

SHAVLO, Sergey Grigor'yevich; SERGIYEV, N.G., otv.red.; SEMENOV, M.N.,
red.; ALFEROVA, P.F., tekhn.red.

[Pegmatites and hydrothermal deposits in the Kalba Range]
Pegmatity i gidrotermal'ity Kalbinskogo khrebt. Alma-Ata,
Izd-vo Akad.nauk Kazakhskoi SSR, 1958. 326 p. (MIRA 12:6)
(Kalba Range--Petrology)

SHAYLO, S.G.

Formation of Kalba and Naryn pegmatites. Trudy Alt.GMNII AN
Kazakh.SSR 6:40-64 '58. (MIRA 12:1)
(Kalba Range--Pegmatites) (Naryn Range--Pegmatites)

SHAVLO, S.G.

Justification of prospects for rare elements in the Kalba Range.
Trudy Alt. GMNII AN Kazakh. SSR 9:50-54 '60. (MIRA 14:6)

1. Altayskiy gornometallurgicheskiy nauchno-issledovatel'skiy
institut AN Kazakhskoy SSR.

(Kalba Range---Rare earth metals)

BEL'SKIY, G.V.; SHAVLO, S.G.

Some regularities in the distribution of metallic elements in rocks of the central Kalba. Uzb.geol.zhur. no.5:43-49 '61.

1. Institut geologii AN Uzbekskoy SSR.
(Kalba Range---Metals)

AKRAMKHODZHAYEV, A.M.; AKHMEDZHANOV, M.A.; BABAYEV, A.G.; BARAYEV, K.L.;
BATALOV, A.B.; BASHAYEV, N.P.; BAYMUKHAMEDOV, Kh.N.; BRAGIN,
K.A.; BORISOV, O.M.; GABRIL'YAN, A.Sh.; GAR'KOVETS, V.G.;
GOR'KOVY, O.P.; GRIGORYANTS, S.V.; IBADULLAYEV, S.I.; ISMAILOV,
M.I.; ISAMUKHAMEDOV, I.M.; KAKHKHAROV, A.; KENESARIN, N.A.;
KRYLOV, M.M.; KUCHUKOVA, M.S.; LORDKIPANIDZE, L.N.; MAVLYANOV,
G.A.; MOTSOKINA, T.N.; MALAKHOV, A.A.; MIRBABAYEV, M.Yu.;
MIRKHODZHAYEV, I.M.; MUSIN, R.A.; NABIYEV, K.A.; PETROV, N.P.;
POPOV, V.I.; PLATONOVA, N.A.; RYZHKOV, O.A.; SAYDALIYEVA, M.S.;
SERGUN'KOVA, O.I.; SLYADNEV, A.F.; TULYAGANOV, Kh.T.; UKLONSKIY,
A.S.; KHAMRABAYEV, I.Kh.; KHODZHIBAYEV, N.N.; CHUMAKOV, I.D.;
SHAVLO, S.G.

Khabib Mukhamedovich Abdullaev; obituary. Uzb.geol.zhur. 6
no.4:7-9 '62. (MIRA 15:9)
(Abdullaev, Khabib Mukhamedovich, 1912-1962)

SHAVLO, S.G.

Rare and trace elements in the rare-metal formations of the
Kalba and Narym Ranges. Zap. Uz. otd. Vses. min. ob-va no.14:
70-77 '62. (MIRA 16:7)

(Kalba Range—Trace elements)
(Narym Range—Trace elements)
(Kalba Range—Metals, Rare and minor)
(Narym Range—Metals, Rare and minor)

SHAVLO, S.G.

Localization of rare-metal ores depending on the morphology,
structure, and texture of vein bodies. Uzb. geol. zhur. 7
no.4:69-72 '63. (MIRA 16:10)

1. Institut geologii imeni KhM. Abdullayeva AN UzSSR.
(Metals, rare and minor)

SH-VA, S.G., doktor. nat.-inzh. nauk, prof., stv. red.; MURCHINKO,
S.V., red.

[Minerals of Uzbekistan and problems of their genesis] Po-
leznye iskopaemye Uzbekistana i voprosy ikh genezisa.

Tashkent, izdat. "Nauka Uzbekskoi SSR," 1961. 163 p.

(BRNA 17:0)

1. Ikhtat'iya nauk Uzbekskoy SSR, Tashkent. Otdeleniye geo-
logicheskikh nauk.

URDANIKIY, A.S., akademik, otv. red.; BADAHOV, S.T., doktor geol.-
min. nauk, red.; GOLOVANOV, I.M., kand. geol.-miner. nauk,
red.; ISMAILOV, I.I., kand. geol.-miner. nauk, red.;
MALAKHOV, A.A., doktor geol.-miner. nauk, red.; SHAYLO,
S.G., doktor geol.-miner. nauk, red.; ASHAKHOV, A.N., red.

[Problems of mineralogy and geochemistry] Voprosy mineralo-
logii i geokhimii. Tashkent, Izd-vo Nauka, Uzbek.SSR,
1961. 278 p. (MIRA 17:8)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut geo-
logii i geofiziki. 2. Akademiya nauk Uzb.SSR (for Uklonskiy).

MAVLYANOV, G.A., akademik, otv. red.; AKRANKHODZHAYEV, A.M., red.;
KENESARIN, N.A., red.; KHAKRABAYEV, I.Kh., doktor geol.-
miner. nauk, red.; SHAVLO, S.G., doktor geol.-miner. nauk,
red.; PETROV, N.P., kand. geol.-miner. nauk, red.;
SPEKTOR, I. Ye., red.

[Problems of the geology and minerals of Uzbekistan;
papers of the geologists of Uzbekistan for the 22d. Ses-
sion of the International Geological Congress in 1964]
Problemy geologii i poleznykh iskopaemykh Uzbekistana;
trudy geologov Uzbekistana k XXII sessii Mezhdunarodnogo
geologicheskogo kongressa 1964.g. Tashkent, Nauka UzSSR,
1964. 194 p. (MIRA 18:1)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut geo-
logii i geofiziki. 2. Akademiya nauk Uzbek. (for
Mavlyanov, Kenesarin). 3. Chlen-korrespondent Akademii
nauk Uzbek.SSR (for Akrankhodzhayev).

DZHAMALETDINOV, N.K.; SHAVLO, S.G.

Relation of pegmatites of the Lolabulak-Ketmenchinsk zone to the various phases of intrusive igneous activity (western Uzbekistan).
Uzb. geol.zhur. 9 no. 6:47-53 '65 (MIRA 19:1)

1. Institut geologii i geofiziki imeni Abdullayeva AN UzSSR.
Submitted August 10, 1964.

X-ray study of the orienting process in the β -phase of the silver-zinc alloy with 50.3 atomic percent zinc. S. I. Shavlo and G. A. Alaverdov. *J. Exptl. Theoret. Phys.* (U. S. S. R.), 9, 59 (1939). As shown by Debye x-ray photographs the orienting process of the β -phase Ag-Zn alloy to the β' -phase is complete when quenched from 200°, but when quenched from 380° in 10% NaOH, an alternating structure, intermediate phase is obtained. This is completely converted to the β' -phase on heating to 200°. F. H. Rothmann

111

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***X-Ray Study of the Transformations in Iron-Palladium Alloys in the Range 45-75 Atomic Per Cent.** G. Alaverlov and S. Shaylo (*Zhur. Tekhnich. Fiziki (J. Tech. Physics)*, 1939, 9, (3), 211-214). [In Russian.] A transformation from the solid solution with a face-centred cubic lattice to the solid solution with a tetragonal lattice takes place in the range of compositions between 49 and 62.6 atomic-% palladium. The transformation temperature increases from 590° C. at 45.4 atomic-% to a maximum of 880° C. at 61%, and then decreases again to 700° C. at 62.6 atomic-%. At high contents of palladium, the compound FePd₃ having a face-centred cubic ordered lattice with a parameter $a = 3.843 \text{ \AA}$, is formed, and with a distribution of the atoms of iron = 0.00 and palladium = $\frac{1}{3}, \frac{2}{3}, 0, \frac{1}{3}$. N. A.

