

MARKOVA, K.Ye., kand. ekonom. nauk

Perspects for the expansion of the leather industry in the  
White Russian S.S.R. Kozh.-obuv. prom. 5 no.6:15-17 Je '63.  
(MIRA 16:6)

(White Russia—Leather industry)

MATUSEVICH, M.G., kand.ekon.nauk; PASHKEVICH, O.N., kand.ekon.nauk;  
MUKHINA, V.A., mladshiy nauchnyy sotrudnik; MARKOVA, K.Ye., kand.  
ekon.nauk; SAVEL'YEV, I.T., mladshiy nauchnyy sotrudnik;  
MERETSKAYA, T.A., kand.ekon.nauk; D'YAKOV, B.I., mladshiy nauchnyy  
sotrudnik. Prinimali uchastiye: BEL'KO, S.P., mladshiy nauchnyy  
sotrudnik; ANDROSOVICH, Ye.I., mladshiy nauchnyy sotrudnik;  
KUKHAREV, B.Ye., mladshiy nauchnyy sotrudnik; REUT, S.B., starshiy  
statistik. TIMOFEYEV, L., red.; VOLOKHANOVICH, I., tekhn.red.

[Capital assets of industry and their utilization] Osnovnye fondy  
promyshlennosti i ikh ispol'zovanie. Minsk, Izd-vo Akad.nauk  
BSSR, 1960. 192 p. (MIRA 14:1)

1. Akademiya nauk BSSR, Minsk. Institut ekonomiki. 2. Institut  
ekonomiki AN BSSR (for all, except Timofeyev, Volokhanovich).  
(White Russia--Capital)

MARKOVA, K.Ye., kand.ekonom.nauk

Expansion of leather and shoe industries in the White Russian  
S.S.R. Kozh.-obuv.prom. 2 no.7:12-13 J1 '60.. (MIRA 13:8)  
(White Russia--Leather industry)  
(White Russia--Shoe industry)

MATUSEVICH, M.G., kand. ekon. nauk; PASHKEVICH, O.N.; MUKHINA, V.A.,  
mlad. nauchnyy sotr.; MARKOVA, K.Ye., kand. ekon. nauk;  
SAVEL'YEV, I.T., mlad. nauchnyy sotr.; MERETSKAYA, T.A.,  
kand. ekon. nauk; D'YAKOV, B.I., mlad. nauchnyy sotr.;  
TIMOFEYEV, L., red.; VOLOKHANOVICH, I., tekhn. red.

[Capital assets of industry and their utilization] Osnovnye  
fondy promyshlennosti i ikh ispol'zovanie. Minsk, Izd-vo Akad.  
nauk BSSR, 1960. 202 p. (MIRA 16:6)

1. Akademiya nauk BSSR, Minsk. Institut ekonomiki. 2. Institut  
ekonomiki AN BSSR (for all except Timofeyev, Volokhanovich).  
(White Russia—Capital)

MARKOVA, K. Ye., kand. ekonomicheskikh nauk

Ways of increasing labor productivity in the shoe industry of White  
Russia: Kozh.-obuv.prom. 3 no.1:15-17 Ja '61. (MIRA 14:5)  
(White Russia--Shoe industry--Labor productivity)

MARKOVA, K.Ye.

Efficient organization of centralized production of sole parts in  
the White Russian S.S.R. Kozh.-obuv.prom. 3 no.7:6-8 J1 '61.  
(MIRA 14:9)

(White Russia--Shoe manufacture)

MARKOVA, K.Ye., kand.ekonom.nauk

Specialization of the shoe industry in White Russia. Kozh.-obuv.  
prom. 5 no.5:4-6 My '63. (MIRA 16:5)  
(White Russia—Shoe industry)

VYSHESLAVOVA, V.A.; IONOVA, T.V.; SULEYMANOVA, Z.I.; MARKOVA, L.A.; OSOKIN,  
L.L.; ROMANENKO, A.K.; GUSLISTAYA, Ye.G.; ~~DASHEVSKIY, I.Ye.~~;  
BOGUSLAVSKIY, D.B.; UZINA, R.V.

Specific features in the technological process of viscose cord  
production at the Dnepropetrovsk tire factory. Kauch.i rez. 24  
no.1:1-4 Ja '65. (MIRA 18:3)

1. Dnepropetrovskiy shinnyy zavod i Nauchno-issledovatel'skiy  
institut shinnoy promyshlennosti.



MARKOVA, Libuse

The construction of a mirror surface picturing figures inverse to plane figures. Aplikace mat 7 no.6:387-392 '62.

1. Katedra algebry a geometrie, Universita Palackeho,  
Fierlingerova 10, Olomouc.

VOLOVICH, N.I.; ZLATOPOL'SKAYA, R.D.; SHCHIT, O.R.; TORSKAYA, N.N.;  
MARKOVA, L.A.; SAVCHENKO, A.M.; BELAYA, O.S.

Epidemiologic effectiveness of phage prevention of dysentery  
by using dry dysentery bacteriophage. Zhur.mikrobiol.epid.i  
immun. no.1:45 Ja '54. (MLRA 7:2)

1. Iz Khar'kovskogo instituta epidemiologii i mikrobiologii im.  
Mechnikova. (Dysentery) (Bacteriophagy)

MARKOVA, L. A., Cand Med Sci -- (diss) "Experimental study of purified concentrated vaccines against acute encephalomyelitis and multiple sclerosis and attempts to obtain specific antiserums." Khar'kov, 1960. 16 pp; (Khar'kov Medical Inst); 250 copies; free; (KL, 29-60, 127)

KORENBLIT, R.S.; MARKOVA, L.A.; RUTSHTYIN, P.V.

Antibodies to the brain component of neurovirus vaccines. Vop.  
virus 6 no.4:482-486 J1-Ag '61. (MIRA 14:11)

1. Khar'kovskiy institut vaktsin i syvorotok imeni I.I.Mechnikova  
i TSentral'naya psikhonevrologicheskaya bol'nitsa Ministerstva putey  
soobshcheniya, Khar'kov.

(ANTIGENS AND ANTIBODIES)  
(MULTIPLE SCLEROSIS)

(ENCEPHALOMYELITIS)  
(RABIES)

ZINCHENKO, A.P.; MARKOVA, L.A.

Clinical and immunological parallels in multiple sclerosis. Vest. :  
AMN SSSR 16 no.6:45-49 '61. (MIRA 15:1)

1. Voenno-meditsinskaya akademiya imeni S.M.Kirova, Leningrad i  
Nauchno-issledovatel'skiy institut vaktsin i syvorotok, Khar'kov.  
(MULTIPLE SCLEROSIS) (IMMUNOLOGY)

KORENBLIT, R.S.; MARKOVA, L.A.; RUTSHTYIN, P.V.; EPSHTYIN, TS.A.

Comparative study of the methods of diagnosis of acute encephalomyelitis and multiple sclerosis. Vest. AMN SSSR 16 no.6:61-64 '61.  
(MIRA 15:1)

1. Tsentral'naya psikhonevrologicheskaya bol'nitsa Ministerstva  
putey soobshcheniya i Institut vaktsin i syvorotok, Khar'kov.  
(MULTIPLE SCLEROSIS) (ENCEPHALOMYELITIS)

TASHPULATOV, Yu.T.: [deceased]; KOLONTAROV, I.Kh.; ~~MARKOVA~~, L.P.

Effect of magnesium-containing waters on the hardening of  
"clayite"-portland cement. Dokl. AN Uz. SSR no.2:27-30  
'58. (MIRA 11:5)

1. Institut khimii AN UzSSR. Predstavleno akad. AN UzSSR M.N.  
Nabiyevym.

(Portland cement)

MARKOVA, L. G.

Mbr., Inst. Medico-Biol. Sci., Western Siberian Affil., Acad. Sci., -1945-.

"On Certain Anomalies in the Embryology of *Polemonium Coeruleum* L.,"

SO: Dok. AN, 49, No. 2, 1945;

"The Embryology of *Corydalis Bracteata* L.,"

SO: Byul Mosk, Obshch, Ispytat, Prirody, Otdel, Biol., 54, No. 1, 1949.



MATKOVA, L. I.

