KOVALYUSHKO, S.P.; KIREYEV, F.M. [Kirieiev, F.M.], red.; LUPKO, A.Ya., red.; SEMENKO, M.V., red.

[Economic manual on collective farm planning] Ekonomichnyi dovidnyk po planuvanniu v kolhospakh. Kyiv, Derzh.vyd-vo sil's'kohospodars'koi lit-ry URSR, 1959. 447 p. (MIRA 12:12)
(Collective farms)

GAYDUK, V.M. [Haiduk, V.M.], inzh.; SEMENKO, M.V., red.; SAVCHENKO, M.S., tekhn. red.

[Interior electrical wiring] Vnutrishnia elektrychna provodka. Kyiv, Derzhshil'hospvydav URSR, 1960. 62 p. (MIRA 15:7)

(Electric wiring, Interior)

OLEYNIK, Viktor Stepanovich [Oliinyk, V.S.], kand.tekhn.nauk;
SEMENKO, M.V., red.; SAVCHENKO, M.S., tekhn. red.

[Maintenance and repair of electrical equipment] Tekhnichne obsluhovuvannia i potochnyi remont elektroobladnannia. Kyiv, Derzhsil'hospvydav URSR, 1960. 71 p. (MIRA 15:7)
(Electric machinery--Maintenance and repair)

VYSOCHIN, Boris Avksent'yevich[Vysochyn, B.O.], kand.tekhn.nauk;
KALEKUST, Mikhail Yefremovich, inzh.; SEMENKO, M.V., red.;
SAVCHENKO, M.S., tekhn. red.

[Use of electric motors and start-protecting equipment]
Ekspluatatsiia elektrodvyhuniv ta puskozakhysnoi aparatury.
Kyiv, Derzhsil'hospvydav URSR, 1960. 88 p. (MIRA 15:7)
(Electric motors--Starting devices)

GLUSHCHENKO, Vladimir Petrovich [Hlushchenko, V.P.]; YAVORSKIY, Al'fred Al'fredovich [IAvors'kyi, A.A.]; SEMENKO, M.V., red.; GULENKO, O.I. [Hulenko, O.I.], khud.-tekhn.red.

[Mechanization of livestock farms in connection with loose housing of cattle] Mekhanizatsiia ferm z bezpryv'iaznym utrymanniam khudoby. Kyiv, Derzh.vyd-vo sil's'kohospodars'koi lit-ry URSR, 1960. 98 p. (MIRA 14:1)
(Farm mechanization) (Dairy barns)

GAYDUK, Vladimir Nikitovich [Haiduk, V.M.]; SAGACH, Mikhail Fedorovich [Sahach, M.F.]; SEMENKO, M.V., red.; CHEREVATSKIY, S.A. [Cherevats'kyi, S.A.], tekhn. red.

[Thermoelectric systems in agriculture] Elektroteplovi sil's'kohospodars'ki ustanovky. Kyiv, Derzh. vyd-vo sil's'kohospodars'koi lit-ry URSR, 1961. 138 p. (MIRA 15:3)
(Electricity in agriculture)

STORCHAK, Ivan Markovich; SEMENKO, M.V., red.; CHEREVATSKIY, S.A. [Cherevats'kyi, S.A.], tekhn.red.

[Repair of the hydraulic systems of tractors and harvesters] Remont traktornykh ta kombainovykh hidrosystem. Kyiv, Derzhsil'hospvydav URSR, 1961. 184 p. (MIRA 15:5)

(Tractors--Repairing)
(Harvesting machinery--Repairing)

BABETS, Konstantin Konstantinovich; YEGOROVA, Praskov'ya Aleksandrovna; SEMENKO, Mikhail Ivanovich; BOYARSKIY, V.A., otv. red.; SLAVOROSOV, A.Kh., red.izd-va; LOMILINA, L.N., tekhn. red.

[Blasting in underground ore mining]Vzryvnik pri podzemnoi dobyche rud. Moskva, Gosgortekhizdat, 1962. 146 p. (MIRA 16:2)
(Blasting)

SEMENKEVICH, N.

A famous Russian aviator. Kryl.rod. 13 no.6:16 Je '62.
(MIRA 19:1)

SEMENKO, N.A., prof., doktor tekhn.nauk

Combined power and technological processes in connection with heat processes in metallurgical plants. Trudy NTO chern. met. 20:229-235 '60. (MIRA 13:10)

1. Moskovskiy energeticheskiy institut.
(Metallurgical plants)

SEMENKO, N.G.

High-precision ferrotransistor measuring converters. Nov.nauch.-issl.rab.po metr. VNIIM no.4:31-35 '64.

Errors of transistorized measuring oscillators. Nov.nauch.-issl. rab.po metr. VNIIM no.4:36-38 '64. (MIRA 18:3)

VEKSLER, A.Z.; SEMENKO, N.G.

Device for integrating small d.c. voltages. Trudy inst. Kom. stand., mer. i izm. prib. no.74:90-100 '63. (MIRA 18:10)

1. Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta metrologii im. D.I.Mendeleyeva.

L 7243-66 EWT(1)/EWA(h)
ACC NR: AP5023119 SOURCE CODE: UR/0103/65/026/009/1599/1605

AUTHOR: Veksler, A. Z. (Sverdlovsk); Semenko, N. G. (Sverdlovsk)

ORG: none

TITLE: Investigation of the push-pull measuring ferro-transistor voltage-to-frequency transducer

SOURCE: Avtomatika i telemekhanika, v. 26, no. 9, 1965, 1599-1605

TOPIC TAGS: voltage frequency transducer

ABSTRACT: Operation of the dc-voltage-to-frequency measuring transducer with nonsquare-loop iron cores is theoretically analyzed. Unlike in the F. Heistermann work (AEG Mitteilungen, v. 5, no. 1/2, 1960), no piecewise-linear approximation of the hysteresis loop is adopted; instead, an allowance is made for the details of the magnetic-flux-reversal phenomena, and a complicated approximate formula

Card 1/2 UDC: 621.314.28

L 7943-66
ACC NR: AP5023119

for the output frequency is developed. Under some practical conditions, however, this formula can be reduced to $f = \alpha U + f_o$, where f_o is a certain frequency correction, constant for each particular transducer. Data obtained from a two-79NMA-transistor permalloy-torus 20-cps-max transducer verify the degree of accuracy of the design formulas. Within +20 + 50C, the frequency variation was 0.9% per 10C. Orig. art. has: 4 figures and 23 formulas.

SUB CODE: 09 / SUBM DATE: 20May64 / ORIG REF: 004 / OTH REF: 002

Card 2/2

PHASE I BOOK EXPLOITATION SOV/5325

International Geological Congress. 21st, Copenhagen, 1960.

Granito-gneysy (Gneissose Granites) Kiyev, Izd-vo AN UKrSSR, 1960. 174 p. 1,000 copies printed. (Series: Doklady sovetskikh geologov, problema 14) Added t. p. in English.

Sponsoring Agency: Akademiya nauk Soyuza SSR. Akademiya nauk Ukrainskoy SSR. Ministerstvo geologii i okhrany nedr SSSR. Natsional'nyy komitet geologov Sovetskogo Soyuza.

Editorial Board: Resp.Eds.: N.P. Semenenko, D.S. Korzhinskiy, and G.D. Afanas'yev; Ed. of Publishing House: V.N. Zaviryukhina; Tech. Ed.: A.A. Matveychuk.

PURPOSE: This book is intended for geologists and petrographers, as well as students of geology at schools of higher education.

COVERAGE: The book contains 13 articles representing the reports given by Soviet scientists at the 21st Session of the International Geological Congress. The individual reports deal with theoretical problems of metamorphism and interaction of magmatic masses, formation of granites, magmatic replacement in subeffusive facies, formation of scarns, and paragenetic analysis. Representatives

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Gneissose Granites SOV/[illegible]

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OBRUCHEV, S.V., otv. red.; VELIKOSLAVINSKIY, D.A., red.; KELLER, B.M., red.; KRATS, K.O., red.; NEYELOV, A.N., red.; PAVLOVSKIY, Ye.V., red.; POLOVINKINA, Yu.Ir., red.; SEMENKO, N.P., red.; SALOP, L.I., red.

[Pre-Cambrian geology] Geologiia dokembriia. Moskva, Nedra, 1964. 284 p. (Its Doklady sovetskikh geologov. Problema 10) (MIRA 17:8)

1. International Geological Congress. 22d, 1964.

BONDARENKO, I.I., ZHUKOV, M.N.; ZINCHEVSKIY, N.P.; RED'KO, I.A.
SEMENKO, P.I.; SVINARENKO, D.M.; KHIVRENKO, A.F.; SHKUTA, E.I.;
SHOSTAK, A.G.

