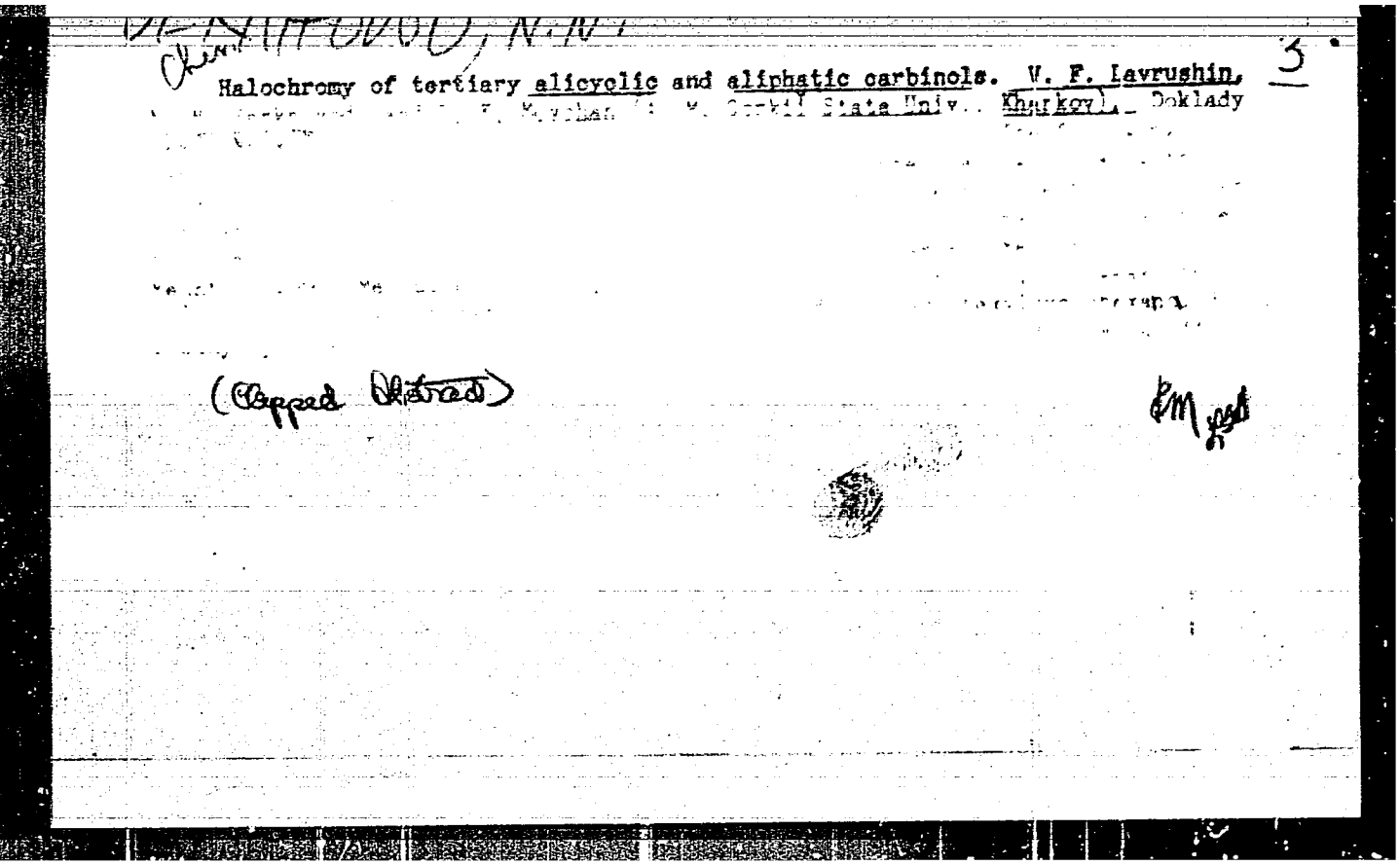


Halochromy of tertiary alicyclic and aliphatic carbinols. V. F. Lavrushin, [illegible] Kharkov State Univ., Khar'kov. Doklady

3

(Clipped Abstract)

LAVRUSHIN, V.F., VERKHOVOD, N.N., MOVCHAN, P.K.

Halochromism of tertiary alicyclic and aliphatic carbinols.
Dokl. AN SSSR 105 no.4:723-726 D '55. (MLRA 9:3)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gor'kogo.
Predstavleno akademikom A.N. Nesmeyanovym.
(Alcohols) (Halochromism)

L 41361-65

pipes with dimensions of [illegible] x [illegible] mm, parts were [illegible] mm. [illegible] drawing [illegible] mm, [illegible] drawing [illegible] with dimensions of 12 x [illegible] mm, [illegible] with dimensions of [illegible] x 2.93 mm were not [illegible] drawing. The [illegible] they prevent [illegible] casing pressure [illegible] to 10%, but rolling is feasible with only a [illegible] to 10%. [illegible] full size pipes were [illegible] investigation should be carried out at [illegible] mm air spacing. K. Orsova

Card 3/3

L 04313-67 EWP(k)/EWP(h)/EWT(d)/EWP(1)/EWP(v)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6018389 (A) SOURCE CODE: UR/0133/66/000/006/0537/0538

AUTHORS: Borisov, S. I. (Doctor of technical sciences); Verkhovod, V. K. (Engineer); Samoylenko, V. A. (Engineer); Bogatyrev, V. A. (Engineer)

ORG: none

TITLE: Manufacture of eight-finned steel pipes on hydraulic horizontal presses

SOURCE: Stal', no. 6, 1966, 537-538

TOPIC TAGS: metal tube, metal pressing, metal press, metal forming

ABSTRACT: A method for the manufacture of finned steel pipes (for the chemical industry) by using horizontal hydraulic presses was developed at the Southern Pipe Plant Nikopol' (Nikopol'skiy yuzhnotrubnyy zavod). The experimental work was based on theoretical calculations published earlier by V. K. Verkhovod, A. Ye. Pritomanov, and M. I. Chepurko (Issledovaniye protsessa istecheniya metalla pri pressovanii profil'nykh trub, Sb. Proizvodstvo trub, vyp. 14, Izd. Metallurgiya, 1964). The compression stress was calculated after S. I. Borisov and A. Ye. Pritomanov (Analiticheskiy metod opredeleniya usiliya pressovanii stal'nykh trub, Sb. Proizvodstvo trub, vyp. 5, Metallurgizdat, 1961) with the formula

$$P = \left[(\sigma_M - \sigma_1 k)\, e^{\frac{4fD_M L_{r.s}}{D^2 - d^2}} + \sigma_1 k\right] F,$$

Card 1/3 UDC: 621.774.38

L 04313-67

ACC NR: AP6018389

6

where σ_M is the tension at the die, σ_T - flow limit of the pipe material, k - a coefficient which depends on the elongation coefficient, f - friction coefficient, D_K - container diameter (175 mm), $L_{r.3}$ - length of compressed bushing, d_T - inner pipe diameter, and F - cross-sectional area of compressed bushing. It was found that the theoretically calculated compression stresses were in good agreement with the experimental data. A schematic of the construction and calibration of the dies is presented (see Fig. 1). A recent order for 48 x 4 mm (with 105-mm fin diameter) pipes has been successfully completed. V. S. Nosko, A. I. Lysenko, O. P. Drobich, A. I. Tyazhel'nikov, N. S. Kirvalidze, and N. S. Yakimenko participated in the experimental work.

SUB CODE: 13 / SUB DATE: none / ORIG REF: 002

Card 2/3

L 04313-67

ACC NR: AP6018309

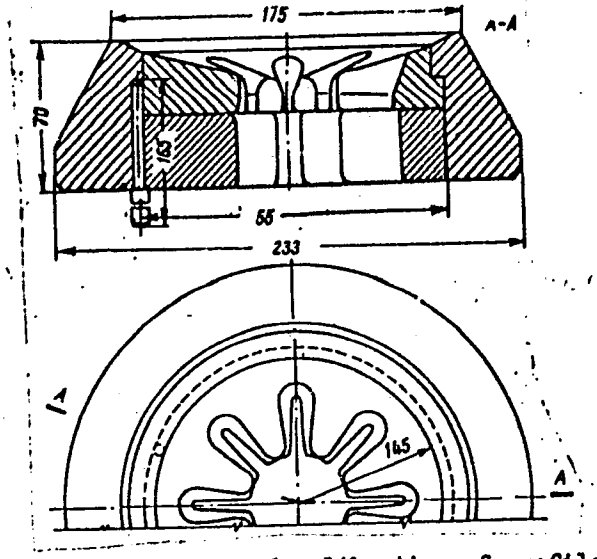


Fig. 1. Construction and calibration of profile die.

Orig. art. has: 3 graphs and 5 equations.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002

Card 3/3

VERKHOVODOV, P.A.; GORBATENKO, L.S.

Use of scattered radiation in the X-ray spectrum analysis of molybdenum. Zav.lab. 30 no.6: 691-694 '64

1. Sibirskiy gosudarstvennyy proyektnyy i nauchno-issledovatel'skiy institut tsvetnoy metallurgii.

LOPATIN, A.A.; VERKHOVODKA, K.A.

Evaporation cooling of open-hearth furnaces. Stal' 23 no.4:379-380 Ap '63. (MIRA 16:4)

1. Chelyabinskiy metallurgicheskiy zavod.
(Open-hearth furnaces—Cooling)

VERKHOVOD'KO, V., Geroy Sotsialisticheskogo Truda;
STANILEVICH, V., delegat XXII s"yezda Kommunisticheskoy partii Sovetskogo Soyuza

What is the innovator's goal? Sov. profsoiuzy 18 no.21:13-14 N '62. (MIRA 15:11)

1. Zamestitel' nachal'nika vagonnogo uchastka zapadnogo napravleniya Moskovskoy zheleznoy dorogi (for Verkhovod'ko). 2. Master depo Moskva-Sortirovochnaya (for Stanilevich).
(Moscow--Railroads--Technological innovations)
(Socialist competition)

L 5250-66 EWP(e)/EWT(m)/EPF(c)/EWP(i)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c)
JD/WW/HW/DJ/WH

ACC NR: AT5022731 SOURCE CODE: UR/3164/64/000/014/0034/0039

AUTHOR: Verkhovud, V. K. (Engineer); Pritomanov, A. Ye. (Candidate of Technical Sciences); Chepurko, M. I. (Candidate of Technical Sciences)

ORG: none

TITLE: Investigation of metal flow during the extrusion of shaped tubing

SOURCE: Dnepropetrovsk. Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorsko-tekhnologicheskiy institut trubnoy promyshlennosti. Proizvodstvo trub, no. 14, 1964. Sbornik statey po teorii i praktike trubnogo proizvodstva (Collection of articles on the theory and practice of pipe production), 34-39

TOPIC TAGS: metal extrusion, pipe, tensile stress

ABSTRACT: The study was carried out at the Ukrainian Scientific Research Pipe

Card 1/2 09010239

L 5250-66
ACC NR: AT5022781

Institute under laboratory conditions using lead, since the character of the flow of lead and steel, as the author proved in previous tests, is identical during the extrusion of tubing. The extrusion was performed on a 100-ton hydraulic press and a container with a diameter of 60 mm and a height of 200 mm, using 25-34-mm diameter dies. Lubrication consisted of 60% graphite and 40% engine oil. The picture of the metal flow during the extrusion of lead tubes with inner and outer ribs is not modified significantly when changing the basic parameters of the operation. When extruding the tubes with the outer ribs, the center of deformation concentrates at the die with inner ribs, it centers at the grooves of the longitudinal needle (over the whole length of the tube) and the die. The angle of the inlet cone and the width of the cylindrical belt of the die, as well as the speed and the extent of the deformation, do not exert any influence on the execution of the extruded tube shape. The speed of the metal flow in its cross section is not uniform when extruding the shaped tubing, and produces shearing deformation and a large amount of tensile stress. Special design of the dies is needed to prevent tears. Orig. art. has: 5 figures.

SUB CODE: MM/ SUBM DATE: 00/ ORIG REF: 006/ OTH REF: 003

Card 2/2

CHEPURKO, M.I., kand.tekhn.nauk; VERKHOVOD, V.K.

Present state of the process of extruding hollow, steel sections.
Met.i gornorud. prom. no.6:90-92 N-D '63. (MIRA 18:1)

VERKHOVOD'KO, Vladimir Mikhaylovich; PETROV, Vasiliy Afanas'yevich; TURCVTSEV, Vasiliy Ivanovich, SOROKIN, G.Ye., inzh., red.; USENKO, L.A., tekhn. red.

