"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.I., inzh.

Devices for measuring temperature at the contacts of current conducting components. Elek.sta. 32 no.8:85-86 Ag '61. (MIRA 14:10)

(Temperature--Measurement)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

SHUNIN, T.G.; KOROLEV, A.I.*

Reducing idle time for open-hearth furnaces caused by cold or hot repairs. Metallurg no.5:14-17 My '56. (MIRA 9:9)

1.Nachal'nik tsekha remonta promyshlennykh pechey Magnitogorskogo metallurgicheskogo kombinata (for Shunin).2.Zamestitel' nachal'nika tsekha remonta promyshlennykh pechey Magnitogorskogo metallurgicheskogo kombinata (for Korolev).
(Magnitogorsk--Open-hearth furnaces--Repairing)

* Aleksandr Ivanovich KOROLEV

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

137-58-6-11728

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 73 (USSR)

AUTHOR: * Korolev, A.I.

TITLE: Improving Open-hearth Furnace Design (Uluchsheniye konstruktsiy martenovskikh pechey)

PERIODICAL: Tr. Nauchno-tekhn. o-va chernoy metallurgii, 1957, Vol 18, pp 199-207

ABSTRACT: Enlargement of the batch capacity of the open-hearth furnaces of the Magnitogorsk Metallurgical Kombinat was accomplished by lengthening and widening the bath, with simultaneous reduction in depth. The service life of the front wall was increased by 200 heats by reducing its angle to the horizontal, installing heat exchangers in its upper portion and employing iron plating. Reduction of the slope of the rear wall and increase in its thickness increased its life to levels corresponding to that of the roof. The main roofs were made smooth, and the number of hangers was increased. All this increased service life to up to ~500 heats, in the case of large furnaces. Injectors were mounted in the furnaces; their operation was coordinated with the delivery of liquid fuel for carburetting.

Card 1/2

* Aleksandr Ivanovich KOROLEV

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137-58-6-11728

Improving Open-hearth Furnace Design

Inadequate port size is the cause of frequent overheating and short service life; this has made itself felt recently in particular in connection with the increase in thermal stress. The use of forsterite did not afford favorable results in view of the considerable clogging of the ports by flue dust.

M.M.

1. Open hearth furnaces--Design 2. Open hearth furnaces--Equipment

Card 2/2

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.I.; KOKSHAROV, V.D.

Use of unfired magnesite-chromite refractories for the laying of slag-pocket arches in open-hearth furnaces. Stal' 22 no.11:999-1000 N '62. (MIRA 15:11)

1. Magnitogorskiy gornometallurgicheskiy institut i Vostochnyy institut ogneuporov.
(Open-hearth furnaces--Design and construction)
(Refractory materials)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

VORNOV, F.D.; BIGEYEV, A.M.; DIKSHTEYN, Ye.I.; TRIFONOV, A.G.; KAZAKOV, A.I.; KOROLEV, A.I.; BORODIN, G.L.; ANTIPIN, V.G.; KUTAKOV, A.M.; KOZHANOV, M.G.; GAZHUR, V.F.

Investigating the operation of 400-ton open-hearth furnaces following redesign. Stal' 22 no.10:904-907 O'62. (MIRA 15:10)

1. Magnitogorskiy metallurgicheskiy kombinat i Magnitogorskiy gorno-metallurgicheskiy institut.
(Open-hearth furnaces)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.I., kand.tekhn.nauk

Statistical analysis of the quality of neutral relays in their manufacture. Sbor. trud. LIIZHT no.205:67-71 '63. (MIRA 18:1)

Reliability of an electric switch and signal interlocking system. Ibid.:72-78

Synthesis of the reliability of electric automatic control networks. Ibid.:79-83

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.I., kand.tekhn.nauk; MIRZOYEV, G.K.; SLYUDIKOV, L.D., kand.tekhn.nauk

Investigating the effect of the front suspension and steering wheel drive on the wear of motor-vehicle tires. Avt.prom. 31 no.5:28-31 My '65. (MIRA 18:5)

1. Moskovskiy avtomekhanicheskiy institut i Moskovskiy shinnyy zavod.

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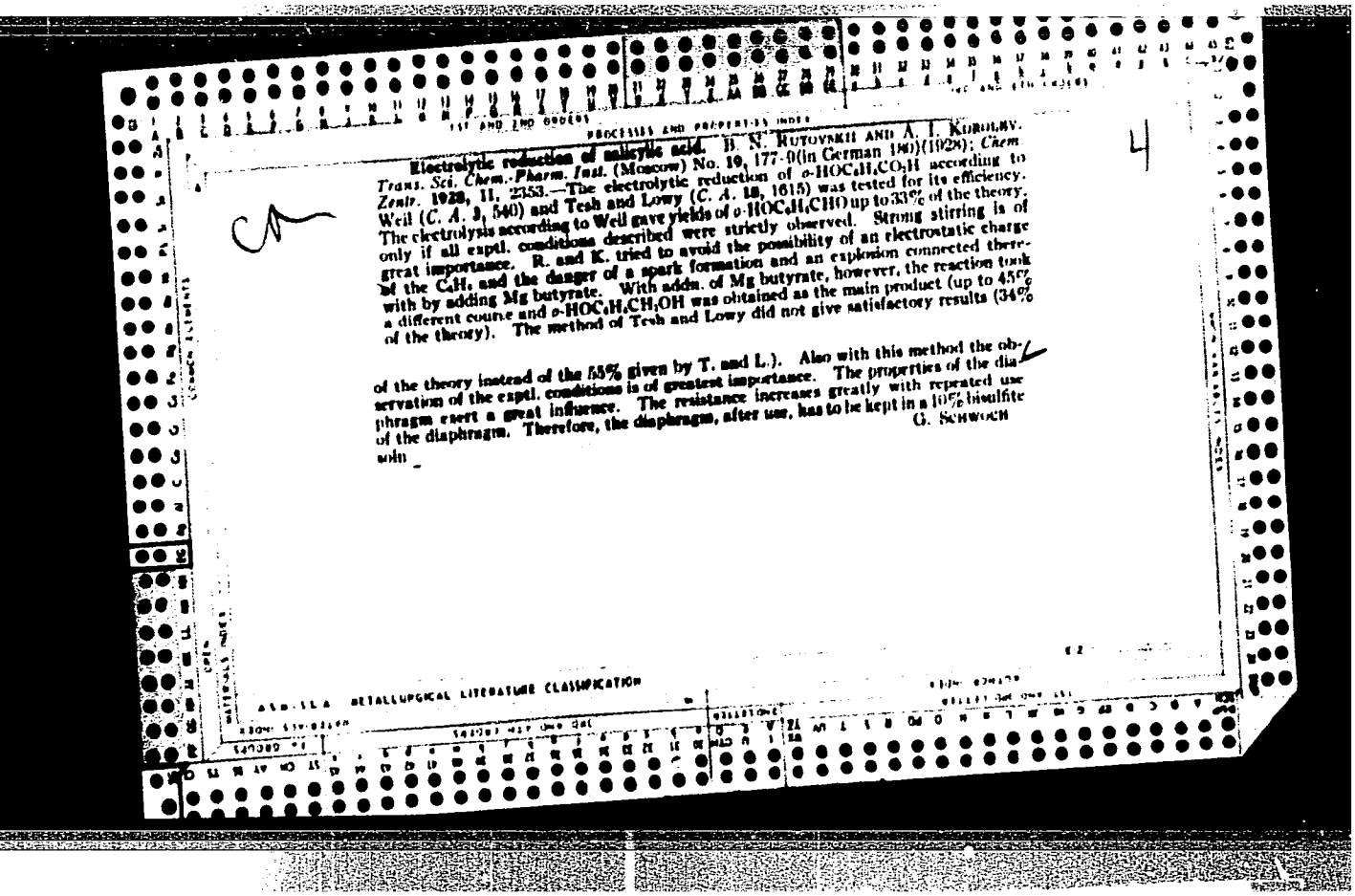

Electrolytic reduction of salicylic acid. B. N. Rutovskii and A. I. Korolev. *Trans. Sci. Chem.-Pharm. Inst.* (Moscow) No. 10, 177-9(in German 180)(1928); *Chem. Zentr.* 1928, II, 2353.—The electrolytic reduction of *o*-$HOC_6H_4CO_2H$ according to Weil (*C. A.* 3, 540) and Tesh and Lowy (*C. A.* 18, 1615) was tested for its efficiency. The electrolysis according to Weil gave yields of *o*-HOC_6H_4CHO up to 33% of the theory, only if all exptl. conditions described were strictly observed. Strong stirring is of great importance. R. and K. tried to avoid the possibility of an electrostatic charge of the C_6H_6 and the danger of a spark formation and an explosion connected therewith by adding Mg butyrate. With addn. of Mg butyrate, however, the reaction took a different course and *o*-$HOC_6H_4CH_2OH$ was obtained as the main product (up to 45% of the theory). The method of Tesh and Lowy did not give satisfactory results (34% of the theory instead of the 55% given by T. and L.). Also with this method the observation of the exptl. conditions is of greatest importance. The properties of the diaphragm exert a great influence. The resistance increases greatly with repeated use of the diaphragm. Therefore, the diaphragm, after use, has to be kept in a 10% bisulfite soln. G. Schwoch

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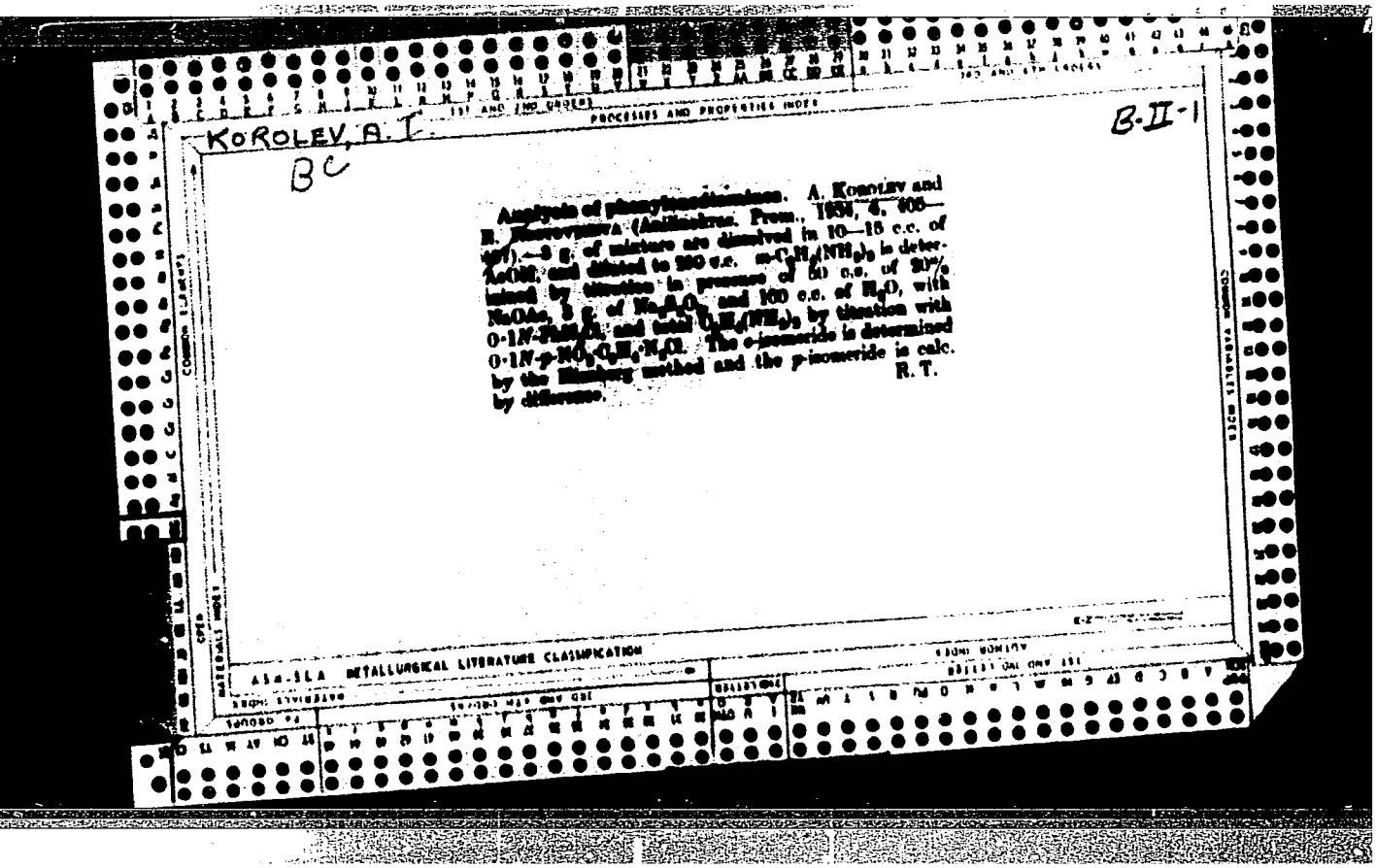

