Problem of the vertical ...

micropegmatitic dolerites at the center, with the composition's preservation vertically. Proceeding from the magnetic field's structure, 3 generations of traps can be distinguished in the Yershovskiy area: 1) a normally magnetized thick sill, exposed in the Angara near the Yershovskiye Rapids; 2) reversely magnetized 100 - 500 m thick dolerite dikes cutting the sill; and 3) the last magmatic injections, squeezed out from deep in the magma chamber along the channels and fissures of the previously intruded and still not quite cold dolerite dikes. The data obtained show that time differentiated vertical trap inclusions, whose last injections may have commercial accumulations of ilmenite, should be expected in the south of the Siberian Platform, in areas where there are linearly oriented aerial magnetic anomalies with a variable sign. [Abstracter's note: Complete translation.]

Card 2/2

Kovalevich, V.K.

DOVGOPOL, V.I., inzh.; KOVALEVICH, V.K.; LORENTSO, D.N., inzh.; DUGINA, N.A., tekhn.red.

[Ural railroad car builders] Ural'skii vagonostroitel'nyi. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 85 p. (Nizhniy Tagil--Railroads--Cars) (MIRA 11:5)

AGEYEVA, A.P.; AKSENOVA-CHERKASOVA, A.S., aspiranka; VELIKANOV, L.N., bibliotekar'; GAVVA, F.M.; GIRENKO, P.D., Geroy Sots. truda; GUBANOV, M.M., pensioner; GUS'KOVA, T.K., nauchnyy sotr.; DAVYDOV, A.G., prepodavatel'; DANILEVSKIY, V.V., prof., dvazhdy laureat Stalinskoy premii; DOVGOPOL, V.I., laureat Stalinskoy premii; YELOKHIN, M.F.; YERMAKOV, A.D.; IVANOV, V.G., prepodavatel'; KOVALEVICH, V.K.; KOVALEVSKAYA, Ye.S., zhurnalistka; PANKRATOV, A.G.; POPOVA, F.M.; URYASHOV, A.V.; FEDORIN, I.M., kand. ist. nauk; FILIPPOV, F.R.; CHUMAKOV, N.P.; SHEPTAYEV, K.T., zhurnalist; VAS'KOVSKIY, O.A., kand. ist. nauk, retsenzent; KULAGINA, G.A., kand. ist. nauk, retsenzent; GORCHAKOVSKIY, P.L., prof., doktor biol. nauk, retsenzent; BAKHMUTOVA, V., red.; SAKNYN', Yu., tekhn. red.

[Nizhniy Tagil]Nizhnii Tagil. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 294 p. (MIRA 16:1)

1. Nizhne-Tagil'skiy krayevedcheskiy muzey (for Ageyeva, Gus'kova). 2. Zaveduyushchiy gorodskim otdelom narodnogo zdravookhraneniya, Nizhniy Tagil (for Velikanov). 3. Zaveduyushchiy gorodskim sel'skokhozyaystvennym otdelom goroda Nizhniy Tagil (for Gavva). 4. Nachal'nik upravleniya stroitel'stvom Sverdlovskogo sovnarkhoza (for Girenko). 5. Deystvitel'nyy chlen Akademii nauk Ukr. SSR, Leningradskiy politekhnicheskiy institut (for Danilevskiy).

(Continued on next card)

KOVALEVICH, V.K.

[Nizhniy Tagil] Nizhnii Tagil. Sostavitel' V.K.Kovalevich. Izd.2., ispr. , perer. i dop. Sverdlovsk, Sredne-Ural'skoe knizhnoe izd-vo, 1964. 298 p. illus.
(MIRA 19:1)

VORONETSKIY, M.K.; CHAYKIN, A.M.; KACHMAR, Yu.D.; KOVALEVICH, V.N.; PETRASH, I.N.; CHEKALYUK, K.P.

Automated tree piston. Mash. i neft. obor. no.5:24-26 '65. (MIRA 18:6)

1. Neftepromyslovoye upravleniye "Dolinanefť", Dolina.

SYUN'I, G.K., dotsent; KOVALEVICH, V.N., inzh.

Road plastic concretes based on polymer binders. Avt.dor.i dor.stroi. no.1:145-155 '65.
(MIRA 18:11)

KOVALEVSKAYA, A.A.

Hygienic conditions in the principal shops of a metalworking plant and their effect on the incidence of disease with temporary disability. Gig. i san. 23 no.8:73 Ag '58 (MIRA 11:9)

1. Iz kafedry gigiyeny truda Tomskogo meditsinskogo instituta.
(METALLURGICAL PLANTS--HYGIENIC ASPECTS)

BONDAR', T.A.; BAKANOV, N.A., spetsred.; KOVALEVSKAYA, A.I., red.; YAROV, E.M., tekhn. red.

[Technical improvements at the Rosvyanskiy Starch and Molasses Plant] Tekhnicheskie usovershenstvovaniia na Rosvianskom krakhmalo-patochnom zavoda. Moskva, Pishchepromizdat, 1956. 19 p. (Obmen peredovym tekhnicheskim opytom). (MIRA 11:10)

(Starch industry--Equipment and supplies)
(Molasses)

RED'KO, D.I.; MOLDAVSKIY, P.Yu.; BERENSHTEYN, A.F., spetsred.; KOVALEVSKAYA, A.I., red.; KISINA, Ye.I., tekhn.red.

[Progressive practices of the Martynov Alcohol Plant] Peredovoi opyt Martynovskogo spirtovogo zavoda. Moskva, Pishchepromizdat, 1956. 47 p. (MIRA 11:12)

(Martynov--Distilling industries)

southern oblast's of Kazakhstan. The following varieties are accepted as standard: Urozhynyi, Kokh, Komsomolka, Lui Got'ye, Geroinya Manshuk, Seyanets Tupolevoy, Ryubetsal'.

Card 1/1

ASHKINUZI, Z.K., rukovoditel' brigady; BERENSHTEYN, A.F.; KUZNETSOV, N.M.; RABINOVICH, B.D.; CHATSKIY, P.A.; SIDORENKO, D.P.; KOVALEVSKAYA, A.I., red.; YAROV, E.M., tekhn.red.

[Continuous thermal processing of starchy raw materials] Nepreryvnaia teplovaia obrabotka krakhmalistogo syr'ia. Moskva, Pishchepromizdat, 1957. 59 p. (MIRA 12:4)

1. Kiyevskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta spirtovoy promyshlennosti (for Ashkinuzi).
(Distilling industries)

BEGUNOVA, Roza Davidovna; ZAKHARINA, Ol'ga Solomonovna; ZARUBIN, Vasiliy Andreyevich; PAVLOV-GRISHIN, Sergey Ivanovich; CHALENKO, Dmitriy Kalinovich; FEDOROVICH, Aleksandr Georgiyevich; GERASIMOV, M.A., retsenzent; BUYEVEROVA, Ye.M., spetsred.; KOVALEVSKAYA, A.I., red.; GOTLIB, E.M., tekhn.red.

[Technology and chemical control of grape, fruit, and berry wines] Tekhnologiia i tekhnokhimicheskii kontrol' vinogradnykh i plodovo-iagodnykh vin. Moskva, Pishchepromizdat, 1959. 469 p. (MIRA 13:3)

(Wine and wine making)

IYERUSALIMSKIY, N.D., prof., red.; KOVALEVSKAYA, A.I., red.; SOKOLOVA, I.A., tekhn.red.

[Continuous fermentation and raising of micro-organisms; materials of the conference held by the Institute of Microbiology of the Academy of Sciences of the U.S.S.R.] Nepreryvnoe brozhenie i vyrashchivanie mikroorganizmov; materialy soveshchaniia, provedennogo Institutom mikrobiologii AN SSSR. Pod red. N.D.Ierusalimskogo. Moskva, Pishchepromizdat, 1960. 127 p. (MIRA 14:1)

1. Soveshchaniye po nepreryvnomu brozheniyu i vyrashchivaniyu mikroorganizmov. 1958.
(Industrial microbiology--Congresses)

BALANTER, Il'ya Isaakovich; BERLIN, Rafail Izrailevich; IL'YASHEVSKAYA, Genrietta Isaakovna; KOVALEVSKAYA, A.I., red.; SATAROVA, A.M., tekhn. red.

[Technological planning of breweries and soft-drink plants] Tekhnologicheskoe proektirovanie pivovarennykh zavodov i tsekhov bezalkogol'nykh napitkov. Moskva, Pishchepromizdat, 1962. 243 p. (MIRA 15:9)

(Brewing industry)
(Soft drinks—Equipment and supplies)

ZARUBIN, Vasiliy Andreyevich; MOGILYANSKIY, N.K., doktor tekhn. nauk, retsenzent; SHASHILOVA, V.P., inzh., retsenzent; KOVALEVSKAYA, A.I., red.; SOKOLOVA, I.A., tekhn. red.

