

CHUDNOVSKIY, Abram Filippovich; ORLOVA, L.I., red.; LUK'YANOV, A.A.,
tekhn. red.

[What is agrophysics?] Chto takoe agrofizika. Moskva, Fiz-
matgiz, 1963. 85 p. (MIRA 17:1)
(Agricultural physics)

AMSHINSKIY, N.N.; MARIICH, I.V.; MOLCHANOV, V.I.; ~~ORLOVA, I.I.~~;
GORB, A.M.; KUZNETSOV, Yu.A., nauchn. red.; SMORCHKOV,
I.Ye., nauchn. red.; KRYZHANOVSKIY, V.A., ved.red.

[Accessories of the granitoids of the Altai and methods
for studying them] Aktsessorii granitoidov Altaia i me-
todika ikh izucheniia Moskva, Nedra, 1964. 175 p.
(MIRA 17:10)

1. Chlen-korrespondent AN SSSR (for Kuznetsov).

TOLSTIKHIN, N.I.; ORLOVA, L.M.

A particular type of carbonate waters in Transbaikalia. Zap. IGI
34 no.2:70-74 '58. (MIRA 12:6)
(Baley region--Mineral waters)

V.G., doktor geologo-mineralog. nauk; TOLSTIKHIN, N.I., prof.;
 PINNEKER, Ye.V., kand. geologo-mineralog. nauk, mladshiy nauchnyy
 sotr.; YASNITSKAYA, N.V., mladshiy nauchnyy sotr., khimik; KRUTIKO-
 VA, A.I., mladshiy nauchnyy sotr., khimik; SHOTSKIY, V.P., kand.
 geogr. nauk; ORLOVA, L.M., starshiy gidrogeolog; STEPANOV, V.M.,
 kand. geologo-mineralog. nauk; VLASOV, N.A., kand. khim. nauk; PRO-
 KOP'YEV, B.V., kand. khim. nauk; CHERNYSHEV, L.A., starshiy prepo-
 datel'; PAVLOVA, L.I., starshiy prepodavatel'; Primali uchastiye:
 IVANOV, V.V., kand. geologo-mineralog. nauk; KARASEVA, A.P., nauchnyy sotr.; ARUTYUNYANTS,
 R.R., nauchnyy sotr.; ROMANOVA, E.M., nauchnyy sotr.; TROFIMUK, P.I.,
 starshiy gidrogeolog; LADEYSHCHIKOV, P.I., starshiy nauchnyy sotr.,
 kand. geogr. nauk; LYSAK, S.V., starshiy laborant; KRUCHININA, L.Yu.,
 laborant; SEMENOVA, Ye.A., red. izd-va; BOCHEVER, V.T., tekhn. red.

[Mineral waters of the southern part of Eastern Siberia] Mineral'nye
 vody iuzhnoi chasti Vostochnoi Sibiri. Moskva. Vol.1. [Hydrogeology
 of mineral waters and their significance for the national economy]
 Gidrogeologiya mineral'nykh vod i ikh narodnokhoziaistvennoe znache-
 nie. Pod obshchei red. V.G.Tkachuk i N.I.Tolstikhina. 1961. 346 p.
 (MIRA 14:8)
 1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Vostochno-sibirskiy
 geologicheskii institut.
 (Continued on next card)

TKACHUK, V.G.--- (continued) Card 2.

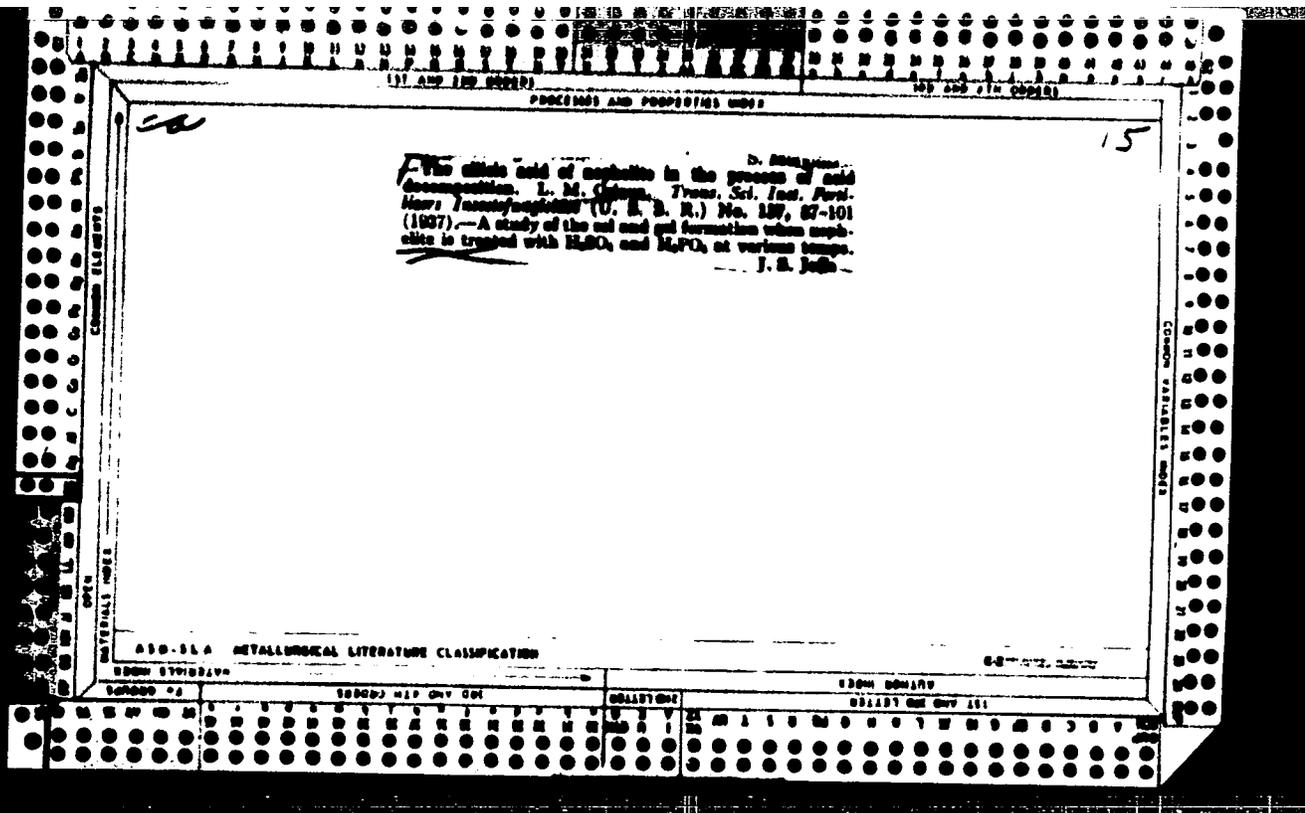
2. Vostochno-Sibirskiy geologicheskii institut (for Tkachuk, Pinneker, Yasnitskaya, Krutikova, Lysak). 3. Institut geografii Sibirskogo otdeleniya Akademii nauk SSSR (for Shotskiy). 4. Chitinskoye geologicheskoye upravleniye (for Orlova). 5. Sosnovskaya ekspeditsiya Ministerstva geologii i okhrany neдр SSSR (for Stepanov). 6. Irkutskiy gosudarstvennyy universitet (for Vlasov, Prokop'yev, Chernyshev, Pavlova). 7. Leningradskiy gornyy institut (Tolstikhin). 8. Gosudarstvennyy nauchno-issledovatel'skiy institut kurortologii i fizioterapii (for Ivanov, Yarotskiy, Karaseva, Arutyunyants, Romanova). 9. Irkutskoye geologicheskoye upravleniye (for Trofimuk). 10. Baykal'skaya limnologicheskaya stantsiya Vostochno-Sibirskogo filiala AN SSSR (for Ladeyshchikov). 11. Otdel ekonomiki i geografii Vostochno-Sibirskogo filiala AN SSSR (for Kruchinina).

