

BROM, V. A.

FA 12/49T61

USSR/Engineering
Refractory Materials
Metallurgical Plants

Sep 48

"Tridymite Dinas From Vein Quartz," V. A. Brom, Cand
Tech Sci, 6 pp

"Ogneupory" Vol XIII, No 9

Chokadambulaksk vein quartz is characterized by a
nonuniform microstructure. Dinas made from it has
very high tridymite content and is suitable for open-
hearth and electric steel furnaces.

12/49T61

MARGULIS, G.M., kand.meditsinskikh nauk; BROMANSKAYA, M.I.

Organization of sanitary and epidemiological work under new conditions.
Gig. i san. 25 no.4:78-81 Ap '60. (MIRA 13:8)

1. Iz kafedry organizatsii zdravookhraneniya Tashkentskogo meditsinskogo
instituta i lechebno-sanitarnogo ob'yedineniya Ordzhonikidzevskogo
rayona Tashkentskoy oblasti.
(PUBLIC HEALTH)

BRONBERG, A.; GRONCHENSK, W.; MROZEMSKI, S.

Analysis of the fruit of the whortleberry (Vaccinium myrtillus L.). p.103.
RODZIMKI LASK LESNICHI (Instytut Badawczy Lesnictwa i Instytut Technologii Browna)
Warszawa Vol. 13, 1955

So. East European Accessions List

Vol. 5, no.9

September 1956

BROMBERG, Adam

Twenty years of publishing books on technology and engineering.
Przepl techn 85 no.19:1,3 10 My'64.

BROMBERG, A. A. and N. F. RUDENKO.

Pod"emno-transportnye mashiny; atlas konstruktsii. Dop. v kachestve uchebn. posoblia dlia mashinostroit. vuzov. Moskva, Mashgiz, 1950. 323 p. of diagrs.

"Soderzhanie . . . soglasovano s . . . uchebnym posobiem 'Pod"emno-transportnye mashiny' A. O. Spivakovskogo i N. F. Rudenko. " See Entry 2291.

Hoisting and conveying machines; atlas of designs.

DLC: TJI350.B76

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

BRCMBERG, A. A.

Technology

Road machines, Moskva, Mashgiz, 1951.

9. Monthly List of Russian Accessions, Library of Congress, December 1953²Unclassified.

BOTVINKO, M.Ye., laureat Stalinskoy premii, inzhener; GIRSKIY, V.A., laureat Stalinskoy premii, inzhener; GORBATOV, N.A., laureat Stalinskoy premii, inzhener [deceased]; LAPIR, F.A., laureat Stalinskoy premii, inzhener; BROMBERG, A.A., professor, redaktor; ARSEN'YEV, A.A., kandidat tekhnicheskikh nauk; TOVSTOLUZHSKIY, N.I., redaktor; KOVALIKHINA, N.F., tekhnicheskii redaktor

[Concrete, asphalt concrete and rock crushing plants in road building; planned designs and standard equipment] Betonnye, asfal'tbetonnye i kamnedrobil'nye zavody na dorozhnom stroitel'stve; proektnye reshenia i tipovoe oborudovanie. Pod red. A.A.Bromberga. Moskva, Ministerstvo avtomobil'nogo transporta i shosseinykh dorog SSSR, Pt. 1. [Rock crushing, cement, and concrete plants and centers for the manufacture of concrete plates and reinforced concrete building units] Kamnedrobil'nye i tsementobetonnye zavody tsekh i bazy dlia izgotovleniia betonnykh plit i zhelezobetonnykh detalei. 1954. 160 p. [Microfilm]
(Concrete) (Asphalt concrete) (MLRA 7:10)
(Stone, Crushed)

BROMBERG, Avraam Aleksandrovich, prof.; VOSHCHININ, Nikolay Petrovich, kand.tekhn.nauk; PIKOVSKIY, Yakov Moiseyevich, kand.tekhn.nauk; POLOSIN-NIKITIN, Serafim Mikhaylovich, kand.tekhn.nauk; SHARTS, Ariy Zel'manovich, inzh.. Prinsipal uchastiye: BALOVNEV, V.I., kand.tekhn.nauk. ALFEROV, K.V., prof., doktor tekhn.nauk, retsenzent; NEMIROVSKIY, E.I., inzh., retsenzent; IONOV, P.M., inzh., red.; TIKHANOV, A.Ya., tekhn.red.

[Earthmoving machinery; atlas of designs] Mashiny dlia zemlianykh rabot; atlas konstruktsii. Pod red. A.A.Bromberga. Izd.2., perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 154 p. (MIRA 13:1)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta imeni I.V.Stalina (for Alferov). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut stroitel'nogo i dorozhnogo mashinostroyeniya (VNIISstroydormash) (for Nemirovskiy).

(Earthmoving machinery--Design)

BROMBERG, Avraam Aleksandrovich, prof.; BALOVNEV, Vladlen Ivanovich, kand. tekhn. nauk; VOSHGHININ, Nikolay Petrovich, kand. tekhn. nauk; PIKOVSKIY, Yakov Moiseyevich, kand. tekhn. nauk; POLOSIN-NIKITIN, Serafim Mikhaylovich, kand. tekhn. nauk; SHARTS, Ariy Zel'manovich, inzh.; ANDROSOV, A.A., kand. tekhn. nauk, retsenzent; VASIL'YEV, A.A., inzh., retsenzent; IONOV, P.M., inzh., red.; TIKHANOV, A.Ya., tekhn. red.

[Road machinery; an atlas of designs] Dorozhnye mashiny; atlas konstruksii. Pod red. A.A.Bromberga. Izd.2., perer. i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1960. 153 p.

(MIRA 14:6)

(Road machinery)

ABROSIMOV, K.F., kand. tekhn. nauk; BROMBERG, A.A., prof.; KATAYEV,
F.P., kand. tekhn. nauk; BORODACHEV, I.P., kand. tekhn. nauk,
retsensent; NEMIROVSKIY, E.I., inzh., red.; SAVEL'YEV, Ye.Ya.,
red.izd-va; UVAROVA, A.F., tekhn.red.; MODEL', B.I., tekhn.red.

[Machines for road construction; road, construction, hoisting
and conveying machinery, trucks and tractors] Mashiny dlia
stroitel'stva dorog; dorozhnye, stroitel'nye i pod'emnotran-
sportnye mashiny, avtomobili i traktory. [By] K.F. Abrosimov,
A.A. Bromberg, F.P. Kataev. Pod red. A.A. Bromberga. Moskva,
Mashgiz, 1962. 510 p. (MIRA 16:3)
(Road machinery)

BROMBERG, A. A., prof.

Outlook for developing earthmovers and haulage vehicles with an
"active" working part. Sbor. trud. MISI no.39:261-267 '61.
(MIRA 16:4)

1. Moskovskiy avtomobil'no-dorozhnyy institut imeni Molotova.
(Earthmoving machinery)

ALEKSEYEVA, T.V., kand. tekhn. nauk; ARTEM'YEV, K.A., kand. tekhn. nauk; BROMBERG, A.A., prof.; VOYTSEKHOVSKIY, R.I., inzh.; UL'YANOV, N.A., kand. tekhn. nauk; Primal uchastiye KONONENKO, M.A., inzh.; FEDOROV, D.I., kand. tekhn. nauk, retsenzent.