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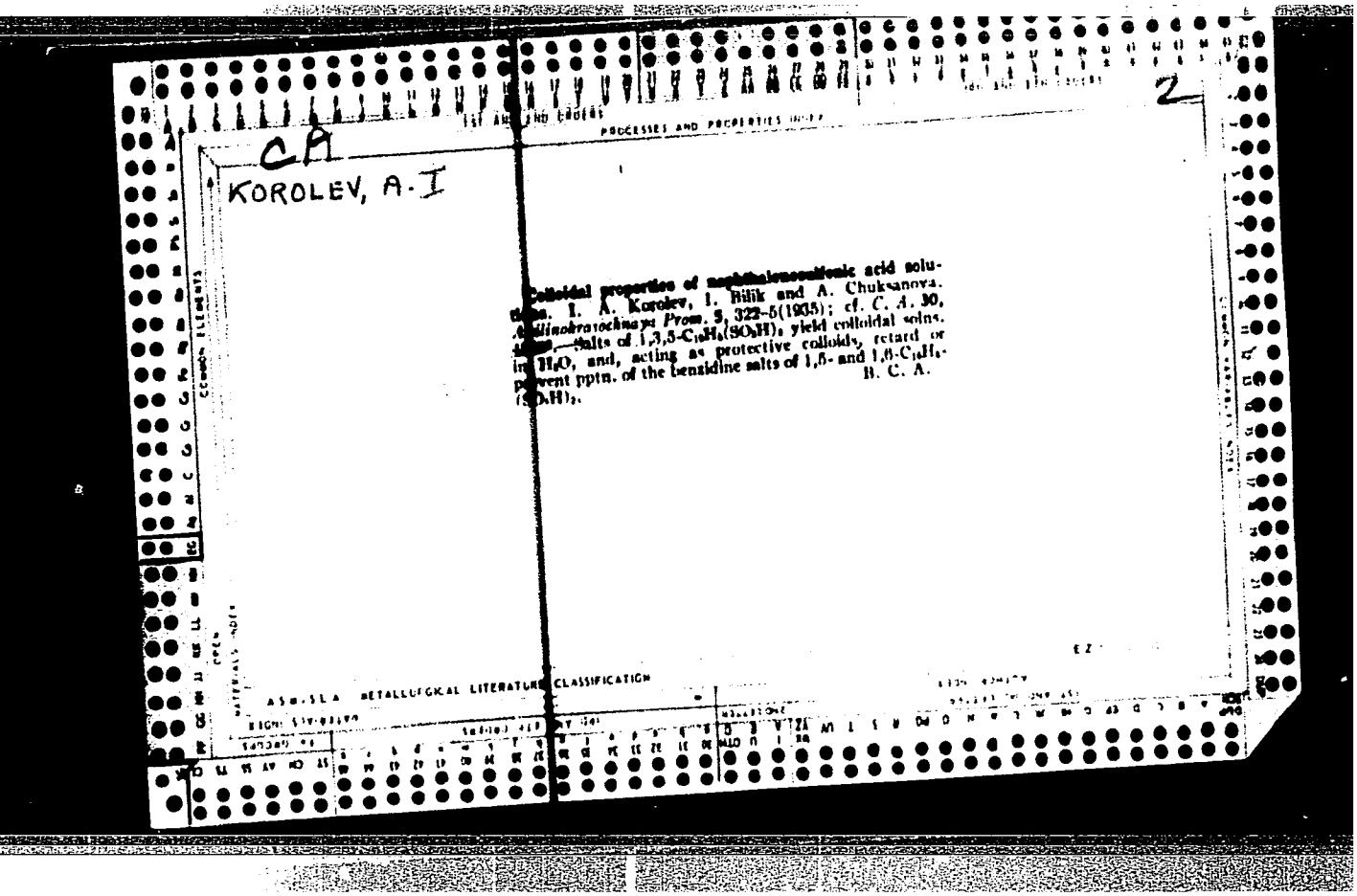

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

2

CA

KOROLEV, A. I

Colloidal properties of naphthalenesulfonic acid solutions. I. A. Korolev, I. Bilik and A. Chuksanova. *Aniline-krasochnaya Prom.* 5, 322-5(1935); cf. *C. A.* 30, [illegible]. Salts of 1,3,5-$C_{10}H_5(SO_3H)_3$ yield colloidal solns. in H_2O, and, acting as protective colloids, retard or prevent pptn. of the benzidine salts of 1,5- and 1,6-$C_{10}H_5(SO_3H)_2$. B. C. A.

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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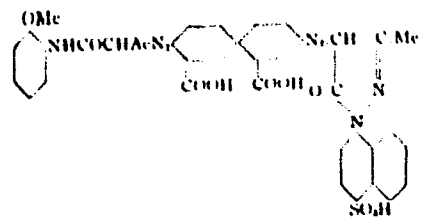
"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Constitution of the dye Benzocopper Fast Brown ZGL. A. L. Korolev and E. Rostovtseva. *Org. Chem. Ind* (U. S. S. R.) 4, 609-12(1937). The dye was freed from mineral matter and examd. by chem. analysis and the process of degradation. Its empirical formula is $C_{28}H_{18}O_{11}N_2S$ and it is (2-*anisididosicetosicetic acid*)*azobenzidine*-3,3-*dicarboxylic acid* - *azo*(*naphthyl* - 4 - *sulfonic acid*) - 3 *methyl*-5-*pyrazolone*.



Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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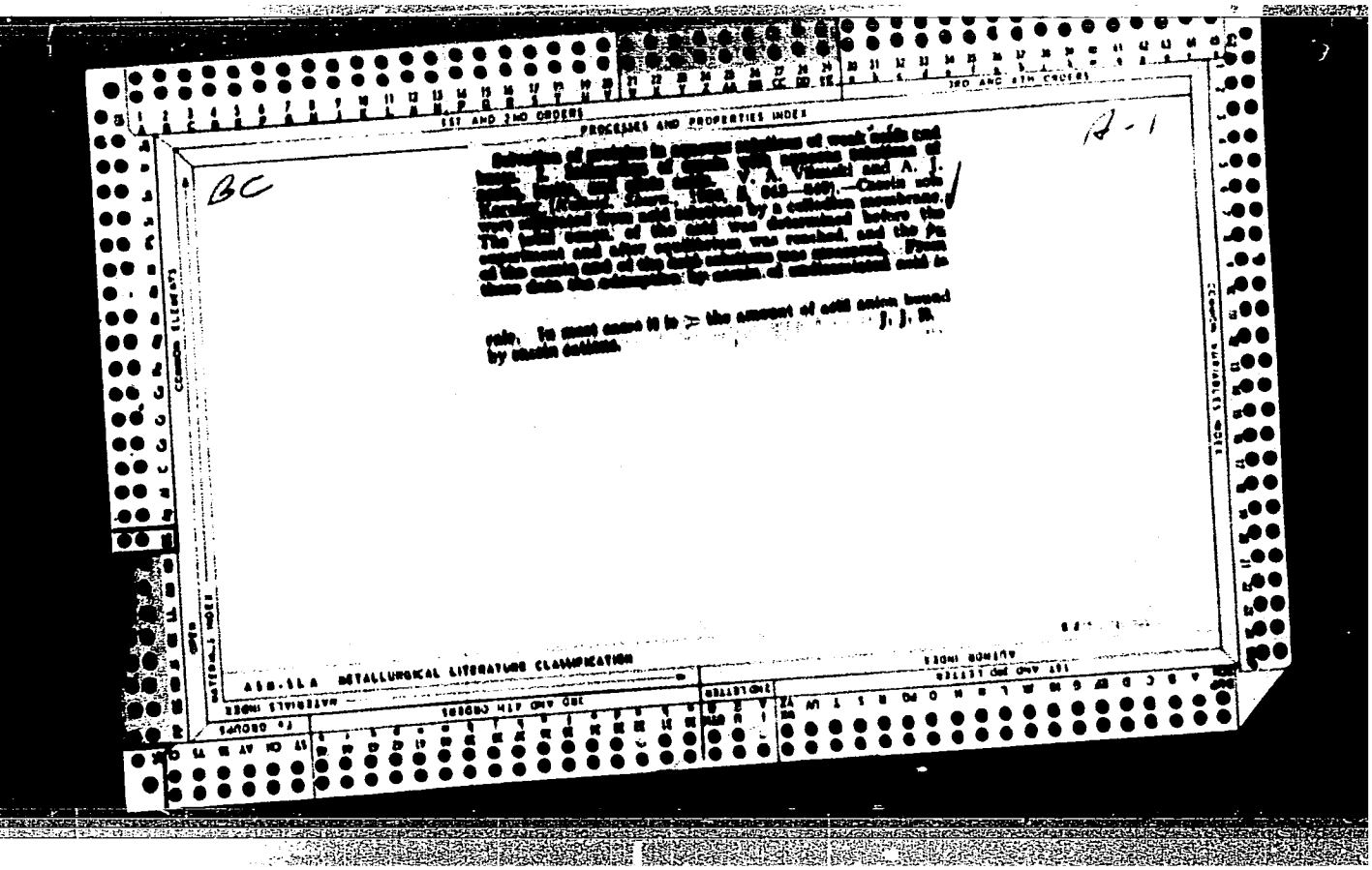

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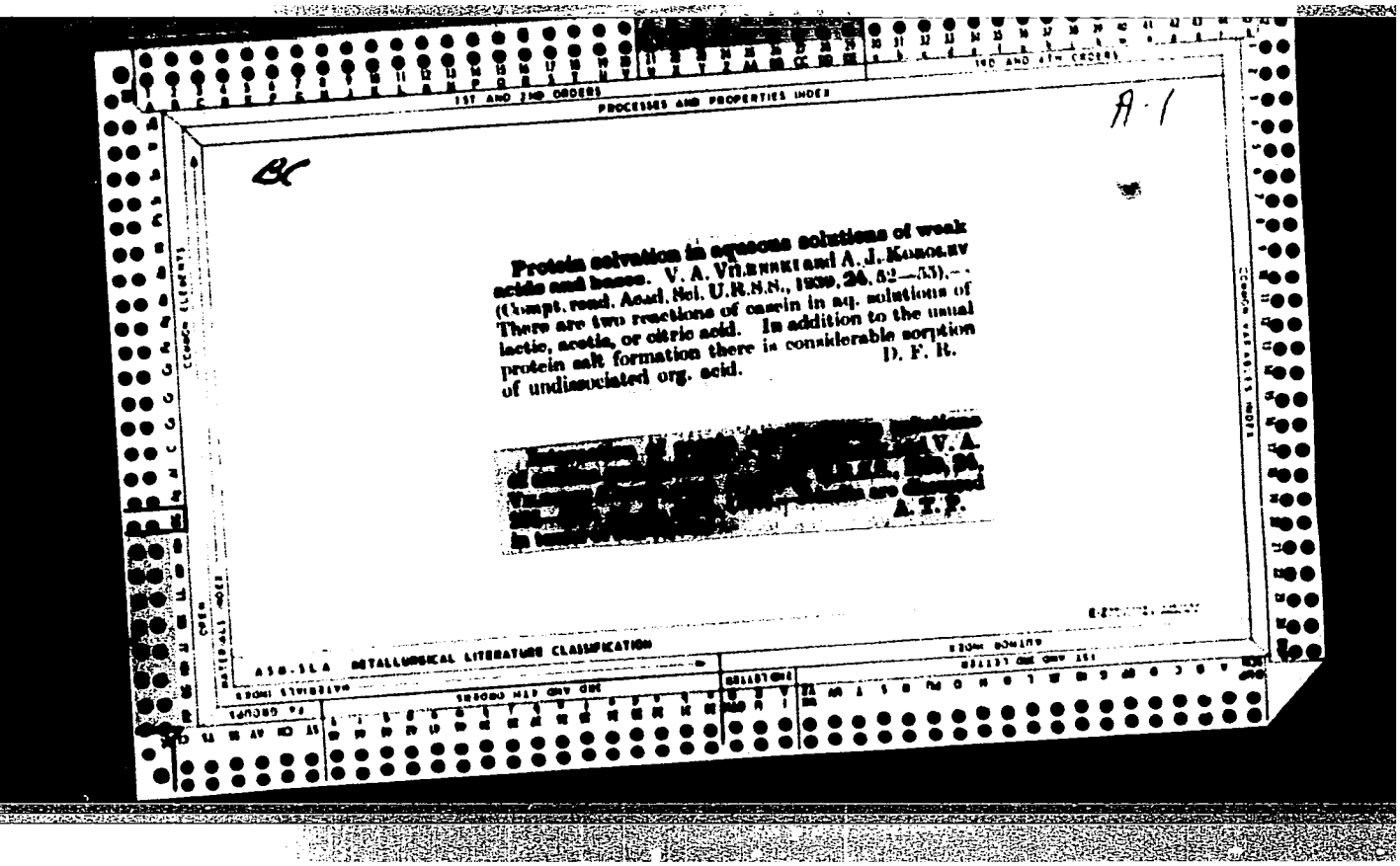

