-phosphors are the least liable.

A scheme of the aging process and mechanism of ionization, which is brought about by a heavy particle in the solid body, is suggested by the authors.

The report was followed by a discussion.

Card 2/5

48-5-31/56

TITLE: Luminescence of Crystallophosphors Excited by Ions (Lyuminest-sentsiya kristallofosforov pri возбuzhdenii ionami)  
One Russian reference is cited.

INSTITUTION: Central-Asian State University im. Lenin

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress.

Card 3/3

STRUKOV, N.A., inzh.

Effect of temperature on changes in mechanical properties and the  
deformation of alloy steels. Mash.Bel. no.6:63-77 '59.

(MIRA 13:6)

(Steel alloys--Testing)

S/123/60/000/011/002/007  
A033/A133

AUTHOR: Strukov, N. A.

TITLE: Mechanization and automation of foundry shops of big-lot and mass production

PERIODICAL: Liteynoye proizvodstvo, no. 11, 1960, 2 - 8

TEXT: The author gives a detailed description of the various prerequisites necessary for the mechanization and automation of foundry processes and enumerates a number of automatic installations which have been developed during the last year in the Soviet Union. He points out that an efficient utilization of conveyer-type casting lines is only possible if specialized and mechanized installations for the preparation and reconditioning of molding mixtures are provided for each automatic casting line. During the last years quite a number of molding automatics have been designed in the Soviet Union, including the rotary four-position jar-ramming machines of the Giproavtoprom type ГТЗ (STZ), ЗИЛ (ZIL), АФК-4-1 (AFK-4-1) and АФК-4-2 (AFK-4-2), the models 94265 and 94267 developed by NIILITMASH, intended mainly for molds of medium size, the rotary six-position jar-ramming machines of Rostsel'mash, NIILITMASH and Orgstankiprom design, the rotary four-position sand- ✓

Card 1/4

S/128/60/000/011/002/007

A033/A133

Mechanization and automation of laundry shops ...

blowers of NIITAvtoprom for small-sized molds, the two-position shuttle-automatic of the "Krasnaya Presnya" Plant and a number of other molding automatics intended for the manufacture of molds with the dimensions 1,000 x 600 mm, although it is necessary to produce molding automatics which are able to manufacture molds of 1,500 x 1,000 mm. The author points out that with the utilization of multi-positioned rotary automatics it should be possible to mold on each position different castings, i.e. to mold the same number of different items as the automatic has positions. An automatic shaking out of the molds will be facilitated in future by using drags without cross pieces, as they are already employed by the GAZ, ZIL, KATZ, STZ, MTZ and other plants. Although the use of drags with cross pieces complicates the automation of shaking out operations these difficulties have already been overcome for the production of cylinder blocks at the GAZ Plant. The author points out that the further improvement of automatic shake out installations for drags with cross pieces will play an important role for the automation of shaking out operations. Automatics of the shuttle and rotary type are the most efficient for the big-lot production of cores. Recently the models 914 and 928 automatic sandblowers have been developed by the "Krasnaya Presnya" Plant equipped with two tilting and drawing installations each. It is necessary to equip also the 28B-3, 28B-5, 28B-7, 28B-9 and 28A-10 core sandslingers with tilting mechanisms. For dry-

Card 2/4



S/12c/60/000/011/002/007  
A033/A133

Mechanization and automation of foundry shops ...

ing purposes the most efficient drier is of the vertical conveyer-type with automatic loading and unloading. The author points out that, since every molding line requires a special metal grade for the castings which are produced on these lines, each casting line should be provided with its own cupola furnace, because this will contribute to reduce rejects, increase the casting quality, etc. The automation of molding and core mixture preparation and reconditioning is effected with the aid of the models 115 and 116 centrifugal mixers. The author then gives a survey on the transportation and hoisting equipment necessary for the automation and mechanization of foundry processes and emphasizes the necessity of eliminating as far as possible manual work in the cleaning sections of foundry shops in order to relieve the workers from the hard physical labor and improve the sanitary conditions. The author then enumerates the machinery necessary for the mechanization and automation of cleaning operations, like semi-automatic emery grinders, which for mass production castings should be incorporated in special flow lines, electro-contact equipment for the deburring of castings, suspension conveyers of the pusher type with program control, etc. The author then comments on the storage organization which, in mechanized and automated foundry shops should ensure a high degree of mechanization of loading and unloading operations. Despite the improvements which have been achieved in the mechanization and automation of foundry

Card 3/4

Mechanization and automation of foundry shops ...

S/128/60/000/011/002/007  
A033/A133

production the author considers the present stage of automation in foundry shops of big-lot and mass production as being still unsatisfactory. He criticizes the fact that, although quite a number of new projects in this field have been developed, their realization is lagging behind, and cites a number of examples for an incomplete automation and mechanization in some foundry shops. He then touches the problem of improving the labor conditions in foundry shops which will contribute to increase the production and comments on some new automated and mechanized molding and casting lines which he describes in detail. There are 7 figures.

Card 4/4

20813

S/048/61/025/003/001/047  
B104/B2019.6150  
24.3500 (1137, 1138, 1395)

AUTHORS: Nosenko, B.M., and Strukov, N.A.

TITLE: Excitation of crystal phosphors by ions

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya,  
v. 25, no. 3, 1961, 314 - 317

TEXT: This is a reproduction of a lecture delivered at the 9th Conference on Luminescence (Crystal Phosphors), which took place in Kiyev from June 20 to 25, 1960. The authors examined the luminescence and the change of properties of the following phosphors: ZnS-Ag (K-5), 55% ZnS-45% CdS-Ag (L-4), 62% ZnS-38% CdS-Ag (K-38), 90% ZnS-10% CdS-Cu (L-10), ZnO-Zn (K-20), Zn<sub>2</sub>SiO<sub>4</sub>-Mn (K-35), CaWO<sub>4</sub> and CaSO<sub>4</sub>-Mn. These phosphors with Li<sup>+</sup>, Na<sup>+</sup>, K<sup>+</sup>, Rb<sup>+</sup> and Cs<sup>+</sup> ions were excited with energies of up to 6 kev. The brightness of luminescence was proportional to the current density ( $10^{-10} - 10^{-8}$  a/cm<sup>2</sup>). At low ion energies, the brightness E is a parabolic function, while at high ion energies it is a linear function of the ion energy. The threshold energy is between 1.5 and 0.7 kev. Table 1 gives the

Card 1/5

20813

S/048/61/025/003/001/047

B104/B201

Excitation of crystal phosphors ...

values  $B = E_{\text{N}}/E_{\text{E}}$  (in %) for an ion energy of 6 kev. Here,  $E_{\text{N}}$  is the brightness at ion excitation,  $E_{\text{E}}$  the one at cathode luminescence under otherwise equal conditions. Phosphor aging caused by ion excitation leads to a drop of brightness; the individual phosphors differ by the course of the aging process. On irradiation by a charge of  $Q_{1/2} = 6 \cdot 10^{-8}$  Coulomb/cm<sup>2</sup> =  $5 \cdot 10^{11}$  particle/cm<sup>2</sup> the brightness of the second and third abovementioned phosphor (Group 1) drops to 50%, while it drops to 2 - 5% at a radiation dose of  $5Q_{1/2}$ . The last three phosphors possess a  $Q_{1/2} = 4.5 \cdot 10^{12}$  particle/cm<sup>2</sup>, and the aging process of these three phosphors, which form group 2, has a hyperbolic course. The remaining phosphors form group 3. They possess a  $Q_{1/2} = (0.5 - 1.5) \cdot 10^{12}$  particle/cm<sup>2</sup>, and aging stops at about  $5Q_{1/2}$ , where brightness then amounts to 15 - 30%. In ZnO-Zn and CaWO<sub>4</sub> phosphors, energy and mass of the ions make themselves noticeable with aging. A study of the excitation depth of a crystal and the depth of crystal destruction, as a consequence of which aging occurs, showed that

Card 2/5

S/048/61/025/003/001/047  
B104/B201

Excitation of crystal phosphors ...

the inequality  $d_e > d_d$  holds, where  $d_e$  is the excitation depth and  $d_d$  the destruction depth. This is explained by the fact that any luminescence vanishes under sufficiently long ion irradiation. Relation  $d_{od} = bV_n^\beta$  is obtained in an estimation of the depth of the complete crystal destruction. In this relation,  $V$  is the ion energy,  $d_{od}$  in  $Mg/cm^2$ ,  $b$  and  $\beta$  being given in Table 2. This relation exhibits an error of 5 - 30% and is derived from the threshold energy of cathodoluminescence. There are 2 tables and 6 references: 3 Soviet-bloc and 3 non-Soviet-bloc. The 3 references to English language publications read as follows: Young J.R., J.Appl.Phys., 27, 1 (1956), Young, J.Appl.Phys., 28, 524 (1958), Ehrenberg W. et al., Proc. Phys.Soc. B., 60, 1059 (1953). X

ASSOCIATION: Kafedra optiki Tashkentskogo gos. universiteta im. V.I. Lenina (Department of Optics of Tashkent State University imeni V.I. Lenin)

Card 3/5

Excitation of crystal phosphors ...

