KAMSTIN, A.M.

Using devices with a sticky surface in determining dust concentration in a flow. Trudy OMIIT 38:21-26 '62.

(MIRA 18:8)

KAPUSTIN, A. P.

PA 13T61

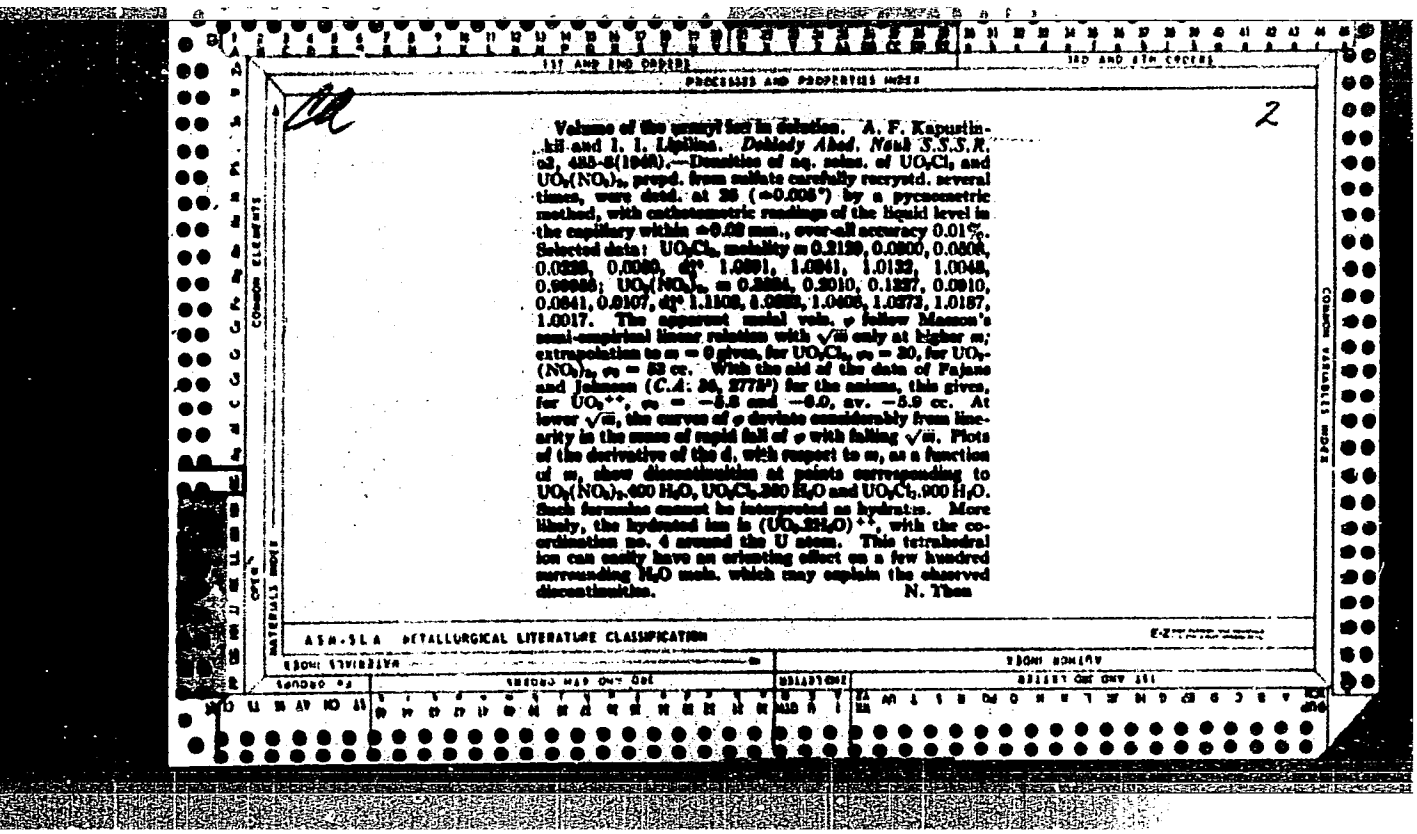
USSR/Dielectrics Jan 1947
Radio waves - UHF

"Drude's Second Method Applied to the Measurement of Dielectric Permeabilities and to the Determination of Dipole Moments in 10-cm Waves," A. P. Kapustin, 10 pp

"Zhur Eksp i Teor Fiz" Vol XVII, No 1

Measurements of the dielectric permeabilities of various binary systems with a specially designed magnetron with a ribbon circuit.

13T61



Volume of the uranyl ion in solution. A. F. Kapustinskii and I. I. Lipilina. *Doklady Akad. Nauk S.S.S.R.* 93, 485-8(1953).—Densities of aq. solns. of UO_2Cl_2 and $UO_2(NO_3)_2$, prepd. from sulfate carefully recrystd. several times, were detd. at 25 (±0.005°) by a pycnometric method, with cathetometric readings of the liquid level in the capillary within ±0.02 mm., over-all accuracy 0.01%. Selected data: UO_2Cl_2, molality m 0.2129, 0.0800, 0.0600, 0.0288, 0.0080, d^{25} 1.0891, 1.0341, 1.0132, 1.0048, 0.99883; $UO_2(NO_3)_2$, m 0.2884, 0.2010, 0.1287, 0.0910, 0.0641, 0.0107, d^{25} 1.1108, 1.0828, 1.0606, 1.0373, 1.0187, 1.0017. The apparent molal vols., φ follow Masson's semi-empirical linear relation with $\sqrt{m}$ only at higher m; extrapolation to $m = 0$ gives, for UO_2Cl_2, $\varphi_0 = 30$, for $UO_2(NO_3)_2$, $\varphi_0 = 52$ cc. With the aid of the data of Fajans and Johnson (*C.A.* 36, 2775⁹) for the anions, this gives, for UO_2^{++}, $\varphi_0 = -5.8$ and -6.0, av. -5.9 cc. At lower $\sqrt{m}$, the curves of φ deviate considerably from linearity in the sense of rapid fall of φ with falling $\sqrt{m}$. Plots of the derivative of the d. with respect to m, as a function of m, show discontinuities at points corresponding to $UO_2(NO_3)_2 \cdot 600\ H_2O$, $UO_2Cl_2 \cdot 300\ H_2O$ and $UO_2Cl_2 \cdot 900\ H_2O$. Such formulas cannot be interpreted as hydrates. More likely, the hydrated ion is $(UO_2 \cdot 22H_2O)^{++}$, with the coordination no. 4 around the U atom. This tetrahedral ion can easily have an orienting effect on a few hundred surrounding H_2O mols. which may explain the observed discontinuities. N. Thon

USSR/Physics - Ultrasonics May/Jun 50

"Experimental Investigation of the Influence of Ultrasonics on the Kinetics of Crystallization," A. P. Kapustin, Inst of Crystallography, Acad Sci USSR

"Iz Ak Nauk SSSR, Ser Fiz," Vol XIV, No 3, pp 357-365

Established that ultrasonic irradiation of organic matter homogenizes it and leads to finer cryst structure and greater strength of material. Found upper and lower efficiency limits of ultrasonics on crystn. Clarified the influence of

187T83

USSR/Physics - Ultrasonics (Contd) May/Jun 50

ultrasonic fld on distribution of admixts within alloy and the accelerating action of vibration of container wall on solidification process. Submitted Feb 49 at a session of the Inst of Crystallography, Acad Sci USSR.

187T83

KAPUSTIN, A. P.

PA 187T83

CA

2

Effect of supersonic waves on the velocity of phase transitions in organic substances. A. P. Kapustin. *Zhur. Tekh. Fiz.* 20, 1157-9(1950).—Application of a supersonic field of 3×10^5 hertz, excited under 12 kv., to the bottom of a vertical tube filled with fused thymol undercooled by 30°, caused solidification of the whole mass within 2 sec. as against 30 min. in the absence of the field, under the same conditions of inoculation. The structure of the solid is inhomogeneous without a field, highly homogeneous with the field applied. Solidification begins at the top of the tube, and its even front moves uniformly towards the bottom, at an approx. rate of 20 mm./sec., whereas in the absence of a field the front is uneven and moves in an irregular manner. The "organized" downward motion of the crystn. front begins at an elec. field strength, E, applied to the oscillating quartz, of 0.6 kv./mm. With further decreasing E the boundary becomes blurred, and the effect of the supersonic field disappears altogether at E = 0.07 kv./mm. If the supersonic field is turned off, crystn. becomes turbulent, and a cloud of very fine crystallites is seen to form somewhat below the boundary and to spread towards the bottom. Similar phenomena were observed with undercooled benzophenone. N. Thon

PA 165T84

KAPUSTIN, A. P.

USSR/Physics - Ultrasonics 11 Mar 50

"Influence of Ultrasonics Upon the Phenomenon of Orthotropism in Organic Substances," A. P. Kapustin

"Dok Ak Nauk SSSR" Vol LXXI, No 2, pp 273-274

Describes experiments on organic substances that graphically show influence of ultrasonics upon orthotropism and also clarify possibility of complete elimination of structure of columnar zone or its minimization. Submitted 15 Nov 49 by Acad N. T. Gudtsov.

165T84

KAPUSTIN, A.

PA 165T85

USSR/Physics - Crystals 21 Mar 50

"Obtaining the Texture in Crystallic Substances With the Aid of Ultrasonic Waves," A. Kapustin

"Dok Ak Nauk SSSR" Vol LXXI, No 3, pp 451-452

"Texture" is preferential or principal orientation of crystals in polycrystallic aggregate. Interest in obtaining textures is connected with fact that physical properties of crystal substance depends not only on disposition of atoms in lattice but also on dimensions of separate crystals and their orientation (general discussion). Submitted 15 Nov 49 by Acad N. T. Gudtsov.