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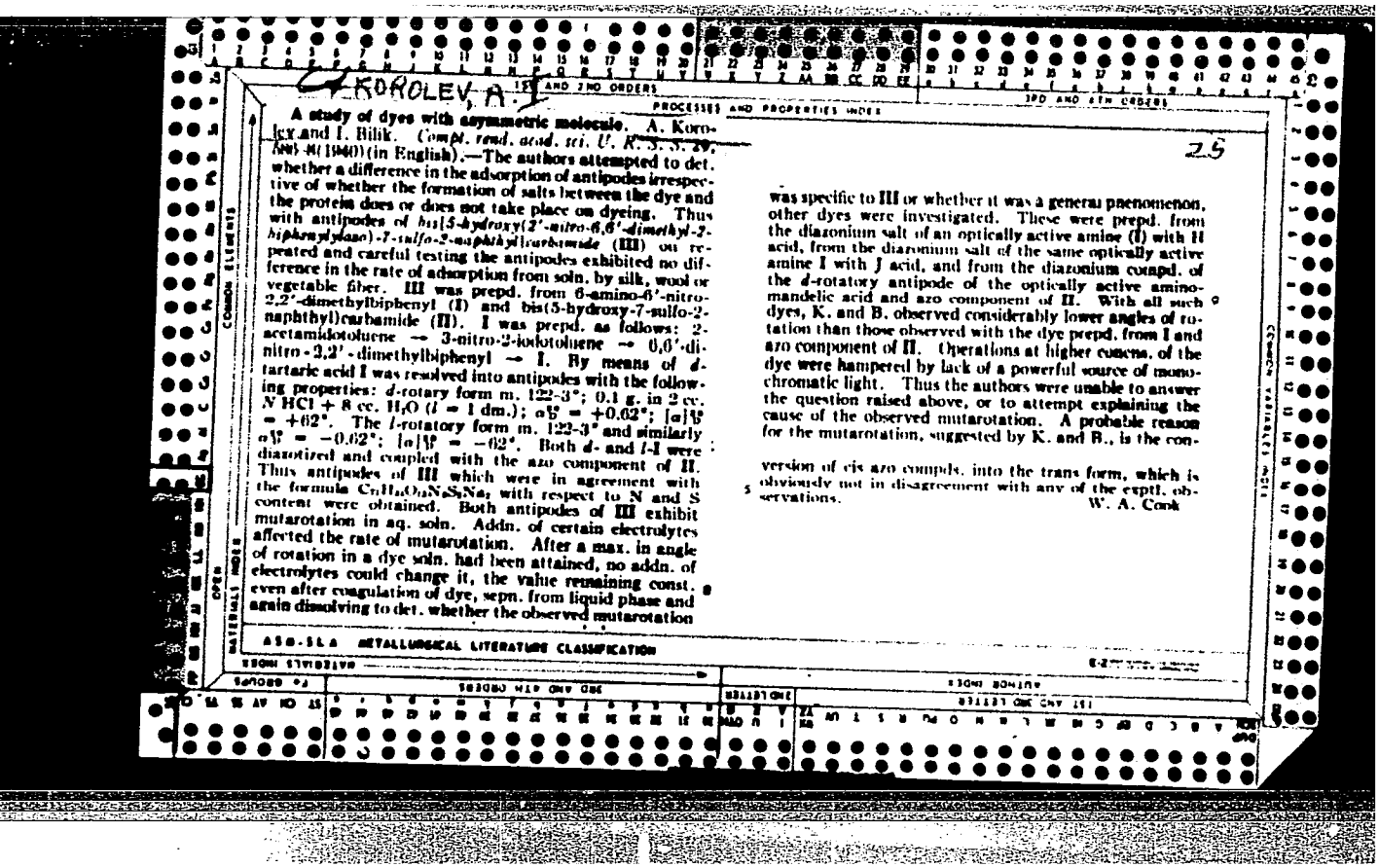

KOROLEV, A. I.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

25

A study of dyes with asymmetric molecule. A. Korolev and I. Bilik. *Compt. rend. acad. sci. U. R. S. S.* 29, 586-8(1940)(in English).—The authors attempted to det. whether a difference in the adsorption of antipodes irrespective of whether the formation of salts between the dye and the protein does or does not take place on dyeing. Thus with antipodes of *bis[5-hydroxy(2'-nitro-6,6'-dimethyl-2-biphenylyl)azo)-7-sulfo-2-naphthyl]carbamide* (III) on repeated and careful testing the antipodes exhibited no difference in the rate of adsorption from soln. by silk, wool or vegetable fiber. III was prepd. from 6-amino-6'-nitro-2,2'-dimethylbiphenyl (I) and bis(5-hydroxy-7-sulfo-2-naphthyl)carbamide (II). I was prepd. as follows: 2-acetamidotoluene → 3-nitro-2-iodotoluene → 6,6'-dinitro-2,2'-dimethylbiphenyl → I. By means of *d*-tartaric acid I was resolved into antipodes with the following properties: *d*-rotary form m. 122-3°; 0.1 g. in 2 cc. *N* HCl + 8 cc. H_2O (l = 1 dm.); α_D^{20} = +0.62°; $[\alpha]_D^{20}$ = +62°. The *l*-rotatory form m. 122-3° and similarly α_D^{20} = −0.62°; $[\alpha]_D^{20}$ = −62°. Both *d*- and *l*-I were diazotized and coupled with the azo component of II. Thus antipodes of III which were in agreement with the formula $C_{21}H_{14}O_{13}N_6S_2Na_2$ with respect to N and S content were obtained. Both antipodes of III exhibit mutarotation in aq. soln. Addn. of certain electrolytes affected the rate of mutarotation. After a max. in angle of rotation in a dye soln. had been attained, no addn. of electrolytes could change it, the value remaining const. even after coagulation of dye, sepn. from liquid phase and again dissolving to det. whether the observed mutarotation was specific to III or whether it was a general phenomenon, other dyes were investigated. These were prepd. from the diazonium salt of an optically active amine (I) with H acid, from the diazonium salt of the same optically active amine I with J acid, and from the diazonium compd. of the *d*-rotatory antipode of the optically active aminomandelic acid and azo component of II. With all such dyes, K. and B. observed considerably lower angles of rotation than those observed with the dye prepd. from I and azo component of II. Operations at higher concns. of the dye were hampered by lack of a powerful source of monochromatic light. Thus the authors were unable to answer the question raised above, or to attempt explaining the cause of the observed mutarotation. A probable reason for the mutarotation, suggested by K. and B., is the conversion of cis azo compds. into the trans form, which is obviously not in disagreement with any of the exptl. observations.

W. A. Cook

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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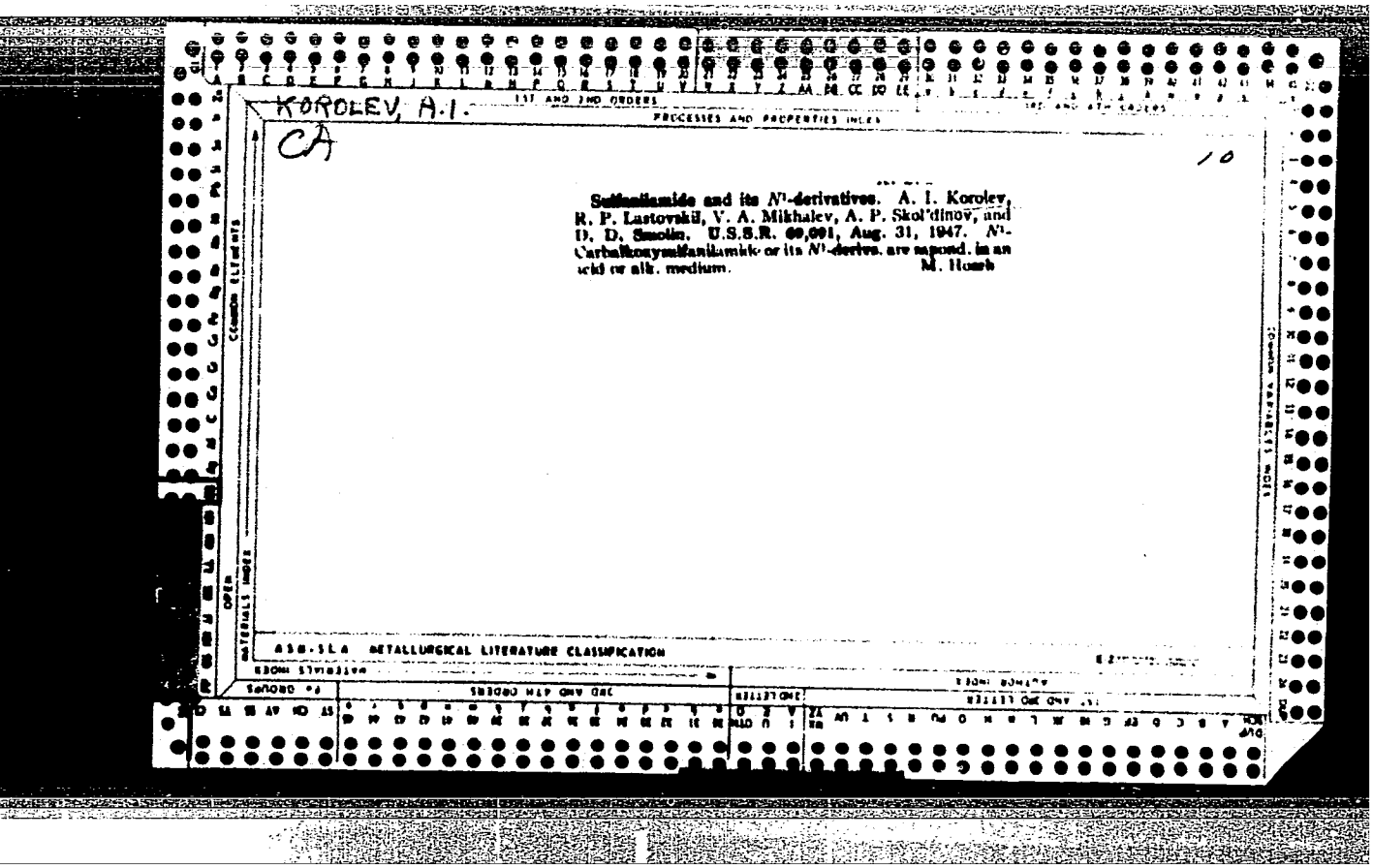

KORDLEV, A.I.

CA

10

Sulfanilamide and its N^1-derivatives. A. I. Korolev, R. P. Lastovskii, V. A. Mikhalev, A. P. Skol'dinov, and D. D. Smolin. U.S.S.R. 69,691, Aug. 31, 1947. N^1-Carbalkoxysulfanilamide or its N^1-derivs. are saponif. in an acid or alk. medium. M. Hosch

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KOROLEV, A. I.

PA 53114

USSR/Chemistry - Dyes Dec 1947
Chemistry - Intermediates

"Institute of Intermediate Organic Products and Dyestuffs imeni K. Ye. Voroshilov," A. I. Korolev, Acting Dir, Inst Sci Matters, 3 pp

"Khim Prom" No 12

In 1915 Action Committee started first Russian dye factory, beginning of present day Institute. First named the Institute for Intermediate Organic Products and Dyestuffs in 1931. Mentions scientists currently employed in discovering new methods for increasing technical knowledge in field of dyestuffs and paints.

LC 53114

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KOROLEV, A. I.