20813  
S/048/61/025/003/001/047  
B104/B201

Таблица 1

Значения  $B = E_n/E_0$ , при  $V = 6 \text{ keV}$  (в %)

Ион	ZnS - Ag	ZnS.CdS - Ag	ZnS.ZnSc - Ag	ZnS.CdS - Cu	ZnO-Zn	Zn <sub>2</sub> SiO <sub>4</sub> - Mn	CaWO <sub>4</sub>	CaSO <sub>4</sub> - Mn
Li <sup>+</sup>	2,2	5	3,1	3	5,8	—	6,4	6,7
Na <sup>+</sup>	—	1	—	—	5	2,9	2,5	—
K <sup>+</sup>	1	1	0,8	2,3	4,5	2	1,8	1,8
Rb <sup>+</sup>	0,7	0,35	0,1	—	—	1,3	1,1	1,4
Cs <sup>+</sup>	0,15	0,35	0,1	0,95	4,0	0,8	0,7	0,8

Card 4/5

20813  
S/048/61/025/003/001/047  
B104/B201

Excitation of crystal phosphors ...

Таблица 2

Фосфор	Li		Na		K		Rb		Cs		Среднее значение <sup>1)</sup>
	b	β	b	β	b	β	b	β	b	β	
ZnS — Ag	14	0,72	9,5	0,65	9,5	0,57	7,5	0,5	4,1	0,68	0,64
ZnS.CdS — Ag	5	0,86	3,3	0,87	3,0	0,74	3,0	0,7	3,0	0,7	0,78
ZnS.ZnSe — Ag	3,9	0,74	7	0,68	7	0,64	0,5	7	—	—	0,79
ZnS.CuS — Cu	2,8	1,24	2,4	1,08	3	0,85	1,65	1,1	1,65	0,93	1,0
ZnO — Zn	2	1,15	—	—	1,1	1,1	1,2	0,85	—	—	0,93
Zn <sub>2</sub> SiO <sub>4</sub> — Mn	—	—	1,7	1,0	1,4	1,0	1,25	0,92	0,87	1,25	0,95
CaWO <sub>4</sub>	2	0,92	1,1	0,9	1	0,9	1	0,9	0,85	0,9	0,9
CaSO <sub>4</sub> — Mn	3,5	0,95	—	—	1,6	0,95	1,2	0,95	1,0	0,9	0,94
Среднее значение <sup>1)</sup>	—	0,94	—	0,86	—	0,84	—	0,81	—	0,84	0,86

Legend to Table 2: 1) mean values

Card 5/5

STRUKAW N. A.

ACCESSION NR: AP4025750

S/0201/64/000/001/0113/0121

AUTHOR: Strukaw, M. A.

TITLE: Investigation of the deformation of alloyed steels

SOURCE: AN BSSR. Izv. Seriya fiziko-tekhnicheskikh nauk, no. 1, 1964, 118-121

TOPIC TAGS: steel deformation, 40Kh steel, 40 KhN steel, deformation resistance

ABSTRACT: The plastic properties and deformation resistance of type 40Kh and 40 KhN pressure worked steels were investigated. On the basis of the results a method is proposed for plotting optimum thermomechanical regimes in the plastic working of metals. Tension and compression under static and dynamic forces were studied from 293 to 1473° K at 100° intervals. The results show the effect of temperature and the rate and degree of deformation on the plasticity, deformation resistance, and rupture point of the alloys investigated. Diagrams for plasticity, deformability, and deformation resistance are plotted for the given temperature intervals. Diagrams of specific resistance at different deformation rates show the effect of temperature and rate on deformation resis-

Card 1/2



ACCESSION NR: AP4025750

tance. The author concludes that resistance to deformation increases with increases in the rate of deformation, especially at high temperatures. The method makes it possible to determine the best technological process for plastic working of metals at given temperatures and rates of deformation, and to determine the temperature intervals which will make maximum use of the plastic properties of metals.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 10Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 002

OTHER: 000

Card 2/2

ACCESSION NR: AP4040924

S/0250/64/008/005/0304/0308

AUTHOR: Strukov, N. A.

TITLE: Effect of deformation rate on the resistance to deformation and ductility of alloy steels at high temperatures

SOURCE: AN BSSR. Doklady\*, v. 8, no. 5, 1964, 304-308

TOPIC TAGS: alloy steel, deformation rate, deformation rate effect, deformation resistance, deformation specific work, temperature effect, high temperature testing, tensile strength, ductility, 40Kh alloy steel, 40KhN alloy steel

ABSTRACT: The effect of deformation rate and temperature on the deformation resistance of structural steels 40Kh and 40KhN was investigated. The deformation resistance was tested by the upsetting of cylindrical specimens 9 mm in diameter and 12 mm high and by conventional tensile tests: both types of tests were conducted at temperatures from 20 to 1200C. The upsetting rates used were 0.117 and 8800 mm/sec, with corresponding deformation rates of 0.01 and 736 sec<sup>-1</sup>. The tension rates were 0.083 and 6200 mm/sec, with corresponding

Card 1/2

YEGOYAN, V.L. [translator]; ZHABREV, I.P. [translator]; KOLCHANOV, V.P.  
[translator]; MOISEYEVA, V.M. [translator]; PETRENKO, V.S.  
[translator]; PETRENKO, I.M. [translator]; STRUKOV, N.D.  
[translator]; TITOVA, N.A. [translator]; KHAIN, V.Ye., red.;  
ROMANOVICH, G.P., red.; REZOUKHOVA, A.G., tekhn.red.

[Present-day studies of the tectonics of foreign countries]  
Voprosy sovremennoi zarubezhnoi tektoniki; sbornik statei.  
Moskva, Izd-vo inostr.lit-ry, 1960. 498 p. Translated articles.  
(MIRA 13:12)

(Geology, Structural)

Strukov, N.I.

USSR/Cultivated Plants - Grains.

L-2

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69246

Author : Atanasov, P.G., Strukov, N.I.

Inst :

Title : The Watering Regimen During Periodic Irrigation of Rice.

Orig Pub : Kratkie itogi nauch.-issled. rabot za 1955 god, Krasno-  
dar, "Sov. Kuban", 1956, 112-116

Abstract : The maximum yield of rice in the lowlands of Kuban  
(38.9 centners/hectare) was obtained with inundation.  
The irrigating regimen of rice upon periodic irrigation  
should be based on practical utilization of water during  
phases of its development. The optimal moisture of the  
soil is 70 to 80% of the field moisture capacity; the  
irrigation norms should be figured on humidifying the  
soil to a depth of 60 to 80 cm.

Card 1/1

BELYAEV, Viktor Vasil'yevich, kandidat tekhnicheskikh nauk; LEBEDEV,  
Boris Mikhaylovich, kandidat tekhnicheskikh nauk; ~~STRUKOV, N.I.~~,  
kandidat tekhnicheskikh nauk, retsenzent; ZHILINSKIY, V.A.,  
kandidat tekhnicheskikh nauk, redaktor; YEGORKINA, L.I., redaktor  
izdatel'stva; UVAROVA, A.F., tekhnicheskiiy redaktor

[Sprinkling machines; construction, calculation, operation and  
testing] Dozhdeval'nye mashiny; konstruktsii, raschet, ekspluatatsia  
i ispytaniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.  
lit-ry, 1957. 231 p. (MLBA 10:5)  
(Sprinkler irrigation)

L 12418-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD/WB

ACCESSION NR: AP3001412

S/0020/63/150/004/0852/0855

AUTHOR: Tomashov, N. D.; Strukov, N. M.; Mikhaylovskiy, Yu. N.

