ZADOROZHNYY, B.A. (Khar'kov); DERMAN, G.L., prof., nauchnyy rukovoditel'

Morphological changes in the skin and internal organs of rabbits during local β-irradiation with radioactive phosphorus. Vrach. delo no.8:66-72 Ag '63. (MIRA 16:9)
(PHOSPHORUS ISOTOPES—PHYSIOLOGICAL EFFECT)

DERMAN, G.L.; GONCHARCVA, L.S. (Khar'kov)

Morphological changes in leg arteries in gangrene. Arkh. pat. 25 no.9:13-19 '63. (MIRA 17:10)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. G.L. Derman) Khar'kovskogo meditsinskogo instituta.

DERMAN, G.L.; FINKEL', Z.N.

Morphology of intraepithelial cancer of the cervix uteri. Trudy Inst. eksp. morf. AN Gruz. SSR 11:229-235 '63.
(MIRA 17:11)

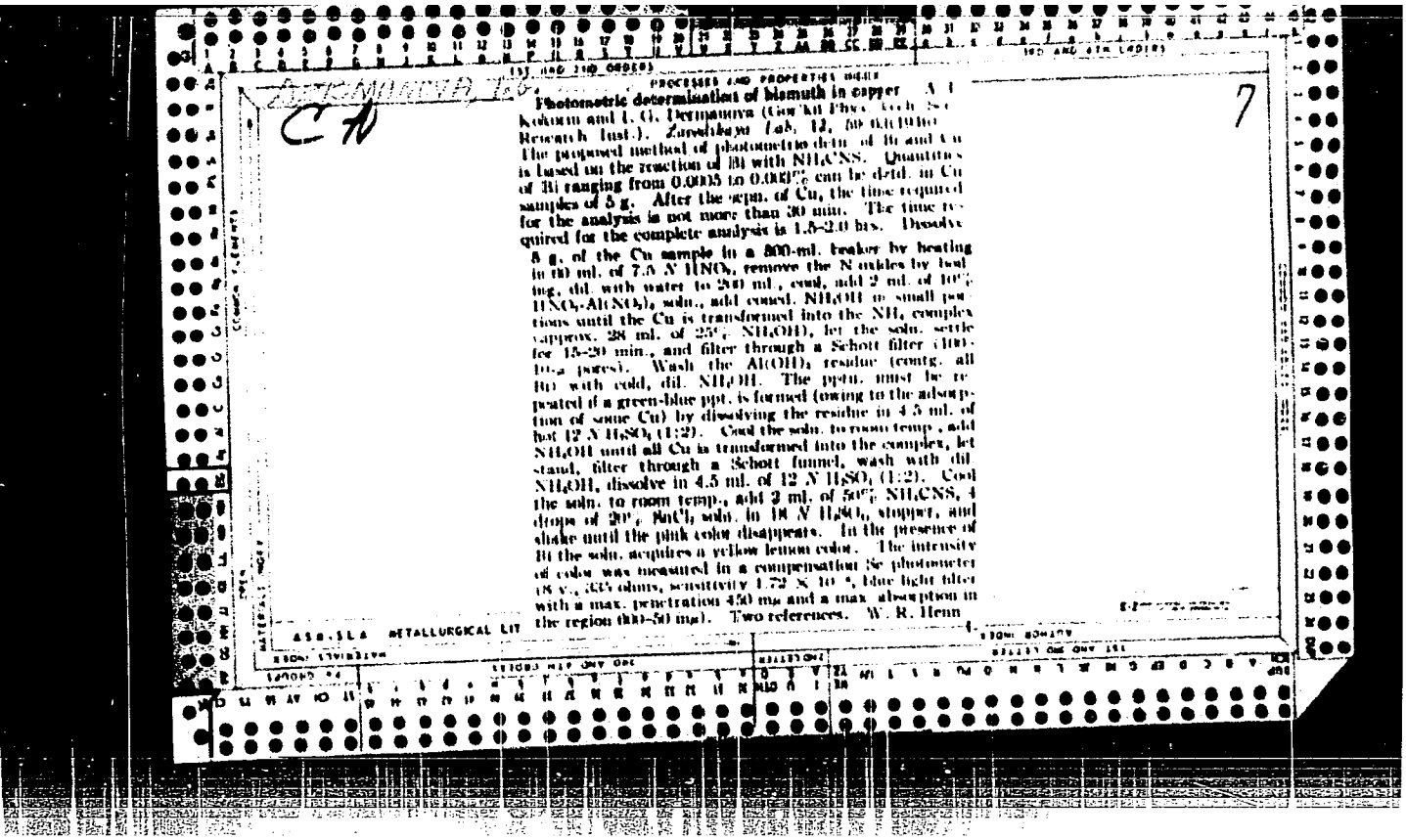
1. Kafedra patologicheskoy anatomii Khar'kovskogo meditsinskogo instituta.

DERMAN, Ye.S.; MATS, M.D.

Thrombosis of the basilar artery. Zhur. nerv. i psikh. 60 no. 12:1616-1618 '60. (MIRA 14:4)

1. Nervnoye otdeleniye (zav. Ye.S. Derman) 1-y Gorodskoy klinicheskoy bol'nitsy imeni V.I. Lenina (glavnyy vrach A.G. Garn'ye), Khar'kov.

(BASILAR ARTERY--DISEASES)



PROCESSES AND PROPERTIES INDEX

Photometric determination of bismuth in copper A. I. Kokorin and L. G. Permanova (Gor'kii Phys. Tech. Sci. Research Inst.). *Zavodskaya Lab.* 12, 50 0.3(1946)

The proposed method of photometric detn. of Bi and Cu is based on the reaction of Bi with NH_4CNS. Quantities of Bi ranging from 0.0005 to 0.003% can be detd. in Cu samples of 5 g. After the sepn. of Cu, the time required for the analysis is not more than 30 min. The time required for the complete analysis is 1.5–2.0 hrs. Dissolve 5 g. of the Cu sample in a 300-ml. beaker by heating in 70 ml. of 7.5 *N* HNO_3, remove the N oxides by heating, dil. with water to 240 ml., cool, add 2 ml. of 10% HNO_3-$Al(NO_3)_3$ soln., add concd. NH_4OH in small portions until the Cu is transformed into the NH_3 complex (approx. 28 ml. of 25% NH_4OH), let the soln. settle for 15–20 min., and filter through a Schott filter (No. 10–4 pores). Wash the $Al(OH)_3$ residue (contg. all Bi) with cold, dil. NH_4OH. The ppte. must be repeated if a green-blue ppt. is formed (owing to the adsorption of some Cu) by dissolving the residue in 4.5 ml. of hot 12 *N* H_2SO_4 (1:2). Cool the soln. to room temp., add NH_4OH until all Cu is transformed into the complex, let stand, filter through a Schott funnel, wash with dil. NH_4OH, dissolve in 4.5 ml. of 12 *N* H_2SO_4 (1:2). Cool the soln. to room temp., add 2 ml. of 50% NH_4CNS, 4 drops of 20% $SnCl_2$ soln. in 18 *N* H_2SO_4, stopper, and shake until the pink color disappears. In the presence of Bi the soln. acquires a yellow lemon color. The intensity of color was measured in a compensation Se photometer (8 v., 33 ohms, sensitivity 1.72 *S* to ^{4}, blue light filter with a max. penetration 450 mμ and a max. absorption in the region 400–50 mμ). Two references. W. R. Henn

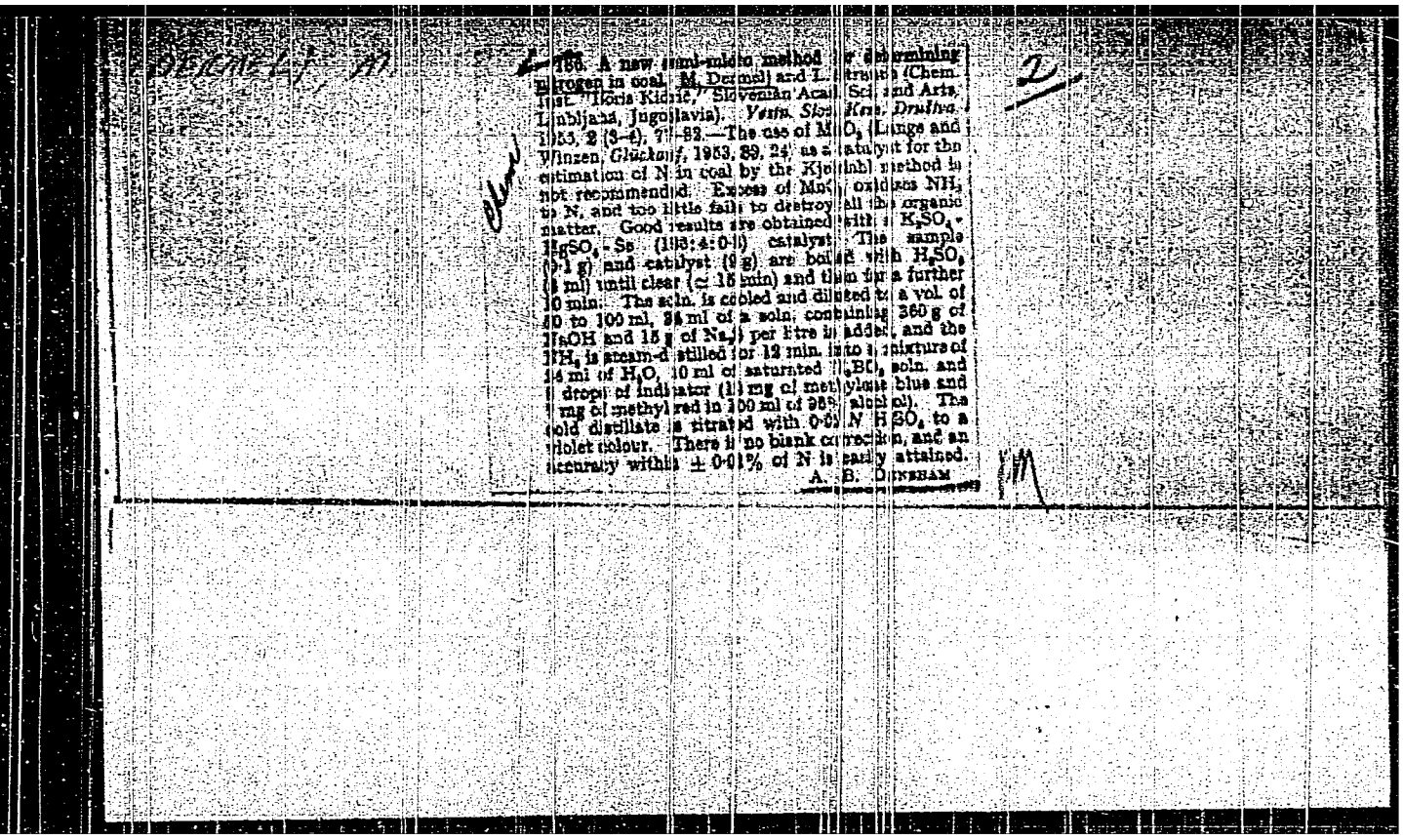
GERBER, M.I.; DERMANOVA, I.G.; LISTKOVA, T.N.; STRIGALEVA, N.V.

Determining the molecular weight of petroleum oils by isothermal distillation. Trudy VNIGRI no.174:210-217 '61.
(MIRA 14:12)

(Molecular weights)
(Petroleum)
(Bitumen)

A fluorescence method for detection of nickel. S. Lebedev and M. Dermanovič. *Zbornik radova geol. inst. "Jovan Žujović"* 9, 161–2(in German, 162)(1957).—$CaCO_3$ pptd. from dil. Ni-bearing solns. gives a greenish yellow fluorescence with unfiltered ultraviolet light. Michael Fleischer

Distr: 4E2c/4E3d



156. A new semi-micro method for determining nitrogen in coal. M. Dermelj and L. Strafela (Chem. Inst. "Boris Kidrič," Slovenian Acad. Sci. and Arts, Ljubljana, Jugoslavia). *Vestn. Slov. Kem. Društva* 1955, 2 (3–4), 7–22.—The use of MnO_2 (Lunge and Winzen, *Glückauf*, 1953, 89, 24; as a catalyst for the Kjeldahl method is not recommended. Excess of MnO_2 oxidizes NH_3 to N, and too little fails to destroy all the organic matter. Good results are obtained with K_2SO_4–$HgSO_4$–Se (100:4:0·1) catalyst. The sample (0·1 g) and catalyst (1 g) are boiled with H_2SO_4 (3 ml) until clear (ca. 15 min) and then for a further 10 min. The soln. is cooled and diluted to a vol. of 50 to 100 ml. 25 ml of a soln. containing 360 g of NaOH and 15 g of Na_2S per litre is added, and the NH_3 is steam-distilled for 12 min. into a mixture of 25 ml of H_2O, 10 ml of saturated H_3BO_3 soln. and 1 drop of indicator (1 mg of methylene blue and 1 mg of methyl red in 100 ml of 96% alcohol). The cold distillate is titrated with 0·01 *N* H_2SO_4 to a violet colour. There is no blank correction, and an accuracy within ± 0·01% of N is easily attained.

