

50

Critical Phenomena and Fluctuations

SC7/5469

Shimanskaya, Ye. T., Yu. I. Shimanskiy, and A. Z. Colik [Laboratory of Molecular Physics, Division of Physics, Kiev State University imeni T. G. Shevchenko]. Investigation of the Critical State of Pure Substances by Tepler's Method 171

Resolution of the Conference on Critical Phenomena and Fluctuations in Solutions 189

AVAILABLE: Library of Congress (QD545.S73)

JP/ark/jw
10-28-61

Card 9/9

NOZDREV, V F

PHASE I BOOK EXPLOITATION SOV/5207

Vserossiyskaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov.

Primeneniye ultrakustiki k issledovaniyu veshchestva (Utilization of Ultrasonics for the Investigation of Matter) Moscow, Izd. MOPI, 1960. 267 p. 1,000 copies printed. (Series: Its Trudy, vyp. 11)

Ed. (Title page): V.F. Nozdrev, Professor and B.B. Kudryavtsev, Professor.

PURPOSE: This collection of articles is intended for physicists specializing in the physics of ultrasound.

COVERAGE: The collection of articles constitutes the transactions of the VII Conference on the Applications of Ultrasonics to the Study of Materials, which was held at the Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya. Individual articles of the collection discuss various problems in the wave mechanics of ultrasound, the absorption and the propagation mechanics of ultrasonic waves in various media, the operating principle and design of generators and receivers of ultrasonic waves, the speed of sound and methods for its determination. Other articles deal with the applications of ultrasonics to investigations of the properties of materials. No personalities are mentioned. References accompany each article.

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Utilization of Ultrasonics (Cont.)

SOV/5207

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NOZDREV, V.F.

PHASE I BOOK EXPLOITATION SOV/5644

Vserossiyskaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov

Primeneniye ul' traakustiki k issledovaniyu veshchestva. vyp. 10. (Utilization of Ultrasonics for the Investigation of Materials. no. 10) Moscow, Izd-vo MOPI, 1960. 321 p. 1000 copies printed.

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

PURPOSE: This book is intended for physicists and engineers interested in ultrasonic engineering.

COVERAGE: The collection of articles reviews present-day research in the application of ultrasound in medicine, chemistry, physics, metallurgy, ceramics, petroleum and mining engineering, defectoscopy, and other fields. No personalities are mentioned. References accompany individual articles.

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Utilization of Ultrasonics (Cont.)

SOV/5644

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Card 2/10

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1137,2607

26250
S/194/61/000/001/017/038
D216/D304

AUTHOR: Nozdrev, V.F.

TITLE: Physical foundations of engineering and technological applications of small amplitude ultrasonics

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 1, 1961, 13, abstract 1 E118 (V Sb. Primeneniye ul'traakust. k issled. veshchestva, no. 10, M., 1960, 3-12)

TEXT: Basic practical possibilities of the use of small amplitude ultrasonics are suggested. The fundamentals of operation are given of ultrasonic instruments for determination of compressibility and thermal capacity of liquids, for determination of temperature, crystallization point of paraffins, of viscosity and of impurities in liquids and gases. The problem of application of small amplitude ultrasonics to the mechanization of industrial processes is discussed.

Card 1/1

S/058/62/000/004/082/160
AO61/A101

AUTHORS: Nozdrev, V. F., Glinskiy, A. A.

TITLE: Similarity between the coefficients of absorption and ultrasonic velocities and the thermal capacity ratio, measured by the saturation characteristic in organic liquids and their superheated vapors in the critical region

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 39, abstract 40326 (Sb. "Primeneniye ul'traakust. k issled. veshchestva", no. 12, Moscow, 1960, 81-85)

TEXT: It is shown that the ratio of similitude $x/x_n = f(T/T_{cr}; A)$, where T/T_{cr} is the reduced temperature and A is the determining criterion, is satisfied for the sound velocity absorption coefficient and for the thermal capacity ratio near the critical temperature. However, a similarity of C_v is not observed.

[Abstracter's note: Complete translation]

Card 1/1

S/058/61/000/009/049/050
A001/A101

AUTHORS: Nozdrev, V.F., Kal'yanov, B.I., Shirkevich, M.G.

TITLE: Ultra-acoustic studies in organic liquids at a constant density near critical state

PERIODICAL: Referativnyy zhurnal. Fizika, no. 9, 1961, 294, abstract 9Zh437 (V sb. "Kritich. yavleniya i fluktuatsii v rastvorakh", Moscow, AN SSSR, 1960, 93 - 101)

TEXT: The authors measured the velocity c of ultrasound and absorption α in methyl alcohol at ~ 6 Mc and in ethyl acetate at 10-33 Mc at a constant density. It follows from the measurement results that at $\rho = \text{const}$, $T = \text{const}$, function $c = c(p)$ (p is pressure) has a minimum and function $\alpha/v^2 = \varphi(p)$ has a maximum at the pressure of saturated vapor. At $\rho = \text{const}$ near the saturation line, there is a pretransition region in which $\Delta c/\Delta T$ and $\Delta \alpha/\Delta T$ change their signs. On the basis of experimental results, heat capacity of methyl alcohol is determined. In the subcritical region at the pressure of saturated vapor, c_p .

Card 1/2

Ultra-acoustic studies ...

S/058/61/000/009/049/050
A001/A101

c_v , and c_p/c_v show discontinuities. In ethyl acetate relaxation frequency (~ 14 Mc) does not change in the temperature range from 20 to 160°C if $\rho = \text{const}$. Dispersion is calculated to be $c_{\infty} - c_0 = 0.1 - 0.2$ m/sec.

L. Zarembo

[Abstracter's note: Complete translation]

Card 2/2

MALYAVIN, I.G.; YAKOVLEV, V.F.; NOZDREV, V.F.

Investigation of the temperature dependence of the kinematic
viscosity of certain organic liquids and their saturated vapors
in the critical region. Uch. zap. MOPI 92:3-21 '60. (MIRA 14:9)
(Organic compounds) (Viscosity)