[Machines for earthwork; theory and calculation] Mashiny dlia zemliarykh rabot; teoriia i raschet. [By] T.V. Alekseeva i dr. Izd.2., perer. i dop. Moskva, Izd-vo "Mashinostroenie," 1964. 467 p. (MIRA 17:5)

BARAT, I.Ye., kand. tekhn. nauk; FLAVINSKIY, V.I., kand. tekhn.
nauk; Frinimal uchastiye MEKLER, A.G., kand. tekhn.
nauk; BROMBERG, A.A., prof., retsenzent

[Cable cranes] Kabel'nye krany. Moskva, Mashinostroenie,
1964. 340 p. (MIRA 18:1)

SEVROV, K.P., kand. tekhn. nauk; LOZOVY, P.A., kand. tekhn.
nauk; KABALKIN, V.A., kand. tekhn. nauk; FOMIN, M.I.,
kand. tekhn. nauk; POKROVSKIY, A.A., inzh.; EROMBERG,
A.N., doktor tekhn. nauk prof., retsenzent

[Road construction machinery] Dorozhnostroitel'nye ma-
shiny. Moskva, Mashinstroenie, 1965. 384 p.

(MIRA 19:1)

1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

BC B-II-3

Synthesizing of mixed emulsions. S. SNOVALOV and A. BUDZINSKI (Photo-Kino Chem. Ind., 1968, No. 2, 37-40).—Under the most suitable conditions of exposure and development the characteristic curve for the mixed emulsion approximated to that calc. additively from the proportions of the two component emulsions. Ch. Abs. (a)

COMMON ELEMENTS

CREP

MATERIALS INDEX

ABB. S. L. A. METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

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1ST AND 2ND COPIES 3RD AND 4TH COPIES

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ORONDERIS, F. V.

BC *a-1*

Common ELEMENTS Common VARIABLES INDEX

Common ELEMENTS

Common VARIABLES INDEX

A 3 B-51 A METALLURGICAL LITERATURE CLASSIFICATION E-2

FROM SYMBOL FROM SYMBOL

1st GROUP 2ND GROUP 3RD GROUP 4TH GROUP 5TH GROUP 6TH GROUP 7TH GROUP 8TH GROUP 9TH GROUP 10TH GROUP

NO. 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

Influence of electrolytes on formation of silver chloride sols. 1. Coagulating effect of excess of chlorides and their mixtures. L. K. LEPIN AND A. V. KROMANN. (J. Phys. Chem. Russ., 1938, 12, 600-618).—AgNO₃ solutions were mixed with chloride solutions, and the concn. of the chloride giving the least turbid sol was determined. For MCl₂ this concn. is ~0.9 of that for MCl, whilst the respective coagulating concns. are in the ratio 1:50—1:100. Mixtures of MCl and MCl₂ usually possess a smaller coagulating power than does either separately. This antagonistic action of uni- and bi-valent cations is even more pronounced in AgI sols. J. J. B.

1ST AND 2ND OPENS PROCESSES AND PROPERTIES INDEX

a-1

Gr

Coagulation of hydrophobic sols with mixed electrolytes. I. Coagulation of negative silver iodide sol with a mixture of salts of potassium and multivalent metals. II. Method of evaluating ion antagonism in coagulation. L. LERIN and A. BAOMBEKO (Acta Physicochim. U.R.S.S., 1939, 10, 83-101; 102-120; cf. A., 1939, I, 469).— I. The coagulating effect of mixtures of K salts is approx. additive, irrespective of the valency of the anion; in all mixtures of K salts with those of metals having a valency >1 ion antagonism, increasing with the valency of the second metal, is observed. With mixtures of salts having cations of equal valency (>1), the degree of antagonism is determined by the valency of the anion which is present in excess, when the two anions differ; when they are the same

of the study of the Pd-D₂ system requires pretreatment of the Pd with H₂ to form the β-phase, owing to the reluctance of Pd to form the β-phase in presence of D₂. The isotherms of D₂ on pretreated Pd are reproducible. Under similar conditions the adsorption of D₂ is < that of H₂, and the D₂ isotherms are horizontal at pressures ~2.4 times those of the corresponding H₂ horizontal. The crit. solution temp. for Pd-D₂ is 276°, the crit. pressure 35 atm., and the crit. composition 0.25 atom D per atom Pd. The heat of dissolution per mol. D₂ increases with increasing [D₂], and is 7760 g.-cal. per mol. for the conversion of the first into the second solid phase. The shape of the phase diagram indicates no Pd deuterides above 200°.

W. R. A.

A 58-35A METALLURGICAL LITERATURE CLASSIFICATION

1304-67-174

1311-06-174

1311-06-174

1ST AND 2ND SHEETS PROCESSES AND PROPERTIES INDEX

BC

A-1

Coagulation of hydrophobic sols by mixed electrolytes. III. Influence of properties of univalent cations. L. LERIN and A. HAOMERAN (Acta Physicochem. U.R.S.S., 1959, 21, 890-910; cf. A., 1959, 1, 563).—On the basis of measurements of coagulation vals. for AgI sols of 2-1, 2-2, 3-1, and 3-2-valent electrolytes in presence of a fixed concn. of a salt of Li, Na, or K, the departure from additivity is shown to be an exponential function of z^2 and \sqrt{I} (z = valency of the multivalent cation, I = ionic strength). For a fixed val. of I the ion antagonism is greatest for K⁺ and least for Li⁺.

F. L. U.

A 58-55A METALLURGICAL LITERATURE CLASSIFICATION

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LEPIN, L. K., and BROMBERG, A. V.

"The Coagulation of Hydrophobic Sols with Mixtures of Electrolytes--II. A new method of Evaluating the Antagonism of Ions during Coagulation"; Zhur. Fiz. Khim., 12, No. 1, 1939. Received 27 May, 1938.

Report U-1613, 3 Jan. 1952.

LEPIN', L. K.; BROMEERG, A. V.

"The Coagulation of Hydrophobic Sols with Mixtures of Electrolytes"; Part III.
"The Effect of the Nature of a Monovalent Cation",

Zhur. Fiz. Khim., Vol. 14, No. 1, 1940.

LEPIN¹, L. K.; BROMBERG, A. V.

"The Coagulation of Hydrophobic Sols with Mixtures of Electrolytes"; Part IV.
"Electrophoretic Mobility of a Negative Sol in Mixtures of Electrolytes".

Zhur. Fiz. Khim. Vol. 14, No. 1, 1940.

137 AND 138 CODES

PROCESSING AND PROPERTIES INDEX

BC

CONGREGATION OF HYDROPHOBIC SOLS BY ELECTROLYTE MIXTURES.
 IV. Electrophoretic mobility of the negative silver iodide sol in electrolyte mixtures. L. Levin and A. Vinnikova (*Acta Physicochim. U.R.S.S.*, 1949, 18, 139-154).—The cathaphoretic mobility (U) of a 0.1% negative AgI sol in solutions of K_2SO_4 , KNO_3 , $MgSO_4$, $Mg(NO_3)_2$, $Ca_2(SO_4)_2$, and $(CoNH_4)(NO_3)_2$ and their mixtures, has been studied. With increasing concn. of any one salt, U decreases smoothly, and more rapidly the greater is the valency of the cation. On the other hand, with a given cation the decrease of U is less rapid the greater is the valency of the anion. In mixtures, increasing concn. of a multivalent electrolyte in presence of a fixed concn. of K_2SO_4 causes a decrease of U which is less rapid the greater is $[Ca_2(SO_4)_2]$. These effects are parallel to those found in the coagulation of AgI sol by electrolytes (A., 1939, 1, 363) and depend in the same way on the valency of the cation and on the ionic strength, except where [as with $K_2SO_4 + Ca_2(SO_4)_2$] complex formation occurs.