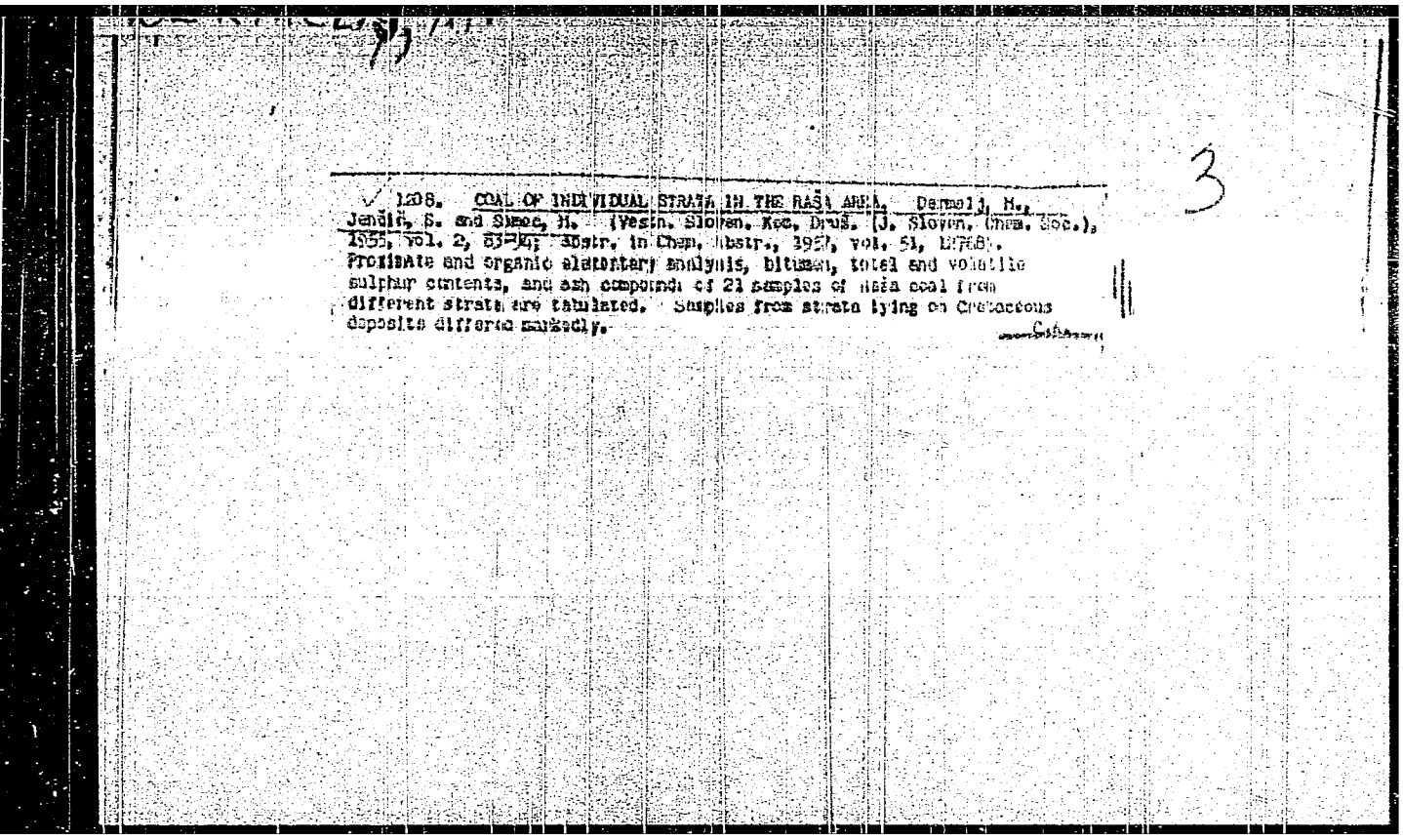
A. B. Dunham

DERMELJ, M.

DERNELJ, M.; Jencic, S; Samec, M. The coal in particular layers in the Rasa coal fields; studies of Yugoslav coals. III. p. 83

Vol. 2, No. 2, Apr./June 1955
VESTINK BULLETIN
SCIENCE
Ljubljana

So: East European Accession, Vol. 6, No. 3, March 1957



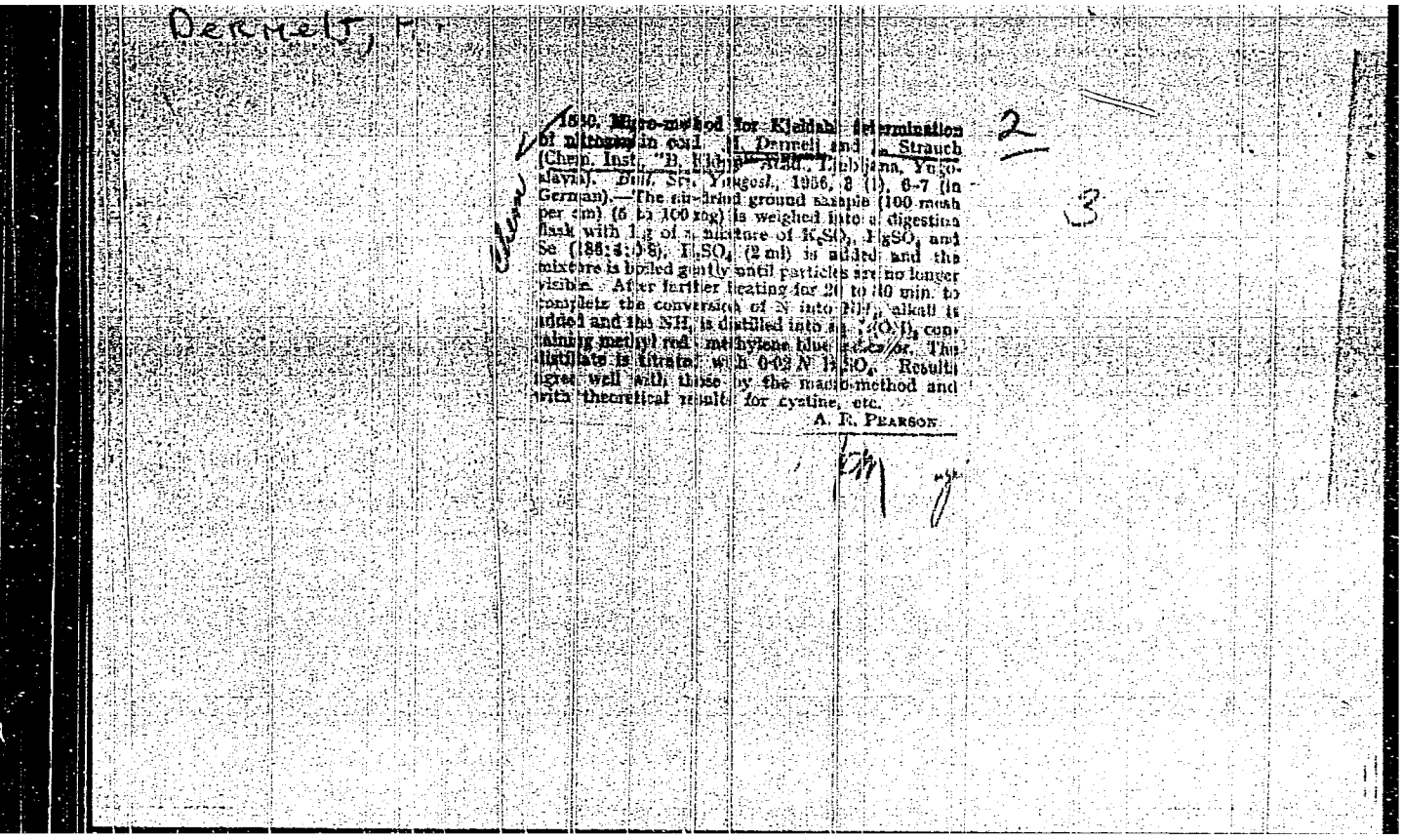
1508. COAL OF INDIVIDUAL STRATA IN THE RAŠA AREA. Damoli, H., Jenčić, S. and Sheoc, H. (Vesin. Sloven. Kem. Drus. [J. Slovn. Chem. Soc.], 1955, vol. 2, 83-94; Abstr. in Chem. Abstr., 1957, vol. 51, 17768). Proximate and organic elementary analysis, bitumen, total and volatile sulphur contents, and ash compounds of 21 samples of Raša coal from different strata are tabulated. Samples from strata lying on Cretaceous deposits differed markedly.

3

DeRMeLJ, M.

A new semimicro-Kjeldahl method for the determination of nitrogen in coals. M. Dermelj and L. Strnad (Kem. Inst. "Boris Kidrič", Ljubljana). *Bull. sci., Conseil acad. RPF Yougoslav.* 2, 104–5(1956)(in German).—The method of Lange and Winzen (*C.A.* 47, 8987*c*) gives correct results only if a precise amt. of MnO_2 is used in the decompn. of the sample, and requires a prolonged decompn. because of the low decompn. temp. (320°) specified. This method was modified, therefore, by eliminating the addn. of MnO_2 and changing the catalyst mixt. compn. accordingly, and by finding the optimum temp. of decompn. Procedure: mix 0.1 g. of air-dry, sieved (DIN-sieve No. 1171), coal sample with 9 g. of catalyst mixt. prepd. by mixing K_2SO_4 180 g., $HgSO_4$ 4 g., and Se 0.8 g. Add 5 ml. of conc. H_2SO_4 (*d* 1.80) and boil slightly in a Zeldahl flask until the mixt. clears up, then continue boiling for 10 min., and leave to cool. Dil. the liquid to 50–100 ml., connect the decompn. flask to a steam distn. app., and add 34 ml. of a soln. prepd. by mixing NaOH 360 g. and $Na_2S.9H_2O$ 15 g. in 1 l. H_2O. For 12 min. collect the escaping NH_3 in a flask containg. 25 ml. H_2O, 10 ml. of a satd. H_3BO_3 soln., and 8 drops of a mixed indicator (12 g. methylene blue and 7 g. methyl red in 100 ml. 95% alc.), and titrate with 0.02*N* H_2SO_4 to a violet color.

