

KAYBICHEVA, M.N.; FADEYEVA, N.I.; TULIN, N.A.; SHATALOV, M.I.

Basic refractory wastes are a valuable raw material. Metallurg  
6 no. 1:18-20 '61. (MIRA 14:1)

1. Vostochnyy institut ogneporov i Chelyabinskiy metallurgicheskiy zavod.

(Refractory materials)

KAYBICHEVA, M.N.

Chrome coatings on electric furnace linings. Stal' 21 no.8:  
704-706 Ag '61. (MIRA 14:9)

1. Vostochnyy institut ogneporov.  
(Electric furnaces) (Refractory materials)

KAYBICHEVA, M.N.; PIVNIK, L.Ya.; MAR'YEVICH, N.I.; Primala uchastiye  
FLEROVA, Ye.I.

Service of concrete on a base of high-alumina cement in electric  
furnace arches. Ogneupory 27 no.4:166-171 '62. (MIRA 15:4)

1. Vostochnyy institut ogneuporov.  
(Refractory concrete) (Electric furnaces)

S/081/62/000/023/063/120  
E180/B144

AUTHOR: Kaybicheva, M. N.

TITLE: Electric-furnace refractories and their durability

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 487-488,  
abstract 23K363 (Tr. Vost. in-ta ogneuporov, no. 3, 1961,  
80-93)

TEXT: The article gives the coordinated results of tests carried out in electric furnaces on various refractories and of investigations of the conditions under which the linings must function during the smelting of different types of steel. Figures are given on the lives of arches composed of chromemagnesite and Dinas bricks in different plants during the period 1958-1960, also data on the use of the following refractories in the arches of electric furnaces:- andalusite, high-alumina, periclase (USSR), fireclay and Dinas (Canada and the USA), dolomite (W.Germany) and high-alumina (China). The maximum efficiencies of the different types of refractory are indicated, and methods are given for extending the life of arches and walls by using a periclase-spinel brick of greater density or unfired metal-cased chromemagnesite bricks. [Abstracter's note: Complete translation.]  
Card 1/1

BARIN, S.Ya.; KAYBICHEVA, M.N.

Lining electric steel melting furnaces with moldable substances. Ogneupory 26 no.10: 82-486 '61. (MIRA 1961)

1. Ural'skiy vagnostroitel'nyy zavod (for Barin).
2. Vostochnyy institut ogneuporov (for Kaybicheva).  
(Metallurgical furnaces)  
(Refractory materials)

KAYBICHEVA, M.N.; MAR'YEVICH, N.I.; TULIN, N.A.; SMAKOTIN, I.V.;  
LANDE, P.A.; TEREKHINA, P.Ya.

Service of unburned magnesite-chromite adapter bricks in  
electric furnace walls. Metallurg 7 no.8:16-18 Ag '62.  
(MIRA 15:9)

1. Vostochnyy institut ogneporov i Chelyabinskiy  
metallurgicheskiy zavod.  
(Electric furnaces) (Refractory materials)

STRELOV, K.K.; MAMYKIN, P.S.; Primalni uchastiye: BAS'YAS, I.P.;  
BICHURINA, A.A.; BRON, V.A.; VECHER, N.A.; VOROB'YEVA, K.V.;  
D'YACHKOVA, Z.S.; D'YACHKOV, P.N.; DVORKIND, M.M.;  
IGNATOVA, T.S.; KAYBICHEVA, M.N.; KELAREV, N.V.;  
KOSOLAPOV, Ye.F.; MAR'YEVICH, N.I.; MIKHAYLOV, Yu.F.;  
SEMKINA, N.V.; STARTSEV, D.A.; SYREYSHCHIKOV, Yu.Ye.;  
TARNOVSKIY, G.I.; FLYAGIN, V.G.; FREYDENBERG, A.S.;  
KHOROSHAVIN, L.B.; CHUBUKOV, M.F.; SHVARTSMAN, I.Sh.;  
SHCHETNIKOVA, I.L.

Institutes and enterprises. Ogneupory 27 no.11:499-501  
'62. (MIRA 15:11)

1. Vostochnyy institut ogneuporov (for Strelov). 2. Ural'skiy  
politeknicheskyy institut im. S.M. Kirova (for Mamykin).  
(Refractory materials--Research)

BARIN, S.I.; KAIBICEVA, M.N. [Kaybicheva, M.N.]

Lining of electric steel smelting furnaces with plastic materials. Analele metalurgie 16 no.3:193-198 J1-S '62.



MAMYKIN, P. S.; KAYBICHEVA, M. N.

