MOSKALENKO, B.K.

Biological improvement of spawning rivers in the Ural Mountain region. Vop. ikht. no.10:111-126 '58. (MIRA 11:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ozernogo i rechnogo rybnogo khozyaystva, Ob'-Tazovskoye otdeleniye.
(Ob' River--Fishes)

MOSKALENKO, Boris Konstantinovich; PROKHODTSEVA, S.Ya., red.; ZORKINA, G.P., mladshiy red.; VILENSKAYA, E.N., tekhn.red.

[Trip to the Anabar Valley] Puteshestvie na Anabaru. Moskva, Gos.izd-vo geogr.lit-ry, 1960. 127 p. (MIRA 13:10)
(Anabar Valley--Description and travel)

MOSKALENKO, B.K.

K.M.Baer's scientific legacy and modern fishery research. Vop. ikht. no.16:3-10 '60. (MIRA 14:4)

1. Ob'-Tazovskoye otdeleniye Gosudarstvennogo nauchno-issleodvatel'-skogo instituta ozernogo i rechnogo rybnogo khozyaystva.
(Baer, Karl Ernst Von, 1792-1876) (Fisheries--Research)

MOSKALENKO, B.K.

East Siberian cod. Zool. zhur. 39 no.8:1262-1263 Ag '60. (MIRA 13:8)

1. State Ob-Tasov Branch of the Research Institute of Lake and River Fishery Managements, the town of Khanty-Mansiysk, Tumen region. (Laptev Sea--Codfish)

MOSKALENKO, B.K., doktor biolog.nauk

Persistent explorer of seas; the 100th anniversary of the birth of N.M.Knipovich. Priroda 51 no.5:92-94 My '62. (MIRA 15:5)

1. Ob'-Irtyshskoye otdeleniye Instituta rybnogo khozyaystva, Khanty-Mansiysk.
(Knipovich, Nikolai Mikhailovich. 1862-1939)
(Ichthyological research)

MOSKALENKO, B.K.

Herring with a low number of vertebrae in the Kara Sea. Vop. ikht. 3 no.3:441-446 '63. (MIRA 16:10)

1. Ob'-Tazovskoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva (GosNIORKh), g. Khanty-Mansiysk.
(Kara Sea--Herring)

MOSKALENKO, D.D.

Automatic device disconnecting the conveyer feeder in cases of large pieces of material getting caught in roller crushers. TSement 24 no.1:27 Ja-Fe '58. (MIRA 11:4)

1.Kramatorskiy tsementnyy zavod.
(Crushing machinery--Attachments)

Q-2

USSR / Farm Animals. Cattle.

Abs Jour : Ref Zhur - Bi l., No 14, 1958, No 64442

Author : Moskalenko, D. M.
Inst : Not given
Title : Ways of Increasing the Fat Content in the Milk of Cows

Orig Pub : Sovkhoznoye proiz-vo, 1957, No. 9, 44-49

Abstract : At "Gorki Leninskiye", while feeding abundant rations (an average of 6,400 feed units per year), an alternate crossing of the hybrid cows of different breeds of the milk type with the sires of the Yaroslavl', Kostroma and Jersey breeds, was resorted to. The best results were obtained from the crossing with Jersey sires. The production of their offspring - heifers - constituted 3,572 kg. of milk with a 5.1% fat content equal to 191 kg. of butterfat, and the production of the best cow was 5,661.6 and 330, respectively; the production of cows of the basic maternal herd (under the

Card 1/2

Q

USSR / Farm Animals. Cattle.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 7358

Author : Moskalenko, D. M.
Inst : Not given
Title : Our Methods to Increase the Milk's Fat Content.

Orig Pub : Nauka i peredov. opyt v s. kh., 1957, No 12, 19-22

Abstract : At the Gorki Leninskiye farm crossings of large cows yielding thin milk with young bulls of the small Jersey breed whose milk is fat, were carried out. Under conditions of abundant feeding, calves were born with a live weight of 20-38 kg (averaging 30 kg); labor proceeded without complications. On the average, 29 hybrid Jersey heifers yielded

Card 1/2 GLAVNYY ZOOTEKHNIK EKSPERIMENTAL'NOY BAZY "Gorki Leninskiye"

41

MOSKALENKO, Dmitriy Mikhaylovich; MASHKINA, A., red.; SHLYK, M., tekhn. red.

[Five percent butterfat content in milk]Zhirnost' moloka - 5%. Moskva, Mosk. rabochii, 1962. 28 p. (MIRA 16:3)

1. Glavnyy zootekhnik eksperimental'noy bazy "Gorki Leninskiye" (for Moskalenko).

(Dairy cattle breeding)

E. MOSKALENKO

V. Shilkov, B. Vassiliyev, B. Piliasvky, A. Kepnikov, N. Leiboshits, Z. Koussakov, V. Kotchedamov, N. Khomoutetsky, T. Dubiago, A. Petrov, J. Dennisov, L. Medersky, L. Gladkova, E. Moskalenko

L. Moskalenko, author of "The Admiralty Spire and its Construction" from the book Architectural Inheritance written by the Academy of Architecture of USSR and published in Leningrad and Moscow in 1953 by the State Publishing House for Literature on Building and Architecture. The book is a history of Russian architecture, of the XVIII and XIX centuries, a selection of works by Leningrad architects and scientific workers.

Most Alarming

BURCHAKOV, Anatoliy Semenovich; MOSKALENKO, Eduard Mikhaylovich; YERSHOV, L.V., otv. red.

[Aerosol dynamics in mines] Dinamika aerozolei v gornykh vyrabotkakh. Moskva, Nauka, 1965. 66 p. (MIRA 18:11)

MOSKALENKO, F.A.

Reviewing the standard for thrust rings. Standartizatsiia 27 no.9:46-47 S '63. (MIRA 16:10)

MOSKALENKO, F.D.

Unused potentialities for increasing crop yields. Zemledelie 5 no.3:64-68 Ag '57. (MLRA 10:9)

1. Agronom kolkhoza "Kavkaz."
(Krasnodar Territory--Field crops)

MOSKALENKO, Fedor Yakovlevich.

Kiev State U imeni Shevchenko. Academic degree of Doctor of Philosophical Sci, based on his defense, 28 April 1953, in the Council of the Institute of Philosophy, Academy of Sci USSR, of his dissertation entitled: "Doctrine of inductive conclusions in the history of Russian logic", Academic title of Professor. Chair: "Logic"

Academic degree: Doctor of Sciences
Academic title: Professor

SO: Decisions of VAK, List no 6, 19 Mar 55, Byulleten' MVO SSSR, No. 14, July 56 Moscow pp 4-22, Uncl.
JPRS/MT-429

MOSKALENKO, G.I.