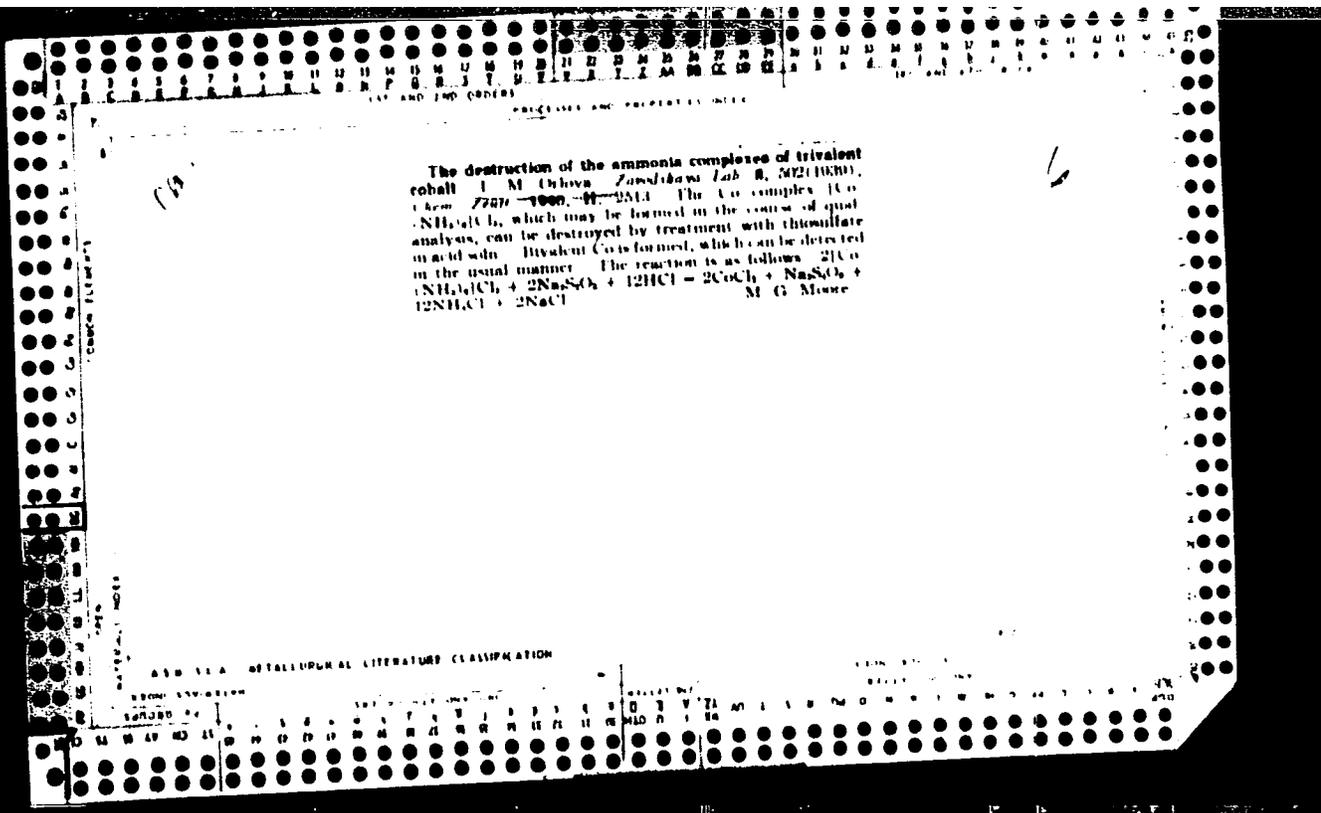
(Siberia, Eastern--Mineral waters)

TABOLIN, V.A.; VOL'F, B.S.; MATSULEVA, N.N.; GENKINA, E.M.; ORLOVA,
L.M.; PETRUN'KINA, Z.A.

Features of the course of erythroblastosis fetalis in newborn
infants. Sov. med. 24 no. 7:50-56 J1 '60. (MIRA 13:8)

1. Iz kafedry pediatrii (zav. - prof. G.N. Speranskiy) Tsentral'-
nogo instituta naovershenstvovaniya vrachey i rodil'nogo doma
No. 12 (glavnyy vrach M.M. Repina), Moskva.
(ERYTHROBLASTOSIS FETAL)





C.A.

2

Determination of free acidity in salt solutions with the aid of organolites. L. M. Oshrya. Il. V. Stalin Steel Inst., Moscow). *Zhur. Anal. Khim.* 9, 370-4 (1930). This method consists of exchanging the cation in soln. against the H of a cationite and titrating the soln. passed through the cationite. As exchange material was used CH₃-resorcinol resin. The salts studied were K, Ba, Cu⁺⁺, Cr⁺⁺⁺, and Fe⁺⁺⁺ chlorides and Al₂(SO₄)₃. From neutral solns. Cu and Ba absorbed well, K not so well, Al still less, and Cr absorbed the least. From acidified soln. Cu absorbed well up to 0.02 N acid, Ba up to 0.1 N, K gave poor results in acid solns. Al gave good results up to 0.05 N acid, and Fe up to 0.1 N. Should the acidity of the salt solns. be higher than the indicated limits, the solns. may be diluted. M. Hosh.

ORLOVA, L. M.

USSR

3705. Separation of vanadium from titanium and iron by means of a cationite. I. M. Orlova (Zashch. Lab., 1958, 21, (1), 29-30). The acid solution (pH ~ 1) containing V, Ti and Fe and excess of H_2O_2 to prevent reduction of VV in the column is passed through a column of formaldehyde-resorcinol resin cationite (15 cm x 1 cm) at 2 to 3 ml per min. and the column is washed with water. The liquid containing V is boiled to destroy H_2O_2 , treated with a few drops of $KMnO_4$ soln. (1 per cent.) to re-oxidise any reduced V and then with ammonium oxalate soln. (1 per cent.) to destroy the excess of $KMnO_4$. After addition of more acid, the cold solution is titrated with ferrous iron in the presence of phenylanthranilic acid. The Ti held by the column is removed by means of acid, the solution is treated with $KMnO_4$ to destroy H_2O_2 and the standard amount of H_2O_2 is added before determining the Ti colorimetrically. This method gives a complete separation of V and Ti.

G. J. SMITH

15-57-10-14518

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,
p. 189 (USSR)

AUTHOR: Orlova, L.M.

TITLE: Hydrogeological Criteria in Prospecting for Mineral
Deposits (Gidrogeologicheskiya kriterii poiskov mestorozhdeniy
poleznykh iskopayemykh)

PERIODICAL: V sb.: Materialy soveshchaniya geol. Vost. Sibiri i
Dal'n. Vostoka po metodike geol - s'yemochn. i poisk. rabot.
Chita, 1956, pp 115-122.

ABSTRACT: An account is given of some examples of a method of
hydrochemical investigation in searching for mineral deposits.
Examples from Eastern Siberia are cited. The results are good
in prospecting for uranium, sulfides, oil, and other mineral
resources. Some hydrochemical criteria are given for oil
exploration.