A 54 51 A METALLURGICAL LITERATURE CLASSIFICATION

62

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

BC

Production of large ionic currents. *II.* M. I. Korsunski and S. T. Shavlo (*J. Physics U.S.S.R.*, 1940, 3, 385-392).— Conditions have been examined for the formation of ions due to ionisation by electrons in a gas at such pressures that the free path of the electron is $>$ the distance between the electrodes. The dependence of the ionic current on potential at const. pressure, accelerating potential and grid potential, and the dependence on gas pressure, have been determined. The effect of pressure on ionic current is complicated; there exists a limiting pressure above which it is possible to get a very large ionic current. In the neighbourhood of this the discharge becomes very unstable. There is an oscillatory motion of electrons between the electrodes. With suitable parameters, the probability of ionisation is so great that the no. of ions generated per electron is >1 . A. J. M.

ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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*substantive information &
Materials*

FURTHER EXAMINATION OF THE PRODUCTION OF IONS BY ELECTRONS OSCILLATING IN AN ELECTRIC FIELD [531 of 1941].--Korsunski & Shayko. (*Journ. of Phys. [of USSR]*, No. 3, Vol. 4, 1941, pp. 285-286; summary only, in English.)

YEZHNIK, I.I.; SHAVLO, S.P.

Dependence of the intensity of infrared and visible luminescence
on temperature and X-ray time in NaCl, KCl, and KBr crystals. Izv.
vys.ucheb.zav.; fiz. no.3:62-67 '59. (MIRA 12:10)

1. Khar'kovskiy pedinstitut imeni G.S.Skovorody.
(Luminescence) (Alkali metal halides--Crystals)

YEZHNIK, I.I.; SHAVLO, S.T.

Dielectric losses in X-irradiated alkali halide crystals studied
at low temperatures on the 3.18 cm. wavelength. Izv. vys. ucheb.
zav.; fiz. no.4:140-146 '59. (MIRA 13:3)

1.Khar'kovskiy pedinstitut.

(Alkali halide crystals--Electric properties)

83364

S/139/60/000/004/024/033
E201/E591

9.4170

AUTHORS: Yezhik, I. I. and Shavlo, S. T. ✓

TITLE: Infrared Fluorescence of F-centres and its Mechanism
in Subtractively Coloured Alkali-Halide Crystals
Investigated at High Temperatures

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1960, No.4, pp. 190-197

TEXT: Infrared fluorescence of subtractively coloured NaCl,
KCl and KBr crystals, illuminated in the F-centre absorption band,
was studied between 290-540°K. The authors studied the decay of
infrared fluorescence and the possibility of infrared emission at
temperatures producing thermal decomposition of F-centres. Crystals,
grown by the Kyropoulos method, were coloured by X-ray irradiation
at low temperatures until F-centre saturation was achieved (Ref.3)
and then were heated slowly in darkness to room temperature.
Infrared fluorescence was recorded by means of a photoresistor
FS-1A and the resultant signal was amplified. A modulating disc
was placed between a lens which focused the fluorescence and the
photoresistor. The temperature dependence of the fluorescence

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S/139/60/000/004/024/033
E201/E591

Infrared Fluorescence of F-centres and its Mechanism in
Subtractively Coloured Alkali-Halide Crystals Investigated at High
Temperatures

intensity had maxima at 332, 352, 410 and 445°K for NaCl, at
312 and 361°K for KCl and at 300 and 330°K for KBr (Fig.1).
Figs. 2-4 show the decay of infrared fluorescence after illumination
with light in the F-centre absorption band (Fig.2 refers to NaCl,
Fig.3 refers to KCl and Fig.4 refers to KBr). The following
conclusions were drawn from the results.

- 1) Thermal excitation and thermal ionization of F-centres (without
additional illumination in the F-centre absorption band) did not
produce infrared fluorescence at temperatures from 77 to 540°K. ✓
- 2) The observed infrared fluorescence decayed exponentially.
- 3) A photochemical reaction $F' + h\nu \rightleftharpoons 2F$ occurred in production of
infrared fluorescence.
- 4) Potential curves could be used to describe the kinetics of the
F-centre infrared fluorescence at high temperatures.
- 5) The infrared fluorescence ceased above 456°K in NaCl, above
372°K in KCl and above 338°K in KBr. Above these temperatures the

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E201/E591

Infrared Fluorescence of F-centres and its Mechanism in
Subtractively Coloured Alkali-Halide Crystals Investigated at High
Temperatures

crystals could not be coloured with X-rays.

The authors give a kinetic explanation of production and decay of
the infrared fluorescence and of the maxima in the temperature
dependences of the fluorescence intensity. There are 5 figures,
1 table and 17 references: 11 Soviet and 6 English. X

ASSOCIATION: Khar'kovskiy pedinstitut imeni G. S. Skovorody
(Khar'kov Pedagogical Institute imeni G.S.Skovoroda)

SUBMITTED: June 24, 1959

Card 3/3

85157

S/139/60/000/005/003/031

E073/E135

24.7800

AUTHORS: Yezhik, I.I., Shavlo, S.T.

TITLE: On the Dielectric Losses in X-ray Irradiated Crystals of NaCl, KCl and KBr Investigated at Elevated Temperatures at Wavelength 3.18 cm.

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1960, No. 5, pp 13-20

TEXT: In earlier work (Ref. 1) the authors investigated the dielectric losses in X-ray irradiated alkali-halide crystals during illumination in the F-absorption band at the frequency 10^{10} c.p.s. in the temperature range -196 to $+20$ °C. They detected on the $\text{tg } \delta$ temperature curve maxima in the dielectric losses which for NaCl crystals were located at 220 °K and for KCl crystals were located at 140, 220, 270 and 310 °K, whilst for the KBr crystals they were at 160 and 150 °K. The temperatures of the dielectric loss maxima coincided with the appropriate peaks on the photoluminescence and photoconductivity curves. A kinetic scheme was presented which permits elucidating the cause of maxima on the $\text{tg } \delta$ curves in the low temperature range.

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S/139/60/000/005/003/031
E073/E135

On the Dielectric Losses in X-ray Irradiated Crystals of NaCl, KCl and KBr Investigated at Elevated Temperatures at Wavelength 3.18 cm.

