"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITSKIY, Yu.V.

21

PROCESSES AND PROPERTIES INDEX

The effect of alkyd varnish on transformer oil. L. N. Alekandrinskaya and Yu. V. Koritskii. *Vestnik Elektroprom.* 1939, No. 7, 22-4; *Khim. Referat. Zhur.* 1939, No. 12, 96.—The expts. were performed with 2 samples of glyptalic varnish No. 1154 (boiled with linseed and with hempseed oil). It was found that both varnishes cause a strong oxidation of transformer oil, an increase of the acid no. and an acid reaction of the ext. The presence of water-sol. acids in varnish No. 1154 depends on the method of production as well as on the tech. processes of boiling and on the bakine conditions. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITSKIY, Yu. V.

15

PROCESSES AND PROPERTIES INDEX

Effect of water-soluble salts on the electric properties of paper boards. Yu. V. Koritskii. *Vestnik Elektroprom.* **1950**, No. 9, 25-7.—Both Russian and imported paper boards were dried to a const. wt. at 105°, and then placed in atms. of various relative humidities until const. in wt. after which the sp. vol. resistance was tested at 1500 v. d. c. The variation in water-sol. salt content from 0.31 to 0.58% had no practical effect on elec. resistance. Analogous results were obtained when the specimens were dried at 105° and then impregnated with transformer oil. B. Z. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

13

CA

KORITSKIY, Yu. V.

Study of the electric insulating properties of paper boards by the method of rapid aging. Yu. V. Koritskii, A. A. Volkova and B. V. Kissovich. *Bumazhnaya Prom.* 17, No. 8, 27-33(1939).--Paper boards and cond denser paper were subjected to rapid aging in Russian transformer oil and in imported acid-refined mineral oil at 150°. The φ and mech. properties were detd. after aging and the results are given in tables and graphs. The boards aged more intensively in oil than in air. The sulfate specimens were most resistant against heat in the oil.

B. Z. Kanich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITSKIY YU. V.

USSR/ Electricity Electric Power Publications Apr 49

"New Books on Power Engineering" 1 p

"Elek Stants" No 4

Brief reviews include: N. K. Bodashkov's "Breakdowns in Stream Turbines and Their Prevention," G. K. Zherbe's "Testing Asynchronous Motors After Repairs," T. A. Zikeyev and A. I. Karelin's "Analysis of Power Fuels," "Installation and Operation of High-Pressure Boilers," edited by S. Ta. Fayerman and S. M. Shukher, "Handbook on Electrical Insulation," edited by Yu. V. Koritskiy and B. M. Tareyev, and F. A. Stupel's "Automatic and Protective Relays,"

PA 55/49T27

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITSKIY, YU. V.

Koritskii, IU. V. The manufacture of micaceous electric insulation materials
Moskva, Gos. energ. izd-vo, 1951

114 p. (51-34902) TK3441.M5K6

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

S/564/57/000/000/019/029
D258/D307

AUTHORS: Kapralov, K. V., Koritskiy, Yu. V., and Sheftal', N. N.

TITLE: First attempts at growing large crystals of mica

SOURCE: Rost kristallov; doklady na Pervom soveshchanii po rostu kristallov, 1956 g. Moscow, Izd-vo AN SSSR, 1957, 273-276

TEXT: The present work was carried out in 1947-1949 in Laboratoriya slyudyanoy izolyatsii Vsesoyuznogo elektrotekhnicheskogo instituta (Mica Insulation Laboratory of the All-Union Electrotechnical Institute), (Kapralov and Koritskiy), with consultations from Sheftal' of Institut kristallografii AN SSSR (Crystallography Institute of the AS USSR). In 1947 preliminary fusions with unspecialized apparatus showed that graphite was the best crucible material (in CO at 1400°C). The

Card 1/2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

First attempts... S/564/57/000/000/019/029
D258/D307

period 1948-1949 was spent in construction of special furnaces. Small mica crystals containing 16 - 50% of glass were obtained, frequently in two generations (resulting in crossed crystals); flourine losses were considerable. A 2-chamber furnace with closely controlled temperature distribution was completed in 1949. Charge compositions of ~ 40% quarts, 16 - 29% KF, 18 - 32% MgO, and 11.5 - 22% Al_2O_3 were tried, as well as 71% natural phlogopite with 29% KF, and a mixture corresponding to the calculated formula of phlogopite. Positive results (crystals up to 4 x 2.5 cm) were obtained by placing the crucible in a KF bath. The optimum conditions are: charge composition 41.0 SiO_2, 25.0 MgO, 14.0 Al_2O_3, and 20.0% KF; heating to 1400 - 1500°C over 2 - 3 hrs, rapid cooling to 1300 - 1295°C, slow cooling at 3 - 5°/hr to 1200 - 1220°C. Further work is in progress at the Crystallography Institute. There are 3 figures.

Card 2/2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITSKIY, Yu. V.

ANDRIANOV, Kuz'ma Andrianovich; KORITSKIY, Yu.V., red.; VORONIN, K.P., tekhn.red.

[Heatproof silicon organic dielectrics] Teplostoikie kremnii-organicheskie dielektriki. Moskva, Gos.energ.izd-vo, 1957. 295 p. (MIRA 10:12)

(Silicon organic compounds) (Electric insulators and insulation) (Dielectrics)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

32(2)

SOV/112-59-5-9146

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 105 (USSR)

AUTHOR: ~~Koritskiy, Yu. V.~~

TITLE: The Problem of Heat-Resisting Insulation for Automobile Generators

PERIODICAL: Avtotrakt. elektrooborudovaniye, 1957, Nr 1, pp 52-55

ABSTRACT: At present, class-A insulation material with a maximum permissible temperature of 105°C is used for automobile generators. The service life of electrical machinery operating at this temperature is 10-15 years. Considering that automobile generators have a short service life as compared to that of general-purpose industrial electrical machinery and their working voltage is low, and also the fact that the electric insulation does not represent a weak spot in the serial automobile generators, the new GOST standards permit a maximum operating temperature of 135°C for generator windings. This heating rating has been confirmed by many years of actual operation. It has been estimated that further raising of the maximum temperature up to

Card 1/2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

SOV/112-59-5-9146

The Problem of Heat-Resisting Insulation for Automobile Generators

160°C could bring about a considerable economy. On the above basis, NII Avtopriborov (Scientific-Research Institute of Automobile Equipment) is engaged in a project to create a heat-resisting insulation for DC generators that would take into account the specific features of constructing and operating such generators.

M.Z.B.

Card. 2/2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITSKIY, Yu.V., dotsent, kand.tekhn.nauk, laureat Stalinskoy premii, red.; TAREYEV, B.M., prof., doktor tekhn.nauk, laureat Stalinskoy premii, red.; ANDRIANOV, K.A., prof., laureat Stalinskoy premii; red.; BOGORODITSKIY, N.P., prof., doktor tekhn.nauk, laureat Stalinskoy premii, red.; ANTIK, I.V., red.; FRIDKIN, A.M., tekhn.red.

[Manual on materials used in electric engineering; in two volumes] Spravochnik po elektrotekhnicheskim materialam; v dvukh tomakh. Vol.1. [Electric insulation materials] Elektroizoliatsionnye materialy. Pt.1. [Characteristics of materials] Svoistva materialov. Pod obshchei red. IU.V.Koritskogo i B.M.Tareeva. 1958. 460 p. (MIRA 12:4)

1. Chlen-korrespondent AN SSSR (for Andrianov).
(Electric insulators and insulation)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

MIKHAYLOV, M.M.; KOSTENKO, M.P.; NEYMAN, L.R.; TARNEYEV, B.M.; PRIVEZENTSEV, V.A.; ZAYTSEV, I.A.; SHRAMKOV, Ye.G.; KORITSKIY, Ku.V.

Professor V.T. Renne; on his 50th birthday. Elektrichestvo no.7: 92 Jl '58. (MIRA 11:8)

(Renne, Vladimir Tikhonovich, 1908-)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

AUTHORS: Chuyenkov, V. A., Astafurov, A. V., Konorova, Ye. A., Koritskiy, Yu. V., Odoyevskiy, V. A.