[Making of fruit and berry wines]Proizvodstvo plodovo-iagodnykh vin. Moskva, Pishchepromizdat, 1962. 105 p. (MIRA 15:11)

(Fruit wines)

KOVALEVSKAYA, A.I., red., KOVALEVSKAYA,A.I.,red.; KISINA,Ye.I.,tekhn.red.

[Air conditioning in the food industry] Konditsionirovanie vozdukha v pishchevoi promyshlennosti. Moskva, Pishcheprom-izdat, 1963. 457 p. (MIRA 16:7)
(Food industry--Air conditioning)

VESELOV, Ivan Yakovlevich, prof.; CHUKMASOVA, Mariya Alekseyevna, inzh.; OSTAPETS, N.A., retsenzent; ASLANOV, A.Ye., retsenzent; KOVALEVSKAYA, A.I., red.; KISINA, Ye.I., tekhn. red.

[Beer technology] Tekhnologiia piva. Izd.2., dop. i perer. Moskva, Pishchepromizdat, 1963. 450 p. (MIRA 17:1)

MOROZOV, Il'ya Sergeyevich; RZHEKHIN, V.P., retsenzent; KRAVCHENKO, S.F., spets. red.; KOVALEVSKAYA, A.I., red.

[Corn oil] Kukuruznoe maslo. Moskva, Izd-vo "Pishchevaia promyshlennost'," 1964. 93 p. (MIRA 17:5)

GOLANT, Boris Yakovlevich; KOVALEVSKAYA, A.I., red.

[Enrichment of food products with proteins of vegetable origin with a high content of amino acids] Obogashchenie pishchevykh produktov proteinami rastitel'nogo proiskhozhdeniia s vysokim soderzhaniem nezamenimykh aminokislot. Moskva, Izd-vo "Pishchevaia promyshlennost'," 1964. 96 p. (MIRA 17:6)

GINZBURG, Abram Solomonovich, prof.; MIKHEYEVA, Natal'ya Semenovna; BAB'YEV, Nikolay Nikolayevich; SYROYEDOV, Viktor Iudovich; GRACHEV, Yuriy Pavlovich; ZHURAVLEV, Vyacheslav Fedorovich; DASHEVSKIY, V.I.; FEDOROV, N.Ye., prof., retsenzent; SEREGIN, P.V., dots., retsenzent; GORBATOV, A.V., dots., retsenzent; ROGOV, I.A., dots., retsenzent; KOVALEVSKAYA, A.I., red.

[Processes and apparatus of the food industry; practical laboratory work] Protsessy i apparaty pishchevykh proizvodstv; laboratornyi praktikum. [By] A.S.Ginzburg i dr. Moskva, Pishchevaia promyshlennost', 1964. 270 p. (MIRA 17:11)

1. Moskovskiy tekhnologicheskiy institut myasnoy i molochnoy promyshlennosti, kafedra protsessov i apparatov (for Fedorov, Rogov, Gorbatov). 2. Vsesoyuznyy zaochnyy tekhnologicheskiy institut pishchevoy promyshlennosti (for Seregin).

BURSIAN, Vladimir Romanovich, kand. tekhn. nauk, prof.; KUKIENYY, A.A., kand. tekhn. nauk, retsenzent; KOVALEVSKAYA, A.I., red.

[Pneumatic conveying in the enterprises of the food industry] Pnevmaticheskii transport na predpriiatiiakh pishchevoi promyshlennosti. Izd.2., ispr. i dop. Moskva, Pishchevaia promyshlennost', 1964. 274 p. (MIRA 18:2)

TREGUBOV, Nikolay Nikolayevich; BALANTSA, Il'ya Isaakovich; BESHENTSEV, Boris Konstantinovich; GRYAZNOV, Mikhail Mikhailovich; KRAVCHENKO, S.F., inzh., retsenzent; BURMAN, N.Ye., inzh., retsenzent; SINEL'NIKOV, I.D., spets. red.; KOVALEVSKAYA, A.I., red.

[Design and planning of the enterprises of the starch and molasses industry] Proektirovanie predpriiatii krakhmalo-patochnoi promyshlennosti. Moskva, Pishchevaia promyshlennost', 1964. 314 p. (MIRA 18:1)

BEZZUBOV, Aleksey Dmitriyevich; GARLINSKAYA, Yevgeniya Il'ichna; FRIDMAN, Viktor Mironovich; KONOVALOV, Ye.G., prof., spets. red.; KOVALEVSKAYA, A.I., red.

[Ultrasonics and its use in the food industry] Ultrazvuk i ego primenenie v pishchevoi promyshlennosti. Izd.2., dop. i perer. Moskva, Pishchevaia promyshlennost', 1964. 195 p. (MIRA 18:3)

STEPANOV, Ivan Aleksandrovich; GALASOV, Petr Nikitich; SHKOP, Ya.F., spets. red.; KOVALEVSKAYA, A.I., red.

[Continuous lines for bottling and sealing liquid foods and beverages] Potochnye linii rozliva i ukuporki pishchevykh zhidkostei. Moskva, Pishchevaia promyshlennost', 1965. 316 p. (MIRA 18:11)

SHUL'MAN, M.S.; KOVALEVSKAYA, A.I., red.; KISINA, Ye.I., tekhn.red.

[Mechanical formation of starch sizes] Mekhanicheskaia kleisterizatsiia krakhmala. Moskva, Pishchepromizdat, 1961. 148 p. (Moscow. TSentral'nyi nauchno-issledovatel'skii institut spirtovoi i likerovodochnoi promyshlennosti. Trudy, no.10) (MIRA 14:7)

(Starch)

OL'DEKOP, Yu.A.; KOVALEVSKAYA, A.M.; SHKLYAR, S.A.

Thermal reactions of carbon tetrachloride and bromotrichloromethane with organic acids. Zhur. org. khim. 1 no.9:1540-1544 S '65. (MIRA 18:12)

1. Institut fiziko-organicheskoy khimii AN Belorusskoy SSR i Belorusskiy gosudarstvennyy universitet imeni V.I. Lenina. Submitted November 23, 1964.

KOVALEVSKAYA, A.N.; KORETSKAYA, L.S.; SEREBRYAKOV, V.A., direktor.

Effectiveness of vaccinotherapy of bacterial dysentery in children. Vop.pediat. 21 no.4:17-18 Jl-Ag '53. (MLRA 6:10)

1. Tadzhikskiy institut epidemiologii, mikrobiologii i gigiyeny. (Dysentery) (Vaccination)

KOVALEVSKAYA, A. N.

USSR/Medicine - Dysentery FD 129

Card 1/1

Author : Kovalevskaya, A. N.

Title : Experimental treatment of children who excrete dysentery bacteria using Chernokhvostov's alcohol dysentery vaccine

Periodical : Zhur. mikrobiol. epid. i immun. 4, 36-39, Apr 1954

Abstract : The results of treating 60 children, who were living in a children's home and were known to be suffering from chronic dysentery, with Chernokhvostov's alcohol dysentery vaccine, the effects of giardiasis on this treatment, and the ability of the vaccine to stop the elimination of bacteria are reported. The number and types of dysentery strains examined during the period of treatment and subsequent observation are also discussed. No references are cited.

Institution : Tadzhik Institute of Epidemiology, Microbiology, and Hygiene (Director - L. S. Koretskaya)

Submitted : April 18, 1953

KOVALEVSKAYA, A.N.

Observations on the process of excretion of Shigella dysenteriae in a closed institution. Zhur. mikrobiol., epidem. i immun. 27 no.3:15-19 Mr' 56. (MLRA 9:7)

1. Iz Tadzhikskogo instituta epidemiologii, mikrobiologii i gigiyeny.
(DYSENTERY, BACILLARY? in infant and child, duration of bact. carriage & classif. of excreted strains (Rus))

KOVALEVSKAYA, A.N., Cand Med Sci -- (diss)"Observations of the process of ~~separation~~ isolation of dysentery bacilli of children in a ~~sheltered~~ closed child ren's institution." Krasnodar, "Soviet Kuban'", 1958, 16 pp (Min of Health RSFSR. Kuban' State Med Inst im Red Army) 200 copies (KL, 23-58, 111-2)

COUNTRY USSR
CATEGORY Microbiology

ABS. JOUR. Ref Zhur-Biologiya, No.4, 1959, No. 14848

AUTHOR Koretskaya, L.S.; Kovalevskaya, A.N.
INST.

TITLE Something New in the Etiology of Acute Intestinal Disorder.

ORIG. PUB. Zdravookhr. Tadzhikistana, 1958, No.2, 10-13

ABSTRACT : No abstract

CARD: 1/1

KOVALEVSKAYA A.N.

KORETSKAYA, L.S.; KOVALEVSKAYA, A.N.

Food toxinfection caused by serotype o26:B6 of Escherichia coli; author's abstract. Zhur.mikrobiol.epid. i immun. 29 no.4:58 Ap '58. (MIRA 11:4)

1. Iz Stalinabadskogo instituta epidemiologii i gigiyeny.
(ESCHERICHIA COLI, infections,
026:B6 causing food pois. (Rus)
(FOOD POISONING, case reports,
E. coli 026:B6 (Rus)

KOVALEVSKAYA, A.N.