In the present paper the dependence of $\text{tg } \delta$ on the temperature is investigated for X-ray irradiated NaCl, KCl and KBr crystals excited in the F band in the temperature range 290-600 °K at the wavelength 3.18 cm. The relations between the dielectric losses, the luminescence and the photoconductivity are investigated. For measuring the dielectric constant the variational method was used in which the existence of clearances between the specimen and the waveguide wall does not affect appreciably the accuracy of measurement (Ref. 2). This is important due to the fact that the coefficient of linear expansion of the material of the waveguide walls differs from that of the specimen. The specimens were rectangular, with a cross-section equalling that of the waveguide. The crystals were grown according to the Kirooulos method and had a high degree of purity. To obtain as high saturation as possible of the crystals with F-, F'-, M- and other coloration centres the

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S/139/60/000/005/003/031

E073/E135

On the Dielectric Losses in X-ray Irradiated Crystals of NaCl, KCl and KBr Investigated at Elevated Temperatures at Wavelength 3.18 cm.

specimens were exposed to X-ray radiation at room temperature for 30-40 min and at the liquid nitrogen temperature for 5-10 min. The dependence of $\text{tg } \delta$ on the temperature was measured after heating a specimen from 77 °K to room temperature. The specimens were stored in darkness. No loss maxima were observed in the curves expressing the dependence of the dielectric losses on the temperature in the temperature range 77 to 600 °K, in alkali-halide crystals which were exposed to X-ray radiation and were not excited by light in the F-absorption band at the frequency 10^{19} c.p.s. In the temperature range 77 to 300 °K a monotonous increase in the losses was observed; in the temperature range 300 to 600 °K a progressive increase was observed in the dielectric losses with increasing temperature. The increase in the dielectric losses at elevated temperatures are obviously due to the weakening of the forces of interaction between the ions of the crystal lattices. As a result of that the ions are easily brought into motion by the ultrahigh frequency and absorb energy which results in a still

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S/139/60/000/005/003/031

E073/E135

On the Dielectric Losses in X-ray Irradiated Crystals of NaCl, KCl and KBr Investigated at Elevated Temperatures at Wavelength 3.18 μ m.

greater increase in the losses. For alkali-halide crystals which have been exposed to X-rays, illuminated in the F-absorption band in the range 77 to 600 $^{\circ}$ K at the wavelength 3.18 μ m, dielectric loss maxima were observed on the $\text{tg } \delta$ vs. temperature curves for the temperatures 200, 350, 410 and 490 $^{\circ}$ K for NaCl; 140, 220, 270, 310, 320 and 390 $^{\circ}$ K for KCl; and 160, 250 and 350 $^{\circ}$ K for KBr.

The temperatures of the maxima of the dielectric losses correspond to the peaks of the curves of the dependence of the infrared, visible and ultraviolet luminescence and photoconductivity on temperature. A part of the observed maxima of the dielectric losses, luminescence peaks and photoconductivity coincides with the temperature of disintegration of F-, F⁺, M- and other coloration centres. In the case that coloured alkali-halide crystals are excited by light in the F-absorption band and heated in the temperature range 77 to 600 $^{\circ}$ K, maxima of the dielectric losses and peaks in the infrared, visible and ultraviolet luminescence and the photocurrent occur simultaneously. All these phenomena

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85157

S/139/60/000/005/003/031
E073/E135

On the Dielectric Losses in X-ray Irradiated Crystals of NaCl, KCl and KBr Investigated at Elevated Temperatures at Wavelength 3.18 cm.

occur under identical experimental conditions; consequently they are caused by a single although complicated mechanism.

There are 3 figures and 18 references: 13 Soviet, 3 English, 1 Swedish and 1 German.

ASSOCIATION: Khar'kovskiy pedinstitut imeni G.S. Skovorody
(Khar'kov Pedagogic Institute imeni G.S. Skovoroda)

SUBMITTED: September 24, 1959

Card 5/5

YEZHIK, I.I.; SHAVLO, S.T.

Role of M-, R-, and F'-color centers in the mechanism of the infrared fluorescence of F-centers in alkali-halide crystals. *Izv.vys.ucheb.zav.; fiz.* no.1:46-53 '61. (MIRA 14:7)

1. Khar'kovskiy pedagogicheskiy institut imeni G.S.Skovorody.
(Color centers) (Alkali metal halides--Crystals)
(Infrared rays)

21372

S/126/61/011/004/022/023
E193/E483

21.4220 also 1454

AUTHORS: Shavlo, S.T. and Kosovtsova, N.A.

TITLE: X-ray and Mechanical Investigation of the Structural Changes in the AgCd (50 at.%) Alloy

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.11, No.4, pp.635-638

TEXT: It has been observed by other authors (Ref.2 and 3) that ordering (the $\beta \rightarrow \beta^0$ transformation), taking place in the AgCd alloy, entails passing of the alloy through an intermediate structure β_1 . The object of the present investigation was to determine (by X-ray diffraction analysis) the conditions under which the formation of the β_1 phase can take place and to measure the microhardness and U.T.S. of the β , β_1 and β^0 phases. The experiments were conducted on specimens 0.9 to 1.0 mm in diameter and 20 to 25 mm long, prepared by drawing the molten alloy into porcelain tubes. The results can be summarized as follows.

1. No evidence of the intermediate phase β_1 was found in specimens cooled in vacuum from 210 to 18°C in 250 to 300 h. The formation of the β_1 phase could be ensured by using a faster rate of cooling (cooling from 210 to 18°C in 20 to 30 h). The disordered

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ACCESSION NR: AP4034068

S/0126/64/017/004/0633/0635

AUTHOR: Shavlo, S. T.

TITLE: Acceleration of the ordering process of atoms and the increase of resistance of metals at cyclical thermal treatment in vacuum

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 4, 1964, 633-635

TOPIC TAGS: ordering process, beta phase, thermal treatment, silver, zinc, cadmium, radiogram

ABSTRACT: The purpose of this work was to show the significance of accelerating the ordering process of atoms in crystal lattices of AgCd and AgZn alloys by the method of cyclical thermal working in vacuum. Thermal treatment tended to accelerate the diffusion process. The cylindrical test specimens were obtained by drawing the melt through porcelain tubes of 1-1.2 mm diameter and 28-30 mm length. The initial β -phase always had a disordered structure, and it generally took a long time for transformation to the ordered β' -phase without thermal treatment. The AgZn specimen was heated in a furnace to 230C for 10 minutes and then was automatically moved within one minute to a cooler to be chilled to 18C in 25 minutes. The AgCd specimen was heated for 8-9 minutes to 210C and then cooled to 18C in 23 minutes. The temperatures were measured by platinum and platinum-rhodium thermocouples. The
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ACCESSION NR: AP4034068

β to β' transformation was observed by radiographic equipment. Without vacuum or thermal treatment, the time for ordering in AgCd and AgZn respectively was 200-207 hrs and 230-235 hrs. With vacuum and without thermal treatment these times were 165-167 and 170-175 hrs. With vacuum and with thermal treatment they were 72-74 and 72-74 hrs. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: Kafedra fiziki Khar'kovskogo sel'skokhozyaystvennogo instituta im. V. V. Dokuchayeva (Department of Physics, Khar'kov Agricultural Institute)

SUBMITTED: 08Mar63

ENCL: 00

SUB CODE: SS, MM

NO REF SOV: 008

OTHER: 007

Card 2/2

SHAVLOKHOV, A.Ye., inzh.

Investigating the performance of pneumatic driven wheels in
mellow soils. Trakt. i sel'khoz mash. 33 no.9:4-6 S '63. (MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii
sel'skogo khozyaystva.
(Agricultural machinery--Wheels)

SHVARTSMAN, B.Kh.; VOLKOVA, N.S.; SHAVLOKHOVA, T.T.; GABILEV, V.Kh.;
KASHKOVSKIY, M.S.