Increasing labor productivity in collective farm production. Izv. KPI 25:111-126 '57. (MIRA 11:3)
(Collective farms)

MOSKALENKO, G.I.

Increasing the material interest of collective farms and farmers in the development of collective farm production. Izv. KPI 25:127-142 '57. (MIRA 11:3)
(Collective farms)

KORSHUNOVA, Ye.N.; KRASNOPOL'SKIY, A.S.; MOSKALENKO, G.K., redaktor; ACHARKAN, V.A., redaktor; SHEVCHENKO, G.N., tekhnicheskiy redaktor.

[Soviet labor law and problems of labor productivity; an outline] Sovetskoe trudovoe pravo i voprosy proizvoditel'nosti truda; ocherki. Moskva, Izd-vo Akademii nauk SSSR, 1955. 162 p.(MLRA 8:12)
(Labor laws and legislation) (Labor productivity)

AKULINICHEV, I.T.; BARSKIY, Ye.B.; GEL'SHTEYN, G.G.; LAKUNIN, N.B.; MOSKALENKO, G.V.; PETROV, G.M.; USHAKOV, V.B.

Cardiocyclography. Biofizika 4 no. 4:490-495 '59. (MIRA 14:4)

1. Nauchno-issledovatel'skiy institut schetnogo mashinostroyeniya, Institut grudnoy Khirurgii AMN SSSR i Institut normal'noy i patologicheskoy fiziologii AMN SSSR Moskva.
(ELECTROCARDIOGRAPHY)

MOSKALENKO, G.V., inzhener.

Track maintenance on a circular schedule. Put' i put.khoz. no.6:3-6 Je '57. (MLRA 10:7)
(Railroads--Maintenance and repair)

MOSKALENKO, G.V., inzh. (g. Khar'kov)

Pay more attention to crossings. Put' i put.khoz. no.10:24-25 O '58. (MIRA 11:12)

(Railroads--Crossings)

MOSKALENKO, G.V., inzh.

Metal bolt for tie repairs. Put' i put.khoz. 4 no.6:33 Je '60. (MIRA 13:7)

1. Nachal'nik tekhnicheskogo otdela sluzhby puti, Khar'kov.
(Railroads--Ties)

USHAKOV, V.B., doktor tekhn. nauk; PETROV, G.M., kand. tekhn. nauk; BASOV, Ye.P.; POPOV, V.A.; LAKUNIN, N.B.; MOSKALENKO, G.V.; SABAYEV, G.N.; ABIZOVA, T.V., inzh., red.

[The MN-14 nonlinear electronic analog computer] Elektronnaia nelineinaia analogovaia vychislitel'naia mashina. MN-14. Moskva, Mashinostroenie, 1965. 232 p. (MIRA 18:5)

1. Nauchno-issledovatel'skiy institut schetnogo mashinostroyeniya (for Ushakov, Petrov).

MOSKALENKO, G.V., inzh. (Khar'kov)

Graphic determination of the parameters of a curve. Put' i put. khoz. 9 no.10:27-28 '65. (MIRA 18:10)

ACC NR: AM5017155 Monograph UR/

Ushakov, V. B.; Petrov, G. M.; Basov, Ye. P.; Popov, V. A.; Lakunin, N. N.; Moskalenko, G. V.; Sabayev, G. N.

The MN-14 electronic nonlinear analog computer (Elektronnaya nelineynaya analogovaya vychislitel'naya mashina MN-14) Moscow, Izd-vo "Mashinostroyeniye", 1965. [illegible] p. illus., biblio. 3300 copies printed.

TOPIC TAGS: analog computer, analog computer system, computer control system, computer component/MN-14 analog computer

PURPOSE AND COVERAGE: This book is intended for engineers, technicians, and scientists concerned with the problems of development and practical application of analog computers. It may also be useful to students in this field at schools of higher education. The MN-14 nonlinear electronic analog computer, developed at the Scientific Research Institute of Computer Machine Building, is described. It is used to model dynamic systems described by common nonlinear differential equations up to the 30th order with a large number of nonlinear relationships. The MN-14 computer may also be used to solve engineering construction problems as well as for scientific investigations in various fields of the national economy. The principles of the computer's design and its circuit characteristics are discussed. Basic units and structural assemblies are described and the methods used in the preparation of the problems solved by the computer are covered. Considerable attention is paid to the problems of increasing the computer's practical application by means of introduction of additional equipment into its system. The names of

Card 1/2 UDC: 681.142.33

L 26418-66

ACC NR: AM5017155

Ushakov V. B., Doctor of Technical Sciences, and G. M. Petrov are listed as the leaders.

TABLE OF CONTENTS [abridged]:

SUB CODE: 09/ SUBM DATE: 12Feb65/ ORIG REF: 010/ OTH REF: 001/

Card 2/2

ACC NR: AP7002988 SOURCE CODE: UR/0413/66/000/024/0087/0087

INVENTOR: Moskalenko, G. V.

ORG: none

TITLE: Analog-to-digital converter. Class 42, No. 189622. [announced by Scientific Research Institute of Computing Machine Building (Nauchno-issledovatel'skiy institut schetnogo mashinostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 87

TOPIC TAGS: analog digital converter, computer component, analog digital encoder

ABSTRACT:
An Author Certificate has been issued for an analog-to-digital converter (see Fig. 1). To reduce dynamic errors and to insure consecutive

Card 1/2 UDC: 681.142.07:53.087.92

ACC NR: AP7002988

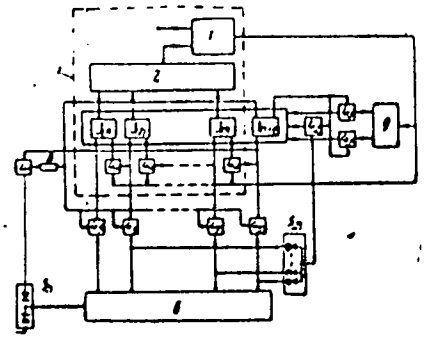

Fig. 1. Analog-to-digital converter

1 - Comparison circuit; 2 - digital-to-analog converter; 3 - triggers; 4 - coincidence circuits; 5 - bus circuits; 6 - control circuit; 7 - analog-to-digital converter with digit-by-digit coding; 8 - delay line; 9 - signal shaper.

utilization of conversion operation, outputs of the control unit are connected through coincidence circuits to the ONE inputs of triggers in the reverse-counter memory register. The other inputs of the triggers are coupled to the ZERO output of the additional trigger of the register. The ONE output of this trigger joins the control inputs of the coincidence circuits. The coincidence circuits link the inputs and the adding and subtracting buses of the reversible counter to a signal shaper. Orig. art. has: 1 figure. [WP]

SUB CODE: 09/ SUBM DATE: 24Jul65/ ATD PRESS: 5115

Card 2/2

MOSKALENKO, S. YA.

