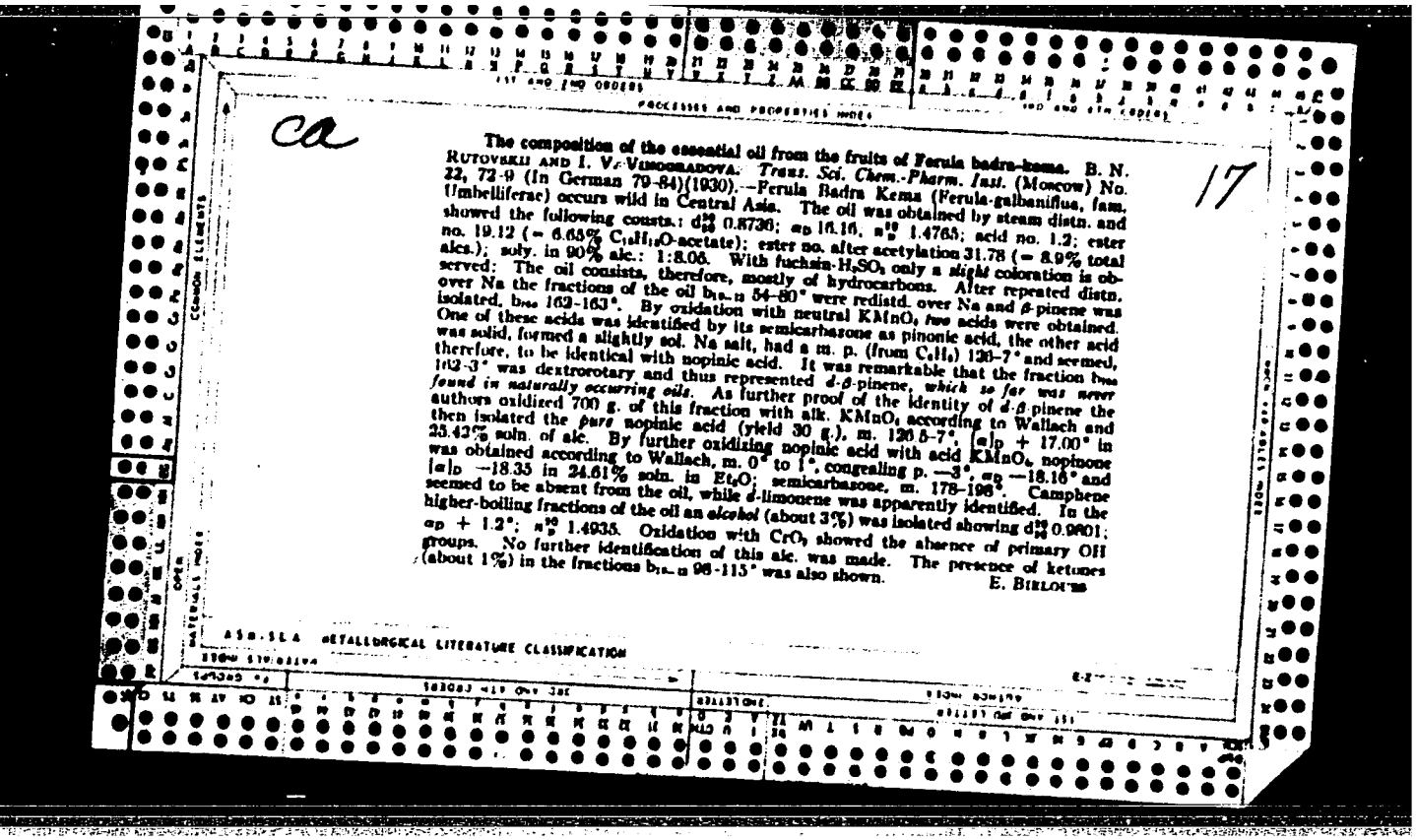
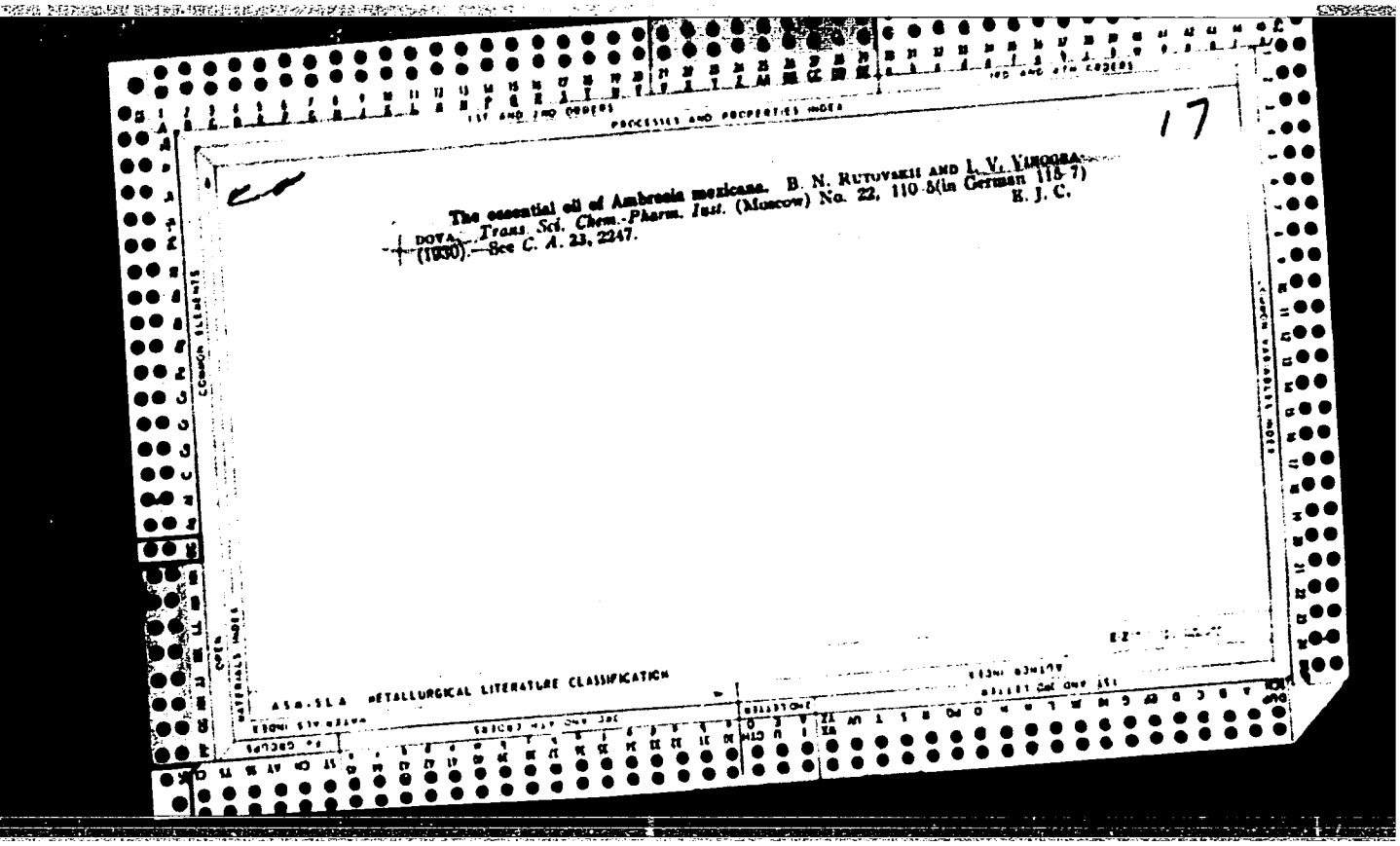


Ca

17

The composition of the essential oil from the fruits of Ferula badra-kema. B. N. RUTOVSKII AND I. V. VINOGRADOVA. *Trans. Sci. Chem.-Pharm. Inst.* (Moscow) No. 22, 72-9 (In German 79-84)(1930).—Ferula Badra Kema (Ferula-galbaniflua, fam. Umbelliferae) occurs wild in Central Asia. The oil was obtained by steam distn. and showed the following consts.: d_{20}^{20} 0.8736; α_D 16.16, n_D^{19} 1.4765; acid no. 1.2; ester no. 19.12 (= 6.65% $C_{10}H_{17}O$-acetate); ester no. after acetylation 31.78 (= 8.9% total alcs.); soly. in 90% alc.: 1:8.06. With fuchsin-H_2SO_3 only a *slight* coloration is observed: The oil consists, therefore, mostly of hydrocarbons. After repeated distn. over Na the fractions of the oil b_{760} 54–60° were redistd. over Na and β-pinene was isolated, b_{760} 162–163°. By oxidation with neutral $KMnO_4$ *two* acids were obtained. One of these acids was identified by its semicarbazone as pinonic acid, the other acid was solid, formed a slightly sol. Na salt, had a m. p. (from C_6H_6) 126–7° and seemed, therefore, to be identical with nopinic acid. It was remarkable that the fraction b_{760} 162–3° was dextrorotary and thus represented *d*-β-pinene, *which so far was never found in naturally occurring oils.* As further proof of the identity of *d*-β-pinene the authors oxidized 700 g. of this fraction with alk. $KMnO_4$ according to Wallach and then isolated the *pure* nopinic acid (yield 30 g.), m. 126.5–7°, $[\alpha]_D$ + 17.00° in 25.43% soln. of alc. By further oxidizing nopinic acid with acid $KMnO_4$ nopinone was obtained according to Wallach, m. 0° to 1°, congealing p. —3°, α_D —18.16° and $[\alpha]_D$ —18.35 in 24.61% soln. in Et_2O; semicarbazone, m. 178–198°. Camphene seemed to be absent from the oil, while *d*-limonene was apparently identified. In the higher-boiling fractions of the oil an *alcohol* (about 3%) was isolated showing d_{20}^{20} 0.9801; α_D + 1.2°; n_D^{20} 1.4935. Oxidation with CrO_3 showed the absence of primary OH groups. No further identification of this alc. was made. The presence of ketones (about 1%) in the fractions b_{760} 98–115° was also shown.

