On the Reduction of Unbounded Non-Selfadjointed Operators to the Triangular Form

A_p of A goes over into the simple part $\mathfrak{a}_p$ of $\mathfrak{a}$.

It seems to be interesting that in the triangular model of a K^1-operator there appears one differential operator (for $r \geq 2$ even two differential operators)- compared with the bounded operators this is a new appearance.

There are 5 Soviet references.

ASSOCIATION: Odesskiy gosudarstvenny pedagogicheskiy institut imeni K.D.Ushinskogo (Odessa State pedagogic Institute imeni K.D.Ushinskiy)

PRESENTED: December 4, 1957, by A.N.Kolmogorov, Academician

SUBMITTED: August 19, 1957

Card 3/3

KUSHEL', A. V. Cand Phys-Math Sci -- (diss) "Spectral analysis of unbounded nonself-adjoint operators." Khar'kov, 1959. 11 pp (Min of Higher and Secondary Specialized Education UkSSR. Khar'kov Order of Labor Red Banner State Univ im A. M. Gor'kiy), 150 copies (KL, [redacted] 50-59, 124)

KUZHEL', A.V.

Theorem on multiplication of characteristic matrix-functions of non-unitary operators. Nauch.dokl.vys.shkoly; fiz.-mat. nauki no.3:33-41 '59. (MIRA 13:6)

1. Uman'skiy pedagogicheskiy institut.
(Operators (Mathematics))

KUZHEL', A.V. (Uman')

Investigating cubic equation roots without using the Cardan formulas. (MIRA 12:11)
Mat.prosv. no.4:208-209 '59.
(Equations, Cubic)

16(1)

AUTHOR: Kuzhel',A.B. SOV/42-14-4-10/27

TITLE: Problem

PERIODICAL: Uspekhi matematicheskikh nauk, 1959, Vol 14, Nr 4, p 158 (USSR)

ABSTRACT: For certain unique analytic functions V.P.Potapov (Trudy Moskovsk. matem. ob-va, 1955, Nr 4) gave the integral representation

$$\omega(\zeta) = \mathcal{L}_\infty(\zeta)\,\mathcal{L}_0(\zeta)\int_0^l \exp\left[\frac{\zeta+e^{i\vartheta(t)}}{\zeta-e^{i\vartheta(t)}}\,dE(t)\right],$$

where $\vartheta(t)$ is monotonely increasing. The author asks the question whether $\vartheta(t)$ can be chosen so that $\vartheta(t) \neq 0$ for $t > 0$.

SUBMITTED: December 8, 1958

Card 1/1

16(1)
AUTHOR: Kuzhel'A.V. SOV/20-125-1-7/67

TITLE: Spectral Analysis of Unbounded Non-Selfadjoint Operators (Spektral'nyy analiz neogranichennykh nesamosopryazhennykh operatrov)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 1, pp 35-37 (USSR)

ABSTRACT: The author considers non-selfadjoint extensions A of the Hermitean operator A_o with the defect index (r,r), where dim D_A = r(mod D_{A_o}). It is not assumed that the region of definition D_{A_o} is dense in H. The author describes a triangular model and the spectrum of these operators. In the special case (if for every $f \in D_A$ it holds $Im(Af,f) \geq 0$) he gives a criterion of completeness. The author uses essentially a paper of V.P. Potapov [Ref 1].
There are 4 Soviet references.

ASSOCIATION: Umanskiy pedagogicheskiy institut (Uman' Pedagogical Institute)
PRESENTED: November 26,1958, by A.N.Kolmogorov, Academician
SUBMITTED: November 24,1958

Card 1/1

BING, R.G.; KAZARINOV, N.D. (Madison, Wiskonsin, SShA); KAZHDAN, I.A., (studentka 4-go kursa); MAS'KO, S.S.(studentka 4-go kursa); DORFMAN, A.G. (Gor'kiy); KUZHEL', A.V. (Uman'); SKOPETS, Z.A. (Yaroslavl'); TELESIN, Yu.Z. (Moskva)

Brief notes. Mat.pros. no.6:205-216 '61. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni Lenina (for Kazhdan, Mas'ko).
(Mathematics--Problems, exercises, etc.)

S/044/62/000/007/004/100
C111/C333

AUTHOR: Kuzhel', A. V.

TITLE: ~~An investigation~~ of the roots of the equation $x^n + px^k + q = 0$

PERIODICAL: Referativnyy zhurnal, Matematika, no. 7, 1962, 25, abstract 7A139. ("Matem. prosveshcheniye", 1961, no. 6, 210-211)

TEXT: The number of the real roots of the equation

$$f(x) = x^n + px^k + q = 0$$

is investigated, where $n, k (n > k)$ -- odd natural numbers, p, q -- real numbers different from zero, $p < 0$ (the case $p \geq 0$ is trivial). The number

$$D = (q/(n-k))^2 - k^{2k/(n-k)}(|p|/n)^{2n/(n-k)}$$

is connected with the equation. By investigating the course of the function f(x) it is found: 1) if $D > 0$, then f(x) has one real zero; 2) if $D < 0$, then f(x) has three real zeros; 3) if $D = 0$, then f(x) has three real zeros, two of which are equal.

[Abstracter's note: Complete translation.]

Card 1/1

KUZHEL', A.V. [Kuzhil', O.V.]

Spectrum analysis of quasi-unitary operators of the first order in a space with an indefinite metric. Dop. AN URSR no.8:1001-1003 '61. (MIRA 14:9)

1. Umanskiy pedagogicheskiy institut. Predstavleno akademikom AN USSR B.V. Gnedenko [Hniedenko, B.V.]
(Distance geometry)

KUZHEL', A.V. [Kuzhel', O.V.]

One class of linear operators. Dop. AN URSR no.11:1412-1414 '61.
(MIRA 16:7)

1. Umanskiy pedagogicheskiy institut. Predstavleno akademikom AN UkrSSR Yu.A.Mitropol'skim [Mytropol's'kyi, IU.O.].
(Operators (Mathematics))

KUZHEL', A.V.

Criterion of the equality $D_A = D_{A^*}$ for unlimited operators. Usp. mat.nauk 16 no.3:189-190 My-Je '61. (MIRA 14:8)
(Hilbert space) (Operators (Mathematics))

39896
S/125/62/000/007/009/012
D040/D113

1.2300

AUTHORS: Kuzhel', A.V.; Nazarenko, O.K.; Povod, A.G; Strekal', L.P.

TITLE: A universal welding electron gun with up to 50 kv acceleration voltage

PERIODICAL: Avtomaticheskaya svarka, no. 7, 1962, 88-91

TEXT: The described electron gun (Fig. 5) of the Institut elektrosvarki im. Ye.O. Patona (Electric Welding Institute im. Ye.O. Paton) is used in У-3 (U-3) electron beam welding machines, and permits the accelerating voltage to be adjusted in the 15-25 kv and 25-50 kv ranges. It can be used for welding various metals of different thickness such as thin sheet molybdenum or tungsten and thick aluminum or stainless steel. The gun has a 3-electrode projector with a lanthanum boride cathode, and a one-stage electromagnetic focusing lens of 2,000 amp-t in a screen of armco iron. The long current supply system of the cathode reduces the heat transfer to the vacuum, which seals off the armored high-voltage insulator. A metal bellows joint permits the projector to be displaced along the gun axis during operation, and also allows the space between the focusing electrode and the

Card 1/2

A universal welding ... ...

anode to be adjusted without disturbing the vacuum in the gun. The entire gun can be tilted 15° from the vertical axis to adjust the focal spot to the work edges. An electromagnetic deflecting system placed under the focusing lens deflects the beam by 5-10° along the seam; this protects the cathode from metallization and ion bombardment. There are 6 figures.