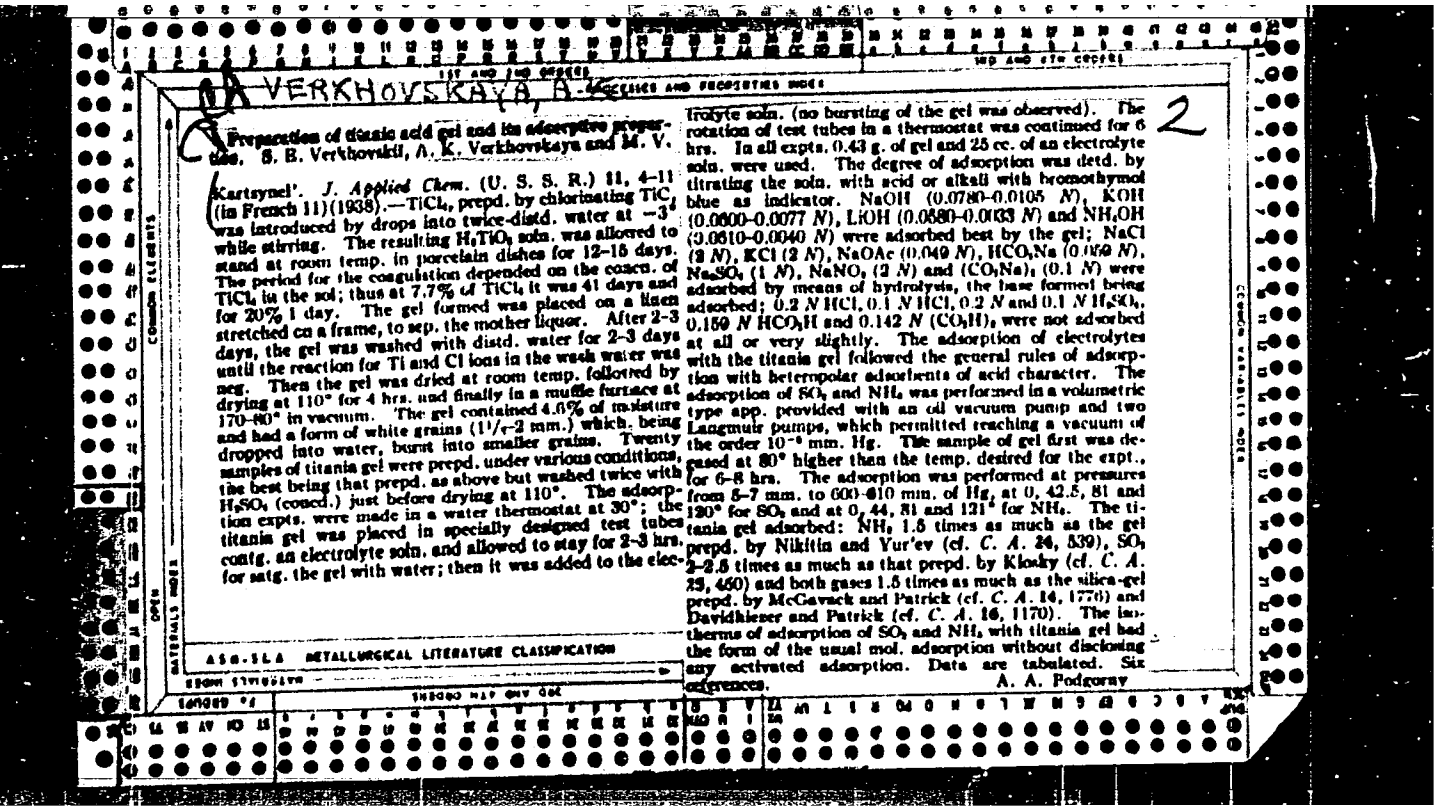
[Organizing the repair of axle boxes with roller bearings; work of the shop of Communist labor of the repair shop of the Moscow-Smolensk Station] Organizatsiia remonta buks s rolikovymi podshipnikami; opyt tsekha kommunisticheskogo truda vagonnogo depo stantsii Moskva-Smolenskaia. Moskva, Transzheldorizdat, 1962. 46 p. (MIRA 15:6)

(Car axles--Maintenance and repair)

VERKHOVODOV, P.A.

X-ray spectral determination of nickel from K-edge absorption.
Zav.lab. 30 no.4:434-435 '64. (MIRA 17:4)

1. Sibirskiy gosudarstvennyy proyektnyy i nauchno-issledovatel'skiy institut tsvetnoy metallurgii.



VERKHOVSKAYA, A.

Preparation of titania acid gel and its adsorptive properties. S. B. Verkhovskii, A. K. Verkhovskaya and M. V. Kartsynel'. *J. Applied Chem.* (U. S. S. R.) 11, 4–11 (in French 11)(1938).—$TiCl_4$, prepd. by chlorinating TiC, was introduced by drops into twice-distd. water at −3° while stirring. The resulting H_4TiO_4 soln. was allowed to stand at room temp. in porcelain dishes for 12–15 days. The period for the coagulation depended on the concn. of $TiCl_4$ in the sol; thus at 7.7% of $TiCl_4$ it was 41 days and for 20% 1 day. The gel formed was placed on a linen stretched on a frame, to sep. the mother liquor. After 2–3 days, the gel was washed with distd. water for 2–3 days until the reaction for Ti and Cl ions in the wash water was neg. Then the gel was dried at room temp. followed by drying at 110° for 4 hrs. and finally in a muffle furnace at 170–80° in vacuum. The gel contained 4.6% of moisture and had a form of white grains (1½–2 mm.) which, being dropped into water, burst into smaller grains. Twenty samples of titania gel were prepd. under various conditions, the best being that prepd. as above but washed twice with H_2SO_4 (concd.) just before drying at 110°. The adsorption expts. were made in a water thermostat at 30°; the titania gel was placed in specially designed test tubes contg. an electrolyte soln. and allowed to stay for 2–3 hrs. for satg. the gel with water; then it was added to the electrolyte soln. (no bursting of the gel was observed). The rotation of test tubes in a thermostat was continued for 6 hrs. In all expts. 0.43 g. of gel and 25 cc. of an electrolyte soln. were used. The degree of adsorption was detd. by titrating the soln. with acid or alkali with bromothymol blue as indicator. NaOH (0.0780–0.0105 *N*), KOH (0.0600–0.0077 *N*), LiOH (0.0580–0.0033 *N*) and NH_4OH (0.0610–0.0040 *N*) were adsorbed best by the gel; NaCl (2 *N*), KCl (2 *N*), NaOAc (0.049 *N*), HCO_2Na (0.050 *N*), Na_2SO_4 (1 *N*), $NaNO_3$ (2 *N*) and $(CO_2Na)_2$ (0.1 *N*) were adsorbed by means of hydrolysis, the base formed being adsorbed; 0.2 *N* HCl, 0.1 *N* HCl, 0.2 *N* and 0.1 *N* H_2SO_4, 0.150 *N* HCO_2H and 0.142 *N* $(CO_2H)_2$ were not adsorbed at all or very slightly. The adsorption of electrolytes with the titania gel followed the general rules of adsorption with heteropolar adsorbents of acid character. The adsorption of SO_2 and NH_3 was performed in a volumetric type app. provided with an oil vacuum pump and two Langmuir pumps, which permitted reaching a vacuum of the order 10^{-3} mm. Hg. The sample of gel first was degased at 80° higher than the temp. desired for the expt., for 6–8 hrs. The adsorption was performed at pressures from 5–7 mm. to 600–610 mm. of Hg, at 0, 42.5, 81 and 120° for SO_2 and at 0, 44, 81 and 121° for NH_3. The titania gel adsorbed: NH_3 1.8 times as much as the gel prepd. by Nikitin and Yur'ev (cf. *C. A.* 24, 539), SO_2 2–2.5 times as much as that prepd. by Klosky (cf. *C. A.* 25, 460) and both gases 1.5 times as much as the silica-gel prepd. by McGavack and Patrick (cf. *C. A.* 14, 1776) and Davidhieser and Patrick (cf. *C. A.* 16, 1170). The isotherms of adsorption of SO_2 and NH_3 with titania gel had the form of the usual mol. adsorption without disclosing any activated adsorption. Data are tabulated. Six references.

A. A. Podgorny

2

VERKHOVSKAYA, A.K.; PEREL'MAN, F.M.

Decomposition of hydrogen peroxide on mixed catalysts from cobalt, copper, and tungsten salts. Zhur. fiz. khim. 38 no.4:1013-1015 Ap '64. (MIRA 17:6)

1. Institut obshchey i neorganicheskoy khimii AN SSSR i Kurganskiy pedagogicheskiy institut.

ACCESSION NR: AP4034590 S/0076/64/038/004/1013/1015

AUTHORS: Verkhovskaya, A. K.; Perel'man, F. M.

TITLE: Decomposition of hydrogen peroxide, catalyzed by mixed salts of cobalt, copper and tungsten

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 4, 1964, 1013-1015

TOPIC TAGS: catalysis, hydrogen peroxide decomposition, hydrogen peroxide, cobalt chloride, cupric chloride, sodium tungstate, kinetics, rate constant

ABSTRACT: The purpose of this work was to investigate the catalytic effectiveness of sodium tungstate in the presence of salts of cobalt and copper on the kinetics of the decomposition of H_2O_2. The experiments were conducted with mixed catalysts of the system: Na_2WO_4-$CoCl_2$-$CuCl_2$ at 25 ± 0.1C and pH = 7.0. The solutions were buffered. The rate constants were calculated for the first order reaction on the basis of the volumes of liberated oxygen in definite time intervals from the beginning of this process. It was found that Na_2WO_4 displays a very small catalytic activity. However, its activity is

Card 1/2

ACCESSION NR: AP4034590

greatly increased in the presence of Cu and Co salts. The activity of a mixed catalyst consisting of 30% Na_2WO_4, 35% $CoCl_2$ and 35% CuCl is higher than the activity of Na_2WO_4 by a factor of 400 and it exceeds the activity of the most active binary cobalt-copper catalyst by a factor of 7. When the phosphate buffer is replaced by a borate buffer the absolute activity of all catalysts of the given system decreases. At the same time the activity of mixed catalysts remains high as compared with the additive values. Orig. art. has: 3 figures.

ASSOCIATION: IONKh AN SSSR

Kurganskiy pedogogicheskiy institut (Kurgansk Pedagogical Institute)

SUBMITTED: 01Jun63 DATE ACQ: 20May64 ENCL: 00

SUB CODE: IC NR REF SOV: 004 OTHER: 001

Card 2/2

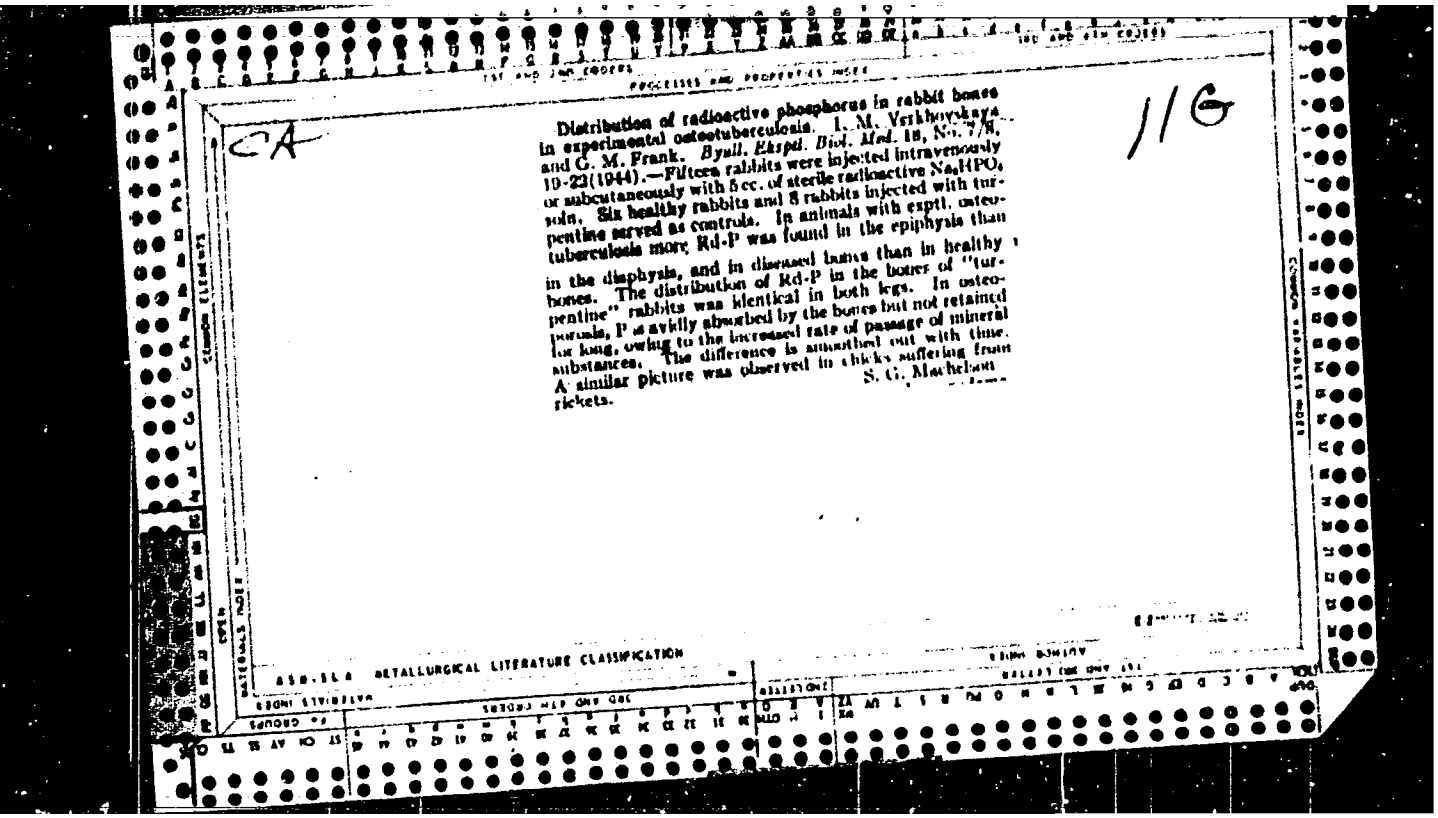
VERKHOVSKAYA, A.K.; PEREL'MAN, F.M. (Moskva)

Peroxide compounds in the system $CuSO_4$ - Na_2MoO_4 - H_2O_2 - H_2O.
Zhur. fiz. khim. 35 no. 4:828-835 Ap '61. (MIRA 14:5)

1. Akademiya nauk SSSR, Institut obshchey i neorganicheskoy khimii; i Kurganskiy sel'skokhozyaystvennyy institut.
(Peroxides) (Systems (Chemistry))

VERKHOVSKAYA, A. K.