F. J. G.

ADD SEA METALLURGICAL LITERATURE CLASSIFICATION

REMARKS

REMARKS

PROCESS AND PROPERTIES INDEX

2

Coagulation of hydrophobic sols by electrolyte mixtures. V. Coagulation of a negative sol, silver iodide, by ions which react with the micelle, Hg^{++} . L. Lepin and A. Bromberg. *J. Phys. Chem.* (U. S. S. R.) 15, 673-86 (1941); cf. *C. A.* 34, 872U.—The coagulation of a neg. sol, AgI, by mixts. of $Hg(NO_3)_2$ and $KNO_3(K_2SO_4)$ was studied. The normal antagonistic effect was not found, which is characteristic of mixts. that are indifferent in respect to the ion micelle; nor was additive action found. A more detailed study of the action of Hg ions (Hg^{++}) with AgI sol showed that the coagulating concn. of Hg^{++} depends upon the relation between the excess of the potential-deterg. ions of I in soln. and the magnitude of the secondary surface of the disperse phase. By spectrophotometric measurements it was detd. that Hg^{++} , introduced into the sol by reaction with I^- with formation of complex ions HgI_2^{--} , produces on the surface of the particles a layer of Ag_2HgI_4 without lowering of sol stability. It is possible that this transformation may, under favorable conditions, proceed in deeper-lying layers of AgI crystals, because of the similarity between the space lattices of the 2 compds. A coagulation mechanism is proposed and it is shown that the coagulation does not begin until all excess I, except that used for formation of Ag_2HgI_4 in the deeper-lying layers, is bound in HgI_2 . G. M. Kosolapoff

ASM-31A METALLURGICAL LITERATURE CLASSIFICATION

SUBJECT INDEX

RELATIONS

BROMBERG, A.

"The Coagulation of Hydrophobic Sols with Mixtures of Electrolytes--VI. The Theory of the Double Electric Layer"
Zhur. Fiz. Khim. 16, nos. 1-2, 1942

Received 18 December 1940

USSR/Emulsions
Chemistry - Emulsions

Apr 1947

17781
"A Study of Highly Concentrated Emulsions of the M/V Type. VII: Stability of Emulsions Protected by Sodium Oleate," A. V. Bromberg, Military Academy of Chemical Defense SA, Imeni K. E. Voroshilov, 11 pp

"Kolloidnyy Zhurnal" Vol IX, No 4

Investigates the process of coalescence in subject emulsions, finding that in emulsions with distended films the volume coalescence in relation to the aging conditions produces either the well-known lowering of the degree of dispersion or partially
17781

USSR/Emulsions (Contd)
Chemistry - Emulsions

Apr 1947

removes it, but in both cases the adsorption layers become dense to the point of concentration. Submitted 11 Mar 1946.

REMOVED, A. V.

17781

BROMBERG, A.V.

Physicochemical grounds for the hydrotype method of color photography. I. Swelling of flat gelatin layers. A. V. Bromberg and O. S. Mal'tseva. *J. Appl. Chem. (USSR)* 20, 122 (1947). The kinetics of the chrome alum tanning of gelatin layers on a substrate are investigated. The effects of layer thickness, temperature of the medium, and tanning conditions are studied. An equation is suggested for the kinetics of swelling, which is said to hold fairly well for a considerable range of times of swelling. II. Dyeing gelatin layers in water solutions of organic dyes. *Ibid.* 20, 339-48 (1947).—In this part, the phys. chemistry of the dyeing of the gelatin layer is considered, and the laws that control the kinetics of this process are studied. III. Imbibition transfer. *Ibid.* 20, 549-57 (1947). An investigation was made of the kinetics and completeness of transfer of dyes from the matrix to the imbibition blank film and of the variations in different conditions that may be of importance in the technical applications of this process. Authors

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX

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BROMBERG, A.V.

*1112. Physicochemical Basis for the Hydrotype Method of Color Photography. II. Dyeing Gelatin Layers with Aqueous Solutions of Organic Pigments. III. Hydrotype Transport. (In Russian.) A. V. Bromberg and O. S. Mal'tseva. *Journal of Applied Chemistry* (U.S.S.R.), v. 20, June 1947, p. 538-557.

Part II discusses theory and kinetics of the bonding of pigments to the gelatin layer. Part III gives results of an investigation of the kinetics of pigment transport from the matrix to the blank film, giving effects of various factors.

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ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUPS 1ST AND 2ND ORDERS 1ST LETTER 2ND LETTER

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| GROUPS | 1ST AND 2ND ORDERS | 1ST LETTER | 2ND LETTER |
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BROMBERG, A.V.

CA

2

Diffusion of pigments in gelatin gels. I. Measurement of diffusion by a microphotometric method. A. V. Bromberg. *Kolloid. Zbur.* 11, 211-20(1949).—Dye solution was placed on top of a gelatin gel, removed when less than 1 mm. of the gel was tinted, and replaced by a gelatin slab, which at once solidified. Then the spread of the dye in both directions from the colored layer was detected with a Se photocell. This arrangement is particularly suited for calcg. the diffusion coeff. D by 2 methods that give identical results when Fick's law is valid. The 2 values of D were almost identical for Direct Pink C, Benzopurpurin 4 B, and Chicago Blue H but were in a ratio of 2 or 3 approx. for Saphyrol and Thiocharmin R. All the dyes were used without purification. For the 1st group $DC^2/T = \text{const.}$, if the gel concn. C varied between 2 and 14% and the diffusion time T varied between 2 and 15 hrs. Presumably, D depended on T because assocn. of the dye mols. decreased on diln. The D of the 2nd group was greater than D of the 1st. Its deviation from Fick's law also was presumably due to assocn.; in this group the deviation was greater because the mols. are smaller so that the dimers also can penetrate into the gel pores.
J. J. Hikerman

BROMBERG, A. V.
CA

Some problems of the mechanism of color development. A. V. Bromberg and Yu. B. Vilenskii. *Zhur. Priklad. Khim.* (J. Applied Chem.) 22, 128-34(1949).— Color photography development consists in 2 stages,

$AgBr + Red \rightarrow Ag + Ox$, where *Red* designates the developer, *Ox* its oxidation product, and $Ox + K \rightarrow F$, where *K* is the coupler, *F* the oxidized colored dye. Two twofold problems of the homogeneity or heterogeneity of the 2nd step, and of the fate of *Ox* in the emulsion, was attacked by expts. in aq. soln. and in gelatin emulsion. In the 1st series, an aq. suspension of *AgBr* was mixed

with a pyrazolone deriv. with a long hydrocarbon side chain as *K*, and diethylparaphenylenediamine sulfate as *Red*. The purple color of *F* appeared immediately on mixing. When only *AgBr* and *Red* were mixed beforehand, and the decanted liquid, supposed to contain *Ox*, subsequently mixed with *K*, no color appeared, except a faint coloring at the surface in contact with air, but even that was absent when the mixing was done in a N atmosphere. These expts. would indicate that the 2nd step can take place only in the presence of *AgBr* particles and hence that it is a heterogeneous reaction confined to the surface of the *AgBr* grains, unless it be assumed that *Ox* is an unstable product which spreads itself rapidly through secondary reactions when diffusing away from the surface. This