48-22-4-18/24

TITLE: Discussion on the Lectures Held by G. A. Andreyev; A. V. Astafurov; K. K. Sonchik; I. Ye. Balygin (Prenija po dokladam: G. A. Andreyeva; A.V. Astafurova; K.K. Sonchika; I.Ye. Balygina)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958, Vol. 22, Nr 4, pp. 438-438 (USSR)

ABSTRACT: V. A. Chuyenkov maintains, that the experiments by Krasin, which were conducted at Tomsk show the opposite of the assertions by Balygin. For this reason the problem cannot be considered solved. The experiments by Astafurov proved to be interesting. A. B. Astafurov critizes the lecture by Balygin. He maintains, that the fact of a double or treble breakdown of the liquid under a single pulse seems somewhat peculiar, in particular, as these subsequent breakdowns occur at a reduction of voltage. It is possible, that this phenomenon is due to the insufficiencies of the circuits. As the author performed no degassing of the liquid, the values of the breakdown voltage obtained by him are obviously too low. The physical process recorded on the oscillographs is dis-

Card 1/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

Discussion on the Lectures Held by G. A. Andreyev; A. V. Astafurov; K. K. Sonchik; I. Ye. Balygin 46-22-4-18/24

torted because of gas inclusions. Ye. A. Konorova states, that the experimental results obtained by Andreyev do not contradict the results obtained by her. Astafurov overlooked a fault in his work, consisting of an insufficient contact of the electrode and the ice. Yu. V. Koritskiy remarked, concerning the lecture by Andreyev, that it is inevitably necessary to take into account the dependence of dielectric strength upon the duration of the voltage application (exposure) in the examination of the rules governing electric breakdown. This was not done by the author. Another contradiction appears in the lecture, consisting of the fact, that the factor influencing the magnitude of the current previous to disruption has no influence on the dielectric strength in thermal breakdown. The lecturer said with respect to the lecture by Balygin, that it was a great drawback of the work not to purify sufficiently the samples of the investigated liquids. V. A. Odoyevskiy criticizes the work by A. A. Vorob'yev and his coworkers and is of opinion, that they dealt with the same subject in several variations, without analyzing the physics

Card 2/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

Discussion on the Lectures Held by G. A. Andreyev; A. V. Astafurov; K. K. Sonchik; I. Ye. Balygin 48-22-4-18/24

of the mechanism. Their assertions have been refuted for a long time.

AVAILABLE: Library of Congress

1. Scientific reports--Critic

Card 3/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

ANDRIANOV, K.A., obshchiy red.; BOGORODITSKIY, N.P., obshchiy red.; KORITSKIY, Yu.V., obshchiy red.; TAREYEV, B.M., obshchiy red.; ANTIK, I.V., red.; FRIDKIN, A.M., tekhn.red.

[Handbook on electrical engineering materials in two volumes] Spravochnik po elektrotekhnicheskim materialam v dvukh tomakh. Moskva, Gos.energ.izd-vo. Vol.1. [Electrical insulation materials] Elektroizoliatsionnye materialy. Pt.2. [Methods of testing and use of materials] Metody ispytaniia i primeneniia materialov. Pod obshchei red. IU.V.Koritskogo i B.M.Tareeva. 1959. 476 p. (MIRA 12:9)
(Electric insulators and insulation)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

SOV/110-59-5-9/25

AUTHORS: Koritskiy, Yu.V., Candidate of Technical Sciences
~~Petrova, Ye.N.,~~ Engineer

TITLE: The Bonding-Power of Impregnating Varnishes (Tsementiruyushchaya sposobnost' propitochnykh lakov)

PERIODICAL: Vestnik elektropromyshlennosti, 1959, Nr 5, pp 34-38 (USSR)

ABSTRACT: Armature end-windings are liable to damage if they are not consolidated by the impregnating varnish. The bonding-power of the impregnating varnish is particularly important when the windings are of enamelled wire which does not bind together so easily as cotton-covered wire. The method used in the All-Union Electrotechnical Institute imeni "Lenin" to determine the bonding-power is described. The test samples are made up of bundles of six identical wires into which a seventh similar wire is inserted to a depth of 15 mm. The joint is bound with wire 0.5 mm diameter. Specimens prepared in this way are impregnated once with varnish, dried in the appropriate manner and matured for 24 hours at 120°C. Measured tensions are applied to the seventh wire to determine bonding-power at different temperatures, after thermal ageing or after exposure to water or corrosive

Card 1/4

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

media. Preliminary tests indicated the scatter of results and the number of samples that should be tested. These tests were made on six groups each of sixty specimens of wire grade PEL, 1.6 mm diameter, impregnated with oil-bitumen varnish 447. The test results given in Fig 1 follow a normal Gaussian distribution so that the mean error can be calculated by the usual formula. The bonding-power was found to be 12 kg and the mean error 0.88 kg or 7.3%. This value was considered satisfactory, particularly as the scatter was even smaller for varnishes of greater bonding-power. Results of determinations of the bonding-power of various varnishes on several grades of enamelled wire in the initial condition at room temperature are given in Table 1. The varnishes and the wire-enamels are identified only by code letters. The selection of drying times for the various varnishes is discussed. The relationship between the bonding-power of different varnishes and their composition and characteristics is discussed. Wire grade PEL was

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-

impregnated with various organic varnishes. The bonding-powers are plotted against temperature in Fig 2. Corresponding curves for various silicone varnishes are seen in Fig 3. Likewise the consequences of ageing organic varnishes for various times at 135 and 160°C are indicated in Fig 4. The results of tensile tests on specimens impregnated with the varnishes referred to in Fig 4 after 720 hours ageing at 135 and 160°C are given in Table 2. The bonding-power of silicone varnishes applied to wire grade PEL changes during ageing at 180°C in the manner plotted in Fig 5. The wire-enamel was found to be undamaged even after ageing at 180°C provided it was covered with varnish, but where the enamel was not protected it was cracked. It is concluded that the procedure used to determine the bonding-power of impregnated varnishes is an objective qualitative method that facilitates correct choice of impregnating varnish for particular operating conditions. It is found that a given varnish may perform differently on different grades of wire. On wire grade PEL, varnish 447 has a

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

low initial bonding-power, which falls off rapidly as the temperature is increased. The organic varnishes with the best temperature characteristics are grades ML-92 and AF-17M. Varnishes of the K series have high bonding-power initially. The best results were obtained with varnish K-54 without dryer and varnish K-47 dried at 200°C. There are 5 figures and 2 tables.

SUBMITTED: 16th January 1959

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

ANDRIANOV, K.A., red.; BOGORODITSKIY, N.P., red.; KORITSKIY, Yu.V., red.; PASYNKOV, V.V., red.; TARKEYEV, B.M., red.; SOBOLEVA, Ye.M., tekhn.red.

[Handbook on electric engineering materials; in two volumes] Spravochnik po elektrotekhnicheskim materialam v dvukh tomakh. Moskva, Gos.energ.izd-vo. Vol.2. [Magnetic, conducting, semiconductor and other materials] Magnitnye, provodnikovye, poluprovodnikovye i drugie materialy. Pod red. N.P.Bogoroditskogo i V.V.Pasynkova. 1960. 511 p. (MIRA 14:1)
(Electric engineering--Materials)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

ANDRIANOV, Kuz'ma Andrianovich. Prinimali uchastiye: PARKSHEYAN, Kh.R; ROMANOV, R.G.; SEMENKO, P.Ya.; ZABYRINA, K.I., red.; KALITVYANSKIY, V.I., red.; KORITSKIY, Yu.V., red.; KEVAL'KOVSKIY, A.V., red.; EPSHTEYN, L.A., red.

[Macromolecular compounds for electrical insulation] Vysokomolekuliarnye soedineniia dlia elektricheskoi izoliatsii. Moskva, Gos. energ.izd-vo, 1961. 327 p. (Polimery v elektroizoliatsionnoi tekhnike, no.1) (MIRA 15:2)
(Electric insulators and insulation) (Polymers)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITSKIY, Yuriy Vladimirovich; MAGIDSON, A.O., red.; BORUNOV, N.I., tekhn.red.

[Electrical engineering materials]Elektrotekhnicheskie materialy. Moskva, Gosenergoizdat, 1962. 366 p. (MIRA 16:3)
(Electric engineering--Materials)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

VARDENBURG, Arnol'd Kurtovich; ANDRIANOV, K.A., glavnyy red.; ZABYRINA, K.I., red.; KALITVYANSKIY, V.I., red.; KORITSKIY, Yu.V., red.; KHVAL'KOVSKIY, A.V., red.; EPSHTEYN, L.A., red. [deceased]; SHISHKIN, S.V., red.; BORUNOV, N.I., tekhn.red.

[Plastics in the electric equipment industry] Plasticheskie massy v elektrotekhnicheskoi promyshlennosti. Izd.3., perer. i dop. Moskva, Gosenergoizdat, 1963. 284 p. (Polimery v elektroizoliatsionnoi tekhnike, no.5)

(MIRA 16:8)

(Plastics) (Electric equipment industry)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

BREYTVEYT, Konstantin Vasil'yevich; KORITSKIY, Yuriy Vladimirovich; KULAKOVA, Revekka Viktorovna; SOKOLOVA, Serafima Leonidovna; RYZHIKHINA, Ye.G., red.; BUL'DYAYEV, N.A., tekhn. red.