Cand Chem Sci - (diss) "Catalytic properties of the system $CoCl_2$-$CuCl_2$-Na_2MoO_4 in the hydrogen peroxide decomposition reaction, and intermediate compounds forming in the course of the reaction." Moscow, 1961. 11 pp; (Moscow State Pedagogical Inst imeni V. I. Lenin); 150 copies; free; (KL, 6-61 sup, 197)

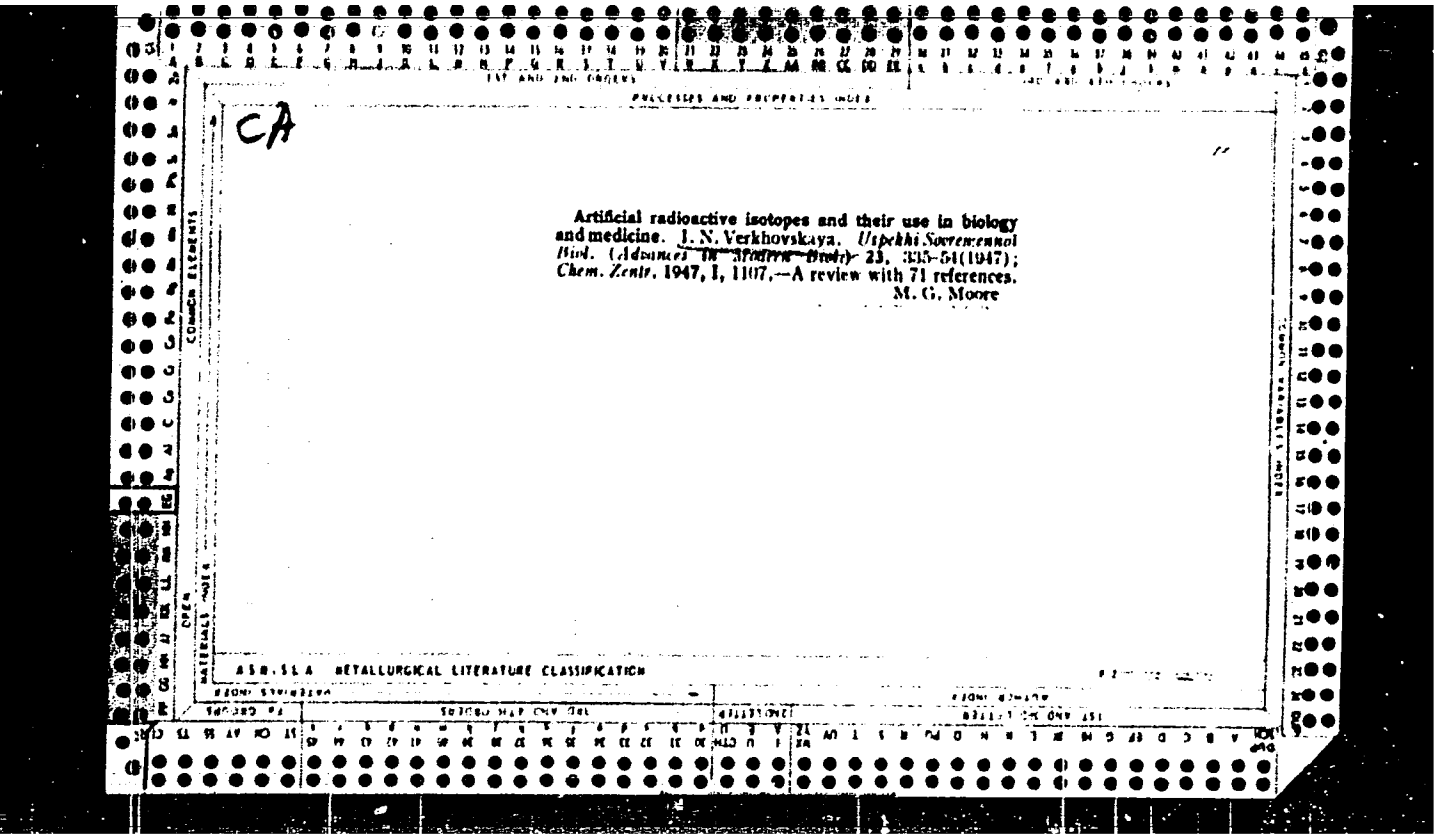


CA

11 G

Distribution of radioactive phosphorus in rabbit bones in experimental osteotuberculosis. I. M. Verkhovskaya and G. M. Frank. *Byull. Eksptl. Biol. Med.* 18, No. 7/8, 19-23(1944).—Fifteen rabbits were injected intravenously or subcutaneously with 5 cc. of sterile radioactive Na_2HPO_4 soln. Six healthy rabbits and 8 rabbits injected with turpentine served as controls. In animals with exptl. osteotuberculosis more Rd-P was found in the epiphysis than in the diaphysis, and in diseased bones than in healthy bones. The distribution of Rd-P in the bones of "turpentine" rabbits was identical in both legs. In osteoporosis, P is avidly absorbed by the bones but not retained for long, owing to the increased rate of passage of mineral substances. The difference is smoothed out with time. A similar picture was observed in chicks suffering from rickets.

S. G. Machchoun



CA

Artificial radioactive isotopes and their use in biology and medicine. I. N. Verkhovskaya. *Uspekhi Sovremennoi Biol.* (*Advances in Modern Biol.*) 23, 335–51(1947); *Chem. Zentr.* 1947, I, 1107.—A review with 71 references.
M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VERKHOVSKAYA, I.N.

60/49T95

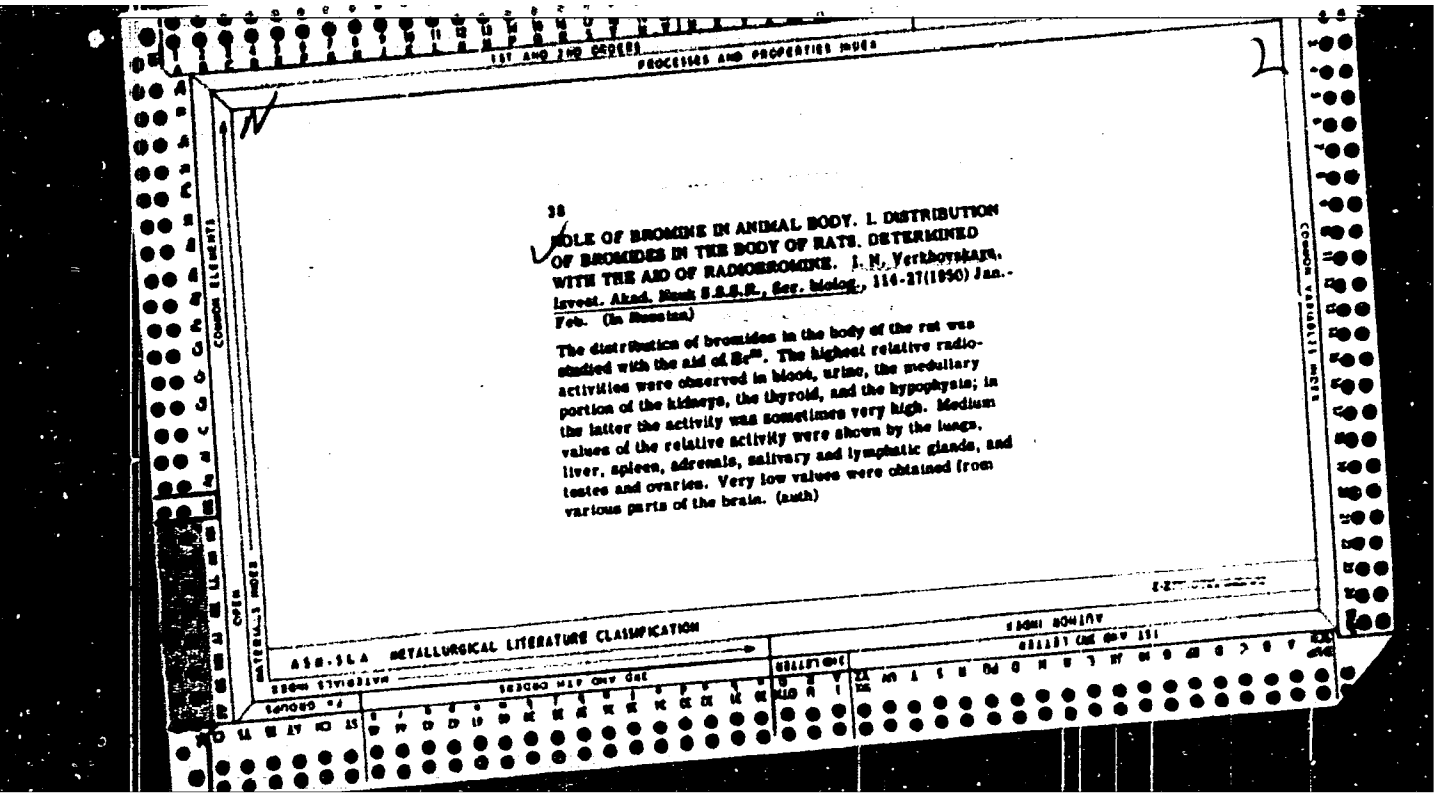
USSR/Nuclear Physics Sep/Oct 48
Isotopes
Radioactive Phosphorus

"Radioisotopes of Phosphorus and Their Use,"
I. N. Verkhovskaya, Moscow, 28½ pp

"Uspekh Sovrem Biol" Vol XXVI, No 2 (5)

Among the many advantages obtained from these radioisotopes are maintenance of continuous osseous regeneration, possibility of checking any change in the muscular processes, indicating the course of phosphorides from liver to egg, etc. Also indicates the possibility of treating diseases such as chronic lymphatic leukemia with radiophosphorus.

60/49T95



38

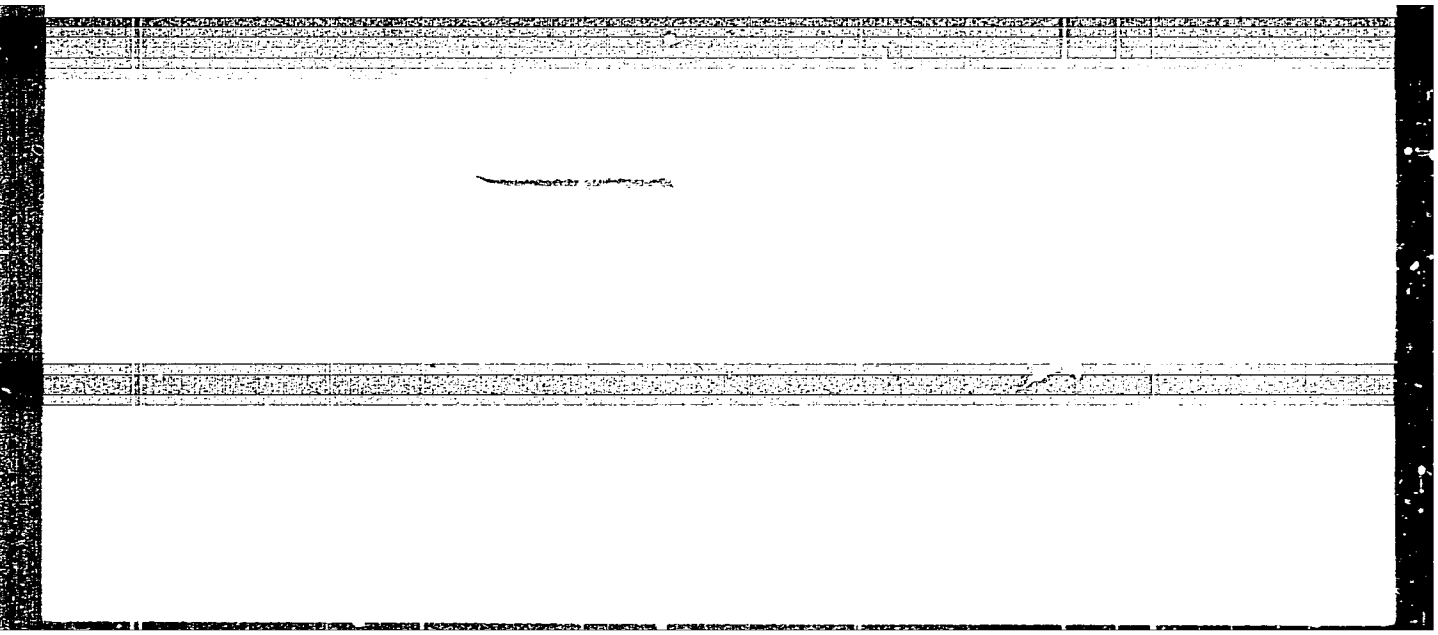
ROLE OF BROMINE IN ANIMAL BODY. I. DISTRIBUTION OF BROMIDES IN THE BODY OF RATS, DETERMINED WITH THE AID OF RADIOBROMINE. I. N. Verkhovskaya. Izvest. Akad. Nauk S.S.S.R., Ser. biolog., 116-27(1950) Jan.-Feb. (In Russian)

The distribution of bromides in the body of the rat was studied with the aid of Br^{82}. The highest relative radioactivities were observed in blood, urine, the medullary portion of the kidneys, the thyroid, and the hypophysis; in the latter the activity was sometimes very high. Medium values of the relative activity were shown by the lungs, liver, spleen, adrenals, salivary and lymphatic glands, and testes and ovaries. Very low values were obtained from various parts of the brain. (auth)

A58-5LA METALLURGICAL LITERATURE CLASSIFICATION

VERKHOVSKAYA, I.N., doktor biolog.nauk

"Isotopes in biochemistry" by S.Z.Roginskii, S.E.Shnol'.
Reviewed by I.N.Verkhovskaia. Vest. AN SSSR 34 no.3:152-154
Mr '64. (MIRA 17:4)



APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859510013-8"

VERKHOVSKAYA, I.N.

Studies on determination of bromides in various segments of the central nervous system in dogs and rabbits with radiobromine. Doklady Akad. nauk SSSR 87 no. 4:681-684 1 Dec 1952. (CLML 23:5)

1. Presented by Academician A. I. Oparin 25 September 1952. 2. Institute of Biophysics of the Academy of Sciences USSR.

VERKHOVSKAYA, I.N.:SAKHYULINA, G.T.

Effect of pain stimulus on bromides in the cerebrospinal fluid in dog; studies with the aid of radioactive bromine. Doklady Akad. nauk SSSR 87 no. 6:1075-1078 21 Dec 1952. (CLML 23:5)

1. Presented by Academician A. I. Oparin 1 November 1952. 2. Institute of Biophysics of the Academy of Sciences USSR.

VERKHOVSKAYA, I.N.; ARUTYUNOVA, M.B.

Effect of radiation of radioactive substances on function of the isolated frog heart. Izv. Akad. nauk SSSR; Ser. Biol. no.6:98-110 Nov-Dec 1953. (CIML 25:5)

1. Laboratory of the Biophysics of Radiation and Isotopes attached to the Division of Biological Sciences of the Academy of Sciences USSR.

VERKHOVSKAYA, I.N.; GRODZENSKIY, D.E., redaktor; BEL'CHIKOVA, Yu.S., tekhnicheskiy redaktor.

[Universal method of calculating correction factor for radioactive decay] Universal'nyi metod rascheta popravki na radioaktivnyi raspad. Moskva, Gos. izd-vo med. lit-ry, 1954. 19 p. (MLRA 8:2)
(Radioisotopes) (Atomic medicine)

VERKHOVSKAYA, I.N.

"On Certain Features of the Tracer Isotope Method," edited by A. A. Imshenetskiy, Coresponding Member, Academy of Medical Sciences USSR, Moscow, Publishing House of the Academy of Sciences USSR, 1955, 239

Sum 1467

VERKHOVSKAYA, I

N/5'
613.781
.V5

METOD MECHENYKH ATOMOV V BIOLOGII (TECHNIQUE OF TRACER ATOMS IN BIOLOGY, BY) I. VERKHOVSKAYA (I DR.) MOSKVA, IZD-VO MOSKOVSKOGO UNIVERSITETA, 1955.

452 p. ILLUS., DIAGRS., GRAPHS, TABLES.

BIBLIOGRAPHY: p. 447-448

VERKHOVSKAYA, I.N.; TSOFINA, L.M.