point of view was confirmed by a 2nd series of expts. made in the usual gelatin emulsion. The heavy side chain on *K* renders the substance practically nondiffusible in gelatin. With an emulsion of coarse *AgBr* grains in a 5% gelatin soln., contg. 1% of *K*, spread and dried in the usual way, and developed with *Red*, microscopic examn. under 400- or 800-fold magnification showed the formation of *F* to start at the grain boundaries, but to spread somewhat over a zone surrounding the grain. In agreement with the assumption of an unstable oxidation product (*Ox*), the width δ of the colored zone tends, with the length of the time of development *t*, to a limit δ_1 , and, with the cross-section *S* of the *AgBr* grains, to a limit δ_2 . The time limit δ_1 increases with increasing *S* but becomes practically independent of *S* above $S > 70-80 \mu^2$. A statistical plot of 200 detms. gives for δ_1 (after 2 hrs.) about 10μ , practically const. for $S = 100-300 \mu^2$. A direct comparison of the kinetics of black-and-white and color development was obtained in an expt. in which a bottom gelatin layer with *K* was topped by a sep. layer *AgBr* emulsion, exposed, developed, and fixed. The width of the colored zone, measured at various stages of the development under the microscope on cross-sections of the double layer, became const. after about 30 min., and so did the optical d. of the color. In contrast thereto, the optical d. of the black-and-white image (*Ag*) continued to increase regularly with the length of development. In other words, formation of *F* and spreading of its zone away from the *AgBr* grain boundaries come to halt at a stage when *Ox* is still formed in the upper layer. Color development thus is a pseudo-heterogeneous reaction, taking place in a thin layer surrounding the *AgBr* grain boundaries, owing to the instability of *Ox*. S. Thon

U.S. PATENT OFFICE, 4-22

P.A

Colour Hydrotype

1075

778.6

Lateral Diffusion of Dyes in the Transfer of the Image in the Hydrotype Method of Colour Photography. K. V. Chumakov and A. V. Bronnikov. *Zhur. Priklad. Khim.*, (*J. Appl. Chem.*) 1949, 22, 261-271. The lateral diffusion of dyes during the hydrotype transition of coloured images has been studied with relation to the presence of interjacent aqueous laminae between gelatinous layers, to contact time with dry blank films, to time of transition, and to the properties of the specific dyes. *Chem. Abs.*

1951

BROMBERG, A.V.

CA

Diffusion of dyes in gelatin gels. II. Effect of sorp-

tion on the rate of diffusion in gels. A. V. Bromberg and O. S. Mal'tseva. *Kolloid. Zhur.* 12, 9-16(1950); cf. *C.A.* 44, 22/—The diffusion in gel is slower than in H_2O not only because of mesh obstruction but also because the adsorbate ions may be for a time immobilized by adsorption on the "active centers" of the gel. The latter effect should be greater, the smaller the diffusion const. K of the adsorption complex, formed and the greater the no. (n) of the active centers in the gel. The effect of K was detd. by measuring the adsorption of Direct Fink (I) by gelatin (II) and its diffusion coeff. D in 7% II gels. The adsorbed amt. was $ax/(K + c)$; a is the max. adsorbed amt. and c is concn. of I (up to 4 millimol./l.). When pH increased from 3 to 8, a decreased from 0.89 to 0.34 millimol./g., K increased from 2.3×10^{-3} to 14.1×10^{-3} , and D (after 24 hrs.) increased from 3×10^{-6} to 8.3×10^{-6} cm.²/sec. The Fick law was not exactly valid, but the deviations were equal at different pH values; this showed that the effect of pH on D was not due to change in polydispersity (i.e. assocn.) of I. The effect of a was detd. by adding isopon T to 7% II. When the isopon concn. increased from 0 to 0.8%, D (after 24 hrs.) of methylene blue (III) decreased from 34×10^{-6} to 3×10^{-6} . The deviation from Fick's law was large. In H_2O , isopon and III form a ppt. J. J. Biberman

BROMBERG, A.V.
BTR

26

4630* Electron-Microscope Study of Fine Structures by Means of Their Intensification. (In Russian.) A. V. Bromberg, V. M. Luk'ianovich, V. V. Nemtsova, L. V. Radushkevich, and K. V. Chmutov. *Doklady Akademii Nauk SSSR*, new ser., v. 74, Aug. 11, 1951, p. 827-830. The structure of sols of V_2O_5 and $AgNO_3$ were investigated. Results are illustrated and discussed.

CA BRONBERG, A.A.

Electron-microscopic investigation of mutual coagulation of hydrophobic sols. A. V. Bronberg, V. M. Luk'yanovich, V. V. Nemitsova, I. V. Radushkevich, and K. V. Chmutov. *Doklady Akad. Nauk S.S.S.R.* 70, 281-2 (1951).--When neg. hydrosols of V_2O_5 are mixed with positively charged hydrosols of Au (pos. by addn. of $Th(NO_3)_3$), dialyzed $Fe(OH)_3$, or AgI (pos. by excess of $AgNO_3$), particles of the pos. sol are seen to adhere to the threads or rods of V_2O_5 . Distribution of the pos. particles along the threads is uniform, which indicates uniformity of the neg. charge over the surface of the V_2O_5 threads.
N. Thon

C.A. BRIMBERG, A.V.

Electron-microscopic investigation of the mechanism of the growth of the particles in vanadium pentoxide sols. A. V. Brumberg, V. M. Luk'yanovich, V. V. Nemtsova, L. V. Radushkevich, and K. V. Chmutov. *Doklady Akad. Nauk S.S.S.R.* 80, 615-17 (1951).—The growth of the colloidal particles on aging was observed in (I) a hydrocol of 0.1 g. $V_2O_5/l.$, obtained by peptization, (II) a sol with the V_2O_5 particles "tagged" with crystallites of Ag, obtained by adding 1 ml. 0.01 *N* $AgNO_3$ to 50 ml. of the foregoing sol, and reduction with 2 drops of 1% $N_2H_4 \cdot HCl$, (III) one obtained by adding 1 ml. 0.05 *N* $AgNO_3$ to 50 ml. of I, and (IV) one obtained by mixing 25 ml. of II with 1 ml. 0.1 *N* KNO_3 . After 7 days, the rods in I and II had grown in length to approx. the same degree; after 15 days, the rods had become long threads. By far the majority of the lengthened rods still carried only one Ag crystallite, which indicated that they had grown by crystn. from the surrounding true soln. of V_2O_5 . Whereas in the fresh sol about half of the rods carried the Ag crystallite at their end, in the aged sol the Ag crystallite is mostly located near the middle of the rod. In III and IV, the growth in length is very much faster than in I and II, and the aged threads carry not one but several Ag crystallites. This indicates that in the presence of electrolytes, the V_2O_5 rods grow predominantly through end-to-end coagulation. N. Thon

BRONBERG, L. . .

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
General and Physical Chemistry

Electron-microscopic study of coagulation of vanadium oxide sols with electrolytes. A. Y. Bronberg, V. M. Likhanovich, V. V. Nemtsova, L. V. Radushkevich, and K. V. Chmutov. *Doklady Akad. Nauk S.S.S.R.* 85, 369-72 (1952); cf. *C.A.* 47, 9717f. — Eight-months-old V_2O_5 sols (2.3 g./l.) were coagulated with KCl (final concn. 0.1N) and shaken vigorously in a large vol. of water. From the resultant suspension preps. were made for electron-microscopic observations. Three photographs are given. Manual shaking results in partial peptization, and the threads of V_2O_5 coalesce into braids. More vigorous mech. or ultrasonic agitation produces complete peptization, and the braids break up into fine threads with only partial coalescence. Under certain conditions, especially with high electrolyte concns., surprising results are obtained—the braids break up and form "droplets." The concn. of electrolyte necessary to initiate "droplet" formation depends on the cation; in the order of increasing effectiveness: Li^+ , Na^+ , K^+ , Cs^+ ; or Li^+ , Ca^{++} , Ce^{++} . Tentative assumptions are made to explain "droplet" formation. I. Bencovitz

(5)
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11-9-54
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BROMBERG, A.V.

