BAZHENOVA, V.I.; GLAZAMITSKAYA, S.M.

Density of warp winding on the weaver's beam. Tekst.prom. 20 no.7:68-69 Jl '60. (MIRA 13:7)
(Warping machines)

AKHAPKIN, Aleksandr Vasil'yevich; BAZHENOVA, Vera Il'inichna

[Handbook for milkmaids] Pamiatka doiarke. [Novosibirsk] Novosibirskoe knizhnoe izd-vo, 1957. 46 p. (MIRA 11:11)
(Milking)

TAYTS, N.Yu., doktor tekhn. nauk; KLEYNER, M.K., inzh.; ZAVALISHIN, Ye.K., inzh.; KALUGIN, Ya.P., inzh.; FALILEYEV, I.L., inzh.; KAGAN, N.I., inzh. [deceased]; Prinimali uchastiye: POPOV, V.N. inzh.; CHUYKOV, A.A., inzh.; MINUKHINA, L.N., inzh.; KHATSAREVICH, V.R., inzh.; TOLMACHEVA, I.A., inzh.; BAZHENOVA, V.N., inzh.

Technological and thermodynamic characteristics of strip heating for the continuous furnace welding of pipes. Stal' 24 no.8:746-750 Ag '64. (MIRA 17:9)

1. Ukrainskiy nauchno-issledovatel'skiy trubnyy institut, Ural'skiy nauchno-issledovatel'skiy trubnyy institut i Chelyabinskiy truboprokatnyy zavod.

BAZHEV, A.B.; BAZHEVA, V.Ya.; AVSYUK, G.A., otv. red.; OGANOVSKIY, P.N., red.; LOSEVA, I.A., red.

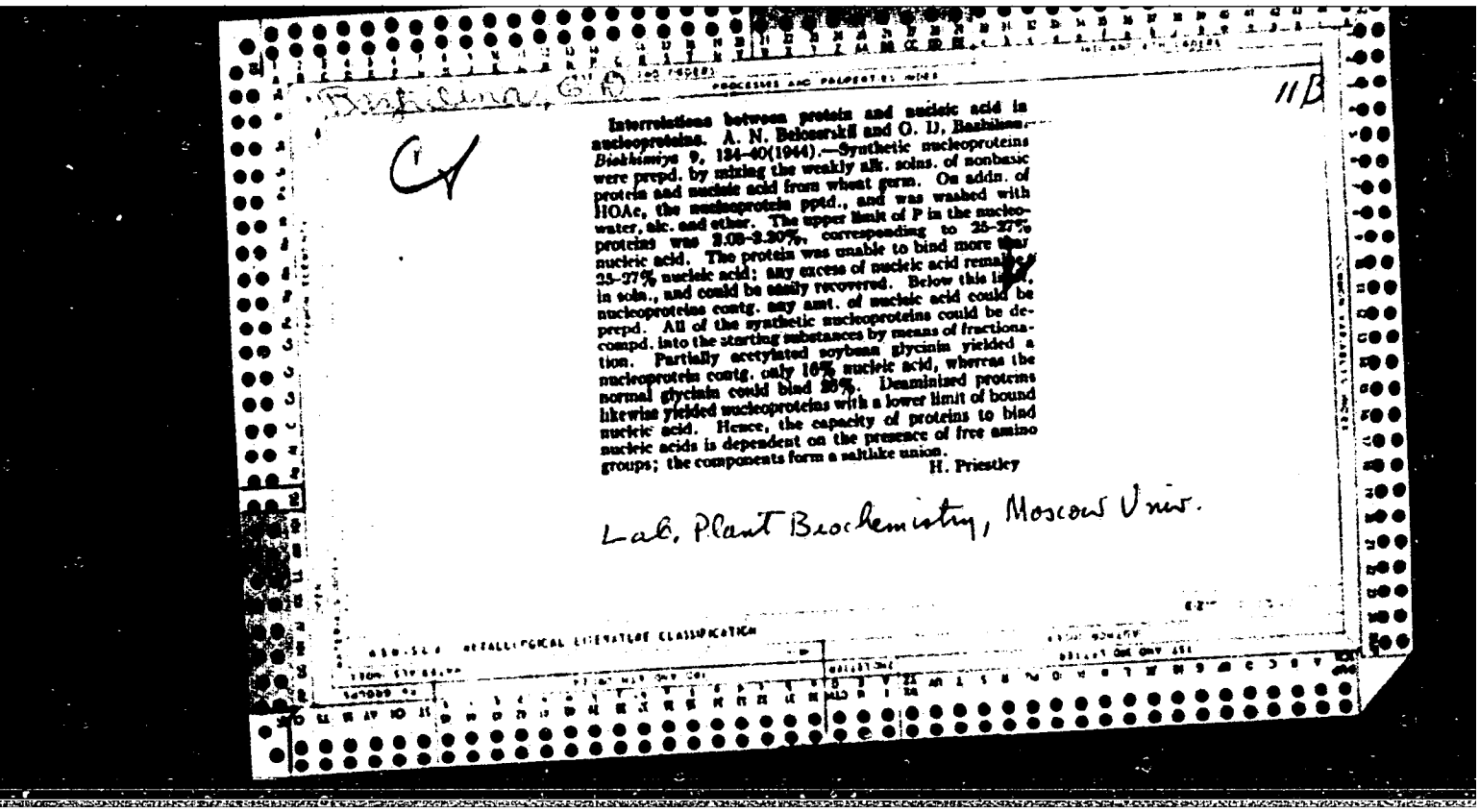
[Novaya Zemlya]Novaia Zemlia. Moskva. (Its Materialy gliatsiologicheskikh issledovanii). [Ice structure]Struktura l'da. 1962. 173 p. (MIRA 16:2)

1. Akademiya nauk SSSR. Institut geografii.
(Novaya Zemlya—Ice)

BAZHEV, A.B.; BAZHEVA, V.Ya.; AVSYUK, G.A., otv. red.; OGANOVSKIY, P.N., red.; LOSEVA, I.A., red.

[Novaya Zemlya]Novaia Zemlia. Moskva. (Its Materialy gliatsiologicheskikh issledovanii). [Ice structure]Struktura l'da. 1962. 173 p. (MIRA 16:2)

1. Akademiya nauk SSSR. Institut geografii.
(Novaya Zemlya—Ice)



PROCESSES AND PRODUCTS

11B

Interrelations between protein and nucleic acid in nucleoproteins. A. N. Belozerskii and O. D. Bashilova-*Biokhimiya* 9, 134-40(1944).—Synthetic nucleoproteins were prepd. by mixing the weakly alk. solns. of nonbasic protein and nucleic acid from wheat germ. On addn. of HOAc, the nucleoprotein pptd., and was washed with water, alc. and ether. The upper limit of P in the nucleoproteins was 2.08-2.30%, corresponding to 25-27% nucleic acid. The protein was unable to bind more than 25-27% nucleic acid; any excess of nucleic acid remained in soln., and could be easily recovered. Below this limit, nucleoproteins contg. any amt. of nucleic acid could be prepd. All of the synthetic nucleoproteins could be decompd. into the starting substances by means of fractionation. Partially acetylated soybean glycinin yielded a nucleoprotein contg. only 10% nucleic acid, whereas the normal glycinin could bind 20%. Deaminized proteins likewise yielded nucleoproteins with a lower limit of bound nucleic acid. Hence, the capacity of proteins to bind nucleic acids is dependent on the presence of free amino groups; the components form a saltlike union.

H. Priestley

Lab. Plant Biochemistry, Moscow Univ.

METALLURGICAL LITERATURE CLASSIFICATION

BAZHIN, A.; NORKIN, I., zasypshchik domennoy pechi; GULIN, G.; MYAKININ, M.; ZOLOTAREV, B.

Equal possibilities but different results. Okhr. truda i sots. strakh. 5 no.7:32-33 Jl '62. (MIRA 15:7)

1. Predsedatel' tsekhkoma domennogo tsekha metallurgicheskogo kombinata imeni Serova (for Bazhin). 2. Vneshtatnyy tekhnicheskiy inspektor Sverdlovskogo oblastnogo soveta professional'nykh soyuzov (for Gulin). 3. Predsedatel' komissii okhrany truda zavodskogo komiteta Bogoslovskogo alyuminiyevogo zavoda (for Myakinin). 4. Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'noye strakhovaniye" (for Zolotarev).
(Sverdlovsk Province--Work clothes)

BAZHIN, A.A.; NULLER, Yu.L.

Use of chloracizin in the treatment of depressive states. Zhur. nevr. i psikh. 63 no.10:1546-1548 '63. (MIRA 17:5)

1. I Psikhiatricheskaya klinika (nauchnyy rukovoditel' - prof. T.Ya. Khvilivitskiy), III Psikhiatricheskaya klinika (nauchnyy rukovoditel'-prof. Ye.S. Averbukh) i laboratoriya psikhofarmakologii (zav. -kand. med. nauk I.P. Lapin) Nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni V.M. Bekhtereva (dir. - kand. med. nauk B.A. Lebedev), Leningrad.

ACC NR: AP6033060 SOURCE CODE: UR/0201/66/000/003/0020/0024

AUTHOR: Nesterenko, V. B.; Bazhin, M. A.; Bubnov, V. P.

ORG: IYaE AN BSSR

TITLE: Calculation of the thermodynamic properties of dissociations nitrogen tetroxide taking into account nonideality

SOURCE: AN BSSR, Vestsi, Seryya fizika-tekhnichnykh navuk, no. 3, 1966, 20-24

TOPIC TAGS: nitrogen tetroxide, nitrogen tetroxide dissociation, entropy, enthalpy, THERMODYNAMIC FUNCTION

ABSTRACT: This study was undertaken because of the lack of experimental data on the enthalpy of dissociating nitrogen tetroxide. A calculation of the entropy (S) and enthalpy (I) of dissociating N_2O_4

$$N_2O_4 \rightleftarrows 2NO_2 \rightleftarrows 2NO + O_2$$

was performed in the 300—1500K and 1—140 at range, taking into account deviation of the reaching N_2O_4 from ideal behavior. The calculation was carried out on the basis of general thermodynamic functions of the thermodynamic theory of empirical corrections and of generalized tables. The calculated S and I values were used for plotting I—S and T—S diagrams (see Fig. 1 and 2, respectively). Orig. art. has: 2 figures. [WA-77]

Card 1/2

ACC NR: AP6033066

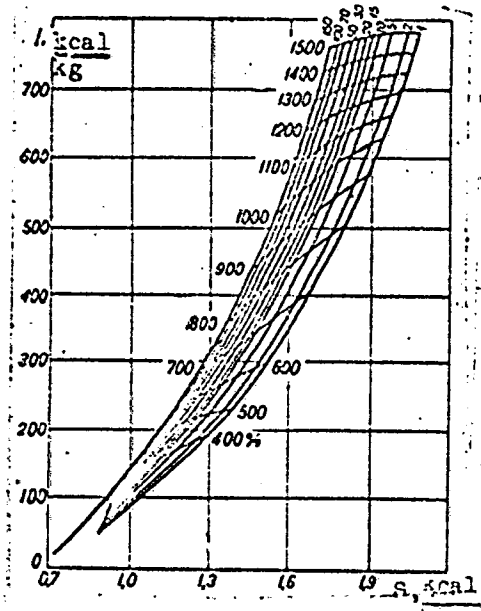


Fig. 1. I--S diagram of the dissociating system $N_2O_4 \rightleftarrows 2NO_2 \rightleftarrows 2NO + O_2$

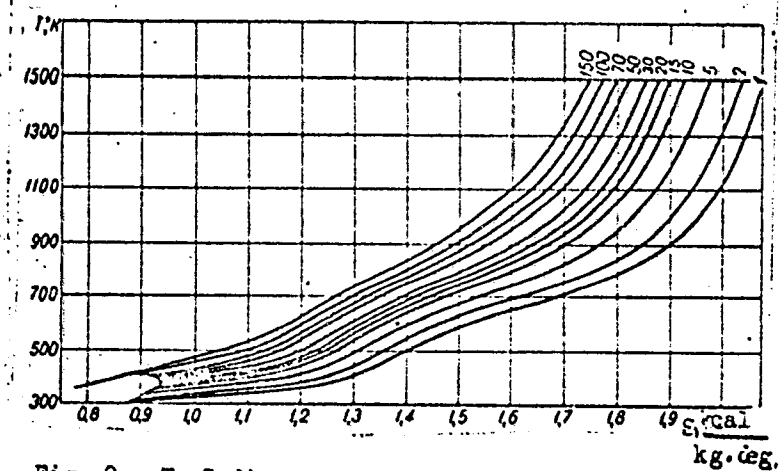


Fig. 2. T--S diagram of the dissociating system $N_2O_4 \rightleftarrows 2NO_2 \rightleftarrows 2NO + O_2$

SUB CODE: 20/ SUBM DATE: 23Mar66/ ORIG REF: 003/ OTH REF: 010

Card 2/2

ACC NR: AP7002877 (A,N) SOURCE CODE: UR/0201/66/000/004/0023/0026

AUTHOR: Bazhin, M. A.; Bubnov, V. P.; Nesterenko, V. B.

ORG: Institute of Nuclear Power Engineering, AN BSSR (Institut yadernoy energetiki AN BSSR)

TITLE: Calculation of regeneration in cycles using working media with variable specific heat

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 4, 1966, 23-26

TOPIC TAGS: gas turbine , gas turbine fuel, thermodynamic cycle, specific heat, chemical reaction, turbine regenerator, heat exchange

ABSTRACT: In view of recent proposals to use chemically reacting gas systems as working media in gas turbines, the authors have continued their earlier research on regenerative turbine cycles (Vestsi AN BSSR, ser. fiz.-tekhn. navuk, no. 1, 1966), where they have shown that regeneration of heat can make a major contribution to the efficiency of the system. Calculations are presented for both uniflow and counter-flow systems, with account taken of the variation in the specific heat of the gas as a result of the chemical reactions that take place in it. The calculations are made on the basis of the heat balance equation for the heating and heated sides of the regenerating equipment, with allowance for the fact that in the case of variable specific heat the temperature differential within the system (relative to one of the terminal points of the regenerator) can occur not only on the ends of the interval

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ACC NR: AP7002877

of variation of the independent variable (as is the case for gases with constant specific heat) but also inside the interval. The conditions under which maxima occur inside the interval are determined for both the uniflow and counterflow cases. The calculations demonstrate that allowance for the variable specific heat alters the heat-balance calculations significantly. Orig. art. has: 1 figure and 18 formulas.

SUB CODE: 20, 13/ SUBM DATE: 23Jun66/ ORIG REF: 004

Card 2/2

YERMOLAYEVA, A.D.; BAZHIN, M.S.

