

KULYUPIN, Yu.A.; YATSENKO, A.F.

Luminescence of gamma-irradiated KNO_3 . Fiz. tver. tela 5 no.11:
3334-3336 N '63. (MIRA 16:12)

1. Institut fiziki AN UkrSSR, Kiyev.

L 10155-63

BFF(c)/BWT(1)/ZPF(n)-2/BDS--AFFTC/ASD/SSD--

Pr-4/Pu-4

ACCESSION NR: AP3000321

S/0048/63/027/005/0679/0682

AUTHOR: Yatsenko, A. F.; Kulyupin, Yu. A.TITLE: Luminescence of sodium nitrite at low temperatures [Report; Eleventh
Conference on Luminescence held at Minsk 10-15 Sept. 1962]

SOURCE: Izvestiya AN SSSR. Seriya fizicheskaya, v. 27, no. 5, 1963, 679-682

TOPIC TAGS: luminescence, absorption, sodium nitrite, nitrites

ABSTRACT: Interest in nitrites, particularly sodium nitrite, has been aroused owing to discovery of a ferroelectric phase transition in NaNO_2 at 162°C . Sodium nitrite crystallizes in the NaCl type lattice with the Cl replaced by the NO_2 ion. The vibrational frequencies of this ion are known from numerous Raman and infrared absorption studies. The only previous study of the luminescence of sodium nitrite has been by Sidman, J. W. (J. Amer. Chem. Soc., 79, 2869, 1957), in the present study Sidman's results have been confirmed and some new details brought out. The spectra were photographed on an ISP-51 spectrograph with excitation by the 3650 Angstrom Hg line. The luminescence spectrum is faint at room temperature, more intense at 77°K and very intense at 20.4°K (liquid nitrogen).

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ACCESSION NR: AP3000321

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temperature). The Na nitrite luminescence spectrum at 20.4°K is described, analyzed and compared with the spectra of Li, K, Cs, Ag and Tl nitrites. (The other investigated nitrites were prepared by L. N. Venerovskaya and N. A. Bry*kov in the laboratory of Prof. P. I. Protzenko at Rostov-on-the-Don State University.) It is inferred from coincidences of the 0-0 transition bands in the absorption and luminescence spectra, the mirror symmetry of these spectra and other evidence that the luminescence is intrinsic (not impurity) and is emitted by the nitrite ion. It is impossible to decide on the basis of the present data whether the discrete spectrum is due to excitons or to the emission of some kind of discrete centers. "The authors express their gratitude to A. F. Prikhot'ko, V. L. Broude, and M. T. Shpak for making possible the investigation and for their interest in the work." Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki Akademii nauk SSSR (Institute of Physics, Academy of Sciences, USSR)

SUBMITTED: 00

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: PH,CH

NR REF SOV: 005

OTHER: 007

gch/DS
Card 2/2

L 01277-66 EMT(1) IJP(c)

ACCESSION NR: AP5020810

UR/0048/65/029/008/1407/1409

AUTHOR: Kulyupin, Yu. A.^{44,55}; Yatsenko, A. F.^{44,55}

TITLE: On the mirror similarity of luminescence and absorption spectra [Report, 13th Conference on Luminescence held in Khar'kov 25 June to 1 July 1964] ^{44,55} 48 45 42

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 8, 1965, 1407-1409, and top half of insert facing p. 1408

TOPIC TAGS: absorption spectrum, luminescence spectrum, nonlinear vibration, nitrite, crystal impurity, crystal lattice vibration

ABSTRACT: The authors briefly discuss violation of mirror similarity of the luminescence and absorption spectra of the NO_2^- ion. This ion has three internal vibrations which give rise to three series of lines in the luminescence and absorption spectra. In NaNO_2 these series are of roughly equal intensity in the absorption spectrum but they differ greatly in intensity in the luminescence spectrum. Similar results are obtained with other nitrites and with impurity nitrite ions in nitrates. These results can be understood as consequences of anharmonicity of the vibrations with the aid of the theory of A.F.Lubchenko (Phys. Stat. Sol., 6, 319, 1964), which was developed to describe the behavior of impurities but can be ex-

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L 01277-66

ACCESSION NR: AP5020810

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tended to apply to pure crystals. The vibronic bands of NaNO_2 at 20°K due to lattice vibrations conform very nearly to the mirror similarity rule, but the structures of the corresponding luminescence and absorption bands of KNO_2 differ considerably from each other. Similar results are obtained for impurity NO_2^- ions in KNO_3 . This behavior can be qualitatively understood in terms of the theory of A.F.Lubchenko and B.M.Pavlik (Phys. Stat. Sol., 7, 105, 443, 1964). It is concluded that anharmonicity is one of the factors that can lead to violation of mirror similarity of luminescence and absorption spectra, but that there are few quantitative characteristics that admit an obvious theoretical interpretation. Further work in this direction is desirable. Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki Akademii nauk UkrSSR (Physics Institute, Academy of Sciences, UkrSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: OP, SS

NO REF SOV: 007

OTHER: 003

Card 2/2

L 28432-66 FBD/EWT(1)/EEC(k)-2/T/EWP(k) IJP(c) WG/GD

ACC NR: AT6015147

SOURCE CODE: UR/0000/66/000/000/0322/0326

AUTHOR: Yatsenko, A. F.; Kulyupin, Yu. A.; Stetsenko, B. V.ORG: Institute of Physics AN UkrSSR (Institut fiziki AN UkrSSR)TITLE: Using lasers for studying the kinetics of photoelectric field emissionSOURCE: Respublikanskiy seminar po kvantovoy elektronike. Kvantovaya elektronika (Quantum electronics); trudy seminar. Kiev, Naukova dumka, 1966, 322-326

TOPIC TAGS: photoelectric effect, field emission, laser application, silicon, laser, pulse generator

ABSTRACT: A method is proposed for using a continuous-duty helium-neon laser to produce short intense light pulses. An example is given illustrating use of these light pulses for studying the kinetics of photoelectric field emission from high-resistance silicon. Two methods were used in this study: 1. measurement of the drop in photoelectric field emission under pulsed illumination, and 2. determination of the variable and constant components of field emission current under illumination by a sinusoidally modulated light. The short light pulses were produced by a mechanical system with a rotating prismatic mirror (see figure). The light source was an LAK-1 He-Ne laser ($\lambda=6328 \text{ \AA}$, power 100-300 μw , divergence angle less than $10'$). The installation gave a pulse duration of $2 \cdot 10^{-7}$ sec with a 1 cm light spot at the pickup. The

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L 28432-66

ACC NR: AT6015147



Mechanical generator of short light pulses: 1--prismatic mirror; 2--light source; 3--light receiver

distance between pulse generator and receiver may be increased by an order of magnitude and a long-focus lens may be used to reduce the spot diameter to 0.1 cm or less. These measures would make it possible to reduce the pulse duration to 10^{-9} sec. The variable and constant component of photoelectric field emission produced by exposing an emitter to light modulated with a frequency of 4.6 Mc were measured to study the fast component of relaxation. The modulating element was a KDP crystal placed between the laser and a polarization prism. A block diagram of the experimental installation is given. An attempt was made to establish the upper limit of frequencies which may be recorded by a photoelectric field emitter. The experiments yielded satisfactory agreement between calculated and observed frequencies although the photoelectric field emitter was not able to record a signal at 67 Mc, apparently due to imperfections in the method. Further attempts in this direction are being made. Orig. art. has: 3 figures. [14]

SUB CODE: 20/ SUBM DATE: 12Feb66/ ORIG REF: 902/ OTH REF: 008/
 ATD PRESS: 5005

Card 2/2 RB

I 4392-66 EWT(m) DIAAP DM

ACC NR: AP5028138

SOURCE CODE: UR/0089/65/019/001/0075/0076

AUTHOR: F'yankov, G. N.; Barashin, M. A.; Kulyupina, N. V.

ORG: none

TITLE: Isotope gamma irradiation unit UKP-30000 ⁴⁶SOURCE: ¹⁹ Atomnaya energiya, v. 19, no. 1, 1965, 75-76

TOPIC TAGS: radiation chemistry, radiation dosimeter, gamma irradiation, radioisotope, nuclear physics apparatus, radiation dosimetry

ABSTRACT: The UKP-30000 apparatus (Kiev underwater apparatus, 30,000 gn equivalent Ra) is described. The ⁶⁰Co source is kept in a tank of water, which serves as a biological shield and as a stabilizer of temperature for long irradiations. The sample to be irradiated is positioned near the source by a pulley system. Results of chemical dosimetric measurements of the dose field in the irradiation cassette are given. The temperature environment of the source and cassette was found to be constant up to doses on the order of 10² to 10³ rad. Engineers I. G. Davidiuk, K. I. Subach, V. S. Kurennoy, M. V. Markov, M. M. Odnokon', A. I. Silenko, and N. R. Starichenko of the Laboratory of Radiation Chemistry participated in the preparation assembly and adjusting of the UKP-30000 apparatus, and A. N. Bordikova the work on the dosimetry. In conclusion the authors would like to take this opportunity to thank A. M. Kabakchi for his constant interest in his work and for valuable advice. Orig, art. has: 2 figures. NA

SUB CODE: NP, GC / SUBM DATE: 03Aug64 / ORIG REF: 002 / OTH REF: 001

Card 1/1

UDC: 621.039.83

L 1390-66 ENT(m) DIAAP DM
ACC NR: AP5028439

SOURCE CODE: UR/0089/65/019/001/0077/0078

AUTHOR: P'yankov, G. N.; Kulyupina, N. V.

