LAPSHIN, Fedor Alekseyevich; KOMAROV, Sergey Georgiyevich; BOCHARNIKOVA, K.N., inzhener, redaktor; YUDZON, D.M., tekhnicheskiy redaktor.

[Railroad cars] Vagonnoe khoziaistvo. Moskva, Gos.transp.zhel-dor. izd-vo, 1955. 190 p. (MLRA 8:9)
(Railroads--Cars)

KOMAROV, S.G.

FRANTSEV, Andrey Nikolayevich; KOMAROV, S.G., red.; VERINA, G.P., tekhn.red.

[Machinist's handbook on repair of freight cars] Posobie slesariu po remontu gruzovykh vagonov v poezdakh. Moskva, Gos. transp. zheldor. izd-vo, 1958. 190 p. (MIRA 11:5)
(Railroads--Freight cars--Maintenance and repair)

KOMAROV, S.G.; SAMOKHVALOV, S.F.; BELAVENTSEV, N.V.; BOMBARDIROV, P.P.; [illegible]INA, A.A.; BLIZNYUK, V.F.; LADYGIN, V.I.; PEROV, A.N.; VASIL'YEV, I.P.; BRODOVICH, N.B.; RABINOV, A.M.; ALEKSEYEV, V.D.; YEGOROV, V.A., inzh., red.; ARSHINOV, I.M., inzh., red.; VERINA, G.P., tekhn. red.

[Handbook on the repair of freight cars] Spravochnik po remontu gruzovykh vagonov. Moskva, Gos. transp. zhel-dor. izd-vo, 1958. 503 p. (MIRA 11:12)

(Railroads--Freight cars--Maintenance and repair)

FRANTSEV, Andrey Nikolayevich; KOMAROV, S.G., red.; VERINA, G.P., tekhn.red.

[Mechanic's manual for the maintenance of freight cars in operation] Posobie slesariu po remontu gruzovykh vagonov v poezdakh. Izd.2., perer. i dop. Moskva, Gos.transp.zhel-dor. izd-vo, 1959. 235 p. (MIRA 12:12)
(Railroads--Freight cars--Maintenance and repair)

KOMAROV, S.G.; KITOV, A.N., inzh.; DOROFEYEV, V.G.; SHEREMET'YEV, M.A.; FOMIN, A.A.; KOSAREV, A.A.; SARANTSEV, Yu.S., red.; VERINA, G.P., tekhn.red.

[Handbook for the repair of passenger cars] Spravochnik po remontu passazhirskikh vagonov. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960. 631 p. (MIRA 13:6)

(Railroads--Passenger cars--Maintenance and repair)

PHASE I BOOK EXPLOITATION SOV/5872

Komarov, S. G. Doctor of Technical Sciences, ed.

Spravochnik geofizika, v chetyrekh tomakh. t. 2: Geofizicheskiye metody issledovaniya skvazhin (The Geophysicist's Handbook, in Four Volumes. v. 2: Geophysical Methods in the Exploration of Wells) Moscow, Gostoptekhizdat, 1961. 760 p. Errata slip inserted. 6130 copies printed.

Editorial Board: V. V. Fedynskiy, Chairman, V. N. Dakhnov, V. G. Vasil'yev, Ye. N. Kalenov, S. G. Komarov, M. K. Polshkov, L. A. Ryabinkin; Executive Ed.: Ye.G. Pershina; Tech. Ed.: E. A. Mukhina.

PURPOSE: The book is intended for scientific workers in the field of industrial geophysics.

COVERAGE: This volume of the four-volume Geophysicist's Handbook series deals with the geophysical exploration wells. It contains data on various types of logging: electrical, radioactivity, gas, induction, sonic, magnetic, etc. Problems of ground selection, perforation, and well shooting are analyzed. The theory behind the various methods is briefly outlined. The apparatus and equipment used in various industrial geophysical explorations are described, and the

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ways of interpreting the materials obtained are discussed. In addition, the handbook contains information on the organization of geophysical operations, safety measures, and general information on drilling. No personalities are mentioned. There are 341 references: 290 Soviet, 46 English, and 5 French.

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The Geophysicist's Handbook (Cont.) SOV/5872

AVAILABLE: Library of Congress

SUBJECT: Geophysics

Card 5/5

MM/dwm/gmp
2-2-62

KASHCHEYEV, Nikolay Tarasovich; VALETOV, Aleksandr Ivanovich; KOMAROV, Sergey Georgiyevich; POGORELYY, B.G., inzh., retsenzent; SARANTSEV, Yu.S., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Manual on the structures and equipment of railroad car maintenance and repair depots] Spravochnik po sooruzheniiam i oborudovaniiu vagonnogo khoziaistva. Moskva, Transzheldorizdat, 1962. 423 p. (MIRA 15:6)

(Railroads—Cars) (Railroads—Repair shops)

KOMAROV, S.G.; SHMAROVA, V.P.

Membrane potential of clay. Prikl. geofiz. no.31:288-293 '61.
(MIRA 15:3)
(Clay--Electric properties)

ANDREYEV, Mikhail Grigor'yevich; SMOL'YANINOVA, Aleksandra Mitrofanovna; KOLEDENKOV, Sergey Semenovich; KOMAROV, Sergey Georgiyevich; SHMANTSAR', D.N., retsenzent; DOROFEYEVA, A.I., retsenzent; PESKOVA, L.N., red.; VOROTNIKOVA, L.F., tekhn. red.

[Planning, business accounting and analysis of the administrative operations of a railroad car depot]Planirovanie, khozraschet i analiz khoziaistvennoi deiatel'nosti vagonnogo depo. Moskva, Transzheldorizdat, 1962. 149 p. (MIRA 15:12)
(Railroads---Finance)

KOMAROV, S.I.

Technical conference on industrial water supply to metallurgical and by-product coking plants. Prom.energ. 15 no.3:51 Mr '60. (MIRA 13:6)

(Water--Distribution)

KOMAROV, S.I.

Competition for the best suggestion on the economy of fuel in ferrous metallurgy plants. Prom.energ. 16 no.5:12-14 My '61.
(MIRA 14:7)

(Fuel) (Metallurgical plants)

L 8132-66

ACC NR: AP5025072 SOURCE CODE: UR/0286/65/000/016/0130/0131

AUTHOR: Komarov, S. K.

ORG: none

TITLE: Device that prevents winding of net ropes on ship propeller shafts. Class 65, No. 174084

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 130-131

TOPIC TAGS: ship screw, marine propeller

ABSTRACT: This Author Certificate presents a device to prevent winding of net ropes, cables, etc onto ship propeller shafts. The device includes a shaft cover placed between the stern post and the ship propeller (see Fig. 1). To provide reliable protection by forming a directed flow which will turn aside the ropes, the cover is made in the form of two cone-shaped rings which are axially joined at their widest diameter and connected to the divider which in turn is attached to the stern post in the diametral plane of the ship.

Card 1/2 UDC: 629.1.037.4:621—783.632.1

L 8132-66

ACC NR: AP5025072

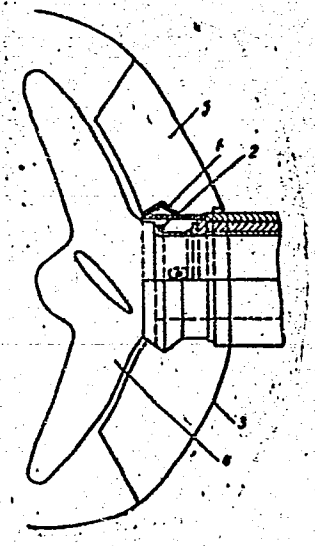


Fig. 1. 1- cover; 2- propeller shaft; 3- stern post; 4- ship screw; 5- separator

Orig. art. has: 1 figure.

SUB CODE: PR, GO, IE/ SUBM DATE: 17Mar64

nw

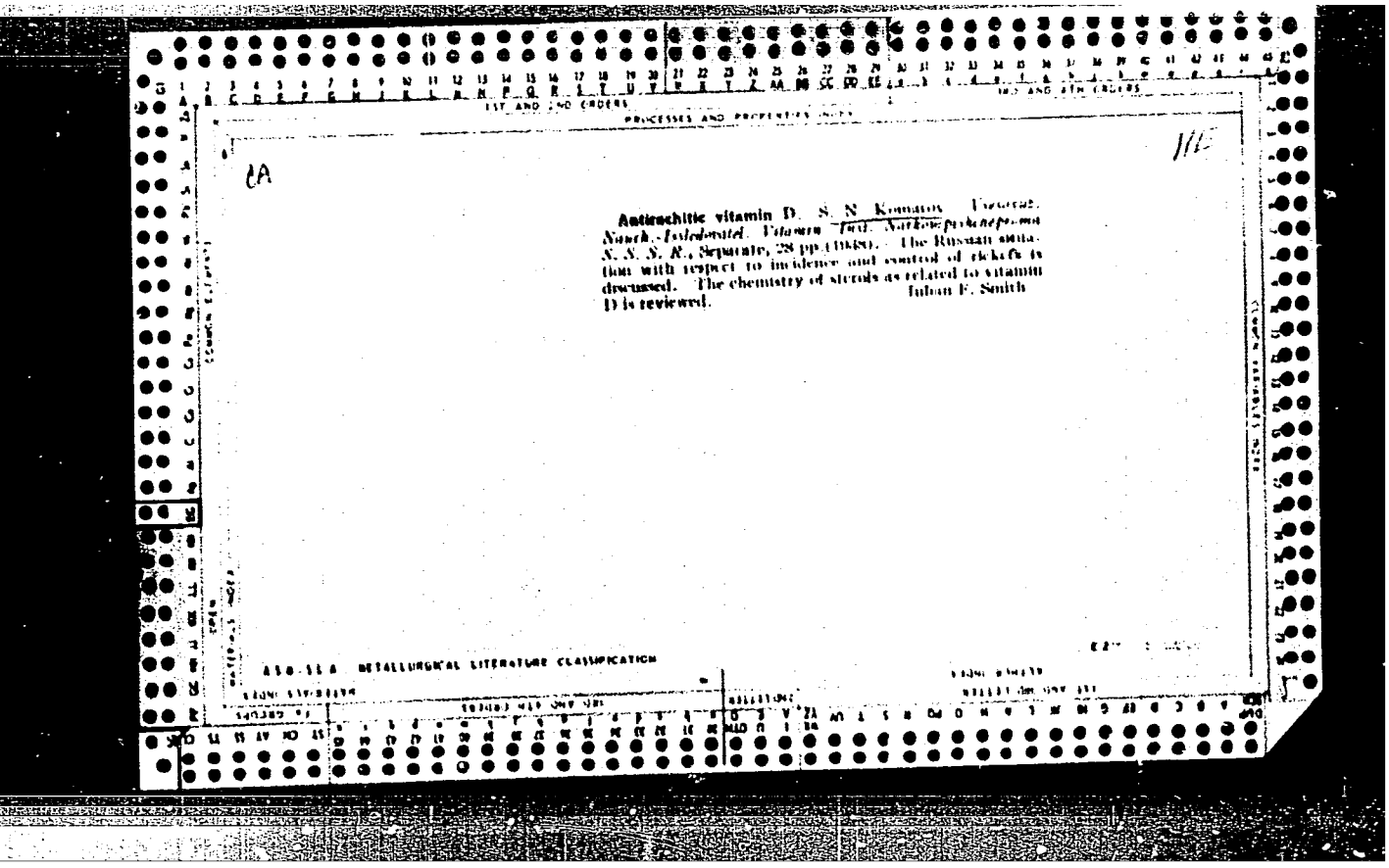
Card 2/2

YEL'TSOV, B.V.; KOMAROV, [illegible]

Using ZAUS regulators at the Novosibirsk Heat and Electric Power Plant no.4. Priborostroenie no.5:22-23 My '64. (MIRA 17:6)

TIMOSHIN, V. S., inzh.; KOMAROV, S. M., inzh.

Adjustment of an impulse device controlling the loading of ball mills according to a "level" pulse. Energetik 12 no.4:12-14 Ap '64. (MIRA 17:7)



1A

Antirachitic vitamin D. S. N. Kramarov. Trudy Nauch.-Issledovatel. Vitamin Inst. Narkomzdrava S. S. S. R., Sbornik, 28 pp. (1938). The Russian situation with respect to incidence and control of rickets is discussed. The chemistry of sterols as related to vitamin D is reviewed.
Julian F. Smith

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

CA

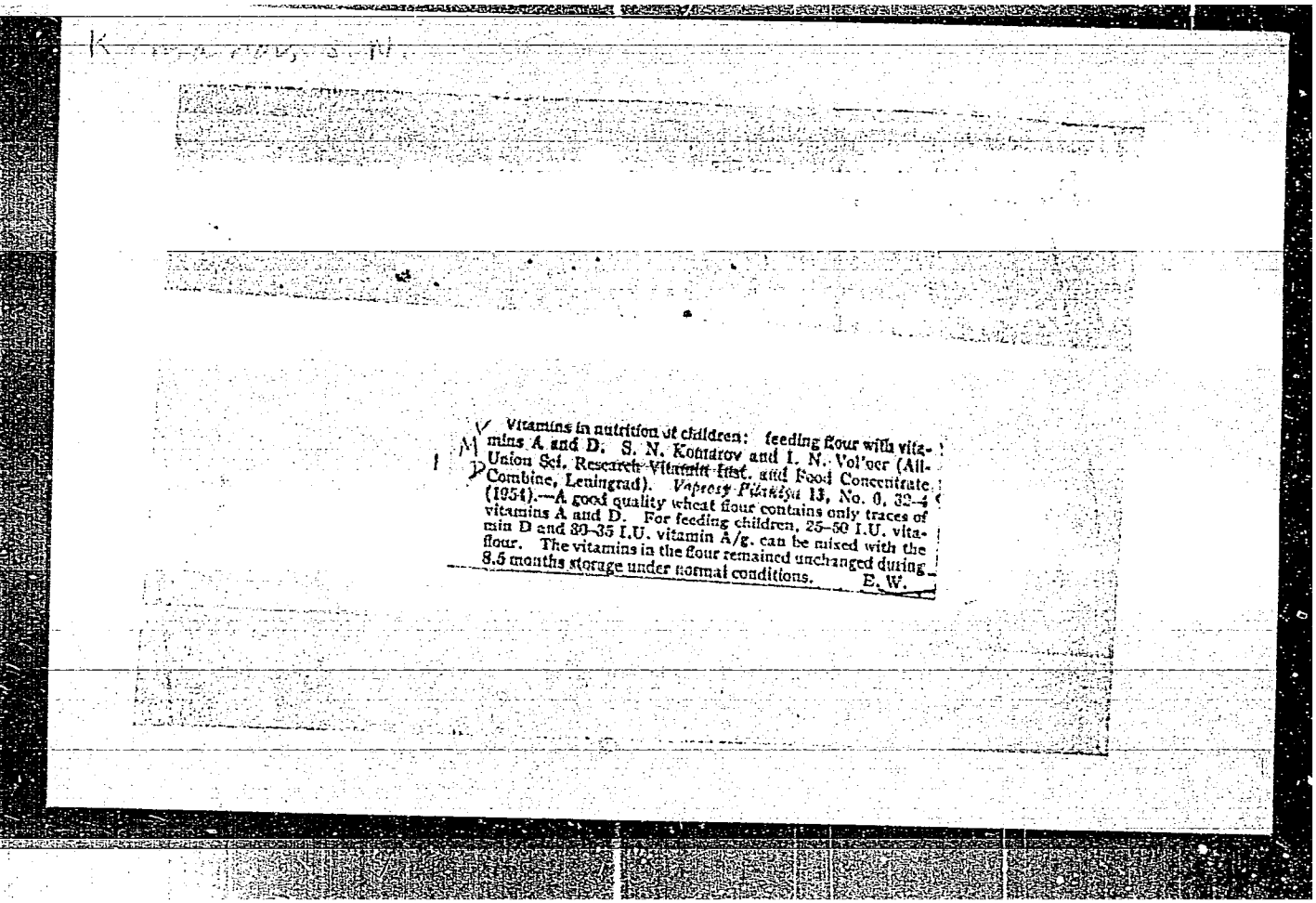
17

Making preparations of vitamin B complex, suitable for parenteral administration. S. N. Komarov and O. S. Sherman. *Proc. Sci. Inst. Vitamin Research U. S. S. R.* 3, No. 1, 95-134(1941).—A simplified method has been developed for prepg. B vitamins (chiefly B_1) from fresh brewers' yeast for parenteral administration. No expts. were made with aq. alc. because of its cost; full attention was given to extn. with hot water. Flavin (I) and B_1 do not respond to the same extn. conditions. Yield of B_1 was doubled, whereas yield of I was decreased, by preautolysis of the yeast in presence of $CHCl_3$ at 37° or by extg. the boiled yeast 24 hrs. at room temp. The optimum conditions for extg. I are pH 4, boiling time about 30 min.; for B_1, pH [illegible], boiling time [illegible] min. Both I and B_1 are about 80% recovered from the aq. ext. by adsorption on gumbrin, a Caucasian bleaching earth, at pH 3.5-4.5 in 10-[illegible] min. Elution with [illegible] aq. NH_4Cl recovers about [illegible]% of the adsorbed B_1, and is superior to the pyridine method of Greene and Black (*C. A.* 31, [illegible]). A 2% NaOH soln. was used for elution of I. The B_1 eluate was extd. with 80% PhOH, which was then dild. with Et_2O and extd. with H_2O in small portions. The final aq. ext. contained about 60% of the adsorbed B_1. To recover I the 2% NaOH eluate was acidified with HCl, satd. with NaCl and extd. with 80% EtOH. By fractional elution a combined eluate was finally obtained with 0.15 mg. I and 1.5 mg. B_1 per ml. Presence of all the B vitamins in this prepn. was indicated by a biol. assay. J. F. Smith

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KOMAROV, S.N.