[redacted]

165T85

KAPUSTIN, A. P.

"Influence of Ultrasonics on Crystallization Processes," a paper read at the conference of the Acoustics Commission AS USSR held in Leningrad 1-3 Feb 51.

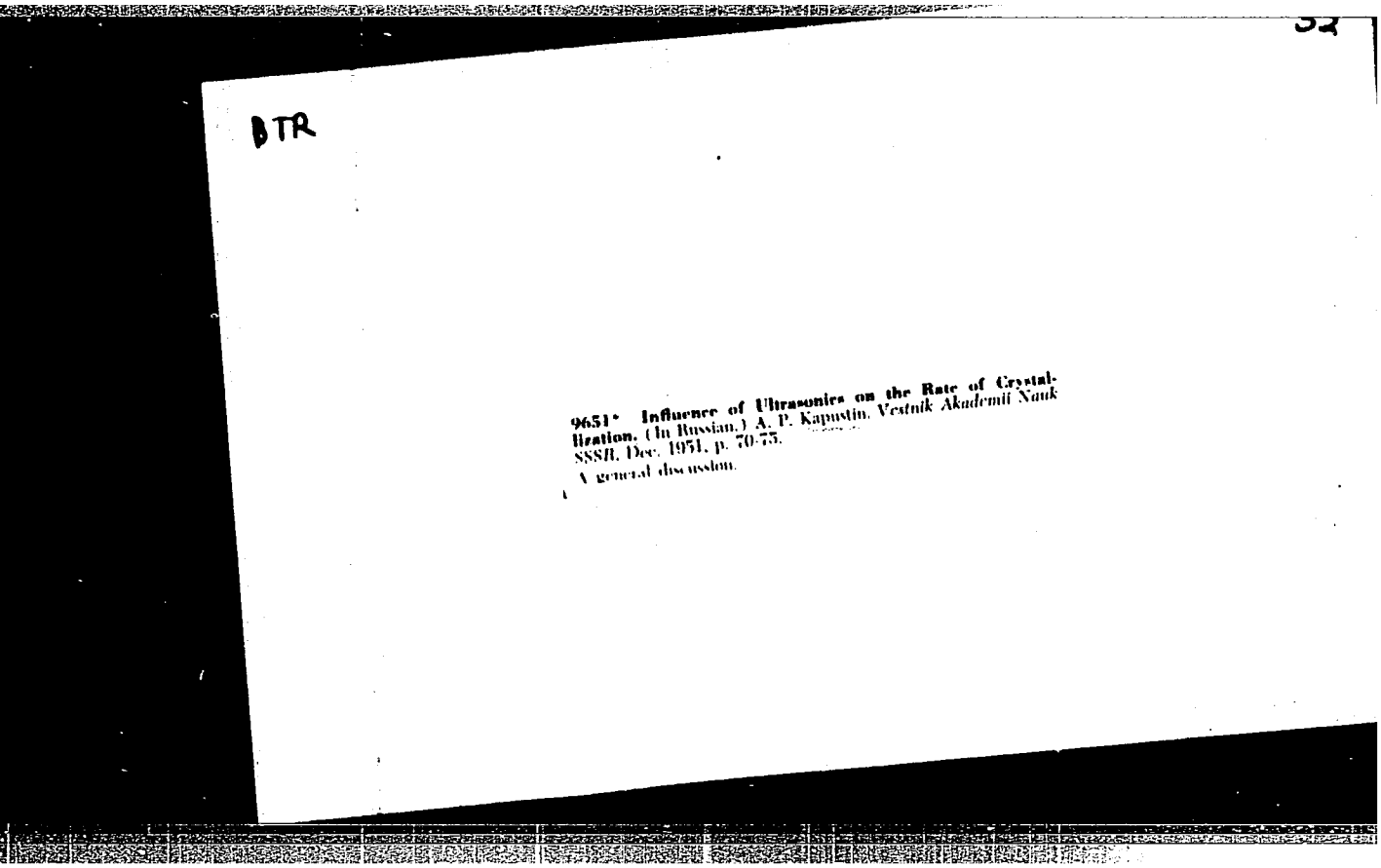
W-21610, 25 Feb 52

KAPUSTIN, A. P.

"Experimental Investigation of the Effect of Ultrasonics on the Kinetics of Crystallization." Sub 11 Oct 51, Inst of Physical Chemistry, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.



DTR

9651* **Influence of Ultrasonics on the Rate of Crystallization.** (In Russian.) A. P. Kapustin. *Vestnik Akademii Nauk SSSR*. Dec. 1951. p. 70-75.

A general discussion.

KAPUSTIN, A.P.

Crystallization

Effect of very high frequency sound on the speed of crystallization. Vest. AN SSSR, 21, no. 12, 1951.

Monthly List of Russian Accessions, Library of Congress, May 1952, UNCLASSIFIED.

KAPUSTIN, A. P.

USSR/Physics - Ultrasonics 21 Jan 51

"Influence of Ultrasonics on the Polymorphic Transformation of Ammonium Nitrate," A. P. Kapustin, Inst of Cryst, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXVI, No 3, pp 393, 394

A. V. Shubnikov assisted the Kapustin. On basis of expt states influence of ultrasonics on phase shifts is evident in not only the case of crystn but also the phenomena of polymorphic transformations. Noteworthy exptl facts permit one to expect influence on propagation of elastic stresses in solids. Submitted 9 Nov 50 by S. I. Vol'fkovich.

178T104

Electronic Phenomena

3

C. A.

1951

Effect of supersonic waves on the distribution of stress in a single crystal of a solid solution of thallium bromide and iodide. M. V. Klassen-Neklyudova and A. P. Kapustin (Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* **77**, 1019-21(1951).—In a crystal of cubic TlBr + TlI, known for its very high photoelasticity (Smakula and Klein, C.A. **43**, 0020/), grown by abrupt cooling so as to leave distinct residual stresses visible between crossed polaroids, application of a supersonic field of 720 kilohertzes, of sufficient intensity, along the crystal axis, resulted in a disappearance of the isochromes, with the whole crystal becoming more or less uniformly transparent, and the stress pattern segg. into discrete regions, fluctuating during the exposure on removal of the field, the original pattern is restored in from less than 1 to 25-30 sec., depending on the length of the exposure. The effect is evidently due to addnl. stresses produced by the supersonic field. Small variations in the supersonic vibration of the quartz generator give rise to an instantaneous change of the stress pattern. This effect opens the possibility of using TlBr + TlI as an indicator of the resonance stability of a supersonic generator system. N. Thon

KAPUSTIN, A.P.

CM
PM

✓ Effect of ultrasound on the crystallization of organic substances. A. P. Kapustin. *Zhur. Tekh. Fiz.* 22, 765–72 (1952); cf. *C.A.* 45, 9230i.—The process of crystn. of benzophenone (I), *o*-chloronitrobenzene (II), thymol (III), piperonal (IV), S, salol (V), aq. soln. of NH_4Cl (VI), and condensed milk (VII) (in thin films and in bulk) was observed with a polarization microscope equipped with a camera. According to their responses to the ultrasound these substances could be divided into 2 groups. In the 1st group (I, III, IV, and S) the sound caused a splitting-off of newly formed crystallites; this process was directly proportional to the intensity of the field. The crystals were pushed upwards by the vibrations and formed a cryst. mass that filled the entire melt. This phenomenon took place under various degrees of supercooling and all the way to the m.p. In the 2nd group (II, V, VI, VII) ultrasound caused the breaking of growing crystallites. These fragments served as new centers of crystn. The appearance of the crystals of these substances differed considerably from the appearance of those obtained in the absence of the ultrasonic irradiation. The rate of crystn. of the substances of both groups was several hundred times that under ordinary conditions.

A. P. Kapustin

PM

KAPUSTIN, A. P.

