

KROPAZEWSKI, W.

The PP1 and PP2 manometric weighing instruments of Polish construction.

p. 165 (Pomiary, Automatyka, Kontrola. Vol. 2, no. 5, May 1956. Warszawa, Poland)

Monthly Index of East European Accessions (EEA1) IC. Vol. 7, no. 2,
February 1958

KROPIACZKI, M.

The Pw1 manometric floating instrument with a recording disk for the Venturi meters.

p. 169 (Pomiary, Automatyka, kontrola. Vol. 2, no. 5, May 1956. Warszawa, Poland)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

KROPACZEWSKI, W.

Designs of manometric flowmeter systems. p.463

(POMIARY, AUTOMATYKA, KONTROLA, Vol. 2, No. 12, Dec. 1956, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 9, Sept. 1957, Uncl.

KROPACZEWSKI, W.

A.T.Troskolanski's Poradnik wodomierzowy (Water Meter Handbook); p.496
(POMIARY, AUTOMATYKA, KONTROLA, Vol. 2, No. 12, Dec. 1956, Warsaw, Poland)

SO: Monthly List of East European Accessions (EFAL) LC, Vol. 6, No. 9, Sept. 1957, Uncl.

SIMONOV, P.M.; KROPANEV, A.I.; TIUNOV, V.Ye.; VASIL'YEV, P.T.;
TURTSEVA, I.M.; SAKALDINA, Ye.D.; DYLDIN, Yu.N.;
BRAYLOVSKIY, N.G., inzh., red.; MEDVEDEVA, M.A., tekhn.
red.

[Advanced method for the inspection and repair of cars
in trains] Peredovoi metod osmotra i remonta vagonov v
poezdakh. Moskva, Transzheldorizdat, 1963. 39 p.

(MIRA 16:10)

(Railroads—Cars—Maintenance and repair)

SIMONOV, P.M.; KHOPANEV, A.I.; TIUNOV, V.Ye.; VASIL'YEV, P.T.;
TURTSEVA, I.M.; SAKALDINA, Ye.D.; DYLDIN, Yu.N.;
BRAYLOVSKIY, N.G., inzh., red.; MEDVEDEVA, M.A., tekhn.
red.

[Advanced method for car inspection and repair in trains;
experience of the technical inspection point of the Sverd-
lovsk-Sortirovochnaya Station of the Sverdlovsk Railroad]
Peredovoi metod osmotra i remonta vagonov v poezdakh; opyt
raboty punkta tekhnicheskogo osmotra stantsii Sverdlovsk-
Sortirovochnyi Sverdlovskoi dorogi. Moskva, Transzheldor-
izdat, 1963. 39 p. (MIRA 17:3)

VOROZHEYENKOV, V.G., gvardii podpolkovnik, voyennyy shturman pervogo klassa;
KROPANEV, B.P., gvardii mayor, voyennyy shturman vtorogo klassa

Navigator D. P. Vysk sets an example. Vest.Vozd.Fl. no.12:39-43
D '60. (MIRA 14:5)
(Navigation (Aeronautics))

KROPANEV, S. I.		PROCESSES AND PROPERTIES INDEX	
CO-		9	
Selective flotation of copper-zinc ore from the deposits "October 19th Anniversary" (Urals). S. I. Mironov and S. I. Kropanev. <i>Soviet Metall.</i> 1934, No. 8, 61-9. The following Cu minerals were found in the ore (in descending order): pyrite, chalcopyrite, sphalerite and covellite. Chem. analysis of the ore gave: Cu 0.08, Zn 0.40, S 42.02, Fe 30.94, Sb 5.14, Al₂O₃ 0.07, Si 0.014, Cd 0.0017, and Au and Ag 6.4 and 95.5 g./ton, resp. It was necessary to grind the ore to 100-200-mesh. NaCN and ZnSO₄ (1.2 and 1.7 kg./ton, resp.) were used as Zn-depression reagents. Cu flotation was carried out in a <i>pu</i> medium of 7.2-7.4 and Zn flotation in a <i>pu</i> medium of 0-10. S. I. Mironov			
ASB-514 METALLURGICAL LITERATURE CLASSIFICATION		12	

KROPANEV, S.I., gornyy inzh.; KLYACHIN, V.V., gornyy inzh.

Raising the level of completeness of using ore dressed at the
Pyshminskiy Plant. Gor.zhur. no.3:8 Mr '60. (MIRA 14:5)

1. Uralmekhanobr, Sverdlovsk.
(Staro-Pyshminsk—Ore dressing)

KROPANEV, S.I., starshiy nauchnyy sotrudnik; KLYACHIN, V.V., starshiy
nauchnyy sotrudnik

Flow sheet for dressing Sarany chromites. Gor. zhur. no.2:
76-77 F'62. (MIRA 17:2)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut
obogashcheniya i mekhanicheskoy obrabotki poleznykh iskopayemykh.

KROPANEV, S.I.; KLYACHIN, V.V.

New techniques of dressing kaolins. Stek. 1 ker. 19 no.1:23-25
Ja '62. (MIRA 15:3)
(Kyshtym--Kaolin)

KLYACHIN, V.V., inzh.; KROPANEV, S.I., kand.tekhn.nauk

New techniques for dressing kaolins from the Yeleninka and
Chikmakul' deposits. Stek.i ker. 19 no.11:28-31 N '62.

(MIRA 15:12)

1. Ural'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo
instituta mekhanicheskoy obrabotki poleznykh iskopayemykh.
(Ural Mountains--Kaolin)

KLYACHIN, V.V., inzh.; PUTRIN, A.M., inzh.; KROPANEV, S.I., kand. tekhn.
nauk

Technological innovations in the enrichment of Kaolin
containing raw materials. Stek. i ker. 20 no.9:30-35 S '63.

(MIRA 17:6)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut
obogashcheniya i mekhanicheskoy obrabotki poleznykh iskopayemykh.

REVNIVTSEV, V.I., kand. tekhn. nauk; KROPANEV, S.I., kand. tekhn. nauk;
PESKOV, V.V., inzh.

Means of raising the ratio of $K_2O:Na_2O$ in feldspars. Stek. i
ker. 21 no.1:28-33 Ja '64. (MIRA 17:8)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut
obogashcheniya i mekhanicheskoy obrabotki poleznykh iskopayemykh.

KLYACHIN, V.V., inzh.; KROPANOV, S.I., kand. tekhn. nauk; ZATONLYAYEV,
II.A., inzh.

Design of hydrocyclones for the preparation of kaolins and clays.
Stek. i ker. 22 no.1:27-30 Ja '65. (MIRA 18:7)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut
obogashcheniya i mekhanicheskoy obrabotki poleznykh iskopayemykh.

