

RABAYEVA, S.N.; PODOL'SKAYA, A.A.

Gamma globulin for the prevention and treatment of whooping cough.
Zhur.mikrobiol.apid. i immun. 27 no.4:7-12 Ap '56. (MIRA 9:7)

1. Iz Moskovskogo instituta vaktsin i sывороток имени Мечникова.
(GAMMA GLOBULIN, ther. use
whooping cough prev. & ther.)
(WHOOPING COUGH, prev. & control
gamma globulin)

KARANOVICH, G.G.; IONOVA, L.A.; PODOL'SKAYA, B.L.

Photometric determination of gallium by means of gallion [with
summary in English]. Zhur.anal.khim. 13 no.4:439-444 Jl-Ag '58.
(MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh
reaktivov, Moskva.
(Gallium) (Photometry) (Phenol)

BRUDZ', V.G.; SHAFRAN, I.G.; SMIRNOVA, K.A.; DRAPKINA, D.A.; ZELICHENOK, S.L.;
PODOL'SKAYA, B.L.; Prinimala uchastiye MASLINIKOVA, V.I.

Sulfonazo, a new reagent for vanadium. Trudy IREA no.25:17-23
'63. (MIRA 18:6)

SOV/75-13-4-11/29

AUTHORS: Karanovich, G. G., Ionova, L. A., Podol'skaya, B. L.

TITLE: The Photometric Determination of Gallium by Means of Gallion
(Fotometricheskoye opredeleniye galliya pri pomoshchi galliona)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol. 13, Nr 4, pp. 439-
444 (USSR)

ABSTRACT: Several organic compounds are used for the photometric determination of gallium. These compounds react with gallium in forming deeply colored compounds (Refs 1-4). "Gallion", a reaction product from H-acid and diazotized 2-amino-4-nitro-6-chloro-phenol, is an interesting reagent to gallium (Ref 6). It is water-soluble; its 0,01% aqueous solution has a dark-red-and the alkaline solution a blue-violet color. The reagent is easily soluble in alcohol and acetone, whereas it is difficult to solve in chloroform and ethylene-chloride. The solutions of gallion form colored compounds with several elements. A compound of blue color is formed with gallium. Gallion changes its color between p_H 3,8 and 5,8 from red to blue-violet. Between p_H 5,8 and 13 the blue-violet color does not change.

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The Photometric Determination of Gallium by Means of Gallion

With a further increase of the p_H -value the color changes to pink and attains the same shade at p_H about 14 as at p_H 4. The optimum p_H -value for the determination of gallium is at p_H 2,4 - 3,4. The maximum of light-absorption is at 600 μ . A biphthalate buffer solution is useful for standardization, though it depends in a high degree on temperature. The crystals separate if temperature drops to +16°. At optimum conditions (p_H about 3,2) the susceptibility of the determination amounts to 0,2 μ gallium in 5 ml solution. If the solution is heated, the final color is reached after 1 1/2 to 2 minutes, but at room temperature only after 10 to 15 minutes. Determination can be carried out by means of colorimetric microtitration. The maximal tolerable quantities of foreign ions which do not yield colored compounds with gallion (Ge, Pr, La, Mn, Co, Zn, Li, In, Rh, Tl, Re, Pb, Mg, Ca, Be, Al) were found and are mentioned. Aluminum and indium form colored compounds with gallion at p_H about 3,2. Gallium, however, can be determined in stronger acid compounds if there is a 50-fold excess of

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SOV/75-13-4-11/29

The Photometric Determination of Gallium by Means of Gallion

these two elements. The influence of iron, which is disturbing to a high degree, can be removed by a hydrochloric acid solution of hydroxylamine. Copper likewise exercises a disturbing influence and has to be reduced by means of a solution of sodium sulfate before its determination. After adding the hydroxylamine solution, the p_H -value of the solution has to be brought to 2,4 - 3,2 by sodium acetate. Prior to its determination in aluminosilicates, aluminum alloy, zinc blende, and other materials containing only traces of gallium, the latter has to be separated. This is usually done by extraction by means of organic solvents from hydrochloric acid solution (Refs 3, 5, 7). The extraction with isoamylalcohol and ethyl acetate from 6n hydrochloric acid solution proved to be the most useful. The conditions for the separation and the determination of gallium in various objects are mentioned in detail. There are 4 figures, 7 tables, and 7 references, 2 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh
Card 3/4

SOV/75-13-4-11/29

The Photometric Determination of Gallium by Means of Gallion

reaktivov, Moskva (All-Union Scientific Research Institute of
Chemical Reagents, Moscow)

SUBMITTED: September 20, 1956

1. Gallium--Determination 2. Gallion--Properties 3. Reagents
--Synthesis 4. Photometry

Card 4/4

PODOL'SKAYA, E. L.

USSR/Geophysics - Radiation
Jul/Aug '53

"Effective Radiation of Slopes," K. Ya. Kondrat'yev
and E. L. Podol'skaya, Main Geophys Obs im A. I.
Voyeykov

Iz Ak Nauk SSSR, Ser Geofiz, No 4, pp 370-375

Exound results of theoretical and exptl investigations into effective radiation of sloping surfaces. Derive accurate and approximate theoretical formulas for calcg the effective radiation of slopes. Produce observations on the effective radiation of inclined surfaces. Establish the

265T85

limits of applicability of approx theoretical formulas for calcg the effective radiation of sloping surfaces.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0

KONDRAT'YEV, K.Ya.; PODOL'SKAYA, E.L.

Effective radiation of inclines. Izv. AN SSSR. Ser. geofiz. no.4:370-
375 Jl-Ag '53.
(MLB 6:7)
(Radiation)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"

PODOL'SKAYA, E. L. and KONDRAT'YEVA, K. Ya.

"Theory of the Yanishevskiy Pyrgeometer".

Vestnik Leningr. un-ta, No 5, pp 103-117, 1954.

A more complete theory of the instrument for the measurement of radiational balance is given. The theory is applicable under the condition of stationary heat exchange between receptor plates of the pyrgeometer and the air, i.e., when the microfluctuations of wind velocity and air temperature existing in the atmosphere are not taken into consideration. Formulas for the determination of coefficients of heat transmission are employed in two limiting cases, namely forced and free motion. A detailed analysis is given of the dependence of the conversion factor upon wind velocity, temperature, and radiation.
(RZhGeol, No 9, 1955)

SO: Sum No 884, 9 Apr 1956

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0

PODOL'SKAYA, E.L.

Calculation of heat exchange in a balance meter. Part 1. Vest.
LGU 14 no.22:39-55 '59. (NRA 12:11)
(Heat--Transmission) (Air flow)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"

I. 18585-65 EWT(1)/EMG(v) Pe-5/Pao-2 CW

ACCESSION NR: AR3004147 S/0272/63/000/006/0109/0109

SOURCE: RZh. Metrologiya i izmer. tekhn. Otd. vy*p., Abs. 6.32.894

AUTHOR: Gorchinskaya, N. N.; Podol'skaya, E. L.

TITLE: An ideal black body model for calibrating actinometric instruments 12

CITED SOURCE: Nauchn. soobshch. In-t geol. i geogr. AN LitSSR, v. 13, 1962, 5-12

TOPIC TAGS: actinometric instrument calibration, ideal black body, low temperature black body, De Vos successive approximation, cavity temperature gradient

TRANSLATION: A low-temperature 'ideal black body' is calculated by using the De Vos successive approximations technique for hemispheric radiation, with consideration given to "aperture" emission. The described black body model

Cord 1/2

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ACCESSION NR: AR3004147

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has walls made of technical copper and encircled by a galvanized iron jacket. Water at controlled temperature circulates between the walls and the jacket. The instrument to be calibrated is clamped in a special holder and inserted into the aperture of the black body in such a fashion that its receiving surface is located on the same level as the leading wall of the black body. Measurements have shown that the maximal temperature difference at extreme points of the cavity did not exceed 1.5C at a 40C variation between the black body and the surrounding atmosphere. This corresponds to a temperature gradient along the cavity surface of about 0.03 C/cm. Bibl. with 12 titles; 2 illustrations.

M. Mekler

SUB CODE: OP, IE

ENCL: 00

Cord. 2/2

Podolskaya 4
Distribution of different forms of sulfur and iron in Devonian rocks of the central part of the Russian platform as an indicator of geochemical conditions during the sedimentation. V. R. Radchenko and R. V. Podol'skaya. Trudy Vsesoyuz. Nauch.-Issledovatel. Inst. 1956, No. 9, 139-64. Numerous chem. analyses of composite, sulfate, pyritic, and elementary S, ferruginous, ferric, and pyritic Fe in different sedimentary Devonian deposits of the Central Russian platform are made. Diagrams illustrating oxidation-reduction conditions during the sedimentation are presented. Weakly reducing conditions prevailed, particularly in the Serpukhov and Tula areas. Not only the amt. of pyrite and ferruginous iron but also the amt. of elementary S is an indicator of the degree of reducing conditions. 36 references.

A. V. Borth

12
The geochemistry of the terrigenous Devonian deposits of
southwestern Tataria. K. V. Rodionova, E. V. Dol'skaya,
and A. I. Volodchenkova. *Trudy Vsesoyuznogo
Neftegaz. Nauch.-Issledovatel. Inst.* 1956, No. 9, 164-204.—
Numerous chem. analyses of org. material, S, Fe, V, Ni,
and 2% HCl leaches from the rocks of the area, and diagrams
based on these results are presented. The salinity of the
Devonian Kynovik and Zhivetak seas was close to normal.
Weak reducing conditions prevailed. The increase in
pyritic Fe in some beds containing secondary bitumen
is attributed to anaerobic processes. 68 references.

A. Volbarth

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0

PODOL'SKAYA, G.A.

Operation of a 400-ton open-hearth furnace with high-pressure natural
gas. Metallurg 6 no. 6:13-16 Je '61. (MIRA 14:5)
(Open-hearth furnaces—Design and construction)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"

PODOL'SKAYA, G.A.

130-8-8/20

AUTHOR: Sladkoshteyev, V.T. and Podol'skaya G.A., Engineers.

TITLE: Thermal Conditions of Open-hearth Melting with Oxygen-blowing of the Bath (Teplovoy rezhim martenovskoy plavki pri prodvke vanny kislorodom)

PERIODICAL: Metallurg, 1957, No.8, pp. 21 - 22 (USSR)

ABSTRACT: The authors give an account of experience at the "Azovstal'" Works in the development of optimal conditions for oxygen-blowing of the open-hearth bath. Oxygen-blowing secured a more rapid rise in metal temperature (Fig.1) and, as shown in experimental heats, coke-oven gas consumption could then be reduced by 25% without affecting melt-down or decarburisation speeds and with beneficial effect on dephosphorisation. The authors also give results (Table 1) of two groups of experimental heats in one of which oxygen was added to the flame as well as the bath; this gave no benefits. Experiments showed that an excess-air coefficient of 1.6 secured complete combustion of carbon monoxide produced by oxygen blowing. For the finishing period it was found necessary when oxygen-blowing of a bath with 0.8 - 2.0% C to add ore to prevent overheating; coke-oven gas consumption was reduced by at least 25% and excess of air was increased; there was no oxygenation of the flame.

Card1/2 There are 2 figures and 3 tables.

KAMENSKIY, Yu.A.; PODOL'SKAYA, G.A.

Single-channel bulkhead of mazut-heated open-hearth furnaces.
Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform.
no.9:5-7 '63. (MIRA 16:10)

S/130/61/000/012/005/006
A006/A101

AUTHORS: Podol'skaya, G. A., Karpov, G. D., Shklyar, V. S.

TITLE: Section furnaces for high-speed metal heating

PERIODICAL: Metallurg, no. 12, 1961, 36-38

TEXT: Section furnaces were mounted in 1959 at the ball rolling shop of the "Azovstal'" Plant. The furnaces have different features according to the capacity of the rolling mills. Furnace no. 1 has 5 zones with 4 sections each, and supplies heated metal to mill 620 for the rolling of balls of 40, 50, 60 and 80 mm in diameter. Furnace no. 2 consists of 6 zones, 5 of which have 4, and the sixth 5 sections; this furnace supplies mill 1040 for rolling balls of 60, 80, 100 and 115 mm in diameter. The furnaces are fuelled with a mixture of coke and blast furnace gas from a common collector. The blanks are moved by water-cooled rolls mounted at an angle of 8° in respect to the axis, which is perpendicular to the motion of the blanks. This arrangement assures uniform heating of the blanks. Satisfactory circulation of the furnace gases is assured by the tangential arrangement of torches (Fig. 2). The specific duration of heating of the blanks is 1.5 - 2 min/cm thickness. The air is heated in recuperator-

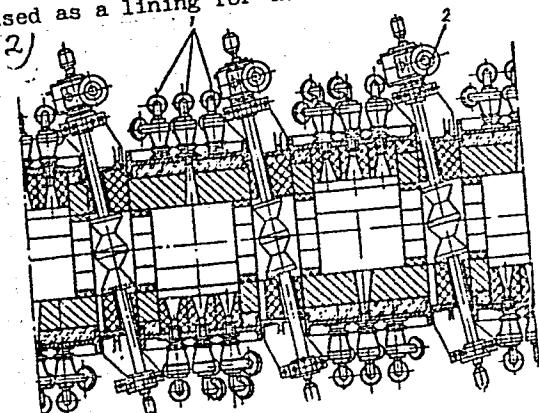
Card 1/2

S/130/61/000/012/005/006
A006/A101

Section furnaces for high-speed metal heating

thermoblocks. The heat load is automatically regulated; however, this method shows some deficiencies, such as inertia of devices, lack of a device to determine the temperature of metal heating; and unsatisfactory arrangement of the devices in the shop. Requirements to refractory material are very high because of considerable changes in temperature. It was found that chrome-magnesite bricks showed satisfactory results when used as a lining for the furnace walls and the bottom. According to the heat conditions developed, the furnaces are intended to operate at 1,150 - 1,300°C, i.e. relatively low temperature range which facilitates the service conditions of the refractory masonry. Presently the rated efficiency of the mills has been reached for the rolling of 40, 60 and 80 mm diameter balls. There are 2 figures.