USSR/Academy of Sciences - Scientist Nov 48

"In Honor of Academician Valdimir Mikhaylovich Rodionov," M. Shemyakin, A. Korolev, 20½ pp

"Zhur Obshch Khim" Vol XVIII, No 11 p. 1877-97

Bibliographic resume of the life and works of noted scholar, engineer, and pedagogue, one of the organizers of the industries for the production of alkaloids, pharmaceutical preparations, organic intermediate products and dyes, and a laureate of the Stalin Prize, in honor of his 70th birthday. (See [redacted] Photo Accession No P-3466.) Submitted 2 Jun 48

PA 67/49T2

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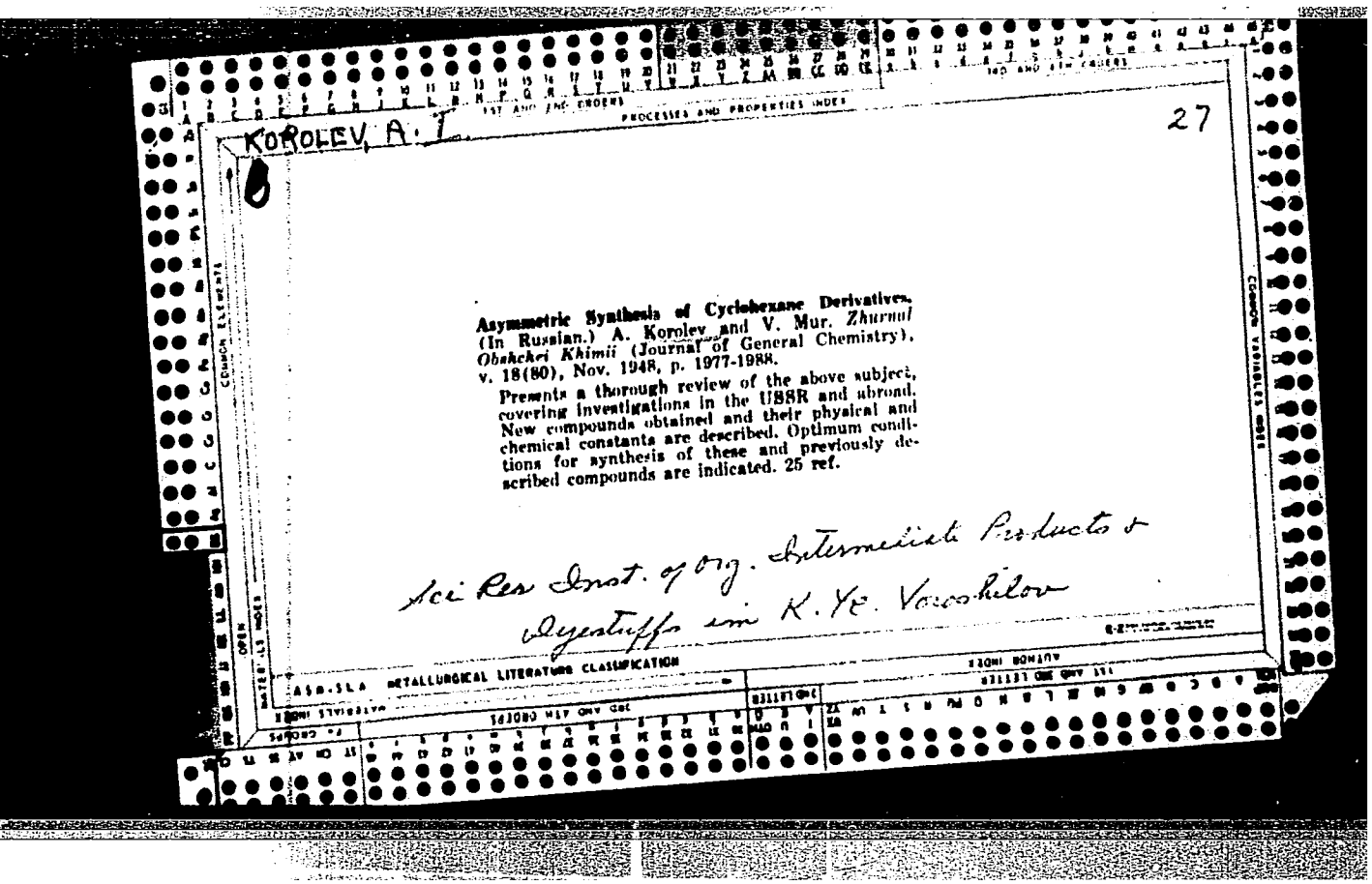

KOROLEV, A. I.

27

Asymmetric Synthesis of Cyclohexane Derivatives. (In Russian.) A. Korolev and V. Mur. *Zhurnal Obshchei Khimii* (Journal of General Chemistry), v. 18(80), Nov. 1948, p. 1977-1988.

Presents a thorough review of the above subject, covering investigations in the USSR and abroad. New compounds obtained and their physical and chemical constants are described. Optimum conditions for synthesis of these and previously described compounds are indicated. 25 ref.

Sci Res Inst. of Org. Intermediate Products & Dyestuffs im K. Ye. Voroshilov

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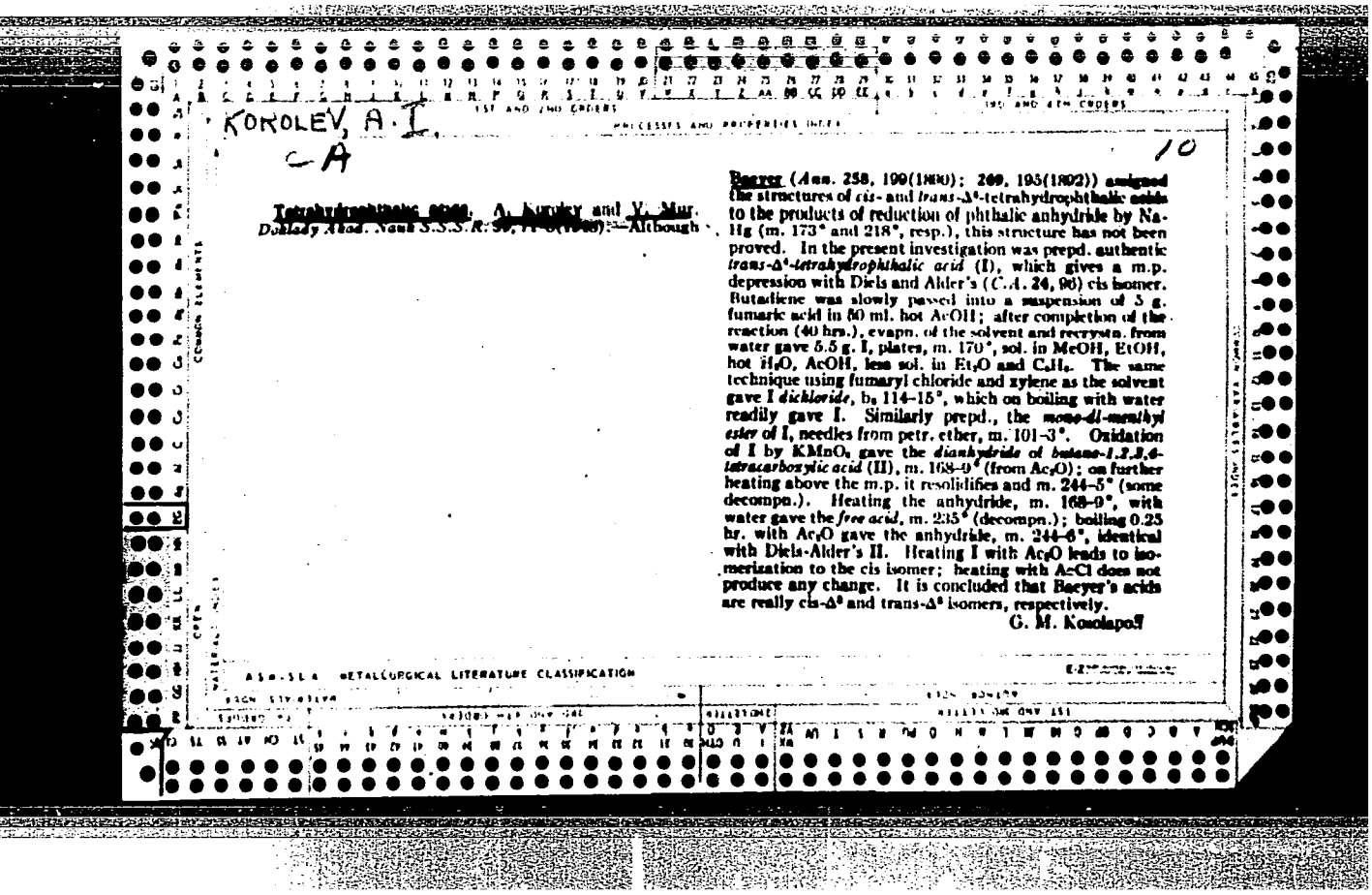

KOROLEV, A. I.

CA

10

Tetrahydrophthalic acids. A. Koroley and V. Mur. *Doklady Akad. Nauk S.S.S.R.* [illegible]—Although

Baeyer (*Ann.* 258, 199(1890); 269, 195(1892)) assigned the structures of *cis*- and *trans*-Δ^4-tetrahydrophthalic acids to the products of reduction of phthalic anhydride by Na-Hg (m. 173° and 218°, resp.), this structure has not been proved. In the present investigation was prepd. authentic *trans*-Δ^4-*tetrahydrophthalic acid* (I), which gives a m.p. depression with Diels and Alder's (*C.A.* 24, 96) cis isomer. Butadiene was slowly passed into a suspension of 5 g. fumaric acid in 50 ml. hot AcOH; after completion of the reaction (40 hrs.), evapn. of the solvent and recrystn. from water gave 5.5 g. I, plates, m. 170°, sol. in MeOH, EtOH, hot H_2O, AcOH, less sol. in Et_2O and C_6H_6. The same technique using fumaryl chloride and xylene as the solvent gave I *dichloride*, b_6 114–15°, which on boiling with water readily gave I. Similarly prepd., the *mono-di-menthyl ester* of I, needles from petr. ether, m. 101–3°. Oxidation of I by $KMnO_4$ gave the *dianhydride of butane-1,2,3,4-tetracarboxylic acid* (II), m. 168–9° (from Ac_2O); on further heating above the m.p. it resolidifies and m. 244–5° (some decompn.). Heating the anhydride, m. 168–9°, with water gave the *free acid*, m. 235° (decompn.); boiling 0.25 hr. with Ac_2O gave the anhydride, m. 244–6°, identical with Diels-Alder's II. Heating I with Ac_2O leads to isomerization to the cis isomer; heating with AcCl does not produce any change. It is concluded that Baeyer's acids are really cis-Δ^3 and trans-Δ^3 isomers, respectively.

G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A. I

PA 43/43T3

USSR/Chemistry - Olefins
Chemistry - Synthesis

11 Jan 1948

"New Examples of Asymmetric Synthesis," A. Korolev, V. Mar, Inst Org Intermediate Products and Dyes imeni K. Ye. Voroshilov, 2½ pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 2 pp. 251-53

Presents new examples of asymmetrical induction in conditions of diene synthesis. In one case, active substance is phyllodiene (l-menthyl ether of fumaric and maleic acid) and the other, diene (l-menthyl ether of sorbic acid). Submitted by Academician V. M. Rodionov, 30 Sep 1947.

43T3

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.I.

USSR/Scientists - Chemistry

Card 1/1 : Pub. 151 - 37/37

Authors : Rodionov, V. M.; Vorozhtsov, N. N.; Smirnova, A. F.; Shchetinina, L. A.; Shestov, A. P.; Korolev, A. I.; Lukashevich, V. O.; and Ufimtsev, V. N.

Title : In memory of Evgeniy Alekseevich Ivanov

Periodical : Zhur. ob. khim. 24/3, 579-580, Mar 1954

Abstract : Eulogy is presented honoring the passing of E. A. Ivanov, chief of the Central Laboratory of the Dorogomilov-Frunze Chemical Plant, scientist in the field of organic semi-products and dyes, recipient of Stalin premium. Illustration.

Institution: .....

Submitted : .....

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A. I.

USSR/Scientists

Card 1/1 Pub. 151 - 37/37

Authors : Korolev, A. I.

Title : In memory of Robert Karlovich Eykhman

Periodical : Zhur. ob. khim. 24/10, 1893-1895, Oct 1954

Abstract : Eulogy honoring the death of Dr. of Techn. Sciences R. K. Eykhman (1879-1953), famous specialist and organizer of the Soviet Aniline-Dye Industry. List of works by Eykhman, is included. Illustration.