TITLE: The effect of alternating current frequency on the speed of corrosion of titanium in sulfuric acid

SOURCE: AN SSSR. Doklady, v. 150, no. 4, 1963, 852-855

TOPIC TAGS: electrochemical properties of titanium, corrosion properties of titanium, polarization of titanium, titanium

ABSTRACT: The investigation of the electrochemical and corrosion behavior of titanium during its polarization with a sinusoidal variable current frequency showed that, with an increase of frequency of the polarizing current, the polarizing capability of the electrode in the anodic and in the cathodic half-period is decreased. This is additionally connected with the presence of current capacity and the explanation of easier electrochemical reactions on the surface of the electrode in the anodic and cathodic half-periods. The corrosion of titanium at lower frequencies and low densities of the polarizing current is greater than the corrosion at higher frequencies. However, a reverse effect is observed with very high densities of the polarizing current. The

Card 1/2

L 12418-63

ACCESSION NR: AP3001412

examination of experimenting material shows that the variable current intensifies the process of anodic dissolution of titanium as a result of the destruction of the passive state of the electrode in the cathodic half-period. It appears that at high frequencies of the variable current in the anodic half-period when the surface of metal contains mainly the adsorbed oxygen, the activation of metal in the cathodic half-period is much greater, and thus, the dissolution of titanium is greater. At low frequencies the metal surface is covered mainly with the chemically bound oxygen in the form of oxide layers which is not completely reduced in the cathodic half-period and therefore the active surface of the metal is smaller and the speed of dissolution of the metal is smaller. Orig. art. has: 5 graphs.

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

SUBMITTED: 29Jan63

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 003

OTHER: 000

Card 2/2

TOMASHOV, N.D.; STRUKOV, N.M.

Effect of the alternating current frequency on the passivation of titanium. Dokl. AN SSSR 152 no.5:1177-1180 O '63. (MIRA 16:12)

1. Institut fizicheskoy khimii AN SSSR. Predstavleno akademikom A.N.Frumkinyn.



TOMASHOV, N.D.; STRUKOV, N.M.

Effect of alternating current frequency on the electrochemical  
and corrosion behavior of iron in hydrochloric acid. Zhur. fiz.  
khim. 39 no.2:418-422 F '65. (MIRA 18:4)

1. Institut fizicheskoy khimii AN SSSR.

ACC NR: AP7002390

SOURCE CODE: UR/0020/66/171/005/1134/1137

AUTHOR: Tomashov, N. D.; Strukov, N. M.; Verzhinina, L. P.

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

TITLE: Effect of continuous renewal of the surface of certain metals on the cathodic process of hydrogen evolution

SOURCE: AN SSSR. Doklady, v. 171, no. 5, 1966, 1134-1137

TOPIC TAGS: cathode polarization, hydrogen, metal surface, lead, tin, iron, nickel, palladium

ABSTRACT: Cathodic polarization curves were recorded for Pb, Sn, Fe, Ni and Pd in 1 N H<sub>2</sub>SO<sub>4</sub> under argon at 20°C while the surface of the metal was being continuously renewed by means of an emery wheel. The electrode was cathodically polarized by an external current source. The data indicate that on nickel, the discharge of H<sup>+</sup> ions with the formation of adsorbed atoms and their removal from the electrode surface take place at comparable rates, so that during continuous renewal of the surface the effect of hydrogen overvoltage drop on this metal is appreciable. On lead, however, the hydrogen overvoltage is determined solely by the slowness of the step of discharge of H<sup>+</sup> ions, and therefore the continuous renewal of the surface does not substantially affect the hydrogen overvoltage on lead. From the standpoint of their behavior during

Card 1/2

UDC: 541.13

ACC NR: AF7002390

cleaning, the metals studied are divided into two groups: those which adsorb hydrogen well (Fe, Ni, Pd), and those which adsorb it poorly (Pb, Sn). In the latter group, hydrogen overvoltage is solely determined by the slow discharge step. In the former group, hydrogen overvoltage is determined not only by this step, but also by the slowness of the steps involving removal of hydrogen from the metal surface. Thus, for palladium it was found that at the current density employed, 10 mA/cm<sup>2</sup>, 2/3 of the total overvoltage is determined by the slowness of the steps involving removal of hydrogen from the metal surface, and only 1/3 by the slow discharge step. The paper was presented by Academician Spitsyn, V. I., 22 Mar 66. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: 17Feb66/ ORIG REF: 006/ OTH REF: 004

4.

Card 2/2

APPROVED FOR RELEASE: 08/26/2000

Structure of some derivatives of urea and guanidine. Part 2:  
Infrared spectra and structure of diuretics and diuretics  
of cyclohexanedione and phenanthrene quinone and their N-  
amino derivatives. *Int. strukt.kem.* 5, no. 2-109-319  
1961, 174.

STRUKOV, O.G.; YEMEL'YANOVA, A.D.; DUBOV, S.S.; KOZLOVA, N.V.

Infrared spectra and structure of some secondary amines, derivatives  
of cyanuric chloride and substituted anilines. Zhur. strukt. khim. 6  
no.2:218-226 Mr-Apr '65. (MIRA 18:7)

LIMAR', T.F.; UVAROVA, K.A.; BULACHEVA, A.P.; SEMVHM, A.S.; BEDNOVA, I.N.;  
MAKOVSKAYA, E.P.; SOLOMEINA, G.I.; POLMATOV, Ya.D.; BOBYRENKO, Yu.  
Ya.; KOGAN, P.I.; KOVALENKO, P.N.; IVANOVA, S.I.; FOKIN, A.V.;  
KOMAROV, V.A.; SCROCHKIN, I.N.; LAUTLOVA, S.M.; RAVDEL', A.A.;  
GORELIK, G.N.; DANKSHAS, V.K. [Dankshas, V.]; PIKUNAYTE, L.A.  
[Pikunayte, L.]; SHARIFOV, A.Rh.; SHARALIN, I.I.; STEPNOVA, G.M.;  
SHMIT, Ye.V.; LUKOV, S.S.; STEPKOV, O.G.

Scientific research papers of the members of the All-Union  
Mendeleev Chemical Society (brief information). Zhur. VHKC  
10 no.3; 1964; 1-126. (MIRA 18:5)

1. Donetskyy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta khimicheskikh reaktivov i osbo chistykh khimicheskikh  
veshchestv (for Limar', Uvarova, Bulacheva). 2. Ural'skiy nauchno-  
issledovatel'skiy khimicheskii institut (for Shubin, Bednova,  
Makovskaya, Solomeina). 3. Chelyabinskiy filial Gosudarstvennogo  
nauchno-issledovatel'skogo i proyekt'nogo instituta mineral'nykh  
pigmentov (Polmatov, Bobyrenko). 4. Kostovskiy-na-Donu univer-  
sitet (for Kogan, Kovalenko, Ivanova). 5. Leningradskiy tekhnolo-  
gicheskii institut imeni Lensoвета i Institut mineral'nykh  
pigmentov (for Ravdel', Gorelik). 6. Vil'nyuskiy gosudarstvennyy  
universitet imeni Kpozhdasa (for Dankshas, Pikunayte). Nauchno-  
issledovatel'skiy institut' neftekhimicheskikh proizvodstv (for  
Sharifov, Sharalin). 7. Tomskiy politekhnicheskii institut  
imeni Kirova (for Stepnova, Shmit).

KOVALENKO, V.F.; SANNIKOV, S.S.; STRUKOV, P.I.

Calibration of the NKMZ, 4,000-ton, crankshaft forging press by  
means of "crashers." Kuz.-shtam. proizv. 2 no.11:35-37 N '60.  
(MIRA 13:10)

(Power presses--Testing)

S/182/60/000/011/010/016  
A161/A029

AUTHORS: Kovalenko, V.F., Sannikov, S.S., Strukov, P.I.