Industrial testing of the methods of obtaining high-grade
alumina from nepheline. TSvet. met. 35 no.7:41-45
Jl '62. (MIRA 15:11)
(Nepheline) (Alumina)

SHAVLOV, A.

Optical masers. Usp. fiz. nauk 75 no.3:569-582 n '61.
(MIRA 14:11)

(Masers)

SHAVIN, V. F.

Compilation of Original Relief Maps of Sections by Means of a Mountain
Phototransformer
Zh. ref. Tsentr. n-i. in-ta geod., aereos'yerki i kartogr., No 1, 1954

The method consists in using pictures with drawn parts of relief on which
decoded elements are transposed, the transformation points marked, and
the whole picture drawn in Chinese ink. This drawing is reproduced on
film by contact method and the obtained line negative used for further
contact prints which are thereafter processed on the mountain phototransformer
by conventional methods. (ZhAstr. No 10. 1955)

SO: Sun-No 757, 12 Jan 56

SHAVLOVICH, M., kand.tekhn.nauk

Everlasting materials "made to order." Tekh.mol. 29
no.10:22-23 '61.

(MIRA 14:10)

(Concrete) (Polymers)

s/081/62/000/021/051/069
B162/B101

AUTHOR: Shavlovich, M.

TITLE: Quick-curing polymeric materials

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 451, abstract
21P46 (Tekhn. v s. kh. no. 1, 1962, 82-85)

TEXT: Methods of obtaining quick-curing polymeric materials non-reinforced, reinforced with metals and with non-metallic reinforcement (polymer-concrete, polymer-ceramics, reinforced-polymer-concrete) that are suitable for the manufacture of building construction assembly elements, machine components and for agriculture are investigated. [Abstracter's note: Complete translation.]

Card 1/1

SHAVLOVICH, M. V.

SHAVLOVICH, M. V. -- "The Combined Drying of Capillary-Porous Materials in a High-Frequency Electrical Field at Low Pressure." Min Higher Education USSR. Moscow, 1955. (Dissertation for the Degree of Candidate in Technical Sciences).

So.: Knizhnaya Litopis', No. 7, 1956.

SHAVLOVICH, M., kand.tekhn.nauk, dotsent

Replacing cement concretes. NTO 3 no.2:31-34 F '61. (MIRA 14:3)

1. Kafedra fizkik Moskovskoy sel'skokhozyaystvennoy akademii imeni
K.A. Timiryazeva.

(Concrete)

12 5100
15 3000

27596
S/029/61/000/010/011/001
D037/D115

AUTHOR: Shavlovich, M., Candidate of Technical Sciences

TITLE: Durable materials "on order"

PERIODICAL: Tekhnika molodezhi, no. 10, 1961, 22-23

TEXT: The author describes previous unsuccessful Soviet attempts to produce a satisfactory plastic concrete and proposes a new method of producing this material. Cementless concrete, consisting of dry purified sand, 1.5 - 2.5% furfurole, 18-25% furfurolacetone "FA" monomers as binder and 3.5 - 4.5% benzoesulfonide as hardener, was first produced at Fergana in 1941. This concrete was water- and soundproof and heat, acid and alkali-resistant but was not stronger than cement concrete. Besides, it was too expensive and needed 70 days for hardening. Comparatively recently the Moskovskiy khimiko-tekhnologicheskii institut imeni D.I. Mendeleyeva (Moscow Chemical and Technological Institute imeni D.I. Mendeleev), the institutes of the Akademiya stroitel'stva i arkhitektury SSSR (Academy of Construction and Architecture USSR) and many other scientific research institutes continued the work on im-

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Pyroclastic materials ...

27596

S/029/61/CAC/CAC/001
DC37/0113

proving this type of plastic concrete. However, the prime cost of the product was too high and hardening took 50 to 60 days. The author proposes a new method whereby the plastic concrete solution is simultaneously subjected to high-frequency electric and low-frequency mechanical oscillations thus causing an unprecedented rapid polymerization and hardening. The total technological process takes 4 - 4.5 min. In the production of this so-called polymerconcrete, catalysts are not necessary since the variable frequency oscillations destroy the surface microfilm covering the particles of the hard substance. During the "shaking" process, the formerly inert surfaces of the hard particles acquire the properties of stronger catalysts. When the "shaking" is stopped, steady external and internal polymerization begins. This phenomenon is called interphase atomic nuclear superactivity. The polymer molecules form ideally-joined structures in which the filler particles are completely unified. A monolith of this type hardens within a few minutes, becomes very strong, and can resist a pressure of over 1000 kg per sq cm. Furthermore, polymerconcrete products do not require a metal reinforcement. They are not only superstrong but also durable. The high heat and sound insulating properties of the polymerconcrete, which at the same time is a good

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27596

S/029/61/000/010/003/004
D037/D113

+

Durable materials ...

dielectric, and its waterproofness and resistance to aggressive media make it an ideal material suitable for strong thin-walled pipes, large panels, bridges, pylons for high-voltage transmission lines, and containers for gas, acids and alkalis. Polymerconcrete reinforced with glass fillers is stronger than the most resistant steel and will be widely used in machine and machine tool building. The new method makes it possible to produce concrete with pre-imposed properties, without significant changes in the technological cycle. There is 1 figure.

Card 3/3.

5 3830

28986

S/191/61/000/011/002/008
B110/B147

AUTHOR: Shavlovich, M. V.

TITLE: New trends in the technology of hardening polymer materials

PERIODICAL: Plasticheskiye massy, no. 11, 1961, 13-14

TEXT: For the production of polymers by means of ion (cation) polymerization, compounds of acid character (e.g., organosulfonic acids) are used as catalysts. Their drawback is the fact that they remain in the polymer mass and, in the course of time, unfavorably affect its properties under working conditions (e.g., temperature rise, effect of light, etc.). The possibility of producing, without the use of acid hardeners, polymers prepared so far by means of ion polymerization, is of greatest interest since similar materials are widely used and their application will still increase in the near future. Such valuable compositions as, e.g., plastic concretes (or polymer concretes) belong to these materials. Many resin-impregnated organic and inorganic materials, which are subject to the effect of combined electromechanical oscillations of different frequencies, were found to acquire high-grade technological and operational properties owing to the

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B110/E-49

New trends in the technology of...

development of an interphase atomic and molecular superactivity. In hardening experiments of plastic concrete on the basis of FA (FA) monomer, performed according to the author's method, the following was found: (1) Hardening may be conducted without the use of acid catalysts. (2) Plastic concrete is hardened several hundred times faster than by other known hardening methods. Basic polymerization takes place within the first minute, and after cooling (15-25 min) the organomineral composition acquires stable mechanical and physicochemical properties. (3) The hardening temperature must lie within the 45-60°C range. (4) The mechanical and physicochemical properties of plastic concretes hardened by the new method are superior to those of ordinary plastic concretes (Table). (5) Due to better distribution of organic binders in the plastic concrete mass, their consumption may be reduced to less than half its original amount without impairing the material indices. (6) As a result of the accelerated hardening process, the savings on binders, and the elimination of hardeners, the cost of plastic concrete manufactured by the new method may be reduced to less than one-third that of the price of plastic concrete manufactured according to the catalyst method. (7) Simplification and acceleration of the hardening process of plastic concrete under the effect of combined

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B110/B147

New trends in the technology of...

electromechanical oscillations provide the conditions for the automation of a continuous, accelerated production of building elements and all types of articles from plastic concretes and various plastics. Although the results obtained from the new hardening process are of a preliminary nature, they clearly prove the prospects of the method proposed. In order to clarify all possibilities of this method and give a complete evaluation of the polymers obtained, further theoretical research of the physicochemical processes taking place during accelerated hardening will be required, as well as the establishment of an experimental plant for elaborating the automatic continuous production of fast-hardening polymer concretes and other plastics. [Abstracter's note: Complete translation.] There are 1 table and 3 Soviet references.