Institution : ...

Submitted : ...

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

USSR/Chemistry - Dyestuffs KOROLEV, A. I. FD-2525

Card 1/1 Pub. 50 - 2/14

Author : Prof. Korolev, A. I.

Title : The 100-th anniversary of the discovery of the first synthetic aniline dyestuff

Periodical : Khim. prom. No 4, 195-202, Jun 1955

Abstract : After a historical treatment in which an attempt is made to establish Russian priorities in work on synthetic dyestuffs, outlines briefly some contemporary achievements of dyestuff chemistry with particular attention to color fastness, especially fastness to light. Mentions some recent USSR work. Eleven references, 8 Russian and USSR, 7 prior to 1940, one 1940.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOGAN, Iosif Mikhaylovich; KOROLEV, A.I., professor, redaktor; FODIMAN, I.V., redaktor; LUR'YE, M.S., tekhnicheskiy redaktor

[The chemistry of dyes] Khimiia krasitelei. Izd. 3-e. Pod red. A.I. Koroleva. Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1956. 696 p. (MLRA 9:12)

(Dyes and dyeing--Chemistry)

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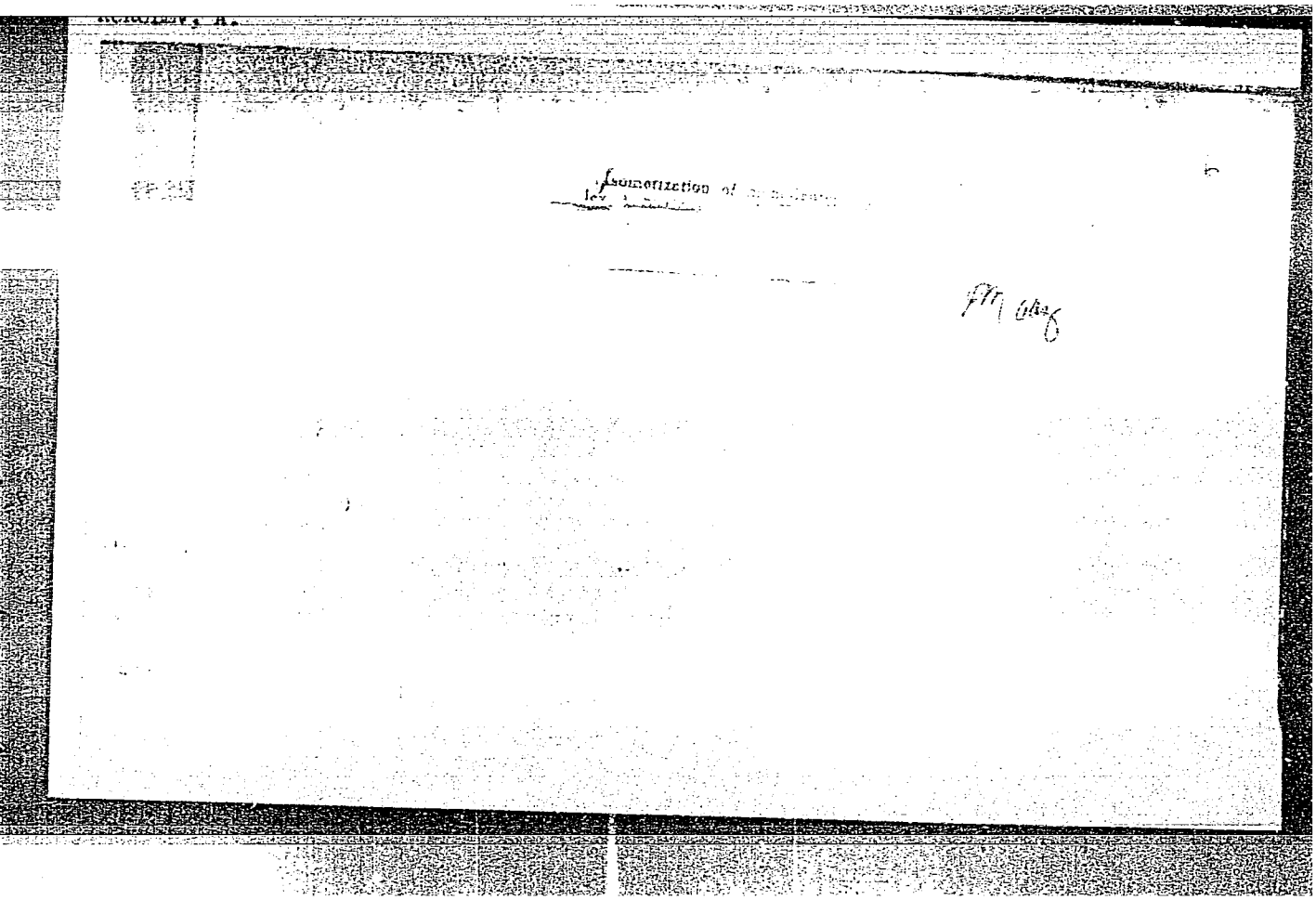

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.I., prof.; FODIMAN, I.V., kand. tekhn. nauk.

Present state and trends in the development of the chemistry and manufacture of synthetic dyes. Khim. nauka i prom. 3 no.2:138-145 '58. (MIRA 11:6)

(Dyes and dyeing)

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KOROLEV, A.I., otv.red.; VUL'FSON, N.S., zam.otv.red.; BOGDANOV, S.V., red.; DOKUNIKHIN, N.S., red.; MASLENNIKOVA, Ye.V., red.; FODIMAN, I.V., red.; KHOMSKIY, I.G., red.; ZETKIN, V.I., red.; SHPAK, Ye.G., tekhn.red.

[Organic intermediate products and dyes; collected articles] Organicheskie poluprodukty i krasiteli; sbornik statei. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry. No.1. 1959. 238 p. (MIRA 13:7)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.
(Dyes and dyeing) (Aromatic compounds)

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Akademiya nauk SSSR. Institut nauchnoy informatsii

Khimicheskaya promyshlennost' SSSR (The Chemical Industry of the USSR) Moscow, Goskhimizdat, 1959. 457 p. Errata slip inserted. 4,100 copies printed.

Sponsoring Agency: USSR. Gosudarstvennyy nauchno-tekhnicheskiy komitet.

Ed.: R. S. Romm; Tech. Ed.: P. V. Pogudkin; Editorial Board: A. P. Vinogradov, S. I. Vol'fkovich, N. M. Zhavoronkov, M. I. Ivanov, V. S. Kiselev, I. A. Lunacharskaya (Scientific Secretary), S. S. Medvedev, B. D. Mel'nik, A. N. Planovskiy, A. Ya. Ryabenko (Chief Ed.), and A. V. Topchiyev.

PURPOSE: This book is intended for the personnel of the chemical industry. It will be of interest to the general reader interested in the development and structure of the Soviet chemical industry.

COVERAGE: This book contains 18 articles on various aspects of the Soviet chemical industry. Among the developments in the production of raw materials for the manufacture of chemical products discussed are: 1) the use of raw materials synthesized from natural gas and petroleum to replace food products in the production of synthetic rubber, alcohol, detergents, etc.; 2) the production of acetylene from natural and petroleum gases for the synthesis of vinyl chloride, acrilonitrile, chloroprene, trichloroprene, 1, 4-butadiene, and other organic substances, based on methods developed by M. G. Kucherov, A.Ye. Favorskiy and others; 3) the production of acetylene from saturated hydrocarbons by cracking methane (and its homologs) at 1450° in an electric arc between two special electrodes in a gas reactor, by pyrolysis (thermal oxidation) of methane in an improved furnace designed by B. S. Grinenko, by high-temperature pyrolysis of propane and butane in tubular furnaces, or by other methods of producing acetylene for the production of synthetic rubber, ethyl alcohol, and other organic substances; 4) the synthesis of halogen derivatives of aliphatic hydrocarbons for the production of solvents, refrigerants, pharmaceutical products, etc., and 5) the production of rubber accelerators from nitrogen-containing aliphatic hydrocarbons. The history of plastics production in the Soviet Union is reviewed, and names, locations, and products of plants as well as the names of outstanding personalities in the field are given. The technical level and prospects of further development of different branches of the plastics industries are also discussed along with methods of manufacturing plastic articles. A special apparatus designed by Ye. M. Mogilevskiy and designated "7A" which permits preparation of viscose solution in one operation is discussed. It is being used to replace the complex, conventional equipment with great savings in space. General trends in the technology of synthetic fiber production are also discussed. A historical review of synthetic rubber production and the achievements of outstanding Soviet scientists in this field are given as well as names, locations and products of synthetic rubber plants. Rubber production and the manufacture of rubber goods are similarly reviewed. Statistical data and outstanding personalities in the development of the aniline dyes, paints and lacquers, mineral fertilizers, insecticides and fungicides, sulfuric acid, soda, mineral salts, radioactive and stable isotopes, and chemical reagents industries are given. Catalytic processes and automation and automatic devices used in the chemical industry are also discussed. Thirty-eight photographs included in the book show outside and interior views of some Soviet chemical industry plants, as well as their manufacturing, material-handling and laboratory equipment. Numerous personalities and facilities are identified in the body of the text. References accompany individual articles.

Garbar, M. I. The Plastics and Synthetic Resins Industry 75

Birger, G.Ye., and A.A. Konkin. The Chemical Fibers Industry 111

Zakharchenko, P.I. The Synthetic Rubber Industry 137

Suslyakov, A.V. The Resin Industry 168

Korolev, A.I. The Aniline Dye Industry 197

Belovitskiy, A.A. The Production of Lacquers and Paints 219

Mel'nikov, N.N. Chemical Means of Protecting Plants and Eliminating Seeds 234

Boreskov, G.K., and V.S. Chesalova. Catalytic Processes in the Chemical Industry 409

Yelshin, N.N., and N.Ya. Festa. Automation of the Chemical Industries 438

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KOROLEV, A.I.; TURYGINA, Ye.N.

Mechanism of isomerization in the series of naphthalene derivatives. Org. poluprod. i kras. no.1:83-86 '59. (MIRA 14:11)
(Isomerization)
(Naphthalene)

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KOROLEV, A.I.; [illegible], I.[illegible].

Mechanism of dyeing animal fibers. Org. polupred. i kraan. no.1:113-117 '58. (MIRA 14:11)
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NIKOLENKO, Leonid Nikolayevich; KOROLEV, A.I., prof., red.; STUKOVNIN, N.D., red.izd-va; GOROKHOVA, S.S., tekhn. red.

[Practical laboratory work in intermediate products and dyes] Laboratornyi praktikum po promezhutochnym produktam i krasiteliam. Moskva, Gos. izd-vo "Vysshaia shkola," 1961. 383 p. (MIRA 15:3)

(Dyes and dyeing--Chemistry)
(Chemistry--Laboratory manuals)

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KOROLEV, A.I.; MUR, V.I.

Investigation in the field of asymmetric synthesis. Org. poluprod. i kras. no.2:77-87 '61. (MIRA 14:11)
(Chemistry, Organic--Synthesis)

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ERKIKH, R.D.; DOBROVOL'SKIY, S.V.; KOROLEV, A.I.

Catalytic conversions of N,N-dialkylcyclohexylamines. Dokl. AN SSSR 136 no.6:1357-1359 F '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley im K. Ye. Voroshilova. Predstavleno akademikom B. A. Kazanskim.
(Cyclohexylamine)

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MUR, V.I.; GORBUNOVA, Zh.A.; KOROLEV, A.I.

Desorption of reactive dyes. Zhur.VKHO 6 no.5:586-587 '61.
(MIRA 14:10)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley imeni K.Ye.Voroshilova.
(Dyes and dyeing)

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MUR, V. I.; GORBUNOVA, Zh. A.; KOROLEV, A. I.

Study of the mechanism of hydrolysis of esters. Zhur. VKHO 8 no.2:232 '63. (MIRA 16:4)

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MUR, V. I.; GORBUNOVA, Zh. A.; KOROLEV, A. I.

Hydrolysis of esters of cyanuric acid and some of its derivatives. Zhur. VKHO 8 no.2:235 '63. (MIRA 16:4)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.

(Cyanuric acid) (Hydrolysis)

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KARPUKHIN, Petr Prokhorovich; KOROTENKO, Tamila Aleksandrovna, inzh.; CHEKALIN, M.A., doktor khim. nauk, retsenzent; KOROLEV, A.I., kand. khim. nauk, retsenzent; TSYBA, L.A., inzh., red.izd-va; TERESHCHENKO, V.V., tekhn. red.

