SOV/79-29-4-59/77

Absorption Spectra and the Structure of Acyl Derivatives of 9-Aminoacridine

ASSOCIATION: Khar'kovskiy farmatsevticheskiy institut (Khar'kov Pharmaceutics Institute)

SUBMITTED: February 26, 1958

Card 3/3

BLIZNYUKOV, V.I. [Blyzniukov, V.I.]; SHTUCHNA, V.P.

Structure and parasiticidal action of isomeric chlorine derivatives of 9-(5-diethylamine-2-pentyl)-aminoacridine. Farmatsev. zhur. 16 no.3:12-15 '61. (MIRA 14:6)

1. Kafedra farmatsevticheskoy khimii Khar'kovskogo farmatsevticheskogo instituta.
(INSECTICIDES) (ACRIDINE)

BLIZNYUKOV, V.I. [Blyzniukov, V.I.]; GRIN', V.A. [Hrin', V.O.]

Structure and bacteriostatic activity of sulfazine and sulfodimesin. Farmatsev. zhur. 16 no.5:9-13 '61. (MIRA 17:10)

1. Kafedra farmatsevticheskoy khimii Khar'kovskogo farmatsevticheskogo instituta.

BLIZNYUKOV, V.I.; SOKOL, L.S.; SOLONSKAYA, N.T.

Interaction of functional groups in amino derivatives of benzene containing a methoxy group. Zhur.ob.khim. 34 no.1:329-331 Ja '64.
(MIRA 17:3)

1. Khar'kovskiy farmatsevticheskiy institut.

BLIZNYUKOV, V.I. [Blyzniukov, V.I.]; GRIN', V.A. [Hrin', V.O.]; TITSKIY, O.D. [Tits'kyi, H.D.]

Structure and bacteriostatic activity of hydroxy and methoxy analogs of some sulfanilamides. Farmatsev.zhur. 20 no.1:13-16 '65. (MIRA 18:10)

1. Khar'kovskiy farmatsevticheskiy institut.

BORISOV, S.I., doktor tekhn. nauk; BLIZNYUKOV, Ye.A., inzh.

Contact surface of the blank and the friction tool in the manufacture of hollow, periodic sections by transverse and helical rolling. Proizv. trub no.10:36-41 '63.

Optimal conditions for transverse and helical rolling of hollow periodic sections. Ibid.:41-49 (MIRA 17:10)

ACCESSION NR: AR4027680 S/0276/64/000/001/V038/V038

SOURCE: RZh. Tekhnologiya mashinostroyeniya, Abs. 1V237

AUTHOR: Borisov, S. I.; Kliznyukov, Ya. A.; Goryun, A. P.; Vereshchagin, A. D.

TITLE: Machine tool with programmed control for production of hollow periodic profiles by transverse-screw rolling

CITED SOURCE: Sb. Trubn. proiz-vo Ukrainy*. Kiyev, 1963, 44-51

TOPIC TAGS: periodic profile, automatic machine tool, profiling machine tool, hollow profile, profile machining, hollow periodic profile machining

TRANSLATION: The Ukrainian Scientific Research Institute of Piping has constructed a machine tool with program control for the rotational hot or cold extrusion of hollow profiles used as blanks in the production of conical shells and other thin-walled products with a periodic longitudinal profile. The idling rollers or other tools connected to the shafts of the compression device hydraulic cylinders symmetrically approach and retreat from the axis of the machined part, deforming the blank. At the same time, the working tool together

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ACCESSION NR: AR4027680

with the movable carriage moves along the axis of the blank, successively deforming portions of the longitudinal profile throughout its length. It is possible to regulate the wall thickness and its variations over the length of the product. 5 illustrations. A. Bosbevskiy.

DATE ACQ: 03Mar64 SUB CODE: ML ENCL: 00

Card 2/2

BLIZNYUKOV, Yuriy Nikolayevich; KARAKOZOV, Eduard Arkad'yevich; SMELYANSKIY, Fedor Andreyevich; SEROVA, Ye.I., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Introducing new drilling equipment; practice of petroleum workers of the Chechen-Ingush A.S.S.R.] Vnedrenie novoi burovoi tekhniki; opyt neftianikov Checheno-Ingushskoi ASSR. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1959. 92 p. (MIRA 13:1)
(Chechen-Ingush A.S.S.R.--Oil well drilling--Equipment and supplies)

BLIZNYUKOV, Yuriy Nikolayevich; BOCHKAREV, Vladimir Ivanovich; BURACHKOVSKIY, Vladimir Vladimirovich; GIRSHKH, Lazar' Isaakovich; DUBROVSKIY, Viktor Fedorovich; ISMAILOV, Sadykh Ismail-ogly; SAZONENKO, Petr Alekseyevich; SMIRNOV, Arseniy Sergeyevich; SYROMYATNIKOV, Yevgeniy Sergeyevich; SUSLENNIKOV, Nikolay Mikhaylovich; KAYESHKOVA, S.M., ved. red.; TROFIMOV, A.V., tekhn. red.

[Practice of innovators in drilling and exploiting oil wells] Opyt novatorov bureniia i ekspluatatsii neftianykh skvazhin. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 67 p. (MIRA 15:3)

1. Moscow. TSentral'noye byuro promyshlennykh normativov po trudu.
(Oil well drilling) (Automatic control)
(Oil fields—Equipment and supplies)

BLIZNYUKOV, Yu.N.; FROLOV, G.A.

Side tracking when drilling deep wells. Burenie no.10:13-17 '64.
(MIRA 18:6)

1. Trest "Groznefterazvedka" i neftepromyslovoye upravleniye "Sunzhanneft'".

S/114/61/000/002/007/007
E194/E255

AUTHORS: Mellerovich, G. M. and Bliznyukova, N. M., Engineers

TITLE: Strain-Gauge Studies of Steam Turbine Parts at the KhTGZ imeni Kirov

PERIODICAL: Energomashinostroyeniye, 1961, No. 2, pp. 36-39

TEXT: Turbine parts are often of complicated shape so it is often impracticable to make strength calculations on them. It is accordingly important to make an experimental study of stress distribution in vital parts, and in the last two years the works have done so for parts of turbines Types ВКТ-100 (VKT-100) and ПВК-150 (PVK-150). The investigations were made by the strain-gauge method. The parts tested may be classified into two groups: in one the parts are in the form of closed envelopes; in the other they are in the form of sheets, such as diaphragms, or open envelopes. Parts of the first type are loaded by hydrostatic pressure. The instrumentation, and in particular the method of bringing the thermocouple leads out of the high-pressure zone, are described. Nozzle boxes of turbines PVK-150 operate at a temperature of 565°C and a pressure drop of 52 kg/cm^2. They are of very complicated shape. Both the upper and lower nozzle boxes were

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Strain-Gauge Studies of Steam Turbine Parts at the KhTGZ imeni Kirov

tested, since they are structurally different. The tests showed that excessive stresses were found in certain parts of the nozzle boxes and the re-design that was necessary is briefly described. Tests were also made on a flangeless stop valve for a turbine Type PVK-150 and the validity of the formulae used in designing the valve was confirmed. A number of tests were made on diaphragms of turbines VKT-100 and PVK-150. The parts to be tested were mounted on 6 or 8 supports, separated by a distance of not less than one third of the circumference. On each half-diaphragm the load was applied over an arc such that the centre of gravity of the load coincides with the centre of gravity of the half-diaphragm. Diaphragms from the second and eighth stages of turbine PVK-150 were tested. The second-stage diaphragm is of steel with reinforcing ribs. The eighth-stage diaphragm has no ribs. The tests showed that the stresses in the body of the second-stage diaphragm are relatively small and are closely in accordance with calculated values. The results confirm the justification for designing

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diaphragms by a method which fully allows for structural features such as ribs. Stresses in the body and rim of the eighth-stage diaphragm were also small. In 1958 the works tested diaphragms from the eleventh stage of a 25 MW turbine which was in for repair. This was a cast-iron diaphragm with cast-in blades and had been cracked as a result of a machine failure. To localize the cracks holes were drilled at the ends and a study was required to ascertain how much the cracks had weakened the diaphragm. The tests are described and it is shown that at the section weakened by the cracks the stresses had increased by approximately 20 to 30%. A further case of stress determination on a diaphragm is also described. It is concluded that strain-gauge tests had made it possible either to select the optimum type of construction from the strength point of view or to assess the reliability of parts. By accumulating experience of this kind recommendations can be made to ensure the reliability of parts in newly-designed turbines. There are 7 figures and 3 Soviet references.

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L 10934-66 EWT(m)/EWP(w)/T/EWP(t)/EWP(z)/EWP(b)/EWA(b) IJP(c) JD/HW

ACC NR: AP5028552 SOURCE CODE: UR/0286/65/000/020/0167/0167

INVENTOR: Chipizhenko, A. I.; Iodlinskaya, Z. M.; Golubkov, M. K.; Bliznyukova, N. Yu.

ORG: none

TITLE: Copper-base alloy. Class 40, No. 160827

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 167

TOPIC TAGS: copper alloy, zinc containing alloy, nickel containing alloy, aluminum containing alloy, manganese containing alloy, silicon containing alloy, high strength alloy, copper base alloy, tensile strength

ABSTRACT: This Author Certificate introduces a copper-base alloy containing nickel, aluminum, manganese, and zinc. To increase the tensile strength and relaxation strength of the alloy, the component contents are kept within the limits: copper 73.0—76.0%, nickel 1.5—3.0%, aluminum 1.5—3.0%, manganese 0.3—1.0%, silicon 0.3—10%, and balance zinc. [DV]

SUB CODE: 11/ SUBM DATE: 30Jul63/ ATD PRESS: 4170

Card 1/1 UDC: 669.35.5.71

BLOBOLIL, Frantisek

Glass laminates. Strojirenstvi 13 no.4:174-179 '63.