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona AN USSR (Electric Welding Institute "Order of the Red Banner of the Labor" im. Ye.O. Paton, AS UkrSSR)

SUBMITTED: November 4, 1961

Card 2/2

KUZHEL', A.V. [Kuzhel', O.V.]

Solutions of a class of second-order differential equations. Dop. AN URSR no.12:1539-1541 '62. (MIRA 16:2)

1. Umanskiy pedagogicheskiy institut. Predstavleno akademikom AN UkrSSR Yu.A. Mitropol'skim [Mytropol's'kyi, IU.O.].
(Differential equations)

KUZHEL', A.V.

Spectrum analysis of bounded non-self-adjoint operators in a space with an indefinite metric. Dokl. AN SSSR 151 no.4:772-774 Ag '63. (MIRA 16:8)

1. Umanskiy pedagogicheskiy institut. Predstavleno akademikom I.G.Petrovskim.

(Operators (Mathematics))

KUZHEL', A.V.

Non-self-adjoint operators generated by Jacobian matrices.
Dokl. AN SSSR 154 no.5:1027-1029 F'64. (MIRA 17:2)

1. Umanskiy gosudarstvennyy pedagogicheskiy institut. Predstavleno akademikom V.I. Smirnovym.

KUZHEL', A.V.

Spectrum of a regular quasi-differential operator. Dokl. AN SSSR 156 no. 4:731-733 Je '64. (MIRA 17:6)

1. Umanskiy pedagogicheskiy institut. Predstavleno akademikom A.A. Dorodnitsynym.

KUZHEL', A.V. [Kuzhel', O.V.]

Spectrum of a nonself-adjoint Sturm-Liouville differential operator on a semiaxis. Dop. AN URSR no.2:157-160 '65. (MIRA 18:2)

1. Umanskiy pedagogicheskiy institut.

KUZHEL', A.V. [Kuzhel', O.V.]

Characteristic matrix functions of quasi-unitary operators of arbitrary rank in a space with an indefinite metric. Dop. AN URSR no.9:1135-1138 '62. (MIRA 18:4)

1. Umanskiy pedagogicheskiy institut.

L 27059-66 EWT(m)/ETC(f)/EWG(m)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c)

ACC NR: AP6007843 DS/JD/HM SOURCE CODE: UR/0120/66/000/001/0209/0210

AUTHOR: Zinchenko, G. N.; Zinchenko, N. S.; Kuzhel', A. V.; Nazarenko, O. K. 41

ORG: Institute of Radio Physics and Electronics, AN UkrSSR (Institut radiofiziki i elektroniki AN UkrSSR); Institute of Electric Welding, AN UkrSSR, Kiev (Institut elektrosvarki AN UkrSSR) B

TITLE: Hermetic sealing of tungsten-barium cathodes with the aid of electron-beam welding

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 209-210

TOPIC TAGS: cathode, electron beam welding, hermetic seal, seam welding

ABSTRACT: The authors describe experiments on sealing tungsten-barium cathodes of various geometry, to prevent leakage of the activating $BaCO_3$ to the outside of the cathode structure. The tests were made with a specially designed laboratory setup in which electron-beam welding could be carried out in vacuum up to 5×10^{-5} Torr (Fig. 1). The welding electron gun operated at 40 kv accelerating voltage and was fed from a source of power up to 2.5 kw. Special welding joints had to be designed to produce a hermetically-tight welded seam. The construction of the optimal cathode and of the proper welding joint are briefly described. Tests have shown the new cathode construction to be immune to leaks resulting from repeated heating and cooling. Orig. art. has: 3 figures.

[illegible] 25Dec65/ ORIG REF: 001

Card 1/2 UDC: 621.385.735

L 27059-66

ACC NR: AP6007843

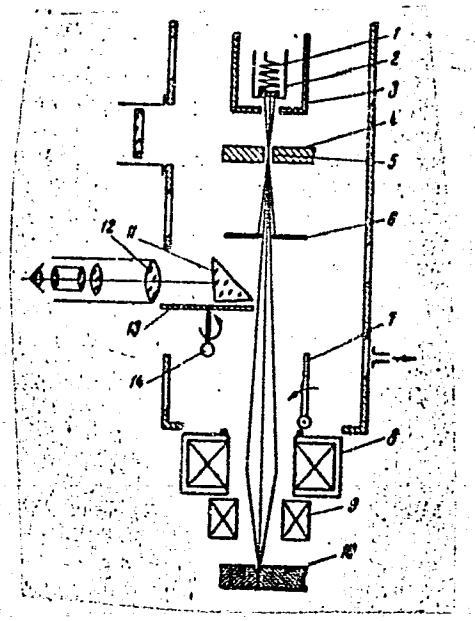

Fig. 1. Diagram of electron-beam welding gun. 1 - Heater, 2 - cathode, 3 - focusing electrode, 4 - anode, 5 - electron beam, 6 - aperture diaphragm, 7 - beam shutter, 8 - focusing lens, 9 - defelecting system, 10 - welded article, 11 - prism, 12 - optical system, 13 - shielding glass, 14 - glass rotating mechanism.

SUB CODE: 09, 11, 13/ SUBM DATE: 25Dec64/
ORIG REF: 001

Card 2/2

KUZHEL', M.G.

KISELEV, N.N.; KUZHEL', M.G.; DIMASHKO, A.D.; IL'IN, P.L.

Permissible pitch of cable winding on the drum of a hoisting machine. Ugol' 29 no.11:27-31 '54. (MLRA 7:11)

1. Otdel Glavnogo konstruktora Nova-Kramatorskogo mashinostroitel'nogo zavoda im. Stalina.
(Mine hoisting)

KISELEV, Nikolay Nikolayevich; KUZHEL', Maksim Georgiyevich; DIMASHKO, Aleksandr Dominikovich; IL'IN, Petr Lukich; KARPYSHEV,N.S., redaktor; ZAPREYEVA,K.A., redaktor; ALADOVA,Ye.I., tekhnicheskiy redaktor

[Mine hoisting machinery (mechanical part); construction atlas] Shakhtnye pod"emnye mashiny (mekhanicheskaia chast'); atlas konstruktsii. Moskva, Ugletekhizdat, 1955. 114 p. (MLRA 9:1)
(Mine hoisting)

SOV/122-58-11-14/18

AUTHOR: Kiselev, N.N., Engineer
Kuzhel', M.G.

