ISMAILOV, D. T.

Dissertation: "Effect of Superphosphate in Organomineral Granules on the Yield of Cotton in Azerbaydzhan." Cand Agr Sci, Moscow Academy of Agriculture imeni K. A. Timiryazev, Moscow, 1953. (Referativnyy Zhurnal--Khimiya, Moscow, No 4, Feb 54)

SO: SUM 243, 19 Oct 54

IZMAYLOV, F.

36770. IZMAYLOV, F. i CHICHAYEV, I. Po povodu stat'i (F. Uchevatkina i P. Kryuchkovoy) "Letniye posevy lyutserny v rastushchiy khlopchatnik", opublikovannoy v gazete "Pravda Vostoka" 20 avqusta 1949 qoda. Sots. sel. khoz-vo Uzbekistana, 1949, No. 4, c. 82-84

SO: Letopis' Zhurnal'ynkh Statey, Vol. 50, Moskva, 1949

IZMAYLOV, F.

Leading driver of the Alma-Ata bus and taxi station. Avt.transp.
32 no,6:38 Je '54.   (MLRA 7:9)

1. Alma-Atinskiy avtobusno-teksomotornyy park.
   (Beliaev, Vladimir Mikhailovich)

IZMAYLOV, G,A. (Mordovskaya ASSR, Saransk, 1-y Sovetskiy per., d.15)

Combination of perforation and acute bleeding from a gastric
ulcer. Klin.khir. no.9:80-81 S '62.   (MIRA 16:5)

1. 1-ye khirurgicheskoye otdeleniye Respublikanskoy bol'nitsy
Mordovskoy ASSR.   (STOMACH—ULCERS)

IZMAYLOV, G.A.

Measurement of the weight concentration of dust in air by means of
beta rays. Zav.lab. 27 no.1:40-43 '61.   (MIRA 14:3)

1. TSentral'naya laboratoriya avtomatiki.
                (Dust)   (Beta rays)

IZMAYLOV, G.A. (MASSR, Saransk, Pervyy Sovetskiy per., d.15)

Diagnosis of suppurating cysts of the urachus.   Nov. khir. arkh.
no.9:80 S '61.   (MIRA 14:10)

1. 1-ye khirurgicheskoye otdeleniya (zav. - zasluzhennyy vrach
Mordovskoy ASSR M.P.Yurtaykina) Respublikanskoy bol'nitsy Mordovskoy
ASSR.
                    (URINARY ORGANS—DISEASES)

IZMAYLOV, G.A.

Diagnostic errors in strangulated traumatic diaphragmatic hernia.
Klin. khir. no.1:71-72 '65.   (MIRA 18:8)

1. 1-ye khirurgicheskoye otdeleniye Respublikanskoy bol'nitsy
Mordovskoy ASSR.

KLYUYEV, I.I.; SHAVENZOVA, Ye.Z.; IZMAYLOV, G.A. (Mordovskaya ASSR, Saransk, 1-y Sovetskiy per., d.15)

Radical surgical treatment of elephantiasis of the lower extremities. Ortop., travm. i protez. 24 no.3:60-62 Mr '63.

(MIRA 17:2)

1. Iz 1-go khirurgicheskogo otdeleniya Respublikanskoy bol'nitsy Mordovskoy ASSR.

KARAVAYEV, G.A. (Saransk, Mordovskoy ASSR, 1-y Sovetskiy per., d. 1, kv. 1)

Extraperitoneal ruptures of the duodenum. Vest. khir. 92
no.2:88-90 F '64. (MIRA 17:9)

1. Iz 1-go khirurgicheskogo otdeleniya respublikanskoy
bol'nitsy (glavnyy vrach - V.G. Miskov) Mordovskoy ASSR.

IZMAYLOV, G.S.

Echinococcosis of the mammary gland. Khirurgiia no.6:67 Je '55.
      (BREAST--HYDATIDS)   (MLRA 8:10)

IZMAYLOV, G.S.

Osteoma of the mastoid process. Vest.oto-rin. 18 no.5:112 S-O '56.

(MASTOID PROCESS--TUMORS)   (MIRA 9:11)

IZMAYLOV, G.S. (Leningrad)

Adaptive function of the sympathetic innervation of the nasal mucosa.
Zhur. ush., nos. i gorl. bol. 20 no.4:18-21 Jl-Ag '61.
(MIRA 14:6)

1. Iz kafedry otorinoloringologii (nachal'nik - zasluzhennyy
deyatel' nauki prof. K.L.Khilov) Voyenno-meditsinskoy ordena
Lenina akademii imeni S.M.Kirova.
        (NOSE—INNERVATION)   (CHOLINESTERASE)

14-57-7-15092

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7,
                    p 146 (USSR)

AUTHOR: Izmaylov, I. V.

TITLE: Faunal Association in the Artificial Forests of the
               Khoper Preserve (Nekotoryye zakonomernosti formiro-
               vaniya fauny iskusstvennykh lesnykh nasazhdeniy v
               rayone Khoperskogo zapovednika)

PERIODICAL: Tr. Khopersk. gos. zapovednika, 1956, Nr 2, pp 123-
               130

ABSTRACT: Few species of birds inhabit pine stands one to three
               years old, and these species are of the open-space
               type. When the stands grow older, "forest" birds
               begin to settle in them, while their rodent popu-
               lation decreases. After the nesting season the bird
               population becomes more varied because of the immi-
               gration of species from natural forests. The author

Card 1/2

IZMAYLOV, I.V.

"Bibliography of Irkutsk Province"; biology. Reviewed by I.V. Izmailov.
Kraeved. sbor. no.2:171-172 '58.   (MIRA 13:2)
    (Irkutsk Province—Biology—Bibliography)
    (Bibliography—Irkutsk Province—Biology)

IZMAYLOV, I.V.; KHANKHASAYEV, V.K.

Birds of the Muya Valley. Kraeved.sbor. no.4:112-128
'59.   (MIRA 13:7)
        (Muya Valley--Birds)

IZMAYLOV, I.V.; PROKOF'YEV, M.A.

Distribution of siskins (Carduelis spinus) in Buryat-
Mongolia. Kraeved.sbor. no.4:136-138 '59.
(MIRA 13:7)

(Buryat-Mongolia—Finches)

IZMAYLOV, I.V.; STARKOV, I.A.

Zoological research in the southern part of the Vitim Plateau
in 1960. Kraeved. sbor. no.6:70-93 '61.   (MIRA 15:2)
                    (Vitim Plateau—Zoology)

BUYANTYYEV, B.R., red.; IZMAYLOV, I.V., red.; NAGORNOVA, A.Ya., red.;
RADNAYEV, A.N., tekhn. red.

[Problems in the protection of nature in the Buryat A.S.S.R.]
Voprosy okhrany prirody Buriatii; materialy. Ulan-Ude, Buriat-
skoe knizhnoe izd-vo, 1962. 125 p.   (MIRA 16:2)

1. Buryatskaya konferentsiya po okhrane prirody, 1st, Ulan-Ude,
1961. 2. Buryatskiy kompleksnyy nauchno-issledovatel'skiy insti-
tut Severo-Osetinskoy Akademii nauk SSSR (for Buyantyyev).
3. Buryatskiy pedagogicheskiy institut im. D.Banzarova (for
Izmaylov).
             (Buryat-Mongolia--Natural resources)

BELOV, V.V.

Some problems of conservation in Buryatia. (Khr. prir. Sib. i Dal', Vost. no.1 71-76 '62. (MIRA 17:5)

ACCESSION NR: AT4043276   S/2744/64/000/007/0101/0108

AUTHOR: Lapitskaya, O. I., Sady*kov, R. Kh., Izmaylov, I. Yu.