The vitamin D content of the Baltic codfish. S. N. Komarov. *Trudy Vsesoyuz. Nauch.-Issledovatel. Vitamin. Inst.* 4, 209–11(1953).—The liver fat of the Baltic codfish contains 80–250 I.U./ml. of vitamin D, the Murmansk codfish 10–40 I.U./ml. B. S. Levine



Vitamins in nutrition of children: feeding flour with vitamins A and D. S. N. Kondarov and I. N. Vol'ser (All-Union Sci. Research Vitamin Inst. and Food Concentrate Combine, Leningrad). *Voprosy Pitaniya* 13, No. 6, 32–4 (1954).—A good quality wheat flour contains only traces of vitamins A and D. For feeding children, 25–50 I.U. vitamin D and 30–35 I.U. vitamin A/g. can be mixed with the flour. The vitamins in the flour remained unchanged during 8.5 months storage under normal conditions. E. W.

KOMAROV, S.P., podpolkovnik, Geroy Sovetskogo Soyuza

When regulations are not followed. Vest.Vozd.Fl. no.7:64-65 Jl '60. (MIRA 13:7)
(Aeronautics—Safety measures)

KOMAROV, S. P., podpulkownik, bohater Zwiazku Radzieckiego; GRECZYN, W., kapitan, inz.

Elimination of premises causing aeronautical accidents. Wojsk przegl 13 no.10:22-26 O '60.

KOMAROV, Sergey Vasil'yevich; GROMOVA, V.A., red.; NAZAROVA, A.S., tekhn. red.

[How a motion picture is produced] Kak sozdaetsia kinofil'm. Moskva, Izd-vo "Znanie" Vses. ob-va po rasprostraneniiu polit. i nauchn. znanii, 1961. 39 p. (Narodnyi universitet kul'tury. Fakul'tet literatury i iskusstva, no.6) (MIRA 14:7)
(Motion pictures--Production and direction)

KAMINSKIY, P.; KOMAROV, V.

Safe work methods. Stroitel' 8 no.9:28-29 S '62. (MIRA 15:12)
(Building—Safety measures)

KOMAROV, V.

Our aid to collective farms. Posh.delo 3 no.4:30 Ap '57.
(MLRA 10:7)

(Firemen)

KOMAROV, V., kapitan

Improve the performance of warehouses. Voen.sviaz. 16 no.4:26 Ap '58. (MIRA 11:4)

(Warehouses)

KOMAROV, V.

Russia - Economic Policy

Stalinist program of communist construction. V. pom.profaktivu 14, no. 8, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

KOMARKOV,V.; GETMANENKO, V., starshiy master stantsii

Noninflammable cleaning solutions. Pozh.delo 5 no.7:14 Jy '59.
(MIRA 12:9)

1. Nachal'nik Novosibirskoy posharno-ispytatel'noy stantsii (for Komarkov)

(Cleaning compounds)

LISTOPAD, G. (Velikiy Ustyug, Vologodskaya obl.); KOMAROV, V. (Novgorodskaya obl.); FEDOROVYKH, I. (Toguchinskiy rayon, Novosibirskaya obl.); SUVOROV, A. (Omsk); TROSHKOV, D. (Permskaya obl.); ZAGOROVSKIY, L.; GLOBUSOV (Sverdlovskaya obl.)

1. Readers' letters. Pozh.delo 8 no.12:31 D '62. (MIRA 16:1)
(Fire prevention)

KOMAROV, V.

What automation leads to under capitalism ("Automation and social process" by S.Lilly. Reviewed by V.Komarov). Sov.profsoiuzy 7 no.10:59-61 My '59. (MIRA 12:9)
(Labor laws and legislation--Dictionaries)
(Lilly, S.)

ZOTOV, I.; KOMAROV, V.

Posters are a form of concrete propaganda of leading work methods. Sots. trud. no.8:122-126 Ag '58. (MIRA 11:9)

1.Sekretar' partkoma metallozavoda Moskovskogo oblastnogo sovnarkhoza (for Zotov). 2.Nachal'nik otdela truda i zarabotnoy platy metallozavoda Moskovskogo oblastnogo sovnarkhoza (for Komarov). (Moscow Province--Metal industries) (Posters)

SHNEYDERMAN, M., insh.; KOMAROV, V.

Machine for straightening wheel disks. Avt.transp. 38 no.3:28-29 Mr '60. (MIRA 13:6)
(Machine tools)

GRAKHOVSKIY, R.; KOMAROV, V.

Heater for automobiles. Za rul. 18 no.10:24-25 O '60. (MIRA 14:1)

(Automobiles—Cold weather operation)

KOMAROV, V., inzh.

Safety regulations for preparing mortars and concrete mixes.
Stroitel' no. 12:26-27 D '60. (MIRA 13:12)
(Industrial safety) (Mortar) (Concrete)

KOMAROV, V., inzh.

Taking measures to improve working conditions. Stroitel' no.6:25-26 Je '61. (MIRA 14:7)

(Construction industry—Safety measures)

KOMAROV, V., polirovshchik, udarnik kommunisticheskogo truda

Cool eyes, warm smile and good spirits. Obshchestv. pit. no.11:48-49 N '61. (MIRA 15:2)

1. Zavod "Moskabel'".
(Restaurants, lunchrooms, etc.)

KOMAROV, V., polirovshchik

Warmhearted woman. Obshchestv. pit. no.10:19-21 O '61. (MIRA 15:1)

1. Zavod "Moskabel'".
(Moscow--Restaurants, lunchrooms, etc.--Management)

KOLCHIN, A.; KOMAROV, V., mekhanik; ARENDT, G.

Where is the new ER-10 excavator? Stroi. truboprov. 7 no.4:25 Ap '62. (MIRA 15:5)

1. Nachal'nik stroitel'nogo uchastka No.6 tresta Soyuzprovodmekhanizatsiya (for Kolchin). 2. Nachal'nik spetsial'nogo konstruktorskogo byuro Gazstroymashina (for Arendt).

(Excavating machinery)

KOMAROV, V.

Guarantee certificate as an indicator of the work performed. Stroitel' 8 no.4:10-11 Ap '62. (MIRA 15:7)
(Building—Contracts and specifications)

L 12897-63 EWP(r)/FCS(g)/EWT(d)/EWT(l)/EWT(m)/BDS AFFTC/APGC
ACCESSION NR: AP3000179 S/0029/63/000/005/0018/0018 57

AUTHOR: Komarov, V. (Student) 56

TITLE: Uniform-strength structures — the limit of possibility

SOURCE: Tekhnika molodezhi, no. 5, 1963, 18

TOPIC TAGS: uniform-strength wing, stress calculation, sandwich-type construction

ABSTRACT: V. Komarov was awarded a gold medal for his research on and calculations of a uniform-strength wing having only one point of attachment. The wing investigated had diverging longerons and the metal was so distributed as to assure a structure of maximum rigidity. The study showed that uniform-strength wings are the lightest in weight. However, their manufacture is complicated, since the sandwich-construction edges have a variable cross section. Therefore, calculations were made for a uniform-strength wing with longerons and edges having a constant cross section. Calculations showed that it was advantageous to use sectional edges. The increased rigidity of the edges decreased the stress on the long longerons and increased the stress on the short ones. The stress in a uniform-strength structure is the same in all of

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ACCESSION NR: AP3000179

its cross sections, proportional to the load. Therefore, the method of calculation is not based upon the stress diagram and is equally accurate for metals, plastics, reinforced plastics, and other materials not subject to Hooke's Law. Orig. art. has: 1 figure.

ASSOCIATION: Kuybyshevskiy aviatsionnyy institut (Kuybyshev Aviation Institute)

SUBMITTED: 00 DATE ACQ: 10Jun63 ENCL: 00

SUB CODE: AP NO REF SOV: 000 OTHER: 000

Card 2/2

KOMAROV, V.

KOMAROV, V.

From three whales to the geoid. IUn.tekh. 2 no.1:16-21 Ja '58.
(MIRA 11:1)
(Earth--Figure)

KOMAROV, V.

Why did giant pangolins die out? IUn. tekh. 2 no.7:41-46 Jl '58. (MIRA 11:10)
(Extinct animals) (Paleontology--Mesozoic)

KOMAROV, V.

Cosmic chemistry. IUn.tekh. 2 no.8:27-30 Ag '58. (MIRA 12:7)

(Cosmogony)

KOMAROV, V.

The 61st satellite. IUn.tekh. 3 no.1:53-54 Ja '59.
(MIRA 12:1)
(Satellites)

KOMAROV, V.

Volcano on the moon. IUn.tekh. 3 no.3:37-41 Mr '59.
(MIRA 12:4)
(Moon--Surface)

KOMAROV, V.

Solar system in 1959. IUn.tekh. 3 no.4:13-16 Ap '59. (MIRA 12:4)
(Solar system)

KOMAROV, V., lektor

Road to outer space. Mast.ugl. 8 no.12:3-4 D '59.
(MIRA 13:4)

1. Moskovskiy planetariy.
(Space flight)

KOMAROV, V., lektor

Man strives to conquer outer space. Sov.shakht. 10 no.8:42-44 Ag '61. (MIRA 14:8)

1. Moskovskiy planetariy.
(Astronautics)

KOMAROV, V.

The new and progressive are winning out ("Fighter planes take off" by I. Grebeniuk. Reviewed by V. Komarov. Kryl.rod. 12 no.4:19 Ap '61. (MIRA 14:7)
(Flight training)
(Grebeniuk, I.)

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S/631/61/000/002/003/013
I003/I203

AUTHORS: Komarov, V., and Smirnov, M. V.

TITLE: Equilibrium potentials of hafnium in mixed fluoride-chloride melts

SOURCE: Akademiya nauk SSSR. Ural'skiy filial. Institut elektrokhimii. Trudy, no, 1961, Elektrokhimiya rasplavlennykh solevykh i tverdykh elektrolitov. 19-22

TEXT: The formation of stable hafnium-fluorine complexes in the above salts can be deduced from the results of equilibrium potential measurements of hafnium and from the fact that no solid phase of any hafnium compound containing fluorine is formed when NaCl–KCl fused salts containing up to 3.4 wt % of Hf and up to 35 wt % of NaF are heated between 700 and 900°C. The equilibrium potentials of hafnium were measured against a chlorine reference electrode in NaCl–KCl fused salts containing from 0.99 to 3.4 wt % of Hf and 1.36 to 15.8 wt % of fluorine at 700, 800, and 900°C. Formulas representing the temperature dependence of the equilibrium potential and of the instability coefficent of the HfF_6^{2-} ion are given. There are 2 figures.

Card 1/1 REFERENCE S/631/61/002/002/013

KOMAROV, V., general-polkovnik

Acquire combat training in the field. Starsh.-serzh. no.5:10 My '62. (MIRA 15:6)

1. Zamestitel' glavnokomanduyushchego Sukhoputnymi voyskami, nachal'nik Glavnogo upravleniya boyevoy podgotovki.
(Military education)

KOMAROV, V.

Farther and farther into the outer space. Sov.shakht. 11 no.11:41-43 N '62. (MIRA 15:11)

1. Chlen Vsesoyuznogo astronomo-geodezicheskogo obshchestva pri Akademii nauk SSSR.

(Astronautics)

KOMAROV, Viktor'

Satellites over the planet. Prir i znanie 15 no.9:18-19 N '62.

1. Nauchen komentator na Agentsiiata po pechata Novosti.

KOMAROV, V.

Star map. Nauka i zhizn' 29 no.7:109 Jl '62. (MIRA 16:6)
(Stars--Atlases)

[illegible]-65

ACCESSION NR: AP5001808

AUTHOR: Komarov, V. (Engineer, Colonel, Hero of the Soviet Union, Aviator, Cosmonaut)

TITLE: For the good of all mankind (the flight of the three-man "Voskhod" spacecraft)

SOURCE: Aviatsiya i kosmonavtika, no. 12, 1964, 27-30

TOPIC TAGS: "Voskhod" series, astronaut training, manned satellite, spacecraft [illegible] spacecraft instrumentation, weightlessness, space flight, space observa- [illegible] spacecraft

ABSTRACT: The author was one of the three-man crew aboard the Soviet "Voskhod" spaceship which was launched on 12 October 1964 and landed, after 16 orbits around the Earth, on 13 October 1964. In the present article, he discusses some of the aspects of that historic space flight. The presentation is in a popular and non-technical style and is aimed at the non-specialist reader. The other members of the crew (K. P. Feoktistov, the scientist, and B. B. Yegorov, the astronaut-medic) are identified and their duties are briefly defined. The flight program, which the author states was scheduled for execution in a single 24-hour period and which was carried out completely, included the following basic goals: 1) the testing

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ACCESSION NR: AP5001808

of the design and operational characteristics of the new multi-place piloted spacecraft, its systems and its instrumentation; 2) the study of the capability for work and cooperation in flight of a group of astronauts, consisting of specialists in various fields; 3) the conducting of scientific investigations of a physical-technical and medical-biological nature during the conditions of an extended space flight; 4) the continued study of the effect of various spaceflight-related factors on the human organism. The need for a close spirit of cooperation and friendly mutual assistance among all 3 crew members for the successful execution of this flight program is noted. Mention is made of the training of the [illegible] preceded the actual launching, and stress is laid on the fact that [illegible] an actual part in the creation of the "Voskhod" vehicle, and of its systems and instrumentation. The author states that the so-called "medical-biological preparation" (that is, testing and training) was carried out according to an "abbreviated program". This program apparently included vestibular, G-[illegible]sport and emotional training elements. Noting that all six "Vostok" [illegible] single-man flights, the author points out that the expanded 3-man [illegible] "Voskhod" spacecraft made it possible not only to enlarge the scope [illegible] scientific program of the undertaking considerably, but also to place the observations on a more scientific and higher level. The need to suspend observa-

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ACCESSION NR: AP5001808

tions for the time required by the astronaut for sleep, for example, which was inherent in the "Vostok" flights, was easily eliminated in the case of the "Voskhod" by the simple expedient of conducting the observations in shifts. Greater objectivity through a diversity of interpretation is also afforded by a crew rather than by a single astronaut. Among the other items mentioned by the author one might single out the fact that for the first time the astronauts were not encumbered by the usual "space-suit", the fact that the "soft-landing" system performed perfectly, the fact that a "new principle for the control of the spacecraft was experimentally checked out" (this "new principle" is not further discussed or identified), and the fact that a series of experiments with liquids and gases under the conditions of weightlessness were carried out. Orig. art. has: 3 photographs.