1. Zavody V.I. Lenina, Plzen.

BLOCH, Bronislawa; KANIA, Izabella; SLOMSKI, Czeslaw

Case of adrenogenital hyposalemic syndrome in a 3 week infant. Pediat. polska 33 no.1:103-106 Jan 58.

1. Z I Kliniki Chorob Dzieciecych A.M. we Wroclawiu. Kierownik: prof. dr med. H. Hirszfeldowa i z Zakladu Medycyny Sadowej A.M. we Wroclawiu. Kierownik: prof. dr med. B. Popielski.

(ADRENOGENITAL SYNDROME, blood in
hyposlaemia in 3 week old inf. (Pol))
(ELECTROLYTES, in blood
defic. in adrenogenital synd. in 3 week old inf. (Pol))

COUNTRY : POLAND G
CATEGORY : Zooparasitology. Parasitic Protozoa. Flagellata

ABS. JOUR. : RZhBiol., No. 2 1959, No. 5698

AUTHOR : Bloch, B.; Jaworska, J.
INST. : -
TITLE : A Case of Toxoplasmosis in a 2½-Week-Old Child

ORIG. PUB. : Pediatr. polska, 1958, 33, No 1, 107-109

ABSTRACT : In a child which was born at the proper time an acute jaundice developed within two weeks after birth, and the temperature rose to 38°. Atresia of the biliary ducts and cytomegalia were diagnosed. The complement-fixation reaction to toxoplasmosis during the first blood test in the mother was weakly positive, and during a second one it was markedly positive. In the child a

CARD: 1/2

11

CHILMAN, A.; BLOCH, B.; LEWANDOWSKA, J.

Radiologic changes in reticuloendotheliosis of the Abt-Letterer-Siwe type. Pol. przegl. radiol. 29 no.4:373-379 Jl-Ag '65.

1. Z I Kliniki Pediatrycznej AM we Wroclawiu (Kierownik: prof. dr. med. T. Nowakowski).

BLOCHAS, C.

A case of asthmatol poisoning. Sveik. apsaug. 6:31 S '64.

BLOCH, K.E.; LYNEN, F.

Winners of the Nobel prize for medicine. Orv. hetil. 106 no.4: 173-174 24 Ja '65

BLOCH, Tadeusz; BIELSKI, Tadeusz; CZEKALA, Zbigniew

Role of radiological investigations with the use of contrast media in the diagnosis of meniscus injuries. Chir. narzad. ruchu ortop. pol. 28 no.2:169-176 '63.

1. Z Oddzialu Ortopedyczno-Urazowego Szpitala Miejskiego im. dr A. Mieleckiego w Chorzowie Ordynator: dr T. Bielski Z Zakladu Rentgenologicznego Szpit. Miejsk. im. dr A. Mieleckiego w Chorzowie Kierownik: dr Z. Czekala.
(KNEE) (LEG INJURIES) (RADIOGRAPHY)

UGGRETS, I.I.; GLAZUNOV, A.A.; SYROMYATNIKOV, I.A.; KASHUNIN, I.S.; POSTNIKOV, N.A.; RADTSIG, V.A.; UL'YANOV, S.A.; GHUDINSKIY, P.G.; VASIL'YEV, A.A.; KUVSHINSKIY, N.N.; BAPTIDANOV, L.N.; TARASOV, V.I.; KRIKUNCHIK, A.B.; SHAPIRO, A.B.; BIBIKOV, V.V.; DVOSHIN, L.I.; KLINGOF, I.D.; KARPOV, M.M.; USPENSKIY, B.S.; CHALIDZE, I.M.; BLOCH, Ya.A.; SHMOTKIN, I.S.

Iosif IAkovlevich Gumin; obituary. Elek.sta.26 no.12:58 D '55.
(Gumin, Iosif IAkovlevich, 1890-1955) (MIRA 9:4)

BLOCH, Z.; GORNIAK, J.

Determining the dust content in mines by Zeiss or Sartorius konimeters. Buiietyn. p. 15.

PRZEGLAD GORNICZY. (Stowarzyszenie Naukowo-Techniczne Inzynierow i Techników Gornictwa) Katowice, Poland, Vol. 15, no. 9, Sept. 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

BLOCH, Zofia, mgr; SYSKA, Janina, mgr

Determination of SiO_2, using the phase contrast method in samples taken from mines. Przegl gorn 20 no. 5:249-251 My '64.

BLOCHARSKI, J.

Attempted application of proteolytic properties of blood serum and urine dialysate in hematological cytodiagnosis. Polski tygod. lek. 8 no.4:143-145 26 Jan 1953. (CIML 24:3)

1. Of the Third Internal Clinic (Head--Prof. J. Aleksandrowicz, M. D.) of Krakow Medical Academy.

BLOCHAS, C. med.m.kand.

On sending material from medical establishments to chemico-legal analysis. Sveik. apsaug. 9 no.2:27-30 F'64.

GIMZAUSKAS, J., med. m. kand.; BLOCHAS, C. med. m. kand.; IVASAUKAS, H.

A severe and rare case of non-specific ulcerative colitis. Sveik. apsaug. no.7:18-20 '62.
(COLITIS ULCERATIVE)

BLOCHAS, C., med. m. kand.

On the problem of the diagnosis of acute alcoholic intoxication.
Sveik. apsaug. 8 no.5:14-19 '63.

(ALCOHOLIC INTOXICATION)
(BLOOD CHEMICAL ANALYSIS)
(JURISPRUDENCE) (URINE)

HERZOG, P.; BOHATOVA, Jana; BLOCHOVA, Lilly

Serum proteins with an affinity for haemoglobin. II. Haptoglobin types of the population of Prague. Folia biol. (Praha) 9 no.4: 265-270 '63.

1. Institute of Haematology and Blood Transfusion, Prague.
(HAPTOGLOBINS) (HEMOGLOBIN)
(BLOOD PROTEIN ELECTROPHORESIS)

WATORSKI, JAN, doc. inz., BLOCHOWIAK, Zbigniew, mgr inz.

Production plant of IOMB-WB concrete mix. Przegl budowl i bud mieszk 23 no.8:515-518 Ag'61

HIRSZFELDOWA, H.; BLOCHOWNA, B.; COZIOROWSKI, Cz.; SASSOWA, J.; WASIK, R.

The uroprecipitation test. Polski tygod.lek. 15 no.33:1257-1260, 15 Ag '60.

1. Z I Kliniki Pediatrycznej A.M. we Wroclawiu; kierownik: prof. dr med. H.Hirszfeldowa
(RHEUMATIC FEVER diag.)
(PRECIPITINS)

HIRSZFELDOWA, Hanna; BLOCHOWNA, Boguslawa; KOZIOROWSKI, Czeslaw; SASSOWA, Janina; WASIK, Renata

Studies on the nature of urogen. Polski tygod. lek. 16 no.11:381-383 13 Mr '61.

1. Z I Kliniki Pediatrycznej A.M. we Wroclawiu; kierownik: prof. dr med. H. Hirszfeldowa.

(POLYSACCHARIDES urine) (RHEUMATISM urine)

JANICKI, Jozef; HLOCINSKA, Teresa; NOWAKOWSKA, Krystyna

Activity evaluation of lipoxidase in samples of soya and wheat. Roczniki Wyz Szkola Rol Poznan no.13:251-263 '62.

1. Katedra Technologii Rolnej, Wyzsza Szkola Rolnicza, Poznan.

BLOCK, B.

Field development

1528. Science and technique in Soviet Union—further development of Soviet petroleum industry. B. Block. *Nafta* (Krakow), 1952, 8, 189–90.—A summary of a report by the Soviet Minister for Petroleum Industry on development over a period 1940–51 as published in March–Apr. 1952 issue of *Planned Economy*. •M. S.

GORDON, Louis; BLOCK, Jacob; HABERMAN, Norton; SALESIN, Eugene D.

Process of precipitation separation, separation from a homogeneous agent. Kem tud kozl MTA 16 no.3:265-274 '61.

1. Department of Chemistry, Case Institute of Technology, Cleveland 6, Ohio, USA.

BLOCK-BOLTEN, A.

3

W. J. BARRETT

Anisotropy of gilding-metal strips. A. Krupkowski and A. Block-Bolten (*Trace Inst. Mech.*, 1952, 3, No. 7, 31—41).—Changes of anisotropy in gilding-metal (95 : 5 Cu–Zn alloy) strips at different stages of cold rolling and annealing were determined by the Krupowski–Kawinski method. The highest degree of anisotropy occurs in the direction of rolling; it increases during rolling and decreases during annealing, and it is ∝ to the % reduction in thickness in rolling. It is suggested that the times of the interstage annealings can be reduced considerably without lowering the deep-drawing properties of the material, as even a 10-min. annealing at 600° induces recrystallisation and partly eliminates the anisotropy of the strips tested.

METALL. ABSTRACTS (R.B.C.)

(1)

Krupowski A. Block-Bolten A. "Anisotropy of Gilding-Metal Strips."
„Anizotropia [illegible]". (Prace Inst. Mechan. No. 7).
Warszawa, 1953, PWT, 7 pp., 7 figs., 6 tabs.