ORG: none

TITLE: High-dose-rate isotope gamma irradiation unit UK-70000 ¹⁴/_B

SOURCE: Atomnaya energiya, v. 19, no. 1, 1965, 77-78

TOPIC TAGS: radioisotope, gamma irradiation, radiation dosimeter, radiation dosimetry, nuclear physics apparatus, radiation chemistry

ABSTRACT: The high-dose-rate irradiation facility UK-70000 (Kiev apparatus, 70,000 gr equivalent Ra), using a ⁶⁰Co source, was constructed for radiation-chemistry research. The hot chamber with water basins, the irradiator, the source remote-handling system, the shielding, and the control and ventilation systems are described. Diagrams of the dose-rate field of the apparatus are presented. The temperature conditions in the facility are discussed. I. G. Davidyuk, V. S. Kurennoy, M. Ya. Tereshchenko, I. N. Fedchishin, A. G. Puchkovskiy, N. R. Starichenko, A. I. Silenko, M. M. Odnokon', Yu. I. Puzyrev, A. P. Meleshevich took part in the preparation, assembly, and adjusting of the UK-70000 apparatus and K. A. Zaytseva participated in the dosimetry work. Orig. art. has: 2 figures. NA

SUB CODE: NP, GC / SUBM DATE: 03Aug64 / ORIG REF: 004

UDC: 621.037.83

Card 1/1

KULYUTKIN, Yu.N. (Leningrad)

Effect of industrial experience on evening (shift) school students
in their assimilation of theoretical knowledge. Vop. psikhol.
& no.3:131-135 My-Je '62. (MIRA 15:6)
(Educational psychology)

RULZHANOV, Bilaly Usubaliyovich; MAGYMBAYEV, A., red.

[Sheep fattening] Koidu zhaiytta semistani. Fransa,
Kyrgyz mamlekettik basmasy, 1963. 31 p. [In Kirghiz]
(NIRA 17:10)

KUL'ZHANOV, Z.K.

Case of Recklinghausen's disease with changes in vision. Zdrav.
Kazakh. 21 no.8:71-73 '61. (MIRA 14:9)

1. Iz Kazakhskogo instituta glaznykh bolezney (direktor - prof.
V.P.Roshchin) Nauchnyy rukovoditel.'temy - kand.med.nauk. I.N.
Shevelev.

(NEUROFIBROMATOSIS) (EYE--DISEASES AND DEFECTS)

KUL'ZHANOV, Z.K.

Interoceptive influences from the urinary system on the blood
circulation of the heart. Vest. AN Kazakh.SSR 20 no.11:66-70
N '64. (MIRA 18:2)

KIL'ZHANOV, Z.K.

Interoceptive effects from the receptors of the urinary system
on the coronary vessels. Vest. AN Kazakh. SSR 21 no.1:74-78
Ja '65. (MIRA 18:7)

KUL'ZHANOV, Z.K.

Reflex influences from urinary tracts on the minute volume
of blood flow from the coronary sinus. Izv. AN Kazakh. SSR.
Ser. biol. nauk 3 no. 90-96 y-Je '65. (MIRA 18:9)

KUL'ZHANOV, Z.K.

Interoceptive effects of the urinary system on the blood
circulation of the heart. Izv. AN Kazakh. SSR. Ser. biol.
nauk 3 no.4:82-88 J1-Ag '65. (MIRA 18:11)

USSR / Farm Animals. Honeybee.

Q-7

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 64574

Author : Kulzhinskaya, K. P.
Inst : Ukrainian Experimental Station of Apiculture
Title : The Role of the Nutrition Factor in the Formation of
Honeybees.

Orig Pub : Sb. nauchn. tr. Ukr. opyt. st. pchelovodstva, 1957, vyp. 1,
49-52.

Abstract : Taking into account that nurse bees feed larvae in amounts that are directly proportionate to the size of the cell, the author used larger cells (6 mm.) and obtained adult bees weighing 10.4% more, with a capacity of the honey sack 14.18% higher and a ligula 2.51% longer, as compared with bees raised in normal cells (5.37 mm.). The average weight of drones raised in the cells of 7.39 mm. size was 22.73% higher than in the controls reared in the 6.75 mm. cells.

Card 1/1

KULZHINSKAYA, N.A.

Alginates as clarifying agents for wines and fermented juices. Patent
U.S.S.R. 77,159, Dec.31, 1949.
(CA 47 no.19:10172 '53)

KULZHINSKAYA, N. A.

21828 KULZHINSKAYA, N. A. Osvetleniye vin. Vinodeliye i vinogradarstvo Moldavii, 1949, no. 3, s. 13-18.

SO: Letopis' Zhurnal'nykh Statoy, No. 29, Moskva, 1949.

Clarification of wine by sodium alginate. N. A. Kul.
M. I. Lavrenko, S. S. R.

The process of clarification of wine by sodium alginate is described. It is shown that the addition of insoluble salts of Fe and Cu takes place immediately after the addition of the clarifier; however, to secure a complete clarification the wine has to be kept for 8-10 days before processing. Usually, doses of 0.05-0.1 g/l are found to be sufficient for the purpose.

KULZHINSKAYA, N. A.

Wine and Wine Making

Producing Vermouth Vin. SSSR no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _____ July 1957, Uncl.
2

KULZHINSKIY, I., kand. tekhn. nauk

Decontamination at a plant. Voen. znan. 40 no. 7:22-23

Jl '64

(MIRA 17:8)

KULZHINSKIY, V. I.

"Increasing the Effectiveness of Sedimentation Tanks when Treating Water With Aluminum Sulfate and Sodium Silicate Concurrently." Cand Tech Sci, Novocherkas Polytechnic Inst, Novocherkas, 1954. (RzhKhim, No 3, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

Kulzhinskiy, V.I.

SHUBERT, S.A.; PERLINA, A.M.; KULZHINSKIY, V.I.; SIDENKO, T.E.; ALEKSANDROV,
D.N.; SOKOLOV, V.F.; PAL'KOVSKAYA, L.N.; BRUK-LEVINSON, T.L.;
BELYAKOVA, A.N.; KOZHEVNIKOVA, Ye.K.; AVRUSHCHENKO, R.A., red.
izd-va; VOLKOV, S.V., tekhn.red.

[Water purification for water supply to machine-tractor stations
and state farms] Ochistka vody dlia vodosnabzhenia poselkov
MTS i sovkhovov. Moskva, Izd-vo M-va kommun.khoz. RSFSR, 1957.
69 p. (MIRA 11:6)

1. Akademiya kommunal'nogo khozyaystva, Moscow.
(Water--Purification) (Water supply, Rural)

MERZLENKO, V.Ya.; KULZHINSKIY, V.I.; MIKHAYLOV, V.A.; KOGAN, A.S., kand.
tekh.nauk, nauchnyy red.; BOTOVA, Yu.M., red.

[Multilayer filters] Mnogosloinnye fil'try. 1960. 6 p. (Akademiia
kommunal'nogo khoziastva. Informatsionnoe pis'mo, no.1). (MIRA 14:1)

(Water—Purification) (Filters and filtration)

KULZHINSKIY, V.I.; MIKHAYLOV, V.A.

For the efficient designs of filter drains by the Academy of
Municipal Services. Trudy NPI 138:37-48 '63. (MIRA 16:10)

BYKADOROV, L.F.; KULZHINSKIY, V.I.; MIKHAYLOV, V.A.

Study of the operation of the porous drains of filters designed
by the Academy of Municipal Services. Nauch. trudy AKKH no.22:
120-131 '63. (MIRA 18:5)

MERZLENKO, V.Ye., kand. tekhn. nauk; KUREHINSKIY, V.I., starshiy nauchnyy
soтрудnik, kand. tekhn. nauk; ~~AKHAI ON~~, V.I., starshiy nauchnyy
soтрудnik, kand. tekhn. nauk

High-capacity installations and efficient methods of drinking water
purification. Sber.nauch.trud. VNI AKKH no. 2522-37 1956.