USSR/Metals - Steel Apr 52

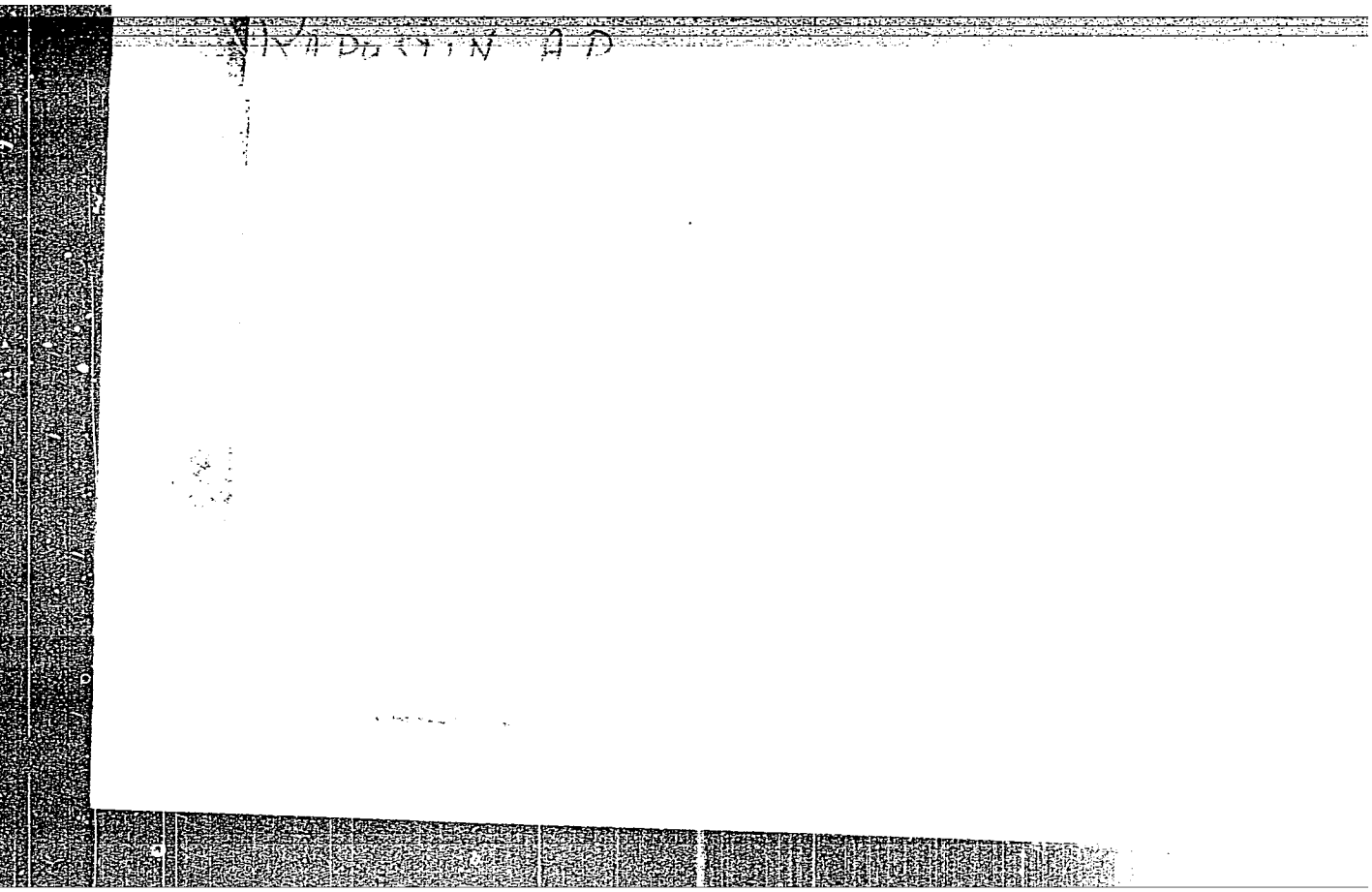
"Dissolving Steel in Sulfuric Acid Under the Effect of Ultrasound," A. P. Kapustin, M. A. Fomina, Inst of Crystallography, Acad Sci USSR; Magnitogork State Pedagogical Inst

"Dok Ak Nauk SSSR" Vol LXXXIII, No 6, pp 847-849

Investigates effects of rapid mech vibrations on dissolving rate of various substances (sugar, blue vitriol, hyposulfite, thymol) and, in particular, on dissolving rate of steel in aq soln c. mineral acid. Experimentally establishes that stimulating effect of ultrasound on dissolving process depends to great extent on sound intensity. Graphically represents relationship. Submitted by Acad S. I. Vol'fkovich 26 Feb 52.

223T52

223T52



USSR/Physics - Ultrasonic degasification

FD-1002

Card 1/1 : Pub. 153 - 6/24

Author : Kapustin, A. P.

Title : Degasification of liquids in an ultrasonic field

Periodical : Zhur. tekh. fiz., 24, 1008-1011, Jun 1954

Abstract : The process of degasification consists in ridding a liquid or solid of gas, and hence is of great significance in metallurgical practice. Purpose of present work was to collect experimental data clarifying the mechanism governing degasification in liquids under the action of ultrasounds. Liquids studied were concentrated sugar solution, transformer oil, and glycerine. Concludes that degasification consists of two stages (conglomeration of small gas bubbles into complexes and their transfer to the surface) and ceases simultaneously with conglomeration of the bubbles, and that ultrasounds can be utilized as depolarizers in galvanic elements.

Institution : -

Submitted : December 30, 1953

KAPUSTIN, A.P.

Spontaneous generation of crystallization centers in a supercooled melt subjected to the effects of an eltrasonic field. Uch.zap.MGPI 88:53-56 '54. (MLRA 10:2)
(Crystallization) (Ultrasonic waves)

KAPUSTIN, A. P.

[redacted]

sound sugar soln., transformer oil, glycerol and [illegible]

large air bubbles rise to the surface of the [illegible]

Category : Solid State Physics - Phase transformations in solid bodies E-5

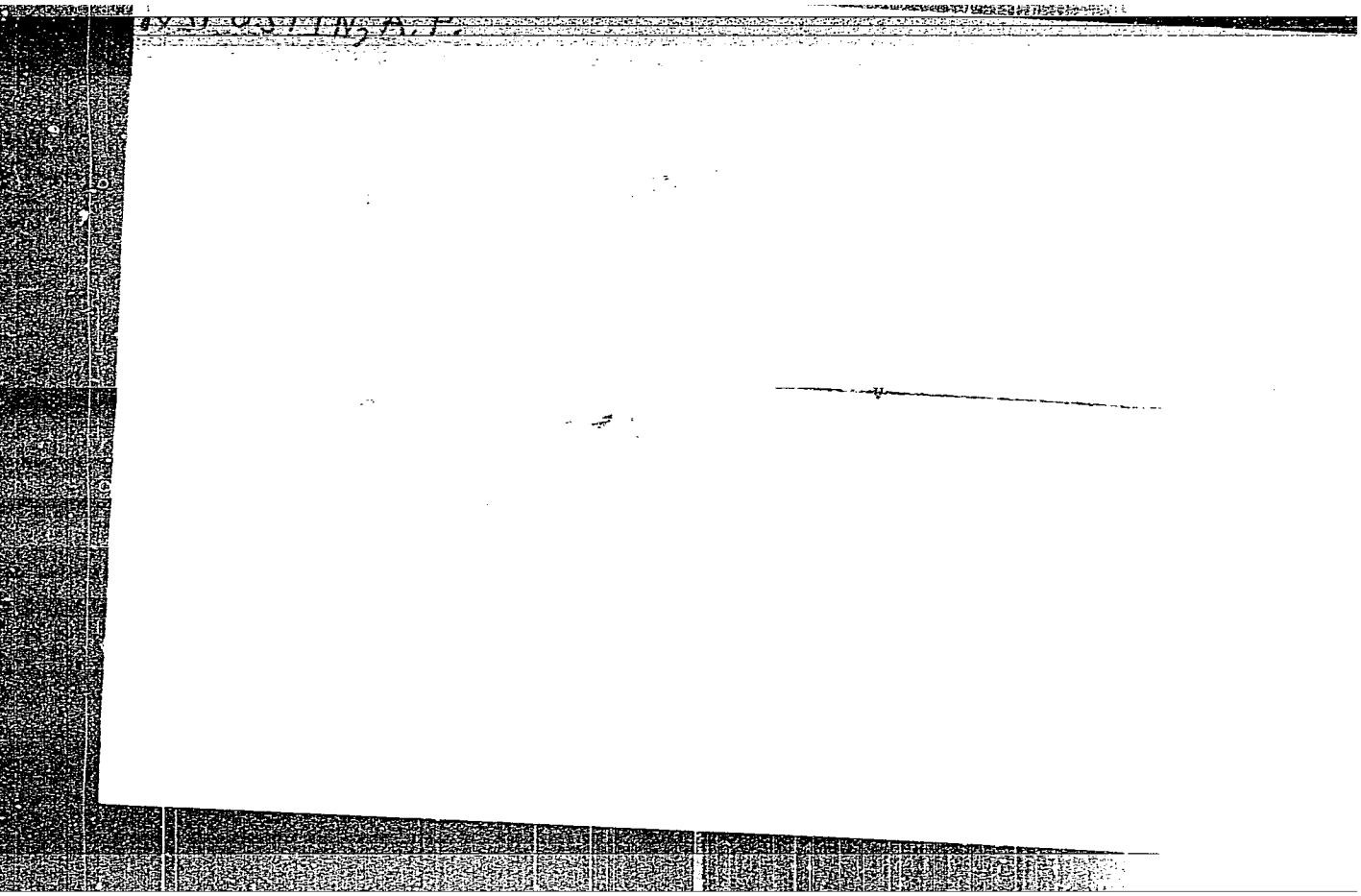
Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1170

Author : Bagdasarov. Kh.S., Kapustin, A.P.
Inst : Institute of Crystallography, USSR Academy of Sciences
Title : Production of Etched Figures with Ultrasonic Oscillations

Orig Pub : Kristallografiya, 1956, 1, No 1, 139-140

Abstract : A description of a method of production of etched figures in an ultrasonic field. The crystal is placed in a saturated parent solution and is subjected to a brief (on the order of 2--3 minutes) irradiation in a weak ultrasonic field. The etched figures are obtained on the face of alumo-potassium alums, on the cleavage plave of a benzophenon crystal, and on a piece of a potassium bichromate crystal.

Card : 1/1



AVKSENT'YEV, S.I., dots.; VOLKOVA, Z.V., prof.; KAPUSTIN, A.P., prof.; VOLCHEK, V.L., tekhn. red.

[Programs of pedagogical institutes; general physics for physics and mathematics faculties; major: mathematics and physics] Programmy pedagogicheskikh institutov; obshchaia fizika dlia fiziko-matematicheskikh fakul'tetov (spetsial'nost' - matematika i fizika). Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1958. 21 p. (MIRA 11:9)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i srednikh pedagogicheskikh uchebnykh zavedeniy.
(Physics--Study and teaching)

AVKSENT'YEV, S.I., dots.; VOLKOVA, Z.V., prof.; KAPUSTIN, A.P., prof.; VOLCHEK, V.L., tekhn. red.

[Programs of pedagogical institutes; general physics for physics and mathematics faculties; major: physics] Programmy pedagogicheskikh institutov; obshchaia fizika dlia fiziko-matematicheskikh fakul'tetov (spetsial'nost' - fizika). Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1958. 20 p. (MIRA 11:9)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i srednikh pedagogicheskikh uchebnykh zavedeniy.
(Physics--Study and teaching)

SOV/58-59-7-16328

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 7, p 243 (USSR)

AUTHOR: Kapustin, A.P.