Evaluation of a method for the acceleration of bacteriological diagnosis of dysentery by means of agar treated with glycerine. Lab.delo 5 no.6:40 N-D '59. (MIRA 13:3)
(DYSENTERY--BACTERIOLOGY) (AGAR)

KORETSKAYA, L.S.; KOVALEVSKAYA, A.N.; LEVINA, G.Ye.; LITVINENKO, R.M.

Peculiarities of colienteritis in Stalinabad and its relative weight in the sum total of acute intestinal diseases in children. Zdrav. Tadzh. 7 no. 2:32-37 Mr-Ap '60. (MIRA 13:10)

1. Iz Stalinabadskogo instituta epidemiologii i gigiyeny, Stalinabadskogo medinstituta im. Abuali ibni Sino i Detskoy infektsionnoy bol'nitsy.

(STALINABAD—INTESTINES—DISEASES)

KORETSKAYA, L.S.; KOVALEVSKAYA, A.N.; KAYUMOVA, M.K.

Test of the influence of gibberellic acid on the growth of some bacteria of the intestinal group. Zdrav. Tadzh. 7 no.5:61-62 '60. (MIRA 13:12)

(GIBBERELLIC ACID) (INTESTINES--BACTERIOLOGY)

KOVALEVSKAYA, A.N. [Kovalevs'ka, O.M.]; VARENKO, Yu.S.

Variant of Escherichia coli with a likeness to pathogenic bacteria of the enteric group; preliminary communication. Mikrobiol. zhur. 23 no.5: 22-26 '61. (MIRA 14:12)

1. Stalinskiy meditsinskiy institut.
(ESCHERICHIA COLI) (VARIATION (BIOLOGY))

KOVALEVSKAYA, A.N. [Kovalevs'ka, A.M.]; GEONYA, N.I. [Heonia, M.I.]; VARENKO, Yu.S.

Variability of some representatives of the Salmonella group under the influence of human blood plasma. Mikrobiol. zhur. 24. no.4:12-16 '62. (MIRA 16:5)
(SALMONELLA) (BLOOD PLASMA) (VARIATION (BIOLOGY))

KOVALEVSKAYA, A.N.; VARENKO, Yu.S.

Change in the biochemical and serological characteristics of Escherichia coli cultivated on bile-erythrocyte media. Mikrobiologiia 32 no.5:797-798 S-O'63 (MIRA 17:2)

1. Meditsinskiy institut, g. D[illegible]sk.

KOVALEVSKAYA, L.N. [Kovalevs'ka, O.M.]

Acquisition of the resistance to antibiotics and the variability of E. coli and Bact. proteus under the conditions of continuous flow cultivation. Mikrobiol. zhur. 26 no.3:50-53 '64.

(MIRA 18:5)

1. Donetskiy meditsinskiy institut.

KOVALEVSKAYA, A.N.; REVENKO, T.A.

Variability of Escherichia coli in continuous culture on media with bile. Mikrobiologiia 34 no.4:680-682 Jl-Ag '65.

(MIRA 18:10)

1. Donetskiy meditsinskiy institut.

SOV/24-58-11-21/42

AUTHORS: Kovalevskaya, A. Ye. and Perel'man, R. G. (Moscow)

TITLE: On the Heat Exchange in a Field Affected by Centrifugal Forces (O teploobmene v pole deystviya tsentrobezhnykh sil)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 11, pp 92-94 (USSR)

ABSTRACT: M. A. Mikheyev (Refs 1 and 2) studied the heat release from heated rotating rods to the atmosphere (external problem). In earlier work (Ref 3) the authors of this paper studied the heat flow inside a canal (internal problem). The investigations described in this paper are based mainly on the results of this earlier work and relate to determining the hydraulic resistance of straight canals inside a field affected by centrifugal forces. Various authors have published formulae enabling inter-relation in the first approximation of the heat transfer coefficient α and the Nusselt number N_{Nu}. The possibility of using the relations published by Ludwieg (Ref 4) and Kutateladze (Ref 5) (Eqs.1 and 2 of this paper) are determined by the extent to which the heat propagates in the flow along the investigated section. In the experiments carried out by the authors of this paper the

Card1/3

length of the ring section in which the heat transfer was effected consisted altogether of two tube sizes and it can be anticipated, therefore, that the experimental results in the investigated region and the applied length of the heated section will be intermediate relative to those calculated according to the formulae of Ludwieg and of Kutateladze. A sketch of the used experimental set-up is shown in Fig.3. It was found that the experimental results are in satisfactory agreement with the theoretical relations plotted according to the formulae of Ludwieg and Kutateladze. It can be seen from the graph, Fig.2 that an absolute decrease in the flow rate, i.e. of the N_{Re} criterion, will bring about an increase in the difference between the experimentally and the theoretically determined values and the experimentally obtained coefficients will be larger than the calculated values. This is possible due to the relative increase in the intensity of the secondary flows in the case of

On the Heat Exchange in a Field Affected by Centrifugal Forces

decreasing values of the ratio N_{Re} to N'_{Re}.

There are 3 figures and 5 references, 4 of which are Soviet, 1 German.

SUBMITTED: December 31, 1957

Card3/3

L 44165-66

ACC NR: AP6030264 SOURCE CODE: UR/0147/66/000/003/0141/0148

AUTHOR: Kovaleyskaya, A. Ye.

31
B

ORG: none

TITLE: Effect of partial admission on the performance of an inward-flow radial turbine

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 3, 1966, 141-148

TOPIC TAGS: radial turbine, turbine partial admission, turbine efficiency, turbine design, RADIAL FLOW

ABSTRACT: The effect of the degree of partial admission ε on the turbine efficiency has been investigated experimentally in the range $\varepsilon = 1—0.09$. The schematic diagram

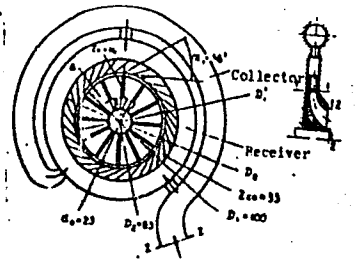

Fig. 1. Schematic diagram of the turbine

Card 1/2 UDC: 621.438

L 44165-66
ACC NR: AP6030264

and basic dimensions of the turbine tested are shown in Fig. 1. Measurements were made of the total inlet pressure, static pressure in the radial clearance between the nozzle rings and the rotor, exit pressure, inlet and exit temperatures, and the shaft torque. Plots were obtained showing the relationship between the efficiency, the degree of reaction, and ε. The obtained results show that with a reduction in partial admission, the efficiency drops; at $\varepsilon = 0.5$, the efficiency is reduced by 10—15%. A further reduction in the degree of partial admission results in a sharp reduction in turbine efficiency. It was also found that the arrangement of nozzles in the inward-flow radial turbines with partial admission has no effect on turbine efficiency. Orig. art. has: 6 figures. [AS]

SUB CODE: 21/ SUBM DATE: 16Mar65/ ORIG REF: 003/ OTH REF: 001/ ATD PRESS: 5073

Card 2/2

ACC NR: AP6026693 SOURCE CODE: UR/0181/66/008/008/2415/2419

AUTHOR: Kovalevskaya, G. G.; Klotyn'sh, E. E.; Nasledov, D. N.; Slobodchikov, S. V.

ORG: Physico-Technical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: Certain electrical and photoelectrical properties of copper-alloyed InP

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2415-2419

TOPIC TAGS: Hall constant, photoconductivity, electron donor, relaxation time

ABSTRACT: Results are given of the electrical and photoelectric measurements made of copper-alloyed indium phosphide. Samples were prepared by both mechanical and chemical polishing. The Hall constant and electroconductivity were measured with a special semiautomatic instrument. The samples had electron concentrations of 10^{12} to 10^{14} cm^{-3} at 400°K. The temperature dependence of the Hall effect and of electroconductivity in copper-alloyed n-InP is plotted, as well as the spectral distribution of photoconductivity. The donor level was found to be 0.49 ± 0.03 ev for the E_{d_2} level, 0.17 ± 0.03 ev for the E_{d_1} level, and an activation level of 0.33 ev for E_a. The Fermi levels were found to be somewhat above the activation energy of 0.49 ev. The copper, acting as an acceptor in InP, empties both the shallow and deep donor levels. When $h\nu > E_g$, the

Card 1/2

KOVALEVSKAYA, I.L.

Selection of Shigella dysenteriae strains for vaccines and simple method of their preservation. Zhur.mikrobiol.epid. i immun. no.7: 19-24 Jl '55. (MLRA 8:9)

1. Iz Moskovskogo instituta epidemiologii, mikrobiologii i gigiyeny dir. M.G. Kashtanova, nauchnyy rukovoditel'--prof. V. A. Chernokhvostov)

(SHIGELLA, dysenteriae, for vaccines, selection of strains & preserv.)

(VACCINES AND VACCINATION, dysentery vaccine, selection of strains of Shigella for vaccines & preservation)

KOVALEVSKAYA, I.L.
USSR/Medicine - Immunology

FD-3306

Card 1/1 : Pub. 148-2/24

Author : Kovalevskaya, I. L.