Thyroid bromine metabolism in experimental hyperthyroidism in guinea pigs and in rats fed methylthiouracil. Biul. eksp. biol. i med. 46 no.12:65-69 D '58. (MIRA 12:1)

1. Iz instituta biologicheskoy fiziki (Dir. - chlen-korrespondent AMN SSSR G.M. Frank) AN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.N. Chernigovskim.

(BROMIDES, metabolism,
thyroid gland, eff. of exper. hyperthyroidism & methylthiouracil (Rus))
(THYROID GLAND, metab.
bromides, eff. of exper. hyperthyroidism & methylthiouracil (Rus))
(THIOURACIL, rel. cpds.
methylthiouracil, eff. on thyroid bromides (Rus))

VERKHOVSKAYA, I. N., Doc Biol Sci (diss) -- "The metabolism of bromine in the animal organism and the mechanism of its effect". Moscow, 1960. 24 pp (Inst of Biol Phys of the Acad Sci USSR), 120 copies (KL, No 14, 1960, 129)

VERKHOVSKAYA, I.N.; MASLOV, V.I.; MASLOVA, K.I.

Effect of low radiation doses and incorporated natural radioactive elements on the spermatogenesis of Microtus oeconomus under natural conditions. Radiobiologiia 5 no.5:720-729 '65.
(MIRA 18:11)

1. Komi filial AN SSSR, Syktyvkar i Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva.

L 30097-66 EWT(m)
ACC NR: AP6012875 SOURCE CODE: UR/0205/66/006/002/0276/0283

49
B

AUTHOR: Vavilov, P. P.; Verkhovskaya, I. N.; Popova, O. N.; Kodaneva, R. P.

ORG: Komi Branch, AN SSSR, Syktyvkar (Komi filial AN SSSR); Institute of Biochemistry im. A. N. Bakh, AN SSSR, Moscow (Institut biokhimii AN SSSR)

TITLE: The depressant effect of small doses of ionizing radiation on growing plants

19

SOURCE: Radiobiologiya, v. 6, no. 2, 1966, 278-283

TOPIC TAGS: ionizing radiation, radiation plant effect, plant physiology, plant growth, gamma irradiation

ABSTRACT: In view of previous findings that the growth of Vicia faba is significantly delayed in areas with large deposits of uranium or radium, similar experiments were carried out over a 2-year period with spring wheat and spring barley grown in experimental plots under the influence of gamma radiation from U and Ra ore (radiation dose of 0.005 — 0.1 r/day). The height, internodes, dry weight, number of heads, and number of grains per head were measured in both experimental and control plots. Although radiation had no

Card 1/2 UDC: 58.039.1

L 30097-66
ACC NR: AP6012875

significant effect on germination rate of either wheat or barley, it produced a marked delay in heading and tillering and thus significantly decreased the biological productivity of the crops. The authors are deeply grateful to the members of the Radiophysics Group, Department of Radiobiology, Institute of Biology, Komi Branch, AN SSSR (Radiofizicheskaya gruppa otdela radiobiologii Instituta biologii Komi Filiala AN SSSR) for their assistance in the work. [08] Orig. art. has: 2 figures and 3 tables.

SUB CODE: 06 / SUBM DATE: 27Nov64 / ORIG REF: 007 / OTH REF: 006/ ATD PRESS: 5012

Card 2/2

S/205/63/003/001/025/029
E065/E485

AUTHOR:

TITLE:

PERIODICAL: [illegible], 1963, 132-138

TEXT: To elucidate the relative importance of chemical and radiation effects of radioactive substances on plants, bean seedlings were grown in pots containing soil to which U (concentration 4 x 10^{-7}%) and Ra (1.06 x 10^{-7}%) had been added, while control plants were grown in pots containing normal [illegible] of soil. Control and treated pots were placed in one of two trenches, one having normal background radioactivity (0.00004 r/hour) and the other with a radiation level of 0.002 r/hour, derived from U (10^{-2} %) and Ra (10^{-7}%) sources in the walls. Observations were made for several weeks on the growth and development of plants kept under the four different environments. The results showed that the U and Ra had an injurious effect on growth, retarding the upward growth of the stem and the formation of new leaves,

Card 1/2

S/205/63/003/001/026/029
The growth and development ... E065/E485

reducing the general productivity including fruit yield

radiation emissions

3 tables.

ASSOCIATION: Laboratoriya radiobiologii Komi filiala AN SSSR.

Card 2/2 SUBMITTED: May 7, 1962

VERKHOVSKAYA, Irina Nikolayevna; EL'PINER, I.Ye., otv. red.; BENYUMOV, O.M., red. izd-va; YEPIFANOVA, L.V., tekhn. red.; POLENOVA, T.P., tekhn. red.

[Bromine in the animal organism and the mechanism of its action] Brom v zhivotnom organizme i mekhanizm ego deistviia. Moskva, Izd-vo Akad. nauk SSSR, 1962. 306 p. (MIRA 15:4)
(Bromides in the body)

VERKHOVSKAYA, I.N.; TSOFINA, L.M.

Effect of the functional state of the central nervous system on bromide distribution in various organs and tissues of white rats. Biul.eksp. biol. i med. 51 no.1:50-54 Ja '61. (MIRA 14:5)

1. Iz Instituta biologicheskoy fiziki AN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR, S.Ye.Severinym.
(NERVOUS SYSTEM) (BROMINE METABOLISM)

VERKHOVSKAYA, I.N.; TSOFINA, L.M.

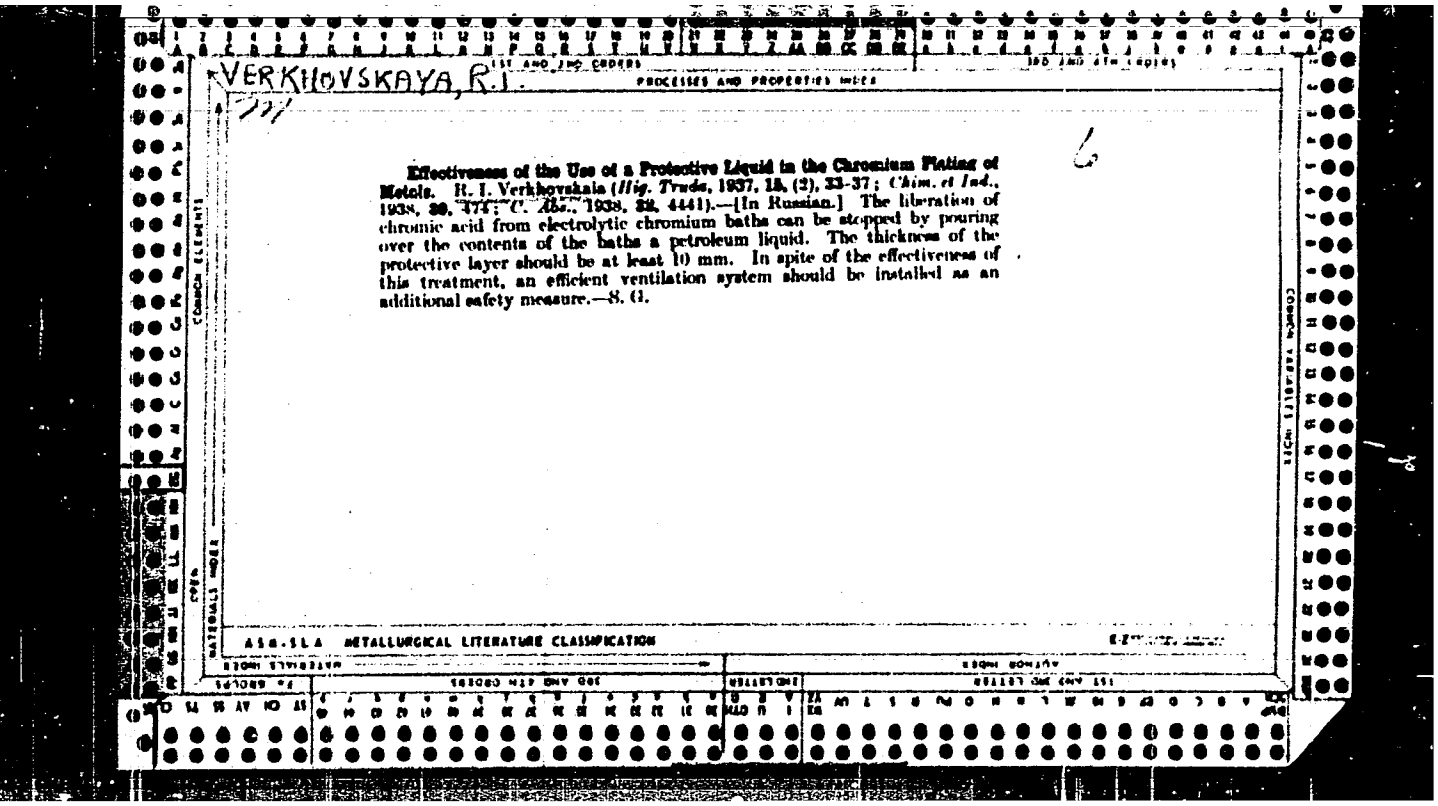
Form of the occurrence of bromine in the animal body. Biul. eksp. biol. i med. 54 no.8:49-52 Ag '62.

(MIRA 17:11)

1. Iz Instituta biologicheskoy fiziki AN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR S.Ye. Severinym.

37597. K voprosu ob iskusstvennykh strukturakh v protoplazme kletok belogo krovi. (S. Primech. Red.) Trudy tomskogo med. in-ta NM. Molotova, T. XI. 1949. S. 93-95.

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949



VERKHOVSKAYA, R.I.

Effectiveness of the Use of a Protective Liquid in the Chromium Plating of Metals. R. I. Verkhovskaia (*Hig. Truda*, 1937, 15, (2), 33-37; *Chim. et Ind.*, 1938, 39, 171; *C. Zbl.*, 1938, 22, 4441).—[In Russian.] The liberation of chromic acid from electrolytic chromium baths can be stopped by pouring over the contents of the baths a petroleum liquid. The thickness of the protective layer should be at least 10 mm. In spite of the effectiveness of this treatment, an efficient ventilation system should be installed as an additional safety measure.—S. G.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VERKHOVSKAYA, I. N., LIBERMAN, Ye. A. and TSOFINA, L. M.

"The Sutdy of Electric Properties of Crustacea Muscle Membrane and their Relation to Ionic Fluxes."

report submitted for the 1st Intl. Biophysics Congress, Stockholm
31 July - 4 August 1961

L 46936-66 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD/GG

ACC NR: AP6015494 SOURCE CODE: UR/0181/66/008/005/1620/1621

63
B

AUTHOR: Verkhovskaya, K. A.; Fridkin, V. M.

ORG: Institute of Crystallography, AN SSSR, Moscow (Institut kristallografii AN SSSR)

TITLE: On the anomalous temperature shift of the intrinsic absorption edge of $BaTiO_3$ single crystals in the phase transition band

SOURCE: Fizika tverdogo tela, v. 8, no. 5, 1966, 1620-1621

TOPIC TAGS: absorption band, absorption edge, crystal absorption, barium titanate, forbidden band, forbidden zone width

ABSTRACT: The purpose of this study was to investigate the behavior of the intrinsic absorption edge of $BaTiO_3$ in the transition from the ferroelectric (tetragonal) to the paraelectric (cubic) phase. Five specimens of $BaTiO_3$ single crystals (Curie point θ = = 105°C, forbidden band width E_g = 3.2 ev at room temperature) were investigated on a Sf-4A spectrophotometer. It was found that in the ferroelectric and in the paraelectric phases there exists a linear relationship between the width of the forbidden band E_g and the temperature with an equal coefficient, namely

$$\frac{dE_g}{dT} = -(7 \pm 0.5) \cdot 10^{-4} \text{ ev/deg}$$

Card 1/2

L 46936-66

ACC NR: AP6015494

Near 105°C there is a phase shift, accompanied by an anomalous decrease of the width of the forbidden band. A temperature hysteresis with a width of the hysteresis loop of ~2°C was also observed. It appears that the change of the width of the forbidden band is related to the behavior of the heat capacity of $BaTiO_3$ in the phase transition band. The authors thank Dr. Arend who made the $BaTiO_3$ crystals available for the experiments. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 18Nov65/ ORIG REF: 003/ OTH REF: 001

Card 2/2

VERKHOVSKAYA, R. I. Observations on individual physical development of pupils at technical schools and adolescent workers Gigiyena i Sanitariya, Moscow 1950, 2 (29-33)

SO: Medical Microbiology & Hygiene Section IV Vol 3 No 7-12

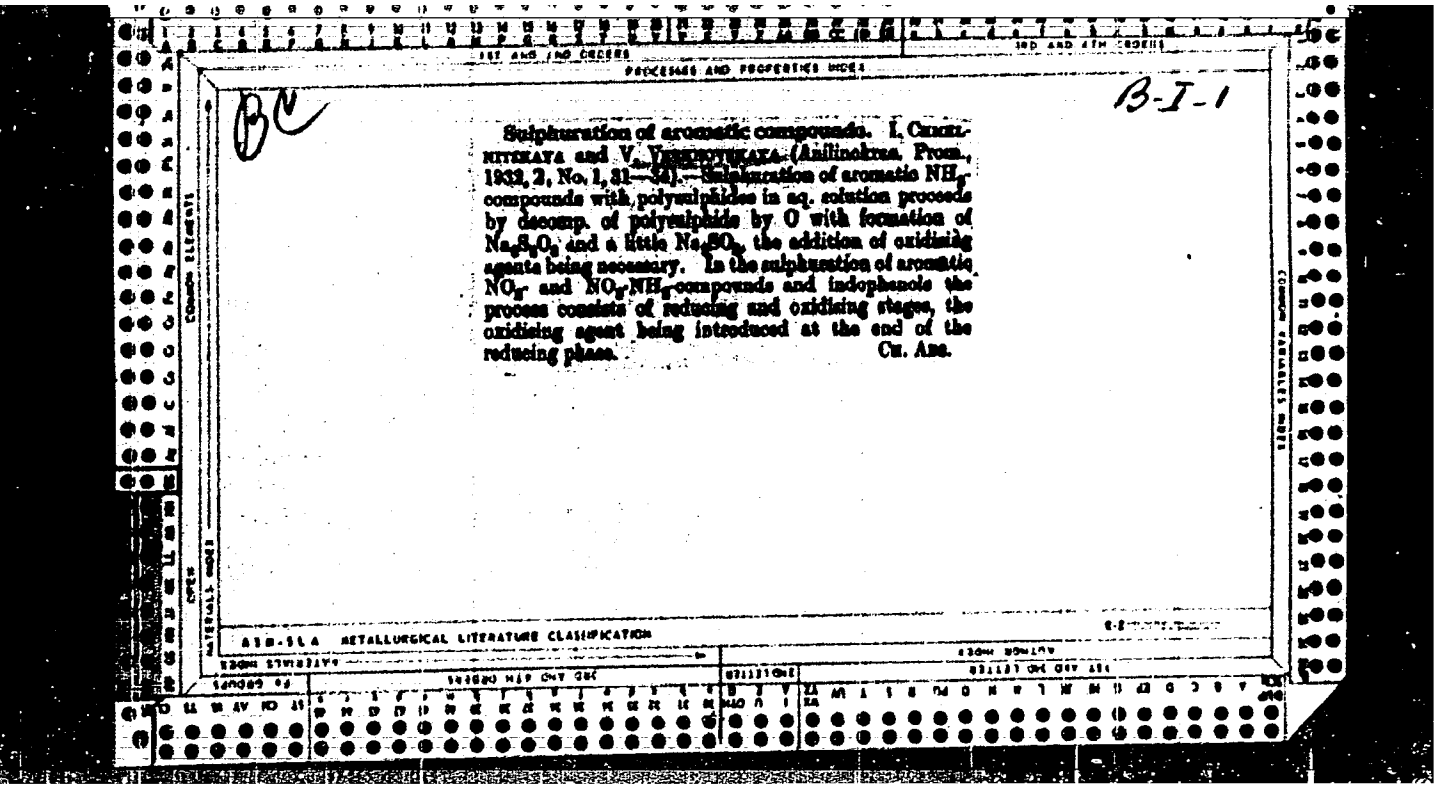
Бубякина, М.С.