Table. Fundamental properties of plastic concretes produced by various methods. Legend: (1) Characteristics. (2) Heating to 60°C with catalyst. (3) Combined heating to 45°C with high-frequency oscillations. (4) Excitation of atomic and molecular superactivity. (5) Type of effect. (6) Time of hardening, hr. (7) Strength limit, kg/cm². (8) On compression. (9) On expansion. (10) On bending. (11) Elongation on expansion, %. (12)

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New trends in the technology of...

S/191/61/000/011/002/G08

B110/B147

Specific impact strength, $\text{kg}\cdot\text{cm}\cdot\text{cm}^2$. (13) Brinell hardness, kg/mm^2 . (14)
Coefficient of linear expansion, 10^{-5} cm/deg. (15) Thermal conductivity,
 10^{-4} cal/cm \cdot sec deg. (16) Heat resistance according to Martens by a
method altered by the author, $^{\circ}\text{C}$. (17) Disruptive voltage, kv/mm. (18)
Stability in aggressive media. (19) In H_2SO_4 , HCl, and other acids.
(20) In alkalis. (21) In mineralized water. (22) In oils and gasoline. ~~X~~
(23) Capillary suction. (24) Color of hardened mass. (25) Smell of
hardened mass. (26) Color change of hardened mass under intense solar
radiation. (27) Reduction of mechanical strength during heating to
 $350-450^{\circ}\text{C}$, %. (28) Test for frost resistance in 100 cycles from -45 to
 $-350-450^{\circ}\text{C}$. (29) Stable. (30) None. (31) Dark gray. (32) Slight
resinous smell. (33) Gray. (34) Light gray. (35) Without smell.
(36) No color change. (37) Slight yellow coloring. (38) The material
became unserviceable during the last test stage. (39) Properties hardly
change. (40) Properties do not change.

Card 4/5

S/081/62/000/005/103/112
B026/B101

AUTHOR: Shavlovich, M. V.

10

TITLE: New high-strength polymeric waterproofing materials

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 609-610,
abstract 5P48 (Gidrotekhn. i melioratsiya) no. 6, 1961,
47-50) ¹

TEXT: The use of electromechanical polyresonance oscillations of various frequencies makes it possible to obtain quick-hardening, high-strength, waterproofing plastic concretes without a catalyst. In this way, the consumption of raw material is greatly reduced, which cuts the cost of the plastic concrete. quick-hardening plastic concretes can be used to produce thin-walled high-strength pipes and large-size waterproofing panels. For joining the untreated panels the joint is subjected to the action of polyresonance oscillations. [Abstracter's note: Complete translation.] ✓

Card 1/1

Chem Abs

v. 48 25 Jan 54

Botany

✓ Participation of microorganisms of the rhizosphere in the supply to plants of organic compounds of sulfur. G. M. Shavlovskii. *Doklady Akad. Nauk S.S.S.R.* 91, 1213-16 (1953).—Expt. with S^{35} -labeled methionine on seedlings of barley, corn, and peas showed that the plants are able to absorb this amino acid readily, with greatest accumulation in the roots, under sterile conditions. Expts. with *Pseudomonas aurantiaca* showed that its activity results in accumulation of org. and inorg. S derivs. Cultures on $Na_2S^{35}O_4$ gave cells with high count of S^{35} . The grown organisms were planted in the sugar-inorg. medium and were shown to produce 55-75.9% org. S derivs. in the medium; these were identified chromatographically as cystine-cysteine; these had considerable S^{35} activity, while the inorg. S had little S^{35} . The autolyzates were added to cultures of barley seedlings, which resulted in selective uptake of S^{35} by the root systems, with transmission through the plant. Use of live cultures of S^{35} -labeled *P. aurantiaca* gave similar results.
G. M. Kosolapoff

SHAVLOVSKIY, G. M.

"Rhizosphere Microorganism Participation in the Vitamin and Amino Acid Nourishment of Plants." Cand Biol Sci, L'vov U, L'vov, 1954. (RZhBiolKhim, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: SUM No. 556, 24 Jun 55

SHAYLOVSKIY, G.M.

Participation of microorganisms of the rhizosphere in the supply of plants with vitamins. G. M. Shaylovskii. *Doklady Akad. Nauk S.S.S.R.* 93, 1101-4 (1954); cf. *C.A.* 48, 5167. Typical inhabitants of the rhizosphere, such as *Pseudomonas fluorescens*, *P. aurantiaca*, *Agrobacterium radiobacter*, and *Bacterium herbicola* synthesize and eliminate vitamin B₁, biotin, vitamin B₆, and nicotinic acid. *P. aurantiaca* is particularly active. Pea, corn, and buckwheat plants under sterile conditions are able to take up vitamin B₁ (labeled with S³⁵) which is then located both in the roots and the upper parts of the plants. Younger plants generally accumulate the vitamin in the leaves, older ones in roots and stems, although these effects may be a consequence of the beginning of intense synthesis of the vitamin in the leaves, followed by its transfer. Despite the synthetic activity, the plants continue to take up the vitamin from the nutrient medium. When S³⁵-labeled vitamin B₁ was introduced into the cells of *P. aurantiaca*, *Torulopsis litorea*, and *Rhodotorulopsis rubra* and the washed specimens were introduced as a suspension onto sterilized seeds of buckwheat which were then grown in sand cultures, the plants accumulated measurable amts. of S³⁵ in all parts; *P. aurantiaca* gave the most transfer. *T. litorea* and mixts. of *P. fluorescens*, *A. radiobacter*, and *B. herbicola* gave somewhat lower degree of vitamin transfer (again traced by S³⁵).

G. M. Kosolapoff

Inst. Microbiology, AS USSR

SHAVLOVSKIY, G. M

"Role of Microorganisms of Rhizospheres in Vitamin and Amino Acid Nourishment of Plants," edited by A. A. Imshenetskiy, Corresponding Member, Academy of Medical Sciences USSR, Moscow, Publishing House of the Academy of Sciences USSR, 1955, 239 pp

Sum 1467

SHAYLOVSKIY, G.M.

Med ✓ Effect of iron on biosynthesis of riboflavine (vitamin B₂) by *Candida guilliermondii*. G. M. Shavlovskii and V. S. Chistyakova (I. Franko State Univ., Lvov). *Doklady Akad. Nauk S.S.S.R.* 111, 887-9(1958).—Addn. of Fe to the culture medium (from 0.1 to 0.11 γ /ml.) lowers the yield of riboflavine with a slight retardation of growth of the yeast and shows a reduction of the rate of formation of riboflavine. In Burkholder medium the increase of Fe even to 1 γ /ml. does not tend to destroy the already existing riboflavine, and the normal content of catalase activity in the cells. The organism tends to acidify the culture during growth, with pH drop to 2-2.5 being observed in several days, when Fe content is kept low and the riboflavine production is at high level. Among the acids, citric acid was identified.
G. M. Kosolapoff

SHAYLOVSKIY, G.M.