Fig. 2: Arrangement of torches 1 and rolls 2 in the furnace



Card 2/2

PUNCHENOK, N.A.; POTOTSKAYA, L.Ye.; PODOL'SKAYA, I.Yu. (Leningrad)

Functional state of the adrenal cortex in newborn infants. Probl.
endok. i gorm. no.2:67-73:63. (MIRA 16:7)

1. Is otdeleniya novorozhdennykh (starshiy nauchnyy sotrudnik N.A. Punchenok), laboratorii endokrinologii (nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR, prof. V.G. Baranov) i kliniko-diagnosticheskoy laboratorii Instituta akusherstva i ginekologii (direktor - prof. M.A. Petrov-Maslakov) AMN SSSR.
(ADRENAL CORTEX) (INFANTS (NEWBORN))

VLASOVA, Tat'yana; DAVYDOVA, Marina Ivanovna; MONIN, Sergey Aleksandrovich; FISHCHEVA, T.V., red.; PASHCHENKO, O.V., red. kart; PODOL'SKAYA, M.Ya., red. kart; MAKHOVA, N.N., tekhn. red.

[Practical studies in the physical geography of the parts of the world] Prakticheskie raboty po fizicheskoi geografii chastei sveta; posobie dlia studentov pedagogicheskikh institutov. Moskva, Uchpedgiz, 1962. 158 p. (MIRA 16:5)

1. Dotsenty kafedry fizicheskogo stranovedeniya Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni V.I.Lenina (for Vlasova, Davydova, Monin).

(Physical geography)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0

IVANOV, M.I.; PODOL'SKAYA, N.S.

Heat of UFe₂ and U₆Fe formation. Atom.energ. 13 no.6:572-575
D '62. (MIRA 15:12)
(Uranium alloys) (Heat of formation)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"

PODOL'SKAYA, N.V.

Several forms of Slavicizing foreign geographical names. Vor.
geog. no. 58:34-40 '62. (MIRA 15:9)
(Novgorod Province--Names, Geographical)

KRISANOV, A.F.; GONCHAROV, G.K.; TCHUMAKAYA, S.G.

Machine for cutting off the unfinished ends of shells. Metallurg
10 no.6:43 Je '65.
(MIRA 18:6)

ACC NR: AT7007:00 (N) SOURCE CODE: UR/3207/66/000/004/0049/0055

AUTHOR: Shklyar, V. S.; Iodko, E. A.; Podol'skaya, G. A.

ORG: Donniichermet

TITLE: Method of mass transfer simulation of the thermal and hydrodynamic processes

SOURCE: Gidromekhanika, no. 4, 1966, 49-55

TOPIC TAGS: thermal process, hydrodynamic process, diffusion model, mass transfer, mass exchange, Reynolds number, simulation, friction, friction stress, heat exchange, heat transfer

ABSTRACT: A study was made of the mass transfer simulation of thermal and hydrodynamic processes. The relationships to be observed for simulating heat-mass-exchange processes on a diffusion model are defined. This substantiates the possibility of diffusion simulation of hydrodynamically-similar processes in a self-similar region in the absence of equality of Reynolds numbers. This, in turn, expands the class of problems which can be solved by the diffusion model. It is

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ACC NR: AT7007190

shown that by using the diffusion model with nonreclaimable adsorption boundaries, the concentration of impurities at the boundary is not equal to zero. The study presents a method for using the results of mass transfer simulation for computing friction stresses and velocities. A procedure has also been developed for simulating heat-mass-exchange processes with the use of light-sensitive paper as the absorbent material which makes it possible to improve the reproducibility of the results and to facilitate the construction of the model. The authors acknowledge the participation of V. A. Blashchuk, G. I. Novozhilov, and T. I. Tret'yakova in this study. Orig. art. has: 2 figures and 28 formulas.

[NT]

SUB CODE: 13, 20/SUBM DATE: none/ORIG REF: 005/OTH REF: 001/

Card 2/2

PODOLSKAIA, G. A. [Podol'skaya, G. A.]

Testing the performance of the 400-ton Martin furnace with natural
gas at high pressure. Analele metalurgie 15 no.4:195-201 O-D '61.

(Open-hearth process) (Gas, Natural)

PODOL'SKAYA, G. A.

SLADKOSHTEYEV, V.T., inzhener; PODOL'SKAYA, G.A., inzhener.

Temperature conditions during open-hearth smelting with oxygen
blow over the bath. Metallurg 2 no.8:21-22 Ag '57. (MLRA 10:9)

1. Zavod "Azovstal'."
(Open hearth furnaces) (Oxygen--Industrial applications)
(Heat--Transmission)

PojoL'skaya G.A.

4
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18 19

2760. SPEEDING UP OF STEEL SHELTING WITH OXYGEN. PojoL'skaya G.A.
and Mokovskii, V.A., Metallurg, Metalurgist, Moscow, June 1962.
An illustrated account of experiments made by Soviet scientists to increase
the melting capacity, with the use of oxygen, of the electric arc furnace
molten bath of metal.

10
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PODOLSKAYA, G.R.

✓12959* (Russian.) Intensification of Steel Making With the
Aid of Oxygen. Intensifikatsiya rjapki stali kislorodom.
G. A. Podolskan and V. A. Makovskii. Metallurg, 1958, no. 6,
June 1959, p. 17-19.

A recently developed method of intensifying melting with the
aid of O introduced both into the fuel and into the bath.

df

PODOL'SKAYA, G.A., inzhener; MAKOVSKIY, V.A., inzhener.

Intensification of steel smelting by oxygen. Metallurg no.6:
17-19 Je '56. (MIRA 9:9)

1.. Zavod "Azerstal".
(Zhданов--Open hearth furnaces) (Oxygen--Industrial applications)

PODOL'SKAYA, I.A., uchitel'nitsa geografii; PROKA, V.Ye. (Mishinev);
PODOSINKIN, V.N.; MIRKHAZOV, G.G., uchitel' geografii

Editor's mail. Gecg. v shkole 25 no.4:63-65 Jl-Ag '62.
(MIRA 15:8)

1. 1-ya shkola imeni Pushkina, g.Berezniki (for Podol'skaya).
2. 5-ya shkola g. Ishimbay (for Podosinkin). 3. Burayevskaya
odinnadtsatiletnyaya shkola Bashkirskoy ASSR (for Mirkhazov).
(Geography—Study and teaching) (School excursions)

BARANOV, V.G.; PODOL'SKAYA, I.Yu.; ROZOVSKAYA, I.T.

Function of the adrenal cortex in women during the course of aging
and in menopause. Probl. endok. i gorm. 6 no. 3:95-103 My-Je '60.
(MIRA 14:1)

(ADRENAL CORTEX) (AGING) (CLIMACTERIC)

TUMANOVA, Ye. S; PODOL'SKAYA, I. Yu.

Clinical-laboratory methods of ovarian function test. Akush.
gin., Moskva. no. 2:19-23 Mar-Apr 1952. (CLML 22;2)

1. Candidate Medical Sciences for Tumanova. 2. Of the Obstetric-Gynecological Clinic (Head -- Honored Worker in Science Prof. A. E. Mandel'shtam), State Order of Lenin Institute for the Advanced Training of Physicians imeni S. M. Kirov, and of the Institute of Obstetrics and Gynecology (Director -- Prof. A. P. Nikolayev, Corresponding Member AMS USSR), Academy of Medical Sciences USSR.

Podoškář

✓ A method for the rapid determination of calcium in peat. Antonín Štehlík and Miroslava Podoškářová (Leather and Allied Trades Research Inst., České Budějovice, Czech.). *Kekulé* 6, 162-2 (1956).—The Ca is detd. colorimetrically with pyrogallolcarboxylic acid (I), which gives a blue color. In high diln. of Ca, the intensity and hue of color change, so that the detn. is possible by using color standards without a photo-colorimeter. Six standards are prep'd. corresponding to 0.2, 0.3, 0.4, 0.5, 0.7, and 1.0 mg. Ca in 10 ml. From a strip of peat 5 cm. from the spine and 5 cm. from the root of the tail small prisms 2-4 mm. are cut. Two ± 0.05 g. of the sample are hydrolyzed in 10 ml. 0.1*N* HCl, boiled for 3 min., 10 ml. of hydrolysate is mixed with 1 ml. 2% starch soln., 1 ml. 2*N* NaOH, 1 ml. Et₂O, and 10 ml. of a satd. solution of I. The soln. is mixed and after 1 min. the color is compared with the standard. The satd. soln. of I is prep'd. by 2 hr. boiling of 10 g. pyrogallol with 40 g. NaHCO₃ and 70 ml. H₂O under reflux. After cooling, the soln. is oxidized by HCl. The prp'd. I is filtered and recrystd. from hot H₂O. A calf peat contained 0.3% Ca, after detn. 0.22%, after boiling 0.15%. Goat peat contained 0.5, 0.3 and 0.2% and steer hide 0.39, 0.18 and 0.15% at the same stages.

MONIN, Sergey Aleksandrovich; SMIRNOVA, N.P., redaktor; GRYUNBERG, G.Yu.,
redaktor; PODOL'SKAYA, M.Ya., redaktor kart; MAKHOVA, S.N.,
tekhnicheskij redaktor.

[Geography of soils, with the principles of soil science; a textbook
for pedagogical institutes] Geografiia pochv s osnovami pochvovedenija;
uchebnik dlia pedagogicheskikh institutov. Moskva, Gos.uchebno-pedagog.
izd-vo M-va prosv.RSFSR, 1957. 287 p. 2 fold.maps (in pocket)

(MIRA 10:4)

(Soils)

PODOL'SKAYA, M.Z., kandidat biologicheskikh nauk; GAN, A.I., inzhener.

Study of technical characteristics of cottonseed. Masl. -zhir.
prom. 23 no.1:1-4 '57. (MIRA 10:1)

1. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta zhivotnykh.
(Cottonseed)

PODOL'SKAYA, M.Z., kandidat biologicheskikh nauk; SAN, A.I., inzhener.

Study of cottonseed for industrial uses. Masl.-zhir. prom. 23 no.2
(MIRA 10:4)

!57.

1. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta zhivotnykh i rastenii. (Cottonseed)

Podol'skaya, N.

PODOL'SKAYA, N., metodist.

Survey of agricultural literature. Nauka i pered. op. v sel'khoz.
8 no.1:77-78 Ja '58. (MIRA 11:2)

1.Otdel tematiki i obobshcheniya peredovogo opyta Vsesoyuznoy
sel'skokhozyaystvennoy vystavki.
(Moscow--Bibliographical exhibition)

ARUTYUNOV, V.Ya.; PODOL'SKAYA, T.N.

Griseofulvin, an effective preparation in the treatment of
fungous diseases. Sov.Med. 27 no.7:45-50 Jl'63. (MIRA 16:9)

1. Iz kliniki kozhnykh i venericheskikh bolezney (dir. - prof.
V.Ya.Arutyunov) Moskovskogo oblastnogo nauchno-issledovatel'-
skogo klinicheskogo instituta imeni M.F.Vladimirskogo (dir.
zasluzhennyj vrach RSFSR P.M.Leonenko)
(MEDICAL MYCOLOGY) (GRISEOFULVIN)

PODOL'SKAYA, YE. V.

USSR/Metals - Steel, Analysis
Hydrogen

Feb 50

"Macroscopic Determination of Hydrogen in Solid Steel," Ye. V. Podol'skaya, Ye. G. Shumovskiy, Ukrainian Inst. of Metals, 5 pp

"Zavod Lab" Vol XVI, No 2

Develops macroscopic method for detecting presence of hydrogen in solid steel by coating specimen surface with vitreous enamels which do not diffuse into metal. Method may be used for controlling melting process or finished products. Suggests further investigations in direction of developing efficient

159T62

USSR/Metals - Steel, Analysis (Contd)

Feb 50

scale for steel evaluation as to gas saturation and preparation of enamel standards with definite hydrogen contents verified by hot extraction method.

159T62

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0

PODOL'SKAYA, YE. V.

PODOL'SKAYA, YE. V. --"The Problem of Hydrogen Distribution in Metal and Its Effect Upon the Structure and Plasticity of Iron-Carbon Alloys."(Dissertations For Degrees In Science and Engineering Defended at USSR Higher Educational Institutions)(29) Min Heavy Machine-Building USSR, Central Sci Res Inst of Technology and Machine-Building TsNIITMash, Khar'kov, 1955

SO: Knizhnaya Letopis' No 29, 16 July 1955

* For the Degree of Candidate in Technical Sciences

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"

C.A.

The adherence of aluminum alloys Al'kusin to steel bearings. D. G. Shumovskii and E. V. Pashol'skaya. *Vestnik Mashinostroyeniya* 28, No. 12, 11-15 (1980). The application of a layer of Al'kusin to iron by preliminary dipping, followed by dipping, then by annealing (which is not necessary but desirable) gives a wear-resistant coating usable at high loads (up to 200 kg. sq. cm.). M. S.

3.9000
24.5400

~~24(a)~~

AUTHOR:

Podol'skaya, E. L.

66880

SOV/54-59-4-6/22

TITLE:

Calculation of the Heat Emission ²¹ of a Balance Meter. I

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii,

1959, Nr 4, pp 39-55 (USSR)

ABSTRACT:

In the papers mentioned in references 1 and 2 it is pointed out that, under ordinary weather conditions, the surface layer of the film of a balance meter may be assumed to be steady. However, it is not possible to employ this calculation on this assumption under natural conditions in the case of turbulent pulsation of wind velocity and of the surrounding temperature. The author attempts to solve this problem by comparing the solutions for steady and nonsteady surface layers. The temperature equations of a schematized balance meter with a horizontal film are set up (Fig.). With a small temperature drop it is possible to assume all physical characteristics (heat conductivity, viscosity) to be constant. Besides, the variation of atmospheric pressure with respect to time is neglected. Next, the author attempts to simplify to a great extent the equations with the given boundary conditions and to subdivide them into ✓

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Calculation of the Heat Emission of a Balance Meter. I

a system of simple equations. First, the author determines the extent to which air compression at velocities from 0-15 and, as a maximum, 20 m/sec is to be considered. It was shown that at such velocities air density depends only on temperature but not on pressure. Next, the temperature criterion is determined. Here, it is not necessary to employ the heat equation (Table 1). With temperature rises $> 1^{\circ}\text{C}$ it was possible to neglect the expansion heat and the heat in adiabatic compression. This condition is satisfied by the Yu. D. Yanishevskiy's balance meter. The author then studies the problem as to how far the thermal and dynamic surface layer is to be taken into account in the case of constant film temperature (only the forced film motion is considered). For the calculation the author assumes the velocity pulsation to be a periodic function with a period T. The pulsation varies along the film with a fictitious velocity. Laykhtman's and Budyko's formulas (Ref 9) are used. The author determines the range of numerical mean values of the velocity which permit a quasisteady investigation of the problem.