Experience in conducting an over-all rat control campaign in a large city. Zhur. mikrobiol. epid. i immun. 31 no.7:137-140 Jl '60. (MIRA 13:9)

1. Iz Stalinskogo instituta usovershenstovaniya vrachey i Gorodskoy sanitarno-epidemiologicheskoy stantsii.
(RATS--EXTERMINATION)

85-58-7-19/45

AUTHOR: Bazhin, N. (Kazan')

TITLE: The Kazan' Aeroclub on Its 25th Anniversary (Kazanskomu aeroklubu - 25 let)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 7, p 13 (USSR)

ABSTRACT: In the 25 years of its existence the Kazan' Aeroclub has trained many pilots who later joined the Air Force. These include N. Stolyarov, twice Hero of the Soviet Union , and K. Novoselov, A. Kalashnikov, B. Chekin, L. Sokolov, and M. Devyatayev, Heroes of the Soviet Union. Personalities mentioned include: Engineer N. Zhen, former student of the Kazan' Aviation Institute; graduate student A. Pantyukhin, who ranks first in parachute jumping in the Republic; sportsmen-parachutists Kh. Larin, student at the State University; L. Belova, plant worker; V. Busarev, Club employee; and Anna Gudina, All-Union and world women's record holder in night jumping from a jet airplane. Others mentioned are public instructors Kh. Larin, Ye. Pagoda, O. Skhorokhodov, O. Florinskiy,

Card 1/2

The Kazan' Aeroclub on Its 25th Anniversary 85-58-7-19/45

Ye. Ivanov, G. Vikharev, G. Yaltanskiy, V. Kahbibullin, V. Spasskiy; and in aviation sports V. Prokof'yev and V. Matasov.

Card 2/2 1. Civil aviation--USSR

5

15 8114 2205
24 3600 (1035, 1138, 1482)

23854
S/020/61/137/006/013/020
B103/B217

AUTHORS: Nesmeyanov, A. N., Academician, Korshak, V. V., Corresponding Member AS USSR, Voyevodskiy, V. V., Corresponding Member AS USSR, Kochetkova, N. S., Sosin, S. L., Materikova, R. B., Bolotnikova, T. N., Chibrikin, V. M., and Bazhin, N. M.

TITLE: Synthesis and some optical-magnetic properties of polyferrocenes

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 6, 1961, 1370-1373

TEXT: The authors studied the magnetic properties of ferrocene derivatives: 1) of the polyferrocenylenes (Table 1, nos. 1-6), 2) the polydiisopropylferrocene (Table 1, nos. 7-8), 3) the polymethano- and 4) the polyethanopolyferrocenes (Table 1, nos. 9-13). They were synthetized by: A) Polyrecombination. To 1) and 2). 1 mole ferrocene (or of its diisopropyl homolog) was treated with 1 mole tertiary butyl peroxide in nitrogen atmosphere at 200°C. 1) and 2) are assumed to be formed as follows: the Butoxyl and methyl radicals formed during peroxide decomposition separate the hydrogen from ferrocene (or the α-hydrogen). The radicals thus formed

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Synthesis and some ...

recombine and form linear 1) or 2), easily soluble in benzene. An insoluble polymer (Table 1, nos. 5-6) with a two- or tridimensional network structure is formed simultaneously. The conversion of ferrocene to high-molecular products amounted to 25%. Nos. 1-3 have a softening temperature of 290-300°C and are a dark-red powder, whereas nos. 5-6 had their softening temperature at about 400°C and were light-yellow. B) Polyalkylenation of ferrocene by methylene chloride and 1,2-dichloroethane in the presence of anhydrous aluminum chloride. Aluminum chloride solution in 50 ml of dihalogen alkane was added gradually to 40 g ferrocene dissolved in 250 ml dry dihalogen alkane. The mixture was stirred for 6 hr at the boiling temperature of the solvent. The next day, 10 g aluminum chloride in 25 ml dihalogen alkane were added and treated for 6 hr as above. The mixture was decomposed by ice and HCl and treated with sodium sulfite. The obtained 3) and 4) were well soluble in benzene, differed, however, by their solubility in ether. Table 1 shows the molecular weights, the always equal g-factor and the magnetic characteristics of all substances produced. The decomposition temperature of 9-13 was 115-120°C. All substances are amorphous powders, nos. 9 and 10 light-yellow, no. 11 grey-brown. Nos. 10 and 11 are of a chemical composition similar to that of no. 9 (pentaethanodifferrocene).

Card 2/6.5

23854
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B103/B217

Synthesis and some ...

They consist possibly of 2 and 4 molecules similar to the latter, connected by ethane bridges. 4-5 methylenes in the molecule of nos. 12 and 13 belong to 2 ferrocene radicals. They do not contain halogen. The infrared spectra of nos. 9-13 have frequencies within the range 1000-1100 cm^{-1}. To 1). Derivatives 1) having a π-conjugation between the ferrocene links give a signal the electron paramagnetic resonance (e-p-r), similarly to the poly-aromatic hydrocarbons. This cannot be explained by the presence of a corresponding quantity of the oxidized form of the ferricinium cation. Table 1 shows that also polymers in which the ferrocene links are separated by the $-CH_2-CH_2-$ group give an e. p. r. signal. It is known that the delocalization of the unpaired electrons between the two phenyl rings is not prevented by this group. In the substances described here, which give an e. p. r. signal, this signal is the smaller, the smaller the number of ferrocene links is. This signal vanishes in 2). Polymers with a low molecular weight give no e. p. r. signal in the solution (benzene), but in solid state. This is explained by the fact that the intramolecular interactions cause in solid state a conjugation of the adjacent polymer molecules. This causes for its part an e. p. r. signal. All polymers

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giving this signal show a single symmetrical line of the e. p. r. of the Lorenz type. The 1) obtained from the reaction A yields a wide e. p. r. line of 120-160 oersteds, its width being dependent on the polymer structure. This line becomes broader on reducing the measuring temperature. Its widt. is changed most considerably in low-molecular polymers. The authors believe the nature of the measured signals to be unclarified, they cannot maintain that the number N of the unpaired electrons per 1 member, determined by a comparison with the standard, corresponds to their actual number. N may, however, be a certain characteristic of the magnetic properties of the system (nos. 2-4). N reaches an anomalous size in the insoluble polymer no. 5. This is assumed to be connected with a collective effect of the ferromagnetic type. The ultraviolet (UV-) spectra of 1) dissolved in n-octane, which give an e. p. r. signal in solid state, differ from the ultraviolet spectra of such that give no signal in solid state. In the first case the UV-spectrum agrees completely with that of ferrocene dissolved in CCl_4. It was proved for these spectra (Ref. 7) that the charge transfer takes place here under formation of an ion pair $Fer^+CCl_4^-$. On the contrary, the UV-spectrum of such 1) that give no e. p. r. signal is similar

Synthesis and some ...

to that of ferrocene in a neutral solvent (n-octane), i. e. under conditions under which the charge is not transferred. Finally, the authors point out that their results concerning the UV-spectra apparently confirm the "pseudoferromagnetism" of the polynucleotides and of the polyaromatic hydrocarbons (Refs. 5 and 8). There are 1 figure, 1 table, and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc. The only reference to English-language publication reads as follows: J. C. D. Brand, Ref. 7: Trans. Farad. Soc., 53, 894, 1957.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds of the Academy of Sciences, USSR)

SUBMITTED: December 20, 1960

Legend to Table 1. I) Current number, 1-4) linear polyferrocenylene, 5-6) insoluble polyferrocenylene, 7) polydiisopropylferrocene, linear, 8) like 7, insoluble, 9-11) condensation products of ferrocene with Di-1,2-chloroethane, 12-13) with methylene chloride, 14) ferricinium cation. II) Substance, III) molecular weight, IV) g-factor, V-VI) line width, oersted

Card 5/6 5

BUBNOV, N.N.; BAZHIN, N.M.; VOYEVODSKIY, V.V.

Photosensitized decomposition of saturated hydrocarbons and alcohols in the solide phase. Kin. i kat. 5 no.2:357 Mr-Ap '64. (MIRA 17:8)

1. Institut khimicheskoy kinetiki i goreniya Sibirskogo otdeleniya AN SSSR.

RUBTSOV, N.N.; BAZHIN, N.M.; VOYEVODSKIY, V.V.

Formation of alkyl radicals in the phototransfer of electrons.
Kin. i kat. 5 no.3:568 My-Je '64. (MIRA 17:11)

1. Institut khimicheskoy kinetiki i goreniya Sibirskogo otdeleniya AN SSSR.

BAZHIN, N.M.; CHIBRIKIN, V.M.; VOYEVODSKIY, V.V.

Some types of polymers with conjugated bonds studied by means of electron paramagnetic resonance. Vysokom. soed. 6 no.8:1478-1482 Ag '64. (MIRA 17:10)

1. Institut khimicheskoy kinetiki i goreniya.

BAZHIN, N.M.; LIKHACHEVA, N.M.; NIKNOV, N.N.; VOYEVODSKIY, V.V.

Reactions involving a hydrogen atom in the system $H_2O + H_2SO_4 + FeSO_4$. Reaction with Fe^{+2}. Kin. i kat. 6 no. 6:1105-1108 N-D '65 (MIRA 19:1)

1. Institut khimicheskoy kinetiki i goreniya Sibirskogo otdeleniya AN SSSR. Submitted September 14, 1964.

L 17989-66 EWT(m)/EWP(j)/T/ETC(m)-6 WW/JW/WE/RM
ACC NR: AP6007776 SOURCE CODE: UR/0195/66/007/001/0161/0165

AUTHOR: Bazhin, N. M.; Kuznetsov, E. V.; Bubnov, N. N.; Voyevodskiy, V. V. 51 50B

ORG: Institute of Chemical Kinetics and Combustion, SO AN SSSR (Institut khimicheskoy kinetiki i goreniya SO AN SSSR)

TITLE: Reactions of hydrogen atoms[12] in the system water-sulfuric acid-ferrous sulfate. II. Reactions with unsaturated compounds

SOURCE: Kinetika i kataliz, v. 7, no. 1, 1966, 161-165 7,4455

TOPIC TAGS: hydrogen, free radical, free radical reaction, unsaturated hydrocarbon

ABSTRACT: Previous work has shown that UV irradiation of $FeSO_4$ solutions in dilute sulfuric acid at 77K leads to the formation of hydrogen atoms, which are stable at this temperature. In this work, the reactions of such hydrogen atoms at 90K and 120K with acetylene, ethylene, propylene, allyl alcohol and carbon monoxide were studied. The concentrations of hydrogen atoms and of the reaction products were measured by observing the EPR spectra of the samples. Except for acetylene, all EPR measurements were made at 77K. Hydrogen atoms add to acetylene to form vinyl radicals whose hyperfine structure is similar to that obtained by other workers in the photolysis of HI in the presence of acetylene at liquid helium temperatures. In discussing the mode of addition, the authors compare their observations with other work on the addition of hydrogen atoms to deuterated acetylene. Addition of hydrogen atoms to

Card 1/2 UDC: 541.141:546.722'226—145.2

propylene leads almost exclusively to the formation of isopropyl radicals. It was observed that ethyl and isopropyl radicals do not decompose under the influence of UV or visible light under experimental conditions. The spectrum of the reaction product obtained from allyl alcohol is very similar to those of hydrocarbon radicals $RCH_2\dot{C}H_2$ and therefore can be ascribed to the radical $\dot{C}H_2CH_2CH_2OH$. Since a protonated form of allyl alcohol is involved, the radical in this case must be $\dot{C}H_2CH_2CH_2OH_2^+$. The energy decrease due to the increased separation of the unpaired electron and the charge on the hydroxyl group must be sufficient to offset the energy increase of localization of the unpaired electron on a primary rather than on a secondary carbon atom. Addition of a hydrogen atom to CO yields a product whose spectrum consists of a doublet with a separation of approximately 132 e, and can be ascribed to the radical $H\dot{C}O$. The radical decomposes under the influence of light, probably to H and CO. The authors conclude that under the above conditions hydrogen atoms can react with unsaturated compounds by adding to double or triple bonds, or to unshared electron pairs. Useful quantitative data concerning unsaturated compounds can be obtained in this manner. Orig. art. has: 2 figures. [VS]

SUB CODE: 07 SUBM DATE: 14Jun65/ ORIG REF: 005/ OTH REF: 006/ ATD PRESS: 4212

L 45776-66 EWP(j)/EWT(m) RM/JW

ACC NR: AP6030704 SOURCE CODE: UR/0195/66/007/004/0732/0734

39
38
B

AUTHOR: Bazhin, N. M.; Kuznetsov, E. V.; Bubnov, N. N.; Voyevodskiy, V. V.

ORG: Institute of Chemical Kinetics and Combustion, SO AN SSSR (Institut khimicheskoy kinetiki i goreniya SO AN SSSR)

TITLE: Reaction of the hydrogen atom in the system $H_2O+H_2SO_4+FeSO_4$. III. Reaction with saturated organic compounds

SOURCE: Kinetika i kataliz, v. 7, no. 4, 1966, 732-734

TOPIC TAGS: hydrogen atom reaction, methanol, ethanol, isopropyl alcohol, ethylene glycol, isobutyric acid, malonic acid, acetone, free radical

ABSTRACT: Atomic hydrogen obtained by the action of UV light on frozen $H_2O+H_2SO_4+FeSO_4$ at 77K was previously shown to react with unsaturated organic compounds. In the present paper, the authors studied the reaction with a series of saturated compounds having weak C-H bonds (methanol, ethanol, isopropyl alcohol, ethylene glycol, isobutyric acid, malonic acid, and acetone). The reactions were carried out with 0.1 M solutions of the organic reagents at 90 and 120K, and the products were identified from the EPR spectra. It was found that the reaction between H and methanol, ethanol, isopropyl alcohol, malonic acid, and isobutyric

Card 1/2 UDC: 543.878:546.11-123-145

acid resulted in the following radicals: $\dot{C}H_2OH$, $CH_3\dot{C}HOH$, $H_3C-\underset{\underset{OH}{|}}{\dot{C}}-CH_3$, $HOOC-\underset{\underset{H}{|}}{\dot{C}}-COOH$ and $H_3C-\underset{\underset{COOH}{|}}{\dot{C}}-CH_3$, respectively. In the case of methanol, the $\dot{C}H_2OH$ was further broken down to $H\dot{C}O$, but no $\dot{C}H_3$ could be detected. With acetone, the reaction yielded $CH_2-\underset{\underset{OH}{|}}{\dot{C}}-CH_3$ instead of $H_3C-\underset{\underset{OH}{|}}{\dot{C}}-CH_3$, while in the case of ethylene glycol, only $\dot{C}H_2-\underset{\underset{O}{\|}}{C}-H$ and no $\dot{C}H_2OH$ could be detected. The mechanism by which atomic H at approximately 90K can capture hydrogen from alcohols, organic acids, and ketones is discussed. Orig. art. has: 5 formulas and 1 figure. [26]

SUB CODE: 07/ SUBM DATE: 08Oct65/ ORG REF: 004/ ATD PRESS: 5084

BYZHIN, N.F., inzhener.