Sintering additives for danb on a basis of metallurgical  
magnesite powders. Trudy Vest. inst. lgasup, no.2:132-142  
1960. (MIRA 16:1)

(Refractory materials)

ACCESSION NR: AR4027924

S/0137/64/000/002/B006/B006

SOURCE: RZh. Metallurgiya, Abs. 2B38

AUTHOR: Kaybicheva, M. N.; Tarnovskiy, G. A.

TITLE: Refractories used for making crucibles for high-frequency vacuum induction furnaces and causes of their wear

CITED SOURCE: Tr. Vost. in-ta ogneporov, vy\*p. 4, 1963, 106-126

TOPIC TAGS: refractory, crucible, magnesite, synthetic corundum

TRANSLATION: Results are given for an investigation of the causes of intensive wear of refractories under vacuum-melting conditions in high-frequency induction furnaces 6900 mm high and 2900 mm in diameter with a vacuum down to  $10^{-7}$  mm Hg. The crucibles were rammed out of 70-75% fused magnesite and 30-25% synthetic corundum No 100 containing 1-2%  $\text{CaF}_2$  and 3% moisture. The ramming was in layers (20 to 55 mm). The thickness of the crucible walls was 60-65 mm at the top, and 75-80 mm at the bottom. The crucibles were studied during the period of development and operation. The temperature of the metal was 1500-1700°, and the latter remained in the crucibles for 2 to 5 hr. The life of the crucibles amounted to 19 meltings.

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ACCESSION NR: AR4027924

The chief cause of wear were transverse cracks, which are attributed to the increase in the size of crucibles during the first wash heatings and to the healing of the cracks. It is recommended that corundum be added in amounts not exceeding 15%, that ramming in layers and repressing be forsaken in making the crucibles, that the addition of  $\text{CaF}_2$  be excluded from the charge, that the moisture of the mass be reduced to ~ 1.5-2%, and that the crucibles be dried with air heated to 110-120° for 3 to 3.5 hr; the vertical temperature of the crucibles should be constant, and no abrupt cooling should be allowed. This will make it possible to extend the life to 17 meltings. N. Molchanov

DATE ACQ: 19Mar64

SUB CODE: ML

ENCL: 00

Card 2/2

KAYBICHEVA, M.N.; PIVNIK, L.Ya.

~~Character~~ of the disintegration and methods of increasing the  
durability of electric furnace linings. Ogneupory 28 no.6:  
259-269 '63. (MIRA 16:6)

1. Vostochnyy institut ogneuporov.  
(Electric furnaces)  
(Refractory materials)

KAYBICHEVA, M.N.; TEREKHINA, P.Ya.

Stability of linings in steel-smelting arc furnaces.  
Ogneupory 28 no.10:456-460 '63. (MIRA 16:11)

1. Vostochny institut ogneuporov.

KAYBICHEVA, M.N.

Character of chrome spinel grain failure in the slag belt of  
electric arc furnaces. Ogneupory 28 no.12:565-569 '63.  
(MIRA 16:12)

1. Vostochnyy institut ogneuporov.

KAYBICHEVA, M.N.; TARNOVSKIY, G.A.; GILEV, Yu.P.; BORNOVALOV, M.A.;  
SHATALOV, M.I.; LANDE, P.A. [deceased]; SYUMKIN, N.I.;  
BEKISHEV, Yu.A.

Temperature conditions for the resistance of the lining of  
large capacity electric furnaces at the Chelyabinsk Metallur-  
gical Plant. Stal' 23 [i.e. 24] no.4:324-328 Ap '64.  
(MIRA 17:8)

1. Vostochnyy institut ogneuporov i Chelyabinskiy metallurgi-  
cheskiy zavod.

KAYBICHEVA, M.N.; KUDRYAVTSEVA, T.N.; PETRIKEVICH, S.N.; ENTIN, V.G.

Testing of magnesite-chromite firebricks in the lining of a cyclone reactor for the preparation of activated carbon. Ogneupery 29  
no.7:301-307 '64. (MIRA 18:1)

1. Vostochnyy institut ogneuporov (for Kaybicheva, Kudryavtseva).
2. Omskiy institut shinnoy promyshlennosti (for Petrikevich, Entin).



KAYBEGHEVA, M.N.; MAL'ISEV, R.P.; PIVNIK, L.Ya.

Character of failure and ways of increasing the stability  
of furnace linings for the making of refined ferrochromium.  
Ogneupry 30 no.11:33-38 '65. (MIRA 18:11)

1. Vestsochnyy institut ogneuporov.

KAYBIYAYNEN, L.K., inzh.; SOBOLEV, Yu.N., inzh.