ASSOCIATION: None

SUBMITTED: 00	ENCL: 00	SUB CODE: SV, PH
NO REF SOV: 000	OTHER: 000	

Card 3/3 pb

ACC NR: AP7005431 SOURCE CODE: UR/0209/66/000/009/0040/0043

AUTHOR: Komarov, V. (Colonel; Cosmonaut; Hero of the Soviet Union)

ORG: none

TITLE: Scientific expeditions in space

SOURCE: Aviatsiya i kosmonavtika, no. 9, 1966, 40-43

TOPIC TAGS: astronaut, spaceborne earth observation, aurora, space flight

ABSTRACT:

Cosmonaut V. Komarov quotes his fellow cosmonaut K. P. Feoktistov who made observations from space: "Observations of the horizon were made for obtaining data on the clarity of the boundary of the horizon for the purpose of selecting a reference layer in the optical range for ensuring navigation and orientation in orbital and interplanetary flights when it is necessary to use the earth as a reference celestial body during astronavigational measurements and for orientation of spaceships and automatic space vehicles. In most cases on the daytime side of the earth the horizon is observed both as the boundary of the atmosphere and the earth and a "layer" of a blue aureole with a clear upper boundary. The upper boundary of this aureole is clearer than the apparent boundary between the earth and atmosphere. After the ship entered the earth's shadow it was possible to observe a layer of brightness at an altitude of 60-100 km above the boundary between the earth and atmosphere. The brightness of the layer was close to the brightness observed at the horizon of the earth, illuminated by the moon. The crew

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ACC NR: AP7005431

was most impressed by an aurora which was observed in Antarctica prior to emergence from the shadow. The picture was as follows: horizon, dark sky, upper layer of brightness illuminated by the moon, and above it -- rays perpendicular to the horizon with an altitude of 6-8° and intervals of about 2°. Along the horizon the aurora occupied the entire visible field of view. It was found possible to measure the altitude of stars above the visible horizon, which in the future will make it possible in space flights to automatically determine spacecraft position and compute its trajectory of motion and necessary corrections. It was possible to observe luminescent particles in the portholes of the ship when the direction of observation was perpendicular to the sun's rays. Presumably these were dust particles separated from the ship, illuminated by the sun and situated several meters from the ship." The objective of this article is to demonstrate that the role of the scientific specialist aboard a spacecraft is exceptionally varied and important for direct observations in space. A table accompanying the text lists different types of possible scientific flights, the recommended orbital altitude, optimum number of crew members and duration of flight and the equipment which should be carried and the experiments to be carried out (however, it is noted that this information was taken from the foreign press). Orig. art. has: 1 table. [JPRS: 38,677]

SUB CODE: 22 / SUBM DATE: none

KOMAROV, V.A.

MEN, S.A., dots.; KOMAROV, V.A., red.; REGICHEVA, M.N., tekhn.red.

[Conveying machines and installations] Transportiruiushchie mashiny i ustanovki. Moskva, Izd-vo M-va rechnogo flota SSSR, 1951. 503 p. (MIRA 11:2)
(Conveying machinery)

VOROBTSOV, Yevgeniy Stefanovich; KOMAROV, V.A., retsenzent; ANDREYEVA, L.S., red.; TIKHONOVA, Ye.A., tekhn.red.

[Mechanization of transfer operations of hold, freight car, and warehouse materials in seaports] Mekhanizatsiia triumnykh, vagonnykh i skladskikh peregruzochnykh rabot v morskikh portakh. Moskva, Izd-vo "Morskoi transport," 1961. 346 p. (MIRA 15:5)

(Materials handling) (Harbors)

Komarov, V. A.

AID P - 4069

Subject : USSR/Power

Card 1/1 Pub. 26 - 27/33

Author : Komarov, V. A., Eng.

Title : Defects in preassembled current transformers.

Periodical : Elek. sta., 12, 55, 1955

Abstract : The article describes defects found in transformers delivered at a new power plant's construction site. Gaging transformers were shipped back to the factory.

Institution : None

Submitted : No date

KOMAROV, V.A.

KOMAROV, V.A., inzh.

Rope carrying system in repairing 400 kv cutouts. Energetik 5 no.10:19-21 O '57. (MIRA 10:12)
(Electric lines--Maintenance and repair)

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)

KOMAROV, V.A.

Ecology of penduline titmouse (Remiz pendulinus caspius Poelzam) in the Volga Delta. Trudy Astr. zap. no.5:262-268 '61.
(MIRA 16:8)

(Volga Delta—Titmice)

V. P.; ZHEREBTSOVA, K. I.; KRASNOV, L. V.; KOMAROV, V. A.; LITVIN, V. F.; [illegible]OV, Yu. A.

"Investigations of the Reactions of Type (d,p) on Isotopes of Zn, Ni, and Fe^{58}."

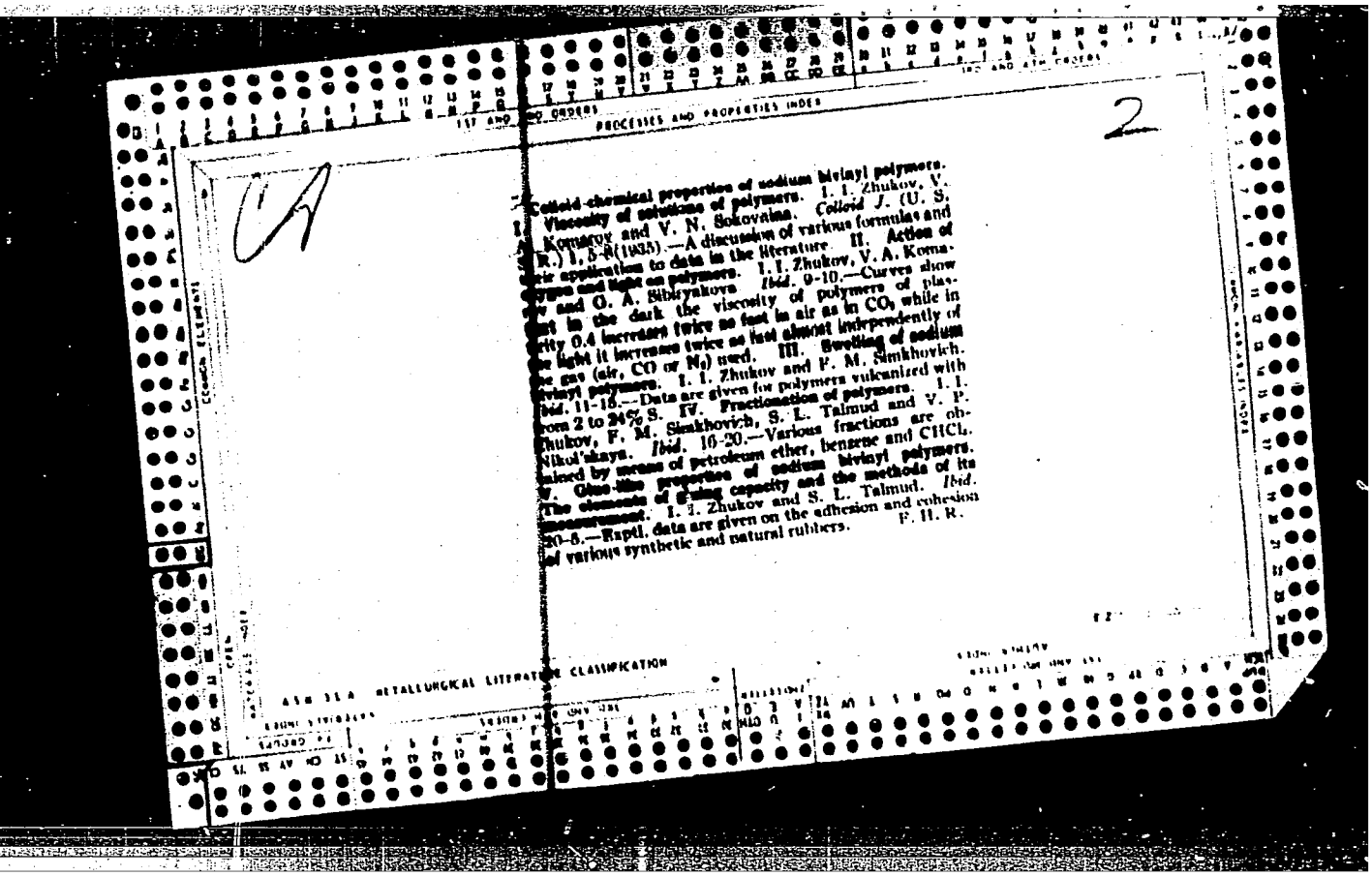
report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

Radiyevyy Institut (Radium Inst)

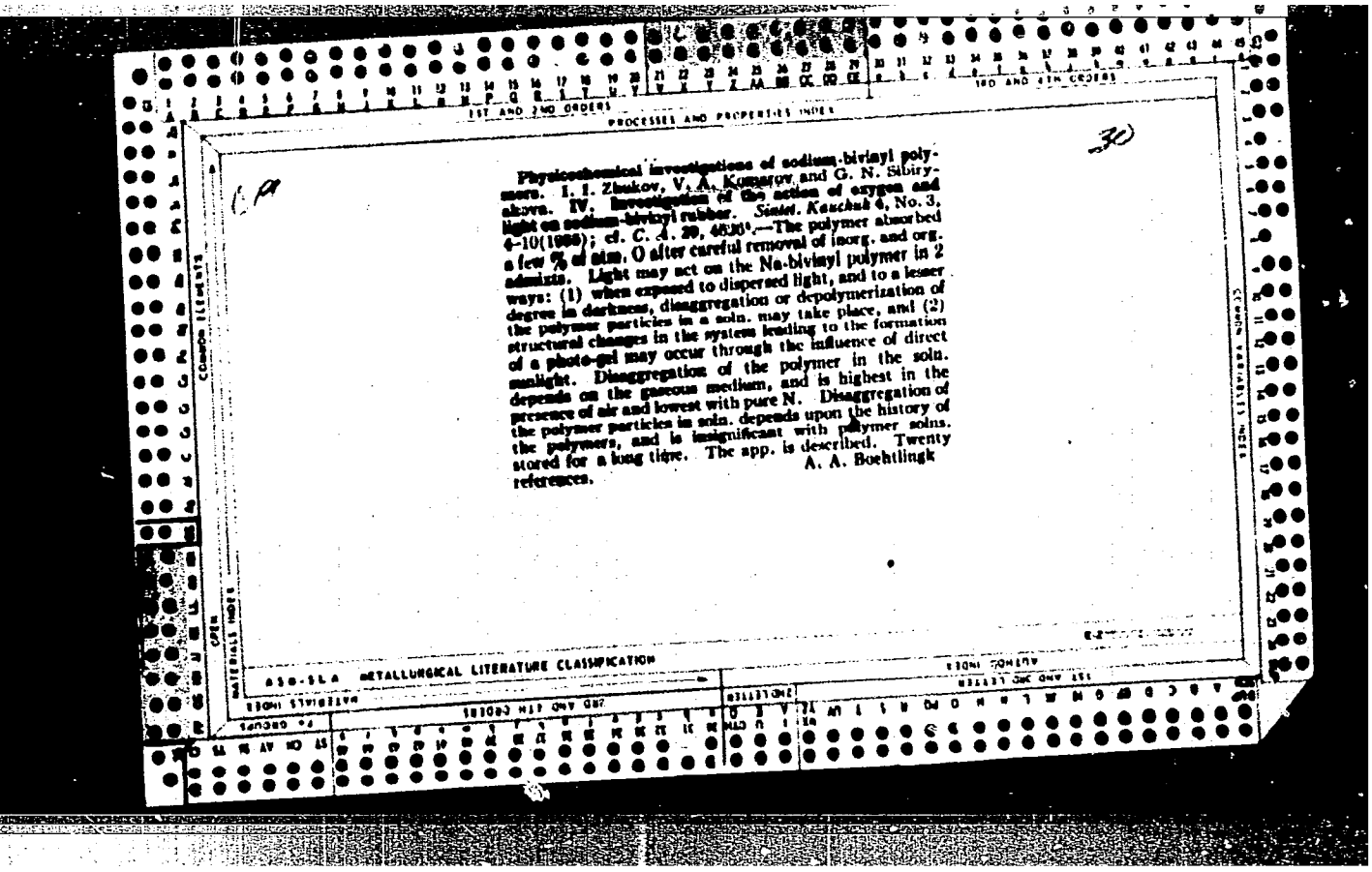
KOMAROV, V.A.; MUSIYACHENKO, T.I.

Let's overcome our shortcoming. Zemledelie 26 no.12:20-23 D '64.
(MIRA 18:4)

1. Direktor sovkhoza "Yarul'skiy", Rybinskogo proizvodstvennogo upravleniya, Krasnoyarskogo kraya (for Komarov). 2. Glavnyy agronom sovkhoza "Yarul'skiy", Rybinskogo proizvodstvennogo upravleniya, Krasnoyarskogo kraya (for Musiyachenko).

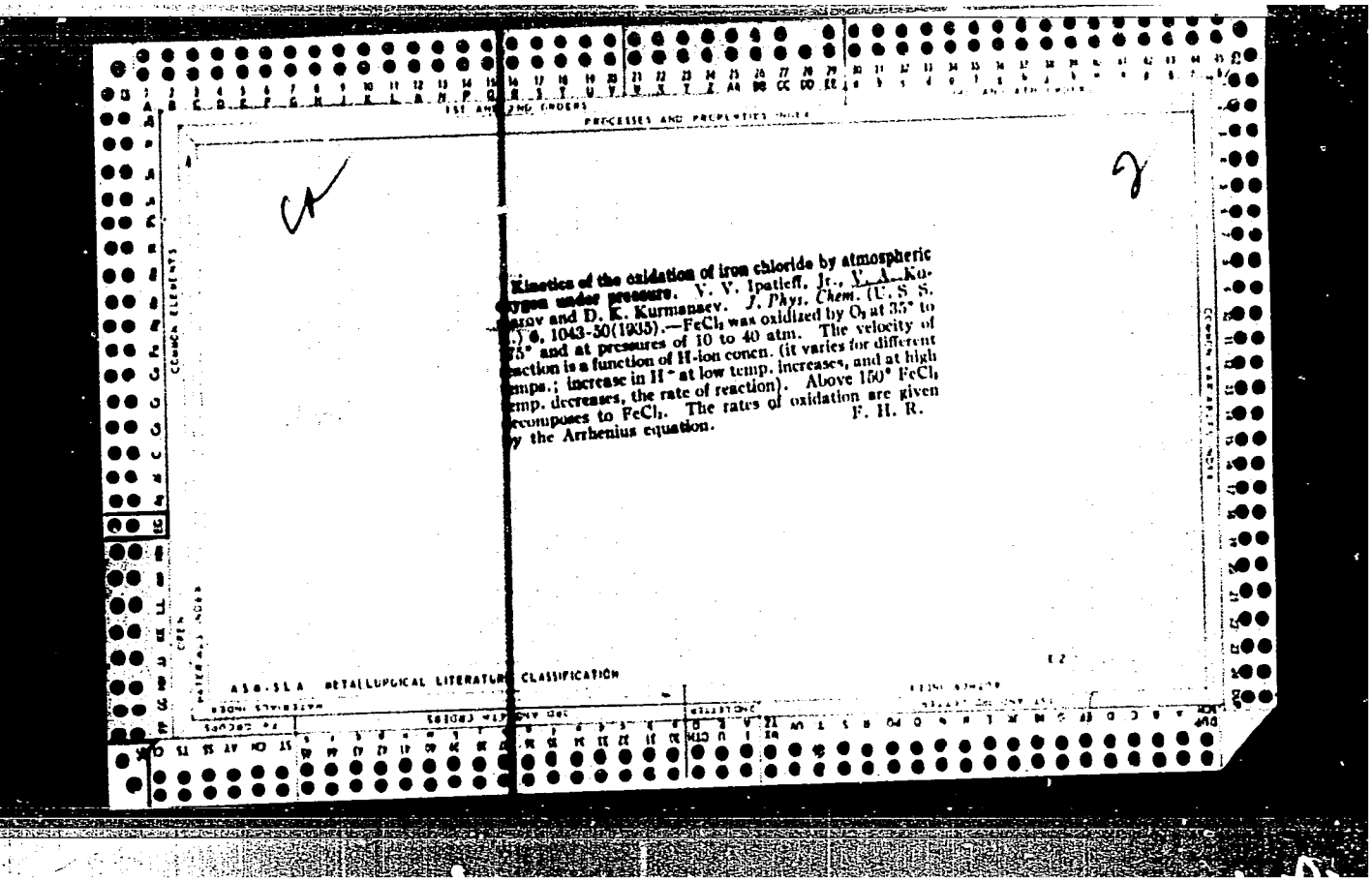


Colloid-chemical properties of sodium bivinyl polymers.
Viscosity of solutions of polymers. I. I. Zhukov, V.
Komarov and V. N. Sokovnina. *Colloid J. (U. S. S.*
R.) 1, 5-8(1935).—A discussion of various formulas and
their applications to data in the literature. II. Action of
drugs and light on polymers. I. I. Zhukov, V. A. Koma-
rov and O. A. Sibiryakova. *Ibid.* 9-10.—Curves show
that in the dark the viscosity of polymers of plas-
city 0.4 increases twice as fast in air as in CO_2 while in
the light it increases twice as fast almost independently of
the gas (air, CO or N_2) used. III. Swelling of sodium
bivinyl polymers. I. I. Zhukov and F. M. Simkhovich.
Ibid. 11-15.—Data are given for polymers vulcanized with
from 2 to 24% S. IV. Fractionation of polymers. I. I.
Zhukov, F. M. Simkhovich, S. L. Talmud and V. P.
Nikol'skaya. *Ibid.* 16-20.—Various fractions are ob-
tained by means of petroleum ether, benzene and $CHCl_3$.
V. Glue-like properties of sodium bivinyl polymers.
The elements of gluing capacity and the methods of its
measurement. I. I. Zhukov and S. L. Talmud. *Ibid.*
20-8.—Rapid. data are given on the adhesion and cohesion
of various synthetic and natural rubbers. F. H. R.