TA 1/49749

USSR/Medicine - Plants, Medicinal  
Medicine - Embryology

Jan/Feb 49

"The Embryology of *Corydalis Bracteata* L.," L. G.  
Markova, 8 pp

"Byul Mosk Obshch Ispy Prirod, Otdel Biolog"  
Vol LIV, No 1

Embryonic bag develops in normal pattern, while  
development of male and female gametophytes occurs  
very early, just as soon as the plant -- a spring  
eupheremida -- appears from beneath snow. Anti-  
poles have huge dimensions and hypertrophied buds.  
*Corydalis bracteata* L. has definite medicinal  
value.

41/49749

AGRANOVSKAYA, I.A.; ASATKINA, Ye.P.; BOYTISOVA, Ye.P.; BOCHARNIKOVA, A.D.;  
BOYTSEL', Z.A.; IVANOVA, Ye.A.; KALASHNIKOVA, V.A.; KLIMKO, S.A.;  
KRUCHININA, N.V.; MALYASOVA, Ye.S.; MARKOVA, L.G.; MARTINOVA, Z.I.;  
POKROVSKAYA, I.M.; POLUKHINA, V.A.; ROMANOVSKAYA, G.M.; SAMIGULINA,  
Ye.P.; SEDOVA, M.A.; SIGOVA, N.N.; STEL'MAK, N.K.; PERLIN, S.S., re-  
daktor izdatel'stva; GUROVA, O.A., tekhnicheskij redaktor.

[Atlas of Oligocene spore and pollen complexes in various regions of  
the U.S.S.R.] Atlas oligotsenovykh sporove-pyl'tsevykh kompleksov  
razlichnykh raionov SSSR. Moskva, Gos.nauchno-tekhn.isd-vo lit-ry  
po gologii i okhrane neдр. 1956. 312 p. (Leningrad, Vsesoiuznyi  
geologicheskii institut. Materialy, no.16) (MLRA 10:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut  
Ministerstva geologii i okhrany neдр SSSR. (for Asatkina, Boytsova,  
Kalashnikova, Kruchinina, Pokrovskaya, Romanovskaya, Sedova, Stel'-  
mak). 2. Yuzhno-Ural'skoye geologicheskoye upravleniye (for Sigova)
  3. Ural'skoye geologicheskoye upravleniye (for Agranovskaya, Bocharni-  
kova, Martynova, Polukhina, Samigulina). 4. Treст "Zapsibneftegeologiya"  
(for Boytsel', Ivanova, Klimko, Markova). 5. Geograficheskii fakul'tet  
Leningradskogo gosudarstvennogo universiteta (for Malyasova)
- (Pollen, Fossil) (Spores (Botany), Fossil)

MARKOVA, L.G.

Development of the embryo in some spring "geophemeroids" [with  
summary in English]. Biol.MOIP. Otd.biol. 62 no.1:65-72 Ja-F '57.  
(TOMSK DISTRICT--PERENNIALS) (MIRA 10:6)  
(BOTANY--EMBRYOLOGY)

VOYTSEL', Z.A.; IVANOVA, Ye.A.; KLIMKO, S.A.; MARKOVA, L.G.

Spore-pollen complexes from Permian sediments in the Irtysh  
Valley of Pavlodar Province. Trudy VNIGRI no.124:95-110 '58.  
(MIRA 16:7)

(Pavlodar Province--Polynology)

MARKOVA, L.G.; SKURATENKO, A.V.

Spore-pollen complexes in Lower Cretaceous sediments of the  
Turukhan key hole. Trudy SNIGGIMS no.8:189-195 '60.

(MIRA 15:9)

(Turukhan Valley--Palynology)

VOYTSEL', Z.A.; IVANOVA, Ye.A.; MARKOVA, L.G.; TESLENKO, Yu.V.

History of the development of Mesozoic flora in the West Siberian  
Plain. Trudy SNIIGGIMS no.14:188-212 '61. (MIRA 15:3)  
(West Siberian Plain--Paleobotany)

MARKOVA, L.G.

New data on the pollen *Brachyphyllum* Brongn. and *Pagiophyllum*  
Heer. Trudy SNIGGIMS no.15:67-71 '61. (MIRA 15:9)  
(West Siberian Plain--Palynology)

BOLKHOVITINA, N.A.; ZAKLINSKAYA, Ye.D.; ~~KARL~~MURZA, E.N.; LYUBER, A.A.;  
MARKOVA, L.G.; NAUMOVA, S.N.; POKROVSKAYA, I.M.; SAMOYLOVICH,  
S.R.

Preparation of the Interdepartmental Conference on the Taxonomy  
and Nomenclature of Fossil Spores and Pollen. Paleont. zhur.  
no.3:130-135 '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
(Palynology—Congresses)



MARKOV, L. I.

06535

razmnozheniye tsyennyego flaksa vyemchashi S.S.I Ugerai, 1949, no. 9, 63-64

SC: LETOPIS NO. 38

MARKOVA, L. I.

32424. MARKOVA, L. I. Vliyaniye razlichnoy solenosti i temperatury na gazoobmen  
loshcha, salaki ugrya. Izvestiya Vsesoyuz. nauch.-issled. in-ta ozer. i rekh.  
ryb. khoz-va, t. XXIX, 1949, s. 106-17---Bibliogr: 8 nazv.

S0: Letopis Zhurnalnykh St-tey, Vol. 44

MARKOVA, L. I.

Reactivation of Yeast Cells of Various Ploidy Irradiated with Alpha Particles

V. I. Kozorodin, V. B. Borsht, L. I. Markova  
and Ya. L. Spechtman

The possibility of reactivation of radiation injury caused by polonium alpha-particles was investigated on ten yeast strains of various ploidy (from one to six chromosome sets). The survival curves for haploid cells had an exponential form, whereas the survival curves for cells of higher ploidy had a sigmoid form.

When yeast cells with two or more genomes were incubated after irradiation at 30°C in a nutrient medium, the survival rate increased substantially. The reactivation processes were virtually fully completed within 24 hr. The radiation injury to haploid cells was irreversible, just as in the case of  $\gamma$ -irradiation. In the case of one diploid strain (Megri-139 B) the degree of reversibility of a radiation injury caused by alpha particles was the same as the degree of reversibility of the lethal effects of  $\gamma$ -irradiation (about 60% of the given dose). The survival curve of reactivated cells was less curved.

The authors interpret their results on the basis of the hit theory. The lethal effect of alpha radiation on yeast with two or more genomes is caused by injury to several (in each cell) spatially separated elementary biological units, comparable in size with protein molecules. The injury to a large proportion of such elementary structures is potentially reversible.

*Department of Biophysics, Faculty of Soil Biology of the Moscow State University and Biophysical Institute of the Academy of Sciences of the USSR, Moscow*

(Session continued on next page)

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report presented at the 2nd Intl. Congress of Radiation Research,  
Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

KOROGODIN, V.I.; YEGOROV, A.Ya.; KABAKOV, Ye.N.; MARKOVA, L.I.

Comparative study of light and dark reactivation of yeast cells  
of different ploidy injured by ultraviolet radiation. Zhur.ob.  
biol. 23 no.4:302-307 J1-Ag '62. (MIRA 15:9)

1. Department of Biophysics, State University of Moscow and All-  
Union Research Institute of Phytopathology.  
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT)(CHROMOSOME NUMBERS)

S/205/63/003/001/009/029  
E028/E183

**AUTHORS:** Korogodin V.I., Bilushi V., Markova L.I., and Shekhtman Ya.L.

**TITLE:** Restoration of the viability of yeast cells of varying ploidy after irradiation with  $\alpha$ -particles

**PERIODICAL:** Radiobiologiya, v.3, no.1, 1963, 39-46

**TEXT:** The cells of 12 strains of yeast of varying ploidy were irradiated in thin layers with  $\alpha$ -particles and were then tested for viability by plating out on wort-agar. The sources of radiation used were  $^{239}\text{Pu}$ , giving a dose of 30 rad/min at a distance of 13 mm from the surface, and  $^{210}\text{Po}$  giving at 8 mm a dose of 10-200 rad/min. Irradiation was continued for periods ranging from a few minutes to several hours, and was carried out at 1 - 2 °C and at room temperature. The results showed that the  $\text{LD}_{50}$  was dependent on ploidy, the haploid strain being the least and the diploid strain the most radioresistant. With the higher ploidy up to 6 radioresistance declined in one set of strains (Mortimer), but increased in a set obtained from another source.