TITLE: Effect of Ultrasonic Waves on Crystallization and Dissolution Processes

PERIODICAL: Uch. zap. Mosk. gos. ped. in-ta, 1958, Vol 138, pp 115 - 123

ABSTRACT: The article is a short survey of the author's recent studies in the kinetics of crystallization and dissolution in an ultrasonic field. Particular attention is devoted to questions of crystal nucleation and the effect of ultrasonic waves of various frequencies and intensities on the rate of growth and dissolution of single crystals and polycrystalline aggregates.

K.S. Aleksandrov

Card 1/1

KAPUSTIN, A.P.

24(2) PHASE I BOOK EXPLOITATION SOV/2353

Akademiya nauk SSSR. Institut kristallografii

Rost kristallov, tom. 2 (Growth of Crystals, Vol. 2) Moscow, 1959. 238 p. Errata slip inserted. 2,000 copies printed.

Resp. Eds.: A. V. Shubnikov, Academician, and N. N. Sheftal', Doctor of Geological and Mineralogical Sciences; Ed. of Publishing House: K. S. Aleksandrov; Tech. Ed.: T. V. Polyakova.

PURPOSE: This book is intended for scientists and researchers engaged in crystallography and in growing industrial monocrystals.

COVERAGE: This is the second of two volumes on crystal growth. The first volume contained reports delivered at the First Congress on Crystal Growth. The present volume also contains an extensive study of corundum synthesis by S. K. Popov [deceased]. These studies reflect the development of Soviet research in crystallography in the period following the first congress. The studies contain some essentially new results obtained by Soviet scientists. The editors express the hope that these studies will unite the efforts of Soviet scientists engaged in studying the process of crystal growth and in grow-

Card 1/5

ing industrially valuable monocrystals. No personalities are mentioned. References are given at the end of each article.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

AUTHOR: Kapustin, A.P. SOV/70-4-2-35/36

TITLE: The Discovery of Dislocations Ultrasonically (Obnaruzheniye dislokatsiy s pomoshch'yu ul'trazvuka)

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 2, pp 265 - 267 + 1 plate (USSR)

ABSTRACT: It is difficult to discover the exact etching conditions which will show up individual dislocations so that ultra sound was applied to the process of etching. Single crystals of LiF were irradiated in water. The frequency was 25 kc/s and the intensity 0.5 W/cm^2. The crystals were freshly cleaved blocks about 1 x 0.5 x 0.2 cm and were stuck on the ends of wooden rods. After irradiation for 15-20 minutes they were examined with a polarising microscope. Chains of pyramidal pits were observed. The same results were obtained after cleaving on different faces. On prolonged irradiation the pits become oval and there are more near the edges than near the centres of the faces. Deformed crystals of LiF were then treated and also crystals struck by an electric spark. Similar results were found for other materials, the density of

Card1/2

The Discovery of Dislocations Ultrasonically

etch pits increasing markedly after deformation. There are 4 figures and 2 references, 1 of which is Soviet and 1 English.

ASSOCIATION: Institut kristallografii AN SSSR
(Institute of Crystallography of the Ac.Sc., USSR)

SUBMITTED: December 1, 1958

5(4)

SOV/69-21-3-7/25

AUTHOR: Kapustin, A.P.

TITLE: The Preparation of Highly Concentrated Lithium, Potassium and Sodium Concentrations in an Ultrasonic Field

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 3, pp 289-291 (USSR)

ABSTRACT: The author reports on results of experiments intended to provide highly concentrated lithium, potassium and sodium concentrations with the aid of ultrasound. Lithium was dispersed in vacuum oil, potassium and sodium in kerosene. The dispersion was carried out in a silica tube of a capacity of ~100 cm^3. In order to obtain mechanical high-frequency vibrations, a piezoquartz generator with a frequency of 700 kilocycles and a vibrator with a frequency of 25 kilocycles were used. During the experiments the audio power did not exceed 5 W/cm^2. The author studied four factors, which determine the dispersion process:

Card 1/3

The Preparation of Highly Concentrated Lithium, Potassium and Sodium Concentrations in an Ultrasonic Field

the delay time of the matter in the ultrasonic field, temperature, frequency and intensity of the ultrasound. Previously to the treatment with ultrasound, the matter was cut into pieces of ~1 cm3, which were put into the tube filled with the corresponding liquid. The experiments showed that treatment with ultrasound at room temperature was inefficient. Good results were only obtained when the matter was heated to near the melting point and treated with ultrasound of maximum intensity. In the case of lithium, a suspension with a concentration of ~0.2 g/ml was obtained. Treatment of the metal at a frequency of 25 kilocycles showed the same results. Under unchanged experimental conditions, the quantity of dispersed matter, however, proved larger than before. The experiments with sodium and potassium, essentially led to the same results. In the case of sodium renewal

The Preparation of Highly Concentrated Lithium, Potassium and Sodiu Concentrations in an Ultrasonic Field

of the liquid was necessary. Potassium has a low melting point and did not need preliminary heating. There is 1 photograph.

ASSOCIATION: Institut kristallografii AN SSSR, Moskva (Institute of Crystallography of the AS USSR, Moscow)

SUBMITTED: 28 January, 1958

Card 3/3

KAPUSTIN, A.P.

PHASE I BOOK EXPLOITATION SOV/4342

Vsesoyuznaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov.

Primeneniye ul'traakustiki k issledovaniyu veshchestva; trudy konferentsiy, vyp. 9 (Application of Ultrasonics in the Study of Substances, No. 9) Moscow, Izd. MOPI, 1959. 245 p. Errata slip inserted. 1,000 copies printed.

Eds.: V. F. Nozdrev, Professor, and B. B. Kudryavtsev, Professor.

PURPOSE: This collection of articles is intended for scientists specializing in ultrasonics, and for those interested in the application of ultrasonics to the study of the properties of materials, and to the quality control of machined parts and structural elements.

COVERAGE: The collection constitutes the transactions of the All-Russian Conference of Professors and Teachers of Pedagogical Institutes. The articles report on recent theoretical and experimental investigations in the field of ultrasonics and discuss the application of ultrasonics to the study of

Card 1/7

Application of Ultrasonics (Cont.) SOV/4342

Application of Ultrasonics (Cont.) SOV/4342

Card 5/7

KAPUSTIN, A. P.; KOVALYUNAYTE, V. Ye.

Crystallization of alums from aqueous solutions in an ultrasonic field. Rost kryst. 2:40-43 '59. (MIRA 13:8)

1. Institut kristallografii AN SSSR.
(Alum) (Ultrasonic waves)

40965
S/081/62/000/016/004/043
B168/B186

18.9500

AUTHORS: Bagdasarov, Kh. S., Berezhkova, G. V., Kapustin, A. P.

TITLE: Growing of single crystals of zinc in an ultrasonic field

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 16, 1962, 30, abstract 16B180 (In collection: Primeneniye ul'traakust. k issled. veshchestva. no. 12, M., 1960, 41-44)

TEXT: Investigations (RZhKhim, no. 2, 1959, 3762) were continued with a view to clarifying the effects of the ultrasonic field on the distribution of dislocations. Zinc crystals grown in such a field by Bridgman's method were tested for compressive strength before and after calcination at 350°C, and crystals not grown in an ultrasonic field, but only irradiated, were also tested. The reasons for the former being stronger than the latter are discussed. From a comparison of the compression curves for polycrystals and single crystals it is concluded that the toughening effect is due to increased block structure in the crystal grown in an ultrasonic field; this is indicated also by Laue diffraction patterns showing the reflex bifurcation characteristic of the block structure.

Card 1/2

Growing of single crystals of zinc... S/081/62/000/016/004/043
B168/B186

The fact that crystals grown in an ultrasonic field have a large number of block boundaries indicates that in these crystals the dislocation density is higher than in those grown under normal conditions, and it is suggested that this effect is one of the reasons for the increased strength. [Abstracter's note: Complete translation.]

Card 2/2

IL'IN, A.N.; KAPUSTIN, A.P., KOGAN, I.A.; POPOV, I.V.; PROZOROVA, N.A.; SAVARENSKIY, I.A.; CHIKHACHEV, S.M.; SOKOLOV, N.I.[deceased], doktor geol-mineral.nauk, otv.red.; SPRYGINA, L.I., red.izd-va; SUSHKOVA, L.A., tekhn.red.

[Karst phenomena near Dzerzhinsk, Gorkiy Province] Karstovye iavleniia v raione goroda Dzerzhinska Gor'kovskoi oblasti. Moskva, Izd-vo Akad.nauk SSSR, 1960. 121 p (Akademiia nauk SSSR. Laboratoriia gidrogeologicheskikh problem. Trudy, vol. 32)
(Dzerzhinsk region (Gorkiy Province)--Karst)

36422
S/137/62/000/003/008/191
A006/A101

24.7100

AUTHORS: Bagadasarov, Kh. S., Berezhkova, G. V., Kapustin, A. P.

TITLE: On the problem of growing single-crystals of zinc in an ultrasonic field

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 19, abstract 3A101 (V sb. "Primeneniye ul'traakust. k issled. veshchestva", no. 12, Moscow, 1960, 41-44)

TEXT: Zn single-crystals were grown by the Bridgeman method in sealed glass tubes of 3 - 4 mm in diameter. After melting the upper portion of the crystal, the ultrasonic oscillator was switched on. The displacement speed of the single crystal in the furnace was 37 mm/hour. The test temperature was 520°C. Specimens, 7 - 8 mm high, were prepared from the grown crystals to determine compressive strength. It was established that the strength of crystals, grown in an ultrasonic field, increases considerably; for instance, the elastic limit is raised by about a factor of 6 as compared to a crystal grown without application of an ultrasonic field. An investigation of specimens annealed at 350°C, grown in an ultrasonic field, and of specimens which had been merely subjected to

Card 1/2

On the problem of growing ...

ultrasound, shows that the strengthening effect is removed only in the latter case. In the former specimens, the presence of a great amount of domain boundaries in the crystals proves that in these crystals the dislocation density is higher than in crystals which had been grown without applying an ultrasonic field.