1-30-7-6
ACCESSION NO: AP5014690

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

REF SOV: 009

OTHER: 001

ATD PREL 4012

Card 2/11

... ..; PRIZHANLY, Yu.S., inzh., inzh. i.o., inzh.

... .. resistance of polyester glass plastic under railroad
... .. manufacture. Vest.TENIL MFT No. 2434-36 '65.

(MIRA 1818)

1. "Izdat'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo
instituta zheleznodorozhnogo transporta i i'ssledovaniya putey
soobshcheniya.

KROPANEV, Yu.S., inzh.; MASHUKOVA, G.V., inzh.

Selecting the optimum thermal conditions for the production of
polymeric coatings with the method of whirl sintering.
Trudy TSNII MPS no.267:38-45 '63. (MIRA 16:11)

NAUMOV, V.I.; PASHKEVICH, M.Yu.; KADANEV, Yu.S.; SARANTSEV, Yu.S., red.

[Design and construction of freight boxcars using polymeric materials] Konstruktsii krytykh gruzovykh vagonov s primeneniem polimernykh materialov. Moskva, Transport, 1964. 154 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy, no.284).
(NIRA 18:1)

~~SECRET~~

BORTS, M.G.; KROPANIN, M.T.; SYTNIK, G.K. [deceased]; RAKHVALOV, N.S. [deceased]

Fifteenth anniversary of the Chelyabinsk Forging and Pressing Plant.
Avt.1 trakt.prom. no.11:44-45 N '57. (MIRA 10:12)

1. Kuznechno-pressovyy zavod, Chelyabinsk.
(Chelyabinsk--Forging) (Chelyabinsk--Sheet-metal work)

1. KROPANIN, S. I.
2. USSR (600)
4. Apple - Tomsk
7. Twenty years of observing the cultivation of apples in orchards of Michurin experimentors in the town of Tomsk. Trudy Tomsk.un., 114, 1951.
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

KROPANIN, S. S., Cand Tech Sci (diss) -- "Transitory processes in the exciter of a generator-motor system, taking into account basic nonlinearities".

Tomsk, 1960. 14 pp (Min Higher and Inter Spec Educ RSFSR, Tomsk Order of Labor Red Banner Polytech Inst im S. M. Kirov), 150 copies (KL, No 15, 1960, 135)

KAZANSKIY, Yu.P.; KROPANINA, L.S.; PERCIZIO, G.N.

Petrographical and mineralogical characteristics of Upper
Cretaceous clay rocks in the Ob' Valley protion of the Naryn
region. Trudy SNIIGGIMS no.10:171-183 '60. (MIRA 15:12)
(Naryn region—Clay)

ANAN'YEV, Lev Martem'yanovich, kand. tekhn.nauk; VOROB'YEV, Aleksandr
Akinovich, doktor tekhn. nauk; GORBUNOV, Vladimir Ivanovich,
kand.tekhn.nauk; KROPCHEV, S.A., red.; RUBINOVA, L.Ye., tekhn.red.

[Betatron and its uses] Betatron i ego primeneniye. Tomsk, Tom-
skoe knizhnoe izd-vo, 1962. 83 p. (MIRA 15:11)

1. Tomskiy politekhnicheskii institut imeni S.M.Kirova (for
Anan'yev, Vorob'yev, Gorbunov).

(Betatron)

KROPCHINSKI, T.
CA

Inorganic Industry in Poland. Tadek Kropczyński.
Chem. Abstr. 23, 1023 (1948)

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ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

KROPCHINSKIY, T. [Kropczyński, T.]

Polish-Soviet commodity exchange and prospects for its further development. Vnesh.torg. 29 no.8:25-27 '59. (MIRA 12:11)

1. Zamestitel' ministra vneshney trgovli Pol'skoy Narodnoy Respubliki.

(Russia--Commerce--Poland) (Poland--Commerce--Russia)

MIKES, Andrija, Dr.; KROPEJ, Vida, Dr.; VIZJAK, Nevenka, Dr.

Medical treatment of essential hypertension. Med. arh.,
Sarajevo 10 no.1:93-102 Jan-Feb 56.

1. Interno odeljenje Opste bolnice, Banja Luka, -Sef: dr.
Andrija Mikes.

(HYPERTENSION, ther.
(Ser))

USSR/Human and Animal Physiology (Normal and Pathological).
Blood Circulation. General. 7

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79516.

Author : Kropel'nitskaya, M.V.

Inst :

Title : Prothrombinemia and a Thymol Test in Various
Stages of Insufficiency of Blood Circulation.

Orig Pub: Materialy po obshchey nauchn. inform. Ukr. n.-i.
klinich. meditsiny, 1957, vyp. 1, 94-97.

Abstract: No abstract.

Card : 1/1

77

KROPEL'NITSKAY^A, M. V. Cand Med Sci -- (diss) "The functional state of the liver in cases of blood-circulation deficiency." Chernovtsy, 1958. 16 pp (Chernovtsy State Med Inst), 200 copies (KL, 52-58, 107)

-189-

KROPALNITSKAYA, M.V.

Functional state of the liver in circulatory insufficiency both
before and after treatment. Vrach.delo no.2:197-198 r '58.
(MIRA 11:7)

1. Gosptal'naya terapevticheskaya klinika (zav.-prof. V.A.Triger)
Chernovitskogo meditsinskogo instituta.
(LIVER) (BLOOD--CIRCULATION, DISORDERS OF)

KROPEL'NITSKAYA, M.V.

Types of glycemio pictures in circulatory insufficiency. Vrach.delo
no.8:861 Ag '58 (MIRA 11:8)

1. Gospital'naya terapevticheskaya klinika (sav. - prof.V.A. Triger)
Chernovitskogo meditsinskogo instituta.
(BLOOD SUGAR)

KROPEL'NITSKAYA, M.V., kand.med.nauk

Oxygen therapy of circulatory insufficiency. Vrach. delo no.11:
34-37 N°63 (MIRA 16:12)

1. Gospi'tal'naya terapevticheskaya klinika (zav. - prof.
V.A.Triger) Chernovitskogo meditsinskogo instituta.

AUTHORS: Zaikin, P.P.; Kropets, E.S., Engineers 91-58-B-13/34

TITLE: Preventing Hydraulic Shocks in Steam Machinery (Preduprezhdeniye gidravlicheskikh udarov v parovykh mashinakh)

PERIODICAL: Energetik, 1958, Nr 8, pp 18-19 (USSR)

ABSTRACT: Serious damage can occur in steam machinery in two ways: 1) by stopping the machinery without first switching off the condensation system; 2) by stopping the water-jet air pump while the machinery is still working. Both cause a pressure difference to arise and water is sucked back into the low-pressure cylinder. To prevent this, the Lyudinovskiy lokomobil'nyy zavod (Lyudinov Locomobile Plant) devised a safety valve to be fitted between the machinery and the condenser in the exhaust pipe. This consists of a hollow spherical brass float mounted on a vertical axis which rises when water is fed back from the condenser to seal off the

Card 1/2

Preventing Hydraulic Shocks in Steam Machinery

91-58-8-13/34

entry to the machinery. The valve was tested in the plant and proved effective in both the damaging circumstances mentioned. There is 1 diagram.