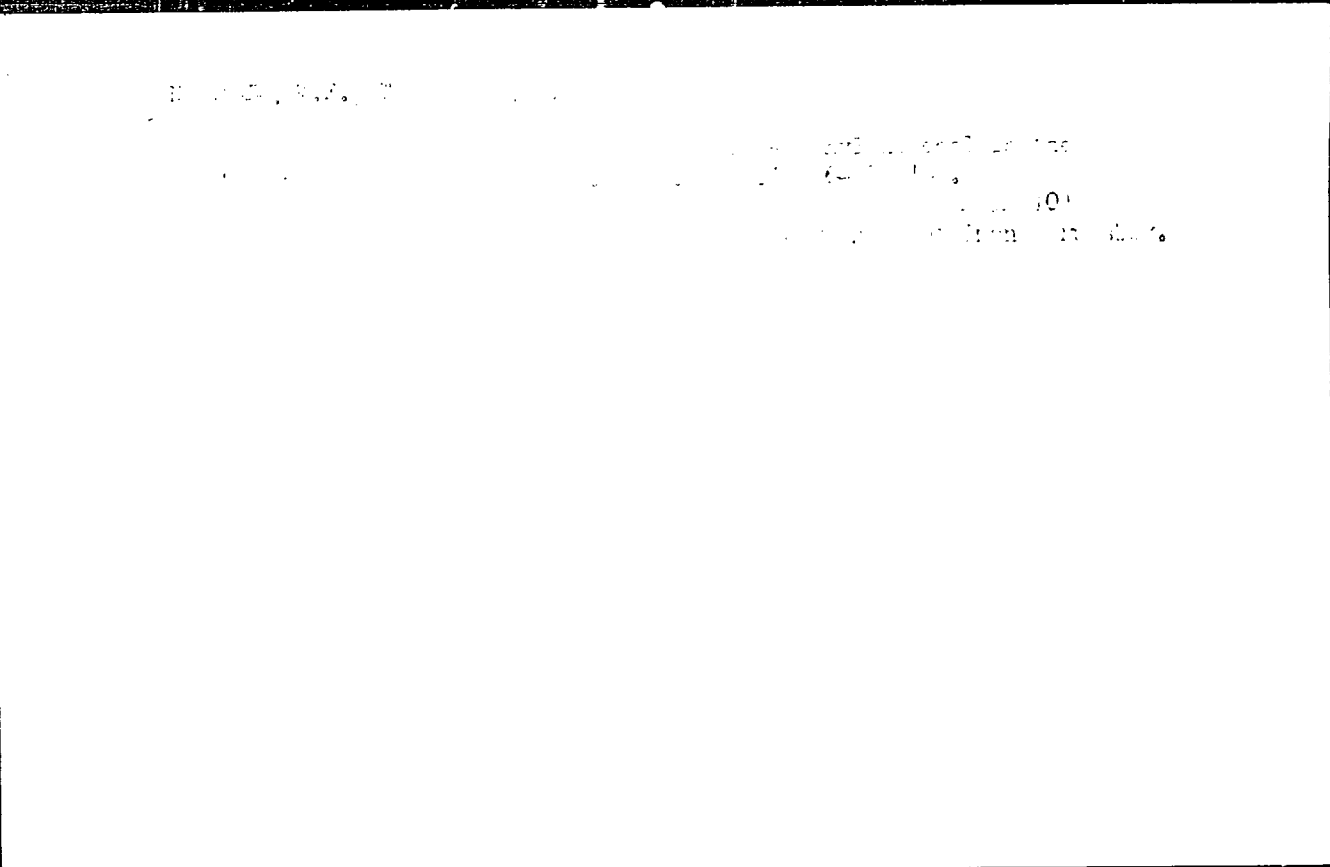
NOZDREV, Vasilii Fedorovich; PERKOVSKAYA, G.Ye., red.; GARINA, T.D.,
tekhn. red.

[Course in thermodynamics] Kurs termodinamiki. Moskva, Gos.
izd-vo "Vysshiaia shkola," 1961. 250 p. (MIRA 15:1)
(Thermodynamics)

NOZDREV, V.F.; OSADCHIY, A.P.; RUBTSOV, A.S.

Investigation of ultrasonic velocity in water along the saturation line, including the critical region. Akust. zhur. 7 no.3:383-384 '61. (MIRA 14:9)

1. Stalingradskiy sel'skokhozyaystvennyy institut i Moskovskiy oblastnoy pedagogicheskiy institut imeni N.K. Krupskoy.
(Ultrasonic waves--Speed)
(Underwater acoustics)



NOZDREV, V.F.; SHIMSEVICH, M.G.

Calculating the heat capacity of the liquid phase of methyl alcohol on the basis of acoustic data. Prim. ul'traakust. k issl. veshch. no.13:27-34 '61. (MIRA 16:6)

(Methanol—Thermal properties)
(Ultrasonic waves—Speed)

KOVALEVA, V.M.; NOZDREV, V.F.

Determining the ultrasonic wave absorption coefficient in acetic acid esters by the method of multiple signal transformations. Prim. ul'trakust. k issl. veshch. no.13:35-44 (MIRA 16:6) '61.

(Absorption of sound)
(Acetic acid)
(Pulse techniques(Electronics))

KOVALEVA, V.M.; NOZDREV, V.F.

Study of the absorption coefficient of ultrasonic waves in
formic acid esters at low frequencies. Prim. ul'traakust. k
issl. veshch. no.13:329-332 '61. (MIRA 16:6)

(Absorption of sound)

(Formic acid—Acoustic properties)

NOZDREV, V.F. AND GOREJNOV, M.A.

"Untersuchung der absorption der ultraschalls auf dem
schmelzungsgebiet der molekularen crystal.

Paper presented at Fourth Intl. Congress on Acoustics
Copenhagen, 21-28 Aug 1962

GORBUNOV, M.A.; KOSHKIN, N.I.; NOZDREV, V.F.; SHELOPUT, D.V.

Use of ultra-acoustic methods in studying organic substances
in the liquid \leftrightarrow polycrystal transition region. Ukr. fiz. zhur.
7 no.8:898-905 S '62. (MIRA 16:1)

1. Moskovskiy oblastnoy pedagogicheskiy institut im. N.K.Krupskoy.
(Absorption of sound) (Organic matter)

GUSEVA, O.N.; NOZDREV, V.F.

Use of the optical method in measuring the absorption of ultrasonic waves by superheated saturated hydrocarbons. Prim.ul'traakust.k
issl.veshch. no.16:69-82 '62. (MIRA 16:4)

(Hydrocarbons—Acoustic properties)
(Ultrasonic waves)

KOVALEVA, V.M.; NOZDREV, V.F.

Relaxation phenomena in formates. Primul'traakust.k issl.veshch.
no.16:83-90 '62. (MIRA 16:4)

(Formates--Acoustic properties)

TARANTOVA, G.D.; NOZDREV, V.F.

Law of corresponding states as applied to binary liquid mixtures.
Prim.ul'traakust.k issl.veshch. no.16:147-154 '62.

(MIRA 16:4)

(Sound--Speed)

(Liquids--Acoustic properties)

NOZDREV, V.F.; BELINSKIY, E.A.; KHABIBULLAYEV, P.K.

Ultrasonic wave absorption in a water - formic acid mixture,
Izv. AN Uz. SSR. Ser.fiz.-mat.nauk 7 no. 6:99-101 '63.
(MIRA 17:6)

1, Tshrkentskiy gosudarstvennyy institut.

ACCESSION NR: AR4022455

S/0058/64/000/001/H056/H056

SOURCE: RZh. Fizika, Abs. LH355

AUTHORS: Belinskiy, B. A.; Karevskiy, V. A.; Nozdrev, V. F.;
Savinikhina, A. V.