(MIRA 19:10)

1. Rekomendatsii sektora vodopriborostroyeniya Gosstoyanskogo nauchno-
issledovatel'skogo instituta Akademii Kommunisticheskogo Khozyaystva
(for Merzlenko).

GLUKHANOV, N.P., kand. tekhn. nauk; BOGDANOV, V.N., inzh.; KULEZHINSKIY, V.L.,
inzh..

Longitudinal seam welding of large diameter pipes with high
frequency resistance heating. Svar. proizvod. no.2:6-8 F '59.
(MIRA 12:1)

1. Nauchno-issledovatel'skiy institut tokov vysokey chastoty.
(Pipe, Steel--Welding)
(Electric welding)
(Induction heating)

KULZHINSKIY, Yu.I., kand.tekhn.nauk

Refining heat-engineering calculations for lightened exterior
walls. Izv. ASIA 4 no.2:65-68 '62. (MIRA 15:9)
(Walls—Thermal properties)

BOGDANOVA, V.I.; DOVGYALLO, V.P.; KUL'ZHONKOV, Ye.O.; POLOV, Ye.I.;
RUTKOVSKIY, O.O.; SPEVACHEVSKIY, G.Yu.; NAZAREVSKIY, O.R.,
retsenzent; TRIFONOV, V.I., retsenzent; LEVITAS, I.G., red.;
USENKO, L.A., tekhn. red.

[Moscow - Central Asia; railroad guide] Moskva - Sredniala
Azia; zheleznodorozhnyi putevoditel'. Moskva, Transzheldor-
izdat, 1962. 205 p. (MIRA 16:3)
(Railroads—Guides)

KUMACHENKO, Yakov Stepanovich, prof., doktor ekon.nauk; FAIALEYEVA, T.F.,
red.; GUBIN, M.I., tekhn,red,

[Characteristics of the transition period of the Chinese People's
Republic] Osobennosti perekhodnogo perioda v Kitaiskoi Narodnoi
Respublike. Moskva, Izd-vo "Znanie," 1958. 59 p. (Vsesoiuznoe
obshchestvo po rasprostraneniю politicheskikh i nauchnykh znaniy.
Ser. 3, no.s 36/37) (MIRA 11:3)
(China--Economic conditions)

KUMACHENKO, Ya.S., prof., red.; KOLCHENKO, N.I., red.; MASLENNIKOVA,
T.A., tekhn. red.

[Studies in the economics of socialism] Ocherki po politekonomii
sotsializma. Pod red. IA.S.Kumachenko. Moskva, Izd-vo Mosk. univ.,
1961. 175 p. (MIRA 14:9)

1. Moscow. Institut povysheniya kvalifikatsji prepodavateley
obshchestvennykh nauk. Kafedra politicheskoy ekonomii.
(Economics) (Communism)

KUMACHEV, A.A.

How we have organized the work of telegraphers. Avtom. telem. i
sviaz' 8 no.1:26-27 Ja '64. (MIRA 17:3)

1. Nachal'nik telegrafno-telefonnoy stantsii Moskva-Yaroslavskaya
Moskovskoy dorogi.

AUTHORS: Kumachev, S.F. (Senior foreman on the 2300-rolling mill), and
Dmitriev, I.D. (Senior research engineer of the rolling group
of the Central Works Laboratory). 130-3-11/22

TITLE: Improved Utilization of Roughing-Stand Sheet-Rolling Rolls.
(Uluchshenie ekspluatatsii listoprokatnykh valkov chernovoy
kleti).

PERIODICAL: "Metallurg" (Metallurgist), 1957, No.3, pp.21-22. (U.S.S.R.).

ABSTRACT: The three-high roughing stand of the 2-stand sheet rolling mill
type 2300 has cylindrical rolls 750/570/750 mm in diameter made
of type 60 X Γ steel. Since the mill was put into commission in
1953 improvements in performance of the roughing stand have been
attained by introducing a double manipulator for centering the
work before it enters the stand and by changing all three rolls
every week, instead of a previously-adopted system of changing
the outer rolls every 20 days and the inner roll every 10 days.
An improved system of roll-renovation has also been adopted.
These measures have reduced the consumption of rolls by 28% to
a value of 0.306 kg/ton of rolled product.

Card 1/1

There are 2 graphs.

ASSOCIATION: Stalinski Metallurgical Works (Stalinskiy Metallurgicheskiy
zavod).

AVAILABLE:

KUMACHEV, S.G.;DMITRIYEV, I.D.

Improved operation of sheet metal roughing mill rolls. Metallurg
2 no.3:21-22 Mr '57. (MIRA 10:4)

1. Starshiy master stana 2300 (for Kumachev).
2. Starshiy inzhener-issledovatel' prokatnoy gruppy Tsentral'noy zavodskoy laboratorii, Stalinskiy metallurgicheskiy zavod (for Dmitriyev).
(Rolls (Iron mills))

KUMACHEV, Yu.I. (Moskva); KRYLOV, A.V., kand.biol.nauk

Wires and branches. Priroda 50 no. 3:78 Mr '61. (MIRA 14:2)

1. Institut fiziologii rasteniy im.K.A. Timiryazeva, Moskva
(for Krylov).

(Plants, Effect of electricity on)

KUMAK, G. M.

"Application of Sulfamide Preparations in a Case of Lung Tuberculosis." Thesis for degree of Cand. Medical Sci. Sub 7 Jun 49, Central Inst for the Advanced Training of Physicians.

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

KUMAK, G. M.

Kumak, G. M. and Postnikova, Ye. N. and Rabukhin, A. Ye. - "The use of ~~the~~ streptomycin in pulmonary tuberculosis", Trudy Akad. med. nauk SSSR, Vol. II, 1949, p. 43-53.

SO: U-4329, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 21, 1949).

Lat-Skin TB.

DVOYNIN, L.A.; SHMELEV, S.D.; KUMAKHOV, V.T.; LYMAR', Yu.A.

Change in the oculo-cardiac reflex in people under the influence
of caffeine. Nauch. trudy Riaz. med. inst. 15:15-17 '62.

(MIRA 17:5)

1. Kafedra normal'noy fiziologii (zav. kafedroy - prof.
V.F.Sharckiy) Ryazanskogo meditsinskogo instituta imeni Pavlova.

KRASOVSKAYA, E. V., KUMAKOV, V. A.

Wheat

Correlation of main and secondary shoots of shoots of spring wheat., Trudy Inst.,
fiziol. rast., 7, No. 2, 1951.

9. Monthly List of Russian Accessions, Library of Congress, March, 1952 ~~1953~~, Uncl.

MARUSHEV, A.I., kand.sel'skokhoz.nauk; KUMAKOV, V.A., kand.biolog.nauk

Effect of the shield bug eurygaster integriceps on the quality
of wheat seeds. Zashch. rast. ot vred. i bol. 7 no.7:24-25
Jl '62. (MIRA 15:11)

(Russia, Southern—Wheat—Diseases and pests)

(Russia, Southern—Eurygasters)

MARUSHEV, A.I., kand. sel'skokhoz. nauk; KUMAKOV, V.A., kand. biolog. nauk; ASTAKHOVA, N.K., kand. khim. nauk

Effect of the damage caused the shield bug Eurygaster intergriceps on the quality of the wheat grain in the following crop. Agrobiologia no.1:110-114 Ja-F '64 (MIRA 17:8)

KUMAN, M.

SUIKANE, Givon Haros

Country: Czechoslovakia

(3)

Academic Degrees: MD

Affiliation: Endocrinological Department of the Faculty Hospital (Endokrinolo-
gické oddelení fakultní nemocnice), Brno; Director: Head Physi-
cian D. Rezler, MD.

Source: Prague, Vnitřní Lekarství, Vol VII, No 6, June 61, pp 648-655.

Data: "Carbimazol-Spofa, ^uNew Thyreostatic of Czechoslovak Manufacture."

Authors: SPURNY, I.

KUMAN, M.

232

GPO 981643

3(8)

AUTHOR:

Kuman, V. Ye.