No Name

Card 1/1

SHTEYN, P.S., inzh.; ORLOVA, L.M., inzh.

Ultrasonic flaw detection in welded corner and tee-joints made by
the semiautomatic and electric-slag methods. [Nauch. trudy]
ENIKMASH 1:205-208 '59. (MIRA 14:1)
(Welding--Testing)

5(2)

SOV/32-25-4-13/71

AUTHOR:

Orlova, L. N.

TITLE:

Separation of Cobalt From Manganese With Nitroso-R-salt on an Ion Exchanger (Otdeleniye kobal'ta ot margantsa nitrozo-R-sol'yu na ionite)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 4, p 417 (USSR)

ABSTRACT:

Besides greater quantities of cobalt, manganese cannot be determined by the persulphate-silver method and an arsenite final determination, as the pink coloring of the solution disturbs. In the present case a cation exchanger was used which absorbs Co and Mn and then extracts cobalt with the help of nitroso-R-salt as a soluble complex compound. The solution of the Co^{3+} complex compound is red-brown, in the presence of Fe^{3+} ions an intense dark-green coloring can be observed. After the extraction of the Co the column with the cation exchanger is carefully washed out with water, and the Mn is then extracted with ~ 4 n sulphuric-acid solution, and determined by the usual methods. Tests carried out with manganese, cobalt, and iron-salt solutions in neutral or weakly alkalic media ($\text{pH} > 2$) produced satisfactory

Card 1/2

SOV/32-25-4-13/71

Separation of Cobalt From Manganese With Nitroso-R-salt on an Ion Exchanger

results (Table 1). Results of an analysis of steel samples with 0.75% Mn and a standard sample of the cobalt steel s.o. Nr 54 with 0.34% Mn are also mentioned (Tables 2,3). There are 3 tables.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

Card 2/2

POZNYAK, L.A., kand.tekhn.nauk.; SHTEYN, F.S., inzh.; ORLOVA, L.M.,
inzh.

Selecting optima temperatures for the hardening of certain die
steels. Metalloved. i term. obr. met. no.10:45-50 0 '62.
(MIRA 15:10)

1. Eksperimental'nyy nauchno-issledovatel'skiy institut
kuznechno-pressovogo mashinostroyeniya.
(Tool steel—Hardening)

SIVOROV, N.N.; FEDOTOVA, M.V.; ORLOVA, L.M.; OGAREVA, O.B.

Derivatives of indole. Part 16. Synthesis of 6- and 4-substituted
tryptamines. Zhur.ob.khim. 32 no.7:2358-2365 J1 '62.

(MLRA 15-7)

1. Vsesoyuznyy nauchno issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S.Ordzhonikidze.
(Indole)

ORLOVA, L.M., inzh.; YEVSTRATOVA, V.M., inzh.; VOL'MAN, I.A., tekhnik

Electrolytic polishing of certain die steels. [Nauch. trudy]
ENIKMASHa 7:135-139 '63. (MIRA 16:7)

(Tool steel) (Electrolytic polishing)

PCZNYAK, L.A., inzh.; SHTEYN, F.S., inzh.; ORLOVA, L.M., inzh.

Evaluating the quality of the heat treatment of die steels by
the actual size of austenitic grains. [Nauch. trudy] ENIKMASha
7:140-147 '63. (MIRA 16:7)

(Tool steel—Heat treatment)
(Chromium steel—Metallography)

PREOBRAZHENSKAYA, N.N.; ORLOVA, L.M.; SUVOROV, N.N.

Synthesis of α -hydroxy- β -methyl- γ -(3-indolyl) propionic acid.
Zhur.ob.khim. 33 no.4:1378-1379 Ap '63. (MIRA 16:4)
(Indolepropionic acid) (Alkaloids)

POZNYAK, L.A., kand. tekhn. nauk; ORLOVA, L.M., inzh.

Control of carbide heterogeneity in type X12 steels. [Nauch. trudy]
ENIKMASHa no.9:61-72 '64. (MIRA 17:11)

POZNYAK, L.A., kand. tekhn. nauk; ORLOVA, L.M., inzh.; YEVSTRATOVA, V.M., inzh.;
SHTEYN, F.S., inzh.; SHKATOV, A.P., inzh.

Microstructure of certain die steels for the cold and hot forming
of metals and alloys. [Nauch. trudy] ENIKMASHa no.9:73-127 '64.
(MIRA 17:11)

FREDBRIZHENSKAYA, M.N.; GRIGVA, I.M.; SAKEL'YEVA, I. . KHEN, A.V.;
SARETSKIY, V.I.; KUL'ESCH, K...; SHVETSH, N. .

Synthesis and properties of racemic isomers of nystatin and isochlorogenic
acids. Dokl. AN SSSR 1966, no.3:611-614. (Sov. Chem.)

(MIRA 1966)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut im. S.Ordzhonikidze i Institut khimii pri Sibirskom nauchno-
issledovatel'skom tsentri AN SSSR. Moscow, 1966.

YAMPOL'SKIY, N.Z.; OKUN', A.I.; ...

Spectrophotometric determination of ...
reagents for ...
no.11:130-142 '58. (CIA 14:2)

1. Kafedra Khimii Kuznetsovskogo pedagogicheskogo instituta.
(Archiev ... --Spectra)
(Opis ... --Spectra)

NIKONOROV, A.P.; ORLOVA, L.N.; TSAREV, I.V.

Unit for measuring the surface roughness of pinion teeth.
Izm.tekh. no.5:14 My '60. (MIRA 14:5)
(Gear cutting)

RODIONOV, V.M.; ORLOVA, L.O.; TUUL', L.I. (Moskva)

Effect of various X-ray doses on corticosteroid secretion in rabbits. Pat.fiziol.eksp.terap. 4 no.1:24-28 Ja-F '60.

(MIRA 13:5)

1. Iz Instituta biologicheskoy i meditsinskoy khimii AN SSSR.

(ADRENAL CORTEX HORMONES physiol.)

(RADIATION EFFECTS)

ZYKOV, S.I.; STUPNIKOVA, N.I.; PAVLENKO, A.S.; TUGARINOV, A.I.; ORLOVA, L.P.

Absolute age of intrusions in the eastern Tuva region and the Yenisey Range. *Geokhimiia* no.7:547-560 '61. (MIRA 14:6)

1. V.I.Vernadskiy Institute of Geochemistry and Analytical Chemistry, Academy of Sciences U.S.S.R., and Chair of Geochemistry M.V.Lomonosov State University, Moscow.

(Sangilen range—Rocks, Igneous) (Yenisey Ridge—Rocks, Igneous)
(Geological time)

ORLOVA, L.P.; CHERNOV, V.A., rukovoditel' raboty

Use of electro dialysis ~~to~~ extract the exchangeable bases (Ca and Mg)
from soil. Pochvovedenie no.12:110-113 D '61. (MIRA 16:8)

1. Pochvennyy institut im. ~~V.~~V. Dokuchayeva.
(Soils—Analysis) (Electrodialysis)

ORLOVA, L.P.

Malignant degeneration of a thymoma of the anterior mediastinum.
Zdrav. Belor. 6 no.6:65-66 Je '60. (MIRA 13:8)

1. Iz onkologicheskogo (zaveduyushchaya L.P. Orlova) 1-y klinicheskoy
bol'nitsy g. Minska.
(MEDIASTINUM—CANCER)

ORLOVA, L.P.