TITLE: Investigation of the electropyrolysis of liquid hydrocarbons for the production of acetylene

SOURCE: Ufa. Bashkirskiy nauchno-issledovatol'skiy institut ro pererabotke nefti. Trudy*, no. 7, 1964. Sernisty*ye nefti i produkty* ikh perers .olki (Sour crude oil and products of refining), 101-108

TOPIC TAGS: hydrocarbon, acetylene, electropyrolysis, Diesel fuel, acetylene production, hydrocarbon pyrolysis

ABSTRACT: A laboratory apparatus for producing acetylene by electropyrolysis of liquid hydrocarbons is described (see Fig. 1 in the Enclosure) and the most successful construction of the reactor is schematically illustrated (see Fig. 2). The influence of the dimensions and weight of the movable contacts as well as of the distance between the stationary electrodes is investigated. The yield in the reactor increased and the consumption of electricity per 1 m^3 gas decreased with increasing dimensions of the movable contacts. With increasing weight of the movable contacts, the electric consumption per 1 m^3 acetylene increased and the gas yield increased proportionally to the load; the composition of the
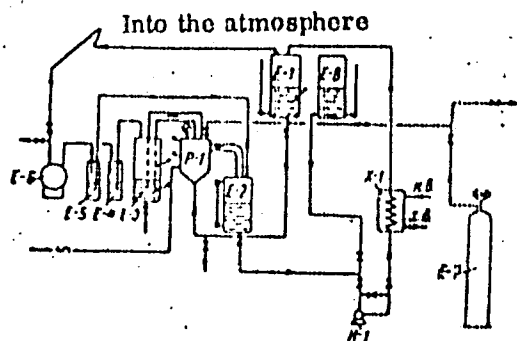
Card 1/4

Into the atmosphere

Fig. 1 - Technological diagram of the laboratory installation. P-1 - reactor (see Fig. 2); E-1 & E-2 - intermediate tanks; E-3, E-4 & E-5 - bubblers; E-6 - gas meter; E-7 tank with inert gas; E-8 - raw material tank; X-1 - immersible refrigerator; H-1 - gear pump

Card   3/4

LAPITSKAYA, O.I.; SADYKOV, R.Kh.; IZMAILOV, I.Ye.

Investigating the electropyrolysis of liquid hydrocarbons with
a view to obtaining acetylene. Trudy BashNII NP no.7:101-108 '64.
(MIRA 17:9)

25(1,7)   SOV/117-59-3-18/37

AUTHOR: Izmaylov, K.F., Engineer

TITLE: Machining Curving Surfaces Without a Tracer (Obra-
               botka krivolineynykh poverkhnostey bez kopira)

PERIODICAL: Mashinostroitel', 1959, Nr 3, pp 28 – 29 (USSR)

ABSTRACT: The Nauchno-issledovatel'skiy institut poligrafi-
               cheskogo mashinostroyeniya, NIIPoligrafmash,
               (Scientific Research Institute of Polygraphic Ma-
               chine Construction) needed a high-precision cylin-
               drical cam (template) with a varying-lead spiral
               groove (Figure 1) beginning with 11.52 mm lead and
               ending with 162 mm over a length of 596 mm and mak-
               ing 9-1/16 turns. The complex problem was met by
               the formula

$$s = 144 \frac{\alpha}{4500 - \alpha}$$

Card 1/3   where s is the axial feed of the cutting tool, and

SOV/117-59-3-18/37

Machining Curving Surfaces Without a Tracer

the same method as the cutting, with the end mill
replaced by an "arbor" with a "floating" bushing.
Machining of the groove by one operator took 24
hours for the rough milling, 34 hours for the fin-
ish milling, and 12 hours for the checking. The
described cutting method is recommended as more com-
mercial than the conventional method with the use
of tracers in the case of single-piece and small-
range production, and permits the cutting of prac-
tically any curved grooves with available machine
tools, and without complex auxiliary fixtures and
marking. There are two diagrams and 1 photograph.

Card 3/3

LATKO, T.D.; MATAYEV, G.A.; IZMAYLOV, L.B.

Geological structures in connection with the tapping of fractured
carbonate layers and the completion of wells. Geol. nefti i gaza
4 no.5:42-45 My '60.   (MIRA 13:9)

1. Dagestanskiy sovnarkhoz.
                    (Petroleum geology)

IZMAYLOV, L.B.

Determination of external loads acting on casing columns. Trudy
GrozNII no.10:12-20 '61. (MIRA 15:2)
(Oil well casing) (Rock pressure)

IZMAYLOV, L.B.

Calculating casings for collapse resistance. Izv. vys, ucheb.
zav.; neft' i gaz 5 no.6:41-46 '62.   (MIRA 16:5)

1. Groznenskiy neftyanoy institut.
                            (Oil well casing)

IZMAYLOV, L.B.

Effect of temperature changes occurring in a well on the
external pressure on a casing string. Neft. khoz. 43
no.8:43-46 Ag '65.   (MIRA 18:14)

LATKO, T.D.; IZMAYLOV, L.G.; MATAYEV, G.A.

Causes of casing breakdown and collapse. Neftianik 6 no.3:12-13
Mr '61.   (MIRA 14:10)

1. Sotrudniki TSentral'noy nauchno-issledovatel'skoy laboratorii.
                   (Oil well casing)

IZMAYLOV, M.

      Give more attention to the problems of wage control. Den. i
      kred. 21 no.11:50-55   N '63.   (MIRA 17:2)

      1. Nachal'nik planovo-ekonomicheskogo otdela Alma-Atinskoy
      oblastnoy kontory Gosbanka.

IZMAYLOV, M.Z. [deceased]; SHOSTENKO, Yu.V.; CHMIL', V.D.

Use of polymeric materials in partition chromatography with inverted phases. Dop. AN URSR no.2:201-205 '62.   (MIRA 15:2)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevti-cheskiy institut. 2. Chlen-korrespondent AN USSR (for Izmaylov).
(Chromatographic analysis)(Polymers)

IZMAILOV, .

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Mineralogical and
Geological Chemistry

"Asbestos in the serpentine zone of Kozarevo-Gradevici in the Ruiste-Cabar-Zabari zone. I. K. Izmailov. *Glazrik Prirod. Musria Srpsko Zemlje* (Bull. museum hist. nat. pays Serbe), Sér. A, *Mineralog., géol., paléontol.* No. 5, 103-10(1952)(In French).—Asbestos of high quality occurs as fissure-filling veins in serpentine. It is genetically related to the intrusion of sanidine-bearing trachytes.
                                                    Michael Fleischer

IZMAYLOV, N. A. *Nikolay Aleksandrovich* (DECEASED   1963/2

ob. 1962

(*1907-1961*)

CHEMISTRY

(*Ukrainian*)

see IIC

GAVRISH, A.R.; IZMAYLOV, N.A., prof., rukovoditel' raboty

Constants of dissociation of some xanthic acids in aqueous
solutions. Ukr. khim.zhur. 29 no.9:900-904 '63.   (MIRA 17:4)

1. Khar'kovskiy gornyy institut.

IGNATOV, Yu.I.; IGNAILOV, N.A. [deceased]

Exchange of ions of different valency in nonaqueous solvents.
Zhur.fiz.khim. 39 no.10:2483-2485 O '65.

(MIRA 18:12)

1. Khar'kovskiy khimiko-farmatsevticheskiy institut i Khar'-
kovskiy gosudarstvennyy universitet imeni Gor'kogo. Submitted
July 20, 1964.

IZMAYLOV, N.A. [deceased], CHERNYY, V.A., ...

Thermodynamic properties of nonaqueous electrolyte solutions.
Part 14. Zhur. fiz. khim. 37 no.4:822-824 Ap '63.
(MIRA 17:7)

1. Khar'kovskiy gosudarstvennyy universitet.

TIMOFEYEV, V. N.; PALTUSOVA, K. I.; IZMAYLOV, O. A.; SHKLYAR, F. R.