SOV/20-125-5-40/61

TITLE:

On Some Properties of Sodium Metasomatism in the Krivoy Rog Basin (O nekotorykh osobennostyakh natrovogo metasomatoza v Krivorozhskom bassejne)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 5, pp 1100-1102 (USSR)

ABSTRACT:

The metasomatism mentioned in the title is most strongly developed in the northern part of the basin as well as in the Saksaganskaya syncline and in the rocks of the Tarapako-Likhmanovskiy anticline. In the region first mentioned this is a thorough metasomatism (saturation). This substitution removes quartz, calcite and magnetite. From them originate albite and alkalic amphiboles. Farther to the south, in the Saksaganskaya syncline, the amphiboles mentioned and aegirine originated in this manner. Here the metasomatism has a selective, strata-like character. Cummingtonite is substituted. It was proven by new investigations under the direction of the author that still farther to the south (Tarapako-Likhmanovskiy anticline) the sodium metasomatism has shown characteristic properties. Here, in the Kalinin pit, 15 veins

Card 1/3

On Some Properties of Sodium Metasomatism in the
Krivoy Rog Basin

SOV/20-125-5-40/61

of alkalic amphibole were ascertained. This mineral is blue and produces a massive or spongy aggregate with dull luster, whose lamellar individual parts contain a silken luster. All these varieties occur together in one and the same vein. This or that variety can predominate in individual sections. Table 1 gives the chemical composition of individual alkalic amphiboles. The crystallo-chemical formula was set up according to the method of V. S. Sobolev (see formula). The greatest distinction in the chemical composition of the contrasted, alkalic amphibole minerals, riebeckite and rhodosite, lies in the relation of the oxides isomorphously replacing each other. The thermal analyses of the amphiboles (Analyst L. Rybakova, pyrograph of the type F. V. Syromyatnikov) showed an endothermic effect at 930-953° (Fig 1). It is caused by precipitation from the water of constitution and by the displacement of the alkalic amphibole from the vein. X-ray structural analyses (Analyst G. Sidorenko) has proven a structure of alkalic amphibole identical with Cape crocidolite (South Africa). The veins described are usually accompanied by a mineralization by alkalic amphibolite. Figures 2 and 3 show

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On Some Properties of Sodium Metasomatism in the
Krivoy Rog Basin

SGV/20-125-5-40/61

microscopic pictures of such a sodium metasomatism. Its thickness ranges from a few cm to 10-12 m. A definite zonal intensity sequence of this metasomatism can be determined. The increase of this intensity toward the north agrees with the intensification of the general metasomatism in Krivoy Rog northwards and with the intensification of the magmatic manifestations. This apparently indicates the hydrothermal nature of the solutions which caused the metasomatism. The front of the sodium metasomatism moved from north to south in the course of the entire pre-Cambrian and perhaps also post-Cambrian history of the basin formation. There are 1 figure, 1 table, and 2 Soviet references.

PRESENTED: November 28, 1958, by D. S. Korzhinskiy, Academician

SUBMITTED: November 27, 1958

Card 3/3

KUMAN, V.Ye. [Kuman, V.IE.]

Mineralogical characteristics of Krivoy Rog amphibole asbestos. Geol.
zhur. 20 no. 3:68-71 '60. (MIRA 14:4)
(Krivoy Rog Basin--Asbestos)

KUMAN, V. Ye.

Cand Geol-Min Sci - (diss) "Amphibol-asbestos of the Krivorozh iron-ore basin." Kiev, 1961. 20 pp; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Kiev Order of Lenin State Univ imeni T. G. Shevchenko); 150 copies; price not given; (KL, 5-61 sup, 180)

KUMAN, V.Ye. [Kuman, V.IE.]

Alteration of alkali amphibole in the rocks of the Krivoy Rog series. Geol.zhur. 22 no.4:100-103 '62. (MIRA 15:9)

1. Khar'kovskaya kompleksnaya geologorazvedochnaya ekspeditsiya. (Krivoy Rog Basin--Amphibole)

KUMANEV, A.A., zasluzhennyy uchitel' shkol RSFSR.

Don't go to extremes in solving problems of technical education.
Politekh. obuch. no.8:9-11 Ag '58. (MIRA 11:9)
(Technical education)

KUMANEV, Georgiy Aleksandrovich, kand. istor. nauk; KAPLUNOV, A.S., red.;
RAKITIN, I.T., tekhn. red.

[Creative activity of the working class of the U.S.S.R. during the large-scale building of communism] Tvorcheskaia deiatel'nost' rabochego klassa SSSR v period razvernutogo stroitel'stva kommunizma. Moskva, Izd-vo "Znanie," 1961. 30 p. (Vsesoiuznoe obshchestvo po rasprostraneniu politicheskikh i nauchnykh znani. Ser. 1, Istorija, no.17) (MIRA 14:9)
(Labor and laboring classes) (Socialist competition)

GORSHTEYN, G.I.; KUMANEVA, G.A.; KIFAROVA, I.A.

Purification of nickel sulfate from calcium, sodium, and
chlorine impurities. Zhur.prikl.khim. 35 no.5:1008-1016
My '62. (MIRA 15:5)
(Nickel sulfate)

GORDON, G.I.; KIBAROVA, G.A.; KIFAROVA, I.A.

Investigations of some processes of fine purification of cobalt
salts using radioisotopes. Trudy IREA no.25:104-122 '63.

(MIRA 18:6)

KARDASEVICH, I.N., inzh.; KUMANI, B.G., inzh.; SIDOROV, N.Ye., kand. tekhn.
nauk; ~~CHERNOV, G.I., inzh.~~

Production and use of high-basic Krivoi Rog ore sinters the Makeevka
Metallurgical Plant. Biul. TSHIICHM no.6:4-7 '58. (MIRA 11:5)
(Makeevka--Sintering)

ROSTEMBERSKIY, A.V.; KANFER, V.D.; SOLDATKIN, A.I., kand.tekhn.nauk;
KUMANI, B.G.; CHERNOV, G.I.; LOZNEVOY, V.S.; ZAPOROZHETS, N.P.

Increasing the productivity of sintering plants and improving
the quality of the sinter. Met. i gornorud. prom. no. 2:20-22
Mr-Apr '64. (MIRA 17:9)

DEMENTIY IV, V.M.; KAND. TECHN. NAUK, N.S.; KRYVITS, N.S.; N. KHEBAYEV,
I.S.; KILIN, B.G.; KALIN, V.S.

Purification of sintering machine gases in red conditions. Metal
garnozhd. prem. no. 6:74-75 H-D '63. (MIRA 1967)

17

SOV/177-58-4-21/32

AUTHOR: Kumanichkin, S.D., Major of the Medical Corps, Candidate of Medical Sciences

TITLE: On the Oscillations of the Temperature of the Body in Divers During Training Without Diving-Suit (O kolebaniyakh temperatury tela u podvodnikov pri obuchenii legkovodolaznomu delu)

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 4, pp 71-73 (USSR)

ABSTRACT: The author's report is based on observations of oscillating temperatures of the body in 284 divers during their training without a diving suit. Special tests were carried out in the first and in the second half of the day, as well as in a basin and in a tower. The observations have shown, that the temperature loss in divers (after they have fulfilled their training task in a basin at 30 to 32° C and in a tower at 28° C) does not surpass 1° C. These temperatures of the basin

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SOV/177-58-4-21/32

On the Oscillations of the Temperature of the Body in Divers
During Training Without Diving-Suit

and the tower may be the most favorable for training without diving suits. Lower temperatures result in cooling, and higher temperatures in superheating. In case no pathological appearances are noted, a temperature increase within a range of 37 to 37.6° C in divers is not to be considered as a contraindication to diving. There is 1 table.

Card 2/2

17(8)

SOV/177-58-11-28/50

AUTHDR: Kumanichkin, S.D., Major of the Medical Corps, Candidate of Medical Sciences; and Vorob'yev, F.K.

TITLE: A Universal Apparatus for Determining the Time Needed for Reflex Reaction

PERIODICAL: Voenno-meditsinskiy journal, 1958, Nr 11, pp 78 - 81 (USSR)

ABSTRACT: A series of apparatus was suggested for determining a person's reflex reaction: Gipp's chronoscope, a neuromobimeter, K.N. Dmitriyev's apparatus and L.M. Belyank's device. As these devices permit one to determine the reflex reaction only in the air, the authors developed a universal apparatus for determining the time needed for reflex reaction either under normal, increased or reduced pressure as well as under water when wearing an insulating outfit. The apparatus comprises two boxes, the first of which (Fig. at the left) having a size of 36 x 24.5 x 9 cm, consists of 2 sections. In the first section the folded objects

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SOV/177-58-11-28/50

' A Universal Apparatus for Determining the Time Needed for Reflex Reaction

are placed and in the second - the devices (control desk). The apparatus is described in detail and technical data are given in a diagram (Figure 2). The apparatus operates only on single-phase alternating current of 50 periods, at a 127 V tension. The time needed for reflex reaction is measured by the oscillations of the alternating current, which are recorded on paper by means of an automatic pen and simultaneously indicated by the hand of a timer. In the apparatus there are used stimuli of the first and second signal systems. As weak stimulus, light is used and as strong stimulus - sound. The verbal stimuli may be transferred in writing and in words. There is 1 photograph and 1 diagram.