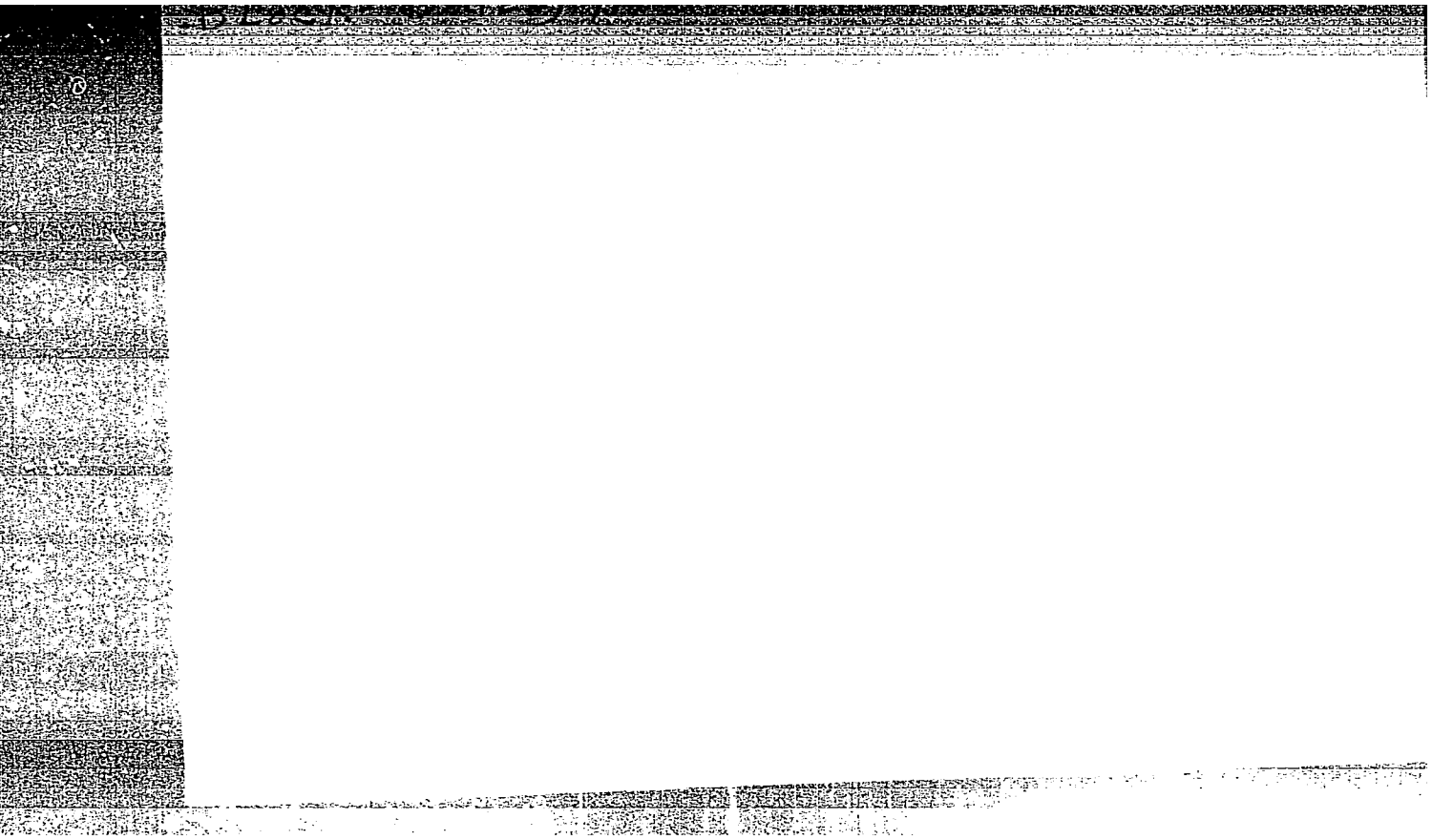
Since metals used in some technological proces[illegible]
[illegible] process, should possess [illegible]
[illegible] anisotropy of the metal [illegible]
[illegible] the metal under an exterior stress [illegible]
of view and the physical meaning of the coefficient of [illegible]
[illegible]ained. Further, the method of calculation of the [illegible]
[illegible] for rolled polycrystalline [illegible]
[illegible]
[illegible] of metal strips. The experimental [illegible]
[illegible] coefficients of strips [illegible]
[illegible] every stage of the production process. A [illegible]
[illegible]tropy curves on the nature of the technological process was observed.
In conclusion, the authors suggest the introduction of certain [illegible]
mixing modifications, which do not lower plastic properties of the
[illegible]ial in the production cycle for gilding metal strips. Finally the results
of the A. Krupkowski and S. Kowiński method of determining the
anisotropy coefficient in polycrystalline [illegible]
[illegible] formerly applied.

BLOCK-BOLTEN, A.

Metallurgical Abst.
Vol. 21 May 1954
Properties of Alloys

(2)

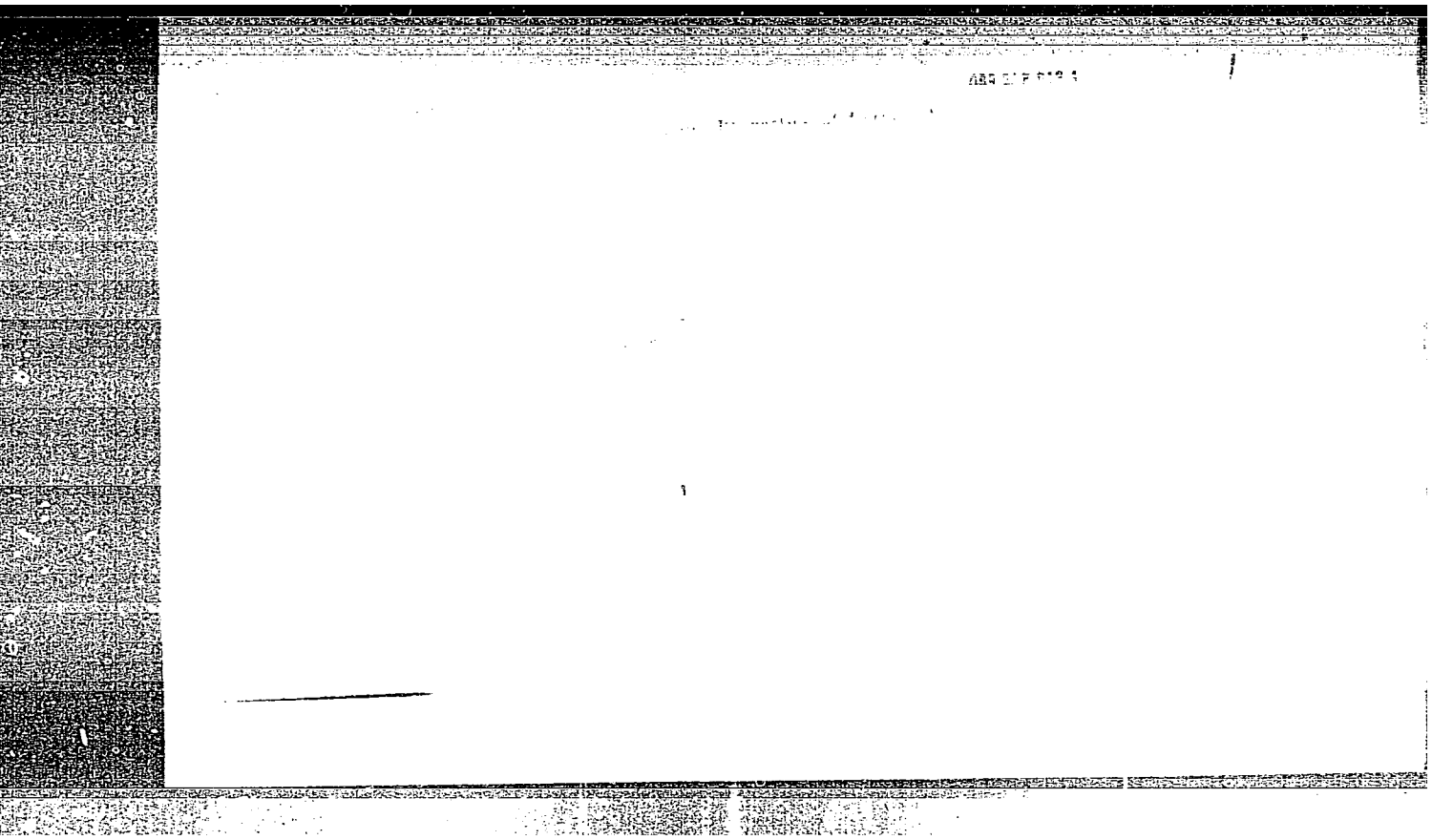
"Anisotropy of Gilding-Metal Strips." A. Krupkowski and A. Block-Bolten (*Proce Inst. Mech.*, 1953, 8, (7), 34-41).—[In Polish]. Changes of anisotropy in gilding-metal (95 : 5 Cu-Zn alloy) strips at different stages of cold rolling and annealing have been determined by the Krupkowski-Kawinski method. The highest degree of anisotropy occurs in the direction of rolling; it increases during rolling and decreases during annealing, and is proportional to the % reduction in thickness in rolling. It is suggested that the times of the interstage annealings can be reduced considerably without lowering the deep-drawing properties of the material, as even a 10-min. annealing at 600° C. induces recrystn. and partly eliminates the anisotropy of the strips tested.—S. K. L.



BLOCK-BOLTEN, A.

Sulfur in binary liquid solutions. p.105.
BULLETIN. Varsovie.
Vol. 3, no. 2, 1955. In English.

So. East European Accessions List Vol. 5, No. 9 September 1956



APPROVED FOR RELEASE: 08/22/2000 CIA-RDP86-00513R000205520018-8"

BLOCK-BOLTEN, A.

POLAND/Atomic and Molecular Physics - Statistical Physics. Thermo- D-3
dynamics

Abs Jour : Ref Zhur - Fizika, No 2, 1958, No 3176

Author : Krupkowski Aleksander, Ptak Wladyslaw, Block-Bolten Andrzej.
Inst : Academy for Mining and Smelting, Cracow, Poland
Title : Thermodynamic Functions in Binary Systems.

Orig Pub : Zesz. nauk. Akad. gorn.-huth., 1957, No 10, 27-71

Abstract : The authors consider the relationships between the form of the diagrams of the thermal systems and the thermodynamic functions that characterize these systems. Methods for calculation of the thermodynamic functions such as enthalpy and entropy, chemical potentials of pure elements, partial heat of solubility, heat of solution, activity of the substances in solution, enthalpy, entropy and chemical potentials of individual metals in solutions are presented. Another group of functions comprises the enthalpy, entropy, and free energies of solutions and mixtures. Four typical thermal systems of metals which do not form into metallic compounds

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Abs Jour : Ref Zhur - Fizika, No 2, 1958, No 3176

are chosen, namely: zinc-cadmium, silver-copper, nickel-copper, and lead-zinc. The thermodynamic functions for these systems were calculated on the basis of experimental data, gathered essentially from Kelley's data (Kelly K.K., U.S. Bureau of Mines Bulletin, Nos. 350, 371, 393, 394, 407, and 434). The indicated systems must be considered as examples. It is possible on their basis to calculate any system of a given type. In contradiction to the qualitative solutions presently available, this work considers the problem quantitatively.