1. Steam machinery--Operation
2. Valves--Applications

Card 2/2

KROPP, Ferdinand Aloizovich. Prinimal uchastiye NIKITIN, V.A.;
TRIPOL'SKIY, L.G., red.; MANINA, M.I., tekhn. red.

[Western Caucasus; description of paths for ascending sum-
mits from the Karakaya Mountain to the Klukhorskiy Pass]
Zapadnyi Kavkaz; opisanie putei voskhozhdeniya na vershiny
ot massiva Kara-Kaia do Klukhorskogo perevala. Moskva,
Fizkul'tura i sport, " 1962. 173 p. (MIRA 16:4)

1. Instruktor Stavropol'skogo krayevogo Turistsko-ekskursion-
nogo upravleniya (for Nikita).
(Caucasus--Mountaineering)

L 04243-67

ACC NR: AR6015952

SOURCE CODE: UR/0299/65/000/023/RO45/RO45

AUTHORS: Tepas, D.; Kropfl', U.; Armington, Dah.

TITLE: Potentials induced in man's visual system

SOURCE: Ref. zh. Biologiya, Abs. 12R294

REF SOURCE: Sb. Probl. bioniki. M., Mir, 1965, 24-36

TOPIC TAGS: eye, light biologic effect, biocybernetics, biophysics

ABSTRACT: Electrical activity produced by exciting the eyes with flickering lights was registered simultaneously with two groups of electrodes. The activity from these two sources and the measure of excitation were intensified and recorded on a polychannel magnetophone with frequency modulation. The magnetic ribbon obtained in this way was passed into an analog computer programmed for averaging physiological potentials. The ribbon was also connected into an automatic computing system for measuring α -activity. By this method it was possible to obtain easy-to-analyze answers for stimuli differing greatly in their excitation force from those normally dealt with in common electrophysiological studies. According to the author, the technique of summation used in this investigation makes it possible to identify and to measure the reactions at excitation intensities near the absolute threshold of the tested quantity. V. Antonov [Translation of abstract]

SUB CODE: 06

Card 1/1

UDC: 577.3

KARAVANOV, G.G.,prof.; KROPIL'NITSKIY, Z.N.

Report on thyroid surgery based on data from a conference at
the Lvov Medical Institute. Nov.khir.arkh. no.4:139-142

J1-Ag '59.

(MIRA 12:11)

(THYROID GLAND--SURGERY)

VERISOV, T.A.N., KAPLANTIN, E.I. (U.S.S.R.)

Operation of the 680 MeV Machine

CERN-Symposium on High Energy Accelerators and Pion
Physics

Geneva 11-23 June 56
In Branch #5

WATERBURY, Vt., July 10, 1968.

Extraction of the protein from the
500 MeV synchro-cyclotron

CERN-Symposium on High Energy Accelerators and High Energy Physics

Geneva 11-23 June 56
In Branch 15

In Branch 15

KROPIN, A.A.

DANILOV, V.I.; DMITRIYEVSKIY, V.P.; ZAMOLODCHIKOV, B.I.; KATYSHEV, V.S.,
[deceased]; KROPIN, A.A.; CHESTNOY, A.V.

Corrections for the median surface of magnetic fields in the six-
meter synchro-cyclotron. Prib.i tekhn.eksp.no.3:17-22 N-D '56.
(MLBA 10:2)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Cyclotron) (Magnetic fields)

DMITRIYEVSKIY, V.P.; DANILOV, V.I.; DENISOV, Yu.N.; ZAPLATIN, N.L.; KATYSHEV,
V.S. [deceased]; KROPIN, A.A.; CHESTNOY, A.V.

Exciting radial oscillations for ejecting proton beams from the six-
meter synchrocyclotron. Prib. i tekhn. eksp. no.1:11-14 Ja-F '57.

(MLRA 10:6)

1. Ob'yedinennyy institut yadernykh issledovaniy..
(Protons) (Cyclotron)

Kropin, A. A.

21.2100

78317

SCN/00-0-3-2/32

AUTHORS: Vasilievskaya, D. P., Glazov, A. A., Denisov, V. I.,
Denisov, Yu. M., Dmitriyev, V. P., Dmitriyevskiy, V. P.,
Zaslavskiy, B. P., Zaslavskiy, M. L., Kolyga, V. V.,
Kropin, A. A., Kuznetsov, V. S., Savchenko,
A. L., Arkhipov, I. A.

TITLE: A Cyclotron with a Globally Varying Magnetic Field
Intensity

PERIODICAL: Atomnaya energiya, 1970, Vol. 6, No. 3, pp 187-190 (USSR)

ABSTRACT: The paper outlines the theory of charged particle motion
in a magnetic field with periodic structure along its
azimuth and radius, and describes investigations per-
formed during the years 1965-1968 on a cyclotron accelera-
tor with spiral-ridged magnetic fields at Joint Institute
for Nuclear Research (U.S.S.R. Institut yadernykh
issledovaniy). The results were built following the
space stability theory developed by D.ano and Maxwell.
The authors first discuss the linear theory and investi-
gate the particle conditions with respect to a closed

Card 1/10

KIRILLOV-UGRYUMOV, V.G.; KROPIN, A.A.; ROGANOV, V.S.; SAMOYLOV, A.V.

Angular and energy dispersion of π^- -mesons in a scattered magnetic field of a six-meter synchrocyclotron. Atom. energ. 11 no.3: 245-246 S '61. (MIRA 14:9)
(Mesons--Scattering) (Synchrotron) (Magnetic Fields)

VASIL'YEVSKAYA, D.F.; GLAZOV, A.A.; DENISOV, Yu.N.; DZHELISOV, V.F.;
DMITRIYEVSKIY, V.P.; ZAMOLODCHIKOV, B.I.; ZAPLATIN, N.L.;
KOL'GA, V.V.; KROPIN, A.A.; KUZMYAK, M.; ONISHCHENKO, L.N.;
RYBALKO, V.S.; SARKISYAN, L.A.; SHVABE, Ye.; SARANTSEVA, V.R.,
tekhn. red.