Card 2/2

KUMANICHKIN, S.D., kand.med.nauk, mayor meditsinskoy sluzhby

Fitness for submarine duty in malocclusion. Voen.med.zhur.
no.5:19-20 My '59. (MIRA 12:8)
(MALOCCCLUSION,
fitness for submarine duty in malocclusion
(Rus))
(SUBMARINES
same)

KOMAREVTSEV, L.N., podpolkovnik meditsinskoy sluzhby, kand.med.nauk;
KUMANICHKIN, S.D., mayor meditsinskoy sluzhby, kand.med.nauk;
POBOL', Ye.P., kand.med.nauk

Nutrition of naval personnel under emergency conditions. Voen.-
med. zhur. no. 1:74-77 Ja '60, (MIRA 14:2)
(MEDICINE, NAVAL) (NUTRITION)

KUMANICHKIN, S.D., mayor meditsinskoy sluzhby, kafd.med.nauk

Preventing the overheating of divers and submarine personnel. Voen.-
med.zhur. no.4:73-77 Ap '60. (MIRA 14:1)
(SUBMARINE MEDICINE) (BODY TEMPERATURE)

26469

S/177/60/000/011/003/003

D219/D302

27.2100

AUTHOR: Kumanichkin, S.D. Major of Medical Services,
Candidate of Medical Sciences

TITLE: The effect on work capacity of breathing under
pressure air-oxygen and air-helium mixtures

PERIODICAL: Voyenno-medisinskiy zhurnal, no. 11, 1960, 77 - 80

TEXT: The author wished to study the effect on work capacity of breathing under pressure air-oxygen and air-helium mixtures. 220 experiments were carried out on 22 subjects, 22 - 25 years old, in a dry hydro-recompression chamber and under sea conditions. Strength, speed of movement and stationary endurance were measured under normal conditions, and were unchanged when breathing air-oxygen mixtures, containing 1 - 2.8 atmospheres of oxygen, for periods of 20 mins. to 4 hours in a dry chamber at 18-80m/H₂O pressure. Air-oxygen mixture and air were compared: after 26 - 60 mins. at 45-80m/H₂O muscular strength and speed had usually decreased less with air-oxygen than with air; as regards endurance the reverse was true and 2 out of 6 subjects

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The effect on work...

even displayed increased powers of endurance, probably due to the disinhibiting effect of nitrogen in the air. The maintenance of muscular strength and speed of movement is explained by the increased oxygen content in the air-oxygen mixture. Variations in no cases, exceeded normal limits and hence work capacity was effectively unchanged. Experiments on divers in hydro-recompression chambers, measuring their work capacity ergometrically, showed that breathing 25% air-oxygen mixture, containing 40% oxygen at a depth of 60 m, subjects cannot do heavy work (more than 200 kgm/min), since at a partial oxygen pressure of 2.8 atmospheres signs of oxygen poisoning soon appear. Average work (117 - 120 kgm/min) could be done under these conditions. Most subjects could do heavy work in the depth range 45 - 60 m. but only when breathing mixtures with smaller oxygen content (32%). Experiments under sea conditions showed that, breathing 25% air-oxygen mixture at depths of 27 - 42m. divers could do work of 120 - 420 kgm/min. The period of optimal work capacity

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The effect on work...

decreased with increase in depth, falling from 80 - 120 mins. at 27m. to 40 - 60 mins. at 42m. In the 45 - 60 m range breathing 25% air-oxygen mixture (oxygen partial pressure of 2.2 - 2.8 atmospheres) and doing hard physical work of 232 - 250 kgm/min. signs of oxygen poisoning appeared after 15 - 26 mins. Breathing the above mixture divers can do all tasks down to 42m. inclusive and the decompression regime may be shortened 4 or 5 fold. Measurements were made breathing, at a pressure of 10 atmospheres, a 50% air-helium mixture or at a pressure of 12 - 16 atmospheres, a 67% one. 20 - 30 mins. in a dry hydro-recompression chamber under the latter conditions provoked no significant changes in strength, speed of movement and static endurance. To assess the work capacity of subjects at depths down to 160m. preliminary tests were done in a hydro-recompression chamber to study functional movements in welding or cutting under normal conditions as well as carbon monoxide output. These movements were unaffected at depths of 60 - 160m., breathing 50 - 67% air-helium mixtures, and horizontal and vertical cutting, and welding, was

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X

The effect on work...

done as at 2m. At a depth of 140 - 160m. static endurance of 4 out of 6 subjects fell by 16 - 80% while the dynamic work capacity of most increased by 8 - 80%. At 120 - 160m. static fatigue occurs sooner than dynamic. Work capacity declines with increase in depth. Respiration during static effort (holding up a weight) at 160m. is superficial and infrequent and returns to normal soon after lowering the weight. In dynamic work it is faster and deeper. No pathological respiratory disturbances were observed during physical work. At 80 - 160m., breathing 50 - 67% air-helium mixtures, the diver could do hard physical work of 221 - 580 kgn/min., producing 51 - 87 liters of carbon monoxide per hour. Muscular strength and static endurance were unchanged significantly. Cutting and welding was carried out effectively down to 160m.

SUBMITTED: May, 1960

Card 4/4

ZAL'TSMAN, G.I.; ZINOV'YEVA, I.D.; KUMANICHKIN, S.D.

Increased individual predisposition of the examinee to the effect
of high partial oxygen pressures. Funk. org. v usl. izm. gaz. sredey
3:260-263 '64. (MIRA 17:11)

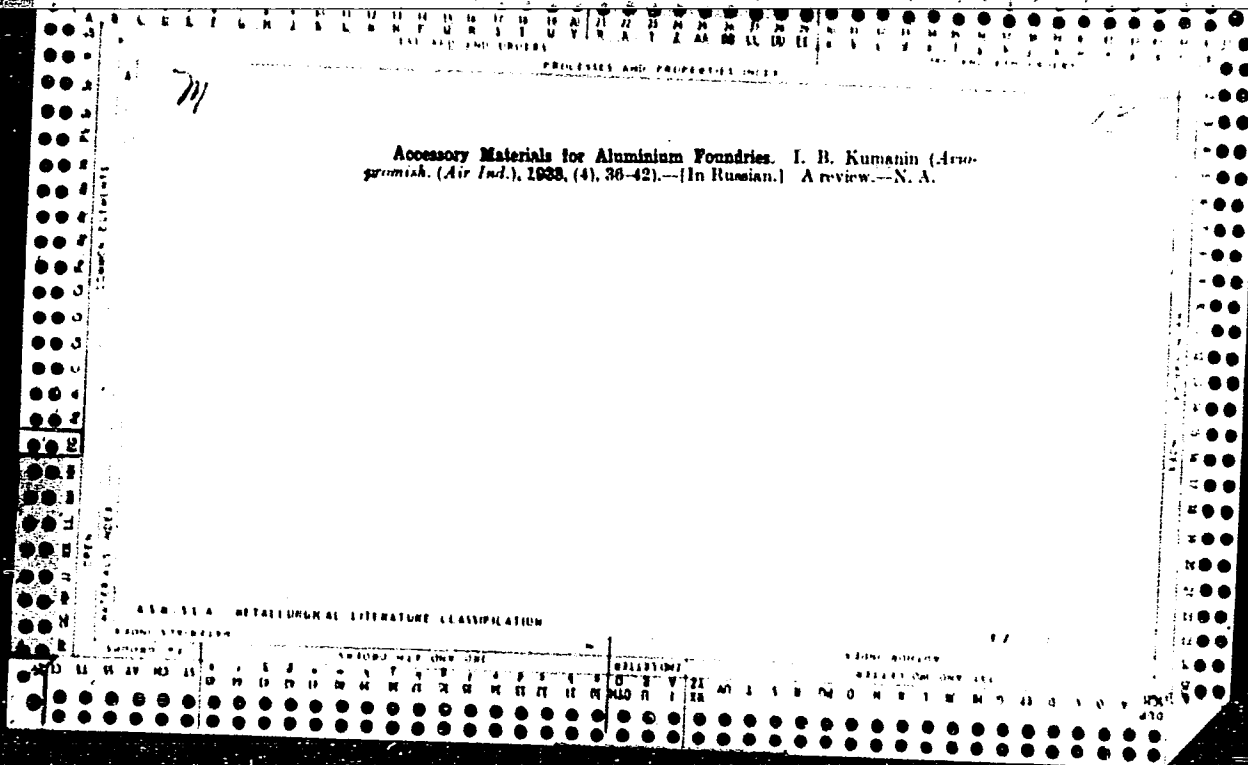
ZEMSKIY, A., master sporta (Khar'kov); KUMANIM, V. (Khar'kov)

Departing from standards. Kryl rod. 15 no.10:18-20 0 '64.
(MIRA 18:1)

KUMANIN, A.