[Manufacture, properties, and application of cellulose electric insulating papers and cardboards] Proizvodstvo, svoistva i primenenie elektroizoliatsionnykh tselliuloznykh bumag i kartonov. [By] K.V.Breitveit i dr. Moskva, Gosenergoizdat, 1963. 319 p. (Polimery v elektroizoliatsionnoi tekhnike, no.7) (MIRA 17:2)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

BOGORODITSKIY, N.P.; VAVILOV, V.S.; VALEYEV, Kh.S.; DROZDOV, N.G.; KORITSKIY, Yu.V.; PRIVEZENTSEV, V.A.; RENNE, V.T.; TAREYEV, B.M.; YAMANOV, S.A.

B.M. Vul; on his 60th birthday and 35th anniversary of his scientific work. Elektrichestvo no.8:95 Ag '63. (MIRA 16:10)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

VOLKOV, V.A., kand. tekhn. nauk; KORITSKIY, Yu.V., kand. tekhn. nauk

Relationship between electrical and mechanical properties of mica fiber insulation. Elektrichestvo no.10:63-68 O '64. (MIRA 17:12)

1. Vsesoyuznyy elektrotekhnicheskiy institut im. V.I. Lenina.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITTA, I.

70-5-16/31

AUTHORS: Yezhek, I., Koritta, I., Doctors of Technical Sciences, Lebl, K., Candidate of Technical Sciences

TITLE: On the Question of the Morphology of Spherulitic Graphite in High-strength Cast Iron (K voprosu o morfologii sferovidnogo grafita v vysokoprochnom chugune)

PERIODICAL: Kristallografiya, 1957, Vol.2, no.5, pp. 663-669 (USSR).

ABSTRACT: Investigations of graphite which had separated in grey, high-strength and malleable cast irons showed that the flakes had different mutual orientations in each case. In high-strength cast iron the graphite does not separate as spheres but the form is determined by the growth of crystallites in the [10.0] direction. No signs of nuclei were found at the centres of the grains even with the best electron microscopic techniques. Hence, the "nuclei" which can often be seen in optical microscopy must be illusory. The surface layers of spherulitic graphite in specimens of iron from ferrite annealing are shown. It was established that the separate elementary platelets of graphite in carbon of malleableizing are usually 5 to 50 times greater than in grains of cast iron with spherulitic graphite and are of the order of magnitude of the floccular graphite which initially separates in grey iron.

Card1/2 Replicas for microscopic examination in the Czech-made Tesla

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITTA, J.

KORITTA, J.

For further economy in nonferrous metals. p. 225 (Slevarenstvi. Praha. Vol. 2, no. 8, Aug. 1954)
SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, June 1955, Uncl.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

New Devices for Studying and Testing [illegible]

[illegible] machine, an apparatus for [illegible]

[illegible] magnifying [illegible]

apparatus for measuring bystream loss in transformer sheets and an ultrasonic device for defectoscopy for testing [illegible] in compound bearings. (18 references)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITTA, J.

Otakar Quadrat's 70th birthday. p. 556.
(Hutnicke Listy, Vol. 11, no. 9, September 1956. Brno, Czechoslovakia)

SO: Monthly List of East European Accessions. (EEAL) LC. Vol. 6, No. 6, June 1957. Uncl.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITKA, J.; LINHART, V.

Reducing the consumption of materials.

P. 481, (Strojirenstvi) Vol. 7, no. 7, July, 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol, 6, No. 11 November 1957

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITTA, J.

Distr: 4E2c/4E3d

Phosphorus pentachloride-inoculated hypereutectoid aluminum-silicon alloys. Influence of temperature and time on the size of silicon primary crystals. Josef Koritta and A. Franěk. *Hutnické listy* 13, 1081-7(1958). The following conclusions were derived from tests performed for the technology of the manuf. of hypereutectoid Al-Si alloys with about 20% Si content. The most suitable inoculation temp. upon addn. of 0.45% PCl_5 is in the range 780-810°. The temps. above 810° have no appreciable influence on the size of primary crystals, supposing that casting is performed immediately after the inoculation. The influence of PCl_5 in the range 780-810° remains essentially unchanged with time of maintaining the bath at that temp. Remelting has no influence on the refining effect of PCl_5 addn. The tests performed have shown that by means of suitable choice of temp. and time uniform and fine-grained sepn. of Si primary crystals in a hypereutectoid alloy can be obtained.

Petr Schneider

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITTA, J.

J. Zboril's Materialy jadernych reaktoru

JADERNA ENERGIE. (Ministerstvo energetiky) Praha, Czechoslovakia, Vol. 5, No. 4 Apr. 1959

Monthly List of East European Accessions (EEAI), LV, Vol. 8, No. 7, July 1959 Uncl.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

PHASE I BOOK EXPLOITATION CZECH/5253

Weigner, Jaromír, Docent, Engineer, Doctor, Rudolf Bárta, Professor, Engineer, Doctor, Doctor of Technical Sciences, and Josef Koritta, Professor, Engineer, Doctor.

Průmysl anorganickochemický, silikátový a metalurgie (Industry of Inorganic Chemistry, Silicates, and Metallurgy) Prague, SNTL, 1960. 333 p. (Series: Obecná chemická technologie, 1) 3,200 copies printed.

Reviewers: Mikuláš Gregor, Professor, Engineer, Doctor, František Kanhäuser, Professor, Engineer, Doctor, and Albert Regner, Professor, Engineer, Doctor. Tech. Ed.: Marie Králová. Chief Ed.: Adolf Balada, Doctor. Resp. Ed.: Jindřich Šob, Engineer.

PURPOSE: This book is intended for chemical engineers and technicians working in the chemical industry, and for students enrolled in higher schools of technology.

COVERAGE: The book surveys the principal processes used in the production of inorganic chemicals, in the technology of silicates, and in the chemical technology of metals. It has been approved by decree of the Ministerstvo

Card 1/15

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

CERNAC, Eduard; FRANEK, Alexander; KORITTA, Josef

Use of calcium carbide in the process of melting cast iron in a cupola furnace. Sbor chem tech 4 no.2:179-192 '60.
(EEAI 10:9/10)

1. Katedra chemicke technologie kovu, Vysoka skola chemicko-technologicka, Praha.

(Calcium carbide) (Cast iron) (Cupola furnaces)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

VOSOLSOBE, Jan; KORITTA, Josef

Report on the scientific research of the Faculty of Inorganic Technology for 1958. Sbor chem tech 4 no.2:525-544 '60.
(EEAI 10:9/10)

(Chemistry, Inorganic)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

S/123/62/000/010/012/013
A004/A101

AUTHORS: Koritta, J., Hrubant, L.

TITLE: Die-forging of high-speed steels

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 10, 1962, 7, abstract 10V35P. (Czechoslovakian Patent, Class 18 c, 8/40, No. 97764, 15.12.60)

TEXT: The authors suggest, instead of smith-forging high-speed steel tools, to produce them by precision die-forging with three-stage heating, owing to which machining and annealing of the forgings can be dispensed with, the serviceable output increases from 40% to 90%, the productive capacity is raised by a factor of 10 - 40, while the tool service life grows (owing to the correct fiber arrangement). The heating time in minutes for each stage is equal to the product of coefficient K_1, which depends on the degree of alloying of the steel, by blank thickness in mm and by difference between the final and initial temperature of the given stage. The holding time in minutes is equal to the similar coefficient K_2 multiplied by the blank thickness in mm. The following approximate stage ranges and values of K_1 are recommended: 1) 0 - 700°C; K_1 = 0.0004 - 0.0018; 2) 700 - 900°C; K_1 =

Card 1/2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

HOLECEK, S.; FRANEK, A.; KORITTA, J.

Alloying aluminum and its alloys with manganese. Slevarenstvi 10 no.11: 471-473 N '62.

1. Vysoka skola chemicko-technologicka, Praha.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITTA, J.

"Annotated metallographic specimens." Reviewed by J. Koritta.
Chem listy 57 no.3:278-279 Mr '63.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITTA, J., prof., dr.

Professor Otakar Quadrat; obituary. Hut listy 18 no. 12: 901-902 D '63.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITTA, J.

Professor Otakar Quadrat; obituary. Chem listy 58 no.1: 48-50 Ja'64.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

L 05404-67 EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6032830 (A) SOURCE CODE: CZ/0078/66/000/007/0018/0018

AUTHOR: Holecek, Stanislav (Engineer; Prague); Franek, Alexandr (Engineer; Prague); Koritta, Josef (Engineer; Doctor; Prague); Manas, Jaroslav (Tynec nad Sazavou); Svoboda, Bohumil (Tynec nad Sazavou)

ORG: none

TITLE: Composition of super-eutectic aluminum alloys. CZ Pat. No. PV-6003-65

SOURCE: Vynalezy, no. 7, 1966, 18

TOPIC TAGS: aluminum alloy, castability, structure stability, silicon containing alloy, copper containing alloy, nickel containing alloy, manganese containing alloy, calcium containing alloy, zinc containing alloy, magnesium containing alloy, iron containing alloy, eutectic alloy, eutectic aluminum alloy

ABSTRACT: The composition of super-eutectic aluminum alloys having increased structural stability in casting condition is suggested as follows: 18—28% silicon, 0.5—4.0% copper, 0.001—3.0% nickel, 0.3—9.0% manganese, 0.001—0.2% calcium, impurities, a maximum of 0.5% iron, a maximum of 0.1% zinc, and a maximum of 0.1% magnesium.