AUTHORS: Krupkovskiy, A., Ptak, V., Blëk-Bol'ton, A. 78-3-4-19/38

TITLE: Thermodynamic Functions in Binary Systems (Termodinamicheskiye funktsii v binarnykh sistemakh)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 4, pp. 939-944 (USSR)

ABSTRACT: In binary systems different phases exist at various temperatures. For explaining the phase equilibria thermodynamic functions were used. For binary solutions the following function holds:

$$F' = N_1\bar{\mu}_1 + N_2\bar{\mu}_2$$

μ_1, μ_2 = chemical potentials of the substances 1 and 2 in solution,
N_1, N_2 = concentration of substances 1 and 2, given in mol.
For mixtures the following function applies:

$$F' = n_1\mu_1 + n_2\mu_2$$

μ_1, μ_2 = chemical potential of pure substances 1 and 2
n_1, n_2 = concentration of substances 1 and 2, given in mol.
The values for the individual thermodynamic functions in the system Zn-Cd at temperatures of 538°, 600°, 700° and 800°K

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were determined.
Furthermore the values for the free energy for liquid solutions and mixtures in the system Zn-Cd were determined and the connection between these function as well as the composition at 538°, 600°, 700° and 800°K were graphically represented. By using thermodynamic functions also the systems Ag-Cu, Cu-Ni and Zn-Pb were investigated.
There are 5 figures and 10 references, 6 of which are Soviet.

ASSOCIATION: Institut tekhniki Pol'skoy Akademii nauk, otdeleniye metallov (Technical Institute, Department of Metals, Polish AS)

SUBMITTED: June 25, 1957

BLOCK-BOLTEN, Andrzej

Some thermodynamic relations in a nonideal ionic solution.
Archiw hutn 7 no.1:15-37 '62.

BLOCK-BOLTEN, A.

Calculation of quaternary reciprocal ionic systems by means of A. Krupkowski's equations. Archiw hutn 7 no.3:243-249 '62.

BLOCK-BOLTEN, Andrzej

Thermobalance for the determination of thermodynamic properties of some metallic phases. Archiw hutn 8 no. 2: 81-84 '63.

P/038/61/006/004/001/003
E040/E935

AUTHOR: Block-Bolten, Andrzej

TITLE: Equilibrium between the liquid and solid phases in quaternary ionic solutions

PERIODICAL: Archiwum hutnictwa, v.6, no.4, 1961, 287-307

TEXT: In molten salt electrolytes and slags, which are typical ionic solutions, the problem of the dependence of anion exchange equilibrium on the cationic medium requires further elucidation. The purpose of the present extensive series of investigations was to examine molten salt electrolytes and industrial slag systems of typical ionic solutions of a great significance in many metallurgical processes. The thermodynamics aspects of the study are of interest in other fields, e.g. atomic reactor operation. A review of the few previous investigations of mainly ternary molten electrolyte systems is followed by a detailed description of the apparatus used, which was designed by the author at the Silikatforsknig in Trondheim, Norway, where the experimental part of the work was carried out. Derivation is also made of the thermodynamic expressions (entropy and enthalpy)

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Equilibrium between the ... P/038/61/006/004/001/003
E040/E935

which served as a basis for evaluation of 20 quasi-binary ionic solutions involving Ca^{++}, Cl^-, Li^+, Br^-, K^+ and Mg^{++} ions in equilibrium with HCl/HBr gaseous medium. Experimental data are fully reported. It was found that the reaction equilibrium shifts in the sense that larger cations (e.g. K^+) are preferentially surrounded by Br^- atoms and stronger cations lose this preferential tendency for Br^- and attract Cl^-. In quasi-binary systems of the type: (A,B)Cl-(A,B)Br, the favoured groupings are A-Cl-A and B-Br-B, where A is a strong cation and B a weak one. Also favoured are the Cl-A-Cl and Br-B-Br groupings. The probability of the formation of A-Cl-B and A-Br-B and Cl-A-Br groupings diminishes the more, the greater the gaseous phase differs from the anionic composition of the liquid phase. The endothermic effect of mixing confirms the above conclusions. The above phenomena of favoured group formation are associated with an increase in the reaction entropy on approaching strong cationic media. This entropy increase is associated with a simultaneous occurrence of polarisation which tends to lower the melt energy and evolve heat. Therefore, the stronger the cationic medium, the greater is the

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effect of polarisation on the total heat evolution. It was found that the entropy of exchange reactions rises with decreasing value of

$$\sum \frac{e_i}{r_i}$$

(where e_i is the charge and r_i the radius of cation i) in the following order: K^+, Na^+, Li^+, Ca^{++}, Mg^{++}. The thermal effect decreases from K^+, Na^+ to Li^+ and increases from Li^+ to Ca^{++} and Mg^{++}. The interpretation of the thermodynamics of reciprocal quaternary systems is simplified by generalisation to the case of irregular solutions, using as a basis the results of Wasastjerna and Hovi. The results of the present investigation are regarded as an introduction to a systematic presentation of the thermodynamics of slags and molten electrolyte systems as a function of the elementary properties of cationic media. There are 9 figures, 3 tables and 13 references: 3 Soviet-bloc and 10 non-Soviet-bloc. The English-language references read as follows: Ref.4: Förland T., On the properties of some mixtures of fused salts, Norges Tekniske

Equilibrium between the ... P/038/61/006/004/001/003
E040/E935

Vitenskapsademi, Series 2, No.4, 1957; Ref.5: Hildebrand J.H., Salstrom E.J., J. Amer. Chem. Soc., 54, 4257, 1932; Ref. 9: Flood, H., Grjotheim K., J. Iron Steel Inst., 171, 64, 1952.

ASSOCIATION: Instytut podstawowych problemów techniki pan, Zaklad metali, Kraków
(Institute of Fundamental Problems of Engineering, Polish AS, Department of Metals, Cracow)

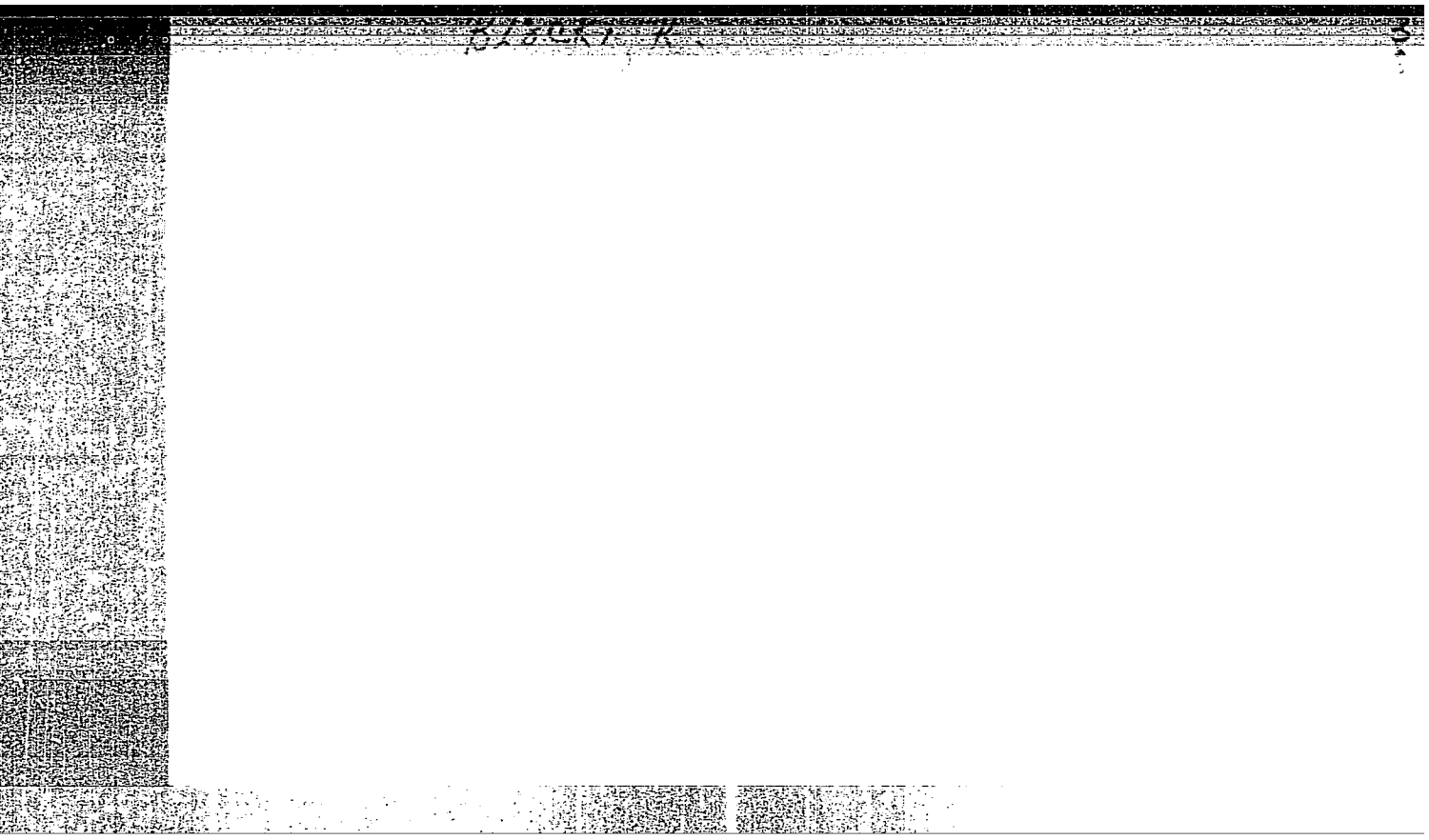
SUBMITTED: May 18, 1961

Card 4/4

GORDON, Louis, prof.; BLOCK, Jacob; HABERMAN, Norton; SALESIN, Eugene D.