Review of "Ventilation of mines after large-scale blasting"
by S.I.Lugovskoi. Reviewed by I.I.Bondarenko and others.
Bezop.truda v prom. 3 no.8:38 Ag '59. (MIRA 12:11)

1. Glavnyy inzhener upravleniya Krivorozhskogo okruga Gosgortekhnadzora USSR (for Bondarenko). 2. Glavnyy inzhener instituta Krivbassproyekt (for Zhukov). 3. Glavnyy inzhener rudoupravleniya im. Karla Libknethta (for Zinchevskiy). 4. Nachal'nik otdela kapital'nogo stroitel'stva rudoupravleniya im. Dzerzhinskogo (for Ryng). 5. Nachal'nik ventilyatsii tresta Dzerzhinskruda (for Red'ko). 6. Upravlyayushchiy rudoupravleniyem im. Dzerzhinskogo (for Svinarenko). 7. Upravlyayushchiy upravleniyem im. Karla Libknekhta (for Semenko). 8. Glavnyy inzhener tresta Dzerzhinskruda (for Khivrenko). 9. Glavnyy inzhener rudoupravleniya im. Dzerzhinskogo (for Shkura). 10. Nachal'nik tekhnicheskogo otdela tresta Dzerzhinskruda (for Shostak).
(Bibliography--Industrial safety) (Lugovskoi, S.I.)

Semenko, P.I.

STESHENKO,A.I.; ZHURAVLEV,S.P.; TARAN,P.N.; KUDRYASHOV,K.V.; ZHUKOV,M.N.; BELYY,P.L.; KADYRVAYEV,R.A.; PASTUSHKIN,P.M.; SHOSTAK,A.G.; OSTROUKHOV,A.I.; POLONSKIY,M.I.; OSTROUKHOV,I.I.; LUGOVSKIY,S.I.; SEMENKO,P.I.; KHOROSHEV,O.V.; IBRAYEV,Sh.I.; NEYKOV,O.D.

"Dust control in the mines of Krivoy Rog Basin." V.V.Nedin. Reviewed by A.I.Steshenko and others. Gor.zhur. no.9:61-62 S '55. (MLRA 8:8)

(Krivoy Rog--Mine dusts) (Nedin,V.V.)

SVIRARENKO, D.M; LUGOVSKIY, S.I.; RED'KO, I.A.; SEMENKO, P.I.

Progressive work practices in the Novaia iron ore mine. Ger.zhur. no.10:12-18 O '55. (MIRA 9:2)
(Krivoy Rog--Iron mines and mining)

SEMENKO, P.I.

LUGOVSKIY, S.I., professor, doktor tekhnicheskikh nauk; SEMENKO, P.I., gornyy inzhener; RED'KO, I.A., gornyy inzhener.

Rapid major repairs of reinforced shaft linings. Gor. zhur. no.7: 54-56 Jl '57. (MLRA 10:8)

(Shaft sinking)
(Mine timbering--Maintenance and repair)

SEMENKO, P. P.

L 20086-65 EWT(m)/EWP(t)/EWP(b) JD/MLK
ACCESSION NR AM4049518 BOOK EXPLOITATION S/ 0871

Prokhorenko, Kim Kondrat'yevich; Verkhovtsev, Emil' Vladimirovich; Pakumenko, Sergey Panteleyevich; Vasil'yev, Nikolay Yegorovich; Ishchuk, Nikolay Yakovlevich; Fadeyev, Ivan Gavrilovich; Nosov, Viktor Aleksandrovich; Serenenko, Petr Pimenovich; Isupov, Vasiliy Fedorovich

Melting and pouring of quality steels (Vyplavka i razlivka kachestvennykh staley), Moscow, Izd-vo "Metallurgiya", 1964, 200 p. illus., biblio. Errata slip inserted. 2,450 copies printed.

TOPIC TAGS: quality steel, steel teeming, steel melting, metallurgical furnace

PURPOSE AND COVERAGE: This book reports on the results of work on improving the technology of melting, deoxidation, and teeming of quality steels in electric arc, acid and basic open-hearth furnaces conducted at the Izhevsk Metallurgical Plant and the Serovsk Metallurgical Combine. Great attention is given to description of the measures to reduce contamination with nonmetallic inclusions of ball bearing and structural steels, presentation of material on the effectiveness of teeming steel under a liquid slag, and to increasing the output of sound metal from the ingots due to the use of various methods of heating their hot top. The results of using rare earth elements for deoxidation and modification of steel are given.
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ACCESSION NR AM4049548

The book is intended for engineers and technicians working in the production of quality steels and can also be useful to students of higher educational institutions.

TABLE OF CONTENTS [abridged]:

SUB CODE: MM SUBMITTED: 25Apr64 NR REF SOV: 044
OTHER: 003

Card 2/2

ANDRIANOV, Kuz'ma Andrianovich. Prinimali uchastiye: PARKSHEYAN, Kh.R; ROMANOV, R.G.; SEMENKO, P.Ya.; ZABYRINA, K.I., red.; KALITVIANSKIY, V.I., red.; KORITSKIY, Yu.V., red.; KHVAL'KOVSKIY, A.V., red.; EPSHTEYN, L.A., red.

[Macromolecular compounds for electrical insulation] Vysokomolekuliarnye soedineniia dlia elektricheskoi izoliatsii. Moskva, Gos. energ.izd-vo, 1961. 327 p. (Polimery v elektroizoliatsionnoi tekhnike, no.1) (MIRA 15:2)
(Electric insulators and insulation) (Polymers)

SEMENKO, R.M., inzh.

Some characteristics of the operation and design of electric drives for trawler winches. Sudostroenie 28 no.7:41-44 Jl '62. (MIRA 15:8)

(Winches---Electric driving) (Trawls and trawling)

BALDIN, A.M.; SEMENKO, S.F.

Theory of the optical anisotropy of atomic nuclei. Zhur. eksp. i teor. fiz. 39 no.2:434-437 Ag '60. (MIRA 13:9)

1. Fizicheskiy institut im. P.N. Lebedeva Akademii nauk SSSR.
(Nuclei, Atomic--Optical properties)

SEMENKO, S.F.

Parameters of the dipole polarizability of atomic nuclei. Vest. Mosk. un. Ser. 3: Fiz., astron. 16 no.3:75-82 My-Je '61. (MIRA 14:7)

1. Kafedra atomnogo yadra Moskovskogo gosudarstvennogo universiteta.
(Nuclei, Atomic) (Dipole moments)

31797
S/056/61/041/006/049/C54
B109/B102

5.5450

AUTHORS: Semenko, S. F., Tulupov, B. A.

TITLE: Interaction of gamma quanta with oriented nonspherical nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 6(12), 1961, 1996-2001

TEXT: Optical anisotropy effects in connection with the degree of nuclear orientation are studied. The cross section of total scattering of unpolarized photons from oriented nuclei is defined by

$$\left(\frac{d\sigma}{d\Omega}-\frac{d\sigma^{H}}{d\Omega}\right)2\left(\frac{\omega}{c}\right)^{-4}=\frac{2}{J+1}\mathrm{Re}\left[\left(\frac{1}{5}c^{t*}-c^{v*}\right)c^{v}\right](\mathbf{k}'\mathbf{k})\overline{(\mathbf{J}[\mathbf{k}'\mathbf{k}])}+$$
$$+\frac{1}{(J+1)(2J+3)}\left\{\left[\mathrm{Re}\,(c^{0*}c^{t})+\frac{2}{3}|c^{v}|^{2}-\frac{1}{14}|c^{t}|^{2}\right][3\overline{(\mathbf{J}[\mathbf{k}'\mathbf{k}])^{2}}-\right.$$
$$-J(J+1)[\mathbf{k}'\mathbf{k}]^{2}]+\left[-\mathrm{Re}\,(c^{0*}c^{t})+\frac{2}{3}|c^{v}|^{2}-\frac{5}{14}|c^{t}|^{2}\right][3\overline{(\mathbf{J}\mathbf{k}')^{2}}+$$
$$\left.+3\overline{(\mathbf{J}\mathbf{k})^{2}}-2J(J+1)]\right\}-\frac{6}{5}\frac{\mathrm{Re}\,(c^{t*}c^{v})}{(J+1)(J+2)(2J+3)}\times$$

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$$\times \left\{5S\overline{(Jk')(Jk)(J[k'k])} - \left[J(J+1) - \tfrac{1}{3}\right](k'k)\overline{(J[k'k])}\right\} +$$
$$+ \tfrac{18}{35}|c^t|^2 \frac{1}{2(J+1)(2J+3)(J+2)(2J+5)}\left\{35\,S\overline{(Jk')(Jk')(Jk)(Jk)} - \right.$$
$$- 5\left(J^2+J-\tfrac{5}{6}\right)\left[\overline{(Jk')^2+(Jk)^2+2(Jk')(Jk)(kk')} + \right.$$
$$\left. \left. + 2\overline{(Jk)(Jk')(k'k)}\right] + J(J-1)(J+1)(J+2)\left[1+2(k'k)^2\right]\right\}. \quad (3)$$

where $c^o = c^s - e^2Z^2/AM\omega^2$, I is the nuclear spin, ϱ is the density matrix, c^s, c^v, c^t are the scalar, internal vector, and tensor polarizability, $\vec{k}$, $\vec{k'}$ denote the unit wave vector of photons before and after scattering, and S is the symmetric sum. The relation was obtained from the scattering matrix according to Ref. 4 (Baldin, A. M., Semenko, S. F., ZhETF, 39, 434, 1960) and from the relation

$$d\sigma/d\Omega = (2\pi c/\omega)^2 SpR\varrho R^+$$

by taking into account that the effect of purely elastic scattering plus nuclear Raman scattering is determined by the same parameters as the effect of elastic scattering. The properties connected with the optical nuclear