[Theory and the modeling of a circular synchro-cyclotron with
a spiral magnetic field] Voprosy teorii i modelirovaniia kol'-
tseвого fazotrons s spiral'noi strukturnoi magnitnogo polia.
Dubna, Ob"edinennyi in-t iadernykh issl., 1962. 7 p.

(MIRA 15:4)

(Synchrotron)

GLAZOV, A.A.; DZHELEPOV, V.P.; DMITRIYEVSKIY, V.P.; ZAMOLODCHIKOV, B.I.;
KOL'GA, V.V.; KROPIN, A.A.; ONISHCHENKO, L.M.; SHVABE, Ye.

Effect of a space charge on the frequency of free oscillations
of particles in an isochronous cyclotron. Atom. energ. 15
no.3:205-209 S '63.
(MIRA 16:10)

(Cyclotron)

(Oscillations)

L 58913-65 EWT(m)/EPA(w)-2/EHA(m)-2 Pt-7 IJP(c) 08

ACCESSION NR: AT5007938

S/0000/84/000/000/0547/0555

AUTHOR: Glazov, A. A.; Denisov, Yu. N.; Dmitriyevskiy, V. P.; Zamolodchikov, B. I.;
Zaplatin, N. L.; Kol'ga, V. V.; Komochkov, M. M.; Kronin, A. A.; Dzhalelov, V. P.;
Gashev, M. A.; Malyshev, I. F.; Monoszon, N. A.; Popkovich, A. V.

TITLE: Relativistic 700-Mev proton cyclotron

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy,
Moscow, Atomizdat, 1964, 547-555

TOPIC TAGS: proton accelerator, relativistic particle

ABSTRACT: Current theoretical concepts and experimental data conclusively show that to understand the microcosm further it is necessary to increase the beam intensity of accelerators by a factor of 10^3 and produce accelerators with energies up to thousands of Bev's. For the past 5-6 years constant gradient accelerators (500-900 Mev cyclotrons) have appeared to be the best way to produce particles with energies up to 1 Bev (1 Gev) with beam currents of the order of 1 milliamperes instead of 1 microampere (as found in synchrocyclotrons). The present report describes the design for a 700-Mev proton cyclotron developed by the Laboratory of Nuclear Prob-

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ACCESSION NR: AT5007938

blems of the OIYal jointly with the NIIIEFA GKAE SSSR and other scientific research institutes with rated current proton beam up to 500 microamperes. The choice of energy was made on the basis of the fact that at 700 Mev the cross-sections for formation of pions in nucleon-nucleon and nucleon-nuclei collisions are close to maximum, and also because of the possibility of utilizing the electromagnet of the 680-Mev synchrocyclotron of the OIYal for the new accelerator. The following new problems were considered in the design because there is now no similar operational high-energy accelerator: (a) verification of the linear theory and development of the nonlinear theory of spatial stability and of the phase motion of particles in the accelerator; (b) creation in a large space of a magnetic field with complex configuration and its stabilization with an unusually high degree of accuracy; (c) production of apparatus for the measurement of strongly nonhomogeneous magnetic fields (gradients up to 4000 oe/cm) with an accuracy better than 10^4 ; (d) production of high-frequency oscillators with power up to 2 MW at a frequency of 12 megacycles per second (12 Mc), with frequency stability of the order of 10^{-5} , which operate with a resonance system with amplitude of the accelerating high-frequency voltage of up to 100 kilovolts; (e) design of an accelerator and its auxiliary systems which ensure effective operation and maintenance under conditions of high levels of activity; (f) development of a highly effective system for the channeling of proton beams from the accelerator, and also solution of the problems connected with

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ACCESSION NR: AT5007938

producing beams of secondary particles and their channeling and focusing; (g) development of plans for the protection of personnel and instruments from radiation. The paper concludes that the relativistic cyclotron offers wide new possibilities for nuclear research in radiobiology, solid state physics, etc. Orig. art. has: 7 figures, 3 tables. 2

ASSOCIATION: (I) Ob'yedinennyi institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research, Dubna); (II) Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury imeni D. V. Yefremova GKAE SSSR (Scientific Research Institute of Electrophysical Equipment, GKAE SSSR)

SUBMITTED: 26 May 64

ENCL: 00

SUB CODE: NP

NO REF SOV: 009

OTHER: 002

Card 3/3

12
L 2274-66 ENT(m)/EPA(w)-2/EJA(m)-2 IJF(c) GS
ACCESSION NR: AT5007943 UR/0000/64/000/000/0611/0615 37
AUTHOR: Glazov, A. A.; Dzhelepov, V. P.; Dmitriyevskiy, V. P.; Zamolodchikov, B. I.; Kol'ga, V. V.; Kropin, A. A.; Onishchenko, L. M.; Shvabe, Yu. I.
TITLE: Effect of space charge on the free oscillation frequency of particles in an isochronous cyclotron 17, 55
SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 611-615
TOPIC TAGS: high energy accelerator, space charge, cyclotron
ABSTRACT: Theoretical studies of the effect of space charge on the motion of particles in accelerators have been carried out in a number of works: Berestetskiy, V. V.; Gol'din, L. L.; Koshkarov, D. T. *Pribury i tekhnika eksperimenta*, 3, 26 (1956); Dmitriyevskiy, V. P.; Zamolodchikov, B. I.; Kol'ga, V. V. *Doklad na konferentsii po tsiklotronam* (Report on the Cyclotron Conference), Gerasov, 1960; Kolo-
menskiy, A. A.; Lebedev, A. N. *Atomnaya energiya*, 7, 549 (1959). To create strong-
current accelerators it is important to verify the theoretical conclusions with ac-
tual operating installations. The present work is concerned with the dependence of
the frequency of axial oscillations upon the density of the space charge of the ac-
cord 1/2

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ACCESSION NR: AT5007943

2
celerated particles. Pertinent measurements were carried out on a cyclotron with spiral magnetic field for the specific case of molecular hydrogen ions accelerated up to the energy of 12 Mev (Vasilevskaya, D. P., et. al., *Atomnaya energiya*, 8, 189 (1960)). The results of the present work shows that the effect of the space charge does not prevent beam intensities of the order of several milliamperes in relativistic cyclotrons. A result of this space charge is the displacement of the zones of resonant interaction of the oscillations. Expressions are obtained which describe the effect of the space charge on the basis of linear equations for the free oscillations, taking account of the electromagnetic field of the accelerated particles. It is assumed that the particles in a condensed bunch are uniformly distributed along the azimuth and that the vertical size of the bunch is much smaller than the azimuthal extension. The main topics discussed are: (1) the density of the charged particles in a relativistic cyclotron and its influence upon the frequency of the axial oscillations; (2) measurement of the azimuthal extension of the bunch; (3) measurement of the frequency of the axial free oscillations; and (4) the limiting intensity of the internal beam in a relativistic cyclotron. Orig. art. has: 6 figures, 8 formulas.