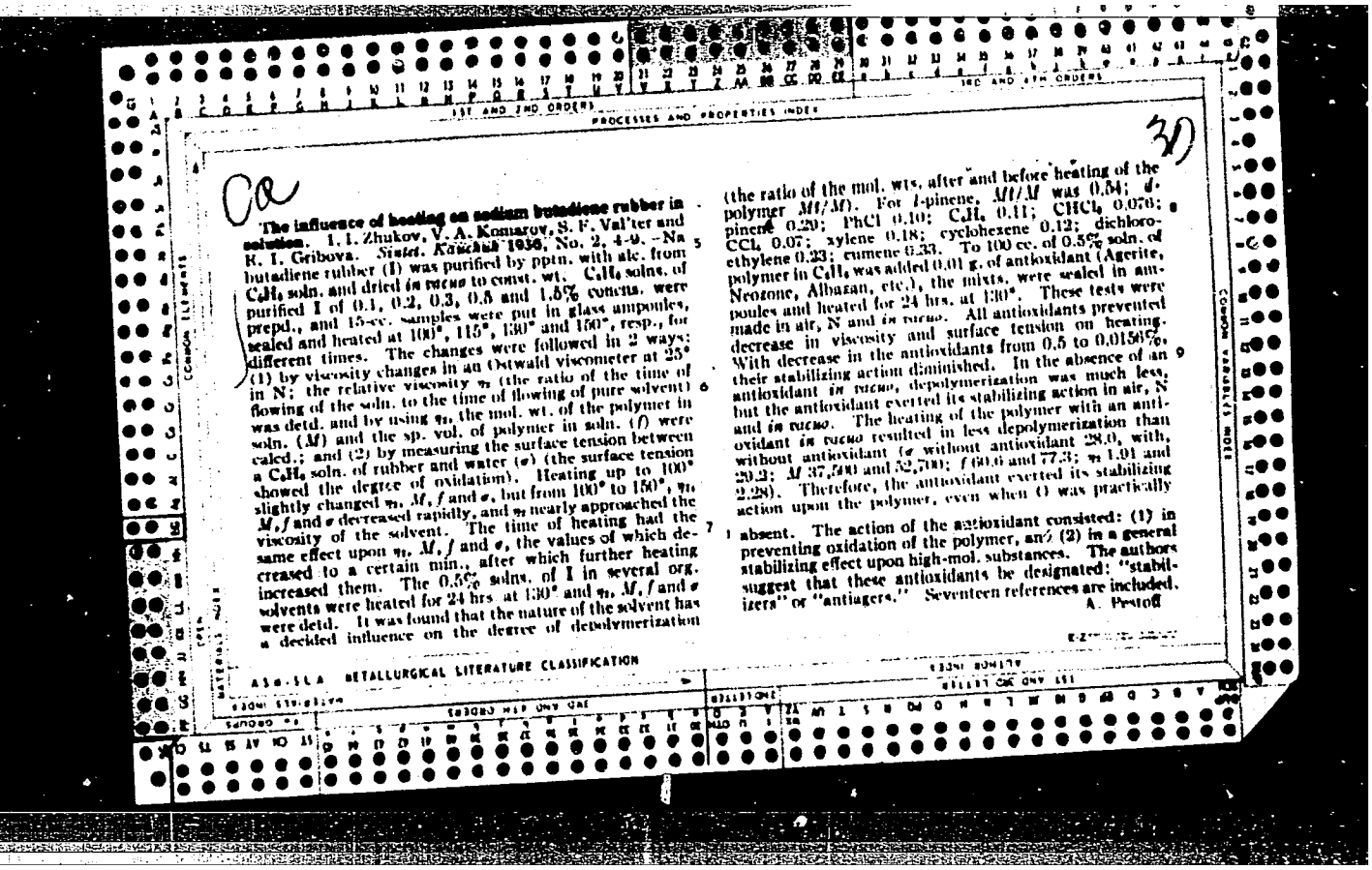


Physicochemical investigations of sodium-divinyl polymers. I. I. Zhukov, V. A. Kumarov and G. N. Sibiryakova. IV. Investigation of the action of oxygen and light on sodium-divinyl rubber. *Sintet. Kauchuk* 4, No. 3, 4-10(1958); cf. *C. A.* 20, 4830°.—The polymer absorbed a few % of atm. O after careful removal of inorg. and org. admixts. Light may act on the Na-divinyl polymer in 2 ways: (1) when exposed to dispersed light, and to a lesser degree in darkness, disaggregation or depolymerization of the polymer particles in a soln. may take place, and (2) structural changes in the system leading to the formation of a photo-gel may occur through the influence of direct sunlight. Disaggregation of the polymer in the soln. depends on the gaseous medium, and is highest in the presence of air and lowest with pure N. Disaggregation of the polymer particles in soln. depends upon the history of the polymers, and is insignificant with polymer solns. stored for a long time. The app. is described. Twenty references.

A. A. Boehtlingk



Kinetics of the oxidation of iron chloride by atmospheric oxygen under pressure. V. V. Ipatieff, Jr., V. A. Kozlov and D. K. Kurmanaev. *J. Phys. Chem.* (U. S. S. R.) 6, 1043-50(1935).—$FeCl_2$ was oxidized by O_2 at 35° to 75° and at pressures of 10 to 40 atm. The velocity of reaction is a function of H-ion concn. (it varies for different temps.; increase in H^+ at low temp. increases, and at high temp. decreases, the rate of reaction). Above 150° $FeCl_2$ decomposes to $FeCl_3$. The rates of oxidation are given by the Arrhenius equation. F. H. R.



PROCESSES AND PROPERTIES INDEX

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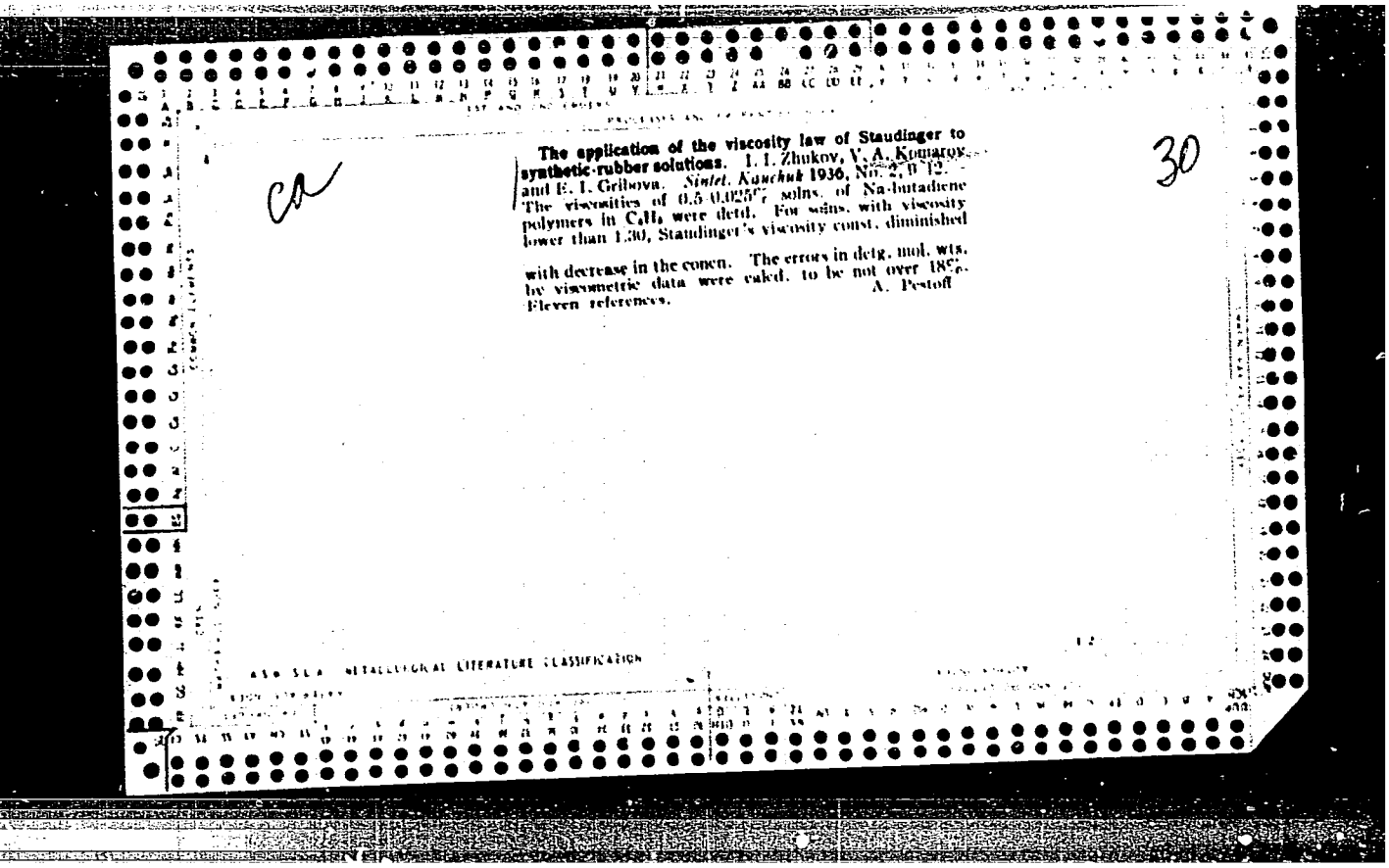
Ca

The influence of heating on sodium butadiene rubber in solution. I. I. Zhukov, V. A. Komarov, S. F. Val'ter and R. I. Gribova. *Sintet. Kauchuk* 1936, No. 2, 4-9.—Na butadiene rubber (I) was purified by pptn. with alc. from C_6H_6 soln. and dried *in vacuo* to const. wt. C_6H_6 solns. of purified I of 0.1, 0.2, 0.3, 0.5 and 1.5% concns. were prepd., and 15-cc. samples were put in glass ampoules, sealed and heated at 100°, 115°, 130° and 150°, resp., for different times. The changes were followed in 2 ways: (1) by viscosity changes in an Ostwald viscometer at 25° in N; the relative viscosity η_r (the ratio of the time of flowing of the soln. to the time of flowing of pure solvent) was detd. and by using η_r, the mol. wt. of the polymer in soln. (M) and the sp. vol. of polymer in soln. (f) were calcd.; and (2) by measuring the surface tension between a C_6H_6 soln. of rubber and water (σ) (the surface tension showed the degree of oxidation). Heating up to 100° slightly changed η_r, M, f and σ, but from 100° to 150°, η_r, M, f and σ decreased rapidly, and η_r nearly approached the viscosity of the solvent. The time of heating had the same effect upon η_r, M, f and σ, the values of which decreased to a certain min., after which further heating increased them. The 0.5% solns. of I in several org. solvents were heated for 24 hrs. at 130° and η_r, M, f and σ were detd. It was found that the nature of the solvent has a decided influence on the degree of depolymerization (the ratio of the mol. wts. after and before heating of the polymer M_1/M). For *l*-pinene, M_1/M was 0.54; *d*-pinene 0.20; PhCl 0.10; C_6H_6 0.11; $CHCl_3$ 0.070; CCl_4 0.07; xylene 0.18; cyclohexene 0.12; dichloroethylene 0.33; cumene 0.33. To 100 cc. of 0.5% soln. of polymer in C_6H_6 was added 0.01 g. of antioxidant (Agerite, Neozone, Albagan, etc.), the mixts. were sealed in ampoules and heated for 24 hrs. at 130°. These tests were made in air, N and *in vacuo*. All antioxidants prevented decrease in viscosity and surface tension on heating. With decrease in the antioxidants from 0.5 to 0.015%, their stabilizing action diminished. In the absence of an antioxidant *in vacuo*, depolymerization was much less, but the antioxidant exerted its stabilizing action in air, N and *in vacuo*. The heating of the polymer with an antioxidant *in vacuo* resulted in less depolymerization than without antioxidant (σ without antioxidant 28.0, with, 29.2; M 37,500 and 52,700; f 60.6 and 77.3; η_r 1.91 and 2.28). Therefore, the antioxidant exerted its stabilizing action upon the polymer, even when I was practically absent. The action of the antioxidant consisted: (1) in preventing oxidation of the polymer, and (2) in a general stabilizing effect upon high-mol. substances. The authors suggest that these antioxidants be designated: "stabilizers" or "antiagers." Seventeen references are included.

A. Prestoff

A 38-11 A METALLURGICAL LITERATURE CLASSIFICATION



The application of the viscosity law of Staudinger to synthetic-rubber solutions. I. I. Zhukov, V. A. Komarov, and E. I. Gribova. *Sintet. Kauchuk* 1936, No. 2, 9-12. The viscosities of 0.5-0.025% solns. of Na-butadiene polymers in C_6H_6 were detd. For solns. with viscosity lower than 1.30, Staudinger's viscosity const. diminished with decrease in the concn. The errors in detg. mol. wts. by viscosimetric data were calcd. to be not over 18%. A. Pestoff
Eleven references.