Interaction of gamma quanta with...

anisotropy were estimated by calculating α in the same way as in Ref. 4, where this quantity is defined, and

$$\alpha = \left\{3\left[\mathrm{Re}(c^{0*}c^{t}) + \frac{1}{7}|c^{t}|^{2}\right]\frac{J(2J-1)}{(J+1)(2J+3)} + \right.$$
$$\left. + \frac{9}{28}|c^{t}|^{2}\,\frac{J(2J-1)(J-1)(2J-3)}{(J+1)(2J+3)(J+2)(2J+5)}\right\} \Big/ \left[|c^{0}|^{2} + \frac{13}{20}|c^{t}|^{2}\right]. \qquad (5)$$

was obtained for complete nuclear orientation. The values found for nuclei with spin 7/2 are $\alpha(\omega = \omega_1,\ c^t \approx 2c^0) = 1.04$, $\alpha(\omega = \omega_2,\ c^t \approx -c^0) = -0.7$. For purely elastic scattering $\alpha_{el}(\omega = \omega_1,\ c^t \approx 2c^0) = 1.5$, $\alpha_{el}(\omega = \omega_2,\ c^t \approx -c^0) = -0.9$. Incomplete orientation can be taken into account in the density matrix. If, in particular, $\varrho_{mm'} = f(m)\delta_{mm'}$, (5) goes over into

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$$\left(\frac{d\sigma}{d\Omega}-\frac{d\sigma^{u}}{d\Omega}\right)2\left(\frac{\omega}{c}\right)^{-4}\approx[-2\mathrm{Re}\,(c^{0*}c^{v})+\frac{2}{5}\mathrm{Re}\,(c^{t*}c^{v})]\,(\mathbf{k}'\mathbf{k})\,[\mathbf{k}'\mathbf{k}]_{z}\times$$
$$\times\frac{\bar{m}}{J+1}+[\mathrm{Re}\,(c^{0*}c^{t})+\frac{2}{3}|c^{v}|^{2}-\frac{1}{14}|c^{t}|^{2}]\left(\frac{3}{2}[\mathbf{k}'\mathbf{k}]_{z}^{2}-\frac{[\mathbf{k}'\mathbf{k}]^{2}}{2}\right)\frac{3\bar{m}^{2}-J(J+1)}{(J+1)(2J+3)}+$$
$$+[-\mathrm{Re}\,(c^{0*}c^{t})+\frac{2}{3}|c^{v}|^{2}-\frac{5}{14}|c^{t}|^{2}](\frac{3}{2}k'^{2}_{z}+\frac{3}{2}k_{z}^{2}-1)\frac{3\bar{m}^{2}-J(J+1)}{(J+1)(2J+3)}. \quad (6)$$

provided the degree of nuclear orientation is sufficiently high. This degree is determined by the orientation parameters $f_1 = \bar{m}/(J+1)$ and $f_2 = \left[3\overline{m^2} - J(J+1)\right]/J(2J-1)$. If $f_2 = 0.5$, $\alpha(\omega = \omega_1,\ c^t \approx 2c^0) = 0.5$, and $\alpha(\omega = \omega_2,\ c^t \approx -c^0) = -0.3$. The effect of optical anisotropy is strongest for 90° scattering. Nuclear nonaxiality is discussed and, as a result, the approximate formula

$$\left(\frac{d\sigma}{d\Omega}\right)_{0^+\to 2_2^+}\Big/\left(\frac{d\sigma}{d\Omega}\right)_{0^+\to 2_1^+}=\left(\frac{a_2+b_2\,\mathrm{tg}\,\gamma}{a_1+b_1\,\mathrm{tg}\,\gamma}\right)^2. \quad (9)$$

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Interaction of gamma quanta with...

is obtained with the aid of results of A. S. Davydov, G. F. Filippov (ZhETF, 35, 440, 1958; Nucl. Phys., 8, 237, 1958) for even-even nuclei. As is shown by (9), the cross section for scattering with excitation of the 2_2^+ level is considerably smaller than for 2_1^+ excitation, especially at $\gamma \approx 30^\circ$. A. M. Baldin is thanked for his interest. There are 10 references: 6 Soviet and 4 non-Soviet. The two references to English-language publications read as follows: A. M. Baldin, Nucl. Phys., 9, 237, 1958; U. Fano, NBS, Technical Note, 83, 1960.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute im. P. N. Lebedev of the Academy of Sciences USSR)

SUBMITTED: July 25, 1961

Card 5/5

44236
S/056/62/043/006/038/067
B125/B102

24,6300

AUTHOR: Semenko, S. F.

TITLE: The shape of dipole resonance in deformed nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 6(12), 1962, 2188 - 2193

TEXT: The effect which remanent interaction in the dipole state exerts on the giant resonance in the photoabsorption caused by strongly deformed axisymmetric nuclei is investigated. The single-particle variable was formulated by B. Mottelson, S. G. Nilsson (Nucl. Phys., 13, 281, 1959). What is considered here is the nuclear dipole excitation, when the ground state is described by the wave function of particles moving independently in an ellipsoidal axisymmetric potential. In asymptotic approximation, the transitions excited by dipole (subscript z) and by the transverse components ($\perp$) of the dipole moment satisfy the selection rules

$$\Delta n_z = 1, \quad \Delta n_\perp = \Delta\Lambda = \Delta\sigma = 0, \qquad (4),$$

$$\Delta n_z = 0, \quad \Delta n_\perp = 1, \quad \Delta\Lambda = 1, \Delta\sigma = 0, \qquad (5a),$$

$$\Delta n_z = 0, \quad \Delta n_\perp = 1, \quad \Delta\Lambda = -1, \Delta\sigma = 0. \qquad (5b)$$

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The shape of dipole...

for the quantum numbers n_z, $n_\perp$ of the oscillator and for the projections Λ and σ of the orbital and of the spin angular momentum onto the axis of symmetry of the nucleus. It is assumed that N=Z. For forces of radius zero the energies of these transitions are inversely proportional to the lengths of the corresponding semiaxes of the nucleus. The shifts of the z and x,y maxima due to remanent interaction are equal to the mean energies of the transitions (4), (5a), (5b) in the elliptic potential

$$U_2 = -\tfrac{1}{2} FV_0\rho\,[m\omega_\perp^2 (x^2 + y^2) + \omega_z^2 z^2]/\hbar\omega_0, \qquad (13),$$

where ρ is the nucleon density inside the nucleus. These corollaries for the energies of the z and x,y-transitions, derived from the single-particle model, are not affected by taking into account the residual δ-forces in the dipole state. Even if allowance is made for interactions that are arbitrary, remanent, and central the energy dispersion of the transitions (5a,b) is about three times that of the transitions (4). For $\omega_\perp = \omega_z$, these transitions are likely to start from the completed shell $n_z + n_\perp = n$.

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B125/B102

The present model evaluates the energy of the dipole maximum correctly and shows that the dipole resonance in strongly deformed nuclei is consistent with experiment. There is 1 figure.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR)

SUBMITTED: June 27, 1962

Card 3/3

SEMENKO, S.F.

Effect of surface oscillations in strongly deformed nuclei on the character of their dipole excitation. IAd. fiz. 1 no.3:414-419 Mr '65. (MIRA 18:5)

1. Fizicheskiy institut im. A.P.Lebedeva AN SSSR.

CA SEMENKO, VA.

1

Precipitation of manganese in the complete analysis of manganese ore. V. A. Semenko. *Zavodskaya Lab.* 15, 1472(1940).—Treat the acid soln. with CO_2-free NH_4OH, filter quickly, and ppt. Mn from the filtrate at 90° by standard $KMnO_4$. Wash the MnO_2 ppt. with 1% HNO_3 contg. 4.5% NH_4NO_3 and use the filtrate for detg. Ca and Mg.
G. M. Kosolapoff

L 05689-67 EWT(d)/FSS-2

ACC NR: AR6004343 SOURCE CODE: UR/0274/65/000/009/V003/V003

AUTHOR: Pogorel'skiy, A. Ye.; Semenenko, V. A.; Rol'nik, M. A.; Shvydchenko, B. V.

REF SOURCE: Sb. nauchn. tr. Gos. in-t po proyektir. i issled. vzryvobezopasn. elektrooborud. Giproniselektroshakht, vyp. 2, 1964, 33-38

42
41
B

TITLE: Methods to insure hazardless sparking in communication equipment

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 9V24

TOPIC TAGS: spark gap, communication equipment

TRANSLATION: It is noted that the hazardless sparking of electrical circuits is defined by the characteristics of the transients that result from closing and breaking the circuits. To insure hazardless sparking, it is desirable that these transients be of an aperiodic nature, since in this case the maximum current and voltage do not exceed certain values. For a given system capacitance, the condition for an aperiodic transient is $R > 2\sqrt{L/C}$, a condition which can be met by reducing inductance L. It thus follows that hazardless sparking is most efficiently attained by using communication circuits without inductive elements. In such a scheme, transistors carry out the function of the subscriber's relay, the relay controlling the sending of a call. This relay consists of a coil and a transformer. The sidetone is achieved by means of a resistance bridge. The description of commutators of types RDSKh and GSKh are cited.