Card 1/2

Restoration of the viability of ... S/205/63/003/001/009/029  
E028/E185

(Ephrussi). Recovery from the effect of irradiation was observed with strains of ploidy 2 or greater, but not with haploid strains. Thus, 26% of the cells of a diploid strain were viable immediately after irradiation in a dose of 16.2 krad, but after maintenance on plain agar this proportion rose to 76% after 24 hours and 93% after 48 hours. It was also shown that the restoration does not depend on the kind of radiation (X,  $\alpha$  or  $\gamma$  particles) producing the injuries. There are 4 figures and 3 tables.

ASSOCIATION: Institut meditsinskoy radiologii AMN SSSR (Institute of Medical Radiology of the Academy of Medical Sciences USSR); OBNINSK; Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov); Institut biologicheskoy fiziki AN SSSR, Moskva (Institute of Biophysics AS USSR, Moscow)

SUBMITTED: March 30, 1962

Card 2/2

MARKOV, G.S.; LUKINA, G.P.; MARKOVA, I.I.; MOZGINA, A.A.

Parasites of reptiles in the Northern Caucasus. Uch. zap. Volg.  
gos. ped. inst. no.16:99-105 '64. (MIRA 19:1)

1. Kafedra zoologii Volgogradskogo gosudarstvennogo pedagogi-  
cheskogo instituta i kafedra zoologii Rostovskogo gosudarst-  
vennogo universiteta.

MARTOVA, T.G.; TELENTYUK, Ye.S.; MARKOVA, L.K.

Increasing the precision of the method for rapid determination of  
phosphoric anhydride. Soob. Sakhal. kompl. nauch.-issle. inst. AN  
SSSR no.4:98-101 '56. (MIRA 11:5)

(Phosphoric acid)  
(Chemistry, Analytical--Quantitative)



MARKOVA, L. L.

Markova, L. L., Wind-Tide fluctuations of the level in the southeastern part of the Baltic Sea and in the Kaliningradskiy and Kurshkiy Zalivs, Nauchn. soobshch. In-t geol. i geogr. AN Lit SSR (Scientific Reports of the Institute of Geology and geography, Academy of Sciences, Lithuanian SSR), No 3, 1956, p 137-140; (RZhGeofiz 12/57-10611)

MARKOVA, L.L., NECHAY, I.Ya.

Hydrological characteristics of estuary regions of the Neman and  
Pregel Rivers. Trudy GOIN no.49:118-188 '60. (MIRA 13:7)

(Neman Delta region--Hydrology)

(Pregel Delta region--Hydrology)

1000-0000

S/O 1/4/000/480/01/00  
1000/1100

Translation from: Referativnyy zhurnal, Khimiya, 1961, No. 2, p. 115, # 2441

AUTHORS: Chernozhukov, M. I., Lukashovich, P. I., Pikhulov, A. F., Lisnina, G. G., Kazakova, L. F., Sodchikova, M. F., Shestakova, E. I., Larkova, L. M., Kirya, V. V., Kuzmina, V. I., Glazov, G.

TITLE: The Solubility of Oil Hydrocarbons in Organic Solvents and Ways of the Oil Production Improvement

PERIODICAL: Tr. Mosk. inst. neftekhin. i. gaz. prom-sti, 1959, No. 2, pp. 211-214

TEXT: The authors recommend ways of improvement of the lubricant production. Hydrocarbons of higher molecular weight and higher freezing point are in the first place separated at the fractional crystallization of oil hydrocarbons from their solution in acetone. The solubility of the naphthane and paraffin fractions of oils as well as the solubility of a part of the aromatic hydrocarbons and resins result from the effect of the dispersion forces, and the solubility of the remaining part of aromatic hydrocarbons and resins is connected with the action of polar forces. The increase of the dissolving power of the solvent is a consequence of the increase of both its dipole moment and the non-polar portion.

Card 1/3

S/001/01/000/000/1/00  
AC05/AB05

The Solubility of Oil Hydrocarbons in Organic Solvents and Ways of the Oil Production Improvement

of its molecule. In both cases, the increase of the dissolving power of the solvent is accompanied with the decrease of its selectivity. There are considered next: the mechanism of the de-asphaltizing of a petroleum concentrate by propane; the effects of temperature and quantity of furfurole on the course of refining of the oil distillate of the Tuymazy petroleum; the properties of phenol and furfurole. An increase in the quantity of furfurole in the refining makes up the insufficiency in its dispersion properties; hence, the quantity of aromatic hydrocarbons being to be eliminated sharply increases, as a result of which the viscosity coefficient of the refined product increases more than at increased refining temperature. By the use of phenol, the output of refined products is lower than for the refining by furfurole in consequence of the higher dissolving power of the former. The high dissolving power of phenol leads to super-refining of oils in consequence of which their resistance to oxidation decreases. By the addition of water to phenol, its dissolving power decreases, and the selection properties and the output of refined products increase, whereas its viscosity coefficient inconsiderably decreases. The treatment of a transformer oil distill-

Card 2/2

S/081/01/000/002/01/400  
1005/0105

The Solubility of Oil Hydrocarbons in Organic Solvents and Means of the Oil  
Production Improvement

late from sulfurous paraffin-base petroleum by phenol containing 10% water makes it possible to obtain an oil resistant to oxidation and having high susceptibility to antioxidant admixtures. The two-stage demeraffination of wide oil fractions make it possible to increase the output of oils. An increase by the addition of admixtures, in particular, of the depressant  $\Delta_{3H}/\Delta(Az^{III})$  and oxidized petroleum.

P. E.

Translator's note: This is the full translation of the original Russian abstract.

Card 3/3

MARKOVA, L.M.

31978

5/001/01/000/023/041/06:  
B106, B101

112230

AUTHORS: Betts, G. E., Gubenko, I. N., Karmin, B. K., Lukachevich, I. R.,  
Markova, L. M., Segalevich, A. Ye., Troitskaya, M. I.,  
Chernozhukov, N. I., Guseva, V. I.

TITLE: Test of petroleum products as plasticizer fillers for rubber  
compounds from divinyl styrene rubber. Communication I

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1961, 560, abstract:  
25P346. (Tr. N.-i. in-ta snin. prom-sti, sb. 5, 1960, 5-20)

TEXT: For the purpose of examining the possibility of enlarging the raw  
material basis for the production of olefin rubber, a study has been made  
of the effect of paraffin-naphthene hydrocarbons (I) and aromatics (II),  
isolated from different kinds of petroleum at different stages of  
processing, on the physicochemical properties of standard rubbers from  
[4C-30A (SKS-30A). Addition of I and II in an amount of 35% to a mixture  
of rubber and softener deteriorates the physicochemical properties of  
vulcanizates and enhances their elasticity. The tensile strength of rubber  
containing I drops from 274 (standard rubber) to 173 - 226 kgf/cm<sup>2</sup> while

Card 1/2

Test of petroleum products...

11976  
 2/10/1/1/1006/021/013/011  
 B190/B191

its tear resistance drops from 61 to 47 - 54 kgf/cm. The tensile strength of rubber containing II drops to 200 - 245 kgf/cm<sup>2</sup> and its tear resistance to 52 - 64 kgf/cm. The thermal stability and the bonding strength of doubled rubbers decrease substantially after vulcanization. High-molecular products of comparatively higher viscosity deteriorate the strength properties of rubber less than do low-molecular ones. A test of 20 products, obtained from differently processed petroleum asphalt, deasphalted products, distillates, and raffinates, have shown that the most interesting of these products are a deasphalted petroleum asphalt, the residual high-viscosity oil, a secondary raffinate, and an aviation tar. These products ensure satisfactory physicomechanical properties, elasticity, and brittleness temperature (-50 C) of vulcanizates. [Abstracter's note: Complete translation.] ✓

Card 2/2

MARKOVA, L.M.; TROITSKAYA, N.I.

Use of petroleum products in the manufacture of tires. Trudy  
MINKHIGP no.28:161-173 '60. (MIRA 14:4)  
(Petroleum products) (Tires, Rubber)



GUSEVA, V.I.; LUKASHEVICH, I.P.; SUSANINA, O.G.; MARKOVA, L.M.;  
TROITSKAYA, N.I.