Title : On the agar method of infecting animals in studying the immunogenicity of vaccines

Periodical : Zhur. mikro. epid. i immun. 10, 12-18 Oct 1955

Abstract : In experiments with Flexner dysentery and typhoid microorganisms, it was determined that these microorganisms multiplied for extended periods of time when injected intraperitoneally into white mice in a 0.4 percent misture of semiliquid agar. The agar did not suppress the elaboration of antibodies. Much smaller doses of microorganisms can be used if an agar mixture is employed rather than an alcohol solution. The results of the experiments are presented on 4 charts and 1 table. No references are cited.

Institution : Moscow Institute of Epidemiology, Microbiology, and Hygiene (Director- M. G. Kashtanova; Scientific Director - Prof. V. A. Chernokhvostov)

Submitted : April 8, 1955

Kovalevskaya, I.L.

USSR / Microbiology - Microbes Pathogenic to Humans and Animals F-4

Abs Jour: Referat. Zh. Biol., No. 1, 1958, 743

Author : Kovalevskaya, I.L., Morozova, E.S.

Title : Experimental Study of New Techniques in Preparing Alcoholic Vaccines Against Intestinal Infections. Communication 1. The Study of Alcoholic Vaccines from Flexner and Sonne Broth Cultures.

Orig Pub: Materialy po obmenu opytom. G. upr. in-tov vaktsin i syvorotok M-va zdravookhr. SSSR, 1956, 2/52, 131-144

Abstract: No abstract.

Card 1/1

USSR/Microbiology - Microorganisms Pathogenic to Humans and Animals. F-4

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43294

Author : Morozova, E.S., Kovalevskaya, I.L.
Inst : -
Title : An Experimental Study of a New Technique in Preparing Alcoholic Vaccines for Intestinal Infections. Report 2. A Study of Alcoholic Vaccines from Broth Cultures of Typhoid Fever and Paratyphus Microorganisms.

Orig Pub : Materialy po obmenu opyton Gl. upr. in-tov vaktsin in syvorotok M-va Zdravookhr. SSSR, 1956, 2-52, 145-155.

Abstract : Part 1-- see Ref Zhur - Biol., 1958, 743.

Card 1/1

KOVALEVSKAYA, I.L.

Ten years of experience with the alcoholic dysentery vaccine. Zhur. mikrobiol. epid. i immun. 31 no. 4:107-113 Ap '60. (MIRA 13:10)

1. Iz Moskovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(DYSENTERY)

CHERNOKHVOSTOVA, Ye.V.; NIKITINA, V.D.; KOVALEVSKAYA, I.L.; KHOLCHEV, N.V.

Properdin system and its role in infection and immunity. Part 3: Modified serological method for properdin titration. Zhur.mikrobiol. epid.i immun. 31 no.11:53-58 N '60. (MIRA 14:6)

1. Iz Moskovskogo instituta epidemiolgoii, mikrobiologii i gigiyeny.
(PROPERDIN)

KOVALEVSKAYA, I.L.; MOROZOVA, Ye.S.

Dry vaccines from the microbes of dysentery, typhoid fever and paratyphoid B. Trudy IEMG no.7:110-121'60. (MIRA 16:8)
(VACCINES) (SALMONELLA) (SHIGELLA)

BLANKOV, B.I.; KOVALEVSKAYA, I.L.; SHCHEGLOVA, Ye.S.

Lyophilization of alcohol dysenteric and typho-paratyphoid vaccines. Trudy IEMG no.7:122-135'60. (MIRA 16:8)
(VACCINES) (LYOPHILIZATION)

KOVALEVSKAYA, I.L.; KURNOSOVA, N.A.; SHCHEGLOVA, Ye.S.; SHIPOVA, Ye.P.

Immunological changes in children vaccinated with a dry alcoholic typhoid-paratyphoid B divaccine. Zhur. mikrobiol., epid. i immun. 33 no.1:46-50 Ja '62. (MIRA 15:3)

1. Iz Moskovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(VACCINES)
(TYPHOID FEVER—PREVENTIVE INOCULATION)
(PARATYPHOID FEVER)

KOVALEVSKAYA, I.L.; EPSHTEYN-LITVAK, R.V.; DMITRIYEVA-RAVIKOVICH, Ye.M.; KURNOSOVA, N.A.; SHCHEGLOVA, Ye.S.; FERDINAND, Ya.M.; KHOMIK, S.R.; MAKHLINOVSKIY, L.P.; PETROVA, S.S.; GOLUBOVA, Ya.Ye.; GONCHAROVA, Z.I.; SARMANEYEV, A.P.; SIZINTSEVA, V.P.; Prinimali uchastiye: MEDYUKHA, G.A.; OSOKINA, L.A.; RACHKOVSKAYA, Yu.K.; OSOVTSEVA, O.I.; DEDUSENKO, A.I.; KOVALEVA, P.S.; KARASHEVICH, V.P.; CHEBOTAREVICH, N.D.; CHIGIR', T.R.; SKUL'SKAYA, S.D.; KECHETZHIYEV, B.A.; DEMINA, A.S.; ZUS'MAN, R.T.; YESAKOV, P.I.; SYSOYEVA, Z.A.; ZINOV'YEVA, I.S.; FAL'CHEVSKAYA, A.A.; DENISOVA, B.D.; TIMOFEYEVA, R.G.; SYRKASOVA, A.V.; LYANTSMAN, S.G.

Reactivity and immunological and epidemiological effectiveness of alcoholic typhoid and paratyphoid fever vaccines in school children. Zhur. mikrobiol., epid. i immun. 33 no.7:72-77 Jl '62. (MIRA 17:1)

1. Iz Moskovskogo, Rostovskogo, Omskogo institutov epidemiologii i mikrobiologii, Stavropol'skogo instituta vaktsin i syvorotok i Ministerstva zdravookhraneniya RSFSR. 2. Rostovskiy institut epidemiologii i mikrobiologii (for Kovaleva). 3. Stavropol'skiy institut vaktsin i syvorotok (for Sysoyeva). 4. Kuybyshevskiy institut epidemiologii i mikrobiologii (for Zinov'yeva). 5. Saratovskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya (for Lyantsman).

FERDINAND, Ya.M.; MARGULIS, L.A.; BRAYNINA, R.A.; DMITRIYEVA-RAVIKOVICH, Ye.M.; KOVALEVSKAYA, I.L.; MYASNENKO, A.M.; IVANOVA, L.M.; TELESHEVSKAYA, E.A.; MARISOVA, A.P.; KOVALEVA, N.S.

Methodology of studying the epidemiological effectiveness of intestinal vaccines. Zhur. mikrobiol., epid. i immun. 33 no.11:17-22 N '62. (MIRA 17:1)

1. Iz Rostovskogo i Moskovskogo institutov epidemiologii Ministerstva zdravookhraneniya RSFSR i Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.

BRAYNINA, R.A.; MARGULIS, L.A.; KOVALEVSKAYA, I.L.; MITEREVA, V.G.; FERDINAND, Ya.M.; PUTRIN, N.G.; PAVLENKO, I.P.; TUPIKINA, V.A.; UDAVICHENKO, V.Ya.; KOBYZEVA, O.V.

Epidemiological effectiveness of dried alcoholic divaccine, enriched and nonenriched with Vi-antigens in school-age children and of Vi-antigens in preschool-age children in a typhoid fever outbreak. Zhur. mikrobiol.,epid.i immun. 40 no.12:18-22 D '63. (MIRA 17:12)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta epidemiologii i mikrobiologii.

FERDINAND, Ya.M. (Rostov-na-Donu); Prinimali uchastiye: MARISOVA, A.P.; BRAYNINA, R.A.; MARGULIS, L.A.; MYASNENKO, A.M.; KOVALEVSKAYA, I.L.; TELESHEVSKAYA, E.A.; SOBOLEVA, S.V.; KALININA, K.I.; KOVALEVA, N.S.; IVANOVA, M.K.; ARENDER, B.A.; KUCHERENKO, R.A.; MANATSKOVA, K.S.; OLEYNIKOVA, L.T.; KIBARDINA, Yu.A.; GRIGOR'YEVA, K.S.; SEMENIKHINA, L.G.; CHERNYKH E.I.; DOROFEYEVA, V.M.; SHEVCHENKO, Ye.N.; ABRAMOVA, O.K.; SKUL'SKAYA, S.D.; PETROVA, Z.I.; MAKHLINOVSKIY, L.I.; KUZ'MINA, A.I.; AL'TMAN, R.Sh.; MARDERER, R.G.; YENGALYCHEVSKAYA, L.N.; CHIRKOVA, M.N.; TERESHCHENKO, N.I.; SHELKOVNIKOVA, M.A.; PROKOPENKO, V.V.; BEKLEMESHEVA, Ye.Q.; BARANOVA, T.V.