UDC: 621.39

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L 05689-67

ACC NR: AR6004343

These were developed at the Dongiprouglemash Institute on the basis of the hazardless sparking circuits. B. B.

SUB CODE: 09/ SUBM DATE: none

Card 2/2

GRITSKEVICH, Anatoliy Georgiyevich; SEMENKO, V.P., redaktor; GORYUNOVA, L.K., redaktor izdatel'stva; BACHURINA, A.M., tekhnicheskiy redaktor

[Skidding tree-length logs on the Omutninsk logging camp] Vyvozka lesa khlystami v Omutninskom lespromkhoze. Moskva, Goslesbumizdat, 1956. 31 p. (MLRA 10:4)
(Omutninsk District, Kirov Province-- Lumbering)

SEMENKO, Yuriy Lukich; KOROLEV, A.A., kand. tekhn. nauk, retsenzent; BYKOV, V.A., inzh., retsenzent; SMIRNOV, V.V., kand. tekhn. nauk, dots., red.; GOLYATKINA, A.G., red. izd-va; KLEYNMAN, M.R., tekhn. red.

[Machines for the straightening of rolled products] Mashiny dlia pravki prokata. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 207 p. (MIRA 14:11)
(Rolling mills—Equipment and supplies)

SEMENKO, Yu.F.

Necrosis of the subcutaneous cellular tissue and the skin due to the prolonged use of aloe extract. Vrach.delo no.9:967 S'58 (MIRA 11:10)

1. Oposhnyanskaya rayonnaya bol'nitsa Poltavskoy oblasti.
(ALOE--PHYSIOLOGICAL EFFECT)

TROFIMOV, N.; FEDOROV, A.; SEMENKOV, A.

The main thing is not hours, but hectares. Grazhd. av. 21 no.10:25 O '64. (MIRA 18:3)

1. Zamestitel' komandira Stavropol'skogo aviapodrazdeleniya po politicheskoy chasti (for Trofimov). 2. Starshiy inzh.-ekonomist Stavropol'skogo aviapodrazdeleniya (for Semenkov).

[illegible], [illegible], inzh.; [illegible], I.I., [illegible]

Results of [illegible] and [illegible] testing of the [illegible] supports in the A-2 unit. Sbor. [illegible] no.33:[illegible]-82 '6[illegible].

Results of mine and [illegible]atory testing of the [illegible]-3 supports. [illegible]:83-[illegible]

([illegible] 17:[illegible])

KHVOSTIKOV, G.Ye., inzh.; SEMENKOV, I.L., inzh.

Longwall timbering in connection with the operation of the UKP cutter loader. Ugol.prom. no.5:28-30 S-O '62. (MIRA 15:11)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut.
(Mine timbering)

L 27516-66 EWT(d)/EWT(m)/EWA(d)/EWP(t)/EWP(h)/EWP(l) IJP(c) JD

ACC NR: AT6004228 (N) SOURCE CODE: UR/3186/64/000/074/0043/0051

AUTHOR: Semenkov, I. T. (Engineer)

ORG: LIVT

TITLE: Economics of light alloys used for building river ships

SOURCE: Leningrad. Institut vodnogo transporta, Trudy, no. 74, 1964. Ekonomika vodnogo transporta (Economics of water transportation), 43-51

TOPIC TAGS: shipbuilding engineering, aluminum alloy, magnesium alloy, alloy/AMg5V alloy

ABSTRACT: The use of aluminum-magnesium alloys as structural materials for river motor ships is discussed. The AMg5V alloy is considered the most suitable for construction of ships. Its tensile strength is 2800 kg/sq cm and the yield point is 1500 kg/sq cm. The alloy has a 23-pct elongation and a density which is 2.9 times less than that of steel. Its corrosion resistance is high. The alloy may be machined and welded readily. The Gor'kiy shipbuilding yard "Krasnoye Sormovo" (Red Sormovo) uses aluminum alloy for building hydrofoil boats. The use of aluminum-magnesium alloys for river cargo ships (including ship hulls but excluding machine rooms) is recommended. The ratios K of aluminum weight to steel weight were calculated and presented in a table. This ratio varies from 0.35 to 0.70 for different ship-rooms and equipment. The

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L 27516-66

ACC NR: AT6004228 0

wide use of aluminum-magnesium alloys is limited by their present high prices (8 to 10 times higher than that of steel). It is expected that their prices will come down (approximately 35%) as a result of lower rates charged for electric energy. It is estimated that the rates for electric energy will decline four times in the next few years. Cost estimates were summarized in a table for steel and aluminum versions covering the construction of diesel-ships for lake navigation. Three types of ships were considered: 1000 ton, 800 hp; 2000 ton, 1000 hp and 5000 tons, 1800 hp. The advantages of using aluminum alloys for ships of these types were characterized by the increase of their tonnage capacities for various values of the K ratio (0.55; 0.45; 0.35). This increase was from 14.4 to 19% for a 1000-ton ship while for a 5000-ton ship a percentage of 9 to 13 was estimated. The author also tabulated his cost estimates by taking into account the eventual decline of alloy prices. The estimates were made for 2000-ton and 5000-ton versions. In order to facilitate calculations, a chart was prepared showing a series of curves for determining the cost of tonnage increase (in rubles per ton) for different tonnages (up to 5000 tons). The curves were plotted for steel and various aluminum versions. An example of calulations was presented. In conclusion, a further development of employing aluminum-magnesium alloys for construction of river cargo diesel-ships was recommended. Orig. art. has: 1 graph and 4 tables.

SUB CODE: 13 / SUBM DATE: None / ORIG REF: 002 / OTH REF: 001

Card 2/2 BLG

SEMENKOV, Nikolay Afanas'yevich [Semiankou, M.A.]; RABCHIKOV,N. [Rabchykov, N.], red.; DZIK, V., tekhn. red.

[Large crops from drained peat bogs] Z asushanykh tarfianikau - vysokiia uradzhai. Minsk, Dziarzh. vyd-va sel'skahaspadarchai lit-ry BSSR, 1963. 25 p. (MIRA 17:1)

L 47505-66 EWT(1)

ACC NR: AP6032519 SOURCE CODE: UR/0413/66/000/017/0094/0094

INVENTOR: Askerov, Ch. I.; Kovachich, Yu. V.; Semenkov, O. I.

ORG: none

TITLE: Integrator unit for a serial digital differential analyzer. Class 42, No. 185566 [announced by the Institute of Automation and Telemechanics (Technical Cybernetics), AN SSSR (Institut avtomatiki i telemekhaniki (tekhnicheskoy kibernetiki) AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 94

TOPIC TAGS: digital differential analyzer, digital integrator

ABSTRACT: An Author Certificate has been issued for an integrator unit for a serial acting digital differential analyzer. The unit consists of a delay line for increment storage, an increment counter, a shift register, adders, gates, an inhibit circuit, and an operation command block (see Fig. 1). The delay line output is connected to one input of gate (4) whose other input is tied with the operation command block output. The output of this gate is applied to the shift register. The outputs from the shift register stages are applied to the corresponding increment counter stages through gates (5) which are also connected to a control unit. The outputs of the increment counter stages are grouped and applied to an INHIBIT gate (7) whose second

Card 1/2 UDC: 681.142.07

L 47505-66
ACC NR: AP6032519

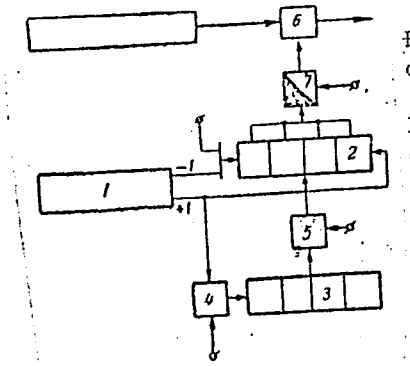

Fig. 1. Integrator unit for a serial digital differential analyzer

1 - Delay line for increment storage; 2 - increment counter; 3 - shift register; 4-6 - gates; 7 - inhibit circuit.

input comes from the control unit. The inhibitor output is actually the input to gate (6), whose other input is connected to the output of a storage register for null function values. Orig. art. has: 1 figure. [BD]

SUB CODE: 09/ SUBM DATE: 29Mar65/ ATD PRESS: 5095

Card 2/2

SEMENKOV, P.L.

NOVIKOV, P.I.; SEMENKOV, P.L.; FRIDMAN, M.I.; KISELEV, V.Z., inzh., otvetstvennyy red.; LEZHNEVA, Ye.I., red. izd-va; EL'KIND, V.D., tekhn.red.

[ZIL-127 interurban motorbus; instructions for operation] Mezhdugorodnyi avtobus ZIL-127; instruktsiia po ekspluatatsii. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1957. 233 p. (MIRA 11:5)

1. Moskovskiy avtomobil'nyy zavod. 2. Yaroslavskiy avtozavod (for Novikov). 3. Nachal'nik byuro avtobusov Moskovskogo abtomobil'nogo zavoda imeni Likhacheva (for Kiselev)
(Motorbuses)

KURAYEV, A.V.; PANFILOV, V.T.; SEMENKOV, P.L.; SOSKOV, B.Ya.; ZARUBIN, A.G., otvetstvennyy red.; LEZHNEVA, Ye.I., red.izd-va; MATVEYEVA, Ye.N., tekhn.red.; TIKHANOV, A.ya., tekhn.red.