TITLE: New Designs of Mine Hoisting Gear (Novyye konstruktsii shakhtnykh pod" yemnykh mashin)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 11, pp 74-78 (USSR)

ABSTRACT: Novo-Kramatorsk Mech-Engineering Works (Novo-Kramatorskiy Mashinostroitel'nyy Zavod) has been designated to supply mine hoisting gear within the current drive for specialisation. The development of hoists with a multi-rope friction drum is proceeding. These hoists can be erected on a tower over the shaft, their drums are smaller and lighter which leads to considerable savings of structures and foundations. The first installation, designated MK-3.25 x 4, has been erected at the "Imeni Karla Libknekhta" mine in the Krivoy Rog coalfield. It lifts 15 tons from 1300 m depths. The installation incorporates remote automatic control with a selsyn depth indicator and a rope slip corrector, a spring loaded brake with automatic compressed air control, spring mounting of the reducing gearbox and a special device for the suspension and

Card 1/3

New Designs of Mine Hoisting Gear

changing of ropes. Four lifting ropes envelop the friction drum in four parallel planes through driving angles of between 180 and 220°. Each rope carries the mine cage at one end and another cage or a counterweight at the other end. Guide pulleys ensure the positioning of the rope so as to pick up the cage suspension. The rope is driven by friction over the drum lining, which can be exchanged without removal of the hoisting ropes. The layout of the hoist is illustrated in Fig.3. Some details are enumerated, including protection against faults. The pneumatic circuit controlling the spring loaded, pneumatically actuated brake is shown in Fig.4. It is stated that the machine described in the present paper can replace standard hoisting installations with drum diameters of 6, 8 and 9 m, achieving a steel economy of up to 220 tons.

SOV/122-58-11-14/18

New Designs of Mine Hoisting Gear

MK-4 x 4 and MK-4 x 8 machines intended for 25 and 50 ton lifting from 1200 m depth are under development. There are 4 illustrations including 2 photographs.

Card 3/3

KUZHEL', M.G.

The BTSK-8/5X1,7 mine hoisting machine with a bi-cylindroconical drum. Biul.tekh.-ekon.inform. no.12:6-8 '61. (MIRA 14:12)
(Mine hoisting--Equipment and supplies)

KUZHEL', M.G.; IL'IN, P.L.

Mine hoisting machinery. Sbor.Novo-Kram.mashinostroi. zav. no.1:17-51 '59. (MIRA 16:12)

KUZHEL', M., metodist

Instructive example of Zyryanovsk miners. Inform.biul. VDNKH no.4:13 Ap '65. (MIRA 18:5)

1. Pavil'on "Metallurgiya" na Vystavke dostizheniy narodnogo khozyaystva SSSR.

S/021/62/000/012/001/018
D251/D308

AUTHOR: Kuzhel', O.V.

TITLE: On the solution of a class of second order differential equations

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 12, 1962, 1539-1541

TEXT: The author considers the function

$$U(x,\lambda) = \frac{1}{2}\left[(a - \gamma)(\alpha + \sqrt{\alpha^2 + \beta})^{\lambda} + (a + \gamma)(\alpha - \sqrt{\alpha^2 + \beta})^{\lambda}\right] \quad (1)$$

where

$$\gamma = \frac{a\alpha - b}{\sqrt{\alpha^2 + \beta}};$$

a and β are constants, and b and α are differentiable and γ a twice differentiable function of x, independent of λ. Then $U(x,\lambda)$ satisfies

$$y'' + p(x)y' + q(x)y = 0 \quad (2)$$

Card 1/3

On the solution of a class ...

where

$$p(x) = -\frac{s'(x)}{s(x)},\ s(x) = a\gamma' + \lambda(\gamma^2 - a^2)\psi,$$

$$\left(\psi = \frac{a'}{\sqrt{a^2+\beta}}\right), \qquad (2')$$

$$q(x) = \frac{\lambda\psi^2}{s(x)}\left[3\frac{\gamma'^2}{\psi} - \left(\frac{\gamma\gamma'}{\psi}\right)' - 2a\lambda\gamma'\right] - \lambda^2\psi^2.$$

Hence it is shown that: if γ = const. (γ = 0 for Chebyshev polynomials), $U(x,\lambda)$ will satisfy

$$y'' - \frac{\psi'}{\psi}y' - \lambda^2\psi^2 y = 0 \qquad (3)$$

If $2fg + g' = 0$,

$$y'' + fy' + gy = 0 \qquad (4)$$

may be solved by applying (1). Hence a solution to Riemann's differential equations

$$U(x,\lambda) = C_1\left(\frac{x-a}{x-c}\right)^{\gamma} + C_2\left(\frac{x-c}{x-a}\right)^{\gamma} \quad (\gamma = \gamma(c-a))$$

Card 2/3

On the solution of a class ...

may be found, where C_1, C_2 are arbitrary constants. Other equations are solved by similar analysis, including the Riccati equation.

ASSOCIATION: Umans'kyy pedahohichnyy instytut (Uman' Pedagogical Institute)

PRESENTED: by Yu. A. Mytropol's'kyy, Academician

SUBMITTED: January 18, 1962

KUZHEL', P. (g. Aleksandrovsk-Sakhalinskiy)

Condenser instead of a ballast tube in a shortwave transmitter.
Radio no.3:20 Mr '62. (MIRA 15:3)
(Radio, Shortwave--Transmitters and transmission)

GUBKO, [illegible]; [illegible], V.M.; KUZNETS, S.A.

[illegible] in jet piercing for the quarrying of quartzite.
Ogneupory 30 no.8:16-19 '65. (MIRA 18:8)

1. Pervoural'skiy dinasovyy zavod.

SIMANOV, V.N., kand. tekhn. nauk; SUVOROV, B.I., inzh., VINOGRADOV, V.S., inzh.; KRIVOSHCHEKOV, Yu.V., inzh.; KRAVTSOV, V.M., inzh., KUZHEL', S.A., inzh.

Results of some experimental studies on the drill ability of Pervoural'sk quartzite by thermal piercing. Izv. vys. ucheb. zav., gor. zhur. 8 no.7:91-97 '65. (MIRA 18:9)

1. Sverdlovskiy gornyy institut imeni Vakhrusheva (for Simanov, Suvorov). 2. Nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut gornogo i obogatitel'nogo oborudovaniya (for Vinogradov, Krivoshchekov). 3. Rudnik Pervoural'skogo dinasovogo zavoda (for Kravtsov, Kuzhel'). Rekomendovana kafedroy shakhtnogo stroitel'stva Sverdlovskogo gornogo instituta.

KUZHEL', S.I., inzhener.

The S-374 suction centrifugal pump. Stroi. i dor. mashinostr. 2 no.5:16 My '57. (MLRA 10:6)

(Centrifugal pumps)

KOVAL', N.G., inzh.; KUZHEL', S.I., inzh.

The SM-210K mill. Stroi. i dor. mash. 10 no.10:27-29 O '65.
(MIRA 18:10)

M.

USSR/Cultivated Plants - Fruits. Berries.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44308

Author : Kuzhelenko, V.G.

Inst : Moldavian Affiliate of the AS USSR

Title : Biological Basis for the Plum Formation in the Nursery (Preliminary Report).

Orig Pub : Izv. Mold. fil. AN SSSR, 1957, No 2-3, 37-45.