Petroleum refining products as softener-fillers of divinyl  
styrene rubbers. Trudy MINKHIGP no.44:48-57 '63.  
(MIRA 18:5)

DIKENSHTeyN, G.Kh.; KUTUZOVA, V.V.; MASHUYKOV, K.K.; BABAYEV, A.G.;  
POL'STER, L.A.; YUFEREV, R.F.; SHISHOVA, A.I.; BAREYEV,  
R.A.; MAKAROVA, L.N.; MURADOV, K.; PYANOVSKAYA, I.A.;  
SEMOV, V.N.; SIROTINA, Ye.A.; TURKINA, I.S.; FEL'DMAN,  
S.L.; KHON, A.V.; KUNITSKAYA, T.N.; GOLENKOVA, N.P.;  
ROSHINA, V.M.; FARTUKOV, M.M.; SHCHUTSKAYA, Ye.K.;  
ALTAYEVA, N.V.; BYKADOROV, V.A.; KOTOVA, M.S.; SMIRNOV,  
L.M.; IBRAGIMOV, M.S.; KRAVCHENKO, M.F.; MARKOVA, L.P.;  
ROZYIYEVA, T.R.; UZAKOV, O.; SLAVIN, P.S.; NIKITINA, Ye.A.;  
MILOGRADOVA, M.V.; BARTASHEVICH, O.V.; STAROBINETS, I.S.;  
KARIMOV, A.K.

[Splicing of the wires of overhead power transmission lines]  
Soedinenie provodov vozduzhnykh linii elektroperedachi. Mo-  
skva, Energiia, 1964. 69 p. (Biblioteka elektromontera,  
no.132) (MIRA 17:9)

MARKOVA, L. P.

MARKOVA, L. P. --"Resinous Vegetation of Koret-Dagh and its Value in the National Economy." (Dissertations for Degree in Science and Engineering defended at USSR Higher Educational Institutions) Acad Sci USSR, Lotany Inst. Ser. 1. L. Komarov, Leningrad, 1955

SO: Knizhnaya Letopis', L. . 25, 18 Jun 55

\* For Degree of Candidate in Biological Sciences

15-57-12-16807  
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 12,  
pp 18-19 (USSR)

AUTHOR: Markova, L. P.

TITLE: The Subdivision, by Microfossils, of the Pliocene  
Deposits in the Oil Region of the Balkhan Depression  
(Raschleneniye pliotzenovykh otlozheniy neftenosnykh  
rayonov Pribalkhanskoy depressii po mikrofaune)

PERIODICAL: Tr. Turkm. fil. Vses. neft. n.-i. in-ta, 1957, Vol 1,  
pp 27-42

ABSTRACT: A wealth of material on the microfossils from the  
Pliocene rocks of the Balkhan depression has been  
accumulating for seventeen years. By using it, a  
number of questions on the stratigraphy, obscure until  
now, may be solved: the stratigraphic position of the  
red beds, the thickness of the Akchagyl deposits, the  
subdivisions of the Apsheron series, etc. The red

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15-57-12-16807

## The Subdivision, by Microfossils. (Cont.)

beds rest locally on deposits with typical Pontian microfossils, in other places on unfossiliferous beds. The author has divided these red beds into three formations on the basis of lithology, logging data, and redeposited foraminifers. The lower formation is a thick sequence of clays, sands, sandstones, and mudstones. The immediately underlying rock, judging from drill logs, is a very dense layer, the nature of which is unclear. The lower red-bed formation contains redeposited foraminifers and ostracods of Cretaceous and Paleogene age (very few). The middle formation contains much more sand than either the upper or lower formation and, as the lower, contains few fossils. The upper formation is composed of alternating clays and sands with numerous Cretaceous, Paleogene, and Miocene foraminifers, and also with scarce ostracods occurring in place Ilyocypris gibba Ramdohr, Cyprinotus minuta Mand., Cyprideis littoralis (Brady), and others. The thickness of the red-bed sequence is variable, increasing gradually from east to west from 1350 m at Boya-Dag to 2000 m or 2500 m at Cheleken. The boundary between the red beds and the Akchagyl deposits is clearly determined both by lithology

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15-57-12-16807

## The Subdivision, by Microfossils (Cont.)

and by microfossils. The Akchagyl deposits may be tentatively divided into two units by the microfossil content. The lower unit contains ostracods (Candona convexa Liv., Eucypris delta n. sp., Bythocypris typica n. sp., and others). The "Cassidulina" horizon occurs at the base of this unit; it is composed of laminated clays and contains, in addition to the indicated ostracods, "dwarf" foraminifers (Bolivina aff. nobilis Hant., Cassidulina aff. crassa d'Orb., Rotalia ex. gr. beccari, and others). The upper unit contains ostracods of the genera Candona, Loxoconcha, Bythocypris, and others; foraminifers are not found in this unit. The boundary between the Akchagyl and Apsheron deposits is extremely gradational. The Akchagyl-Apsheron transitional beds are identified in drill cores by the appearance of Akchagyl species among the Apsheron microfossils and also by the alpha count. This latter is probably due to remains of calcareous algae. The thickness of the Akchagyl rocks is extremely variable, ranging from 100 m at Cheleken to 500 m at Kum-Dag and at other localities. The transitional beds range in thickness

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15-57-12-16807

## The Subdivision, by Microfossils (Cont.)

from 20 m to 30 m at Cheleken to 100 m and more at Kum-Dag. The Apsheron sequence is clearly divisible into a lower and middle unit by microfossils. The upper boundary of the middle unit is not clear. The lower Apsheron unit contains no species that are characteristic of that horizon alone. Some of the forms are transitional from the Akchagyl beds; others appear for the first time, but continue on to the end of Apsheron time: Cythere arevina Liv., Loxoconcha kalizkyi Lub., Xestoleberis chanacovi Liv., and others. The Cheleken area is unusual in that the distribution of Apsheron microfossils resembles the section in Azerbaijan more than the Turkmeniya section. The middle Apsheron unit is characterized by a rich microfauna in the entire eastern structures of the Balkhan region. Some of the species are found only in middle Apsheron rocks: Cythere bosqueti Liv., Cythereis cybaria Mand., and others. The microfossils of the upper Apsheron have been inadequately studied, but they are similar in general characteristics to the middle Apsheron forms. The upper boundary of the Apsheron deposits is well defined by the appearance of distinctive Baku ostracods (Candona aff. Card 4/5

15-57-12-16807

The Subdivision, by Microfossils (Cont.)

• albicans Brady, Pontocypris guriana Liv. and others) and by redistributed foraminifers not found in the Apsheron rocks. The thickness of the Apsheron deposits ranges from 400 m at Cheleken to 1000 m or 1200 m at Monzhukly.

Card 5/5

V. A. Levitskaya



MARKOVA, L.P.

Stratigraphy of Cretaceous deposits of Izat-Kuli. Izv. AN Turk.  
SSR no.5:22-30 '57.

(MIRA 10:10)

1. Turkmenskiy filial VNI.

(Turkmenistan--Ostracoda, Fossil)

RAHENKO, K.K.; MARKOVA, L.P.

~~Stratigraphy and geological age of deposits stretching under~~  
red-colored strata of southwestern Turkmenistan. Izv. AN Turk.  
SSR no.2:73-77 '58. (MIRA 11:4)

1.Ob'yedineniye "Turkmenneft" i Turkmenskiy filial Vsesoyuznogo  
nauchno-issledovatel'skogo instituta.  
(Turkmenistan--Geology, Stratigraphic)

MARKOVA, L.P.; SHVARTS, L.Ya.

Profile stratigraphy of the new prospects of Kotur-Tepe and Okarem  
in southwestern Turkmenia. Izv. AN Turk. SSR no.4:13-19 '58.

(MIRA 11:10)

(Kotur-Tepe--Petroleum geology) (Okarem--Petroleum geology)

... and ... ( ... ) ... a  
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MARKOVA, L.P.; GNATYUK, R.A.

Reservoir properties of pliocene rocks of the Balkhan Depression in southwestern Turkmenistan. Izv.AN Turk.SSR no.6:19-27 '59.

(MIRA 13:5)

1. Turkmenskiy filial Vsesoyuznogo neftegazovogo nauchno-issledovatel'skogo instituta.

(Turkmenistan--Rocks--Permeability)

LYAL'OVICH, S.S.; MARKOVA, L.P.