Results of treating some cancer localizations with radioactive needles. Zdrav. Belor. 6 no. 7:42-45 Je '60. (MIRA 13:8)

1. Zaveduyushchaya onkokhirurgicheskim otdeleniyem 1-y klinicheskoy bol'nitsy gor. Minska (glavnyy vrach A.I. Shuba).
(CANCER) (COBALT--ISOTOPES)

ORLOVA, L.P.

Neurofibroma of the stomach. Zdrav.Bel. no.3:60-61 '62. (MIRA 15:5)

1. Iz onkokhirurgicheskogo otdeleniya (zaveduyushchiy otdeleniyem
L.P. Orlova) i klinicheskoy bol'nitsy g. Minska (glavnyy vrach
A.I. Shuba).
(STOMACH---TUMORS) (NEUROFIBROMATOSIS)

ORLOVA, L.P.

Results of the treatment of hemangiomas by the application of
radioactive cobalt. Zdrav. Bel. 9 no.8:73-76 Ag⁶³
(MIRA 17:3)

1. Iz Belorusskogo respublikanskogo onkologicheskogo dispansera
(glavnyy vrach V.A. Kozliti) i lucheвого otdeleniya 1-y kli-
nicheskoy bol'nitsy Minska (glavnyy vrach A.I.Shuba).

IVANOV, D.N.; IVANOVA, E.N.; GRIGOVA, L.F.

Use of organic coprecipitates for determining the Co, Cu, Ni, Pb, Sn, Zn, Cr, Mo, V, and W trace elements in soils. Pochvovedenie no.1:85-89 Ja '85. (MIRA 18:7)

1. Pochvennyy, Institut imeni N.V. Sukhanayeva, Moskva.

IVANOV, D.N.; IVANOVA, N.N.; ORLOVA, L.P.

Concentration of microelements for their determination in soils and
other biological objects. Trudy Kom. anal. khim. 15:306-310 '65.
(MIRA 18:7)

PAVLENKO, A.S.; ORLOVA, L.P.; AKHMANOVA, M.V.

Cerphosphorhuttonite, a mineral from the monazite group. Trudy Min.muz.
no.16:166-174 '65. (MIRA 18:8)

PAVLENKO, A.S.; OFICVA, I.P.; AKHMANOVA, M.V.; TOBELKO, K.I.

Thorbastnaesite, thorium fluorocarbonate. Zap. Vses. min. ob-va 94
no.1:105-113 '65. (MIRA) P:3

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo
AN SSSR, Moskva.

ORLOVA, L.S.

36-71-2/16

AUTHOR: Dubov, A. S., Orlova, L. S.

TITLE: Results of Forecasting a Surface Field of Pressure and Mapping of Baric Topography by the Graphic-analytical Method (Rezultaty prognoza nazemnogo polya davleniya i kart baricheskoy topografii grafo-analiticheskim metodom)

PERIODICAL: Trudy Glavnogo geofizicheskoy observatorii
1957, Nr 71, pp. 34-48 (USSR)

ABSTRACT: The forecasting method described by M.I. Yudin (this publication, pp. 3-331) is described and evaluated. The particulars of selected units and practical steps in the formulation of the method were given, and the areas for which the material was collected are cited. A major point is made of the calculated transfer of pressures and three separately leading air streams. The efficiency factor for successful prognostication may range from 96 percent in summer to 24 percent in autumn. All predictions are based on the correlation of calculated and actual values which, in general, are difficult to establish. New indices of possibly lesser precision are recommended for

Card 1/2

36-71-2/16

Results of Forecasting a Surface Field of Pressure (Cont.)

this evaluation. On the whole, the predictions for surface baric fields are more reliable than those for the 500 mb. surface. Of the special components, the advection of temperature is better reflected in the findings than the advection of the vortex. At the same time, synoptic forecasting methods are better justified percentage-wise, than analytical methods which provide no advantage in picking up the emerging baric components. The insufficient "weight" given to advection by temperature is a major source of error, however, the basic weakness of analytical schemes is seen in the unsatisfactory follow-up of the intensification of baric formations. Correlations of probability are given for all types of baric situations, such as, cyclonic, anticyclonic and mixed. The failure to forecast development of the Leningrad cyclone which caused an inundation in Sept. 1955 is attributed to a failure of graphic integration and to some errors in evaluating various surface factors. Use of electronic computers is strongly recommended. Persons mentioned include: Yudin, M. I., Dubov, A.S., Orlova, L.S. There are 7 figures, 11 tables, and 3 references of which 2 are USSR.

AVAIAABLE: Library of Congress

Card 2/2

ORLOVA, L.S.

Work of the group of employees in charge of numerical forecasting of
pressure fields and cyclone movements at the Leningrad Weather Bureau.
Trudy TSIP no.106:123-131 '60. (MIRA 13:12)
(Atmospheric pressure) (Cyclones)

DUBOV, A.S.; ORLOVA, L.S.

Calculation of the movement of cyclones in mountainous
regions. Trudy GGO no.124:56-62 '62. (MIRA 1962)

ORLOVA, L. S., Cand Med Sci -- (diss) "Cholecystitis and Its
Surgical Treatment Today as ^{prevention} ~~a Provenance~~ Against Its Serious
Complications". Khar'kov, 1958. 17 pp (Khar'kov Med. Inst.)
200 copies. (KL 34-58, 101)

35

GELOVA, L.S.

Benign tumor of the posterior mediastinum in a 9-year-old
child. *Pediatrics* 38 no.11:66-67 N '60.

(MEDIASTINUM neopl.)

(MIRA 1):12)

TETS, G.I., prof.; VASHEV, Ye.A.; ORLOVA, L.S.

Aminoquinone treatment for lambliasis in children. *Pediatrics*
38 no.12:55-58 '60. (MIRA 14:2)

1. Iz kafedry detskikh bolezney lechebnogo fakul'teta (zav. -
prof. G.I. Tets) Khar'kovskogo meditsinskogo instituta (dir. -
dtsent B.A. Zadorozhnyy) na baze Detskoy dorozhnoy bol'nitsy
(nachal'nik A.G. Kovalenko). (GIARDIASIS) (QUINONE)

ОРТОВА, Л. В.

Regeneration of gliadin under pressure. L. V. Orlova,

V. V. Ponomarev, and V. S. Tongur (Inst. Nutrition, Acad. Med. Sci. U. S. S. R., Moscow). *Biochimica* 19, 341-4 (1954). Heat-denatured vegetable protein, gliadin, can be regenerated in a manner similar to heat-denatured animal proteins. The vegetable regenerated protein differs from both the undenatured and the denatured protein from which it has been obtained.

B. S. Levine

(2)

MANUL', Ya.V.; ORLOVA, L.V.

Vacuum dehydration of frozen tissues. Trudy Inst.biol.fiz. no.1:
268-275 '55. (MLRA 9:9)

(FREEZE-DRYING) (ANATOMICAL SPECIMENS)

TONGUR, V.S.; ORLOVA, L.V.

Ground cereal mixtures with increased nutritional value. Vop.pit.
15 no.6:25-30 N-D '56. (MIRA 9:12)

1. Iz otdela tekhnologii (zav. - kandidat tekhnicheskikh nauk S.M.
Bessonov) Instituta pitaniya AMN SSSR. Moskva.

(GRAIN,

barley mixture with high nutritional value (Bus))

BRENZOVSKAYA, N.N.; BESSONOV, S.M.; GALKINA, A.F.; GORBUNOVA, V.I.; GRAFSKAYA,
Z.S.; ZHMEYDO, A.T.; LAGUN, G.G.; KALININA, N.N.; KOCHETKOVA, Z.V.;
MATSKO, S.N.; ORLOVA, L.V.; TUPIKOVA, A.A.