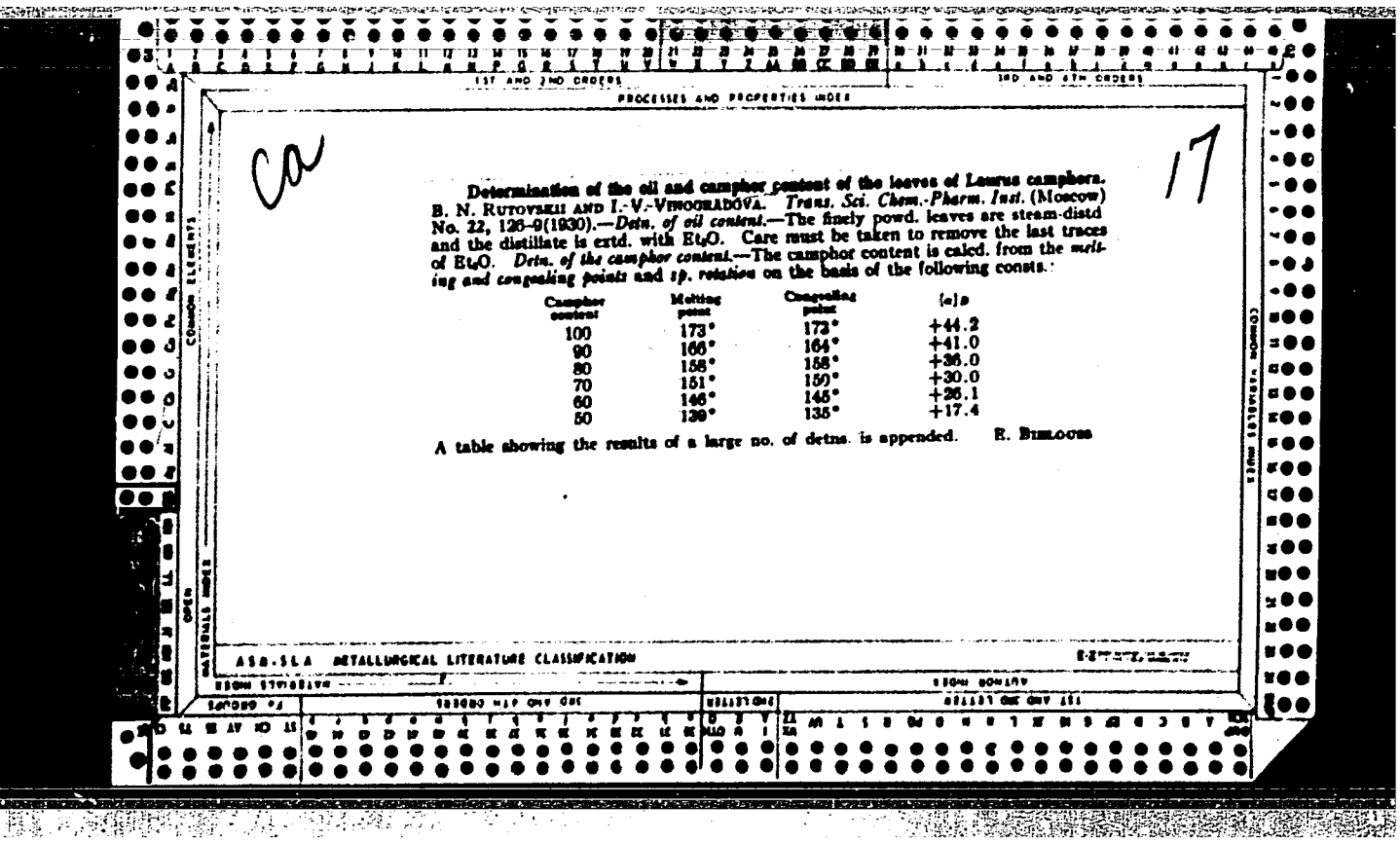
E. BIELOUS



The essential oil of Ambrosia mexicana. B. N. Rutovskii and I. V. Yurgina. Trans. Sci. Chem.-Pharm. Inst. (Moscow) No. 22, 110-8(in German 118-7) (1930).—See C. A. 23, 2247. E. J. C.

17

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

ca

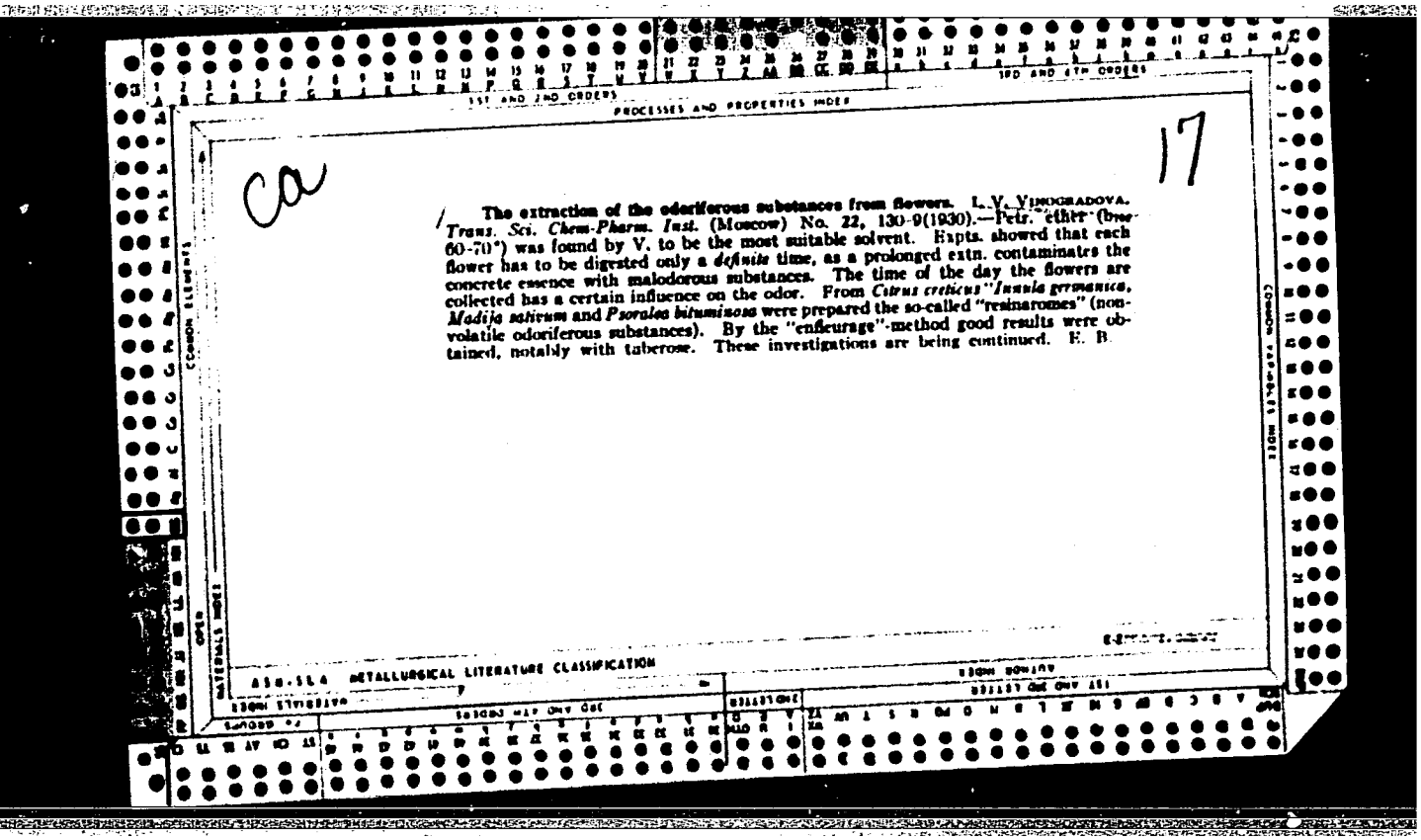
17

Determination of the oil and camphor content of the leaves of Laurus camphora. B. N. Rutovskii and I.-V.-Vinogradova. *Trans. Sci. Chem.-Pharm. Inst.* (Moscow) No. 22, 126–9(1930).—*Detn. of oil content.*—The finely powd. leaves are steam-distd and the distillate is extd. with Et_2O. Care must be taken to remove the last traces of Et_2O. *Detn. of the camphor content.*—The camphor content is calcd. from the *melting and congealing points* and *sp. rotation* on the basis of the following consts.:

Camphor content	Melting point	Congealing point	$[\alpha]_D$
100	173°	173°	+44.2
90	166°	164°	+41.0
80	158°	158°	+36.0
70	151°	150°	+30.0
60	146°	145°	+26.1
50	139°	135°	+17.4