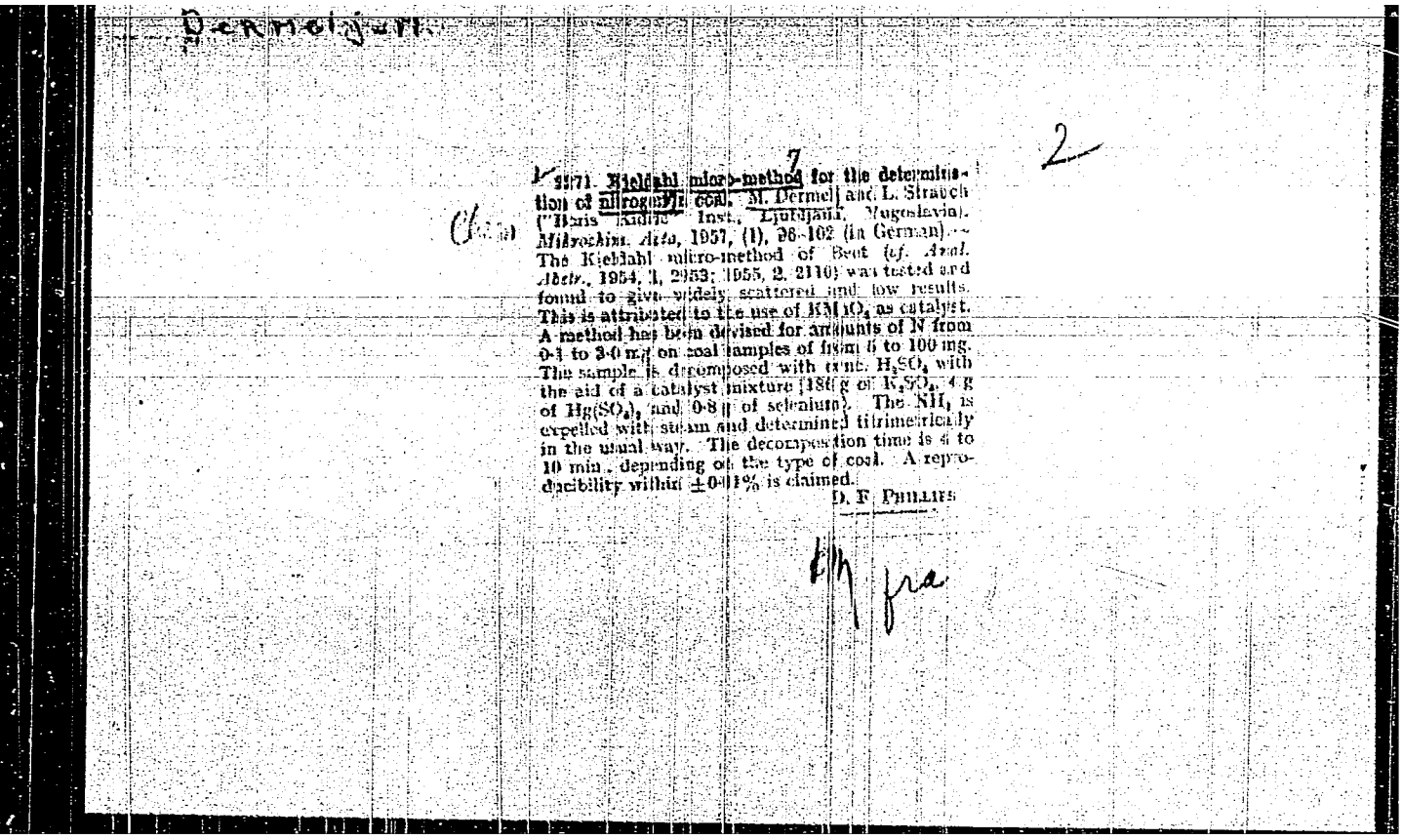
M. Plavšić



Dermelj, F.

1610. Micro-method for Kjeldahl determination of nitrogen in coal. I. Dermelj and I. Strauch (Chem. Inst. "B. Kidrič" Acad. Sci., Ljubljana, Yugoslavia). *Bull. Sci. Yugosl.*, 1956, 3 (1), 6-7 (in German).—The air-dried ground sample (100 mesh per cm) (5 to 100 mg) is weighed into a digestion flask with 1 g of a mixture of K_2SO_4, $HgSO_4$ and Se (88:4:0·8), H_2SO_4 (2 ml) is added and the mixture is boiled gently until particles are no longer visible. After further heating for 20 to 40 min. to complete the conversion of N into NH_4, alkali is added and the NH_3 is distilled into a $B(OH)_3$ containing methyl red–methylene blue indicator. The distillate is titrated with 0·02 N H_2SO_4. Results agree well with those by the macro-method and with theoretical results for cystine, etc.

A. R. Pearson



Dermoljan

2

2171. Kjeldahl micro-method for the determination of nitrogen in coal. M. Dermelj and L. Strancb ("Boris Kidrič" Inst., Ljubljana, Yugoslavia). *Mikrochim. Acta*, 1957, (1), 98–102 (in German).—The Kjeldahl micro-method of Bent (*cf. Anal. Abstr.*, 1954, 1, 2953; 1955, 2, 2110) was tested and found to give widely scattered and low results. This is attributed to the use of $KMnO_4$ as catalyst. A method has been devised for amounts of N from 0·1 to 3·0 mg on coal samples of from 5 to 100 mg. The sample is decomposed with conc. H_2SO_4 with the aid of a catalyst mixture [18 g of K_2SO_4, 4 g of $Hg(SO_4)_2$, and 0·8 g of selenium]. The NH_3 is expelled with steam and determined titrimetrically in the usual way. The decomposition time is 4 to 10 min., depending on the type of coal. A reproducibility within ±0·1% is claimed.

D. F. PHILLIPS

DRENIK, M.

Coal analysis. (To be contd.) p. 277.

NOVA PROIZVODNJA. (Zveza drustev inzenirjev in tehnikov LRS) Ljubljana, Yugoslavia. Vol. 10, no. 5, 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 1, Jan. 1960.

Uncl.

DERMENDZHI, Dzhevdet Umerovich; KHUDYAKOV, G.V., red.; TSYURKO, M.I., tekhn. red.

[For more inexpensive vegetables] Bol'she deshevykh ovoshchei. Orenburg, Orenburgskoe knizhnoe izd-vo, 1960. 19 p. (MIRA 14:10)

1. Direktor Orenburgskogo sovkhoza "Ovoshchevod" (for Dermendzhi).
(Vegetable gardening)

ACC NR: AT6031507 SOURCE CODE: BU/2503/66/014/000/0067/0072

AUTHOR: Dragnev, T.; Delchev, M.; Dermendzhiyev, E.

ORG: Izvestiya na Fizicheskiya institut s ANEB

TITLE: Use of the double ionization chamber for correlation measurements of energy, angle, and mass distribution in the fission of heavy nuclei

SOURCE: Bulgarska akademiya na naukite. Fizicheski institut. Izvestiya na Fizicheskiya institut s ANEB, v. 14, 1966, 67-72

TOPIC TAGS: ionization chamber, fission product, fission product activity, anisotropic medium

ABSTRACT: A method is suggested for determination of the angle between the electric field direction of the double pulse ionization chamber and the direction of movement of the fission fragments; the method also makes possible a correlated study of the energy, mass, and angle distributions of fission. Passage of fission particles through the ionization camera chambers creates a number of ions and electrons that are deflected and collected by the grids of the camera resulting in output pulses. The camera consists of a high-voltage grid (located in the center), a deflection grid, and a collector located symmetrically on each side of the center.

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ACC NR: AT6031507

The pulses formed at the collector determine the energy contained in the particles, and the pulses formed at the deflection grid and the collector determine deflection angles of fission particles under the influence of the existing electric field in the camera chambers. The resolution of this camera can be as high as 0.15% for α-particle energies of 5 MeV. The camera will be used for studies of angular anisotropy in splitting of heavy atoms with gamma rays and for measurement of energies of particles formed from reactions that result in formation of two oppositely-charged particles. Orig. art. has: 2 figures and 6 formulas.

SUB CODE: 18/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 004

DERMENDZHIYEV, E.G.

82013
S/056/60/038/02/11/061
B006/B011

24.6600

AUTHORS: Protopopov, A. N., Kuznetsov, M. I., Dermendzhiyev, E. G.

TITLE: Th^{232} Fission Induced by 14.9-Mev Neutrons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 2, pp. 384 - 386

TEXT: In continuation of previous papers, the authors report here on the energy characteristics of Th^{232} fissions induced by 14.9-Mev neutrons. The energy of the fragments was measured in a double ionization chamber with grids and with simultaneous recording of the amplitudes of the pulses produced by fragment pairs. The collimation angle of fragments amounted to 45°. To diminish the influence of fission anisotropy and of the motion of the fragment center of mass upon the results of measurement, the neutron beam was directed onto the target surface under an angle of 3-5°. The neutrons used for irradiation originated from T(d,n)α reactions. The 70 μg/cm^2 thorium target was obtained by sputtering from alcoholic thorium nitrate solution in the electric

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field on a 25-30 $\mu g/cm^2$ thick film. The further treatment was based on a method by Yu. A. Selitskiy. Purity was checked by the α-spectrum. A total of 12,500 fission events was recorded. The fragment energies were corrected for ionization defects and losses in target backing and collimator. Results are illustrated in Fig. 1. The fission probability as a function of the ratio between heavy and light fragments is shown in Fig. 2. The most probable mass ratio was at 1.43 ± 0.05, wherefrom the most probable masses of heavy and light fragments were found to be 140±3 and 92±3. The distribution of the entire kinetic energy of fission fragments is illustrated in Fig. 3. The half width of this energy distribution is equal to 14.6%, and the most probable kinetic energy is (157±4)Mev. Fig. 4 shows the dependence of the most probable kinetic total energy of the fragments on their mass ratio. The curve distinctly shows two peaks at the mass ratios 1.32 and 1.8. Fig. 5 illustrates the dependence of the spread of energy distribution on the mass ratio. The spread maximum is found at a ratio of 1.17, a second weak increase is observable at 1.8. The maximum at 1.17 deviates from the expected one (1.32) and is probably to be explained by a spread due to the ap-

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Th^{232} Fission Induced by 14.9-Mev Neutrons

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paratus. The authors finally thank Yu. A. Selitskiy for having prepared the target. There are 5 figures and 8 references: 3 Soviet and 5 American.

ASSOCIATION: Radiyevyy institut Akademii nauk SSSR (Radium Institute of the Academy of Sciences, USSR)

SUBMITTED: August 10, 1959

Card 3/3

L 7950-66 EWT(m)/EPF(n)-2/FCC/FCS(f)/EWP(n)/EWA(h) DM

ACCESSION NR: AP5019812 UR/0089/65/019/001/0043/0045
539.17.02:539.173.4

AUTHOR: Wang, Shih-Ti; Wang, Yung-Ch'ang; Dermendzhiyev, Ye.; Ryabov, Yu. V.

TITLE: Cross section for the fission of U^{235} by resonant neutrons

SOURCE: Atomnaya energiya, v. 19, no. 1, 1965, 43-45

TOPIC TAGS: uranium, nuclear fission, fission cross section, fast reaction, fission product, prompt neutron, detection system

ABSTRACT: In view of the discrepancies between results obtained by different workers, the authors used a new experimental procedure based on the time of flight method. The source was the fast pulsed reactor of Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research). The flight range was 1000 meters. The time spectrum was registered with a 2048-channel time analyzer with resolution ~0.04 μsec/m. The fissions were registered with the detector shown in Fig. 1 of the enclosure, a description of which is also published elsewhere (Preprint OIYaI no. 1685, 1964), with efficiency 30--50% and with low sensitivity to small variation of the number of prompt neutrons per fission. The background was reduced to 1--2% of the count in the strong resonances of U^{235}. A plot of the fission cross section at neutron energies 2--70 ev and a table of the products of

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ACCESSION NR: AP5019812

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the cross sections and the line widths are included. The results are found to agree with published data. "The authors thank F. L. Shapiro, L. B. Pikel'ner, and I. V. Kirpichnikov for valuable advice and discussion, and Yu. I. Kolgin and T. S. Afanas'yeva for help with the measurements and in the data reduction." Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 28Jul64 ENCL: 01 SUB CODE: NP

NR REF SOV: 004 OTHER: 007

Card 2/3

L 7950-66

ACCESSION NR: AP5019812

ENCLOSURE: 01

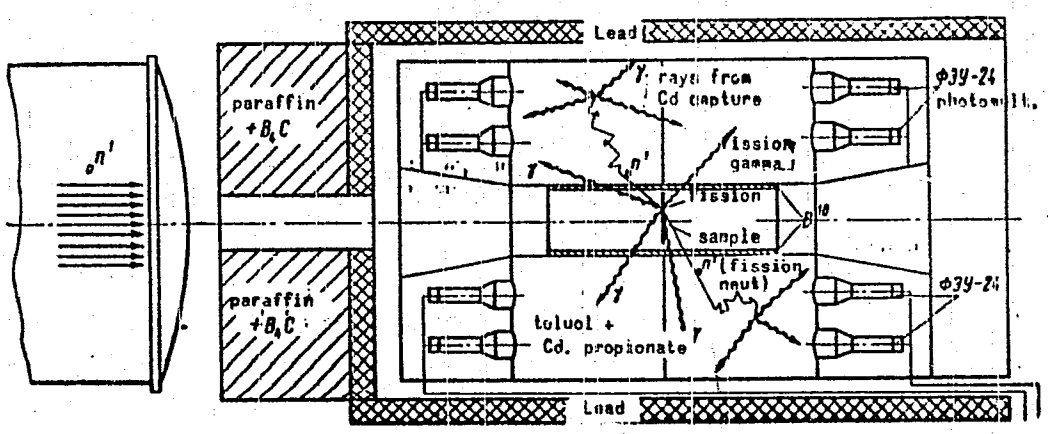

Fig. 1. Longitudinal section through detector and its position in the neutron beam.