TITLE: Possibilities of measuring the absorption coefficient and
ultrasound wave propagation velocity in a liquid by the method of
irregularly shaped delay line

CITED SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva.
M., vy*p. 17, 1963, 107-112

TOPIC TAGS: liquid absorption coefficient, ultrasound propagation
velocity, ultrasonic delay line, irregular ultrasonic delay line,
beam splitting method, single probe measurement, double probe mea-
surement

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ACCESSION NR: AR4022455

TRANSLATION: It is proposed to measure the coefficient of absorption of a liquid and the ultrasound wave propagation velocity as functions of p , V , T , with the aid of irregularly shaped acoustic delay lines. The acoustic system consists of two cylindrical delays with precision-polished ends to ensure reliable acoustic contact. One of the delays has a step-like cut with a cross section area equal to half the area of the cylinder. The delay with the cut splits the ultrasound beam into two equal halves. The measurements are based on the fact that each half of the ultrasound beam in the liquid covers a different path length. This leads to a time separation of the radio pulses at the output of the acoustic system and to a difference in their magnitude, owing to the inequality of the absorption coefficients of the liquid and of the delay-line material. The measurements are made with either a single or a double probe. In the former case the quartz slabs must be strictly coaxial. The delays are made of fused quartz, aluminum, or some other material with known absorption coefficient. Simple calculations show that

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ACCESSION NR: AR4022455

by knowing the ratio of the radio pulses at the output of the acoustic system, the depth of the cut, and the coefficient of absorption of the delay line, it is possible to determine the absorption coefficient of the investigated liquid when using two probes; when a single probe is used, it is necessary to have the same data, except for the absorption coefficient of the delay. However, with a single probe scheme it is necessary to calculate more accurately the geometrical parameters of the autoclave. The ultrasound propagation velocity in the liquid can be roughly determined by the method of irregularly-shaped delay lines from the known delay time of a pulse passing through the longer path in the liquid. Formulas are derived for the absorption coefficient and for the ultrasound propagation velocity in the liquid. V. Bashkirov.

DATE ACQ: 03Mar64

SUB CODE: PH

ENCL: 00

Card 3/3

ACCESSION NR: AR4014762

S/0058/63/000/012/E007/E007

SOURCE: RZh. Fizika, Abs. 12E64

AUTHOR: Tarantova, G. D.; Nozdrev, V. F.

TITLE: Concerning the linear "diameter" of the velocity of ultrasound and the wave resistance in the critical region of a mixture of benzene and methyl alcohol

CITED SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vy*p. 17. M., 1963, 271-276

TOPIC TAGS: benzene, methyl alcohol, benzene methyl alcohol mixture, ultrasonics, velocity of ultrasound, linear diameter, wave resistance

TRANSLATION: It is established on the basis of an analysis of the previously published experimental data on the velocity of ultra-

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ACCESSION NR: AR4014762

sound in a benzene methyl alcohol mixture that the law of linear diameter for the ultrasound velocity is satisfied in an interval $\sim 20^\circ$ about the critical point, while the law of linear diameter for the wave resistance is satisfied in an interval $\sim 15^\circ$.

DATE ACQ: 24Jan64

SUB CODE: PH

ENCL: 00

Card 2/2

L 63318-65 EWT(1)/T/EWP(K) PF-4/P1-4

ACCESSION NR: AR5018404

UR/0081/65/000/011/EO68/EO68

SOURCE: Ref. zh. Khimiya, Abs. 11B444

33
B

AUTHOR: Kovaleva, V. M.; Nozdrev, V. F.

TITLE: The absorption of ultrasonic waves in acetates

CITED SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 18. M., 1963, 103-108

TOPIC TAGS: ultrasonic wave, ester, acetic acid, absorption, absorption coefficient

TRANSLATION: The results of measurements of the absorption coefficient of ultrasound in acetates were compiled with calculations according to the Stocks formula. It was established that the shift viscosity determines only a small (2-20%) part of the absorption of ultrasound, which indicates the vital role of the relaxation processes connected with volumetric viscosity. The frequency of relaxation of the esters which were investigated lies above 10 megacycles; low frequency relaxation which had been found previously by a series of authors was not detected. R. F.

SUB CODE: IC, G-P

ENCL: 00

Card 1/1

ACCESSION NR: AP3005630

S/0046/63/009/003/0379/0381

AUTHORS: Grechkin, V. I.; Nozdrev, V. F.

TITLE: Ultrasound velocity in the critical region of the ternary system benzene-methanol-toluene

SOURCE: Akusticheskiy zhurnal, v. 9, no. 3, 1963, 379-381

TOPIC TAGS: ternary system, benzene-methanol-toluene system, benzene, methanol, toluene, ultrasound, acoustics, ultrasound velocity, ternary systems acoustics, critical region

ABSTRACT: The velocity of ultrasound propagation in ternary liquids was studied in order to provide data missing in the literature. The liquids used in this investigation consisted of the previously studied binary benzene-methanol mixtures (V. F. Nozdrev, G. D. Tarantova. Skorost' zvuka v sisteme benzol-metilovy*y spirit v kriticheskoy oblasti. Akust. zh., 1961, 7, 4, 496-497) diluted with various amounts of toluene. The velocity of the ultrasonic wave propagation was determined optically. [Abstracter's note: hereafter the determinations are referred to by the authors as "acoustic."] In the critical range the behavior of the mixtures was

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ACCESSION NR: AP3005630

found to be analogous to the behavior of their separate components. Throughout the entire range of temperatures tested the ultrasound propagation velocities in the liquid phase exceeded the velocities in the saturated vapors. In both media the velocities decreased sharply near the critical point and increased rapidly beyond this point. The minimal velocities at the critical points were measured with a fair degree of accuracy. Using the data on the densities of the ternary mixture and on the ultrasound propagation velocities, the authors have calculated the coefficients of adiabatic compressibility for some of these mixtures. Figure 1 of the Enclosure shows the relation of these coefficients (β_s) to the temperatures and the compositions. The coefficients β_s for the ternary mixtures were found to exceed those for the separate components and for the binary mixtures. The acoustical method of investigation provided other data useful in practical and theoretical studies dealing with the physicochemical properties of complex mixtures. As an example, the authors present a table showing critical temperatures and pressures for all the mixtures investigated in this work. Orig. art. has: 2 graphs and 1 table.

ASSOCIATION: Moskovskiy oblastnoy pedagogicheskiy institut im. N. K. Krupskoy
(Moscow District Teachers Institute)
Card 2/4

NOZDREV, V.F.; BELINSKIY, B.A.; KHABIBULLAYEV, P.K.

Absorption and rate of propagation of high frequency ultrasonic waves in binary mixtures. Zhur. fiz. khim. 37 no.12:2792-2800 D '63. (MIRA 17:1)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni Krupskoy.

BELINSKIY, B.A.; NOZDREV, V.F.; KHABIBULLAYEV, P.K.

Absorption coefficient and rate of propagation of ultrasonic waves in binary mixtures of formic acid - ethyl formate. (MIRA 17:5)
Akust. zhur. 10 no.1:112-114 '64.

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni Krupskoy.

MAKHAN'KO, I.G.; NOZDREV, V.F.

Ultrasound absorption in the binary mixture benzene - methyl
alcohol along the saturation line including the critical region.
Akust. zhur. 10 no.2:249-251 '64. (MIRA 17:6)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni N.K.
Krupskoy.

BELINSKIY, B.A., NOZDREV, V.F., KRABIDULLAYEV, P.K.

Absorption coefficient and the velocity of ultrasonic waves in mix-
tures water - formic acid. Akust. zhur. 9 no. 4: 192-194, 1963.

(MIRA 17:3)

1. Moskovskiy oblastnyy pedagogicheskiy institut imen Krupskoy.

NOZDREV, Vasilii Fedorovich, zasl. deyatel' nauki, doktor fiziko-
matem. nauk; FAYNBOYM, I.B., red.