[ZIL-164 truck; instructions for operation] Avtomobil' ZIL-164; instruktsiia po ekspluatatsii. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 175 p. (MIRA 11:4)

1. Moskovskiy avtomobil'nyy zavod im. I.A.Likhacheva. 2. Zamestitel' glavnogo konstruktora Moskovskogo avtomobil'nogo zavoda im. I.A. Likhacheva (for Zarubin)
(Motortrucks)

SEMENKOV, P.L.

KURAYEV, A.V.; SEMENKOV, P.L.; BLEYZ, N.G.; BULAVA, V.P.; VYAZ'MIN, V.A.; GOLUBEV, B.S.; DYSHMAN, B.M.; KAHELIN, B.S.; KAYUKOV, G.I., KUGEL', N.V.; MASHATIN, V.I.; RAGUSKAYA, L.F.; RUBINSHTEYN, S.M.; SEFRANOV, A.B.; TARASOV, L.A.; FEDOROVA, A.A.; FEDOROV, L.N.; TSEPKIN, M.F.; SHAYEVICH, A.G.; VASIL'YEVA, I.A., red. izd-va; TIKHANOV, A.Ya., tekhn. red.

[ZIL-158 and ZIL-158A motorbuses; instructions for operation] Avtobusy ZIL-158 i ZIL-158A; instruktsiia po ekspluatatsii. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 193 p. (MIRA 11:7)

1. Moskovskiy avtomobil'nyy zavod.
(Motorbuses)

ARMAND, G.B.; VYAZ'MIN, V.A.; GRINSHTEYN, L.M.; GOL'DBERG, G.I.; GOLUBEV, B.S.; KASHLAKOV, M.V.; KRASHOPEVTSEV, M.P.; KUZNETSOV, S.I.; KURAYEV, A.V.; KAYUKOV, G.I.; MASHATIN, V.I.; MOLOTILOV, V.I.; NERUSH, A.R.; PRAL', G.I.; RAGUSKAYA, L.F.; RUBINSHTEYN, S.M.; SEMENKOV, P.L.; TARASOV, L.A.; FEDOROVA, A.A.; TSEPKIN, M.F.; SHAYEVICH, A.G.; ZARUBIN, A.G., otv.red.; VASIL'YEVA, I.A., red. izd-va; SOKOLOVA, T.F., tekhn.red.

[ZIL-157 motortruck; operation and service] Avtomobil' ZIL-157; instruktsiia po ekspluatatsii. Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1958. 235 p. (MIRA 11:12)

1. Moskovskiy avtomobil'nyy zavod.
(Motortrucks)

L 10106-63 BDS

ACCESSION NR: AP3002722 S/0120/63/000/003/0072/0078

AUTHOR: Yekatov, A. B.; Matalin, L. A.; Semenkov, V. F.; Smirnov, V. I.; Chubarov, S. I.; Shimanskiy, A. M. 53

TITLE: Multirange analyzer 10

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1963, 72-78

TOPIC TAGS: pulse analyzer, description of input units, system of recording

ABSTRACT: A multirange pulse analyzer with a magnetic-core memory system has been designed for the investigation of distribution which depend on two or three variables. The device has 16,383 channels, each with a 16-digit binary number. The analyzer not only sorts pulses into the proper channels, but can also perform preliminary processing of recorded information. The recording system is equipped with an address system which allows various input circuits to be used without changing the memory system. Two amplitude-to-digital converters are used as the basic input circuits. The converters have coders (16 inputs) operating in the two-dimensional amplitude-measurement mode;

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L 10106-63

ACCESSION NR: AP3002722

they convert the pulse amplitude into a seven-digit binary-code. The following can be used as additional input units: 1) time-to-time amplitude converter for operation in the nanosecond range; 2) circuit for measuring the ratio and sum of amplitudes of two pulses; 3) time-of-flight measuring unit with channel widths from 10 sup -4 to 10 sup -6 sec; and 4) coincidence unit. The recording system consists of the memory circuit, programming circuit, address selecting circuit, arithmetic circuit (addition and subtraction), and display system (CRT and a ten-key typewriter). The memory circuit has a ferrite matrix consisting of 128 x 128 x 16 K-260 cores (2 x 13 x 1 mm in size) and operates on the principle of half-current coincidence. The signal-to-noise ratio of the analyzer is better than 5. A special feature is the possibility of obtaining a readout not only of each separate line of stored information but even of certain parts of a line. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 05Jul62 DATE ACQ: 12Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 004 OTHER: 008

Card 2/2

ACCESSION NR: AR4032150 S/0058/64/000/002/A015/A016

SOURCE: Ref. zh. Fiz., Abs. 2A171

AUTHOR: Matalin, L. A.; Semenkov, V. F.

TITLE: Input units of multidimensional analyzer

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. radio-elektronike. T. 2. Ch. 1. M., Gosatomizdat, 1963, 24-29

TOPIC TAGS: multidimensional analyzer, two dimensional analyzer, three dimensional analyzer, analog digital converter, control block, intermediate memory, address system, magnetic core memory, intermediate capacitor memory, missed count compensation

TRANSLATION: The following input units of a multi dimensional analyzer are described: analog-digital converter which transforms the input signals into a series of pulses, control block, and inter-

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ACCESSION NR: AR4032150

mediate memory and address system. These input units make it possible to carry out 2- and 3-dimensional analysis. The analyzer memory is of the magnetic core type. The total number of addresses is 128 x 128 with a capacity of 2^{16} in each channel. The number of missed counts is reduced by using two intermediate memory blocks in which the input pulses are memorized on capacitors. The result is transferred to the converter as soon as the transformation of the preceding signal has been completed. In addition, to take into account the number of the missed pulses, the dead time of the system is measured. The circuit of the charging unit, which is operated by pulses with 0.2--0.3 μsec fronts and with amplitudes up to 120 V, is given. The address system consists of two groups each with 7 flipflops. In the two-dimensional measurement mode, the number of addresses for each coordinate can be chosen at will over a wide range from 128 x 128 to 8192 x 2. In the three-dimensional measurement mode, the last two of the seven flipflops are alloted to the address group corresponding to the third coordinate. The number of

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ACCESSION NR: AR4032150

the addresses in the third dimension can then be set equal to 2, 4, 8, or 16. M. Vishnevskiy.

DATE ACQ: 31Mar64 SUB CODE: CP, SD ENCL: 00

Card 3/3

SEMENKOV, V.I. [Semiankou, V.I.]

New forms of the protection of labor on collective farms. Vestsi AN BSSR.Ser.hram.nav. no.3:15-27 '61. (MIRA 14:9)
(Agriculture--Safety measures)

SEMENKOV, V. I.

Dissertation defended for the degree of Candidate of Juridicial Sciences at the Institute of Government and Law

"Legal Forms of State Supervision and Public Control Over the Observance of Labor Conservation Laws."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

L 29256-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG/JT

ACC NR: AP6019311 SOURCE CODE: UR/0286/65/000/018/0031/0032

INVENTOR: Kazachkov, I. P.; Dekhanov, N. M.; Gavro, L. P.; Semen'kov, V. I.; Kiselev, Yu. Yu. 31 B

ORG: none

TITLE: Alloy for alloying steel. Class 18, No. 174649

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 31-32

TOPIC TAGS: chromium containing alloy, alloy steel, manganese containing alloy, ferroalloy

ABSTRACT: In order to shorten the alloying period and reduce loss of elements the following alloy and its constituents is proposed: 34-36 Cr, 23-31 Mn, 10-12 Si, 0.8-12 C, balance--iron. [JPRS]

SUB CODE: 11 / SUBM DATE: none

Card 1/1 UDC: 669.15'26'74'782

Semenkov, V.M.

AYVAZ'YAN, V.G., doktor tekhnicheskikh nauk, professor; ZOLOTOV, L.A., kandidat tekhnicheskikh nauk; SEMENKOV, V.M., inzhener.

Increasing the capacity of pressure spillways of "integral" hydroelectric power stations during maximum flood discharge. Gidr. stroi. 26 no.3:15-20 Mr '57. (MIRA 10:4)

(Hydroelectric power stations)

ZOLOTOV, L.A., kand.tekhn.nauk; SEMENKOV, V.M., inzh.

Hydraulic investigation of a new type of concentrated-fall hydroelectric power station. Trudy Nauch.-issl.sekt.Mosk.fil.Inst. "Orgenergostroi" no.3:71-82 '59. (MIRA 14:7)
(Hydroelectric power stations)

SEMENKOV, V.N., otv.red.; PANTELEYEV, V., red.; SMIRNOV, G., tekhn.red.

[Program for a course in political economy for secondary schools in economics and economics departments of special secondary schools (260 hours)] Programma kursa politicheskoi ekonomii; dlia ekonomicheskikh tekhnikumov i ekonomicheskikh otdelenii srednikh spetsial'nykh uchebnykh zavedenii; 260 chasov. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1959. 39 p. (MIRA 12:12)

1. Russia (1923- U.S.S.R.) Upravleniye prepodavaniya obshchestvennykh nauk.
(Economics)

SEMENKOV, V.N., otv. red.; DUBNOVA, Z.K., red.; SHVETSOV, S.V., tekhn. red.