Microfauna of Miocene deposits in the western Kopet-Dag. Izv.  
AN Turk.SSR.Ser.fiz.-tekhn. i geol.nauk no.1:59-67 '61.  
(MIRA 14:8)

1. Turkmenskiy filial Vsesoyuznogo neftegazovogo nauchno-  
issledovatel'skogo instituta.  
(Kopet-Dag—Micropaleontology)

MARKOVA, Leonila Pavlovna; SEMENOVICH, V.V., kand. geol.-miner. nauk,  
otv. red.

[Stratigraphy of Pliocene sediments in the oil regions of western  
Turkmenia] Stratigrafiia pliotsenovykh otlozhenii neftianyykh rai-  
onov Zapadnoi Turkmenii. Ashkhabad, Izd-vo Akad. nauk Turkmenskoi  
SSR, 1962. 116 p. (MIRA 16:2)  
(Turkmenia--Geology, Stratigraphic)

MARKOVA, L.P.

Gums and guttiferous plants and their economic significance.  
Trudy Bot.inst.Ser. 5 no.10:7-35 '62. (MIRA 15:2)  
(Gums and resins)



MARKOVA, L.P.

Materials on the intraspecific mutability of basic species. tragacanth  
milk vetches. Trudy Bot. inst. Ser. 5 no. 10: 36-64, '62. (MIRA 15:2)  
(Kopet-dag--Milk vetches)

MANDEL'SHTAM, Mikhail Iosifovich; MARKOVA, Leonilla Pavlovna;  
ROZYIYEVA, Taty Rozyyevna; STEPANAYTYS, Nina Yevgen'yevna;  
MAYOROVA, Yu.M., red. izd-va; IVONT'YEVA, G.A., tekhn.red.

[Ostracoda of Pliocene and Post-Pliocene sediments in  
Turkmenistan] Ostrakody pliotzenovykh i postpliotzenovykh  
otlozhenii Turkmenistana; spravochnik. [By] M.I. Mandel'-  
shtam i dr. Ashkhabad, Izd-vo Akad. nauk Turkmenskoi SSR,  
1962. 287 p. (MIRA 16:3)  
(Turkmenistan--Ostracoda, Fossil)

MARKOVA, L.P.

Gummiferous plants of Kopet-Dag. Trudy Bot. inst. Ser. 5  
no.11:8-44 '63.

Gummiferous system and the characteristics of resinous  
exudation in basic commercially valuable species of tragacanth-  
bearing milk vetches of Kopet-Dag. (45-110)

Some characteristics of temperature conditions of the shrubs  
Astragalus densissimus Boriss. and A. piletocladus Freyn et  
Sint. (174-185) (MIRA 16:10)

MARKOVA, I.F.

Meeting of the section on the "Utilization of scientific and technical resources of the U.S.S.R. for the needs of the national economy and medicine" of the Special Research Council, Mar 1-12, 1965. Part. res. 1 no.3:480-484 1965. (MIRA 18:10)

1. Botanically important plants of the U.S.S.R. for the national economy.

MARKOVA, L.P.; MEDVEDEVA, L.I.

Materials on the distribution, intraspecific variability and  
economic value of some species of *Ferula* from the subgenus  
*Peucedanoides*(Boiss.) Korov. Trudy Bot. inst. Ser. 5 no. 13:  
42-99 '65. (MIRA 18:12)

18.1285

S/184/60/000/004/003/021  
A109/A029

AUTHORS: Shvarts, G.L., Candidate of Technical Sciences, Chistyakova, A.N.  
Markova, L.S.; - Graduate Engineers

TITLE: The Manufacture of Apparatus From Titanium ✓

PERIODICAL: Khimicheskoye Mashinostroyeniya, 1960, No. 4, pp. 8 - 10

TEXT: This article, compiled in cooperation with Graduate Engineers M.M. Abelev and A.V. Nosov, states that tests carried out by NIIKhIMMASH have established the high corrosion resistance of BT1 (VT1) titanium. An unidentified plant produces single-roller COAA (SOAA) dryers with cast iron steel and titanium parts. The dryer is designed for highly aggressive concentrates used in non-ferrous metal production, containing sulfur compounds and hydrochloric acid. Its only other non-corrosive component is tantalum. Pulp of these concentrates are filtered through ЛГ-130Т (LG-130T) titanium filters designed by V.P. Abramov. In coke plants VT1 titanium proved absolutely corrosionproof and superior to highly-alloyed steels. Based on these results a saturator pipe and a rectifier were designed. The importance of surface cleanliness of walls on corrosion resistance was tested on 6-mm VT1 titanium and OT4 (OT4) alloy. It results from

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The Manufacture of Apparatus From Titanium

S/184/60/000/004/003, 1-1  
A109/A029

laboratory tests of NIIKhIMMASH and foreign papers (Refs 1 and 2) that in most media the corrosion resistance of titanium is not higher than the resistance of acid-resistant steels. Chloride solutions containing moist chlorine, carbamide solutions, and sulfur solutions containing  $\text{SO}_2$ ,  $\text{H}_2\text{S}$  and chlorine ions, are an exception to this rule. In these solutions titanium proved non-corrosible whereas highly-alloyed steels were subject to pitting, total corrosion or transcrystalline cracking. Welded titanium tubings produced by the Moskovskiy trubnyy zavod (Moscow Pipe Plant) and tested under similar conditions showed no loss of weight and no traces of corrosive cracking. 1X18H9T (1Kh18N9Ti) acid-resistant steel shows pitting corrosion in chloride solutions containing  $\text{KClO}_3$ , and X18H12M2T (Kh18N12M2Ti) steel shows scar corrosion. VT1 titanium and OT4 alloy retained their original weight and showed no corrosive cracks. They are recommended for equipment operating in media which cause pitting and scar corrosion or transcrystalline fractures on acid-resistant steels. They are also suitable for chlorine processing where they can replace tantalum and nickel-based alloys. There are 3 figures, 2 tables and 2 English references. 17

Card 2/2

MARKOVA, L.S., inzh.; POPOVA, Z.G., inzh.

Distribution of dispersed and rare elements in semifinished  
and finished zinc products. Min delo 18 no.9:22-23 S '63.



L-15024-65 EWP(e)/EPA(s)-2/EWT(m)/EPT(n)-2/EPR/EPA(bb)-2/ENP(b)/ENP(t) Ps-h/Pu-h/  
 Pt-10 SSD/ASD(a)-5/AEWL/ESD(t) AT/WH/WW/JD/JG  
 ACCESSION NR: AP4049044 8,0057/64/034/011/2021/2027/

AUTHOR: Matskevich, T.L.; Krachino, T.V.; Kazantsev, A.P.; Markova, L.S.

TITLE: Thermionic emission properties of certain high-melting compounds on metal backings

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.11, 1984, 2021-2027

TOPIC TAGS: thermionic emission, cathode layer, emitter, refractory compound, carbide, boride

ABSTRACT: The present study was initiated in 1959 in the laboratory of L.N. Dobretsov in view of the growing need for efficient high-temperature emitters and the paucity of experimental data on suitable refractory compounds. The principal purposes of the work were to obtain data on the thermoemissive properties of a series of high-melting compounds at temperatures above 2000K, including the emissive properties in cesium vapor, and to determine what factors limit the maximum operating temperature. The materials investigated so far include ZrC, TaC, NbC, HfC, HfO<sub>2</sub>, and (UC)<sub>0.2</sub>-(ZrC)<sub>0.8</sub>, which have been studied earlier, and WC, VC, HfB<sub>2</sub>, TaB<sub>2</sub>.