A table showing the results of a large no. of detns. is appended. R. Bumlocos

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



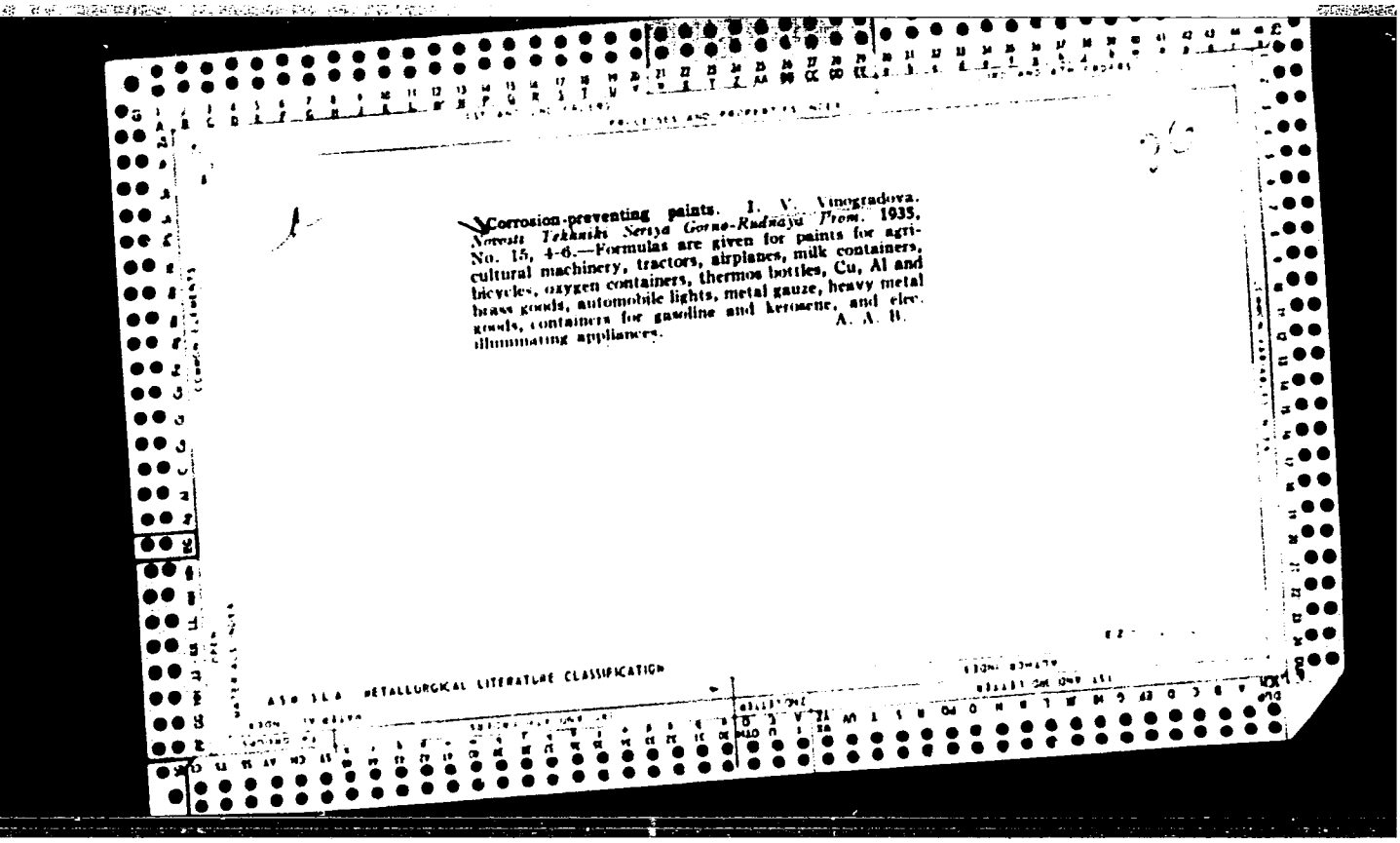
PROCESSES AND PROPERTIES INDEX

Ca

17

The extraction of the odoriferous substances from flowers. L. V. YUROGRADOVA. *Trans. Sci. Chem-Pharm. Inst.* (Moscow) No. 22, 130-9(1930).—Petr. ether (boo 60-70°) was found by V. to be the most suitable solvent. Expts. showed that each flower has to be digested only a *definite* time, as a prolonged extn. contaminates the concrete essence with malodorous substances. The time of the day the flowers are collected has a certain influence on the odor. From *Citrus creticus* "*Inunia germanica*, *Madija sativum* and *Psorales bituminosa* were prepared the so-called "resinaromes" (non-volatile odoriferous substances). By the "enfleurage"-method good results were obtained, notably with tuberose. These investigations are being continued. E. B.

A58-5L4 METALLURGICAL LITERATURE CLASSIFICATION



Corrosion-preventing paints. I. V. Vinogradova. *Novosti Tekhniki Sertya Gorno-Rudnaya Prom.* 1935, No. 15, 4-6.—Formulas are given for paints for agricultural machinery, tractors, airplanes, milk containers, bicycles, oxygen containers, thermos bottles, Cu, Al and brass goods, automobile lights, metal gauze, heavy metal goods, containers for gasoline and kerosene, and elec. illuminating appliances. A. A. B.

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

1174. CELANDINE IN THE TREATMENT OF LUPUS VULGARIS (Russian text) - Fedorovskaya R. F. and Vinogradova I. V. - NAUCH. ZAP. GORK. INST. DERM. I VENER. I KAF. KOZHNO-VENER. BOLEZ. GGMI 1956, 17 (125-131)

The properties of chelidonium (celandine) and its use in medicine are described. An ointment containing 25% of chelidonium in a lard and lanolin base was applied for the treatment of lupus vulgaris in 56 patients. Twenty-five of them had combined treatment, the rest were treated with chelidonium ointment only. In the latter group of patients a clinical cure of early lesions was effected within 7 to 30 days. In a longstanding process it was necessary to apply also other general therapeutic measures. The effectiveness of the ointment is explained as being due to the high content of vit. A and C in the celandine and to its keratolytic and bactericidal action. (S)

VINOGRADOVA, I.V., doktor khimicheskikh nauk.

Accelerating the settling of scented liquids. Masl.-zhir.prom. 23 no.5:29-34 '57. (MIRA 10:7)

1. Moskovskaya parfyumernaya fabrika No.3.
(Perfumery)

RUTMAN, D.S.; [illegible]; KARGINA, T.S.; KALLIGA, G.P.; [illegible]; SHELIKO, Ye.I.

Improving the technology of zirconium articles by casting prestabilized ZrO_2 from water suspensions. Ogneupory 26 no.7:303-307 '61. (MIRA 14:7)

1. Podolskiy zavod ogneupornykh izdeliy (for Rutman, Vinogradova, Kharkova). 2. Khimiko-tekhnologicheskiy institut im. Mendeleyeva (for Kalliga, Kolbanova, Shalirov).
(Zirconia)

ZVYAGINTSEV, D.G.; VINOGRADOVA, K.A.; AGRE, N.S.; PERTSOVSKAYA, A.F.

Natural (primary) fluorescence of actinomycetes. Mikrobiologiia 33 no.4:631-638 Jl-Ag '64. (MIRA 18:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

VODYANITSKIY, V.A., otv. red.; DOLGOPOL'SKAYA, M.A., kand. biol. nauk, red.; VINOGRADOV, K.A., doktor biol. nauk, red.; GREZE, V.N., doktor biol. nauk, red.; IVLEV, V.S., doktor biol. nauk, red.[deceased]; KISELEVA, M.I., kand. biol. nauk, red.; SHARPILO, L.D., red.

[Benthos] Bentos. Kiev, Naukova dumka, 1965. 137 p. (MIRA 18:7)

1. Akademiya nauk SSSR. 2. Chlen-korrespondent AN Ukr.SSR (for Vodyanitskiy).

RUBAN, N.N.; VINOGRADOVA, K.A.; [illegible], E.M.; AVETISYAN, Yu.A.

Determining small quantities of aluminum in systems containing aluminum and vanadium chlorides. Trudy Inst. met. i obog. AN Kazakh. SSR 12:220-224 '65. (MIRA 18:10)

KOPYLOVA, Ye.A.; RUBAN, N.N.; VINOGRADOVA, K.A.

The hydrolysis of vanadium oxychloride. Report no.1. Trudy Inst. met. i obog. AN Kazakh. SSR 12:145-150 '65. (MIRA 18:10)

ASEYEVA, I.V.; VINOGRADOVA, K.A.; ORLOVA, G.G.

Biosynthesis of amino acids by actinomycetes isolated from soils of the Pamirs. Mikrobiologiia 34 no.1:24-31 Ja-F '65. (MIRA 18:7)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova.

VINOGRADOVA, K.A.; RUBAN, N.N.; PONOMAREV, V.D.

Solubility of aluminum chloride in titanium tetrachloride in presence of vanadium oxychloride. Izv. AN Kazakh. SSR. Ser. tekh. i khim. nauk no.2:75-82 '63. (MIRA 17:2)

VINOGRADOVA, K.A.

PASHKOV, B.M.; KARACHEVTSEVA, V.N.; ROBUSTOV, G.V.; KHAMAGANOVA, A.V.; ANDROSOVA, A.A.; BELYAKOVA, A.G.; GENKINA, G.B.; ZATURENSKAIA, P.O.; VYMEKAYEVA, M.A.; GOL'DENBERG, M.M.; BOLDYREVA, A.M.; TURANOV, N.M., kandidat meditsinskikh nauk, direktor; BRONSHTEYN, V.G., kandidat meditsinskikh nauk, zaveduyushchiy; VINOGRADOVA, K.A., zaveduyushchaya.

Results of the treatment of syphilis in children according to the 1949 program of the Ministry of Health of USSR; preliminary communication. Vest. ven.i derm. no.2:28-34 Mr-Ap '53. (MLRA 6:5)

1. Tsentral'nyy kozhno-venerologicheskiy institut (for Pashkov, Karachevtseva, Robustov, Khamaganova, Turanov). 2. Bol'nitsa imeni Korolenko (for Androsova, Belyakova, Genkina, Zaturenskaya). 3. Vtoroy Moskovskiy vendinspanser (for Vymekayeva, Gol'denberg, Bronshteyn). 4. Pervyy vendispanser (for Boldyreva, Vinogradova). (Syphilis) (Penicillin--Therapeutic use)

VINOGRADOVA, K.A.

30(1) SOV/30-59-1-50/57

AUTHORS: Afrikyan, E. K., Kuchayeva, A. G., Candidates of Biological Sciences

TITLE: Use of Antibiotics in Plant Cultivation (Primeneniye antibiotikov v rasteniyevodstve).

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 1, pp 142-143 (USSR)

ABSTRACT: A conference dealing with this subject took place in Yerevan from 8 to 13 October, 1958; it had been called by the Institut mikrobiologii Akademii nauk SSSR (Microbiological Institute of the Academy of Sciences USSR), the Vsesoyuznyy institut sel'skokhozyaystvennoy mikrobiologii VASKhNIL (All-Union Institute for Agricultural Microbiology of the VASKhNIL) and the Sektor mikrobiologii Akademii nauk Armyanskoy SSR (Department for Microbiology of the Academy of Sciences of the Armyanskaya SSR).
M. Kh. Chaylakhyan spoke about microbe metabolites which promote the development of higher plants.
N. M. Pidoplichko reported on investigations of several years' duration carried out by Ukrainian mycologists on soil fungus flora and its utilization in the fight against agricultural plant diseases.
V. I. Bilay, S. N. Moskovets dealt with the utilization of the fungus Trichoderma in fighting the diseases of cotton bushes, potatoes and some other agricultural breeds.
R. O. Mirzabekyan's report dealt with the excretions of actinomycetes which produce active antibiotics against the carriers of potato wart disease and diplodia in maize.
S. Oryekhayev, V. N. Masyukina spoke about the utilization of the actinomycetes antagonists in fighting potato ring rot and mucous bacteria in cabbage.
G. M. Kublanovskaya reported on the effect of preparations from cultures of actinomycetes to prevent wilt of the cotton bush.

Card 2/4

Ye. T. Nikitina, V. G. Turanyan, V. K. Afrikyan, R. A. Bobikyan spoke about the successful utilization of several bacteria against diseases of vegetable cultures and potato wilt.
Yu. M. Ye...yakovskaya, O. G. Shirokov, A. D. Nalbandyan dealt with the utilization of epiphyte microflora in fighting several fungus diseases in plants.
P. M. Trakhtenberg, E. I. Radionovskaya, L. P. Starygina, U. G. Ckeent'yan mentioned results obtained in investigations of phytobacteriomycene as well as its utilization in fighting diseases occurring in cotton bushes and beans.
R. M. Galachiyan, Ye. P. Protasenko, A. G. Kuchayeva, R. A. Chalyuk..ina tried the effect of antibiotic preparations as tomato seed steeps against bacterial cankers in fighting diseases of decorative plants.
Ye. Ye. Rashba, K. I. Mal'tsukova described the investigation of plant antibiotics.
P. K. Bekker, A. B. Silayev spoke about the production of the preparations "grizeoful'vin" and "trikhotetsin" and their effect on fungus carriers of diseases in cabbage, wheat and water melons.
A. G. Kuchayeva reported on results achieved in the utilization of antibiotics against unpaired silk moths.