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SOV/54-59-4-6/22

Calculation of the Heat Emission of a Balance Meter. I

The formula $U_{\infty}(x,t)$ is simplified in such a manner that, with finite inertia of the apparatus, it is not necessary to take account of all harmonics, and that the dependence $U_{\infty}(x,t)$ on x may be neglected (x lies in the film plane). The errors due to neglect are listed in tables 2 and 3. Two methods, a successive approximation and an approximation solution according to references 12-14 and 15, are utilized to solve the equations of a nonsteady layer. The solutions of the steady and the non-steady problem are compared (Tables 5, 6). It is thus shown that the quasisteady approximation holds for average wind velocities > 1 m/sec. There are 1 figure, 7 tables, and 16 references, 15 of which are Soviet.

✓

Card 3/4

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SOV/54-59-4-6/22

Calculation of the Heat Emission of a Balance Meter. I

SUBMITTED: May 28, 1958

✓

Card 4/4

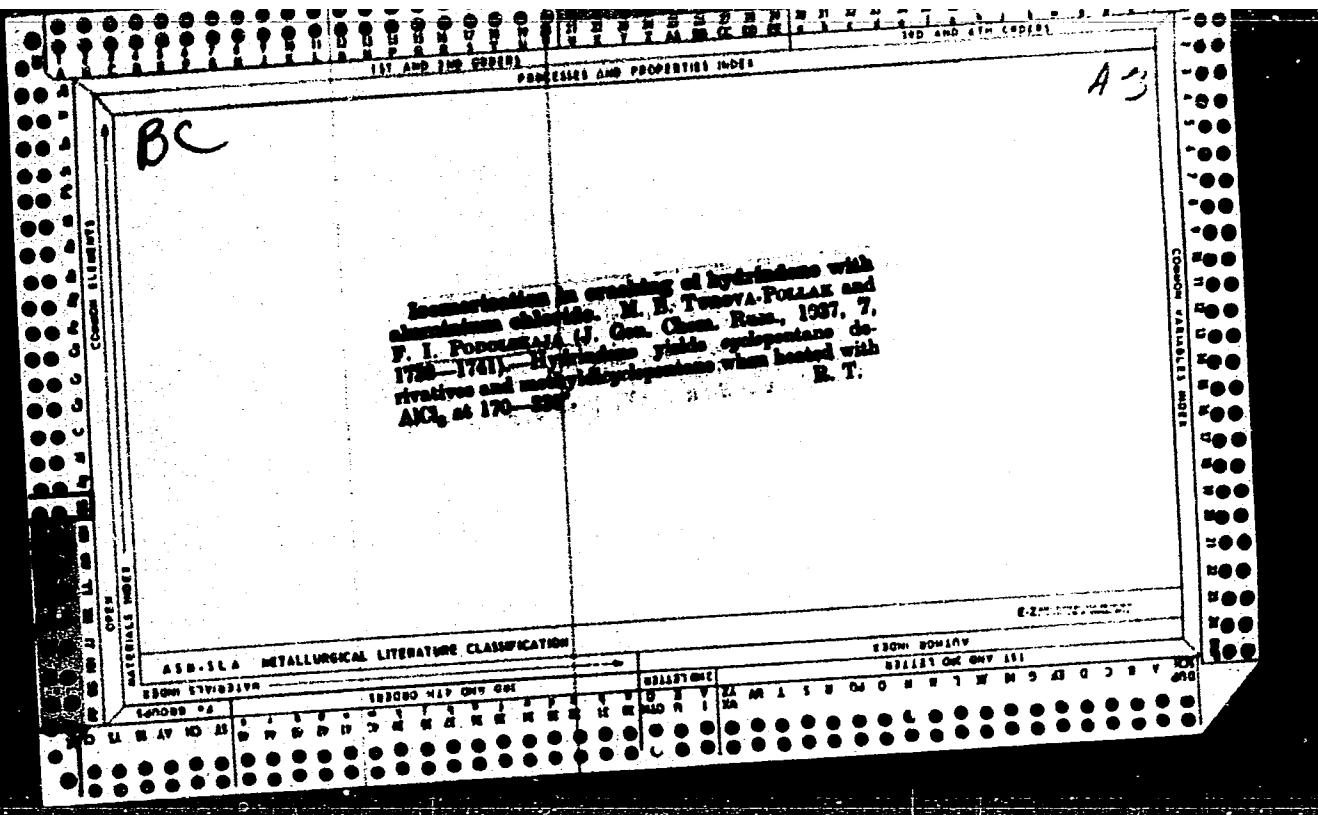
Preparation of isopentane and isooctane from ethylene. A. S. Veikovskii, E. I. Pudol'skaya and S. I. Pulosovskaya. Neftegaz. Khim., 20, No. 9, 41-31 (1959).—A preliminary report is given on the two-stage polymerization of ethylene to C₅ and higher hydrocarbons. With a gas contg. 93.7% ethylene in the presence of a catalyst called SB (not further identified, but believed to be used in the synthesis of rubber), polymerization expts. were carried out at 230 and 300°, at atm. pressure, and with 10 sec. contact time. At 230°, 37.9% of the ethylene underwent reaction per pass and the products contained 70.3% 2-butene and 18.5% liquid hydrocarbons on ethylene converted. At 300° the products contained 82.3% 2-butene and 18.5% liquid hydrocarbons. The liquid products contg. appreciable amounts of 2-methyl-3-butene (below 30% in tests at 300°) and octenes were hydrogenated to give a high-octane fuel. It is believed that yields of isopentane and isooctane greater than 50% on the initial ethylene are possible; butane can be polymerized separately and the product hydrogenated to isobutane. After removal of the pentene fraction the liquid product contains as much as 30% hexenes and is still a good blending fuel. Polymerization proceeds along the same lines when a gas contg. 20% ethylene is used as feed. Bixil data are reported in tables showing yields per pass, boiling ranges of the liquid products, sp. gr. and refractive index of the liquid fractions, and complete analysis of the polymerized (hydrostabilized) products.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510006-0"

FRIDSHTEYN, I.L.; PODOL'SKAYA, F.I.; BONDARENKO, N.I.; VAYNSHTEYN,
G.I.; CHUCHIK, Ye.I.

One-stage method of production of isoprene from isopentane
and isopentane-isoamylene mixtures. Khim.prom. 2:89-95 My '60.
(MIRA 13:7)

(Isoprene) (Butane) (Butene)



The isomerization effect in the cracking of hydridane with aluminum chloride. M. B. Turrova-Pollak and F. I. Pudol'shchaya. *J. Gen. Chem. (U. S. S. R.)* 7, 1738-41 (1937); cf. *C. A.* 39, 7951^a; 31, 881^b.—When hydridane is heated at 170-230° for 10 hrs. with powd. AlCl_3 , it forms 23% hexamethylene hydrocarbons, 60.5% pentamethylene hydrocarbons and 10.5% satd. aliphatic hydrocarbons. The 6-membered ring splits easily and tends to isomerize to a 5-membered ring, giving bicyclic hydrocarbons with two 5-membered rings. In hydridane the 5-membered ring is very stable toward isomerization.
M. M. Levinson

II. M. Leichter

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"

PODOL'SKAYA, G.A.; KARPOV, G.D.; SHKLYAR, V.S.

Section furnaces for rapid metal heating. Metallurg 6 no.12:36-
(MIRA 14:11)
38 D '61. (Furnaces, Heating)

LEPORSKIY, V.V.; SLEPKANEV, P.N.; ARKHANGEL'SKIY, Yu.N.; PODOL'SKAYA,
G.A.; GLINKOV, G.M.; KAPUSTIN, Ye.A.; KALOSHIN, N.A.; KRIVENKO, P.T.

Operation of large tilting open-hearth furnaces with natural gas.
Stal' 21 no.10:883-889 O '61. (MIRA 14:10)

1. Zavod "Azovstal'" i Zhdanovskiy metallurgicheskiy institut.
(Open-hearth furnaces)

"APPROVED FOR RELEASE: 06/15/2000

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510006-0"

TUMANOVA, YE. S., PODOL'SKAYA, I. Yu.

Ovaries

Clinical and Laboratory methods of the ovarian function test. Akush. i gin., No. 2, 1952.
Kandidat Meditsinskikh Nauk. Iz akushersko-ginekologicheskoy klonika (za--Zasluzhennyy
deyatel' nauki Prof. A. E. Mandel'shtam) Gosudarstvennogo ordena Lenina instituta dlya
usover-shanstvovaniya vrachey imeni S. M. Kirova i instituta akusherstva i ginekologii
(dir.--chlen-korrespondent Akademii meditsinskikh nauk SSSR Prof. A. P. Nikolayev)
Akademii meditsinskikh nauk SSSR.

UNCLASSIFIED
Monthly List of Russian Accessions. Library of Congress, June 3, 1952.

PODOL'SKAYA, I. YU.

Ovaries

Clinical and laboratory methods of the ovarian function test. Akush, i gin., No. 2, 1952. Kandidat Meditsinskikh Nauk. Iz akushersko-ginekologicheskoy klinika (zav.-- zasluzhennyy deyatel' nauki Prof. A. E. Mandel'shtam) Gosudarstvennogo ordena Lenina instituta dlya usover-shenstvovaniya vrachey inemi S. M. Kirova i instituta akusherstva i ginekologii (dir.--chlen-korrespondent akademii meditsinskikh nauk SSSR Prof. A. P. Nikolayev) Akademii meditsinskikh nauk SSSR.

Monthly List of Russian Accessions, Library of Congress,
June 1952. UNCLASSIFIED.

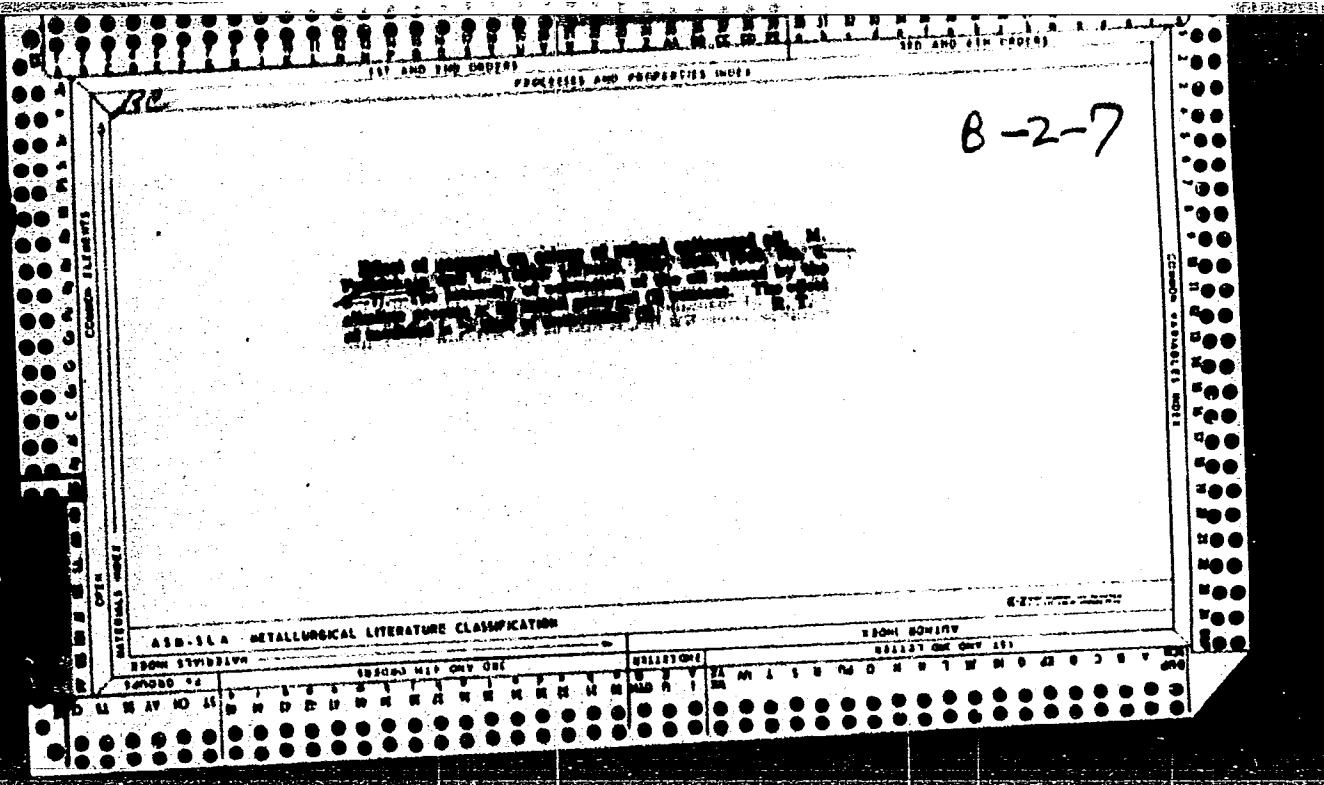
LARIONOV, S.V.; SHUL'MAN, V.M.; PODOL'SKAYA, L.A.

Complex formation of nickel with o-thiosalicylic acid. Zhur.
neorg. khim. 9 no.10:2333-2338 0 '64. (MIRA 17:12)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya Aka-
demii nauk SSR.