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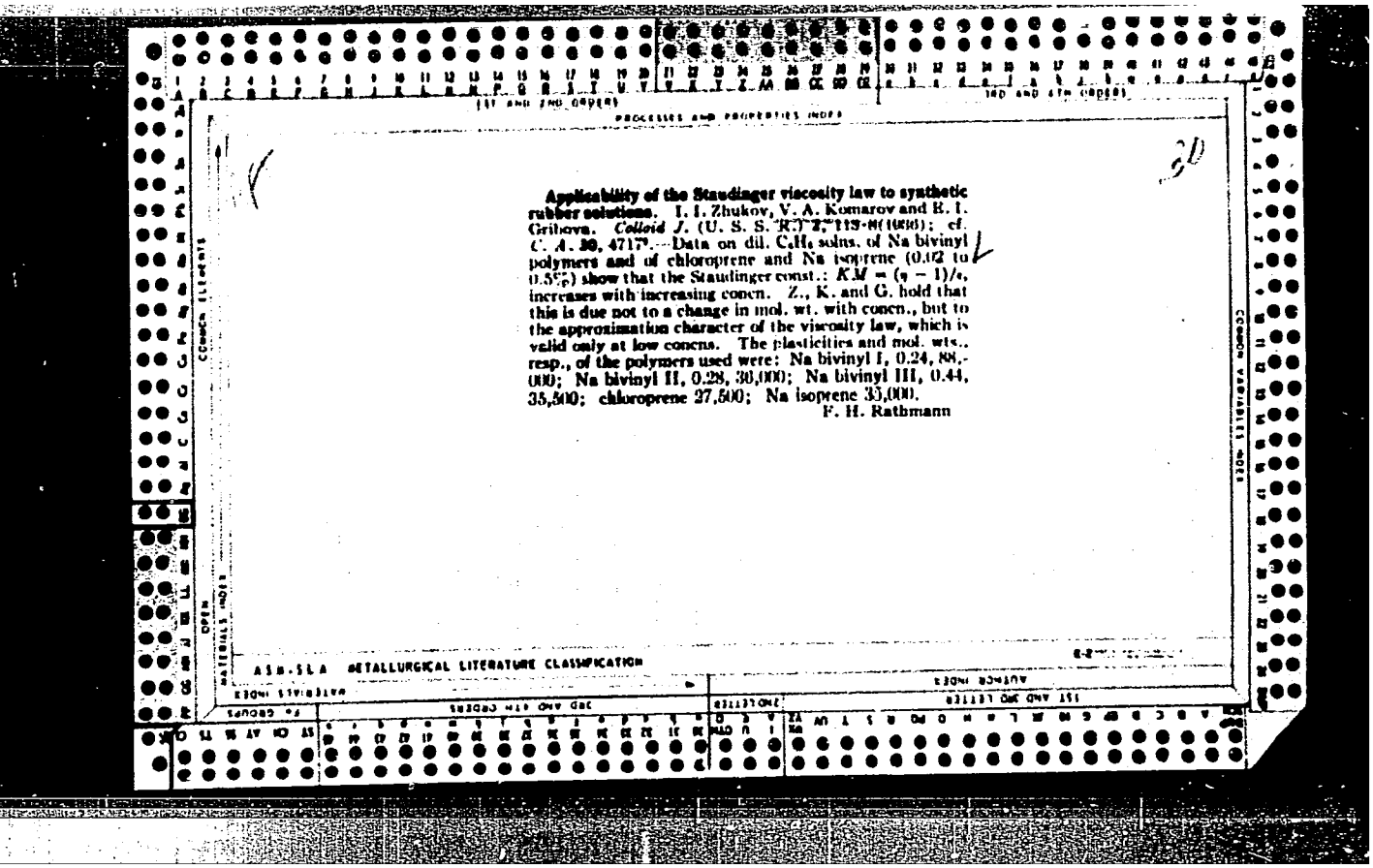
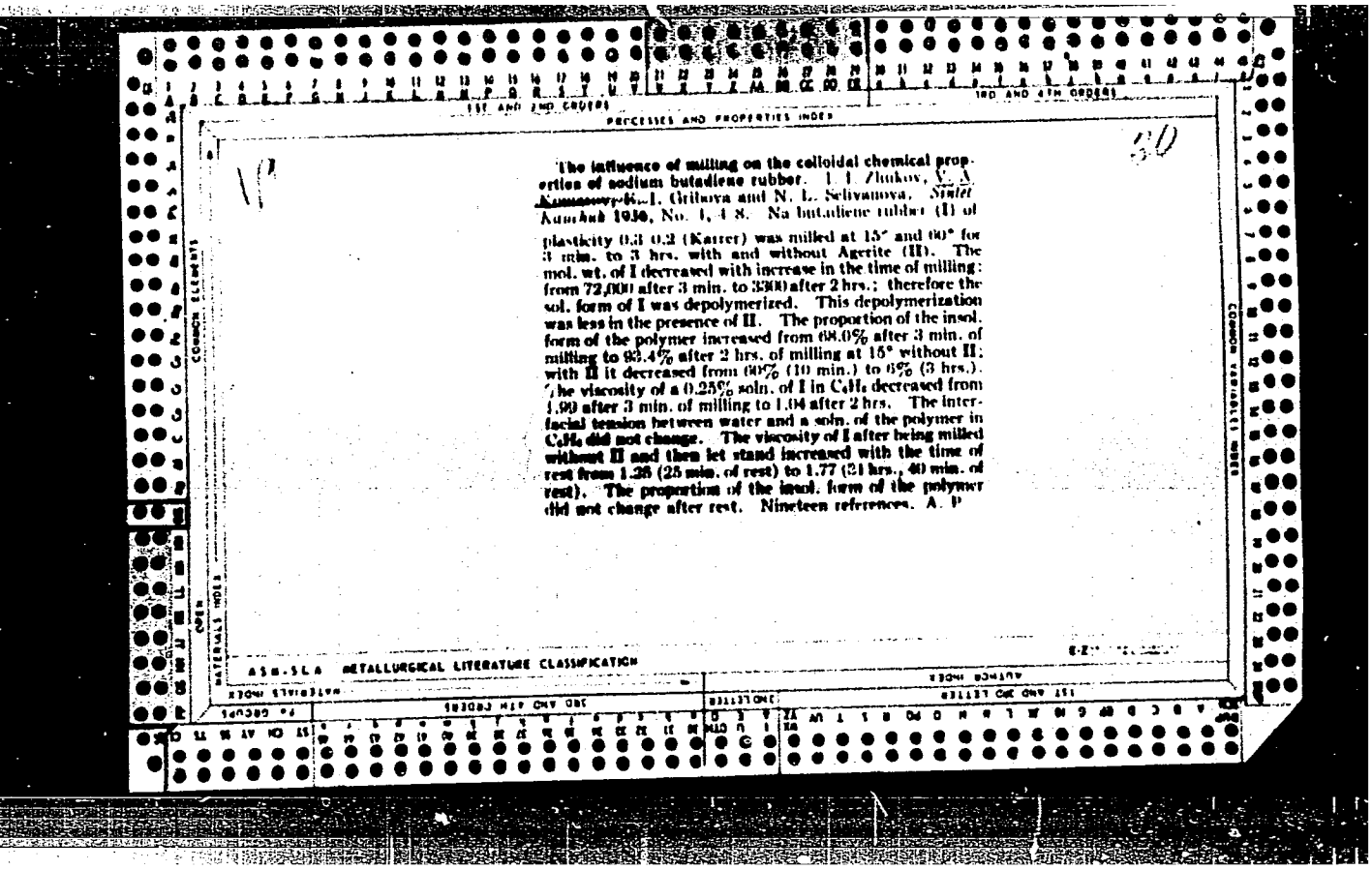


Applicability of the Staudinger viscosity law to synthetic rubber solutions. I. I. Zhukov, V. A. Komarov and E. I. Gribova. *Colloid J.* (U. S. S. R.) 2, 119-26 (1936); cf. *C. A.* **30**, 4717⁹.—Data on dil. C_6H_6 solns. of Na bivinyl polymers and of chloroprene and Na isoprene (0.02 to 0.5%) show that the Staudinger const.: $KM = (\eta - 1)/c$, increases with increasing concn. Z., K. and G. hold that this is due not to a change in mol. wt. with concn., but to the approximation character of the viscosity law, which is valid only at low concns. The plasticities and mol. wts., resp., of the polymers used were: Na bivinyl I, 0.24, 88,000; Na bivinyl II, 0.28, 38,000; Na bivinyl III, 0.44, 35,500; chloroprene 27,500; Na isoprene 35,000.

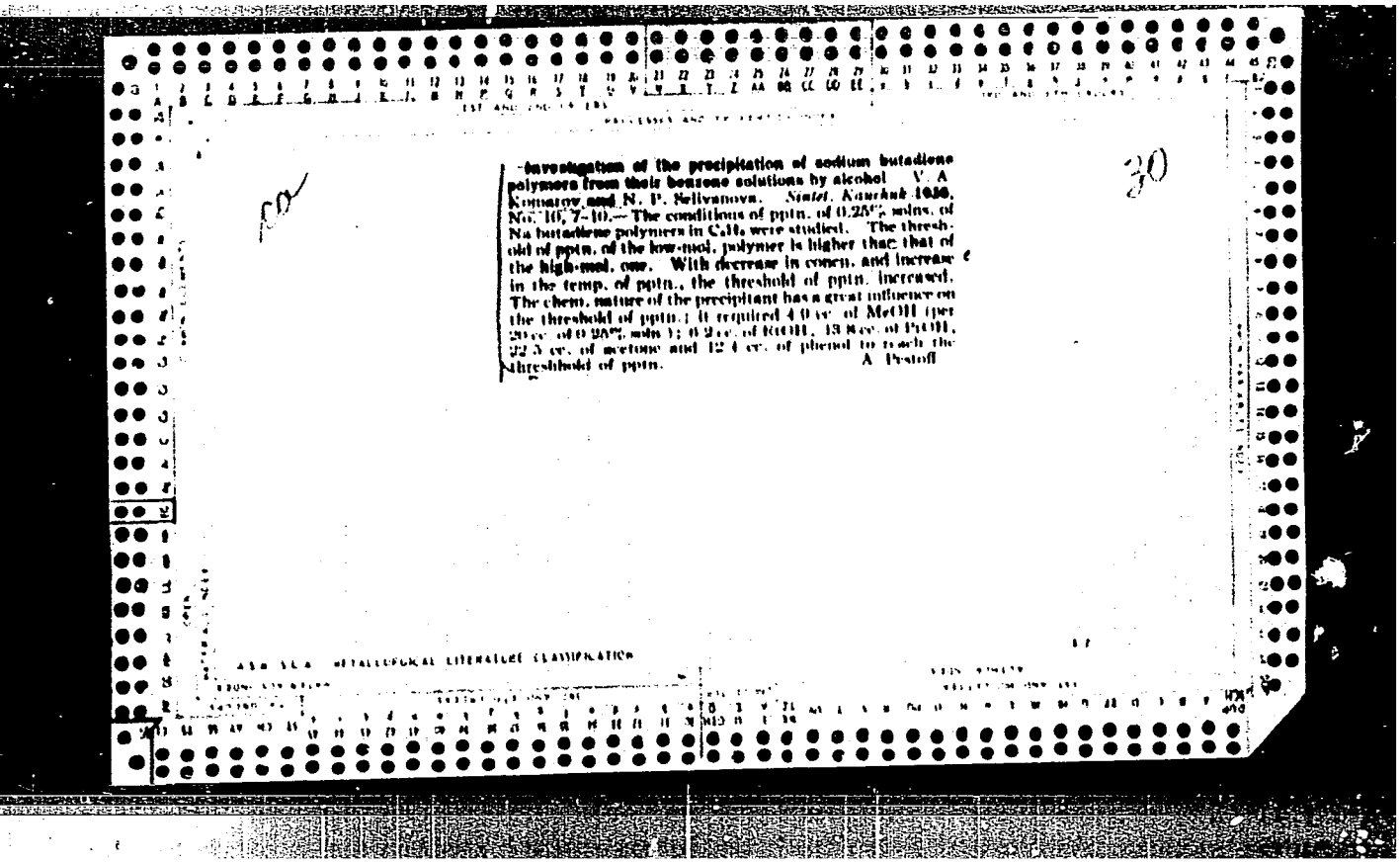
F. H. Rathmann



PROCESSES AND PROPERTIES INDEX

The influence of milling on the colloidal chemical properties of sodium butadiene rubber. I. I. Zhukov, V. A. Kamenev-Gribova, and N. L. Selivanova. *Sintet. Kauchuk* 1936, No. 1, 4-8. Na butadiene rubber (I) of plasticity 0.3-0.2 (Karrer) was milled at 15° and 60° for 3 min. to 3 hrs. with and without Agerite (II). The mol. wt. of I decreased with increase in the time of milling: from 72,000 after 3 min. to 3300 after 2 hrs.; therefore the sol. form of I was depolymerized. This depolymerization was less in the presence of II. The proportion of the insol. form of the polymer increased from 68.0% after 3 min. of milling to 93.4% after 2 hrs. of milling at 15° without II; with II it decreased from 60% (10 min.) to 6% (3 hrs.). The viscosity of a 0.25% soln. of I in C_6H_6 decreased from 1.99 after 3 min. of milling to 1.04 after 2 hrs. The interfacial tension between water and a soln. of the polymer in C_6H_6 did not change. The viscosity of I after being milled without II and then let stand increased with the time of rest from 1.26 (25 min. of rest) to 1.77 (21 hrs., 40 min. of rest). The proportion of the insol. form of the polymer did not change after rest. Nineteen references. A. P

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Investigation of the precipitation of sodium butadiene polymers from their benzene solutions by alcohol V. A. Kornarov and N. P. Selivanova. *Sintet. Kauchuk* 1936, No. 10, 7–10.— The conditions of pptn. of 0.25% solns. of Na butadiene polymers in C_6H_6 were studied. The threshold of pptn. of the low-mol. polymer is higher than that of the high-mol. one. With decrease in concn. and increase in the temp. of pptn., the threshold of pptn. increased. The chem. nature of the precipitant has a great influence on the threshold of pptn.; it required 4.0 cc. of MeOH (per 20 cc. of 0.25% soln.); 0.2 cc. of EtOH, 13.8 cc. of PrOH, 22.5 cc. of acetone and 12.4 cc. of phenol to reach the threshold of pptn. A Pestoff

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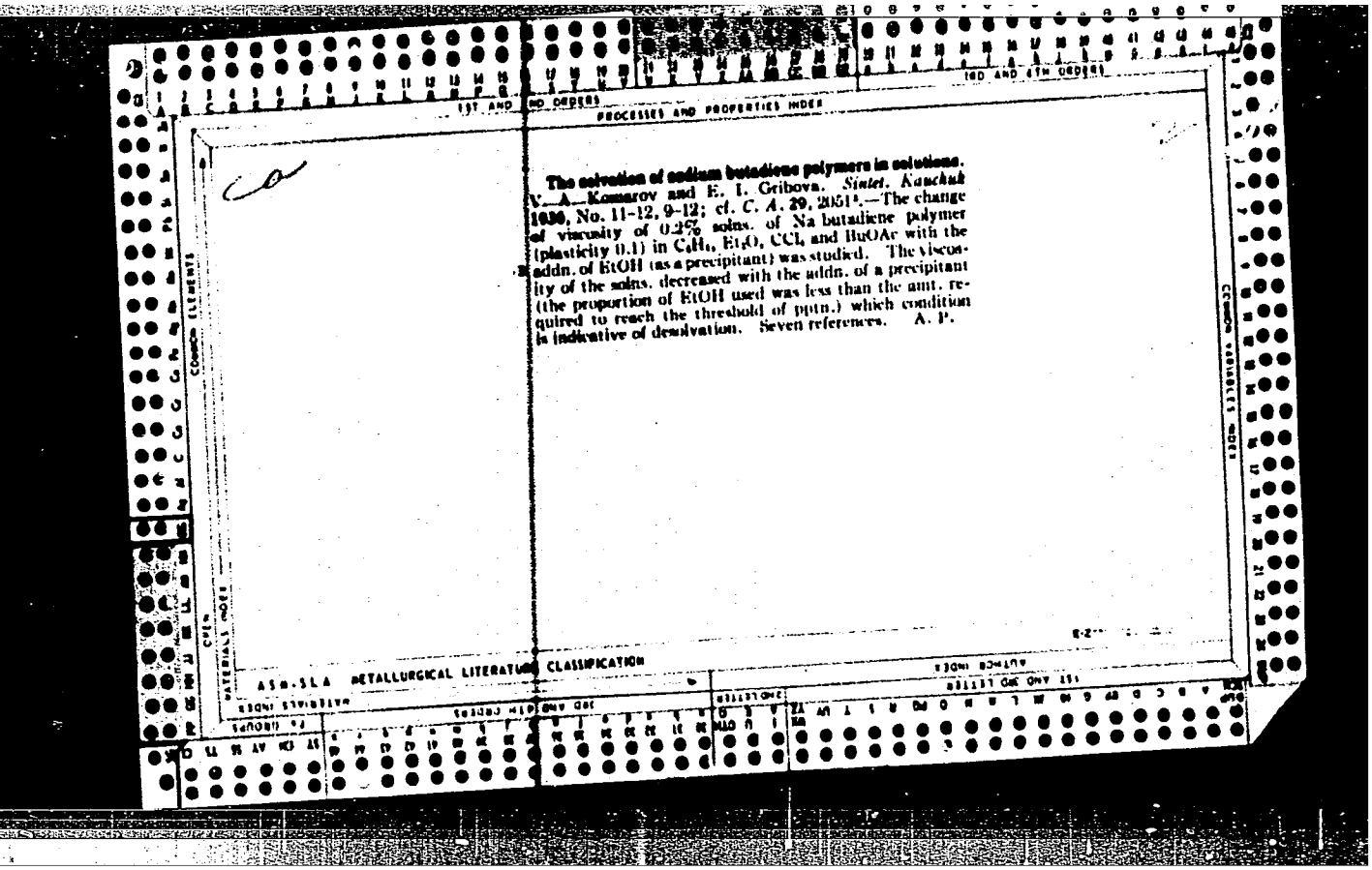
Determination of the molecular weight of sodium
butadiene polymers by the method of partial vulcanization.
V. A. Komarov and S. F. Val'ter. *Sintet. Kauchuk* 1936,
No. 10, 11-13; cf. *C. A.* **29**, 4835[1]. The polymer was
dissolved in C_6H_6 and the solvent was removed in vacuo
at room temp. A mixt. of 60 g. of polymer and 1.57 g. of
tetramethylthiuram disulfide was vulcanized at 100° for
1 hr. and again dissolved in C_6H_6. The dissolved part of
the polymer was fractionated by addn., in a separatory
funnel, of EtOH till the first flocculent ppt. was formed;
this ppt. was washed with EtOH, dried, weighed and ana-
lyzed for total S. EtOH was added to the soln. re-
maining from the 1st ppt. until a ppt. was just formed;
the ppt. was collected and so on, until 4 fractions were
collected. The proportion of S in the 1st fraction was
taken as a unit (1 atom); the 2nd fraction was found to
be 1.5 atoms; the 3rd, 2 atoms; the 4th, 6 atoms; the
mol. wts. of the fractions were 12,208, 13,300, 12,736 and
13000, or approx. 0.25 of the mol. wt. of natural rubber,
i. e., 81,000.