ASSOCIATION: Ob'yedinennyi institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research)

SUBMITTED: 26 May 64

ENCL: 00

NO REF SOV: 004

SUB CODE: NP

OTHER: 002

Card 2/2 DP

16.5600

69765

AUTHOR: Kropina, V.K.

S/155/59/000/02/006/036

TITLE: On Projective Finsler Spaces With Special Metric

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye nauki, 1959, No. 2, pp. 38-42

TEXT: A Finsler space is called projective, if its geodesics are described in a special (projective) coordinate system by linear equations. Directly starting from the former investigations by Berwald (Ref. 1-5) the author considers n-dimensional Finsler spaces with the metric

$$(3) \quad L(x^\nu, x^\nu) = \frac{a_{\alpha\beta}(x^\nu) x^\alpha x^\beta}{b_\mu(x^\nu) x^\mu}$$

These spaces are projective if and only if in a certain coordinate system it is

$$(25) \quad L = \frac{x^1 \frac{\partial \psi}{\partial x^1} x^\alpha + K_{\mu\tau} x^\mu x^\tau}{x^1}$$

where $\mu, \tau = 2, 3, \dots, n$; $\alpha = 1, 2, \dots, n$; $K_{\mu\tau}$ constants; ψ arbitrary function.

On Projective Finsler Spaces With Special Metric

69765

S/155/59/000/02/006/036

The author gives necessary and sufficient conditions which Ψ must satisfy in order that a space with the metric (25) be a Minkowski space (e.g. it is sufficient $\Psi(x^j) = \sum_{i=1}^n q_i x^i + q_0$, where q_j are constants). It is stated

that the only spaces of constant curvature with the metric (25) are Minkowski spaces. Finally the author shows that a Finsler space necessarily possesses an affine connection with the metric

$$L = \sqrt[3]{a_{\alpha\beta\gamma} (x^j) x^\alpha x^\beta x^\gamma} \quad \text{and}$$

$n \leq 3$. Altogether the author gives seven theorems.

There are 6 non-Soviet references : 3 German, 2 American and 1 Dutch.

ASSOCIATION: Arkhangel'skiy gosudarstvennyy pedagogicheskiy institut imeni M.V.Lomonosova (Arkhangel'sk State Pedagogical Institute imeni M.V. Lomonosov)

SUBMITTED: April 27, 1959

Card 2/2

KROPINA, V.K.

Introduction of absolute differentiation in Finsler space.

Uch. zap. IAr. gos. ped. inst. no.34:113-123 '60. (MIRA 15:9)
(Geometry, Differential)

KROPINA, V.K.

Projective two-dimensional Finsler spaces with special metrics.
Trudy Sem.po vekt.i tenz.anal. no.11:277-292 '61. (MIRA 15:3)
(Spaces, Generalized) (Geometry, Differential)

VOYTOVICH, E.; NAYDENOVA, I.; KROCH, E.; LEBEDEV, P.; LEBEDEV, A.;
FILATOVA, I.

Immunity of fruit plants and grapes. Vashch. rast. ot vned. i
bol. 10 no.10:21-23 '65. (MIRA 18:12)

1. Moldavskiy institut sadovodstva, vinogradarstva i vinodeliya
i Kishinevskiy sel'skokhozyaystvennyy institut.

USSR/Plant Diseases - Diseases of Cultivated Plants.

0.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 16024

Author : Ye.P. Kropis

Inst :

Title : The Desiccation of Pits in Fruit Trees.
(Ysykhaniye kostochkovykh plodovykh derev'yev).

Orig Pub : Sadovodstvo, vinogradarstvo i vinodeliye Moldavii, 1956,
No 6, 56-57.

Abstract : Cytosporosis which has in recent years spread throughout Moldavia has infected all kinds of pits, especially strongly that of the apricot and peach 3-12 years old. The infected trees desiccate in the spring up to the time of the opening of the buds or flowering. One has observed the trunk bark dying, skeletonized branches or forks. The productive bodies of the fungus are located under the top layer of the bark. In the fruit tree tissue the fungus penetrates mechanically damaged spots.

Card 1/2

- 11 -

USSR/Plant Diseases - Diseases of Cultivated Plants.

0.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 16024

Roots are not infested by the fungus. It is recommended to disinfect the crowns with white wash and that they be treated spring and fall with a 4% solution of Bordeaux mixture to which DDT has been added.

Card 2/2

VERDEREVSKIY, D.D., prof.; KROPIS, E.P.

Causes of the desiccation of stone fruits. Zashch. rast. ot
vred. 1 bol. 9 no.8:18-20 '64. (MIRA 17:12)

1. Kishinevskiy sel'skokhozyaystvennyy institut.

KROPELKO, Antoni

Transformation of various forms of carbon and nitrogen compounds
in peat-plant compost. Rozz nauk roln rosl 88 no.2:173-192 '64.

1. Institute of Soil Cultivation and Manuring, Central College of
Agriculture, Warsaw.

KROPIZ, Antoni

Studies on the transformation of carbon and nitrogen compounds in peat-plant composts and evaluation of the fertilizing value of such composts. Roczniki nauki rolniczej 83 no.4:791-807 '64.

1. Institute of Soil Cultivation and Manuring, Main School of Rural Economy, Warsaw.

KROPIVNITSKAYA, K.I.

Evaluation of one approximate solution of the equation of quasi-harmonic oscillations. Nauch.zap. IMA AN URSS. Ser. mashinoved. 6 no. 5: 138-151 '57. (MLRA 10:7)
(Approximate computation) (Differential equations)

15(1), 24(6)

AUTHOR:

Kropivnits'ka, K.Y. (Kropivnitskaya, K. I.)