"Electron-Microscopic Investigation of Some Colloidal Objects Using the Development Method," A.V. Bromber, V.M. Luk'yanovich, V.V. Nemtsova, I.V. Radushkevich, and K.V. Chmutov

DAN, vol. 87, no.1, pp. 81-84, 1 Nov 1952

Zinc hydroxide sols were studied under the electron microscope using a method of developing the surface of the particles with reduced silver or gold. Shading with Cr was used. The method was also tried on the tobacco-mosaic-disease virus and V_2O_5 . Presented by Acad M.M. Dubinin 2 Sep 52.

252T13

BROMBERG, A.V.; LUKYANOVICH, V.M.; NEMTSOVA, V.V.; RADUSHKEVICH, L.V.;
CHMUTOV, K.V.

Electron-microscopic study of vanadium pentoxide sols. Zhur. Fiz. Khim.
27, 379-88 '53. (MLRA 6:5)
(CA 47 no.19:9717 '53)

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

| <u>Name</u> | <u>Title of Work</u> | <u>Nominated by</u> |
|---|---|--|
| Chautov, K.V. B rombert, A.V. Nemtsov, V.V. Luk'yanovich, V.M. Radushkevich, L.V. | "Investigation by Electron- microscope of the Fine Structure and Properties of Colloids" | Institute of Physical Chemistry, Academy of Sciences USSR |

SO: W-30604, 7 July 1954

ACCESSION NR: AP3004772

S/0191/63/000/008/0024/0026

AUTHORS: Grinevich, K. P.; Nessonova, G. D.; Sokol, V. A.; Tabunchenko, V. N.; Bromberg, A. V.

TITLE: Polyorganosiloxane emulsions

69

SOURCE: Plasticheskiye massy*, no. 8, 1963, 24-26

TOPIC TAGS: F-9 emulsion, polyorganosiloxane emulsion, phenylethoxysilane, casein, agar-agar

ABSTRACT: The dispersion characteristics of F-9 emulsions (resin obtained by hydrolysis of mixtures of phenylethoxysilanes) were studied with an electron microscope. Distribution curves of aqueous F-9 emulsions stabilized with casein, agar-agar, sulfanol, and polyvinyl alcohol (PVA) were drawn. PVA (60% toluene solution of F-9, aqueous PVA) gives almost a monodispersion with 60% of the drops being less than 0.5 micron, and all of them less than 1 micron. Each application - waterproofing, adhesion, or material strengthening - requires special treatment for maintaining emulsion stability. With casein, resistance to separation from fabric is increased if Ca, Ba or NH₄ salts are used with PVA; thermal treatment is suitable for binding fabrics. Orig. art. has: 7 figures, 2 formulas.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 28Aug63

ENCL: 00

SUB CODE: MA

NO REF SOV: 000

OTHER: 000

Card 1/1

L 15676-63

EMP(q)/EMP(m)/EDS AFFPG JD

ACCESSION NR: AP3004568

S/0032/63/029/008/0956/0959

AUTHORS: Sokol, V. A.; Bromberg, A. V.; Kasatkina, A. G.; Rif, Ye. A.

59
56

TITLE: Application of electron microscopy in solving problems of chemical technology

SOURCE: Zavodskaya laboratoriya, v. 29, no. 8, 1963, 956-959

TOPIC TAGS: electron microscopy, chemical technology, precipitation, dispersion, precipitate structure, $Al(OH)_3$, $Mg(OH)_2$, $BaCO_3$, CaF_2 , solution

ABSTRACT: Electron microscopy of precipitates of $Al(OH)_3$, $Mg(OH)_2$, $BaCO_3$, and CaF_2 made it possible to establish a relationship between the structure of sediments and the conditions under which they were obtained. Microphotographs at 7500 magnification were taken of dried dilute suspensions of specimens on a film. Aluminum hydroxide is usually produced from an aluminate solution by treatment with ammonium carbonate or carbon dioxide. Rapid decomposition by ammonium carbonate of a 10% aluminate solution at 20C develops a voluminous precipitate which settles and drains very slowly on filters and which is difficult to separate

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ACCESSION NR: AP3004568

2

from admixtures. On the other hand, during a slow 2-hour decomposition of aluminate solution, there forms a compact sediment of fairly large hexagonal prisms or concretions. Hydrated alumina is obtained with almost no admixture of aluminum hydroxide modifications. As to magnesium hydroxide, it is obtained in a highly dispersed state by alkali precipitation from 6-7% solutions of magnesium salts, but its handling is extremely difficult. The addition of a solution of sodium carbonate to that of barium chloride results in a finely dispersed precipitate of barium carbonate which is also difficult to process technically. However, large concretions of prismatic crystals are formed when 2-normal solutions of both issuing materials are poured together simultaneously. It is essential that the pH be kept within a 8.8-9.2 range. On mixing alkali metal fluorides with solutions of calcium salts, there usually occurs the formation of an extremely fine, practically nonsettling suspension of calcium fluoride. A satisfactory compact precipitate composed of regularly shaped microcrystals is formed by simultaneous addition of 3-6-normal solutions of ammonium fluoride and calcium nitrate. This precipitate settles rapidly and is easy to filter and wash. The sedimentation of calcium chloride crystals can be further enhanced by the addition of polyacrylamide. Thus, the use of electron-microscope control of the process of

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L 15676-53

ACCESSION NR: AP3004568

sediment formation provides a rapid and easy means for evaluation and permits the reorganization of the structure in the desired direction. Orig. art. has: 4 pictures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv (All-Union Scientific Research Institute of Chemical Reagents and Pure Chemical Substances)

SUBMITTED: 00

DATE ACQ: 26Aug63

ENCL: 00

SUB CODE: CH

NO REF SOV: 004

OTHER: 001

Card 3/3

ACCESSION NR: AT4011391

S/2531/63/000/145/0030/0035

AUTHORS: Yartseva, N. N.; Bromberg, A. V.; By*chkov, N. V.

TITLE: An indirect method for estimating the ice-forming activity of reagents

SOURCE: Leningrad. Glavn. geofiz. observatoriya. Trudy*, no. 145, 1963.
Voprosy* fiziki oblakov i aktivny*kh vozdaystviy, 30-35

TOPIC TAGS: ice forming activity, ice forming reagent, silver iodide, sodium iodide, silver iodide solution, ice forming agent, meteorology, atmosphere ice

ABSTRACT: The article describes a method for estimating the ice-forming activity of reagents, based on the interaction of the substance tested with a supersaturated AgI solution in a mixture of acetone and diglycol. The authors point out that the quest for effective substances to act upon supercooled clouds and fogs inevitably involves the use of complex laboratory equipment for testing each new sample for its ice-forming activity. For this reason, a more convenient, albeit indirect, method is desirable. The authors point out that such a method has been proposed by R. Montmory (Bull. Observ. Puyde-Dome, N. 1, 9, 1955), using a saturated solution of silver iodide in a mixture of sodium iodide, acetone and triglycol; a drop