[Molecular acoustics] Molekuliarnaia akustika. Moskva,
Znanie, 1964. 31 p. (Novoe v zhizni, nauke, tekhnike.
IX Seria: Fizika, matematika, astronomiia, no.24)
(MIRA 17:11)

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001237620007-3

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001237620007-3"

NOZDREV, V.F.; GRECHKIN, V.I.

Determination of the critical curves of ternary mixtures by the
ultra acoustic method. Zhur.fiz.khim. 38 no.11:2663-2664 N 164.
(MIRA 18:2)

1. Moskovskiy oblastnoy pedagogicheskiy institut.

NOZDREV, Vasilii Fedorovich; SENKEVICH, Arkadiy Aleksandrovich;
PERKOVSKAYA, G.Ye., red.

[Statistical physics course] Kurs statisticheskoi fiziki.
Moskva, Vysshaia shkola, 1965. 287 p. (MIRA 18:7)

NAZIROV, I.Kh.; NOZDREV, V.P.

Absorption and propagation rate of ultrasonic waves in mixtures.
Izv. AN Uz. SSR. Ser. fiz.-mat. nauk 9 no.1:109-111 '86.

(MIRA 18:6)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni Kropotkoy.

L 32985-66 ENT(1)/ENT(m)/EMP(j)/T/EMP(k) RM

ACC NR: AR6016267

SOURCE CODE: UR/0058/65/000/011/H061/H061

AUTHOR: Kadyrov, T.; Nozdrev, V. F.TITLE: Concentration dependence of the absorption coefficient of ultrasound and calculation of the energy characteristics of processes in an ethyl formate¹- formic acid binary mixture

SOURCE: Ref. zh. Fizika, Abs. 11Zh424

REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 123-128

TOPIC TAGS: ultrasound absorption, absorption coefficient, light diffraction, solution concentration, formic acid, activation energy, relaxation process

ABSTRACT: An optical-diffraction method using a photomultiplier was used to investigate the concentration dependence of the absorption of an ultrasound wave in an ethyl formate - formic acid binary mixture. The concentration dependence of α/v^2 (α - absorption coefficient, v - frequency) for all the investigated frequencies and temperatures are similar, so that only the concentration dependence α/v^2 for 10 Mc and 20C is given. The experimental data compared with the empirical formula. The activation energy is calculated from the value of the relaxation frequency. I. Chaban.
[Translation of abstract]

SUB CODE: 20,07/

Card 1/1 BK

SINNY, L.I.; HELINSKIY, B.A.; NOZDREV, V.F.

Methods for determining the phase composition of gas-liquid
systems in a porous medium. Zav.lab. 31 no.4:467-468 '65.
(MIRA 18:12)

1. Moskovskiy oblastnoy pedagogicheskiy institut im. N.K.
Krupskoy.

L 45604-66 EWT(1)/T/EWP(k) JW

ACC NR: AR6023306

SOURCE CODE: UR/0058/66/000/003/H071/H072

AUTHOR: Normatov, A.; Nozdrev, V. F.; Belinskiy, B. A.68
B

TITLE: Investigation of the coefficient of absorption and propagation velocity of
ultrasonic waves in the quaternary system acetic acid -- ethyl acetate, ethyl alcohol -- water

SOURCE: Ref zh. Fizika, Abs. 3Zh499

REF. SOURCE: Tr. 1-y Mezhevuz. nauchn. konferentsii po primeneniyu molekul. akust. k issled. veshchestva i v nar. kh-ve. Tashkent, 1964, 161-164

TOPIC TAGS: ultrasonic velocity, ultrasound absorption, aqueous solution, absorption coefficient, temperature dependence, acetic acid, frequency characteristic, relaxation process

ABSTRACT: An investigation was made of the coefficient of absorption and the velocity of ultrasound in a system consisting of acetic acid (79.2%), ethyl acetate (0.8%), ethyl alcohol (20%), and 1 -- 80% water added. The component liquids were subjected to chemical purification. The accuracy of measurement of the absorption coefficient was from 5 to 2% at frequencies 5 -- 85 Mcs, that of the velocity was 0.3%, and that

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ACC NR: AR6023306

of the temperature 0.1C. Relaxation absorption was observed in the mixtures regardless of the nature of the relaxation processes in the components. The absorption in mixtures with 23% water increases with temperature. At frequency ~ 20 Mcs, the absorption of ultrasound in the mixtures does not depend on the water concentration (at 10 -- 50% water). A minimum of the temperature dependence of the coefficient of absorption is observed at 80% water concentration. At large water concentrations, the frequency dependence of the coefficient of absorption and the velocity of ultrasound in the mixture are determined by the behavior of the acetic acid -- water mixture. The relaxation parameters and the velocity of ultrasound are given for different water concentrations at 20C. The frequency of the relaxation does not depend on the concentration of the water within the limits of experimental error. L. Dikarev. [Translation of abstract]

SUB CODE: 20

Card 2/2

ACC NR: AR6013652

SOURCE CODE: UR/0058/65/000/010/E007/E007

AUTHOR: Nozdrev, V. F.; Makhan'ko, I. G.; Malyavin, I. G.

TITLE: Study of the temperature dependence of the shear and second viscosities of binary mixtures of benzene and methyl alcohol over a wide temperature range including the critical region

SOURCE: Ref. zh. Fizika, Abs. 10E42

REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 23-26

TOPIC TAGS: fluid viscosity, fluid property, fluid friction, ultrasonic absorption, temperature dependence, benzene, methyl alcohol

TRANSLATION: An experimental study was made of the shear and second viscosities of a binary mixture at various temperatures. The shear viscosity coefficient was measured directly, while the second viscosity coefficient was calculated from the ultrasonic absorption coefficient in a liquid in terms of the shear viscosity coefficient. A characteristic of the second viscosity was observed in the critical temperature region. It is hypothesized that this is due to the decay of associated complexes close to the critical point.

SUB CODE: 20

Card 1/1

NOZDREVATYKH, V.

New developments come to life. Sov. profsoiuzy 16 no.24:22-24 D
'60. (MIRA 14:1)

1. Predsedatel' komiteta profsoyuza Ulan-Udenskoy fabriki imeni
25-letiya Buryatskoy ASSR.
(Ulan-Ude--Wool industry)
(Socialist competition) (Trade unions)

POTAPOV, V.P., redaktor; KANSHIN, M.D.; L'VITSYN, M.F.; MASTERITSYN, N.N.;
NOZDRIN, A.A.; NIKIFYUK, A.P.; PADNYA, V.A.; RIDEL', E.I.; FERAPON-
TOV, G.V.; SHAMAYEV, M.F.; SHATSKAYA, E.P.; GULEV, Ya.F., redaktor;
VERINA, G.P., tekhnicheskiy redaktor.

[Advanced methods for workers in material handling] Peredovye metody
truda kommercheskikh rabotnikov. Moskva, Gos. transp. zhel-dor. izd-vo,
1953. 262 p. [Microfilm] (MLBA 7:11)
(Material handling)

NOZDRIN, A.A.

BELINA, T.G.; NOZDRIN, A.A.; PRASOLOV, M.A.; SERGEYEV, S.A., ROGUSKAYA, Ye.F.; SHAVKIN, G.B., inzhener, redaktor; KHITROV, P.A., tekhnicheskii redaktor.