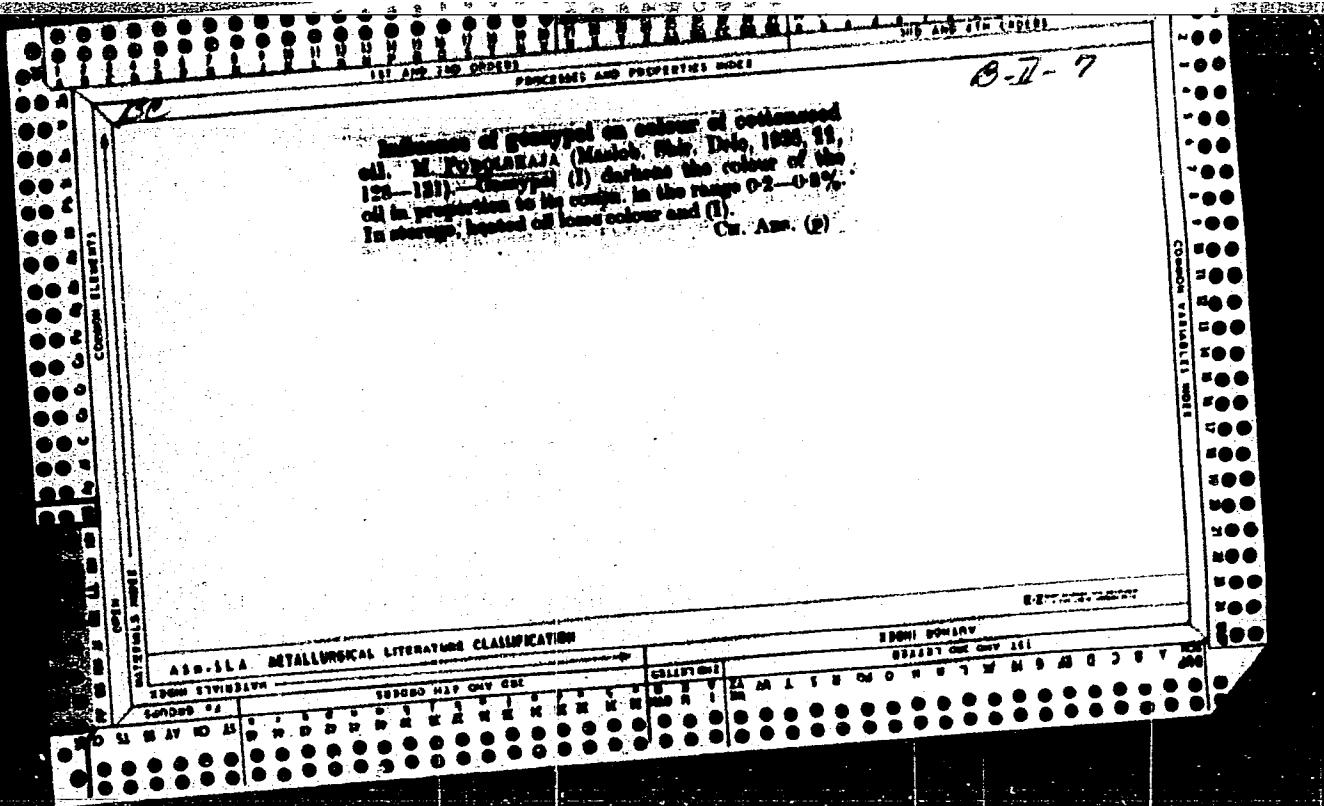
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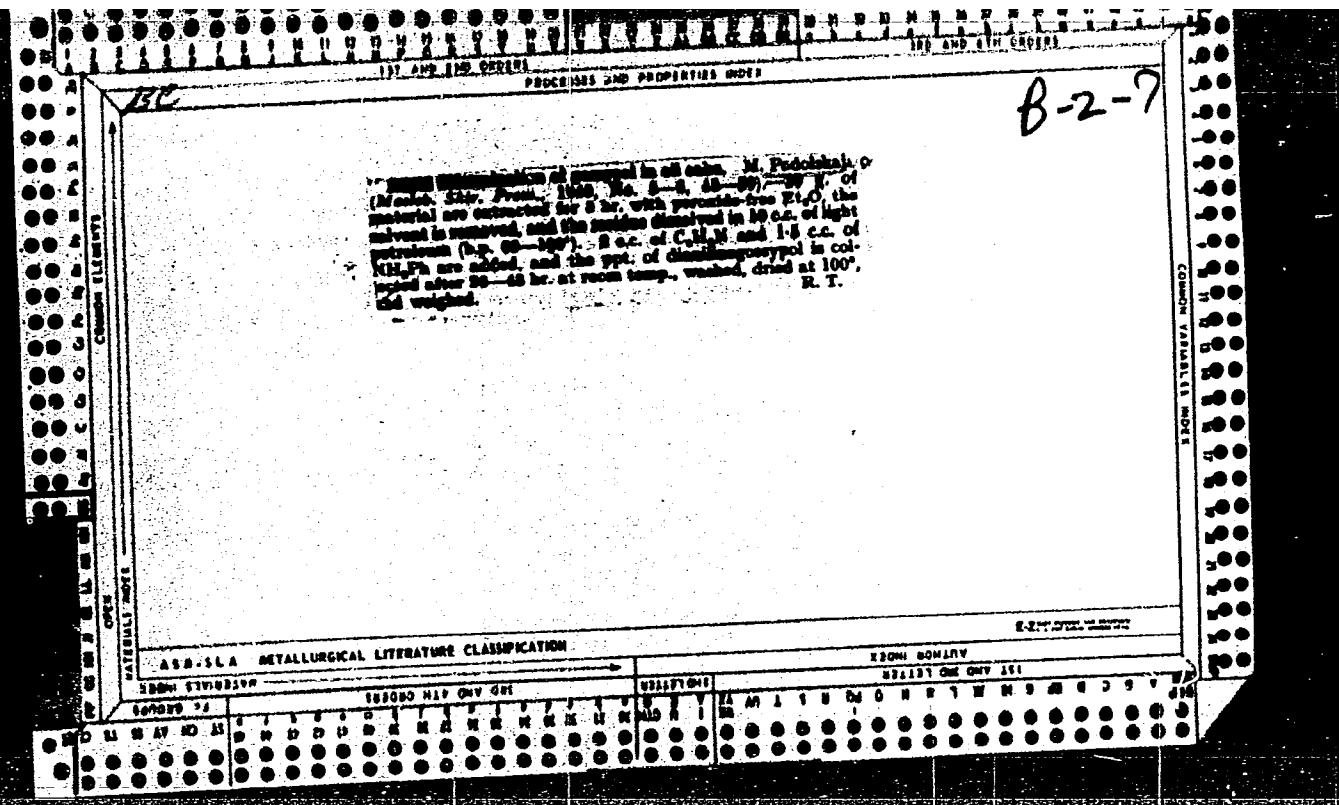
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APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"





ISSN 1062-1024 • VOLUME 11 NUMBER 10 • OCTOBER 1993

6c

a-4

Carotenoids of cotton seed. M. PODOLAKAJA (Masol. Shir. Dolo, 1937, No. 6, 6-9).—Cottonseed kernels (Egyptian and American) contained 0.003-0.183% of carotenoids. R. T.

APPENDIX: STAKEHOLDER LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510006-0"

*ca**11/12*

REFRACTORY AND CERAMIC INDEX

Changes of red gossypol in oil and organic solvents.
M. Podol'skaya. *Maslobolnoe Zhirovoe Delo* 13, No. 5,
N-9(1937), p. 81. C. A. 30, 38581.—The red pigment gossypol changes to yellow, with the disappearance of the absorption bands in the visible spectrum, in org. solvents and the oil and their mixts. at room temp. and more

rapidly on heating the soln. at 60° for 1 hr. The stability of the red pigment decreases in solns. in the increasing order given: CHCl_3 , dichloroethane, b. 83-4°, oil, com. dichloroethane and alc. The final color of the solns. is detd. by the successive changes of the red and yellow pigments.

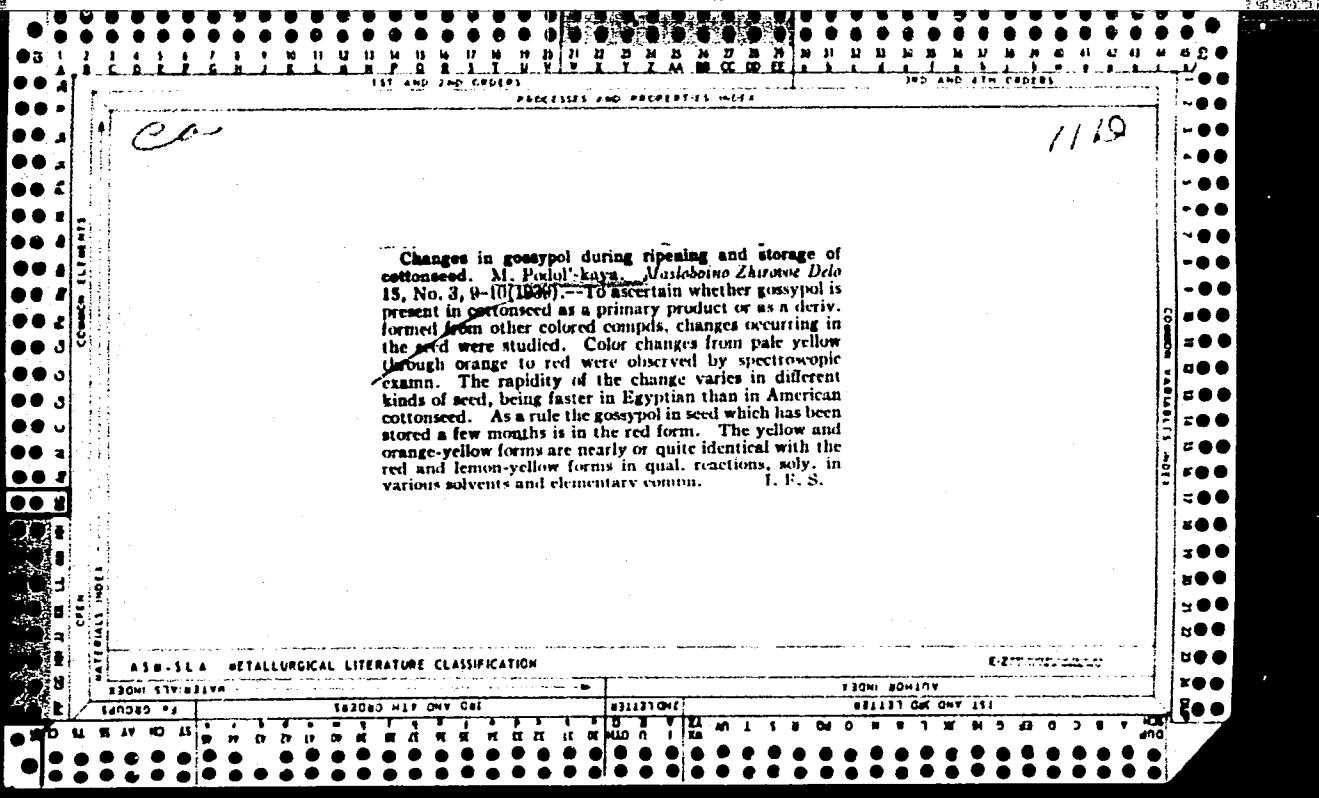
Chas. Blanc

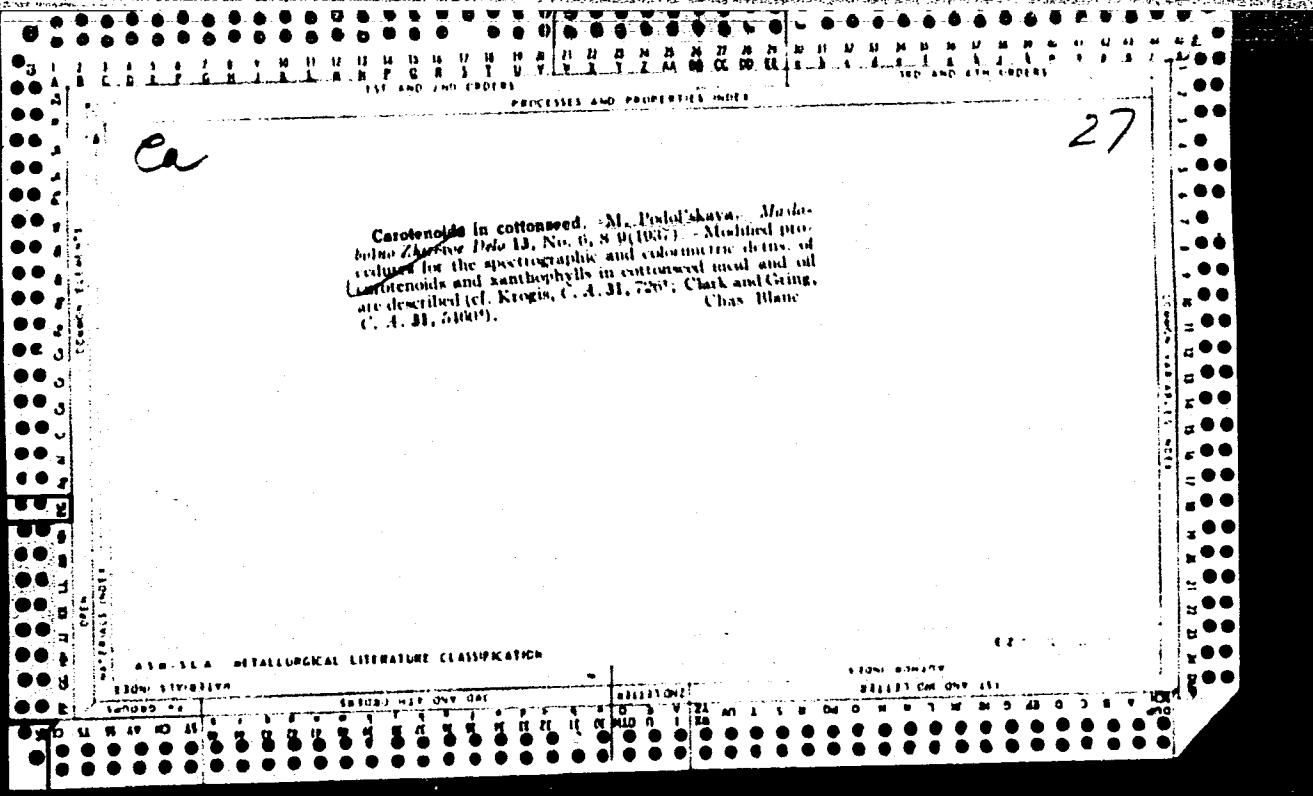
ASA-51A METALLURGICAL LITERATURE CLASSIFICATION