Precipitation processes and precipitation from homogeneous solution. Acta chimica Hung 33 no.3:299-308 '62.

1. Department of Chemistry, Case Institute of Technology, Cleveland 6, Ohio, USA.



APPROVED FOR RELEASE: 08/22/2000 CIA-RDP86-00513R000205520018-8"

S/262/62/000/012/012/013
I007/I207

AUTHOR: Blocki, R. W.

TITLE: On the rotary engine of the Różycka design

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki. 12. 1962. 93. abstract 42.12.626. "Techn. motoryz.", vol. 10, no. 6, 196–197 [Polish]

TEXT: No abstract given.

[Abstracter's note: Translation of Russian title.]

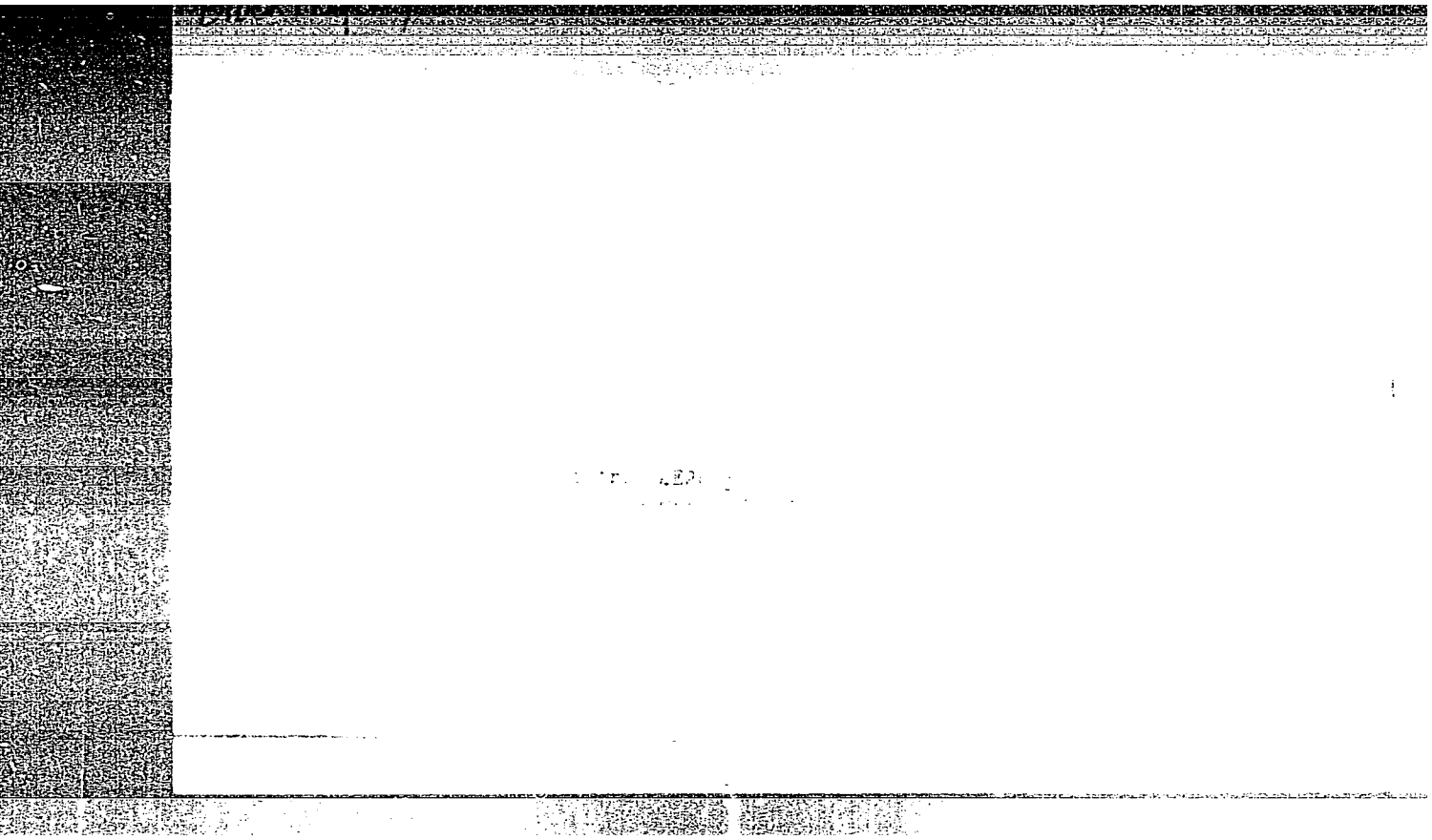
Card 1/1

BLOCKI, W.

Determination of the optimum working pressure in aeronautic hydraulic systems. p. 46.

TECHNIKA LOTNICZA. (Zwiazek Polskich Inzynierow i Techników Lotniczych) Warszawa, Poland. Vol. 14, No. 2, Mar./Apr. 1959.

Monthly List of East European accession (EEAI), LC. Vol. 8, No. 9 September, 1959. Uncl.



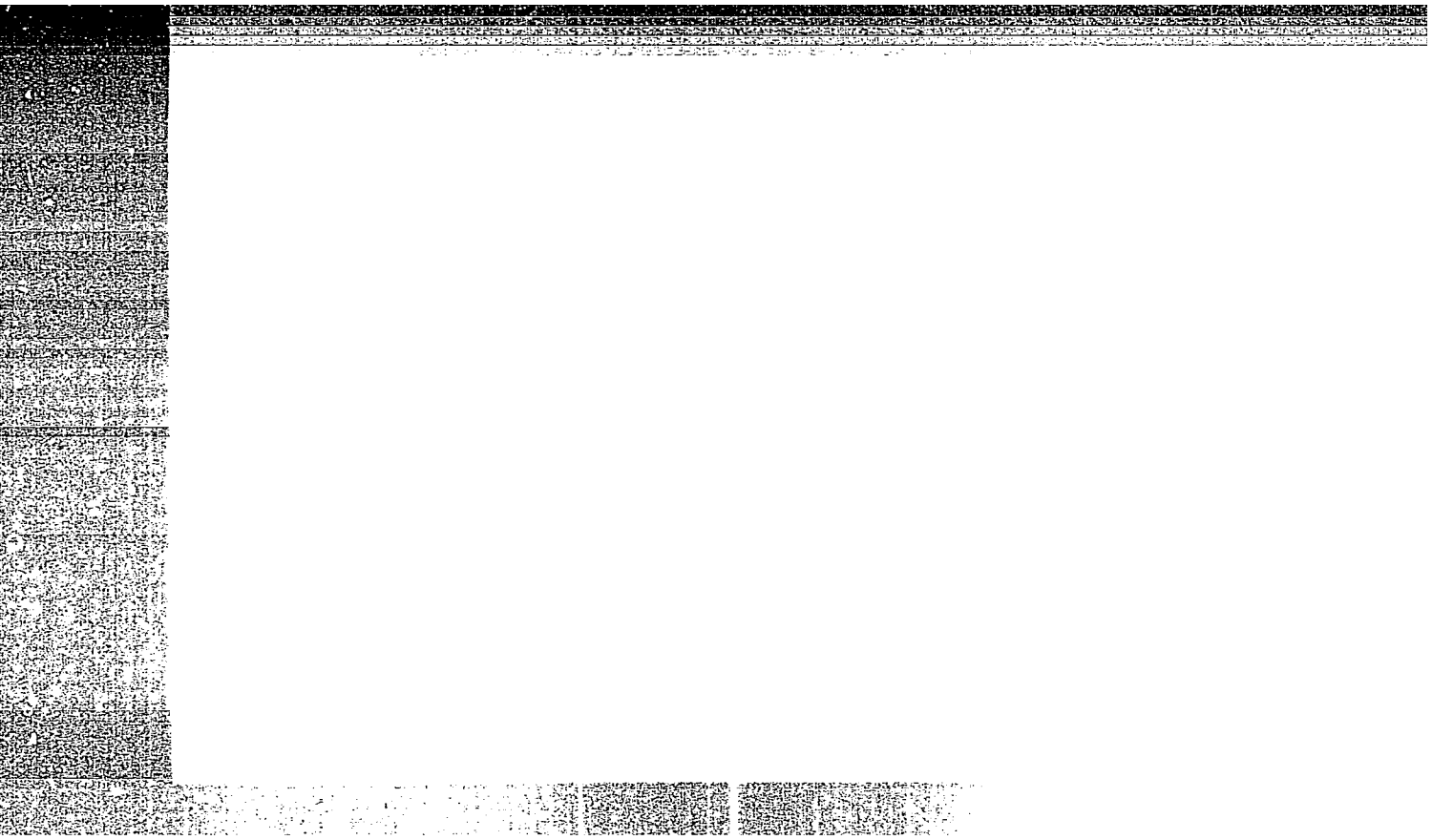
APPROVED FOR RELEASE: 08/22/2000 CIA-RDP86-00513R000205520018-8"

MOYS, A.; SCHWARTZ, E.; BLOCKINGER, G.

On the possibility of using 2-mercaptobenzthiazole and its derivatives in the treatment of cutaneous tuberculosis (experimental study). Bratisl. lek. listy 43 Pt. 2 no.6:325-332 '63.

1. Krajska nemocnica tuberkulozy a chorob plucnych v Pod. Biskupiciach, riaditel MUDr. K. Virsik Katedra organickej chemie a biochemie Prirodovedeckej fakulty University Komenskeho v Bratislave, veduci prof. inz. M. Furdik.