Raise advance in unstable formations. Bezop.truda v prom. 1 no.9:13-15 S '57. (MLRA 10:9)

(Mining engineering)

BAZHIN, N.P., inzh.

Establishing parameters for the zone of influence of ground movement on development workings. [Trudy] VNIMI no.47:10-21 '62 (MIRA 17:7)

BAZHIN, N.P., inzh.

Deformations in intermittent headings in connection with the different methods of their protection. Ugol' 37 no.3:18-20 Mr '62. (MIRA 15:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy marksheyderskiy institut. (Mine timbering) (Rock pressure)

BAZHIN, N.P., inzh.; KOVAL'CHUK, B.V., inzh.

Support of workings without pillars. [Trudy] VNIMI no.40:48-63 '61. (MIRA 14:12)

(Kuznetsk Basin--Mine timbering)

BAZHIN, N.P., inzh.

Distribution of development workings in mining seams overlying worked-out areas. Ugol' 37 no.11:24-26 N '62. (MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy marksheyderskiy institut.
(Coal mines and mining)

BAZHIN, N.P.

Results of mining an underlying seam entry. Vop. gor. davl. no.21:14-16 '64. (MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy marksheyderskiy institut.

RAZHIN, S.

In a consolidated apartment-house office. Zhil.-kom. khoz. 10 no.7: 21-22 '60. (MIRA 13:10)

1. Upravlyayushchiy domami domoupravleniya No.8 Leninskogo rayona, g. Perm'.
(Perm--Apartment houses--Management)

BAZHIN, V.F.; KULIKOV, A.I.; KURLINA, I.P.; POLYAKOV, I.M.; SHIPINOV, N.A.

Nitration of shale and coal phenols by dilute nitric acid.
Khim. i tekh. gor. slan. i prod. ikh perer. no.9:276-282 '60.
(MIRA 15:6)

(Phenols) (Nitration) (Nitric acid)

BREZHNEV, V.A., inzh.; BAZHIN, V.F., inzh.

Redesigning of BO-200 water heaters. Energetik 12 no.1:12-13 Ja '64. (MIRA 17:3)

BREZHNEV, V. A., inzh.; BAZHIN, V. F., inzh.

Support collars and protection of the PVD system from overfilling.
Energetik 12 no.4:4 Ap '64. (MIRA 17:7)

BAZHIN, Ye.F.

Use of amytal-caffeine disinhibition in chronic schizophrenia for psychopathological study and evaluation of therapeutic prognosis. Vop. psikh. nevr. no.10:312-326 '64.
(MIRA 18:12)

1. 1-ye psikhiatricheskoye otdeleniye (zav. - prof. T.Ya. Khvilivitskiy) Leningradskogo nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni V.M.Bekhtereva (direktor - B.A.Lebedev).

NELYUBOV, Yu.V., inzh.; BAZHIN, Ye.I., inzh.; SVETLICHNYY, S.I., tekhnik

Vibrations of the reinforced concrete tower headframe under the seismic effect of open pit blasting. Shakht. stroi. 9 no.7:20-22 Jl '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy gornometallurgicheskiy institut tsvetnykh metallov.

BAZHINA, I.A., Cand Tech Sci -- (diss) "Non-stationary radiation of emitters with a wave running in the direction of the azimuth." Vos, 1958, 9 pp (Min of Higher Education USSR, Len Electrical Engineering Inst im V.I. Ul'yanov (Lenin)). 100 copies (KL, 27-58, 107)

BAZHINA, I..A.

"Estimation of Dependence of the Sound Field in Anechoic Chambers on the Acoustical Treatment."

paper presented at the 4th All-Union Conf. on Acoustics, Moscow, 25 May - 4 June 58.

BAZHINOV, A.G.; KAMORSKIY, N.M.

Use of β-propiolactone in disinfection and sterilization; according to foreign investigations. Zhur. mikrobiol. epid. i immun. 31 no.7: 26-30 Jl '60. (MIRA 13:9)
(HYDRACRYLIC ACID) (ANTISEPTICS)

BAZHINOV, A.G., podpolkovnik meditsinskoy sluzhby; KAMORSKIY, N.M., podpolkovnik; KOMAROV, V.A., podpolkovnik, kand.khimicheskikh nauk

New substances and methods for disinfecting hospital rooms (as revealed by foreign studies). Voen.-med. zhur. no.7:53-56 Jl '61. (MIRA 15:1)

(DISINFECTION AND DISINFECTANTS) (HOSPITALS--SANITATION)

YULIUS, A.A.; BAZHINOV, A.G.

Sterilization of solid media for fungus culture by β-propiolactone.
Mikrobiologiia 32 no.1:143-147 '63 (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut fermentnoy i spirtovoy promyshlennosti.

ALEKSANDROV, N.I.; GEFEN, N.Ye.; BUDAK, A.P.; RUNOVA, V.F.; YEZEPCHUK, Yu.V.; BAZHINOV, A.G.

Study of the reactogenicity of chemically precipitated anthrax vaccine in small groups of people. Zhur. mikrobiol., epid. i immun. 40 no.3:32-34 Mr '63. (MIRA 17:2)

GEFEN, N.Ye.; RUDNEVA, O.A.; BAZHINOV, A.G.

Use of β-propiolactone for sterilizing some labile biological preparations; preliminary report. Zhur.mikrobiol., epid. i immun. 33 no.3:103-108 Mr '62. (MIRA 15:2)
(HYDRACRYLIC ACID) (STERILIZATION) (BIOLOGICAL PRODUCTS)

BAZHINOV, A.G.; KAMORSKIY, N.M. (Moskva)

Sterilization of homografts by means of β- propiolactone; as revealed by foreign studies. Khirurgiia no.8:130-133 Ag '61. (MIRA 15:5)

(HYDRACRYLIC ACID) (HOMOGRAFTS—STERILIZATION)

BAZHINOV, A.G.; GARIN, N.S.; KAMORSKIY, N.M.; KOMAROV, V.A.

Sterilization of nutrient media using β-propiolactone. Lab.delo 8 no.5:46-49 My '62. (MIRA 15:12)

(HYDRACRYLIC ACID)
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA)

[redacted], N.I.; BAZHENOV, A.G.; [redacted], L.V.

Use of β-propiolactone in the production of veterinary biological preparations. Veterinariia 41 no.2:26-27 F '65.

(MIRA 18:3)

1. Vsesoyuznyy trest biologicheskoy promyshlennosti Ministerstva sel'skogo khozyaystva SSSR.

CHUMAKOV, V.P.; BAZHINOV, A.G.; ZVYAGIN, I.V.

Testing the sterilizing action of beta-propiolactone in the preparation of biological products. Veterinariia 41 no.11: 23-24 N '64. (MIRA 18:11)

1. Vsesoyuznyy trest biologicheskoy promyshlennosti Ministerstva sel'skogo khozyaystva SSSR.

ABIDZHANOV, Sokhib; BAZHITOV, I.V., inzh.-normirovshchik; KIRICHUK, A.S.; KOKOREV, V.A.; KUZNETSOV, I.F.; PAVLOVA, M.I.; dotsent; ZHUPIKOVA, D.M., dotsent

Consultation. Tekst. prom. 21 no.1:91-93 Ja '61. (MIRA 14:3)

1. Master lento-rovinchnogl tsekha Kokandskogo chulochno-pryadil'nogo kombinata (for Abidzhanov). 2. Fabrika imeni Lakina (for Bazhitov). 3. Master remontno-montazhnogo otdela Barnaul'skogo khlopchatobumazhnogo kombinata (for Kirichuk). 4. Vsesoyuznyy nauchno-issledovatel'skiy institut tekstil'nogo i legkogo mashinostroyeniya (for Kokorev). 5. Nachal'nik tekhnicheskogo otdela Pavlov-Pokrovskoy fabriki (for Kuznetsov). 6. Kafedra tkachestva Moskovskogo tekstil'nogo instituta (for Pavlova, Zhupikova).
(Textile industry)

BAZHIYEV, Zhibril Kharunovich; POD"YAPOL'SKIY, G.N., red.

[Tetraogallus of the Caucasus; an essay by a naturalist] O kavkazskoi gornoi indeike; ocherk naturalista. Nal'chik, Kabardino-Balkarskoe knizhnoe izd-vo, 1962. 30 p. (MIRA 18:7)

S/080/60/033/009/015/021
A003/A001

AUTHORS: Nichkov, I.F., Raspopin, S.P., Bazhkov, Yu.V.

TITLE: The Interaction of Uranium-Containing Melts of Halide Salts With Bismuth

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 9, pp. 2136-2139

TEXT: The interaction of bismuth metal with uranium-containing melts of potassium, sodium, lithium and calcium chlorides was investigated. In the experiments recrystallized dehydrated chemically pure salts were used. The experiments were carried out in atmospheres of air and purified argon to ascertain the effect of moisture and oxygen. A sharp decrease of the uranium concentration to a certain very low level was observed in the melt in all cases. The difference of experiments conducted with the air and the argon atmosphere was not considerable. The final concentration did not depend on the initial concentration. The interaction of bismuth with uranium-containing binary systems was studied on 2-g batches of a mixture containing 25 weight % of uranium tetrachloride. The total amount of uranium passed from the melt into a crystalline precipitate of black color on the bismuth surface. The chemical analysis of the

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A003/A001

The Interaction of Uranium-Containing Melts of Halide Salts With Bismuth

precipitate has shown that it contains (weight %): uranium 41.6-77.3, bismuth 2.5-8.5, alkali metal 2-16. Roentgen-phase analysis pointed to the formation of a compound. In the case of the interaction of $KCl-UCl_4$ with bismuth probably the compounds $xKCl \cdot yBiCl_3 \cdot zUCl_3$ were obtained. The data of the analyses make it probable that the following reaction takes place: $3U^{4+}+Bi \rightarrow 3U^{3+}+Bi^{3+}$. There are 3 figures, 1 table and 18 references: 15 Soviet, 3 English.

SUBMITTED: March 14, 1960

Card 2/2

NICHKOV, I.F.; RASPOPIN, S.P.; BAZHKOV, Yu.V.

Polarization of a liquid bismuth cathode in chloride melts. Zhur. prikl.khim. 34 no.7:1533-1536 Jl '61. (MIRA 14:7)
(Bismuth) (Polarization (Electricity)) (Chlorides)

BAZHNETSOV, N. M., VOL'KENSHTEYN, M. V.

Cellulose Triacetate

Optical activity of cellulose triacetate. Izv. AN SSSR Otd. khim. nauk. no. 2 (1952)

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

BAZHOV, I.G., prepodavatel' chercheniya

Development of space concepts in students. Prof.-tekh.obr. 19 no.3:24-25 Mr '62. (MIRA 15:4)

1. Moskovskoye zheleznodorozhnoye uchilishche No.4.
(Mechanical drawing—Study and teaching)

BAZHOV, I., prepodavatel'

Laboratory practice on automatic brakes. Prof.-tekh. obr. 20 no.8:6-8 Ag '63. (MIRA 16:9)

1. Moskovskoye zheleznodorozhnoye uchilishche No.4.
(Brakes) (Vocational education)

AGAFONOV, Mikhail Ivanovich; PEROV, Aleksandr Nikitich; BEKHTEREV, V.D., retsenzent; BAZHOV, I.S., retsenzent; SHIBER, R.A., retsenzent; BRAYLOVSKIY, N.G., red.; KHITROV, P.A., tekhn. red.

[Design and repair of automatic brakes] Ustroistvo i remont avtotormozov. Izd.6., perer. i dop. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 270 p. (MIRA 14:8)

(Railroads—Brakes)

SHIBER, R.A.; KRUGLYY, G.T.; BAZHOV, I.S., inzh., retsenzent; SAMOKHVALOV, S.F., inzh., retsenzent; FEDOROV, V.A., inzh., retsenzent; KRUPNOV, S.A., inzh., retsenzent; YESHCHIN, S.B., inzh., retsenzent; SARANTSEV, Yu.S., inzh., red.; KHITROVA, N.A., tekhn. red.

[Design, maintenance and repair of railroad cars] Ustroistvo i remont vagonov. Moskva, Transzheldorizdat, 1963. 395 p. (MIRA 16:6)

(Railroads—Cars)

MISHCHUK, Ivan Petrovich; BAZHOV, I.S., red.; STEPANSKAYA, I.M., red.; NESMYSLOVA, L.M., tekhn. red.

[Teaching students to read mechanical drawings] Obuchenie uchashchikhsia chteniiu chertezhei. Moskva, Proftekhizdat, 1962. 95 p. (MIRA 16:5)

1. Prepodavatel' Voronezhskogo tekhnicheskogo uchilishcha No.2 (for Mishchuk).
(Mechanical drawing--Study and teaching)

SHIBER, Ruvim Abramovich; KRUGLYY, Georgiy Tikhonovich; BAZHOV, I.S., inzh., retsenzent; SAMOKHVALOV, S.F., inzh., retsenzent; FEDOROV, V.A., inzh., retsenzent; KRUPNOV, S.A., inzh., retsenzent; YESHCHIN, S.B., inzh., retsenzent; SARANTSEV, Yu.S., inzh., red.; [redacted]A, N.A., tekhn. red.