Relationship between the appearance and internal structure of solid electrolytic iron deposits and plating conditions. Izv. vys. ucheb. zav.; mashinostr. no.4:136-144 '65.

(MIRA 18:5)

L 38174-66 EWT(m)/T/EWP(t)/ETI IJP(c) DJ/JD/JQ

ACC NR: AP6021080

(N)

SOURCE CODE: UR/0365/66/002/002/0221/0226

56  
55  
B

AUTHOR: Virolaynen, E. I.; Kaybiyaynen, L. K.

ORG: Petrozavodsk State University im. O. V. Kuusinen (Petrozavodskiy gosudarstvennyy universitet)

TITLE: The effect of ultrasonic fields on the structure of electrolytic chrome deposits

SOURCE: Zashchita metallov, v. 2, no. 2, 1966, 221-226

TOPIC TAGS: electroplating, chrome, ultrasonic field, x ray diffraction study, metallographic examination, microhardness, temperature dependence, METAL COATING, ELECTROLYTIC DEPOSITION, ULTRASONIC FIELD

ABSTRACT: An x-ray analysis of the structure of electrolytic Cr deposits (80 μ thick) produced under the influence of ultrasonic fields was made. Electrodeposition took place in a solution containing 225-300 g/l of CrO<sub>3</sub>, 20 g/l of K<sub>2</sub>SiF<sub>6</sub> and 6 g/l of SrSO<sub>4</sub>, at current densities ranging from 30 to 150 a/dm<sup>2</sup> and temperatures from 25 to 80°C. A Mo tube (zirconium filter) was used to produce x-ray data. Micrographs (×170) showed that ultrasound increased the surface lustre and homogeneity of the coating. By chrome plating at lower temperatures (below 35°C) in an ultrasonic field having a strength of √1 watts/cm<sup>2</sup> and a frequency of 20 kilocycles/sec, the microhardness of the deposits increased 35% as a result of an increase in the amount of Cr with

UDC: 621.357.7:543.8

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ACC NR: AP6021080

a hexagonal structure. The hexagonally modified Cr caused microdistortion in the deposit. Its thermal stability was extremely low: annealing at 150°C for 2 hrs caused complete transition of the hexagonal structure into the more stable body-centered cubic phase. Electrodeposition in an ultrasonic field at high temperatures (above 35°C) resulted in an insignificant increase in coating hardness, caused by the increased dispersity of the coatings since the amount of microdistortion remained constant. The low thermal stability precluded any potential application in which the hard coatings could be utilized to supply wear resistance. It is concluded that ultrasonic chrome plating is unfeasible for most industrial applications. Orig. art. has: 4 figures.

SUB CODE: 11,14/

SUBM DATE: 08Jul65/

ORIG REF: 005/

OTH REF: 005

*ms*  
Card 2/2

KAYBIYAYNEN, L.K., inzh.; RYNTSYNA, L.A., inzh.; TERMINASOV, Yu.S.,  
doktor fiz.-mat. nauk, prof.

Effect of an ultrasonic field on the structure of solid electrolytic  
iron deposits. Izv. vys. ucheb. zav.; mashinostr. no.6:178-  
183 '65. (MIRA 18:8)

1. Petrozavodskiy gosudarstvennyy universitet.

KAYBYSHEVA, L.

Running start. IUn. nat. no.12:1-2 D '62.

(MIRA 16:1)

1. Kommunarskaya 11-letnyaya shkola, Ul'yanovskiy rayon,  
Moskovskaya oblast'.

(Pioneers (Communist youth))  
(Children in agriculture)

AL'PEROVICH, Yu.I.; GUTCHIN, I.B.; KAYEYSHEVA, L.S.; TEPOV, L.P.;  
BOGDANOV, G.G.; DROBYSHEV, Yu.G.; SMIRNOV, G.V.;  
TRET'YAKOV, V.S.; BREYDO, M.I.; YEVSEYEV, L.A.; STEBAKOV,  
S.A.; FEDCHENKO, V., red.

[The ABC's of automation; collected articles] Azbuka avto-  
matiki; sbornik. Moskva, Molodaia gvardiia, 1964. 349 p.  
(MIRA 17:7)

VINOGRADOV, Vitaliy Andreyevich; KAYCHEV, Vsevolod Ivanovich;  
TSAR'KOV, V., red.; VORONKOVA, Ye., tekhn.red.

[Machine parts made of plastics] Detali mashin iz plastmassy.  
Penza, Penzenskoe knizhnoe izd-vo, 1960. 55 p. (MIRA 14:2)

(Plastics)



L 09137-67 EWT(m)/EWP(j) IJP(e) RM  
ACC NR: AP6031282 SOURCE CODE: UR/0229/66/000/008/0063/0063

AUTHOR: Bagnenko, F. M.; Kayda, Yu. A.; Prokhorov, N. P.; Dudko, T. V.