[Experience in closer loading of railroad cars; accounts by young weathers] Opyt uplotnennoi zagruzki vagonov; rasskazy molodykh vesovshchikov. Moskva, Gos. transportnoe zhel.-dor. izd-vo, 1954.
45 p. (MLRA 8:1)

(Railroads--Freight)

NEZ...
POTAPOV, V.P.; BARKAN, I.H.; DEM'YANKOV, N.V.; KANSHIN, M.D.; L'VITSYN, N.F.;
MASTERITSYN, N.M.; NOZDRIN, A.A.; PADNYA, V.A.; RIDEL', E.I.; FERAPON-
TOV, G.V.; SHAMAYEV, M.F.; SHATSKAYA, E.P.; SHAVKIN, G.B., inzhener,
redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[Advanced methods in shipment and commercial handling of goods]
Peredovye metody truda gruzovykh i kommercheskikh rabotnikov. Izd.
2-oe. Moskva, Gos.transp.zhel-dor. izd-vo, 1955. 286 p.

(MLRA 9:2)

(Material handling) (Transportation--Equipment and supplies)

KAPLUN, Fayvel' Shmylovich; GALLE, Aron Grigor'yevich; MAKAROV, Anatoliy Matveyevich; NOZDRIN, Aleksandr Andreyevich; PLATOV, V.G., inzh., retsenzent; PAVLOV, V.V., inzh., retsenzent; TKACHENKO, A.A., inzh., red.; KHITROV, P.A., tekhn. red.

[Manual on containers and the packing of freight] Spravochnik po tare i upakovke gruzov. Moskva, Transzheldorizdat, 1961. 393 p. (MIRA 15:7)
(Packing for shipment)

GROSHIKOV, Aleksandr Ivanovich; GORBUNOV, M.N., doktor tekhn.
nauk, retsenzent; NOZDRIN, A.M., inzh., retsenzent;
KOLOSOV, M.A., inzh., red.

[Fundamentals of the mechanization and automation of
technological processes in the manufacture of airplanes]
Osnovy mekhanizatsii i avtomatizatsii tekhnologicheskikh
protseessov v samoletostroenii. Moskva, Mashinostroenie,
1965. 347 p. (MIRA 18:6)

HOZDRIV D.

Selflessness and courage of Soviet seamen. Blok.agit.vod.
transp. no.15:16-24 Ag '55. (MIRA 8:9)
(Seamen)

NOZDRIN, D

KUZNETSOV, A.; NOZDRIN, D.

Educational duties of the commanding officers of a vessel.
Mor. flot 15 no.5:27-28 My'55. (MIRA 8:6)
(Merchant marine--Officers)

HOZDRIN, D.

Friendship, comradeship, and mutual assistance is the tradition of
Soviet sailors. Blok.agit.vod.transp. no.16:8-15 S '56.(MLRA 9:11)
(Merchant seamen)

NOZDRIN, D.

On a progressive ship manned by young people of the Communist Youth League. Mor. flot 21 no.9:5-7 S '61. (MIR. 14:9)

1. Starshiy inspektor Upravleniya kadrov Ministerstva morskogo flota.
(Ships--Manning) (Communist Youth League)

NOZDRIN, D.

Brothers Fomin are captains. Mor.flot 22 no.12:46 D '62.
(MIRA 15:12)

1. Starshiy inspektor Upravleniya kadrov Ministerstva morskogo
flota.

(Merchant Marine—Officers)

NOZDRIN, F.

Knife for removing intestines from beef carcasses. Mias. ind. SSSR
29 no.2:47 '58. (MIRA 11:5)
(Packing houses--Equipment and supplies)

NOZDRIN, G. (gorod Riga).

Comments on automatic shutters. Kinomekhanik no.5:45 My '53. (MLBA 6:6)
(Moving-picture projectors)

KANUKOV, I.M., inzhener; NOZDRIN, I.L., inzhener.

Prestressed concrete latticed poles for contact systems. Transp. stroi.
6 no.7:11-13 J1 '56. (MLRA 9:10)
(Electric lines--Poles) (Prestressed concrete)

ZAGORUL'KIN, Vasilii Afanas'yevich; MIZINA, Nataliya Yevstigneyevna;
NOZDRIN, Ivan Tikhonovich; NOVOSPASSKIY, V.V., red.; RAKOV,
S.I., tekhn.red.

[Wages in construction industry] Kak oplachivaetsia trud
rabochikh v stroitel'stve. Moskva, Izd-vo VTsSPS Profizdat,
1958. 142 p. (MIRA 12:7)
(Wages) (Construction industry)

ZYUZIN, Grigoriy Vasil'yevich; NOZDRIN, Ivan Tikhonovich; MAKAROVA,
E.A., red.; ANDREYEVA, L.S., tekhn. red.

[Wages in the construction industry] Oplata truda v stroitel'-
stve. Moskva, Profizdat, 1962. 175 p. (MIRA 16:4)
(Wages--Construction workers)

NOZDRIN, N.

Automatic control of pasteurizers. Moloch. prom. 18 no.6:34-35
(MIRA 10:6)

'57.

(Pasteurizers)

(Automatic control)

NOZDRIN, N.S.

Problems in training specialized workers for municipal services.
Gor.khoz.Mosk. 34 no.6:31-33 Je '60. (MIRA 13:7)

1. Zamestitel' nachal'nika Upravleniya kadrov i uchebnykh zavedeniy
Mosgorispolkoma.
(Moscow--Municipal services--Study and teaching)

NOZDRIN, N.S.

Technical work by students. Gor.khoz.Mosk. 35 no.4:28a-28d Ap
'61. (MIRA 14:5)

(Technical education—Exhibitions)

NOZDRIN, N.S.

Training personnel for apartment-house work. Gor.khoz.Mosk.
36 no.7:9-10 Jl '62. (MIRA 16:1)

1. Zamestitel' nachal'nika upravleniya kadrov i uchebnykh
zavedeniy Moskovskogo gorodskogo ispolnitel'nogo komiteta
Moskovskogo gorodskogo soveta deputatov trudyashchikh
(apartment houses--Maintenance and repair)

NOZDRIN, N.T., inzh. (Bryansk)

Winged assistants. Zashch. rast. ot vred. i bol. 6 no.7:7-8
Jl '61. (MIRA 16:5)

(Bryansk Province--Aeronautics in agriculture)
(Bryansk Province--Plants, Protection of)

3 (5)

SOV/11-59-4-10/16

AUTHOR: Nozdrin, P. I.

TITLE: New Data on the Discovery of Mesozoic Bauxites on the Eastern Slope of the Southern Ural (Novyye dannyye o nakhozhdenni mezozoyskikh boksitov na vostochnom sklone Yuzhnogo Urala)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 4, pp 106 - 107 (USSR)

ABSTRACT: Deposits of bauxites were found in two points of the eastern slope of the Southern Ural. Prospecting bore holes showed that they occurred in sink holes or depressions and overlying limestone rocks of the lower Carboniferous period. The friable rocks which fill the hole or the depression belong partly to the Cretaceous and partly to the Tertiary and Quaternary periods. As analogous geological conditions exist in the region between the towns of Magnitogorsk and Orsk, the author suggests a careful prospecting of the region for other bauxites.