BUBYAKINA, M. S.

"Role Played by Histamine-Containing Substances in the Pathogenesis of Cardiovascular Disturbances During Blood Transfusion Shock." Cand Biol Sci, Moscow Medical Stomatological Inst, Moscow, 1953. (RZhBiol, No 5, Nov 54)

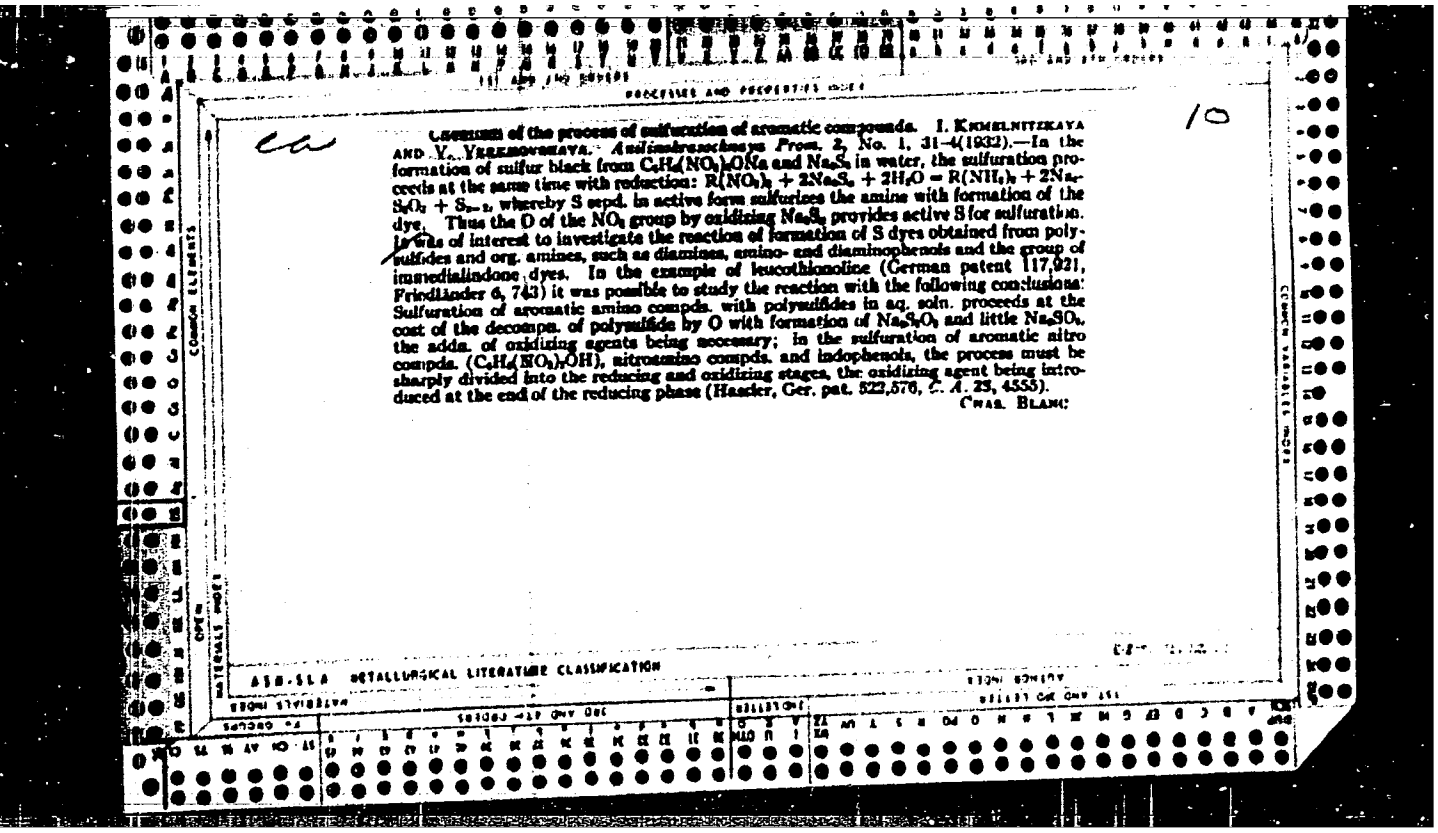
Survey of Sceintific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55



B-I-1

Sulphuration of aromatic compounds. I. Chemistry and V. Yeremeyeva. (Anilinokras. Prom., 1932, 2, No. 1, 31—34).—Sulphuration of aromatic NH_2 compounds with polysulphides in aq. solution proceeds by decomp. of polysulphide by O with formation of $Na_2S_2O_3$ and a little Na_2SO_4, the addition of oxidising agents being necessary. In the sulphuration of aromatic NO_2 and $NO_2.NH_2$-compounds and indophenols the process consists of reducing and oxidising stages, the oxidising agent being introduced at the end of the reducing phase. Ch. Abs.



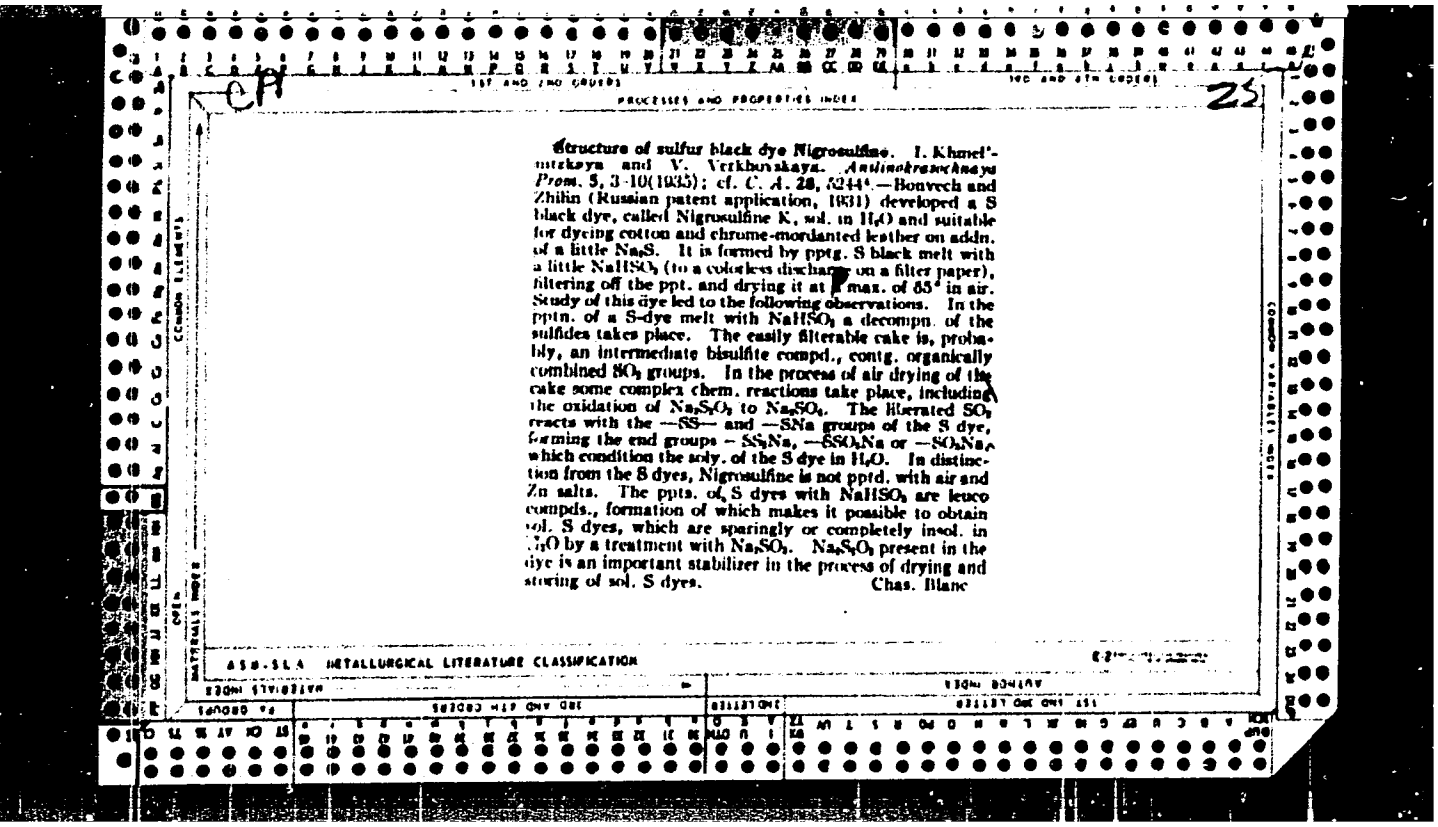
Ca

10

Chemism of the process of sulfuration of aromatic compounds. I. Khmelnitzkaya and V. Yeremovskaya. *Anilinokrasochnaya Prom.* 2, No. 1, 31–4(1932).—In the formation of sulfur black from $C_6H_2(NO_2)_2ONa$ and Na_2S_n in water, the sulfuration proceeds at the same time with reduction: $R(NO_2)_2 + 2Na_2S_n + 2H_2O = R(NH_2)_2 + 2Na_2S_2O_3 + S_{n-2}$, whereby S sepd. in active form sulfurizes the amine with formation of the dye. Thus the O of the NO_2 group by oxidizing Na_2S_n provides active S for sulfuration. It was of interest to investigate the reaction of formation of S dyes obtained from polysulfides and org. amines, such as diamines, amino- and diaminophenols and the group of immedialindone dyes. In the example of leucothionoline (German patent 117,921, Friedländer 6, 743) it was possible to study the reaction with the following conclusions: Sulfuration of aromatic amino compds. with polysulfides in aq. soln. proceeds at the cost of the decompn. of polysulfide by O with formation of $Na_2S_2O_3$ and little Na_2SO_4, the addn. of oxidizing agents being necessary; in the sulfuration of aromatic nitro compds. ($C_6H_4(NO_2)_2OH$), nitroamino compds. and indophenols, the process must be sharply divided into the reducing and oxidizing stages, the oxidizing agent being introduced at the end of the reducing phase (Haesler, Ger. pat. 522,570, *C. A.* 25, 4555).