Abstract : The biological peculiarities of the formation of the plum corolla were studied in 1954-1955 in several nurseries of the Moldavia SSR. The observations showed that after the first year the diameters of the stems of the seedlings did not reach the standard dimensions and it is only when they are two years old that they approach the dimensions of the standard. In 1954 the length of the branches reached that of the standard only in 5 varieties; in the

Card 1/2

USSR/Cultivated Plants - Subtropical. Tropical. M.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44355

Author : Kuzhelenko, V.G.

Inst : Moldavian Affiliate AS USSR

Title : The Primary Variety Trials of Citrus Fruit Cultures and Selection of Lemon in the Moldavia SSR.

Orig Pub : Izv. Mold. fil. AN SSSR, 1957, No 2-3, 75-84.

Abstract : 78 citrus plants of different varieties were grown for 5 years in the trench beds of the experimental base of the Institute of Fruit Growing, Viticulture and of Viniculture of the Moldavia Affiliate of the Academy of Sciences of USSR. Varieties most adapted for culture are: for the lemons - Mayer, Villa-Frank, Genoa, Lunaire, Commune, and Novogruzinski; from oranges - Sochinsky, from tangerines - Broad-leaved Unshiu. These varieties are more immune to

Card 1/2

COUNTRY : USSR
CATEGORY : Cultivated Plants. Fruits. Berries. Nuts. Tea. M
AUS. JOUR. : RZhBiol., No. 1, 1959, No. 1838
AUTHOR : Kvasnikenko, V.G.
INST. : Moldavinn Sel.Exp.Inst.of Horticulture *
TITLE : Acceleration of Ripening Time of the Fig Fruit Syncn under Conditions of Moldavia.
ORIG. PUB. : Tr. Mold. n.-i. in-t sadovodstva, vinogradarstva i vinodeliya, 1957, 3, 249-253
ABSTRACT : Experiments performed in the years 1952-1953 have shown that pinching of figs is an effective method for accelerating fig ripening in districts in which the plants are raw. The earlier pinching dates May 28th to June 10th proved to have a better effect than later pinching dates. Under conditions of Moldavia it is recommended to perform pinching not later than June 15th, leaving on each annual sprouts not more than 6-7 fruit numbers.
-- R.I. Senebryannyy

CARD: 1/ *Viticulture and Wine Making

KUZHELENKO, Valentin Georgiyevich; FITOVA, L., red.; KURMAYEVA, T., tekhn.red.

[Growing nursery stock] Vyrashchivanie posadochnogo materiala. Kishinev, Gos.izd-vo "Kartia moldoveniaske," 1961. 37 p. (MIRA 14:6)

(Fruit culture) (Nurseries (Horticulture))

KUZHELEV, A.I., inzh.; VELICHKO, F.F., inzh.

Working out operational layouts using models. Mont. i spets. rab. v stroi. 23 no. 2:17-18 F '61. (MIRA 14:1)

1. Sibirskiy filial Proyektno-konstruktorskoy kontory Mekhanomontazhproyekt.
(Factories--Equipment and supplies)

ACC NR: AP7004954 SOURCE CODE: UR/0048/66/030/009/1406/1408

AUTHOR: Karpov,I.K.; Kuzhelev,L.P.; Mikhal'chenko,G.F.

ORG: none

TITLE: Radioluminescence of nonactivated alkali-halide crystals /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 9, 1966, 1406-1408

TOPIC TAGS: luminescence, luminescence spectrum, luminescent crystal, alkali halide, radioluminescence, thermoluminescence, scintillation

ABSTRACT: The authors investigated the low-temperature radioluminescence of pure lithium, sodium, potassium and cesium chloride, bromide and iodide crystals. The specimens contained no more than 10^{-5}% of heavy metals. In view of the virtual absence of heavy metals, the high absolute luminescence yields (up to 10%) and the absence of photoluminescence under ultraviolet excitation, the authors conclude that that 90 to 95% of the observed low-temperature luminescence was due to the host crystal alone. Radioluminescence was excited at - 150° C by β radiation from a Sr^{90} + Y^{90} source. In general the radioluminescence yield decreased with increasing mass of the cation and decreasing mass of the anion. The luminescence yields of the cesium- yields of the cesium salts, however, were higher than those of the corresponding

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ACC NR: AP7004954

potassium salts, and the luminescence yields of the iodides did not vary greatly with the cation mass. To determine whether the luminescence of the pure phosphors was due to recombination at lattice defects or to some mechanism that remains effective in a perfect crystal, the authors compared the optical spectra of the thermostimulated luminescence of previously irradiated crystal with the spectra of the low-temperature radioluminescence. It was found that both spectra of the chlorides and bromides contain the same bands, although with different relative intensities, but that the shortest wavelength and strongest band in the radioluminescence spectra of LiI, NaI, KI, and CsI does not appear in the thermoluminescence spectra at any temperature. These crystals are known to be good low-temperature scintillators, and it is hypothesized that their scintillation is due to the short wavelength luminescence that cannot be ascribed to recombination at lattice defects. It is suggested that this luminescence may be due to radiative annihilation of anionic excitons. The effects of dopants are briefly discussed. The addition of KI to KBr was found to increase the radioluminescence yield, the mixture luminescing stronger than either of the pure components. The luminescence of NaCl.NaI single crystals increased by a factor of 10 on cooling from + 25 to - 150° C. This hybrid crystal had a narrow luminescence band at 225 mμ. The addition of thallium increased the strength of the 225 mμ band by a factor of 8, and the radioluminescence and thermoluminescence spectra were identical; from this it is concluded that the Tl^+ and I^- centers act together as a single entity. Special experiments (not described) showed that at least one of the thermoluminescence peaks is due to delocalization of electrons. Orig. art. has: 3 figures.

SUB CODE: 20 SUBM DATE: none ORIG. REF: 002 OTH REF: 006

Card 2/2

KUZHELEV, N. M.

Forests and Forestry

Competition between the foresters of two provinces, Les i step' No.3, 1952

Unclassified.

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

1. KUZHELEV, N.M.
2. USSR (600)
4. Forestry Schools and Education
7. Successful method of exchanging experience. Les i step' 4 no.12 1952

9. Monthly List of Russian Accessions. Library of Congress. March 1953. Unclassified.

KUZHELEV, N. M.

Socialist Competition

Caring for additional forest plantings through socialist competition. Les. khoz. 5, No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952 Unclassified.

KUZHELEV, N. M.

Foresters

Antonina Kozhukharenko, master of forest cultivation. Les i step' 14 No. 5, 1952.

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

LARIONOV, K.A., prof.; KADACHIGOV, V.M., prof.; KUZHELEV, N.S., dotsent; LOPUKHOV, L.S., dotsent; TIKHONOV, I.A., prof.; TSAPKIN, N.V., dotsent; CHESNOKOV, P.A., dotsent. V redaktirovanii prinimal uchastiye BOYKOV, S.I., AZAROV, E.K., red.; LEVONEVSKAYA, L.G., tekhn.red.