Investigating the aerodynamics of a smoke flue in blast furnace air preheaters. Sbor. nauch. trud. VNIIMT no.8:360-372 '62.   (MIRA 16:1)

(Blast furnaces)   (Flues—Aerodynamics)

6 (7)   SOV/112-59-10-15/23

AUTHOR: Izmaylov, P.A., Chief, and Pilyus, G.S., Senior Engineer

TITLE: Experience in Automation of Intra-rayon Telephone Commu-
            nications

PERIODICAL: Vestnik svyazi, 1959, Nr 10, pp 24-26 (USSR)

ABSTRACT: This article is concerned with automation of intra-rayon
            telephone communications (VRS) facilities in the Moscow
            oblast'. By way of introduction the authors state that in
            1956 telephonization of all sovkhozes, Machine-tractor
            stations, sel'skiye sovety (rural councils) and kolkhoz
            offices was completed. They then review recent achieve-
            ments in automation of VRS facilities: 101 VRS automatic
            telephone stations (ATS) and 51 UPTSs were put in opera-
            tion by the end of 1958, as a result of which more than
            57% of VRS stations were operating around the clock at
            the beginning of this year; at present VRS communications
            is fully automatic in 5 rayons: the Bronnitsy, Klin, Loto-
            shino, Ozery and Chekhov rayons; the level of VRS automa-
            tion is high in the Dmitrov, Yegor'evsk, Naro-Fominsk, Podolsk,

Card 1/4   Orekhovo-Zuyevo and Stupino rayons. It is planned to

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Experience in Automation of Intra-rayon Telephone Communications

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replace all manual stations with automatic ones by the
end of 1961. The economic advantages of this automation
work are also cited. The balance of the article is devo-
ted to the organization of work in automation of VRS fa-
cilities. Installation is done on the basis of a yearly
plan drawn up by the direktsiya radiotranslyatsionnoy
seti (Board of the Radio Broadcasting Relay Network) and
approved by the heads of the communications administra-
tions. The processes of planning, projecting, prepara-
tion and installation are outlined; standard designs, de-
veloped by the "Giprosvyaz'" Institute, in somewhat modi-
fied form, are used. Before 1958 equipment assembly work
in the VRS ATSs was done by the remontnaya-montazhnaya
kontora (Maintenance and Assembly Office) of the communi-
cations administration; in 1958 this work was transfer-
red to the SMUR; at present installation of VRS ATS e-
quipment is done by workers of the SMUR and the rayon
communications offices. The authors note the shortage of
connecting circuits and the need for large scale output
of multiplexing apparatus for steel connecting circuits

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Experience in Automation of Intra-rayon Telephone Communications

and B.A. Shcherbakov, technicians at the Voskresensk and
Ruza rayon communications offices respectively. The au-
thor mentions courses for preparation and re-training of
VRS technician by the communications administration and
DRTS; 4 VRS ATS technicians are named: L.V. Golomazov
(photo), N.I. Turkin, I.I. Ivanov, V.I. Morozov, of the
Podol'sk, Voskresensk, Dmitrov and Yegor'yevsk communica-
tions offices. Service, maintenance and checking of au-
tomatic stations is discussed and outlined. The authors
conclude with mention of a number of things which are hol-
ding up further and faster development of the VRS system;
in particular he notes the need for serial production of
block stations with up to 40 numbers capacity, necessary
for the VRS network; a system for automation of battery
charging and stabilization of the line voltage used for
this purpose is also lacking. They also mention defective
equipment manufactured for VRS ATSs, specifically the
rotary switches in the charge-discharge panels supplied
Card 4/4   with UATS-50/100 equipment.
ASSOCIATION: DRTS Moskovskoy oblasti (Moscow Oblast DRTS)

BULANOV, A.I.; IZMAYLOV, P.I.; PETROV, N.A.; TROITSKIY, B.V.; SLOBODCHIKOV,
D.A., redaktor; LEVCHUK, G.P., redaktor; INOZEMTSEVA, A.I., redaktor;
KUZ'MIN, G.M., tekhnicheskiy redaktor.

[Topography] Topografiia. Pod obshchei red. D.A.Slobodchikova.
Moskva, Izd-vo geodezicheskoi lit-ry. Pt. 1. 1954. 539 p. [Microfilm]
        (Topographical surveying)   (MLRA 7:11)

IZMAYLOV, R.; ZAMYATIN, V.

Record soaring glider. Kryl.rod. 11 no.10:14-17 O '60.

(MIRA 13:11)

(Gliders (Aeronautics))

Lxxxy, A.

USSR/Physical Chemistry - Kinetics. Combustion
        Explosives. Topochemistry, Catalysis   B-9

Abs Jour   : Referat Zhur - Khimiya, No 2, 1957, 3857

Author   : Eydus Ya.T., Ismaylov R.I.
Inst   : Department of Chemical Sciences, Academy of Sciences USSR
Title   : Catalytic Hydro-Condensation of Carbon Monoxide with
              Olefins. Communication 14. Mutual Transformation of
              Butene-1 and Butene-2 Under Conditions of Catalytic
              Hydro-Condensation of Carbon Monoxide with Olefins. Commu-
              nication 15. Hydro-Condensation of Carbon Monoxide with
              Butene-2.

Orig Pub   : Izv. AN SSSR, Otd. khim. n., 1956, No 4, 467-474, 475-481

Abstract   : 14. Investigation of the reaction of isomerization of
              butene-1 (I) to butene-2 (II) and of II to I, at 190° and
              space velocity 66-100 hour⁻¹, over catalysts of the reac-
              tion of hydro-condensation of CO with olefins. It is
              shown that in the absence of H₂ the reactions I → II and

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ROBINZON,Ye.A;GRISHINA, O.N.; MUKHAMEDOVA, L.A.; URMANCHEYEV, F.A.;
   IZMAYLOV, R.I.; BONCHER, L.Ye.; KASHAYEV, S.-Kh.G.; AMIRKHANOVA,
   N.G.; GONIK, V.K,; BAYBUROVA, M.Kh.; NECHAYEVA, M.A.

Petroleums of the Tatar A.S.S.R. Izv.Kazan.fil.AN SSSR.Ser.khim.
nauk no.4:93-113 '57.   (MIRA 12:5)
                (Tatar A.S.S.R.--Petroleum)

Reaction of Isomerization in a Series of Butenes

Table 1 gives data on content in % of butene-2 (cis- and trans-form)
in an equilibrium mixture of n-butenes (t^o from 200-500°). Table 2
presents data on the content of n-butenes in an equilibrium mixture
(t^o from 27-727°), wherein a comparison is made of the composition of
equilibrium mixtures of n-butenes computed by A. V. Frost (8) with
corresponding data obtained experimentally by other authors (H. H.
Voge, N. C. May $\angle 4 \angle 7$). Table 3 gives data on the free energies and
equilibrium constants of the isomerization of butenes (in an ideal
gaseous state) (t^o from 25 to 1227° C.). Table 4 presents values of
equilibrium concentrations of butenes (in an ideal gaseous state,
t^o from 25-1227° C. for butene-1, butene-2, butene-2 $\angle$trans$\angle 7$, and
isobutene). Table 5: content of butene-1 and butene-2 in a mixture
in dependence on volumetric velocity (velocity space).

The outstanding personalities cited in text are: F. E. Frey and W. F.
Huppke, for their study on the dehydrogenization of n-butane at
t^o of 350-500° under conditions of the absence of isobutene in the

Card 3/4

IZMAYLOV, R.I.; OKRUZHNOV, A.M.; FEDOROV, G.I.; VIROFYANTS, R.A.

Thermocatalytic conversions of hydrocarbons of a petroleum C_6-fraction on Al_2O_3-Pt catalyst. Neftekhimiia 1 no.4:505-508 Jl-Ag '61.   (MIRA 16:11)

1. Institut organicheskoy khimii AN SSSR, Kazan'.

LE, B.; IZMAYLOV, R.I.; URMANCHEYEV, F.A.; LIPATOVA, I.P.; KHASHAYEV, S.-Kh.G.; LAMANOVA, I.A.; BUKHARAYEVA, R.G.

Individual hydrocarbon composition of the petroleums of Tataria. Report No.5: Ligroine from the petroleum of the Bavly Oil Field. Izv. AN SSSR. Otd.khim.nauk no.7:1310-1315 Jl '61. (MIRA 14:7)

1. Khimicheskiy institut im. A.Ye. Arbuzova Kazanskogo filiala AN SSSR.

(Bavly region--Petroleum) (Ligroine)

IZMAYLOV, R.I.; OKRUZHNOV, A.M.; VIROBYANTS, R.A.

Volga crudes as a raw material for the production of benzene by catalytic reforming. Khim.i tkeh.topl. i masel 7 no.11:29-32 N '62. (MIRA 15:12)

1. Institut organicheskoy khimii AN SSSR, g. Kazan'.
   (Petroleum—Refining)   (Benzene)

KARPENKO, A.M.; LYVAROV, B.I.; VIKRAVANIS, R.A.