TITLE: Calibrating a 4,000-Ton NKMZ (NKMZ) Crank Hot-Stamping Press  
by the Crashers Method

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, 1960, No. 11, pp.35-37

TEXT: Some foreign firms, as well as some Soviet plants have begun producing hot stamping presses of the crank type fitted with effort meters (the NKMZ in Kramatorsk, the ZTMP works in Voronezh). The meters have to be calibrated on site after installation of the press. A 4,000-ton press produced by the NKMZ has been calibrated at the Gor'kovskiy avtozavod (Gor'kiy Automobile Plant) with the assistance of ENIKMASH. Two NKMZ-made effort meters are placed on the front, one on each column. They are scale instruments (Fig. 1) recording the strain in the press stand that is directly proportional to the applied effort. The stand elongation is determined in a 466-mm section by an indicator (8) with 0.003 mm scale divisions and 0.05 mm measurement range. When the press is under load, the deformation in the stand pulls the rod (7) which is fixed in the top

Card 1/8



S/182/60/000/G11/010/016  
A161/A029

Calibrating a 4,000-Ton NKMB (NKMZ) Crank Hot-Stamping Press by the  
Crashers Method

plank (5) and slides in a bore in the frame (11). The screw stop (12) on the rod (7) exerts pressure on the measuring leg of the indicator and makes the hand swing. The brake (9) of the leg (10) is loaded with a spring set on the rod (4) and adjusted by the plug (3). The brake holds the indicator hand on the scale division reached under load on the press. The brake must be retracted by the rod (4) to put the indicator to zero. Efforts corresponding to the indicator readings are given on the plate (1). As no loading device with 4,000-ton effort was available at the Gor'kiy Automobile Plant, the press had to be calibrated using the "metod kresherov" (crashers method). [Abstractor's note: The term "kresher" suggests English "crushing".] A "crasher" is illustrated in Fig. 2 and is a block of 45° steel of cylindrical shape. The blocks were calculated for 500-ton pressure. They were placed on especially prepared die inserts (Fig. 4). The calibration results are given in Table 2. A diagram has been plotted from these data (Fig. 5). (It can be seen in the table that the left indicator gave lower readings, which was probably due to uneven tightening

Card 2/8

S/182/60/000/011/010/016  
A161/A029

Calibrating a 4,000-Ton HKM3 (NKMZ) Crank Hot-Stamping Press by the  
Crashers Method

of the tie bolts on the left and right press stand side. The diagram was set up using the mean readings of two indicators). The arithmetic mean of the indicator readings had to be taken to determine the corresponding work pressure in the diagram. The data were filled into the table (1). It is mentioned that it would be better to use a diagram engraved on a metal sheet and that calibration must be repeated after retightening of the bolts. Some design deficiencies were revealed in the NKMZ indicators. An improved indicator design has been developed at ENIKMASH under supervision by Engineer L.P. Shipanov. [Abstractor's note: The new design is not described]. There are 5 figures. ✓

Card 3/8

Doc. no. 413-8 '62.

Light-weight portable pump with plastic parts for cleaning vessels.  
Shir. nauch.-tekh. inform. Azerb. Inst. nauch.-tekh. inform. Ser. Mashinostroi.  
prom. no. 413-8 '62. (MIRA 18:8)

STRUKOV, S.

Improved method for the disinfection of eggs. Mias. ind. SSSR 28  
no.6:25-27 '57. (MIRA 11:1)

1. Voronezhskiy yaytsesushil'nyy zavod.  
(Disinfection and disinfectants) (Eggs, Dried)

SOV/137-58-8-16863

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 92 (USSR)

AUTHOR: Strukov, S.P.

TITLE: Grooving and Rolling of Nr-22 Beams with a Reduced Number of Passes (Kalibrovka i prokatka balki Nr 22 s sokrashchennym chislom prokhodov)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii. Ukr. resp. pravl., 1957, Vol 2, pp 169-172

ABSTRACT: An analysis of the groovings employed at other plants and of the special features of the rail and structural mill at the im. Petrovskiy Plant results in the elaboration of a system of calculation of grooving for the rolling of Nr-22 beams. The result was the elaboration and introduction of grooving for the rolling of these beams in 7 section passes.

1. Rolling mills--Performance
2. Mathematics

S.G.

Card 1/1

STRUKOV4V8A8 600

1. STRUKOV, V. A.
- 2a. USSR (600)
4. Bladder - Diseases; Hernia
7. Strangulation of the bladder in hernia of the linea alba following Kocher's abdominal hysteropexy, Akush. i gin., No. 1, 1952. Iz Kafedry Akusherstva i Ginekologii (Nach. - Chlen-Korrespondent Akademii)
- 9a. Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED. Meditsinskikh Nauk SSSR Prof. K. M. Figurnov) Iz Voenno-Meditsinskoy Akademii imeni S. M. Kirova.

STRUKOV, V.A.

Subcutaneous emphysema in labor. Akush. i gin. no.6:75 N-D '54.  
(MLRA 8:2)

1. Iz Voenno-meditsinskoy akademii imeni S.M.Kirova.  
(EMPHYSEMA  
subcutaneous, in labor)  
(LABOR, complications  
emphysema, subcutaneous)

STRUKOV, V.A., kandidat meditsinskikh nauk.(Leningrad)

Surgical treatment of urinary incontinence in women and anatomotopographic peculiarities in the structure of the sphincter apparatus of the urinary bladder. Akush. i gin. no.5:45-48 S-0 '55.

(MIRA 9:1)

(URINATION DISORDERS

incontinence, surg. & anat. of sphincter appar.)



STRUKOV, V.A., kandidat meditsinskikh nauk

Case of transfusion of Rh-incompatible blood. Sov.med. 20 no.5:  
82-84 My '56. (MLRA 9:9)

(BLOOD TRANSFUSION, complications,  
Rh-incompatibility (Rus))  
(Rh FACTORS,  
incompatible blood transfusion (Rus))

STRUKOV, V.A., kandidat meditsinskikh nauk.

Labor complicated by weakness of uterine contractility. Akush.  
i gin. 32 no.1:13-16 Ja-F '56 (MLFA 9:6)

(LABOR, compl.

weak contractility, diag. & statist.)

(UTERUS, physiol.

weakness of uterine contractility in labor, diag. &  
statist. )

STRUKOV, V.A., kand.med.nauk, poliklinicheskii med.atsheby

----- Treating serious sequelae from transfusing incompatible blood.  
Vrach, tele no. 6:009-231 Je '55 (MIRA 11:7)  
(BLOOD TRANSFUSION)

STRUKOV, V.A., kand.med.nauk, mayor meditsinskoy sluzhby.

Intrauterine death of the fetus resulting from an umbilical  
hematoma. Akush. i gin. 34 no.3:104 My-Je '58. (MIRA 11:6)  
(UMBILICUS--TUMORS) (FETUS, DEATH OF)

STRUKOV, V.A., kand.med.nauk

X-ray diagnosis of tumors of the small pelvis during labor. Vest.  
rent. i rad. 34 no.4:87-88 JI-Ag '59. (MIRA 12:12)  
(LABOR, compl.)  
(PELVIS neoplasms)

STRUKOV, V.A.; GOVOROV, D.A.

Antibacterial therapy in intrahospital infection ("hospitalism").  
Antibiotiki 10 no. 10:934-940 0 '65. (MIRA 18:12)

1. Kafedra akusherstva i ginekologii (zav. - prof. G.I.Dovzhenko)  
Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova,  
Leningrad. Submitted Febr. 17, 1965.

STRUKOV, V.G., nauchnyy sotrudnik

*Deilephila linenta*, var. *livornica* Esp. on grapevines. *Zashch.*  
rast.ot vred.i bol. 5 no.2:47 F '60. (MIRA 15:12)

1. Krymskaya oblastnaya opytnaya stantsiya.  
(Crimea--Grapes--Diseases and pests)  
(Crimea--Hawkmoths)

L 15546-63

BDS

ACCESSION NR: AP3005527

S/0115/63/000/007/0030/0031

52  
51

AUTHOR: Gorelikov, N. I.; Klistorin, I. F.; Matushkin, G. G.; Strukov, V. G.