Card 3/3

DERMENDZHIYEV, Ye.G.; DELCHEV, M.K.

Uranium targets prepared by the electrocapillary method. Prib. i tekh. eksp. 8 no.4:170-173 Jl-Ag '63. (MIRA 16:12)

1. Fizicheskiy institut Bolgarskoy Akademii nauk, Sofiya.

Dermengi, B.

RUMANIA/Chemical Technology, Chemical Products and Their Application, Part 4. - Leather, Furs, Gelatin, Tanning Agents, Industrial Proteins. H-35

Abs Jour: Referat. Zhurnal Khimiya, No 10, 1958, 34825.

Author : Th. Nica, I. Bălutel, B. Dermengi, Gh. Posea, R. Trifan, O. Seserman, M. Bănică, A. Smoleac, L. Negrea.

Inst : Institute of Agronomy.

Title : Study of Properties of Sheepskins Used for Imitation of Coypu Fur.

Orig Pub: Anuarul. lucrăr. ştiinţ. Inst. agron., 1957, 335-349.

Abstract: The properties of skins of adult lambs with fine or semifine wool (18 to 34 μ) were studied; imitated coypu fur ("Nutriet") is produced of these skins after processing them by tanning, combing, clipping, dyeing

Card : 1/3

RUMANIA/Chemical Technology, Chemical Products and Their Application, Part 4. - Leather, Furs, Gelatin, Tanning Agents, Industrial Proteins. H-35

Abs Jour: Referat. Zhurnal Khimiya, No 10, 1958, 34825.

and smoothing. 80 lamb skins of the improved sheep breed "Stavka" were studied with a view to improve the quality of the raw material for manufacturing high quality "Nutriet". The lambs are slaughtered 5½ to 6½ months old, when they weigh not less than 26 kg having been fed well or above the normal. It is shown that the breeding and selection of sheep should be carried out taking into consideration the following specified mean qualitative indices in order to avoid any losses in the wool production and of meat and milk: wool thickness - 18 to 26 μ, wool density - 4000 to 5000 fiber per sq.cm; the uniformity and elasticity of wool and skin, as well as the satin-

Card : 2/3

17

Abs Jour: Referat. Zhunral Khimiya, No 10, 1958, 34825.

ity and lustre of wool must be good, wool strength - 9.36 ± 0.16 g; elongation - 36.8 ± 0.8%; derma thickness - 2.32 mm; living lamb weight - 28.2 kg; meat yield - 48%; raw skin weight - 3.9 kg; raw skin area - 70 square inches. Grading of the studied skins of sheep of the improved breed "Spanka" after their processing resulted in 57.5% of I class skins, 37.5% of II class skins, 3.8% of III class skins and 1.2% of scrap.

RUMANIA/Farm Animals. Swine Q-3

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 88112

Author : Darvengi B., Teodoru V.
Inst : -
Title : Prolific Mangalitsa Breed in the Turda Region

Orig Pub : Probl. Zootehn. si veterin., No 8, 55-57, 1957

Abstract : The Black Mangalitsa Breed of wine is distinguished by its low fertility, with farrows averaging 5-7 piglets. This is caused by, on the one hand, the small number of ova maturing in the ovary and, on the other, the high percentage of mummified foetuses in the uterus. The Turda region is the site of a prolific White Mangalitsa distinguished by its sturdy constitution; the sows have an average live weight of 142.5 kg and farrow 10-14 piglets with an at-birth weight of 0.900 to 1.350 kg. -- V.V. Polovtsova.

Card : 1/1

L 18761-66 EWT(m)/EWP(t) IJP(c) JD
ACC NR: AP6003768 SOURCE CODE: UR/0181/66/008/001/0103/0106

AUTHORS: Averkin, A. A.; Dermenzhi, P. G. 69 68 8

ORG: Institute of Semiconductors AN SSSR Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: Change in the electric properties of PbTe under pressure 27 27

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 103-106

TOPIC TAGS: lead compound, telluride, single crystal pressure effect, semiconductor carrier, energy band structure, forbidden band, electric conductivity, thermoelectric power, Hall constant, electron mobility, hole mobility

ABSTRACT: This is a continuation of earlier work (FTT v. 4, 3667, 1962) on the behavior of the carriers and on the band structure of PbTe. The purpose of the present investigation was to determine the pressure dependence of the electric properties of PbTe, so as to ascertain whether the effective mass changes with change of the width of the forbidden band. To this end, the authors determined the

1/2

L 18761-66
ACC NR: AP6003768 O

change of the electric conductivity, the thermoelectric power, and the Hall constant of single-crystal n-type and p-type PbTe under hydrostatic pressure up to 15,000 kg/cm^2. The apparatus was similar to that developed by one of the authors earlier (FTT v. 3, 627 and 1859, 1961). The rate of change of the thermoelectric power, the conductivity, the effective mass, and the carrier mobilities were calculated from the data, using a procedure described earlier by one of the authors (Averkin, FTT v. 5, 96, 1963). It is concluded that the effective mass of the electrons and of the light holes changes in approximately the same manner (-1.9 per cent per ton of pressure), thus confirming the assumption that the effective masses are determined by the interaction between the main valence band and the conduction band. The ratios of the concentrations and mobilities of the light and heavy holes are 25 and 20 per cent respectively, the percentage change in the conductivity with pressure ranges from 3.6 to 4.9 per cent, the relative change in the mobility with pressure is in the range 4.05 -- 5.1 per cent per ton, and the absolute value of the forbidden band is 0.29 ev at 300K (this agrees with the results of optical measurements), and the logarithmic rate of change of the

Card 2/3

L 18761-66

ACC NR: AP6003768

effective mass. The authors thank A. R. Regel' for a discussion of the results. Orig. art. has: 3 figures, 5 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 30Jun65/ ORIG REF: 005/ OTH REF: 003

Card 3/3 SMV

DERMIDONTOV, A., inzh.; KUKHARENKO, V., inzh.

The "Iupiter" and "Signal" radio receivers. Radio no.8:49-51 Ag '64.
(MIRA 17:11)

GOIA, I., prof.; DORCA, N., dr.; FLORESCU, I., dr.; CIURDARIU, P., dr.; GHERMAN, G.; BACIU, T., dr.; RUB, D., dr.; DERMLA, Z., dr.; SOPON, E.

The treatment of cerebral and peripheral atherosclerosis with vitamin B 12. Med. intern. 14 no.10:1253-1262 O '62.

1. Lucrare efectuata la Clinica a II-a medicala, I.M.F. Cluj (director: prof. I. Goia).

(ARTERIOSCLEROSIS) (VITAMIN B 12)
(BLOOD CHOLESTEROL) (BLOOD PROTEINS) (BLOOD LIPIDS)
(LIPOPROTEINS)

YAKOVLEV, Yu.; KOSOVETS, A. (Ozertso, Brestskoy obl.); TOPIL'SKIY, V. (g. Shakhty, Rostovskoy obl.); DERNACHEV, B. (Kinel', Kuybyshevskoy obl.); ORLOV, V. (Leningrad)

Readers' suggestions. Za rul. 21 no.2:25 F '63. (MIRA 16:4)

(Motor vehicles—Technological innovations)

DERNALOWICZ, J.

TECHNOLOGY

PERIODICAL: POMIARY, AUTOMATYKA, KONTROLA. Vol. 4, No. 7, July 1958

DERNALOWICZ, J. Type FRT-2 photoelectric regulator for the control of inductive heat processes. p. 326.

Monthly List of East European Accessions (EEAI) LC Vol. 8, No. 4
April 1959, Unclass.

DERNALOWICZ, Janusz, mgr inz.

Projective digital indicators. Lacznosc Wroclaw 5:56-58 '62.

1. Pracownia Elektronicznych Urzadzen Liczacych, Zaklad Analogii, Instytut Podstawowych Problemow Techniki, Polska Akademia Nauk, Warszawa.

DERNALOWICZ, Janusz, mgr inz.

Automatic digital voltmeters, VAD-1. Laczmosc Wroclaw 5: 112-115 '62.

Transistorized digital-analog converters. 121-122

1. Instytut Podstawowych Problemow Techniki, Polska Akademia Nauk, Warszawa.

Country : CZECHOSLOVAKIA R
Catogory : Diseases of Farm Animals. Diseases Caused by Bacteria and Fungi
Abs. Jour. : Ref Zhur-Biol, No 23, 1958, No 105800

Author : Kriz, K.; Derner, A.
Institut. : -
Title : Experience in the Treatment of Tetanus in Horses with Chlorpromazine

Orig Pub. : Veterinarstvi, 1958, 8, No 5, 171-174

Abstract : No abstract.

Card: 1/1

DERNOI KOCSIS, Laszlo

Istvan Dobi. Hung TU 12:1-2 D '62.

S/084/60/000/04/046/082
DM47/D006

32(1)
3(4)

AUTHOR: Dernov, F., Engineer

TITLE: A Centralized System for Refuelling Aircraft

PERIODICAL: Grazhdanskaya aviatsiya, 1960, Nr 4, p 21 (USSR)

ABSTRACT: This is an account of a project for an installation facilitating quicker refuelling of aircraft. Fuel is pumped straight from tanks through surface pipes to the planes by a pumping house near the tanks. Gate valves housed off the runway control the supply. Filter, counters, a telephone and remote control buttons for the tank pumps are fitted on a mobile unit. There are references to the Tu-104 aircraft and to the TZ-16 refuelling apparatus. There are 2 diagrams.

Card 1/1

DERNOV, P.F.

Written tests during geography lessons in evening schools. Geog. v shkole 24 no.6:56-57 N-D '61. (MIRA 14:10)

1. 146-ya vechernyaya srednyaya shkola, Leningrad.
(Geography--Study and teaching)

L 21397-66 EWT(m)/T/EWP(t) IJP(c) JD/JG

ACC NR: AP6003799 SOURCE CODE: UR/0181/66/008/001/0247/0248

AUTHOR: Dernov-Pegarev, V. F.; Zaripov, M. M.; Shamcylovich, M. I.; Stepanov, V. G.

ORG: Kazan' State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvennyy universitet)

TITLE: EPR of Gd^{3+} in $CdMoO_4$

SOURCE: Fizika tverdogo tela, v. 8. no. 1, 1966, 247-248

TOPIC TAGS: gadolinium, cadmium compound, molybdenum compound, electron paramagnetic resonance, single crystal, crystal lattice structure

ABSTRACT: The authors investigated the EPR spectrum of Gd^{3+} in single-crystal $CdMoO_4$ at a frequency ~37 Gcs and at room temperature. The single crystal was grown by the hydrothermal method and has a scheelite structure. One type of Gd^{3+} ions was observed, situated in electric fields of tetragonal symmetry (z axis parallel to the c axis of the crystal). This indicates isomorphic substitution of Gd^{3+} for Gd^{2+}. The parameters of the spin Hamiltonian are determined for this constant and are found to be in agreement with those obtained for other single crystals with scheelite structure ($CaWO_4$, $PbMoO_4$, and $SrMoO_4$). The authors thank O. I. Nar'yakhina for computer processing of the experimental data. Orig. art. has: 1 figure and 1 formula.

SUB CODE: 20/ SUBM DATE: 16Jul65/ ORIG REF: 002/ OTH REF: 001

Card 1/1 ULR

L 42887-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD/JG
ACC NR: AP6020384 (A) SOURCE CODE: UR/0192/66/007/001/0109/0110

AUTHOR: Samoylovich, M. I.; Novozhilov, A. I.; Dernov-Pegarev, V. F.; Potkin, L. I.