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ACCESSION NR: AT4011391

of this solution is placed on a slide and contaminated with particles of the substance under study. Soon, as a result of acetone evaporation, the solution becomes supersaturated with silver iodide. If the particles introduced from without are active, then crystallization develops around them, which may be observed without difficulty at small microscopic magnification factors. The authors claim, however, that Montmory limits himself only to certain general remarks concerning foreign particles and that for this reason his method cannot be considered, as yet, fully reliable for selecting active ice-forming agents. The purpose, therefore, of the present article is to determine the possibilities of this method. The authors describe how the silver iodide solution was prepared, with special attention to the problem of separating from the solution the solid silver iodide particles, for otherwise they themselves may become crystallization centers during the experiment and thus distort the picture of the behaviour of the particles introduced from without. After a study of the crystallization process on the silver iodide particles, the authors tested nine substances (AgI, BiI₃, CuS, PbI₂, CuI, CuBr, NH₄F, bentonite, SiO₂), as foreign bodies, while at the same time the ice-forming activity of these same preparations was determined under lab conditions by introducing

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ACCESSION NR: AT4011391

them into a supercooled fog. The results of these tests are discussed. In conclusion, the authors discovered that substances which demonstrate a high degree of ice-forming activity in a supercooled fog may be totally inactive as centers of crystallization for silver iodide and that, therefore, the above-described method is not wholly reliable in the selection of new substances as ice-forming active agents. The method may, however, be used in laboratory practice as a supplement to direct observations in a supercooled fog. Orig. art. has: 1 table and 4 figures.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00

DATE ACQ: 24Feb64

ENCL: 00

SUB CODE: ES

NO REF SOV: 000

OTHER: 002

Card 3/3

L 10707-65 EWT(1)/FCC P1-4 AFETA GH

ACCESSION NR: AT4045156

S/2531/64/000/156/0003/0014

AUTHOR: Bychkov, N. V.; Bromberg, A. V.; Yartseva, N. N.

TITLE: Determination of the threshold temperature and kinetics of ice formation on active substances B

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 156, 1964. Voprosy* fiziki oblakov i aktivny*kh vozdeystviy (Problems of the physics of clouds and active particles), 3-14

TOPIC TAGS: meteorology, cloud physics, ice crystal, ice formation, cloud seeding, heterogeneous nucleation ✓

ABSTRACT: A simple, convenient and rather objective laboratory method has been developed for determination of the threshold temperature of ice formation on nuclei. It is called the "refrigerating shaft". In this method a supercooled fog with a stable vertical temperature gradient is created in a small cylindrical shaft by means of external cooling. The temperature ranges from 0C at the entrance to -14 or -18C deep in the shaft, which contains a fine Kapron fiber whose surface is covered uniformly with microscopic particles of the substance to be investigated. If the latter is active the fiber is covered completely with small ice crystals to the level at which the threshold temperature is reached. In a

Cont 1/4

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ACCESSION NR: AT4045156

single experiment, which requires only a short time, it is possible to determine the desired characteristics of the substance. In this method there is no settling of nuclei to the bottom of the shaft, no contamination influences the determination of the threshold temperature and it is easy to estimate the period of ice formation and observe the character of the forming crystals of ice, hoarfrost or ice crust, etc. The simplest variant of the apparatus (Fig. 1 of the Enclosure) consists of two coaxial cylinders. The inner glass cylinder is 150 mm in height and 45 mm in diameter; it serves as a working shaft for the tests. In the ring-shaped space between the cylinders is a cooling mixture. At the bottom of the shaft there is an electric heating coil covered by a layer of water for generating vapor. A movable thermocouple (5) is then introduced into the shaft for measurement of the vertical distribution of fog temperature. The treated Kapron fiber (about 18 microns in diameter) is suspended along the axis of the shaft; it is maintained taut by a copper ring attached to the end. At the same time, two control fibers are introduced into the shaft - one untreated and the other treated with silver iodide. Observations are made through the upper opening of the shaft using a magnifying lens. The results of tests of a number of substances (AgI, PbI₂, BiI₃, CuI, CuBr, CuS, CdS, BeO and SiC₂) are tabulated. The article also describes a microscale attachment which makes it possible to determine the kinetics of ice formation. Orig. art. has: 2 formulas, 8 figures and 2 tables.

Card 2/4

1 30702-65

ACCESSION NR: AT4045156

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00

ENCL: 01

SUB CODE: ES

NO REF SOV: 006

OTHER: 008

Card 3/4

L 10707-65

ACCESSION NR: AT4045156

ENCLOSURE: 01

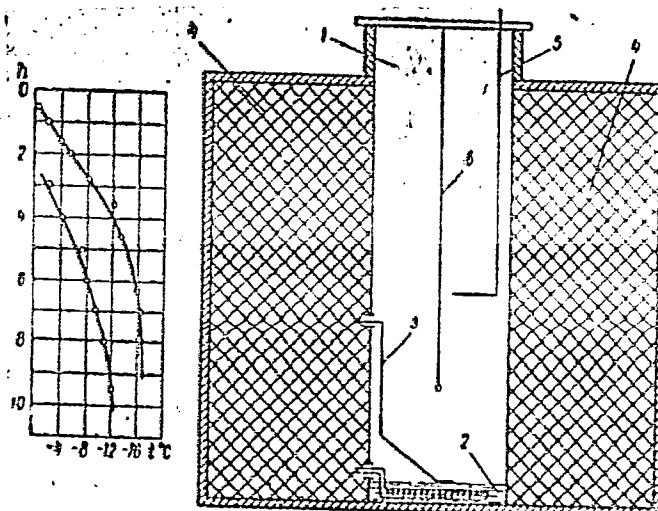


Fig. 1. Diagram of apparatus for determining the threshold temperature of ice formation (refrigerating shaft with vertical temperature gradient). 1 - shaft; 2 - vapor generator; 3 - thermocouple; 4 - cooling mixture; 5 - movable thermocouple; 6 - treated Kapron fiber.

Card 4/4

L-13002-00 EFP(r) 2/EWP(m)/EWP(f)/EWP(b) LJP(c) WJ/JD/JG
 ACC NR: AP6005282 SOURCE CODE: UR/0413/66/000/001/0024/0024

INVENTOR: Sokol, V. A.; Bromberg, A. V.; Rif, Ye. A.

ORG: none

TITLE: Preparative method for reactive zirconium dioxide. Class 12, No. 177417
 [announced by All-Union Scientific Research Institute of Chemical Reagents and High Purity Chemical Substances (Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv)]

SOURCE: Izobreteniya, promyshlennyye obratzы, tovarnyye znaki, no. 1, 1966, 24

TOPIC TAGS: zirconium compound, zirconium dioxide

ABSTRACT: An Author Certificate has been issued for a preparative method for a reactive zirconium dioxide. The method involves the decomposition of potassium fluorozirconate solutions with a sodium hydroxide solution and heating. To simplify the process and to produce a zirconium dioxide having a fibrillar structure, the potassium fluorozirconate solutions are pre-treated with an ammonium hydroxide solution. [SM]

SUB CODE: 07, 11/ SUBM DATE: 29Jan64/ ATD PRESS: 4193

Card 1/1 UDC: 661.883.1

ACC NR: AF7000015

(A)

SOURCE CODE: UR/0080/66/039/011/2446/2451

AUTHOR: Sokol, V. A.; Rif, Ye. A.; Bromberg, A. V.