Chas. Blanc

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



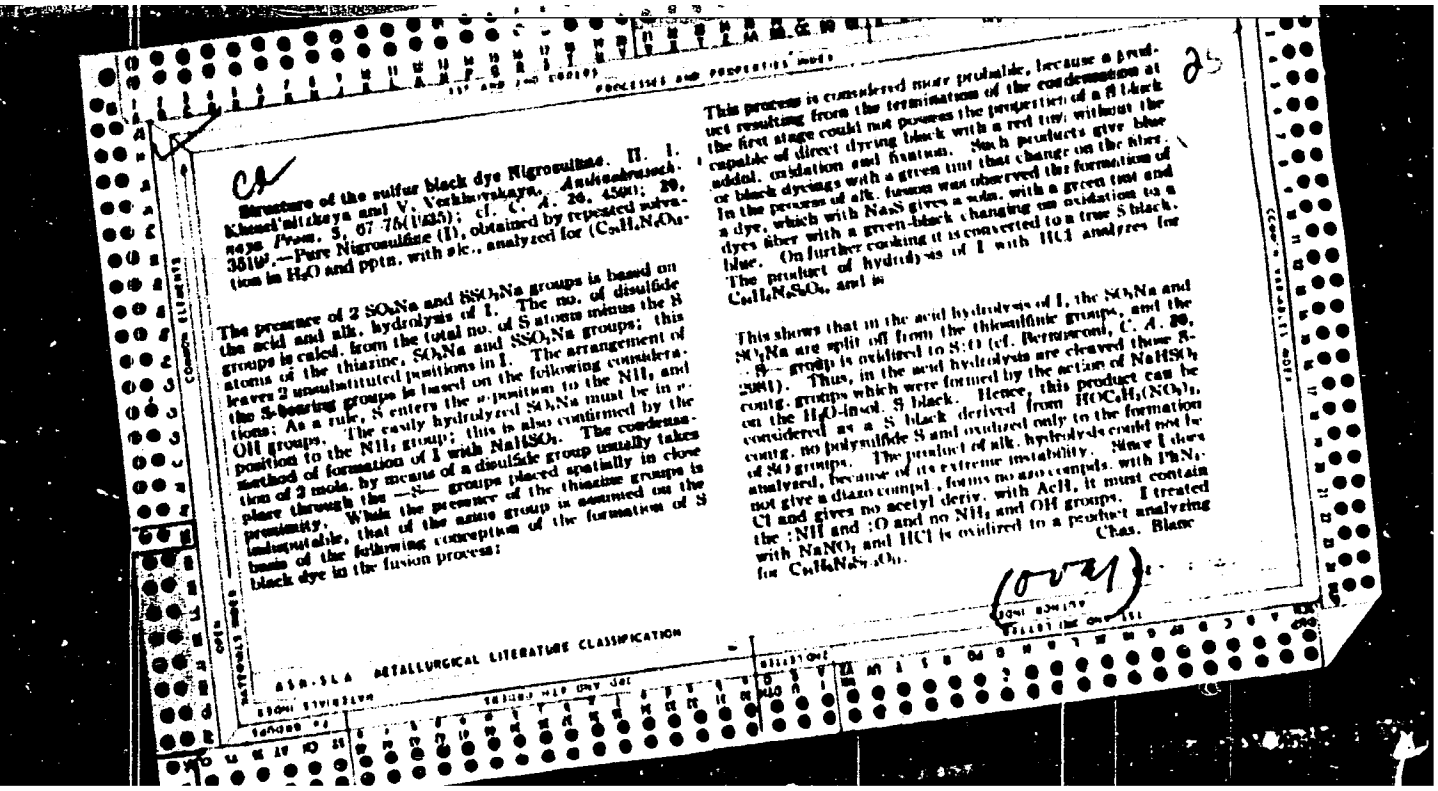
PROCESSES AND PROPERTIES INDEX

25

Structure of sulfur black dye Nigrosulfine. I. Khmel'nitskaya and V. Verkhovskaya. *Anilinokrasochnaya Prom.* 5, 3-10(1935); cf. *C. A.* **28**, 5244⁴.—Bouvech and Zhilin (Russian patent application, 1931) developed a S black dye, called Nigrosulfine K, sol. in H_2O and suitable for dyeing cotton and chrome-mordanted leather on addn. of a little Na_2S. It is formed by pptg. S black melt with a little $NaHSO_3$ (to a colorless discharge on a filter paper), filtering off the ppt. and drying it at a max. of 65° in air. Study of this dye led to the following observations. In the pptn. of a S-dye melt with $NaHSO_3$ a decompn. of the sulfides takes place. The easily filterable cake is, probably, an intermediate bisulfite compd., contg. organically combined SO_3 groups. In the process of air drying of the cake some complex chem. reactions take place, including the oxidation of $Na_2S_2O_3$ to Na_2SO_4. The liberated SO_2 reacts with the —SS— and —SNa groups of the S dye, forming the end groups – SS_2Na, —SSO_2Na or —SO_2Na, which condition the sdy. of the S dye in H_2O. In distinction from the S dyes, Nigrosulfine is not pptd. with air and Zn salts. The ppts. of S dyes with $NaHSO_3$ are leuco compds., formation of which makes it possible to obtain sol. S dyes, which are sparingly or completely insol. in H_2O by a treatment with Na_2SO_3. $Na_2S_2O_3$ present in the dye is an important stabilizer in the process of drying and storing of sol. S dyes.

Chas. Blanc

A58-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

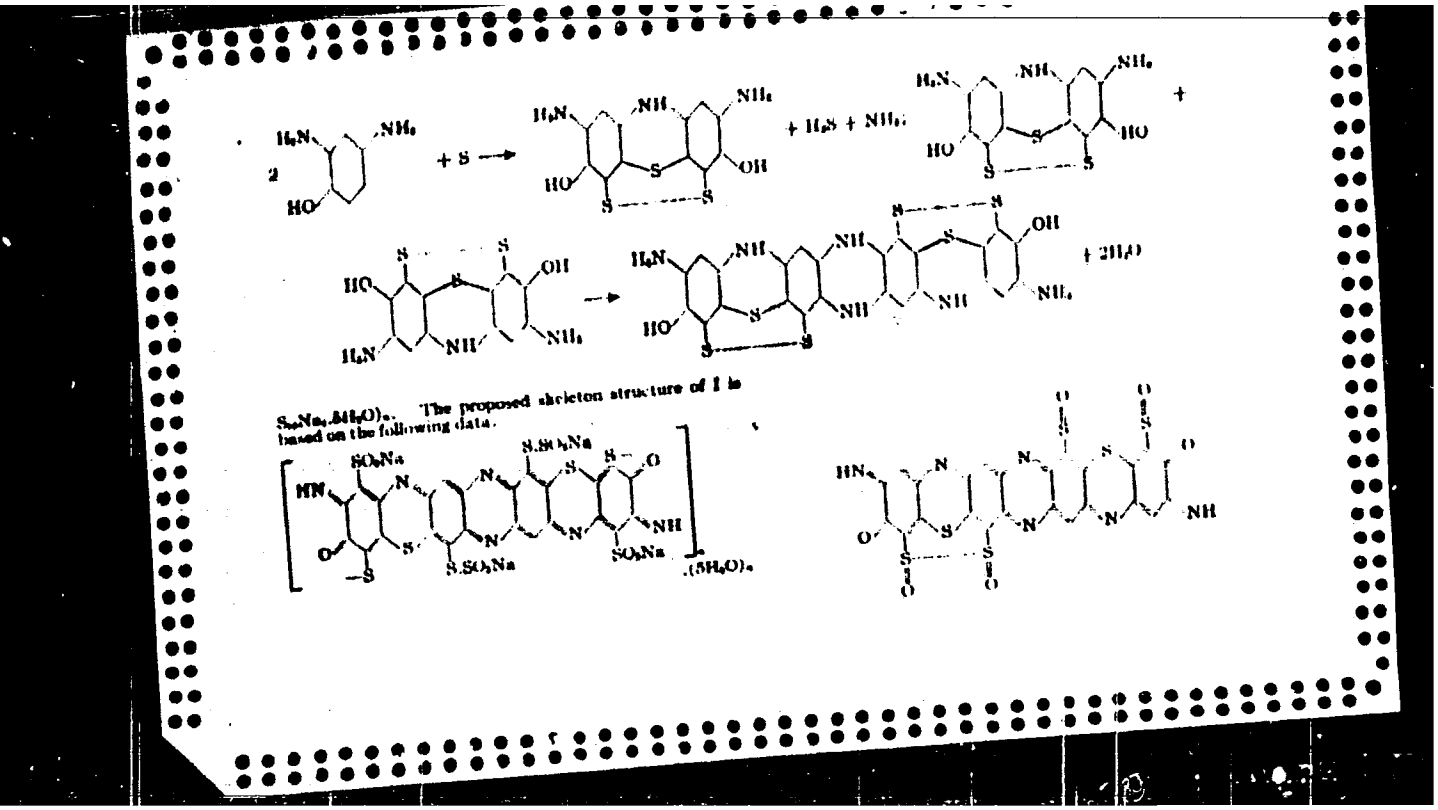
Structure of the sulfur black dye Nigrosulfine. II. I. Khasat'skaya and V. Verkhovskaya. *Anilinokrasochn. Prom.* 5, 67-76(1935); cf. C. A. 26, 4560; 29, 3810⁹.—Pure Nigrosulfine (I), obtained by repeated solvation in H_2O and pptn. with alc., analyzed for $C_{24}H_{14}N_4O_8S_6$. The presence of 2 SO_3Na and SSO_3Na groups is based on the acid and alk. hydrolysis of I. The no. of disulfide groups is calcd. from the total no. of S atoms minus the S atoms of the thiazine, SO_3Na and SSO_3Na groups; this leaves 2 unsubstituted positions in I. The arrangement of the S-bearing groups is based on the following considerations: As a rule, S enters the *o*-position to the NH_2 and OH groups. The easily hydrolyzed SO_3Na must be in *o*-position to the NH_2 group; this is also confirmed by the method of formation of I with $NaHSO_3$. The condensation of 2 mols. by means of a disulfide group usually takes place through the —S— groups placed spatially in close proximity. While the presence of the thiazine groups is indisputable, that of the azine group is assumed on the basis of the following conception of the formation of S black dye in the fusion process:

This process is considered most probable, because a product resulting from the termination of the condensation at the first stage could not possess the properties of a S black capable of direct dyeing black with a red tint; without the addnl. oxidation and fixation. Such products give blue or black dyeings with a green tint that change on the shelf. In the presence of alk. fusion was observed the formation of a dye, which with Na_2S gives a soln. with a green tint and dyes fiber with a green-black changing on oxidation to a blue. On further cooking it is converted to a true S black. The product of hydrolysis of I with HCl analyzes for $C_{12}H_6N_2S_3O_4$, and is

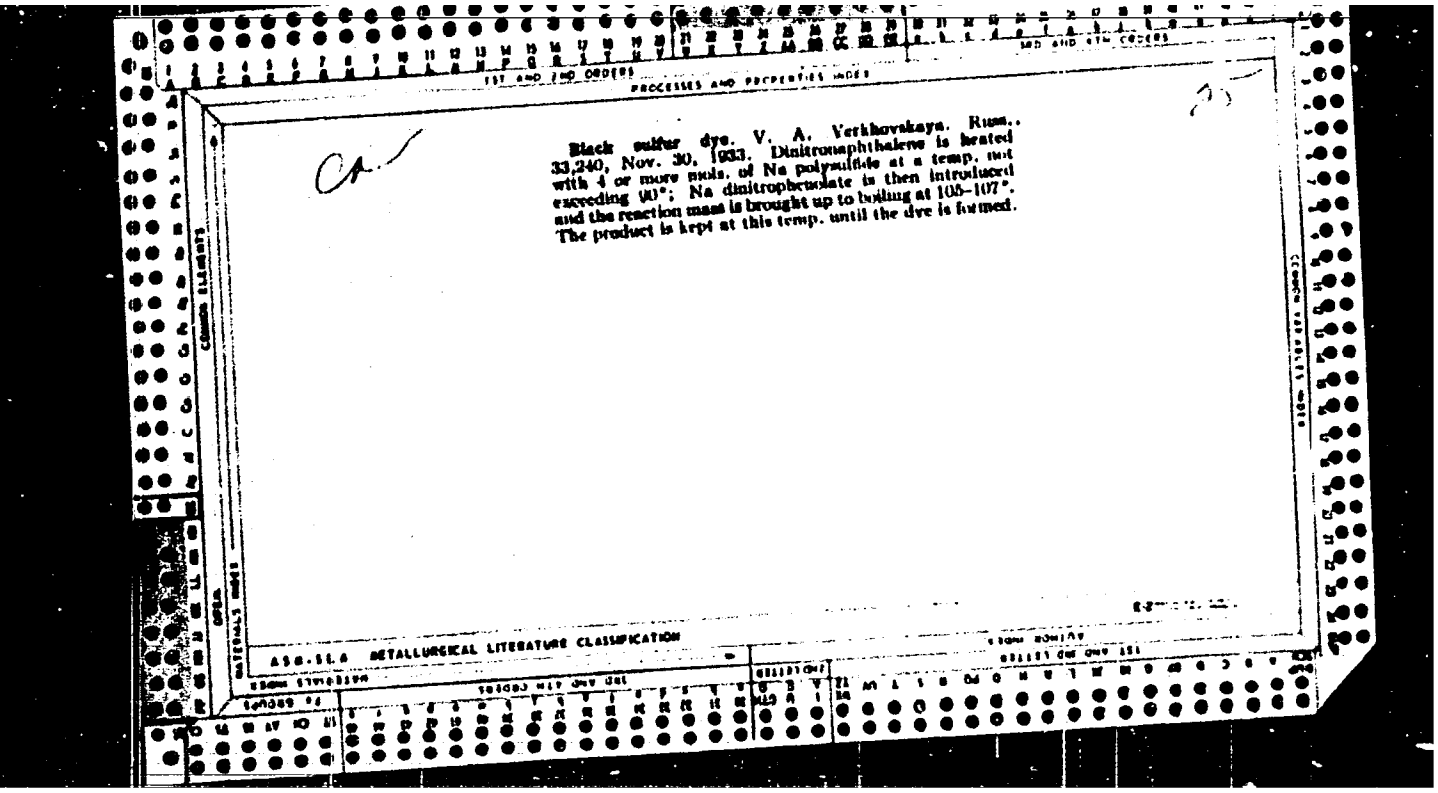
This shows that in the acid hydrolysis of I, the SO_3Na and SO_3Na are split off from the thiosulfuric groups, and the —S— group is oxidized to S:O (cf. Bernasconi, C. A. 29, 2081). Thus, in the acid hydrolysis are cleaved those S-contg. groups which were formed by the action of $NaHSO_3$ on the H_2O-insol. S black. Hence, this product can be considered as a S black derived from $HOC_6H_3(NO_2)_2$, contg. no polysulfide S and oxidized only to the formation of SO groups. The product of alk. hydrolysis could not be analyzed, because of its extreme instability. Since I does not give a diazo compd., forms no azo compds. with PhN_2Cl and gives no acetyl deriv. with AcH, it must contain the :NH and :O and no NH_2 and OH groups. I treated with $NaNO_2$ and HCl is oxidized to a product analyzing for $C_{12}H_6N_2S_3O_6$.

Chas. Blanc

(over)



$S_6Na_2.6H_2O$. The proposed skeleton structure of I is based on the following data.



PROCESSES AND PROPERTIES INDEX

Black sulfur dye. V. A. Verkhovskaya. Russ., 33,240, Nov. 30, 1933. Dinitronaphthalene is heated with 4 or more mols. of Na polysulfide at a temp. not exceeding 90°; Na dinitrophenolate is then introduced and the reaction mass is brought up to boiling at 105–107°. The product is kept at this temp. until the dye is formed.

ASB-SELA METALLURGICAL LITERATURE CLASSIFICATION

VERKHOVSKAYA, V.A.; DEYNEKO, V.F., prof.; ZYKOV, K.A.; KISLITSYN, A.S.; MURASHEV, S.A.; OBIRALOV, A.I.; PETRUSHINA, R.S.; POPOV, A.F.; RUHER, A.O.; SKOBELEV, A.T.; KHIZHINSKIY, D.G.; SHURYGINA, A.I., red. izd-va; ROMANOVA, V.V., tekhn. red.

[Laboratory work in aerophotogeodesy for land utilization faculties of higher agricultural schools]Laboratornye raboty po aerofotogeodezii; dlia zemleustroitel'nykh fakul'tetov sel'skokhoziaistvennykh vuzov. Pod obshchei red. V.F.Deineko. Moskva, Izd-vo geodez.lit-ry, 1962. 109 p. (MIRA 15:10)

1. Moscow. Institut inzhenerov zemleustroystva. 2. Kafedra aerofotogeodezii Moskovskogo instituta inzhenerov zemleustroystva (for all except Shurygina, Romanova).
(Aerial photogrammetry)

23716
S/035/61/000/004/053/058
A001/A101

3,2100

AUTHOR: Verkhovskaya, V.A.