  Hydrodealkylation of toluene and ethylbenzene on a catalyst containing nickel. Neftekhimiia 4 no.5:676-79 S-O '64.
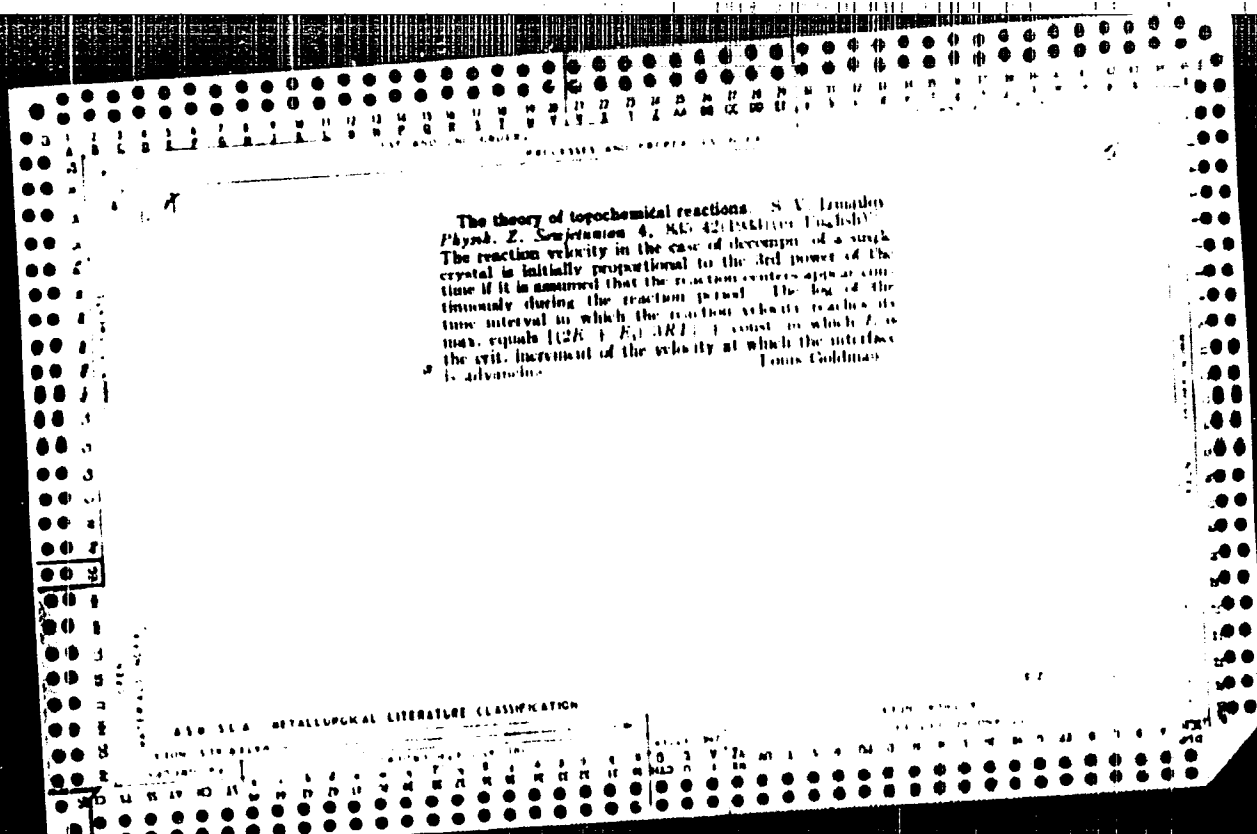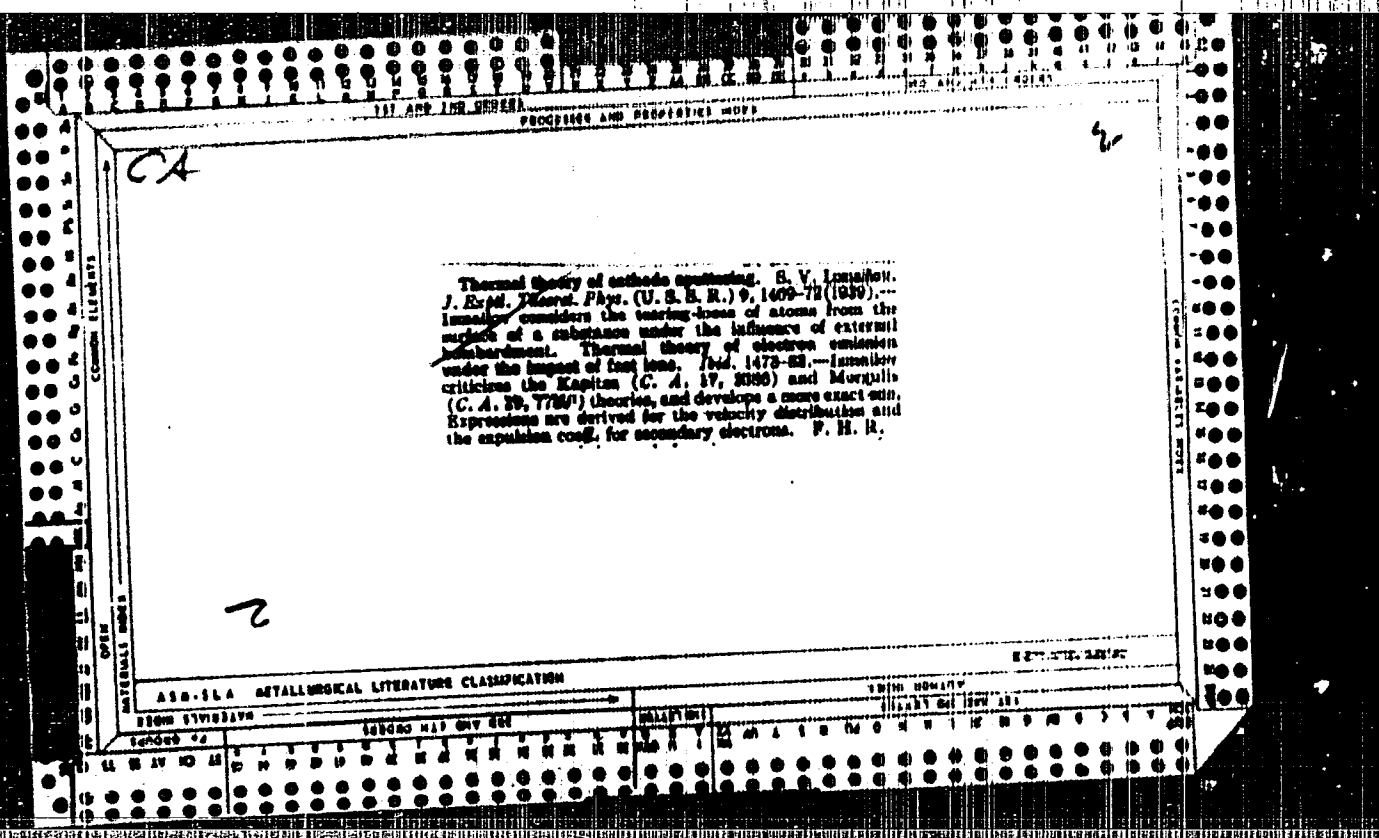
  (MIRA 18:1)

  1. Institut organicheskoy khimii AN SSSR. Kiev.

IZMAYLOV, S.S.

Kolkhoz Barabinskoi nizmennost /Barabinsk lowlands collective farm_7.
Moskva, Sel'khozgiz, 1954.   143 p.

SC: Monthly List of Russian Accessions, Vol. 7 No. 2 May 1954.

The theory of topochemical reactions. S. V. Izmailov. Phys. Z. Sowjetunion 4, 465 421 (in German) (in English)". The reaction velocity in the case of decompn. of a single crystal is initially proportional to the 3rd power of the time if it is assumed that the reaction centers appear continuously during the reaction period. The log of the time interval in which the reaction velocity reaches its max. equals $1/2K + E/2RT$; const. in which T is the evit. increment of the velocity at which the interface is advancing.   Louis Goldman

METALLURGICAL LITERATURE CLASSIFICATION

CA

Thermal theory of cathode sputtering. S. V. Izmailov. J. Expl. Theoret. Phys. (U.S.S.R.) 9, 1409-72 (1939).— Izmailov considers the tearing-loose of atoms from the surface of a substance under the influence of external bombardment. Thermal theory of electron emission under the impact of fast ions. Ibid. 1473-83.—Izmailov criticizes the Kapitza (C.A. 17, 3036) and Morgulis (C.A. 19, 7766[?]) theories, and develops a more exact estn. Expressions are derived for the velocity distribution and the expulsion coeff. for secondary electrons. F.H.R.