T. Kolesnikova

[Abstracter's note: Complete translation]

Card 2/2

KAPUSTIN, A.P.; KOVALYUNAYTE, V.Ye.

Growth of potassium alum crystals in an ultrasonic field.
Kristallografiia 6 no.5:805-807 S-O '61. (MIRA 14:10)

1. Institut kristallografii AN SSSR.
(Alum crystals—Growth) (Ultrasonic waves)

KAPUSTIN, Aleksandr Pavlovich; LEMLEYN, G.G., prof., retsenzent; KUDRYAVTSEV, B.B., prof., retsenzent; SBITNIKOVA, I.S., red. izd-va; SHUBNIKOV, A.V., akademik, otv. red.; SIMKINA, G.S., tekhn.red.

[Effect of ultrasound on the kinetics of crystallization] Vliianie ul'trazvuka na kinetiku kristallizatsii. Moskva, Izd-vo Akad. nauk SSSR, 1962. 106 p. (MIRA 15:3)
(Ultrasonic waves) (Crystals—Growth)

KAPUSTIN, A.P.; DMITRIYEV, L.M.

Effect of ultrasound on the domain structure of liquid crystals.
Kristallografiia 7 no.2:332-334 Mr-Ap '62. (MIRA 15:4)

1. Institut kristallografii AN SSSR.
(Liquid crystals) (Ultrasonic waves)

KAPUSTIN, A. P.

"Growth kinetics and dissolution of single crystals in an ultrasonic field"

report submitted for the 4th Intl. Congress of Acoustics,
Copenhagen, Denmark, 21-28 Aug 1962.

S/070/62/007/004/009/016
E132/E435

5.1150

AUTHORS: Kapustin, A.P., Kovalyunayte, V.Ye.

TITLE: The generation and development of centres of crystallization in solutions of potassium aluminium alums in ultrasonic fields[1]

PERIODICAL: Kristallografiya, v.7, no.4, 1962, 613-615

TEXT: A series of experiments on the precipitation of supersaturated aqueous solutions of potassium aluminium alum by ultra sonic waves have been made. It is shown that precipitation takes place whether there is a seed or not. In the latter case it is important whether the seed is put at a node or antinode of the standing wave system. If the seed is at a pressure, antinode precipitation is seven times faster than if there is no seed. A frequency of 30 kc/s was used with an (acoustic) power of 0.42 W/cm^2. Control experiments with simple stirrings were performed. There are 4 tables.

ASSOCIATION: Institut kristallografii AN SSSR (Institute of Crystallography AS USSR)

SUBMITTED: September 22, 1961

Card 1/1

[1] See S/070/62/007/004/016/016

PHASE I BOOK EXPLOITATION SOV/6022

Kapustin, Aleksandr Pavlovich

Vliyaniye ul'trazvuka na kinetiku kristallizatsii (Effect of Ultrasound on the Kinetics of Crystallization) Moscow, Izd-vo AN SSSR, 1962. 106 p. Errata note included. 3200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut kristallografii.

Resp. Ed.: A. V. Shubnikov, Academician; Ed. of Publishing House: I. S. Sbitnikova; Tech. Ed.: G. S. Simkina.

PURPOSE: This booklet is intended for specialists investigating problems of nucleation growth and dissolution of crystals, and for teachers in schools of higher education.

COVERAGE: The booklet deals with the work of the author and his coworkers in the experimental study of crystallization and dissolution in ultrasonic fields of various intensity and frequency. It also describes the phenomena occurring

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in crystals under the effect of ultrasound. According to the Introduction, this booklet represents the first attempt to explain briefly the most important experimental material on the kinetics of crystallization in the ultrasonic field. The author thanks Academician A. V. Shubnikov and Professors G. G. Lemleyn and B. B. Kudryavtsev for their valuable comments. There are 87 references: 59 Soviet, 16 German, 8 English, and 4 French.

TABLE OF CONTENTS:

KAPUSTIN, A.P.; KOVALYUNAYTE, V.Ye.

Formation and development of crystallization centers in a potassium alum solution placed in an ultrasonic field. Kristallografiia 7 no.4:613-615 Jl-Ag '62. (MIRA 15:11)

1. Institut kristallografii AN SSSR.
(Alums) (Crystallization) (Ultrasonic waves)

S/275/63/000/001/028/035
D413/D308

AUTHORS: Zvereva, G. Ye. and Kapustin, A. P.

TITLE: The behavior of liquid-crystalline p-azoxyphenetole in ultrasonic and electric fields

PERIODICAL: Referativnyy zhurnal, Elektronika i yeye primeneniye, no. 1, 1963, 12, abstract 1V 88 (In collection: Primeneniye ul'traakust. k issled. veshchestva, no. 15, M., 1961, 69-74)

TEXT: An experimental study of a liquid-crystalline substance (p-azoxyphenetole) in electric and ultrasonic fields has shown that the electrostatic field causes motion of the substance in the direction of the field, while the ultrasonic field gives rise to a definite orientation of the molecules of the substance. 5 references. /Abstracter's note: Complete translation./

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L 19749-63 EWP(k)/EWT(1)/EWP(q)/EWT(m)/EWP(B)/BDS AFFTC/ASD/ESD-3/IJP(C) Pf-4 JD

ACCESSION NR: AT3001935 S/2912/62/000/000/0347/0358

AUTHOR: Kapustin, A. P.

TITLE: Growth and dissolution of single crystals in an ultrasonic field

SOURCE: Kristallizatsiya i fazovyye perekhody. Minsk, Izd-vo AN BSSR, 1962, 347-358.

TOPIC TAGS: crystal, crystallization, crystallography, single, ultrasound, ultrasonic, ultrasonics, potash alum, supersaturation, high frequency, low frequency, avalanche, solution, dissolution, etching, figure, Ioffe effect, dislocation, rate of growth, rate, vibrator, magnetostrictive

ABSTRACT: The paper describes an experimental investigation of the effect of ultrasound (US) on the linear rate of crystallization (LRC) of an octahedral face of a single crystal (SC) of potash alum (PA). The LRC was measured with and without US under otherwise comparable conditions. A quartz lamina excited by an electron-tube 2-mcps generator with a maximum intensity of 0.2 w/cm^2 served as a source. The US was introduced through the base of the crystallizer which was adjacent to a transformer-oil surface. Each crystallizer consisted of a glass vessel, 300 cm^3, with double walls, between which water was circulated to

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ACCESSION NR: AT3001935

maintain the PA solutions at a constant temperature (T) within 0.1°C. The displacement of the crystallization front (CF) was observed with the aid of sighting tubes which afforded a record of the position of the faces with an accuracy of 0.01 mm. Two crystallizers with joint thermostatic hose connections were employed simultaneously. High-frequency (HF) US effects on the crystallization and dissolution of SC's. In test runs without US, identical LRC's were found in both crystallizers. The solution was poured into the crystallizers at a T 7-8° above saturation T (T_s), whereupon primers were introduced. US was ducted into one of the crystallizers. The linear displacement of the faces was marked 15-30 min after the start of the experiment and then hourly for 13-15 hrs, whereupon the crystals were lifted out, dried, and weighed. US was found to intensify the dissolution of the primers at T above T_s. In a supersaturated solution the LRC with US is 2 to 3 times that without US. US exposure accelerated the growth not only of the face on which it impinges directly, but also the other faces. All this applies only to weakly supersaturated solutions and low US intensities. At high intensities, US results in a dispersion of the crystal. Details of experiments by V. E. Kavalyunayte on the effect of US waves of various intensities and frequencies on the growth and dissolution of SC's of PA are related. Effect of low-frequency (LF) US on the growth of SC's of PA. In HF US the dimensions of the primer crystals are almost 3 times as great as the wave length. In LF US, they are 1/10 the wave length. In

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addition, in LF US, the phenomenon of cavitation takes place. However, in the tests, the intensities of the US (I=0.2 w/cm^2) were held low enough to avoid cavitation. The crystals were placed into the pressure bulge and the node of the standing 30 kcps wave. T 22.2 to 23°C; T_s 26°. The relative gain in mass of the crystal in the US field was found to be 5% greater than outside the field. Avalanche crystallization of PA from a solution under the effect of US. A number of new and interesting phenomena were found in the experimental investigation of the effect of US (f = 700 kcps) on the crystallization in solutions. At 6-8° below T_s, and in the presence of a small primer, the activation of fairly intense US resulted in the immediate formation of a large number of crystallization centers (CC) which rapidly filled the entire volume of the solution. In the unstable condition of the solution indicated thereby, so many tiny microcrystals are formed that the solution becomes temporarily opaque, until individually growing crystals begin to deposit on the bottom. The precipitating crystals are either acicular or of the platelet type. If I is less than 0.2 w/cm^2, the cloud of CC's appears only with 6 to 8° supercooling; at 0.2 w/cm^2, even 1° supercooling is adequate. Transfer of the primer from a node to a pressure bulge of a standing wave accelerates the nucleation of CC's. These results are in good agreement with tests made by M. P. Shaskol'skaya and A. V. Shubnikov. Dissolution of crystals under US. Tests were made with crystals of Cu sulfate, hyposulfate, sugar, and thymol. The tabulated data show an acceleration of

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the dissolution rate of up to 20 times of that observed without US. US was also extremely effective in accelerating the rate of dissolution of steel in an aqueous solution of a mineral acid. In all instances, the rate of dissolution under US depended greatly on its intensity. At low intensities, US exerted no influence at all. Only beyond a certain intensity value of I does the rate of dissolution increase rapidly and approaches a certain limit value. Effect of US on etching figures. In the author's tests, the crystal was placed in a saturated mother liquor, and was exposed to a short-term (2-3 min) irradiation in a weak US field. The 0.3-w/cm^2 US was obtained in a magnetostrictive 40-kcps vibrator. It is noted that etching figures on the surface of a SC appear at any stage of dissolution, which apparently can be attributed to an increased rate of dissolution in the defects of the crystal. It is postulated that US irradiation produces on the faces of a SC a multiplicity of microfissures which serve as centers of future etching figures. This premise was substantiated by measurements of the A. F. Ioffe effect, that is, the weakening effect exerted by the "dangerous" surface microfissures in air and in water. The results are tabulated. Detection of dislocations in crystals with US. A single-valued relationship was established between the etching figures and the outcroppings of dislocations at the surface of a crystal, so that the usefulness of US radiation in the detection of dislocations was established. Orig. art. has 4 tables.