(TUBERCULOSIS, CUTANEOUS)
(ANTITUBERCULAR AGENTS)
(SULFHYDRYL COMPOUNDS)
(THIAZOLES)
(MYCOBACTERIUM TUBERCULOSIS)
(LUPUS) (ECZEMA) (VARICOSE ULCER)



APPROVED FOR RELEASE: 08/22/2000 CIA-RDP86-00513R000205520018-8"

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Industrial Organic Synthesis H-15

Abs Jour : Ref Zhur - Khim., No 24, 1958, No 82565

Author : Blockinger G.
Inst : -
Title : The Derivation of Chemically Pure Crystalline 2-Mercapto-benzothiazole (MBT) from a Technical Product ("Kampaks")

Orig Pub : Chem. zvesti, 1957, 11, No 8, 489-493

Abstract : Pure 2-mercaptobenzothiazole (I) is a colorless compound of monoclinical crystalline structure. A technical product ("kampaks") (II) even after a most thorough purification and crystallization, employing common methods, yields yellow crystals. In the derivation of the 99.5% I, 10 gr of II melt is dissolved in 150 cc of 96% alcohol, the solution is then filtered, followed by the addition of 60 cc of C_6H_6 and 500 cc of water (60°), to which 5-7 cc of 25% NH_3 were added. The mixture is then subjected to distillation. At

Card : 1/3

Abs Jour : Ref Zhur - Khim., No 24, 1958, No 82565

65° the C_6H_6 - C_2H_5OH-H_2O azeotrope is taken overhead. Tars are then separated from the solution and the latter is subjected to distillation at 98° for the removal of C_2H_5OH. NH_3 is added in order to retain I in the solution. The solution is then cooled, 2% H_2SO_4 is added in order to complete the precipitation of I, filtered, followed by drying of the obtained I at 60°. Under the semi-commercial or commerical conditions, the quantity of C_2H_5OH may be reduced by 20-30 cc (for 10 gr of II) at the expense of I quality. To 10 gr of purified I are added 250 cc of 96% C_2H_5OH, and denaturated C_6H_6 (sic), followed by filtration, addition of 50 cc C_6H_6 and 1000 cc of warm water (60°). This mixture is refluxed for 10-15 minutes to aid the separation of layers. The lower layer, that contains all of I, is drawn away and is reserved for crystallization. The colorless crystals formed are filtered out and dried at 60°. It is recommended to use for every 1 gr of II the following:

Abs Jour : Ref Zhur - Khim., No 24, 1958, No 82565

10 cc of C_6H_6, 100 cc of C_2H_5-OH, and 300 cc of H_2O. For the removal of small quantities of tars, to the alcohol layer, containing I, is added sufficient quantity of 10% NaOH until pH reaches value of 10. Tars precipitate out and settle to the bottom. The colorless solution is then acidified with 2% H_2SO_4 up to pH of 6, and during this latter setp white amorphous precipitate of I forms. Analogical results are obtained when employing dilute NH_3 solutions. The use of $Ca(OH)_2$ does not offer possibility to precipitate all of I and to obtain a pure product. -- Z. Rachinskiy

Card : 3/3

END
57

MOYS, A.; BLOCKINGER, G.; SCHWARTZ.E.

Chemical and microbiological properties of 2-mercapto-benzthiazole for clinical evaluation in the treatment of skin tuberculosis and some infectious dermatoses. Cesk. derm. 39 no.4:269-274 Jl'64

1. Krajska nemocnica tuberkulozy a chorob plucnych v Podunajskych Biskupiciach (riaditel: dr. K.Virsik) a Laboratorium chemie prirodovedeckej fakulty UK [University Komenskeho] v Bratislave (vedoci: prof. inz. M.Furdik).

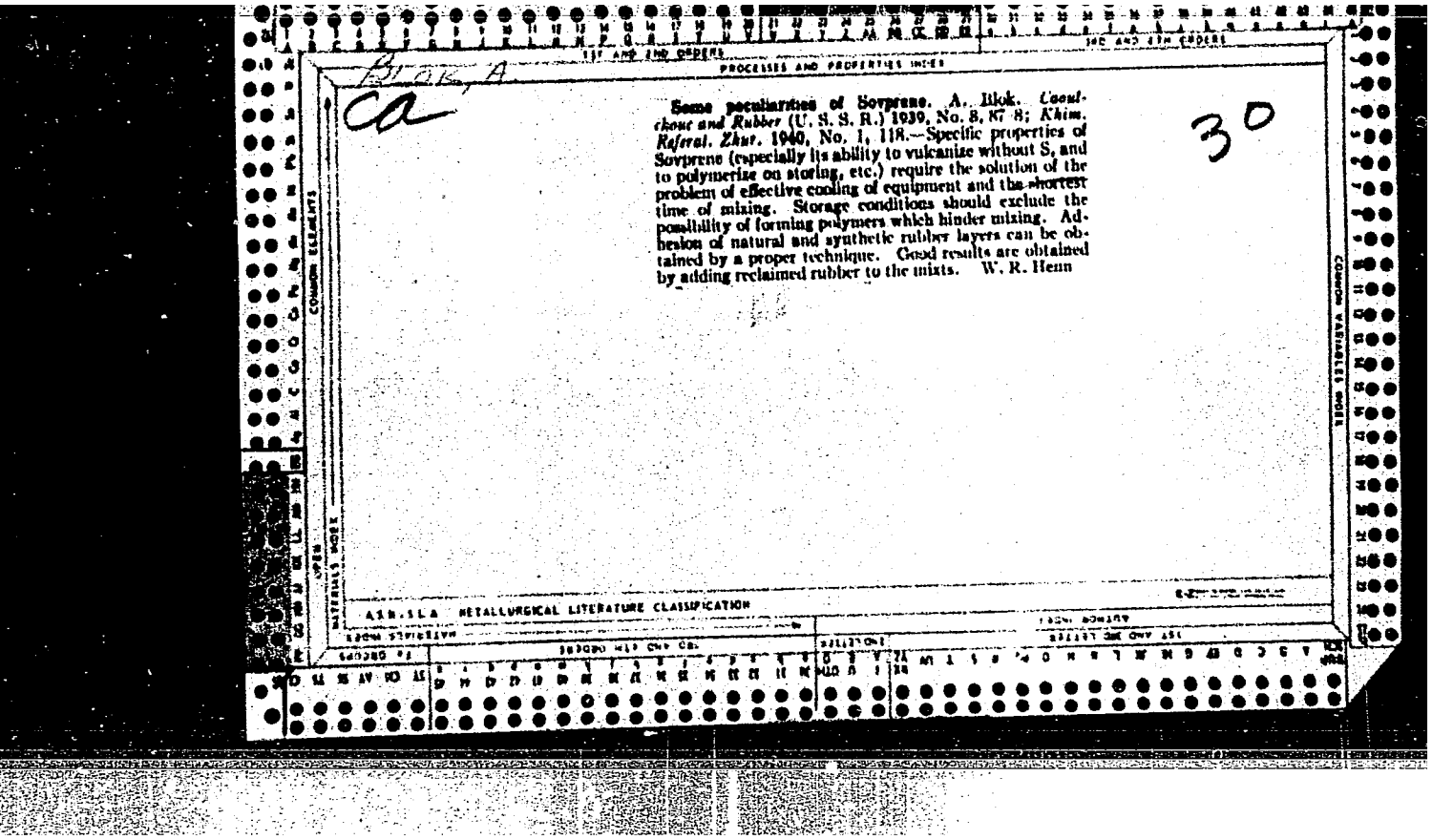
BLOGOJEVIC, Dozidar, inz.

Reclaimed land along the Danube River from the Iron Gate to Belgrade, and state of the backwater made by the power plant in the Iron Gate. Saop Inst vodopr Cerni no.12;27-34 '58.

1. Sef Odeljenja za vodoprivredne studije.

BLOK, A., polkovnik

Let us furnish flights according to schedule. Tyl.i snab.Sov. Voor.Sil 21 no.5:84-87 My '61. (MIRA 14:8)
(Airplanes, Military--Maintenance and repair)



Some peculiarities of Sovprene. A. Ilok. *Caoutchouc and Rubber* (U. S. S. R.) 1939, No. 8, 87–8; *Khim. Referat. Zhur.* 1940, No. 1, 118.—Specific properties of Sovprene (especially its ability to vulcanize without S, and to polymerize on storing, etc.) require the solution of the problem of effective cooling of equipment and the shortest time of mixing. Storage conditions should exclude the possibility of forming polymers which hinder mixing. Adhesion of natural and synthetic rubber layers can be obtained by a proper technique. Good results are obtained by adding reclaimed rubber to the mixts. W. R. Henn

[redacted]

See also G. A. BLOKH, same field etc.

BLOKH, A.G.

p.4

PHASE I BOOK EXPLOITATION 1053

... teploperedachi v kotel'no-topochnykh protses-

layer of crushed material. The articles in the first part present the fundamental principles for calculating the atomization process in injectors. Also, new data on the combustion of droplets of heavy liquid fuel are given which make it necessary to reconsider the accepted concept that vaporization of a liquid fuel always precedes its combustion. The reports of the second part throw light on the problem of the motion of a dusty air stream characteristic of cyclonic furnaces. This problem is extremely important in the design of such furnaces. The second part of the collection presents data necessary for the calculation of the emission of fly ash whereby it is shown that this emission is of great significance. In addition, the character of furnace temperature fields is analyzed. The articles of the third part present the fundamental laws of gas flow through a layer of fuel and give the theoretical principles necessary for calculating the aerodynamic resistance of the layer and the speed of drying in it. The data given in the collection accurately define current ideas regarding the characteristics of development of a number of phenomena which form the

heating process. Knowledge of these data will permit refining the calculation methods used in heating technology. The first part contains 2 Soviet references; the second part contains 8 Soviet, 3 English, and 1 German reference; and the third part contains 49 Soviet, 12 English, 7 German, 1 French, and 2 Japanese references.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

IS/mfd
2-6-59

Card 7/7

AUTHOR: Blok, A. G. SOV/138-58-4-9/13

TITLE: New Materials in Rubber Mixtures (Novyye materialy v rezinovykh smesyakh).