[Political economy; textbook for students of economic theory] Politicheskaia ekonomiia; posobie v pomoshch' izuchaiushchim voprosy ekonomicheskoi teorii. Leningrad, Lenizdat, 1960. 362 p. (MIRA 13:7)

(Economics)

AZAROV, Eduard Konstantinovich; KUZHELEV, N.S., red.; ONOSHKO, N.G., tekhn.red.

[Rhythm in the work of an enterprise] Ritmichnost' v rabote predpriiatiia. Leningrad, Lenizdat, 1960. 54 p. (MIRA 14:3)

(Industrial management)

TOKMALAYEV, S.F., dotsent [deceased]; KUZHELEV, N.S., dotsent; OSTROVITYANOV, K.V., akademik; ALEKSEYEV, A.M., dotsent; KUDROV, V.M.; LEONT'YEV, L.A. Prinimali uchastiye: BELYAYEVA, Z.N., kand.ekon. nauk; MRACHKOVSKAYA, I.M., kand.ekonom.nauk; RYNDINA, M.N., kand.ekonom.nauk; SHIRINSKIY, I.D., kand.ekonom.nauk; red.; YUMASHEV, A.I., kand.ekonom.nauk; PROKOP'YEV, S.P., red.; NAUMOV, K.M., tekhn.red.

[Capitalist production method] Kapitalisticheskii sposob proizvodstva. Moskva. Pt.2. 1960. 357 p. (MIRA 13:10)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya shkola. 2. Chlen-korrespondent Akademii nauk SSSR (for Leont'yev).

(Economics)

MIKHAYLOV, Aleksandr Timofeyevich; KUZHELEV, N.S., nauchnyy red.; BRAILOVSKIY, V.A., red. izd-va; GURDZHIYEVA, A.M., tekhn. red.

[Proportion in production and how to achieve it under socialism and communism]Proportsional'nost' proizvodstva i sposob ee dostizheniia pri sotsializme i kommunizme. Leningrad, Ob-vo po rasprostraneniiu polit. i naucnh. znanii RSFSR, 1962. 58 p. (MIRA 16:1)

(Russia--Economic policy)

LARIONOV, K.A., prof.; KADACHIGOV, V.M., prof.; KUZHELEV, N.S., dots.; LOPUKHOV, L.S., dots.; TIKHONOV, I.A., prof.; TSAPKIN, N.V., prof.; CHESNOKOV, P.A., dots.; KASHUTIN, P.A., dots., red.; MITINA, M., red.; KOROLEVA, A., mlad. red.; MOSKVINA, R., tekhn. red.

[Economics] Politicheskaia ekonomiia; uchebnoe posobie. Moskva, Sotsekgiz, 1963. 430 p. (MIRA 16:9)
(Economics)

FURSEV, N.D., inzh.; ROSHCHIN, V.I., inzh.; KUZHELEV, V.I., inzh.

Means for the mechanization and automation of production at the plants of the Moscow City Economic Council. Mekh. i avtom. proizv. 15 no.4:40-43 Ap '61. (MIRA 14:5)
(Moscow--Machine-tool industry--Technological innovations)
(Automation)

[illegible], [illegible], assistent

The 22d Congress of the CPSU on the development and rapprochement of the socialist nations and nationalities in the period of the advanced building of communism. Trudy [illegible] no.[illegible]:48-55 [illegible] (MIRA 18:[illegible])

BABLYAK, Nikolay Matveyevich, prepodavatel'; KUZHELEVA, Ol'ga Iosifovna, kand. ist. nauk dots.; KURBATOVA, G., red.

[The competition between the two worlds] Sorevnovanie dvukh mirov. Moskva, Politizdat, 1964. 61 p. (MIRA 17:8)

1. Omskiy pedagogicheskiy institut (for Kuzheleva).
2. Omskiy institut inzhenerov zheleznodorozhnogo transporta (for Bablyak).

KUZHELEVA, V.I. (Kotovsk, Tambovskoy oblasti, ul. Budennogo, d.3, kv.18)

Diagnosis and treatment of appendicitis. Vest.khir. 83 no.12: 81-83 D '59. (MIRA 13:5)

1. Iz khirurgicheskogo otdeleniya (zav. - zasluzh. vrach RSFSR I.V. Shchurkin) 1-y gorodskoy bol'nitsy gor. Kotovska, Tambovskoy oblasti.

(APPENDICITIS)

COU. NR :
CATEGORY : Cultivated Plants. Fruit. Berry. Nuciferous. M
Tea.
ABS. JOUR. : RZhBiol., No. 3, 1959, No. 11108

AUTHOR : Kuzhaleva, Ye. P.
INST. : Moscow Fruit and Berries Experiment Station.
TITLE : Cherry Should be Reproduced After a Consideration of Its Biological Characteristics.

ORIG. PUB. : Byul. nauchno-tekhn. inform. Nauk. plod.-yagodn. opytn. st., 1958, No. 2, 23-25.
ABSTRACT : In the shrub varieties of cherry, the buds on 1-year old shoots are, in the main, fruit buds, especially on the shoots which were cut back. On shoots shorter than 25 cm, there are no growth buds at all. In order to increase the number of long pedicles, it is recommended to do special pruning of the mother trees, to use for inoculation the buds only from shoots longer than 25 cm and perform the inoculation with the terminal buds. In the inoculation before the differentiation of the buds at the end of June - the first days of July, the buds

CARD: 1/2

KUZHEL'NYY, N.M.

Remarks on M.A. Abdulkabirova's article "Thorium in certain granitoids of the Kalba Range and Altai Mountains." Izv. AN Kazakh. SSR. Ser. geol. no.3:99-100 '59. (MIRA 13:12)
(Kalba Range--Thorium)
(Altai Mountains--Thorium)
(Abdulkabirova, M.A.)

S/169/62/000/010/007/071
D228/D307

AUTHOR: Kuzhel'nyy, N.I.

TITLE: Absolute age of the granitoids of North-West Altay

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1962, 11, abstract 10A68 (Geologiya i geofizika, no. 5, 1962, 49-54 (summary in Eng.))

TEXT: The results of determining by the argon method the absolute age of granitoids in the north-western part of Rudnyy Altay are given. The resulting data agree well with the geologic age of the studied rocks and testify to the presence of granitoids of the Tel'besskiy, Zmeinogorskiy and Kalbinskiy intrusive complexes in this area.
[Abstracter's note: Complete translation]

Card 1/1

KUZHEL'NYY, N.M.

Complex of small intrusions and the age of polymetallic mineralization of the northwestern part of the Rudnyy Altai. Geol.i geofiz. no.5:125-129 '62. (MIRA 15:8)

1. Zapadno-Sibirskoye geologicheskoye upravleniye, Novokuznetsk.
(Altai Mountains--Rocks, Igneous)
(Altai Mountains--Ore deposits)

KUZHEL'NYY, N.M.

Distinguishing the Faiba intrusive complex in northeastern part of the Rudnyy Altai. Geol. i geofiz. no.5:14[illegible] '65. (MIRA 18:8)

1. Zapadno-Sibirskoye geologicheskoye upravleniye, Novokuznetsk.

KUZHELOV, Gavrilc Kurmanovich

DECEASED

1964

Geology

1963

ACC NR: AR5024835 SOURCE CODE: UR/0169/66/000/004/G003/G003

AUTHOR: Subbotin, S. I.; Gurevich, B. L.; Kuzhelov, T. K.; Sollogub, V. B.; Chekunov, A. V.; Chirvinskaya, M. V.