TITLE: Specialized digital voltmeter 0

SOURCE: Izmeritel'naya tekhnika, no. 7, 1963, 30-31

TOPIC TAGS: voltmeter, digital voltmeter, voltage regulator tube

ABSTRACT: Development is described of a new digital voltmeter for precise measurement of stabilization voltage and temperature coefficient in the manufacture of silicon voltage-regulator tubes. The new instrument, based on the digital voltmeter described by I. F. Klistorin, et al. (Izvestiya VUZ'ob, Priborostroyeniye, 1962, v. 5, no. 2), is in essence an electromechanical compensator with digitwise balancing. A circuit diagram of the new voltmeter is supplied, and its components specified. Its error is  $\pm 0.02\%$  or less. The voltmeter proved to be reliable in operation under actual factory conditions and permitted considerable saving in labor.

ASSOCIATION: Inst. of Automation and Electrometry, SO AN SSSR

Card 1/2/



STRUKOV, V.M., inzh. (g. Ashkhabad)

Organization of mixed crews at washing and steaming stations.  
Zhel. dor. transp. 41 no.1:83-84 Ja '59. (MIRA 12:1)

1. Zamestitel' nachal'nika sluzhby vagonnogo khozyaystva Ashkhabad-  
skoy dorogi.  
(Railroads--Cars--Maintenance and repair)

L 62709-85 EPF(c)/EPA(s)-2/ENA(h)/EMP(j)/EWP(k)/ENT(d)/ENT(l)/ENT(m)/ENP(h)/T/  
 ENP(l)/ENA(d)/ENP(w)/ENP(v) Pc-4/Pf-4/Pr-4/Ps-4/Pt-7/Peb EM/EM/JN/JD  
 ACCESSION NR: AP5019030 UR/0286/65/000/012/0065/0066  
 666.189 22.002.5

AUTHOR: Gavrilov, I. K.; Filippov, D. A.; Strukov, V. M.; Blatov, V. S.; Shalimov,  
A. S.; Vul, N. I.; Ivanov, A. M.; Belyakov, V. V.; Frolov, R. A.; Khantsis, R. Z.  
Andriyevskaya, G. D.; Zelenskiy, E. S.; Kuperman, A. M.; Dobrovolskiy, A. K.  
Dzhereliyevskiy, A. B.

TITLE: Winding machine. Class 32, No. 172009<sub>15</sub>

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 65-66

TOPIC TAGS: glass reinforced plastic, plastic filament, fiber glass, filament  
winding, winding machine, filament wound article

ABSTRACT: This Author Certificate introduces a machine for fabrication of glass-  
 reinforced plastic articles by filament winding. The machine includes a drive with  
 a reductor and a mandrel mounted on a rotating shaft. To fabricate spherical shapes  
 the machine is equipped with profiled guides transmitting to the mandrel a tilting  
 motion around the vertical axis simultaneously with a rotation around the axis (see  
 Fig. 1 of the Enclosure). Orig. art. has: 1 figure. [ND]

Card 1/2

L 62709-65

ACCESSION NR: AP5019030

4

ASSOCIATION: Organizatsiya gosudarstvennogo komiteta po aviatsionnoy tekhnike SSSR  
(Organization of the State Committee on Aviation Engineering, SSSR) 44.55

SUBMITTED: 19May64

ENCL: 01 15

SUB CODE: MT,IE

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4064

Card 2/3

L 62709-65

ACCESSION NR: AP5019030

ENCLOSURE: 01

0

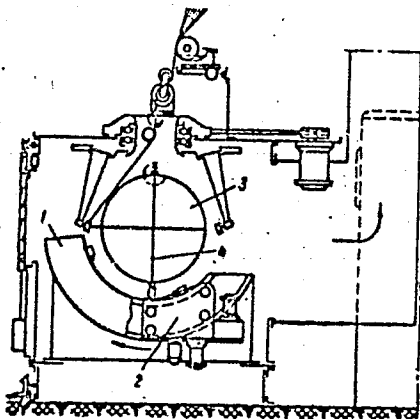


Fig. 1. Winding machine

- 1 - Shaped guide; 2 - reductor;
- 3 - mandrel; 4 - shaft.

Card

*Ka*  
3/β

L 11260-66 (A) EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(j)/T/EWP(k)/EWA(h)/ETC(m) EM/WW/RM  
 ACC NR: AP5028475 SOURCE CODE: UR/0286/65/000/020/0056/0057

INVENTOR: Gavrilov, I. K.; <sup>44,55</sup> ~~44,55~~ <sup>44,55</sup> ~~44,55~~ <sup>44,55</sup> ~~44,55~~ <sup>44,55</sup> ~~44,55  
 A. S.; Vul. <sup>44,55</sup> ~~44,55~~ <sup>44,55</sup> ~~44,55~~ <sup>44,55</sup> ~~44,55 <sup>44,55</sup> ~~44,55  
 Andriyevskaya <sup>44,55</sup> ~~44,55~~ <sup>44,55</sup> ~~44,55~~ <sup>44,55</sup> ~~44,55 <sup>44,55</sup> ~~44,55~~  
 Dzhereliyevskiy, A. B. <sup>44,55</sup> ~~44,55~~ <sup>44,55</sup> ~~44,55~~ <sup>44,55</sup> ~~44,55 <sup>44,55</sup> ~~44,55~~~~~~~~~~~~

ORG: none <sup>44,55</sup> <sup>15.44,55</sup> <sup>76</sup> <sup>B</sup>

TITLE: Method of fabricating fiberglass shells. Class 32, No. 175624 <sup>16</sup>

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1065, 56-57

TOPIC TAGS: shell, cylindrical shell, fiberglass shell, shell fabrication, fiberglass winding, solid fuel rocket, rocket case

ABSTRACT: This Author Certificate introduces a method of fabricating shells <sup>26</sup> from fiberglass wound on a pattern which is then melted out or dissolved. To increase the strength of the shell, the winding is combined with the stretching of fiber by means of a fiber guide which rotates around the pattern. [DV]

SUB CODE: 11, <sup>19</sup> SUBM DATE: 02Jul64/ ATD PRESS: <sup>4470</sup>

HW  
 Card 1/1

S/051/63/014/002/002/026  
E032/E314

AUTHOR: Strukov, V.S.

TITLE: Interpretation of the short-wave wing of the 2852 Å resonance magnesium line

PERIODICAL: Optika i spektroskopiya, v. 14, no. 2, 1963, 184-188

TEXT: The 2852 Å line has continuous wings on the short- and long-wave sides, both in the emission and absorption spectrum. It is now suggested that these two wings are due to

${}^1\Sigma_g^+ - {}^1\Pi$  and  ${}^1\Sigma_g^+ - {}^1\Sigma_u^+$  transitions, respectively. It is shown that if the intensity distribution in the wing is assumed to be of the form

$$I(\nu) = 4\pi AR^2(\nu) dR(\nu) \quad (1)$$

where A is a constant and R is the distance between the two atoms of Mg<sub>2</sub> for which the emission and absorption at frequency  $\nu$  is possible, then the intensity distribution in the short- and long-wave wings is respectively given by

Card 1/2

Interpretation of ....

S/051/63/014/002/002/026  
E032/E314

$$I_{Sh}(\nu) d\nu = \frac{4\pi A(C_a - C_d)^{1/2}}{(\nu_{Sh} - \nu_{res})^{3/2}} \quad (5)$$

$$I_l(\nu) d\nu = \frac{4\pi A(C_b - C_a)^{1/2}}{(\nu_{res} - \nu_l)^{3/2}} \quad (6)$$

where  $C_{a,b,d}$  are the Van der Waals constants (the interactions are assumed to be of the form  $\sim R^{-6}$ ). Experimental studies of the 2852 Å <sup>line</sup> excited in an AC arc discharge at atmospheric pressure show that these expressions do, in fact, hold. The slope of the  $\log I(\nu)$  versus  $\log(\nu - \nu_{res})$  curves was found to be  $1.53 \pm 0.02$  and  $1.52 \pm 0.05$  for the long- and short-wave wings, respectively. There are 2 figures.

SUBMITTED: March 1, 1962

Card 2/2

27

Purification of soluble cadmium salts used in the preparation of luminophors from traces of other metals. *L. B. Gapon, A. M. Izurich, A. A. Metzler, M. S. Rabinovich, V. V. Strukov, and L. A. Usatova. U.S.S.R. 101,071. Dec. 31, 1955.* The soln. of Cd salts is passed consecutively through 2 chromatographic columns, the 1st of which is

charged with  $Al_2O_3$ ; the 2nd with a mixt. of activated C and  $Al_2O_3$  and dimethylglyoxime, and the 3rd with activated C. *M. Hoosh.*

8  
4E4j

for work



STRUKOV, V. V.