A. Pestoff

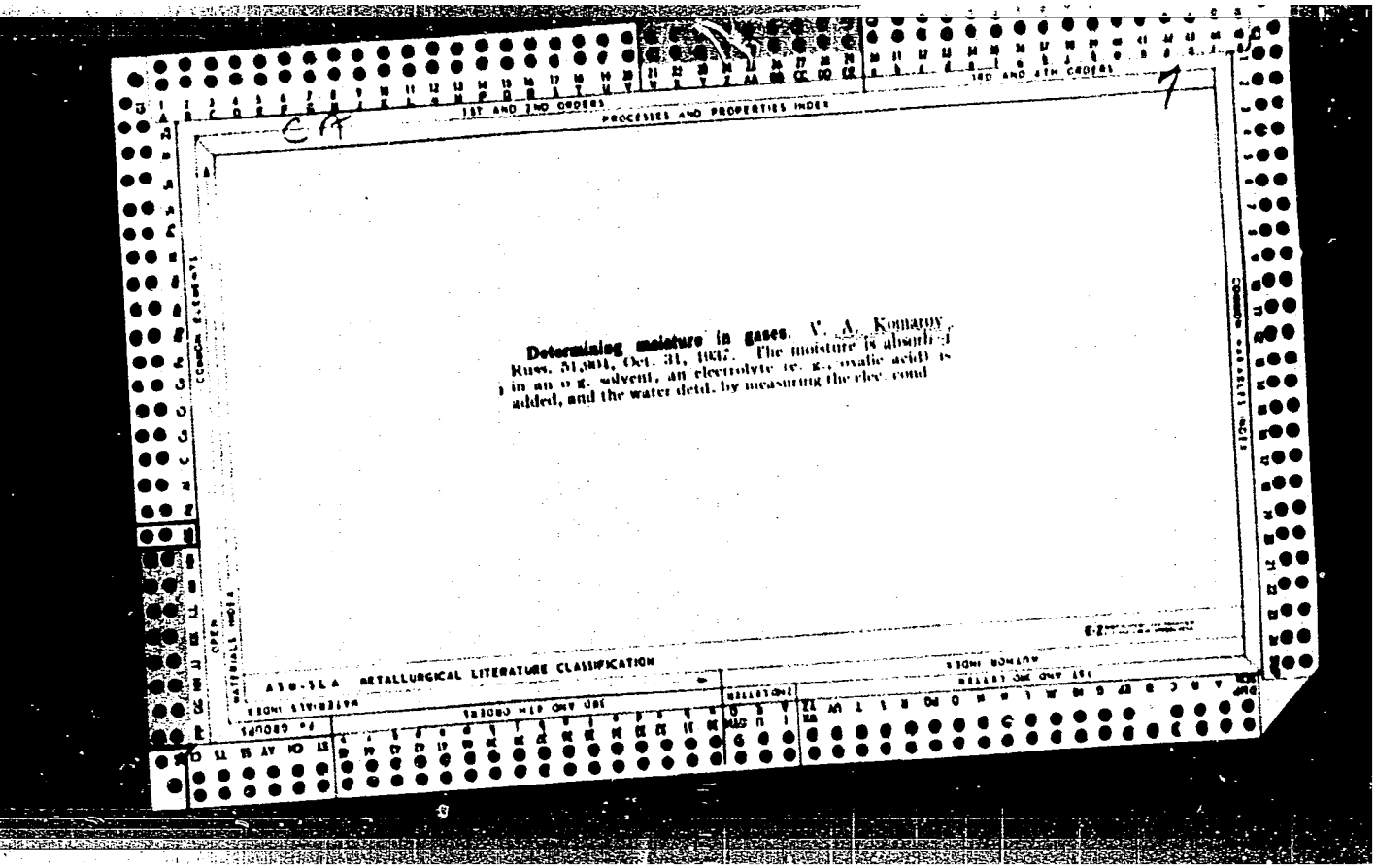
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

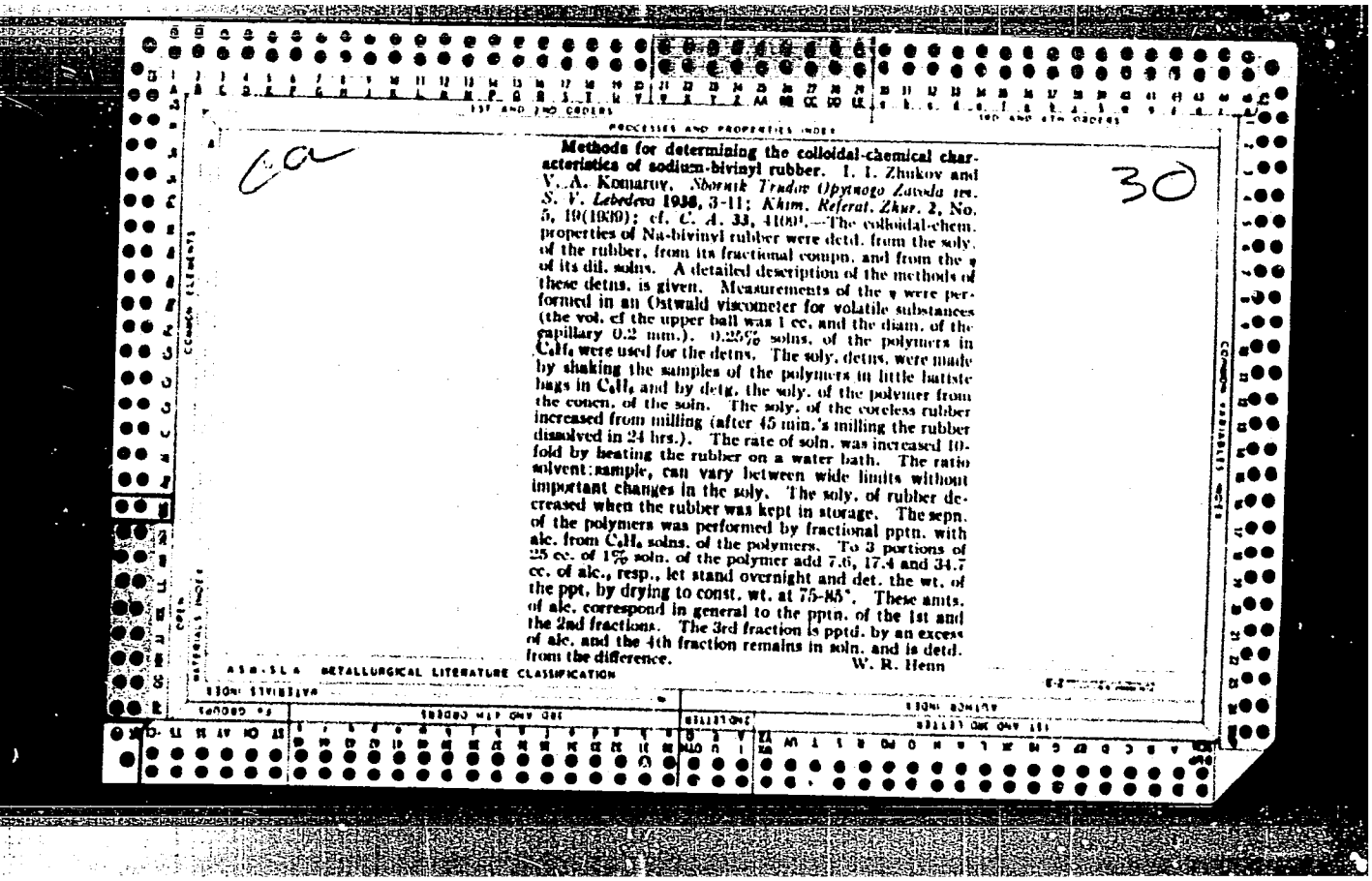


PROCESSES AND PROPERTIES INDEX

The solvation of sodium butadiene polymers in solutions. V. A. Kormarov and E. I. Gribova. *Sintet. Kauchuk* 1936, No. 11-12, 9-12; cf. *C. A.* 29, 2051⁴.—The change of viscosity of 0.2% solns. of Na butadiene polymer (plasticity 0.1) in C_6H_6, Et_2O, CCl_4 and BuOAc with the addn. of EtOH (as a precipitant) was studied. The viscosity of the solns. decreased with the addn. of a precipitant (the proportion of EtOH used was less than the amt. required to reach the threshold of pptn.) which condition is indicative of desolvation. Seven references. A. P.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





Ca

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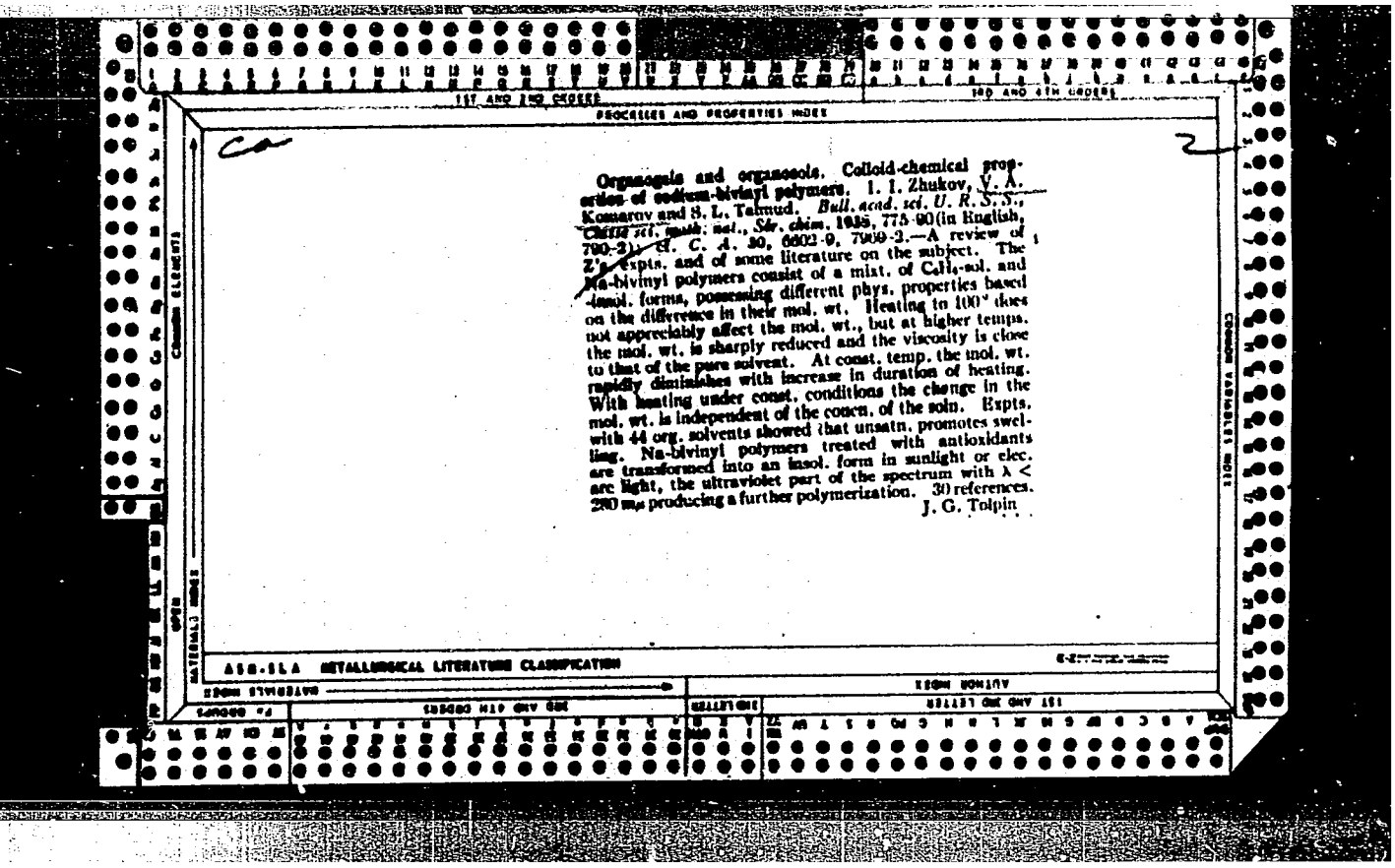
Methods for determining the colloidal-chemical characteristics of sodium-divinyl rubber. I. I. Zhukov and V. A. Komarov. *Sbornik Trudov Opytnogo Zavoda im. S. V. Lebedeva* **1938**, 3-11; *Khim. Referat. Zhur.* **2**, No. 5, 19(1939); cf. *C. A.* **33**, 4109[1].—The colloidal-chem. properties of Na-divinyl rubber were detd. from the soly. of the rubber, from its fractional compn. and from the η of its dil. solns. A detailed description of the methods of these detns. is given. Measurements of the η were performed in an Ostwald viscometer for volatile substances (the vol. of the upper ball was 1 cc. and the diam. of the capillary 0.2 mm.). 0.25% solns. of the polymers in C_6H_6 were used for the detns. The soly. detns. were made by shaking the samples of the polymers in little batiste bags in C_6H_6 and by detg. the soly. of the polymer from the concn. of the soln. The soly. of the coreless rubber increased from milling (after 45 min.'s milling the rubber dissolved in 24 hrs.). The rate of soln. was increased 10-fold by heating the rubber on a water bath. The ratio solvent:sample, can vary between wide limits without important changes in the soly. The soly. of rubber decreased when the rubber was kept in storage. The sepn. of the polymers was performed by fractional pptn. with alc. from C_6H_6 solns. of the polymers. To 3 portions of 25 cc. of 1% soln. of the polymer add 7.6, 17.4 and 34.7 cc. of alc., resp., let stand overnight and det. the wt. of the ppt. by drying to const. wt. at 75-85°. These amts. of alc. correspond in general to the pptn. of the 1st and the 2nd fractions. The 3rd fraction is pptd. by an excess of alc. and the 4th fraction remains in soln. and is detd. from the difference.