Founding - Accounting

Statistical control method in the foundry. Lit. proizv. No. 1, 1953.

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

AUTHORS: L'vovskiy, M.Ya., Moskalenko, G.Ye. 32-11-41/60

TITLE: The Testing of Samples for the Determination of Gas Corrosion Under Compressive Stress (Ispytaniye obraztsov na gazovuyu korroziyu pod napryazheniyem)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 11, pp. 1374-1376 (USSR)

ABSTRACT: It is said in the introduction that (according to experience gathered) the data concerning the durability of certain tin refractories must not be looked upon as a standard. As an example an experiment is mentioned, which was carried out with a "nichromium" tin sample "ЭИ 435", in which, according to production data, a possible gas corrosion should amount to 2 mm per annum at temperature stresses of 1100°, nevertheless through-going corrosion (forming of holes) took place already before the elapse of 100 hours in the case of a simultaneous stress of 1 kg/mm being brought to bear on these samples which had a thickness of 1.5 mm. The tin sample was shaped in such a manner that its thickness at the edges and in the middle was the same and was reduced to one third (in the course of the hollowing-out process). After the sample had been exposed to a certain temperature and, at the same time, been subjected to a certain stress during 100 hours,

Card 1/2

32-11-41/60

The Testing of Samples for the Determination of Gas Corrosion Under Compressive Stress

a section (showing the thickness of the sample) was taken, and the side which had been subjected to stress was metallographically analyzed. Several parts of the sample showed different degrees of corrosion according to their thickness, which is demonstrated by microphotographs, on the basis of which diagrams and a table were made. There are 3 figures and 1 table.

AVAILABLE: Library of Congress

Card 2/2

PHASE I BOOK EXPLOITATION SOV/5559

Akademiya nauk SSSR. Institut metallurgii. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, t. 5 (Investigations of Heat-Resistant Alloys, Vol 5) Moscow, Izd-vo AN SSSR, 1959. 423 p. Errata slip inserted. 2,000 copies printed.

Ed. of Publishing House: V.A. Klimov; Tech. Ed.: I.P. Kuz'min; Editorial Board: I.P. Bardin, Academician, G.V. Kurdyumov, Academician, N.V. Agayev, Corresponding Member, USSR Academy of Sciences (Resp. Ed.), I.A. Oding, I.N. Pavlov, and I.F. Redin, Candidate of Technical Sciences.

PURPOSE: This book is intended for metallurgical engineers, research workers in metallurgy, and may also be of interest to students of advanced courses in metallurgy.

COVERAGE: This book, consisting of a number of papers, deals with the properties of heat-resisting metals and alloys. Each of the papers is devoted to the study of the factors which affect the properties and behavior of metals. The effects of various elements such as Cr, Mo, and W on the heat-resisting properties of various alloys are studied. Deformability and workability of certain metals as related to the thermal conditions are the object of another study described. The problems of hydrogen embrittlement, diffusion and the deposition of ceramic coatings on metal surfaces by means of electrophoresis are examined. One paper describes the apparatus and methods used for growing monocrystals of metals. Boron-base metals are critically examined and evaluated. Results are given of studies of interatomic bonds and the behavior of atoms in metal. Tests of turbine and compressor blades are described. No personalities are mentioned. References accompany most of the articles.

MOSKALENKO, G. M.

USSR/Fire Extinguishers Jul 1947
Fire prevention - Ships

"Reasons for Combustion of Cotton and Means of Extinguishing Fires at Sea," I. Moskalenko, 4 pp

"Mor Flot" No 7

Cotton reverts to carbon at 230° C. Describes experiments carried out to determine the temperatures created in oil-soaked cotton at timed intervals, until combustion occurred at around 180° C. Live steam is recommended as about the best means for extinguishing burning cotton.

16T2

MOSKALENKO, I. F

USSR/Ships - Equipment and Supplies Dec 1947
Navigation, Surface
Fogs

"Navigating Speed for Vessels in Fogs," Capt-Instructor (Kapitan-Nastavnik), I. Moskalenko, UChP, 3 pp

"Morskoy Flot" No 12

Contemporary shipboard equipment permits relatively safe navigation under all weather conditions. In the case of poor visibility, however, such as fog, great care must be exercised to prevent collisions. Stresses importance of slow speed during fog. Examples of good procedure, and wrong procedure which resulted in collisions.

LC 57T95

MOSKALENKO, I.F.

BUDNIKOV, K.V.; MOSKALENKO, I.F.

[Training manual for the sailor] Uchebnoe posobie dlia matrosa morskogo flota. Izd.2., ispr. Moskva, Morskoi transport, 1951. 267 p. (MLRA 7:6)
(Merchant seamen--Handbooks, manuals, etc.)

BUDNIKOV, Konstantin Vasil'yevich; MOSKALENKO, Ivan Fedorovich; MINCHIN, Mark Aronovich; POLIN, Leonid Yevgen'yevich; BUKHANOVSKIY, I.L., redaktor; IVANOV, K.A., redaktor; TIKHONOVA, Ye.A., tekhnicheskiy redaktor

[Merchant seaman's manual] Uchebnoe posobie dlia matrosa morskogo flota. Izd.4-oe, ispr. i dop. Moskva, Izd-vo "Morskoi transport," 1955. 278 p. (MLRA 9:1)
(Merchant seamen--Handbooks, manuals, etc.)

MOSKALENKO, I. K., Cand Med Sci (diss) -- "The use of gentian violet combined with diathermy to treat strongyloidosis". Khar'kov, 1959. 13 pp (Khar'kov State Med Inst), 250 copies (KL, No 10, 1960, 136)

ARNAUTOV, A.K.; BURSHTEYN, Sh.A.; GENES, V.S.; KOGAN, I.K.; MAMATYUK, Ye.M.; LITVINENKO, A.S.; MOSKALENKO, I.P.; NIKOLAYEVA, M.G.; PISKAREVA, Ye.V.; POPOVA, L.Ya.; RUDNEV, L.I.; SIDYAKIN, V.V.; TKACH, V.K.; FASTYUCHENKO, O.V.; FISUN, A.N.; FRENKEL', L.A.; TSYBENKO, N.A.; SHRAMENKO, B.I.

Comparative study on the effect of X rays (197 kv) and braking radiation generated with linear accelerator (3 Mev) upon animals. Radiobiologiia 2 no.2:211-215 '62. (MIRA 15:4)

1. Khar'kovskiy institut meditsinskoy radiologii i Ukrainskoy fiziko-tekhnicheskiy institut AN USSR, Khar'kov.
(RADIATION--PHYSIOLOGICAL EFFECT)

MOSKALENKO, I.F.