Active members are our support. Sov.shakht. 11 no.4:33-34 Ap
'62. (MIRA 15:3)

1. Zamestitel' predsedatelya shakhtnogo komiteta Shakhty No.47
tresta Kopeyskugol'.
(Chelyabinsk Basin--Coal miners) (Trade unions)



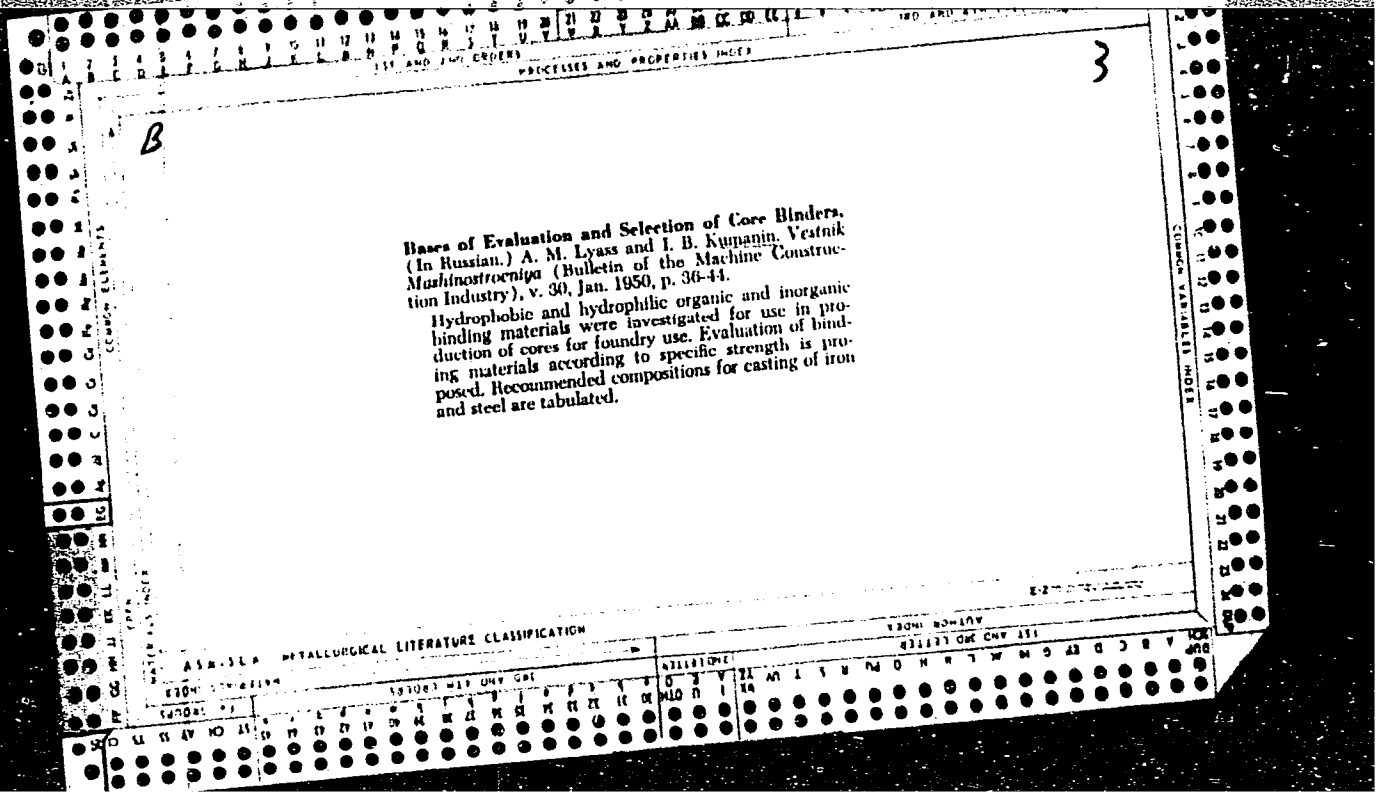
CA

The choice of binding materials for core mixtures
 I. B. Kuznau and A. M. Lyasa. *Vestnik Inzhenerov i
 Tekh.* 1947, 87: 40; *Chem. Zvest.* (Russian Zone Ed.) 1948,
 11, 1118. Core mixts. are divided into 5 classes according
 to the thickness of the core and the strains which develop
 during casting. A mixt. of quartz sand, high-quality oil
 substitute (1.5-2.5%), and a slight amt. of moisture
 (2-3%) is recommended for very thin cores of the first
 class. Cores of class 2 should be of the same quality as
 those of class 1 but must contain a larger amt. of binding
 material. An oil substitute, "BM," contg. bitumen 20,
 oil 10, colophony 2%, and the remainder alc., is recom-
 mended for this purpose. Cores of class 3 have a low
 moisture content and contain larger amts. of oil binding
 agents. Cores of class 4 must be formed by mixing a
 sand-clay base with a sulfite-alc.-molasses mixt. without
 the use of an oil binding agent. Cores of class 5 contain
 the same materials as those of class 4 but with the further
 addn. of sawdust. M. G. Moore

Central Res. + Investigation Lab, Union of Foundrymen

BTR

11666 *Svintsiushchie Materialy dlia Sterzhnet.* (Binding Materials for Cores) L. B. Kumanin and A. M. Liass. 272 pages, 1949. Government Publishing House for the Defense Industries, Moscow, U.S.S.R. (TS236 K66k)
Presents theoretical bases of the action of core binders and practical information on their application in foundries and casting departments. Properties and special features of individual binders used in the U.S.S.R. are discussed in detail. Methods of testing binders are described at length.



185T44

KUMANIN, I. B.

USSR/Engineering - Foundry, Equipment Jan 51

"Quick-Drying Mixtures for Rapid Production of Cores and Molds," I. B. Kumanin, A. M. Lyass, Candidates Tech Sci, TSNIITMASH

"Litsey Proiz" No 1, pp 23-25

Use of carbamido-formaldehyde resin as binder permitted elimination of vegetable oils at aluminum and magnesium foundries, accelerated process of drying cores (8-15 times) and considerably increased their strength. Discusses selection of proper catalysts. Gives composition and properties of core mixts with MF-17 binder. Iron reinforced. 185T44

USSR/Engineering - Foundry, Equipment Jan 51 (Contd)

binder. Iron reinforcing rods may be eliminated from cores due to high strength of material. Schematic diagram is presented for installation, which permits combination of core-forming and drying processes.

185T44

S

A

Rapidly Drying Russian Core and Mould Mixtures. I. H. Kymunn and A. M. Ljoss. (*Hutok*, (Prague), 1951, 1, No. 6, 132-134). [In Czech]. The composition, preparation, and drying characteristics of core mixtures used in Russia for all classes of core, are given. - r. v.

1. ISAKHANYAN, N.T.; KOLODILIN, YE.I.; NUMANIN, I. B.; GLOPINSKIY, N.F.; PROSYANKI, G. V.; PANT'LOV, L.I.
2. USSR (600)
4. Sand, Foundry
7. Repeated use of core mixtures., Lit.proiz., No. 10, 1952.

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

RYZHKOV, D., redaktor; FANTALOV, L.I., nauchnyy redaktor; KUMANIN, I.B.,
nauchnyy redaktor; MODEL', B.I., tekhnicheskiiy redaktor; SOKOLOVA,
T.F., tekhnicheskiiy redaktor.

[Economizing metals in founding] *Ekonomiia metallov v liteinom
proizvodstve. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i
sudostroit. lit-ry, 1953. 177 p. [Microfilm] (MLRA 7:11)*
(Founding)

Исследования
FANTALOV, L.I., professor, doktor; KUMANIN, I.B., dotsent, kandidat
tekhnicheskikh nauk; ISAKHANYAN, N.T., dotsent, kandidat
tekhnicheskikh nauk; PIKMAN, R.G., inzhener.

Slag inclusions in machine casting. Sbor.Inst.stali no.32:202-235
'54. (MLRA 10:5)

Kafedra liteynogo proizvodstva.

(Die casting--Quality control)

FANTALOV, L.I., professor, doktor tekhnicheskikh nauk; KUMANIN, I.B.,
kandidat tekhnicheskikh nauk; LYASS, A.M., kandidat tekhnicheskikh nauk.

"Special types of founding." N.N. Rubtsov. Reviewed by L.I.
Fantalov, I.B. Kumanin, A.M. Liass. Lit.proizv. no.5:31-32 My '56.
(Founding) (Rubtsov, N.N.) (MLRA 9:8)

NOVAKOV, I. B.

DOBROTVORSKIY, Mikhail Mikhaylovich [deceased]; RAZUNOVA, Marshida Salimovna;
KUMANIN, I.B., kand.tekhn.nauk, retsenzent; YERMAKOV, N.P., tekhn.
red.

[Manual on inspection and testing of molding materials and mixtures]
Spravochnik po priemke i ispytaniyu formovochnykh materialov i
smesi. Izd. 2-oe. Moskva, Gos. nauchno-tekhn. izd-vo mashino-
stroit. lit-ry, 1957. 220 p. (MIRA 11:4)
(Sand, Foundry)

KUMANIN, I.B., kandidat tekhnicheskikh nauk.