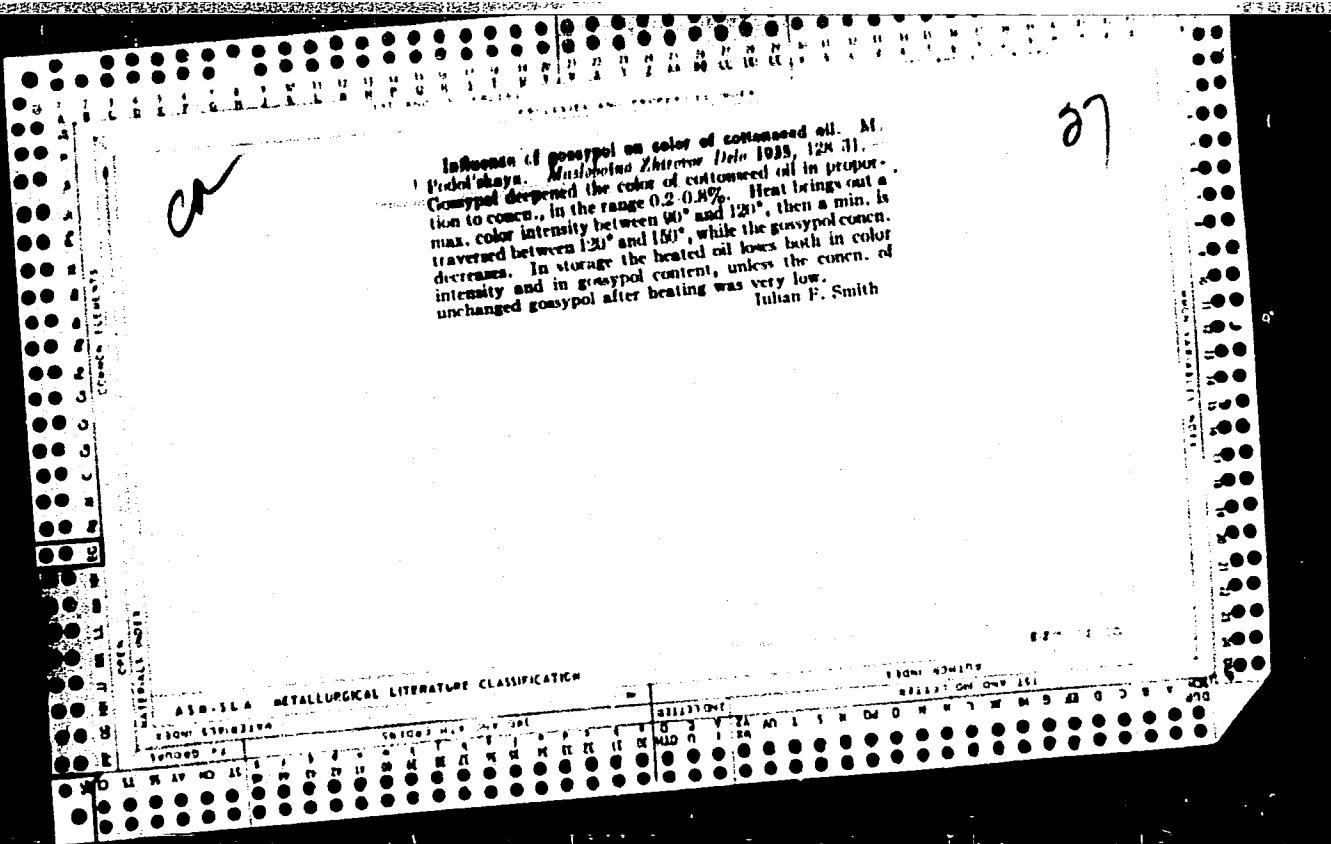
E2

304-117-6217

ALUMINUM INDUSTRY

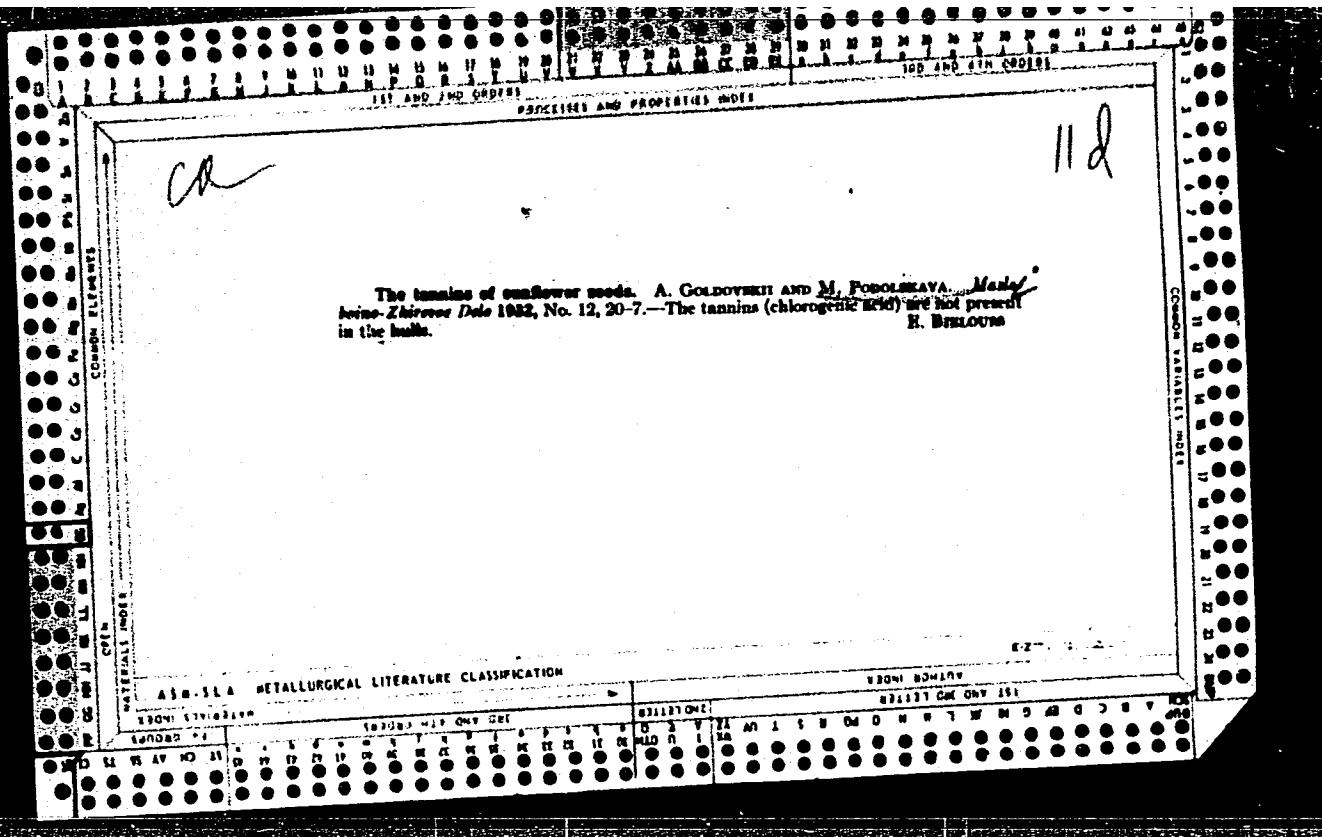






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CIA-RDP86-00513R001341510006-0"

Bc

4-4

Tannins of coniferous seeds. A. Golbovnik and M. Popolakaya (Mashobolino-Zhir. Delo, 1932, No. 12, 20-37).—The tannins (chlorogenic acid) are **not** present in the hulls. Cm. Ans.

CH. ABS.

ABR-3A METALLURGICAL LITERATURE CLASSIFICATION

11346 00000
20113 000 000

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"

KUZNETSOV, Sergey Sergeyevich; VASIL'YEVA, O.S., red.; PODOL'SKAYA, M.Ya.,
red.kart; TSIRUL'NITSKIY, N.P., tekhn.red.

[Russian geologists] Otechestvennye geologi. Moskva, Gos.uchebno-
pedagog. izd-vo M-va pros. RSFSR, 1958. 192 p. (MIRA 11:12)
(Geologists, Russian)

BLONSKAYA, Nataliya Ivanovna, RAUSH, Vera Aleksandrovna,; VASIL'YEVA,
O.S., red.; PODOL'SKAYA, M.Ya., red. kart.; DZHATIYEEVA, F.Kh., tekhn. red.

[Geography lessons for the 4th grade] Uroki geografii v IV klasse;
iz opyta raboty. Izd. 2. Moskva, Gos. uchebno-pedagog. izd-vo
M-va prosv. RSFSR, 1958. 103 p. (MIRA 11:11)
(Geography--Study and teaching)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510006-0
red.kart; VOLCHEK, V.L., tekhn.red.

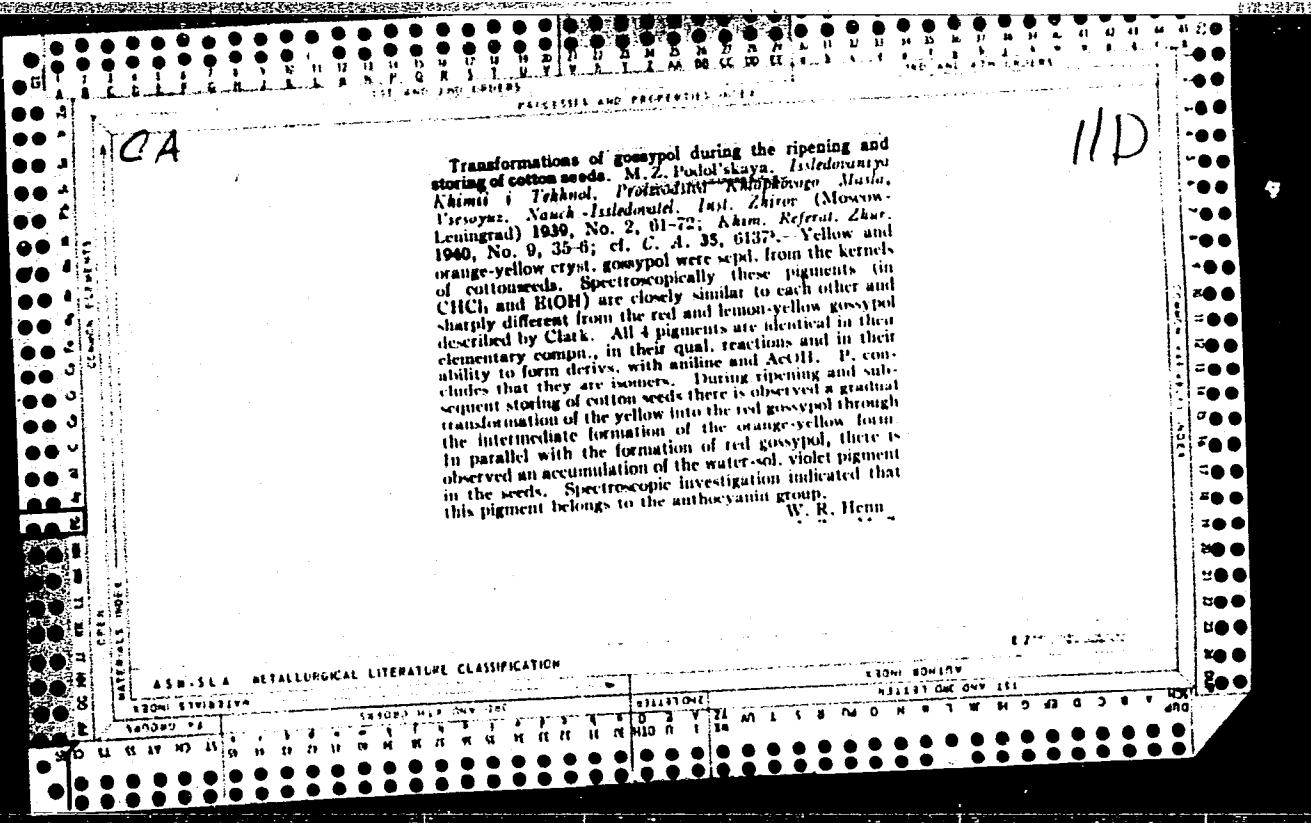
[Geology; dynamic] Geologiia (dinamicheskaiia). Izd.2. Moskva,
Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1959. 270 p.
(MIRA 12:12)
(Geology)

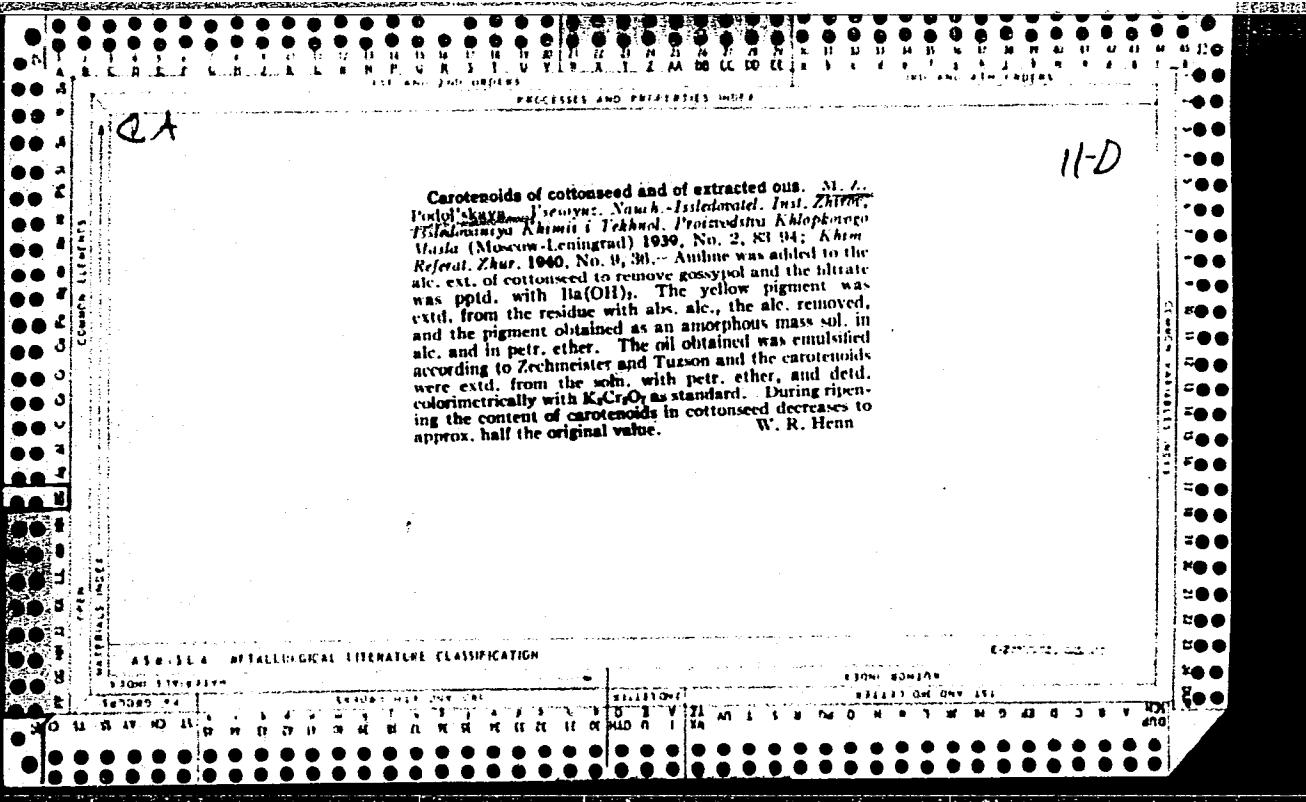
ALEKHIN, Vasilii Vasil'yevich, prof.; GOVORUKHIN, Vasilii Sergeyevich,
prof.; KUDRYASHOV, Leonid Vasil'yevich; SHIBANOVA, A.A., red.;
KONSHINA, V.A., red.; PODOL'SKAYA, M.Ya., red. kart; MAKHOVA,
N.N., tekhn. red.