29  
22

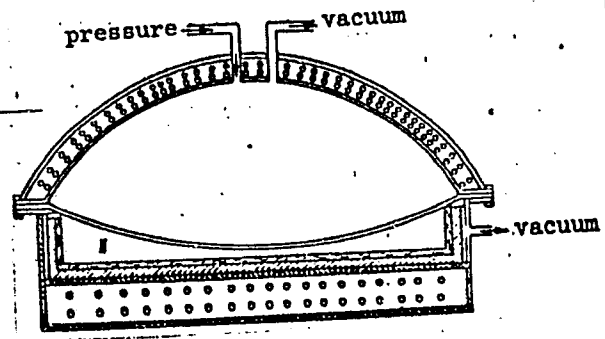
ORG: None

TITLE: Production of fiberglass-reinforced plastic products

SOURCE: Sudostroyeniye, no. 8, 1966, 63

TOPIC TAGS: fiberglass. reinforced plastic, plastic fabricating machinery

ABSTRACT: The authors describe the development of a unit for combination forming of cabin doors and heat control panels. The unit was produced at the Kherson Shipbuilding Plant and is composed of a pressing chamber and vacuum chamber (see figure). The pressing chamber is a welded dome-shaped cover equipped with an insulated jacket. The vacuum chamber has doors which are air-tight. A diaphragm is placed between the pressing and the vacuum chambers. This diaphragm does the actual pressing. The unit is heated by tubular electric



UDC: 678.029.46:666,189.211

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L 09137-67

ACC NR: AP6031282

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heaters. The working temperatures are from 20 to 180°C and are automatically controlled. The following components are used for the products: <sup>15</sup>PN-3(VTU33122-60LSNKh) polyethylene resin, <sup>15</sup>ASTT(6)C<sub>2</sub><sup>15</sup> and KhTK-1 <sup>15</sup>glass fillers and PKhV-1 <sup>15</sup>foam plastic <sup>15</sup>filler. The filled dies are placed inside the chamber which is preheated to 80-90°C and hermetically sealed. The vacuum initially is set at 600-650 mm Hg and four atmospheres are allowed to pass through the pressure feed after 5 to 6 minutes. The vacuum becomes weaker over a period of 10 to 15 minutes. The entire process takes 30 to 40 minutes. After the molding operation is finished, the pressure in the upper chamber is reduced and the die casting mold is removed through the door. The shell is removed from the mold and filled with PKhV-1 filler after which the cover is glued on. The unit is then placed in a hydraulic press and held for 24 hours. Such doors are 2.5 times lighter than wooden doors and their production saves 12,350 rubles a year. Orig. art. has: 3 figures.

SUB CODE: 13/ SUBM DATE: None

Card 2/2 nat

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000721220008-9"

SOV/136-58-12-19/22

AUTHORS: Gusov, A.V. and Kaydak, A.M.

TITLE: Boiling-layer Roasting (K voprosu ob obzhige v kipiyashchem sloye)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 12, pp 83 - 84 (USSR)

ABSTRACT: The authors of this letter to the editor severely criticise the article by G.M. Gusev and Ya.N. Shvartsman published in "Tsvetnyye Metally", 1958, Nr 4. They consider that those authors were incorrect in deducing that particle distribution occurs by laws other than those which hold for highly turbulent liquids. The widely-held view that such laws apply has been confirmed by special experiments on particle motion in a boiling-layer. G.M. Shteyngart (Ref 2) has shown that de-sulphurisation occurs throughout the whole volume of the fluidised bed and Gusev and Shvartsman have misinterpreted the gas-sampling investigation carried out at the "Elektrotsink" Works and used defective equipment for their own tests. Although the authors of the criticised article were present at the works during trials of a method of charging the concentrate deep into the bed and know of its defects, they continue to recommend it; their advocacy of charging by injection

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Boiling-layer      Roasting

SOV/136-58-12-19/22

over the layer contradicts their own views. The authors maintain that Gusev and Shvartsman gave a confusing answer to a question of Burov on temperature distribution and cite experimental evidence to show that a deeper bed is advantageous. Among other points criticised are the following: recommendation of a complicated discharge system when the available simple one is satisfactory; the statement that SO<sub>2</sub> concentrations in gas from fluidised beds of over 7-8.5% could not be attained and that processes occurring above the bed were ignored at the "Elektrotsink" Works. There are 2 Soviet references.