Card 1/1 SUB CODE: 11/ SUBM DATE: 04Oct65/

MACASEK, I.; KORITTA, J.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

Metallurgical conference in Paris, October 1961. Slevarenstvi 10 no.2:81 F '62

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

1. KORITYSKIY, YA. I.

2. SSSR (600)

4. Vibration

7. New universal vibrometer.
Vest. mash. 32 No. 10, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITYSSKIY, YA.I.

KORITYSSKIY, Ya.I., kandidat tekhnicheskikh nauk; ZONOV, B.T., inzhener.

Testing an automatic bobbin changer by means of moving pictures.
Tekst.prom. 14 no.6:35-38 Je '54. (MIRA 7:7)
(Textile machinery) (Moving pictures in industry)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITYSSKIY, Ya.I.

Portable vibrometers with wire strain gauges. Priborostroenie no.10:3 of cover O '57 (MIRA 10:11)
(Vibration--Measurement)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITYSSKIY, Ya. I., kandidat tekhnicheskikh nauk.; LEBEDEVA, N.N., inzhener.

Variations in the speed of a spindle. Tekst. prom. 17 no.4:26-29 Ap '57.
(Silk manufacture) (Spinning machinery) (MLRA 10:4)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITYSSKIY, Ya. I.

KORITYSSKIY, Ya.I., kand.tekhn.nauk; LEBEDEVA, N.N., inzhener.

Quality of silk-throwing bobbins and spindles. Tekst.prom. 17 no.9:43-46 S '57. (MIRA 10:11)

(Silk manufacture)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

25(2) PHASE I BOOK EXPLOITATION SOV/3089

Koritysskiy, Yakov Il'ich, Grigoriy Nikolayevich Zakharov, Lev Yudel'yevich Polyakovskiy, Vitaliy Konstantinovich Makarov, and Boris Tikhonovich Zonov

Pribory i ustanovki dlya issledovaniya tekstil'nykh mashin (Instruments and Installations for Investigating Textile Machinery) Moscow, Mashgiz, 1958. 278 p. 2,400 copies printed. (Series: Vsesoyuznyy nauchno-issledovatel'skiy institut tekstil'nogo i legkogo mashinostroyeniya. Sbornik trudov, No. 4)

Sponsoring Agencies: USSR. Gosudarstvennaya planovaya komissiya. Glavnoye upravleniye nauchno-issledovatel'skikh i proyektnykh organizatsiy, and Vsesoyuznyy nauchno-issledovatel'skiy institut tekstil'nogo i legkogo mashinostroyeniya.

Ed.: S.O. Dobrogurskiy, Honored Worker in Science and Technology, Doctor of Technical Sciences, Professor; Tech. Ed.: A. F. Uvarova; Managing Ed. for Literature on Machine and Instrument Construction: N.V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for scientific workers, aspirants, research engineers and technicians, designers of textile machinery, and technologists in the textile industry.

Card 1/ 12

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITYSSKIY, Ya.I.; KUZNETSOV, V.S.; KORNEV, I.V.; LEBEDEVA, N.N.

High-lifting spindles for large packages. Biul.tekh.-ekon.inform. no.11:55-57 '59. (MIRA 13:4)
(Spinning machinery)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORNEV, I.V.; POLYAKOVSKIY, L.Yu.; ZONOV, B.T.; ZAKHAROV, V.A.; KORITYSSKIY, Ya.I.

Results of the investigation of Zultser looms. Tekst. prom. 19 no.6:30-35 Je '59. (MIRA 12:9)

1.Sotrudniki Vsesoyuznogo nauchno-issledovatel'skogo instituta tekstil'nogo i legkogo mashinostroyeniya.
(Looms)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITYSSKIY, Ya.I.; KUZNETSOV, V.S.; KORNEV, I.V.; LEBEDEVA, N.N.

New high-lifting spindle for large packages. Tekst. prom. 19 no.9:32-35 S '59. (MIRA 12:12)
(Spinning machinery)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITYSSKIY, Ya. I.; KORNEV, I. V.; ODINTSOVA, A. P.; KATSMAN, Z. Ya.

PDKV apparatus for testing bobbins. Tekst.prom. 20 no.9:23-26 S '60. (MIRA 13:10)

1. Sotrudniki Vsesoyuznogo nauchno-issledovatel'skogo instituta tekstil'nogo i legkogo mashinostroyeniya (for Korityssky, Kornev). 2. Rabotniki fabriki "Krasnaya krutil'shchitsa" (for Odintsova, Katsman).

(Bobbins (Textile machinery)--Testing)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITYSSKIY, Ya.I.; DOBROGURSKIY, S.O., doktor tekhn. nauk, prof., retsenzent; PEREVERZEV, V.V., inzh., red.; TAIROVA, A.L., red. izd-va; UVAROVA, A.F., tekhn. red.

[Studying the dynamics and design of high-speed spindles for textile machines] Issledovaniia dinamiki i konstruktsii vysokoproizvoditel'nykh vereten tekstil'nykh mashin. Moskva, Mashgiz, 1963. 642 p. (MIRA 17:1)
(Spinning machinery)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

IORISH, Yu.I.; ANTSYFEROV, M.S., kand. fiz.-mat. nauk, retsenzent; BRANOVSKIY, M.A., kand. tekhn.nauk, red.; BRATANOVSKIY, V.A., red.; BYKHOVSKIY, I.I., inzh., red.; VASIL'YEVA, R.V., inzh., red.; KORITYSSKIY, Ya.I., kand. tekhn. nauk, red.; KUSHUL', M.Ya., doktor tekhn. nauk, red.; PEVZNER, L.A., inzh., red.; SHMELEV, V.A., kand. tekhn. nauk, red.; BYSTRITSKAYA, V.V., red.izd-va; UVAROVA, A.F., tekhn. red.

[Vibrometry; measurement of vibrations and shocks, general theory, methods and devices] Vibriometriia; izmerenie vibratsii i udarov. Obshchaia teoriia, metody i pribory. Izd.2., perer. i dop. Moskva, Mashgiz, 1963. 771 p. (MIRA 17:2)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORITYSSKIY, Ya.I., kand. tekhn. nauk; LEBEDEVA, N.N., inzh.; TOLPYGINA, G.P., inzh.

Effect of the dynamic unbalance and quality of the cops on spindle vibration. Nauch.-issl. trudy VNIILTEKMASHa no.10:160-165 '63. (MIRA 18:2)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORIVKINA, L.A.; MALASHENKO, L.P.

Volatile products of the caking stage in the process of continuous carbonization. Trudy IGI 12:124-129 '61. (MIRA 14:3)
(Coal--Carbonization) (Coal tar products)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORIYENKO, [illegible]

1417. Treatment of anaplasmosis in large horned cattle. Z P [illegible]

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

INTRY : USSR
TEGORY : Farm Animals.
The Swine.
S. JOUR. : RZhBiol., No. 3, 1959, No. 12072

THOR : Korizhnov, Ye. V.
ST. : All-Union Scientific Research Institute of*
TLE : The Protein Level in the Ration of Pregnant Sows.

IG. PUB. : Byul. nauchno-tekhn. inform. Vses. n.-i. in-t zhivotnovodstva, 1957, (vyp.) aspirantskiy,**

STRACT : An experiment was carried out on 4 groups of sows of the large white breed. In addition to the basic ration the animals of the experimental group were given fodder protein (FP) which had been obtained from castor-oil cake, in the amount of 40 percent of the basic ration's digestible protein. The fodder protein had the following composition: 83.37 percent of protein, 2.54 percent of fat, 5.17 percent of PES (protein extracted substance), 1.61 percent of moisture. The first group was given

rd: 1/3

*Animal Husbandry
**15-19

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORJUS, H.

Experiences growing the seed of reed canary grass (Phalaris arundunacea). p. 16

SOTSILISTLIK POLLUMAJANDUS. POLLUMJANDUSE MINISTEERIUM.
Tallin, Hungary. No. 1, 1958

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 11
November 1959.

Uncl.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

AAMISEPP, I.; EICHENBAUM, E.; HALLER, E.; KAARLI, K.; KIIK, H.; KIVI, V.; KOTKAS, H.; KORJUS, H.; LEIVATEGIJA, L.; LIIV, J.; LÄNTS, L.; MÄLKSOO, A.; PEDAJA, V.; POLNA, H.; RANDALU, I.; RUUGE, J.; SEKSEL, H.; TOOMRE, R.; TUPITS, H.; TUUL, S.; TÕNISSON, H.; TÄÄGER, A.; VIIRAND, M.; VAHENÕMM, K.; ARAK, A., red.