Purification of soluble tungstates and calcium chloride  
for the preparation of luminophors. M. S. Rabinovich, V.  
V. Strukov, and L. A. Lisatova. U.S.S.R. 104,440. Dec.  
1974. Sol. W salts and CaCl<sub>2</sub> solns. are highly purified  
by passing the former through a column contg Al<sub>2</sub>O<sub>3</sub> and  
ZnS in a wt. ratio of 20:1 and the CaCl<sub>2</sub> soln through a  
chromatographic column charged with Al<sub>2</sub>O<sub>3</sub>. M. Hosh

PM mt

*SIRUKOV, V. V.*

27 27 8  
Purification of soluble zinc and cadmium salts. *L. H. W.*  
Gapon, A. A. Metzler, M. S. Rabinovich, E. I. Strukova, *4E2c*  
V. V. Strukov, and L. A. Usatova. U.S.S.R. 105,942, June  
25, 1957. Addn. to U.S.S.R. 99,924. For prepn of phosphors, solns. of Zn and Cd salts are passed through a cation-exchange column and then through a column charged with dimethylglyoxime and activated C. M. Hoesch

*for  
MT*

ASEYEVA, I.V., KUCHAYEVA, A.G., PALITSKIN, N.P., STRUKOV, V.V.

Soviet gibberellin; production methods and activity testing.  
Vest. Mosk. un. Ser. biol., pochv., geol., geog. 14 no.3:  
3-12 '59. (MIRA 13:7)

1. Kafedra biologii pochv Moskovskogo universiteta, Insti-  
tut mikrobiologii AN SSSR i Farmatsevticheskiy zavod im.  
Karpova.

(GIBBERELLINS)

YEVSEYEV, SIDOROV, Aleksandr Ivanovich; ZIMAN, Yan L'vovich; STRUKOV, V.V.,  
redaktor; VASIL'YEVA, V.I., redaktor izdatel'stva; KUZ'MIN, G.M.,  
tekhnicheskii redaktor

[Aerial photography] Aerofotos'emka. Moskva, Izd-vo geodezicheskoi  
lit-ry, 1956. 258 p. (MLRA 9:12)  
(Photography, Aerial)

FOPADEYKIN, Vitaliy Ivanovich; STRUKOV, Vladimir Vladimirovich;  
KREKSHINA, L., red.

[On the march, friends and tourists! One day routes] V  
pokhod, druž'ia turisty! Odnodnevnye marshruty. 2. dop.  
izd. Moskva, Mosk. rabochii, 1964. 494 p.

(MIRA 17:11)

STRUKOVA, A.I.

[Brief methodological textbook for practical studies in pathological anatomy] Kratkie metodicheskie posobie k prakticheskim zaniatiyam po patologicheskoj anatomii. Moskva, Medgiz, 1956. 113 p. (MLRA 9:5)  
(ANATOMY, PATHOLOGICAL--STUDY AND TEACHING)

BLAGMAN, G.F., professor; DYMSHITS, R.A., professor; GRACHEVA, N.A.; ZUDIN, V.S.; STRUKOVA, A.P. (Chelyabinsk)

Use of radioiodine in the treatment of thyrotoxicosis [with summary in English, p.124]. Probl.endok. i gorm. 3 no.1:50-56 Ja-F '57. (MLRA 10:6)

1. Iz kafedry gosital'noy terapii (zav. - prof. G.F.Blagman) na baze l-y dorozhnoy bol'nitsy Yuzhno-Ural'skoy zheleznoy dorogi i kafedry patologicheskoy fiziologii (zav. - prof. R.A.Dymshits) Chelyabinskogo meditsinskogo instituta (dir. - prof. G.D.Obratsov)

(HYPERTHYROIDISM, therapy,  
radioiodine, review (Rus))

(IODINE, radioactive,  
ther. of hyperthyroidism, review (Rus))

~~STRUKOVA, A. Yu.~~

Prophylaxis and treatment of cracked nipples. Zdrav. Belor. 5  
no. 8:41-42 Ag '59. (MIRA 12:10)

1. Iz Minskogo gorodskogo roditel'nogo doma (glavnyy vrach -  
dotsent I. S. Legenchenko).  
(BREAST--DISEASES)



СТРУКЦІА, А.Ю.

Diathermosurgical treatment of diseases of the cervix uteri.  
Zdrav.Bel. no.3:9-12 '62. (MIRA 15:5)

1. Iz akushersko-ginekologicheskoy kliniki Belorusskogo instituta  
usovershenstvovaniya vrachey (zaveduyushchiy kafedroy -- dotsent  
I.S. Legenchenko) i Minskogo gorodskogo roditel'nogo doma (glavnyy  
vrach A.I. Bogdanova).  
(UTERUS--DISEASES) (ELECTROSURGERY)

STRUKOVA, E. I.

27 27  
Purification of soluble zinc and cadmium salts. <sup>8</sup>  
Gapon, A. A., Muttler, M. S., Rabinovich, E. I., Strukova, <sup>4E2</sup>  
V. V., Strukov, and L. A. Usatova. U.S.S.R. 105,942, June  
25, 1957. Addn. to U.S.S.R. 53,924. For prepn of phos-  
phors, solns. of Zn and Cd salts are passed through a cation-  
exchange column and then through a column charged with  
dimethylglyoxime and activated C. M. Hosh

for  
MT

GUREYEV, Petr Antonovich; STRUKOVA, L.G., red.; TARASOVA, N.M.,  
tekhn. red.

[Benefits to persons directed to work in construction projects  
through organized recruitment] L'goty dlia lits, napravliaemykh  
v poriadke organizovannogo nabora na predpriatiia (stroiki).  
Moskva, Gos. izd-vo iurid. lit-ry, 1962. 51 p. (MIRA 15:5)  
(Labor contract) (Wages--Construction workers)

OSTRYI, O.IA., SOBIYEVA, Z.I., SKVIRSKAYA, E.A., MAGAYEVA, S.V.,  
BABAYAN, S.A., STRUKOVA, L.G., VAKAR, M.D., AZHIPA, YA.I.

"The trophic function of the nervous system and the nervous  
dystrophic process."

Report submitted, but not presented at the 22nd International  
Congress of Physiological Sciences.  
Leiden, the Netherlands 10-17 Sep 1962

OSTRYY, O. Ya.; SKVIRSKAYA, Ye.A.; BABAYAN, S.A.; STRUKOVA, L.G.

Neurodystrophic process and morphological changes in the cardiovascular system. Trudy Inst. norm. i pat. fiziol. AMN SSSR 6: 140-142 '62 (MIRA 17:1)

1. Laboratoriya nervnoy trofiki ( zav. - doktor med. nauk O.Ya. Ostryy) Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.

LAZHECHNIKOVA, Yelizaveta Aleksandrovna; STRUKOVA, L.G., red.;  
KHLOPOVA, L.K., tekhn. red.

[Pension insurance for servicemen under the law on state  
pensions] Pensionnoe obespechenie voennosluzhashchikh po  
zakonu o gosudarstvennykh pensiyakh. Moskva, Gosizdat,  
1962. 65 p. (MIRA 16:3)  
(Pensions, Military)

SMIRNOV, Stanislav Aleksandrovich; STRUKOVA, L.G., red.; KHLOPOVA,  
L.K., tekhn. red.

[In what cases government pensions are awarded to col-  
lective farm members] V kakikh sluchaiakh gosudarstven-  
nye pensii naznachaiutsia chlenam kolkhozov. Moskva, Gos-  
iurizdat, 1963. 75 p. (MIRA 16:10)  
(Collective farms--Pensions)

ЕЛШИНЕН, Аркадий Д'вович; СТРУКОВА, Л.С., ред.

[Konstani' employees] leshchinye rabotniki. Moskva,  
Izd-vo "Iuridicheskaya literatura," 1961. 73 p.  
(NIRA 18:1)



СЕРБАТИНОВ, Л.А.; ТИМОФЕЕВ, В.С.; СИДЕНКО, Б.И.; ЛУКОВ, С.В.