Card 3/4

V. P. Izrail'skiy, N. D. Buyanova, M. D. Kulikovskaya dealt with the formation of phytopathogen forms of bacteria resistant to antibiotics.
K. A. Vinogradova, N. S. Agre described a method of rapid determination of the effect of antibiotics on plants. The participants in the conference found the work carried out in this field in the USSR insufficient. The organization of an industrial production of antibiotics and microbe preparations for the purpose of their large-scale practical introduction in agriculture was pointed out as necessary. The necessity of an intensification of joint investigation of the growth stimuli and the development of plants of microbial origin was further pointed out. The importance of coordination of work for purposes of research and utilization of antibiotics in plant breeding was emphasized as well as the holding of periodical conferences dealing with this problem.

31

S/137/61/000/012/034/149
A006/A101

AUTHORS: Ruban, N.N., Ponomarev, V.D., Vinogradova, K.A.

TITLE: On the solubility of aluminum chloride in titanium tetrachloride

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 17, abstract 12G123 (Izv. AN KazSSR, Ser. metallurgii, obogashcheniya i ogneuporov, 1961, no. 1 (10), 33 - 40, Kaz. summary)

TEXT: The authors studied solubility of $AlCl_3$ in $TiCl_4$ at 70, 90, 105, 120 and 127°C. It was established that at a rise of the temperature from 70 to 127°C, $AlCl_3$ solubility in 100 g $TiCl_4$ increased from 0.24 to 7.24 g. The dependence of the logarithm of $AlCl_3$ concentration in $TiCl_4$ (in mole parts) on the inverse value of absolute temperature, is expressed by a straight line.

G. Svodtseva

[Abstracter's note: Complete translation]

Card 1/1

RUBAN, N.N.; PONOMAREV, V.D.; VINOGRADOVA, K.A.

Solubility of iron and aluminum chlorides in titanium tetrachloride. Trudy Inst. met. i obog. AN Kazakh. SSR 6:22-29 '63. (MIRA 16:10)

RUBAN, N.N.; PONOMAREV, V.D.; VINOGRADOVA, K.A., Prinimal uchastiye:
TARASENKO, V.Z., inzhener
Solubility of aluminum chloride in titanium tetrachloride. Izv.AN Kazakh.SSR.Ser.met., obog.i ogneup no.1:33-40 '61. (MIRA 14:6)
(Aluminum chloride) (Titanium chloride)
(Solubility)

KRASIL'NIKOV, N.A.; VINOGRADOVA, K.A.

Actinomycetes of the chromogenes group. Trudy Inst. microbiol. no.8:202-225 '60. (MIRA 14:1)

1. Moskovskiy gosudarstvennyy universitet.
(ACTINOMYCETALES)

VINOGRADOVA-K.A.

3

Carbohydrates of Ephedra intermedia and Ephedra equisetina. K. V. Taraskina, T. K. Chumbalov, and K. A. Vinogradova. *Vestnik Akad. Nauk Kazakh. S.S.R.* 12, No. 4, 89–93(1956)(in Russian).—The *E. intermedia* and *E. equisetina* contain, resp., 1.07 and 1.3% monosaccharides, 0.23 and 0.27% dextrin, inulin and glutenous substances, 0.45 and 0.67% starch, 5.13 and 2.99% pectins, and 1.19 and 1.59% cellulose which is sol. in 80% H_2SO_4. Both contain some free glucose. G. M. Kosolapoff

VINOGRADOVA, KH. G.

PA 53/49T53

USSR/Geology Oct 48
Soils
Molybdenum

"Molybdenum in USSR Soils," A. P. Vinogradov, Corr Mem, Acad Sci USSR, Kh. G. Vinogradova, Inst of Geochem and Anal Chem imeni V. I. Vernadskiy, Acad Sci USSR, 3 pp

"Dok Ak Nauk SSSR" Vol LXII, No 5

Table shows percent of molybdenum in dry soil in various parts of the USSR. Highest content is often encountered in tundra of the Kola Peninsula. Tsart, an animal disease, is found where molybdenum

53/49T53

USSR/Geology (Contd) Oct 48

content rises beyond average $n.10^{-4}$% in soils of Russian Lowlands. Submitted 17 Jul 48.

53/49T53

AM VINOGRADOVA, KH. G.

BM

1

Possible connection between molybdenum deficiency and low yield of clover. Kh. G. Vinogradova and A. A. Drobkov (*C. R. Acad. Sci., URSS*, 1949, [illegible] 387—389).—The Mo content of dry clover rises from 70 to 100 p.p.m., and the yield of hay rises from 23 to [illegible], and that of seed from 1·1 to 2·1, cwt. per hectare, when the soil-Mo content is increased from 300 to 400 p.p.m. R. Taylor.

VINOGRADOVA, Kh. G.

"Biogeochemistry of Molybdenum," Vestnik Akademii Nauk SSSR, Vol. XX, No. 6, 1950, p. 114. Report was presented at the 1950 Annual Scientific Meeting of the Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy, Academy of Sciences, USSR.

Summary available--W-16382, 22 Jan 51

ALEKSEYEV, V.N.; VINOGRADOVA, K.G., redaktor; LUR'YE,M.S., tekhnicheskiy redaktor; FOGUDKIN, P.V., tekhnicheskiy redaktor.

[Quantitative analysis] Kolichestvennyi analiz. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1954. 474 p. (MLRA 7:12)
(Chemistry, Analytical--Quantitative)

VINOGRADOVA, Kh.G.

Molybdenum in plants in relation to their systematic position. Trudy Biogeokhim.lab. 10:82-93 '54. (MLRA 8:7)
(Plants, Effect of molybdenum on)

ALEKSHYEV, Vladimir Nikolayevich; VINOGRADOVA, K.G., red.; LUR'YE, M.S., tekhn.red.

[Course in qualitative chemical semimicroanalysis] Kurs kachestvennogo khimicheskogo polumikroanaliza. Izd. 3-e. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1958. 584 p. (MIRA 11:5)
(Chemistry, Analytic--Qualitative)

KATALYMOV, Mikhail Vasil'yevich; VINOGRADOVA, K.G., red.; SPERANSKAYA, M.A., tekhn.red.

[Trace elements and their role in increasing crop yields] Mikroelementy i ikh rol' v povyshenii urozhainosti. Izd.2. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1960. 74 p. (Plants, Effect of minerals on) (MIRA 13:10)

L 21721-65 EWT(m)/EPF(c)/EWP(t)/EWP(b) Pr-4 IJP(c)/ESD/APWL/ASD(a)-5/
ESD/AS(mp)-2/AFETR/RAEM(a)/ESD(gs)/ESD(t) JD

ACCESSION NR: AP4041354 S/0048/64/028/006/0959/0962

AUTHOR: Vinogradova, K. I.; Popov, Yu. G.; Smetannikova, Yu. S.; Nakhodov, D. N.
(Doctor of physico-mathematical sciences)

TITLE: Electric properties of indium antimonide doped with different impurities (Report, Third All Union Conference on Semiconductor Compounds held in Kishinev 16-21 September 1963)

SOURCE: AN SSSR. Izvestiya, Seriya fizicheskaya, v.28, no.6, 1964, 959-962

TOPIC TAGS: semiconductor, semiconductor research, electric properties, electric conductivity, Hall effect, temperature dependence, indium antimonide

ABSTRACT: The present study was undertaken in view of the paucity of data on the electric properties of doped indium antimonide and the location of impurity levels in such InSb crystals. The primary purpose of the investigation was to determine the position and effect of acceptor impurity levels. There were investigated primarily InSb crystals doped with Zn and Cd (elimination of which from InSb by zone refining is difficult) and Cu, which is a frequent contaminant. The impurities were introduced into the purified n-type indium antimony ingots by zone leveling (mediately after the purification without opening the sealed tube containing the material

Card 1/2

L 21721-65
ACCESSION NR: AP4041354

2

This precluded change from n-type to p-type conductivity, reported to occur as a result of some heat treatments. The measurements consisted in determining the temperature dependence of the conductivity and Hall constant in the range from 5 to 100°K. The measurements were made in helium gas in a metal cryostat with the temperatures being determined by a Bradley carbon thermistor in the lower range and by a copper-constantan thermocouple in the 5-20 range. The temperature dependences are presented in the form of curves. The results of evaluation of the activation energy are given in a table. Orig.art.has: 2 formulas, 2 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut im.A.F.Ioffe Akademii nauk SSSR (Physico-technical Institute, Academy of Sciences SSSR)

SUBMITTED: 00 ENCL: 00

SUB CODE: SS,EM NO REF SOV: 002 OTHER: 004

Card 2/2

VINOGRADOVA, K.I.; GALAVANOV, V.V.; NASLEDOV, D.N.; SOLOV'YEVA, L.I.

Production of extremely pure InSb single crystals by means of zone melting. Fiz. tver. tela 1 no.3:403-406 Mr '59.
(MIRA 12:5)

1.Fizike-tekhnicheskiy institut AN USSR, Leningrad.
(Indium antimonide crystals)

VINOGRADOVA, K.I.; NASLEDOV, D.N.; POPOV, Yu.G.; SMETANNIKOVA, Yu.S.

Electric properties of indium antimonide doped with various impurities. Izv. AN SSSR. Ser. fiz. 28 no.6:959-962 Je '64. (MIRA 17:7)

1. Fiziko-tekhnicheskiy institut imeni Ioffe AN SSSR.

24700

S/181/62/004/006/047/051
B108/B138

AUTHORS: Vinogradova, K. I., Galavanov, V. V., and Nasledov, D. N.

TITLE: Dependence of carrier mobility on the impurity concentration in InSb crystals

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1673 - 1674

TEXT: The authors studied this problem as little information has been available. Measurements were made at 77 and 300°K. The hole mobilities at both temperatures are virtually the same; they decrease with increasing impurity concentration. Electron mobility decreases slightly with increasing impurity concentration at 77°K. At 300°K it remains constant up to 10^{16} cm^{-3}, but at higher concentrations it decreases and approaches the same value as at 77°K. At low temperatures mobility is chiefly determined by the scattering of electrons from holes and phonons. There are 2 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

Card 1/2

Dependence of carrier ...

S/181/62/004/006/047/051
B108/B138

SUBMITTED: February 19, 1962

Card 2/2

VINOGRADOVA, K.I.; GALAVANOV, V.V.; NASLEDOV, D.N.

Obtaining ultrapure InSb crystals by the zone melting method.
Fiz. met. i metalloved. 16 no.3:385-393 S '63. (MIRA 16:11)

1. Fiziko-tekhnicheskiy institut imeni A.F. Ioffe.

Galvanomagnetic properties of indium antimonide doped with elements from the first and second groups, in the temperature interval 4.2 to 300°K. K. I. Vinogradova, D. N. Nasledov, Yu. G. Popov, Yu. S. Smetannikova.