[Plant breeding] Taimekasvatus. Tallinn, Eesti Raamat, 1964. 813 p. [In Estonian] (MIRA 18:1)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKA, J.

"Designing the grinding line from the point of view of the homogeneity of paper." P. 104.

PAPIR A CELULOSA. (Ministerstvo lesu a drevarskeho prumyslu). Praha, Czechoslovakia, Vol. 14, No. 5, May 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKACH, V.I.

Dynamics of the changes in temperature, oxygen tension and blood circulation in skeletal muscles during and following action. Fiziol.zhur. [Ukr.] 10 no.4:523-527 Jl-Ag '64. (MIRA 18:11)

1. Kafedra normal'noy fiziologii Kiyevskogo meditsinskogo instituta im. Bogomil'tsa.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKESHKIN, A., polkovnik

"West Berlin" by P.A.Shteiniger. Reviewed by A. Korkeshkin.
Starsh.-serzh. no.10:33 O '61. (MIRA 15:2)
(Espionage) (Shteiniger, P.A.)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKESHKIN, A., polkovnik

Do away with the European center of tension. Komm.Vooruzh. Sil 1 no.18:76-78 S '61. (MIRA 14:9)
(Berlin—International status)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKESHKIN, A., polkovnik

Struggle of the peoples of capitalist countries for the preservation of sovreignty. Komm. Vooruzh. Sil. 4 no.9:74-80 My '64.

(MIRA 17:6)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKESHKIN, A.P.

LUKANIN, Ye.A., polkovnik; CHEREDNICHENKO, V.T., polkovnik; LESNEVSKIY, S.A., polkovnik; KOLOTOV, V.I., kapitan 1 ranga; KORKESHKIN, A.P., polkovnik; FOROFONOV, I.F., podpolkovnik; ROZANOV, I.S., podpolkovnik; LISENKOV, M.M., podpolkovnik; SAPRONOV, A.T., mayor; BELASHCHENKO, T.K., mayor; SKAPENKOVA, T.N.; SOROKINA, L.D.; ZOTOV, M.M., polkovnik, red.; MYASNIKOVA, T.F., tekhn.red.

[Material for political studies; a manual for group leaders] Materialy k politicheskim zaniatiiam v pomoshch' rukovoditeliam grupp. Moskva, Voen.izd-vo M-va obor. SSSR, 1958. 199 p. (MIRA 11:5)

1. Russia (1923- U.S.S.R.) Armiya. Upravleniye propagandy i agitatsii. 2. Voyennyy otdel Gosudarstvennoy biblioteki imeni V.I.Lenina (for Skapenkova, Sorokina)
(Russia--Army--Education, Nonmilitary)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKESHKIN, Anatoliy Petrovich

[National People's Army of the German Democratic Republic] Natsional'naia narodnaia armiia GDR. Moskva, Voen.izd-vo, 1960. 84 p. (MIRA 14:4)
(Germany, East--Army)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKESHKO, A. L.

22581. KORKESHKO, A. L. Opyt kul'tury dekorat'vnykh mnogoletnikov. (Bashkir, Botan. sad). Byulleten' glav. botan. Sada, vyp. 2, 1949, S. 50-55

SO: LETOPIS' No. 30, 1949

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKESHKO, A.L.

NAZAREVSKIY, S.I.; MAKAROV, S.N.; PILIPENKO, F.S.; GERASIMOV, M.V.; IL'INSKAYA, M.L.; VEKSLER, A.I.,[deceased]; VASIL'YEV, I.M.; IL'INA, N.V.; SOKOLOV, S.Ya.; LOZINA-LOZINSKAYA, A.S.; SAAKOV, S.G.;ZALESSKIY, D.M.; AVRORIN, N.A.; IVANOV, M.I.; PRIKLADOV, N.V.; SOBOLEVSKAYA, K.A.; SALAMATOV, M.N.; MALINOVSKIY, P.I.; LUCHNIK, A.I.; KRAVCHENKO, O.A.; VEKHOV, N.K.; GROZDOV, B.V.; MASHKIN, S.; BOSSE, G.G.; PALIN, P.S.,(g.Shuya, Ivanovskoy oblasti); MATUKHIN; ZATVARNITSKIY, G.F.; GRACHEV, N.G.; CHERKASOV, M.I.; KIRKOPULO, Ye.N.; LEVITSKAYA,A.M.; GRISHKO, N.N.; LIKHVAR', D.F. VIL'CHINSKIY, N.M.; LYPA, A.L.; OREKHOV, M.V.; SHCHERBINA, A.A.; TSYGANKOVA, V.Z.; BARANOVSKIY, A.L.; GEORGIYEVSKIY, S.D.; STEPUNIN, G.A. OZOLIN, E.P.; LUKAYTENE, M.K.; KOS, Yu.I.; VAIL'YEV, A.V.; RUKHADZE, P.Ye.; VASHADZE, V.N.; SHANIDZE, V.M.; MANDZHAVIDZE, D.V.; KORKESHKO, A.L.; KOLESNIKOV, A.I.,(g. Sochi); SERGEYEV, L.I.; VOLOSHIN, M.P.; RYBIN, V.A.; IVANOVA, B.I.; RYABOVA, T.I.; GAREYEV, E.Z. ;RUSANOV, F.N.; BOCHANTSEVA, Z.P.; BLINOVSKIY, K.V.; KLYSHEV, L.K.; MUSHEGYAN, A.M.; LEONOV, L.M.

Talks given by participants in the meeting. Biul.Glav.bot.sada no.15: 85-182 '53. (MLRA 9:1)

1. Glavnyy botanicheskiy sad Akademii nauk SSSR (for Makarov,Pilipenko, Gerasimov, Il'inskaya, Veksler); 2. Akademiya komunal'nogo khozyaystva imeni K.D. Pamfilova for Vasil'yev); 3. Vsesoyuznaya sel'skokhozyaystvennaya vystavka (for Il'ina); 4. Botanicheskiy sad Botanicheskogo instituta imeni V.L.Komarova Akademii nauk SSSR (for Sokolov, Lozina-Lozinskaya, Saakov); 5. Botanicheskiy sad Leningradskogo

(continued on next card)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

NAZAREVSKIY, S.L.---(continued) Card 2.

gosudarstvennogo ordena Lenina universiteta (for Zalesskiy); 6. Polyarno-Al'piyskiy botanicheskiy sad Kol'skogo filiala imeni S.M. Kirova Akademii nauk SSSR (for Avrorin); 7. Botanicheskiy sak pri Tomskom gosudarstvennom universiteta (for Ivanov); 8. Botanicheskiy sad pri Tomskom gosudarstvennom universiteta imeni V.V. Kuybysheva (for Prikladov); 9. TSentral'nyy Sibirskiy botanicheskiy sad Zapadno-Sibirskogo filiala Akademii nauk SSSR (for Salamatov, Sobolevskaya); 10. Botanicheskiy sad Irkutsko gosudarstvennogo universiteta imeni A.A. Zhdanova (for Malinovskiy); 11. Altayskaya plodovo-yagodnaya opytnaya stantsiya (for Luchnik); 12. Bashkirskiy botanicheskiy sad (for Kravchenko); 13. Lesostepnaya selektsionnaya opytnaya stantsiya dekorativnykh kul'tur tresta Goszelenkhoz Ministerstva kommunal'nogo khozyaystva ESFSR (for Vekhov); 14. Bryanskiy lesokhozyaystvennyy institut (for Grozdov); 15. Botanicheskiy sad pri Voronezhskom gosudarstvennom universitete (for Mashkin); 16. Orekhovo-Zuyevskiy pedagogicheskiy institut (for Bosse); 17. Botanicheskiy sad pri Rostovskom gosudarstvennom universitete imeni V.M. Molotova (for Matukhin); 18. Botanicheskiy sad Kuybyshevskogo gorodskogo otdela narodnogo obrazovaniya (for Zatvarnitskiy); 19. Zoobotanicheskiy sad pri Kazanskom universitete (for Grachev); 20. Gosudarstvennyy respublikanskiy proektnyy institut "Giprokommunstroy" (for Cherkasov); 21. Botanicheskiy sad Odesskogo gosudarstvennogo universiteta imeni I.I. Mechnikova (for Kirkopulo); 22. Botanicheskiy sad pri Dnepropetrovskom gosudarstvennom universitete (for Levitskaya); 23. Botanicheskiy sad

(continued on next card)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

NAZAREVSKIY, S.L.---(continued) Card 3.