[Active dyes] Aktivnye krasiteli. Kiev, Gostekhizdat USSR, 1963. 132 p. (MIRA 17:1)

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KOROLEV, A.I.; MUR, V.I.; AVAKYAN, V.G.

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1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.

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ERLIKH, R.D.; DOBROVOL'SKIY, S.V.; KOROLEV, A.I.

Catalytic methylation of cyclohexanone with dimethylamine. Zhur. VKHO 10 no.2:233-234 '65. (MIRA 18:6)

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TSIMBALIST, L.I.; CHEREMISIN, G.G., veter. vrach (Checheno-Ingushskaya ASSR); KOROLEV, A.I., veter. vrach (Checheno-Ingushskaya ASSR); TUVAC, Ye.A., veter. vrach (Checheno-Ingushskaya ASSR)

Practices in the elimination of brucellosis in cattle. Veterinariia 41 no.10:23-24 O '64.

(MIRA 18:11)

1. Glavnyy veterinarnyy vrach Vologodskogo oblastnogo upravleniya proizvodstva i zagotovok sel'skokhozyaystvennykh produktov (for TSimbalist).

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PED'KO, A.I.; DERGUNOV, V.I.; KARASIK, G.Ye.; KOROLEV, A.K.

Effect of the dimensions of bit-support elements on the jamming of cutters. Izv. vys. ucheb. zav.; neft' i gaz. 8 no.5:101-104 '65. (MIRA 18:7)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova; zavod neftyanogo oborudovaniya im. S.M.Kirova i upravleniye "Glavmorneft'".

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ARBUZOV, Yu.A.; KOROLEV, A.M.

Diene synthesis involving acetoxymethyl vinyl ketone.
Zhur.ob.khim. 32 no.11:3674-3676 N '62. (MIRA 15:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Ketone)
(Chemistry, Organic—Synthesis)

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ARBUZOV, Yu.A.; KLIMOV, Ye.M.; KOROLEV, A.M.

Diene synthesis involving 1-methoxy-4-penten-3-one and
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N '62. (MIRA 15:11)

1. Moskovskiy gosudarstvennyy universitet imeni
M.V. Lomonosova.
(Pentenone) (Pentadienone)
(Chemistry, Organic—Synthesis)

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KOROLEV, Aleksandr Mikhaylovich

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Expulsion of ascarids by oxygen. Fel'd. i akush. 21 no.7:44-45 Jl '56. (MLRA 9:10)

(ASCARIDS AND ASCARIASIS)
(OXYGEN--THERAPEUTIC USE)

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KOROLEV, A.M.

Diabetes insipidus of traumatic origin. Vrach.delo no.7:741 Jl'58
(MIRA 11:9)

1. Terapevticheskoye otdeleniye (zav. -T.N. Shubina) Kirovskoy oblastnoy bol'nitsy.
(DIABETES)

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KOROLEV, A.M.

Intravital diagnosis of lymphogranulomatosis of the stomach.
Kaz.-med.zhur. 40 no.2:67-69 Mr-Ap '59. (MIRA 12:11)

1. Glavnyy terapevt Kirovskogo oblzdravotdela.
(HODGKIN'S DISEASE) (STOMACH--DISEASES)

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KOROLEV, A.M. (Kirov-obl.)

Unilateral stasis in the lungs as a supplemental symptom of myocardial infarct. Kaz. med. zhur. no.5:70-71 S-O '61.
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(HEART—INFARCTION)

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KOROLEV, A.M.

Dispensary treatment for healthy persons and patients with cardiovascular diseases in Kirov Province. Kardiologiia 4 no. 4:86 Jl-Ag '64 (MIRA 19:1)

1. Glavnyy terapevt Kirovskogo oblastnogo zdravotdela.

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USSR

Radiative capture of a fast neutron in hydrogen. A. M. Korolev, *Zhur. Eksptl. i Teoret. Fiz.* [illegible]; *Science Abstr.* 56A, 470(1953).—The cross section σ (capture) is calcd. by using a phenomenological short-range n-p potential and nonrelativistic perturbation theory, and compared with σ (scattering). At ~ 340 m.e.v. σ (capture) ~10^{-28} sq. cm. K. L. C.

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Koroley A. M.

62 Photofission of a deuteron under higher energies of the γ-quantum. A. M. Koroiev (P. N. Lebedev Phys. Inst., Moscow). *Zhur. Eksptl. i Teoret. Fiz.* 25, 188-90(1953).—Math. The process of the photofission of a deuteron by higher energy γ-rays is considered from the viewpoint of the meson theory of nuclear forces. A good agreement between theory and exptl. findings is observed, if one uses the pseudoscalar meson theory with pseudovectorial bonds.

Werner Jacobson

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Korolev, A.M.

USSR/Theoretical Physics

B-6

Abs Jour : Referat Zhur - Fizika, No 5, 1957, No 10948

Author : Korolev, A.M.

Inst : Institute of Physics, Academy of Sciences, Ukrainian SSR.

Title : Dynamic Magnetic Moment of the Deuteron.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 31, No 2, 211-217

Abstract : The author considers the dynamic magnetic moment of the deuteron in the PS(PS) variant of the symmetric meson theory in the fifth approximation of the perturbation theory. Account is taken of the interaction between the meson currents in the deuteron with the electromagnetic field and from the energy of this interaction a term is separated, having the form of the energy of the magnetic moment, interpreted as the additional magnetic moment of the deuteron. It is shown that in the case of exchange

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USSR/Theoretical Physics

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Abs Jour : Referat Zhur - Fizika, No 5, 1957, No 10948

with an odd number of mesons, the additional magnetic moment vanishes in this variant of the theory. An analytic expression for the dynamic magnetic moment is obtained in the non-relativistic approximation with an accuracy to terms on the order of $(k/M)^2$ inclusive. By way of an example, the author considers the application of the above expression for the magnetic moment of the deuteron to an examination of photofission of the deuteron in the Pauli approximation. The results obtained are in qualitative agreement with the experiment.

Card 2/2

KOROLEV, A. M.

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KOROLOV, A.M. [Korol'ov, O.M.]; KONSTANTINOV, B.D.

Elastic neutron scattering in a spherical scatterer [with summary in English]. Ukr. fiz. zhur. 2 no.4:303-309 O-D '57. (MIRA 11:3)

1. Institut fiziki AN URSR.
(Neutrons--Scattering)

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KOROLEV, A.M. [Korol'ov, O.M.].

Quasi-stationary states of the nucleus. Ukr. fiz. zhur. 2 no.4:369-371 O-D '57. (MIRA 11:3)

1. Institut fiziki AN URSR. (Nuclei, Atomic)

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KOROLEV, A. M.

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THE DYNAMICAL MAGNETIC MOMENT OF THE DEUTERON. A. M. Korolev (Academy of Sciences, Ukrainian SSR). Soviet Phys. JETP 4, 73-9(1957) Feb.

The dynamical magnetic moment of the deuteron is considered on the basis of the pseudoscalar meson theory with the pseudoscalar type of coupling, in the fifth order of perturbation theory. Exchange currents in the deuteron make an essential contribution to the dynamical magnetic moment. (auth)

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AUTHOR: Korolev, A. M.

TITLE: Energy levels of weakly deformed nuclei

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 23, no. 12, 1959, 1492-1496

TEXT: The present paper was the topic of a lecture read at the 9th All-Union Conference on Nuclear Spectroscopy (Khar'kov, January 26 till February 2, 1959). In order to explain the nuclear energy level schemes, the surface interaction of nucleons has been used various times on the strength of the generalized nuclear model of Bohr and Mottelson. It has been applied for a strong interaction of an extra nucleon with the nuclear surface and also for a weak interaction. The rotational levels of strongly deformed nuclei, which have been discovered experimentally, are proof of the validity of this generalized nuclear model. A number of questions were not clarified in these papers, such as the influence of non-adiabatic terms on the position of the energy level and also the influence of two- and three-phonon states. The author is considering the steady states of odd

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nuclei in intermediate coupling; he also utilizes the generalized nuclear model and takes into account single-phonon and two-phonon states. He analyzes a system consisting of an even-even core (near the magic nucleus) and an extra nucleon interacting with the core surface. The solution of this problem calls for determining the eigenfunctions and the eigenvalues of the bound extra nucleon. Due to surface interaction, the nucleus will be deformed; this deformation is assumed to be weak, i.e., the intermediate coupling approximation may be approached from the weak coupling. The collective excitations of the core are investigated with the help of the generalized Bohr model. The Hamiltonian of a system consisting of a spherical nucleus and an extra nucleon and interacting with its surface is set up as follows: $H = H_s + H_p + H'$, where

$$H_s = \sum_{\lambda\mu}\left\{\frac{1}{2B_\lambda}|\pi_{\lambda\mu}|^2 + \frac{C_\lambda}{2}|\alpha_{\lambda\mu}|^2\right\};$$

the Hamiltonian of the surface vibrations of the nucleus reads:

$$H_p = -\frac{\hbar^2}{2M}\frac{d^2}{dr^2} + \frac{\hbar^2 l(l+1)}{2Mr^2} + V(r),$$

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Energy levels of weakly deformed nuclei

and that of the free neutron: $H' = -kR_0\delta(r - R_0)\sum_{\mu}\alpha_{2\mu}(\theta,\varphi)$; $\alpha_{\lambda\mu}$ represents the deformation parameter of the nuclear surface; $\alpha_{2\mu}$ denotes an operator acting on the wave function that describes the state of the nuclear surface; $\alpha_{2\mu} = \sqrt{\frac{\hbar}{2B\omega}}(b_\mu + (-1)^\mu b^*_{-\mu})$, $\omega = \sqrt{C_\lambda/B_\lambda}$. b_μ and $b^*_{-\mu}$ denote the phonon annihilation and production operators. In the Schrödinger equation of the steady-state problem: $H\Psi = W^N_I\Psi$, where Ψ denotes the function describing the state of the system, N the number of phonons, and I the total momentum of the system, $\Psi = \sum_{NRkl} a_{NRkl}(p)\psi_l(r)\Phi_N[Rs(k)lIM]$, where the wave function is given by

$$\Phi_N[Rs(k)lIM] = \sum_m\sum_{m_s}(RsM-m-m_s m_s|RskM-m)\times$$
$$\times(klM-mm|klIM)Y_{lm}(\theta,\varphi)\chi_s^{m_s}\Phi_{NR}^{M-m-m_s} \qquad (7).$$

Here, M denotes the projection of I on the z-axis, R the angular momentum of

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Energy levels of weakly deformed nuclei

the core, k the spin of the channel, l the orbital momentum of the extra nucleon, and s the particle spin. From this results:

$$\Psi = \sum_{NjlR} b_{NljR} \psi_l(r) \tilde{\Phi}_N [R; sl(j) IM]$$

with

$$b_{NljR} = \sum_k (2k+1)^{1/2} (2j+1)^{1/2} W(RsIl; kj)\, a_{NRkl}, \quad (8)$$

$$a_{NRkl} = \sum_j (2k+1)^{1/2} (2j+1)^{1/2} W(RsIl; kj)\, b_{NRjl}, \quad (8')$$

where W(abcd;ef) denotes the Racah coefficient. The amplitude equations are obtained from the Schrödinger equation; the following expression is obtained (in Tamm-Dancoff approximation) for the amplitudes of the phonon-free, single-phonon, and two-phonon states

$$(W - E_{l0}) A_0 = \sum_{n'} H_{0n'} \psi_{l'}^2 B_{n'};$$

$$(W - E_{l1}) B_n = H_{n0} \psi_{l'}^2 A_0 + \sqrt{2} \sum_{r'} H_{nr'} \psi_{l'}^2 C_{r'};$$

$$(W - E_{l2}) C_r = \sqrt{2} \sum_{n'} H_{rn'} \psi_{l'}^2 B_{n'}. \quad (12)$$

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Energy levels of weakly deformed nuclei

$$H_{0n} = -\tilde{g}\,[(2l+1)(2k+1)]^{1/2}\,(l\,200\,|\,l\,2\,l_0\,0)\,W(l_0\,2Ik;\,ls); \qquad (13)$$

From

$$H_{rn'} = -\tilde{g}\,[(2l+1)(2R+1)(2k+1)(2k'+1)]^{1/2} \times (l\,200\,|\,l\,2\,l'\,0)\,W(2k'Rs;\,k2)\,W(k'\,2\,Il;\,kl'), \qquad (13')$$

где

$$\tilde{g} = kR_0\left[\frac{\hbar}{2B\omega}\cdot\frac{5}{4\pi}\right]^{1/2}.$$