PERIODICAL: Kauchuk i Rezina, 1958, Nr.4. pp. 32 - 33. (USSR).

ABSTRACT: Recently, the laboratories of the firm "Kauchuk" investigated and prepared new types of materials: acetylene black, plasticiser VSF-1, the resin AB, Vulkatsit-R-extra-N etc. (1) Acetylene Black is used as active filler; it increases considerably the break resistance of rubber mixtures, increases their wear resistance and imparts valuable moulding properties. The properties of acetylene black can be explained by its high degree of dispersity (the diameter of the particles = 40 - 45 μm) and its high fatty number (2.0 - 2.8). Acetylene black is used in rubber for coating conveyor belts. Tensile strength of mixtures containing 50% SKS-30 rubber and acetylene black is increased from 50 - 60 to 100 - 130 kg/cm^2. The composition of the mixture 6023-6, containing 100 parts of SKS-30 rubber, 60 parts of acetylene black and various other additives, is given. (2) Renatsit. NIIRP is using Renatsit No.4, Renatsit No.5 and Peptone-22 as plasticisers for natural rubber. These products shorten

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the time required for plasticising natural rubber in a mixer from 10 - 12 minutes (when Captax is used as plasticiser) to 8 - 9 minutes (when Renatsit No.4 is used as plasticiser). Renatsit No.4 is the most effective plasticiser for natural rubber; it is non-toxic. Best results are obtained when 0.3 parts of Renatsit are used to 100 parts of natural rubber. Renatsit No.5 (pentachlorthiophenol) and also peptone-22 (O'=O'— dibenzamidodiphenyl disulphide) are not as effective as Renatsit No.4. (3) Plasticiser VSF-1 is a neutral ester of higher alcohols with orthophthalic acid. This plasticiser, and the anti-freeze VSF-1, are used in industry instead of dibutylphthalate. VSF-1 is similar to dibutylphthalate and imparts to mixtures, based on SKN and "Nairit", better frost-resistance than dibutylphthalate. The physical-mechanical characteristics of mixtures containing VSF-1, and resistance to heat ageing at 100°C (carried out for 2 - 6 days) were the same as when dibutylphthalate was used. The plasticiser VSF-1 is manufactured by the Kuskovo Chemical Factory, according to VTU KKhZ No.19 - 57. The composition of the mixture

4930-29 and of the mixture 4908-2 containing the plasticiser VSF-1 is given.(4)The resin AB is recommended instead of dibutylphthalate in mixtures not requiring improved frost resistance. It is prepared by rectification of alkyl benzenes, and is a viscous black liquid. The composition of mixtures 6040 and 4633-11 is given. The resin AB is manufactured by the Groznyy Chemical Factory (Groznenskiy khimicheskiy zavod), according to the Standard LU-84-56. (5) Vulkatsit-R-extra-N (the zinc salt of ethylphenyl dithiccarbamic acid). This vulcanisation accelerator is a greyish powder with a melting point of 203°-204°C and specific gravity of 1.43-1.44. When 0.1% of Vulkatsit-R-extra-N is added to natural or nitrile rubber (in mixtures 2462 and 4004) the time of vulcanisation is shortened from 20 -25 minutes to 8-10 minutes at 150°C. The composition of mixture 5-2462-5 and mixture 5-4004-12 is given. Optimal results are obtained when 0.1 - 0.3% of Vulkatsit-R-extra-N is added to natural or SKN rubber.

ASSOCIATION: Moscow Plant "Kauchuk" (Moskovskiy zavod "Kauchuk")

Card 3/3 1. Rubber compounds--Materials 2. Rubber compounds--Properties

S/032/60/026/011/032/035
B015/B066

AUTHOR: Blok, A. G., Head

TITLE: At the Central Laboratory of the Moskovskiy zavod "Kauchuk" (Moscow Plant "Caoutchouc")

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 11, pp. 1317-1318

TEXT: The author reports on the innovations recently made at the plant and laboratory mentioned in the title. New Soviet polymers and raw materials are now produced on an industrial scale, new devices were designed and methods of analysis developed. In cooperation with the Voronezhskiy zavod SK (Voronezh Plant of Synthetic Rubber) a regulated polymer, the СКС-30-АРМ-15 (SKS-30-ARM-15) divinyl styrene rubber (30% styrene and 15% lubricating oil for automobiles) was introduced instead of the СКС-30 (SKS-30) styrene rubber hitherto used which, prior to use, had to be plasticized by means of thermal oxidation. This new polymer is intended for the manufacture of rubber goods and has better

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properties than SKS-30, e.g. a hardness of only 400 - 700 g instead of 3000 - 4000 g. Investigations in the laboratory of the plant "Caoutchouc" with different indene-coumarone resins, produced in the plants in Kemerovo and Yenakiyevo, disclosed the good properties of rubber mixtures with 5 to 20 wt% of resin, especially in mixtures on "Nairit" basis already in the first half of 1959. The addition of indene-coumarone resin increases the resistance to benzine and permits an acceleration in calendering. From among the new test methods one is of special importance, i.e., the determination of the degree of relaxation of rubber which is performed on an axial-pressure relaxometer. The method was devised in cooperation with the fiziko-khimicheskaya laboratoriya Nauchno-issledovatel'skogo instituta rezinovoy promyshlennosti (Physicochemical Laboratory of the Institute of Rubber Industry). Together with the khimicheskaya laboratoriya and laboratoriya fiziko-mekhanicheskikh ispytaniy Nauchno-issledovatel'skogo instituta rezinovykh i lateksnykh izdeliy (Chemical Laboratory and Laboratory for Physical and Mechanical Testing of the Scientific Research Institute of Rubber and Latex Goods) the germination of spongy mixtures was determined and a rapid method was

At the Central Laboratory of the Moskovskiy zavod "Kauchuk" (Moscow Plant "Caoutchouc")

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B015/B066

devised for the determination of the total sulfur. The data for the relaxation coefficient of the rubber types 4326-1, 4327, 129-1, and НО-68-1 (NO-68-1) which are applied for rubber tubes (under a pressure of 400-600 atm) were thus determined. New types of sponge rubber were developed with low specific gravity (0.30-0.35) and better properties. Sulfur is used for the vulcanization of rubber mixtures on the basis НК (NK), СКН (SKN), СКМС-10 (SKMS-10) and SKS-30-ARM-15. The cooperation with the institutes mentioned above led to the introduction of new plasticizers. Further work will deal with the preparation and introduction of new rubber types, new plasticizing accelerators for natural caoutchouc, inexpensive white fillers, the study of shrinkage in vulcanization, quality improvement of automobile parts of conveyer belts etc.

ASSOCIATION: TsZL Moskovskogo zavoda "Kauchuk" (Central Laboratory of the Moscow Plant "Caoutchouc")

Card 3/3

L 13542-63 EWP(j)/EWT(m)/BDS AFFTC/ASD Pc-4 RM

ACCESSION NR: AP3003293 S/0138/63/000/006/0049/0050

64
60

AUTHOR: Blok, A. G.

TITLE: Active carbon black PM-70 in the compounds of the "Kauchuk" rubber plant

SOURCE: Kauchuk i rezina, no. 6, 1963, 49-50

TOPIC TAGS: active furnace black, belt lining, sealing ring, butadienemethylstyrene rubber

ABSTRACT: At the "Kauchuk" rubber plant formulas were developed which contained active furnace carbon black PM-70 (manufactured by the Omsk carbon black plant) to be used for conveyer belt coatings and hydraulic sealing rings. For the former, 30 parts by weight of carbon black were used per 100 parts of butadienemethylstyrene rubber, with the addition of some alkylphenol resin as softener. The use of carbon black PM-70 permitted a 15-20C lower mixing temperature and resulted in 10 to 12% less mixing time. Physico-mechanical tests of the compounds vulcanized for 30 minutes at 143C revealed them to be close in strength to the conveyer belt coatings containing channel carbon black, but showing superiority in resistance to abrasion. In the application to hydraulic sealing ring compounds, vulcanized rubber with PM-70 carbon black proved superior

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L 13542-63
ACCESSION NR: AP3003293

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in resistance to shrinkage to that containing lamp black, resulting in an 8% fewer rejections. N. M. Ostrovskaya, T. P. Belyaeva, B. K. Mikhal'skaya, and T. N. Nadeyeva participated in the work dealing with the study of carbon black PM-70. Orig. art. has: 2 tables.

ASSOCIATION: Zavod "Kauchuk" ("Kauchuk" Rubber Plant)

SUBMITTED: 00	DATE ACQ: 10Jul63	ENCL: 00
SUB CODE: 00	NO REF SOV: 000	OTHER: 000

Card 2/2

BLOK, A.G.

Activated carbon PM-70 in the rubber compounds of the "Kauchuk" Factory. Kauch. i rez. 22 no.6:49-50 Je '63. (MIRA 16:7)

1. Zavod "Kauchuk".
(Carbon, Activated) (Rubber industry)

BLOK, G.

Blok, G. - "The father of scientific geology", (M.V.Lomonosov), Ogonek, 1949, No. 7, p. 20-21, with portrait.

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

BLOK, G.

Blok, G. "Scientist, Patriot, Bolshevik. On the 10th anniversary of the death of Academician I. M. Gubkin (Petroleum geologist)", Ogonek, 1949, No. 15, p. 21-22, with portrait.

So: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

BLOK, G.

Chernyshev, Feodosii Nikolaevich, 1956-1914

Russian geologist
Vokrug Sveta no. 5: 48-52 May 1952

BLOK, G.

Mushketov, Ivan Vasil'evich, 1850-1902

Explorer, geologist, teacher. Znan. sila no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

BLOK, GEORGIY.

Life of the brain. Zdorov'e 1 no.4:21-23 Ap '55. (MLRA 9:3)
(BRAIN)

BLOK,. Georgiy.