Results the of vitaminization of food in public eating establishments.
Vop.pit. 15 no.5:37-42 S-0 '56. (MLRA 9:11)

1. Iz laboratorii (zav. - A.Kh.Petrachev) sanitarno-epidemiologicheskoy
stantsii Frunzenskogo rayona, iz otdela tekhnologii (zav. - kandidat
tekhnicheskikh nauk S.M.Bessonov) Instituta pitaniya AMN SSSSR i iz
A.D.Ye - vitaminnogo otdela (zav. - prof. S.N.Matsko) Gosudarstvennogo
nauchno-issledovatel'skogo instituta vitaminologii Ministerstva zdravo-
okhraneniya SSSR, Moskva.

(FOOD,
vitamin supplement, results (Rus))

(VITAMINS,
supplement in food (Rus))

GRLOVA, L. V. and Mamil', Ya. V.

Dehydration of Frozen Tissues in Vacuum
Trudy Instituta Biologicheskoy Fiziki, No. 1, 1956
S916, 5 Mar 1956, p49

Discusses the preparation of tissues for radio-autography

ORLOVA L.V.
ABSTRACTA MEDICA Sec 3 Vol 13/5 Endocrinology May 59

52. STEROID HORMONE CONTENT OF THE ADRENAL BLOOD OF IRRADIATED DOGS (Russian text) - Orlova L. V., Rodionov V. M. and Chekmenova L. I. Inst. of Biol. and Med. Chem., USSR Acad. of Med. Scis, Moscow - PATOL. FIZIOL. I EKSPER. TERAP. 1957, 1/4 (22-26)

Experiments were carried out on 22 adult dogs irradiated by X-rays in a dose of 650-700 r.; the animals died on the 7th-10th day. The corticosteroid content was determined in the plasma of the adrenal venous blood (100-150 ml.). The steroids were extracted and separated by paper chromatography; the substances isolated were identified and estimated quantitatively. The blood was examined 40 min., 24 hr., 2, 3, 4, 5, 7 days after irradiation. The total concentration of corticosteroids in the plasma of control and irradiated dogs fluctuated within a wide range - from 248 to 900 $\mu\text{g.}/100\text{ ml.}$ plasma. However, the differences in the mean concentration of hormones in these groups were slight: 509 $\mu\text{g.}/100\text{ ml.}$ plasma in controls and from 417 to 660 $\mu\text{g.}/100\text{ ml.}$ plasma at different intervals following irradiation. The relative concentrations of various hormones were even more constant. In control dogs the concentration of 17-hydroxycorticosterone constitutes on an average 54% of the total concentration of corticosteroids, and in irradiated animals it fluctuates from 48 to 59%. Concentration of compound V (which consists mostly of corticosterone) is 29% in control and 36-42% in irradiated animals during the first 24 hr., then 29-30%. Some reduction in the concentration of mixed steroids, containing aldosterone was noted; it amounted to 5-6% as against 15% in healthy dogs. No definite changes could be observed in the rate of secretion of steroid hormones. The data obtained permit the conclusion that no significant inhibition of adrenal function was present in dogs subjected to irradiation. References 8.

Davydova - Moscow (S)

ORLOVA, L. V.

*Med
Biol Sci*

17059
CONTENT OF STEROID HORMONES IN SUPRARENAL
BLOOD OF IRRADIATED RABBITH. L. V. Orlova and
V. M. Rodimov, (Inst. of Biological and Medical Chemis-
try, Acad. of Medical Sciences U.S.S.R.). Med. Radiol. 2,
No. 2, 54-9(1957) Mar. - Apr. (In Russian)

MAMUL', Ya.V., ORLOVA, L.V., SHUVATOVA, T.F., KUZIN, A.M.

Radioautography of frozen tissues [with summary in English].
Biofizika 3 no.5:591-596 '58 (MIRA 11:10)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(RADIOAUTOGRAPHY,
of frozen tissues (Rus))

ORLOVA, L.V.; RODINOV, V.M.; TULL', L.I.

Comparison of the effect of total roentgen irradiation and
adrenocorticotropic hormone ACTH on corticosteroid secretion
in rabbits. Probl. endkok. i gorm. 6 no. 1:33-37 Ja-F '60.

(MIRA 14:1)

(RADIATION—PHYSIOLOGICAL EFFECT) (ACTH)
(ADRENOCORTICAL HORMONES)

RODIONOV, V.M.; ORLOVA, L.V.; TUUL', L.I.

Methods for sampling the blood draining from the adrenals in chronic experiments. Biul. eksp. biol. i med. 50 no. 11:133-135 N '60.

(MIRA 13:12)

1. Iz Instituta biologicheskoy i meditsinskoy khimii AMN SSSR, Moskva.

(ADRENAL GLAND—BLOOD SUPPLY)

ORLOVA, L. V. and RODIONOV, V. F. (USSR)

"Corticosteroid Secretion in Irradiated Dogs."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

RODIONOV, V.M.; ORLOVA, L.V. (Moskva)

Study of the secretion of corticosteroids by the adrenals in irradiated dogs in a chronic experiment. Pat.fiziol.i eksp.terap. 6 no.2:13-18
Mr-Apr '62. (MIRA 15:8)

1. Iz Instituta biologicheskoy i meditsinskoy khimii AMN SSSR (dir. -
deystvitel'nyy chlen AMN SSSR prof. V.N.Orekhovich).
(ADRENAL GLANDS) (RADIATION--PHYSIOLOGICAL EFFECT)

OSIPOV, O.A.; ISMAILOV, Kh.M.; KASHIRENINOV, O.Ye.; GARNOVSKIY, A.D.;
ORLOVA, L.V.

Study of some dialkylaminomethylphenols and aromatic sulfides.
Dokl. AN Azerb. SSR 19 no.9:21-24 '63. (MIRA 17:8)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Institut
neftekhimicheskikh protsessov AN AzSSR. Predstavleno akademi-
kom AN AzSSR M.A. Dalinym.

RODIONOV, V.M.; ORLOVA, L.V.; TUUL', L.I.; KLIMOVA, S.P.

Effect of stimulation of the peripheral end of the splanchnic nerve on the secretory function of the adrenal cortex. Dokl. AN SSSR 151 no.5:1238-1240 Ag '63. (MIRA 16:9)

1. Institut biologicheskoy i meditsinskoy khimii AMN SSSR.
Predstavleno akademikom A.N.Bakulevym.
(ADRENAL CORTEX) (NERVES, SPLANCHNIC)

ORLOVA, L.V.

Functional change in the erythrocytes in vivo following gamma irradiation of guinea pigs with lethal doses. Radiobiologiya 4 no.5:649-655 '64. (MIRA 18:4)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

ACCESSION NR: AP4040832

S/0241/64/009/006/0019/0022

AUTHOR: Orlova, L. V.

TITLE: Radiation protective properties of the adrenocorticotrophic hormone (ACTH)

SOURCE: Meditsinskaya radiologiya, v. 9, no. 6, 1964, 19-22

TOPIC TAGS: radioprotective agent, chemical radioprotector, ACTH, adrenocorticotrophic hormone, radiation resistance, radiation protection, chemical shielding, chemical radiation shielding

ABSTRACT: Present data on the radioprotective properties of ACTH are inconsistent. For this reason a study was conducted to attempt to determine under what conditions ACTH does have a protective effect against radiation. Male white rats weighing 180—200 g were irradiated on an RUM-3 apparatus (dose rate, 54 r/min; current, 15 mamp; voltage, 195 kv; distance, 30 cm) with doses of 480—720 r. The animals were given various doses of ACTH intramuscularly daily for 6 days prior to irradiation. Irradiation took place 30 min after the last injection of ACTH. The rats were followed for 30 days after irradiation.