Card 1/2

SOV/11-59-4-10/16

New Data on the Discovery of Mesozoic Bauxites on the Eastern Slope of the Southern Ural.

There is 1 profile and 1 table.

ASSOCIATION: Yuzhno-Ural'skoye geologicheskoye upravleniye Ministerstva geologii i okhrany nedr SSSR, Ufa (The South-Ural Geological Administration of the Ministry of Geology and Conservation of Mineral Resources of USSR)

SUBMITTED: June 13, 1957

CARD 2/2

NOZDRIN, P.I.; MUSINA, G.V.

Permian sediments of the eastern slope of the Southern Urals.
Dokl. AN SSSR 150 no.6:1330-1333 Je '63. (MIRA 16:8)

1. Bashkirskeye territorial'noye geologicheskoye upravleniye.
Predstavleno akademikom D.V.Nalivkinym.
(Ural Mountains—Geology, Stratigraphy)

LEPILKIN, A., prof.; NOZDRIN, S., inzh.

Investigating the heat-insulation properties of the FKbV-1 foam
product in frozen meat storage. Mas.ind.SSSR 30 no.6:47-49
'59. (MIRA 13:4)
(Cold storage--Insulation) (Resins, Synthetic)

LEPILKIN, A., prof.; NOZDRIN, S.

Thermal insulation of machinery of the meat industry. Mias.
ind. SSSR 32 no.3:54-57 '61. (MIRA 14:7)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy
promyshlennosti.

(Meat industry—Equipment and supplies)
(Insulations (Heat))

LEPILKIN, A., prof.; NOZDRIN, S., inzh.; IZOTULOV, R., inzh.

Utilization of foam plastics for lowering temperature losses
in meat combines. *Izv. Akad. Nauk SSSR* 32 no.5:49-51 '61.
(NIA 14:10)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy
promyshlennosti (for Lepilkin, Nozdrin).
2. Moskovskiy myasokombinat (for Izotulov).
(Packaging materials)
(Packaging houses--Equipment and supplies)

LEPILKIN, A.N.; NOZDRIN, S.I.

Investigation of thermal and physical properties of foam plastics by the nonstationary method. Izv. vys. ucheb. zav.; pishch. tekhn. no.5: 122-130 '61. (MIRA 15:1)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy promyshlennosti. Kafedra teplotekhniki. (Plastics)

S/081/61/000/005/012/024
B110/3205

AUTHORS: Nozdrina, E. V., Sergiyenko, S. R.

TITLE: Application of methods of selective catalytic hydrogenation and dehydrogenation for the purpose of clarifying the structure of high-molecular aromatic hydrocarbons of petroleum

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1961, 532, abstract 5M146 (5M146) ("Tr. In-ta nefi AN SSSR", 1959, 13, 127-144)

TEXT: Attempts to hydrogenate the fraction ($d_4^{20} = 1.0146$; $n_D^{20} = 1.5813$; molecular weight = 435; C = 85.50 %; H = 10.03 %; S = 4.43 %) of condensed, bicyclic, aromatic hydrocarbons which had been separated chromatographically on silica gel from the resin-free residue of Romashki petroleum, have been made in a rotary autoclave, in the presence of the commercial catalyst $WS_2-NiS-Al_2O_3$, at 250 and 300°C, and at 180 atm for 40 hr. The hydrogenated substances were subjected to a chromatographic analysis. Single hydrogenation at 250°C (100 % catalyst per raw material) resulted in 85 % desulfurization and double hydrogenation (200 % catalyst in two

Card 1/2

Application of methods of selective...

S/081/61/000/005/012/024
B110/B205

hydrogenation processes) in 95 % desulfurization. The hydrocarbon molecule was not very strongly affected. Single hydrogenation at 300°C (60 % catalyst) results in 94.5 % desulfurization, and the second hydrogenation removes practically all the sulfur. Under the conditions of hydrogenation at 300°C, which lead to complete desulfurization, the condensed, bicyclic, aromatic systems practically vanish. [Abstracter's note: Complete translation.]

Card 2/2

AUTHORS: Sadykh-Zade, S. I., Nozdrina, L. V., 20-118-4-27/61
Petrov, A. D., Corresponding Member of the AS USSR

TITLE: Production of Silicon Olefine Oxides From Chlorhydrines
(Sintez okisey kremneolefinov iz khlorgidrinov)

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 4, pp. 723-726 (USSR)

ABSTRACT: A silicon olefine oxide was produced only lately (reference 1) as first oxide of this kind (β , δ -secondary-primary oxide) by interaction between the reagent of Grin'yar (Grignard) and epichlorhydrin. The reaction passed according to a very complicated scheme, the yields of the organic silicon chlorhydrin as well as of its oxide did not surpass 25-30%. In the present investigation it was found that the interaction between the reagents of Grin'yar from silicon-halides $[\rightarrow\text{Si}-(\text{CH}_2)_n\text{MgX}]$ and monochloroacetone takes a clear course. This made possible a production of the β - δ - and δ - ϵ -oxides already with a high yield (80-90%). It is remarkable that the β - δ -haloidhydrins, in contrast to the δ - ϵ -haloidhydrins, yield no oxide, under the NaOH action but quantitatively unsaturated halides. The authors succeeded in leading the reaction into the

Card 1/2

Production of Silicon Olefine Oxides From Chlorhydrines

20-118-4-27/6'

direction of the oxides. NaOH could be substituted by $\text{Ca}(\text{OH})_2$, or the alkyl radical R by R_3SiO ; thus two divergent reactions were conducted. In the attempt to produce α - β -bromohydrin by affiliation of hypobromous acid to triethylvinylsilane the reaction took an anomalous course, and instead of bromohydrin dibromide was formed (analogously to ref. 2). The attempt to produce an oxide from $\text{R}_2\text{Si}-\text{CHCl}-\text{CH}_3$ failed, too. The bond $\text{Si}-\text{C}$

OH
was hydrolyzed here under the influence of NaOH. $\text{R}_2\text{Si}(\text{OH})_2$ was formed here, the initial compound did not suffer any changes under the action of $\text{Ca}(\text{OH})_2$ and regained its original state. δ - ξ -oxide also absorbed the hydride silane and formed monoethers (no alcohol). This was determined from the negative value of the hydroxyl content. In the experimental part the usual data are given on: 3-trimethyl-silyl-1-chloro-2-methylpropanol-2 (I), oxide of the 5-dimethyl-ethyl-silyl-2-methylpentene-1-2, and 1-chloro-2-methyl-triethyl-silyl-methylpropene-1-2 together with some further analogous compounds. There are 2 tables and 2 references, 1 of which is Soviet.

July 5, 1957
Library of Congress

SUBMITTED:
AVAILABLE:
Card 2/2

ARTEM'YEV, Ye.A.; VOLCHENKO, V.V.; NOZDRINA, M.S.; BRUNNER, Yu.N., dotsent;
MILLERUK, G.Ya.