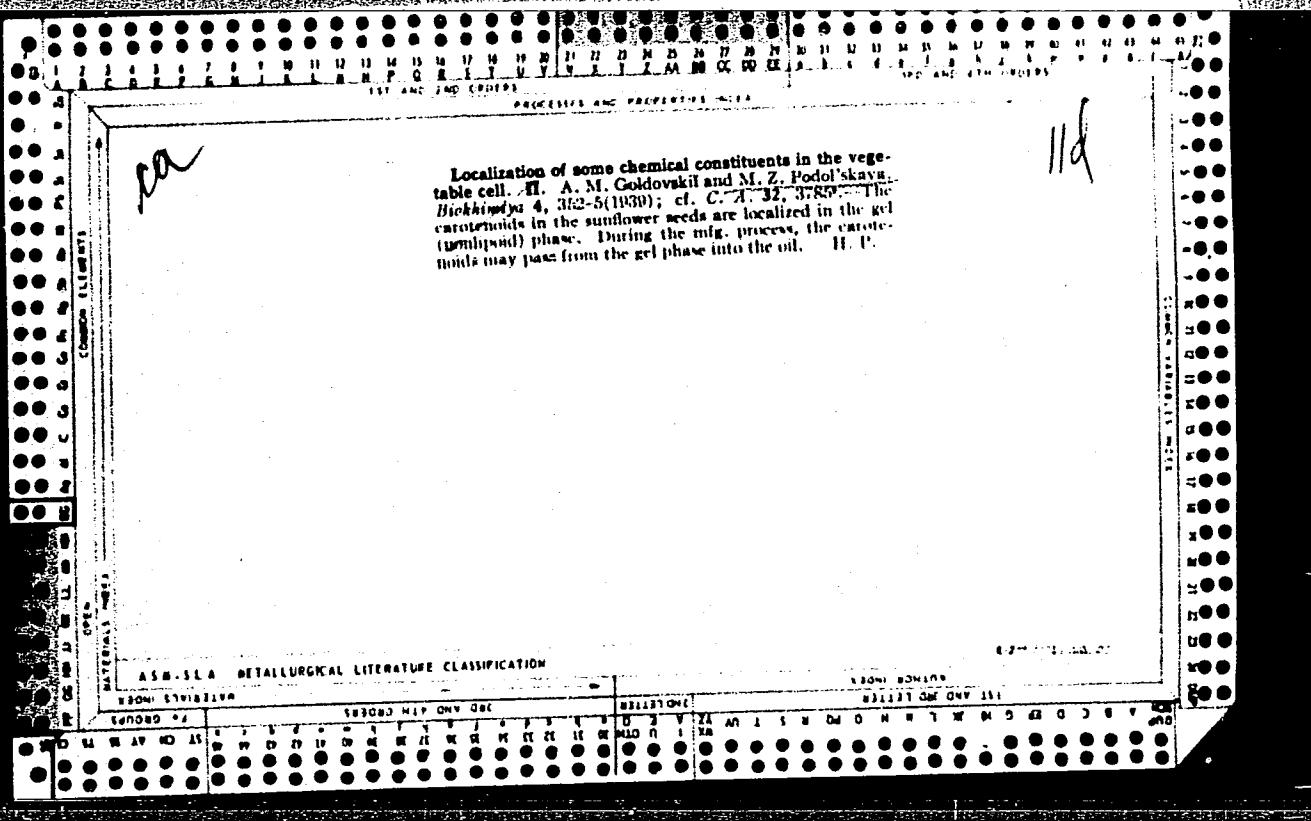
[Plant geography and the principles of botany] Geografiia
rastenii s osnovami botaniki. Izd.2. Moskva, Gos. uchebno-
pedagog. izd-vo M-va prosv. RSFSR, 1961. 531 p.

(MIRA 15:4)

(Phytogeography)