Electrical properties of doped crystals of indium antimonide in a wide range of temperatures and impurity concentration. V. V. Galavanov, D. N. Nasledov, A. S. Filipchenko.
(Presented by V. V. Galavanov--15 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

VINOGRADOVA, K.I.; GALAVANOV, V.V.; NASLEDOV, D.N.

Dependence of current carrier mobility on impurity concentration in InSb crystals. Fiz. tver. tela 4 no.6:1673-1674 Je '62. (MIRA 16:5)

1. Fiziko-tekhnicheskiy institut imeni A.F.Ioffe AN SSSR, Leningrad.
(Indium antimonide crystals--Electric properties)

VINOGRADOVA, K.I.; GALAVANOV, V.V.; NASLEDOV, D.N.

Preparation of indium antimonide of high purity by the method of zone melting. Zhur. tekh. fiz. 27 no.9:1976-1984 S '57. (MIRA 10:11)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.
(Indium antimonide)

VINOGRADOVA, K. I.

AUTHORS Vinogradova, K.I., Galavanov, V.V., Nasledov, D.N., 57-9-9/40

TITLE The Preparation of Indium Antimonide of High Purity by the Method of Zone Melting. (Polucheniye sur'myanistogo indiya vysokoy stepeni chistoty metodom zonnoy plavki - Russian)

PERIODICAL Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 9, pp 1976-1984, (U.S.S.R.)

ABSTRACT The results obtained by the purification of indium antimonide according to the method of zone melting are discussed. Purification was carried out in soldered quartz tubes which were filled with argon. The liquid zone was produced by means of an electric furnace into which a copper cylinder was placed for the purpose of maintaining a uniform temperature in the zone and a great temperature drop at the ends of the zones. The length of the liquid zone was 5 . 5o mm. The displacement velocity of the liquid zone was o,1-1 mm. The ingot diameter was 4-7mm, its length amounted to 15o-35o mm. The distribution of the admixtures according to the length of the ingot was checked by measuring Hall's constant at the temperature of liquid nitrogen. It was found that in the case of the samples under investigation the purest domain was that which was located in the center of the ingot. Samples with an admixture concentration of up to $2,5.1o^{-3}$, a mobility of electrons in them of up to 4oo ooo at 77°K and about 1oo ooo $om^2/V.sec$ at 3oo°K were obtained. The output samples had the conductivity of the p-type. After zone melting

Card 1/2

VINOGRADOVA, K.L.

New species of algae of the Murman Coast. Bot. mat. Otd. spor. rast. 14:91-93 Ja'61. (MIRA 17:2)

VINOGRADOVA, K.L.

Resources of littoral algae of the Murmansk Coast. Trudy MMBI no.5:37-40 '64. (MIRA 17:4)

1. Laboratoriye gidrobiologii (zav. M.M.Kamshilov) Murmanskogo morskogo biologicheskogo instituta.

VINOGRADOVA, K.L.

Review of works on marine green algae for 1962-1963. Bot.zhur. 49 no.11: 1668-1673 N '64. (MIRA 18:1)

1. Botanicheskiy institut imeni V.L.Komarova AN SSSR, Leningrad.

VINOGRADOVA, K.L.

Distribution of Fucus spiralis L. in the Murman littoral. Bot. mat. Otd. spor. rast. 16:67-68 '63. (MIRA 16:10)

VINOGRADOVA, K. M.

"Jubilee Exhibition of Archives in the Governmental Museum of Literature on the Like and Accomplishments of Chekhov"
Vest. Ak. Nauk SSSR, No. 9, 1944,

BR-52059019

VINOGRADOVA, Kh.G.; OPARIN, A.I., akademik.

Molybdenum content in plants in relation to their taxonomic position. Dokl. AN SSSR 93 no.1:163-166 N '53. (MLRA 6:10)

1. Akademiya nauk SSSR (for Oparin). 2. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo Akademii nauk SSSR (for Vinogradova).
(Plants--Chemical analysis) (Botany--Classification)
(Molybdenum organic compounds)

VINOGRADOVA, L.

Uganda; economy and foreign trade. Vnesh. torg. 43 no.7:30-35 '63. (MIRA 16:8)
(Uganda--Economic conditions) (Uganda--Commerce)

SALOVA, A.S.; VINOGRADOVA, L.A.

Quantitative determination of impurities in diphenylol propane by paper chromatography. Zhur. anal. khim. 18 no.9:1128-1130 S '63. (MIRA 16:11)

1. State Scientific-Research Institute of Lacquer and Paint Industry, Moscow.

VINOGRADOVA, Lyudmila Alekseyevna; CHERNOV, Ye., red.; KRECHETOV, A., tekhn.red.

[A year has passed] Proshel odin god. Moskva, Mosk.rabochii, 1960. 63 p. (MIRA 13:12)

1. Rukovoditel' brigady kommunisticheskogo truda 1-go Moskovskogo chasovogo zavoda imeni Kirova (for Vinogradova).
(Moscow--Clockmaking and watchmaking)
(Socialist competition)

VINOGRADOVA, L.F.

S/138/62/000/003/003/006
A051/A126

15.9701

AUTHORS: Frenkel', R. Sh., Kuz'minskiy, A. S., Fel'dshteyn, L. S., Khanin, S. Ya., Vinogradova, L. F.

TEXT: The effect of ingredients in rubber mixes on the structuralizing of butadiene-nitrile rubber

PERIODICAL: Kauchuk i rezina, no. 3, 1962, 10 - 12

TEXT: An investigation was conducted to determine the effect of ingredients other than altax, for example (in the absence of sulfur), on the process of thermal structuralizing in synthetic rubbers. Butadiene-nitrile rubber СКН-26 (SKN-26) (commercial) was used in the experiments in an air medium. The thermomechanical method was used to determine the initial temperature of the mixture structuralizing. Accelerators and activators of vulcanization have a significant effect on the rate of thermal structuralizing. The accelerators increase the rate of structuralizing and lower the initial temperature. At the addition of zinc oxide into the system rubber-altax decreases the initial temperature and increases the rate of structuralizing. Thus, it is thought that the zinc oxide serves as a catalyst in the process of thermal decomposition. Data on the reaction kinetics with

Card 1/2

The effect of...

iodine prove this supposition. The following conclusions are drawn: Certain fillers (gaseous and thermal carbon black) and accelerators (captax) increase the tendency to structuralizing of the mixtures based on butadiene-nitrile rubber. Those filled with gaseous carbon black, containing altax or captax, are particularly prone to structuralizing. Zinc oxide increases the structuralizing action of captax in mixtures with gaseous carbon black. In the case of altax, the zinc oxide speeds up the structuralizing process both in filled and non-filled mixtures. The zinc oxide increases the ratio of the thermal decomposition of altax to free radicals. There are 3 figures, 2 tables and 5 Soviet-bloc references.

ASSOCIATIONS: Volzhskiy filial Nauchno-issledovatel'skogo instituta rezinovoy promyshlennosti i Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Volga Branch of the Scientific Research Institute of the Rubber Industry and the Scientific Research Institute of the Rubber Industry)

Card 2/2

FRENKEL', R.Sh.; KUZ'MINSKIY, A.S.; FEL'DSHTEYN, L.S.; KHANIN, S.Ye.; VINOGRADOVA, L.F.

Effect of the ingredients of rubber mixtures on the structure formation of butadiene-nitrile rubber. Kauch.i rez. 21 no.3:10-12 Mr '62. (MIRA 15:4)

1. Volzhskiy filial Nauchno-issledovatel'skogo instituta rezinovoy promyshlennosti i Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.

(Rubber, Synthetic--Testing)

L 18557-63 EWP(j)/EWT(m)/BDS AFFTC/ASD Pc-4 RM/MAY

ACCESSION NR: AP3004260 S/0138/63/000/007/0046/0048

AUTHORS: Frenkel', R. Sh.; Filippova, T. I., Vinogradova, L. F.

TITLE: The effect on physical and mechanical indices of vulcanizates, brought on by thermal treatment of rubber mixtures with kaolin

SOURCE: Kauchuk i rezina, no. 7, 1963, 46-48

TOPIC TAGS: butadiene-styrene rubber, thermal treatment, kaolin, vulcanizate

ABSTRACT: Thermal treatment of butadiene-styrene rubbers with various amounts of kaolin, using sulfur and p-quinonedioxime as activators, was conducted at 143C for periods up to 40 minutes. This was followed by milling on cold mixing rolls and a second vulcanization in a press. Such a procedure causes a compound containing 60% kaolin to yield a vulcanizate of 40-50% higher strength, which is reached during the first two minutes of thermal treatment. At the Armavir plant for rubber soles additional experiments were conducted with three types of synthetic rubbers to which were added from 170 to 200 parts of kaolin. After compounding on mixing rolls, the products were warmed for 15 minutes at 150C, followed by 2-3 minutes of roll-milling and subsequent vulcanization. It was

Card 1/2

L 18557-63

ACCESSION NR: AP3004260

found that the resistance of the vulcanizates to abrasion increased by 20-25%, while the tolerance to 75%-stretchings at 250 cycles per minute increased threefold and elevenfold, with the plasticity remaining unchanged. In another procedure the initial operation is conducted in a mixer heated to 100-110C. Orig. art. has: 1 chart and 2 tables.

ASSOCIATION: Volzhskiy filial nauchno-issledovatel'skogo instituta rezinovoy promy*shlennosti (Volga Division of the Scientific Research Institute of Rubber Industry)

SUBMITTED: 00	DATE ACQ: 21Aug63	ENCL: 00
SUB CODE: MA	NO REF SOV: 002	OTHER: 002

Card 2/2

KHARLAMOV, I.P., kand.tekhn.nauk; MOROZ, I.I., kand.tekhn.nauk;
VINOGRADOVA, L.G.

Basic trends in the development of electrochemical metal cutting in capitalist countries. Biul.tekh.-ekon.inform.Gos. nauch.-issl.inst.nauch.i tekh.inform. no.5:92-97 '62.
(MIRA 15:7)

(Electric metal cutting)

VINOGRADOVA, L.I.; PTITSYN, B.V.

Determination of instability constants of potassium trioxalato-ferrate from the interaction of an iron salt with silver oxalate. Zhur.neorg.khim. 1 no.3:432-437 Mr '56. (MLRA 9:10)

(Potassium oxalatoferrate (III))

Vinogradov, L.I.