[Arrangement, maintenance and repair of cars] Ustroistvo i remont vagonov. Moskva, Transzheldorizdat, 1963. 395 p. (MIRA 17:2)

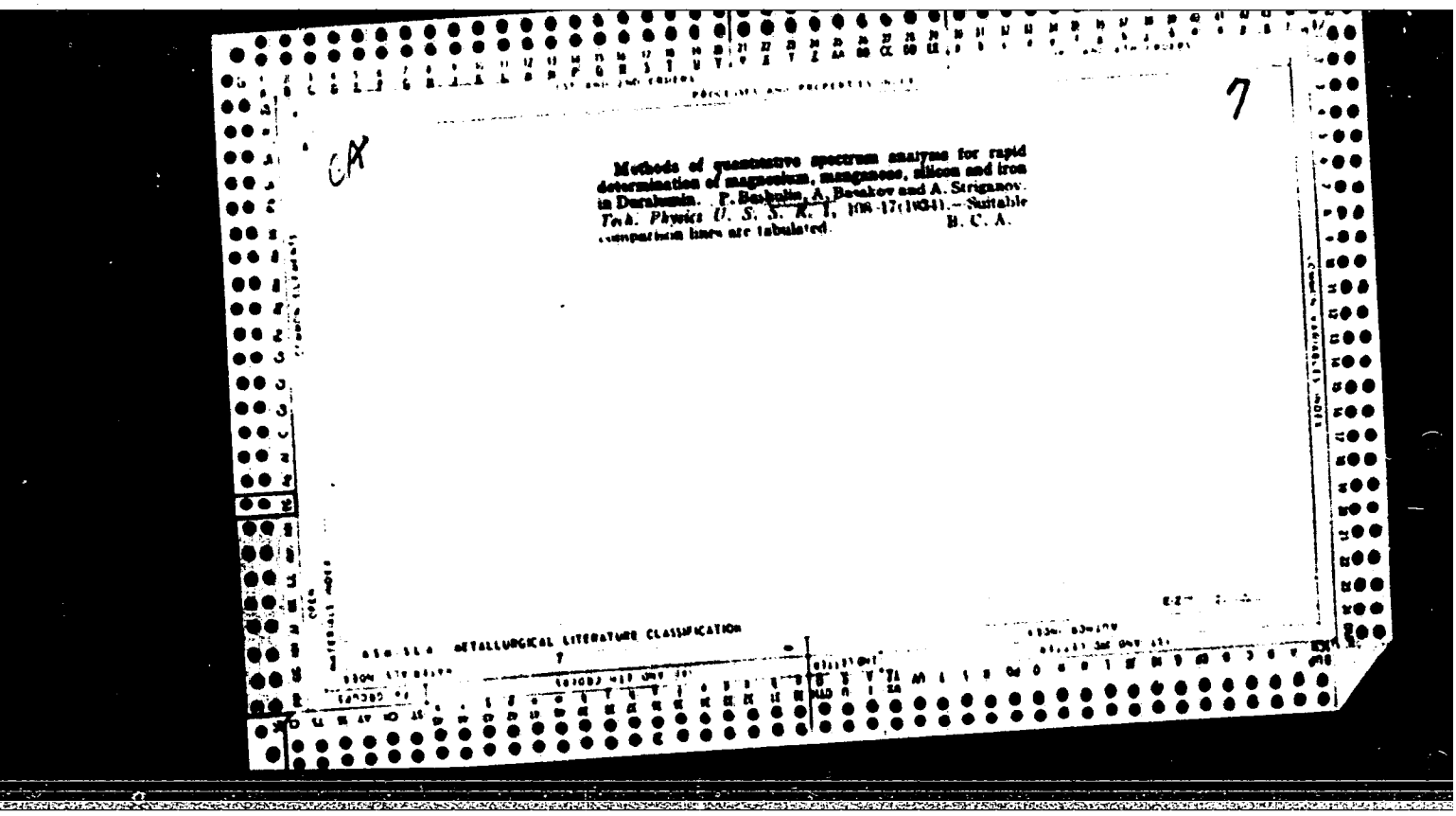
BAZHUKOVA, L.F.

Changes in cells induced by ultraviolet rays. Trudy LSGMI 43: 146-157 '59. (MIRA 13:5)
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT) (CELLS)

BAZHULIN, N.

Technical development is the basis for an improvement of working conditions. Avt. transp. 41 no.3:17-18 Mr '63. (MIRA 16:4)

(Transportation, Automotive—Technological innovations)



Methods of quantitative spectrum analysis for rapid determination of magnesium, manganese, silicon and iron in Duralumin. P. Bachulin, A. Bocakov and A. Striganov. *Tech. Physics U. S. S. R.* 1, 108-17(1934).—Suitable comparison lines are tabulated. B. C. A.

7

METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND CODERS

PROCESSES AND PROPERTIES INDEX

7

The method of quantitative spectral analysis as a means for the rapid determination of admixtures of Mg, Mn, Si and Fe in duraluminum. P. A. Bazhulin, A. A. Rusakov and A. P. Striganov. *J. Tech. Phys.* (U. S. S. R.) 4, 578-80(1934).—Mn and Mg are detd. in the range 0.05 to 0.07%, Fe and Si from 0.1 to 0.7% and Cu from 0.5 to 5.0% with an error of less than 10%. The spectral lines used are given in 5 tables. F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

A 53
8

5130. Absorption of Supersonic Waves in Liquids. P. Bazulin. *Phys. Zeits. d. Sowjetunion*, 8, 3, *pp.* 354-358, 1935. *In German.*—The absorption of supersonic waves in liquids was investigated by making use of the diffraction of light at these waves (see Abstracts 4457 and 4458 (1933)). A homogeneous parallel beam of light fell on a series of equi-distant slits. The separate bundles of rays which issued from the slits passed through a vessel of liquid at different distances from the source of sound (piezo-quartz); and the diffraction images obtained from the separate slits were simultaneously photographed. The investigation of the fading of the supersonic waves in liquids was carried out by two methods, and the results of the measurements of the absorption coefficients in three different mixtures of vaseline oil and petroleum, and in CCl_4 are given. J. J. S.

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

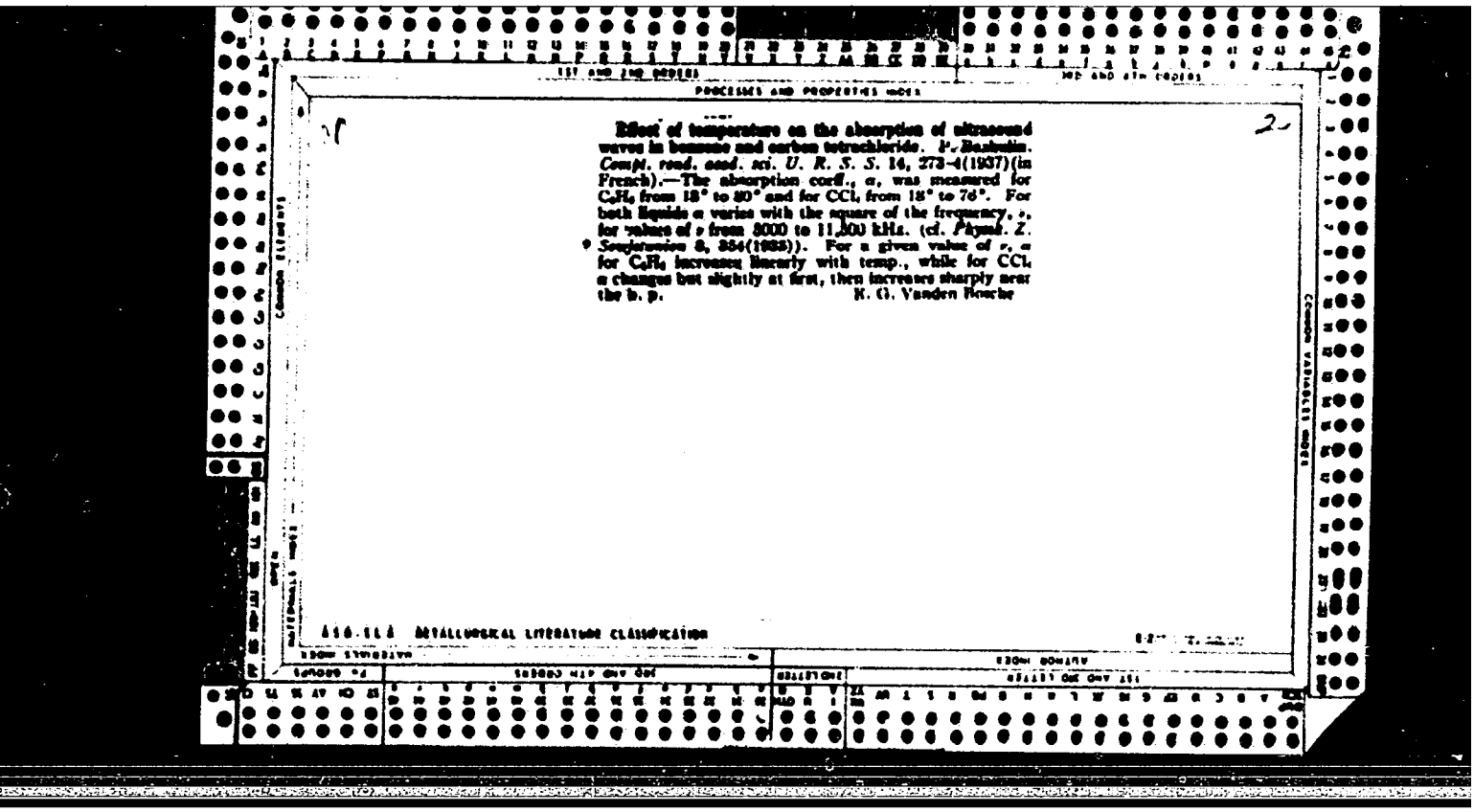
1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

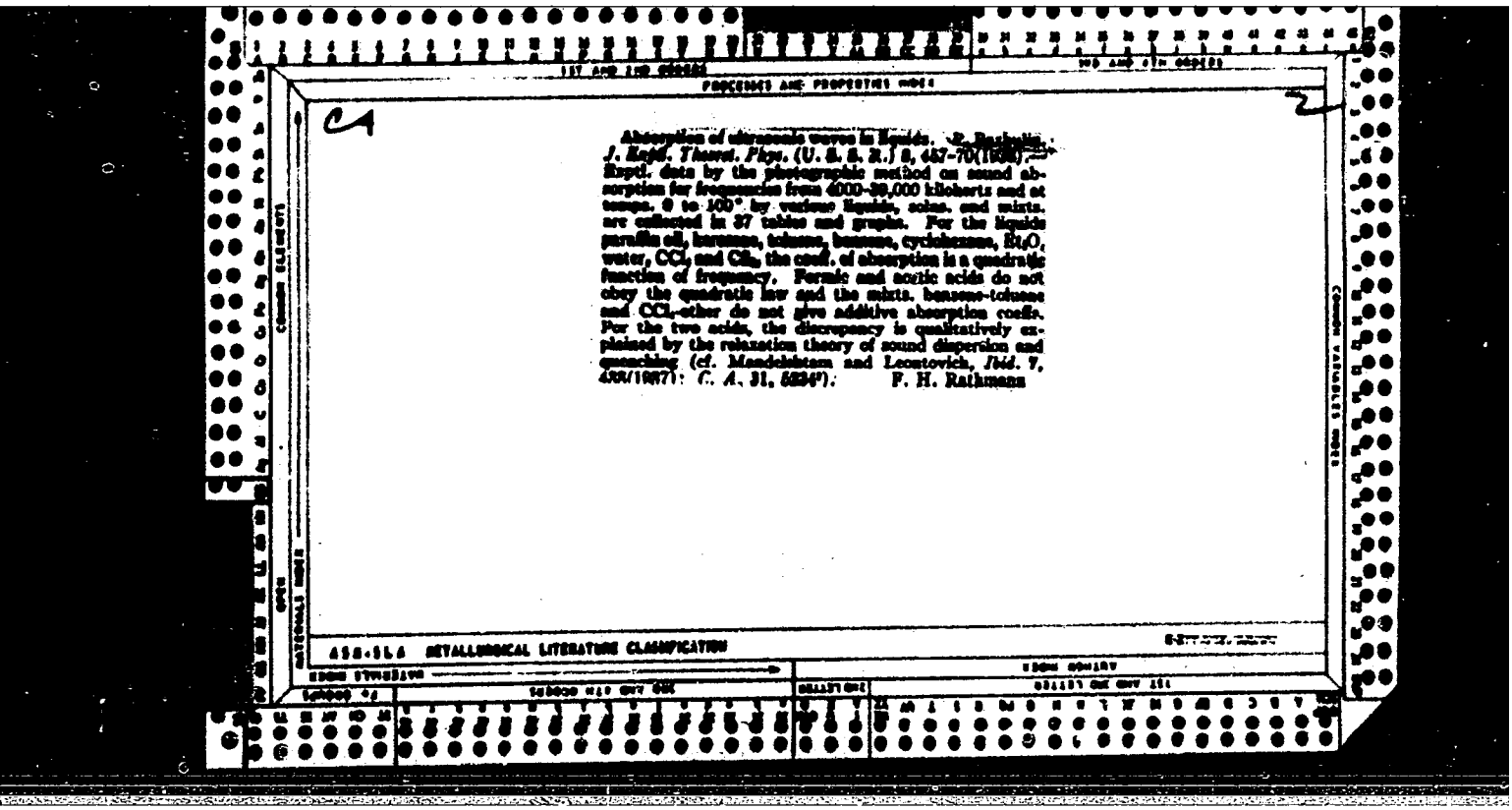
B2 a-1

Absorption of ultrasonic waves in acetic acid [and benzene and toluene]. P. Baskulin (Compt. rend. Acad. Sci. U.R.S.S., 1936, 3, 285—288).—The absorption coeff. (a) of ultrasonic waves has been determined in AcOH at 17·5—35° for frequencies (v) 3·72—31·35 × 10⁶. a is an approx. linear function of v. a has been determined in 0—100% mixtures of PhMe and C_6H_6 at 18° and v = 11·47 × 10⁶. The difference in a for PhMe and C_6H_6 is > that in d, v, and velocity of propagation of sound. a departs considerably from the additive law. R. S. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Effect of temperature on the absorption of ultrasound waves in benzene and carbon tetrachloride. P. Beaubien. *Compt. rend. acad. sci. U. R. S. S.* 14, 273-4(1937)(in French).—The absorption coeff., α, was measured for C_6H_6 from 18° to 80° and for CCl_4 from 18° to 76°. For both liquids α varies with the square of the frequency, ν, for values of ν from 3000 to 11,300 kHz. (cf. *Physik. Z. Sowjetunion* 8, 854(1935)). For a given value of ν, α for C_6H_6 increases linearly with temp., while for CCl_4 α changes but slightly at first, then increases sharply near the b. p. R. C. Vanden Heuvel