ORG: All-Union Scientific Research Institute of Synthesis of Mineral Raw Materials, Aleksandrov (Vsesoyuznyy nauchno-issledovatel'skiy institut sinteza mineral'nogo syr'ya)

TITLE: Electron spin resonance of Mn^{2+} in molybdates of scheelite structure

SOURCE: Zhurnal strukturnoy khimii, v. 7, no. 1, 1966, 109-110

TOPIC TAGS: manganese, EPR spectrum, molybdate, calcium compound, cadmium compound

ABSTRACT: The ESR spectrum of Mn^{2+} was studied in single crystals of artificial $CaMoO_4$ and $CdMoO_4$ (both of scheelite structure) at 9.4 Mc at room temperature. Some measurements were made at the temperature of liquid nitrogen. The spin-Hamiltonian constants describing the ESR spectra of Mn^{2+} in these compounds are tabulated, and compared with those for scheelite. It is noted that the replacement of the anionic groups has practically no effect on the g factor; however, the latter does change slightly when the cations are replaced, the anion being the same. The spin-Hamiltonian constant describing the effect of the intracrystalline field of cubic symmetry changes with the anionic groups, but remains virtually unchanged when the cations are replaced. Constant b_2^0, which describes the effect of the intracrystalline field of tetragonal symmetry (the axis of symmetry coincides with the z axis), changes markedly

UDC: 538.113

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L 42887-66
ACC NR: AP6020384

with any replacements. For all the crystals, $b_4^4 \approx 10b_4^0$, i. e., the surroundings of Mn^{2+} are other than cubic. The ESR spectrum of Mn^{2+} in $CdMoO_4$ shows lines due to the forbidden transitions $\Delta m = \pm 1$. Authors take this opportunity to thank L. I. Tsinober for his attention to this work. Orig. art. has: 1 table and 1 formula.

SUB CODE: 20,07/ SUBM DATE: 24Apr65/ OTH REF: 003

BLAZHNOV, A.G., inzh.; VORONTSOV, A.V., inzh.; IZYUMOV, A.A., inzh.; LYSOV, I.V., inzh.; PRAGER, V.Kh., inzh.; RYASKOV, V.L., inzh.; DEROV, V.A., tekhnik; KOSTINA, V.P., red.; LUKASHEVICH, V.K., tekhn. red.

[Over-all automation at a bearing plant] Kompleksnaia avtomatizatsiia na podshipnikovom zavode. Saratov, Saratovskoe knizhnoe izd-vo, 1962. 53 p. (MIRA 16:4)

1. Saratovskiy podshipnikovyy zavod (for all except Kostina, Lukashevich).
(Saratov--Bearing industry) (Automation)

L 15731-66 EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP6000892 SOURCE CODE: UR/0181/65/007/012/3688/3688

AUTHORS: Dernov-Pegarev, V. F.; Stepanov, V. G.; Zaripov, M. M.; Samoylovich, M. I.

ORG: Kazan' State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvenny universitet)

TITLE: Investigation of EPR of Mn^{2+} ions in single crystal $ZnMoO_4$

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3688

TOPIC TAGS: zinc compound, molybdenum compound, epr spectrum, angular distribution, paramagnetic ion, spectral line, single crystal

ABSTRACT: The $ZnMoO_4$ were grown by the hydrothermal synthesis method. Investigation of the EPR spectrum at room temperature with a video spectroscope at 8 mm wavelength, disclosed a spectrum due to the divalent manganese and weaker lines of Cr^{3+} ions. The Cr^{3+} spectrum could not be investigated in detail because its lines overlapped the

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L 15731-66

ACC NR: AP6000892

more intense lines of Mn^{2+}, which contaminated the crystals. The angular dependence of EPR spectrum indicates that the symmetry of the crystalline field acting on the Mn^{2+} ions is not higher than rhombic, so that the spectrum can be described with the spin Hamiltonian of the rhombic system, for which the constants are given. The orientation of the z axis of Mn^{2+} in $ZnMoO_4$ coincides with the orientation obtained for Mn^{2+} in $CdWO_4$. Authors thank Ye. A. Pobedimskaya for the goniometric measurements. Orig. art. has: 1 formula.

SUB CODE: 07/ SUBM DATE: 14Jul65/ OTH REF: 001

Card 2/2

PERYATINSKIY, G.F.; DERKOVA, M.A.; ROZOVSKIY, A.D.

Furnace-bottom slags in the production of slag pumice. Stroi. mat. 6 no.10:27 O '60. (MIRA 13:10)
(Slag)

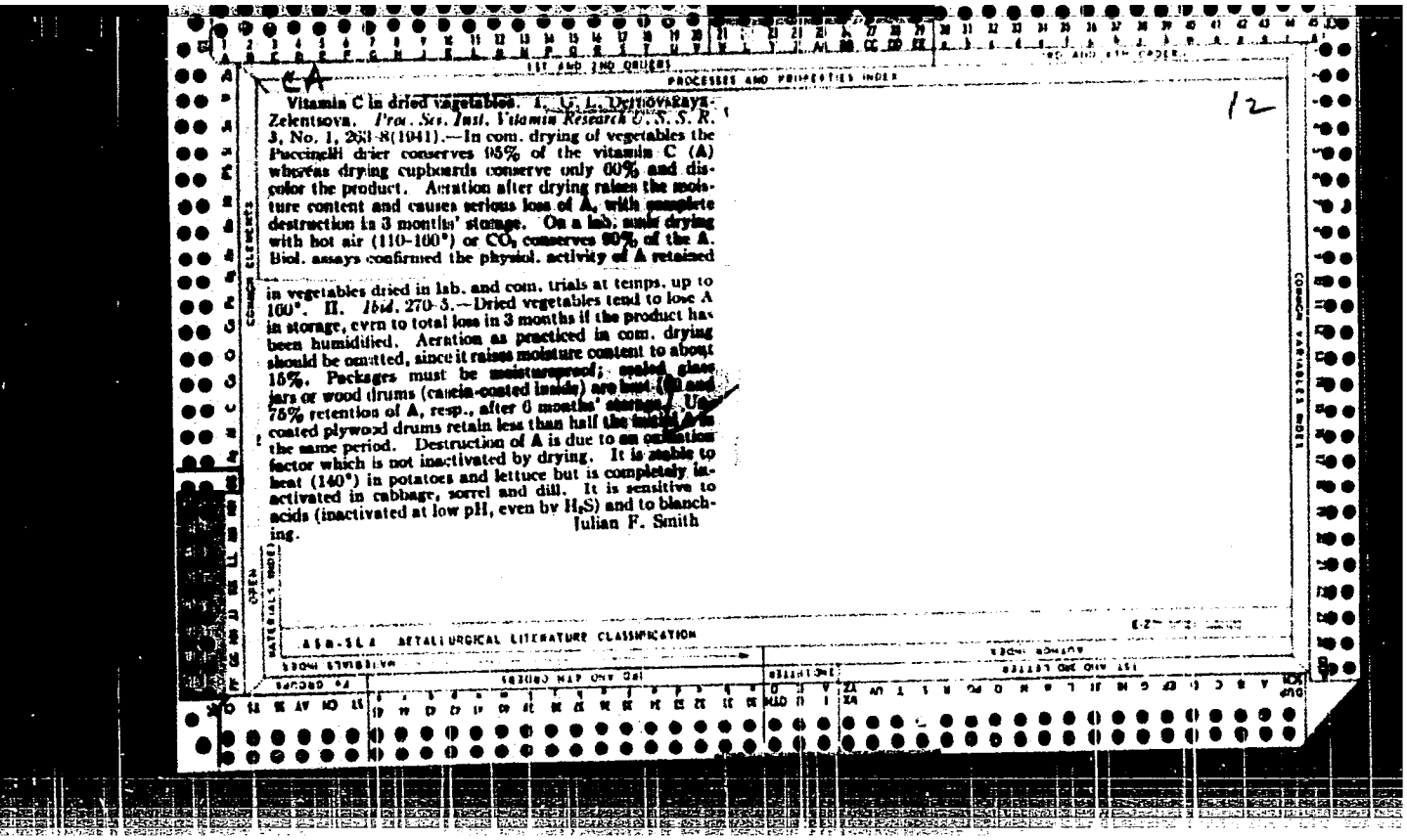
DERNOVOY, D.A.

Planning gas fields and gas pipelines in Central Asia. Gaz. prom. no.11:46-48 N '58. (MIRA 11:11)
(Soviet Central Asia--Gas, Natural--Pipelines)

DERNOVOY, Dmitriy Andreyevich; ISLANKINA, T.F., red.; SAVCHENKO, Ye.V., tekhn.red.

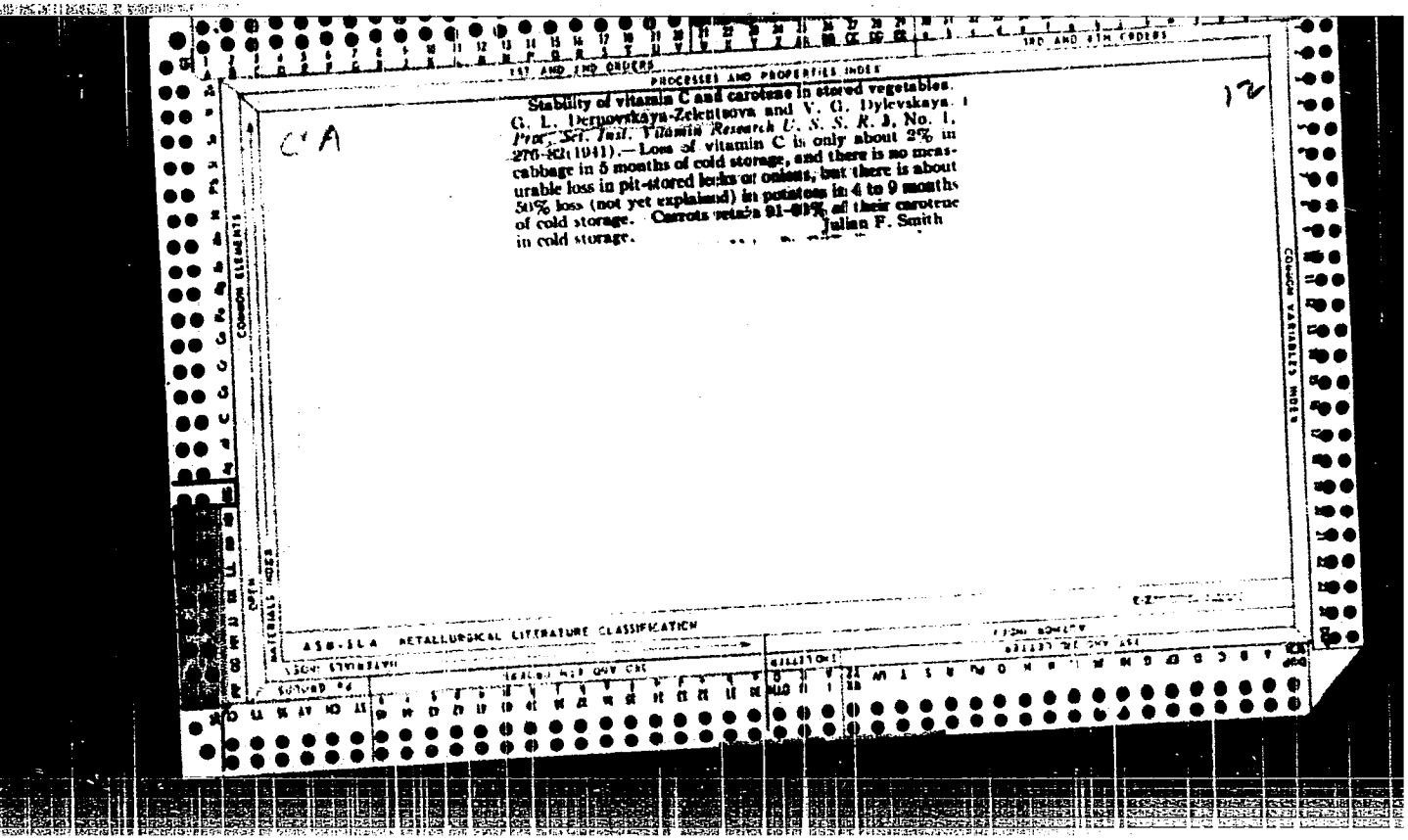
[Bukhara gas] Bukharskii gaz. Moskva, Izd-vo "Znanie," 1961. 30 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.4, Tekhnika, no.3) (MIRA 14:1)