TITLE: The plutonic formation on the territory of the Ukrainian SSR according to data from a geophysical study

SOURCE: Ref. zh. Geofizika, Abs. 4G13

REF SOURCE: Sb. Geol. rezul'taty prikl. geofiz. Geofiz. issled. stroyeniya zemn. kory. M., Nedra, 1965, 56-59

TOPIC TAGS: geological survey, area description, geomagnetic field

ABSTRACT: The main relationship between the anomalous gravitational field and the geological structure of the territory in question is the linearity of the field in the regions of deep submersion of the Precambrian foundation and the mossaic-like arrangement of the shallow surface Precambrian bed. The geomagnetic field anomlies mainly reflect the internal structure of the Precambrian foundation, i.e., Proterozoic folded linear regions and prehistoric plutonic localized objects of the basic and ultrabasic rock. In the regions where large subcambrian deposits were formed the geomagnetic field anomalies mainly reflect the presence of shallow effusive bedrock. A large number of plutonic breaks and "feathered" cracks were established from the data of seismometry, gravimetry, and by other geophysical methods. The thickness of the

Card 1/2 UDC: 550.311(477)

ACC NR: AR6024835

Earth's core and the depth of the Konrad surface bed are estimated from the seismic and gravimetric data and foundation rocks. Generally speaking the geophysical methods are very important in the exposure of structural forms at various depths and in the detailed study of large and small tectonic elements. [Translation of abstract]
M. Speranskiy

SUB CODE: 08

Card 2/2

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000928010

ZHURAVLEV, V.A.; KUZHELYUK, A.A. (L'vov)

Electromotive forces in some catalytic reduction reactions.
Zhur.fiz.khim. 34 no.6:1331-1335 Je '60.
(MIRA 13:7)

1. L'vovskiy meditsinskiy institut.
(Electromotive force) (Reduction) (Catalysis)

KUZHELYUK, A.A.

Temperature dependence of the electromotive force and activity of semiconductor catalysts in the catalytic decomposition of hydrogen peroxide. Zhur. fiz. khim. 38 no.5:1268-1269 My '64. (MIRA 18:12)

1. L'vovskiy meditsinskiy institut. Submitted June 18, 1962.

ACCESSION NR: AP4019512 S/0076/64/038/002/0271/0276

AUTHORS: Zhuravlev, V.A. (L'vov); Kuzhelyuk, A.A. (L'vov)

TITLE: Change in emf and catalytic activity of semiconductor catalysts during decomposition of hydrogen peroxide

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 2, 1964, 271-276

TOPIC TAGS: semiconductor catalyst, hydrogen peroxide decomposition, cupric oxide catalyst, hydrogen peroxide, emf activity

ABSTRACT: The present article which is a continuation of an earlier work by the same authors (ZhFKh 34, 1331, 1960) has as its purpose to find the emf of electron and hole semiconductors in their catalytic action over long periods of time during their maturing, constant activity and fatigue. The tests lasted for 10 days and low concentration of H_2O_2 (0,25 mol/l) over CuO in 10 min cycles, were used measuring the emf at the beginning and the end of the cycle when fresh solution was poured in. The emf decreases with aging of the semiconductor catalyst. During the entire time of operation there was a correlation between the activity of semiconductor

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ACCESSION NR: AP4019512

catalysts and their emf. These forces have a parabolic relationship to each other. This correlation does not depend on the type of semiconductor conductivity. There is also a correlation between the initial values of activity and the emf of samples prepared from the same material but by different thermal methods. There is no correlation between the initial values of activity and emf of samples prepared from different materials. Orig. art. has: 6 figures, 2 formulas, 2 tables.

ASSOCIATION: L'vovskiy Medinstitut (Lvov Medical Institute)

SUBMITTED: 19Apr62 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: GC NR REF SOV: 010 OTHER: 000

Card 2/2

L 10583-63 EPF(c)/EWT(m)/BDS Pr-4 RM/WW

ACCESSION NR: AP3001489 S/0195/63/004/002/0312/0314

58
57

AUTHOR: Zhuravlev, V. A.; Kozak, M. I.; Kuzhelyuk, A. A.

TITLE: Relation of catalytic activity and the yield of semiconductor catalysts in the process of aging

SOURCE: Kinetika i kataliz, v. 4, no. 2, 1963, 312-314

TOPIC TAGS: catalytic activity, catalytic yield, aging process, Pb sub 2 O, PbO, CuO, NiO, Ni sub 2 O sub 3

ABSTRACT: The investigation of the relation between catalyst activity and the catalyst yield in the process of formation and aging of catalysts indicates that the catalysts used in the investigation can be divided into two groups. The first group includes NiO and Ni sub 2 O sub 3. Their catalytic activity and the yield change symbatically while contact-potential difference changes antibatically. The reverse is observed with Pb sub 2 O, PbO and CuO samples. The observed phenomena can be explained by the electronic theory of catalyst. The type of charge on the surface of catalyst and the indirect change in yield during the adsorption after its immersion in H sub 2 O sub 2 solution and during the drying process was examined. It was found that the adsorbed molecules on the samples

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L 10583-63

ACCESSION NR: AP3001489

which show symbatic relationship between the catalytic activity and yield are the donors and the ones which show a ;ibatic relationship are acceptors. The obtained results agree with one of the main electronic deducations in the catalyst theory that there is a correlation between the catalytic activity and the yield. This relation can be either symbatic or antibatic. Orig. art. has: 1 figure and 6 graphs.

ASSOCIATION: L'vovskiy meditsinskiy institut kafedra fiziki (Lvov Medical Institute, Department of Physics)

SUBMITTED: 26Sep61 DATE ACQD: 10Jun63 ENCL: 00

SUB CODE: 00 NO REF SOV: 011 OTHER: 001

Card 2/2

KUZHENKO, V.A. (selo Chervona Kamenka Kirovogradskoy oblasti)

Determining the most profitable width of the plowing strip. Mat. v shkole no.5:92-95 S-O '60. (MIRA 13:10)
(Agricultural mathematics--Problems, exercises, etc.)

KUZHENTSEVA, A.K.

3263 **Quantitative determination of benzil.** A. K. Kuzhentseva and A. A. Mettsler (*J. anal. Chem., USSR*, 1950, 5, 160—162).—Two methods of determining benzil are described. (1) Condensation with ... to give a quant. ... of diphenylquinoxa ... [illegible]

(2) ... to benzoic acid by H_2O_2 in NaOH solution. A solution ... [illegible]

G. S. SMITH

KUZHEPA

G

POLAND/Organic Chemistry. Synthetic Organic Chemistry.

Abs Jour: Ref Zhur-Khimiya, No 21, 1958, 70889.

Author : Tsesl'ak, Kuzhepa, Podlevskaya.
Inst :
Title : A Synthesis of Chloropromazine and Its Pharmacological Study.

Orig Pub: Farmac. polska, 1958, 14, No 2, 17-19.