Study of the tissue de[illegible]
of radiation injury. [illegible]

1. Institut [illegible]

KATYUKA, Nikolay Sergeyevich; NOVATSKIY, Aleksandr Aleksandrovich; MOSKALENKO, I.Ye., red.

[Manual for operators of tower cranes] Pamiatka mashinista bashennogo krana. Izd.2., ispr. i dop. Kiev, Budivel'nyk, 1965. 169 p. (MIRA 18:5)

GUSEV, Vladimir Alekseyevich; POKRASS, Leonid Iosifovich; CHUDNOVSKIY, Abram Mironovich; MOSKALENKO, I.Ye., red.

[Improve the quality of construction work] Sovershenstvovat' kachestvo stroitel'nykh rabot. Kiev, Budivel'nyk, 1965. 85 p. (MIRA 18:12)

SHURAKOV, F.V., kand. sel'khoz. nauk; MOSKALENKO, K.M., tekhnik; MOSTOLOVITSA, K.Yu., tekhnik; IONOVA, M.A., kand. sel'khoz. nauk; TOLKACHEV, V.P., nauchn. sotr.; ORLOV, G.K., tekhnik; SOLOV'YEVA, T.F., tekhnik; ZHILYAKOVA, O., red.izd-va; GLIKMAN, N., red. izd-va; ISUPOVA, N., tekhn. red.

[Catalog of fruit crop varieties of the All-Union Scientific Research Institute of Plant Growing in the Crimea] Katalog sortov plodovykh kul'tur Vsesoiuznogo nauchno-issledovatel'skogo instituta rasteniievodstva v Kryma. Simferopol', Krymizdat, 1960. 230 p. (MIRA 17:1)

1. Leningrad. Vsesoyuznyy institut rasteniyevodstva. Krymskiy pomologicheskiy rassadnik.
(Crimea--Fruit--Varieties)

MOSKALENKO, KH. S., BOGOYAVLENSKIY, N. I.

Silos

Multi-section building for ensilage. Korm. baza 3 no. 4, 1952

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

[illegible] - [illegible]

Ref Jour : [illegible]

Author : [illegible]

Inst : [illegible]

Title : [illegible] White Lightning [illegible] X [illegible] Rds.

Orig Pub : [illegible] 1957, [illegible]

Abstract : [illegible] Island [illegible] that [illegible] and they [illegible] X Rh [illegible] quickly, [illegible]

Card 1/2

USSR/Farm Animal [illegible]

Abs Jour [illegible]

[illegible]

Card 2/2

136-12-8/18

AUTHOR: Moskalenko, L.G.

TITLE: Melting-point Diagram for the System Nickel Chloride-Cobalt Chloride (Diagramma plavkosti sistemy khloristyy nikel'-khloristyy kobal't)

PERIODICAL: Tsvetnyye Metally, 1957, No.12, pp. 39 - 40 (USSR).

ABSTRACT: In connection with the separation of nickel and cobalt, the author gives data on the system of the chlorides of these metals at high temperatures. The starting materials in his investigation were the pure chlorides dried to constant weight at 126 °C. Mixtures of different composition were heated in graphite crucibles under charcoal, the heating curves being recorded with a Kurnakov apparatus. The fusion diagram (figure) shows that the chlorides form a continuous series of solid solutions. There are 1 figure, 1 table and 1 German and 1 Russian reference.

AVAILABLE: Library of Congress

Card 1/1

SOV/136-59-7-8/20

AUTHOR: Moskalenko, L.G.

TITLE: Use of Organic Solvents in the Metallurgy of Nickel and Cobalt

PERIODICAL: Tsvetnyye metally, 1959, Nr 7, pp 40-45 (USSR)

ABSTRACT: The author notes that most nickel ores contain cobalt and iron, which are difficult to separate by methods based on differences in affinities for oxygen and sulphur. Separation of nickel and cobalt by the use of complex-forming organic solvents is attractive. The author has studied the solubility of nickel and cobalt chlorides in acetone at 17°C. His results (Table 1) show that the solubility of calcium-chloride dried cobalt chloride is almost 300 times that of similarly dried nickel chloride, the drying temperatures in each case being 96°C. The solubility of nickel chloride increases greatly when chlorides of iron, cobalt or copper are present (Fig 1). Beyond a certain concentration of cobalt chloride in acetone solution, further increases cause a decrease in nickel chloride solubility. Further experiments with

Card 1/3

SOV/136-59-7-8/20

Use of Organic Solvents in the Metallurgy of Nickel and Cobalt

the metal chlorides and sulphates in ethyl and isoamyl acetates saturated with hydrogen chloride showed (Table 2) that: the nickel salts are practically insoluble, the others having a high solubility; chlorides are more soluble than sulphates; especially in hydrogen chloride saturated ethyl acetates (Fig 3); the lower the boiling point of the ester the greater the solubility, the salt drying-temperature also having some effect (Fig 3); solubility increases with increasing leaching temperature (Fig 4); nickel salts remain practically insoluble in the presence of salts of the other metals. The author proposes a flowsheet based on these results (Fig 5). To check this flowsheet a cobalt matte (1.57% Co, 21.9% Ni, 47.47% Fe, 27.65% S) was treated with chlorine to give a product with 38.5% Ni, 2.99% Co, 6.7% Fe, 2.2% sulphate S. This was leached with organic solvents for 1-2 hours. With acetone repeated separation was necessary, but with the hydrogen-chloride saturated esters complete separation in a single stage was obtained, leaching being more

Card 2/3

SOV/136-59-7-8/20

Use of Organic Solvents in the Metallurgy of Nickel and Cobalt

satisfactory when the chlorinated product was first treated with water and dried. There are 5 figures, 2 tables and 6 references, 5 of which are Soviet and 1 English.

Card 3/3

TITOVA, L.A.; KASHIRSKAYA, M.M.; MOSKALENKO, L.S.; KUDIMOVA, A.T.

Improved support stand for the shaking apparatus for test tubes and flasks. Lab.delo 7 no.9:58-59 S '61. (MIRA 14:10)
(LABORATORIES--APPARATUS AND SUPPLIES)

TITOVA, L.A.; KASHIRSKAYA, M.M.; MOSKALENKO, L.S.; KUDIMOVA, A.T.

Method for determining pregnanediol and estrogens in the urine. Lab. delo 8 no.4:26-27 Ap '62. (MIRA 15:5)
(PREGNANEDIOL) (ESTROGENS)
(URINE—ANALYSIS AND PATHOLOGY)

DERBASOV, N. M.; MOSKALENKO, L. V.