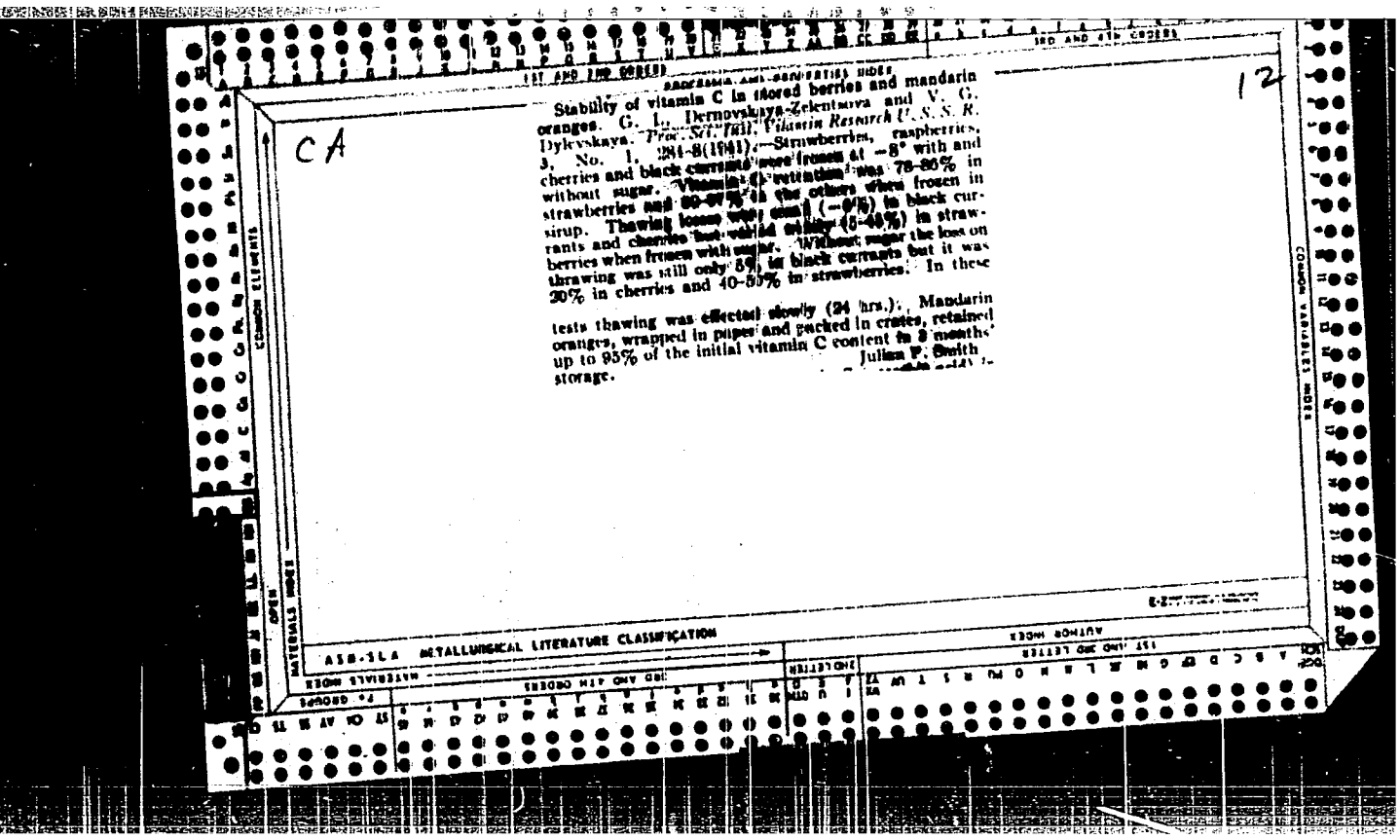
(Bukhara--Gas, Natural)

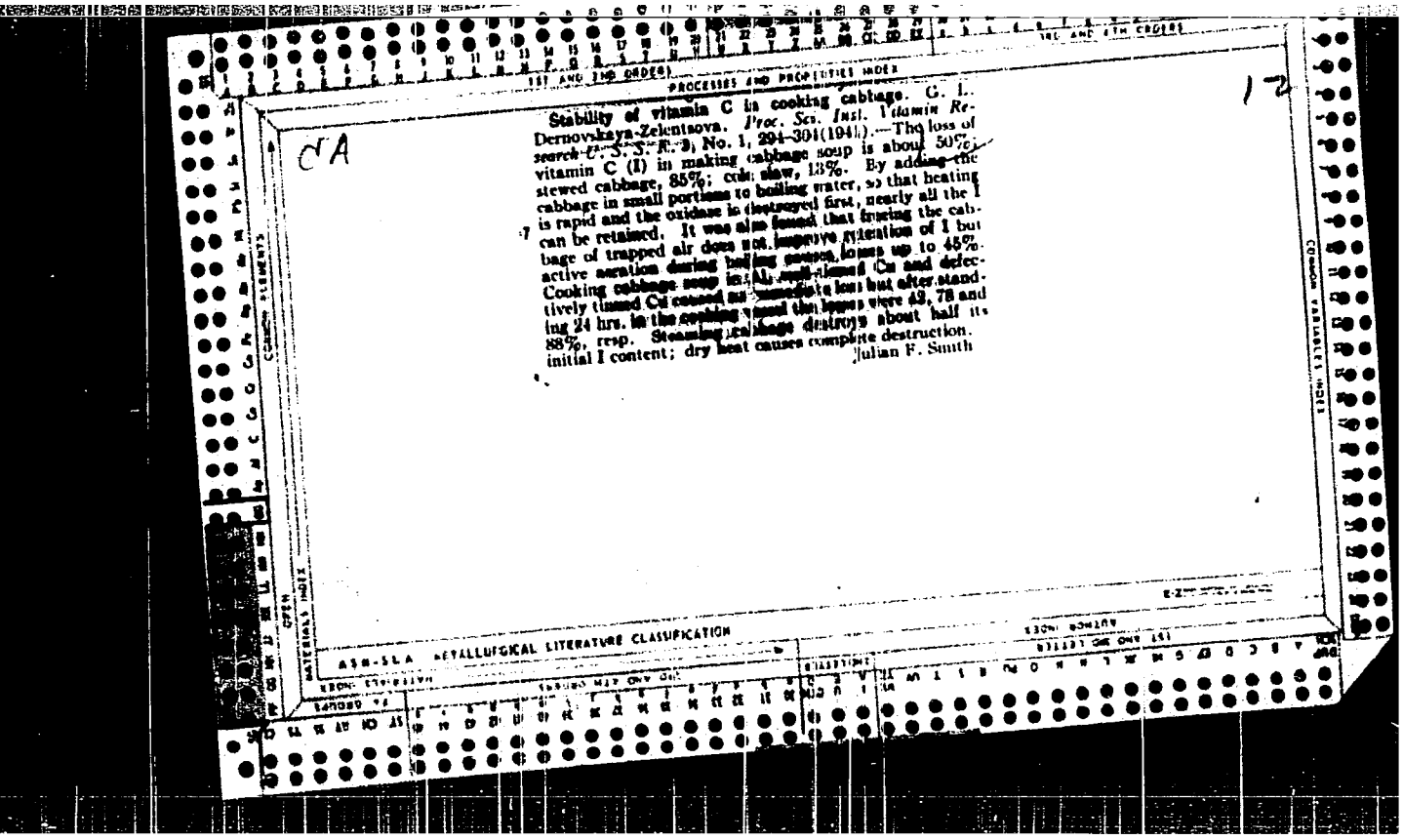


Vitamin C in dried vegetables. I. G. L. Dettovaraya-Zelentsova. *Trav. Sci. Inst. Vitamin Research U. S. S. R.* 3, No. 1, 253-8(1941).—In com. drying of vegetables the Puccinelli drier conserves 95% of the vitamin C (A) whereas drying cupboards conserve only 60% and discolor the product. Aeration after drying raises the moisture content and causes serious loss of A, with complete destruction in 3 months' storage. On a lab. scale drying with hot air (110–100°) or CO_2 conserves 80% of the A. Biol. assays confirmed the physiol. activity of A retained in vegetables dried in lab. and com. trials at temps. up to 100°. II. *Ibid.* 270-5.—Dried vegetables tend to lose A in storage, even to total loss in 3 months if the product has been humidified. Aeration as practiced in com. drying should be omitted, since it raises moisture content to about 15%. Packages must be moistureproof; sealed glass jars or wood drums (casein-coated inside) are best (90 and 75% retention of A, resp., after 6 months' storage). Uncoated plywood drums retain less than half the initial A in the same period. Destruction of A is due to an oxidation factor which is not inactivated by drying. It is stable to heat (140°) in potatoes and lettuce but is completely inactivated in cabbage, sorrel and dill. It is sensitive to acids (inactivated at low pH, even by H_2S) and to blanching.

Julian F. Smith







CA

12

Stability of vitamin C in cooking cabbage. G. L. Dernovskaya-Zelentsova. *Proc. Sci. Inst. Vitamin Research U. S. S. R.* 3, No. 1, 294-304(1941).—The loss of vitamin C (I) in making cabbage soup is about 50%; stewed cabbage, 85%; cole slaw, 13%. By adding the cabbage in small portions to boiling water, so that heating is rapid and the oxidase is destroyed first, nearly all the I can be retained. It was also found that freezing the cabbage of trapped air does not improve retention of I but active aeration during boiling causes, loss up to 48%. Cooking cabbage soup in Al, and Cu and defectively tinned Cu causes an immediate loss but after standing 24 hrs. in the cooking vessel the losses were 42, 78 and 88%, resp. Steaming cabbage destroys about half its initial I content; dry heat causes complete destruction.

Julian F. Smith

DERNOVSKHYA- ZELENTSOVA G.L

SOCHIVKO, L.F., DERNOVSKAYA-ZELENTSOVA, G.L., ZAKHAROV, A.A.

A reflex oxyhemometer with a cuvette [with summary in English]
Vop.med.khim. 4 no.3:225-229 My-Je '58 (MIRA 11:6)

1. Konstruktorsko-tekhnologicheskoye byuro "Biofizpribor," Leningrad.
(OXYGEN, in blood
determ. with reflex oxyhemometer with cuvette (Rus))

SOCHIVKO, L.F.; DERHOVSKAYA-ZELENTSOVA, G.L.; VASADZE, G.Sh.; KOCHETYGOV, N.I.

OR-01 flow oxyhemometer, a new apparatus for the determination of blood saturation with oxygen. Pat.fiziol.eksp.terap. 4 no.1:71-73 Ja-F '60. (MIRA 13:5)

1. Iz konstruktorsko-tekhnilogicheskogo byuro "Biofizpribor" (nach. - glavnyy konstruktor G.V. Rusakov) i kafedry patofiziologii (zav. - chlen-korrespondent AMN SSSR prof. I.R. Petrov) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(OXIMETRY equip. & supply)

DERNOVSKAYA-ZELENTSOVA, G.L. [Dernovs'ka-Zelentsova, H.L.]

Use of Allen's correction in the determination of urinary 17-ketosteroids. Ukr. biokhim. zhur. 35 no.5:754-763 '63. (MIRA 17:5)

1. Department of Endocrinology of the Institute of Obstetrics and Gynecology of the Academy of Medical Sciences of the U.S.S.R.

DERNOVSKAYA-ZELENTSOVA, G.L.

Specificity of some modifications of Zimmermann's method. Probl. endok. i gorm. 10 no.6:105-108 N-D '64. (MIRA 18:7)

1. Otdel endokrinologii (nauchnyy rukovoditel' - prof. V.G.Baranov) Instituta akusherstva i ginekologii (dir. - prof. M.A.Petrov-Maslakov) AMN SSSR, Leningrad.

DERNOVSKAYA-ZELENTSOVA, G.L. [Dernovs'ka-Zelentsova, H.L.] [deceased]

Separation of 17-ketosteroids of human urine by the gradient evolution method. Ukr. biokhim. zhur. 37 no.4:614-624 '65.
(MIRA 18:9)

1. Institut akusherstva i ginekologii AMN SSSR, Leningrad.

DERNOVSKIY, M.M., inzh.

New method of brick setting. Ogneupory 18 no.1:45-46 '53.
(MIRA 11:10)

1.Kombinat "Krasnyy Keramik."
(Refractory materials)

BERNOTSKIY, M.M.

Changes in the design of Kemerovo Plant SM-21-SM pug mills.
Ogneupory 18 no.7:322-323 Jl '53. (MIRA 11:10)
(Kemerovo--Refractory materials) (Mixing machinery)

DERNYEY, GY.

Use of a surface-roughness investigating device in machine production p. 129.
Presentation of transistor sets in the House of Technique. p. 132.