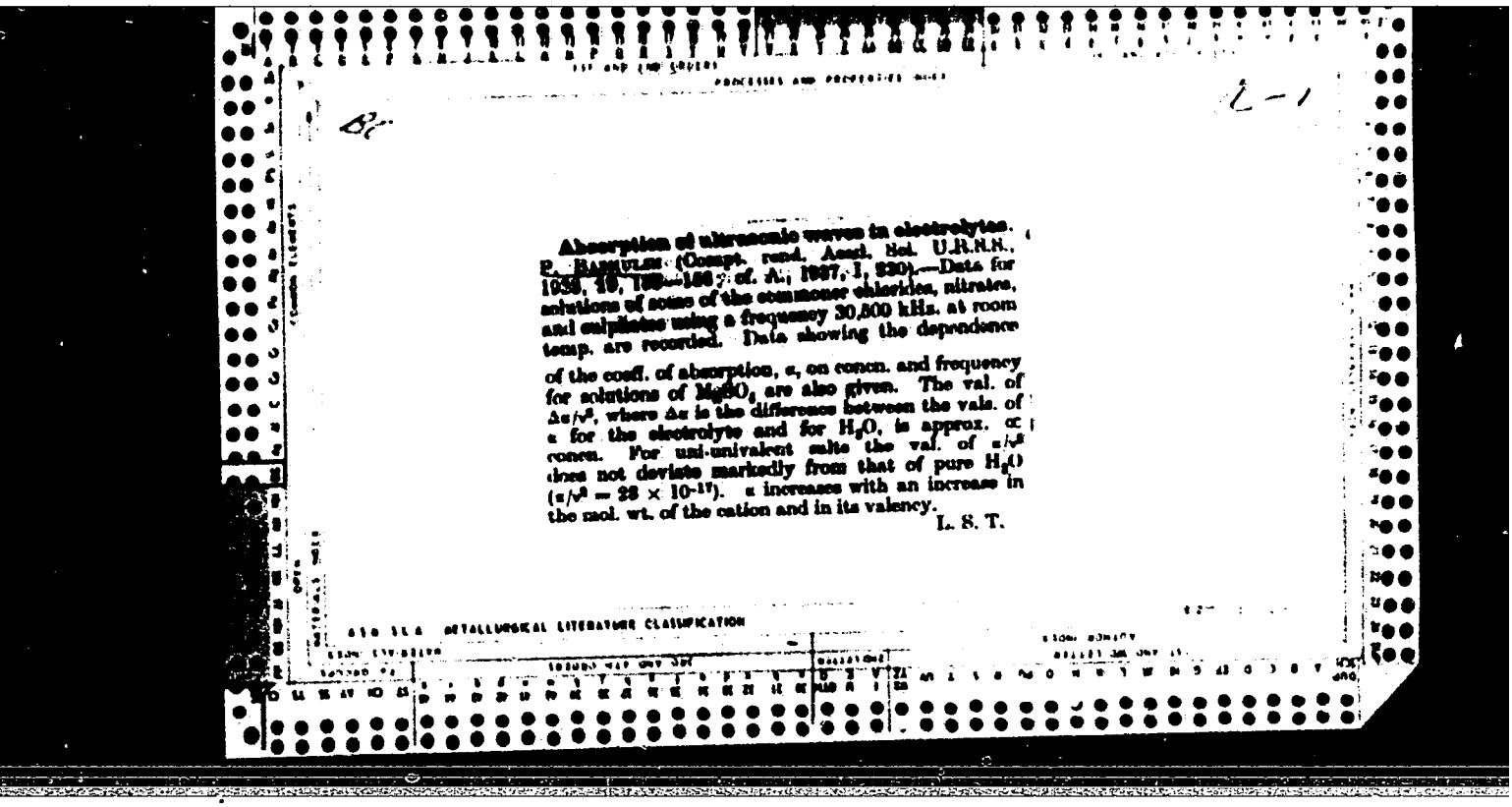


PROCESSES AND PROPERTIES INDEX

C1

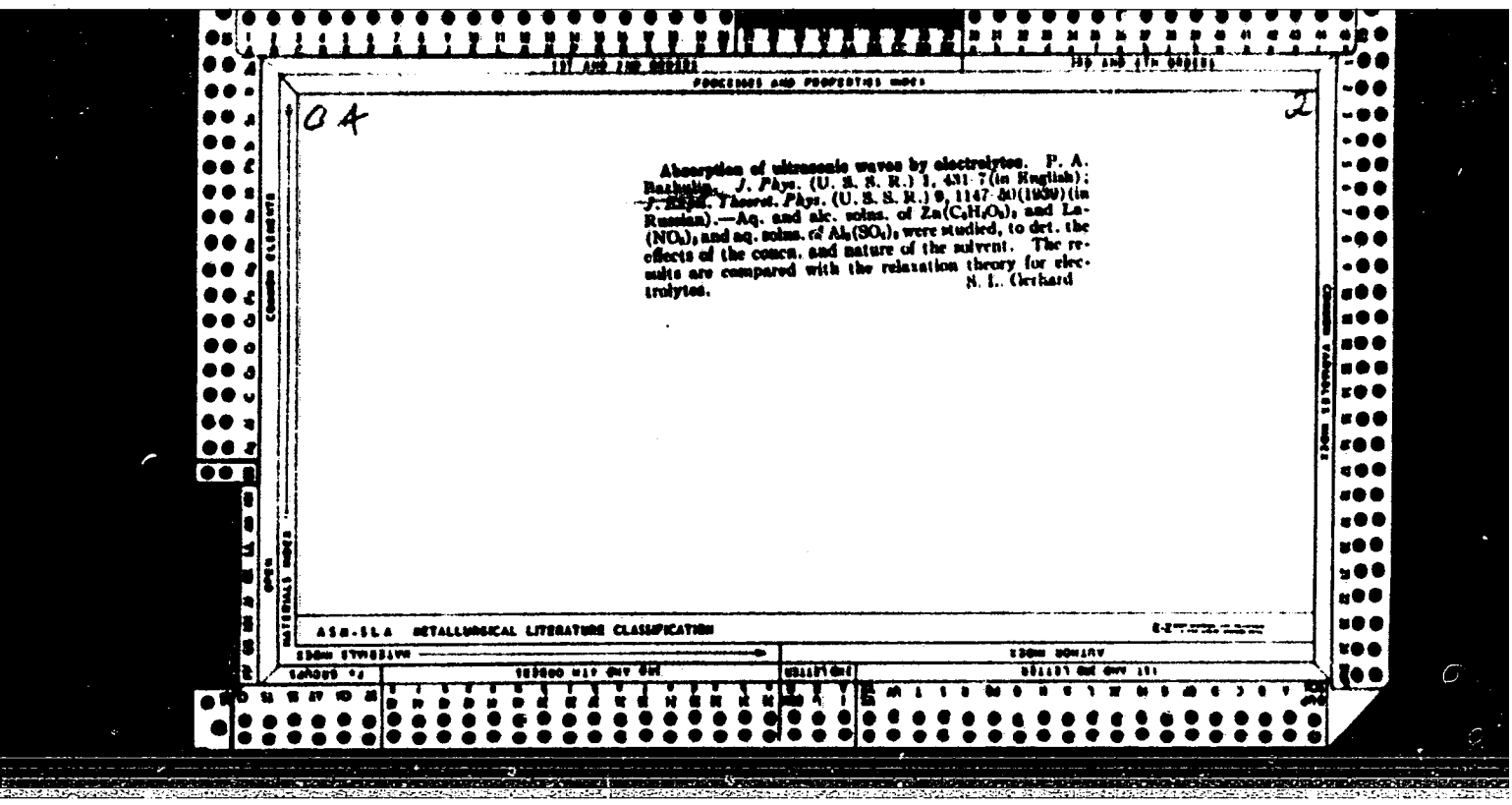
Absorption of ultrasonic waves in liquids. S. Parthasarathy. *J. Exptl. Theoret. Phys. (U. S. S. R.)* 8, 487-70(1938). Exptl. data by the photographic method on sound absorption for frequencies from 4000-29,000 kilohertz and at temps. 0 to 100° by various liquids, solns. and mixts. are collected in 37 tables and graphs. For the liquids paraffin oil, kerosene, toluene, benzene, cyclohexane, Et_2O, water, CCl_4 and CH_3I, the coeff. of absorption is a quadratic function of frequency. Formic and acetic acids do not obey the quadratic law and the mixts. benzene-toluene and CCl_4-ether do not give additive absorption coeffs. For the two acids, the discrepancy is qualitatively explained by the relaxation theory of sound dispersion and quenching (*cf.* Mandelshtam and Leontovich, *Ibid.* 7, 438(1937); *C. A.* 31, 6234⁹). F. H. Rathmann

418-516 METALLURGICAL LITERATURE CLASSIFICATION



Absorption of ultrasonic waves in electrolytes. P. Bassulus (Compt. rend. Acad. Sci. U.R.S.S., 1938, 19, 189—193; cf. A., 1937, I, 220).—Data for solutions of some of the commoner chlorides, nitrates, and sulphates using a frequency 30,800 kHz. at room temp. are recorded. Data showing the dependence of the coeff. of absorption, α, on concn. and frequency for solutions of $MgSO_4$ are also given. The val. of $\Delta\alpha/\nu^2$, where $\Delta\alpha$ is the difference between the vals. of α for the electrolyte and for H_2O, is approx. $\propto$ concn. For uni-univalent salts the val. of α/ν^2 does not deviate markedly from that of pure H_2O ($\alpha/\nu^2 = 28 \times 10^{-17}$). α increases with an increase in the mol. wt. of the cation and in its valency.

L. S. T.

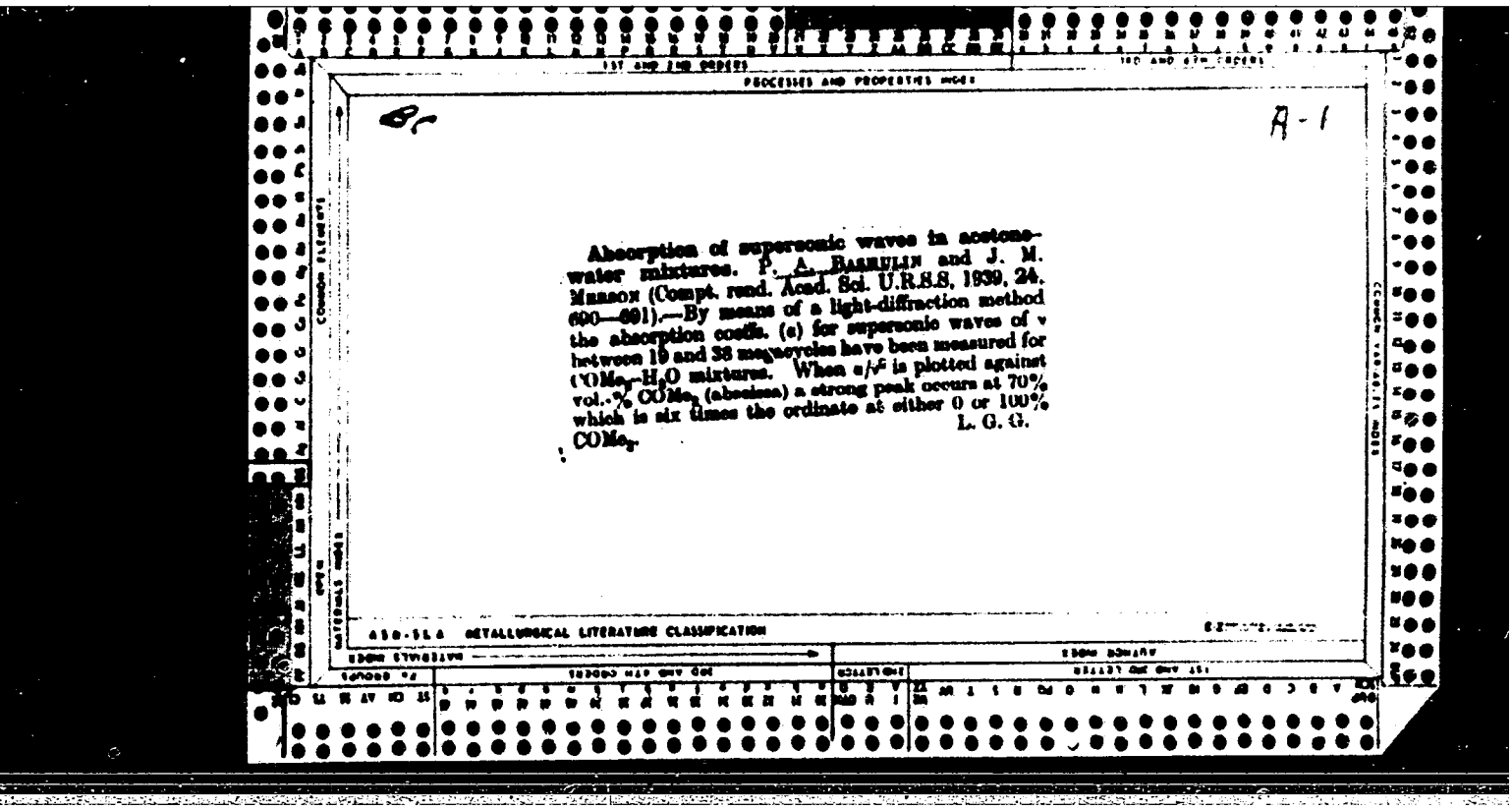


04

2

Absorption of ultrasonic waves by electrolytes. P. A. Bazhulin. *J. Phys.* (U. S. S. R.) 1, 431-7 (in English); *J. Exptl. Theoret. Phys.* (U. S. S. R.) 9, 1147-51 (1939) (in Russian).—Aq. and alc. solns. of $Zn(C_2H_3O_2)_2$ and $La(NO_3)_3$ and aq. solns. of $Al_2(SO_4)_3$ were studied, to det. the effects of the concn. and nature of the solvent. The results are compared with the relaxation theory for electrolytes. N. L. Gerhard