Effectiveness of specific prophylaxis with alcohol divaccine against typhoid and paratyphoid B fever in school-age children. Zhur. mikrobiol., epid. i immun. 41 no.1:23-27 Ja '64.
(MIRA 18:2)

BRAYNINA, R.A.; MARGULIS, L.A.; KOVALEVSKAYA, I.L.; CHERNYSHEVA, N.A.; PUTRIN, N.G.

Specific prevention of typhoid fever in areas with increased morbidity. Zhur. mikrobiol., epid. i immun. 42 no.7:65-68 Jl '65. (MIRA 18:11)

1. Moskovskiy institut epidemiologii i mikrobiologii i Ministerstvo zdravookhraneniya Kabardino-Balkarskoy ASSR.

KOVALEVSKAYA, I.Ya.

Biology of flowering and fruiting of tomatoes under conditions prevailing in the south. Uch.zap.KHGU 46:121-133 '53.
(MIRA 11:11)

1. Kafedra darvinizma i genetiki Khar'kovskogo gosudarstvennogo universiteta.
(Tomatoes) (Fertilization of plants) (Crops and climate)

KALININ, A.; KOVALEVSKAYA, L.

Rotation of Crops

Adopting grass and field crop rotation. Kolk, proizv., 12, No. 1, 1952.

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

KOVALEVSKAYA, L.A.

Power dynamics of a moving fish. Trudy NGI 7:161-165 '56.
(Fishes) (Fluid mechanics) (MLRA 9:9)

SOV/124-58-1-1237

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 154 (USSR)

AUTHORS: Edel', Yu. U., Kovalevskaya, M. A.

TITLE: Vibration Tests of a Pelton-wheel Runner (Vibratsionnyye ispytaniya rabochego kolesa kovshevoy turbiny)

PERIODICAL: V sb.: Gidroturbostroyeniye. Nr 4. Moscow-Leningrad, Mashgiz, 1957, pp 254-258

ABSTRACT: Natural vibrations of a bucket were generated by means of the impact of a 1-kg hammer upon one of the longitudinal ribs on the back side of the bucket in a plane perpendicular to the axis of the runner.

From the résumé

Card 1/1

ARONSON, A.Ya., kand. tekhn. nauk; KOVALENKO, V.A., inzh.; KOVALEVSKAYA, M.A., inzh.

Study of the vibration of the runner of a turbine of the Bratsk Hydroelectric Power Station. [Trudy] LMZ no.10: 161-168 '64. (MIRA 18:12)

KOVALEVSKAYA, M.F. [Kovalevs'ka, M.F.]

Foliar feeding of annual flowering plants. Visnyk Bot. sada AN URSR no. 2:66-70 '60. (MIRA 14:4)
(Floriculture)

KOVALEVSKAYA, M.F. [Kovalevs'ka, M.F.]

Investigating cultivation practices for preventing the premature wilting of gladioluses. Trudy Bot. sada AN URSR 7:53-58 '60.
(MIRA 14:4)

(Gladiolus)

KOVALEVSKAYA, M.M.; KUL'MAN, R.K.; BABENKO, M.S.

Methods for determining yields of products from the carbonization of coal. Koks i khim. no.1:43-46 '61. (MIRA 14:1)

1. Stalinskiy koksokhimicheskiy zavod.
(Coke industry—By-products)

MIROSHNICHENKO, A.M.; SHTROMBERG, B.I.; KRIVOKON', Yu.G.; SHINKAREVA, T.V.; DRUY, G.N.; DVUZHIL'NAYA, N.M.; GUTMAN, L.M.; KUL'MAN, R.K.; KOVALEVSKAYA, M.M.

Coking of a charge containing 40% gas coals and blast-furnace smelting with coke obtained by this method. Koks i khim. no.2:20-24 '63. (MIRA 16:2)

1. Ukrainskiy uglekhimicheskiy institut (for Miroshnichenko, Shtromberg, Krivokon', Shinkareva, Druy). 2. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Dvuzhil'naya). 3. Donetskiy koksokhimicheskiy zavod (for Gutman, Kul'man, Kovalevskaya).

(Coke) (Metallurgical furnaces)

KUZ'MENKOV, A.R.; KOVALEVSKAYA, M.M.

Work of the Central Coal and Coke Laboratory in the Donetsk Coke and Coal Chemicals Plant performed during 1962. Koks i khim. no. 10:58 '62. (MIRA 16:9)

1. Donetskiy koksokhimicheskiy zavod.
(Donetsk--Coke industry)

M

Country : USSR
Category: Cultivated Plants. Fodders.

Abs Jour: RZhBiol., No 11, 1958, No 48995

Author : Kuchumov, P.V.; Kovalevskaya, N.I.
Inst : Ukrainian Inst. of Plant Cultivation, Selection and Genetics.
Title : Sudan Grass and Sorghum-Sudan Grass Hybrid With Irrigation

Orig Pub: Nauka i peredov. opyt v s. kh., 1957, No 7, 34

Abstract: Ukrainian Institute of Plant Growing, Selection and of Genetics tried Sudan grass and Sorghum-Sudan Grass hybrid No. 5 in 1955 and in 1956 near Kherson. Hybrid No. 5 was obtained by crossing Sudan grass No. 876 with sugar sorghum Ranniy yantar'. In both

Card : 1/2

M-91

years 3 mowings and aftermath were secured each year. The average yield of the green bulk of Sudan grass for two years with 3 mowings a year was 172 cwt/ha. The average hay yield was 172 cwt/ha. The average yield of hybrid No. 5 - 610 cwt/ha. of green bulk or 195 cwt/ha. of hay. --
N.I. Popova

Card : 2/2

USSR / General Biology. Genetics. Plant Genetics. B-3

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 61944

Authors : Kuchumov, P. V.; Kovalevskaya, N. I.
Inst : University of Khar'kov
Title : Directed Raising of Spring Wheat Hybrides

Orig Pub : V. sb.: Vopr. metodiki selektsii pshenitsy i kukurusy, Khar'kov. Un-t, 1957, 63-71

Abstract : Experiments were carried out on raising hybrides of hard-shelled and bearded wheat in rich and poor conditions. As F_1 wheat was raised in rich conditions, traits of hard-shelled wheat (wider, unbending ears) were predominant, whereas when it was raised in poor conditions, bearded wheat characteristics prevailed (narrow, breakable ears). In F_2, liberation of parent varieties was clearly noticeable. Here, 78.4 percent of new wheat forms belonged to the hard-shelled wheat variety type, if conditions were favorable. Yet, if raising

Card 1/2

KUCHOMOV, P.F.; KOVALEVSKAYA, N.I. [Kovalevs'ka, N.I.]; SOLOMAKHA, M.N. [Solomakha, M.M.]

Works on the selection of sorghum and Sudan grass hybrids.
Trudy Inst. gen. i sel. AN URSR 5:3-10 '58 (MIRA 11:9)
(Sorghum) (Sudan grass)

KOVALEVSKAYA, N.I., zaslyzhennyy vrach Yakutskoy ASSR.

Treating pneumonia in hypotrophic children as illustrated by material from the pediatric section of a republic hospital in 1957. Vop.okh. mat. i det. 3 no.6:66-69 N-D '58 (MIRA 11:12)

1. Iz Yakutskoy respublikanskoy bol'nitsy (glavnyy vrach G.A. Bezhayev).
(PNEUMONIA)

KOVALEVSKAYA, M. K.

KOVALEVSKAYA, M. K.: "The effect of various types of feed on the growth of young blue foxes and the quality of the fur." Leningrad Veterinary Inst, Min Higher Education. Sci Res Inst of Agriculture of the Far North. Leningrad, 1956. (Dissertation for the Degree of Candidate in Agricultural Science.)

Knizhnaya letopis', No. 30, 1956. Moscow.

USSR / Farm Animals. Wild Animals. Q-4

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 45270

Author : Kovalevskaya, N. K.
Inst : Not given
Title : The Effect of Different Diets on the Development of The Growing Blue Foxes.

Orig Pub : Karakulevodstvo i zverovodstvo, 1957, No. 2, 30-34.

Abstract : It was found that the reduction of meat and fish feeds to 48% of the total caloricity of the rations, i.e. by 20% in relation to the accepted standards, if the meat and fish components of the rations were predominantly fresh, was not impairing the fur quality of Arctic foxes. The reduction of the total caloric value of the rations by 20%, as compared with the accepted standards, was inhibiting the growth of whelps and had an adverse effect on the quality of their furs. The increase of the caloricity of the ration at the

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USSR/Farm Animals - Fur Animals Q

Abs Jour : Ref Zhur - Biol., No 15, 1958, 69392

Author : Kovalevskaya, N.K.