MERES ES AUTOMATIKA. (Merestechnikai es Automatizalasi Tudomanyos Egyesulet) Budapest, Hungary, Vol. 7, No. 4/5, 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

DERNYEY, Gy.; SERIOZO, I.

Cylindrical coil springs. p. 52.

A BANYATERV KOZLEMENYEL. (Banyaszati Tervezo Intezet) Budapest, Hungary, Vol. 12, No. 10, March 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 7, July 1959.

Uncl.

DERNYEY, Gyorgy, okleveles gepeszmernok; SERFOZO, Ivan, okleveles banyagepeszmernok

Tolerances and fittings. Banyaterv no.15:57-73 Je '63.

DERO, A.

YASTREBOV, P., inzhener; DERO, A., inzhener

Reconditioning of a high-voltage electric motor. Muk.-elev. prom. 21 no.4:25 Ap '55. (MLRA 8:7)

1. Leningradskiy mel'nichnyy kombinat imeni Korova (for Yastrebov). 2. Leningradskiy elektrotekhnicheskiy institut imeni V.I.Ul'yanova (Lenina) (for Dero).
(Electric motors)

PIOTROVSKIY, Lyudvik Marianovich; DERO, A.P., redaktor; MIKHAYLOVA, Ye.M., tekhnicheskiy redaktor

[Electric machinery] Elektricheskie mashiny. Izd. 3-e. Moskva, Gos. energ. izd-vo, 1956. 512 p. (MLRA 10:2)
(Electric machinery)

DEBO, A.R., inzhener; YASTREBOV, P.P.

Correcting clearance irregularity in asynchronous motors.
Energetik 4 no.3:28-31 Mr. '56. (MLRA 9:6)
(Electric motors, Induction--Repairing)

DERO, A.R., assistent

Design of individually manufactured synchronous generators.
Izv. LETI 57 no.39:209-222 '59. (MIRA 15:10)
(Electric generators)

RIVLIN, Lev Borisovich; DEMRO, A.R., red.; SOBOLEVA, Ye.M., tekhn.red.

[Locating trouble in an asynchronous motor] Kak opredelit' neispravnost' asinkhronnogo dvigatelia. Moskva, Gos.energ. izd-vo, 1960. 61 p. (Biblioteka elektromontera, no.10). (MIRA 13:6)

(Electric motors, Induction)

TRET'YAKOV, Mikhail Nikolayevich; DERO, A.R., red.; SOBOLEVA, Ye.M., tekhn.red.

[Testing low-powered electric motors] Ispytanie elektrodvigatelei maloi moshchnosti. Moskva, Gos.energ.izd-vo, 1960. 173 p. (MIRA 13:11)

(Electric motors--Testing)

PIOTROVSKIY, Lyudvik Marianovich, prof. [deceased]; DEMRO, A.R., inzh., red.; SOBOLEVA, Ye.M., tekhn.red.

[Electric machinery] Elektricheskie mashiny. Izd.4., ispr. i dop. Moskva, Gos.energ.izd-vo, 1960. 532 p. (MIRA 14:2)
(Electric machinery)

RIVLIN, Lev Borisovich; DERO, A.A., red.; ZHITNIKOVA, O.S., tekhn. red.

[How to locate faults in an asynchronous motor]Kak opredelit' neispravnost' asinkhronnogo dvigatelia. Izd.2., ispr. Moskva, Gosenergoizdat, 1962. 55 p. (Biblioteka elektromontera, no.77) (MIRA 15:10)
(Electric motors, Induction—Maintenance and repair)

PIOTROVSKIY, Lyudvik Marianovich, prof.; Prinimal uchastiye DERO, A.R., inzh.; SOBOLEVA, Ye.M., tekhn. red.

[Electric machinery] Elektricheskie mashiny. Izd.5, perer. i dop. A.R.Dero. Moskva, Gosenergoizdat, 1963. 503 p. (MIRA 16:12)

(Electric machinery)

DEROKO, A.

Ancient houses in the cities and towns of Serbia, Macdonia, and Kosovo and Metohija Province, as compared with houses in Salonika, Istanbul, and Asia Minor. p. 407 (GLASNIK. Vol. 2/3, 1953/54 (Published 1957)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957 Uncl.

DEROKO, A.

The protection of cultural monuments and, as such, the rural and urban settlements of exceptional value. p. 947
(GLASNIK, Vol. 2/3 1953/54 (Published 1957)

SO: Monthly List of East European Accessions (EEAL) LC Vol. 6, No. 12, Dec. 1957
Uncl.

DEROKO, A.

Application of the Law on the Protection of Cultural monuments of 1946; a report on the 3rd Consultative Meeting of the Urbanists of Yugoslavia, held May 14-14, 1954 at Ohrid p. 953.
(GLASNIK, Vol 2/3 1953/54 (Published 1957)

SO: Monthly List of East European Accessions (EEAL) LC Vol. 6, No. 12, Dec. 1957 Uncl.

DE [illegible]

PILIPENKO, V. G., AND DEROVYANCHENKO, K. I.

Importance of the Gamasid Mite in the Transmission of Tularemia Infection in the Natural Delta-Type Site
Sb. Nauch. Rabot Privolzhskov Provitvoepidem. Stantsii, Astrakhan', No 1, 1953, pp 212-219

The authors made a three-year study of a delta-type tularemia site. Ixodes ticks Hyaloma scupense and H. marginatum were found on domestic animals and the gamasid mites representing the families Laelaps, Hyperlaelaps, and Hypoaspis were discovered on small rodents. Results from the examination of water rats as hosts for the gamasid and their role in the interpidemic periods are still inconclusive.
Bacterial investigations by subcutaneous injections of a suspension of powdered mites resulted in positive reactions in 10 out of 19 cases. (RZhBiol, No 2, 1955)

SO: Sum. No. 639, 2 Sep 55

Derovan, G.V.

USSR/Forestry - Biology and Typology of the Forest. K-2

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10569

Author : Derovan, G.V.
Inst : -
Title : The Effect of Atmospheric Pollution on the Condition of Tree Plantations in the Industrial Center.

Orig Pub : Izv. Akad Nauk ArmSSR, Biol. i s.-kh. n., 1957, 10, No 5, 57-64.

Abstract : This study was made in the city of Alaverdi, which is situated in the mountains at an elevation of 1000 meters above sea level. Here the smelting of light metals is accompanied by discharge into the atmosphere of SO_2, finely-dispersed dust, N-oxides, etc. The prevailing east and southeast winds carry these smoke-gas mixtures into the city. The concentration of harmful substances (in a 2 kilometer zone) exceeds the maximum permissible norms in the following quantities: SO_2 -- by 35 times,

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USSR/Forestry - Biology and Typology of the Forest.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10569

sulfuric acid aerosols -- from 3 to 13 times, N-oxides discoverable within a radius of 500 meters -- 5 times. Sedimentary tests indicated that the soil around the enterprises can become enriched with heavy metal compounds (Cu, Zn, Pb). Investigation of the degree of damage caused to the tree species by the harmful substances has determined that the American maple is the most sensitive, and next in order of sensitivity, the common ash, Pennsylvanian ash, eastern oak, Greek walnut, apple, quince, wild plum, pear, cornus sanguinea, white acacia, amorfa. dogwood, raspberry, Christ's-thorn, and ailanthus. Oaks grown from acorns proved hardier than those grown from seedlings. Tables are given on the atmospheric concentration of harmful substances by zone.

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DEROYAN, G. V., Candidate Med Sci (diss) -- "The sanitary-hygienic characteristics of contamination of the atmosphere of the city of Alaverdi with industrial wastes". Yerevan, 1959. 19 pp (Yerevan Med Inst, Chair of Communal Hygiene), 150 copies (KL, No 24, 1959, 149)

DEROYAN, G.V.

Pollution of air in Alaverdi by waste products of the chemical-copper plant. Izv.AN Arm.SSR.Biol.nauki 12 no.3:75-83 My '59. (MIRA 12:9)

1. Kafedra kommunal'noy gigiyeny i gigiyeny truda Yerevanskogo meditsinskogo instituta.
(ALAVERDI--AIR--POLLUTION)

L 53933-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP5017353 UR/0298/64/017/007/0101/0104

AUTHOR: Deroyan, G. V. 27 B

TITLE: Effects of dichlorobutene on the olfactory and visual analyzers

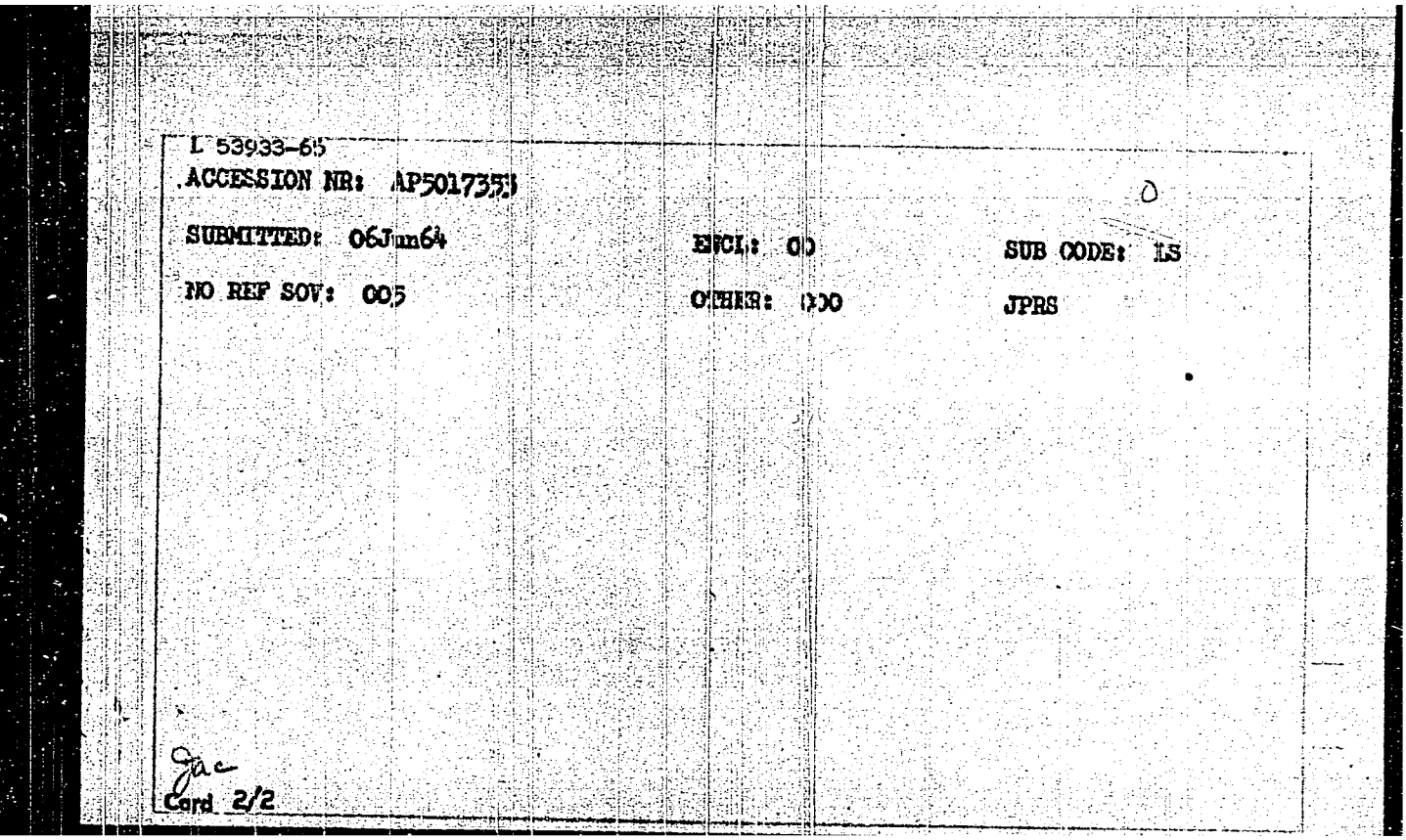
SOURCE: AN ArmSSR. Izvestiya. Biologicheskiye nauki, v. 17, no. 7, 1964, 101-104

TOPIC TAGS: experiment animal, human physiology, industrial medicine, toxicology

Abstract: The irritating action of dichlorobutene, a toxic substance which may be present in the air of industrial establishments where synthetic rubber is produced, was tested on human subjects by measuring its effects on light sensitivity and adaptation dark. The effects that were observed varied with the subject and with the sensitivity of subjects to the odor of dichlorobutene. However, an irritating effect of dichlorobutene present in amounts higher than the threshold concentration of 0.34 mg/m^3 could be clearly established on the basis of increased sensitivity to light. The results obtained indicated that a concentration of this substance in the air higher than 0.3 mg/m^3 must be regarded as harmful. Orig. art. has 2 graphs, 1 table.