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

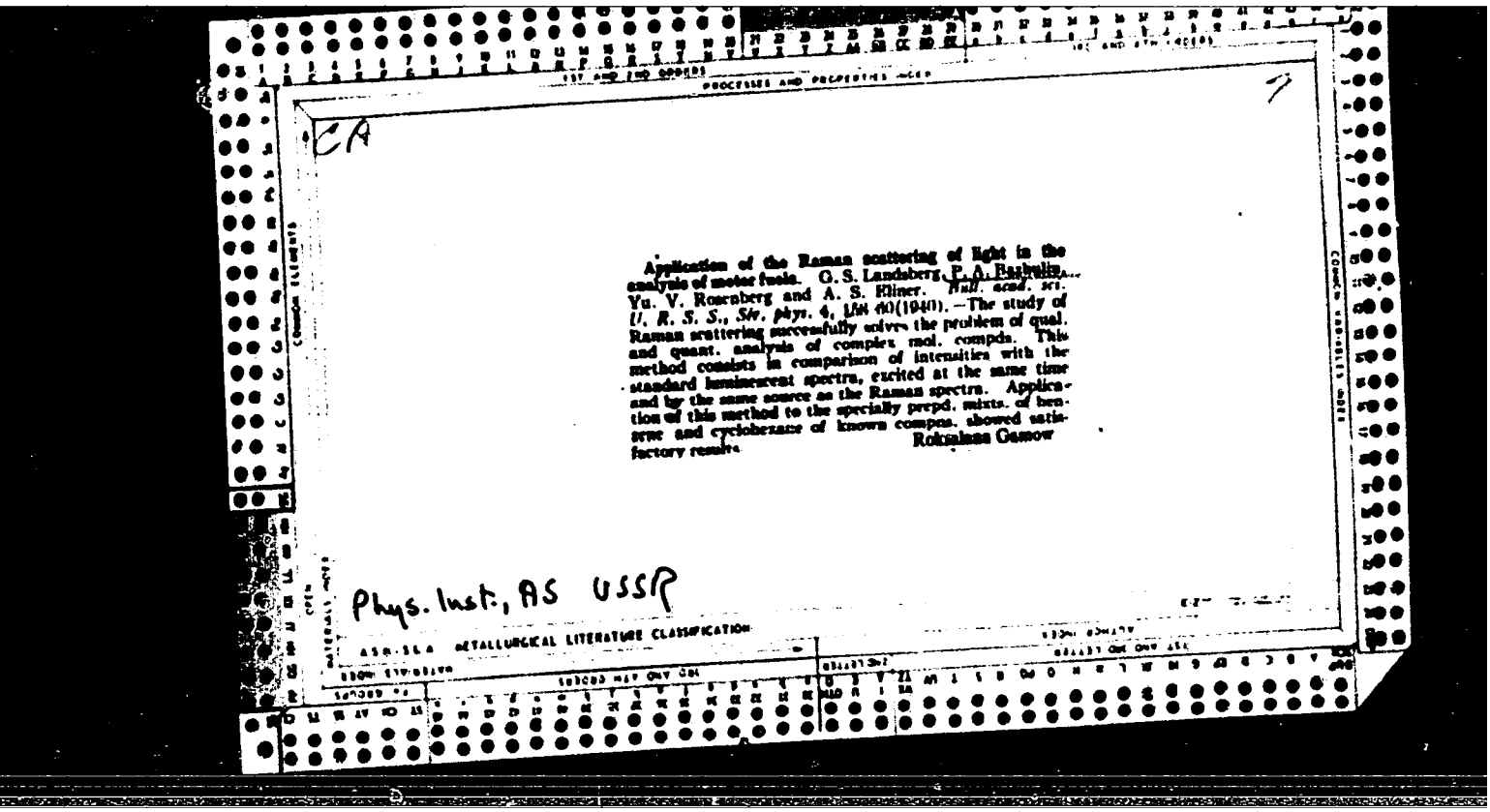


8c

A-1

Absorption of supersonic waves in acetone-water mixtures. P. A. Bazulin and J. M. Masson (Compt. rend. Acad. Sci. U.R.S.S., 1939, 24, 690—691).—By means of a light-diffraction method the absorption coeffs. (α) for supersonic waves of ν between 19 and 38 mega-cycles have been measured for ($CO(Me_2$–H_2O mixtures. When α/ν^2 is plotted against vol.-% $CO(Me_2$ (abscissa) a strong peak occurs at 70% which is six times the ordinate at either 0 or 100% $CO(Me_2$.

L. G. G.



CA

Application of the Raman scattering of light in the analysis of motor fuels. G. S. Landsberg, P. A. Bazhulin, Yu. V. Rosenberg and A. S. Eliner. *Bull. acad. sci. U. R. S. S., Sér. phys.* 4, 134-40(1940).—The study of Raman scattering successfully solves the problem of qual. and quant. analysis of complex mol. compds. This method consists in comparison of intensities with the standard luminescent spectra, excited at the same time and by the same source as the Raman spectra. Application of this method to the specially prepd. mixts. of benzene and cyclohexane of known compns. showed satisfactory results. Rokhalana Gamow

Phys. Inst., AS USSR

BAZHULIN, P. A.

"Hydrogenation of Homologs of Cyclopentane with Scission of the Ring," in collaboration with B. A. Kazanskiy and O. P. Solovovs, Inst. Organic Chem., Acad. Sci., USSR, from Bull. Acad. Sci. URSS, Classe Sci. Chim (USSR) 1, 1941, pp 107-114.

[redacted]

Bazhulin, P. A.

Bazhulin, P. A, Plate, A. F., Solovova, O.P. and Kazanskiy, B. A.
(Lebedev Physical Inst., Acad. Sci., USSR, Moscow)
Bull, acad. sci. URSS, Classe sci. chim. 1941, 13-26
Optical methods for studying hydrocarbons. II. The combined scattering spectra of paraffins.

CA: 37-5315/2

[redacted]

[redacted]

Bazhulin, P. A. CA: 37-2304/4
(Lebedev Physical Institute of the Acad. of Sci., USSR, Moscow)
Bull. acad. sci. URSS, Ser. Phys. 1941,168-73 - English summary
Spectrochemical analysis of organic compounds by the Raman spectra.

[redacted]

Absorption of ultrasonic waves in viscous liquids. P. A. Bazulin. (*Compt. rend. Acad. Sci. U.R.S.S.*, 1941, 31, 113—116).—For hot viscous liquids, discrepancies between experimental absorption vals. and those calc. by Stokes' formula taking account only of the normal η coeff. can be explained with the help of the second η' coeff. regarding viscosity as a relaxation phenomenon. Absorption measurements for ultrasonic waves in glycerol containing 50% of H_2O and in castor oil show in the former case fair agreement, and in the latter case wide divergence from calc. vals. Explanations in terms of relaxation theory are discussed. N. M. B.

L 2964-66 FSS-2/EWT(1)/FS(v)-3 TT/GS/GW

ACCESSION NR: AT5023570 UR/0000/65/000/000/0094/0103

77

AUTHOR: Bazhulin, P. A.; Kartashev, A. V.; Markov, M. N. BH

44,55 44,55 44,55

TITLE: Angular and spectral distribution of terrestrial radiation in the infrared region of the spectrum

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 94-103

TOPIC TAGS: atmospheric radiation, IR radiation, radiation detector, IR spectrometer, instrumentation satellite, radiation detection

ABSTRACT: This article describes the equipment and results of spaceborne measurements of the angular and spectral distribution of terrestrial radiation at high altitudes. Simultaneous recordings of angular and spectral distribution were carried out at 4—38 μ within angles of ±π/2 from the nadir over the middle latitudes of the European USSR on 6 and 18 June 1963. A special IR pulse spectrometer developed for the measurements is shown in Fig. 1 of the Enclosure. It operates as follows: A flat scanning mirror rotates through the angle π/2 (scanning time, 100 sec), and a spherical

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L 2961-66
ACCESSION NR: AT5023570

Cassegrainian objective (diameter, 33 mm; focal length, 200 mm) directs the radiation onto a low-inertia bolometer. The bolometer has a time constant of 5—7 msec, resistance of 1000 ohm, and dimensions of the receiving surface of 0.3 x 9 mm. The radiation beam is intersected by the plates of a rotating (7 rps) modulator. The plates are made of quartz, fluorite, and lithium fluoride, and a nontransparent metallic plate is also included. The plates are situated asymmetrically in order to code the position of signals from individual plates in time. The signals from the bolometer are fed to a wide-band pulse amplifier with a bandpass of 0.5—200 cps and a gain of 10^5. The amplified signals are transmitted to the ground by the telemetry system. The measurements yielded the following conclusions: In the broad bands of the IR spectrum, the common shape of the curves of the angular distribution corresponds to that for radiation of a relatively isotropic object. The deviation from the isotropy on the edges of the Earth's disk is smaller during observations at 400—500 km than during observation at 25—30 km. Individual measurements showed no noticeable difference in the thermal radiation intensity between day and night. A slight dependence of the shape of the angular distribution curves on height at 200—500 km was noted. It was also found that in many cases the radiation maximum is located in the spectral region of 4.5—8.5 μ and that the effective temperatures for this region are higher (270—280K) than for other regions of the spectrum. Orig. art. has: 7 figures and 2 tables. [GS]

Card 2/4

L 2964-66
ACCESSION NR: AT5023570

ASSOCIATION: none

SUBMITTED: 02Sep65 ENCL: 01 SUB CODE:

NO REF SOV: 005 OTHER: 002 ATD PRESS: 4109

Card 3/4

L 2964-66

ACCESSION NR: AT5023570 ENCLOSURE: 01

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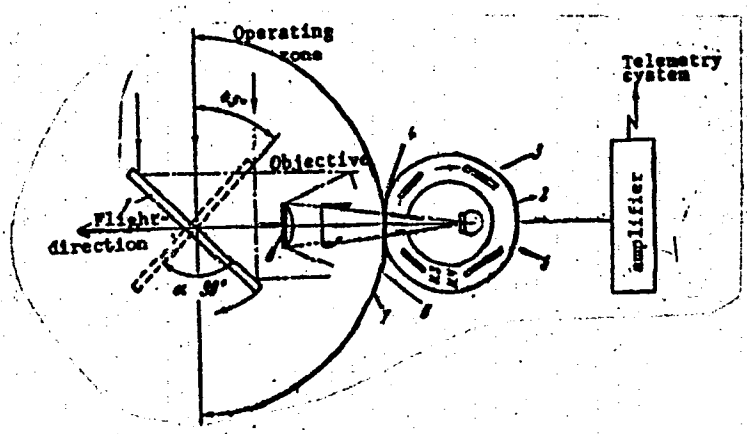

Fig. 1. Block diagram of IR pulse spectrometer

1 - Scanning mirror; 2 - bolometer; 3 - modulator; 4 - sealed window; 5 - slotted diaphragm; 6 - internal tube; 7 - spherical mirror (1); 8 - spherical mirror (2).

BVK

Card 4/4

AREF'YEV, I.M.; BAGDASAROV, P.A.

Temperature dependence of low-frequency Raman spectra in KH_2PO_4 and $NH_4H_2PO_4$ crystals. Fiz. tver. tela 7 no.2:407-413 F '65. (MIRA 18:8)

1. Fizicheskiy institut imeni Lebedeva AN SSSR, Moskva.

AREF'YEV, I.M.; BAZHULIN, P.A.; MIKHAL'TSEVA, T.V.

Longwave infrared transmission spectra of KH_2PO_4. Fiz. tver. tela 7 no.8:2413-2416 Ag '65. (MIRA 18:9)

1. Fizicheskiy institut imeni Lebedeva AN SSSR, Moskva.

L 2119-66 EWT(1)/T/EED(b)-3 IJP(c)
ACCESSION NR: AP5022732 UR/0181/65/007/009/2834/2836

AUTHOR: Aref'yev, I. M.; Bazhulin, P. A.; Zheludev, I. S.

TITLE: Longwave infrared transmission spectra of $NH_4H_2PO_4$

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2834-2836

TOPIC TAGS: transmission spectra, improved transmission spectra, dielectric

ABSTRACT: Transmission spectra of polycrystalline samples of $NH_4H_2PO_4$ were obtained in the frequency range from 20 to 235 cm^{-1}. The curve of optical density D = -lgK (where K is the transmission coefficient) showed ten absorption levels in the investigated range of the spectrum. A wide, intense level of absorption with a maximum in the region of 40—55 cm^{-1} was observed in the low-level part of the spectrum. No changes in the parameters of the 40—55 cm^{-1} level were evident from temperature measurements in the range from room temperature to 148K. The experiments demonstrated the presence of oscillations, which in [illegible] the dielectric properties of the crystal

Card 1/2

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ACCESSION NR: AP5022732

great measure characterize the dielectric properties of the crystal.
Orig. art. has: 1 table, 1 figure, and 1 formula. [ZL]

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR, Moscow (Physics Institute, AN SSSR)

SUBMITTED: 26Apr65 ENCL: 00 SUB CODE: SS, OP

NO REF SOV: 003 OTHER: 005 ATD PRESS: 4117

Card 2/2

BAZHULIN, P.A.; KNYAZEV, I.N.; PETRASH, G.G.

Possibility of observing induced radiation in the far-ultraviolet region of the spectrum. Zhur. eksp. i teor. fiz. 48 no.3:975-976 Mr '65. (MIRA 18:6)

1. Fizicheskiy institut imeni Lebedeva AN SSSR.

BAZHULIN, P.A.; KNYAZEV, I.N.; PETRASH, G.G.

Stimulated radiation from hydrogen and deuterium molecules in the near infrared region of the spectrum. Zhur.eksp.i teor.fiz. 49 no.1:16-23 Jl '65. (MIRA 18:8)

1. Fizicheskiy institut imeni Lebedeva AN SSSR.

BAZHULIN, P.A.

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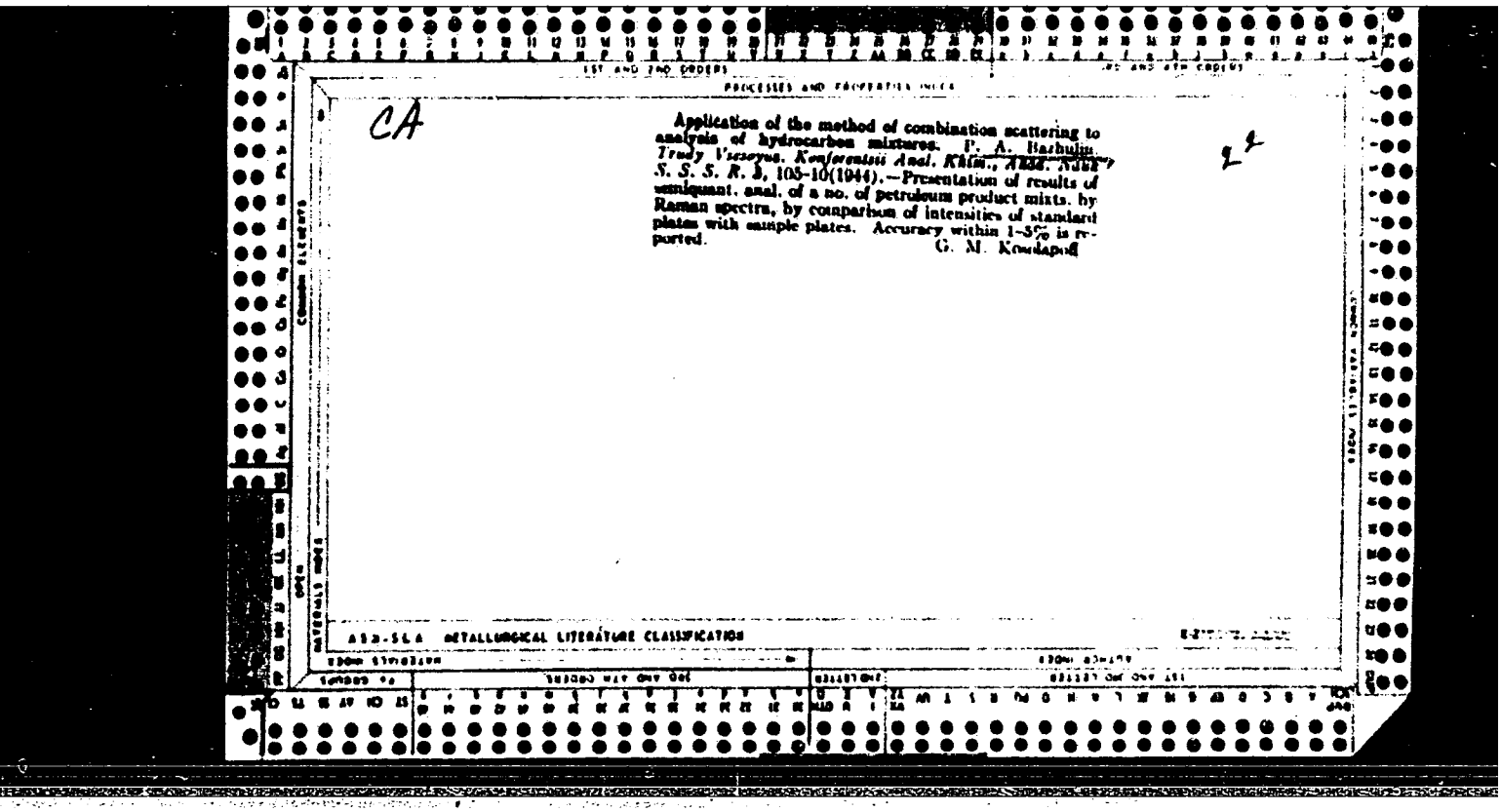
3