The V-400, V-600 and V-800 dehydrating elevators with high-reliability chains. Biul.tekh.-ekon.inform.Gos.nauch.-issl. inst.nauch. i tekh.inform. no.10:26-28 '62. (MIRA 15:10)

(Coal washing—Equipment and supplies)

L 14531-66 EWT(d)/EWT(m)/EPF(n)-2/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)
ACC NR: AP6005278 IJP(c) JD/WW/HW/JG/DJ SOURCE CODE: UR/0413/66/000/001/0017/0017

INVENTOR: Moskalenko, N. D.; Novikov, O. K.; Pavlov, V. V.; Garibov, G. S.; Makhnovskiy, V. S.; Zhizhina, T. S.; Rakhinskiy, G. N.; Shur, I. A.

61
B

ORG: none

TITLE: Continuous mill for rolling aluminum strips from liquid metal. Class 7, No. 177395

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 7

TOPIC TAGS: aluminum, aluminum strip, aluminum strip rolling, continuous rolling, rolling mill, liquid metal rolling

ABSTRACT: This Author Certificate introduces a continuous mill for rolling aluminum strips from liquid metal. The mill comprises a continuous casting machine with a mold formed by a metal belt and a wheel, a raw strip guiding stand, a planetary mill and a finishing stand. In order to synchronize the casting and rolling rates, the

Card 1/2 UDC: [669.716:621.746.27] 621.771.237.064

L 14531-66

ACC NR: AP6005278

continuous casting machine is driven by the lower roll of the guiding stand by means

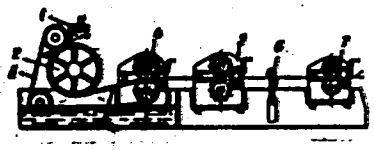

Fig. 1. Continuous mill

1 - Ladle for molten aluminum; 2 - mold wheel; 3 - metal belt; 4 - guiding stand; 5 - planetary stand; 6 - loop former; 7 - finishing stand.

of a metal belt (see Fig. 1). Orig. art. has: 1 figure. [WW]

SUB CODE: 11, 13/ SUBM DATE: 06May63/ ATD PRESS: 4198

TS

Card 2/2

KOVAL'CHUK, G.K. [Koval'chuk, H.K.], kand.tekhn.nauk; MOSKALENKO, N.F., starshiy nauchnyy sotrudnik; LIMANSKIY, V.V. [Lymans'kyi, V.V.], starshiy nauchnyy sotrudnik; PARSHINA, Z.S. [Parshyna, Z.S.], inzh.

Use of biomycine for the preservation of fresh fish. Khar. prom. no.1:58-63 Ja-Mr '62. (MIRA 15:8)

1. Azovsko-Chernomorskiy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.
(Chlortetracycline) (Fishery products--Preservation)

KOVAL'CHUK, G.K. [Koval'chuk, H.K.]; MOSKALENKO, N.F.; LIMANSKIY, V.V. [Lymans'kyi, V.V.]

Use of sorbic acid for the processing of cold-smoked hearrings. Khar.prom. no.2:65-67 Ap-Je '62. (MIRA 15:9)

1. Azovsko-Chernomorskiy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.
(Fishery products--Preservation) (Sorbic acid)

MOSKALENKO, N.F.

Efficient methods for the processing and establishment of raw material norms in the production of frozen mussels. Khar. prom. no.1:71-73 Ja-Mr '65. (MIRA 18:4)

L 62907-65

ACCESSION NR: AP5019175 UR/0337/65/000/007/0068/0069
664.95

10
B

AUTHOR: Moskalenko, N. F.; Konyukhov, V. M. (Chief technologist)

TITLE: The expediency of recalculating the actual (physical) tin can size into standard units according to the net weight of the cans

SOURCE: Rybnoye khozyaystvo, no. 7, 1965, 68-69

TOPIC TAGS: fish product packaging, can size

ABSTRACT: The norms for raw material consumption during the production of canned fish products is established on the basis of 1000 standard tin cans, i.e., #8 cans with a net weight of 350 g. In the past, the recalculations of raw material consumption in the case of cans of other physical sizes was carried out in the enterprises of the Azov-Black Sea basin by utilizing the volume ratios of the cans in question. The authors of the article suggest, on the basis of numerous examples, that the recalculation should be done on the basis of weight ratios; otherwise, e.g., enterprises producing #3 cans will show a surplus of raw materials while those whose output consists of #12 cans will show a constant deficit of raw materials.

Card 1/2

L 62907-65

ACCESSION NR: AP5019175

ASSOCIATION: AzcherNIRO; Yaltinskiy rybokombinat (Yalta Fish Concern)

SUBMITTED: 00 ENCL: 00 SUB CODE: GO

NO REF SOV: 000 OTHER: 000

Card 2/2

MOSKALENKO, N.G.

Possible relations of phytophenological phenomena with the moistening of soils in Yaroslavl Province. Biul. MOIP. Otd.geol. 37 no.4:150 Jl-Ag '62. (MIRA 16:5)
(Nagor'ye District—Soil moisture)
(Nagor'ye District—Vegetation and climate)

VOSTOKOVA, Ye.A.; TAGUNOVA, L.N.; VEREYSKIY, N.G.; PREOBRAZHENSKAYA, N.N.; MOSKALENKO, N.G.; RACHINSKAYA, N.N.; TURMANINA, V.I.; SHITOV, V.D.; ORLOVA, V.P., red.; PEVZNER, V.I., tekhn.red.; OKOLELOVA, Z.P., tekhn.red.

[Handbook and guide to the lithological composition of surfical sediments and the depth of occurrence of underground waters] Spravochnik-opredelitel' litologicheskogo sostava poverkhnostnykh otlozhenii i glubiny zaleganiia podzemnykh vod. Pod red. N.G.Vereiskogo i E.A.Vostokovoi. Moskva, Sel'khozizdat, 1963. 259 p. (MIRA 17:3)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii (for all except Orlova, Pevzner, Okolelova).

MOSKALENKO, N.G.

Methods of building phenological spectra. Nauch. dokl. vys. shkoly; biol. nauki no. 2:103-106 '64. (MIRA 17:5)

1. Rekomendovana kafedroy botaniki Moskovskogo gosudarstvennogo pedagogicheskogo instituta im. V.I.Lenina.

MOSKALENKO, N.G.; TAGINOVA, L.N.; TURMANINA, V.I.

Use of forest vegetation as an indicator of deposits of the glacial complex Trudy MOIP 8:130-136 '62.

(MIRA 17:1)

MOSKALENKO, N.G.