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ACCESSION NR: AP4049044

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(UC)<sub>0.08</sub>-(NbC)<sub>0.92</sub> and (UC)<sub>0.2</sub>-(TaC)<sub>0.8</sub>, which had not been investigated previously for their thermionic emission characteristics. The powdered materials were coated in the form of a suspension in amylacetate with cellulose binder on one side of direct heated ribbon filaments of Ta, W, or WC (one or more as seemed appropriate; TaB<sub>2</sub> was tested on all three bases, plus C). The thickness of the coatings was 20 to 40 microns. The measurements were carried out in a special tube. The results are presented in tables (and for some materials as curves) giving the values of the minimum work function  $\Phi_{\min}$  that could be obtained in the process of aging, the maximum temperature at which this minimum work function still obtained, the current density at  $T_{\min}$ , the maximum temperature attained in heating and the corresponding work function and current density, the main reason for failure (reaction with the base or evaporation), the rates of evaporation or reaction, the temperature range in which a current of 1 to 3 A/cm<sup>2</sup> could be taken off, the cesium vapor pressure necessary for compensating the space charge, and some secondary data derived from the above. In the cases of HfB<sub>2</sub>, HfC, ZrC and (UC)<sub>0.2</sub>-(ZrC)<sub>0.8</sub>, the effect of cesium vapor adsorption on thermionic emission also was studied. It was found that many of the investigated cathode coatings are more efficient in the 1850 to 2200K range than uncoated metallic cathodes and have reasonably long service lives

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ACCESSION NR: AP4049044

(over 1000 hours).  $\text{HfB}_2$  adsorbs cesium better than W; the other compounds investigated in this respect are poorer adsorbers. Surface ionization of cesium on ZrC and TaC obeys the Saha-Langmuir equation at  $T = 1400$  to  $1800\text{K}$  and  $P_{\text{Cs}} = 0.001$  mm Hg. The authors are grateful to L.N.Dobretsov for his constant interest and help in the work." Orig.art.has: 2 formulas, 3 figures, and 4 tables.

ASSOCIATION: none

SUBMITTED: 02Mar64

ENCL: 00

SUB CODE: MT, EC

NO REF SOV: 004

OTHER: 003

ATD PRESS: 3143

Card 3/3

MARKOVA L.V.

Chemical Abst.  
Vol. 48 No. 6  
Mar. 25, 1954  
Electrochemistry

✓ The current-potential curves of some successively polarizing electrodes. B. P. Markov and L. V. Markova. *Ukrain. Khim. Zhur.* 18, 257-261 (1952) (in Russian). In the present study of polarography, the principle of brief successive polarization of several electrodes was used, in which the "rest" period of a given electrode enabled it to re-establish the normal ionic environment after polarization. The desired result was achieved by a rotating commutator which made connections to contacts of the various electrodes. The technique was used with Pt-wire electrodes and was applied to reduction of O in 0.1N HCl; to evolution of H<sub>2</sub> on Pt, and to ppn of metals (Cd and Hg). It was shown that the app. produced well-defined limiting diffusion-current values of the reducing substances. The high diffusion current of O (60 ma.) permitted a useful method of estn. of O in soln. In examn. of evolution of H from acidic solns. in which the  $\Delta E$  between 1st and 2nd potentials was about 0.40 V, the appearance of an inflection point in the polarographic curve between these potentials was explained by a considerable rise of concn. of alkali in the boundary layer around the electrode. This explained the relatively high diffusion current without the need of formation of new ionic species. O. M. Kosolapoff.

Institute Gen. & Inorg. Chem., Acad. Sci. Ukr. SSR

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S/032/61/027/004/003/026  
B110/B215

AUTHOR: Markova, L. V.

TITLE: Determination of microquantities of sulfidic sulfur in titanium and zirconium by iodine azide reaction

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 4, 1961, 379 - 381

TEXT: Methods of determining sulfur in zirconium are not known and those of determining sulfur in titanium are insufficiently sensitive. The author applied a catalytic method based upon the changing rate of the iodine azide reaction by sulfide ions. 0.5 g of  $H_3BO_3$  (to reduce the etching action of  $H_2F_2$  in the glass vessel) was added to 0.1 - 1.5 g of metal (Ti, Zr, or steel). For 90 - 100 min air was removed from the apparatus (reaction bulb, washer, two absorption vessels with 10 ml each of 0.5% NaOH) by an  $N_2$  flow. Then, 15-25 ml of a mixture consisting of 25 ml of HCl ( $\sim 2.1$  M) and 3-4 ml of  $H_2F_2$  ( $\sim 16$  M) were added. 0.5 - 2 ml of the absorption solutions filled up to 100 ml were neutralized with

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Determination of microquantities...

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B110/B215

acetic acid to pH = 5, and an acetate buffer solution of pH = 5.3 was added. The determination of sulfur was conducted with 1.5 ml of iodine azide solution (0.5 ml of 4 M KI, 0.5 ml of 0.2 M  $\text{NaN}_3$ , and 0.5 ml  $6 \times 10^{-4}$  M  $\text{I}_2$ ), and 0.5 ml of 0.5% starch solution. After 10 min, 1 ml of saturated  $\text{CdSO}_4$  solution was added to stop the catalytic reaction, and the optical density of a 1-cm layer was measured with an  $\Phi 3K-M$  (FEK-M) apparatus and a red light filter ( $\lambda = 680 \text{ m}\mu$ ), and compared with standard solutions. The sulfide content was found on the calibration line. The table shows the results of determining sulfur in Zr, Ti, and 126a steel. The standard solutions contained 0.1 - 0.4  $\mu$  of sulfide ions in 10 ml, and the standard solution of  $\text{Na}_2\text{S}$  contained 0.32  $\mu$  of sulfide ions in 1 ml. The calibration line was plotted on the basis of three measurements. For determining one point of the line, a solution without  $\text{Na}_2\text{S}$  was used. The determination took 2.5 - 3 hr, the error of measurement was approximately 10%. However, there existed no further method of checking the sulfide determination in zirconium. Should there also be sulfate sulfur besides

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Determination of microquantities...

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sulfidic sulfur, reducing mixtures will have to be used. There are 1 table and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Ref. 1: M. Codell, G. Norwitz, Anal. Chem., 29,10, 1496 (1957).

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk  
USSR (Institute of General and Inorganic Chemistry of the  
AS UkrSSR)

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21150

S/032/61/027/004/003/028

B110/B215

Determination of microquantities...

Результаты определения серы в металлах

Legend to the table: Results of sulfur determination in metals;

(1) sample;

(2) addition, g;

(3) sulfide ions;

(4) sulfur deter-

mined; (5) error

in the sulfur

determination, %;

(6) 126a steel;

(7) electrolytic

zirconium

(powder);

(8) zirconium

iodide; (9) ti-

tanium (powder);

(10) electrolytic titanium, refined (chips).

| ①<br>Образец                                        | ②<br>Навеска<br>г | ③<br>Взвешено<br>мг<br>г | ④ Найдено серы |         | ⑤<br>Отношение<br>опреде-<br>ления<br>серы, % |
|-----------------------------------------------------|-------------------|--------------------------|----------------|---------|-----------------------------------------------|
|                                                     |                   |                          | г              | %       |                                               |
| Сталь 126a ⑥                                        | 0.05              | 10.5                     | 9.6            | 0.019   | -8.6                                          |
|                                                     | 0.05              | 10.5                     | 8.8            | 0.018   | -16.0                                         |
|                                                     | 0.10              | 21.0                     | 21.0           | 0.021   | 0.0                                           |
|                                                     | 0.10              | 21.0                     | 23.8           | 0.023   | +13.3                                         |
|                                                     | 0.20              | 42.0                     | 48.0           | 0.018   | -14.3                                         |
|                                                     | 0.20              | 42.0                     | 44.0           | 0.022   | +5.0                                          |
| Цирконий электролитический (порошок) ⑦              | 1.00              | —                        | 5.5            | 0.00055 |                                               |
|                                                     | 1.02              | —                        | 6.6            | 0.00066 |                                               |
|                                                     | 1.52              | —                        | 9.6            | 0.00063 |                                               |
| Цирконий иодидный ⑧                                 | 0.26              | —                        | 3.6            | 0.0013  |                                               |
| Титан (порошок) ⑨                                   | 0.77              | —                        | 5.8            | 0.0007  |                                               |
|                                                     | 0.89              | —                        | 6.3            | 0.0007  |                                               |
| Титан электролитический, рафинированный (стружка) ⑩ | 0.55              | —                        | 8.4            | 0.0015  |                                               |
|                                                     | 0.65              | —                        | 8.4            | 0.0013  |                                               |

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MARKOVA, L. V.