TITLE: The use of enlarged aerial photographs for depicting relief by means of СТД -1 (STD-1)

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 4, 1961, 17, abstract 40124 ("Tr. Mosk. in-ta inzh. zemleustroystva", 1960, no. 9, 321 - 325)

TEXT: Experimental investigations carried out by the Aerophotogeodesy Department of МИИЗ (MIIZ) have shown that in enlargement of aerial photographs by 2 times, the summary error in determining differences of longitudinal parallaxes changes insignificantly. An increase of the photographing base by 2 times, due to enlargement of the aerial photograph, at the practically unchanged quantity $m_{\Delta p}$ leads to error reduction m_h in determining elevation by 1.6 times. The author points out that aerial photographs should be enlarged on a ФТБ (FTB) rectifier observing the parallelism between the planes of adapter and screen and the constancy of enlargement coefficient. Existent stereometers with 18 x 18 cm adapters can be

Card 1/2

23716

S/035/61/000/004/053/058
A001/A101

The use of enlarged aerial photographs ...

used for processing enlarged aerial photographs, making in them slight changes and producing reproductions from the working part of a stereopair only, rather than from the entire enlarged aerial photograph.

V. Pavlov

[Abstracter's note: Complete translation]

Card 2/2

VERKHOVSKAYA, Z.N.; VYSTAVKINA, L.B.; KLIMENKO, M.Ya.

Methods of production of diphenylolpropane. Khim. prom. 41 no.3: 170-175 Mr '65. (MIRA 18:7)

VERKHOVSKAYA, Z.N.; VYSTAVKINA, L.B.; KLIMENKO, M.Ya.; TEVLINA, A.S.; TROSTYANSKAYA, Ye.B.

Coarse-grained ion exchangers as catalysts of the hydration of olefins and dehydration of alcohols. Khim.prom. no.4:248-250 Ap '62. (MIRA 15:5)
(Ion exchange resins) (Hydration) (Dehydration (Chemistry))

KLIMENKO, M.Ya.; VERKHOVSKAYA, Z.N.; VYSTAVKINA, L.B.

Dehydration of trimethylcarbinol on ion exchange resins. Neftekhimiia 1 no.5:630-638 S-O '61. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov.
(Mehtanol)(Dehydration)(Ion exchange resins)

MENYALO, A.T.; KLIMENKO, M.Ya.; VERKHOVSKAYA, Z.N.; AFANAS'YEV, M.M.

Recovery of isobutylene from butylene mixtures. Zhur.VKHO 6 no.4:470-471 '61. (MIRA 14:7)

1. Nauchno-issledovatel'nyy institut sinteticheskikh spirtov.
(Propene) (Butane) (Butene)

5\3300
15.9201

28939
S/063/61/006/004/008/010
A057/A129

AUTHORS: Menyaylo, A. T., Klimenko, M. Ya., Verkhovskaya, Z. N., Afanas'yev, M. M.

TITLE: Extraction of isobutylene from butane-butylene mixtures

PERIODICAL: Zhurnal vsesoyuznogo khimicheskogo obshchestva imeni D. I. Mendeleyeva, v. 6, no. 4, 1961, 470 - 471

TEXT: Isobutylene is manufactured usually from C_4 fractions of pyrolytic gas or from products of dehydrogenation of butane and isobutane. In the present paper a patented method (USSR patent no. 16207 of September 30, 1955, and no. 122746 of November 5, 1958) for extraction of isobutylene is described. The method is based on a liquid-phase hydration of isobutylene in fraction C_4 to trimethylcarbinol and subsequent dehydration in presence of cation exchange resins with an active sulphogroup [КУ-2 (KU-2), СБС (SBS), СДВ-3 (SDV-3) types] as catalyst. During hydration isobutylene is in the gaseous phase, while the water flows down the granulated catalyst. Some experimental results presented in Table 1 were obtained on a laboratory circulation apparatus with tubular reactor (diameter 35 mm, height 800 mm) filled with the catalyst (200 ml charge). Experiments no. 1 and 2 demonstrate that

Card 1/3

Extraction of isobutylene from butane-butylene mixtures

decrease of molar ratio between water and isobutylene does not effect the productivity of the catalyst or olefin conversion, but increases correspondingly the concentration of alcohol in the condensate. Decrease of isobutylene content in the C_4 fraction decreases conversion, thus to maintain a high conversion, the pressure and contact time must be increased (see experiment no. 5). After 600 hrs use the catalyst SBS did not show changes in activity. The obtained trimethylcarbinol condensates were rectified and an azeotropic mixture of 88.3% trimethylcarbinol and 11.7% water was obtained with reagent purity (according to IREA). Dehydration of the mixture was carried out with the same cation exchange resins in a 250 ml flask using 5 g resin and 50 ml azeotropic mixture and heating on a water bath. A 100% dehydration was effected with all three types of catalysts, the best productivity showed the SDV-3 cation exchange resin. During 800 hrs of experiments KU-2 catalyst showed a 15% decrease in activity after 30 hrs and following constant activity. According to data given by VNIISK butyl-rubber manufactured from this isobutylene has a molecular weight 25% higher than a product manufactured from isobutylene obtained by existing industrial devices. There are 2 tables and 1 Soviet-bloc reference.

Card 2/3

26939 S/063/61/005/004/008/010

Extraction of isobutylene from butane-butylene mixtures A057/A129

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskikh spirtov (Scientific Research Institute of Synthetic Alcohols)

SUBMITTED: October 4, 1960

Table 1. Experimental results of the liquid-phase hydration of isobutylene (catalyst: SBS cation exchange resin, temperature 100°C)
Legend: (1) no. of the experiment; (2) pressure in atm; (3) concentration of isobutylene in the gas (vol. %); (4) molar ratio H_2O/C_4H_8; (5) volume rate l/l·hr; (6) contact time in sec; (7) concentration of the alcohol in the condensate (vol. %); (8) productivity of the catalyst g/l·hr; (9) conversion of isobutylene per run in %

(1) №№ опытов	(2) Давление в *атм*	(3) Концентрация *изо*-C_4H_8 в газе % (объемн.)	(4) Молярное отношение H_2O/C_4H_8	(5) Объемная скорость *л/л·час*	(6) Время контакта в сек.	(7) Концентрация спирта в конденсате % (вес)	(8) Производительность катализатора *г/л·час*	(9) Конверсия изобутилена за проход %
1	10	96,6	18,5	295	89	9,3	439	46,7
2	10	97,0	4,0	292	90	33,9	436	46,9
3	10	25,0	4,2	302	87	5,1	58	23,4
4	10	15,0	4,1	326	81	2,8	31,0	19,2
5	15	2,9	4,2	282	114	0,6	5,8	21,6

Card 3/3

S/064/60/000/007/004/010
B020/B054

AUTHORS: Menyaylo, A. T., Klimenko, M. Ya., Verkhovskaya, Z. N., and Afanas'yev, M. M.

TITLE: Liquid-phase Hydration of Olefins on Cation-exchange Resins

PERIODICAL: Khimicheskaya promyshlennost', 1960, No. 7, pp. 16 - 18

TEXT: The authors investigated cation-exchange resins with different functional groups ($-SO_3H$, $-COOH$, etc.) as catalysts for the hydration of olefins on cation-exchange resins. Before the examination, the cationites were transformed from the Na to the H form by treatment with 10% HCl and elution with distilled water, until the reaction to Cl^- ions disappeared. Then, the cationites were dried in air, and stored. Swelled cationites, and cationites with enlarged volume, were tested for their activity in a high-pressure flow apparatus. The propane-propylene- and the butylene fractions from the exhaust gases of the petroleum refining industry were taken as initial products; their compositions were

determined by distillation in the apparatus of the TsIATIM, and by the sulfuric-acid procedure in the apparatus of the VTI. The determination of isopropyl alcohol and trimethylcarbinol is also described briefly. The authors examined samples of the cationites КУ-2 (KU-2) and СБС (SBS) with $-SO_3H$ as ionogenic group in grains 0.5-3 mm in diameter. The initial isobutylene fraction contained 95% of isobutylene. The results show that these cation exchangers are active, and highly selective, catalysts in the process of liquid-phase hydration of isobutylene. Fig.2 shows the dependence of the activity of the SBS catalyst on the operating time; it was found that it can be used for a long time without noticeable drop in activity, and regenerated with 6% HCl. The effect of cationites was tested on trimethylcarbinol, and confirmed by the IREA. In the liquid-phase hydration of propylene, the authors tested the sulfocationite СДВ-3 (SDV-3), the cationite КМГ (KMG) with a carboxyl group as functional group, the cationite РФ (RF) with a phosphoric-acid group, and the bifunctional cationite СМ-12 (SM-12) with a carboxyl and a sulfo group, besides the cationites mentioned. The cationites containing the sulfo group were most active. The initial fraction contained

78-86% of propylene. The results are given in Table 2. The experiments have shown that it is sufficient to increase the thermal stability of cationites to 40-60°C, in order to obtain a sufficiently high yield in the liquid-phase hydration of propylene. There are 2 figures, 2 tables, and 16 references: 5 Soviet, 4 US, 6 British, and 1 German.

MENYAYLO, A.T.; KLIMENKO, M.Ya.; VERKHOVSKAYA, Z.N.; AFANAS'YEV, M.M.

Liquid phase hydration of olefins on cation-exchange resins.
Khim. prom. no. 7:544-546 O-N '60. (MIRA 13:12)
(Olefins) (Hydration)

VERKHOVSKAYA, A. N.

"Solubility of Nitrogen Perozide in Strong Nitric Acid." Thesis for degree of Cand. Technical Sci. Sub 16 Jun 50, Moscow Order of Lenin Chemico-technological Inst imeni D. I. Mendeleyev

Summary 71, 4 Sep 52, Dissertations Presented FOR Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

BIRYUKOVA, M.Ya.; VERKHOVSKIY, A.L.

Course of pregnancy and labor in hypotension. Akush. i gin. 38 no.5:64-67 S-O '62. (MIRA 17:11)

1. Iz Rodil'nogo doma No.2 (glavnyy vrach A.L. Verkhovskiy) goroda Kirova.

ABRAMOV, V.V., doktor tekhn. nauk, prof.; VERKHOVSKIY, A.V., doktor tekhn. nauk, otv. red.; KOZYULINA, R.M., red.

[Using the dissection method for calculating beams having extensive curvatures]Raschet brus'ev bol'shoi krivizny metodom raschleneniia tela; uchebnoe posobie. Gor'kii, 1962. 22 p. (MIRA 16:1)
1. Gorki. Politekhnicheskiy institut. Kafedra soprotivleniya materialov.
(Beams and girders)

VERKHOVSKIY, A.V., doktor tekhn. nauk; GLYAVIN, Yu.V., kand. tekhn. nauk

Calculation of a shaft for torsion in case of a nonlinear relationship between stresses and strains. Trudy GPI 18 no.4:5-11 '63.
(MIRA 17:9)

VERKHOVSKIY, A.V., prof.; GLYAVIN, Yu.V., dots.; LUPANOVA, O.K., dots.; MOKEYEV, I.I., dots.; USPENSKAYA, A.N., dots.; PONOMAREV, M.G., dots.; CHARYSHNIKOV, K.A., st. prepod.; ARANOVICH, V.M., assistent; PLOTNIKOV, G.I., assistent; PELEVINA, T.I., red.

[Handbook for the solution of problems on the strength of materials] Posobie k resheniiu zadach po soprotivleniiu materialov. Volgo-Viatskoe knizhnoe izd-vo, 1965. 319 p. (MIRA 19:1)

1. Gorki. Politekhnicheskiy institut. 2. Kafedra "Soprotivleniye materialov" Gor'kovskogo politekhnicheskogo instituta (for all except Pelevina).

VERKHOVSKIY, A.V., doktor tekhn. nauk; SPIRIN, A.P., inzh.

Using the method of ball sections in determining stresses in screw threads. Trudy GPI 18 no.4:29-38 '63. (MIRA 17:9)

VERKHOVSKIY, A.V., doktor tekhn.nauk

Determining torsional rigidity of the floor frame of a convertible automobile. Trudy GPI 16 no.1 pt.2:5-8 '60. (MIRA 14:4)
(Automobiles--Frames)

TITLE: Distribution of stresses during bending of a rod with a ring-shaped groove and an axial hole

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 3, 1963, 8, abstract 3V43 (Tr. Gor'kovsk. politekhn. in-ta, 1961, v. 17, no. 3, 75-79)

TEXT: The authors determine the stresses during bending of a rod having the form of a body of revolution, as above. The solution is obtained using the hypothesis of non-plane sections for both shallow and deep grooves (see V. A. Ionov, Tr. Gor'kovsk. politekhn. in-ta, 1961, v. 17, no. 23, 63-74). Stress concentration coefficients obtained by the authors are compared with magnitudes obtained using Neuber's interpolation formula. 4 references. [Abstracter's note: Complete translation.]

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PHASE I BOOK EXPLOITATION 800

Verkhovskiy, Aleksandr Vasil'yevich; Andronov, Vladimir Pavlovich; Ionov, Vladimir Aleksandrovich; Lupanova, Ol'ga Konstantinovna; and Chevkinov, Viktor Ivanovich

Opredeleniye napryazheniy v opasnykh secheniyakh detaley slozhnoy formy; metod neploskikh secheniy (Determination of Stresses in Critical Sections of Members of Complex Forms; Method of Nonplane Sections) Moscow, Mashgiz, 1958. 146 p. 3,000 copies printed.

Reviewer: Vagapov, R.D., Candidate of Technical Sciences; Ed.: Preyss, A.K., Candidate of Technical Sciences; Ed. of Publishing House: Korableva, R.M., Engineer; Tech. Ed.: Model', B.I.; Managing Ed. for literature on general technical and transport machine building (Mashgiz): Ponomareva, K.A., Engineer.

PURPOSE: This book is intended for design engineers, scientific workers and students.

COVERAGE: The book contains a description of an approximate method of stress analysis in critical sections of complex components. The method is based

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on the nonplane (angular, cylindrical, spherical) section hypothesis. Analytical formulas are given for the determination of stress concentration factors for flat, rectangular, and circular bars of variable cross section subjected to tension, flexure and torsion. Results are presented of an experimental study of stress distribution in samples of variable sections having different dimension ratios. Illustrative examples of the analysis of bending and tension of a flat plate having symmetrical and asymmetrical cutouts and shoulders are given and examples of tension, torsion, and bending of a shaft with cutouts and shoulders are also presented. There are 29 references, of which 24 are Soviet, 3 are English and 2 are German.