Stimulation of riboflavin synthesis in the yeast *Candida guilliermondii* in the presence of iron in the culture medium [with summary in English]. *Mikrobiologiya* 27 no.6:692-697 N-D '58. (MIRA 12:1)

1. L'vovskiy gosudarstvenny universitet.

(MONILIA, metab.

guilliermondii, riboflavin synthesis in presence of iron (Rus))

(VITAMIN B₂, metab.

Monilia guilliermondii, synthesis in presence of iron (Rus))

(IRON, eff.

on *Monilia guilliermondii* synthesis of vitamin B₂ (Rus))

17(3)

AUTHORS: Slavlovskiy, G. M., Bogatchuk, A. M. SOV/20-123-6-33/50

TITLE: Synthesis of Coproporphyrin by the Yeasts *Candida Guilliermondii* (Sintez koproporfirina drozhzhami *Candida guilliermondii*)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 133, Nr 6, pp 1077 - 1080 (USSR)

ABSTRACT: The porphyrins, either in combination with metals (iron or manganese) or free, take part in highly important redox reactions of the cells: photosynthesis and respiration. Free porphyrins were found in bacteria, mold fungi and yeast fungi (Refs 1,8). It is mostly coproporphyrin that can be accumulated both in the cells and in the culture medium. The formation of higher amounts of coproporphyrin usually occurs as a consequence of a disturbed synthesis of hematine or of bacteriochlorophyll or as a consequence of an iron deficiency in the culture medium (bacteria) (Ref 7). In yeasts, the insufficient supply of riboflavine to the cells (Ref 10) is said to be the cause of it. The authors prove in their paper that some

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Synthesis of Coproporphyrin by the Yeasts *Candida*
Guilliermondii

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yeast fungi accumulate coproporphyrin in spite of an intense riboflavine synthesis. Thus some other causes for the porphyrin formation than riboflavine deficiency may exist. The yeast species mentioned in the title (ATCC 9058) was cultivated on a sugar-mineral culture medium of Berkgol'der which glycocoll and a sufficient iron quantity. In addition to the disappearance of the cytochromes from the cells a substance which was red fluorescent in ultraviolet rays was accumulated which was determined as coproporphyrin (Refs 6,8). The elimination of glycocoll from the culture medium (Table 1) as well as certain other culture media led to a decrease or even to a stop in the coproporphyrin formation. A subspecies of this yeast species, *C. guilliermondii* var. *membranaefaciens*, further *Saccharomyces ellipsoideus* 465 did not form considerable coproporphyrin amounts under similar conditions (Fig 2). It becomes more and more convincing that the same low-molecular weight precursors, e.g. glycocoll (Refs 7,9), take part in the formation of the prophyrins, of the riboflavine and of vitamin B₁₂ in certain stages of the synthesis. The pheno-

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Synthesis of Coproporphyrin by the Yeasts *Candida*
Guilliermondii

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menon of "porphyria" in microbe-"hypersynthesizers" of these vitamins points, according to the authors' opinion, to an increased lability of the metabolism which is connected with the formation of heterocyclic compounds. *C. guilliermondii* synthesize considerable quantities of the III isomer of the coproporphyrin. It is accumulated in the vacuole apparatus of the cells. The yeast autolysate stimulates the formation of coproporphyrin. There are 2 tables and 12 references, 1 of which is Soviet.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. Iv. Franko (L'vov State University imeni Iv. Franko)

PRESENTED: July 11, 1958, by V. N. Shaposhnikov, Academician

SUBMITTED: July 2, 1958

Card 3/3

SHAVLOVSKIY, G.M.

Effect of iron on the riboflavin synthesis and respiratory systems
of *Candida guilliermondii* yeasts. Trudy Inst. mikrobiol. no. 6:157-
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1. L'vovskiy gosudarstvennyy universitet im. I. Franko.
(CANDIDA GUILLIERMONDII)

SHAVLOVSKIY, G.M.; BOGATCHUK, A.M.

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Candida guilliermondii. Biokhimiia 25 no.6:1043-1048 N-D '60,
(MIRA 14:5)

1. Chair of Plant Physiology and Biochemistry, State University,
Lvov.

(COPROPORPHYRIN) (YEAST)

SHAVIOVSKIY, G. E. and FIKTASH, I. S.

"Some Features of Flavinogenesis in Yeast Cell,"

report presented at the IUB, Fifth Intl. Congress of Biochemistry,
Moscow, 10-16 Aug 1961

paper available

SHAVLOVSKY, G. M., FIKTASH, I. S., (USSR)

"Features of the Flavin Synthesis by Yeast Cells."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961.

SHAVLOVSKIY, G.M.; TSARENKO, Ye.M.; FIKTASH, I.S.

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(CANDIDA TROPICALIS)

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SHAVLYUGA, N. L.

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Microfilm T-12

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SHAVLYUGA, N. I.

36169 Osnovnyye napravleniya v proyektirovani spetsializirovannykh stankov. V. sb:
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Kinematicheskkiye tsepi metallurgicheskikh stankov AID 750 - I

interdependent parts and mechanisms. It indicates the method for their adjustment, their mutual dependence and their characteristics. The book presents kinematic diagrams for ordinary and more complicated high-speed lathes. The author devotes separate chapters to description of kinematic drives in the milling machines, in the drilling and boring machines, planning machines, semi-automatic gear-cutting machines, semi-automatic gear planning machines and semi-automats for gearing conical ring-gear planning and in the gear-grinding machines with their numerous subdivisions or variations. The text of the book is profusely illustrated with drawings and tables.

No. of References: 27, Russian; 1933-1949
Facilities: Leningrad Polytechnic Institute

2/2

~17144/0371, 111
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ARDASHNIKOV, L.A., SHAVLYUGA, N.I., kandidat tekhnicheskikh nauk,
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[Introduction of progressive work methods in the gear-cutting
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SHAVLYUGA, N.I.

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DOBROVOL'SKIY, V.A., professor, doktor tekhnicheskikh nauk, zaslu-
zheny deyatel' nauki i tekhniki, retsenzent; PYZH, O.A., inzhener,
laureat Stalinskoy premii, retsenzent; SHAVLYUGA, N.I., kandidat
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KOLCHIN, N.I., professor, redaktor; TURETSKIY, I.Yu., kandidat
tekhnicheskikh nauk, redaktor; SHAVLYUGA, N.I., dotsent, redaktor;
VASIL'YEVA, V.P., redaktor izdatel'stva; POL'SKAYA, R.G., tekhnicheskiy redaktor