USSR/Inorganic Chemistry - Complex Compounds C.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4100

Author : Vinogradova, L.I., Ptitsyn, B.V.
Title : Determination of Instability Constants of Trioxalatoferriate of Potassium by the Method of Displaced Equilibrium

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 3, 427-431

Abstract : Determination of instability constants (K) of trioxalatoferriate of potassium (I) is based on utilization of the previously described method (RZhKhim, 1955, 45708) of study of the equilibrium of the complex under investigation with ions that displace the equilibrium of secondary dissociation of complex particle due to formation of little soluble or little dissociated compounds. To study the stability of I Ag^+ and H^+ are utilized as such ions. Determined were the values of the thermodynamic constants: $K_1 = 2.3 \cdot 10^{-5}$; K(total) = 2.1 .

Card 1/2 - 17 -

USSR/Inorganic Chemistry - Complex Compounds C.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4100

10^{-20} and $K_2 \cdot K_3 = 9.1 \cdot 10^{-16}$. Solubility products of $Ag_2C_2O_4$ at different ionic forces of the solution, $\frac{\quad}{\quad}$ needed for the calculations of K, were determined on the basis of the results of measurements of the solubility of $Ag_2C_2O_4$ in solutions of KNO_3. From the results of a study of the interaction of I and HCl, it was found that $K_1 = 8.5 \cdot 10^{-5}$. K_2 and K_3 were calculated as being, respectively, $3.1 \cdot 10^{-5}$ and $1.8 \cdot 10^{-5}$. All the values of K are reduced to $25 \pm 0.1^{\circ}$. In the opinion of the authors the described method can be applied to the determination of K of complex oxalates in which K_1 is not less than $6.4 \cdot 10^{-5}$.

Card 2/2 - 18 -

VINOGRADOVA, L. I.

USSR/Inorganic Chemistry - Complex Compounds C.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4101

Author : Vinogradova, L.I., Ptitsyn, B.V.

Title : Determination of Instability Constants of Trioxalato-ferriate of Potassium by Interaction of Iron Salt with Silver Oxalate

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 3, 432-437

Abstract : From comparison of stability constants (K) of ferri-oxalate complexes determined on the basis of a study of equilibrium of the system $Fe(NO_3)_3$ (I) - $Ag_2C_2O_4$ (II).

with the values of K determined by the method of displaced equilibrium (see preceding abstract), it follows that as a result of interaction between I and II there is formed predominantly the complex $[Fe(C_2O_4)_3]^{3-}$.

Average value of its total K at 25 ± 0.1° is $2.3 \cdot 10^{-20}$

Card 1/3

- 19 -

USSR/Inorganic Chemistry - Complex Compounds

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4101

and is in good accord with the value obtained by the method of displaced equilibrium. Approximate value of the product $K_1 \cdot K_1 \cdot K_2$, determined from the results of determinations of solubility of II in solutions of $Fe_2(C_2O_4)_3$, is $9.1 \cdot 10^{-18}$. From this value and also

from the known values of K_1 and K(total) were computed K_2

and K_3, equal, respectively, to $1.7 \cdot 10^{-8}$ and $5.3 \cdot 10^{-8}$. Calculation of the quantity $K_1 \cdot K_1 \cdot K_2$ was carried out on the basis of the following dissociation scheme: $Fe_2(C_2O_4)_3 \rightleftarrows [FeC_2O_4]^+ + [Fe(C_2O_4)_2]^-$; this scheme

was adopted on the basis of the results of determinations of electric conductivity and the cryoscopic determination of molecular weight of $Fe_2(C_2O_4)_3$ in aqueous solution.

Card 2/3

- 20 -

VINOKUROVA, L.I.; KONDORSKIY, Ye.I.

Effect of hydrostatic pressure on the degree of magnetization of rare earth metals. Izv. AN SSSR. Ser. fiz. 28 no. 3:537-539 Mr '64. (MIRA 17:5)

POPOV, B.M.; VINOGRADOVA, L.I.; KONDRAT'YEV, A.S.

Injector for a cyclotron. Uskoriteli no.6:112-115 '64.
(MIRA 18:2)

NASTYUKHA, A.I.; POPOV, B.M.; VINOGRADOVA, L.I.

Ion injector for a cylotron and phasotron. Fiz. elek. no.1: 90-94 '62. (MIRA 17:1)

5(4),21(1)

AUTHORS: Tekster, Ye. N., Vinogradova, L. I., Ptitsyn, B. V.

SOV/78-4-4-10/44

TITLE: The Determination of the Stability Constants of the Complex Oxalates of Magnesium and Uranyl Using an Oxalate-silver Electrode (Opredeleniye konstant nestoykosti kompleksnykh oksalatov magniya i uranila s pomoshch'yu oksalatno-serebryanogo elektroda)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 4, pp 764-768 (USSR)

ABSTRACT: The stability constants of the complexes $K_2\left[Mg(C_2O_4)_2\right]$ and $K_6\left[(UO_2)_2(C_2O_4)_5\right]$ were determined using an oxalate-silver electrode. Solutions of various concentrations of both complexes were saturated with silver oxalate at 25°, and the potential of the oxalate-silver electrode was measured in these solutions in order to determine the equilibrium activity of the $C_2O_4^{2-}$ ion. The results of these measurements are given in a table. The integral stability constant for the magnesium complex $K_2\left[Mg(C_2O_4)_2\right]$ was calculated:

Card 1/4

The Determination of the Stability Constants of the Complex Oxalates of Magnesium and Uranyl Using an Oxalate-silver Electrode

SOV/78-4-4-10/44

$K_2[Mg(C_2O_4)_2]$

I (ion strength)	$K_{integral}$
$0.89.10^{-1}$	$5.7.10^{-5}$
$0.49.10^{-1}$	$2.9.10^{-5}$
$0.31.10^{-1}$	$2.9.10^{-5}$

The measured results required for the calculations are summarized in a table. The dissociation of the complex ion $[(UO_2)_2(C_2O_4)_5]^{6-}$ occurs according to the following scheme:

$$[(UO_2)_2(C_2O_4)_5]^{6-} \rightleftharpoons C_2O_4^{2-} + 2[UO_2(C_2O_4)_2]^{2-} \quad (1)$$

$$2[UO_2(C_2O_4)_2]^{2-} \rightleftharpoons C_2O_4^{2-} + [(UO_2)_2(C_2O_4)_3]^{2-} \quad (2)$$

$$[(UO_2)_2(C_2O_4)_3]^{2-} \rightleftharpoons C_2O_4^{2-} + 2UO_2C_2O_4 \quad (3)$$

$$2UO_2C_2O_4 \rightleftharpoons 2UO_2^{2+} + 2C_2O_4^{2-} \quad (5)$$

Card 2/4 together: $[(UO_2)_2(C_2O_4)_5]^{6-} \rightleftharpoons 5C_2O_4^{2-} + 2UO_2^{2+}$ (6)

The Determination of the Stability Constants of the Complex Oxalates of Magnesium and Uranyl Using an Oxalate-silver Electrode SOV/78-4-4-10/44

It is assumed that the complex ion $[(UO_2)_2(C_2O_4)_4]^{4-}$ exists in the solution. The stability constants $K_1 \cdot K_2$ and K_2 for $K_6[(UO_2)_2(C_2O_4)_5]$ were calculated as follows:

I (ion strength)	$K_6[(UO_2)_2(C_2O_4)_5]$ $K_1 \cdot K_2$	K_2
$0.69 \cdot 10^{-1}$	$3.8 \cdot 10^{-5}$	"
$0.22 \cdot 10^{-1}$	"	$4.8 \cdot 10^{-2}$
$0.08 \cdot 10^{-1}$	"	3.0

The data required for the calculations are given in a table. A further table gives the results of the calculation of K_2.

There are 4 tables and 7 references, 3 of which are Soviet.

Card 3/4

The Determination of the Stability Constants of the Complex Oxalates of Magnesium and Uranyl Using an Oxalate-silver Electrode

SOV/78-4-4-10/44

ASSOCIATION: Kafedra obshchey i analiticheskoy khimii Leningradskogo tekhnologicheskogo instituta pishchevoy promyshlennosti (Chair of General and Analytical Chemistry of the Leningrad Technological Institute of the Foodstuffs Industry) and Kafedra tekhnologii iskusstvennykh radioaktivnykh veshchestv Leningradskogo tekhnologicheskogo instituta im. Lensoveta (Chair of the Technology of Artificial Radioactive Materials of the Leningrad Technological Institute imeni Lensovet)

SUBMITTED: December 30, 1957

Card 4/4

PTITSYN, B.V.; TEKSTER, Ye.N.; VINOGRADOVA, L.I.; MORACHEVSKAYA, M.D.

Using the oxalate-silver electrode for determining the instability constants of complex oxalates. Zhur.neorg.khim. 2 no.9:2025-2030 S '57. (MIRA 10:12)

1.Leningradskiy tekhnologicheskiy institut pishchevoy promyshlennosti, Kafedra obshchey i analiticheskoy khimii.
(Electrodes) (Oxalates)

TEKSTER, Ye.N.; VINOGRADOVA, L.I.; PTITSYN, B.V.

Determining instability constants of magnesium and uranyl oxalate complexes by means of an oxalate-silver electrode. Zhur. neorg. khim. 4 no.4:764-768 Ap '59. (MIRA 12:5)

1.Kafedra obshchey i analiticheskoy khimii Leningradskogo tekhnologicheskogo instituta pishchevoy promyshlennosti i Kafedra tekhnologii iskusstvennykh radioaktivnykh veshchestv Leningradskogo tekhnologicheskogo instituta im. Lensoveta. (Magnesium compounds) (Uranyl compounds)

VINOGRADOVA, L.I.; PTITSYN, B.V.

Determination of instability constants for potassium trioxalatoferrate by means of displaced equilibrium. Zhur.neorg. khim. 1 no.3:427-431 Mr '56. (MLRA 9:10)

(Potassium oxalatoferrate (III))

PTITSYN, B.V.; VINOGRADOVA, L.I.

Determination of instability constants of individual complexes by the method of equilibrium shift. Zhur.ob.khim. 25 no.2:217-223 F '55. (MLRA 8:6)

(Compounds, Complex)

VINOGRADOVA, L.I.

VINOGRADOVA, L.I. "Determination of the Instability Constants of Complex Compounds by Displacing the Equilibrium of Secondary Dissonance of the Individual Complex." Min Higher Education USSR. Leningrad Order of Labor Red Banner Technological Inst imeni Leningrad Soviet. Leningrad, 1956. (Dissertation for the Degree of Candidate in Chemical Science)

So: Knizhnaya Letopis', No. 18, 1956.

VINOGRADOVA, L. I.