Liquid - vapor phase equilibrium in the system isobutyric  
anhydride - n-butyraldehyde at atmospheric pressure. Zhur.  
fiz. khim. 38 no.7:1865-1867 31 Jan. (RUSS. 18:3)

ACC NR: AP7005338

SOURCE CODE: UR/0075/66/021/011/1354/1357

AUTHOR: Strukova, M. P.; Kotova, V. N.

ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov  
(Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Determination of phosphorus and titanium in organoelemental compounds

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 11, 1966, 1354-1357

TOPIC TAGS: phosphorus analysis, titanium analysis, organophosphorus  
compound, photometry, organoelemental compound, organotitanium compound

ABSTRACT: A rapid method has been developed for determining phosphorus and titanium in organophosphorotitanium compounds. The test material is decomposed by sodium peroxide in a calorimetric bomb, then the phosphate is titrated with a lanthanum nitrate solution (titanium is masked by complexone III). Titanium is determined photometrically in the form of a peroxide complex compound. The absolute experimental error is  $\pm 0.2-0.3\%$ . A single determination of phosphorus and titanium takes about 1.5 hr. Orig. art. has: 2 tables. [Authors' abstract]

SUB CODE: 07/SUBM DATE: 30Mar65/ORIG REF: 005/OTH REF: 016/ [KP]

Card 1/1

UDC: 543.80

TERENT'YEVA, O.F.; KANDEL', O.M.; STRUKOVA, M.T.; KOLBASNIKOVA, A.N.;  
KOZLOVA, A.A.

The time of molasses production and the manufacture of citric acid.  
Trudy VKNII no.16:104-108 '62. (MIRA 16:5)  
(Molasses) (Citric acid)

ANDREYENKO, G.V.; STRUKOVA, S.M.

Effect of urokinase on the fibrinolytic activity of the blood.  
Biokhimiia 27 no.2:327-329 Mr-Apr '62. (MIRA 15:8)

1. Laboratory of Physiology and Biochemistry of Blood Clotting,  
Faculty of Biology and Soil Science, State University, Moscow.  
(UROKINASE) (FIBRINOLYSINS) (BLOOD--COAGULATION)

KUDRYASHOV, B.A.; ANDREYENKO, G.V.; YEGOROV, N.S.; STRUKOVA, S.M.;  
LANDAU, N.S.

Fibrinolytic agents isolated from some saprophytic fungi  
cultures. Dokl. AN SSSR 153 no.4:939-942 D '63.

(MIRA 17:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
Predstavleno akademikom V.N. Shaposhnikovym.

STRUKOVA, S.M.; ANDREYENKO, G.V. (Moskva)

Study of the thrombolytic activity of aspergillin M in experimental thrombosis. Arkh. pat. 27 no.4:23-29 '65.

(MIRA 18:5)

1. Laboratoriya fiziologii i biokhimii svertyvaniya krovi (zav. - prof. B.A.Kudryashov) Moskovskogo gosudarstvennogo universiteta imeni Lomonosova i kafedra patologicheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. A.I.Strukov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

GOL'DBERG, K.M.; GEL'FANDEYN, N.M.; Primali uchastiye: BARIL'OTI,  
A.S.; KAPUSTINA, A.I.; LINKOVA, L.M.; STRUKOVA, V.A.; SERKOVA,  
L.V.; FRADKINA, TS.Ye.

Anticorrosive alkyd GF-020 priming. Lakokras.mat.i ikh prim.  
no.2:71-74 '62. (MIRA 15:5)

1. Khar'kovskiy lakokrasochnyy zavod "Krasnyy khimik".  
(Protective coatings)

Shimizu, T. S.

"The Chemical Composition of Some Types of Insects from In  
Leningra Oblast." Cand Biol Sci, Leningra Agricultural  
Inst, Leningra-Landis, 1957. (ZEMZhiz, No 17, pp 54)

SC: Br. 438, 10. Mar 58



CONFIDENTIAL

CONFIDENTIAL - This document contains information which is exempt from public release under E.O. 13526, Section 1.4. The information is the property of the CIA and is not to be distributed outside the CIA without the express written approval of the CIA. If you are not a CIA employee, you are not to discuss this information with anyone outside the CIA.

L 44689-66 ENT(d)/ENT(m)/T-2/EMP(f)

ACC NR: AP6005366

(A)

SOURCE CODE: UR/0413/66/000/001/0115/0116

AUTHOR: Strukovskiy, S. I.

ORG: none

TITLE: Two-cycle internal combustion engine with axial cylinders. Class 46, No. 177707 /announced by Ul'yanovskiy Factory of Small Displacement Engines (Ul'yanovskiy zavod malolitrazhnykh dvigateley)

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 115-116

TOPIC TAGS: internal combustion engine, engine piston, pump

ABSTRACT: This Author Certificate presents a two-cycle internal combustion engine with axial cylinders, with rotating cylinders, and with a blow-through pump of analogous construction. To simplify the mechanism of the piston drive, the cylinder blocks of the engine and the pump are produced separately and their axes are placed at an obtuse angle to one another (see Fig. 1). Corresponding pistons of the engine and of the pump are rigidly attached to one another.

Card 1/2

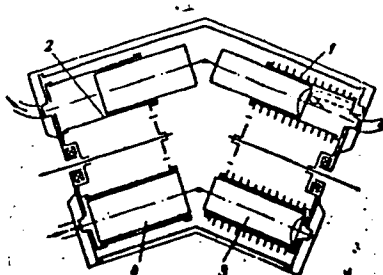
UDC: 621.432.4--128.9

L 44689-6

ACC NR: AP6005366

0

Fig. 1. 1 - block of engine cylinders;  
2 - exhaust pump; 3 and 4 - corre-  
sponding pistons of the engine and  
the pump



Orig. art. has: 1 figure.

SUB CODE: <sup>21</sup> B/ SUBM DATE: 03Sep64

hs

Card 2/2

STRUKCINSKAS, M.

MINKEVICIUS, A., glav. red.; KRIAUCIUNAS, J., red.; MASTAUSKIS, St., red.; SLAUTA, V., red.; STRUKCINSKAS, M., red.; ZAJANCKAUSKAS, P., red.; ZIEVYTE, Z., red.; SADAUSKAITE, A., red.; SARKA, S., tekhn. red.

[Practices in controlling plant diseases, pests, and weeds] Praktiskos kovos priemonės prieš augalų ligas, kenkejus ir piktžoles; straipsniu rinkinys. Vilnius, Valstybinė politinės ir mokslinės literatūros leidykla, 1962. 165 p. (MIRA 16:3)

1. Lietuvos TSR Mokslu Akademija, Vilna. Botanikos institutas. (Lithuania--Plant, Protection of)

57 84 70 22 110 10  
POPELYUK, P.F., dots.; STRUKULENKO, S.S.

Case of cirrhosis of the liver with fatal hemorrhage of the  
esophageal veins in a 14-year-old boy. Vrach.delo no.10:1091  
O '57. (MIRA 10:12)

1. Klinika propedevticheskoy terapii (zav. - prof. I.T.Stukalo)  
i klinika obshchey khirurgii (zav. - prof. A.M.Serednitskiy)  
L'vovskogo meditsinskogo instituta na baze Vtoroy gorodskoy  
bol'nitsy.

(LIVER--CHIRRHOSIS) (HEMORRHAGE)

RUMANIA / Organic Chemistry. Synthetic Organic  
Chemistry.

G

Abs Jour : Ref. Zhur.- Khimiya, No. 15, 1958, No. 50312

Author : Arventiev, B.; Strul, M.; Wexler, H.; Cahane, D.

Inst : -

Title : Preparation and Study of Some Aryl Thioureas -  
IV Oxy and methoxy- naphthyl Thioureas.

Orig Pub : Studii si cercetari Stunt. Acad. RPR Fil. Iasi.  
Chim., 1956, 7, #1, 24-30.

Abstract : Oxy-, methoxy and carboxymethoxy derivatives of  
-naphthyl thiourea (I) were synthesized. The  
toxicity of the prepared substances was studied.  
Heating the solution of 1-amino-2 naphthol-  
chlorohydrate (II) with NH<sub>4</sub>NCS(III) in glacial  
CH<sub>3</sub>COOH (IV) yielded 2-oxy-I (V). By analogy  
4-oxy-I (VI) was obtained from 1-amino-4-naphthol  
chlorohydrate (VII) and III. Methylation of V

Card 1/4

RUMANIA / Organic Chemistry. Synthetic Organic  
Chemistry.