[Assignments for controlled work in economics; for the special correspondence schools of economics and for the economics departments of special secondary correspondence schools]Zadaniia dlia kontrol'nykh rabot po politicheskoi ekonomii; dlia zaochnykh ekonomicheskikh tekhnikumov i ekonomicheskikh otdelenii zaochnykh srednikh spetsial'nykh uchebnykh zavedenii. Moskva, Rosvuzizdat, 1962. 20 p. (MIRA 15:12)

1. Russia (1923- U.S.S.R.)Upravlenie prepodavaniya obshchestvennykh nauk.

(Economics--Study and teaching)

ZAYTSEV, Rostislav L'vovich; SEMENKOV, Vladimir Nikanorovich; SHVEYTSER, Ye.K., red.; YEZHOVA, L.L., tekhn. red.

[Transformation of socialist labor into communist labor. The transition to the communist principle of distribution according to needs]Pererastanie sotsialisticheskogo truda v kommunisticheskii trud. Perekhod k kommunisticheskomu printsipu raspredeleniia po potrebnostiam. Moskva, Vysshaia shkola, 1962. 57 p. (MIRA 16:2)
(Labor and laboring classes)

KHODZHAYEV, A.M., otv. red.; GOLUBNICHIY, I.S., red.; PODGALO, A.S., red.; SETYUKOV, I.M., red.; SEMENKOV, V.N., red.; ROTOVA, R.S., red.; STOLYAROVA, M.T., tekhn. red.

[Course of lectures on economics] Kurs lektsii po politicheskoi ekonomii. Moskva, Gos. izd-vo "Vysshaia shkola." Book 1. 1962. 626 p. (MIRA 15:3)
(Economics--Study and teaching)

KERNES, I.Ya.; KOTEL'NIKOVA, L.A.; LEMAN, T.R.; SHTUTINA, A.M.; KINKUL'KIN, A.T., retsenzent; KOLOSKOVA, P.P., retsenzent; SEMENKOV, V.N., retsenzent; ITKIN, M.L., red.; MASONOV, Yu.I., red.; ZELENTSOVA, Ye.I., tekhn. red.

[Sociology; recommended list of literature for the aid of the teacher] Obshchestvovedenie; rekomendatel'nyi ukazatel' literatury v pomoshch' uchiteliu. Moskva, Izd-vo Vsesoiuznoi knizhnoi palaty, 1963. 145 p. (MIRA 16:3)

1. Moscow. Gosudarstvennaya publichnaya istoricheskaya biblioteka. 2. Nauchno-bibliograficheskiy otdel Gosudarstvennoy publichnoy istoricheskoy biblioteki (for Kernes, Kotel'nikova, Leman, Shtutina). 3. Zaveduyushchiy sektorom obucheniya istorii Instituta obshchego i politekhnicheskogo obrazovaniya Akademii pedagogicheskikh nauk RSFSR (for Kinkul'kin). 4. Uchitel' sredney shkoly No.204 Timiryazevskogo rayona Moskvy (for Koloskova). 5. Starshiy inspektor Upravleniya prepodavaniya obshchestvennykh nauk Ministerstva vysshego i srednego spetsial'nogo obrazovaniya SSSR (for Semenkov).
(Bibliography--Sociology)

SEMENKOV, Ya.

Experience in determining prospective needs in specialists in the machinery industry. Biul.nauch.inform.; trud i zar.plata no.8:22-29 '59. (MIRA 13:1)
(Machinery industry--Personnel management)

LAZUTKIN, Ye.S.; RUSANOV, Ye.S.; EYDEL'MAN, R.A.; TRUBNIKOV, S.V.; KAPLAN, I.I.; ZAGORODNIKOV, M.I.; GOL'TSOV, A.N.; TATARINOVA, N.I.; SONIN, M.Ya.; SHISHKIN, N.I., doktor geogr.nauk; ANTOSENKOV, Ye.G.; ZHMYKHOVA, I.I.; KOSYAKOV, P.O.; MATROZOVA, I.I.; ZELENSKIY, G.N.; SEMENKOV, Ya.S.; ZALKIND, A.I., red.; RUSANOV, Ye.S., red.; SHTEYNER, A.V., red.; MIKHAL'CHENKO,N.Z.,red.; GERASIMOVA, Ye.S., tekhn. red.

[Manpower of the U.S.S.R.; problems in distribution and utilization] Trudovye resursy SSSR; problemy raspredeleniia i ispol'zovaniia. Pod red. N.I.Shishkina. Moskva,Izd-vo ekon.lit-ry, 1961. 243 p. (MIRA 14:12)

Moscow. Nauchno-issledovatel'skiy institut.
(Manpower)

SEMENKOVA, A.V.; BELOVA, Z.N.; MEL'NIKOVA, A.I.

Discussion of M.A.Shvechikov's article "Let us improve economic planning." Vest. sviazi 23 no.10:27-29 O '63. (MIRA 16:12)

1. Nachal'nik planovo-finansovogo otdela Ministerstva svyazi AzerSSR (for Semenkova). 2. Nachal'nik planovogo otdela Saratovskogo pochtamta (for Belova). 3. Starshiy ekonomist Dzhankoyskogo uzla svyazi Krymskoy oblasti (for Mel'nikova).

K

COUNTRY : USSR
CATEGORY : Forestry. Forest Cultures.

ABS. JOUR. : RZhBiol., No. 4, 1959, No. 15498

AUTHOR : Semenkova, I.G.
INST. : Moscow Agric. Acad. im. K.A. Timiryazev
TITLE : Effectiveness of Fungicide Treatment of the Acorn Oak with Winter Storage.

ORIG. PUB. : Dokl. Mosk., s.-kh. aked. im. K.A. Timiryazeva, 1957, vyp. 29, 147-152

ABSTRACT : At the Buturlinov Leskhoz (Voronezhskaya Oblast) the effectiveness of fungicide treatment by granosan and tetramethylthiuramdisulfide (TMTD) in different dosages (the first 1 and 1.5 kg on 1 ton of acorn and with TMTD 1.5 - 2 kg/ton) was studied on acorns stored in pits. The best results were obtained with fungicide treatment by granosan; the good quality of the acorn and their infection by fungi during the storage period was not

CARD: 1/2

BATUYEVA, Tat'yana Mikhaylovna; SEMENKOVA, Tat'yana Georgiyevna; MATSUK, R.V., red.; YEZHOVA, L.L., tekhn. red.

[Economic basis of the collective farm system] Ekonomicheskie osnovy kolkhoznogo stroia; uchebno-metodicheskoe posobie dlia prepodavatelei politicheskoi ekonomii srednikh spetsial'nykh uchebnykh zavedenii. Moskva, Vysshaia shkola, 1962. 64 p. (MIRA 16:6)

(Collective farms--Management)

BOGORODITSKIY, N.P., professor; VASIL'YEV, D.V., professor; BAYDA, L.I. dotsent; ODINTSOV, G.V., dotsent; SEMENKOVICH, A.A., dotsent; FATEYEV. A.V., dotsent; YURGENSON, R.I., dotsent; ARANOVICH, B.I., starshiy prepodavatel'; GEKTOR, D.S.starshiy prepodavatel'; POVOLOTSKIY, Ya.A., prepodavatel'.

Development of automatic control and telemechanics in the fifth five-year plan. Avtom. i telem. 14 no.2 238-240 Mr-Ap '53. (MLRA 10:3)

1. Leningradskiy elektrotekhnicheskiy institut im. V.I.Ul'yanova (Lenina)

(Automatic control) (Remote control)

SEMENKOVICH, A.A.

8(2) PHASE I BOOK EXPLOITATION SOV/2030

Vasil'yev, Dmitriy Vasil'yevich, Boris Afanas'yevich Mitrofanov, Grigoriy L'vovich Rabkin, Georgiy Nikanorovich Samokhvalov, Aleksandr Aleksandrovich Semenkovich, Aleksandr Vasil'yevich Fateyev, and Nikolay Ivenkovich Chicherin

Raschet sledyashchego privoda (Servodrive Design) Leningrad, Sudpromgiz, 1958. 370 p. 8,000 copies printed. Errata slip inserted.

Resp. Ed.: S. Ya. Berezin; Ed.: Ye. N. Shaurak; Tech. Ed.: P. S. Frumkin.

PURPOSE: This book is intended for scientists, engineers, and students of vuzes.

COVERAGE: This book discusses the problems of designing electromechanical servodrives and gives examples of design from the point of view of the overall system and of the individual basic elements. The design of servodrive amplifiers, the selection and design of error-sensing devices, and the experimental determination of the transfer functions of the discrete links of a servodrive are given considerable attention in the book. Materials on the design of electromechanical servodrives are systematized and the design of servodrives with electronic and magnetic amplifiers and of servodrives with rotating amplifiers is discussed. These designs reflect the practical experiences of the authors in the development of servosystems. The authors

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thank I. A. Petrusenko, I. S. Rayner, N. M. Konovalova, L. A. Agarkova, and Yu. A. Yereneyev for their aid in preparing the book. There are 51 references: 47 Soviet, 1 German, and 3 English.