Используя (13) и (13'), можно решить систему уравнений (12). Амплитуды A_0, B_n и C_r связаны условиями:

follow the solutions of (12) as

$$\psi_{l_0}(R_0)\,A_0 = \frac{1}{\sqrt{N(W_I, l_0)}}; \qquad (14)$$

$$B_{kl} = -\tilde{g}\,[(2l+1)(2k+1)]^{1/2}\,(l\,200\,|\,l\,2\,l_0\,0)\,W(l_0\,2Ik;\,ls)\,\frac{\psi_{l_0}^2 A_0}{(W_I - E_{l_1} - 2\tilde{g}^2\alpha_{l_2})}; \qquad (14')$$

$$C_{Rkl} = \sqrt{2}\,\tilde{g}^2\,[(2R+1)(2k+1)]^{1/2}\,W(kRIl_0;\,sl)\sum_{l'}(2l'+1)\,W(2Rl'l_0;\;2l)\times \times \frac{(l'\,200\,|\,l'\,2\,l\,0)\,(l'\,200\,|\,l'\,2\,l_0)\,\psi_{l'}^2\psi_{l_0}^2 A_0}{(W_I - E_{l_2})(W_I - E_{l'_1} - 2\tilde{g}^2\alpha_{l'_2})}, \qquad (14'')$$

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

Energy levels of weakly deformed nuclei

$$N(W_I l_0) = 1 + \tilde{g}^2 \sum_l \frac{(l_0 200 \mid l_0 2l0)^2 \psi_l^2 \psi_{l_0}^2}{(W_I - E_{l_1} - 2\tilde{g}^2 \alpha_{l_2})^2} \left(1 + 2\tilde{g}^2 \sum_{l'} \frac{(l200 \mid l2l'0)^2 \psi_l^2 \psi_{l_0}^2}{(W_I - E_{l_2})^2}\right); \quad (15) \qquad (15)$$

$$\alpha_{l_1} = \sum_l \frac{(l_0 200 \mid l_0 2l0)^2 \psi_l^2 \psi_{l_0}^2}{W_I E_{l_1} - 2\tilde{g}^2 \alpha_{l_2}(W_I)}; \quad \alpha_{l_2} = \sum_{l'} \frac{(l200 \mid l2l'0)^2 \psi_{l'}^2 \psi_l^2}{(W_I - E_{l'_2})}. \quad (15') \qquad (15')$$

The following expression holds for the eigenvalue of W_I, which determines the energy levels of the odd nucleon: $W_I = E_{l_0} + \tilde{g}^2 \alpha_{l_0 1}(W_I)$. This equation has to be solved to determine the energy levels of odd nuclei. This is done by assuming that the collective levels are located above the single-particle levels. For the case of a not very strong binding, the following expressions are obtained for the energy levels of single- and two-phonon states of the nucleus:

$$W_1^I = \overline{E}_{l_1} + \Delta W_0 + \frac{2[\tilde{g}^2 \overline{\psi}_l^2 \overline{\psi}_{l'}^2 + M]}{\overline{E}_{l_1} - \overline{E}_{l_2} + \Delta W_0}; \quad (18) \qquad (18)$$

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85595

S/048/60/024/007/029/032/XX
B019/B056

24.4500

AUTHOR: Korolev, A. M.

TITLE: The Excitation of the Collective Levels of a Nucleus in Stripping Reactions

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 903-911

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. The author investigates the limiting case of stripping reactions, in which the spectrum of the collective oscillations has a vibrational character and where the initial nucleus is spherical. The residual nucleus is assumed to be weakly deformed after the capture of a neutron. Proceeding from the Hamiltonian of the collective interaction of nucleons with the surface of the nucleus (in agreement with the generalized Bohr atomic model), the author gives the wave function of the initial- and the final state of the system. For the transition matrix element he obtains $M = M_p + M_n$ in Born approximation, where M_p is the matrix element taking

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85595

The Excitation of the Collective Levels of a Nucleus in Stripping Reactions

S/048/60/024/007/029/032/XX
B019/B056

the interaction of a proton with the nuclear surface into account, and M_n is the analogue for a neutron. An expression is obtained for M_n. From the discussion of this expression the author gathers that, in the stripping reaction both in case of a neutron capture on the ground state or the single-particle excited level, and also in the case of an excitation of the collective levels of a nucleus, the angular distribution of the protons is determined by the orbital momentum l_0. A similar expression is obtained for M_p. In the final part of this paper, an expression is obtained for the angular distribution of protons in the (d,p) reaction. This expression consists of three terms, of which the first gives the proton angular distribution on the basis of the collective interaction of a proton with the nuclear surface. The latter agrees fully with the results obtained by Butler (Ref. 1). The third term characterizes the collective interaction of protons, and gives an angular distribution, which does not agree with the results obtained by Butler. The second term characterizes the interference between these processes. The expression obtained here is not only correct in the case of the excitation of the collective levels, but also for single-particle levels. There are 12 references: 4 Soviet, 4 US, 1 British, 1 Danish, and 1 Dutch.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

S/048/60/024/007/031/032/XX
B019/B056

24.4500

AUTHORS: Gurin, Yu. L., Korolev, A. M., and Konstantinov, B. D.

TITLE: The Magnetic and Quadrupole Moments of Weakly Deformed Nuclei

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 920-923

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. B. D. Konstantinov et al. (Ref. 2) derived the expressions for the magnetic and quadrupole moments for deformed nuclei. With respect to these nuclei it had been assumed that between the external nucleon and the nuclear surface an intermediate coupling existed. The nuclear radii were determined for the calculation of the moments by means of the formula $R_0 = (1.27A^{1/3} + 0.6)\cdot 10^{-13}$ cm. The potential well depth V_0 was determined from the coupling energy of the last nucleon of an even-even nucleus. The energy of the first collective level of an even-even nucleus was determined from experimental data, and the coupling constant of the extranucleon with

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the nuclear surface was selected so that the calculated energy of the ground state agreed with the experimental values. Under these assumptions, the magnetic quadrupole moments were calculated for nuclei with an odd neutron number (Table 1), as well as for nuclei with an odd proton number. As may be seen, the generalized model, when applied to weakly deformed nuclei, gives better results than the shell model.

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The Magnetic and Quadrupole Moments of Weakly Deformed Nuclei

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Table 2 : Magnetic and Quadrupole Moments of Nuclei With Odd Proton Number

Таблица 2

Магнитные и квадрупольные моменты ядер, нечетных по протонам

Ядро 1	Z 2	N 3	A 4	Основное состояние 5	μ (я. м.) одночаст. 6	μ (я. м.) теорет. 7	μ (я. м.) эксперим. 8	Q, $e \times 10^{-24}$ см² одночаст. 11	Q, $e \times 10^{-24}$ см² теорет. 9	Q, $e \times 10^{-24}$ см² эксперим. 10
Co	27	32	59	$f_{7/2}$	5,793	4,730	4,648	0,08	+0,456	0,500
Cu	29	34	63	$P_{3/2}$	3,793	2,759	2,226	−0,06	−0,563	−(0,13± ±0,01)
In	49	66	115	$g_{9/2}$	6,793	5,355	5,500	0,15	+3,651	1,161
Sb	51	70	121	$d_{5/2}$	4,793	4,993	3,360	−0,13	−0,205	−(0,3±0,2)
Tl	81	122	203	$S_{1/2}$	2,793	1,778	1,612	0	0	0
Bi	83	126	209	$h_{9/2}$	2,623	1,824	4,082	−0,2	−0,994	−0,4

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

S/185/62/007/005/002/013
D407/D301

AUTHORS: Tsan Yu-t'ai and Korol'ov, O.M.

TITLE: On the theory of stripping reactions

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 5, 1962, 470 - 474

TEXT: The differential cross-section of the stripping reaction is calculated in the Born approximation, allowance being made for the D-wave contribution to the deuteron wave-function. The authors consider the effect of the tensor interaction of the deuteron nucleons on the angular distribution of protons in the stripping reaction; this is done for the case of large angles of escape of protons. In the references, this effect was assumed as small, owing to the small magnitude of the D-wave contribution. The (d, p)-reaction on even-even nuclei is considered. Formulas are given for the wave functions of the initial- and final state of the system. The formula for the effective differential cross-section of the stripping reaction contains radial integrals which are calculated by successive differentiation and by using recursion formulas for spherical

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D407/D301

On the theory of stripping reactions

Bessel functions; hence one obtains

$$\sigma(\vartheta)=(2j+1)\left(\frac{2MR^2}{\hbar^2}V\right)^2\frac{2M\gamma_{l_n}N^2}{\hbar^2Ra^4}\left(\frac{1}{\varkappa_n^2+k^2}\right)^2\times$$

$$\times\left(kj_{l_n-1}(kR)-\varkappa_n j_{l_n}(kR)\frac{K_{l_n-1}(\varkappa_n R)}{K_{l_n}(\varkappa_n R)}\right)^2 G_s^2(b)\{1+\delta^2(b)\}, \qquad (6')$$

where M denotes the reduced mass of the proton and deuteron; ϑ - the angle of escape of the proton; γ - the reduced width of the one-particle nuclear level; ε_n - the coupling energy of the captured neutron; $\varkappa_n$ is related to M, ε and $\hbar$; j and K are spherical Bessel- and MacDonal functions; G represents the momentum distribution of the relative motion in the S-state of the deuteron (G is a function of the parameters β, γ, b, being related to Hulthen's function W). Fig. 1 shows the distribution functions $G_d(b)$ and $\tilde{G}_d(b)$ for the D-wave in momentum space with the following parameter values: $\beta = 4.75$, $\gamma = 3$, and the effective deuteron-radius $\rho = 1.704 \cdot 10^{-13}$ cm. Another figure shows the corresponding functions $\delta(b)$ and $\tilde{\delta}(b)$, representing the relative contribution of the D-wave to the angular

Card 2/4

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Deuteron splitting under ...

S/185/62/007/006/004/014
D407/D301

ASSOCIATION: Instytut fizyky AN UkrRSR, Kyyiv (Institute of Physics of the AS UkrRSR, Kiyev)

SUBMITTED: January 3, 1962

Card 4/4

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

S/048/62/026/008/027/028
B104/B102

AUTHOR: Korolev, A. M.

TITLE: Collective interaction of neutrons with spherical nuclei

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 8, 1962, 1101-1112

TEXT: A quantum-mechanical system consisting of a neutron and a spherical nucleus with A nucleons is studied. It is assumed that collective degrees of freedom (surface vibrations) of the nucleus are excited in its interaction with a neutron. Using the method of H. Feshbach (Ann. of Phys., 5, 357 (1958)), the real and imaginary parts of the optical potential of the neutron are calculated and it is shown that intermediate quasisteady states of the system exist in the excitation of the first collective level. The inelastic scattering of neutrons from spherical nuclei is also studied. In the periodic system the spherical nuclei come close to the magic ones, and the energy of incident neutrons is near the isolated collective resonance. The possibility of a compound nucleus being formed is taken into account, but that of a direct interaction between the neutron and the

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S/048/62/026/008/027/028
B104/B102

Collective interaction of ...

nucleus is not considered. There are 3 figures.

ASSOCIATION: Institut fiziki Akademii nauk USSR (Institute of Physics of the Academy of Sciences UkrSSR)

Card 2/2

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.M.

Collective interaction between neutrons and spherical nuclei.
Izv. AN SSSR. Ser. fiz. 26 no.8:1101-1112 Ag '62. (MIRA 15:11)

1. Institut fiziki AN UkrSSR.
(Nuclear reactions) (Neutrons)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.M. [Korol'ov, O.M.]

Role of the Coulomb interaction in the (d, p) reaction.
Ukr. fiz. zhur. 8 no.5:523-531 My '63. (MIRA 16:8)

1. Institut fiziki AN UkrSSR, Kiyev.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.M.

Shape of the self-consistent potential. Izv. AN SSSR. Ser. fiz. 29 no.7:1151-1156 Jl '65.