Abstract: For the purpose of a pharmacological study, 3-chloro-10-(N,N-dimethylamino propyl)-phenothiazine (I) (Largactyl, according to patent data) has been synthesized.
Sixty-two grams of N-(3-chlorophenyl)-anthranilic acid (Lehmstedt K., Ber., 1937, 70, 833) is heated above its melting point. The 3-chloro-diphenyl amine

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Card : 1/3

POLAND/Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khimiya, No 21, 1958, 70889.

were isolated, b.p. 135-140°C/0.005 mm, m.p. 53-55°C; the hydrochloride, m.p. 180-181°C, was obtained by the reaction of a 1% HCl solution in ether with a solution of I in absolute alcohol. The hydrochloride of I was named chloropromazine by the authors. Its pharmacological properties were compared with those of the preparation largactyl "Specia".

Card : 3/3

KUZHERSKAYA, A.V.

Injury of the anterior chamber of the eye and visual acuity in brucellosis. Vest.oft. 30 no.1:10 Jan-Feb 51. (CLML 20:6)

1. Assistant. 2. Of the Eye Clinic (Director--Honored Worker in Science Prof. P.F. Arkhangel'skiy), Tashkent Medical Institute imeni V.M.Molotov.

ACC NR: AP7000524 SOURCE CODE: UR/0048/66/030/011/1776/1777

AUTHOR: Kuzhevskiy, B. M.; Salimzibarov, R. B.; Skryabin, N. G.; Shafer, Yu. G.

ORG: Institute of Space Physics Research and Aeronomy, Yakut Branch, Siberian Branch, Academy of Sciences, sSSR (Institut kosmofizicheskikh issledovaniy i aeronomii Yakutskogo filiala Sibirskogo otdeleniya, Akademiya nauk SSSR)

TITLE: Some preliminary results of a study of intensity variations of cosmic rays carried out by the Kosmos-25 satellite /Paper presented at the All-Union Conference on Physics of Cosmic Rays held in Moscow from 15 to November 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 11, 1966, 1776-1777

TOPIC TAGS: cosmic ray, cosmic ray intensity, cosmic ray measurement, cosmic ray particle, solar activity, gas discharge counter, ionization chamber, scintillation counter, meteorologic satellite /Kosmos-25 satellite

ABSTRACT: The satellite Kosmos-25 was launched on 27 Feb 1964 to study cosmic ray variations. The measuring equipment installed on board the satellite included shielded and unshielded gas-discharge counters, a shielded scintillation-counter array, and an ionization chamber. On the basis of monthly mean values of readings of these devices, several assumptions concerning the relationship between variations in cosmic

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ACC NR: AP7000524

ray intensity and solar activity were made. Instrument readings were taken for the energy threshold P_o = 4 Bev with reference to an altitude of 350 km. The informations obtained from the array and from the shielded and unshielded counters indicate a 30-day lag in the variations in cosmic ray intensity in respect to the variations in solar activity (Fig. 1). The ionization chamber readings characterize the ionizing power of particles more than it does their intensity. Fig. 1 indicates that the chamber readings increase when particle intensity, recorded by the counter, is decreased. In a number of cases additional radiation was recorded by the shielded counter, the effect of which increased during flight of the satellite at low latitudes. The authors assume that this phenomena can be attributed to either the recording of electron-positron pairs developed by γ-quanta, the effect of x-ray on the shield of the counter, or solar x-ray radiation during atmospheric flares. Orig. art. has: 1 figure, 1 table, and 2 formulas.

[WA-75]
[GS]

Card 2/3

ACC NR: AP7000524

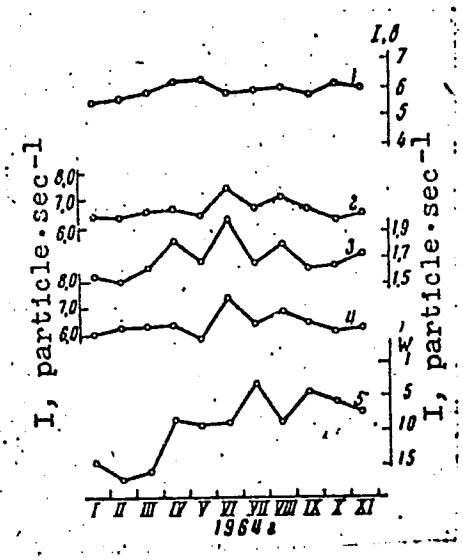

Fig. 1. The time distribution of cosmic ray intensity according to measurements made by the Kosmos-25 satellite in 1964 and obtained from the Wolf numbers for the same period. Curves of intensity variations of cosmic rays were constructed according to data of: 1) an ionization chamber; 2) a single nonshielded counter; 3) a shielded scintillator counter array; 4) a single shielded counter; and 5) Wolf's numbers.

SUB CODE: 22,04/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

Card 3/3

L 39896-66 EWT(1)/EWT(m)/FBD/FCC/T/EWA(h) IJP(c) GW/WS-2/GS-2/JT

ACC NR: AP6018099 SOURCE CODE: UR/0203/66/006/002/0413/0413

AUTHOR: Osipov, N. K.; Kuzhevskiy, B.M.

ORG: none

TITLE: Summer school of space physicists in Yakutia

SOURCE: Geomagnetizm i aeronomiya, v. 6, no.2, 1966, 413

TOPIC TAGS: solar radio emission, solar wind, radiation belt, cosmic ray, aurora, geomagnetic field

ABSTRACT: The third summer school of space physicists, organized by the Institute of Space Physics Research and Aeronomy of the Yakutian Affiliate of the Siberian Department AN SSSR, was held on the Lena River during the period 3-10 August 1965. Sixteen reports were presented. A review report, devoted to theories of solar radio emission and the relations between individual types of radio emission and solar geoactivity, was presented by S. A. Kaplan; emphasis was on the mechanisms of generation of type-II and V radio emission bursts. R. Z. Sagdeyev and Yu. A. Kravtsov presented the latest experimental data on the solar wind and processes of flow of the solar wind around the earth's magnetosphere. Sagdeyev described the mechanism of annihilation of the magnetic field in a limited region of the nighttime side of the magnetosphere ("neutral region"). K. I. Gringauz reported new

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L 39896-66

ACC NR: AP6018099

data on soft charged particles in the earth's neighborhood. It was noted that the presence of such particles is of considerable importance for understanding the processes of interaction between the solar wind and the earth's magnetosphere. V. V. Temnyy gave a review of the principal experimental data on the earth's radiation belts. The results of investigation of the structure of magnetic fields in interplanetary space on the basis of cosmic ray investigations were discussed by A. I. Kuz'min. He discussed in detail the mechanism of cosmic ray modulation. Various aspects of the study of the spectral characteristics of cosmic rays in the region of energies 10^8-10^9 were considered by D. D. Krasil'nikov and V. D. Sokolov. Regional characteristics of auroras were discussed by Yu. A. Nadubovich and V. P. Samsonov. The theory of ultralow frequency radio emission recorded in the auroral zone and a review of original experimental data on ultralow-frequency emission was described by Ye. F. Vershchinin. [JPRS]

SUB CODE: 03,04,08 / SUBM DATE: none

Card 2/2 ph S

L 01205-67 EWT(m)/T/EWP(t)/ETI IJP(c) JD
ACC NR: AP6031659 SOURCE CODE: UR/0367/66/004/001/0130/0131

AUTHOR: Kuzhevskiy, B. M.