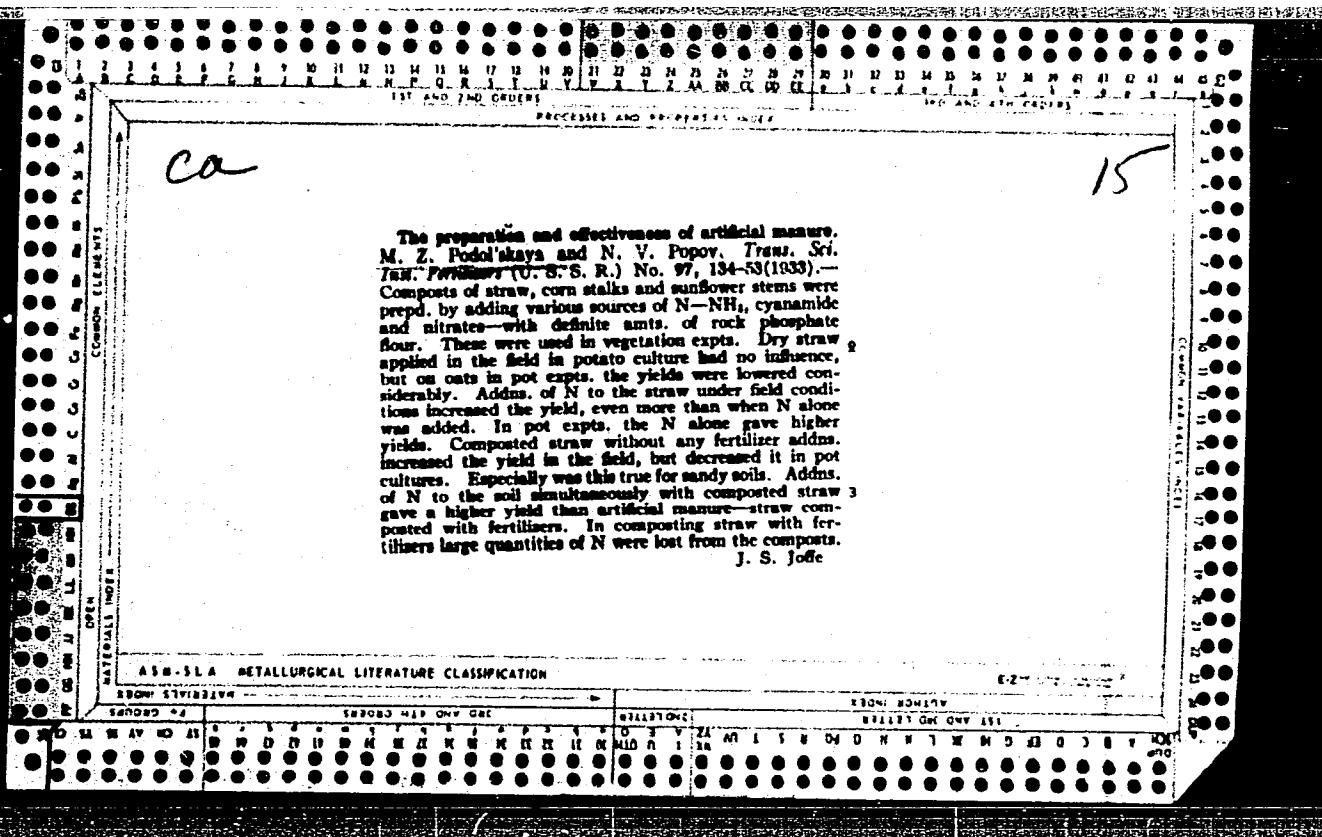


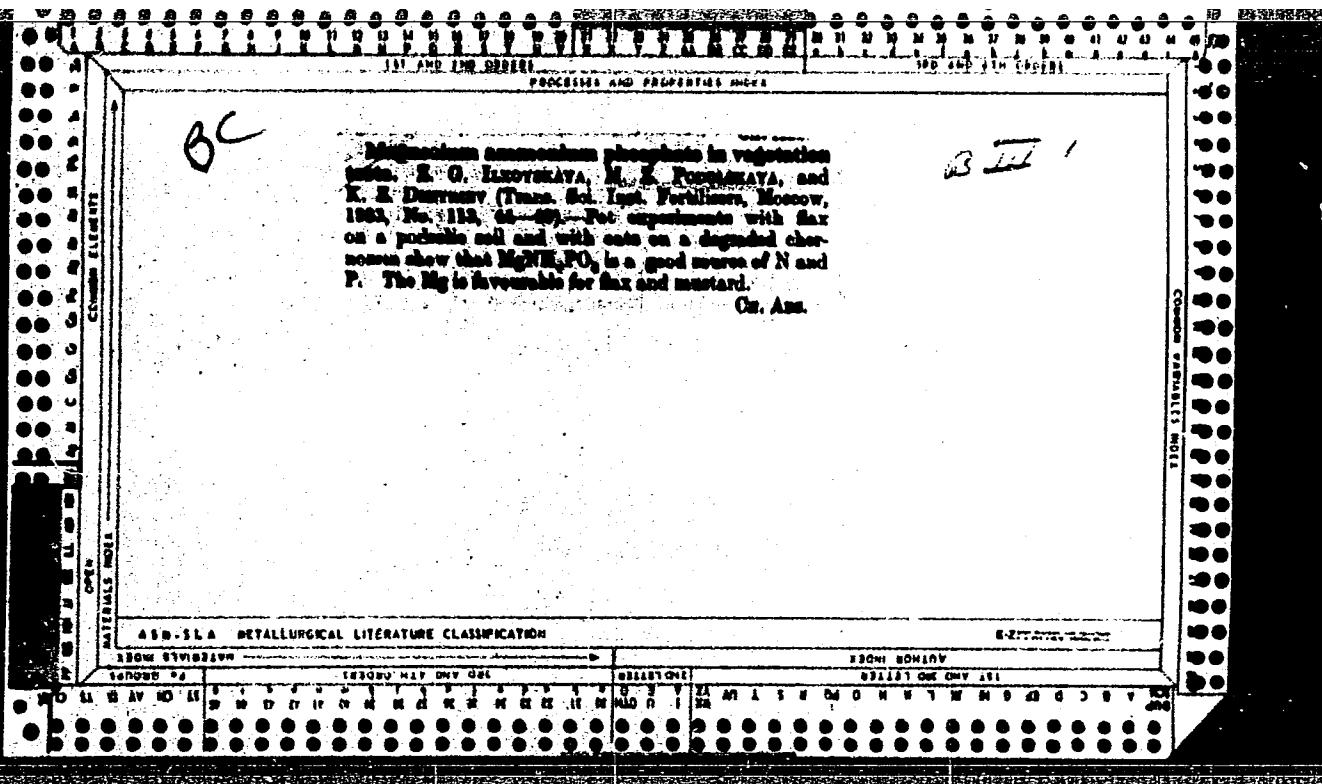


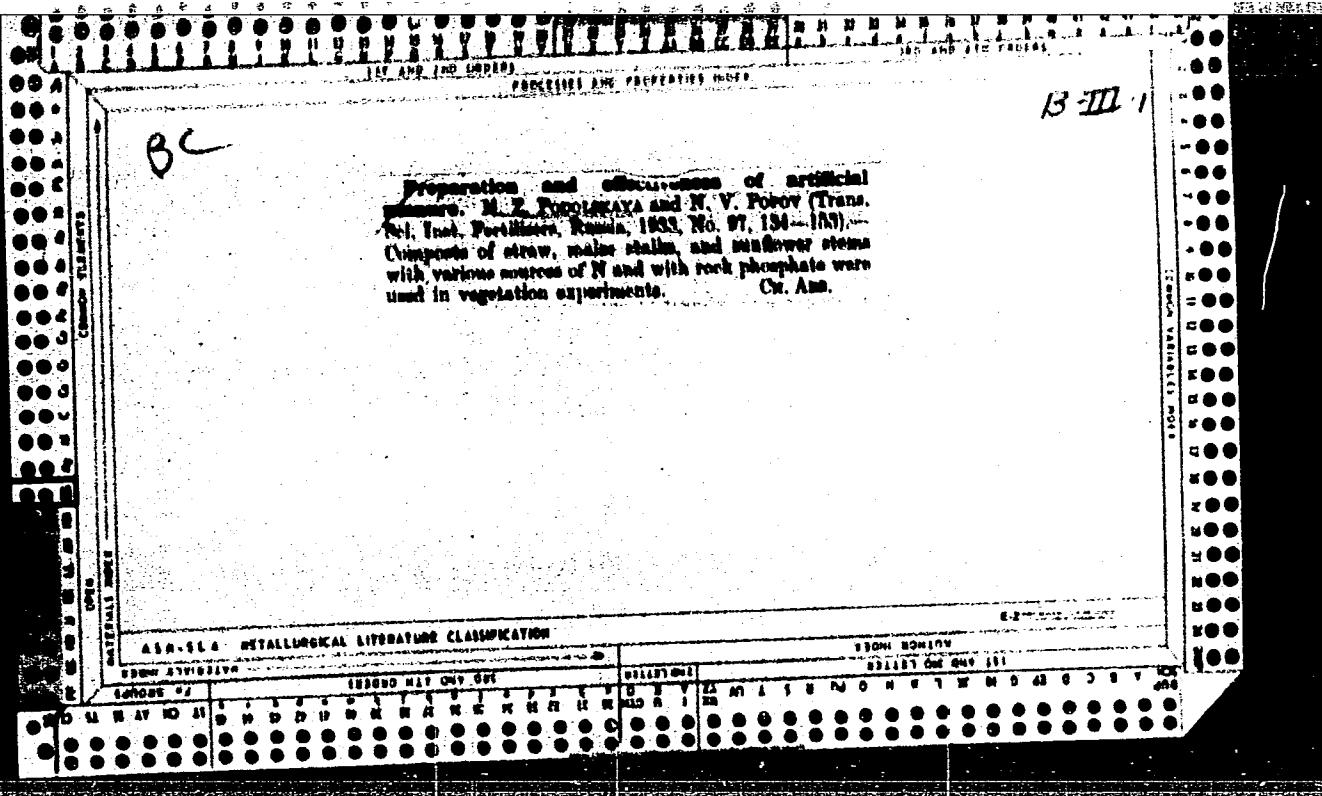
CA

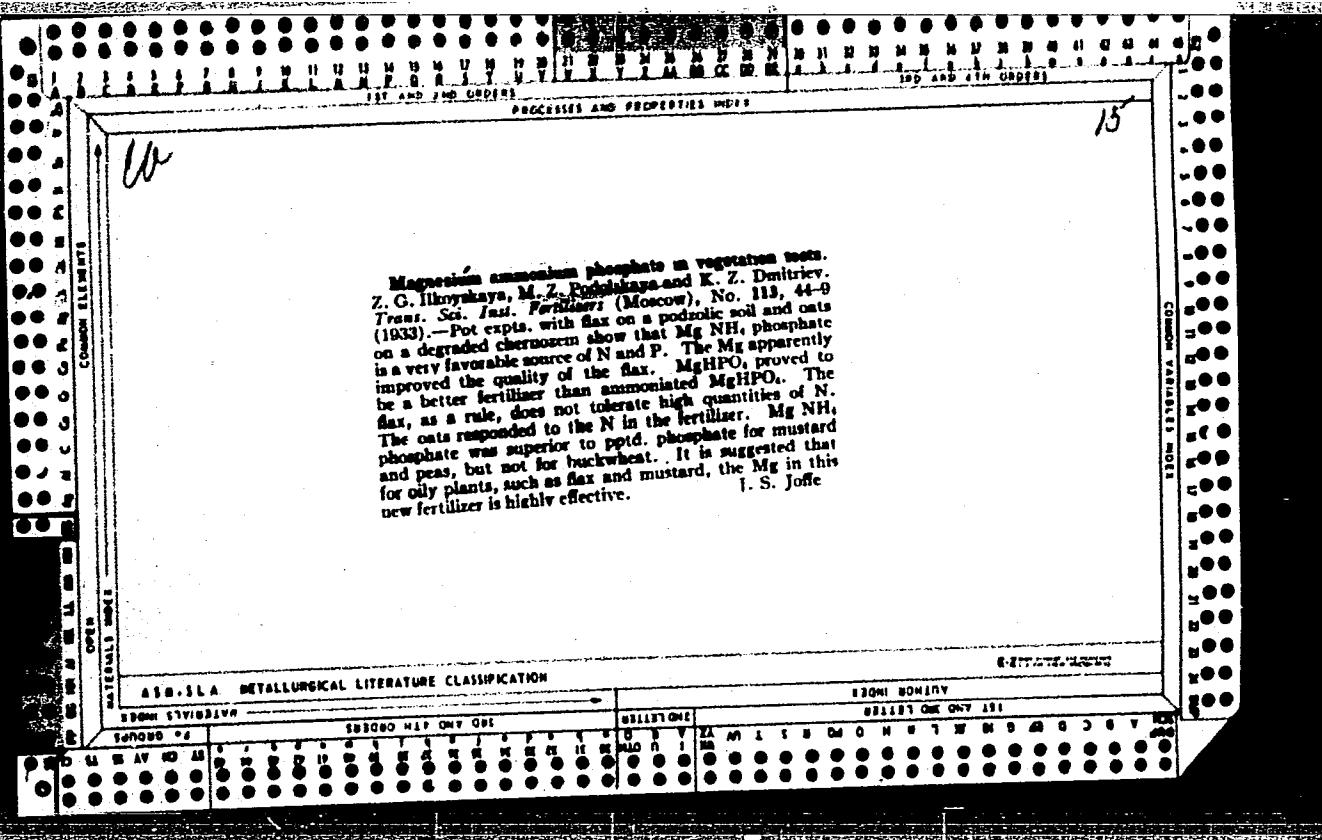
11.2

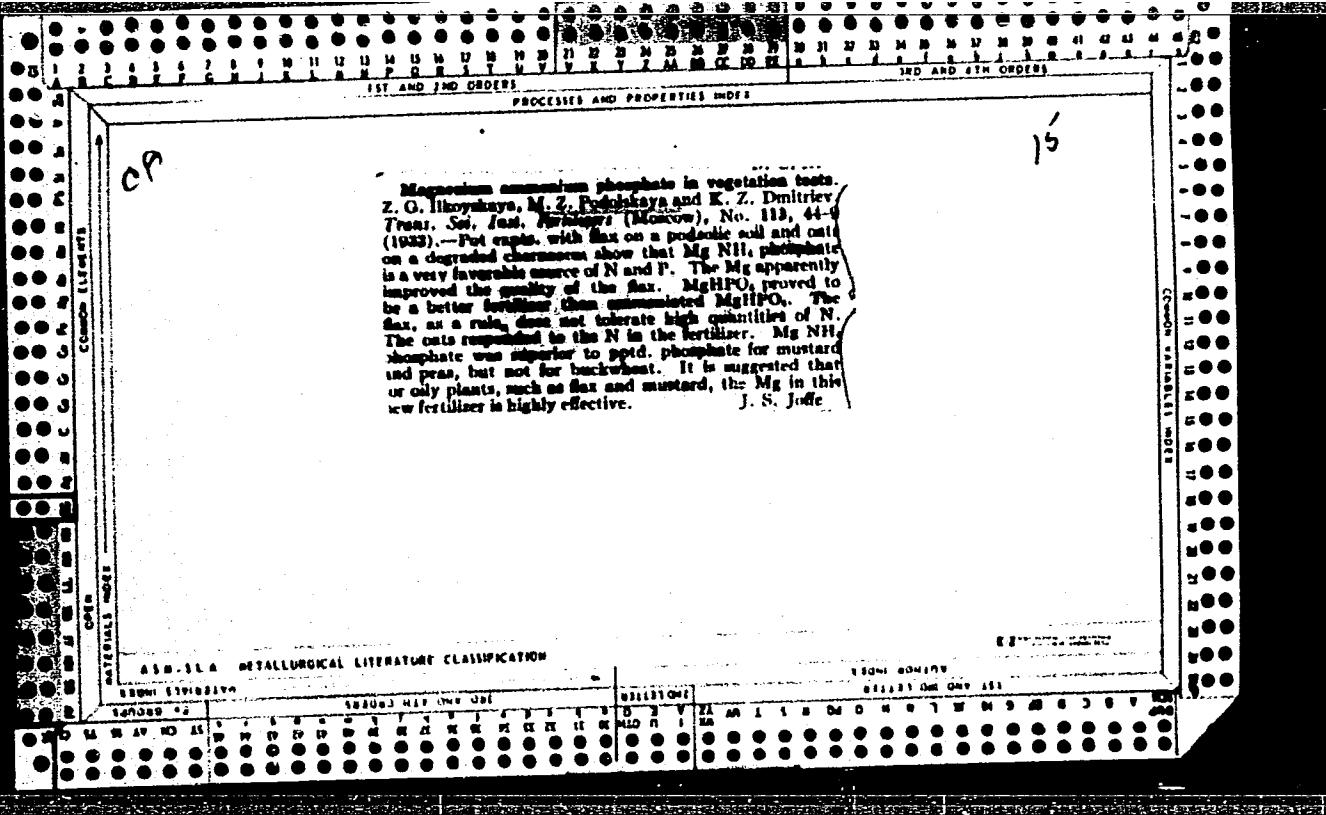
Variations of gossypol content in some species of *Gossypium*. A. M. Goldovskii and M. Z. Podol'skaya (Leningrad AllUnion Pat Inst.). *Biol. Zhur.* 36, 51-61 (1961).—Gossypol is a specific substance found in all species of *Gossypium* plants. *G. herbaceum* contains lowest amounts (down to 0.19%), while *G. barbadense* has the highest (to 1.71%). Other species are intermediate. The highest fat/gossypol ratio is in *G. herbaceum* and lowest in *G. barbadense*. The local biochemical correlation of gossypol content generally parallels the evolutionary state of the plant in the family. G. M. Kosolapoff