ACCESSION NR: AP4025001 S/0070/64/009/002/0297/0300

AUTHORS: Kapustin, A. P.; Larionova, L. S.

TITLE: The behavior of anisotropic liquids in an electrical field

SOURCE: Kristallografiya, v. 9, no. 2, 1964, 297-300

TOPIC TAGS: anisotropy, anisotropic liquid, electrical field, mesophase, paraazoxyphenetole, polarizing microscope, domain structure, light transmission

ABSTRACT: For a mesophase the author used paraazoxyphenetole, because its liquid-crystalline phase occupies a broad temperature field (28C) and it is relatively easy to prepare. The material was placed on the glass plates of a condenser separated by a layer of mica 0.2 mm thick. The surfaces on which the paraazoxyphenetole was placed were made conductive and served as electrodes. The entire system was placed on the stage of a polarizing microscope for optical observation. Studies were made in electrical fields both normal and parallel to the glass surface. The preparation was found to change noticeably when the electrical field was applied. In a parallel field the domain structure was altered at 1000 v/cm,

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ACCESSION NR: AP4025001

streams beginning to form, the fibers near the electrodes orienting themselves along the lines of the field. At higher fields (up to 4000 v/cm), dark twisting lines appeared, extending from electrode to electrode. The intensity of transmitted light decreased appreciably with increase in field strength, more appreciably in the lower fields than the higher. The coloration of individual parts (domains) of the mesophase changed appreciably with change in field strength and change in temperature. Newton rings were observed. From optical observations it was concluded that at low fields (100-200 v) the preparation occurs in small drops with rippled surfaces. In greater fields, strong movement takes place and the amount of transmitted light is reduced as much as 40%. Orig. art. has: 7 figures.

ASSOCIATION: Institut kristallografii AN SSSR (Institute of Crystallography AN SSSR)

SUBMITTED: 18Jul63 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: PH NO REF SOV: 002 OTHER: 000

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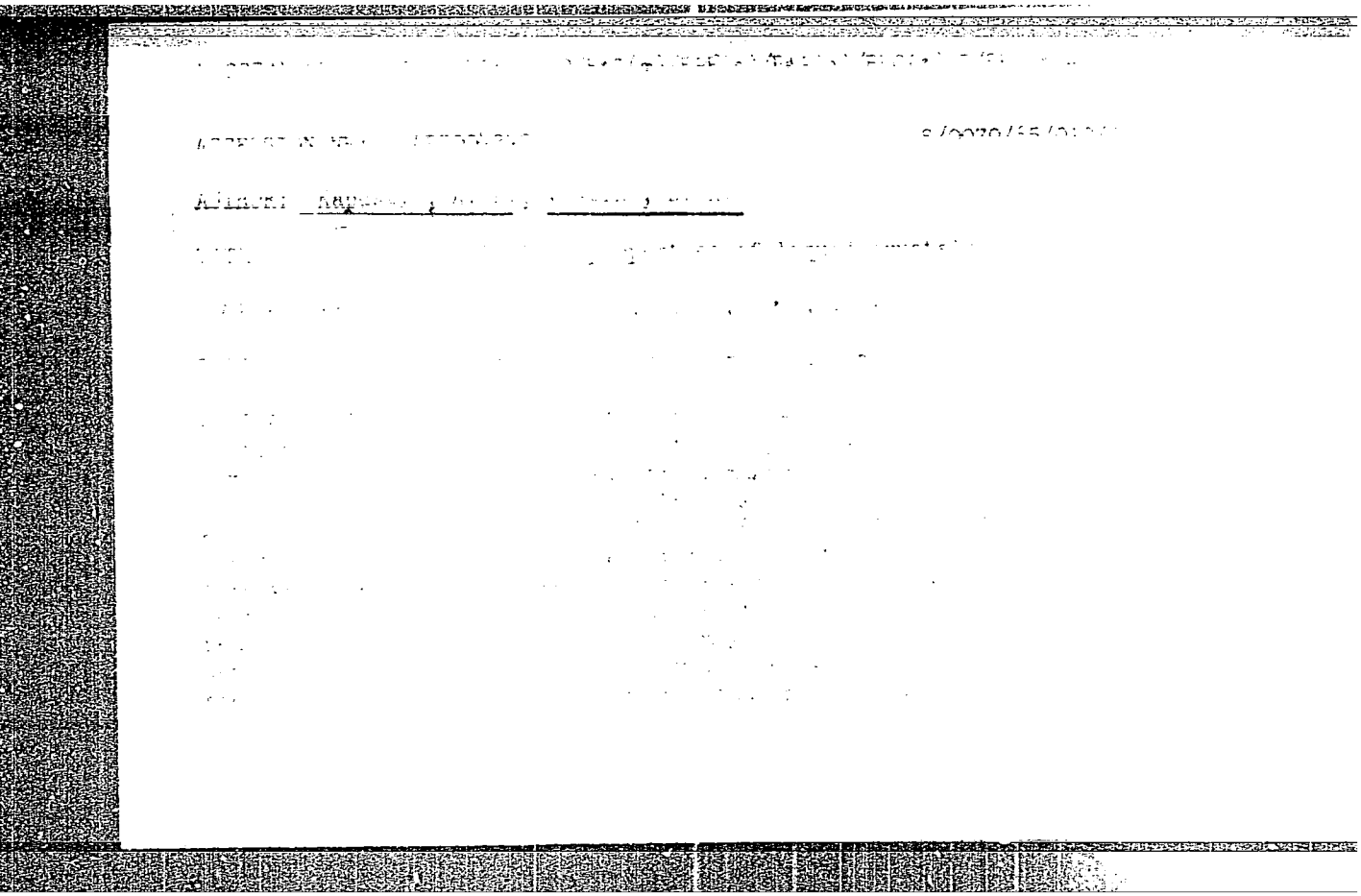

ACCESSION NR: [illegible]

from the nematic to the solid state (137C). No structure is produced above 168C.
The domain structure is insensitive to frequency in the range [illegible]

[illegible]

SUBMITTED: [illegible] ENCL: 00

ZVEREVA, G.Ye.; KAPUSTIN, A.P.

Measurement of ultra-acoustic parameters in liquid-crystalline cholesterol caprinate. Akust. zhur. 10 no.1:122-123 '64.
(MIRA 17:5)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni Krupskoy.

KAPUSTIN, A.P.; VISTIN', L.K.

Ferroelectric properties of liquid crystals. Kristallografiia 10 no.1:118-121 Ja-F '65. (MIRA 18:3)

1. Institut kristallografii AN SSSR.

L 45532-66 EWP(k)/EWT(l)/EWT(m)/T RM

ACC NR: AR6013713 SOURCE CODE: UR/0058/65/000/010/H074/H074

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B

AUTHOR: Zvereva, G. Ye.; Kapustin, A. P.

TITLE: Investigation of the absorption of ultrasound in liquid-crystal n'n-nonoxyl-benzaltoluidine

SOURCE: Ref. zh. Fizika, Abs. 10Zh497

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20. M., 1964, 87-93

TOPIC TAGS: ultrasound absorption, organic crystal, liquid crystal, phase transition, temperature dependence, ultrasonic velocity

ABSTRACT: A pulsed method was used to measure the absorption of sound in n'n-nonoxybenzaltoluidine in the frequency range 2-15 Mcs and in the temperature interval 80-70C, including the region of the following phase transitions: isotropic liquid - nematic liquid crystal (phase transition 1) and nematic - smectic liquid crystal (phase transition 2). The ultrasound propagation velocity was measured by an interference method at 2.2 Mcs in the temperature interval 80-70C. In the isotropic liquid, far from the phase transition 1, the velocity decreases linearly with increasing temperature. Near the temperature of the phase transition 1, the velocity begins to decrease and reaches a minimum value at 75.5C. With further decrease in temperature, the ultrasound velocity increases. The appearance of the smectic modification influences the slope of the curve. The experimental data on the absorption of ultrasound are discussed on the

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L 45532-66

ACC NR: AR6013713 O

basis of the relaxation theory. Ye. Sheludyakov. [Translation of abstract]

SUB CODE: 20

Card 2/2

L 08364-67
ACC NR: AR6028139 SOURCE CODE: UR/0058/66/000/005/E006/E007

15

AUTHOR: Zvereva, G. Ye.; Kapustin, A. P.