IZMAILOV, S. V.

USSR/Nuclear Physics - Mesons
Nuclear Physics - Particles

Nov 1947

"The Spectrum of Meson Masses," S. V. Izmailov, Lenin-grad State Pedagogical Institute imeni Gertsen, 4 pp

"Dok Ak Nauk" Vol LVIII, No 6

Author makes a simple suggestion that the inner emis-sion is connected with the emission of "inner circu-lation." Characterizes the inner circulation latory movement." Characterizes with the kinematic spin of particles (not connected with the character of a complete which is determined by the character element of the equation of particles) of the internal element of the equation of particles with an expense established by amount of movement M_{ik} with an expense established by M (M_{12} = M_y,...) and time N (M_{14} = M_j,...) which is

USSR/Nuclear Physics - Mesons (Contd)   Nov 1947

satisfied by the general rules of commutation. Sub-
mitted by A. F. Ioffe 4 Jun 1947.

36969

USSR/Nuclear Physics - Meson
Spin

11 Sep 49

"Probability of Meson Conversion," A. ... Ginbur...., Acad
S. V. Izmaylov, Leningrad Physicotech ...
Sci USSR, Pedagogical Inst Imeni A. I. Gertsen,
3 pp

"Dok Ak Nauk SSSR" Vol LXVIII, No 2

Primary particle and one of the secondary particles
here same spin and are described by wave equations
of same type (with different masses and, generally
speaking, charges). These two particles are con-
sidered as two states of the same particle. Third
particle, generated in transition from first to
second and having an integral spin, is treated as
a quantum wave field. Derives concrete formulas
for disintegration of a meson with spin $\frac{1}{2}$ into
particles with spin $\frac{1}{2}$ and 0, and of a meson with
spin 1 into a meson with spin 0 and a neutretto
or photon with the aid of Kemmer's matrices.
Submitted by Acad A. F. Ioffe 4 Jul 49.

3/50IT75

PA 165T113

IZMAYLOV, S. V.

Aug 50

USSR/Physics - Static, Radio
Electrons

"Possibility of Extracting Electrons From Metals
by Molecules of a Neutral Gas With Electronegative
Properties," S. V. Izmaylov, A. M. Furman, Cen Lab
in Struggle Against Industrial Radio Interference,
Min of Elec Ind USSR

"Zhur Eksper i Teoret Fiz" Vol XX, No 8, pp 729-733

Shows nonexcited subject molecules can extract elec-
trons from a metal. Calculates number of electrons
extracted by one molecule incident normally upon
metal's surface with velocity V as function of mole-
cule's polarizability alpha and minimum distance
x_0 from surface characterizing repulsive force.
Submitted 27 Jan 50.

165T113

IZMAYLOV, S.V.

Electromagnetic interaction of particles. Uch.zap.Ped.inst. Gerts.
103:219-259 '55.   (MLRA 10:3)
              (Quantum thoery)

Category : USSR/General Problems - Problems of Teaching   A-3

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 5521

Author   : Izmaylov, S.V.
Title   : Concerning the Professional-Pedagogical Trends in the Course
           on Theoretical Physics in Pedagogical Institutes.

Orig Pub : Uch. zap. Leningr. gos. ped. in-t, 1956, 124, 111-130

Abstract : No abstract

$\mathcal{I}$

20-2-12/60

AUTHORS: Fradkin, E. Ye. , Izmaylov, S. V.

TITLE: On the Permissible Transformations of the Equations for Particles With Higher Spins (O dopustimykh preobrazovaniyakh uravneniy dlya chastits s vysshimi spinami)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp.277-280 (USSR)

ABSTRACT: The particles with any spins are described by equations of the type $(L^i (\partial/\partial x_i) + i\varkappa) \Psi(x_0, x_1, x_2, x_3) = 0$. In this connection $\Psi(x_0, x_1, x_2, x_3) = \Psi(ct, x, y, z)$ signifies the wave function which is transformed according to a finitely-dimensional representation of the complete Lorentz group; $L^i (i = 0,1,2,3)$ - quadratic matrices, $\varkappa$ - a real constant different from zero. The invariance of the above-mentioned equation with regard to the just mentioned transformation is guaranteed by the following additional conditions for the matrices L^i:

Card 1/3

20-2-12/60

On the Permissible Transformations of the Equations for Particles With Higher Spins

V is also given. For the particles with higher half-integer spins $s = n + (1/2)(n = 1,2,....\ell)$ only the density of charge of the free particle at rest is an invariant of the permissible transformations. Finally these transformations are more closely investigated for a particle with spin 3/2. The essential feature of these transformations lies in change of the metrics in the "additional" space with the spin 1/2. There are 5 references, 1 of which is Soviet.

ASSOCIATION: Leningrad State Pedagogical Institute imeni A. I. Gertsen (Leningradskiy gosudarstvennyy pedagogicheskiy institut im. A. I. Gertsena)

PRESENTED: December 29, 1956, by V. A. Fok, Academician

SUBMITTED: December 21, 1956

AVAILABLE: Library of Congress

Card 3/3

On the Theory of Ion-Electron Emission From Metals.   SOV/57-25-10-17/40
I, Comparison With Experiment

for the linear section. It was clear in all quarters
that a dependence of the coefficient γ_k of kinetic ion-
electron emission upon the work function ϕ must exist.
No success was, however, achieved in proving such
a dependence experimentally. [1]t is demonstrated in
this paper - formula (1,05) - that in the linear section
the secondary emission is not only a function of the
work function, but also of the chemical potential μ
of the electrons in the metal. The chemical potential
remains constant, if the work function varies because
of a modification of the absorption layer and thus
the variation of γ_k is only determined by the variation
of the function $F_o(x)$. $x^2 = 1 + \frac{1}{\mu} .. F_o(x)$

drops rapidly with the increase of ϕ. The metals can be
classified as follows with respect to the reduction of γ_k:
Li,Na,K,Ni,Mo,Al,Ta,W,Cu,Pt, and thus with respect to
the increase of the work function:K,Li,Na,Ta,Mo,Al,W,Ni,
Cu,Pt. These two series on the whole do not agree with
each other. This offers an explanation for the fact

Card 2/4

On the Theory of Ion-Electron Emission From Metals.   SOV/57-2J-1o-17/4o
I, .Comparison With Experiment

Card 4/4

59

S/044/60/000/007/048/058
C111/C222

AUTHOR: Izmaylov, S.V.

TITLE: On the question of the foundation of the special theory of relativity

PERIODICAL: Referativnyy zhurnal. Matematika, no.7, 1960, 213. Abstract no.8252. Uch.zap.Leningr.gos.ped.in-ta, im.A.I. Gertsena, 1958, 141, 19-26

TEXT: In the paper the author tries to give a "dynamic" foundation of the special theory of relativity on the base of the general laws of the point dynamics, the law of the proportionality of mass and energy, the principle of relativity, and the principle of the homogeneity of the space.

[Abstractor's note: The above text is a full translation of the original Soviet abstract.]

Card 1/1

SOV/137-58-12-25039

Translation from: Referativnyy zhurnal Metallurgiya, 1958, Nr 12, p 145 (USSR)

AUTHOR: Izmaylov, S. V.