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Determination of Stresses in Critical Sections (Cont.) 800

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Determination of Stresses in Critical Sections (Cont.) 800

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IONOV, V.A., kand. tekhn. nauk; LUPANOVA, O.K., kand. tekhn. nauk;
VERKHOVSKIY, A.V., doktor tekhn. nauk

Bending stress calculation in a rod with an annular groove and an axial hole. Trudy GPI 17 no.3:75-79 '61. (MIRA 16:12)

AHRAMOV, V.V., kand.tekhn.nauk; AGEYEV, D.V., doktor tekhn.nauk; prof.; BAMDAS, A.M., doktor tekhn.nauk, prof.; VERKHOVSKIY, A.V., doktor tekhn.nauk, prof.; GOLIHKEVICH, N.A., kand.tekhn.nauk, dots.; DERTEV, N.K., doktor tekhn.nauk, prof.; MATTES, N.V., doktor tekhn. nauk, prof.; RYZHIKOV, A.A., doktor tekhn.nauk, prof.; PASYNKOV, O.N., otv.za vypusk

[New method for calculating thermal stresses] Novyi raschetnyi metod vychisleniia termicheskikh napriazhenii. Gor'kii, 1958. 57 p. (Gorkiy.Politekhnicheskii institut. Trudy, vol.14, no.3) (MIRA 13:7)

(Thermal stresses)

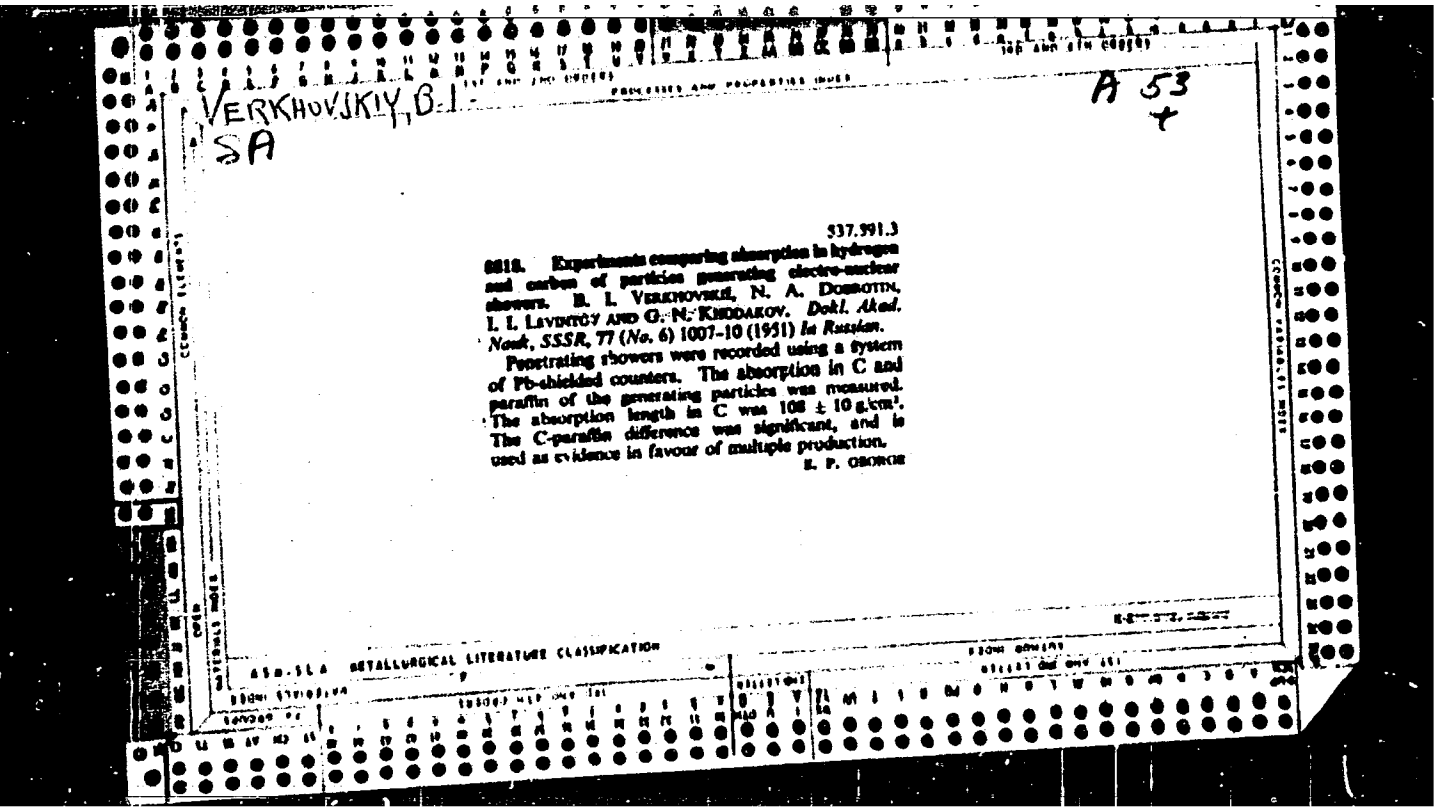
VERKHOVSKIY, B.D.

Functional state of the kidneys following acute renal insufficiency treated with hemodialysis. Urologiia, no.5:15-20 '64. (MIRA 18:8)

1. Urologicheskaya klinika i kliniko-eksperimental'naya laboratoriya iskusstvennoy pochki (nauchnyye rukovoditeli - prof. N.N.Yelanskiy i prof. I.M.Ensshteyn) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

BETIN, Yu.P.; BURSUKOVA, M.I.; VERKHOVSKIY, B.I.; SHELKOV, L.B.

Use of a zirconium-tritium source for nondispersion X-ray spectrum analysis. Atom. energ. 19 no.3:297-298 S '65. (MIRA 18:9)



VERKHOVSKIY, B.I.
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6818. Experiments comparing absorption in hydrogen and carbon of particles generating electro-nuclear showers. B. I. VERKHOVSKII, N. A. DOBROTIN, I. L. LAVRITOV AND G. N. KHODAKOV. *Dokl. Akad. Nauk, SSSR*, 77 (*No.* 6) 1007–10 (1951) *In Russian.*

Penetrating showers were recorded using a system of Pb-shielded counters. The absorption in C and paraffin of the generating particles was measured. The absorption length in C was 108 ± 10 g/cm². The C-paraffin difference was significant, and is used as evidence in favour of multiple production.

E. P. OSBORNE

A53-SLA METALLURGICAL LITERATURE CLASSIFICATION

DIKUSHIN, V.I., akad.,otv. red.; SHUMILOVSKIY, N.N., red.; ZASLAVSKIY, Yu. S., red.; TATOCHENKO, L.K., red.; VERKHOVSKIY, B.I., red.; NAZAROV, S.T., red.; PETRENKO, L.I., red.; ZELEVINSKAYA, M.G.,red.; BELYANIN, P.N., red. izd-va.; POLENOVA, T.P., tekhn. red.

[Machine and instrument manufacture; proceedings of the conference] Mashinostroenie i priborostroenie; trudy konferentsii. Moskva, Izd-vo Akad. nauk SSSR, 1958. 358 p. (MIRA 11:12)

1. Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke. Moscow, 1957.
(Radioisotopes--Industrial applications)
(Metals)

BETIN, Yu.P.; VERKHOVSKIY, B.I.; ZELENINSKAYA, N.G.; YAKUSHIN, V.V.

Method for raising the accuracy of the measurement of radioactive radiation fluxes. Prib. i tekh. eksp. no.6:23-27 N-D '60. (MIRA 13:12)

1. Fizicheskiy institut AN SSSR.
(Radiation--Dosage) (Nuclear counters)

VASIL'YEV, A.G.; KLEMPNER, K.S.; TATOCHENKO, L.K., doktor tekhn. nauk, retsenzent; VERKHOVSKIY, B.I., inzh., red.; KURATSEV, L.Ye., red.izd-va; SMIRNOVA, G.V., tekhn.red.

[Relay devices with nuclear radiation sources] Releinye ustroistva s istochnikami iadernogo izlucheniia. Moskva, Mashgiz, 1963. 166 p. (MIRA 17:3)

ANFILOV, A.A., inzh ; BAKALEYNIK, Ya.M., inzh.; BIRGER, G.I., inzh.; BRUK, B.S., inzh.; BUROV, A.I., inzh.; GINZBURG, V.L., inzh.; ZABELIN, V.L., inzh.; ZAPLECHNYY, Ye.G., inzh.; ISAYEV, D.V., inzh.; KLIMOVITSKIY, A.M., inzh.; KRYUCHKOV, V.V., inzh.; KOTOV, V.A., inzh.; LEYDERMAN, A.Ye., inzh.; PODCOYETSKIY, M.L., inzh.; SAZHAYEV, V.G., inzh.; SEVAST'YANOV, V.V., inzh.; FILIPPOV, S.F., inzh.; FROMBERG, A.B., inzh.; SHNEYEROV, M.S., inzh.; ERLIKH, G.M., inzh.; VERKHOVSKIY, B.I., red.; ZUBKOV, G.A., red.; KARKLINA, T.O., red.; OVCHARENKO, Ye.Ya., red., ANTONOV, B.I., ved. red.

[New means of automatic and centralized control for nonferrous metal mines] Novye sredstva avtomatizatsii i dispetcherskogo upravleniia dlia rudnikov tsvetnoi metallurgii. Moskva, Nedra, 1965. 93 p. (MIRA 18:4)

VERKHOVSKIY, B.I.

21(8) PHASE I BOOK EXPLOITATION SOV/2734

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke. Moscow, 1957.

Trudy... Mashinostroyeniye i priborostroyeniye (Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science; Machine and Instrument Manufacturing) Moscow, Izd-vo AN SSSR, 1958. 358 p. 4,500 copies printed.

Sponsoring Agencies: USSR. Glavnoye upravleniye po ispol'zovaniyu atomnoy energii, and Akademiya nauk SSSR.

Editorial Board of Set: V.I. Dikushin, Academician (Resp. Ed.), N.N. Shumilovskiy (Deputy Resp. Ed.), Yu. S. Zaslavskiy (Deputy Resp. Ed.), L.K. Tatochenko, B.I. Verkhovskiy, S.T. Nazarov, L.I. Petrenko, and N.O. Zelevinskaya (Secretary).

Ed. of Publishing House: P.N. Belyanin; Tech. Ed.: T.P. Polenova.

PURPOSE: This book is intended for specialists in the field of machine and instrument manufacture who use radioactive isotopes in the study of materials and processes.

COVERAGE: This collection of papers covers a very wide field of the utilization of tracer methods in industrial research and control techniques. The topic of this volume is the use of radioisotopes in the machine-and instrument-manufacturing industry. The individual papers discuss the applications of radioisotope techniques in the study of metals and alloys, problems of friction and lubrication, metal cutting, engine performance, and defects in metals. Several papers are devoted to the use of radioisotopes in the automation of industrial processes, recording and measuring devices, quality control, flowmeters, level gauges, safety devices, radiation counters, etc. These papers represent contributions of various Soviet institutes and laboratories. They were published as Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science, April 4-12, 1957. No personalities are mentioned. References are given at the end of most of the papers.

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VERKHOVSKIY, B.I.

21(3) PHASE I BOOK EXPLOITATION SOV/1704

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po [illegible] [illegible] i [illegible] izluchenii v [illegible] khozyaystve i nauke. [illegible], 1957.

Trudy... [illegible] (Transactions of the All-Union Conference on the [illegible] of Radioactive and Stable Isotopes and Radiation in the National Economy and Science; [illegible] and Instrument Manufacturing) Moscow, Izd-vo AN SSSR, 1958. 350 p. 4,500 copies printed.

Sponsoring Agencies: USSR. Glavnoye upravleniye po ispol'zovaniyu atomnoy energii, and Akademiya nauk SSSR.

Editorial Board of Set: V.I. Dikushin, Academician (Resp. Ed.), N.N. Shumilovskiy (Deputy Resp. Ed.), Yu. S. Zaslavskiy (Deputy Resp. Ed.), L.K. Tatochenko, B.I. Verkhovskiy, S.T. Nazarov, L.I. Petrenko, and N.G. Zelevinskaya (Secretary).

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VERKHOVSKIY, B.I.

21(8) PHASE I BOOK EXPLOITATION SOV/1764

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke Moscow, 1957.

Trudy... Mashinostroyeniye i priborostroyeniye (Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science; Machine and Instrument Manufacturing) Moscow, Izd-vo AN SSSR, 1958. 358 p. 4,500 copies printed.

Sponsoring Agencies: USSR. Glavnoye upravleniye po ispol'zovaniyu atomnoy energii, and Akademiya nauk SSSR.

Editorial Board of Set: V.I. Dikushin, Academicain (Resp. Ed.), N.N. Shumilovskiy (Deputy Resp. Ed.), Yu. S. Zaslavskiy (Deputy Resp. Ed.), L.K. Tatochenko, B.I. Verkhovskiy, S.T. Nazarov, L.I. Petrenko and N.G. Zelevinskaya (Secretary).

Ed. of Publishing House: P.N. Belyanin; Tech. Ed.: T.P. Poleneva.

PURPOSE: This book is intended for specialists in the field of machine and instrument manufacture who use radioactive isotopes in the study of materials and processes.

COVERAGE: This collection of papers covers a very wide field of the utilization of tracer methods in industrial research and control techniques. The topic of this volume is the use of radioisotopes in the machine-and instrument-manufacturing industry. The individual papers discuss the applications of radioisotope techniques in the study of metals and alloys, problems offriction and lubrication, metal cutting, engine performance, and defects in metals. Several papers are devoted to the use of radioisotopes in the automation of industrial processes, recording and measuring devices, quality control, flowmeters, level gauges, safety devices, radiation counters, etc. These papers represent contributions of various Soviet institutes and laboratories. They were published as Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science, April 4-12, 1957. No personalities are mentioned. [illegible] at the end of most of the papers.

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VERKHOVSKIY, B.I.

LOPUKHOV, G.I.

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PHASE I BOOK EXPLOITATION SOV/5410

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

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

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

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

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Transactions of the Tashkent (Cont.) SOV/5410

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

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

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

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

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RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION IN ENGINEERING AND GEOLOGY

SHUMILOVSKIY, Nikolay Nikolayevich; MEL'TTSER, Lel' Vladimirovich; VEHKHOVSKIY, B.I., otv.red.; MARKOVICH, S.G., tekhn.red.

[Fundamentals of the theory of automatic control systems using radioisotopes] Osnovy teorii ustroistv avtomaticheskogo kontrolia s ispol'zovaniem radioaktivnykh izotopov. Moskva, Izd-vo Akad.nauk SSSR, 1959. 141 p. (MIRA 12:8)
(Automatic control) (Radioisotopes--Industrial applications)