Vegetation cover of the environs of Noril'sk. Bot. zhur. 50 no.6: 829-837 Je '65. (MIRA 18:7)

1. Laboratoriya indikatsionnoy geobotaniki Vsesoyuznogo nauchno-issledovatel'skogo instituta gidrogeologii i inzhenernoy geologii, Moskva.

KUTS, P.V., kand. tekhn. nauk; MOSKALENKO, N.O., inzh.

Results of using single-phase electric tractors. Mekh. sil'. hosp. [8] no.12:13-15 D '57. (MIRA 10:12)
(Tractors) (Electricity in agriculture)

BOYKO, M.L., brigadir prokhodcheskoy brigady kommunisticheskogo truda; NOVOSELETS, N.A., brigadir prokhodcheskoy brigady; MOSKALENKO, N.P., brigadir prokhodcheskoy brigady kommunisticheskogo truda; ISACHENKO, I.A., brigadir prokhodcheskoy brigady kommunisticheskogo truda

Fast progess in development mining. Ugol' 38 no.11:12-15 N'63. (MIRA 17:4)

1. Shakhta No.22 im. Kirova tresta Kirovugol' (for Boyko).
2. Shakhty No.1-2 "Novaya Golubovka" (for Novoselets).
3. Shakhta "Zamkovskaya-2" tresta Kadiyevugol' (for Moskalenko).
4. Shakhta No.53 tresta Antratsit (for Isachenko).

MOSKALENKO, N.P.

Improvement of the inspection of automatic cab signaling devices in diesel locomotives. Avtom. telem. i sviaz' 8 no.2:36 F '64. (MIRA 17:6)

1. Starshiy elektromekhanik kontrol'no-ispytatel'nogo punkta Liskinskoy distantsii signalizatsii i svyazi Yugo-Vostochnoy dorogi.

BABCHENKO, N.N.; MOSKALENKO, N.P.; VOLOSOVICH, Ye.A., otv. red.; PASHORINSKAYA, G.N., red.; YEFIMENKO, A.S., tekhn. red.

[Manual for workers of fish processing plants; collection of technological instructions and reference material on the primary processing of fish on board fishing ships of the Kaliningrad Economic Council] Spravochnik ryboobrabotchika; sbornik tekhnologicheskikh instruktsii, spravochnogo materiala po perichnoi obrabotke ryby na promyslovykh sudakh Kaliningradskogo sovnarkhoza. Kaliningrad, Kaliningradskoe knizhnoe izd-vo, 1962. 259 p. (MIRA 16:9)

(Fish processing plants)

TRONOV, B.V.; BORTOVOY, I.M.; MOSKALENKO, N.P.

Complexes of naphthoquinones with phenols. Zhur. ob. khim. 33 no.5:1639-1641 My '63. (MIRA 16:6)

1. Tomskiy gosudarstvennyy universitet imeni V.V. Kuybysheva.
(Naphthoquinone) (Phenols)

PERSHIN, G.N.; MOSKALENKO, N.Yu.

Chemotherapeutic properties of pyraldine. Med.prom. 14 no.2:52-53 F '60. (MIRA 13:5)

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

PERSHIN, G.N. ; MOSKALENKO, N. Yu.

Chemotherapeutic properties of aminoquinol in cutaneous leishmaniasis in mice. Farm. i toks. 26 no.4:446-452 Jl-Ag'63 (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze, Moskva.

PERSHIN, G.V., Mosk. [illegible], 1960.

[illegible] experimental [illegible] Farm. [illegible] Pol. [illegible] 01 Ja-F '63. (MIRA 17:7)

[illegible] Timiryazevskaya [illegible]

YAKOVLEVA, A.I. (Moskva); SHIKHIREVA, M.V. (Moskva); PERSHIN, G.N. (Moskva); MOSKALENKO, N.Yu. (Moskva)

Morphological characteristics of a model of cutaneous leischmaniasis in white mice. Arkh. pat. 27 no.4:52-57 '65. (MIRA 18:5)

1. Otdel khimioterapii (zav. - chlen-korrespondent AMN SSSR prof. G.N.Pershin) Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta imeni Ordzhonikidze.

FEDOLIN, G. N.; MOSKALENKO, N. I.

"The Monomycin treatment of experimental Leishmaniasis of the skin."

report presented at 4th Intl Congr, Hungarian Soc of Microbiologists, Budapest, 30 Sep-3 Oct 64.

All-Union Sci Res Chemico Pharmaceutical Inst im Ordzhonikidze, Moscow.

USSR / Farm Animals. Silkworms. Q-7

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 45339

Author : Novikov, S. T.; Moskalenko, O. V.
Inst : Not given
Title : The Influence of Certain Biologically Active Substances Upon the Development and Productiveness of the Mulberry-Feeding Silkworm (Bombyx mori L.). Report No. 2. The Effect of the Addition of Thyroiodin to the Food of the Mulberry-Feeding Silkworm on the Output and Quality of Cocoons.

Orig Pub : Nauk. zap. Nizhin'sk. derzh. ped. in-t, 1956, 7, 82-87

Abstract : The mulberry leaves were treated with thyroiodin solution in concentrations of 2:100,000, 4:100,000 and 8:100,000, and were fed to larvae of silkworm thrice a day at 19-23° C. The larvae reared on these leaves have a higher weight before changing into pupae; the cocoons spun by them have

Card 1/2

53

MOSKALENKO, Ol'ga Yakovlevna; GUMILEVA, Margarita Vasil'yevna; NOVIKOV, K.P., otvetstvennyy redaktor; DMITRIYEVA, L.N., redaktor izdatel'stva; ZAZUL'SKAYA, V.F., tekhnicheskiy redaktor

[Abbau; a text book in German language] Abbau; uchebnoe posobie po nemetskomu iazyku. Moskva, Ugletekhizdat, 1956. 179 p. (MLRA 10:1)
(Coal mines and mining--Terminology)
(German language--Chrestomathies and readers)

MOSKALENKO, P., komandir aviaotryada (Mirnyy, Antarktida), PAVLOVSKIY, I., starshiy shturman (Mirnyy, Antarktida).