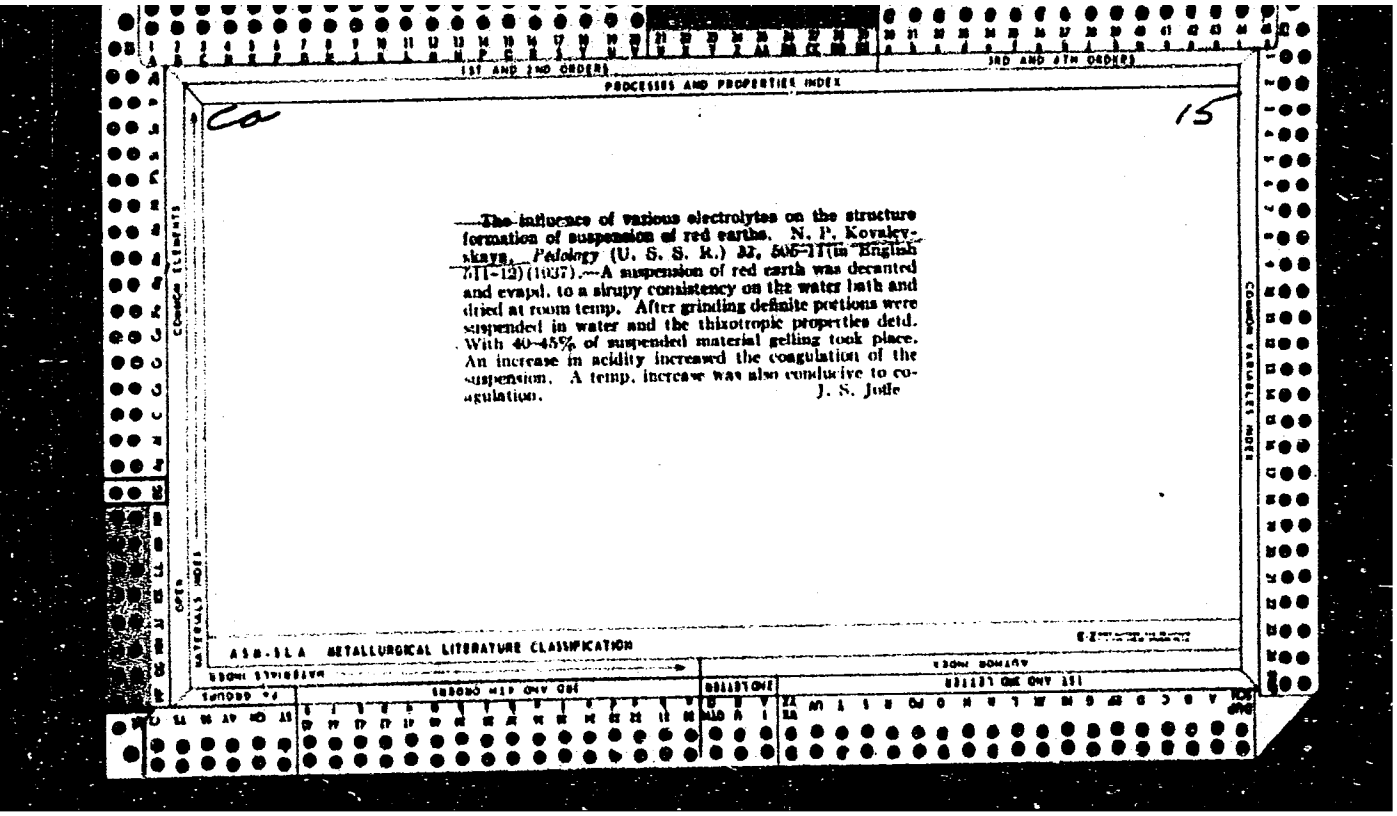
Inst : Scientific Research Institute of Agriculture of the Extreme North

Title : Feeding of Arctic Foxes with Jerked Seal Flesh

Orig Pub : Byul. nauchno-tekhn. inform. N.-i. in-t s. kh. Krayn. Severa, 1957, No 3, 12-14

Abstract : The feeding of fresh seal flesh to carnivorous fur animals in the Extreme North is possible but during a short period. It is therefore recommended to feed it in a jerked form.