SOV/21-59-7-7/25

TITLE:

Approximate Solution of the Equation of Forces Quasiharmonic Oscillations

PERIODICAL:

Dopovidi Akademii Nauk Ukrain's'koi RSR, 1959, Nr 7, pp 724-729 (UkrSSR)

ABSTRACT:

In this article an approximate solution is given of the nonhomogeneous equation of quasiharmonic oscillations

$$\frac{d^2 x}{d\theta^2} + 2\gamma(\theta) \frac{dx}{d\theta} + x = S(\theta).$$

This solution is obtained on the basis of the method and result of M.Y. Leonov /1,2/. For the case when the dynamic damping constant $\gamma(\theta)$ is small ($[\gamma(\theta)] \ll 1$), the

approximate solution of above-mentioned equation is given in a form which is convenient for practical application and is represented by following formula:

Card 1/2

SOV/21-59-7-7-25

Approximate Solution of the Equation of Forces Quasi-harmonic Oscillations

$$x(\theta) = f(\theta) + e^{i\omega\theta} \psi(\theta) - e^{-i\omega\theta} \chi(\theta, C_1, C_2)$$

From solution of this formula $x(\theta) = f(\theta)$

determining the steady forced quasi-harmonic oscillations, is obtained for the special case when $\theta \rightarrow \infty$. There are 15 mathematic formulas and 3 Soviet references.

ASSOCIATION: Ukrayins'kyy poligrafichnyy instytut imeni Iv. Fedorova (Ukrainian Polygraphic Institute imeni Iv. Fedorova)

PRESENTED: G.M. Savin, Member AS UkrSSR

SUBMITTED: January 22, 1959

Card 2/2

АКУСТИЧЕСКАЯ СИСТЕМА

24.4/100

S/O44/62/000/007/017/100
C111/C333

AUTHOR: Kropyvnyts'ka, K. Y.

TITLE: On the approximative solution of an equation for quasi-harmonic oscillations

PERIODICAL: Referativnyy zhurnal, Matematika, no. 7, 1962, 36-37, abstract 7B177. ("Nauk. zap. Ukr. poligr. in-t", 1961, 13, 58-64)

TEXT: Considered is the differential equation of second order

$$\frac{d^2x}{d\theta^2} + 2\gamma(\theta) \frac{dx}{d\theta} + x = S(\theta) \quad (1)$$

which describes the forced oscillations of a mechanical system. One supposes that the dynamic damping coefficient $\gamma(\theta)$ and the perturbing force $S(\theta)$ are of the following form:

$$\gamma(\theta) = \varepsilon_0 + \varepsilon_1 \cos n\theta + \varepsilon_2 \sin n\theta$$

$\varepsilon_0, \varepsilon_1, \varepsilon_2, n$ being constants, $\varepsilon_0 > 0$, $S(\theta) = P \sin(p\theta + \alpha)$, P, p, α being constants. The approximative solution of (1) in the case of re-
Card 1/2

On the approximative solution of an ... S/044/62/000/007/017/100
C111/C333

sonance is searched according to the well-known method. A relation between the frequencies of $S(\omega)$, $T(\omega)$ and the frequency of the eigenoscillations is given at which the resonance is possible.

[Abstracter's note: Complete translation.]

✓B

Card 2/2

I 00778-67 EWT(mi/FWP(t)/ETI LJE(c) ID/NE
 ACC NR: AP6025820 (N) SOURCE CODE: UR/0314/66/000/005/0017/0017

AUTHOR: Abalyan, N. P. (Engr.); Kropivnitskaya, R. A. (Engr.) 39
 8

ORG: none

TITLE: Corrosion tests of some structural metals in an ammonium alum medium

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 5, 1966, 17

TOPIC TAGS: alum, corrosion resistant steel, lead, corrosion rate

ABSTRACT: At the ArmNIDkhimproyekt, corrosion tests of metals (Kh18N9T, Kh25T, 2Kh13 steels, Mn copper, AO aluminum, and S2 lead) most frequently employed in the construction of chemical machinery were carried out in a 45% solution of ammonium alum at 20°C and at the boiling point of the saturated solution under static conditions for 720-1440 hr. The corrosion rate was determined gravimetrically. All the metals tested except aluminum were found to be corrosion-resistant. As expected, chromium-nickel steel was more resistant than chromium steels, and lead was more resistant than copper because of the formation of a lead sulfate film. The corrosion resistance of lead increases with rising temperature. It is recommended that Kh18N9T steel be used for making equipment operating at normal temperatures in the production of corundum (where ammonium alum is used as the raw material), and that S2 lead be used for the construction of units operating in the range of 100°C. Orig. art. has 1 table.

SUB CODE: 11/ SUBM DATE: none

Card 1/1 ENM UDC: 620.193.4

GRINBERG, David Yefimovich [deceased]; ~~KROPIVNIKOV, M.N.~~, inzh., retsenrent;
MARIN'YANICHEN, S.N., inzh., retsenrent; OGLOBLIN, A.N., dots., red.;
VASIL'YENVA, V.P., red. izd-va; POL'SKAYA, P.G., tekhn. red.

[Machine shop lay-out man] Razmetchik mekhanicheskikh tsekhov.
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958.
315 p. (MIRA 11:10)
(Metalwork) (Machine-shop practice)

BLYUMBERG, V.A.; SERGEYEV, M.A.; ~~PROPIVITSKIY~~, N.N., inzh., retsenzent;
LIBKIND, M.M., inzh., retsenzent; BARSKIY, M.B., inzh., red.;
VARKOVETSKAYA, A.I., red.izd-va; SPERANSKAYA, O.V., tekhn.red.;
DLUGOKANSKAYA, Ye.A., tekhn.red.

[Operator of boring and turning lathes] Tokar'-karusel'shchik.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959.
422 p. (Lathes) (MIRA 12:11)

ZAZERSKIY, Yevgeniy Ivanovich; GUTHEE, Naum Grigor'yevich; KHOPIVHITSKIY,
N.M., inzh., retsenzent; AZAROV, A.S., kand.tekhn.nauk, red.;
LEYKINA, T.L., red.isd-va; SHECHETININA, L.V., tekhn.red.

[Boring-machine operator] Tokar'-restochnik. Moskva, Gos.nauchno-
tekhn.isd-vo mashinostroit.lit-ry, 1960. 414 p. (MIRA 13:9)
(Drilling and boring machinery)
(Metal cutting)

PHASE I BOOK EXPLOITATION

SOV/4590

Kropivnitskiy, Nikolay Nikolayevich, Aleksandr Mikhaylovich Kucher,
Raissa Viktorovna Pugacheva, and Petr Nikolayevich Shornikov

Tekhnologiya metallov (Metals Technology) Moscow, Mashgiz, 1960. 499 p.
Errata slip inserted. 40,000 copies printed.

Reviewers: N. A. Malyshev, Engineer, and K. P. Surin, Engineer; Ed.: V. A.
Blyumberg, Candidate of Technical Sciences; Eds. of Publishing House: A. I.
Varkovetskaya, and M. A. Chfas; Tech. Ed.: A. I. Kontorovich; Managing Ed.
for Literature on Machine-Building Technology (Leningrad Department, Mashgiz):
Ye. P. Naumov, Engineer.