TITLE: Investigation of the absorption of ultrasound in liquid-crystal cholesterylcaprinate

SOURCE: Ref. zh. Fizika, Abs. 5E47

REF. SOURCE: Tr. 1-y Mezhvuz. nauchn. konferentsii po primeneniyu molekul. akust. k issled. veshchestva i v nar. kh-ve. Tashkent, 1964, 85-92

TOPIC TAGS: liquid crystal, phase transition, ultrasound absorption

ABSTRACT: The authors measured the absorption of ultrasound (α) in cholesterylcaprinate, which has a cholesteric modification when heated and a smectic modification when cooled. The measurements were made by a pulse method in the frequency region 2 -- 15 Mc at temperatures 72 -- 91C. An absorption maximum was observed near the phase transition between the isotropic liquid and the cholesteric crystal (phase transition I). In the cholesteric modification α/ν^2 decreases smoothly with decreasing temperature, and then drops sharply near the phase transition from the cholesteric to the smectic crystal (phase transition II). The abrupt variation of $\alpha\ \nu^2$ is due to the appearance of the smectic modification. With increasing frequency, $\alpha\ \nu^2$ decreases, and the cholesteric and smectic states tend to equalize in an isotropic liquid. A

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L 08364-67

ACC NR: AR6028139 O

discussion of the experimental data was carried out from the point of view of relaxation theory. It is assumed that the relaxation is connected with reorientation of molecule groups in the ultrasonic field. The experimentally observed growth of the excitation time with decreasing temperature confirms its proportionality to the size of the molecule groups. In the liquid-crystal state, the relaxation process is due to reorientation of the boundary molecules of the swarm, which is not rigid formation. The investigation confirms the existence of swarms as thermodynamically stable formations in liquid crystals. I. Nikolayeva. [Translation of abstract]

SUB CODE: 20

Card 2/2 net

KAPUSTIN, A. S.

4460. Tvorcheskoe sodruzhestvo. (Razrabotka konstruktsii i osvoyenive proizvodstva vysokoproizvodit. Mashin po dobyche kuskovogo torfa). Kalinin, Kn. Izd., 1954. 40 S. S. Ill. 20SM. 1,500 Ekz, 60K. - (55 - 33) P

622.331.0025St+001;6st

SO: Knizhnaya Letopsis', Vol. 1, 1955

ROZENPLENTER, Nikolay Fedorovich; SHELYGIN, Leonid Aleksandrovich; KAPUSTIN, Aleksandr Sergeyevich; ZABRODINA, A.A., tekhn.red.; SOBOLEVA, Ye.M., tekhn.red.

[Atlas of peat machinery; types for machine peat] Atlas torfianykh mashin; mashiny ekskavatornogo sposoba dobychi torfa. Pod red. N.F.Rozenplentera. Moskva, Gos.energ.izd-vo, 1958. 63 p. (MIRA 12:3)

(Peat machinery--Design)

IMIL', A.I.; KARPINSKIY, V.I.; KAPUSTIN, A.S.

Factory laboratories are guides to technical progress. Transp. stroi. 14 no.7:46 Jl '64. (MIRA 18:1)

1. Rukovoditeli laboratoriy TSentral'nogo nauchno-issledovatel'skogo instituta svyazi (for Imil', Karpinskiy). 2. Starshiy tekhnolog TSentral'nogo nauchno-issledovatel'skogo instituta svyazi (for Kapustin).

KAPUSTIN, A.V., inzh.

A two-stage ash collecting system. Energetik 11 no.1:9-10 Ja '63. (MIRA 16:1)
(Boilers)

KAPUSTIN, A. V.

Kapustin, A. V. -- "Legal Medical Evaluation of Injuries of the Spine and Spinal Cord." First Moscow Order of Lenin Medical Inst, Moscow, 1955 (Dissertation for Degree of Doctor of Medical Sciences.)

SO: Knizhnaya Letopis', No. 23, Moscow, Jun 55, pp 87-104

USSR/Pharmacology. Toxicology. Narcotics and Hypnotic Drugs V

Abs Jour : Ref Zhur - Biol., No II, 1958, No 51870

Author : Kapustin A.V.
Inst : Bureau of Central Legal Medical Examination and of Departments of Legal Medicine and Pathological Anatomy of the Stalinabad Medical Institute
Title : On the Toxicology of Nembutal

Orig Pub : Sb. tr. Cyuro gl. sudebr omed. ekspertizi i Kafedr sudebn. med. i patol. anatomii Stalinabadsk. med. in-ta, 1956, vyp. 4, 67-73

Abstract : Two fatal cases of nembutal (I) poisoning, following internal administration of I and 3 g doses were described. Upon anatomopathological investigation, a large amount of white foam was discovered in the larynx, trachea and large bronchi; pulmonary edema, edema of the brain and meninges and congestion of the internal organs. I causes severe damage to the cerebral matter, as manifested by ectopia of the nuclei of the nervous cells, their destruction, central chromatolysis

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KAPUSTIN, A. V., dotsent; NAUMOV, P. V., dotsent

Forensic medical evaluation of plastic operations in expertise on an incurable facial disfigurement. Trudy KGMI no.2:142-148 '60. (MIRA 15:7)

1. Iz kafedry sudebnoy meditsiny - zav. kafedroy dotsent A. V. Kapustin i khirurgicheskoy stomatologii - zav. kafedroy dotsent P. V. Naumov.

(SURGERY, PLASTIC) (FACE--SURGERY)

KAPUSTIN, A.V., inzh.

Mechanized unloading of milled peat from railroad cars.
Energetik 8 no.9:3-4 S '60. (MIRA 14:9)
(Peat—Transportation)

KAPUSTIN, A.V.

Diagnosis of direct and indirect fractures of the ribs. Sud.-med. ekspert. 5 no.1:14-16 Ja-Mr '62. (MIRA 15:4)

1. Kafedra sudebnoy meditsiny (zav. - dotsent A.V.Kapustin) Kalininskogo meditsinskogo instituta.
(RIBS--FRACTURE)

KAPUSTIN, A.V., dotsent

Determination of sex by tissues with various postmortem changes. Trudy KGMI no.10:113-116 '63. (MIRA 18:1)

1. Iz kafedry sudebnoy meditsiny (zav. kafedroy dotsent A.V. Kapustin) Kalininskogo gosudarstvennogo meditsinskogo instituta.

KAPUSTIN, A.V.

Morphologichal characteristics of sex chromatin in the nuclei of cells from various human tissues. TSitologiia. 6 no.3:291-298 My-Je '64. (MIRA 18:9)

1. Kafedra sudebnoy meditsiny Kalininskogo meditsinskogo instituta.

1. GERASKEVICH, S. ; KAPUSTIN, B., Engs.

2. USSR (600)

4. Feeding and Feeding Stuffs

7. Model feed house for livestock farms. Kolkh. proiz. 12 no. 12 1952.

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

KAPUSTIN, B., glavnyy inzhener

Mechanized feed plants for animal breeding farms. Sel'.stroi. 10 no.1:14-17 Ja '55. (MIRA 8:4)
(Farm mechanization) (Feeding and feeding stuffs)

Kapustin, B.N.

BEREZHNAYA, V.D.; KAPUSTIN, B.N.; KOZOREZOVA, A.A.; MATSKIN, L.A.; STARKOV, G.V.; TITKOV, V.I.; SMELYANSKIY, V.A., redaktor; SOKOLOVA, N.N., tekhnicheskiy redaktor

[Manual on petroleum products in agriculture] Spravochnik po nefteproduktam v sel'skom khoziaistve. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1956. 343 p. (MLRA 10:4)
(Petroleum products)

KAPUSTIN, B.N., glav. inzh.; GVOZDEV, T.T., glav. inzh.; GRIGOROVICH, V.D., inzh.; KONDRASHENKO, A.A., inzh.; ABADEYEV, Yu.A., inzh.; RYADNOV, A.A., inzh.; YEGORYCHEV, V.P., inzh.; SHMEL'KIN, B.A., inzh.; MARSHUTIN, S.F., inzh.; KHODZHABARONOV, K.G., inzh.; FEDOSOVA, Ye.M., tekhnik; OSIN, V.I., tekhnik; SEMENOVA, Ye.P., tekhnik; AVSARAGOVA, G.A., tekhnik; PASHKEYEV, D.A., inzh.; KAPUSTIN, V.N., inzh.; NAGOROV, L.A., inzh.; IONOV, I.T., inzh.; KOPEYKINA, L.M., inzh.; TELEPNEVA, T.P., tekhnik; CHAKURIN, Zh.G., tekhnik

[Album of the mechanization of labor-consuming processes in stockbreeding] Al'bom mekhanizatsii trudoemkikh protsessov v zhivotnovodstve. Moskva, Izd-vo Giprosel'khoza. No.4.[Equipment and supplies for the mechanization of labor-consuming processes on livestock farms] Oborudovanie i inventar' dlia mekhanizatsii trudoemkikh protsessov na zhivotnovodcheskikh fermakh. 1959 [cover: 1961. 229] p. (MIRA 15:7)

1. Gosudarstvennyy institut po proyektirovaniyu sel'skokhozyaystvennykh sooruzheniy (for Kapustin, Grigorovich, Kondrashenko, Abadeyev, Ryadnov, Yegorychev, Shmel'kin, Marshutin, Khodzhabaronov, Fedosova, Osin, Semenova, Avsaragova).

(Continued on next card)

KAPUSTIN, B.N.---(continued). Card 2.

2. Respublikanskiy gosudarstvennyy institut po proyektirovaniyu sovkhoznogo stroitel'stva (for Gvozdev, Pashkeyev, Kapustin, V.N., Nagorov, Ionov, Kopeykina, Telepneva, Chakurin).

(Agricultural machinery)

KAPUSTIN, D.S.

YANOVSKIY, M.I.; KAPUSTIN, D.S.; NOGOTKOV-RYUTIN, V.A.

The method of rapid determination of molar radioactivity during chromatography of C^{14} labeled gases. Probl. kin. i kat. 9:391-398 '57. (MIRA 11:3)

(Radioactivity--Measurement)
(Gases)
(Chromatographic analysis)

KAPUSTIN, E. A. (Zhdanovskiy metallurgic institute)

"Analytic investigations of heating of mixed liquid metal in steel smelting aggregates, taking into account accompanying chemical reactions".