G

Abs Jour : Ref. Zhur. - Khimiya, No. 15, 1958, No. 50312

in order to obtain 2-methoxy-I (VIII) led to a formation of a previously synthesized 2-amino,  $\beta$ -naphthoxyazole (IX). The latter compound may be also prepared by interaction of V and  $\text{ClCH}_2\text{-COOH}$  in an alkaline medium and by heating of alcoholic solution of V with  $\text{HgO}$ . 4-methoxy chlorohydrate (X) or 2-methoxy-1-naphthylamine chlorohydrate when reacted with III or IV yielded, correspondingly, 4-methoxy-1 (XII) and VIII. Reaction between III, 1-amino-4 naphthoxy acetate (XIII) and IV yielded 1-thiouretidine-4 naphthoxy acetate (XIV), while reaction between  $\alpha$ -naphthylamine chlorohydrate (XV) and III at identical conditions led to I. Heating 4g

Card 2/4

10

STRUL, M

9  
 V. Synthesis and study of several arylthiourea compounds.  
 V. Methyl- and halo- $\alpha$ -naphthylthioureas. B. Arventiev,  
 M. Strul, H. Wexler, and D. Cahane (Chem. Inst. "Petru  
 Poni" Acad. R.P.R., Iasi, Romania). *Acad. rep. populare  
 Romine, Studii cercetari chim.* 5, 611-17(1957); cf. *CA* 53:  
 8083i.—In continuation of previous syntheses of new  
 thioureas in the  $\alpha$ -naphthylthiourea series, addnl.  $\alpha$ -  
 naphthylthioureas were synthesized, with methyl groups  
 and halogens as substituents, in order to study the toxicity  
 of these compds. 4- and 8-Chloro- $\alpha$ -naphthylthiourea and  
 5-bromo- $\alpha$ -naphthylthiourea were prepd. by heating (4  
 hrs. over a water bath) the resp. 4- and 8-chloro- $\alpha$ -naphthyl-  
 amine and 5-bromo- $\alpha$ -naphthylamine with  $\text{NH}_4\text{CNS}$  in  
 glacial acetic acid. The 4-bromo- $\alpha$ -naphthylthiourea was  
 prepd. by hydrolysis (boiling 20 min. in 5% aq.  $\text{NaOH}$ )  
 of *N*-benzoyl-*N'*-(4-bromo- $\alpha$ -naphthyl)thiourea, which was  
 prepd. by heating (5 min. over a water bath) 1.2 g.  $\text{NH}_4\text{CNS}$   
 in 6 cc. abs. acetone with 2.1 g. benzoyl chloride,  
 adding 3.3 g. 4-bromo- $\alpha$ -naphthylamine in 7 cc. abs. acetone,  
 and heating (15 min.). 2-Methyl- $\alpha$ -naphthylthiourea was  
 prepd. by heating the  $\text{HCl}$  salt of 2-methyl- $\alpha$ -naphthyl-  
 amine (prepd. by redn. with  $\text{Fe}$  and  $\text{AcOH}$  of 1-nitro-2-  
 methyl-naphthalene) with  $\text{NH}_4\text{CNS}$  in glacial  $\text{AcOH}$ .  
 Since  $\alpha$ -naphthylthioureas could be prepd. by heating *N,N'*-  
 di- $\alpha$ -naphthylthioureas with ammonia under certain condi-  
 tions, the *N,N'*-diarylthioureas corresponding to the above  
 thioureas were prepd. *N,N'*-Bis(2-methyl- $\alpha$ -naphthyl)-  
 thiourea was prepd. by treating the  $\text{HCl}$  salt of 2-methyl-  
 $\alpha$ -naphthylamine with alc.  $\text{KOH}$ , filtering off the  $\text{KCl}$ ,  
 adding  $\text{CS}_2$ , and heating (8 hrs. over a water bath), and

6  
 2-JA.7 (108) (1947)  
*N,N'*-bis(8-chloro- $\alpha$ -naphthyl)thiourea by treating 8-chloro-  
 $\alpha$ -naphthylamine in  $\text{CS}_2$  with alc.  $\text{KOH}$  and heating (10  
 hrs. over a water bath). 2-Methyl- $\alpha$ -naphthylthiourea  
 was more toxic (towards white rats), while the chloro-  
 substituted compds. were as toxic and as bitter, the bromo-  
 substituted as toxic (the 4-Br more bitter, the 5-Br less

bitter than) as  $\alpha$ -naphthylthiourea itself. 12 references.  
 M. Lapidot.



STRUL, M.; ARVENTIEV, M.; WEXLER, H.

A new synthesis of 1-arylamino and 2-arylamino-naphthozoles, p. 333.

STUDDI SI CERTARI STIMTIPICE, SIME. Iasi, Romaini  
Vol. 8, no. 1, 1957

Monthly List of East European Accessions ( EEAI, LC, Vol. 8, no. 9, Sept., 1959.

Uncl.

Country : ROMANIA  
Category: Organic Chemistry. Organic Synthesis

G

Abs Jour: RZhKhim., No 17, 1959, No. 60890

Author : Arventiev, N.; Wexler, H.; Strul, M.

Inst : -

Title : New Syntheses of 1-Arylamino- $\alpha$ - and 2-Arylamino- $\beta$ -Naphthoxazoles

Orig Pub: Studii si cercetari stiint. Acad. RPR. P.M.  
Iasi. Chim., 1957, 8, No 2, 333-340

Abstract: In the reaction of ArNCS with chlorhydrates of 1-aminonaphthol-2 (sp., KOH, 12 hours at approx. 20°) and 2-aminonaphthol-1 (water sp., C<sub>2</sub>H<sub>5</sub>COONa, 24 hours at approx. 20°) are obtained respectively N-Ar-N'-(2-oxynaphthyl-1)-thioureas (I) and N-Ar-

Card : 1/4

Country : RUMANIA

G

Category: Organic Chemistry. Organic Synthesis

Abs Jour: RZhKhim., No. 17, 1959, No. 60890

-N'-(1-oxynaphthyl-2)-thiourcas (II) (presented are: Ar, yield in %, melting point in °C): For I:  $C_6H_5$ , 65, 174-175 (decomp.; from alc.); 2- $CH_3C_6H_4$ , 176-177 (decomp.; from alc.); 4- $CH_3C_6H_4$ , 60, 164-165 (decomp., from alc.); for II:  $C_6H_5$ , 75, 142-143 (from chloroform-petr. ether); 2- $CH_3C_6H_4$ , 80, 158-159 (from chloroform-ligroin); 3- $CH_3C_6H_4$ , / s c / 76, 139-141 (from chloroform-petrol. ether); 4- $CH_3C_6H_4$ , 84, 142-143 (from chloroform-petr. ether). In the action of  $(CH_3)_2SO_4$  and of dilute NaOH (approx. 20°) I and II give respectively 2-Ar-amino-1,8-naphthoxazoles (III) and 1-Ar-amino-1,8-naphthoxazoles (IV) (presented

Card : 2/4

G-22

Country : RUMANIA

G

Category: Organic Chemistry. Organic Synthesis

Abs Jour: RZhKhim., No 17, 1959, No. 60890

are: Ar, melting point in °C): for III: C<sub>6</sub>H<sub>5</sub>, 170 (from alc.); 2-CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>, 146 (from alc.); 4-CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>, 206-207 (from alc.); for IV: C<sub>6</sub>H<sub>5</sub>, 230-231 (from toluene); 2-CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>, 189-191 (from toluene); 3-CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>, 190-191 (from benzene); 4-CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>, 214-215 (from toluene). In the heating of II (Ar = C<sub>6</sub>H<sub>5</sub> and 4-CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>) in C<sub>6</sub>H<sub>6</sub> along with IV (Ar = C<sub>6</sub>H<sub>5</sub> and 4-CH<sub>3</sub>C<sub>6</sub>H<sub>4</sub>) 1-mercapto- $\alpha$ -naphthoxazole with the melting point of 261-262° is evidently formed. When 2-oxy-1-naphthylthioureas are heated up to melting point, it leads evidently to the formation of di- $\beta$ -naphthoxazolyamine of approx. 300° melting point. The mechanism of III and IV formation from I and II

Card : 3/4