TITLE: Ion-electron Kinetic Emission of Metals (Ionno-elektronnaya kineliches-
           kaya emissiya iz metallov)

PERIODICAL: Uch. zap. Leningr. gos. ped. in-ta im A I Gertsena, 1958, Vol
             166, pp 309-346

ABSTRACT: The author examines the secondary kinetic ion-electronic emission, i e ,
           emission of electrons (E) of a metal when its surface is struck by ions
           possessing great kinetic energy. A short review of the results of exper-
           imental investigation of this emission and a review of theories advanced
           earlier are adduced. A detailed examination is made of the mechanism
           set forth by the author which consists in the excitation of E conductivity
           by the electromagnetic inhibiting field of the ions falling on the metal.
           The calculation is performed with the aid of a model of free E for the
           energies of ϵ_i ions, which are appreciably greater than the energy of
           E removal, ϵ_e , it being assumed that the ions fall on the surface of the
           metal perpendicularly. It is shown that the emission coefficient γ
           in a broad range of energies $\epsilon_e \ll \epsilon_i \ll \epsilon_e M_i / m$,   where M_i is the
Card 1/2

Ion-electron Kinetic Emission of Metals

SOV/137-58-12-25039

mass of the ion and m, the mass of the E, is proportional to the energy of the falling ion and inversely proportional to M_1. When $\epsilon_1 \gg \epsilon_e M_1/m$, γ loses its dependence on ϵ_j. In qualitative agreement with the experiment it is found that the distribution of the normal components of the impulse of secondary E has a maximum, the position of which is displaced towards greater energies with an increase in the work function Φ. It is shown that the γ value is greatly dependent on the Φ/μ ratio, where μ is the chemical potential of the E corresponding to the observed strong variation of γ during the formation of adsorption layers. Bibliography: 25 references.

M. K.

Card 2/2

Classical, Relativistic, and Quantum Mechanics   SOV/3813

TABLE OF CONTENTS:
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Introduction

Card 2/4

Classical, Relativistic, and Quantum Mechanics   SOV/3813

  19. Transmission of particles through the potential barrier. 42
     Theory of radioactive α-decay
  20. Theory of antiparticles 46

AVAILABLE: Library of Congress (QC131.I9)

Card 4/4   JA/cdw/mas
                     7-21-60

66334
SOV/181-1-1-10-9/21

~~24(3)~~ 24.6510

AUTHOR: Izmaylov, S. V.

TITLE: The Theory of the Kinetic Ion. - Electron Emission From Metals. II

PERIODICAL: Fizika tverdogo tela, 1959, Vol 1, Nr 10, pp 1546 - 1556 (USSR)

ABSTRACT: The mechanism of the electron emission (ion - electron emission) caused by the impact of a positive ion upon a metal surface depends on the ratio between the work function ϕ of the electron leaving the metal and the neutralization energy of the ion W_i in different ways according to whether $W_i > 2\phi$ or $W_i < 2\phi$. In the former case the mechanism resembles the Auger effect, and in the latter the electron is separated at the expense of the kinetic energy of the ion. At sufficiently high ion energies, this "kinetic" electron emission is independent of W_i/ϕ and the sign of the ion charge. The present paper deals with the theory of secondary kinetic ion-electron emission. In the introduction, the re-

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The Theory of the Kinetic Ion - Electron Emission From   66334
Metals. II   SOV/181-1-10-9/21

sults obtained by several experimental investigations dealing
with this subject are discussed (Yeremeyev et al, Arifov,
Ayukhanov, Starodubtsev, Dunayev, and Fluks). The results
of these investigations are given systematically in form
of rules. A) Rules concerning the coefficient γ of secondary
kinetic ion-electron emission (γ denotes the average number
of electrons, the emission of which is induced by one ion).
Here, six rules are found to apply, among others that in
pure metals γ is very small ($\gamma \approx 0.01$ with $E_{ion} \sim 500$ ev),

but that it increases quickly in the presence of absorbing
layers. Within a large energy interval, γ is a linear function
of the energy E_i of the primary ion beam both in pure metals
and in such containing absorbing layers. γ is further practi-
cally independent of the metal temperature, and it decreases
with an increase in the mass of the bombarding ions. B) The
rules of secondary ion-ion-emission. Here five characteristic
interrelations are enumerated. In the following, the author
discusses the results of some theoretical papers dealing
with this subject (Kapitsa, Morgulis, Gurtovoy, Frenkel',

Card 2/4

66335

SOV/181-1-10-10/21

24(3) 24.6510

AUTHOR: Izmaylov, S. V.

TITLE: The Theory of the Secondary Electron Emission From Metals
               Under the Influence of Fast Neutral Atoms. III

PERIODICAL: Fizika tverdogo tela, 1959, Vol 1, Nr 10, pp 1557-1561 (USSR)

ABSTRACT: In an earlier paper the author, together with Furman,
               developed a theory of the field induced electron emission
               from metals by neutral molecules with electronegative pro-
               perties. In the present paper the theory of the kinetic
               electron emission from metals induced by neutral atoms is
               investigated. It has been shown experimentally that the
               coefficient of kinetic atom-induced electron emission γ_a (equal
               to the number of electrons emitted per incident atom of
               the energy E_a) is of the same order of magnitude as the
               coefficient of the kinetic ion-induced electron emission
               (Ref 2). The mechanism of the kinetic atom-induced electron
               emission is assumed to be similar to that of the kinetic ion-
               induced emission (Ref 3): The fast atom is partly slowed down in a
               collision with a surface target atom; first, the electron

Card 1/3

The Theory of the Secondary Electron Emission From
Metals Under the Influence of Fast Neutral Atoms. III

66335

SOV/181-1-10-10/21

$$P_a(k) = \frac{8}{(2\pi)^4} \frac{z_{eff}^2 e^4}{\hbar^2} (1+b)^2 \psi^2 {}_2 \int_{(k_o)} \frac{q_z^2(1-\cos\omega t)}{\omega^4 q^4} (d\vec{k}_o).$$ In
the following the two limits $\tau \gg \hbar/\phi$ and $\tau \ll \hbar/\phi$ are in-
vestigated and formulas are given for γ_a and $P_a(k)$. In both
cases γ_a is proportional to v^2, i.e. it is proportional to
the kinetic energy of the incident atom. Finally, the author
gives an evaluation of τ. He obtains

$$\tau \sim 2 \sqrt{\frac{A_1 \beta_o}{z_{eff}^2}} \cdot 10^{-15} \text{ sec; } (\beta_o \text{ is of the order of unity}).$$ There

are 3 Soviet references.

ASSOCIATION: Gosudarstvennyy pedagogicheskiy institut im. A. I. Gertsena, Le-
ningrad (State Pedagogical Institute imeni A. I. Gertsen, Le-
ningrad)

SUBMITTED: September 26, 1957

Card 3/3

IZMAYLOV, S.V.; P'YANOV, I.I.

Production of tritium in the bombardment of heavy nuclei by fast
protons. Zhur.eksp.i teor.fiz. 41 no.1:118-126 Jl '61. (MIRA 14:7)

1. Radiyevyy institut AN SSSR.
        (Collisions (Nuclear physics)) (Tritium)   (Protons)

IZMAYLOV, Sergey Valentinovich; SVITKOV, L.P., red.; KOZLOVSKAYA,
M.D., tekhn. red.

[A course in electrodynamics for physics and mathematics
faculties of pedagogical institutes]Kurs elektrodinamiki dlia
fiziko-matematicheskikh fakul'tetov pedagogicheskikh institu-
tov. Moskva, Uchpedgiz, 1962. 439 p.   (MIRA 15:10)
                    (Electrodynamics)

Theory of secondary electron emission   S/181/62/004/009/025/045
B104/B186

to the amount of energy lost by the primary beam in the material per unit
of path, and

$$k J(z) G(\delta_p, z), \quad G(\delta_p, z) = -\frac{d\delta}{ds} \cdot \qquad (3),$$

where k is the factor of proportionality that depends on the type of
emitter. (3) The secondary electrons have a relatively low energy and are
absorbed according to the law $J_s(1) = J_0 \exp(-\beta 1)$, where 1 is the distance
from the point of secondary electron production. The total flux of
secondary electrons is obtained as $J_s = dJ_1 = (d_0 + d_1)J_p$, where

$$dJ_{s0} = k J_p G(z) dz e^{-\int_0^s \alpha ds'} \int_0^{\frac{\pi}{2}} \frac{1}{2} e^{-\frac{\beta s}{\cos \varphi}} f(-\cos \varphi) \sin \varphi \, d\varphi; \qquad (37)$$

is the number of slow secondaries produced by the primary beam, and

Card 2/5

Theory of secondary electron emission   S/181/62/004/009/029/045
B104/B186

is that of the secondaries produced by reflection of the primary beam.
It is shown that f depends essentially on s and r. η is obtained as

$$\eta = f(\mathcal{E}_p)\left\{1 - e^{T_0[(U+W_a)^{s-r} - (\delta_p + W_a)^{s-r}]}\right\}. \qquad (24)$$

$$f(\mathcal{E}_p) = \left\{1 - \frac{1}{2^{\frac{s-r}{s}}}\left[1 + \left(\frac{U+W_a}{\delta_p + W_a}\right)^s\right]^{\frac{s-r}{s}}\right\}\left[1 - \left(\frac{U+W_a}{\delta_p + W_a}\right)^{s-r}\right]^{-1} \qquad (25).$$

Here $\varkappa(U + W_a)$ is the reflexion factor, and $Z_m(U + W_a)$ is the penetration
depth of primary electrons with the energy $\mathcal{E}_p = U$. There are 6 figures.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut
               im. A. I. Gertsena
               (Leningrad State Pedagogical Institute imeni A. I. Gertsen)

Card 4/5

S/077/62/007/006/001/002
D036/D114

AUTHOR: Izmaylov, S.V.