Chemical Abst.  
Vol. 48 No. 4  
Feb. 25, 1954  
Analytical Chemistry

Effect of hydrogen-ion concentration on the formation of indium dithizonate. K. V. Kleiger and L. V. Markova (Acad. Sci. Ukr. S.S.R., Kiev). *Zhur. Anal. Khim.* 8, 279-85(1953).—Aq. solns. of InCl<sub>3</sub> contg. 50 γ of In in 50 ml. were extd. with dithizone solns. contg. 3 mg. of reagent in 100 ml. of CCl<sub>4</sub>. Three kinds of In solns. were used: unbuffered, buffered with HCl + NaOAc, and with AcOH + NH<sub>4</sub>OH. In each case successive aliquots of 2-3 ml. of reagent solns. were used until the reagent retained its color (green) and did not turn red (In dithizonate). Each of the 3 solns. had an optimum pH at which most of the In was removed into the nonaq. phase. For the unbuffered soln. the pH was 3.4 and for the buffered solns. pH 4.0-4.3. The quantity of In extd. from the unbuffered solns. was 98% of that present, for the solns. buffered with HCl + NaOAc it was 90%, and for those with AcOH + NH<sub>4</sub>OH 84%. At a pH lower or higher than the optimum, the amt. of In removed dropped sharply which is not true of other metal dithizonates. Prolonged contact of the In soln. with 20% excess of reagent soln. results in transfer of In into the nonaq. phase. In buffered solns. at pH 5.62 the time required was 6 hrs. Less time was required at the optimum pH. Pd, Au, Pt, Hg, Ag, and Cu when present can be removed at pH 2.5. Co, Ni, Pb, and Tl form dithizonate in neutral or alk. solns., and therefore are not likely to interfere with detn. of In as dithizonate. Zn and Cd will not interfere in small quantities as they can be removed at pH 7-7.5. Bi, Sn, Tl<sup>+++</sup>, and larger quantities of Zn and Cd interfere. M. Hosen

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**KLEYNER, K.Ye.; MARKOVA, L.V.**

Effect of the concentration of hydrogen ions on the formation of dithisonate of indium. *Zhur.anal.khim.* 8 no.5:279-285 S-0 '53. (MLRA 6:10)

1. Institut obshchey i neorganicheskoy khimii Akademii nauk Ukraineskoy SSR, Kiev. (Hydrogen-ion concentration) (Indium organic compounds)

BABKO, A.K.; KLEYNER, K.Ye.; MARKOVA, L.V.

Sulfur method for determining oxygen (oxides) in metals. Zav.  
lab. 22 no.6:640-645 '56. (MLRA 9:8)

1. Institut obshchey i neorganicheskoy khimii Akademii nauk USSR.  
(Metals--Analysis) (Oxygen--Analysis)

Markova, L. V.

73-1-17/26

AUTHOR: Markova, L. V.

TITLE: Stilbnaphtazo as an Indicator in the Volumetric Determination of Sulphate Ions. (Stil'bnafazo kak Indikator Pri Ob'yemnom Opredelenii Sul'fat-Ionov.)

PERIODICAL: Ukrainskiy Khimicheskii Zhurnal, 1957, Vol.23, No.1, pp. 89 - 91 (USSR).

ABSTRACT: Stilbene-4,4'-bis(azo-1)-2-hydroxynaphthalene-2,2'-di-sulphonic acid (Stil'bnaphthazo) can be used as indicator for the titration of sulphate ions with 0.001 - 0.1 N barium chloride in the presence of acetone or isoamyl alcohol. It is possible to titrate 0.05 - 19 Me sulphate ions in a neutral or slightly acid medium by using the above indicator (up to 0.01 N HCl). The indicator is used in isoamyl alcohol and the equivalence point is ascertained after the disappearance of the coloration in the isoamyl alcohol layer. The solution to be analysed can be neutral or 0.01 - 0.02 N acidic. Titrations can be carried out without the usually necessary acetone when this indicator (dissolved in isoamyl alcohol) is used. Titrations carried out in the presence of isoamyl alcohol make a more accurate determination of the equivalence point possible. Two Variants of this analytical method are described and

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73-1-17/26

Stil'bnaphtazo as Indicator in the Volumetric Determination of Sulphate Ions.

results in potassium sulphate solutions given in a table. It is impossible to carry out determinations of sulphate ions at greater acidity than 0.01 because of the breakdown of the barium colour complex. Good results are obtained when sulphate ions are determined in quantities of 0.05 - 19 mg. The method can be used for the analysis of small quantities of sulphate, e.g. for the determination of sulphur in metals. There are 1 table and 8 references, 3 of which are Slavic.

SUBMITTED: July, 10, 1956.

ASSOCIATION: Institute of General and Inorganic Chemistry,  
Academy of Sciences, Ukrainian S.S.R. (Institut Obshchey  
i Neorganicheskoy Khimii AN USSR.)

AVAILABLE: Library of Congress

Card 2/2

1044.70411 2.1.  
AUTHORS: Kleyner K.Ye. and Markova, L.V.

73-2-15/22

TITLE: Determination of oxygen in metals and oxides with the aid of sulphur chloride. 2: Determination of oxygen in zirconium oxides and boric oxides and the interaction of sulphur chloride with various substances. (Opredeleniye kisloroda v metallakh i okislakh s pomoshch'yu odnokhloristoy sery. 2: Opredeleniye kisloroda v okislakh tsirkoniya i bora i vzaimodeystviye odnokhloristoy sery s razlichnymi veshchestvami).

PERIODICAL: "Ukrainskiy Khimicheskiy Zhurnal" (Ukrainian Journal of Chemistry), Vol.23, No.2, March-April, 1957, pp.236-238 (USSR).

ABSTRACT: Many metal oxides have been shown to decompose at high temperatures (with  $S_2Cl_2$ ) and the oxygen content in  $MgO$ ,  $Al_2O_3$ ,  $Fe_2O_3$ ,  $CuO$  and  $BaSO_4$  could be determined. (1). Oxygen was determined in zirconium oxides and boric oxides by treating test samples with  $S_2Cl_2$  vapours in a nitrogen stream at 900 C. ( $ZrO_2$  weight = 20 mg, weight of  $B_2O_3$  = 10 mg). The error in the tabulated results (Table 1) was

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73-2-15/22

Determination of oxygen in metals and oxides with the aid of sulphur chloride. 2: Determination of oxygen in zirconium oxides and boric oxides and the interaction of sulphochloride with various substances. (Cont.)

for  $ZrO_2$  - 0.13 mg and for  $B_2O_3$  - 0.49 mg of oxygen (0.032 mg O for each litre of nitrogen passing through the apparatus. Data prove that the 2 compounds are decomposed by  $S_2Cl_2$  under formation of an equivalent amount of sulphur anhydride. 0.2 g  $Al_2O_3$ , 0.5 g  $SiO_2$ , 0.5 - 1 g Cu, ferrosilicon, nichrome, iron-zirconium-chrome alloy completely decomposed at 700 C (Cu) to 950 C ( $SiO_2$ ) in 10 to 20 minutes, at high concentrations of  $S_2Cl_2$ . Data show that the interaction of various substances with  $S_2Cl_2$  is considerably accelerated by increasing the concentration of  $S_2Cl_2$ . The ferrosilicon contained approximately 80% Si, the alloy contained 5% Zr and 30% Cr.

Card 2/3

There is 1 table and 4 references one of which is Slavic.

73-2-15/22

ASSOCIATION: Institute of General and Inorganic Chemistry,  
Academy of Sciences, Ukraine.  
(Institut Obshchey i Neorganicheskoy Khimii AN USSR).

SUBMITTED: October 16, 1956.

AVAILABLE: Library of Congress

Card 3/3



BAKCO, A.K.; MARKOVA, L.V.

Colorimetric determination of sulfate ions by means of colored  
complex zirconium and thorium compounds. Zav. lab. 24 no.5:524-  
528 '58. (MIRA 11:6)

1. Institut obshchey i neorganicheskoy khimii Akademii nauk USSR.  
(Sulfates—Analysis)  
(Colorimetry)

5(2)

SOV/21-59-1-14/26

AUTHORS: Babko, A.K., Member of the AS UkrSSR, and Markova, L.V.