ASSOCIATION: Yerevanskiy meditsinskiy institut (Yerevan Medical Institute)

Card 1/2



L 53933-65
ACCESSION NR: AP5017353

SUBMITTED: 06Jun64 ENCL: 00 SUB CODE: LS

NO REF SOV: 005 OTHER: 000 JPRS

Cord 2/2

3.1550
3.1550

42560
S/814/62/015/000/002/002

AUTHOR: Dërpgol'ts, V. F.

TITLE: On the exchange of water between the earth and space.

SOURCE: Geograficheskoye obshchestvo SSSR. Geograficheskiy sbornik, v. 15. Astrogeologiya. Moscow, 1962, 198-207.

TEXT: The process of exchange of water between earth and interplanetary space involves the water contained deep within the earth also; hence the solution of the problem will depend on the combined efforts of astrophysicists, earth-atmosphere physicists, and hydrogeologists. 1. On the origin of water on earth. Following the Urey-Schmidt hypothesis of the cold origin of the earth from a gas-dust cloud, and taking into account the nearness of the sun, the proto-earth can have contained only a small amount of light gases, such as hydrogen, as an original material for the formation of water. In the subsequent stages some H_2 and O_2 may have combined to form water, but most of the hydrogen and oxygen may have remained deep within the earth at supercritical pressures at which not only the boundary between gas, liquid, and solid vanishes, but even the boundary between the various elements becomes indistinct, and all matter, probably, is monoatomic. Since the total mass of oceanic water ($1.5 \cdot 10^{24}$ g) is of the same order as the mass of the lithosphere

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($2.4 \cdot 10^{[illegible]}$ g), it is evident that all of the meteoric, surficial, and crustal subsurface water cannot have come out of the lithosphere, and an amount of the order of hundreds of times of that contained in the hydrosphere must be present in the subcrustal strata of the planet. A. P. Vinogradov (Khimicheskaya evolyutsiya Zemli, The chemical evolution of the earth, Izd-vo AN SSR, 1959) estimates the water reserves in the mantle alone to be $2 \cdot 10^{26}$ g. The process of liberation of subcrustal water, probably, continues not only in vulcanic, hydrothermal, and pneumatolithic processes but constantly over the entire oceanic and continental area of the earth, both by upward filtration and by upward diffusion of atoms, ions, and molecules, driven by the intense thermodynamic gradient between mantle and surface. This premise finds ample confirmation in the NaCl content of all plutonic waters. Two conclusions can be made: (1) The subcrustal strata of the earth continuously lose some of their volatile matter, including H_2O, and (2) except for a continued outflow of water from the earth into space, the hydrosphere would increase in volume. 2. On water in [illegible] by space. There is no doubt that water molecules exist in space in [illegible] cases. Schmidt's division of the planets into "Earth-type" warm planets (where evaporation and sublimation prevails) and "Jupiter type" cold planets (where ice prevails) is cited, also the Whipple, Dubyago, et al., hypothesis on an ice-ce[illegible]-metal and "dirty ice" nature of comet heads. There may also be water ice in the rings of Saturn and several moons of the giant planets

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...and in many meteorites. Despite the low temperatures of space, solar radiation probably ca...s... ...ation into water vapor, and then, by photodissociation, separation into ... ...and hydroxyl, and subsequently into hydrogen and oxygen, predominantly ... ...state. The intensity of this process depends on the distance from the su... ...zonality of each celestial body; thus, for example, the side of a given b... ...ed to the sun may be prevalent melting and evaporation, while the sh... ...retains frozen water ice. There may be melting at the surface of celesti... ...and retention of solid ice in depth, or otherwise transparent ice of the surfa... ...allow the radiated heat to go into the depth where opaque ice will melt first. Liquid water may exist even on warm planets, if the atmospheric pressure is sufficiently high to prevent evaporation. Gould's hypothesis of the existence of ice on the moon in deep crevasses is mentioned. 3. On the transfer of water from interplanetary space onto the earth. The possibility of the cosmic origin of so... ...al showers is not to be excluded. Ice, meteorites have been encountered. ...ordinary meteorites contain a mean of 0.3% (up to 8%) water. Discussing re... ...data on the contamination of the earth by falling cosmic material, ...oxygen water ...of such materia... ...5%), it is concluded ...the ... ...from space over the presumable 5... ...-year age of the earth would be ...., i.e., a 2-m layer covering the earth, and this probably ...low estim... ...many meteorites have been hit the earth but release all ...

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On the exchange of water between ...

their material to the atmosphere. Carbonaceous material contained in some cosmic matter may also burn up in the atmosphere and form CO_2 and water. Another possible source, according to recent investigations with artificial earth satellites, is the proton-electron plasma of the solar corona which reaches the ecliptic of the earth following intense solar outbursts; also, proton particles in cosmic rays may also capture electrons and thus form hydrogen atoms which may combine with upper-atmosphere oxygen to form water molecules. Could the noctilucent clouds, which according to I. A. Khvostikov consists of ice crystals, be the formations of such nascent atmospheric water of cosmic origin? 4. On the transfer of water from the earth atmosphere into interplanetary space. There is no doubt that water molecules may be lost into space. The process might be attributable to high-altitude (80-km) dissociation of the water molecules into the component atoms under solar UV radiation. Since at the high temperature of the external atmospheric layers (500°K to 1500°K) the speed of the thermal motion of H atoms exceeds the escape speed, dissipation into space must result. A discussion of the cosmic and atmospheric hypotheses of the comet-like so-called "tail" of the earth, which gives rise to the zodiacal light, leads to the premise of a drainage of dissociated water vapor into the "tail." 5. On the practical significance of cosmic ice. This section is devoted to a summary of the paper "Ice in space," by the American author H. [illegible] Robey, previously published in the Journal of the British Interplanetary Soci[illegible] v. 17, no. 7, 1960. There are no figures or tables; the literature cited compri

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32 Russian references (including the Russian translations of H. Poincare's "Hypotheses of Cosmogony,"(1913), Watson Fletcher's "Among the planets" (1947), and Chamberlin's "Geological proofs of the evolution of the earth's atmosphere" (1951)), (all titles retranslated from the Russian translations), 2 German-language papers by H. Abich (circa 1870), 2 French-language references including one by H. Abich and a French-language paper by the Russian author, E. Shvedov (1882), and the following 5 English-language references: Gould, T., Science News Ltr., v. 179, no. 262, 1961; Peterson, H., Scient. Amer., v. 202, no. 2, 1960; Robey H. Donald, Ice in space, J. Brit. Interplan. Soc., v. 17, no. 7, 1960; Thomsen, W. J., The annual deposit of meteoritic dust, Sky and Telescope, 1953; Urey, H., The planets, their origin and development, New Haven, Conn., 1952.

ASSOCIATION: None given.

DERPGOL'TS, V.F.

Basic planetary primary sources of natural waters of the earth. Izv. AN SSSR. Ser.geol. 27 no.11:18-31 N '62.
(MIRA 15:12)

(Water)

ACCESSION NR: AR4033709 S/0081/64/000/003/E077/E077

SOURCE: Referativnyy zhurnal. Khimiya, Abs. 3E206

AUTHOR: Derpgol'ts, V. F.

TITLE: The "hydrochlorosphere" - the original planetary source of the natural waters of the outer shells of the Earth

CITED SOURCE: Sb. IV Soveshchaniye po probl. astrogeol., 1962. L., 1962, 128-131

TOPIC TAGS: geophysics, surface water origin, hydrochlorosphere, magma, magma differentiation, lithosphere, autosphere, ocean salt content, halogenesis

ABSTRACT: Water makes up ~4% of the total magma substance. During the physical-chemical and gravitational differentiation of the magma in the depths and upward to the lithosphere, magmatic solutions serve as carriers of the magma components. As they move upwards, these solutions are transformed into chloride brines containing considerable amounts of Na, Ca, Br and B and occurring ubiquitously, more frequently at considerable depth; these should be regarded as the primary planetary source of most of the water of the earth's crust and autosphere. The author introduces the concept of the "hydrochlorosphere" of briny waters which is found all around the earth at a depth of the order of 3-4 km. The waters of the "hydrochlorosphere"

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ACCESSION NR: AR4033709

may be called endogenous to distinguish them from those in the upper parts of the lithosphere which are biogenous and the principal characteristic of which is participation in biological and other water cycles. Diversity of composition is characteristic of biogenous waters, whereas the composition of the endogenous waters is uniform. The waters of the World Ocean, by origin and processes of formation, are mixed - endogenous and biogenous. The more intensive the process of halogenesis, the greater the amount of fresh water formed. The greater the amount of ice formed, the saltier the World Ocean becomes.

DATE ACQ: 02Apr64 SUB CODE: AS ENCL: 00

Card 2/2

DERPGOL'TS, V.F.

Hypothesis of the formation of natural solutions. Dokl. AN SSSR 142 no.6:1384-1386 F '62. (MIRA 15:2)

1. Predstavleno akademikom D.S.Korzhinskim.
(Water, Underground)

DERPGOL'TS, V.F.

Geochemistry of underground (mine) waters and atmospheric precipitation in the Yenisey region of the Arctic. Dokl. AN SSSR 147 no.2:469-470 N '62. (MIRA 15:11)

1. Predstavleno akademikom D.S. Korzhinskim.
(Putorana Mountains--Water, Underground)
(Putorana Mountains--Precipitation (Meteorology))

DERPGOL'TS, V.F.

Hydrosphere and chlorine. Lit. i pol. iskop. no.1:43-57 '63. (MIRA 17:3)

1. Geograficheskoye obshchestvo SSSR.

DERPGOL'TS, V.F.

Principles of the consolidated natural classification of natural waters of the earth. Sov. geol. 6 no. 5:7-18 My '63. (MIRA 16:6)

1. Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy institut.
(Water—Classification)

DERPGOL'TS, V.F.

Quantitative characterization of the earth's hydrosphere and chlorine. Dokl. AN SSSR 150 no.3:649-652 My '63. (MIRA 16:6)

1. Predstavleno akademikom D.S. Korzhinskim.
(Hydrology) (Chlorine)

DERPGOL'TS, V.F. (Leningrad)

Ancient structure in Tuva as a condenser for the vapors of terrestrial atmosphere. Priroda 53 no.8:98-102 '64. (MIRA 17:9)

L 34521-65 EEC(b)-2/EEC(k)-2/EWA(h)/EWT(1)/EWG(m)/T Pm-4/Pz-6/Peb IJP(c)
ACCESSION NR: AP5007378 S/0286/65/000/004/0037/0037

36
B

AUTHOR: Herr, G. A.

TITLE: A semiconductor diode detector. Class 21, No. 168339

SOURCE: Byulleten' izobretenly i tovarnykh znakov, no. 4, 1965, 37

TOPIC TAGS: detector sensitivity, semiconductor diode, tunnel diode

ABSTRACT: This Author's Certificate introduces a semiconductor diode detector in which the load circuit is shunted by a filter condenser. An "inverted" tunnel diode is used in order to increase the sensitivity of the device and to use it as a second detector without an external bias source.

ASSOCIATION: none

SUBMITTED: 24Aug63 ENCL: 00 SUB CODE: EC

NO REF SOV: 000 OTHER: 000

Card 1/1

DERRICK, Alan

Research work in the manufacture of laminated doors. Faipar 12 no.7:210-212 Jl '62.

DERRUBSKA, Barbara; DUDEK, Zygmunt; KANDZIORA, Stanislaw; PASLAWSKA-PRUS, Janina RANIEWICZ, Danuta

Effect of smallpox vaccination on the course of tuberculosis in adults. Gruzlica 32 no.7:511-516 Je '64.

1. Z Kliniki Gruzlicy Akademii Medycznej we Wroclawiu (Kierownik: prof. dr T. Garbinski); Ze Szpitala Przeciwgruzliczego im. K. Dluskiego we Wroclawiu (Dyrektor: dr. W. Batycki) i Z Sanatorium Przeciwgruzliczego w Rosciszowie (Dyrektor: lek. m. A. Majchrzak).