TABLE OF CONTENTS:

Servodrive Design (Cont.) SOV/2030

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VASIL'YEV, D.V.; MITROFANOV, B.A.; RABKIN, G.L.; SAMOKHVALOV, G.N.; SEMENKOVICH, A.A.; FATEYEV, A.V.; CHICHERIN, N.I.; NORNEVSKIY, B.I., kand. tekhn. nauk, retsenzent; BEREZIN, S.Ya., nauchn. red.; SACHUK, N.A., red.; KRYAKOVA, D.M., tekhn. red.

[Calculation and design of servo systems] Proektirovanie i raschet slediashchikh sistem. Leningrad, Izd-vo "Sudostroenie," 1964. 606 p. (MIRA 17:4)

L 23557-65 [illegible]

ACCESSION NR AM4045085 BOOK EXPLOITATION S/

Vasil'yev, D. V.; Mitrofanov, B. A.; Rabkin, G. L.; Samokhvalov, G. N.; Semenkovich, A. A.; Fateyev, A. V.; Chicherin, N. I. 13+1

Design and calculation of servomechanisms (Provektirovaniye i raschet sledyashchikh sistem), Leningrad, Izd-vo "Sudostroyeniye", 1964, 606 p. illus., biblio. 10,900 copies printed.

TOPIC TAGS: servomechanism, electronic amplifier, magnetic amplifier, semiconductor amplifier

PURPOSE AND COVERAGE: The book examines in detail the problems of designing and calculating ship servomechanisms with electronic, magnetic, and semiconductor amplifiers and the selection and calculation of correcting components. The methods of selecting the power of the executing motor and the experimentally determined transmission functions of individual links of the servomechanism are included. Detailed examples of calculating servomechanisms are also given. The book is intended for researchers and engineers and also for students of higher educational institutions.

TABLE OF CONTENTS [abridged]:

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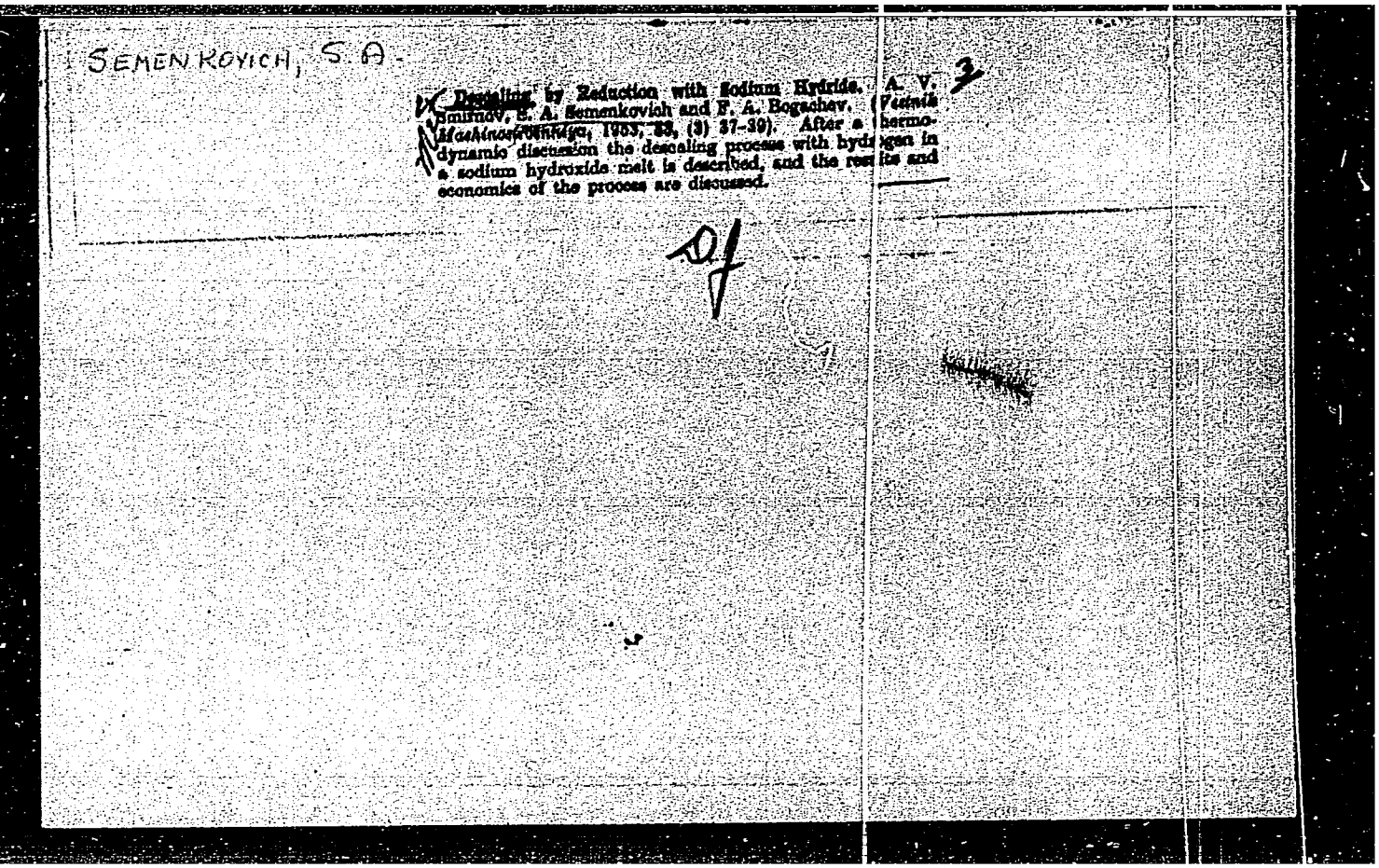
ACCESSION NR AM4045085

SUB CODE: EE SUBMITTED: 25Jan64 NR REF SOV: 085

OTHER: 013

Card 2/2



SEMENKOVICH, S. A.

Descaling by Reduction with Sodium Hydride. A. V. Smirnov, S. A. Semenkovich and F. A. Bogachev. (*Vestnik Mashinostroeniya*, 1953, 33, (3) 37-39). After a thermodynamic discussion the descaling process with hydrogen in a sodium hydroxide melt is described, and the results and economics of the process are discussed.

SEMENKOVICH, S.A.

Laboratory sublimation apparatus. Prib.i tekh.eksp.no.2:136-137 S-O '56. (MLRA 10:2)

1.Institut Poluprovodnikov AN SSSR.
(Sublimation (Chemistry))

SEMENKOVICH, S. A.

17

Aluminum monobromide. S. A. Semenkovich. *Zhur. Prikad. Khim.* 30, 933-6(1957).—The following reactions were chosen for the detn. of the vapor pressure of $AlBr$, P_{AlBr}, at 1175°K., by the method of Gross, *et al.* (*C.A.* 43, 4932a): $NaBr_2 + Al \rightleftharpoons Na(g) + AlBr(g)$ (I) and $NaBr \rightleftharpoons NaBr(g)$. The vapor pressure of NaBr at 1175°K. calcd. from the data of Ruff, *et al.* (*C.A.* 15, 3241) was 6.12×10^{-4} atm. and $P_{Al_2Br_2} = 0.841_5 \times 10^{-4}$ atm. Since $P_{Na} = P_{AlBr}$ (reaction I), then $K_p = P^2_{Al_2Br_2} = 0.708 \times 10^{-7}$ and $\Delta F = 43.76$ kcal. The heat capacity of AlBr was calcd. by the quantum mechanics from the wave no. 378 $cm.^{-1}$ to be $\Delta H(I) = 102.0$ kcal., and for $Al + {}^1/_2Br_2(g) = AlBr(g)$, $\Delta H_{1175°} = -4.1$ kcal. and $\Delta H_{298.16} = 1.1$ kcal.

I. Benoy Its

Semenkovich, S.A.

129-58-5-13/17

AUTHORS: Semenkovich, S.A., Candidate of Technical Sciences and Smirnov, A. V., Doctor of Technical Sciences

TITLE: Alitizing of Iron by Vapours of Aluminum Monochloride (Alitirovaniye zheleza parami monokhlorida alyuminiya)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 5, pp 48-51 (USSR)

ABSTRACT: The authors calculated the changes of the standard isobaric-isothermal potential ΔZ_T^o of the reactions taking place during alitizing of iron using data relating to the changes of ΔZ_T^o between 600 and 1200°C which were published by Fichte, R. (Ref.3). On the basis of thermodynamic analysis it is concluded that for alitizing it is advisable to obtain AlCl compounds at temperatures above 970°C and for separating aluminium in accordance with the reaction expressed by Eq.(5), p.49, the temperature should be kept below 970°C, whilst the reaction of the alitizing proper can proceed at 1150°C. The authors also give the experimentally observed results on the interaction between iron and vapours of aluminium monochloride; "technical" iron of 8 mm dia, 30 mm long was subjected to the effect of AlCl vapours at 700-800 and at 950-970°C for a duration of one hour.

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129-58-5-13/17

Alitizing of Iron by Vapours of Aluminum Monochloride

It was found that a hard, scale-resistant surface layer forms if the alitizing process is effected in the temperature range 950 to 1000°C; the strength of this coating is attributed to the formation of the intermetallic compound Fe_3Al. If the alitizing temperature is higher, a less hard layer forms which appears to be a eutectic mixture of the phases $FeAl_5$ and $FeAl_3$.