Energy levels of even-even nuclei. Ibid.:1157-1159 (MIRA 18:7)

1. Institut fiziki AN UkrSSR.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N. [Korol'ov, O.M.]

Bound states of a particle moving in a nonlocal potential.
Ukr. fiz. zhur. 10 no.9:969-976 S '65. (MIRA 18:9)

1. Institut fiziki AN UkrSSR, Kiyev.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

L 08719-67 EWT(m)/EWP(j) WW/JW/RM

ACC NR: AP6032593 SOURCE CODE: UR/0062/66/000/008/1436/1440

AUTHOR: Yeremenko, L. T.; Korolev, A. M. 29 B

ORG: Institute of Chemical Physics, Academy of Sciences, SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: Esterification of alcohols with nitric acid. Communication 2. Selective nitration of primary hydroxyl groups in polyhydric alcohols

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 8, 1966, 1436-1440

TOPIC TAGS: mesoerythritol, esterification, [redacted]-nitric acid, polyhydric alcohol, nitration, ALCOHOL

ABSTRACT: The results of an earlier study by the authors have indicated that esterification of polyhydric alcohols with nitric acid of a concentration below 80% yields only primary nitrates. To verify this indication, a study has been made of the esterification of mesoerythritol with excess 79% nitric acid. The esterification product was identified by elemental analysis as erythritol dinitrate. The structure of the product, determined by IR spectroscopy, was identical to that of the product of the oxidation of cis-2-butene-1,4-diol with potassium permanganate. As this product is known to be erythritol 1,4-dinitrate, it was concluded that selective esterification of normal polyhydric alcohols with nitric acid of a concentration below

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N., inzh.

Method for determining deflections in circumferentially supported reinforced concrete slabs subjected to short-time loads. Bet. i zhel.-bet. no.3:138-141 Mr '60. (MIRA 13:6)

(Concrete slabs) (Strains and stresses)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A. N., Cand. Tech. Sci. (diss) "Development of Method of Computation of Buckling of Reinforced Concrete Plates, Based on Shape and Span without Girders under Effect of Brief Loading," Moscow, 1961, 11 pp. (Acad. of Construc. and Architec. USSR, Sc. Res. Inst. Concrete and Reinf. Concr. "NIIZhB") 180 copies (KL Supp 12-61, 268).

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N., inzh.; KRYLOV, S.M., kand.tekhn.nauk

Method of calculating the flexures of reinforced concrete slabs supported along the edge and girderless roofs under the effect of brief loading. Trudy NIIZHB no.26:59-119 '62. (MIRA 15:7)
(Precast concrete--Testing)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, Aleksey Nikolayevich, kand.tekhn.nauk; SHUVALOV, S.I., spetsred.; NIKOLAYEV, A.M., spetsred.; KORBUT, L.V., red.; PEREDERIY, S.P., tekhn.red.

[Technology of hard cheeses] Tekhnologiia tverdykh syrov. Moskva, Pishchepromizdat, 1960. 58 p. (MIRA 14:6)
(Cheese)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N.

DEMENT'YEV, I.V., inzh.; ZHERNAKOV, Yu.I., inzh.; NIKOLIN, V.I., inzh.; KOROLEV, A.N., inzh. [deceased]; TUMAKOV, V.A., inzh.

Using sublevel caving systems in piller extraction. Bezop. truda v prom. 2 no.3:13-14 Mr '58. (MIRA 11:3)

1. Institut UNIPROMED'.
(Copper mines and mining)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N., kand.med.nauk

Course of pregnancy and labor in multiple pregnancy. Vop.okh. mat. i det. 3 no.1:52-54 Ja-F '58. (MIRA 11:2)

1. Iz akusherako-ginekologicheskoy kliniki Gor'kovskogo meditsinskogo instituta imeni S.M.Kirova (zav. kafedroy - prof. K.G. Cherepakhin)
(BIRTH, MULTIPLE) (PREGNANCY, COMPLICATIONS OF)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N., kand.med.nauk

Effect of nephropathy in pregnant women on the fetus and newborn infants. Sbor. nauch. rab. Kaf. akush. i gin. GMI no.2:39-40 '60. (MIRA 15:4)

1. Iz akushersko-ginekologicheskoy kliniki (direktor prof. G.K. Cherepakhin) Gor'kovskogo meditsinskogo instituta im. S.M.Kirova.
(KIDNEYS--DISEASES) (PREGNANCY, COMPLICATIONS OF)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N., kand.med.nauk

Clinical evaluation of the method of anesthesia in labor using hexenal. Sbor.nauch. rab. Kaf. akush. i gin. GMI no.1:92-93 '60. (MIRA 15:4)

1. Iz akushersko-ginekologicheskoy kliniki (direktor - prof. G.K. Cherepakhin) Gor'kovskogo gos.meditsinskogo instituta.
(HEXOBARBITAL) (ANESTHESIA IN OBSTETRICS)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N., kand.med.nauk

Disorder of cerebral circulation in newborn infants depending on the state of health of the gravida and the course of labor; its prevention and treatment. Sbor. nauch. rab. Kaf. akush. i gin. GMI no.1:120-123 '60. (MIRA 15:4)

1. Iz akushersko-ginekologicheskoy kliniki, direktor prof. G.K. Cherepakhin Gor'kovskogo gos.meditsinskogo instituta.
(BRAIN--BLOOD SUPPLY) (INFANTS (NEWBORN)--DISEASES)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

TSYPKIN, Yakov Zalmanovich; KOROLEV, A.N., red.; RUTMAN, R.S., red.; KRYUCHKOVA, V.N., tekhn. red.

[Theory of linear pulse systems] Teoriia lineinykh impul'snykh sistem. Moskva, Fizmatgiz, 1963. 968 p. (MIRA 16:7)
(Pulse techniques (Electronics))

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N.

MORDVINKIN, N.A.; KOROLEV, A.N.

Forty years of the railroad car industry. Zhel.dor.transp. 39 no.11:46-50 N '57. (MIRA 10:10)

1.Glavnyy inzh. Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya (for Mordvinkin). 2. Zamestitel' glavnogo inzhenera Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya (for Korolev).
(Railroads--Cars)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.N.

Over-all mechanization of car handling operations. Zhel.dor. transp. 43 no.6:33-38 Je '61. (MIRA 14:7)

1. Zamestitel' glavnogo inzhenera Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya.
(Railroads--Rolling stock)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KRIVORUCHKO, Nikolay Zakharovich, kand. tekhn. nauk; SLUSHAYENKO, A.M., dotsent, retsenzent; YELISEYEV, F.G., dots., retsenzent; LERNET, K.S., dots., retsenzent; GLUKHOV, V.A., dots., retsenzent; KIYANOV, P.I., inzh., retsenzent; TSIMIDANOV, V.M., inzh., retsenzent; DOROFEYEV, V.G., inzh., retsenzent; KALEDENKOV, S.S., inzh., retsenzent; KOROLEV, A.N., inzh., retsenzent; LOKSHIN, Kh.A., inzh., retsenzent; FIRSOV, S.I., inzh., retsenzent; SHAKURSKIY, K.D., inzh., retsenzent; UTKIN, A.V., tekh., retsenzent; VALETOV, A.I., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Operation, management, and repair of rolling stock] Vagonnoe khoziaistvo. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 319 p. (MIRA 14:11)

1. Kafedra "Konstruktsiya, remont i ekspluatatsiya vagonov" Rostovskogo instituta inzhenerov zheleznodorozhnogo transporta (for all except Valetov, Bobrova).
(Railroads—Rolling stock)

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BEZTSENNYY, V.I.; KOROLEV, A.N.

Further improvement of the rolling stock. Zhel.dor.transp. 44 no.1:32-37 Ja '62. (MIRA 14:12)

1. Glavnyy inzhener Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya (for Beztsennyy). 2. Zamestitel' glavnogo inzhenera Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya (for Korolev).
(Railroads—Rolling stock)

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KOROLEV, Aleksandr Nikiforovich; POPOV, Aleksandr Ivanovich; SIZOV, K.P., inzh., retsenzent; YAKOVLEV, I.N., inzh., retsenzent; SARANTSEV, Yu.S., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

[Economics, organization, and planning of railroad car operation]Ekonomika, organizatsiia i planirovanie vagonnogo khoziaistva. Moskva, Transzheldorizdat, 1962. 290 p. (MIRA 15:12)

(Railroads—Rolling stock)

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YEMEL'YANOV, N.P.; VEL'MIN, A.A.; KOLOMIYCHENKO, V.V.; KOROLEV, A.N., inzh., retsenzent; BRAYLOVSKIY, N.G., inzh., red.; KHITROVA, N.A., tekhn. red.

[Build-up welding of automatic-coupler parts using a laying lamellar electrode under flux] Naplavka detalei avtostsepki pod fliusom lezhachim plastinchatym elektrodom. Moskva, Transzheldorizdat, 1963. 44 p. (MIRA 16:10)
(Car couplings--Maintenance and repair)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

NAGIBINA, I.M.; KOROLEV, A.N.

Some characteristics of a Fabry-Perot etalon with a small transparent aperture. Opt. i spektr. 15 no.3:421-423 S '63. (MIRA 16:10)

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BEZTSENNYY, V.I.; KOROLEV, A.N.

Prospects for the development of the car fleet. Zhel.dor.transp. 46 no.3:67-71 Mr '64. (MIRA 17:3)

1. Glavnyy inzh. Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya (for Beztsennyy). 2. Zamestitel' glavnogo inzhenera Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya (for Korolev).

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KOROLEV, A.P., kand.tekhn.nauk

New technological processes in machinery manufacture. Vest.AN SSSR 31 no.3:128-130 Mr '61. (MIRA 14:3)
(Machinery industry)

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KOROLEV, A.S.

SKOROKHODOV, N.Ye., kandidat tekhnicheskikh nauk; ZAYKOV, M.A., kandidat tekhnicheskikh nauk; KOROLEV, A.S., inzhener; SKOROKHODOVA, V.F., inzhener.

Measuring the pressures exerted in the cold rolling of thin sheets. Trudy Sib.met.inst. no.2:5-18 '55. (MLRA 9:12)

(Strains and stresses) (Rolling (Metalwork))

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SKOROKHODOV, N.Ye., kandidat tekhnicheskikh nauk, dotsent; GOLUBEV, T.M., professor, doktor tekhnicheskikh nauk; ZAYKOV, M.A., kandidat tekhnicheskikh nauk; CHELYSHEV, N.A., kandidat tekhnicheskikh nauk, dotsent; KOROLEV, A.S., inzhener; OSHIN, V.I., inzhener.

Determining acting forces in friction and eccentric presses. Trudy Sib.met.inst. no.2:19-29 '55. (MLRA 9:12)

(Strains and stresses) (Power presses)

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SKOROKHODOV, N.Ye., dotsent; KUCHKO, I.I., inzhener; KOROLEV, A.S.; SERKIN, M.G.; BUKHVOSTOV, I.G.

Investigation of the rolling of experimental rails. Trudy TSNII MPS no.111:25-32 '55. (MLRA 9:5)
(Railroads--Rails)

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KOROLEV, A.S.

Automatic pullers for set-in taper keys. Mashinostroitel' no.8: 15-16 Ag '57. (MLRA 10:8)

(Machine-shop practice)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.S.; BLYUMKIN, A.M.

Small stand for winding coils of measuring instruments. Torf.prom. 34 no.8:29 '57. (MIRA 11:1)

1.Varegovskoye torfopredpriyatiye.
(Electric coils)

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KOROLEV, A.S.; BLYUMKIN, A.M.

Checking fuses and thermal relays at the Varegovo peat enterprise. Torf.prom. 34 no.8:30 '57. (MIRA 11:1)

1.Varegovskoye torfopredpriyatiye.
(Electric fuses) (Electric relays)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

SKOROKHODOV, N.Ye., dotsent; CHELYSHEV, N.A., kand.tekhn.nauk; ZAYKOV, M.A., dotsent; FROLOV, N.P., inzh.; KOROLEV, A.S., inzh.; KRAVCHENKO, L.Ya., inzh.; SKOROKHODOVA, V.F., inzh.; ABAKUMOV, V.A., dotsent [deceased]; KAFTANOV, M.P., inzh.

Investigating conditions of rolling plain and shaped sections on a medium-shape rolling mill. Trudy NTO Chern.met. 15:24-55 '59. (MIRA 13:7)
(Rolling mills)

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DEM'YANOV, I.K.; TAZIYEV, Zh.Sh.; KOROLEV, A.S.; LEBEDEV, B.N., prof., doktor; NOVIKOVA, Ye.I., assistent

Extraction of gold from rebellious carboniferous ore. Sbor. nauch. trud. Kaz GMI no.19:14-22 '60. (MIRA 15:3)
(Gold ores) (Ore dressing)

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824810013-4

KOROLEV, A.S., inzh.

Calculation of the final settling of an engineering structure on a peat foundation bed. Izv.vys.ucheb.zav.;gor.zhur. 6 no.11:39-45 '63. (MIRA 17:4)

1. Kalininskiy torfyanoy institut. Rekomendovana kafedroy transporta torfa.

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