Akademii nauk USSR (for Grishko, Likhvar', Vil'chinskiy); 24. Kiyevskiy sel'skokhozyaystvennyy institut (for Lypa); 25. Botanicheskiy sad Chernovitskogo gosudarstvennogo universiteta (for Orekhov); 26. Botanicheskiy sad pri L'vovskom gosudarstvennom universitete imeni Iv. Franko (for Shcherbina); 27. Botanicheskiy sad Khar'kovskogo gosudarstvennogo universiteta imeni A.M. Gor'kogo (for TSygankova); 28. Botanicheskiy sad Zhitomirskogo sel'skokhozyaystvennogo instituta (for Baranovskiy); 29. Botanicheskiy sad Akademii nauk Belorusskoy SSR (for Georgiyevskiy); 30. Institut biologii Akademii nauk Belorusskoy SSR (for Stepunin); 31. Botanicheskiy sad Akademii Litovskoy SSR (for Lukaytene); 32. Botanicheskiy sad Latviyskogo gosudarstvennogo universiteta (for Ozolin); 33. Kabardinskiy krayevodcheskiy botanicheskiy sad (for Kos); 34. Sukhumskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Vasil'yev, Rukhadze); 35. Batumskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Shanidze); 36. Tbilisskiy botanicheskiy sad Akademii nauk Gruzinskoy SSR (for Mandzhavidze); 37. Sochinskiy park Dendrariy (for Korkeshko); 38. Gosudarstvennyy Nikitskiy botanicheskiy sad imeni V.M. Molotova (for Sergeyev, Voloshin); 39. Krymskiy filial Akademii nauk SSSR (for Rybin); 40. Botanicheskiy sad Moldavskogo filiala Akademii nauk SSSR (for Ivanova); 41. Botanicheskiy sad Botanicheskogo instituta Akademii nauk Tadzhikskoy SSR (for Ryabova); 42. Botanicheskiy sad Kirgizskogo filiala Akademii nauk SSSR (for Gareyev); 43. Botanicheskiy

(continued on next card)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

NAZAREVSKIY, S.L.----(continued) Card 4.

sad Akademii nauk Usbekskoy SSR (for Rusanov, Bochantseva); 44. Botanicheskiy sad Akademii nauk Turkmenskoy SSR (for Blinovskiy); 45. Respublikanskiy sad Akademii nauk Kazakhskoy SSR (for Klyshev, Mushegyan).

(Botanical gardens)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKESHKO, A.L., Cand Agr Sci—(diss) "Basic results of the introduction of species of trees and bushes for enriching the forest-parks of Sochi-Matsestinskiy Rayon of the Black Sea coast of the USSR."

Sochi, 1958. 18 pp (Inst of Forests, Acad Sci USSR), 150 copies

(KL,44-58,124)

-55-

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

GLOBA-MIKHAYLENKO, D.A., kand.sel'skokhoz.nauk; KORKESHKO, A.L., kand. sel'skokhoz.nauk; GOLUBEVA, I.A., red.; ANTONOVA, N.M., khud.-tekhn.red.

[Sochi Arboretum; a guidebook] Sochinskii dendrarii; putevoditel'. Moskva, Izd-vo M-va sel'.khoz.SSSR, 1960. 78 p. (MIRA 14:5)

1. Sochi. Nauchno-issledovatel'skaya opytnaya stantsiya subtropicheskogo lesnogo i lesoparkovogo khozyaystva. (Sochi--Arboretums)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKACH, V.I.

Changes in temperature, oxygen tension and blood stream in the muscles in optimal and pessimal frequencies of stimulation. Fiziol. zhur. [Ukr.] 11 no.6:808-810 N-D '65.

(MIRA 19:1)

1. Kafedra normal'noy fiziologii Kiyevskogo meditsinskogo instituta im. akademika Bogomol'tsa. Submitted August 3, 1964.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKH, A., master sporta

Pistol firing at silhouette target. Voen.znan. 36 no.3: 26-27 Mr '60. (MIRA 13:3)
(Pistol shooting)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKH, E.G., inzh.; KELLERMAN, P.M., inzh.

Automatic line for the manufacture of funnels for manure spreaders. Mekh. i avtom.proizv. 19 no.1:1-4 Ja '65.

(MIRA 18:3)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KHAYET, G.L., kand. tekhn. nauk; KORKH, L.M., inzh.

Selecting tools and cutting conditions for machining antifriction ceramic-metal materials. Mashinostroenie no.5:35-37 S-O '65. (MIRA 18:9)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

L 40264-66 EWP(e)/EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) WH/WW/DJ/JD/JG

ACC NR: AP6019846 (A) SOURCE CODE: UR/0418/66/000/001/0018/0021

AUTHOR: Korkh, L. M. (Engineer)

ORG: None

68
62
B

TITLE: Improving wear resistance of cermet antifriction materials by sulfidation in sulfofresol

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 1, 1966, 18-21

TOPIC TAGS: antifriction material, wear resistance, plastic deformation, ~~metal heat treatment~~, sulfurization, friction, selenium compound, sulfur, cermet wear material, METAL SURFACE, METAL BONDING

ABSTRACT: The author discusses binding wear and its causes. Binding occurs at low rates of slip between two friction surfaces under extreme loads. It may be stated that the yield point of the metal at the point of contact is exceeded. This causes extreme plastic deformation failure and wear of metal particles. This is called first order binding. A different type of binding occurs at high rates of slip under heavy loads. These conditions cause a temperature rise in the metal surfaces which results in weakening and failure. This type of process is called second order binding. Both of these processes are based on formation of metal bonds as a result of the plastic deformation of contacting metal surfaces. The obvious way to eliminate wear is to hinder metal bond formation. Several methods are proposed: 1) development of strong protective

Card 1/3

UDC: 621.762:621.785.53

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

L 40264-66
ACC NR: AP6019846

nonmetallic films and secondary structures on the friction surfaces and on the entire surface of the metal; 2) the selection of metals for friction surfaces which are not susceptible to binding and which form stable and strong protective films of secondary structures; 3) increasing friction surface hardness. The most effective method for eliminating binding is the chemical heat treatment method by which a sulfur or selenium compound is formed on metal surfaces. The goal of this study is to find elements which are capable of forming such protective films. A new method for sulfidation of cermet materials was developed by NIIPTmash. The method consists of the use of sulfurized grease which reduces surface friction wear, improves binding resistance of materials and reduces the coefficient of friction. Sulfur is added to mineral oil and forms compounds with hydrocarbons during heating. The sulfur compounds react with the surface layer of the metal and form sulfide films which are highly resistant to binding and improve corrosion resistance. Sulfofresol (GOST 122-46) is used as the bath. It is composed of mineral oil and activated sulfur and serves both as a lubricant and as a coolant. The optimum conditions for sulfidation are determined. The metallographic method is used for determining the depth of the sulfidation layer. The optimum conditions for producing a 0.1 mm layer are as follows: temperature 180±10°C; time 3-4 hours; sulfur concentration 3±0.5%. Friction tests were conducted to determine sulfidation layer thickness on the MI-1M friction machine. Various bushings were used as the test specimens. Control specimens consisted of discs made of 45 grade steel hardened to HRC 44-48. Analysis of the comparative tests shows that sulfidation increases wear resistance and improves resistance to binding for parts operating without

Card 2/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

ACC NR: AP6019846

2

lubrication or with limited lubrication. Further tests were conducted to determine the quality of sulfidation in sulfofresol. All test specimens were made of steel and were subjected to sulfidation by various methods. The tests were done without lubrication at 500 rpm. Sulfide films formed on the surface during sulfidation in sulfofresol are as good as sulfide films formed by other methods. It is also shown that surfaces subjected to sulfidation can work without supplementary liquid lubrication and thus can be used for bearing material at high temperatures. Wear resistance of ZhGZ-20 type iron graphite bushings subjected to sulfidation is determined. Wear is less for specimens subjected to sulfidation than for those which were not treated. Thus it may be stated that sulfidation in sulfofresol improves wear resistance of cermet antifriction materials by a factor of 1.5-2 and does not change their mechanical properties. This method of sulfidation is inexpensive and may be recommended for treatment of steel and cast iron parts which have to work under friction conditions. Some of the disadvantages of this method are the duration and relatively high temperature required for isothermal aging. The use of ultrasonics and catalysts may improve the process. Their use still presents many problems which have to be worked out. Orig. art. has: 1 figure, 1 table.