Optical methods for studying hydrocarbons. III The combined scattering spectrum of paraffins. P. A. Bazhulin, M. F. Bokshtein, A. L. Liberman, M. Yu. Lukina, E. I. Margolis, O. P. Solovova and B. A. Kazanskii. *Bull. acad. sci. U. R. S. S., Classe sci. chim.* 1943, 198-205(English summary); cf. *C. A.* 37, 5315[9].—Spectra are reported for 2,2-dimethylbutane, 2,3-dimethylbutane, 2,3-dimethylpentane, 2,4-dimethylpentane (I), 3,3-dimethylpentane, 2,2,3-trimethylbutane (II), 3,3-dimethylhexane, 2,3-dimethylhexane, 3,4-dimethylhexane, 2,2,3-trimethylpentane, 2,3,4-trimethylpentane, 2-methyl-3-ethylpentane, 3-methyl-3-ethylpentane, 2,2,3,3-tetramethylbutane and 2,3,3-trimethylpentane. The method used for the detns. is more accurate than that used in the previous work, but by applying a correction factor the results for the 2 series can be compared, giving data for all the paraffins with 5-8 C atoms. The results for the detns. agree in general with those of Rosenbaum, *et al* (*C. A.* 33, 8116[7]), except in the case of I and II, whose spectra agree better with those detd. by Bonino and Manzoni-Ansidei (*C. A.* 33, 4874[9]). H. M. Leicester

The study of crystals with infrared rays. Andres Levialdi. *Inst. fisiograf. y geol., Univ. nacl. litoral* (Rosario, Arg.) *Pub.* No. 15, 15 pp.(1943) —A review. Cyrus Feldman

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

Application of the method of combination scattering to analysis of hydrocarbon mixtures. P. A. Bazhulin. *Trudy Vsesoyus. Konferentsii Anal. Khim., Akad. Nauk S. S. S. R.* 3, 103-10(1944).—Presentation of results of semiquant. anal. of a no. of petroleum product mixts. by Raman spectra, by comparison of intensities of standard plates with sample plates. Accuracy within 1–5% is reported.

G. M. Kondapad

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

BAZHULIN, P. A.

CA: 39-4594/2

PLATE, A. G., STERLOGOV, O. D. and BAZHULIN, P. A.
(Moscow State Univ., and Physical Inst., Acad. of Sci.)
J. Gen. Chem. (USSR) 14, 955-9 (1944) - English summary
Hydrocarbons of the cyclopentane series with a side-chain double bond.
4-cyclopentyle-2-butene and 3-cyclopentyl-1-butene.

PROCESSES AND PROPERTIES INDEX

Optical investigation of hydrocarbons. IV. Raman spectra of cycloparaffins. P. A. Bazhulin, Kh. E. Sterin, T. F. Bulanova, O. P. Solovova, M. B. Turova-Pollak, and B. A. Kazanskii (P. N. Lebedev Phys. Inst. and Inst. Org. Chem. Acad. Sci. U.S.S.R. Moscow, and Moscow State Univ.). *Izvest. Akad. Nauk. S.S.S.R. Otdel. Khim. Nauk* 1946, No. 1, 7-18; cf. *C.A.* 38, 1437[a]; 42, 3266.

An optical method of study of hydrocarbons; the spectra of combination scattering of alkenes. P. A. Bazhulin and Kh. E. Sterin. *Bull. acad. sci. U.R.S.S., Sér. phys.* 11, 456-60(1947).—The frequencies and intensities of scattered lines were measured on 1-pentene, 1-hexene, 1-heptene, 1-octene, 1-hendecene. The lines 1292, 1416, 1642, 3001, and 3083 cm.$^{-1}$ can be attributed to the group $CH_2{=}CH{-}CH_2{-}$, the last two frequencies being characteristic of the group $CH_2{=}$.

S. Pakswer

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BAZHULIN, P. A.

USSR/Physics
Waves, Ultrasonic
Absorption

Jul 47

"Absorption of Supersonic Waves in Liquides," P. A. Bazhulin, M. A. Leontovich, Academician, Phys Inst imeni P. N. Lebedev, Acad Sci USSR, 1 p

"Dok Akad Nauk SSSR, Nova Ser" Vol LVII, No 1

Discusses recent report by S. M. Gurevich, which confirms that relaxation ideas on absorption and dispersion of supersonic waves, only confuse and complicate interpretation of experimental results.

PA 60T98

CA

Optical investigation of hydrocarbons. V. Raman spectra of some naphthenes and nonanes. I. A. Bazhulin, S. A. Ukholin, T. F. Bulanova, A. V. Kogarina, A. F. Plate, and B. A. Kazanskii. *Izvest. Akad. Nauk S.S.S.R., Otdel Khim. Nauk* 1949, 481-6; *cf. C.A.* 42, 6238i.—1,1-Dimethylcyclopentane (from oxidation of 3,3-dimethylcyclohexanol to the dimethyladipic acid mixt., which on ketonization and hydrazone cleavage gave the product, b_{760} 87-7.25°, n_D^{20} 1.4133, d_4^{20} 0.7548) gives following difference frequencies (intensities in parentheses): 350(11), 397(1), 408(0), 562(20), 722(8.9), 807(4), 831(2), 889(27), 912(1), 939(5.2), 954(5.2), 981(5.2), 1029(12.5), 1061(6.2), 1095(0), 1139(2), 1152.2(2), 1183(2), 1230(13), 1349(6), 1380(1), 1386(3), 1329(1), 1445(38), 1463(27), 2716(2), 2756(2), 2865(150), 2888(152), 2933(180), 2958(180). 1-Methyl-3-propylcyclopentane (by hydrogenation of 1-methyl-3-propyl-3-cyclopentene; probably stereoisomer mixt.; b_{760} 148.2-8.4°, n_D^{20} 1.4254, d_4^{20} 0.7715): 280(2), 313(9.9), 325(9.9), 385(3.9), 424(0), 446(0), 520(1), 547(1), 698(0), 738(0), 787(0), 817(8), 832(15), 865(15), 894(5.6), 924(1), 953(1), 979(3), 1005(2), 1034(6.3), 1081(5.2), 1097(2), 1133(7.6), 1149(5), 1191(1), 1242(0), 1297(6.4), 1313(4), 1349(3.8), 1454(46), 2730(3), 2844(100), 2866(180), 2905(180), 2935(180), 2955(173). *trans*-1,2-Dimethylcyclohexane (from MeMgI and methylcyclohexanone, dehydration, hydrogenation and fractionation of isomers; b_{760} 123.5-3.7°, n_D^{20} 1.4278, d_4^{20} 0.7772): 417(16), 441(18), 501(76), 543(0), 556(0), 729(10), 749(59), 830(14), 840(0), 858(12), 947(13), 976(0), 1005(30), 1060(1), 1078(16), 1105(2), 1166(20), 1218(15), 1253(15), 1297(12), 1343(27), 1355(27), 1446(52), 1461(53), 2690(4), 2843(200), 2854(200), 2871(100), 2894(100), 2915(194), 2929(194), 2952(30), 2975(30). Cis analog (b_{760} 129.6-9.8°, n_D^{20} 1.4356, d_4^{20} 0.7982): 286(0), 315(0), 333(5), 416(22), 472(2), 501(0), 539(15), 596(7), 731(97), 806(4), 842(23), 882(1), 920(2), 945(14), 976(17), 1007(20), 1054(14), 1096(21), 1160(14), 1223(6), 1257(24), 1301(12), 1319(12), 1340(2), 1442(43), 1461(30), 2865(0), 2953(153), 2872(100), 2894(100), 2927(172), 2958(30), 2971(30). *trans*-1,3-Dimethylcyclohexane (prepd. simi-

larly from β-methylcyclohexanone; bmp 120.4-20.6°, n_D^{20} 1.4230, d_4^{20} 0.7666): 254(6), 409(13), 419(38), 453(13), 546(47), 748(0), 771(58), 829(1), 849(12), 889(0), 934(3), 955(3), 983(13), 1000(8), 1039(36), 1079(2), 1112(5), 1166(22), 1179(22), 1219(12), 1268(11.5), 1303(7.7), 1340(22), 1354(20), 1440(26), 1460(50), 2862(0), 2841(190), 2885(210), 2909(100), 2927(202), 2955(151). The cis isomer (prepd. as above) (bmp 124.4-4.6°, n_D^{20} 1.4410, d_4^{20} 0.7845): 314(0), 355(4), 375(4), 418(0), 455(19), 488(8.9), 620(13), 732(121), 802(0), 841(0), 892(10.3), 935(13), 981(8), 1017(13), 1039(0), 1056(36), 1075(8), 1101(11), 1164(17), 1212(9.5), 1302(28), 1308(4), 1330(4), 1364(3), 1449(42), 2729(0), 2844(150), 2868(200), 2890(160), 2921(203), 2942(160), 2980(160). 1,1-Dimethylcyclohexane (by hydrogenation of mesken with Pt; bmp 119.3°, n_D^{20} 1.4204, d_4^{20} 0.7810): 302(3), 322(18), 359(6), 406(2), 427(3), 440(13), 557(17), 705(153), 780(2), 828(25), 853(12), 919(10), 939(13), 963(18), 986(6), 1028(30), 1052(2), 1080(7.5), 1151(3), 1173(4), 1190(23), 1346(13), 1367(24), 1383(7), 1397(13), 1332(4), 1441(51), 1468(23), 2864(2), 2716(2), 2757(2), 2843(100), 2880(172), 2900(170), 2919(194), 2949(173), 2971(20). n-Nonane (from 5-nonanol, from HCO_2Et and BuMgBr, by dehydration and hydrogenation over Pt-C; bmp 149.9°, n_D^{20} 1.4057, d_4^{20} 0.7182): 248(5), 267(10.1), 287(3), 347(1), 382(0), 403(2), 419(1), 454(0), 751(0), 785(1), 828(4), 842(4), 873(5.3), 894(8.1), 927(0), 955(1), 973(2), 1023(1), 1053(6.5), 1079(9), 1092(9), 1130(4.1), 1163(2), 1194(0), 1264(17), 1315(2), 1342(0), 1371(0), 1458(35), 1459(37), 2729(3), 2854(190), 2876(180), 2911(180), 2915(180), 2938(170), 2963(150). 2-Methyloctane (from methyl hexyl ketone by Grignard reaction, followed by dehydration and hydrogenation over Ni; bmp 143.0°, n_D^{20} 1.4035, d_4^{20} 0.7135): 251(13), 287(2), 294(2), 391(2), 421(1), 450(2), 791(3), 825(7.7), 850(2), 863(2), 878(2), 893(4), 910(0), 941(0), 955(0), 981(0), 1021(0), 1047(0), 1065(4), 1083(4.9), 1090(4), 1143(5.8), 1172(3.9), 1201(0), 1230(0), 1295(11), 1339.4.7), 1443(41), 1462(41), 2720(0), 2850(120), 2870(180), 2892(168), 2933(130), 2962(130). 3-Methyloctane (from MeEtCO and AmMgBr, followed by dehydration and hydrogenation over Pd-C) (bmp 143-3.1°, n_D^{20} 1.4088, d_4^{20} 0.7300): 282(4.2), 291(4.2), 370(1), 420(1), 453(1), 710(0), 753(2), 772(4), 799(1), 815(2), 843(3), 874(4), 899(1), 917(4), 942(0), 989(2), 1002(2), 1041(4.5), 1062(4.5), 1083(4.5), 1145.5.1), 1164(4.5), 1281(0), 1270(2), 1315(8.3), 1332(2), 1443(50), 1463(50), 2733(0), 2851(190), 2873(150), 2936(174), 2936(174), 2965(134). 4-Methyloctane (from MePrCO and BuMgBr, as above; bmp 141-1.2°, n_D^{20} 1.4088, d_4^{20} 0.7288): 288(10.5), 305(2), 353(0), 374(0), 432(0), 727(0), 744(0), 784(1), 812(2), 836(3), 880(0), 874(4.4), 885(9.2), 938(2), 1038(7), 1050.7.7), 1082(5), 1142(6.7), 1161(4), 1210(0), 1271(1), 1301(11.4), 1339.(1), 1440(41), 1461(37), 2727(2), 2848(140), 2870(190), 2895(176), 2913(176), 2936(150), 2963(136). 3-Ethylheptane (from Et_2CO, as above; bmp 141.9-2.0°, n_D^{20} 1.4085, d_4^{20} 0.7251): 286(5.7), 303(5.7), 328(0), 454(1), 506(0), 734(0), 750(3), 833(3.6), 873(3), 889.0.1), 934(2), 951(2), 1013(2), 1043(9.6), 1066(3), 1085(3), 1154(5.6), 1211(0), 1242(0), 1277(2), 1300(8.2), 1360(0), 1444(45), 1462(45), 2732(1), 2855(190), 2872(190), 2905(182), 2913(182), 2935(182), 2965(131). 2,4-Dimethyl-3-ethylpentane (from iso-Pr_2CO, as above; bmp 133.5-6.5°, n_D^{20} 1.4131, d_4^{20} 0.7365): 210(0), 313(3), 327(6.3), 347(0), 391(0), 457(0), 482(0.8), 529(0), 572(5.7), 586(0), 623(0), 715(4), 735(2), 792(6.1), 812(2), 846(4.1), 884(6.9), 918(0), 938(13.1), 954(12), 985(3), 1033(8.1), 1051(7.9), 1054(1), 1085.(0), 1120(0), 1162(6.9), 1175(6.3), 1190(5), 1290(3.4), 1370(4.81, 1390(9.4), 1353(2), 1398(1), 1448(20), 1468(26), 2722(3.4), 2764(3.1), 2848(23), 2873(104), 2900(87), 2940(9)), 2935(80), 2962(103), 2977(40).