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MITSENGENDLER, Mikhail Litmanovich; GINZBURG, Ye.G., inzhener, retsenzent;
KOLCHIN, N.I., professor, redaktor; TURETSKIY, I.Yu., kandidat
tekhnicheskikh nauk, redaktor; SHAVLYUGA, N.I., dotsent, redaktor;
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I.M., kandidat tekhnicheskikh nauk, dotsent, retsenzent; SHAVLYUGA,
N.I., kandidat tekhnicheskikh nauk, dotsent, redaktor; LEYKINA, T.L.,
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KUCHER, Iosif Mikhaylovich, kandidat tekhnicheskikh nauk, dotsent; ~~SHAVLYUGA, Nikolay Ignat'yevich, kandidat tekhnicheskikh nauk, dotsent;~~
BARKSKIY, M.E., inzhener, redaktor; DRUZHINSKIY, I.A., kandidat tekhnicheskikh nauk, redaktor; SIMONOVSKIY, N.Z., redaktor izdatel'stva; SOKOLOVA, L.V., tekhnicheskiiy redaktor

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KOLCHIN, N.I., professor, doktor tekhnicheskikh nauk, redaktor;
PRAVITSKIY, I.Yu., kandydat tekhnicheskikh nauk, redaktor;
~~SHVETSKAYA, M.~~, dotsent, kandydat tekhnicheskikh nauk, redaktor;
POD'SKAYA, M., tekhnicheskiiy redaktor

[reconditioning the precision of gear-cutting machinery] Vosstanovle-
nie tekhnologicheskoi tekhnologii zubofrezernykh stankov. Pod obshchei
red. N.I. Kolchina. Moskva, Vsesoyuznyy nauchno-issledovatel'skiy
tsentr mashinostroyeniya (Biblioteka zubofrezernykh stankov, no. 7)
(Gear-cutting machines) (MIRA 13:10)

KUCHER, Iosif Mikhaylovich; KUCHER, Aleksandr Mikhailovich; ANSEROV, M.A.,
kand.tekhn.nauk, dotsent, red.; SHAVLYUGA, N.I., kand.tekhn.nauk,
dotsent, retsenzent; MANSYREV, I.G., inzh., red.; CHFAS, M.A., red.
izdatel'stva; POL'SKAYA, R.G., tekhn.red.

[Lathes; their modernization and automatization] Tokarnye stanki,
ikh modernizatsiia i avtomatizatsiia. Izd.2-oe, perer.i dop. Pod
obshchei red.M.A.Anserova. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit.lit-ry, 1957. 138 p. (Bibliotechka tokaria-novatora,
no.3) (MIRA 10:12)

(Lathes)

SHAVLYUEVA, N.I.

TURETSKIY, Iosif Yudelevich, kandidat tekhnicheskikh nauk; LYUBIMKOV, Leonid Nikolayevich; CHERNOV, Boris Vasil'yevich; KOLCHIN, N.I., professor, doktor tekhnicheskikh nauk, redaktor; SHAVLYUEVA, N.I., dotsent, kandidat tekhnicheskikh nauk, redaktor vypuska; GOFMAN, Ye.K., redaktor izdatel'stva; ANDOZHSKIY, V.D., kandidat tekhnicheskikh nauk, dotsent, retsenzent; POL'SKAYA, R.G., tekhnicheskiiy redaktor.

[Making of very precise gearing] Izgotovlenie osobo tochnykh zubchatykh peredach. Pod obshchei red.N.I.Kolchina. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1957. 179 p. (Bibliotekha zuboreza-novatora, no.6) (MLRA 10:5)

(Gearing)

SHAVLYUGA, N.I.

PTITSYN, Gennadiy Anatol'yevich; KOKICHEV, Valentin Nikolayevich; FEDOTENOK, A.A., kand.tekhn.nauk, dotsent, retsenzent; SHAVLYUGA, N.I., kand.
tekhn.nauk, dotsent, red.; BORODULINA, I.A., red.izdatel'stva;
SPERANSKAYA, O.V., tekhn.red.

[Gear-cutting machines; a handbook] Zuboreznye stanki; spravochnoe
posobie. Izd.2-oe, dop.i perer. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit.lit-ry, 1957. 448 p. (MIRA 11:1)
(Gear-cutting machines)

SPINNING

MARKOV, Arkadiy L'vovich; KONOVALOV, Nikolay Petrovich; KOLCHIN, N.I., prof.,
red.; TURETSKIY, I.Yu., kand. tekhn. nauk, red.; SHAVLYUGA, N.I.,
dots., kand. tekhn. nauk, red.; VOLOSEVICH, F.P., inzh., retsenzent;
VASIL'YEVA, V.P., red. izd-va; POL'SKAYA, P.G., tekhn. red.

[Checking gear wheels] Kontrol' zubchatykh koles. Pod red. N.I.
Kolchina. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,
1958. 90 p. (Bibliotekha zuboreza-novatora, no.9). (MIRA 11:8)
(Gear cutting)

25(2,7); 28(1)

PHASE I BOOK EXPLOITATION

SOV/3205

Shavlyuga, Nikolay Ignat'yevich

Avtomatizatsiya v zuboreznom dele (Automation of Gear Cutting) Moscow, Mashgiz, 1958. 104 p. (Series: Bibliotekha zuboreza-novatora, vyp. 10) 10,000 copies printed.

Gen. Ed.: N.I. Kolchin, Doctor of Technical Sciences, Professor; Editorial Board: N.I. Kolchin (Chairman), I.Yu. Turetskiy, Candidate of Technical Sciences, and N.I. Shavlyuga, Candidate of Technical Sciences, Docent; Reviewer: S.G. Printsental', Engineer; Ed.: I.M. Kucher, Candidate of Technical Sciences, Docent; Managing Ed. for Literature on the Design and Operation of Machinery (Leningrad Division, Mashgiz): F.I. Fetisov, Engineer; Ed. of Publishing House: N.Z. Simonovskiy; Tech. Ed.: R.G. Pol'skaya.

PURPOSE: This booklet is intended for skilled operators and setters of gear-milling machines and foremen and process engineers in the gear-manufacturing industry.

COVERAGE: The booklet deals with partial and full automation of gear-cutting processes. Individual automatic gear-cutting machines and groups of automatic
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SOV/3205

Automation of Gear Cutting

8. Automation of semi-automatic gear-milling machines	20
9. Automatic gear-milling machine for oblique milling	28
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11. Gear-grinding machine with automatic operating cycle	36
12. Automatic feeding of gear-milling and gear-shaving machines	44
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14. Selection of the basic parameters of products for the automation of setup correction	57
15. Manufacturing-tolerance zone	59
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17. Changes in constructions of gear-milling machines	63

Card 3A

VYGODER, Mikhail Izrailevich; MITSSENGENDLER, Mikhail Litmanovich; KOLCHIN, N.I., prof., doktor tekhn.nauk, red.; TURETSKIY, I.Yu., kand. tekhn.nauk, red.; SHAVLYUGA, M.I., dotsent, kand.tekhn.nauk, red.; KUCHER, I.M., kand.tekhn.nauk, retsenzent; VASIL'YEVA, V.P., red. izd-va; POL'SKAYA, R.G., tekhn.red.

[Calculations and examples of adjustments of gear planing and shaping machines] Raschet i primery naladok zubodolbeznykh i zubostrogal'nykh stankov. Pod red. N.I. Kolchina. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 117 p.
(Bibliotekha zuboreza-novatora, no.4) (MIRA 12:2)
(Gear-cutting machines)

SHAVLYUGA, Nikolay Igant'yevich, kand.tekhn.nauk dots.; VYGODER, Mikhail Izrailevich, inzh.; KOLCHIN, N.I., prof. doktor tekhn.nauk, red.; TURETSKIY, I.Yu., kand.tekhn.nauk, red.; KUCHER, I.M., kand. tekhn.nauk, dots., red.; VASIL'YEVA, V.P., redaktor izd-va; POL'SKAYA, R.G., tekhn.red.