Card 1/1



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

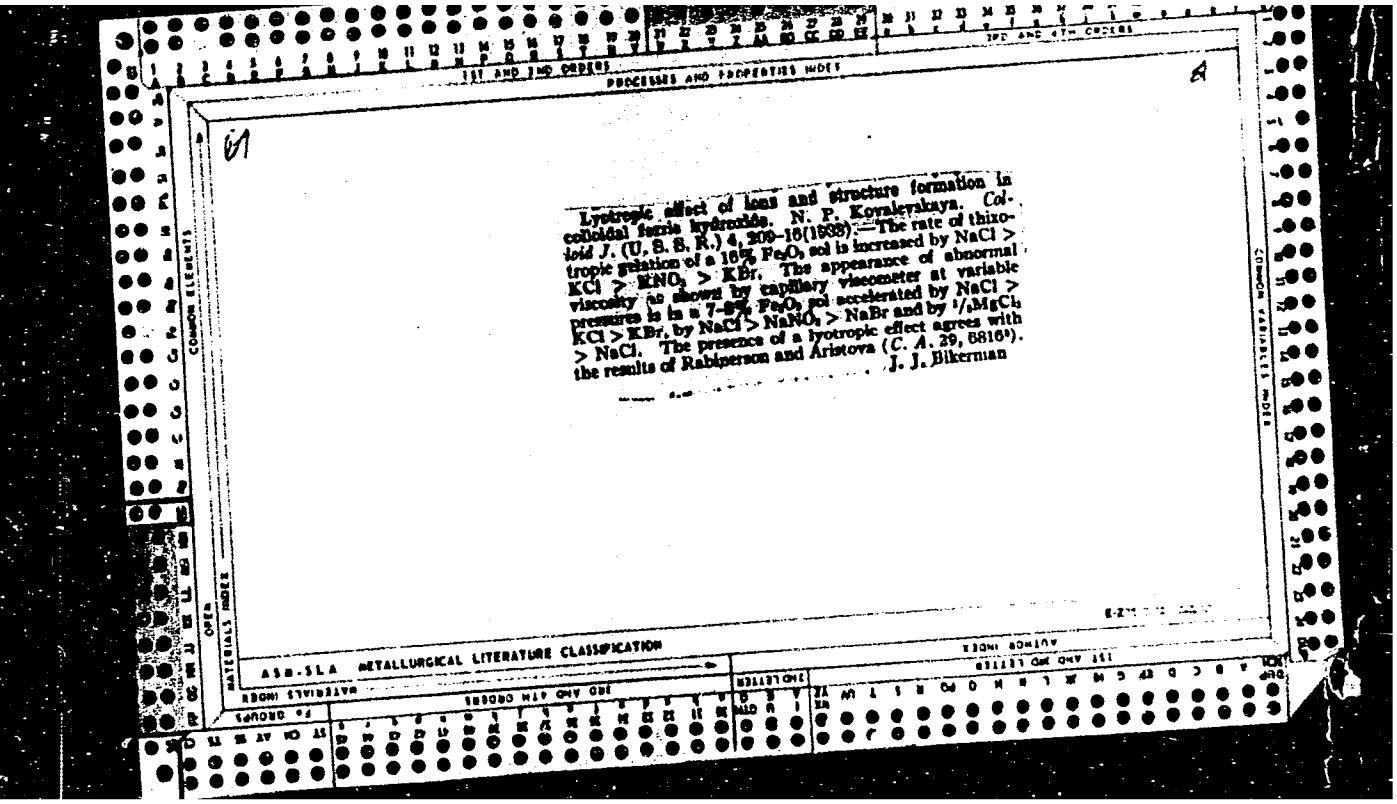
3RD AND 4TH ORDERS

Ca

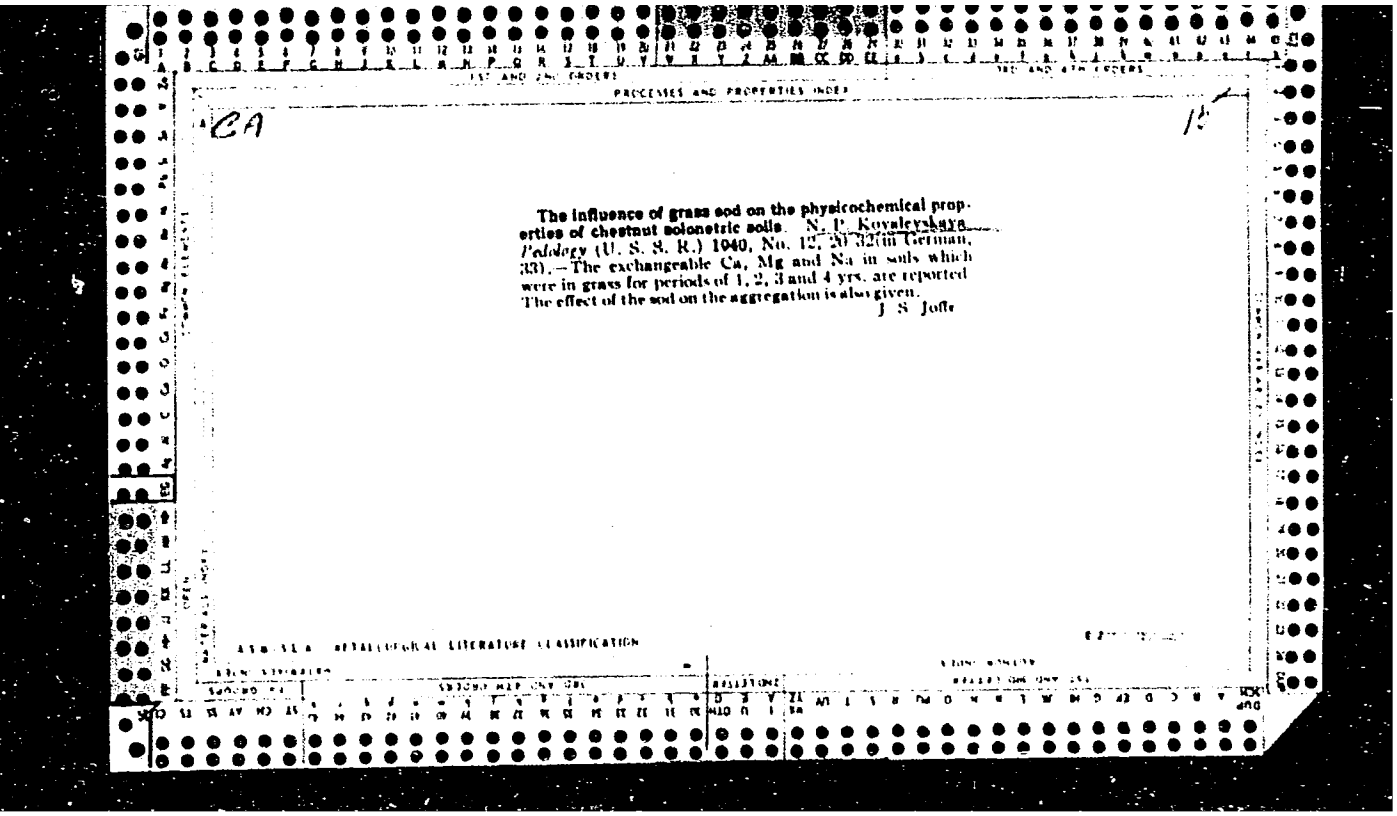
15

The influence of various electrolytes on the structure formation of suspension of red earths. N. P. Kovalevskaya. *Pedology* (U. S. S. R.) **32**, 505–11(in English 511–12)(1937).—A suspension of red earth was decanted and evapd. to a slurpy consistency on the water bath and dried at room temp. After grinding definite portions were suspended in water and the thixotropic properties detd. With 40–45% of suspended material gelling took place. An increase in acidity increased the coagulation of the suspension. A temp. increase was also conducive to coagulation. J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Lyotropic effect of ions and structure formation in colloidal ferric hydroxide. N. P. Kovalevskaya. *Colloid J.* (U. S. S. R.) 4, 209–16(1938).—The rate of thixotropic gelation of a 16% Fe_2O_3 sol is increased by NaCl > KCl > KNO_3 > KBr. The appearance of abnormal viscosity as shown by capillary viscometer at variable pressures is in a 7–8% Fe_2O_3 sol accelerated by NaCl > KCl > KBr, by NaCl > $NaNO_3$ > NaBr and by $^1/_2MgCl_2$ > NaCl. The presence of a lyotropic effect agrees with the results of Rabinerson and Aristova (*C. A.* 29, 6816⁹).
J. J. Bikerman



PROCESSES AND PROPERTIES INDEX

CA

12

The influence of grass sod on the physicochemical properties of chestnut solonetzic soils. N. P. Kovalevskaya. *Pedology* (U. S. S. R.) 1940, No. 12, 31-32(in German, 33).—The exchangeable Ca, Mg and Na in soils which were in grass for periods of 1, 2, 3 and 4 yrs. are reported. The effect of the sod on the aggregation is also given.

J. S. Joffe

KOVALEVSKAYA,-N. P.

Kovalevskaya, N. P. - "Peat and peat-manure mixtures and their introduction into the soil," In symposium: Torf v nar. khoz-ve Belorus. SSR, Minsk, 1948, p. 174-95

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

KOVALEVSKAYA, N.P.

Plowing. Zemledelie 26 no.8:36-37 Ag '64.
(MIRA 17:11)

1. Glavnyy agronom Pavlovskogo proizvodstvennogo upravleniya, Krasnodarskogo kraya.

KOVALEVSKAYA, N. S.

"An Investigation of the Calorific Properties of Aqueous Salt Solutions." Cand Tech Sci, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov, 24 Dec 54. (VM, 14 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

KOVALEVSKAYA, N.V.

Materials on the embryonic and postembryonic development of flying fishes of the genus Exocoetus (Pisces, Exocoetidae). Trudy Inst. okean. 73:204-223 '64. (MIRA 17:6)

KOVAL'SKAYA, NATAL'YA YAKOVLEVNA

KOVAL'SKAYA, Natal'ya Yakovlevna; GADZHI-ZADE, Abduragim Mamediyaevich; ALIYEV,G.B., redaktor; MARGOLIN,Ya.A., redaktor; KOSHELEVA,S.M., tekhnicheskiy redaktor

[Baku; a sketch of its economy and geography] Baku; ekonomiko-geograficheskii ocherk. Moskva, Gos.izd-vo geogr. lit-ry, 1955. 76 p. (MIRA 9:1)

(Baku)

KOVALEVSKAYA, P.Ya.

The problem of "absorbing" vegetative hybridization of annual seed plants. Uch.zap.KHGU 46:5-26. '53. (MIRA 11:11)

1. Kafedra darvinizma i genetiki Khar'kovskogo gosudarstvennogo universiteta.

(Grafting) (Nightshade)

SOV/79-29-2-7/71

AUTHORS: Temnikova, T. I., Kovalevskaya, R. N., Matveyenkova, N. I., Sklyarova, V. V.

TITLE: Investigation in the Field of Cyclic Acetals of Oxy-carbonyl Compounds (Issledovaniye v oblasti tsiklicheskikh atsetaley oksikarbonil'nykh soyedineniy). IX. Ethyl Lactolides and Diethyl Ketals of Ethyl-benzoyl Carbinol and Propyl-benzoyl Carbinol (IX. Etillaktolidy i dietilketali etilbenzoilkarbinola i propilbenzoilkarbinola)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 381-386 (USSR)

ABSTRACT: Investigation of ethyl lactolides of the α-keto alcohols has been hitherto very scarce. Following up earlier papers by Temnikov and collaborators, as well as of other chemists, the present paper describes the synthesis of two new ethyl lactolides of the secondary aliphatic-aromatic α-keto alcohols, ethyl-benzoyl carbinol and propyl-benzoyl carbinol. On carrying out the reaction in the usual way, i.e. by the action of a suspension of sodium ethylate in absolute ether, resinification occurred:

Investigation in the Field of Cyclic Acetals of Oxy-carbonyl Compounds. IX. Ethyl Lactolides and Diethyl Ketals of Ethyl-benzoyl Carbinol and Propyl-benzoyl Carbinol

$$C_6H_5\text{-}\underset{\underset{O}{\|}}{C}\text{-}CHBr\text{-}R \xrightarrow{C_2H_5ONa} C_6H_5\text{-}\underset{OC_2H_5}{\overset{\overset{O}{\diagup\diagdown}}{C}}\text{-}CH\text{-}R$$

where $R=C_2H_5$ (II) or C_3H_7

Both ethyl lactolides (yield 10-15%) are very unstable and immediately yield ethyl-benzoyl carbinol with water in an alkaline medium. On the action of sodium ethylate upon the same bromo-ketones in absolute alcohol resinification is insignificant; still, only with α-bromo-butyl-phenyl ketone the separation of the corresponding lactolide (II, $R=C_3H_7$) was successful. On standing, however, either diethyl ketals of the corresponding α-keto alcohols (III) or further transformation products are formed. Thus, on the action of sodium ethylate on α-bromo-propyl-phenyl ketone not diethyl ketal is formed but a lactolide of ethyl-benzoyl carbinol (IV, $R=C_2H_5$). Diethyl ketals (III, $R=C_2H_5$ or n.-C_3H_7) are obtained at low temperature only. In analytically

Investigation in the Field of Cyclic Acetals of Oxy-carbonyl Compounds. IX. Ethyl Lactolides and Diethyl Ketals of Ethyl-benzoyl Carbinol and Propyl-benzoyl Carbinol

pure state only diethyl ketal of ethyl-benzoyl carbinol was obtained, which is likewise very unstable. Ethyl lactolides are much more unstable than methyl lactolides of the same keto alcohols. On the action of $ZnCl_2$ on the ethyl lactolide of propyl-benzoyl carbinol, a dimerization takes place in the cyclodiethyl dilactolide. There are 10 references, 6 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: December 31, 1958

5.3831

5(3)

67919

SOV/20-129-5-29/64

AUTHORS: Tinyakova, Ye. I., Dolgoplosk, B. A., Corresponding Member, AS USSR, Zhuravleva, T. G., Kovalevskaya, R. N., Kuren'gina, T. N.