W. R. Henn



Ca

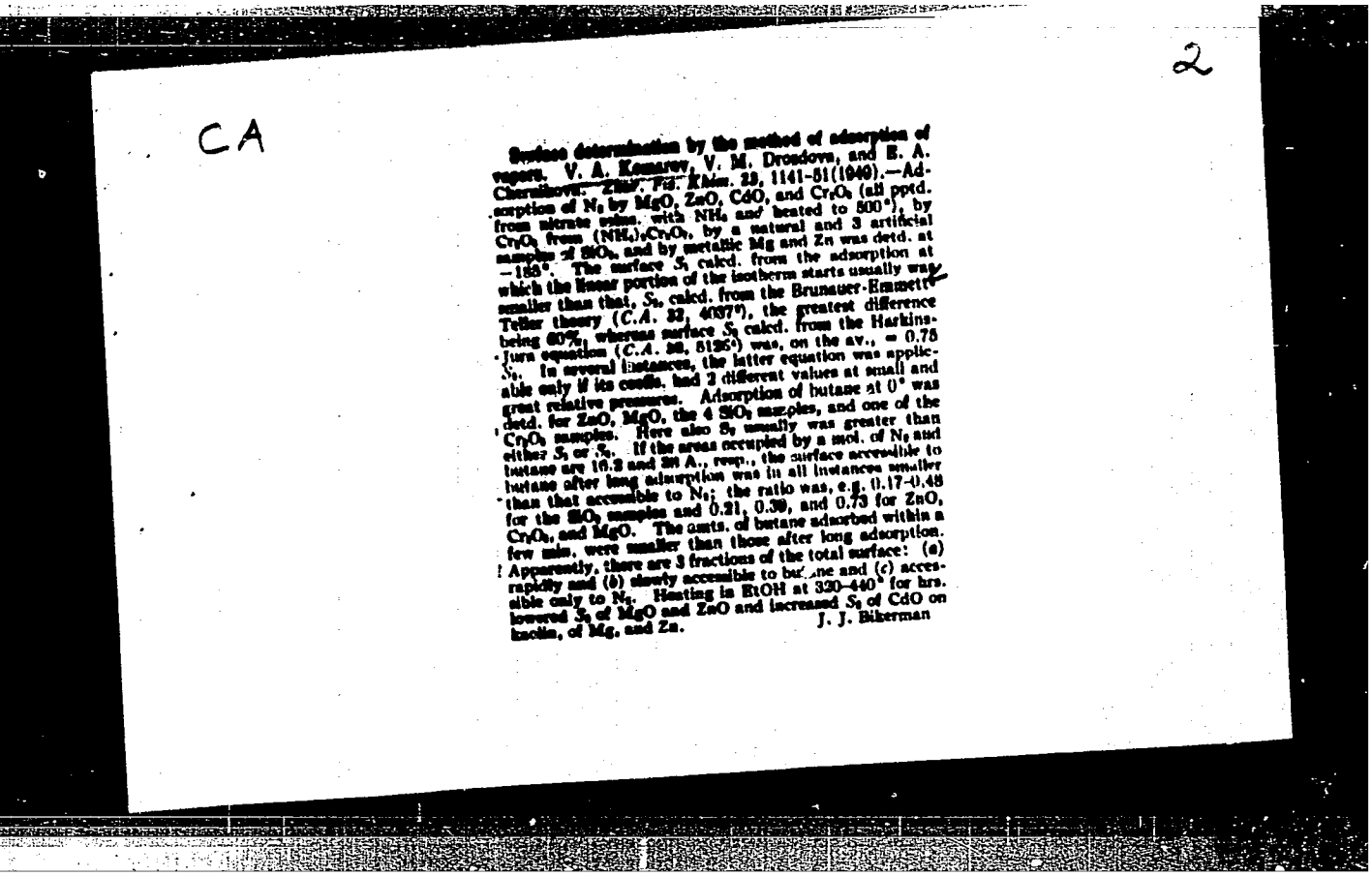
2

Organogels and organosols. Colloid-chemical properties of sodium-bivinyl polymers. I. I. Zhukov, V. A. Komarov and S. L. Talmud. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. chim.* 1935, 775-90 (in English, 790-2); *C. A.* 30, 6602-9, 7009-2.—A review of Z.'s expts. and of some literature on the subject. The Na-bivinyl polymers consist of a mixt. of C_6H_{14}-sol. and -insol. forms, possessing different phys. properties based on the difference in their mol. wt. Heating to 100° does not appreciably affect the mol. wt., but at higher temps. the mol. wt. is sharply reduced and the viscosity is close to that of the pure solvent. At const. temp. the mol. wt. rapidly diminishes with increase in duration of heating. With heating under const. conditions the change in the mol. wt. is independent of the concn. of the soln. Expts. with 44 org. solvents showed that unsatn. promotes swelling. Na-bivinyl polymers treated with antioxidants are transformed into an insol. form in sunlight or elec. arc light, the ultraviolet part of the spectrum with $\lambda <$ 280 mμ producing a further polymerization. 30 references.

J. G. Tolpin

KOMAROV, V.A.

✓New trends in the scientific research work of the Chemical Institute of the Leningrad University. V. A. Komarov. *Vestnik Leningrad Univ.* 2, No. 1, 201–2 (1947).—A discussion of the work which is planned for the coming 5-year period. Special emphasis is placed on the study of alloys and the production of synthetic (Fischer-Tropsch) fuels.
I. Koyter Leach



CA

2

Surface determination by the method of adsorption of vapors. V. A. Kemarev, V. M. Drosdova, and E. A. Chernikova. Zhur. Fiz. Khim. 23, 1141-51(1949).—Adsorption of N_2 by MgO, ZnO, CdO, and Cr_2O_3 (all ppted. from nitrate solns. with NH_4 and heated to 500°), by Cr_2O_3 from $(NH_4)_2Cr_2O_7$, by a natural and 3 artificial samples of SiO_2, and by metallic Mg and Zn was detd. at −185°. The surface S_1 calcd. from the adsorption at which the linear portion of the isotherm starts usually was smaller than that, S_2, calcd. from the Brunauer-Emmett-Teller theory (*C.A.* 32, 4037⁹), the greatest difference being 60%, whereas surface S_3 calcd. from the Harkins-Jura equation (*C.A.* 38, 5125⁵) was, on the av., = 0.75 S_2. In several instances, the latter equation was applicable only if its consts. had 2 different values at small and great relative pressures. Adsorption of butane at 0° was detd. for ZnO, MgO, the 4 SiO_2 samples, and one of the Cr_2O_3 samples. Here also S_4 usually was greater than either S_1 or S_2. If the areas occupied by a mol. of N_2 and butane are 16.2 and 30 A., resp., the surface accessible to butane after long adsorption was in all instances smaller than that accessible to N_2; the ratio was, e.g. 0.17–0.48 for the SiO_2 samples and 0.21, 0.39, and 0.73 for ZnO, Cr_2O_3, and MgO. The amts. of butane adsorbed within a few min. were smaller than those after long adsorption. Apparently, there are 3 fractions of the total surface: (*a*) rapidly and (*b*) slowly accessible to butane and (*c*) accessible only to N_2. Heating in EtOH at 320–440° for hrs. lowered S_4 of MgO and ZnO and increased S_4 of CdO on knolin, of Mg, and Zn.

J. J. Biberman

KOMAROV, V. A., DROZDOVA, V. M., SHIF, G. A.

Reduction, Chemical

Determination of the starting temperature of reduction of metallic oxides with hydrogen. Uch.zap. Len.un. No. 150, 1951.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 ~~1953~~, Uncl.

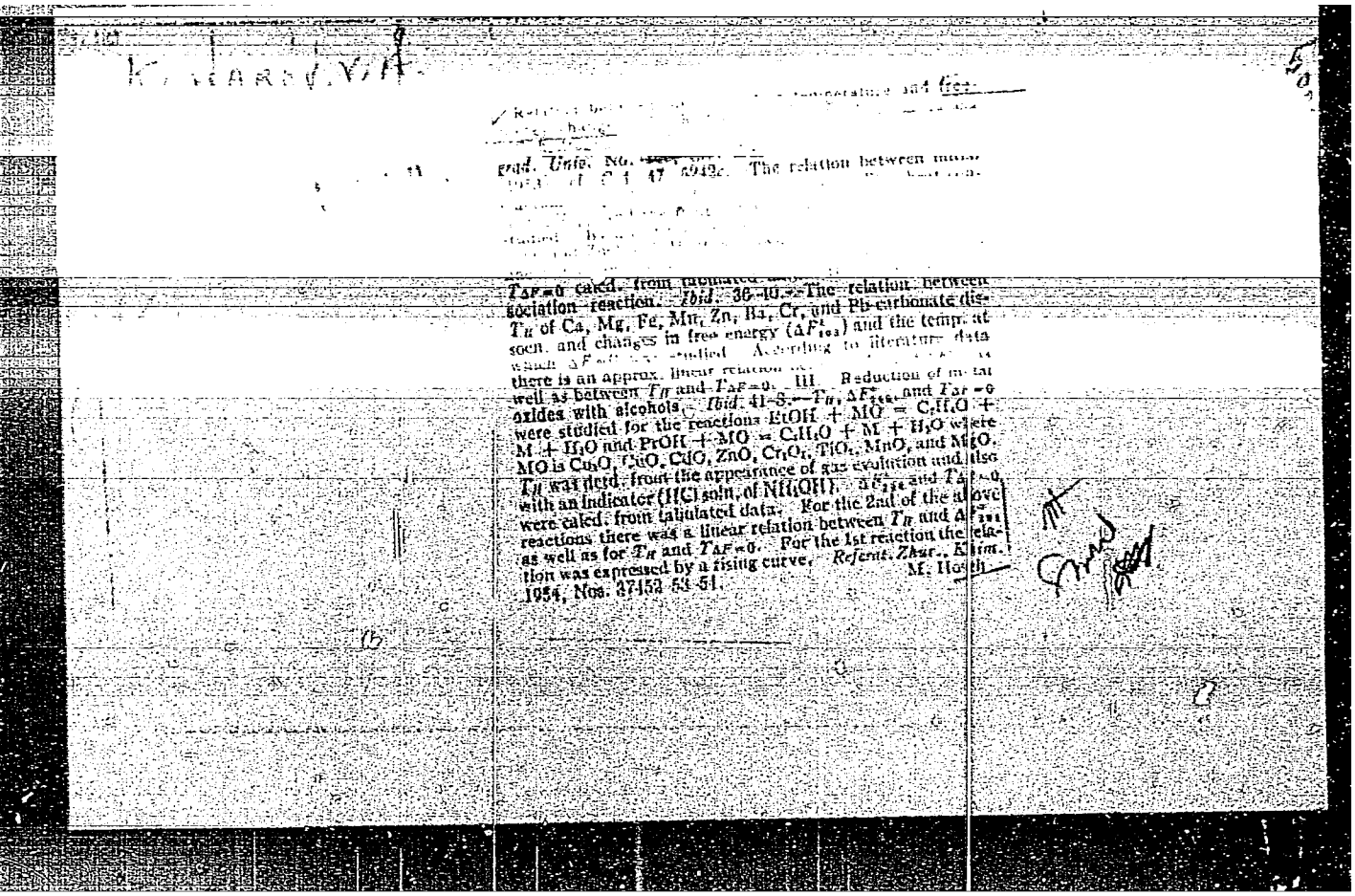
1. KOMAROV, V. A.

2. USSR (600)

4. Chemical React on - Velocity

7. Connection between initial temperatures of reactions and variations of free energy for monotype reactions, Dokl. AN SSSR 87, No. 4, 1952.

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



Publ. Univ. No. ... 1947. 5912c. The relation between ...

$T_{\Delta F=0}$ calcd. from ... sociation reaction. *Ibid.* 36-40.—The relation between T_H of Ca, Mg, Fe, Mn, Zn, Ba, Cr, and Pb carbonate dissocn. and changes in free energy (ΔF_{18}) and the temp. at which ΔF ... studied. According to literature data there is an approx. linear relation ... well as between T_H and $T_{\Delta F=0}$. III. Reduction of metal oxides with alcohols. *Ibid.* 41-8.—T_H, ΔF_{18}, and $T_{\Delta F=0}$ were studied for the reactions EtOH + MO = C_2H_4O + M + H_2O and PrOH + MO = C_3H_6O + M + H_2O where MO is Cu_2O, CuO, CdO, ZnO, Cr_2O_3, TiO_2, MnO, and MgO. T_H was detd. from the appearance of gas evolution and also with an indicator (HCl soln. of NH_4OH). ΔF_{18} and $T_{\Delta F=0}$ were calcd. from tabulated data. For the 2nd of the above reactions there was a linear relation between T_H and ΔF_{18} as well as for T_H and $T_{\Delta F=0}$. For the 1st reaction the relation was expressed by a rising curve. *Referat. Zhur., Khim.* 1954, Nos. 37152 53-51. M. Hos...

KOMAROV, V. A.

(2)

Relation between initial temperatures of reactions and changes of free energy for reactions similar in kind. V. A. Komarov (A. A. Zhdanov State Univ., Leningrad). *Zhur. Fiz. Khim.* 23, 1748–50(1949); cf. Tsvetkov, *Trudy Inst. Geol. Nauk, Akad. Nauk S.S.S.R.* 106, 67(1949).—The initial (T_i) and equil. (T_e) temps. of reaction, ΔH°_{298}, and ΔF°_{298} were calcd. from literature data for the reduction by H of the oxides of the bivalent metals Cu, Zn, Cd, Ni, Fe, Co, Pb, and Mn and for the thermal decompn. of the carbonates of Ca, Mg, Fe, Zn, Ba, Pb, and Sr. The values of T_i and T_e for the reduction by EtOH and iso-PrOH of MgO, MnO, TiO_2, Cr_2O_3, ZnO, CdO, Fe_2O_3, CuO, and Cu_2O were measured; values of ΔF°_{298} were calcd. The value of T_i is a nearly linear function of ΔF°_{298} for these reactions. Data are tabulated and graphed. The linear relation between ΔF°_{298} and T_i is predicted in a theoretical discussion. J. W. Loweberg Jr.

KOMAROV, V.A.

Connection between the initial reaction temperature and the variation of free energy. Part 1. Reactions of the reduction of metal oxides by hydrogen. Uch.zap.Len.un.169:29-35 '53. (MLRA 9:6)

(Oxides) (Reduction, Chemical) (Chemical reaction, Heat of)

KOMAROV, V.A.

Connection between the initial reaction temperature and the variation of free energy. Part 2. Carbonate dissociation reactions. Uch.zap.Len.un.169:36-40 '53. (MLRA 9:6)
(Carbonates) (Dissociation) (Thermal analysis)

KOMAROV, V.A.

Connection between the initial reaction temperature and the variation of free energy. Part 3. Reduction of metal oxides by alcohols. Uch.zap.Len.un.169:41-48 '53. (MLRA 9:6)
(Oxides) (Reduction, Chemical)

KOMAROV, V.A.

USSR/ Chemistry - Physical chemistry

Card 1/2 Pub. 147 - 15/21

Authors : Komarov, V. A., and Chernikova, Ye. A.

Title : Effect of certain hydroxide admixtures on the dehydration of $Al(OH)_3$

Periodical : Zhur. fiz. khim. 29/10, 1876-1882, Oct 1955

Abstract : The process of $Al(OH)_3$ dehydration (pure aluminum hydroxide and $Al(OH)_3$ containing admixtures of other hydroxides) was investigated by the continuous oven suspension and thermographic methods. A strong effect of other hydroxide admixtures on the dehydration of $Al(OH)_3$ was definitely established. Foreign hydroxide admixtures result in the reduction in the

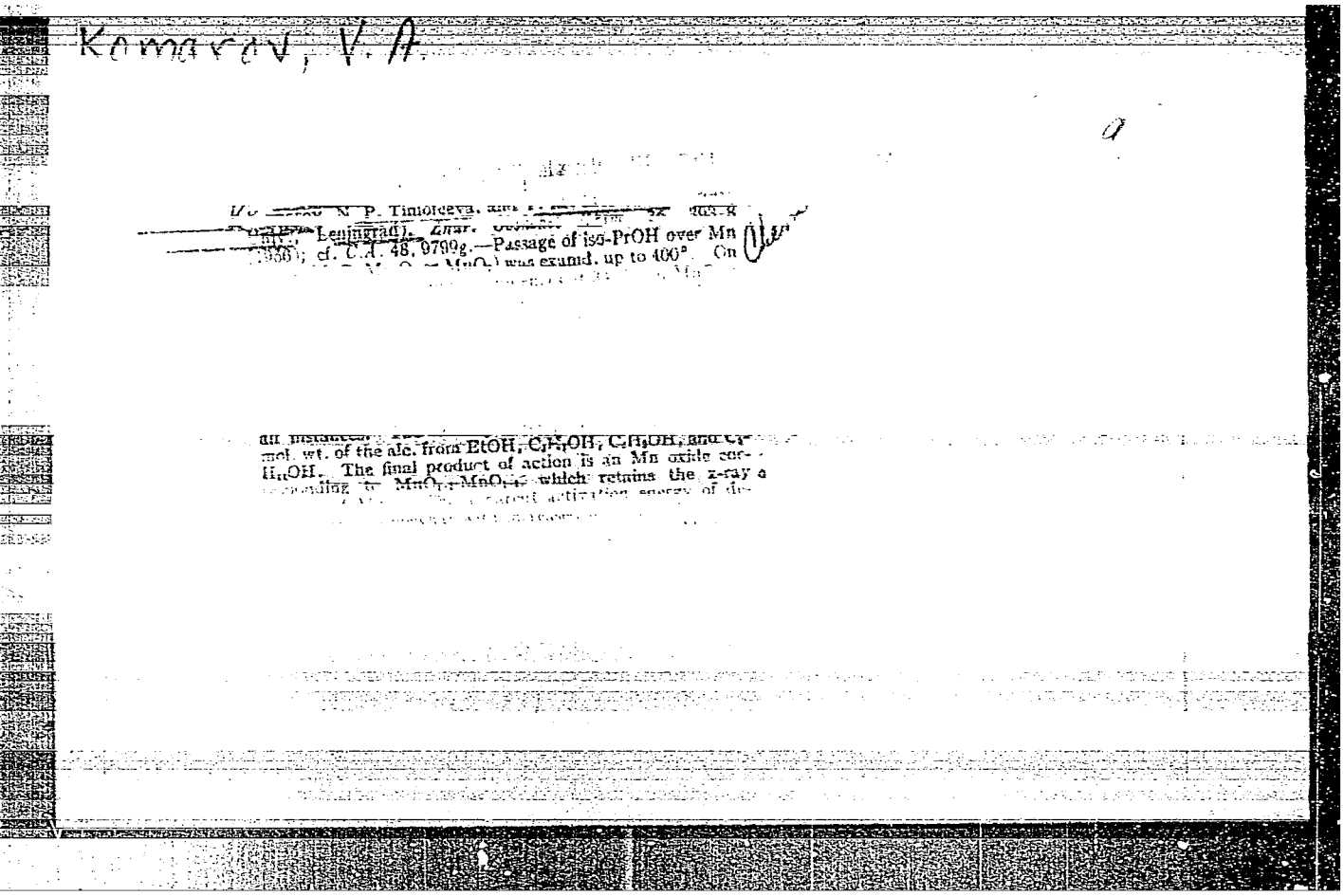
Institution : Leningrad University im. A. A. Zhdanov, Inst. of Chem.