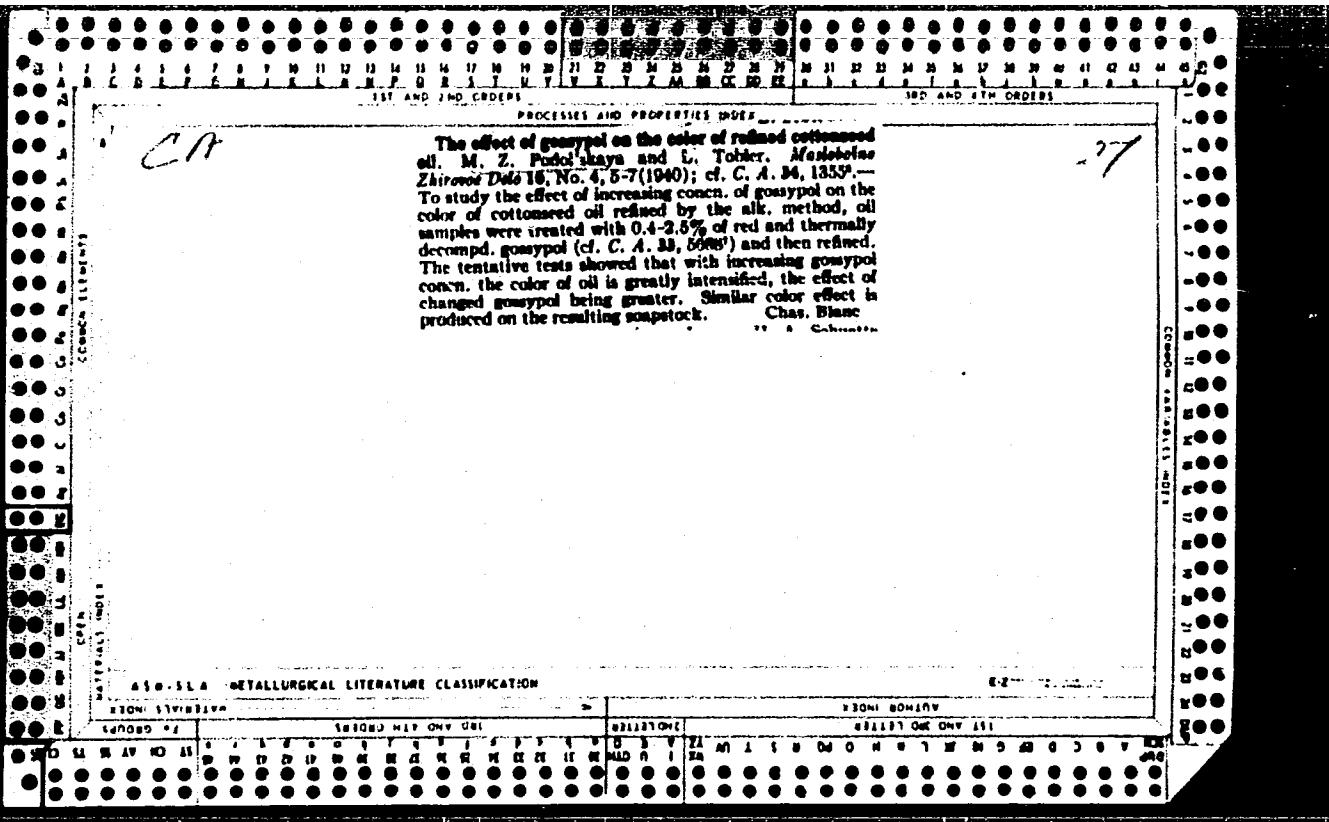


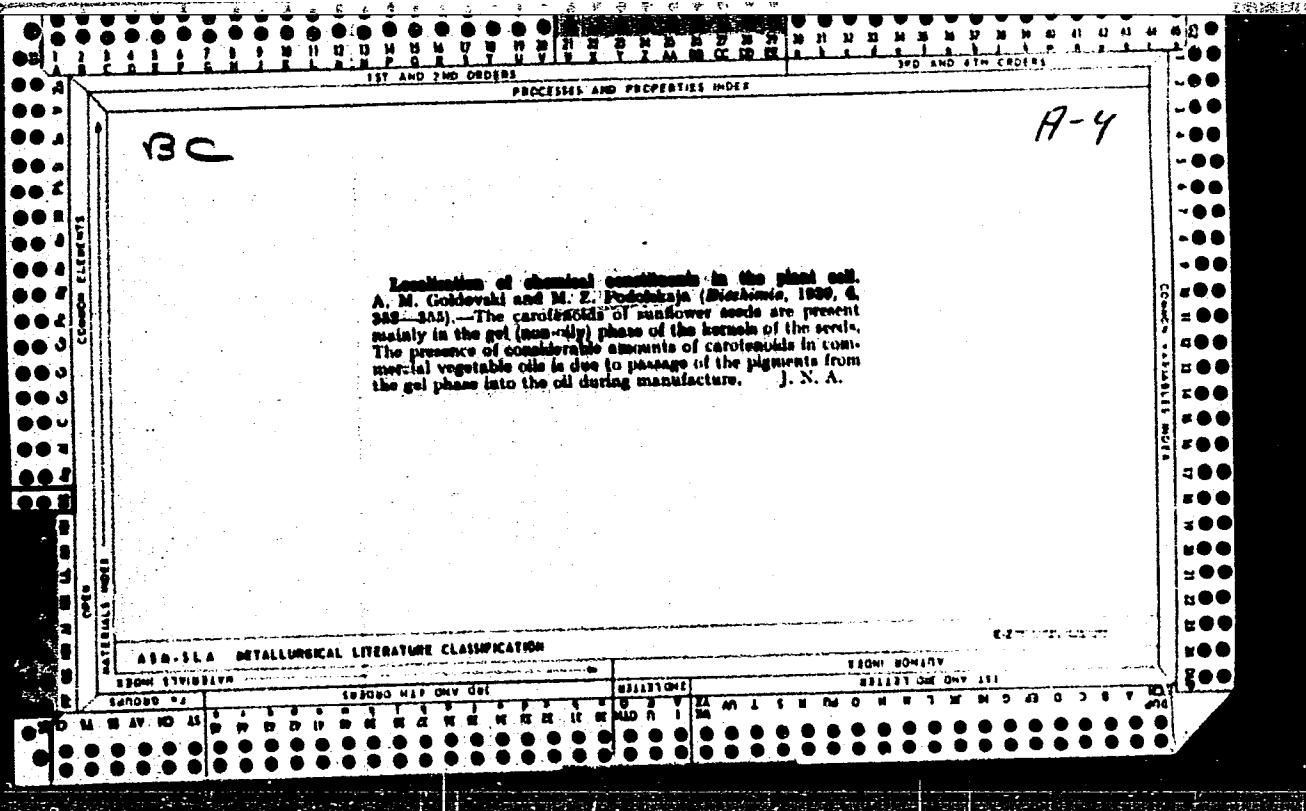






Rapid determination of "free" gossypol in cotton seed, cottonseed cake and meal and of unchanged gossypol in cottonseed oil. M. Z. Podolskaya. (All-Union Sci. Research Inst. Fat Industry, Leningrad). J. Applied Chem. (U.S.S.R.) 17, 657-8 (1944).—A 2-g. sample of ground seed is extd. with Et₂O in Soxhlet app. for 10-11 hrs.; the filtered ext. is freed from solvent and treated with refined cottonseed oil; other vegetable oils can be used, if they contain no substances which reduce Fehling soln. (7-8 cc.), 10 cc. 12% NaOH, 20 cc. portions of Fehling soln. components, and the mixt. is then agitated and warmed at such a rate that the first bubbles begin to appear in 3-3.5 min.; after boiling for 3 min., and standing for 3 min. the ppt. is filtered, washed with petr. ether-EtOH or Et₂O-EtOH, then with hot water; after soln. of the ppt. in Fe sulfate it is titrated with KMnO₄ to obtain "free" gossypol in the seed; to obtain this detn. in cake or meal, the materials are ground to pass a 1-mm. sieve and 10-30-g. samples are extd. with Et₂O for 20 hrs. after addn. of a little water to the extn. flask. The rest of the detn. is as above. Unchanged gossypol in oil is detd. by treating a 1.0-1.5g. sample with 10 cc. 12% NaOH and 20 cc. portions of the Fehling soln. components. The detn. is then conducted as above. The following table was worked out for relation of gossypol (mg.) and Cu (mg.): 5, 4.8; 10, 9.6; 15, 14.7; 20, 21.3; 25, 30.5; 30, 33.4; 35, 42.8; 40, 51.3. Results are close to those obtained by the aniline-pyridine method. G. M. Kosolapov

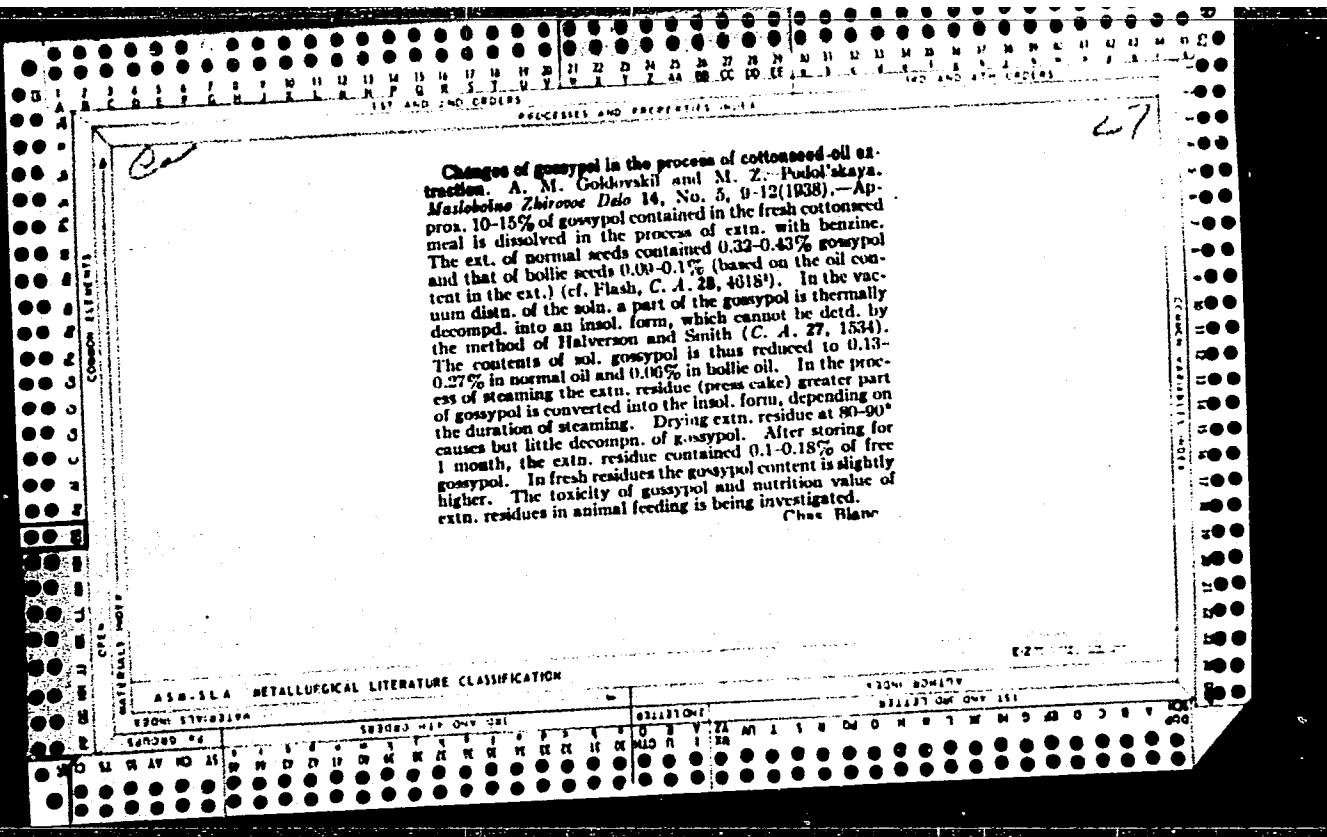




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CM

Rapid method for determining free gossypol in press cake and crushed cottonseed. M. Z. Pudol'skaya. Mashinostroenie, Zhurnal Prom. 10, No. 5/6, 48-50 (1940). Cottonseed meal or cake is extd. 3 hrs. with peroxide-free Et_2O and the Et_2O is evapd. The ext. from 31 g. of sample is treated with 10 cc. gassing (1. 01) 100%, 2 cc. pyridine and 1.5 cc. $\text{Pb}(\text{ClO}_4)_2$. Diaminogossypol is completely pptd. in 30-40 min. if the gossypol content of the sample is above 0.1%, in 120-150 min. with 0.08-0.1% gossypol and in 24 hrs. with 0.05-0.00% gossypol. The ppt. is filtered off and dried 1 hr. at 100°. Julian F. Smith



L 4176-66 EWT(m)/EPF(c)/T DJ
 ACC NR: AP5024380 SOURCE CODE: UR/0286/65/000/015/0068/0068

INVENTOR: Skripchenko, Ye. S.; Naumenko, P. V.; Podol'skaya, N. Z.; Orlova, K. I.;
 Balagin, I. S.; Sventokhovskaya, V. K.; Dyuzhev, I. K.; Sorochenko, S. I.; Klimkovich,
 V. V.; Chamin, T. S.; Kabantsev, N. A.; Tarlinskiy, D. I.; Zaytsev, V. V.; Tokar',
 I. K.; Znamenskaya, G. A.; Koritskiy, G. K.

ORG: none

TITLE: Method of obtaining liquid lubricant-coolant for rolling thin steel strips.
 Class 23, No. 173369

SOURCE: Byulleten' izobreteniya i tovarnykh znakov, no. 15, 1965, 68

TOPIC TAGS: lubricant, coolant, liquid lubricant, rolling lubricant, cold rolling,
 strip rolling

ABSTRACT: This Author Certificate introduces a method for the preparation of a liquid
 coolant-lubricant based on methylenebisamide of synthetic fatty acid used, for
 instance, in rolling thin transformer or stainless-steel strips. To obtain a stable
 lubricant which would make it possible to roll the strips to a required thickness, an
 alkylsulfonate, alkylarylsulfonate, or hydroxyethyl amine of fatty acid containing five
 Hydroxy radicals is added to the methylenebisamide of synthetic fatty acid. In a [AZ]
 variant, the specified components are melted and then emulsified in water.

SUB CODE: FP, MM, IE/SUBM DATE: 21Jun61/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4128
 Card 1/1 MA UDC: 621.892:621.7.016.3

PODOL'SKAYA, M.Z., kand. biol. nauk.

Study of the characteristics and composition of cottonseed of new
regionally adapted varieties. Masl.-zhir. prom. 24 no.9:8-14 '58.
(MIRA 11:10)

(Cottongseed)

PODOL'SKAYA, M.Z.

"The Localization of some Chemical Constituents in
the Vegetable, cell: II," Biokhim., 4, No. 3,
1939. Mbr., Lab. Biochemistry Technology, All-Union Inst.
Leningrad, -1939-.

PODOLSKAYA, M.Z.,
A. M. GOLDOVSKII, Vsesoyuz Nauch. Issledovatel. Inst.
Zhirov, Cottonseed -Oil Production 1936, 55-61, 62-9,
71-7, 77-86.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0

PODOL'SKAYA, N.P.

Farming practices in different zones of the European part of the
R.S.F.S.R. and White Russia. Zemledelie 6 no.12:42-54 D '58.
(MIRA 11:12)
(Agriculture) (White Russia--Agriculture)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"

PODOL'SKAYA, N. P.

Kol'khoz "Krasnyy putilovets" (Collective farm "Red pathfinder") Moskva,
Sel'khozgiz, 1952.
109 p. illus., ports., tables.

227N/5
722.101
.P7

PODOL'SKAIA, N. P.

Kolkhoz "Krasnyi putilovets," (Krasnyi Putilovets" collective farm). Moskva, Sel'khozgiz,
1952. 112 p.

SO: Monthly List of Russian Accessions, Vol 6, No. 3, June 1953

PEDOL'SKAYA, N. P.

Agriculture

"Krasnyi Putilevets" collective farm, Moskva Sel'khozgiz, 1952

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

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0

PODOL'SKAYA, N.P.; TIKHOMIROVA, S.M.

Advanced practices of obtaining increased yields of high-quality flax. Zemledelie 7 no.10:28-34 O '59.
(MIRA 13:1)

(Flax)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341510006-0"

PODOL'SKAYA, N. S.

Metals - Heat Treatment; Aluminum Alloys

Heat effect of the process of natural aging of the
Al-Cu (5 percent Cu) alloy after annealing and
recovery., Zhur, ob, khim., 22, no. 1, 1952.
Termicheskaya Laboratoriya im. Prof. Luginina
Moskovskogo Gosudarstvennogo Universiteta

Monthly List of Russian Accessions, Library
of Congress, May 1952. UNCLASSIFIED.

GTR PODOL'SKAYA, N. S

measured - drawn

10036. The Thermal Effect of the Process of Natural Aging of Al-Cu Alloys (35Cu) After Hardening and Recovery.
(Russian.) S. M. Skuratov and N. S. Podol'skaya. Zurnal
Obshchey Khimii, v. 22 (84), Jan. 1952, p. 31-38.
The thermal effects were studied in a specially prepared alloy.
Specimens were hardened at 19.2 and 26.0°C. Data are tabulated.

AUTHORS:

Ivanov, M. I., Tumbakov, V. A.,
Podol'skaya, N. S.

SOV/89-5-2-10/36

TITLE:

The Formation Heat of UAl_2 , UAl_3 and UAl_4 (Teploty obrazovaniya
 UAl_2 , UAl_3 i UAl_4)

PERIODICAL:

Atomnaya energiya, 1958, Vol. 5, Nr 2, pp. 166-170 (USSR)

ABSTRACT:

The intermetallic compounds of UAl_2 , UAl_3 and UAl_4 were produced by reciprocal diffusion during the heating of aluminum and disperse uranium. Uranium was obtained by the precipitation of uranium hydride. The completed compounds were ground and after renewed heating the preparation was ready for use in form of a powder. The X-ray investigation of the Debye diagrams showed that the produced preparations are monophase and that the parameters of their structure are very similar to those published formerly. It was determined from the amount of hydrogen development in the case of a suitable dissolution of the preparation and from the initial components of a specially prepared solvent (a mixture of HCl , H_3PO_4 , Na_2SiF_6 , H_2PtCl_6 , $CuSO_4 \cdot 5H_2O$) that the preparations had the following composition:

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The Formation Heat of UAl_2 , UAl_3 and UAl_4

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$\text{UAl}_1,997$, $\text{UAl}_2,994$, $\text{UAl}_3,997$

The heat of formation ($-\Delta H_{298}^{\circ}$) was determined as:

UAl_2 $22,3 \pm 2,4$ kcal/mol

UAl_3 $25,2 \pm 2,2$ kcal/mol

UAl_4 $31,2 \pm 3,1$ kcal/mol

There are 2 figures, 3 tables, and 8 references, 5 of which are Soviet.

SUBMITTED: March 18, 1958

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AKHACHINSKIY, V.V., KOPYTIN, L.M., IVANOV, M.I., AND PODOLSKAYA, N.S.

"Heats of formation of intermetallic compounds of Pu with Al and Fe, U with Fe."

Report submitted to the IAEA Symposium on the Thermodynamics of Nuclear Materials.

Vienna, Austria

21-26 May 1962

8/089/62/013/006/008/027
B102/B186

AUTHORS: Ivanov, M. I., Podol'skaya, N. S.

TITLE: UFe₂ and U₆Fe formation heats

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 572 - 575

TEXT: Since no data were known for the UFe₂ and U₆Fe formation heats, these were determined with great accuracy. The formation heat of UFe₂ was found from the difference of dissolution heats of UFe₆ and the stoichiometric mixture of its components. UFe₂ was produced by fusing Fe and U powders in pure hydrogen atmosphere (700 mm Hg, 1270±20°C, 1.5 hrs). The alloy contained in a BeO crucible within a double-walled quartz ampoule was then annealed by a certain procedure, cleaned from surface oxides, etched, washed and dried in vacuo. An X-ray powder-pattern analysis showed that the product was single-phased and cubic with $a=7.044\pm0.002$ kX. By metallographic means, traces of a UFe₂-Fe eutectic were detected at the grain boundaries. Vacuum-melting analysis showed the presence of $[H] < 1 \cdot 10^{-4}$ wt%, Card 1/2