TITLE: Polymerization of Dienes and Olefins Under the Action of Cobalt Oxides and Diethyl Aluminum Halides, and a Study of the Structure of Polymers

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 5, pp 1068 - 1070 (USSR)

ABSTRACT: The authors supply data concerning the polymerization of dienes: butadiene, isoprene, pentadiene-1-3, and 2-3-dimethyl butadiene-1-3, as well as olefins: α-butene, styrene and α-methyl styrene in the presence of cobalt oxides (Co_2O_3-Co_3O_4, Ref 6), and diethyl aluminum chloride or diethyl aluminum bromide. The catalyst contained either 71-73% or 6.7% of Co. The latter content refers to cobalt oxide on aluminosilicate. Polymerization was carried out between 0 and 40° in different ratios between cobalt oxide and diethyl aluminum halide (concentration 0.5-2.5 of weight per

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cent referred to the monomer). Oxygen and humidity were kept off. In the polymers produced the content of 1-2-, 3-4- and 1-4-cis- and trans-members was determined by IR-spectroscopic measurement (spectra taken by N. V. Mikhaylova). The unsaturation was determined on the basis of the reaction with iodine chloride (Ref 7). The vitrification temperature was determined according to A. I. Marey (Ref 8). Table 1 gives the results along with the molecular weight. Under mentioned conditions butadiene is rapidly polymerized already at 0°. Cobalt oxide on aluminosilicate retards polymerization to some extent. The polymers obtained exhibit a degree of unsaturation which is 97.5-99% of theory. This points to the absence of secondary reactions with the double bonds of the polymer. Butadiene polymers have a fairly regular microstructure. On cobalt oxide without carrier the amount of the 1-2-members was 5-8%, the total amount of the 1-4-members was 95-92%, with the most part being in the 1-4-cis-position. By the use of cobalt oxide on

aluminosilicate, the amount of the 1-2-members in the chain rises. Due to the high content of 1-4-members this polybutadiene has a low vitrification temperature (down to -115°). Isoprene is polymerized more slowly and at higher temperatures (at about 40°) as compared to butadiene. Here too, the process runs more slowly with the use of aluminosilicate as carrier. It may be observed from table 1 that both the microstructure of polyisoprene and the vitrification temperature are not changed appreciably by the concentration of the aluminum-organic compound nor by the ratio between cobalt oxide and aluminum diethyl halide. Fairly large amounts (17-18%) of isopropenyl side-groups increase the vitrification temperature of the polymer considerably. The total content of 1-4-members is about 80%; their major part is in the trans-position. A further strong retardation of polymerization takes place in the transition to higher dienes. α-butene is not quickly polymerized at room temperature and does form no more than a caoutchouc-like substance. Neither styrene nor α-methyl styrene are polymerized by the procedure de-

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Polymerization of Dienes and Olefins Under the Action of Cobalt Oxides and Diethyl Aluminum Halides, and a Study of the Structure of Polymers SOV/20-129-5-29/64

scribed. Finally the authors state that no gaseous hydrocarbon products are formed in the interaction between cobalt oxides and an aluminum-organic compound at 0 to 80°. There are 1 table and 9 references, 5 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High-molecular Compounds of the Academy of Sciences, USSR)

SUBMITTED: September 5, 1959

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SOV/20-129-6-30/69

AUTHORS: Tinyakova, Ye. I., Dolgoplosk, B. A., Corresponding Member, AS USSR, Kovalevskaya, R. N., Zhuravleva, T. G.

TITLE: Polymerization and Copolymerization of Dienes and Olefines on a Chromium Oxide Catalyst

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 6, pp 1306 - 1308 (USSR)

ABSTRACT: The authors (Tinyakova and Dolgoplosk) proved in a previous paper (Ref 1) that polymerization of butadiene and isoprene on a chromium oxide catalyst yields crystalline polymers containing only 1 - 4 links in trans position in the chain. Polymers of pentadiene-1 — 3, of α-butene, as well as a copolymer of dienes and olefines which are formed by polymerization on the above catalyst are described in the paper under review. Polymerization and copolymerization were carried out under conditions equal to those of the previous experiments (Ref 1). Contrary to butadiene and isoprene, pentadiene-1 — 3 yields an amorphous polymer, soluble in benzene, specific weight = 0.89. Its vitrification temperature is -60°, its unsaturation 97% of the

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theoretical value. Fragments connected in position 3-4 are missing in its chain. Most of the 1 — 4 links are deposited in a trans position. On a chromium oxide catalyst, α-butene yields a crystalline fibrous polymer partially soluble in hot toluene and boiling diethyl ether (about 30%); its specific weight is 0.96. Figure 1 shows the dispersion curves of X-rays on poly-α-butene between 20 and 150°. A distinct maximum proves the crystalline structure of the polymer. A. N. Andreyeva carried out the radioscopic investigation by means of the X-ray apparatus of type URS-50. The crystals melt at about 140°. Modification I exists up to 40°, modification II between 60 and 140°. Both modifications exist at about 50°. In the case of natural rubber and gutta-percha, the vitrification temperature of polymers with cis and trans configurations of the links is practically equal (-71°). Vitrification at -110° was to be expected in the case of transpolybutadiene. Table 1 shows that the polymer loses its crystallizing power due to copolymerization of butadiene or isoprene with other compounds. The polymer becomes highly elastic. These transformations are due to the destruction of the trans-1 --4 structure. Amorphous elastic products are formed by copolymeriza-

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KOVALEVSKAYA, R. N., KURENGINA, T. N., TINYAKOVA, E. I., DOLGOPLOSK, B. A. and ZHURAVLEVA, T. G. (USSR)

Sintez tsis- i trans-polimerov dienov nad okisnymi katalizatorami i izuchenie ikh struktury i svoistv
The synthesis of cis- and trans-diene polymers on oxide catalysts and a study of their structure and properties
IUPAC S I:13-20

report presented at the Intl. Symposium on Macromolecular Chemistry, Moscow, 14-18 June 60.

S/190/62/004/009/006/014
B101/B144

AUTHORS: Kovalevskaya, R. N., Tinyakova, Ye. I., Dolgoplosk, B. A.

TITLE: A study of heterogeneous catalytic systems on the basis of cobalt oxides or salts and organoaluminum compounds

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 9, 1962, 1338-1344

TEXT: An examination of the polymerization of butadiene or isoprene by catalytic systems consisting, on the one hand, of $CoCl_2$, $CoBr_2$, $CoSO_4$, CoO, on the other hand, of $Al(C_2H_5)_2Cl$ or $Al(C_2H_5)_3$ in benzene showed the following results: (1) The reaction takes place at room temperature. Polybutadiene contains up to 90%, and polyisoprene up to 65 - 70% cis-1,4 bonds. (2) Redox reactions do not occur between $(C_2H_5)_2AlCl$ on the one hand and $CoCl_2$, CoO, Co_3O_4 on the other hand. The amount of $(C_2H_5)_2AlCl$ in the mixture does not change, and gaseous compounds do not form between 20 and 80°C. The complex which initiates the catalysis has the composition $CoCl_2 \cdot AlR_2Hal$ or $CoO \cdot AlR_2Hal$. (3) The system $(C_2H_5)_3Al$ + CoO is inactive.

The system $(C_2H_5)_3Al + CoCl_2$ is active only in so far as diethyl aluminum chloride is formed. Without monomers, the reaction followed the equation $2Al(C_2H_5)_3 + CoCl_2 \rightarrow 2Al(C_2H_5)_2Cl + Co + mC_2H_6 + nC_2H_4$, where $m + n = 2$. Since the amount of resulting hydrocarbons is not affected by the solvents gasoline, cumene, and α-methyl styrene, the reaction of $(C_2H_5)_3Al$ with $CoCl_2$ does not pass through radical processes. There are 4 tables.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR (Institute of High-molecular Compounds AS USSR)

SUBMITTED: May 22, 1961

KOVALEVSKAYA, R.N.; TINYAKOVA, Ye.I.; DOLGOPLOSK, B.A.

Study of heterogeneous catalyst systems based on cobalt oxides and salts, and organoaluminum compounds. Vysokom. soed. 4 no.9:1338-1344 S '62. (MIRA 15:11)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Polymerization) (Cobalt catalysts)
(Aluminum organic compounds)

TEMNIKOVA, T.I.; KOVALEVSKAYA, R.N.

Interaction of metallic derivatives of compounds having a labile hydrogen atom with α-oxyhalides. Part 7: Reaction of diphenylacetonitrile with 1-bromo-2,3-epoxy-3-methylbutane and epibromhydrin. Zhur. ob. khim. 35 no.5:798-800 My '65. (MIRA 18:6)

1. Leningradskiy gosudarstvennyy universitet.

TEMNIKOVA, T.I.; KOVALEVSKAYA, R.N.

Reaction of α-bromodeoxybenzoin with Na-cyanoacetic and Na-methylcyanoacetic esters. Zhur.org.khim. 1 no.3:612 Mr '65. (MIRA 18:4)

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