ORG: VNII of Chemical Reagents and High-Purity Chemicals (VNII khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv)

TITLE: Use of electron microscopy in solving certain problems of chemical technology (zirconium dioxide)

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 11, 1966, 2446-2451

TOPIC TAGS: zirconium compound, chemical precipitation, hydroxide, electron microscopy, titanium dioxide

ABSTRACT: The electron microscope was used to study the structure of precipitates obtained at 80-90° under various conditions of decomposition of aqueous K_2ZrF_6 solutions with ammonia and sodium hydroxide. The following factors were varied during the experiments: concentration of K_2ZrF_6 solutions (10-100 g/l), molar ratio of base to complex (from 1 to 24), and order and duration of mixing of the reagents (from 1 to 6 hours). Depending upon the reaction conditions, finely crystalline or fibrous crystalline precipitates of basic zirconium fluoride are formed. The latter are produced by adding ammonia or NaOH to hot solutions containing about 100 g K_2ZrF_6 per liter. Additional alkaline treatment of the fibrous crystalline precipitate of basic zirconium fluoride converts the latter into roentgenoamorphous zirconium hydroxide

Card 1/2

UDC: 537.533.35-661+546.31-31

ACC NR: AP7000015

with a fibrous structure. The fibrous zirconium hydroxide can be filtered readily, is easily separated from alkali fluoride impurities, and changes into microfibrinous zirconium dioxide when sintered. Treatment of titanyl sulfate with ammonia produced fibrous preparations of titanic acid and titanium dioxide. Orig. art. has: 5 figures and 3 tables.

SUB CODE: 07/ SUBM DATE: 25Dec64/ ORIG REF: 007

Card 2/2

BROMBERG, B.I.

Some peculiarities in the clinical aspects of meningitis in epidemic parotitis. *Zdravookhranenie* 2 no.3:44-47 My-Je '59. (MIRA 12:10)

1. Iz respublikanskoy psikhonevrologicheskoy bol'nitsy Moldavskoy SSR (glavnyy vrach B.A.Morozov). (MUMPS) (MENINGITIS)

BROMBERG, B.M.

Experience of designers with lowering the weight of machines and
reducing metal consumption. Standartizatsiia no.4:33-37 JI-Ag'54.
(MLRA 8:2)

1. Vedushchiy konstruktor Odesskogo zavoda radial'nykh stankov.
(Machinery industry)

CHROMBERG, B. M.

AID P - 5349

Subject : USSR/Engineering

Card 1/1 Pub. 103 - 4/25

Author : Bromberg, B. M.

Title : The 2A53 radial drilling machine

Periodical : Stan. i instr., 8, 10-12, Ag 1956

Abstract : Technical data and a description of the operation are given of the 2A53 radial-grinding machine, which can make holes up to 35mm in diameter in medium-hard steel. Two drawings and 1 photo.

Institution : None

Submitted : No date

BROMBERG, B.M.

BROMBERG, B.M.

New machine tools manufactured at the Odessa Radial Drilling
Machine Plant. Stan.i instr. 28 no.11:37-39 N '57. (MIRA 10:12)
(Odessa--Drilling and boring machinery)

BROMBERG, Boris Moiseyevich; KOLBASNIKOV, N.A., nauchnyy red.; KONTSEVAYA, E.M., red.; GOROKHOV, Yu.N., tekhn.red.

[Modern radial drilling machines] Sovremennye radial'no-vertikal'nye stanki. Moskva, Vses. uchebno-pedagog. izd-vo Trudrezervizdat, 1958. 97 p. (MIRA 12:1)

(Drilling and boring machinery)

BROMBERG, B.M.; DASHEVSKIY, T.B.; LAMDON, E.A.; LOMAKIN, V.K.;
MIKHEYEV, Yu.Ye., inzh., retsenzent; KUNIN, P.A., inzh.,
red.

[Diamond boring machines; their design and adjustment]
Almazno-rastochnye stanki; konstruktsii i naladki. Mo-
skva, Mashinostroenie, 1965. 243 p. (MIRA 18:8)

BROMBERG, B.Z.; CRIOV, Ya.B.; MYAKOTKIN, Yu.I.

PGS sectional gas stove. Gaz. prom. 8 no.3:22-25 '63
(MIRA 17:7)

BROMBERG, E. D.
25810

Rabota Podchelyustnoy Shyunnoy Zhelezy I Eye Ritm. Vracheb.
Delo, 1948, No. 6, STB. 509-14.

SO: LETOPIS NO. 30, 1948

BROMBERG, S.D.; DINERSHTEYN, Z.M., professor, direktor; DOLGINA, Z.B.; KAPLAN, P.M.; VLASENKO, P.V., direktor.

Effect of chronic irritation of parathyroid glands on teeth and jaws. Stomatologia no.4:3-6 J1-Ag '53. (MLRA 6:9)

1. Institut eksperimental'noy endokrinologii (for Dinershteyn).
2. Meditsinskiy stomatologicheskiy institut (Khar'kov) (for Vlasenko).
(Parathyroid glands--Diseases) (Teeth) (Jaws)

BROMBERG, E.D.

Characteristic features of aseptic inflammation in various conditions of the nervous system. *Fiziol.shur.* [Ukr.] 1 no.2:117-125 Mr-Apr '55.

1. Karkivs'kiy medichniy stomatologichniy institut, Kafedra gistologii.

(INFLAMMATION)

(NERVOUS SYSTEM)

BROMBERG, E.D., professor (Khar'kov)

Morphological changes in the periodontium in neurodystrophic
processes. Probl. stom. 3:189-197 '56 (MLRA 10:5)
(PERIODONTIA)

BROMBERG, E.D., prof. (Khar'kov)

Condition of the nerves of the periodontium in neurodystrophic
processes following injury to the trigeminal nerve. Probl.stom.
4:29-38 '58. (MIRA 13:6)

(TRIGEMINAL NERVE--WOUNDS AND INJURIES)
(GUMS--INNERVATION)

BROMBERG, E.D., prof. (Khar'kov)

Condition of the gasserian ganglion in neurodystrophic processes
following injury to the trigeminal nerve. Probl.stom. 4:39-46
'58. (MIRA 13:6)

(GASSERIAN GANGLION)

BROMBERG, E.D.; SHENBERG, M.G.

Course of neurodystrophic processes as dependent on the reactivity
of the organism. Probl. stom. 5:5-14 '60. (MIRA 15:2)

1. Khar'kovskiy meditsinskiy stomatologicheskii institut.
(TRIGEMINAL NERVE) (NERVOUS SYSTEM DEGENERATION AND REGENERATION)

BROMBERG, E.D.

Data for the study of the periodontal nerves. Probl. stom. 5:15-21
'60. (MLIA 15:2)

1. Khar'kovskiy meditsinskoy stomatologicheskij institut.
(GUMS--INNERVATION)

BROMBERG, E.D.

Phagocytic properties of macrophages in various states of the nervous system. *Fiziol.zhur.* 6 no.1:58-66 Ja-F '60.

(MIRA 13:5)

1. Khar'kovskiy meditsinskiy stomatologicheskij institut, kafedra gistologii.

(PHAGOCYTOSIS)

(NERVOUS SYSTEM)

BROMBERG, E.D. (Khar'kov)

Course of neurodystrophic processes in the parodontium with
varying reactivity of the organism. Probl.stom. 6:3-10 '62.

(MIRA 16:3)

(GUMS—DISEASES) (TRIGEMINAL NERVE—DISEASES)

BROMBERG, E.D.; SERDYUKOVA, O.A.