Submitted : March 19, 1955

Card 2/2 Pub. 147 - 15/21

Periodical : Zhur. fiz. khim. 29/10, 1876-1882, Oct 1955

Abstract : number of endothermal maxima corresponding to the maximum rate of water separation and in the reduction of the temperature interval between the maxima. The specific surface of $Al(OH)_3$ compounds containing admixtures was found to be smaller than the surface of pure compounds. Nine references: 6 USSR and 3 Germ. (1924-1954). Tables; graphs.



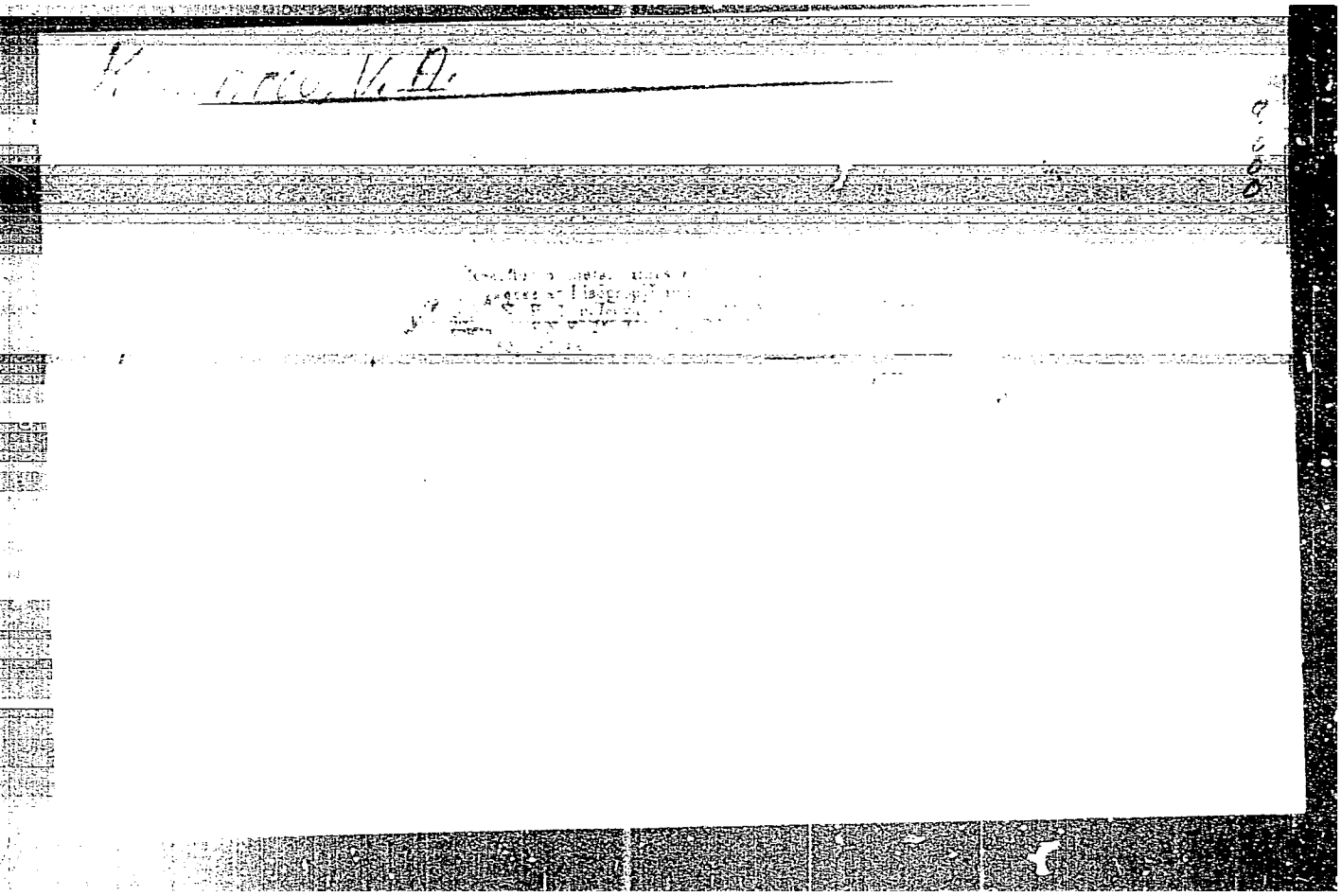
Komarov, V. A.

[illegible] N. P. Timofeeva, [illegible]

[illegible] Leningrad). Zhur. [illegible]

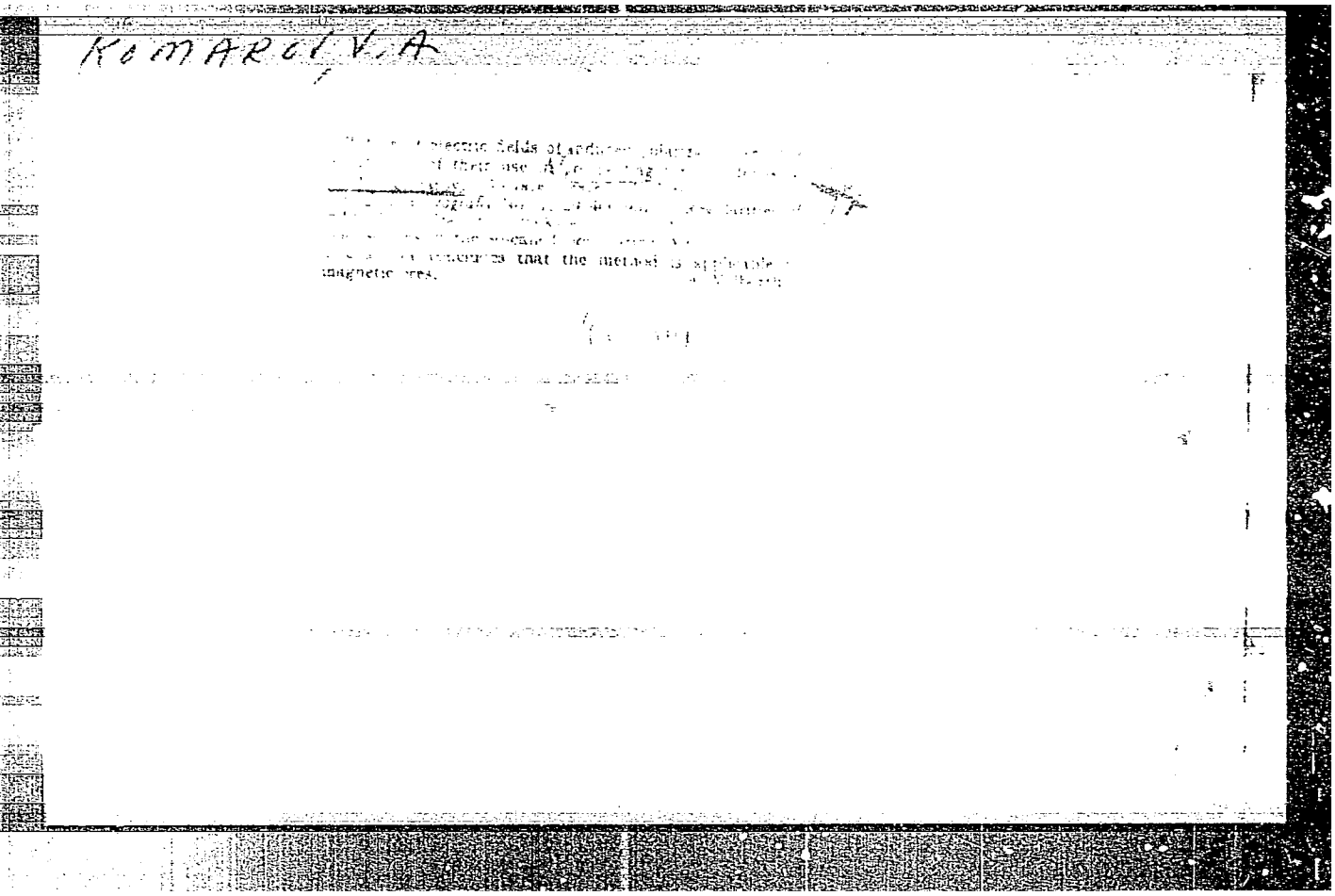
[illegible]; cf. C. A. 48, 9799g.—Passage of iso-PrOH over Mn [illegible] was examd. up to 400°. On

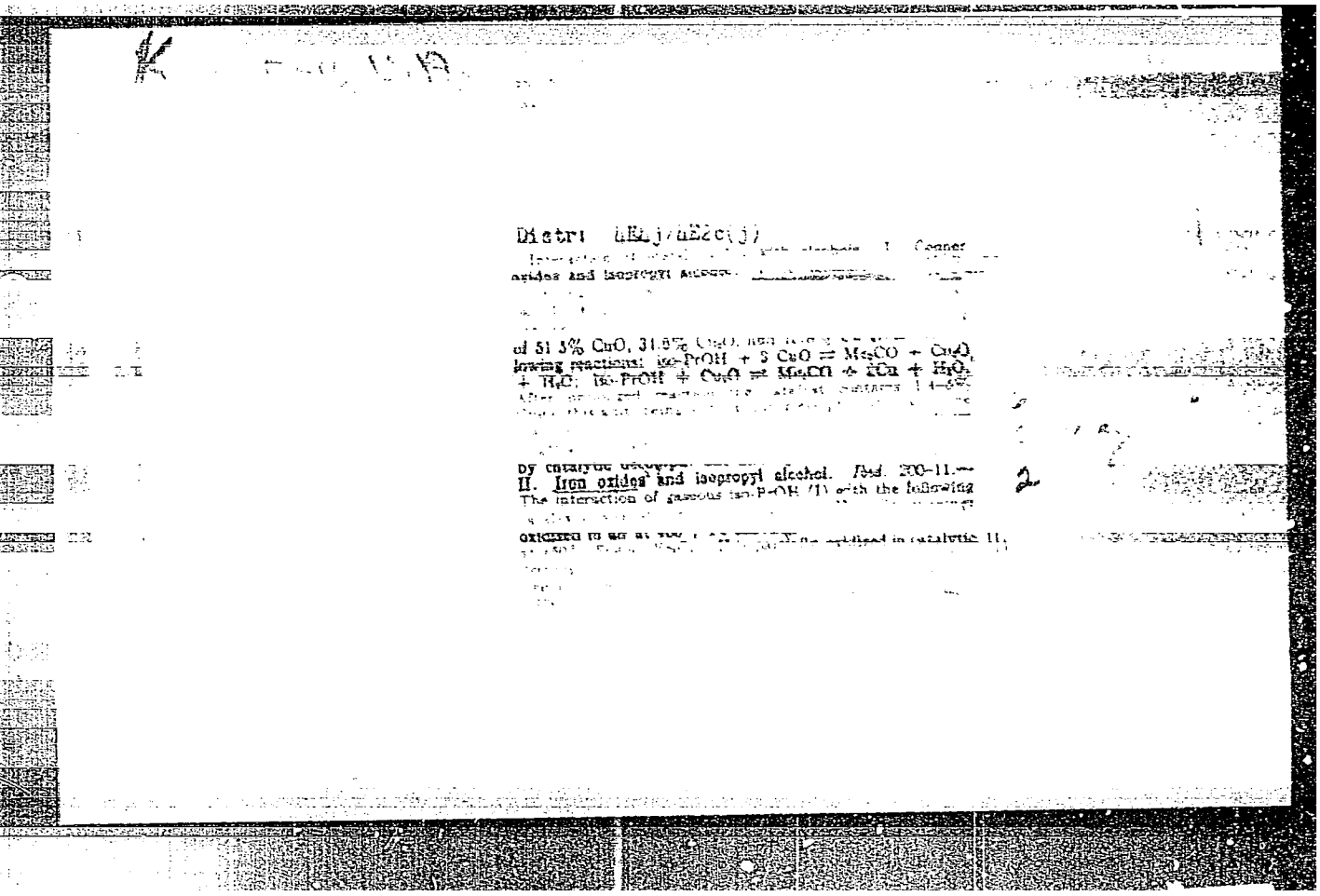
all instances, [illegible] mol. wt. of the alc. from EtOH, C_3H_7OH, C_4H_9OH, and $C_5H_{11}OH$. The final product of action is an Mn oxide corresponding to $MnO_{1.5}$–$MnO_{1.6}$ which retains the x-ray a[illegible] [illegible] activation energy of de[illegible]



Reaction of metallic oxides with alcohols [illegible] dium oxides isopropyl alcohol [illegible] P. Timofeeva (State Univ., Leningrad). [illegible] Fiz. 26, 330-4 (1956) [illegible] PrOH over V_2O_5 at 24 [illegible] decompn. of the [illegible] Under these conditions [illegible] acts primarily as a dehydrating [illegible] dehydrogenating catalyst. The ratio of [illegible] formed in the reaction [illegible] which was accelerated by lesser activity [illegible] Reaction begins to be evident on V_2O_5 only at about 250°.

G. M. Kosolapoff





Distri (UDC 541.128.13)

oxides and isopropyl alcohol

of 51.3% CuO, 31.5% [illegible]

lowing reactions: iso-PrOH + 3 CuO = Me_2CO + Cu_2O + H_2O; iso-PrOH + CuO = Me_2CO + Cu + H_2O

by catalytic [illegible] alcohol. *Ibid.* 220–11.—

II. Iron oxides and isopropyl alcohol. The interaction of gaseous iso-PrOH (I) with the following

oxidized to an [illegible] applied in catalytic II

KOMAROV, V A -

5(3) PHASE I BOOK EXPLOITATION SOV/2924

Bolotov, Boris Aleksandrovich, Vyacheslav Aleksandrovich Komarov, and Tat'yana Vsevolodovna Nizovkina

Prakticheskiye raboty po organicheskomu katalizu (Practical Studies in Organic Catalysis) [Leningrad] Izd-vo Leningr. univ., 1959. 194 p. Errata slip inserted. 4,120 copies printed.

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Resp. Ed.: B. N. Dolgov, Professor; Ed.: Ye. V. Shchemeleva; Tech. Ed.: Ye. G. Zhukova.

PURPOSE: This book is intended for the personnel of scientific research institutes and factory laboratories. It will be of interest to teachers and students of advanced courses in chemistry and chemical technology vuzes. It may also be used as a manual to aid in setting up and performing various

Card 1/6

operations with catalytic methods, and in organizing effective work practices.

COVERAGE: The book describes the principal apparatus used to produce catalytic reactions at normal and higher pressures, methods of producing and studying catalysts, and the methods of producing those catalytic reactions which embrace the main branches of organic catalysis. The authors thank K. P. Katkova, I. M. Stroyman, Ye. A. Chernikova, N. P. Usacheva, and R. M. Adrov. References accompany each chapter.

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