ORG: Institut of Studies of Space Physics and Aeronomy, Siberian Branch AN SSSR (Institut kosmofizicheskikh issledovaniy i aeronomii Sibirskogo otdeleniya AN SSSR)

TITLE: Generation of deuterium nuclei in cosmic rays

SOURCE: Yadernaya fizika, v. 4, no. 1, 1966, 130-131

TOPIC TAGS: deuterium, nucleus, cosmic ray, deuteron energy, fragmentation reaction, nuclear reaction, proton proton interaction

ABSTRACT: A study is made of the role of the $p+p \rightarrow d+\pi^+$ reaction in forming deuterium nuclei in cosmic rays. The yield produced by this reaction is comparable to that produced by the fragmentation reaction in the deuteron energy range 150—700 Mev/nucleon. It appears that in this energy range the $p+p \rightarrow d+\pi^+$ reaction determines the lower limit of the flux of deuterium nuclei. It is shown furthermore that the increase in the flux of deuterons in cosmic rays in this range of energies should be anomalous. The author thanks S. I. Syrovatskiy for his helpful suggestions and E. Metlyayeva for her assistance in making the computa-

Card 1/2

L 01208-67

ACC NR: AP6031659

tions. Orig. art. has: 5 equations. [Author's abstract] [SP]

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 008/

Card 2/2 blg

L 18776-66 EWT(1)/FCC/EWA(h) GW
ACC NR: AP6002741 SOURCE CODE: UR/0056/65/049/006/1950/1956

AUTHORS: Kuzhevskiy, B. M.; Syrovatskiy, S. I.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Dependence of the chemical composition of cosmic rays on the nature of their motion in the galaxy

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 6, 1965, 1950-1956

TOPIC TAGS: cosmic ray measurement, galaxy, cosmic radiation composition, chemical composition, helium, deuterium, hydrogen, cosmic ray particle, relativistic particle

ABSTRACT: The authors discuss the possibility of determining which model of the propagation of cosmic rays in the galaxy is closer to reality, on the basis of data on the chemical and isotopic composition of the cosmic rays. The two models customarily used in the analysis of cosmic ray propagation, namely the diffusion and the regular model,

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ACC NR: AP6002741 O

are considered. It is shown that evidence favoring one model or the other can be obtained in the basis of the ratios $He^3/He^3 + He^4$ or D/He^4 in the cosmic rays. If $He^3/(He^3 + He^4) > 0.15$ or $D/He^4 > 0.1$, this would suffice to indicate that the diffusion model is valid, whereas values $He^3/(He^3 + He^4) < 0.15$ or $(D/He^4 < 0.09)$ would favor the regular model. Practical problems involved in the measurement of the fluxes of He^3, He^4, and D nuclei are discussed, for both relativistic and nonrelativistic energies. The possible compositions of the cosmic rays at the sources are also discussed. Orig. art. has: 1 figure, 5 formulas, and 4 tables.

SUB CODE: 03 SUBM DATE: 07Jul65/ ORIG REF: 002/ OTH REF: 007

Card 2/2 mjs

L 1537-66

ACCESSION NR: AT5023632 UR/0000/65/000/000/0513/0513

AUTHORS: Shafer, Yu. G.; Kuzhevskiy, B. M.; Kulagin, A. G.; Skryabin, N. G.

TITLE: Effects of solar and geophysical phenomena in primary radiation, instrumentally recorded by the "Kosmos-19" satellite

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 513

TOPIC TAGS: cosmic ray, cosmic ray measurement, cosmic ray intensity, magnetic storm, satellite, satellite mission analysis

ABSTRACT: Results from the processing of cosmic radiation data recorded at 350 to 450 km by the Kosmos-19 satellite between 6 August and 31 December 1963 are presented. No 27-day variation was noted in the intensity of cosmic rays with magnetic rigidity above 3.5 Bev during this period of minimal solar activity. During the intensive magnetic storms of 17-27 November a sharp drop in the counting rate was registered (the same effect was observed at the Rezol'yut ground-based station in Yakutsk). On 12 August the counting rate was noted to increase above the mid-month data. This effect followed the appearance of

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ACCESSION NR: AT5023632

the solar chromospheric flares by 10—13 hr. A line of equal intensity was produced from the satellite. Its comparison with the lines presented by S. N. Bernov and N. L. Grigorov (sb. "Iskusstvennyye sputniki Zemli," vyp. 1. Izd-vo AN SSSR, 1958) shows that in the period 1957-1963 the intensity increased by only 3%. The smallness of this increase is related to the large threshold rigidity of the particles registered. [04]

ASSOCIATION: none

SUBMITTED: 02Sep65 ENCL: 00 SUB CODE: AA, SV

NO REF SOV: 002 OTHER: 001 ATD PRESS: 4098

Card 2/2

KOVALENKO, M.F., inzh.; KUZHEYEV, V.Yu., inzh.

Using trays in placing tiles on drying carts. Suggested by M.F.Kovalenko, V.IU.Kuzheeva. Rats.i izobr.predl.v stroi. no.11:73-74 '59. (MIRA 13:3)

1. Plitochnyy zavod, stantsiya Losevo, Khar'kovskogo sovnarkhoza.
(Kharkov--Tiles)

KUZHIRNYY, A. A.; PODKOVYROV, G. V.; FAYNSHTEYN, E.G.

Dynamos Hydroelectric Power Stations

Protection of hydroelectric generators against increase in voltage. Elek. sta. 23, no. 2, 1952. Cand. Tekh. Sci.

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

SHEVELO, V.M.; KUZHIY, A.I.

Using the asymptotic method in solving equations of the motion of a load on a partially elastic rope of variable length. Dop.AN URSR no.6:402-406 '54. (MIRA 9:9)

1.Institut matematiki AN URSR, Kiivs'kiy pedagogichniy institut imeni O.M.Gor'kogo. Predstaviv diysniy chlen AN URSR G.M.Savin.
(Motion) (Wire rope)

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AUTHORS: Volarovich, M.P., Kuzhman, G. I., Makov, I.F. and Churayev, N. V. (Moscow).

TITLE: Use of radioactive isotopes for studying the process of mixing of peat in machines. (Primeneniye radioaktivnykh izotopov dlya izucheniya protsessa peremeshivaniya torfa v mashinakh).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.12, pp.87-89 (USSR)

ABSTRACT: The change in the degree of dispersion of peat during its processing can be established by means of sedimentary analysis, as described by some of the authors of this paper in earlier work (Ref.1). The process of mixing of the peat during its processing, i.e. the redistribution of the particles in the peat volume, leading to a uniformity of the structure of the peat has so far not been studied at all. Therefore, the authors considered it of interest to use for this purpose radioactive P^{32} in an aqueous solution of $Na_2HP^*O_4$, since the authors found in earlier work (Ref.2) that this substance adheres strongly to the peat particles. Specimens weighing 10 to 30 g were selected from the peat and this solution

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