There are 1 figure and 12 references, 6 of which are Soviet, 3 German and 3 English.

AVAILABLE: Library of Congress.

1. Aluminum coatings-Test results 2. Iron-Aluminum coatings
Card 2/2 3. Aluminum monochloride-Applications

57-28-4-6/39

AUTHORS: Semenkovich, S. A., Astashev, N. N.

TITLE: The Sublimation of Tellurium (Vozgonka tellura)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 28, Nr 4, pp. 725-731 (USSR)

ABSTRACT: The authors investigate the method of preliminary purification of tellurium previous to the zonal melting, computed on a purification-output of 0,3-0,7 kg/hour or 1,5 to 2,5 kg per sublimation. The comparison of various purification methods leads to the conclusion that in the modern development of the vacuum engineering the sublimation offers considerable advantages as a means to preliminary purification. This method can easily be employed in laboratories as well as in industry. It is sufficiently simple and productive. In the case of the tellurium purification the sublimation is very expedient because of the relatively low boiling point and the considerable difference between the tellurium-vapor pressure and that of its fundamental admixtures (Cu, Fe, Pb, Ag and Sb) which very considerably influence the properties of tellurium as a semiconductor. It is shown that by a correct solution with regard to the apparatus the velocity of the process in the

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sublimation cannot only be reduced but also increased. As in the sublimation the substance is a solid body, the possibility exists to increase the surface by means of the production of special castings with a trapezoid cross section. This possibility was utilized here. The technical powdery tellurium of the Pyshma Factory (160 km crow's flight east of Sverdlovsk, reviewer's remark) was subjected to purification here. Its chemical composition was: 98,5-99,0% Te, about 0,05% Se, about 0,1% Pb, 0,04-0,05% S, 0,05-0,06% Si, 0,18-0,25% R_2O_3, 10-15% tellurium oxides. The sublimation was performed in the apparatus the description of which was given in reference 4. Tellurium was once and twice sublimated. The sublimation took place at 370-380°C. The duration of the experiment was 2 to 4 hours. The experiments showed that by means of a repeated sublimation of tellurium of the first type (from Soviet factories) it is possible to obtain a product with traces of admixtures in the spectral analysis. The fundamental admixtures (Cu, Pb, Ag, Al, Si, Na and Fe) are concentrated in the residue. It remains undetermined where sulfur, selenium and oxygen, which could not be analyzed in a spectral way are concentrated.
There are 1 figure, 2 tables, and 4 references, 3 of which are Soviet.

The Sublimation of Tellurium 57-28-4-6/39

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad
(Leningrad Institute for Semiconductors, AS USSR)

SUBMITTED: October 19, 1957

Card 3/3

KOLOMOYETS, N.V.; NESHPOR, V.S.; SAMSONOV, G.V.; SEMENKOVICH, S.A.

Thermoelectric properties of certain metal like compounds..
Zhur. tekh. fiz. 28 no.11:2382-2389 N '58. (MIRA 12:1)
(Carbides) (Borides) (Thermoelectricity)

Semenkovich, S. A., Doc of Tech Sci -- (diss) "Monohalides of Aluminum," Leningrad, 1959, 23 pp (Leningrad Order of Labor Red Banner Technological Institute imeni Lensovet) (KL 4-60, 118)

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SOV/80-33-3-8/47

5.2100,5.2400,18.3100

AUTHOR: Semenkovich, S. A.

TITLE: Chemical Reactions of Aluminum Monohalides in Vapor State

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 3, pp 552-559 (USSR)

ABSTRACT: The use of monohalides in the refining of aluminum and aluminum extraction from its iron, silicon, and titanium alloys requires the determination of the resistance of the materials used in the construction of the chemical equipment against the corrosive action of the monohalides. The comparative studies, made at the All-Union Aluminum and Magnesium Institute by N. S. Mikhailov, T. I. Dement'yeva, O. N. Mikhailov, and M. B. Rappaport, established that synthetic corundum (Al_2O_3 with a low SiO_2 content), silicon carbide, and titanium carbide were highly resistant to the action of AlF and AlCl vapors even well above

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SEMENKOVICH, S.A.

Aluminum monochloride. Zhur. prikl. khim. 33 no.6:1281-1285 Je '60.
(MIRA 13:8)
(Aluminum chloride)

23131
S/181/61/003/005/036/042
B125/B202

24,7300 (1136, 1160, 1482)

AUTHORS: Semenkovich, S. A., Kolomoyets, L. A., Kolomoyets, N. V.

TITLE: Crystallization of Bi, Te, and Bi_2Te_3 by means of the Peltier effect

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1597-1600

TEXT: This paper written upon a suggestion by A. F. Ioffe deals with the crystallization of substances by means of the Peltier effect. In this case the phase boundary could be displaced by 3 to 4 cm due to almost isothermal conditions. Experimental arrangement: two conditions had to be fulfilled: (1) direct observation of velocity and motion of the phase boundary; (2) isothermal conditions must prevail in the substance. The substance to be studied was molten in a furnace in a pyrex or quartz combustion boat. The temperature distribution is shown in Fig. 1. With this temperature distribution the boundary between solid and liquid phase can be determined before the direct current is switched on. The furnace consisted of two concentrically arranged transparent quartz tubes. Experimental results: the experiments were made with Bi, Te, and Bi_2Te_3. In all substances studied

Crystallization of Bi, ...

the phase boundary could be shifted by 3-4 cm. In Bi and Bi_2Te_3 solidification occurred when the positive pole was applied to the solid phase which corresponds to a negative Peltier coefficient. In Te, solidification occurred with inverse polarity (positive Peltier effect). The crystallization front to which the current is applied is a sufficiently straight line running in perpendicular to the axis of the boat. Melting took place extremely irregularly with strong distortion of the separating lines of the phase. These facts may be explained as follows: When applying the current along the axis of the combustion boat each distortion of the crystallization front due to a fluctuation of the thermal field or the current distribution, is equivalent to a parallel connection of a liquid volume a and a solid volume b to the direct current circuit, as is shown in Fig. 3. In the crystallization of semiconductors the boundary between solid and liquid phase is leveled up. On melting, an increasing curvature is observed. This suggested that in the motion of the phase boundary in metals, crystallization caused by the Peltier effect will be accompanied by a curvature of the phase boundary. On melting, however, a distinct boundary will occur. The leveling up of the crystallization front in semiconductors

Crystallization of Bi, ...

can be used for improving the qualities of the p-n junctions produced by zone-melting with variable velocity of motion of the molten zone as well as for the growing of dislocation-free crystals. The following Peltier coefficients were obtained: Bi -0.012_5; Te $+0.16$; Bi_2Te_3 -0.016_6. These Peltier coefficients were obtained from the expression

$$v=\frac{1}{Q}\left[\Pi j-\frac{1}{2}j^2(\rho_{s_1}l_{s_1}+\rho_{s_2}l_{s_2})+\varkappa_{s_1}\frac{\Delta T_{s_1}}{l_{s_1}}-\varkappa_{s_2}\frac{\Delta T_{s_2}}{l_{s_2}}\right], \qquad (1)$$

for the velocity of motion of the phase boundary. Q denotes the melting heat (in watt/cm^3), j - current density, ρ - resistivity, l - length of phase, $\varkappa$ - coefficient of thermal conductivity, and ΔT the temperature decrease at the entire length of the phase. The subscripts "s" and "l" refer to the solid and liquid phases. Expression

$$\Pi=\frac{(v-v_0)\,Q}{j-\frac{j^2}{2j_{opt.}}}. \qquad (3)$$

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Crystallization of Bi, ...

was used for the calculations where v_0 denotes the velocity of motion of the phase boundary without direct current ($j = 0$). All substances studied were strongly isotropic; therefore, the rates of growth of the crystals along the crystallographical axes differ. The crystals which were originally oriented toward the crystallization front (so that they had a maximum rate of growth) expel all others, and the properties of the solidified casting are determined by the properties warranting a maximum rate of growth. In the direction of growth the casting must be characterized by the values of π, $\sigma = 1/\varrho$, and $\varkappa$. The properties of the casting may be influenced by a reduction of the temperature gradient along the phase boundary. There are 3 figures and 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The two most important references to English-language publications read as follows: Pfann, Benson, and Wernick, J. Electronics, 2, 597 (1957). J. Barden and B. S. Chandrasekhar. Journ. Appl. Phys., 29, 1372, 1958.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors Leningrad)

SUBMITTED: December 13, 1960

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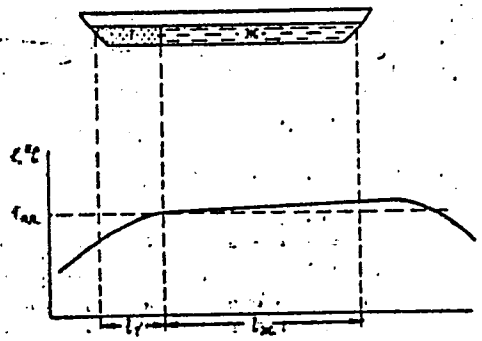
Crystallization of Bi, ...

Legend to Fig. 1: distribution of temperature along the boat by the substance to be tested.



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