Card 1/2

ACCESSION NR: AP4040832

In the first series of experiments, designed to reveal any possible dependence of ACTH-caused changes in radiosensitivity on seasonal shifts in adrenal activity, not a single case was found in which ACTH increased the rats' radiation resistance, irrespective of the time of year. In the second series, designed to reveal any possible dependence of ACTH-caused changes on the dosage of ACTH administered, daily doses of 0.5—5 units not only failed to increase radiation resistance, but led to somewhat increased lethality. Daily doses of 0.25 units had practically no effect on radiosensitivity. In the third series of experiments, designed to evaluate the effect on radiation resistance of long-acting ACTH preparations (Moscow Plant for Endocrine Preparations), daily doses of 0.25 units of long-acting ACTH administered for 6 days prior to irradiation increased survival by 10—50%.

ASSOCIATION: Institut biologicheskoy i meditsinskoy khimii AMN SSSR
(Institute of Biological and Medical Chemistry, AMN SSSR)

SUBMITTED: 21Oct63

SUB CODE: PH,LS
Cord 2/2

NO REF SOV: 002

ENCL: 00

OTHER: 006

SOKOLENKO, V.A.; ORLOVA, L.V.; GERSHTEYN, N.A.; YAKOBSON, G.G.

Kinetics of the reaction of hexafluorobenzene with sodium methylate.
Kin. i kat. 6 no.2:365 Mr-Apr '65. (MIRA 18:7)

1. Novosibirskiy institut organicheskoy khimii Sibirskogo otdeleniya
AN SSSR.

ACCESSION NR: AP4014693

s/0249/63/019/009/0021/0024

AUTHORS: Osipov, O. A.; Ismailov, Kh. M.; Kashireninov, O. Ye.; Garnovskiy, A. D.; Orlova, L. V.

TITLE: Investigation of some dialkylaminomethylphenols and aromatic sulfides (Presented by M. A. Dalin, academician of the Azerbaydzhan (AN SSR))

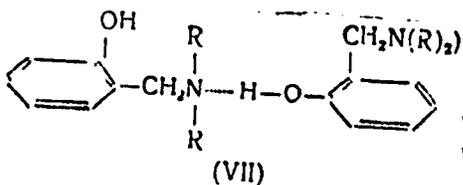
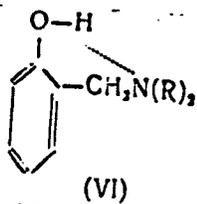
SOURCE: AN AzerbSSR. Doklady*, v. 19, no. 9, 1963, 21-24

TOPIC TAGS: antioxidant, dialkylaminomethylphenol, sulfide, intramolecular bond, intermolecular bond, hydrogen bond, dipole moment, magnetic susceptibility, infrared spectra

ABSTRACT: The dipole moments and magnetic susceptibility and the infrared spectra of dialkylaminomethylphenols (DAAMP) and aminomethyl derivatives of alkylphenyl-sulfides (AMAPS) were studied. These substances were of interest as potential antioxidants for lubricating oils, and they all contained a phenolic hydroxyl group in ortho position in respect to the dialkylaminomethyl group. The investigation centered on whether there occurred in these compounds the formation of either intramolecular or intermolecular hydrogen bonds, as

Card 1/2

ACCESSION NR: AP4014693



To this end, dielectric conductivity measurements were conducted in benzene solutions and the dipole moments calculated, using P. A. Osipov's technique (ZhOKh. 156, t. 26). The existence of intramolecular hydrogen bonds in most of the DAAMP was confirmed, but was proved absent in the AMAPS compounds. Orig. art. has: 2 formulas and 3 tables.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-on-the Don State University); Institut neftekhimicheskikh protsessov (Institute of Petroleum Processes)

Card 2/3 *2*

ORLOVA, L. V.

ORLOVA, L. V. - "Changes in the Percentage of Oxygen, Phosphorus, and Lipides in the Flood of Guinea Pigs and Rabbits During Gas Gangrene Caused by the Introduction of Toxins of Bacillus Perfringens (TypeA)." Sub 8 Apr 52, Acad Med Sci USSR. (Dissertation for the Degree of Candidate in Biological Sciences).

SO: Vechernaya Moskva January-December 1952

SHABADASH, A.L. (Moskva, G-151, pr. Kutuzova, 24, kv.114); YEFENKO, S.O. (Moskva, ul. Belinskogo, 5, kv.7); ORLOVA, L.V. (Moskva, Leningradskiy pr., 78, korp. 5, kv.69);

Cytochemical examination of the glycogen of the central nervous system of frogs after gamma irradiation. *Ann. anat., hist. i embr. 44 no.15:26-36* Ny '63. (MIA 17:6)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

GUSEYNOV, I.I.; LOPATIN, B.V.; VASIL'YEV, G.S.; ORLOVA, L.V.; SHOSTAKOVSKIY, M.F.

Spectra and structure of 1,2,3,-phosphorus-containing heterosubstituted
1,3-butadienes. Izv.AN SSSR.Otd.khim.nauk no.9:1550-1554 S '62.
(MIRA 15:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Butadiene—Spectra)

GAERNOVA, V.I.; GIL'F, O.I.; GIL'F, I.V.; ZHURAV, V.I.

Copper complexes of benzal-o-aminophenols. Zhurav, V.I.
10 no.12:2821-2824 D '65. (MIRA 1965)

1. Pskovskiy na-ionu gosudarstvennyy universitet.

TRINCHER, K.S.; ORLOVA, L.V.

Concentration dependence of the velocity of erythrocyte destruction
in an alkaline medium. Biofizika 10 no.3:540-542 '65.

(MIRA 18:11)

1. Institut biologicheskoy fiziki AN SSSR, Moskva. Submitted
July 17, 1964.

ORLOVA, M.A.; SOKOLENKO, E.A.

Land reclamation in the lower valley of the Chu River. Izv. AN Kazakh.
SSR. Ser. biol. nauk no.2:32-37 '63. (MIRA 17:10)

ORLOVA, M.A.; OSINA, A.N.

Soils and groundwaters in the lower reaches of the Chu River.
Trudy Inst. pochv. AN Kazakh. SSR. 15:162-207 '63.
(MIRA 16:12)

ORLOVA, M.A.

Soils of the present Syr Darya Delta (Kazalinsk). Izv.AN
Kazakh.SSR.Ser bot.i pochv. no.2:3-48 '58.

(MIRA 14:4)

(Syr Darya Delta--Soils)

ORLOVA, M. A., Candidate of Biol Sci (diss) -- "Soil-improvement conditions in the contemporary (Kazalinsk) delta of the Syr-Dar'ya". Alma-Ata, 1959. 25 pp (Min Higher Educ, Kazakh State U im S. M. Kirov, Soil-Biol Faculty), 150 copies (KL, No 22, 1959, 112)

BOROVSKIY, V.M.; ORLOVA, M.A.

Soils in the eastern part of the Aral Sea region. Izv.AN
Kazakh.SSR.Ser.bot.i pochv. no.3:3-14 '60.