USSR

Determination of dissociation constants of individual complexes by the method of shifting the equilibrium. II. Petrlyn and L. I. Vinogradova. *Zhur. Obshchei Khim.* 25, 217-20(1955); *J. Gen. Chem.* (U.S.S.R.) 25, 201-6(1955) (Engl. translation).—Consts. of successive steps of dissocn. of acido-complexes were detd. through the displacement of the equil. by reaction with various equivs. of ions (H^+ and Ag^+) that form insol. or undissocd compds. Thus, if C moles of $[MA_4]^{---}$ are mixed with xg.-ions of Ag^+ to react thus: $[MA_4]^{---} + xAg^+ + xH_2O \rightleftharpoons [MA_{4-x}(H_2O)_x]^{x-3} + xAgA\downarrow$ (where A is the anion and $x = 1$ to 6), then $K_x = (xC - [Ag^+])K^x_{AgA}/[Ag^+]^{x+1}$, where K_{AgA} is the soly. product of the ppt. Malcolm M. Anderson

PTITSYN, B.V.; VINOGRADOVA, L.I.; VASIL'YEVA, L.L.; Prinimala uchastiye: LUKINYKH, N.L.

Use of a silver citrate electrode for the determination of instability constants of complex citrates. Zhur.neorg.khim. 7 no.5:1009-1011 My '62. (MIRA 15:7)
(Citrates) (Silver compounds) (Electromotive force)

VINOGRADOVA, L.I.

Plugs of porolon. Lab. delo no.3:187-188 '65.

(MIRA 18:3)

1. Kafedra biokhimii i mikrobiologii (rukovoditel' - dotsent A.A. Margo) Petrozavodskogo gosudarstvennogo universiteta.

PTITSYN, B.V. [deceased]; VINOGRADOVA, L.I.; MAKSIMYUK, Ye.A.

Use of silver oxalate electrode for determining the instability constants of an iron oxalate complex. Zhur.neorg.khim. 10 no.8; 1929-1930 Ag '65. (MIRA 19:1)

1. 1-y Leningradskiy meditsinskiy institut imeni I.P.Pavlova, kafedra neorganicheskoy khimii, i Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.

PTITSYN, B.V. [deceased]; VINOGRADOVA, L.I.; MAKSIMYUK, Ye.A.

Oxidation of Cr^{3+} and Fe^{3+} complex oxalates by potassium permanganates. Zhur.neorg.khim. 10 no.11:2493-2495 N '65. (MIRA 18:12)

1. Submitted April 11, 1964.

PTITSYN, B.V. [deceased]; VINOGRADOVA, L.I.; MAKSIMYUK, Ye.A.

Potentiometric titration of complex ions with ammonium vanadate. Zhur.neorg.khim. 10 no.11:2496-2498 N '65.
(MIRA 18:12)

1. Kafedra neorganicheskoy khimii I Leningradskogo meditsinskogo instituta imeni I.P.Pavlova i Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR. Submitted April 11, 1964.

MINASHINA, N.G.; Prinimali uchastiye: TURSINA, T.V.; VINOGRADOVA, L.K.

Salinization and the necessity for the improvement of the soils irrigated in the past in the zone of the Karakum Canal. Pochvovedenie no.2:9-21 F '64. (MIRA 17:3)

1. Pochvennyy institut imeni V.V.Dokuchayeva AN SSSR.

L 23766-66 EWT(1)/EWT(m) AT/JG/JD

ACC NR: AP6006799 SOURCE CODE: UR/0386/66/003/001/0035/0040

AUTHORS: Dmitriyev, I. S.; Vinogradova, L. I.; Nikolayev, V. S.; Popov, B. M.

ORG: Scientific Research Institute of Nuclear Physics, Moscow State University (Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta); Moscow Engineering Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut)

TITLE: Autoionization of fast lithium-like nitrogen and oxygen ions after passage through a solid

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 1, 1966, 35-40

TOPIC TAGS: nitrogen, oxygen, ionization cross section, electron loss, charge exchange

ABSTRACT: The authors describe the results of experiments set up to observe the increased probability of electron loss by fast ions passing through a medium. Beams of nitrogen and oxygen ions accelerated

Card 1/4

L 23766-66
ACC NR: AP6006799

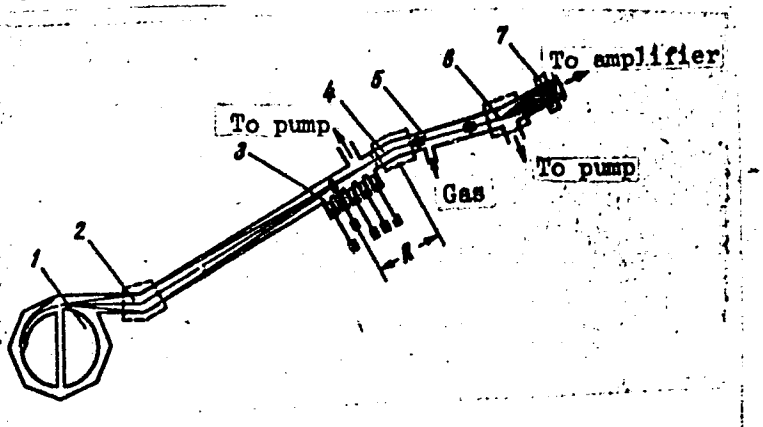


Fig. 1. Diagram of experimental setup: 1 - Cyclotron, 2 - focusing magnet, 3 - targets, 4 - mass monochromator, 5 - charge-exchange chamber, 6 - analyzer, 7 - detectors.

Card 2/4

in a 72-cm cyclotron were focused at a distance of 8 meters from the cyclotron (Fig. 1). The targets were celluloid films placed at different locations on the path of the beam near the focus. Ions with different charges were produced after passage of the beam through the target. Ions of given charge were guided by means of a magnetic mass monochromator into a charge exchange chamber where they were converted into ions of different charge by collision with the gas atoms. A magnetic analyzer, described by the authors elsewhere (ZhETF v. 40, 989, 1961), was used to determine the charge composition of the ions leaving the charge exchange chamber. The experiment consisted of determining the relative number of nitrogen ions (with charges 2 -- 5) and oxygen ions (charges 3 -- 5) whose charge increased by unity in the charge exchange chamber, for different distances between the target and the center of the mass-monochromator. For most ions the relative change in the charge was independent of the distance, except in the case of N^{+4} and O^{+5}, where the relative number of the N^{+5} and O^{+6} ions increased appreciably with decreasing distance. It is shown that this increase cannot be attributed to an increase in the electron -loss cross sections but must be ascribed to autoionization of

L 23766-66

ACC NR: AP6006799

N^{+4} and O^{+5}. Various experimental reasons for this interpretation are given. The authors thank S. Ye. Kupriyanov and G. A. Askar'yan for a discussion of the results. Orig. art. has: 2 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 16Nov65/ ORIG REF: 002/ OTH REF: 004

Card 4/4 PB

L 36124-66 EWT(1) IJP(c) AT

ACC NR: AP6018803 SOURCE CODE: UR/0056/66/050/1252/1259

AUTHOR: Dmitriyev, I. S.; Nikolayev, V. S.; Teplova, Ya. A.; Popov, B. M.; Vinogradova, L. I.

ORG: Institute of Nuclear Physics, Moscow State University (Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta)

TITLE: Experimental investigation of the effective cross sections for destruction and formation of fast negative ions in atomic collisions

SOURCE: Zh eksper i teor fiz, v. 50, no. 5, 1966, 1252-1259

TOPIC TAGS: capture cross section, negative ion, cyclotron, electron loss, atomic ~~collision~~ structure

ABSTRACT: The effective cross sections of loss of one, two, or three electrons in helium, nitrogen, or argon have been measured for negative carbon, nitrogen, and oxygen ions produced as a result of a charge exchange of positive ions accelerated in a 72-cm cyclotron to a velocity of $v=2.6 \times 10^8$ cm/sec. The cross section of simultaneous loss of two

Card 1/2

L 36124-66

ACC NR: AP6018803

electrons by negative ions is ~50—70% of the cross section of loss of a single electron. Comparison of the results obtained with the known cross sections of electron loss by other negative or positive ions shows that the specificity of negative ions, expressed in the weak coupling of the outer electron with the ion frame, does not appreciably affect the interaction between the negative ions and the given substance at a velocity $v=2.6 \times 10^8$ cm/sec. Data on the formation cross sections of negative ions as a result of capture of two electrons by positive ions or capture of an electron by neutral atoms have been obtained for carbon and oxygen. Equilibrium values have been obtained for the fraction of negative carbon or oxygen ions in a beam passing through a sufficiently thick layer of a substance (Φ-1). Maximal values of Φ-1 are obtained in media in which the formation cross sections of negative ions at a given velocity, attain their maxima. The authors thank the cyclotron team headed by Yu. P. Divnogortsev and A. S. Kondrat'yev, as well as Yu. Druzhinin and V. Kalitin for technical support of the cyclotron and experimental equipment. Orig. art. has: 7 figures and 1 table. [Based on authors' abstract] [NT]

SUB CODE: 20/ SUBM DATE: 29Dec65/ ORIG REF: 013/ OTH REF: 004

Card 2/2

ACCESSION NR: AP4045018 S/0191/64/000/009/0018/0020

AUTHOR: Vinogradova, L. M., Korolev, A. Ya., Davy*dov, P. V., Kuchenkova, R. V.

TITLE: Selection and application of organosilicon liquids for decreasing the adhesion of plastics to solid surfaces

SOURCE: Plasticheskiye massy*, no. 9, 1964, 18-20

TOPIC TAGS: organosilicon, molding, antiadhesion film, polyethylhydrosiloxane, polymethylhydrosiloxane, plastic adhesion, polydimethylsiloxane

ABSTRACT: The effect of the nature and composition of organosilicon solutions and of the molding conditions of thin films on their effectiveness in decreasing adhesion of polymers to hard surfaces was studied. Liquid polymethyl- and polyethyl-hydrosiloxane and polydimethylsiloxane with a varying content of hydroxyl groups were investigated. The effect on the adhesive properties of treatment of a silicate glass surface with polymethylhydrosiloxane solutions and the effect of the treatment of a steel surface with a 5% polymethylhydrosiloxane solution in benzine were investigated and discussed on the basis of tabulated data. The experimental data for both tests agreed substantially. It was found that adhesion to polar compounds can be completely eliminated by surface treatment with polyethylhydrosiloxane solutions in benzine or with aqueous emulsions of this liquid.