TITLE: A contribution to the theory of the sensitivity of ionographic
               emulsions. I. The case of a single digestion nucleus on the
               grain

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii,
               v. 7, no. 6, 1962, 433-443

TEXT: The author expounds a theory of the sensitivity of ionographic
emulsions, based on the probability of distribution of digestion nuclei in
each individual grain of the emulsion. Formulae are derived for the mean
grain sensitivity for the cases of relatively high and relatively low energy
losses by the ionizing particles. The sensitizing action of triethanolamine
is ascribed to the fact that it increases the mean number of Ag atoms in the
digestion nucleus. Experimental values agreed well with those obtained with
the aid of the theory. There are 5 tables.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut im. A.I.
               Gertsena (Leningrad State Pedagogical Institute im.A.I.Gertsen)

SUBMITTED: July 11, 1961
Card 1/1

muon, positron, antineutrino

ABSTRACT: A general formula is derived for the energy and angle distributions of

L 20174-65
ACCESSION NR: AP002251

...differ somewhat from those by others in that an effort...
...the Wagner...

ASSOCIATION: Leningradskiy gospedinstitut iment A. I. Gertsena (Leningrad State Pedagogical Institute)

SUB CODE: H

Card 2/2

L 6466-66   EWT(m)   DIAAr

ACC NR: AP5025253

SOURCE CODE: UR/0386/65/002/004/0164/0167

AUTHOR: Izmaylov, S. V.; Shul'man, G. A.

ORG: Leningrad State Pedagogical Institute im. A. I. Gertsena (Leningradskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Filling of electron shells of compressed atoms in the statistical model

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu (Prilozheniye), v. 2, no. 4, 1965, 164-167

TOPIC TAGS: nuclear shell model, electron shell, pressure effect, quantum number

ABSTRACT: Starting from the simplified Sommerfeld condition the authors show that for a compressed atom the first appearance of s-, p-, d-, and f-electrons will be determined by the formula

$$Z_l = 1.26(1 - \gamma)(l + \tfrac{1}{2})^3$$

where l is the quantum number, γ is a correction term, and Z is the atomic number of the element. The factor $(1 - \gamma)$ will decrease with increasing pressure, and consequently, the atomic number Z of the element in which the electrons with given quantum number l first appear will also decrease. It is easy to determine the factor $(1 - \gamma)$, meaning also the parameter A. It is also shown that formation of electronic groups in a compressed atom depends essentially on the pressure, that the number of the d- and f-electrons increases appreciably in atoms with increasing pressure, and that g-

Card 1/2

L 6466-66

ACC NR: AP5025253　　　　　　　　　　　　　　　　　　　　　　　9

electrons also appear; on the other hand, the number of s- and p-electrons increases very little. The first appearance of electrons with a given quantum number shifts towards the elements whose atomic numbers are smaller than atomic numbers corresponding to the periodic table. An anlogous calculation was carried out for a compressed atom in the statistical model with account of quantum corrections that have the same order of magnitude. In the model with the corrections, the dependence of the energy of the atomic shell on the radius is such that one can speak of its finite dimensions in the absence of pressure. This makes it possible to determine for several elements the pressure at which the electrons with a given quantum number first appear. A table is presented, listing for several elements the calculated pressures in the Thomas-Fermi model and in the model with the quantum corrections. Authors are grateful to I. V. Shirmanova, V. T. Aleksandrov, and G. G. Gurban for programming and help in the calculations. Orig. art. has: 1 figure, 6 formulas, and 1 table.

SUB CODE: NP/　　SUBM DATE: 11Jun65/　　ORIG REF: 002/　　OTH REF: 003

nw

Card 2/2

L 9647-66   EWT(1)/EWT(m)/T/EWP(t)/EWP(h)/EWA(m)-2   IJP(m)   JD/JG/JT/AT

ACC NR: AP5025379   SOURCE CODE: UR/0181/65/007/010/3008/3014

AUTHOR: Izmaylov, S. V.; Rozman, G. A.

ORG: Leningrad State Pedagogical Institute im. A. I. Gertsen (Leningradskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Elastic scattering of excitons and electrons by neutral pair vacancies in alkali halide crystals

SOURCE: Fizika tverdogo tela, v. 7, no. 10, 1965, 3008-3014

TOPIC TAGS: alkali halide, electron scattering, crystal theory, crystal lattice defect, crystal lattice vacancy

ABSTRACT: The paper is a theoretical study of elastic scattering of relatively fast secondary electrons and non-polarized excitons by dipolons. Dipolons are defined as pair defects of three types: two oppositely charged vacancies at adjacent lattice sites; two oppositely charged interstitial ions separated by a distance of the order of a lattice constant; or a vacancy and a nearby oppositely charged interstitial ion. To make the problem specific, the case of two adjacent oppositely charged vacancies is considered. The results are true for the second case, and with some simplification for the third case also. Exciton and electron scattering are considered separately. Numerical calculations are made for scattering in NaCl and KCl crystals. Mean

Card 1/2

L 9647-66

ACC NR: AP5025379

free paths are calculated and temperatures are determined below which dipolon-exciton scattering predominates over scattering by thermal lattice vibrations. The mean free path for KCl is $\approx 4\cdot 10^{-4}$ cm, and the critical temperature for predominate dipolon scattering is $\approx 10°K$. The corresponding values for sodium chloride are $\approx 5.5\cdot 10^{-4}$ cm and very nearly 9°K. Formulas are derived for determining residual resistance due to electron-dipolon scattering. It is shown that perturbation theory may be used for the interaction potential. Orig. art. has: 1 figure, 41 formulas.

SUB CODE: 20/   SUBM DATE: 08Jul64/   ORIG REF: 012/   OTH REF: 006

Card 2/2

L 7758-66   EWT(1)/EWT(m)/EWP't)/EWP(b)/EWA(h)   JD

ACC NR: AP5025305

SOURCE CODE: UR/0057/65/035/010/1889/1896

AUTHOR: Izmaylov, S.V.; Shul'man, G.A.

ORG: Leningrad State Pedagogical Institute im. A.I.Gertsen (Leningradskiy gosu-
darstvennyy pedagogicheskiy institut)

TITLE: On the theory of the periodic system of the elements at high pressures. 1.

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 10, 1965, 1889-1896

TOPIC TAGS: atomic structure, high pressure, periodic system, Fermi statistical
theory, theoretic physics

ABSTRACT: The influence of pressure on the electronic structure of atoms is discussed
with the aid of the statistical atomic model. The atomic electrons are assumed to be
confined by the pressure to the interior of a sphere of finite radius and to be dis-
tributed according to the Lenz-Jensen formula. The Lenz-Jensen distribution is em-
ployed because it approximates the Fermi-Thomas distribution and is more tractable.
The relation between the pressure and the radius of the atom is obtained from the
expression of the Fermi-Thomas model for the electron kinetic energy, and the free
parameter in the Lenz-Jensen distribution is determined from the condition that the
total energy (for fixed radius) be minimum. It is found that increase of pressure
tneds to cause electronic states of higher orbital angular momentum to become occu-

Card 1/2

UDC:- 539.0

L 40900-66

ACC NR: AP6011382   SOURCE CODE: UR/0057/66/036/003/0405/0412

AUTHOR: Izmaylov, S.V.; Shulman, G.A.