Shrinkage porosities in castings. Lit.proizv. no.4:18-23 Ap
'57. (MLRA 10:5)

(Founding) (Cast iron--Defects)

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED

DATE 08-14-2001 BY SP-6 BTJ/STW
REASON: 25X

KUMANIN, I.B., kand.tekhn.nauk

"Molding clays" by A.L. Tumanskii. Reviewed by I.B. Kumanin. Lit.
proizv. no.3:48 Mr '59. (MIRA 12:4)
(Clay) (Foundry machinery and supplies) (Tumanskii, A.L.)

KUMANIN I.B.

18(0)

P. 2

AUTHOR:

Averbukh, N.M.

SOV/128-59-8-27/29

TITLE:

Leningrad Regional Conference on Progressive Foundry Practice

PERIODICAL:

Liteynoye proizvodstvo, 1959, Nr 8, pp 46 - 48 (USSR)

ABSTRACT:

December 8 - 12, 1959 a conference was held in Leningrad in order to exchange views on progressive foundry practice. About 700 persons participated. G.V. Malakhovskiy, the chief metallurgist of the Leningrad gradskiy Sovnarkhoz, gave a general picture of the foundry industry in the Leningrad economic region. M.M. Vyshemirskiy, the chief metallurgist of the Leningrad "Stankolit" plant, spoke about progressive methods in preparing cores and casting forms. M.A. Kremer, spoke on "New trends in the theory and practice of feeding castings". Yu.A. Nekhendzi reported on the 3rd Polish Foundry Conference. V.M. Šestopal described characteristics of Czech foundry processes. A.D. Goryachev (Kirov plant in Leningrad) described a new 200 ton press machine. I.A. Gerasimov (Kremenchug) reported on precision stamp casting

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in his factory. S.S. Yelistratov (Stalingrad) described a vacuum machine for feeding cores. I.T. Fedorova described a new drying process used for drying cores. The lectures of M.A. Kremer, K.V. Tolstikhina, P.I. Pankin, and P.I. Shportenko concerned the problems of exothermic mixtures. N.A. Tolpegin (Kirov plant in Leningrad) spoke about steel castings. I.A. Shapranov and A.A. Get'man (Scientific Research Institute) reported on an economic casting method using iron with a magnesium content; further they described a cupola furnace with a two-step heating. Ya. I. Medvedev (TsNIITMASH) spoke about gas blisters in castings and methods of elimination. G.A. Kozin ("Krasnoye Sormovo" plant) spoke on the classification of casting spoilage in manganese steel. F.P. Berg spoke on "New core materials". I.B. Kumanin (Steel Institute of Moscow) spoke about "Core materials and their influence upon castings". M.A. Kremer suggested the use of bitumin in sandblowing machines. I.V. Ryzhkov (Polytechnical Institute of Khar'kov) reported

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on grey iron castings. Prokhorov ("Krasnoye Sormovo" plant) spoke of using liquid glass in cores for V, Cr, Ni and Mo steel castings. I.V. Gruznykh (Polytechnical Institute in Leningrad) reported about optimum parameters for core-blowing of liquid-glass-cores. P.I. Shportenko said that in the Novokrematorsk plant the removal of liquid-glass-cores was regulated by a dosage of clay, saw dust and waterless colors. S.I. Chernysh gave examples of quick drying mixtures. K.I. Shanskiy (Leningrad Plant for Hoist Transportation Equipment) stated that cupola furnace slag can be used as quick drying mixtures. B.A. Noskov and A.F. Nasapkin (Politechnical Institute of Khar'kov) reported on using of betonite mixtures for cores. V.F. Kryuchkov (Leningrad Mechanical plant) and Ya. V. Zeleranskiy (Machine-Building plant) hold about the transportation of core mixtures. L.M. Mariyenbakh spoke on "Improvement of melting aggregates and of melting processes" and proposed using earth-gases for air-warming-machines. P.F. Sabaneyev (Rostsel'mash) spoke about the intention of the

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plant to increase the output of grey iron. A constructive discussion took place after the theoretic lecture of B.A. Noskov and I.N. Den'gin (Polytechnical Institute of Khar'kov) about the using of earth-gas in the furnace. Yu. G. Rozenberg and S.I. Tsukerman reported about the successful use of earth-gas in the furnaces of KhEMZ. L.N. Korchagina and R. I. Ketcheka discussed the use of such gas in the Rostov radiator plant and in the "Krasnyy Aksay " plant. On the subject of improved melting in Red China A.M. Petrishenko reported. I.I. Shapranova and E.V. Petrova (NII) informed on the modification of iron with magnesium under pressure. G.N. Golub spoke about using iron modified with magnesium in his plant. G.I. Koshovnik (Polytechnical Institute of Kiyev) reported on the homogenization of magnesium iron during annealing. M.Ya. Zaslavskiy spoke about the production of grey iron at the Nevskiy Ship Repair Plant. "Increasing the Quality of Castings from Non-Ferrous metals" was the lecture of A.F. Kolobnev and N.I. Belousov (NII) in which they gave the characteristics of the new aluminum alloys (AV 30,

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Leningrad Regional on Progressive Foundry Practice SOV/128-59-8-27/29

AV 300, AMg7A a.o. I.P. Yegorenkov (NIILITMASH) mentioned in his lecture "Ways to Increase Labor Productivity during the cleaning and chopping of Castings", hydraulic methods of cleaning. V.L. Tarskiy (NIILITMASH) spoke about foreign equipment. M.A. Kremer informed on cleaning steel castings with a gas flame and air-arc method. V.M. Svirskiy mentioned the shortcomings of sand-blowing tools. M.Ya. Zaslavskiy (Lengipromchtrans) introduced a simple hydro-sand-spurl machine. M.V. Bromley (All-Union Scientific Research Institute for Labor Protection VTzSPS) spoke on "Hygiene-Technical Requirements of the Plans and Building of Casting Shops". V.V. Kucheruk from the same institute raised the problem of labor protection during casting in shell-cores and when preparing the cores from the liquid-glass mixtures. O.A. Ratner (Leningrad Institute for Labor Medicine and Labor Hygiene) spoke about the prevention of silicosis. At the end decisions were taken to increase labor productivity.

Card 5/5

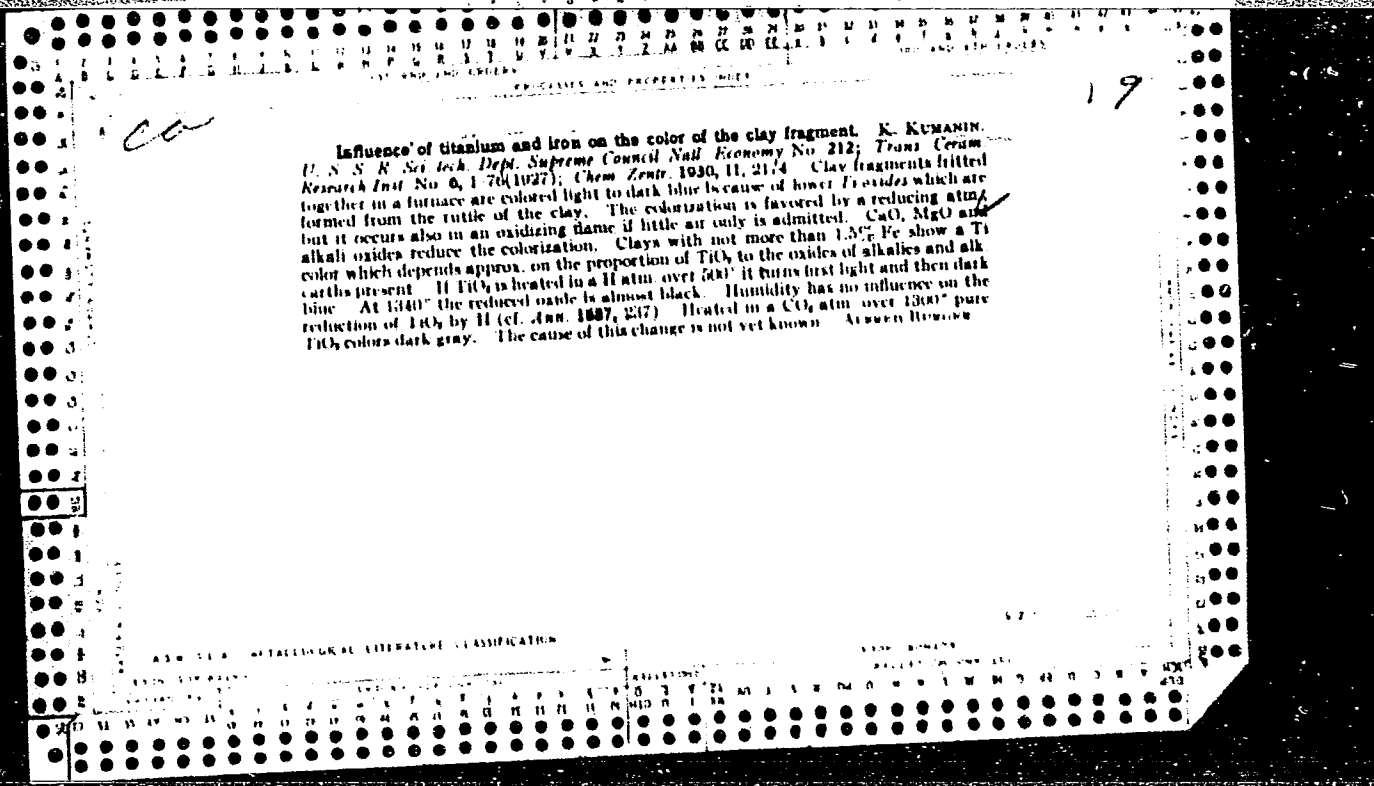
LYASS, A.M.; KUMANIN, I.B.; VALISOVSKIY, I.V.