TITLE: Color Reactions to Sulfate Ions. (Tsvetnyye reaktsii na sul'fat-iony)

PERIODICAL: Dopovidi Akademii nauk Ukrain's'koi RSR, Nr 1, 1959, pp 52-54 (USSR)

ABSTRACT: The sulfate ions do not form colored compounds, though color reactions to  $\text{SO}_4^{2-}$  are known. The authors studied reactions based on the interaction of sulfate ions with lacquers  $\text{Zr}^{4+}$ ,  $\text{Th}^{4+}$ , and  $\text{Ce}^{3+}$ . It was stated that the  $\text{SO}_4^{2-}$  ions decompose the lacquers. The sensitivity of the reaction to the  $\text{SO}_4^{2-}$  ions was stated to depend on the acidity of the solution (the highest sensitivity found a pH corresponding to the beginning of the decomposition of lacquer), and to increase in the presence of alcohol and acetone. The absorption spectra and the molar absorption coefficients of lacquers

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SOV/21-59-1-14/26

Color Reactions to Sulfate Ions.

and reagents were measured. The effect of organic solvents was studied. Three groups of color reaction to  $\text{SO}_4^{2-}$  ions are proposed, differing from one another by discoloration of the solution's color: lacquers  $\text{Zr}^{4+}$  or  $\text{Th}^{4+}$  with alizarin or aluminum; change in the solution's color: lacquers  $\text{Z}^{4+}$ ,  $\text{Th}^{4+}$ , acidic chrome-blue K, amaranth and "in"; by the color of organic reagent (released under the influence of  $\text{SO}_4^{2-}$  ions), that transmutes into a non-liquid phase, such as alizarins, hematoxilyn and stilbo-naphtazo lacquers. There are 14 references, 7 of which are Soviet, 5 English and 2 German.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR  
(Institute of General and Inorganic Chemistry of AS UkrSSR)

PRESENTED: September 15, 1958.

Card 2/2

BABKO, A.K.; MARKOVA, L.V.

Photometric determination of microquantities of sulfides and sulfur in metals from the catalytic effect on the iodine-azide reaction. Zav.lab. no.11:1283-1287 '59. (MIRA 13:4)

1. Institut obshchey i neorganicheskoy khimii Akademii nauk USSR.  
(Metals-- Analysis) (Sulfur-- Analysis) (Sulfides)  
(Azides)

5(2)

AUTHORS: Markova, L. V., Kleyner, K. Ye.

SOV/32-25-2-8/78

TITLE: Determination of Sodium by Zinc by Means of an Extraction Titration (Opredeleniye natriya po tsinku ekstraktsionnym titrovaniyem)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 2, pp 144-145 (USSR)

ABSTRACT: A sodium precipitation in the form of a ternary salt with uranyl acetate and the acetate of a divalent metal in the presence of potassium results in a coprecipitation of the potassium double salt (Refs 1-4). Colorimetric methods used so far do not furnish any results as to the effect of a potassium salt surplus on the accuracy with which sodium can be determined (Refs 2,5,6). It is assumed that in using zinc acetate the noxious effect of potassium can be eliminated to a high degree. The appropriate working method is described. The investigations carried out showed that satisfactory results can be reached in the case of a 50-fold surplus of potassium. If the potassium surplus increases to the 100-fold, however, the sodium values will be too high. In the analysis method described the consumption of dithizone and carbon tetrachloride is low, since the dithizone solution can be

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Determination of Sodium by Zinc by Means of an  
Extraction Titration

SOV/32-25-2-8/78

regenerated by shaking it with diluted sulfuric acid or hydrochloric acid. There are 8 references, 6 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR  
(Institute of General and Inorganic Chemistry of the Academy  
of Sciences, UkrSSR)

Card 2/2

BABKO, A.K.; MARKOVA, L.V.

Color reactions for the sulfate ion. Trudy kom. anal. khim. 11:309-322  
'60. (MIRA 13:10)

1. Institut obshchey i neorganicheskoy khimii AN USSR.  
(Sulfates)

MARKOVA, L.V.

Determination of microquantities of sulfide sulfur in titanium and zirconium with the aid of the iodine-azide reaction. Zav. lab. 27 no. 4:379-381 '61. (MIRA 14:4)

1. Institut obshchey i neorganicheskoy khimii AN USSR.  
(Sulfur—Analysis) (Titanium—Analysis) (Zirconium—Analysis)



BABKO, A.K.; MARKOVA, L.V.

Mechanism of the iodine-azide catalytic reaction for sulfides.  
Ukr.khim.zhur. 27 no.6:796-803 '61. (MIRA 14:11)

1. Institut obshchey i neorganicheskoy khimii AN USSR.  
(Sulfides)  
(Iodine)

BANKS, A. J. [unclear]

[unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear]

L 07929-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6033381

SOURCE CODE: UR/0075/66/021/008/0935/0939

22

AUTHOR: Babko, A. K.; Markova, L. V.; Prikhod'ko, M. U.

ORG: Institute of General and Inorganic Chemistry AN UkrSSR, Kiev (Institut obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Determination of <sup>27</sup>copper using its diethyldithiocarbamate and the iodine-azide reaction

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 8, 1966, 935-939

TOPIC TAGS: copper, iodine, azide, copper determination, iodine azide reaction, diethyldithiocarbamate

ABSTRACT: Copper diethyldithiocarbamate in nonaqueous solutions catalyzes the iodine-azide reaction as does free diethyldithiocarbamate. It is possible to separate copper diethyldithiocarbamate from the reagent excess. The determination of traces of copper, lead and cadmium, and the total of these metals from the iodine-azide reaction is carried out in a methanol-chloroform medium. The change of optical density in 5 min due to the interaction of iodine with azide is proportional to the catalyzer (CuD<sub>2</sub>) concentration. The method permits the

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UDC: 543.70

L 07929-67

ACC NR: AP6033381

determination of copper down to  $6 \cdot 10^{-6}\%$  in 1 g of NaCl. The sensitivity of the method suggested for copper determination is 50 times higher than that of photometric determination. Orig. art. has: 2 figures and 2 tables. [Authors' abstract]

SUB CODE: 07/ SUBM DATE: 30Nov64/ ORIG REF: 004/ OTH REF: 003/

Cord 2/2

vmh

BABKO, A.K.; MARKOVA, L.V.; TSYBINA, T.S.

Luminescent determination of microquantities of sulfur in  
nonaqueous media. *Zav. lab.* 30 no.6:648-650 '64 (MIRA 17:2)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

GRINEVA, G.M.; MARKOVA, L.Ye.

Periodicity in the growth of trees under mountain conditions  
prevailing in the southwestern Tien Shan. Biol.Glav.bot.sada  
no. 35:66-70 '59. (MIRA 13:2)

1. Institut fiziologii rasteniy im.K.A.Timiryazeva AN SSSR.  
(Kurama Range--Growth (Plants)) (Trees) (Shrubs)

STOIANOVA, Zh., asistent; MARKOVA, M., laborantka.

Effect of sleep therapy on gastric secretion in peptic ulcer.  
Nauch. tr. ISUL, Sofia 2 no.1:51-57 1953.

1. Katedra po vutreshni bolesti sus stomashno-chrevni i  
chernodrobni saboliavania i lechebno khranene. Zav. Katedrata:  
prof. T. A. Tashev.

(PEPTIC ULCER, therapy,

sleep ther., eff. on gastric secretion.)

(SLEEP, therapeutic use,

peptic ulcer, eff. on gastric secretion.)

(GASTRIC JUICE,

secretion, eff. of sleep ther. in peptic ulcer.)

MARKOVA, M.

Dissolving polyamides. p. 152. (Textil, Praha, Vol. 9, no. 5, May 1954)

SO: Monthly list of East European Accessions (EEAL), LC Vol. 4, No. 6, June 1955, Uncl



MARKOVA, Milena, inz.

Researching the quality of the work

Increasing the care for quality. Podn org 18 no.2:53-54 ~~164~~

1. Technical and Organizational Research Institute of the  
Machine Industry.

MARKOVA, M.

New variety and critical comments on blackberries, genus *Rubus* L.  
in Bulgaria. Izv biol med BAN 3 no.4:129-313 '60. (EEAI 10:3)

1. Botanicheski institut pri BAN (Direktor: akad. N.Stoianov)  
(BLACKBERRIES)

MARKOVA, M.

Some critical notes on the genus Rubus L. Izv Inst bot BAN  
no.8:159-168 '61.

MARKOVA, M.

New data on *Rubus tomentosus* Borkh in Bulgaria. Doklady BAN 14 no.6:  
619-621 '61.

1. Vorgelegt von Akademiemitglied N. Stojanov [N. Stoianov].