PURPOSE: This textbook is intended for engineering trade school students.

COVERAGE: The textbook presents the material covered in the course on metals
technology as established in the engineering trade educational program
and approved by the Gosudarstvennyy Komitet Soveta Ministrov SSSR po profes-
sional'no-tekhnicheskomu obrazovaniyu. (State Committee of the Council of
Ministers USSR for trade and technical education). The fundamentals of physical
metallurgy are analyzed.

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Metals Technology

80V/4590

Casting, pressworking, soldering, brazing, welding, cutting, bench working and electrical machining of metals are discussed. Concise information on nonmetallic materials, including plastics, is also given. The text describes various metal-cutting machine tools. No personalities are mentioned. There are no references.

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- AVAILABLE: Library of Congress (T8205.T42)

Card 12/12

VK/dwn/fal
12.16-60

KROPIVNIITSKIY, Nikolay Nikolayevich; KUCHER, Aleksandr Mikhaylovich;
PUGACHEVA, Raisa Viktorovna; SHORNIKOV, Petr Nikolayevich;
MALYSHEV, N.A., inzh., retsenzent; SURIN, K.P., inzh.,
retsenzent; BLYUMBERG, V.A., kand. tekhn. nauk, red.;
VORKOVETSKAYA, A.I., red. izd-va; CHIFAS, M.A., red. izd-va;
KONTOROVICH, A.I., tekhn. red.

[Technology of metals] Tekhnologiya metallov. [By] N.N. Kro-
pivnitiskii i dr. Moskva, Mashgiz, 1962. 499 p.

(MIRA 15:9)

(Metals)

(Metalwork)

KROPIVNIITSKIY, N.N.; BYCHKOV, P.P., kand. tekhn. nauk, rezensent;
SHUBAYEV, Yu.S., inzh., rezensent; BLYUMBERG, V.A.,
kand. tekhn. nauk, red.; GEFAG, H.A., red.izd-va;
VARKOVETSKAYA, A.I., red.izd-va; BARDINA, A.A., tekhn. red.

[General course in machine-shop practice] Obshchii kurs
slesarnogo dela. Moskva, Mashgiz, 1963. 407 p.
(MIRA 17:2)

KROPIVNITSKIY, N.N.; KUCHER, A.M., kand. tekhn. nauk;
PUGACHEVA, R.V.; SHORNIKOV, P.N.; BYCHKOV, P.P., kand.
tekhn. nauk, retsenzent; MALYSHEV, N.A., inzh., retsenzent

[Technology of metals] Tekhnologiya metallov. [By] N.N.
Kropivnitskii i dr. Izd.2., perer. i dop. Moskva, Izd-vo
"Mashinostroenie," 1964. 502 p. (MIRA 17:8)

ACC NR: AT6033083

SOURCE CODE: UR/2582/66/000/016/0115/0122

AUTHOR: Korop, V. F. (Khar'kov); Kropivnyy, A. P. (Khar'kov)

ORG: none

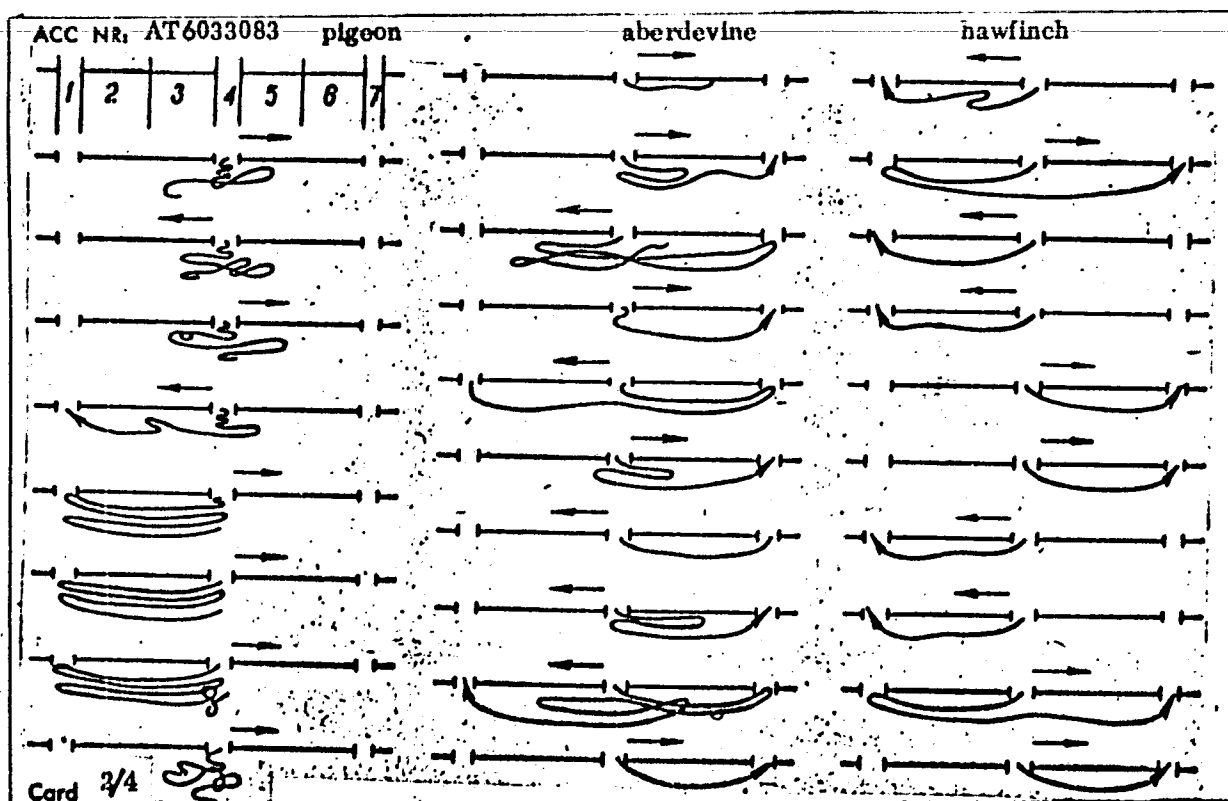
TITLE: On a stochastic learning model in which an allowance is made for the extrapolation response

SOURCE: Problemy kibernetiki, no. 16, Moscow, 1966, 115-122

TOPIC TAGS: experiment animal, mathematic model, information theory, mathematic operator, *CONDITIONED REFLEX, BEHAVIOR PATTERN*