Review of B.G. Guliaev's book "Founding processes." Lit,
proizv. no:1:44-45 Ja '62. (MIRA 16:8)

(Founding)

VEYNIK, A.I.; KUMANIN, I.B., kand. tekhn. nauk, retsenzent; MARKIZ,
Yu.L., inzh.; red.

[Founding calculations] Raschet otlivki. Moskva, Izd-vo
"Mashinostroenie," 1964. 402 p. (MIRA 17:8)



c

KVASHENINIKOV, Y., AND KUMANIN, K. Gas permeability as testing
 method for grog bodies. *Keram. i Steklo*, 8(1), 24-26 (1932).—
 Changes of gas permeability, water absorption, and shrinkage in
 dependence on the grain size of the grog, proportion of clay
 and grog, and temperature of firing of the grog body were in-
 vestigated on nine grog masses. The apparatus is described.
 It was found that (1) the gas permeability of a grog body is
 much more affected by the factors of working than water absorp-
 tion and shrinkage. (2) The firing temperature has the greatest
 influence on the gas permeability of the body followed by the
 size of grains and the proportion of clay to grog. (3) With
 increased firing temperature, the gas permeability increases.
 (4) An increased clay content in the mass decreases the gas
 permeability and water absorption of the body and increases its
 shrinkage.

ASB-51A DETALLURGICAL LITERATURE CLASSIFICATION

SECTION DIVISION

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

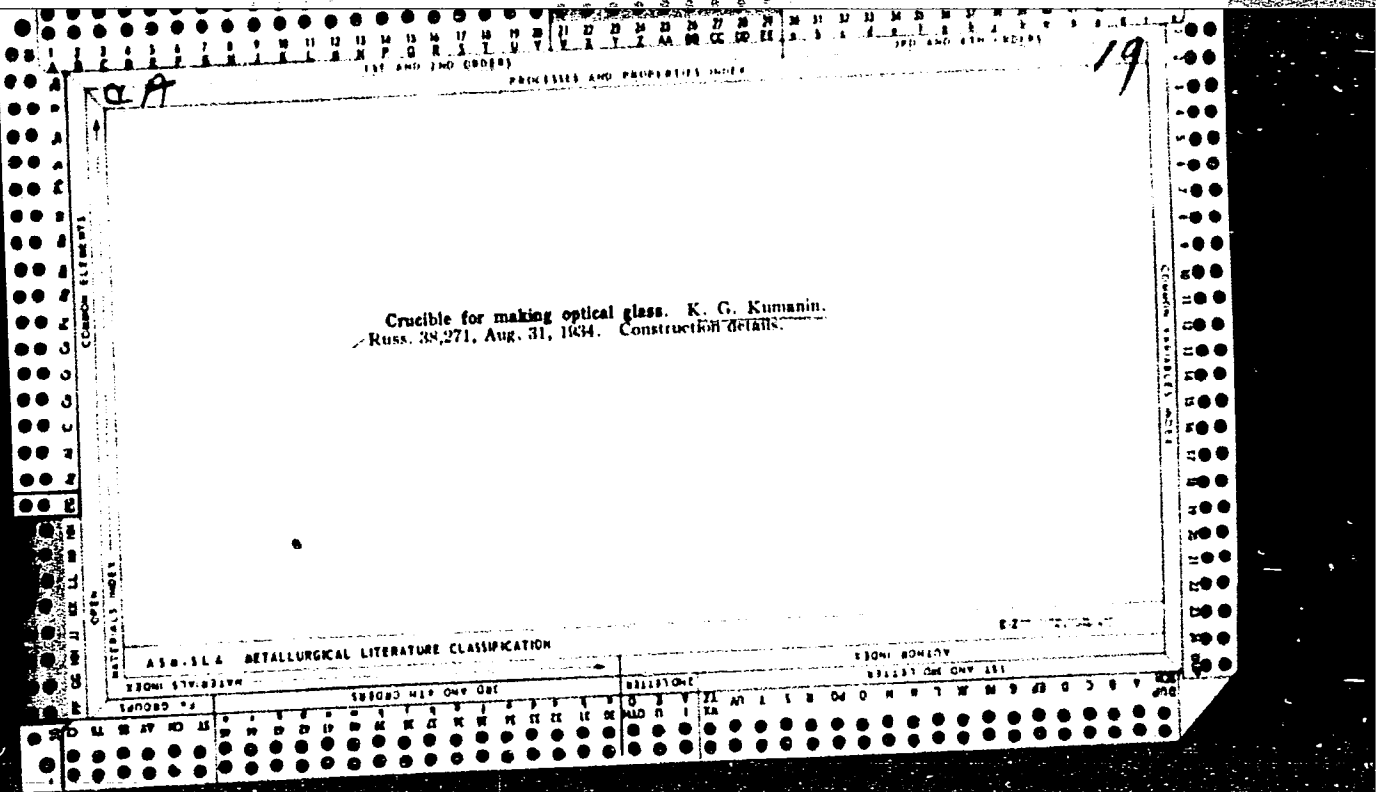
CLASSIFICATION

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

KUMANIN, K

Krasneninnikov, Yu., and Kumanin, K. GAS PERMEABILITY AND METHOD FOR TESTING Grog Bodies. *Trans. Ceram. Research Inst (U.S.S.R.)*, No. 40, 32 pp. (1933).
 The gas permeability of grog bodies is much more affected by factors of operation than by their porosity and shrinkage. The higher the firing temperature, the greater is the gas permeability. The gas permeability and capability of absorbing water increase with the size of grog grains, while shrinkage decreases very little. The addition of clay to the grog mix lowers the gas permeability and water absorption but increases the shrinkage.

COMMON VARIABLES INDEX



CP

14

PROCESSES AND PROPERTIES INDEX

Physical-chemical investigation of the manufacture of thermophosphates. I. The physical-chemical nature of thermophosphates. A. G. Bergman. *J. Applied Chem* (U. S. S. R.) 7, 1125-7 (1934).—A general discussion with 10 references. II. The application of light in visual observations of high temperatures. K. Kumani. *Ibid.* 1127-9.—The observation of the m. pt. of the crystals at high temps. was made possible by using a (100-watt) bulb with a series of reflectors. The app. is described and illustrated. III. The interaction of apatite and soda. A. P. Palkin and M. P. Golovkov. *Ibid.* 1130-43.—The investigation was carried out by fusing by the crystal-optical method. The presence of Na_2PO_4 , CaO and NaF in the reaction products is detd. by crystal-optical methods and by investigation of the solus. The reaction proceeds thus: $3\text{Ca}_3(\text{PO}_4)_2 + \text{CaF}_2 + 12\text{Na}_2\text{CO}_3 \rightarrow 6\text{Na}_3\text{PO}_4 + 6\text{NaF} + 12\text{CaO} + 12\text{CO}_2$, the reaction of double decompn. exceeding more than 60% of the apatite. Results of expts. are shown in tables. IV. The preparation of sodium phosphate. A. P. Palkin. *Ibid.* 1144-6.—A mixt. of 65% NaOH and 45% apatite was placed in a muffle furnace and heated for 1 hr. at (600-700)°, cooled, broken up and heated in a Pt crucible at (1000-1100)° for 2-3 hrs. The temp. was then lowered to (800)° and left for 0.8 hrs. Thus 60% of the apatite was converted into a H_2O -sol. state at Na_3PO_4 , and a corresponding amt. of NaF was also obtained. The residue contg. P_2O_5 and amounting to 20% of the dry residue calcd. on apatite can be used as a fertilizer of the type of "thermophosphate." A. A. Roehling

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

TEMPERATURE

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