A dog with two heads. Znan.sila 31 no.2:35-38 F '56. (MLRA 9:5)
(Surgery, Experimental) (Physioligy)

BLOK, Georgiy.

Inside a drop. Rabotnitsa 34 no.1:25-26 '56. (MLRA 9:3)
(Electron microscope) (Viruses)

BLOK, GEORGIY

4-4-6/22

SUBJECT: USSR/Industrial Diamond

AUTHOR: Blok, Georgiy

TITLE: "The Unconquerable" Serves Man ("Nepobedimyy" sluzhit cheloveku)

PERIODICAL: Znaniye - Sila, April 1957, #4, pp 15-16 (USSR).

ABSTRACT: The article relates the history of the diamond, points out the difference between the precious diamond and the one used for industrial purposes and describes the great role diamonds play in industrial production. The United States, where most of the diamonds found in Africa go to, consider that their industrial potential would shrink into half if they were to forego the use of diamonds.

ASSOCIATION: -

PRESENTED BY: -

SUBMITTED: -

AVAILABLE: At the Library of Congress.

Card 1/1

BLOK, Georgiy

Explorer of marine depths. Rabotnitsa 36 no.8:18-19 Ag '58.
(MIRA 11:9)

(Klenova, Mariia Vasil'evna) (Submarine geology)

BLOK, Georgiy

Optics in the service of health. Zdorov'e 5 no.4:18-20 '59.
(MIRA 12:4)

(ENDOSCOPY)
(SURGICAL INSTRUMENTS AND APPARATUS)

20905
S/004/60/000/011/004/005
A114/A126

15.2000 1153, 1145, 1155

AUTHOR: Blok, Georgiy

TITLE: Transformed brittleness

PERIODICAL: Znaniye-sila, no. 11, 1960, 22-25

TEXT: The article deals with Professor Isaak Il'yich Kitaygorodskiy, a glass specialist, and his scientific creative work. Figure 1 shows a photograph of him. Glass is usually brittle; but when it is very thin like a film it is pliable and highly transparent. The glass film is a substitute for mica, which is still widely used in radioelectronics and electrotechnical engineering. As there is a shortage of mica at a demand still growing a substitute had to be found. A glass film of about 2 - 3 μ showed good results as such. Its resistance to sparkover increases with progressive thinness. Moreover, the glass film possesses some advantages over mica: it is homogeneous and can be fitted with different electric properties; it does not suffer damage at sudden temperature drops; it has a uniform thinness and is produced in strips with a width of a few centimeters to 50 cm. A machine for continuous production of glass film was developed; the raw material is melted

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Transformed brittleness

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at some 900°C and comes out through a slot as a viscous mass. It is vertically stretched, cooled and rolled up on a drum. In the Kafedra stekla (Glass Department) of the Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Chemical-Technological Institute im. D. I. Mendeleyev), headed by Professor Kitaygorodskiy, a number of new materials and terms can be found: glass film, foamglass, foamceralith or foamclay, foamsil or foamed quartz, corundum microlith, glasscrystal, all developed by the above named professor, who is the holder of a long list of Soviet patents, granted by the Komitet po delam izobreteniy (Committee for Invention Affairs). He was also a co-editor of the book "Tekhnologiya stekla" (The Glass Technology), a publication which was recently translated into German. The foamceralith is a new material similar to the foamed glass, foamed concrete, foamed latex and foamed plastic. The basic material for the production of foamceralith is common clay which is found in the vicinity of Moscow. Organic fossils are used as gas-forming admixture to the prepared clay. The very light (90% air) tiles are of large size; the color is greyish-black. The foamceralith tiles can also be made of vulcanic ashes, nepheline and other wide-spread rocks. The weight of 1 m^3 of foamceralith is 250 - 400 kg. The new material is well

Transformed brittleness

suitable for construction engineering. It is planned to erect a number of plants producing foamceralith in the Soviet Union. The elder material, foamed glass, the original invention of the above named scientist, is made of beaten glass. A synthetic material, extraordinarily hard, was also developed; it is called borazon and is a special compound of boron and nitrogen. However, its production is complex, expensive and difficult. The production of another newly invented material of quite the same nature was taken up: it is the so-called corundum-microlith, an invention of professor Kitaygorodskiy. It surpasses all hard alloys, agate, sapphire, even ruby, and is produced in little pieces; three sides standing at right angle to each other, the fourth plane being inclined (size about 2 x 1 x 1/2 cm). The surface is ideally smooth. Cutting tools for high-speed machining made of this synthetic material have shown successful results. The sudden rise of temperature does not affect the cutting tool. The basic material of this corundum-microlith is also ordinary clay, or better, aluminum oxide. The author points out that a cube of this material with an edge-length of 1 cm withstands a pressure of 10 tons and a temperature of 1000°C. It is produced in millions of pieces, being very popular in the Soviet Union and is also exported to other People's Republics. Corundum-microlith is also used for: ball bearings, drawing dies

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Transformed brittleness

(for metal wires and hemp ropes), and spinnerets (for viscose and synthetic silk and chemical threads of caprone-, nitron- and enanth-type) and thread guides, because this material has a very high durability. There are 7 figures.

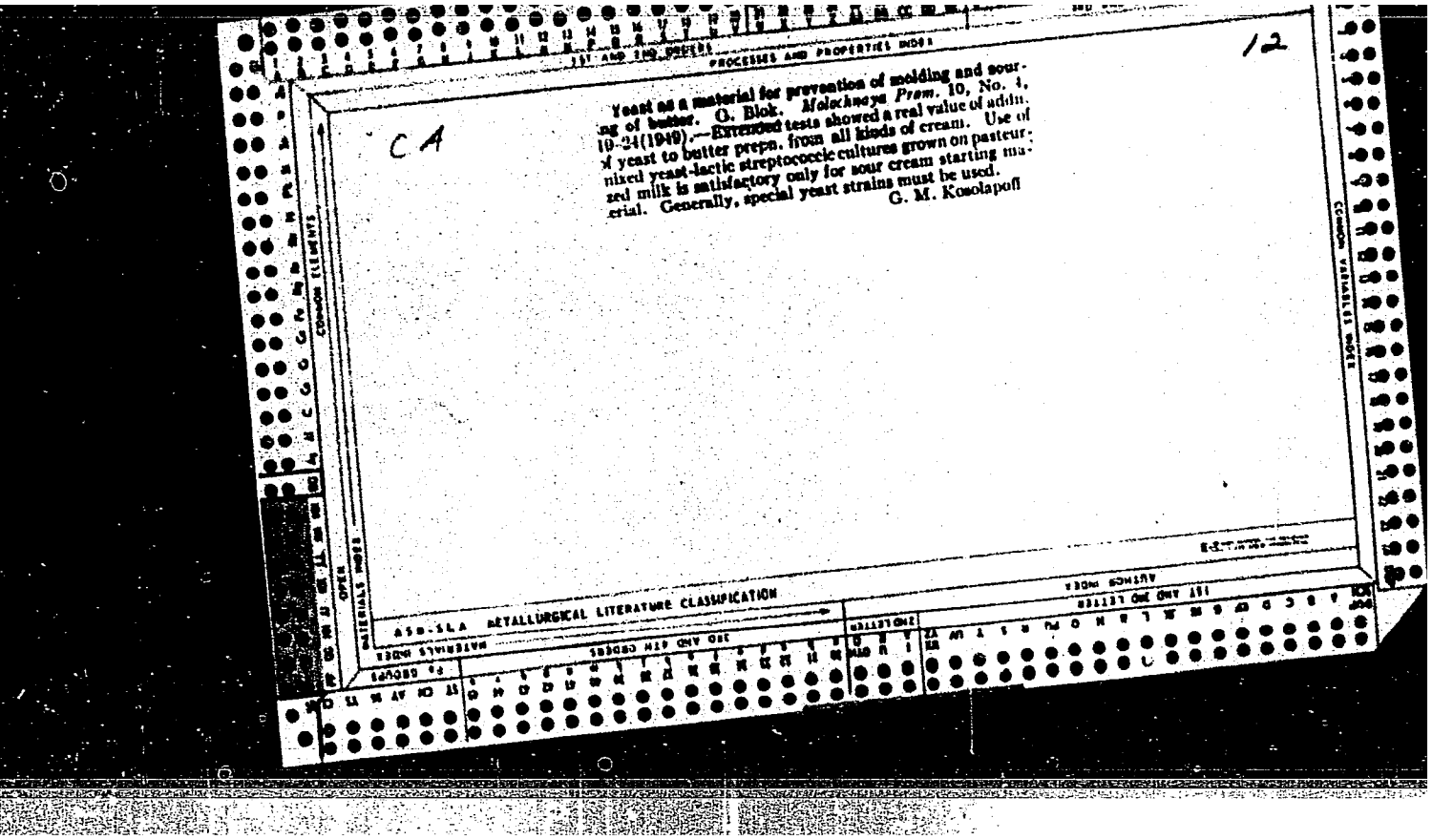
Card 4/5

BLOK, Georgiy Ernestovich; ANTONYUK, L., red.; KOVALEV, A., tekhn. red.

[Trails of science; journey to our near future] Puti nauki; sovsem riadom s griadushchim. Moskva, Izd-vo TSK VLKSM "Molodaia gvardiia," 1961. 302 p. (MIRA 14:10)
(Science) (Technology)

BLOK, Georgiy

"Sitall," not yet mentioned in the dictionaries. Znanie-sila 38 no.1:4-8 Ja '63. (MIRA 16:3)
(Glass) (Slag)



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Yeast as a material for prevention of molding and sour-
ing of butter. O. Blok. *Molochnaya Prom.* 10, No. 4,
19-24(1949).—Extended tests showed a real value of addn.
of yeast to butter prepn. from all kinds of cream. Use of
mixed yeast-lactic streptococcic cultures grown on pasteur-
ized milk is satisfactory only for sour cream starting ma-
terial. Generally, special yeast strains must be used.
G. M. Kosolapoff