ABSTRACT: This represents the first ever attempt to construct a mathematical model of animal behavior which takes into account not only reflex responses but also the extrapolation response. The model is based on the findings of screen experiments (Fig. 1) in which animals (pigeons, aberdevines, hawfinches) were offered food via central slit (4), after which the receptacle with food would move either to the right or to the left, disappearing from the animal's field of view, in order to test the animal's ability to extrapolate the direction in which the receptacle would move and to accordingly move in the same direction so as to obtain the

Cord 1/4



ACC NR: AT6033083

food. The constructed model is one-dimensional (movement along the screen) and discrete in time. The screen is divided into seven zones and the events are considered only at the time instant $t_j = j\tau$, where τ is a constant time interval, and we are interested only in the identity of the zone in which the animal happens to be present at a given time instant. Thus, the trajectory of the animal's movement is described by the numerical sequence of zones. For example, the sequence

4 5 6 5 4 4 3 2 1

shows that at the time instant $t_0 = 0$ the animal was in zone 4; at the time $t_1 = \tau$, in zone 5, and so on. The animal's movement is governed by the set of numbers

$$p_{ik} > 0 \quad (i, k = 1, 2, \dots, 7), \quad \sum_{k=1}^7 p_{ik} = 1 \quad (i = 1, 2, \dots, 7),$$

which change in time. p_{ik} is the probability that the animal present in the zone i desires to enter zone k . If this probability is realized, we say that event A_{ik} has taken place. Thus, $p_{ik} = P \{A_{ik}\}$. In the course of solving the problem, the animal receives outside information on food, which leads to a change in p_{ik} . In the model p_{ik} is processed with the aid of linear operators dependent on five parameters: degree of establishment of conditioned reflex responses; degree of extinction of these responses; damping rate of probability shift; initial

Card 3/4

ACC NR: AT6033083

power of extrapolation response; initial power of residual desire. Orig. art. has: 2 figures, 6 formulas, 3 models.

SUB CODE: 06, 12/ SUBM DATE: 15Mar65

Card 4/4

XROPIWNICKI, Stanislaw

Apparatus and equipment produced in the Textile Institute.
Przegl włokien 16 no.9:Suppl.: Biul inst włokien 14 no.5:3-5
S '62.

KROPKI-WICZ, K

"Season for planting potatoes." (p.46) NOWE ROLNICTWO (Panstwowe Wydawnictwo Rolnicze in Lesne) Warszawa, Vol. 3, no. 4, Apr. 1954

SO: EAST European Accessions List, Vol 3, No. 8, August 1954

✓ Potato planting trials. M. Birecki and K. Kiepiński (*Ročen.*
Nauk rol., 1955, 70, A, 515-542).—Effects of time of planting on
the yield of tubers and of starch in different districts are examined. MD
The relationship between starch yield (per acre) and sowing time is
dependent on soil and climatic conditions during the period of max
assimilation by the plants. A. G. POLLARD.

(1)

h1059

S/058/62/000/008/050/134
A061/A101

243500 ,

AUTHORS: Nymm, U. Kh., Kropman, D. I.

TITLE: On the photoelectric polarization of the ZnS-Cu phosphor

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 44, abstract 8V310
("Tr. In-ta fiz. i astron. AN EstSSR", 1961, no. 15, 203 - 208;
summary in English)

TEXT: The relaxation of the photoelectric polarization of luminescence and of the phosphor-stored light sum was investigated for the ZnS-Cu phosphor. Light sum and photoelectric polarization were found to decrease simultaneously after excitation ceased. This result is regarded as proof that the electron processes being responsible for photoelectric polarization are largely of a volume character, and that the mechanisms, upon which depends the conservation of photoelectric polarization and light sum, are closely interrelated.

[Abstracter's note: Complete translation]

Card 1/1

1. KROPAN, I. A.
2. USSR (600)
4. Ophthalmology
7. Priority of Russian science. Vest. oft. 31 no. 5, 1952

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

KROPMAN, I.L.

Vitamins A and B₁ therapy of corneal diseases. Vest. oft. 33
no.5:30-34 S-O '54. (MLRA 7:10)

1. Iz glaznogo otdeleniya (zav. dotsent V.A.Savi) Tartuskoy
respublikanskoy klinicheskoy bol'nitsy.

(CORNEA, diseases,

ther., vitamins A & B₁)

(VITAMIN A, therapeutic use,
corneal dis.)

(VITAMIN B₁, therapeutic use,
corneal dis.)

KHOPIAN, I. L.

KHOPIAN, I. L.: "Correspondence of the retina in congenital strabismus
Tartu State U. Tartu, 1956.
(Dissertation for the degree of Candidate in Medical Science.)

39: 'Knizhaya letopis', No 36, 1956, Moscow.

KROPMAN, I.L., kand.med.nauk

Some observations concerning A.I. Dobromyslov's review of E.M.
Fisher's book, "Concomitant strabismus and its treatment."
Oft. zhur. 15 no. 6:381-383 '60. (MIRA 13:10)
(STRABISMUS) (DOBROMYSLOV, A.I.) (FISHER, E.M.)

A. Dolgoplosk, Ye. N. Kropocheva

USSR/Physical Chemistry - Kinetics, Combustion, Explosions,
Topochemistry, Catalysis.

B-9

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 440

Author : B.A. Dolgoplosk, Ye.N. Kropocheva.

Inst : -

Title : Oxidation-Reduction Systems for Initiating Radical Processes. III. Application of Reduction Reaction of Metal Oxide Salts by Hydrocarbons to Initiate Polymerization Process.

Orig Pub : Zh. obshch. khimii, 1956, 26, No 11, 2980-2984

Abstract : Naphthenate of Fe^{2+} is forming at the heating of Fe^{3+} naphthenate (I) solutions in a series of hydrocarbons (benzene, n-amylene, isoamylene, cyclohexene, pentadiene-1,4, isoprene, isoprene dimer) at 150° and in absence of O_2 in the system. Isoprene polymerizes at 100° in presence of I; the polymerization speed rises with the concentration increase of I, and the molecular weight of the polymers

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USSR/Physical Chemistry - Kinetics, Combustion, Explosions,
Topochemistry, Catalysis.

B-9

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 440

drops; the content of 1-2 and 3-4 links in the polymer (5 to 6%) and the vitrification temperature (-66.4°) correspond to specimens obtained at the radical polymerization. The naphthenate of Cr^{3+} behaves similarly to I, but the polymerization speed is lower in its presence. Heating of a 2% ual polyisoprene solution in benzene at 150° in presence of I results in polymer construction. The mechanism of formation of free radicals consists in tearing the α -methylene H atom off from the hydrocarbon, reduction of Fe^{3+} to Fe^{2+} and liberation of the naphthenic acid.

See part II in RZhKhim, 1957, 69062.

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