SUB CODE: 11/ SUBM DATE: none

Card 3/3 MLP

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

ACC NR: AP6019849 (N) SOURCE CODE: UR/0418/66/000/001/0029/0031

AUTHOR: Khayet, G. L. (Candidate of technical sciences); Korkh, L. M. (Engineer)

TITLE: Improving surface finish during turning of cermet antifriction materials

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 1, 1966, 29-31

TOPIC TAGS: antifriction material, surface finishing, bushing, cutting tool, contact stress, iron, copper, graphite, cermet wear material

ABSTRACT: The article is a report on experiments done at the Kramatorsk Industrial Institute to develop practical recommendations for turning antifriction cermet materials based on iron with admixtures of 2.5% copper and 1.5% graphite with a 20% porosity. This material is strong, ductile, and has good antifriction properties. Bushings with the following dimensions were machined: 90 mm outside diameter, 50 mm inside diameter and 85 mm long. These bushings were made of PZh-2M powder sintered at 1150°C. T15K6 hard-faced cutters were used for turning the specimens. The UDM-1 dynamometer was used for measuring cutting forces. Work surface irregularities were measured with the MIS-11 microscope. All data were taken as the result of 8-10 measurements and each test was repeated 4-5 times. The authors discuss various contradictions in the literature on the selection of individual shapes of cutter surfaces. The following cutter parameters are recommended for finishing: rake $\gamma=8°$, clearance $\lambda=0°$, side cutting edge and side relief angle α and $\alpha_1=6°$, nose angle $\phi=45°$, end cutting edge angle $\phi_1=20°$ and

Card 1/2

UDC: 621.941.1:621:762

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

L 02 -66

ACC NR: AP6019849

tool radius r=1 mm. An expression is given for calculating the relationship between surface irregularities and cutting conditions. The effect of cutting conditions on cutting stress for machining with cutters having a given geometry is studied. This is very important for mass production. The vertical (P_z), radial (P_y) and axial (P_x) components of cutter forces can be determined for practical purposes by using the following formulas:

$$P_z = 20\, t^{0.95} \cdot S^{0.6};$$

$$P_y = 10\, t^{0.9} \cdot S^{0.5};$$

$$P_x = 6\, t^{1.0} \cdot S^{0.45}.$$

Cutting conditions based on this study are presently being used for machining cermet materials. Orig. art. has: 1 table, 5 formulas.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 005

Card 2/2 MLP

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

MEDOVSKIY, I.G.; GRIBOVA, N.A.; KORKH, Z.A.

State of and trends in the study of physical properties of rocks in the area bordering on the Caspian Sea. Razved.i prom. geofiz. no.33:59-67 '59. (MIRA 13:4)
(Caspian Sea region--Prospecting--Geophysical methods)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

CZECHOSLOVAKIA

KORKHAUS, G.

Dental Clinic (Zubni klinika), Bonn, Germany

Prague, Ceskoslovenska stomatologie, No 5, 1963, pp 296-302

"Arthropathies of Maxillary Joint and Dental Function."

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKHIN, Ye.M.

In memory of Aleksandr Nikolaevich Derzhavin, 1878-1963; Vop. geog. Kamch. no. 2:120 '64 (MIRA 19:1)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKHMAZYAN, A.A.

MARAPETYAN, N.K.; KORKHMAZYAN, A.A.

Sound insulating capacity of walls and partitions of buildings. Izv.AN Arm.SSR.Ser.tekh.nauk 12 no.6:37-47 '59. (MIRA 13:6)

(Walls) (Soundproofing)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKHMAZYAN, N.A.

Solving the problem of transient radiation by the method of images. Izv.AN Arm.S.S.R.Ser.fiz.-mat.nauk 10 no.4:29-34 '57. (MLRA 10:9)

1. Yerevanskiy gosudarstvennyy universitet im.V.M.Molotova. (Radiation)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

9(3) 9

AUTHOR: Korkhmazyan, N.A.

TITLE: Transition Radiation for Inclined Fall of the Charge (Perekhodnoye izlucheniye pri naklonnom padenii zaryada) SOV/22-11-6-7/10

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR. Seriya fiziko-matematicheskikh Nauk, 1958, Vol 11, Nr 6, pp 3-14 (USSR)

ABSTRACT: Two media with complex dielectric constants ϵ_1 and ϵ_2 are separated by the xy - plane. Let a particle with charge e and velocity V falls in the xz - plane upon the x-axis in the point (0,0,0), where V forms the angle ψ with the z-axis. The author calculates the intensity of the transition radiation $W_\omega(\vartheta, \varphi)$ in the point $(R_0, \varphi, \vartheta)$ of the first medium for large R_0, $\psi < \frac{\pi}{2}$. According to the same method and with the same denotations as used in [Ref 3], where the same problem was considered for $\psi = 0$, the author obtains

$$W_\omega(\vartheta,\varphi) = \frac{e^2 \sqrt{\epsilon_1}\, V^2}{4\pi^2 c^3} \left| \sin\vartheta \left[\frac{1+f}{1-\sqrt{\epsilon_2}\,\beta\cos(\vec{n}_2,\vec{v}_1)} \cdot \frac{\epsilon_1}{\epsilon_2} - \right.\right.$$

Card 1/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001

Transition Radiation for Inclined Fall of the Charge SOV/22-11-6-7/10

$$\left. - \frac{f}{1-\sqrt{\epsilon_1}\,\beta\cos(\vec{n}_1,\vec{v}_2)} - \frac{1}{1-\sqrt{\epsilon_1}\,\beta\cos(\vec{n}_1,\vec{v}_1)} \right] (\vec{i}\sin\varphi\cos\psi -$$

$$- \vec{j}\cos\cdot\cos\psi - \vec{k}\sin\varphi\sin\psi) - \vec{j}\sin\psi \left[\frac{1+f}{1-\sqrt{\epsilon_2}\,\beta\cos(\vec{n}_2,\vec{v}_1)} \frac{\sqrt{\epsilon_1}}{\sqrt{\epsilon_2}} \cdot \right.$$

$$\cdot \sqrt{1 - \frac{\epsilon_1}{\epsilon_2}\sin^2\vartheta} + \frac{f\cos\vartheta}{1-\sqrt{\epsilon_1}\,\beta\cos(\vec{n}_1,\vec{v}_2)} - \frac{\cos\vartheta}{1-\sqrt{\epsilon_1}\,\beta\cos(\vec{n}_1,\vec{v}_1)} \Bigg] -$$

$$\left. - \vec{k}\,\frac{2f\sin\vartheta\sin\varphi\sin\psi}{1-\sqrt{\epsilon_1}\,\beta\cos(\vec{n}_1,\vec{v}_2)} \right|^2,$$

where $\vec{i}$, $\vec{j}$, $\vec{k}$ are the unit vectors corresponding to the x,y,z - axes,

Card 2/3

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

Radiation of a Charged Particle in a Medium With a Periodically Variable Density

(11) $$c_{\pm 2} = -\frac{\theta_2}{\phi_{\pm 2}} \; ; \quad c_{\pm 4} = -\frac{\theta_4}{\phi_{\pm 4}} + \frac{\theta_2^2}{\phi_{\pm 4}\phi_{\pm 2}}$$

$$\phi_{\pm 2} = 4(1 \mp i\mu_o) \; ; \quad \phi_{\pm 4} = -8(2 \mp i\mu_o)$$

(all approximations up to terms of the order of Δ^2). The particular solution of the inhomogeneous equation (5) is

(12) $$u = \frac{b}{w}\left[u_1 \int \frac{u_2}{\sqrt{\varepsilon}} e^{i\sigma x} dx - u_2 \int \frac{u_1}{\sqrt{\varepsilon}} e^{i\sigma x} dx\right] ,$$

where

$$\sigma = \frac{\omega l}{\varkappa v} \; , \quad b = -\frac{iel^2}{2\varkappa^4 c} \; ,$$ w is the Wronski - determinant

(13) $$w = w(0) = u_1 u_2' - u_1' u_2 = -2\mu\left[1 - \frac{\theta^2(3 + \mu^2)}{8(1 + \mu^2)}\right] .$$

Card 5/11

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

Radiation of a Charged Particle in a Medium With a Periodically Variable Density

Developing in (12) $\varepsilon^{-1/2}$ into a series in terms of Δ, integrating with respect to $\varkappa$, substituting in (4) developing ε^{-1} and $\varepsilon^{-1/2}$ again in terms of Δ then one obtains $E_z(\vec{\varkappa}, z, \omega)$.