ORG: Leningrad State Pedagogical Institute im. a.I.Gertsen (Leningradskiy gosudar-
stvennyy pedagogicheskiy institut)

TITLE: On the theory of the periodic system of the elements at high pressures. 2.

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 3, 1966, 405-412

TOPIC TAGS: periodic system, atomic structure, statistical theory, pressure effect

ABSTRACT: In an earlier paper (ZhTF, 35, 1889, 1965) the authors discussed the per-
iodic system at high pressures on the basis of the Fermi-Thomas model and showed that
the formation of electron shells in the atom, the first appearance of electrons with
a given azimuthal quantum number, and the mean angular momentum of the electrons in
the atom depend significantly on the pressure. In the present paper, which the auth-
ors characterize as "preliminary", those calculations are generalized, on the basis
of the "generalized statistical model", to take into account the exchange and second
order quantum corrections to the kinetic energy, as well as the correlation correction.
The calculations were performed with the Lentz variational method as employed earlier
by H.Jensen (Zs. Phys., 77, 722, 1932), with the expression $A \exp(-(\lambda r)^{1/\beta})$ for the
electron density in the atom. Here A is a normalizing factor, λ is a variational

Card 1/3   UDC: 539.183.3

within the atom, particularly in view of the fact that the parameter β was not varied.

L. 04828-67   EWT(1)   LJP(c)

ACC NR: AP6026969   SOURCE CODE: UR/0051/66/021/002/0178/0180

AUTHOR: Izmaylov, S. V.; Rozman, G. A.

ORG: none

TITLE: Formation of an H'-center

SOURCE: Optika i spektroskopiya, v. 21, no. 2, 1966, 178-180

TOPIC TAGS: crystal lattice vacancy, crystal lattice defect, color center, electron trapping

ABSTRACT: Calculations performed in the paper show that there is a definite probability of formation of a new center which is a complex defect called the H'-center and consists of the neutral pair vacancy+electron. The H'-center should be less stable than F- and F'-centers. Therefore, the H'-center should dissociate as a result of thermal fluctuation or light absorption. As in the crystal with F'-centers, an appreciable photoconductivity due to the dissociation of H'-centers should exist down to the lowest temperatures. The H'-center should be anisotropic, and data on it can be obtained by studying polarized luminescence. It is known that when a colored alkali halide crystal is illuminated with light corresponding to the F-band (or white light) at room temperature, its decolorization takes place, and new bands appear in place of the F-band. In the authors' view, H'-centers may be responsible for the appearance

Card 1/2   UDC: 548.0:620.192

IZMAYLOV, T.U.

BAZANOVA, N.U.; IZMAYLOV, T.U.

Mechanical receptors of the abomasum of calves. Vest. AN
Kazakh. SSR 11 no.9:98-101 S '54. (MIRA 8:2)
(Receptors(Neurology))(Stomach)(Calves)

IZMAILOV, T.U.

Role of stomach mechanoreceptors in the secrotory activity of the abomasum in calves. Trudy Inst.eksp.biol. AN Kasakh.SSR 3:99-103 '56.   (MIRA 10:1)

    (CALVES)   (STOMACH--INNERVATION)   (GASTRIC JUICE)

IZMAYLOV, T. Z. —

"Investigation of the Operating Conditions of Turbine Drilling in the 'Kaganovichneft' (Petroleum) Trust." Cand Tech Sci, Azerbaydzhan Industrial Inst imeni M. Azizbekov, 11 Oct 54. (BR, 5 Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

IZMAYLOV, T.Z., kandidat tekhnicheskikh nauk; SHAKHBAZ ENKOV, K.B., kandidat tekhnicheskikh nauk.

Effectiveness of turbodrill operation [in Azerbaijani with summary in Russian] Azerb.neft.khoz.35 no.11:13-16 N '56. (MIRA 10:4)
(Turbodrills) (Oil well drilling)

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 8, 15-57-8-11702
p 243 (USSR)

AUTHOR: Izmaylov, T. Z.

TITLE: Effect of Mechanical Feeding on Operation of Turbine Drills (Vliyaniye mekhanizirovannoy podachi instrumenta na rezhim raboty turboburov)

PERIODICAL: Tr. Azerb. industr. in-ta, 1956, Nr 13, pp 75-80

ABSTRACT: Studies of the T14M1-9-3/4" and T12M2-10" turbine drills have shown the optimum speeds for their operation, at which their power is at the maximum, to be 550 to 650 rpm and 450 to 550 rpm. The torque developed by the turbine drill is 100 to 300 kg/m. An increase in axial loading, especially in drilling soft rock, produces a decrease in the number of revolutions and sometimes causes the turbine drill to stop. This makes it necessary to raise the turbine drill and lower

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15-57-3-11703

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,
                    p 243 (USSR)

AUTHOR: Izmaylov, T. Z.

TITLE: Effect of Axial Loading and Number of RPM on Efficiency
                of Turbine Drills (Vliyaniye osevoy nagruzki i chisla
                oborotov turbobura na effektivnost' raboty dolota)

PERIODICAL: Tr. Azerb. industr. in-ta, 1956, Nr 13, pp 81-88

ABSTRACT: Investigations have established that direct proportion
                exists between the rate of drilling and the number of
                rpm within certain limits. V. S. Fedorov points out
                that further increase in rpm beyond a certain critical
                value will produce a smaller increase in rate of
                drilling than would correspond proportionally to the
                increase in rpm, and the efficiency of the drill will
                decrease. The critical number of rpm Θkr depends

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15-57-3-11703

Effect of Axial Loading and Number of RPM (Cont.)

on the axial load on the drill, the resistance of the rock, and the
construction of the drill. Θkr increases with an increase in axial
loading; it decreases with an increase in resistance of the rock;
it decreases with an increase in the coefficient of slip of the
drill. L. A. Shreyner has established, on the basis of experimental
investigations, that the total rate of rock penetration, that is,
the rate of drilling, up to the critical rpm, increases in direct
proportion to the increase in rpm. It is also known that the wear
on the drill increases with an increase in the rpm. These relation-
ships are confirmed by actual drilling experience. Thus, for
example, according to the former Azneft' (State Association of the
Azerbaidzhan Petroleum Industry), the mechanical rates in turbine
and rotor drilling are almost equal; at the same time, the wear on
the drill in turbine drilling is 1.5 to 2 times greater than with
rotor drilling as a result of operation of turbine drills at rpm
exceeding the critical. Investigations of N. N. Ivanov and N. F.
Ponamorev show that the duration of action of the load affects the
Card 2/3

ISMAYLOV, Talyat Zeynalovich; SHAKHBAZBEKOV, Kyamil Boybala ogly.

[The technology of turbine drilling] Turbin gazymasynyn
tek'inolokiiasy. Baky, Azerbaichan dovlat naft ve elmi-
tek'iniki edebiiiat neshriiiaty, 1957. 219 p. [In Azer-
baijani].   (MIRA 12:1)
                        (Turbodrills)

KULIYEV, S.M.; MAMEDOV, A.B.; IZMAIIOV, T.Z.; SHAKHBAZBEKOY, K.B.;
SHIKHALIYEV, F.A.; IOANNESYAN, R.A.; YAKH'YA ALI- TULLA OGLY

Sustaining formation pressure in gas-condensate pools by means of
water injection. Trudy Azerb. ind. inst. no.19: 65-101   '57.
/   (MIRA 11:9)
(Apsheron Peninsula--Condensate oil wells)

IZMAYLOV, T.Z.; SHIKHALIYEV, F.A.

Calculating casings for extra deep wells. Izv. vys. ucheb. zav.;
neft' i gaz 5 no.6:29-33 '62.   (MIRA 16:5)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova.
                         (Oil well casing)

IZMAYLOV, V., kapitan

An outstanding team. Kryl.rod. 14 no.9:12-13 S '63.(MIRA 16:9)
(Flight crews)

IZMAYLOV, V., kapitan

Operators of "Vostok." Starsh.-serzh. no.8:6 Ag '61.(MIRA 14:10)
(Radar, Military)