Report presented at the Section on Heat Exchange in Single Phase Medium, Scientific Session, Council of Acad. Sci. Ukr SSR on High Temperature Physics, Kiev, 2-4 Apr 1963.

Reported in Teplofizika Vysokikh temperatur, No. 2, Sep-Oct 1963, p. 321, JPRS 24,651. 19 May 1964.

TRIFONOV, I. (g.Orsha, Vitebskoy obl.); BOLDENKOV, K. (g.Bryansk); KAPUSTIN, (g. Rzhev, Kalininskoy obl.); BUGAYEV, V.(g. Svatovo, Luganskoy obl); KARLINSKIY, G. (g. Fergana); VAYSMAN, M. (g. Tambovka, Amurskoy obl); GIRSON, I., tekhnoruk (g. Kuybyshev)

In the precongress labor campaign. Prom.koop. 12 no.11:6-7 N '58. (MIRA 11:11)

1. Ispolnyayushchiy obyazannosti predsedatelya pravleniya arteli po orgmassovoy rabote i kadram (for Trifonov). 2. Predsedatel' pravleniya arteli "Metallist." (for Boldenkov). 3. Inspektor orgotdela oblpromsoveta (for Karlinskiy). 4. Predsedatel' pravleniya arteli "Bol'shevik." (for Vaysman). 5. Artel' "Udarnik." (for Girson).

(Cooperative societies)

KAPUSTIN, F. D. (Eng.); LIBOV, Ya. V. (Eng.)

XI. "The Use of Unit Machine Tools in Small-lot Production of Instruments," Automation and Mechanization of Production Processes in Instrument Manufacturing, Moscow, Mashgiz, 1958. 591 p.

PURPOSE: This book is intended for engineers, technicizns, and scientific personnel concerned with mechanization and automation of production processes in instrument manufacturing, and for students and teachers of this subject in vuzes.

KAPUSTIN, G.

Highway transport workers in the Ukraine fulfill their pledges.
Avt.dor. 25 no.3:1-2 Mr '62. (MIRA 15:3)
(Ukraine--Highway transport workers)

KAPUSTIN, G.; FISHER, Ye.

Over-all mechanization in the Vladivostok harbor.
Mor. flot 22 no.9:13-15 S '62. (MIRA 15:12)

1. Glavnyy inzh. Vladivostokskogo porta (for Kapustin).
2. Nachal'nik planovogo otdela Vladivostokskogo porta (for Fisher).

(Vladivostok--Harbor)
(Cargo handling--Equipment and supplies)

KAPUSTIN, G.

Improvement of the road system in the Ukraine. Avt. dor. 28 no.12:25-26 D '65. (MIRA 19:1)

KAPUSTIN, G.A.

Simple method of fixation of shoulder dislocations. Khirurgiia no. 8:76 Ag '54. (MLRA 7:11)

1. Iz Yakshangskoy bol'nitsy Kostromskoy oblasti.
(SHOULDER, dislocation, ther.)
(DISLOCATIONS, shoulder, ther.)

GORDON, I.B., kand.med.nauk; KAPUSTIN, G.A.

Diagnosis of echinococcosis alveolaris of the liver. Sov. med. 25 no.10:128-130 O '61. (MIRA 15:1)

1. Iz kafedry terapii No.2 (ispolnyayushchiy obyzannosti zaveduyushchego - dotsent G.A.Gol'dberg) i kafedry rentgenologii (zav. - prof. D.Ya. Bogatin) Stalinskogo instituta usovershenstvovaniya vrachey (dir. - dotsent G.L.Starkov).
(LIVER--HYDATIDS)

KAPUSTIN, G.M.

Roadside planting in the Ukraine. Avt.dor. 20 no.6:17 Je '57.
(MIRA 10:10)
(Ukraine--Roadside improvement)

Kapustin, G.M.

KAPUSTIN, G.M.

Radical reorganization of the bridge system in the Ukraine.
Avt.dor. 20 no.11(181):14-15 N '57. (MIRA 10:12)
(Ukraine--Bridges)

KAPUSTIN, G.M.

Road building in the Ukraine. Avt.dor. 21 no.6:31-32 Je '58.
(MIRA 12:10)

(Ukraine--Road construction)

KAPUSTIN, G.

Improve highways leading through settlements. Avt.dor. 22 no.3: 25-26 Mr '59. (MIRA 12:4)

Odessa Province--Roads)

L 15394-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6000968 (A) SOURCE CODE: UR/0286/65/000/022/0053/0054

AUTHORS: Chukhin, A. A.; Polyakov, I. V.; Ulybin, M. G.; Kapustin, G. V.

ORG: none

TITLE: A press for vulcanizing rubber products. Class 39, No. 176382 [announced by All-Union Scientific-Research Institute of Rubber-Industrial Mechanical Engineering (Vsesoyuznyy nauchno-issledovatel'skiy institut rezino-tekhnicheskogo mashinostroyeniya)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 53-54

TOPIC TAGS: drive, rubber technology, rubber vulcanization, pressure apparatus, manufacturing facility, manufacturing method

ABSTRACT: This Author Certificate presents a press for vulcanizing rubber products, for example, rubber-metal gaskets. The press includes devices for the withdrawal and opening of the dies (see Fig. 1). These devices are made in the form of horizontally positioned guides fastened to the plates of the press. The guides carry a sliding die which travels with the help of a cylinder. The upper rotating part of the die is connected to the base of the press by hinged arms. The design is intended to increase the productivity of labor. The press contains mechanisms for loading the stock material and removing the finished products. These mechanisms are in the form of a vacuum cartridge connected by a hinge joint to the cylinder and are

Card 1/3 UDC: 678.058.39

L 15394-66
ACC NR: AP6000968

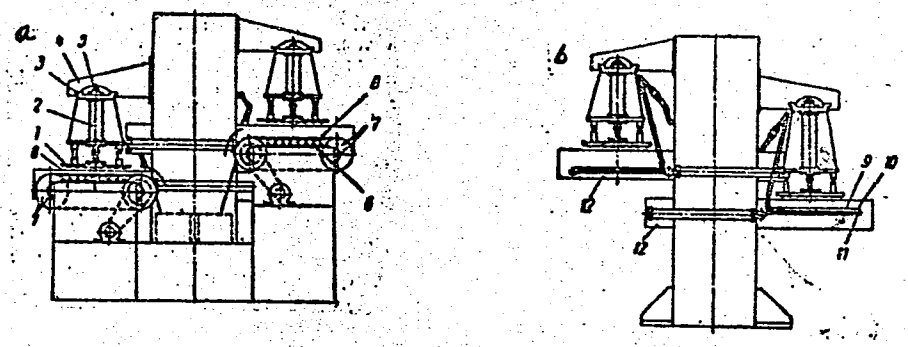

Fig. 1. 1 - Vacuum cartridge; 2 - cylinder; 3 - carriage; 4 - support; 5 - screw couple; 6 - spindle magazine; 7 - conveyer; 8 - conveyer belt of specified length; 9 - middle part of die; 10 - projections on the middle section; 11 - catches; 12 - guides of the press.

rigidly connected by coupled screws to the carriage moving on the guides of the support. To automate the processes of loading the stock materials and removing the finished product, spindle magazines for the stock materials are used in the press. These magazines are mounted on the frames. The press also uses conveyers, along the loops of which are fastened conveyer belts of a specified length. The

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dies of the press consist of three hinge-fastened parts. The middle sections of these dies are made with projections which interact with the catches fastened to the guides of the press. Orig. art. has: 1 figure.

SUB CODE: 11,13/ SUBM DATE: 22Aug63

PC

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KAPUSTIN, I.

Trade-Unions

Seminar for workers of the Appraisement and Conflict Commission. V pom. profaktivu 13 no. 12. '52.

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

KAPUSTIN, I.

KAPUSTIN, I.

Small spiral antennas. Radio no.1:26-27 Ja '58. (MIRA 11:1)
(Radio, Shortwave)

-107-58-7-24/43

AUTHOR: Kapustin, I. (UAFRW)

TITLE: Miniature Spiral Antennae (Malogabaritnyye spiral'nyye antenny)

PERIODICAL: Radio, 1958, Nr 7, pp 34-35 (USSR)

ABSTRACT: The antenna described is a transmitting dipole antenna. The dipoles are made from 3 cm bakelite tubing 110 cm long on which are wound two spirals each of 77 turns. In the first antenna, the dipoles are $\lambda/4$ (520 cm) apart and in the second $\lambda/8$ (260 cm) apart. Copper tubes 45 cm long are fitted into the ends of the bakelite tubing and connected to the spirals. Copper tube of a smaller diameter is fitted inside this and can be moved in or out to tune the aerial. The whole is supported on a mast. The aerials were tried out at 1 km distance from a receiver fitted with a signal level indicator and the results are drawn up in tabular form. There are 6 diagrams and 1 table.

1. Radio operators--Amateurs--Diplomas

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6(4) SOV/107-60-2-25/52

AUTHOR: Kapustin, I. (Yakutsk, UAORW)

TITLE: The Bias in the Output Stage of a CW Transmitter

PERIODICAL: Radio, 1960, Nr 2, p 21 (USSR)

ABSTRACT: The author suggests connecting an SG-2S voltage stabilizer tube and one additional resistor to the grid bias circuit of the output tube of a cw transmitter, in which the keying is performed on one of the preamplifier stages. The latter causes contradictory requirements for the load of the bias rectifier of the output tube. The author's circuit arrangement meets these requirements. He tested this method for 12 months on his transmitter, where the output of the SG-807 tube was increased by 20% (700v anode and 310v screen grid voltage). There are 2 circuit diagrams.

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