Then for the force which acts upon the particle it holds

$$(14) \qquad dF = -e d\omega \sum \int E_z(\vec{\varkappa}, vt, \omega) e^{-i\omega t} d\vec{\varkappa} ,$$

where the sum relates to both signs of the frequency ω. The magnitude dF contains summands not depending on z and summands depending on $e^{\frac{2\pi i z}{l}}$, $e^{\frac{4\pi i z}{l}}$ etc. Let dF^o be the constant part of dF, where only the losses caused by Cherenkov-radiation are considered. It holds

$$(15) \qquad dF^o = dF_0^o + dF_1^o ,$$

where it holds approximately :

Card 6/11

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

S/022/60/013/005/006/008
C111/C222

Radiation of a Charged Particle in a Medium With a Periodically Variable Density

$$dF_0^0 = \frac{e^2}{c^2}\omega d\omega \left\{ 1 - \frac{1}{\beta^2\varepsilon}\left[1 + \frac{\Delta^2}{4\sigma^2}\left(1 - \frac{2\left(\frac{1}{2}\beta^2\sigma^2\varepsilon_0 - 1\right)^2}{1-\sigma^2}\right)\right]\right\} \times$$

(16)

$$\times \left\{ 1 + \frac{3\Delta^2}{8}\left[1 + \frac{\left(\frac{1}{2}\beta^2\sigma^2\varepsilon_0 - 1\right)\left[\frac{1}{2}\beta^2\sigma^2\varepsilon_0\left(3-\sigma^2\right) + 3\sigma^2 - 5\right]}{3(1-\sigma^2)^2}\right]\right\} \quad (16)$$

and for the radiation angle it holds

(17) $$0 \leq \cos\theta = \frac{1}{\beta\sqrt{\varepsilon_0}}\left[1 + \frac{\Delta^2}{8\sigma^2}\left(1 - \frac{2\left(\frac{1}{2}\beta^2\sigma^2\varepsilon_0 - 1\right)}{1-\sigma^2}\right)\right] \leq 1$$

The additional term dF_1^0 is

(18) $$dF_1^0 = dF_+ + dF_- ,$$

Card 7/11

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

Radiation of a Charged Particle in a Medium With a Periodically Variable Density

where it holds

$$(19)\quad dF_{+} = \frac{e^2}{16c^2}\omega d\omega\left[1-\left(\frac{1}{\beta\sqrt{\varepsilon_0}}+\frac{\lambda}{l\sqrt{\varepsilon_0}}\right)^2\right]\frac{\Delta^2\sigma^2\left(1+\frac{1}{2}\beta^2\sigma\varepsilon_0\right)^2}{(1+\sigma)^2}$$

with the radiation angle

$$(20)\quad 0\leq\cos\theta = \frac{1}{\beta\sqrt{\varepsilon_0}}+\frac{\lambda}{l\sqrt{\varepsilon_0}}+\frac{\Delta^2}{8\beta\sqrt{\varepsilon_0}\,\sigma(\sigma+2)}\left[1+\frac{\left(\frac{1}{2}\beta^2\sigma^2\varepsilon_0-1\right)^2}{(1+\sigma)(3+\sigma)}\right]\leq 1$$

and

$$(21)\quad dF_{-} = \frac{e^2}{16c^2}\omega d\omega\left[1-\left(\frac{1}{\beta\sqrt{\varepsilon_0}}\pm\frac{\lambda}{l\sqrt{\varepsilon_0}}\right)^2\right]\frac{\Delta^2\sigma^2\left(1-\frac{1}{2}\beta^2\sigma\varepsilon_0\right)^2}{(1-\sigma)^2}$$

with the radiation angle

Card 8/11

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

Radiation of a Charged Particle in a Medium With a Periodically Variable Density

$$(22) \quad 0 \leq \cos\theta = \left| \frac{1}{\beta\sqrt{\varepsilon_0}} - \frac{\lambda}{l\sqrt{\varepsilon_0}} \right| + \frac{\Delta^2}{8\beta\sqrt{\varepsilon_0}\,\sigma|\sigma - 2|} \times$$

$$\times \left[1 + \frac{\left(\frac{1}{2}\beta^2\sigma^2\varepsilon_0 - 1\right)^2}{(1-\sigma)(3-\sigma)} \right] \leq 1 .$$

The formulas (19), (20) give the additional Cherenkov radiation being characteristic for a periodic medium. The Cherenkov basic radiation is the result of the coincidence of the frequency of the "eigenvibrations" μ and the frequency of the external force σ; the additional terms in (19) and (21) are caused by a resonance of the combined frequencies. The derived formulas hold under the assumptions

$$(23) \quad \left| \frac{\left(\frac{1}{2}\beta^2\sigma^2\varepsilon_0 - 1\right)\Delta}{4(1-\nu^2)} \right| \ll 1$$

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

S/022/60/013/005/006/008
C111/C222

Radiation of a Charged Particle in a Medium With a Periodically Variable Density

(24) $$\left|\frac{\left(\frac{1}{2} B^2 \sigma^2 \varepsilon_0 - 1\right)\Delta}{\nu^2}\right| \ll 1 ; \qquad \frac{5\Delta^2}{2\nu^2} \ll 1$$

(25) $$\left|\frac{\left(\frac{1}{2} B^2 \sigma^2 \varepsilon_0 - 1\right)\Delta^2}{4(1-\nu^2)\nu^2}\right| \ll 1 .$$

In the formulas (23)-(25) it holds $\nu = s$ for the case (16), $\nu = \sigma + 2$ for the case (19), and $\nu = |\sigma - 2|$ for (21).
Some special cases of the loss of energy of a charged particle per unit of the length of path are given. The estimation of the variable part of the force acting upon the particle is briefly mentioned.
The authors thank G.M. Garibyan and M.L. Ter - Mikayelyan for discussions. They mention L.D. Landau, Ye.M. Lifshits, Ya.B. Feynberg, N.A. Khizhnyak, and I.I. Gol'dman.

Card 10/11

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

84403

S/056/60/039/004/021/048
B006/B063

24.4500

AUTHORS: Amatuni, A. Ts., Korkhmazyan, N. A.

TITLE: Transition Radiation in the Case of a Diffuse Boundary Between Two Media

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 4(10), pp. 1011-1019

TEXT: The present paper describes a theoretical study of the transition radiation of a relativistic charged particle in the case of a diffuse boundary between two media. The authors proceed from the following assumptions: The dielectric properties of the media change only in the direction of the z-axis and remain unchanged in all planes z=const; the media are not magnetic ($\mu=1$). $\varepsilon(\omega,z) = 1 + \alpha(\omega)/(1+e^{-az})$; $a > 0$. The diameter of the diffuse boundary is equal to $z_0 = 1/a$. A point charge (e) moves in the direction of the z-axis with a relativistic velocity $\vec{v}$. In this case, transition radiation occurs only in a narrow cone round $\vec{v}$. Then $\alpha = -\omega_0^2/\omega^2$, $\omega_0 = 4\pi e^2 N/m$, $|\alpha| \ll 1$, $\omega^2\varepsilon - c^2\varkappa^2 \sim \omega^2$. In zeroth approximation

Card 1/4

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

84403

Transition Radiation in the Case of a Diffuse Boundary Between Two Media

S/056/60/039/004/021/046
B006/B063

is obtained for $z < 0$: $\frac{W}{\beta}u = \frac{1}{a} e^{i\omega z/v} \Gamma_1^1 \left\{ v(-\mu, -\nu, -\sigma, e^{az}) - v(\mu, -\nu, -\sigma, e^{az}) \right\} - \frac{u_1}{2a} \Gamma(-\sigma, \nu, -\mu) + \frac{u_2}{2a} \Gamma(\sigma, \mu, -\nu) + c_1 u_1 + c_2 u_2$. The radiation field in $z > 0$ can thus be described by (23): $\frac{W}{\beta} u_{rad} = \frac{u_1}{a} \Gamma(-\sigma, \nu, -\mu)$, and that in $z < 0$ by (24): $\frac{W}{\beta} u_{rad} = \frac{u_2}{a} \Gamma(\sigma, \mu, -\nu)$. This is the "forward" and "backward" transition radiation for high frequencies $\omega \gg \omega_0$. The last section of the present paper deals with the intensity of "forward" radiation. For this purpose, the authors determined the flux of the Poynting vector through a sufficiently distant plane z = const. They study the case where the thickness of the diffuse region z_0 is very small compared to that of the regions R_0 and R_c of the formation of transition radiation in the two media; and the cases $z_0 \gg R_0 > R_c$; and $R_c \ll z_0 \ll R_0$. G. M. Garibyan and

Card 3/4

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

35306

S/022/62/015/001/006/007
D237/D301

9.3700 (also 1057,1163)

AUTHOR: Korkhmazyan, N. A.

TITLE: Polarization of the transient radiation in case of oblique incidence

PERIODICAL: Akademiya nauk Armyanskoy SSR. Izvestiya. Fiziko-matematicheskiye nauki, v. 15, no. 1, 1962, 115-121

TEXT: This paper is intended to fill the gap in investigations of the transient radiation during the oblique passage of a charged particle through the boundary z=o between two media. The polarization is specific and gives the means of identifying the transient radiation. The plane of incidence is defined by the angle φ which it forms with the plane normal to the boundary. The longitudinally polarized waves are those, whose electric vector lies in the plane of radiation. The author obtains general formulas for the angular and frequency distribution of the transient radiation intensity for two perpendicular to each other polarizations and then considers the following particular cases: 1) Normal incidence of the par-

Card 1/2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKHMAZYAN, N.A.

Polarization of transient radiation in the case of an inclined entrance. Izv.AN Arm.SSR.Ser.fiz.-mat.nauk 15 no.1:115-121 '62. (MIRA 15:2)

1. Yerevanskiy gosudarstvennyy universitet.
(Radiation) (Dynamics of a particle)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7

KORKHAMAZYAN, N. A.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Physics Institute imeni P. N. Lebedev in 1962:

"Theory of Radiation of Charged Particles in Inhomogeneous Media."

Vest. Akad. Nauk SSSR, No. 4, Moscow, 1963, pages 119-145

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000824630001-7"