Readers' letters. Zashch. rast. ot vred. i bol. 8 no.2:14-15
F '63. (MIRA 16:7)

1. Agronom po zashchite rasteniy Krasnosel'skogo rayona Kostromskoy oblasti (for Artem'yev).
2. Obshchestvennyy korrespondent zhurnala "Zashchita rasteniy ot vrediteley i bolezney" (for Volchenko).
3. Agronom po zashchite rasteniy Khar'kovskogo rayona (for Nozdrina).
4. Poltavskiy sel'skokhozyaystvennyy institut (for Brunner).
5. Zamestitel' predsedatelya Soveta rayonnogo otdeleniya Obshchestva okhrany prirody, Cherkasskaya obl. (for Milleruk).
(Plants, Protection of)

NOZDRINA, T.M.; ISMAILOV, M.G.; TIMCHENKO, V.I., aspirant; /
ABBASOV, Ya.M., aspirant; KOROSTELEVA, Z.G., entomolog;
AGARKOV, V.A., kand.sel'skokhoz.nauk

Brief reports. Zashch. rast. ot vred. i bol. 7 no.2:53-54
F '62. (MIRA 15:12)

1. Agronom po zashchite rasteniy Khar'kovskogo rayona (for Nozdrina).
2. Azerbaydzhanskiy institut zashchity rasteniy, Kirovabad (for Ismailov).
3. Ukrainskiy institut ovoshchevodstva i kartofelya, Khar'kov (for Timchenko).
4. Azerbaydzhanskiy institut khlopkovodstva, Kirovabad, (for Abbasov).
5. Tambovskiy entomofitouchastok, Sovkhoz "Komsomolets" (for Korosteleva).
6. Kamenets-Podol'skiy sel'skokhozyaystvennyy institut, Khmel'nitskaya obl. (for Agarkov).
(Plants, Protection of)

BURMAKIN, A.G.; LAZUNOVA, A.S.; REZNIK, V.A.; REZNIK, A.S.,
prof., rezensent; REZNIK, G.S., rezensent;
NOZDRINA, V.A., red.

[technology of freezer products] Tekhnologiya zamorozhen-
nykh produktov. Moskva, Pishchevaia promyshl., 1964.
164 p. (MLA 18:3)

SHISHKINA, Nina Nikolayevna; NAZAROV, Arkadiy Stepanovich;
ARISTOV, D.V., retsenzent; GUL', V.Ye., retsenzent;
D'YAKONOVA, T.P., spets. red.; NOZDRINA, V.A., red.

[Use of polymeric films for the packaging of meat products] Primenenie polimernykh plenok dlia upakovki miaso-
produktov. Moskva, Pishchevaia promyshlennost', 1965.
131 p. (MIRA 18:7)

BUTNIKOV, Nikolay Danilovich; PRITYKO, V.P., retsenzent;
SHEVCHENKO, N.S., retsenzent; NOZDRINA, V.A., red.

[Safety engineering in the dairy industry] Tekhnika bez-
opasnosti v molochnoi promyshlennosti. Moskva, Pishche-
vaia promyshlennost', 1965. 200 p. (MIRA 18:12)

S 574
S/081/62/000/010/012/085
B138/B101

15 200

AUTHOR: Nozdrina, V. G.

TITLE: The effect of Al and Ge impurities in synthetic quartz on the $\alpha \rightleftharpoons \beta$ transformation temperature

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 1962, 51, abstract 10B432
(Tr. Vses. n.-i. in-ta p'yezooptich. mineral'n. syr'ya, v. 3, no. 2, 1960, 105 - 111)

TEXT: Using the method of differential thermal analysis the $\alpha \rightleftharpoons \beta$ transformation temperatures have been measured in specimens of monocrystalline synthetic quartz containing Al and Ge impurities. At an Al concentration of 0.026 % there is a reduction of 4 - 4.5°C in the $\alpha \rightleftharpoons \beta$ transformation temperature below that for natural quartz which was used as the standard. Ge increases the polymorphous transformation point of quartz, the increase in the temperature being proportional to the Ge concentration in the quartz. [Abstracter's note: Complete translation.]

Card 1/1

L 36395-66 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) GG/JD/WH

ACC NR: AP6018781

SOURCE CODE: UR/0070/66/011/003/0475/0476

AUTHOR: Nozdrina, V. G.; Tsinober, L. I.

ORG: none

TITLE: Spontaneous crystallization of corundum under hydrothermal conditions

SOURCE: KIRSTALLOGRAFIYA, v. 11, no. 3, 1966, 475-476

TOPIC TAGS: corundum, metal crystallization, crystal growth rate, crystal formation, radiation effect, thermoluminescence, gamma radiation

ABSTRACT: Spontaneous crystallization of corundum crystals was studied under various physical and chemical conditions. The form of the crystals was a function of solution composition (10 to 20% Na_2CO_3 or 10% NaHCO_3), autoclave temperature and pressure, and supercooling. Both platelets and isometrical crystals were formed from the Na_2CO_3 solutions while prismatic shaped crystals were grown from NaHCO_3 solutions. This was the result of the relative growth rates of habit planes in the respective solutions: in Na_2CO_3 solutions $V_{(0001)}/V_{(1120)} \leq 1$, while in NaHCO_3 solutions $V_{(0001)}/V_{(1120)} > 1$. These data were obtained under varying autoclave conditions of pressure, temperature and supercooling. The action of Co^{60} gamma radiation on these crystals was also studied. Under exposure to the radiation the isometric and prismatic crystals turned greenish-brown while the platelets acquired a greenish-yellow color. The optical spectra of

UDC: 548.51

Card 1/2

L 36395-66

ACC NR: AP6018781

the irradiated samples were measured before and after annealing at 400°C. Annealing lowered the absorption closer to its preirradiated state. Maxima were observed in the thermoluminescence curves (intensity as a function of temperature) for the differently colored samples at temperatures of 110, 150, 290 and 530°C. The ratio of intensities at 110 and 150°C were different: the greenish-brown specimens had lower maxima at 110°C and higher maxima at 150°C. The greenish-brown samples turned greenish-yellow when heated to 200°C; above 350°C, the color weakened and at 660°C the color faded in all samples. This explained the similar maxima observed for both types of samples at 530°C. Orig. art. has: 3 figures, 1 table.

SUB CODE: 07,20/

SUBM DATE: 14Jun65/

ORIG REF: 001

Card 212MLP

FORM 1-71 EMT(d)/EMT(f)/EMT(e)/EMT(v)/EMT(k)/EMT(h)/EMT(l) IJI(c) JJ
ASC No. 170000054 (A, N) SOURCE CODE: UR/0413/66/000/015/0133/0134

INVENTORS: Baranov, N. A.; Birman, R. S.; Bugrov, M. S.; Nozdrin, V. R.; Dneprov, A.
Baskov, G. V.; Loginov, L. A.