Pathogenesis of the process of neurodystrophy; experimental model of paradentosis. Biul. eksp. biol. i med. 55 no.3:117-121 Mr '63.
(MIRA 18:2)

1. Iz kafedry gistologii (zav. - prof. E.D. Bromberg) i kafedry patologicheskoy fiziologii (zav. - dotsent O.A. Serdyukova) Khar'kovskogo meditsinskogo stomatologicheskogo instituta. Submitted May 3, 1962.

BROMBERG, G.

Problems of improving financial planning in housing construction.
Fin.SSSR 23 no.11:50-55 N '62. (MIRA 15:12)
(Construction industry—Finance)

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(Food--Preservation)

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(Electrification)

AUTHORS: Rays, G.B. and Bromberg, M.I. SOV/70-4-4-21/34
TITLE: Thermal Etching in Vacuo of Twinned Single Crystals of Zinc
PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 4, pp 594-596 (USSR)
ABSTRACT: Twinned zinc crystals were heated to 400 °C for 25 min under a vacuum of 10^{-4} mm Hg . After cooling, the surface was examined interferometrically. Etch figures due to selective evaporation were observed. The surface was covered with etch figures, the form and orientation of which were connected with the symmetry of the given crystal. The method could be applied to metals, Be and V alloys for example, where there are no suitable chemical etches. For twinned crystals of Zn preferential etching takes place in twinned regions of the crystal and begins on the twin boundaries and near to them. On heating crystals of Zn in vacuo the formation of etch figures proceeds preferentially on different surface defects, or the steps of cracks and scratches. The experiments show that the formation of etch figures on heating mechanically

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SOV/70-4-4-21/34
Thermal Etching in Vacuo of Twinned Single Crystals of Zinc

twinned single crystals of Zn in vacuo proceeds primarily at active parts of the surface and that, together with other surface defects, places with increased energy are, in particular, the boundaries between undeformed and twinned parts of the crystal. There are 4 figures and 9 references, 8 of which are Soviet and 1 German.

ASSOCIATION: Khar'kovskiy institut mekhanizatsii sel'skogo khozyaystva (Khar'kov Institute for the Mechanisation of Agriculture)

SUBMITTED: June 18, 1958

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RAYS, G.B.; ~~BROMBERG~~, M.I.

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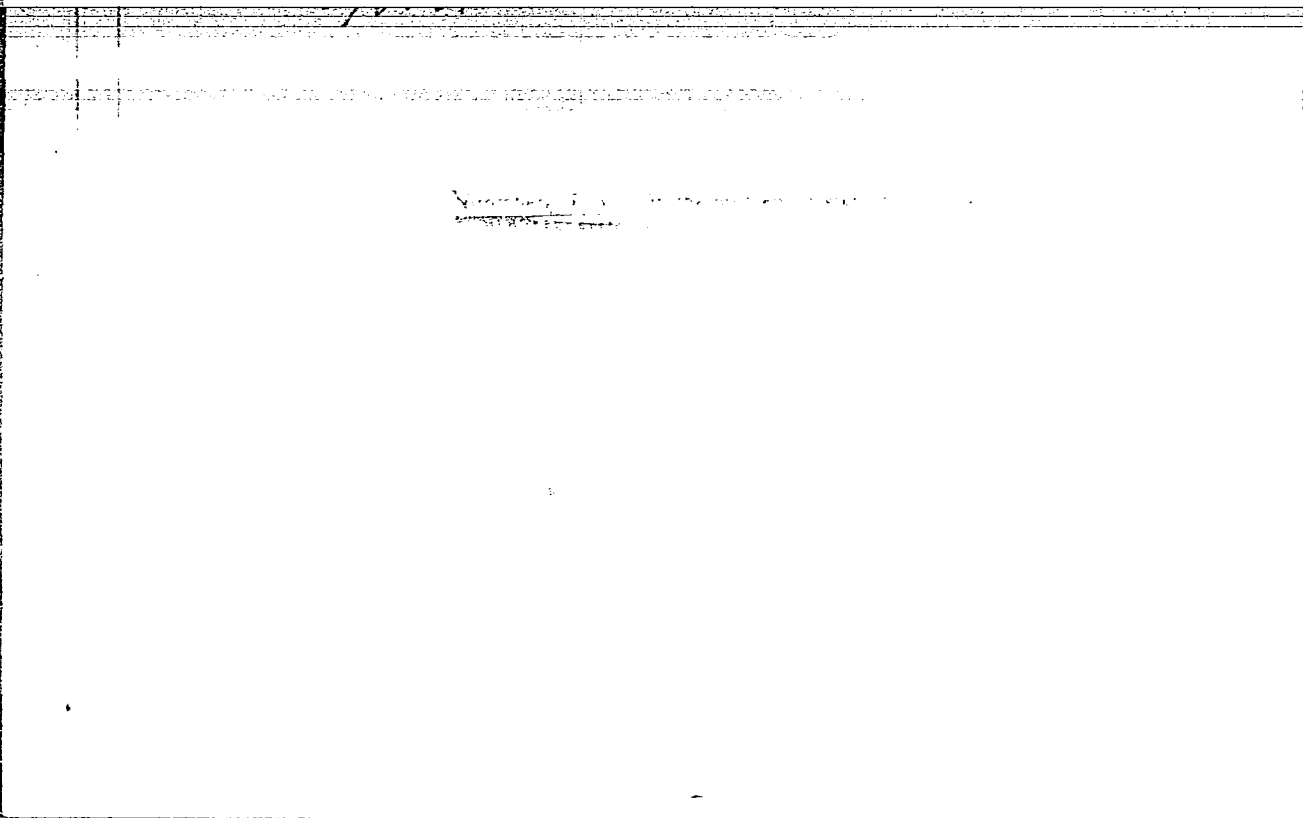
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in 1947

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AYZERMAN, M.A., doktor tekhnicheskikh nauk; BASHKIROV, D.A., kandidat
tekhnicheskikh nauk; BROMBERG, P.V., kandidat tekhnicheskikh nauk;
VORONOV, A.A., kandidat tekhnicheskikh nauk, dotsent; GOL'DFARB, L.S.,
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doktor fiziko-matematicheskikh nauk; professor; MATVEYEV, P.S.,
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PETROV, V.V., kandidat tekhnicheskikh nauk; POSPELOV, G.S., kandidat
tekhnicheskikh nauk, dotsent; TOPCHAYEV, Yu.I., inzhener; ULANOV,
G.M., kandidat tekhnicheskikh nauk; KHRAMOY, A.V., kandidat tekhnicheskikh nauk;
TSYPKIN, Ya.Z. doktor tekhnicheskikh nauk, professor;
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(TUBERCULOSIS, PULMONARY, pathology,
cavitation, with resp: insuff., ACTH ther. (Pol))
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PHASE I BOOK EXPLOITATION SOV/5410

Tashkentskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii. Tashkent, 1959.

Trudy (Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy) v. 2. Tashkent, Izd-vo AN UzSSR, 1960. 449 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Candidate of Physics and Mathematics; D. M. Abdurasulov, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Borodulina, Candidate of Biological Sciences; V. N. Ivashev; G. S. Ikramova; A. Ye. Kiv; Ye. N. Lobanov, Candidate of Physics and Mathematics; A. I. Nikolayev, Candidate of Medical Sciences; D. Nishanov, Candidate of Chemical Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences USSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin,

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Transactions of the Tashkent (Cont.)

SOV/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Babakhanova.

PURPOSE : The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

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Transactions of the Tashkent (Cont.)

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Instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No personalities are mentioned. References follow individual articles.

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DLC: TM4.V4

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