(MIRA 13:7)

(Aral Sea region--Soils)

SHAPATINA, Ye.A. (Moskva); ORLOVA, M.A. (Moskva)

Experimental equipment for solid fuel decomposition by high-speed heating. *Izv. AN SSSR. Otd. tekhn. nauk. Ser. i topl.* no.2:152-160 *Mr-Ap '62.* (MIRA 15:4)

(Peat)

BOROVSKIY, V.M.; VOLKOV, A.I.; NOSKOVA, L.V.; ORLOVA, M.A.

Natural regions of Kzyl-Orda Province. Izv. AN Kazakh. SSR. Ser.
bot. i pochv. no. 3: 3-28 '62. (MIRA 15:12)
(Kzyl-Orda Province--Soils)
(Kzyl-Orda Province--Reclamation of land)

SHAPATINA, Ye. A.; MALASHENKO, L. P.; ORLOVA, M. A.; EDEMSKAYA, N. D.;
AVGUSHEVICH, I. V.

Thermal decomposition of peat under conditions of high-speed
heating. Trudy IGI 17:3-20 '62. (MIRA 15:10)

(Peat gasification)

MALASHENKO, L. P.; SHAPATINA, Ye. A.; EDEMSKAYA, N. D.; ORLOVA, M. A.

Semicoking of peat under conditions of high-speed heating.
Trudy IGI 17:21-33 '62. (MIRA 15:10)

(Peat) (Carbonization)

ORLOVA, MARIYA IVANOVNA

EPF
.R92212

GERMANIYA V 1924-1949 GODAH. GSEVA, I.D-VO MOSKOVSKOGO
UNIVERSITETA, 1955.
36 P.
AT HEAD OF TITLE: MOSCOW. UNIV. SITET.

6. June, 1955
YEFIMOVA, V.Ye.; GLEBOVA, N.F.; ORLOVA, M.I.

Effect of Schisandra chinensis and ginseng on the higher nervous activity in dogs. Zhur. vys. nerv. deiat. 5 no.5:741-746 S-O '55. (MLRA 9:1)

1. Kafedra fiziologii Khabarovskogo meditsinskogo instituta.
(CONDIMENTS, effects,
ginseng, on higher nervous funct in dogs.)
(PLANTS,
Schisandra chinensis, eff. on higher nervous funct. in dogs.)
(CENTRAL NERVOUS SYSTEM, effect of drugs on,
ginseng & Schisandra chinensis, on higher nervous funct. in dogs.)

VEYTSMAN, L. N., ORLOVA, M. I.

Guinea Fowl

Wintering of guinea fowl in northern regions., ptroda, 41, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952 ~~1953~~. Unclassified.

ORLOVA, M. I. Cand. Geolog-Mineral Sci.

Dissertation: "Soils of Mountain-Forest Areas of the Eastern Sayan." Moscow Order of Lenin State U. imeni M. V. Lomonosov. 24 Apr 47.

SO: Vechernyaya Moskva, Apr 1947 (Project #17836)

ORLOVA, K. I.

Orlova, K. I. - "Experience gained in the study of the dynamics of the changes of the Krasnoyarsk wooded steppe." Trudy Sib. nauchno-issled. in-ta, Symposium : Issue 1, 1947. p. 19-31, - Bibliog: 7 items

SO: L-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1-9)

ORLOVA, M.I., dotsent, kand.geologo-mineralogicheskikh nauk

Trace element content of gley soils rich in humus and
carbonates and their dynamics. Uch. zap. Mord. gos.
un. no.13:38-48 '60. (MIRA 15:11)

1. Kafedra agronomii i pochvovedeniya Mordovskogo
gosudarstvennogo universiteta.
(Soils—Composition) (Trace elements)

ORLOVA, M.I.; RYCHKOVA, T.A.

Effectiveness of zinc fertilizers in turf-Podzolic soils of
Leningrad Province. Vest. LGU 20 no.15:79-91 '65.

(MIRA 18:9)

ORLOVA, N. I.

1261. Tsekhovyye raskhody mashinostroitel'nykh zavodov i ikh svyaz' s ob'edom proizvodstva. L, 1954. 18s 21sm. (M-vo Vyssh. obrazovaniya SSSR. Leningr. inzh-ekon. inst im. V. M. Molotova). B. ts. [54-54178]

SO: Knizhnaya Letopis, Vol. 1, 1955

SHAYOVICH, E.L., kandidat ekonomicheskikh nauk, dotsent; ORLOVA, M.I.,
kandidat ekonomicheskikh nauk.

Consolidated calculation of the work capacity in designing new
machines. Trudy LEBI no.10:102-106 '55. (MLEA 9:8)
(Machinery--Design)

ORLOVA, M. I. kand. ekon. nauk

Relationship between shop expenses and the output experience
of machinery plants. Trudy LIEI no.18:149-176 '57.
(MIRA 12:9)

(Industrial management)

ZIMINA, K.I.; VOROB'YEV, G.G.; ORLOVA, M.I.

Spectrum analysis of the ash of spent motor oils, scale, and deposits. Khim.i tekhn.topl.i masel 5 no.5:50-56
My '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Lubrication and lubricants--Analysis)

ORLOVA, M. I., kand. ekonomicheskikh nauk

Determining trends in specialisation and the size of shaped steel casting in long range planning, using the Leningrad Economic Region as an example. Trudy LEBI no. 31:30-39 '60. (MIRA 13:10)
(Leningrad Economic Region--Steel castings)

MASHIRBVA, L.G.; ORLOVA, H.I.; SOROKINA, S.B.

Determination of sodium in petroleum products by the yellow doublet with the use of the LIF-28 spectrograph. Khim. i tekh. topl. i masel 10 no.10:52-55 10 '55. (M.P. 18 10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut pri pererabotke nef'ti i gazov i polucheniyu iskusstvennogo zhidkogo topiva.

AUTHORS: Gribov, L. A., Gel'man, A. D., S/078/60/005/04/039/040
Zakharova, F. A., Orlova, M. M. B004/B016

TITLE: Investigation of Some Complex Compounds¹ of Platinum by the Method of Infrared Spectroscopy

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 4, pp 987 - 989 (USSR)

ABSTRACT: The authors investigated the infrared spectra of the compounds cis- and trans-[CONH₃Cl₂Pt] in crystal form in paraffin oil emulsion in the range 2500 - 1600 cm⁻¹ and 700 - 450 cm⁻¹ by means of the IKS-11-spectrometer. The absorption bands are given which correspond to the group OCPT. To explain the resultant spectra, the oscillations of the plane model of the trans-[CONH₃Cl₂Pt] are mathematically analyzed by assuming a linear addition of the CO molecules to platinum. Calculations confirm the linear addition of CO to Pt in contradiction with opinions held by M. Ye. Dyatkina (Ref 12). Furthermore, the infrared spectra of the compounds [(CH₃)₃(NH₃)₃Pt]J and [(CH₃)₃PtJ] were taken by means of the IKS-14-spectrophotometer. The results are summarized in a table along with preliminary interpretations of

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Investigation of Some Complex Compounds of Platinum
by the Method of Infrared Spectroscopy

S/078/60/005/04/039/040
B004/B016

the spectra. There are 1 table and 12 references, 9 of which
are Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of
Physical Chemistry of the Academy of Sciences, USSR) 

SUBMITTED: July 3, 1959

Card 2/2

L 16986-63

EWT(m)/BDS AFFTC/ESD-3 RM

S/020/63/149/005/010/018

61
60

AUTHOR: Gel'man, A. D., Essen, L. N., Zakharova, F. A., Alekseyeva, D. P., and Orlova, M. M.