[Design and examples of repairing gear-cutting and slot cutting machines] Raschet i primery naladok zubofrezernykh i shlitsefrezernykh stankov. Pod obshchei red. N.I.Kolchina. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1958. 169 p.
(Bibliotekha zuboreza-novatora, no.3) (MIRA 11:5)
(Gear-cutting machines)

SOFOLEV, Nikolay Pavlovich; RUSINOV, M.M., prof., doktor tekhn.nauk,
retsenzent; SHAVLYUGA, N.I., kand.tekhn.nauk, dots., red.;
LEYKINA, T.L., red.izd-va; POL'SKAYA, R.G., tekhn.red.

[Optics in metal cutting machine tools] Optika v metallorezhu-
shchikh stankakh. Moskva, Gos. nauchno-tekhn.izd-vo mashino-
stroit. lit-ry, 1958. 246 p. (MIRA 11:4)
(Machine tools)

KUCHER, Aleksandr Mikhaylovich; KIVATITSKIY, Mikhail Moiseyevich;
SHAVLYUGA, N.I., kand.tekhn.nauk, red.; VARKOVETSKAYA, A.I.,
red.izd-va; SHCHETININA, L.V., tekhn.red.

[Machine tools; brief description of kinematic systems.
Supplement to instructional wall sheets. Series 1: Lathes]
Metallorazhishchie stanki; kratkoe opisanie kinematicheskikh
skhem. Prilozhenie k plakatom. Seriya 1: Tokarnye stanki.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959.
38 p. (MIRA 13:11)

(Lathes)

KUCHER, Aleksandr Mikhaylovich; KIVATITSKIY, Mikhail Moiseyevich;
POKROVSKIY, Antony Aleksandrovich; SHAVLYUGA, N.I., kand.
tekhn.nauk, red.; VARKOVETSKAYA, A.I., red.izd-va; SHECH-
TININA, L.V., tekhn.red.

[Metal-cutting machine tools; brief descriptions of kinematic systems. Supplement to posters Set No.3: Planing, broaching, grinding, and gear-cutting machines] Metallorezhushchie stanki; kratkoe opisanie kinematicheskikh skhem. Prilozhenie k plakatam Seria III: Stogal'nye, spotiazhnye, shlifoval'nye i zuboobrabatyvaiushchie stanki. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroi. lit-ry, 1959. 46 p. [___Set of posters: "Kinematic systems of metal-cutting machine tools."] ___ Seria plakatov: "Kinematicheskie skhemy metallorezhushchikh stankov." 13 diagr.

(MIRA 13:5)

(Machine tools)

25(2)

PHASE I BOOK EXPLOITATION

SOV/2980

Shavlyuga, Nikolay Ignat'yevich

Kinematicheskkiye tsepi metallovezhushchikh stankov (Kinematic Chains of Machine Tools) 2d ed., rev. and enl. Moscow, Mashgiz, 1959. 363 p. Errata slip inserted. 10,000 copies printed.

Reviewer: N. P. Sobolev, Professor; Ed. of Publishing House: I. A. Borodulina; Tech. Ed.: L. V. Shchetinina; Managing Ed. for Literature on Machine-building Technology (Leningrad Division, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for technical personnel engaged in the maintenance of machine tools. It may also be useful to students of schools of higher education studying the theory of kinematic chains and the principles of machine-tool design.

COVERAGE: This book deals with an analysis of basic kinematic chains of standard machine tools. It makes use of design examples to explain the method of separation of kinematic chains, the selection of design displacements, the working of equations for simple and differential chains, and the derivation of formulas for setting standard machine tools. Automatic and semiautomatic machine tools

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SHAVLYUGA, Nikolay Ignat'yevich; KOLCHIN, N.I., zasl. deyatel' nauki i tekhniki RSPSR, doktor tekhn. nauk, prof., red.; KUCHER, I.M., kand. tekhn. nauk, red.; SIMONOVSKIY, N.Z., red. izd-va; BARDINA, A.A., tekhn. red.

[Mechanization and automation of gear-cutting operations]Me-
khanizatsiia i avtomatizatsiia v zuboreznom dele. Pod obsheii
red. N.I.Kolchina. Izd.2. Moskva, Mashgiz, 1962. 91 p.
(Bibliotekha zuboreza, no.8) (MIRA 15:9)
(Gear cutting--Technological innovations)
(Automation)

KUCHER, Aleksandr Mikhailovich, kand. tekhn. nauk; KIVATILSKIY, Mikhail Moiseyevich; POKROVSKIY, Antoniy Aleksandrovich; FEDOTENOK, A.A., doktor tekhn. nauk, retsenzent; TSYPKIN, M.Ye., inzh., retsenzent; SHAVLYUGA, N.I., kand. tekhn. nauk, red.; VARKOVETSKAYA, A.I., red. izd-va; LEYKINA, T.L., red. izd-va; KUREPINA, G.N., red. izd-va; SHCHETININA, L.V., tèkhn. red.

[Machine tools; album of general design; kinematic diagrams and units] Metallorezhushchie stanki; al'bom obshchikh vidov, kinematicheskikh skhem i uzlov. Pod obshchei red. A.M. Kuchera. Moskva, Mashgiz, 1963. 282 p. (MIRA 16:7)
(Machine tools--Design and construction)

BARUN, Vladimir Abramovich; BUDINSKIY, Aron Abramovich; MITROFANOV, S.P.,
doktor tekhn. nauk, retsenzent; SHAVLYUGA, N.I., kand. tekhn.
nauk, red.; KUREPINA, G.N., red.izd-va; SPERANSKAYA, O.V., tekhn.
red.

[Automatic control systems for machine tools]Sistemy avtomatiza-
tsii stankov. Moskva, Mashgiz, 1963. 430 p. (MIRA 16:4)
(Machine tools) (Automatic control)

SHAVLYUGA, N.I.; KOLCHIN, N.I. . zasl. deyatel' nauk i tekhniki
SFSR, doktor tekhn.nauk, prof., red.; TURETSKIY, I.Yu.,
kand. tekhn.nauk, retsenzent; YELESINA, O.G., inzh., red.;
GOFMAN, Ya.K., red.izd-va; BARDINA, A.A., tekhn. red.

[Calculation and examples of the adjustments of gear-milling
and gear-shaping machines] Raschet i primery naladok zubo-
frezernykh i zubodolbeznykh stankov. Pod obshchei red. N.I.
Kolchina. Moskva, Mashgiz, 1963. 136 p. (Bibliotechka
zuboreza, no.3) (MIRA 16:7)
(Gear-cutting machines) (Gear-shaping machines)

SOBOLEV, N.P. [deceased]; VITENBERG, Yu.R.; SHAVLYUGA, N.I., kand. tekhn. nauk, retsenzent, FIRUN, N.B., kand. tekhn. nauk, red., CHEFAS, M.A., red izd-va, VARKOVETSAYA, A.I., red. izd-va; BARDINA, A.A., tekhn. red.

[Gear-cutting machines and tools used in the instrument industry] Zubotrabyvayushchie stanki i instrumenty v priborostroenii. Moskva, Mashgiz, 1963. 306 p.

(MIRA 16:10)

(Instrument industry) (Gear-cutting machines)