Card 1/3

ACCESSION NR: AP 4045018

During hardening of films from polydimethylsiloxane solutions, which contain 2.7% hydroxyl groups in the macromolecule, on the surface of steel, either at 200C for two hours or even in the presence of a catalyst (tin diethyldicaprylate) at room temperature for 48 hours, the resistance to peeling decreased from 412 kgs/cm^2 (control sample) to 16-20 kgs/cm^2 (modified sample). Polydimethylsiloxane without hydroxyl groups affects adhesion to the steel only slightly, even at a hardening temperature of 200C. Thin layers of the investigated organosilicon solutions with active functional groups are retained strongly on steel or glass surfaces. They are not removed even by prolonged extraction of the sample with boiling (80C) benzine, and retain their anti-adhesion properties at the level found before extraction. These anti-adhesive agents increase the molding performance and can also be used advantageously for molding heat-stable rubbers. The organosilicon compounds, by forming very thin films on the walls of the molds, facilitate the removal of the plastic moldings from the mold, ensure a smooth surface and protect the metal molds against corrosion. In addition to thermal stability, their chemical inertness toward the material of the molds is another advantage. "The tests on PMS-31 (polymethylhydrosiloxane) were carried out with the cooperation of A. A. Moiseyev, V.V. Pavlov, V.P., Terebenin and V.P. Frolov". Orig. art. has: 3 tables.

ASSOCIATION: None

Card 2/3

ACCESSION NR: AP4045018

SUBMITTED: 00 ENCL: 00 SUB CODE: MT

NO REF SOV: 009 OTHER: 000

3/3
Card

VINOGRADOVA, L.M., assistent

Diagnosis and clinical aspects of lead intoxication. Zdrav.Belor. 5 no.12:37-38 D '59. (MIRA 13:4)

1. Iz kafedry gospital'noy terapii Minskogo meditsinskogo instituta (zaveduyushchiy kafedroy - prof. G.Kh. Dovgyallo).
(LEAD POISONING)

VINOGRADOVA, L. P.

"Comparative Investigation of the Kinetics of Hydrolysis and of the Properties of Galactan and Cellulose." Min Higher Education USSR, Moscow Textile Inst, Moscow, 1953 (Dissertation for the Degree of Candidate of Biological Sciences)

SO: Knizhnaya Letopis', No.32, 6 Aug 55

KONKIN, A.A.; BUYANOVA, V.K.; VINOGRADOVA, L.M.; ROGOVIN, Z.A.

Effect of the composition and structure of monoses and aglucons on the resistance of glucosides to the action of acids. Soob.o nauch. rab.chl.VKHO no.3:1-5 '53. (MIRA 10:10)
(Hydrolysis) (Glucosides)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859920019-7"

VINOGRADOVA, L.M., kandidat tekhnicheskikh nauk; KOROLEV, A.Ya., kandidat khimicheskikh nauk; STAROSTENKO, N.F., inzhener-mayor.

Improve visibility when flying in rain. Vest. Vozd. Fl. 39 no.4: 73-74 Ap '57. (MLRA 10:9)

(Airplanes--Windshields)

26863
S/080/61/034/004/004/012
A057/A129

5.3700 2209, 2409, 1273 also 3009

AUTHORS: Vinogradova, L.M., Korlev, A. Ya.

TITLE: Water repellents for silicate glasses

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no.4, 1961, 743 - 750

TEXT: Various monomer and polymer organosilicon compounds were tested in the present work as water repellents for glass surfaces. Special attention was paid to the resistance and viability of the water repellent film on the glass surface during longlasting effect of water. The present investigations demonstrated that in addition to the wetting angle the durability of the film in terms of its resistance to sprinkling is decisive in establishing the suitability of a compound as water repellent. A selection of water repellents for silicate glasses was important for various purposes, as, for instance, for moisture-protecting coatings of optical glasses, improvement of transparency for glasses in air- or sea-transport, increase in insulation properties etc. Literature data related to the use of organosilicons as water repellents indicate that some of these compounds contain active functional groups which react with a surface containing hydroxyl groups or adsorbed water molecules, forming thus thin organosilicon

Card 1/5

Water repellents for silicate glasses

films. The latter are chemical compounds on the surface with high physico-chemical properties. For the present investigations special devices were constructed: a laboratory box for the sprinkling test, a device containing a horizontal microscope for measuring the wetting angle and a device for determining the angle at which water begins to roll off the prepared surface. In the sprinkling test box a constant water spray was falling on the investigated glass surface, which was inclined in a 75° angle to the level. The"efficiency" of the applied water-repellent was estimated by measuring the time until half of the prepared surface loses the water-repellent property. The wetting angle was determined by measuring the size of a drop of bi-distilled water placed on the impregnated glass surface, and calculating the angle θ of wetting from $tg\,\theta/2 = 2h/d$ (h - height of drop, d - diameter). For measuring the critical angle at which a water drop rols off the prepared surface a device was used with a horizontal plate which was gradually inclined by means of a flywheel and the inclination was controlled on a dial. The weight of the used drop was constant (0.03 g). The following preparation procedure of the glass surface before testing was carried out. The glass was thoroughly cleaned, dried at 100°C and polymer organosilicons (silicones) were applied imediately after drying. Before application of the monomer organosilicons (silanes), which are able to hydrolyze and condensate, the cleaned and dried

Card 2/5

Water repellents for silicate glasses

glasses were placed for 24 hours into a hydrostat with 70 % relative humidity. The silanes were applied by rubbing the moisture-conditioned glass surface with a 10 % solution of the monomer in white spirit. Polymeric silicones were used in form of a paste prepared by mixing the 10 % solution in white spirit with diatomite washed in water. The paste contained 72 % diatomite. All tests were carried out after room temperature drying and following baking of the impregnated glass surface for 1 hour at 200°C. Results of the experiments (carried out in cooperation with V.N. Zeryukin) are shown in a table. It can be seen that the best results were obtained with dimethylsilane derivatives. Baking is essential only in the case of ethoxy- and phenyl-derivatives. High resistance of the water-repellent film is due to partial hydrolysis of the monomer by the surface moisture and grafting of the resulting polymer to the glass surface by covalent bonds. Among polymeric silicones the best water-repellent characteristic is shown by polymethyl- and polyethylhydrosiloxane which react with hydroxyl groups of the glass surface having an active hydrogen ion coupled to the silicon atom in the polysiloxane chain. The other polymeric silicones which do not have active functional groups adhere to the surface only through physical forces. Thus removal of surface moisture and baking after application are essential for these compounds. The pre-

Card 3/5

Water repellent for silicate glasses

sent results demonstrate also that the wetting angle is not a sufficient criterion in estimation of the durability of water-repellent films. Durability is determined not only by the chemical structure of the organosilicon film, but also by the firmness of the bond with the glass structure. The present tests made it possible to select water-repellent agents for a variety of purposes. There are 3 figures, 1 table and 26 references: 12 Soviet-bloc and 14 non-Soviet-bloc. The most important English-language references read as follows: R. R.Mc Gregor, Ind. Eng. Ch., 46, 2323 (1954); L. A. Spitze et al., J. Appl. Phys., 18, 904 (1947); Aircraft Eng., 30, 353, 217,(1958); M. J. Hunter et al, Ind. Eng. Chem., 39, 1389(1947).

SUBMITTED: June 23, 1960

Table: Water-repellent properties of glass prepared by various monomeric and polymeric organosilicon compounds. Legend: (1) water-repellent agent, (2) angle of wetting (in degrees), (3) angle at which the water begins to roll off (degree), (4) efficiency at the sprinkling test (hours), (5) until baking, (6) after baking (7) monomers, (8) product of partial hydrolysis of dimethyldichlorosilane, (9) product of partial hydrolysis of dimethyldiacetoxysilane, (10) polymers.

V.NOGRADOVA, L.M.; KORNEV, A.Ya.; DAVYDOV, F.V.; KUCHERENKOVA, R.V.

Selection and application of organosilicon fluids for lessening the adhesion of plastics to hard surfaces. Plast.massy no.9:18-20 '64. (MIRA 17:10)

SPITSYN, Vikt.I., akademik; KOROLEV, A. Ya.; KULESHOV, I.M.; VINOGRADOVA, L.M. Prinimala uchastiye ARTAMONOVA, R.V.

Process of polishing aluminum studied by the radioactive tracer technique. Dokl. AN SSSR 159 no.4:865-868 D '64 (MIRA 18:1)

1. Institut fizicheskoy khimii AN SSSR.

PANKRATOV, N.A.; VILOGRADOVA, L.M.

Maximum possible response of a selective optico-acoustic detector. Opt. i spektr. 7 no. 6:789-797 D '59. (MIRA 14:2)
(Microphone) (Nuclear counters)

67157

5.5800

Pankratov, N.A. and Vinogradova, L.M.

TITLE: On the Maximum Possible Sensitivity of a Selective Optico-Acoustic Receiver

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, No 6, pp 789-797 (USSR)

ABSTRACT: An optico-acoustic receiver consists of two main parts: a receiver chamber and a microphone. When a condenser or an electrodynamic microphone is used in the receiver the properties of the chamber cannot be separated from those of the microphone. On the other hand when an optical microphone is used in conjunction with a selective-receiver chamber, the properties of the chamber and those of the microphone can be determined separately. It was for this reason that the authors used an optical microphone shown schematically in Fig 1. A receiver chamber (1) was filled with a gas which can absorb infrared radiation. Pulsations of the gas pressure, produced by a "pulsed" infrared beam, act on a celluloid membrane (2) coated with a specular layer of antimony. This membrane was used both as a chamber wall and a microphone membrane. An objective (3) was placed at a distance of 15 mm from the membrane. In the focal plane of the objective there was a glass raster (4) through which light from a source (5) was projected by a condenser (5) on to the membrane (2). The light was reflected from the membrane and after

Card 1/3

On the Maximum Possible Sensitivity of a Selective Optico-Acoustic Receiver

passing through the objective and the raster, it was deviated by a mirror (7) on to a single-stage photomultiplier (9) of FEU-2 type. The construction of the chamber is shown in Fig 2. It consisted of a working space (1), a ring-shaped channel (2), a channel joining the working space and the region immediately behind the membrane (3), the membrane and its supporting ring (4), a compensation channel (5), an entry window (6), a window used to protect the membrane (7) and the chamber casing (8). Two chambers were constructed: one was cylindrical in shape (10 mm depth and 9.4 mm diameter), and the other was rectangular (6 x 7 mm cross-section and 3 mm depth). When filled with CO_2 the cylindrical chamber had a time constant of 0.03 sec and the rectangular one - 0.003 sec. Absorption of radiation emitted by a Hefner candle (a selective source) amounted to 13% in the cylindrical chamber and 6% in the rectangular one. The root-mean-square noise at light-interruption frequency of 10 c/s was equivalent to a radiation flux of 3×10^{-9} W in the cylindrical chamber and 8×10^{-9} W in the rectangular chamber. The noise decreased with increase of the light-interruption frequency (Fig 4). At low frequencies (10-15 c/s) an optical microphone made it possible to reach the sensitivity limit of the optico-acoustic receiver, since the noise of the receiver was practically entirely due to the chamber noise. The cylindrical chamber had a lower sensitivity limit because of the smaller heat losses and

4