TITLE: The production of oxalate-sulfite and sulfite complex compounds of thorium and uranium (IV)

PERIODICAL: ²⁷ Akademiya nauk SSSR. Doklady, v. 149, no. 5, 1963, 1071-1073

TEXT: The object of this investigation was to isolate and investigate previously unknown complex compounds of thorium and uranium (IV) with oxalate and sulfite ions. The starting materials were thorium oxalate and sodium sulfite. Thorium oxalate at room temperature dissolved satisfactorily in concentrated solutions of sodium sulfite, thus attesting to the formation of complex compounds. Upon pouring the resulting solution into alcohol, the complex segregates out in the form of a spiro-shaped mass which is transformed into a white crystalline substance when re-treated with alcohol. Analysis established that the complexes isolated are mixed oxalate-sulfite complexes and their composition can be expressed by the general formula $Na_{2n}[Th(C_2O_4)_2(SO_3)_n] \cdot x H_2O$. All the complexes isolated are fine crystalline powders which appear homogeneous when viewed under a microscope. But the refraction indexes of the crystals could not be determined owing to their extremely small size. The investigation is being continued. ASSOCIATION: Institute of Physical Chemistry. **Card 1/2,**
Academy of Sciences USSR.

5(4)

AUTHORS:

Yatsimirsky, Y. S., Orlova, M. N.

SOV/78-04-1/44

TITLE:

The Effect of Gold Compounds on the Velocity of the
Substitution of Iodine in Cyanide Complexes of Iron (II)
... na velichy zlozha na skorost' reaktsii
zameshcheniya iotsiandnykh kompleksakh zheleza (II)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1979, Vol. 4, No. 4
pp. 743-746 USSR

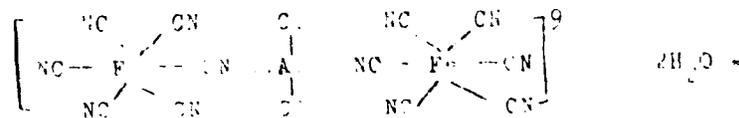
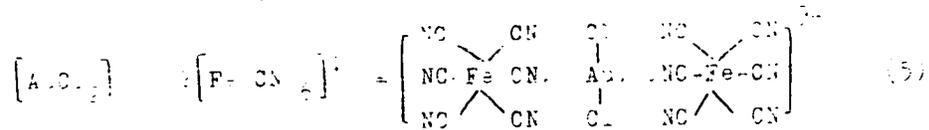
ABSTRACT:

The kinetics of the reaction between ferricyanide and
nitroso benzene in the presence of gold compounds was
investigated by using optical methods. The light
absorption of the complex compound formed between iron
aquopentacyanide and nitroso benzene was investigated.
The absorption spectrum was plotted at a wave length of
530 m μ using a FEK 24 spectrometer. It was found that
the reaction between the ferricyanide ions and the
nitroso benzene in the presence of gold salts is not
a catalytic reaction. The reaction proceeds at first
through an oxidation of the ferricyanide and a
simultaneous reduction of the gold (III) to gold (I).

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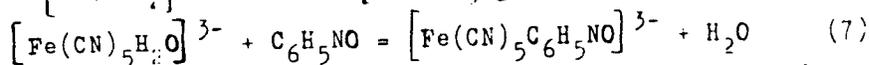
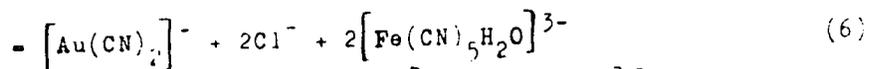
The Influence of Gold Compounds on the Velocity of the Reaction of Iron(II) Cyanide Complexes of Iron(II) SOV/78-4-4-1/44

In the second stage of the reaction the ferrocyanide and gold cyanide form an intermediate complex which rapidly decomposes into the ions $[Fe(CN)_6]^{4-}$ and $[Au(CN)_2]^-$. The ferrocyanide ion reacts rapidly with the gold cyanide to form the colored complex $[Fe(CN)_6]^{4-}$. The reaction mechanism is suggested by the following equation:



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The Influence of Gold Compounds on the Velocity of the Substitution Reaction in Cyanide Complexes of Iron (II) SOV/78-4-4-6/44



The rate of the reaction between the ferrocyanide and the nitroso benzene was investigated at various concentrations of gold salts and ferrocyanide ions and at various pH values. The results are given in figure 1. The maximum rate of reaction occurs in the pH range

4.2 to 5. In more strongly acidic and basic solution the rate of reaction is slower. The intensity of the violet color of the complex $[\text{Fe}(\text{CN})_5\text{C}_6\text{H}_5\text{NO}]^{3-}$ is

dependent upon the gold concentration. The influence of various salts upon the reaction was investigated. The salts KNO_3 , KCl , and KBr do not influence the formation of the complex. The presence of KCN and KCNS disturbs the reaction, since in this case the gold ion is bound

Card 3/4

The Influence of Gold Compounds on the Velocity of the Substitution Reaction in Cyanide Complexes of Iron (II), SOV/78-4-4-6/44

in very stable complexes. The rate constants of the reaction were determined for various pH values. Mercury and platinum ions disturb this determination of gold. There are 7 figures and 9 references.

ASSOCIATION: Ivanovskiy khimiko-tekhnologicheskii institut
(Ivanovo Chemical Technological Institute)

SUBMITTED: January 13 1958

Card 4/4

S/153/60/003/004/014/040/XX
B020/B054

AUTHORS: Orlova, M. N., Yatsimirskiy, K. B.

TITLE: Kinetics and Mechanism of the Decomposition Reaction of
the Hexacyanoferrate Ion in the Presence of Silver
Compounds

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i
khimicheskaya tekhnologiya. 1960, Vol. 3, No. 4,
pp. 630 - 636

TEXT: The hexacyanoferrate ion is distinguished by high stability. At increased temperature (Ref.1), or under the action of light (Ref.2), the hexacyanoferrate ion decomposes slowly in weakly acid solution to form soluble Prussian blue. The rate of this reaction increases considerably in the presence of Hg^{2+} ions (Refs.3,4) which bind the cyanide ions in the form of a stable complex. The kinetics of the decomposition process of the hexacyanoferrate ion in the presence of silver compounds was studied at 40°C by an optical method. To determine the dependence of

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Kinetics and Mechanism of the Decomposition S/153/60/003/004/014/040/XX
Reaction of the Hexacyanoferroate Ion in the B020/B054
Presence of Silver Compounds

the reaction rate in the presence of AgNO_3 on the acidity of the solution, the authors conducted a test series at different pH and constant $\text{K}_4[\text{Fe}(\text{CN})_6]$ - and AgNO_3 concentrations (Fig.1). The pH of the solutions was measured with a glass electrode in an MII-5 (LP-5) tube potentiometer. The decomposition reaction only sets in at a pH below 5 and its rate increases with acidity. The dependence of light absorption on the concentration of potassium hexacyanoferroate is shown in Fig.2 and that of the decomposition reaction rate on the AgNO_3 concentration in Fig.3. At AgNO_3 concentrations of from $2.0 \cdot 10^{-6}$ to $1.3 \cdot 10^{-5}$ moles/l, the relation between light absorption of the solutions at a certain reaction time (D_{100}) and the logarithm of the AgNO_3 concentration is linear (Fig.4). The catalytic action of AgNO_3 is considerably increased by addition of thiourea, even in amounts of only 10^{-5} moles/l (Fig.5). Fig.6 shows the change in light absorption of the solutions with time at variable AgNO_3 concentration, and Fig.7 the linear

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