In the depth of the Antarctic. Grazhd.av. 14 no.7:25-27 Jl '57 (MIRA 10:8)

(Antarctic regions--Aeronautics)

84-58-1-10/32

AUTHOR: Moskalenko, P., Commander of the Antarctic Aviation Detachment
Paliyevskiy, T., Senior Navigator

TITLE: Over the Southern Extremity of the Globe (Na yuzhnoy okonechnosti zemnogo shara)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, 15 Nr 1, p 21 (USSR)

ABSTRACT: The article deals with the operations and accomplishments of aviation within the program of the IGY. Air services were maintained all year, despite violent snow storms lasting for weeks on end. Landings sometimes had to be made on unexplored ice fields among cracks, or on icebergs, island and fiords. Ice reconnaissance from the air extended to 700 km from the coast. The diesel-electric transporter "Ob'" was monitored from the air to the Mirnyy settlement. The aerophotographing of coastal areas went on continuously. Specially equipped aircraft laboratories were regularly exploring the atmosphere up to 5000 m altitude. Special mention is made of the part of aviation in the establishment of the Komsomol'skaya and the Vostok-1 stations. The tractor-sled expedition under Treshnikov into the interior for re-establishment of these stations after the polar night was supported by fuel supply stations along the route, which were established from the air, partly by dropping barrels with parachutes. From January to November, 3000 hours

Card 1/2

84-58-1-10/32

Over the Southern Extremity of the Globe

were flown by the aircraft of the detachment. Much fuel, special equipment, and food supplies have been transported, over 100 tons of which went to the Vostok-1 station alone. A photograph showing preparation of a runway on ice, accompanies the text.

AVAILABLE: Library of Congress

1. Aeronautics - International Geographic Year
2. Aeronautics - Antarctic - USSR

Card 2/2

MOSKALENKO, P.I., inzh.

Reducing air escapes in Kuznetsk Basin mines. Bezop. truda v prom. 1 no.12:11-12 D '57. (MIRA 12:3)
(Kusnetsk Basin--Mine ventilation)

LINDENAU, N.I., inzh.; MOSKALENKO, I.I., inzh.; LOPATKIN, G.I., inzh.; BUSYGIN, K.K., kand.tekhn.nauk

About the M.A. Krainkov's article "Calculating air in accordance with gas content and controlling the ventilation of workings." Bezop. truda v prom. 5 no.8:12-14 Ag '61. (MIRA 14:8)

1. Kombinat Kuzbassugol' (for Lindenau, Moskalenko, Lopatkin).
2. Nachal'nik otdela ventilyatsii i gaza Makeyevskogo nauchno-issledovatel'-skogo instituta, g. Makeyevka, Stalinskoy oblasti (for Busygin).

(Mine ventilation)
(Krainikov, M.A.)

MOSKALENKO, P. I., Cand of Medk Sci -- (diss) "Blood supply of the broad hip facia in man." Kiev, 1957, 15 pp (Kiev State Medical Institute im A. A. Bogomlets), 100 copies (KL, 33-57, 89)

ENKO S A

Calculation of a model of the F center B. A. Mosk-
enko Uchenye Zapiski Kubanse. Gos Ped Instituta
Referat Zhur. Khim 1956 Abstr. No. 19128 A model of
F center was studied in which the electron predominantly
[illegible]
potential. [illegible]
[illegible]
and [illegible]

Distr: [illegible]

MOSKALENKO, S.A.

B-5

USSR/Crystals.

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18313

Author : S.A. Moskalenko.
Inst : Kishinev Agricultural Institute.
Title : To Computation of Lande's Electron g-Factor at F-Center.

Orig Pub : Tr. Kishinevsk. s.-kh. in-ta, 1956, 9, 115-120

Abstract : Lande's g-factor for the basic position of an electron in the F-center of a NaCl crystal was computed taking into consideration the crystal symmetry and the fine structure of shells in the F-center. It followed from the obtained equation that the g-factor coincided with the g-factor of the s-electron. It showed that the discrepancies disclosed at experiments of paramagnetic resonance (Hutchison C.A., Noble G.A., Phys. Rev., 1952, 87, No 6) between the values of g-factors for the electron in the F-center and the s-electron could not be explained either by the lattice symmetry, or by the addition

Card 1/2

MOSKALENKO, S. A. [redacted]

On the theory of local electron states in crystals. Ukr.fiz. shur. 2 no.2:suppl:59-60. '57. (MLRA 10:7)

1. Institut fiziki AN URSR.
(Excitons) (Crystallography, Mathematical)

SOV/51-5-2-8/25

AUTHOR: Moskalenko, S.A.

TITLE: On the Theory of the Mott Exciton in Alkali-Halide Crystals (K teorii ekzitona motta v shchelochno-galoidnykh kristallakh)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 2, pp 147-155 (USSR)

ABSTRACT: The paper is entirely theoretical. The author discusses an alkali-halide crystal consisting of N alkali-metal atoms and N halogen atoms. In alkali atoms the s-shell is being filled, while halogen atoms have five electrons in the p-shell. The many-electron theory of the Mott exciton is discussed for such a crystal. Expressions are obtained for the energy of excitation of the crystal and for the Mott exciton band. The expression which describes the exciton band consists of three terms. The first term is due to the conduction band, the second term is due to the hole band of the crystal. These two terms are not, however, identical with the expressions for the energy of general conduction and hole bands because of the presence in both terms of functions φ_n which describe the bound state of an electron and a hole. The

Card 1/2

On the Theory of the Mott Exciton in Alkali-Halide Crystals SOV/51-5-2-8/26

third term is due to the interaction between electrons and holes. The properties of the exciton band depend thus on the properties of the conduction and hole bands, on the interaction of the latter two bands and on the functions φ_n. The author discusses also the effective mass and the energy spectrum of the Mott exciton. The author thanks K.B. Toloygo for directing this work and S.I. Pekar, I.M. Dykman and E.I. Rashba for advice. There are 2 figures and 11 references, 7 of which are Soviet, 2 American, 1 Swiss and 1 translation of a Western work into Russian.

ASSOCIATION: Institut fiziki, AN UkrSSR (Institute of Physics, Academy of Sciences of the Ukrainian S.S.R.)

SUBMITTED: July 12, 1957

Card 2/2

1. Alkali halide crystals--Excitation 2. Alkali halide crystals--Theory
3. Mathematics--Applications

Moskalenko, S. A.

24(4) PHASE I BOOK EXPLOITATION SOV/3140

Akademiya nauk Ukrainskoy SSR. Institut fiziki

Fotoelektricheskiye i opticheskiye yavleniya v poluprovodnikakh; trudy pervogo vsesoyuznogo soveshchaniya po fotoelektricheskim i opticheskim yavleniyam v poluprovodnikakh, g. Kiyev, 20-26 noyabrya 1957 g (Photoelectric and Optical Phenomena in Semiconductors; Transactions of the First Conference on Photoelectric and Optical Phenomena in Semiconductors...) Kiyev, 1959. 403 p. 4,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Prezidium. Komissiya po poluprovodnikam.

Ed. of Publishing House: I. V. Kisina; Tech. Ed.: A. A. Matveychuk; Resp. Ed.: V. Ye. Lashkarev, Academician, Ukrainian SSR, Academy of Sciences.