ORG: none

TITLE: An automatic line for continuous adjusting, cutting, and inspecting for the presence of surface defects and for the type of steel or the hardness of metallic rods. Class 49, No. 184589 [announced by Moscow Metallurgical Plant "Sickle and Hammer" of the Order of Lenin and the Order of the Workers' Red Banner (Moskovskiy ordena Lenina i ordena Trudovogo Krasnogo Znameni metallurgicheskii zavod "Serp i molot")]

SOORCS: Izobret prom obraz tov zn, no. 15, 1966, 133-134

TOPIC WORDS: metalworking, automation, industrial automation, automatic control equipment

ABSTRACT: This Author Certificate presents an automatic line for continuous adjusting, cutting, and inspecting for the presence of surface defects and for the type of steel or hardness of metallic rods. To improve its efficiency and the quality of inspection, the line contains a combination of consecutively mounted (along the course of the technological process): an assembly for adjusting and cutting the ends of the rods; an assembly for a simultaneous inspection of the rods for the presence of surface defects and for the type of steel or for the hardness (by a defectoscopic

Card 1/3

UDC: 620.179.6-422.2

L 09258-67
 ACC NR: AP6029954

assembly); and an assembly for sorting the usable and the defective rods (see Fig. 1).

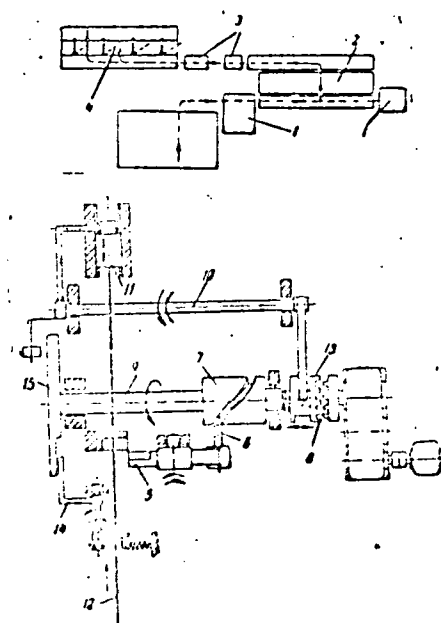


Fig. 1. 1 - assembly for adjusting and cutting; 2 - assembly for dismounting and transporting; 3 - defectoscopic assembly; 4 - assembly for sorting the usable and the defective products; 5 - movable blade; 6 - knife finger; 7 - knuckled drum; 8 - clutch; 9 - roller; 10 - lever; 11 - movable carriage; 12 - rod; 13 - semiclutch; 14 - lever; 15 - sprocket

ACC NR 123029954

The assembly for adjusting and cutting of the rods being inspected may contain a lever shear with cut movable blade. The shear contains a finger, a drum knuckle with a contoured recess for receiving the finger of the blade, a clutch mounted on one roller, a system of levers connected to a bearing carriage and absorbing the force of a blow from the moving rod being inspected and transmitting the movement to one of the semi-clutches. The assembly for adjusting and cutting the inspected rods may also contain a mechanism for collecting the cut rods. This mechanism is made in the form of a lever kinematically connected to a sprocket mounted on the roller which also carries the knuckled drum and the clutch. Orig. art. has: 1 figure.

SUB CODE: 13, 05 SUBM DATE: 10Dec63

Card 3/3

NOZDRINA, YE. V.

PA 243T6

USSR/Chemistry - Polymerization, Liquid Fuels

Jul 52

"Investigation of the Interaction of Diolefins with Alkyl Halides in the Presence of Oxide Catalysts," S. R. Sergiyenko, A. A. Mikhnovskaya, Ye. V. Nozdrina

"Trudy Inst Nefti" Vol 2, pp 22-32

At 250° and 36-37 atm, isopropyl chloride in the presence of zinc oxide is converted into a gas contg up to 90% of propene, some butene, and the following products of the polymerization of propene: trimer (34.1%) and higher polymers (20%). Branched monylenes predominate in the trimer fraction. Isoprene under the conditions described above is subjected principally to cyclic dimerization. Alkylation of isoprene with isopropyl chloride did not take place under the conditions of the expt. Methylations of olefins were successfully carried out, however (cf. A. P. El'tekov's work which led to the synthesis of triptane and B. L. Moldavskiy's research, "Zhur Obshch Khimii," Vol 16, No 3, p 427, 1946).

PA 243T6

SERGIBENKO, S.R.; MIKHNOVSKAYA, A.A.; NOZDRINA, Ye.V.

Mechanism of the conversion of isopropyl chloride on zinc oxide. Doklady
Akad. Nauk S.S.S.R. 87, 427-30 '52. (MLRA 5:11)
(CA 47 no.22:12208 '53)

NOZDINA, E. V.

5

✓ The conversions of butyl chloride with oxide catalysis.
 S. R. Serjicnko and E. V. Nozdrina *Trudy Inst. Khim.*
Acad. Nauk S.S.S.R. 4, 10-18 (1954); cf. *C.S.I.* 47, 12208g.
 — Me_2CCl (I) is totally converted into dimer and trimer of
 isobutylene over CaO during 20 hrs. at 100° and 51 atm.
 N pressure. Under the same conditions with a mixt. of I
 with isobutylene, I is converted into isobutylene only; with
 isopropyl chloride, I is hydrolyzed, forming Me_2COH . In-
 creasing the pressure provokes an increase of dimer forma-
 tion, while the amt. of Me_2COH decreases. I with CaO
 or ZnO is converted into dimer and trimer; isobutyl chloride
 forms the same products over ZnO only. The velocity of
 conversions of I with ZnO at 100° is almost twice that of
 isobutyl chloride.

M. Charmandarian

MA

①

Nozdreina, E. V.

~~The mechanism of conversion of isopropyl chloride on zinc oxide. S. R. Serrienko, A. A. Mikhnovskaya, and E. V. Nozdreina. Trudy Inst. Nefi, Akad. Nauk S.S.S.R. 4, 63-100 (1964).~~ Isopropyl chloride (I) is almost completely converted into propylene in the presence of ZnO, at 250-327° and atm. pressure. Under 40 atm., the polymerization of I occurs and the 5-7% dimer 34% trimer and 20% high polymer are formed. Under the same conditions (1 atm.), 2,3-dimethyl-1-butene or 2-butene did not polymerize but reacted with isopropyl chloride. At the higher pressure, 2,3-dimethyl-2-butene partly (5%) isomerized to 2,3-dimethyl-1-butene. It was concluded that intermediate formation of dimethylbutene from isopropyl chloride did not take place. It is found that a method of analysis, based on the adsorption of butylenes and propylene by H₂SO₄ of concn. 68 and 85%, resp., is not accurate for gas rich in propylene, because it is highly adsorbed by 68% H₂SO₄.

M. Charmandarian

(2)

NOZDRINA, Ye. V.

"Conversions of Alkyl Chlorides and Their Reactions With Unsaturated Hydrocarbons in the Presence of Calcium Oxide and Zinc Oxide." Cand Chem Sci, Inst of Petroleum, Acad Sci USSR, Moscow, 1955. (EL, 17, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

SERGIYENKO, S.R.; NOZHKINA, I.A.; NOZDRINA, Ye.V.

Study of the chemical nature of high-molecular-weight bicyclic aromatic condensation compounds of Romashkino petroleum by the method of catalytic hydrogenation in the presence of Raney nickel. Article No.20.
Trudy Inst.nefti 12:147-155 '58. (MIRA 12:3)
(Aromatic compounds) (Hydrogenation) (Catalysis)

SERGIYENKO, S.R.; MOZDRINA, Ye.V.; MOZHKINA, I.A.

Hydrogenation of high-molecular-weight bicyclic aromatic condensation
compounds of Romashkino petroleum carried out under mild conditions
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