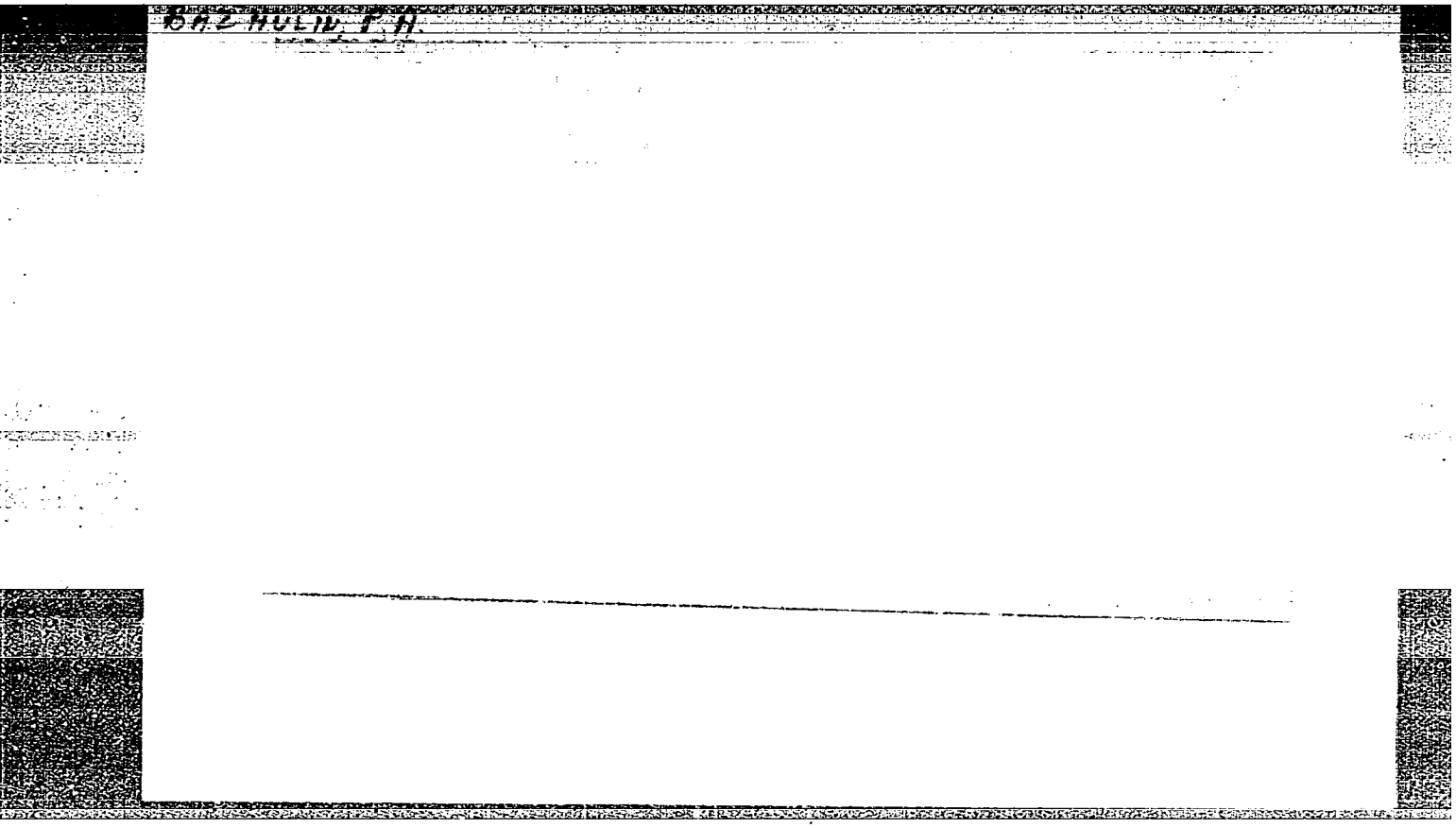
G. M. Kosolapoff

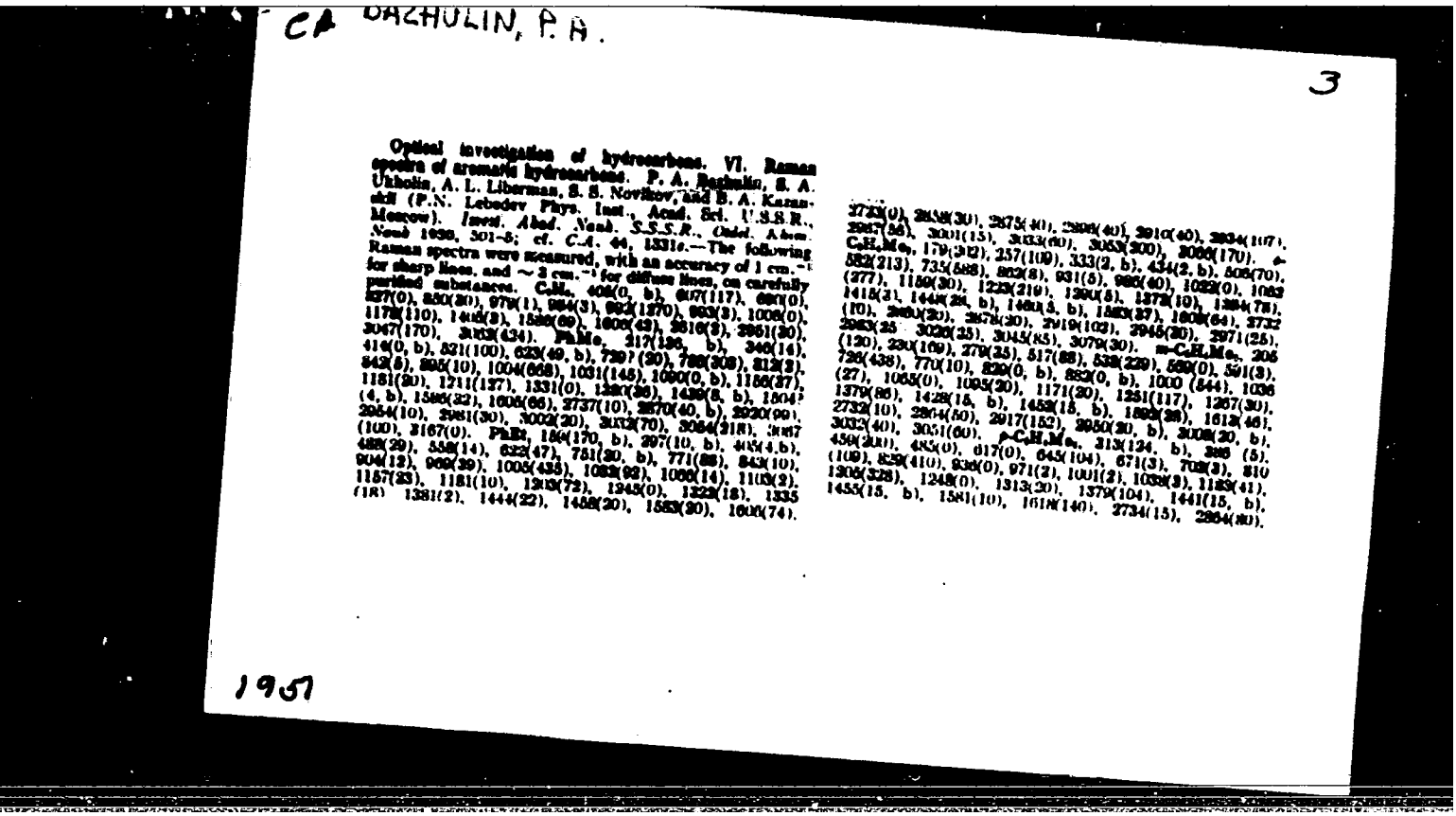
BAZHULIN, P. A.

"A Complex Method of Detailed Investigation of the Individual Composition of Gasolines" (Kompleksnyy Metod Detalizirovannogo Issledovaniya Individual'nogo Sostava Benzinov), G. S. Landsberg, B. A. Kazanskiy, P. A. Bazhulin, M. I. Batuyev, A. L. Liberman, A. S. Plate, and G. A. Tarasova, edited by V. S. Fedorov, Gostoptekhizdat, Moscow/ Leningrad, 1949, 68 pages, 3 rubles.

Subject method is based on spectral analysis.

SO: Uspekhi Khimii, Vol 18, #6, 1949; Vol 19, #1, 1950 (W-10083)





CA BAZHULIN, P. A.

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Optical investigation of hydrocarbons. VI. Raman spectra of aromatic hydrocarbons. P. A. Bazhulin, S. A. Ukholin, A. L. Liberman, S. S. Novikov, and B. A. Kazanskii (P.N. Lebedev Phys. Inst., Acad. Sci. U.S.S.R., Moscow). *Izvest. Akad. Nauk. S.S.S.R., Otdel. Khim. Nauk* 1956, 301–8; cf. *C.A.* 44, 1331e.—The following Raman spectra were measured, with an accuracy of 1 cm.$^{-1}$ for sharp lines, and ~3 cm.$^{-1}$ for diffuse lines, on carefully purified substances. C_6H_6, 406(0, b), 607(117), 606(0), 827(0), 850(20), 979(1), 994(3), 992(1270), 993(3), 1008(0), 1178(10), 1405(3), 1585(69), 1600(42), 3016(3), 3061(30), 3047(170), 3063(434). $PhMe$, 217(186, b), 346(14), 419(0, b), 521(100), 623(49, b), 730?(20), 788(309), 812(2), 842(5), 895(10), 1004(668), 1031(145), 1090(0, b), 1156(37), 1181(20), 1211(137), 1331(0), 1380(36), 1436(8, b), 1504? (4, b), 1585(32), 1605(66), 2737(10), 2870(40, b), 2920(99), 2954(10), 2981(30), 3002(20), 3052(70), 3064(218), 3087 (100), 3167(0). $PhEt$, 184(170, b), 297(10, b), 405(4.b), 488(29), 558(14), 622(47), 751(20, b), 771(88), 843(10), 904(12), 969(39), 1005(435), 1032(92), 1066(14), 1105(2), 1157(23), 1181(10), 1203(72), 1245(0), 1322(18), 1335 (18) 1381(2), 1444(22), 1458(20), 1583(20), 1609(74), 2723(0), 2858(30), 2875(40), 2909(40), 2919(40), 2934(107), 2967(58), 3001(15), 3033(60), 3053(300), 3066(170). *o*-$C_6H_4Me_2$, 179(312), 257(109), 333(2, b), 434(2, b), 506(70), 582(213), 735(588), 862(8), 931(5), 980(40), 1032(0), 1082 (277), 1150(30), 1233(219), 1300(5), 1378(10), 1394(78), 1418(31), 1448(28, b), 1460(5, b), 1583(37), 1608(64), 2732 (10), 2860(20), 2878(30), 2919(102), 2945(20), 2971(25), 2983(25 3020(25), 3045(85), 3079(30). *m*-$C_6H_4Me_2$, 205 (120), 230(109), 279(25), 517(68), 538(229), 559(0), 591(3), 726(438), 770(10), 820(0, b), 882(0, b), 1000 (544), 1036 (27), 1065(0), 1095(20), 1171(20), 1251(117), 1267(30), 1379(86), 1428(15, b), 1452(15, b), 1609(39), 1613(461), 2732(10), 2864(50), 2917(152), 2950(20, b), 3008(20, b), 3032(40), 3051(60). *p*-$C_6H_4Me_2$, 313(134, b), 386 (5), (109), 829(410), 936(0), 971(2), 1001(2), 1038(3), 1183(41), 1205(328), 1248(0), 1313(20), 1379(104), 1441(15, b), 1455(15, b), 1581(10), 1618(140), 2734(15), 2864(80),

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3021(101), 2934(30, b), 2974(4, b), 3012(61), 3030(87), 3054(103). PhPr, 224(0, b, background), 263(20, back-ground), 278(20, background), 318(26), 352(0), 400(22), 494(2), 622(51), 746(48), 803(30), 818(40), 843(3), 863(3), 998(15), 903(5), 1003(455), 1031(84), 1090(19), 1156(27), 1188(15), 1203(74), 1250(1), 1284(8, b), 1338(11), 1354 (2, b), 1441(34), 1456(15, b), 1584(37), 1606(87), 2730(5), 2851(50, b), 2870(100), 2907(137), 2935(134), 2964(0), 3003(20), 3033(90), 3052(231), 3065(230). 1-Me-3-Et-C_6H_4, 149(350), 167(70, b), 223(83, b), 330(1, b), 510(22), 538(85), 587(2, b), 701(0), 721(308), 782 (2, b), 939(3, b), 973(3), 1002(424), 1055(17), 1086(17), 1101(7, 7), 1172(11,3), 1243(42), 1253(42), 1330(14), 1377(27), 1443(17), 1450(10), 1590(22), 1612(37), 2730(5), 2850(106), 2873(106), 2896(40), 2915(208), 2934(208), 2967(111), 3008(40), 3033(67), 3051(128). 1,3,5-$C_6H_3Me_3$, 231(245), 276(62), 517(191), 578(300), 625(0), 741(2), 880(2), 929(2), 999(330), 1027(10), 1040(25), 1120(1), 1164(3), 1301(96), 1379(85), 1415(3, b), 1480(5, b), 1577 (0), 1607(61), 1631(11), 2731(5), 2867(103), 2917(310), 2946(50, b), 2973(20, b), 3006(136), 3033(100), 3061(20). 1-Me-4-Et-C_6H_4, 221(50), 333(4, b), 311(0), 363(12, b), 399(5, b), 462(20), 538(0), 645(72), 721(2), 807(142), 820(134), 940(0), 968(12), 1004(6, 1), 1063(29), 1184(49), 1202(168), 1243(1), 1284(1, b), 1323(10, b), 1379(31), 1442(24, b), 1457(24, b), 1577(1), 1617(93), 2731(2), 2860(112), 2873(112), 2900(50), 2918(225), 2931(225), 2966(118), 3011(108), 3030(102), 3053(100). These data are considered to be much more reliable and accurate than previously published detns., as illustrated by a comparison of data from other sources for p-$C_6H_4Me_2$. These new data confirm the much higher intensity of Raman lines of aromatic compds. as compared with aliphatic and alicyclic compds. On the same intensity scale on which the strongest lines of the aromatic compds. are expressed by a no. of about 1000, the strongest lines of alicyclic compds. rate about 200, and of aliphatic compds. about 60-70.

N. Thon

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