PURPOSE: This book is intended for scientists in the field of semiconductor physics, solid state spectroscopy, and semiconductor devices. The collection will be useful to advanced students in universities and institutes of higher technical training specializing in the physics and technical application of semiconductors.

COVERAGE: The collection contains reports and information bulletins (the latter are indicated by asterisks) read at the First All-Union Conference on Optical and Photoelectric Phenomena in Semiconductors. A wide scope of problems in semiconductor physics and technology are considered: photoconductivity, photoelectromotive forces, optical properties, photoelectric cells and photoresistors, the actions of hard and corpuscular radiations, the properties of thin films and complex semiconductor systems, etc. The materials were prepared for publication by E. I. Rashboy, O. V. Snitko, K. B. Tolpygo, A. F. Lubchenko, and M. K. Sheynkman. References and discussion follow each article.

Photoelectric and Optical Phenomena (Cont.) SOV/3140

Card 6/16

Card 2/16

SOV/126-8-2-3/26

AUTHORS: Giterman, M. Sh. and Moskalenko, S. A.

TITLE: On the Structure of Energy Bands in Ionic Crystals

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 8, Nr 2, pp 170-175 (USSR)

ABSTRACT: The interaction between electrons in crystals was taken into account in the Shubin-Vonsovskiy polar model (Ref 1). On the basis of this model Vonsovskiy and his collaborators (Ref 2) have considered a large number of static and kinetic effects in metals and semiconductors and have obtained good agreement with experimental data The method of second quantization turned out to be a convenient mathematical apparatus and was developed by Bogolyubov (Ref 3) for application to crystals. However, in Ref 3 only the simpler case of s-electrons was considered and excited states were not taken into account. Seidov and Galishev (Ref 4) have taken into account one non-degenerate p-state which gave an overlap of energy bands in the spectrum of elementary excitations even in the zero-order approximation. The fact that degeneracy with respect to the magnetic quantum number was neglected in all the above papers means that it was not possible to

Card1/4

obtain, for example, the anisotropy of the effective masses of current carriers and certain other effects. The present authors have generalised the polar model to the case of ionic crystals (NaCl, KCl) in Ref 5. The present paper is also concerned with the problem and gives special attention to the degeneracy of the electron states at the Cl points, and the possibility of the motion of current carriers of each sign over both cations and anions. The first of these effects has an important influence on the energy spectrum of the "holes", and in particular, on the anisotropy of their effective masses. The second effect leads to a change in the form and position of the energy bands, i.e. it has an influence on the properties of the current carriers. The work reported in Refs 6 and 7 may be considered as the zero-order approximation of the solution now given. For simplicity, lattice vibrations are not taken into account. An ideal cubic lattice is considered with two types of points g and h occupied by positive and negative ions respectively, the ions being considered as fixed. In the ground state, the electron

SOV/126-8-2-3/26

On the Structure of Energy Bands in Ionic Crystals

density distribution exhibits maximum non-uniformity. Near the g-points (Na, K) there are no valence s-electrons, while at the h-points (Cl) there are six electrons in the p-state having $m = 0, \pm 1$ and $\sigma = \pm 1/2$. The excitation of the system is connected with a reduction in the non-uniformity in the charge distribution and the appearance of elementary excitations of different signs. These excitations are called electrons and holes, by analogy with the one-electron theory and, correspondingly, the authors refer to electron and three-hole energy bands. The energy operator for the problem is of the form given by Eq 1 (N.N. Bogolyubov - Ref 3). The results obtained are substantially in agreement with those reported by Howland in Ref 9, except that in the present paper the interaction between the valence bands and the conduction band is taken into account. It is shown that the spin orbit interaction is not an essential factor leading to the anisotropy in the effective masses of the current carriers. An approximate diagonalization of the Hamiltonian for the many electron problems is carried

Card3/4

SOV/126-8-2-3/26

On the Structure of Energy Bands in Ionic Crystals

out and a group theory method is used in studying the structure of the bands in some directions in K-space.
There are 1 figure and 9 references, of which 8 are Soviet and 1 English.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet imeni A.M. Gor'kiy (Ural State University imeni A.M. Gor'kiy)

SUBMITTED: July 8, 1958

Card 4/4

24(2)

AUTHORS: Moskalenko, S. A., Tolpygo K. B. SOV/56-36-1-21/62

TITLE: On the Energy Spectrum of the Exciton of Mott in Ion Crystals (Ob energeticheskom spektre eksitona Motta v ionnykh kristallakh)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 1, pp 149-163 (USSR)

ABSTRACT: The present paper concerns a qualitative investigation of the levels of the Mott exciton in ion crystals carried out from the point of view of the many-electron theory. Such a Mott exciton is produced in highly polarized crystals by the transition of an electron from the external closed p-shell of the anion into an unoccupied state of the s-shell of the cation. The surplus electron resulting in this way and the corresponding hole form a system which is similar to a hydrogen atom. As basic functions it is advisable to use linear combinations of the wave functions of the electrons contained in the crystal. In the second part of this paper the many-electron problem is reduced to the equation of motion of two quasi-particles, and the third part deals with the group-theoretical classification of exciton states for K + C. In contradiction to Overhauser the authors from the very outset proceed from an arbitrary

Card 1/3

motion of the electron and hole. The eigenfunctions of the exciton are linear combinations of the corresponding lines of irreducible representations. From the point of view of the general deliberation discussed here, the scheme of the levels for NaCl- and CsCl-crystals must be equal because of the equal symmetry of lattices. The differences of the exciton spectra of these lattices can manifest themselves only by the arrangement and intensity of individual lines. The following paragraph deals with exciton levels in macroscopic approximation and it discusses a very simple variant of the effective method. The last chapter deals with the theory of excitons in a Cu_2O type crystal. A figure shows the scheme of the levels of the para-exciton (S = 0) and ortho-exciton (S = 1). Transitions to these levels are possible only by spin-orbit interaction. The deliberations discussed here do not supply information concerning the correct distance between the levels. In conclusion, some particular features concerning the behavior of excitons in a magnetic field are discussed. There are 4 figures and 22 references [illegible] of which are Soviet.

On the Energy Spectrum of the Exciton [illegible] Mott SOV/56-36-1-21/62
in Ion Crystals

ASSOCIATION: Institut fiziki Akademii nauk Ukrainskoy SSSR (Institute of Physics of the Academy of Sciences, Ukrainskaya SSR)

SUBMITTED: June 9, 1958

Card 3/3

MOSKALENKO, S. A. Cand Phys-Math Sci -(diss) "Energy Spectrum of Excitons in Non-deformable Ionic Crystals," Kiev, 1960, 13 pp, 200 copies (Kiev State U. im T. G. Shevchenko) (KL, 47/60, 97)