ASSOCIATION:      Zavod "Elektrotsink" ("Elektrotsink" Works)

Card 2/2

ALEKSEYEV, B.D.; ALAVERDOV, A.I.; BABIN, I.D.; BIDNEV, A.I.; BUROVOY, I.A.;  
GUSOV, A.V.; IVANOV, V.I.; ~~KAYDAK, A.M.~~; LEYZEROVICH, G.Ya.; RUPPUL',  
V.K.; SEREBRYANNIKOV, N.Ya.; SHTEYNGARDT, G.M.

Roasting zinc concentrate in a gas fired boiling fuel bed. Prom.  
energ. 13 no.8:19-20 Ag '58. (MIRA 11:10)  
(Zinc--Metallurgy)

KAYDALINA, A.V.

Hydrochemical conditions of the Ob' River in the region of  
Novosibirsk Reservoir. Trudy Biol. inst. Sib. otd. AN SSSR  
no.7:119-133 '61. (MIRA 15:3)  
(OB' RIVER--WATER--COMPOSITION)

L 24397-66 EWT(m)/T

ACC NR: AP6010990

SOURCE CODE: UR/0056/66/050/003/0691/0693<sup>18</sup>

AUTORS: Kaydalov, A. B.; Karnakov, B. M.

ORG: Institute of Theoretical and Experimental Physics, GKAE  
(Institut teoreticheskoy i eksperimental'noy fiziki GKAE); Moscow  
Engineering-Physics Institute (Moskovskiy inzhenerno-fizicheskiy  
institut)

TITLE: Spin effect in high-energy nucleon-nucleon scattering

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50,  
no. 3, 1966, 691-693<sup>19</sup>

TOPIC TAGS: small angle scattering, scattering amplitude, quantum  
number, parity principle

ABSTRACT: The authors consider spin effects in NN scattering under  
the assumption that the leading singularity (or sequence of singular-  
ities) in the complex  $j$  plane determining the high-energy behavior of  
the scattering amplitude has definite fixed quantum numbers (isospin  
T, G parity, signature  $P_j$ , and parity P). It is shown that the spin

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ACC NR: AP6010990

structure is determined solely by these quantum numbers. Expressions for the amplitude in the c.m.s. of the s-channel are written in terms of the two-component spinors for the following three groups of states of the NN system (t-channel of the reaction):

$$a) PP_j = +1, (-1)^{TP_j G} = +1;$$

$$b) PP_j = -1, (-1)^{TP_j G} = -1;$$

$$c) PP_j = -1, (-1)^{TP_j G} = +1.$$

The polarization of the scattered nucleons is then analyzed for the case when one of the initial nucleons is polarized. By analyzing the results for the three enumerated cases, it is shown that if one of the initial nucleons is polarized, the measurement of the polarization of the scattered nucleons allows one to test the hypothesis that the leading singularities in the complex  $j$  plane are singularities with definite quantum numbers. The author thanks I. Ya. Pomeranchuk, who called their attention to this problem, for useful remarks. Orig. art. has: 5 formulas.

SUB CODE: 20/ SUBM DATE: 29Aug65/ ORIG REF: 002/ OTH REF: 001

Card

2/206R

L 6355-66 EWT(d)/EWT(1) IJP(e) GG

ACC NR: AP5025261 SOURCE CODE: UR/0386/65/002/004/0192/0196

AUTHOR: Zakharov, V. I.; Kaydalov, A. B. <sup>44,55</sup> <sup>44,55</sup> <sup>45,55</sup> <sup>46</sup> <sup>40</sup>

ORG: Department of Nuclear Physics, Academy of Sciences SSSR (Otdeleniye yadernoy fiziki Akademii nauk SSSR) <sup>19,55</sup>

TITLE: Relativistic generalization of SU(6) symmetry and production of baryon resonances

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu (Prilozheniye), v. 2, no. 4, 1965, 192-196 <sup>16,44,55</sup> <sup>2,44,55</sup>

TOPIC TAGS: group theory, relativistic quantum mechanics, baryon, meson, isobar, pion

ABSTRACT: The authors consider the production of the isobar belonging to the decuplet on the basis of U(12) symmetry of strong interactions. They show that in the reaction  $K^+ + p \rightarrow N^{*++} + K^0$  the predicted angular distribution coincides with that obtained by L. Stodolsky and J. J. Sakurai (Phys. Rev. Lett. v. 11, 90, 1963). In the reaction  $\pi + p \rightarrow N^{*++} + \pi^0$  the angular correlations have the same form, provided the principal role is played in the t-channel by exchange of states with T = 1 and not 2. These deductions are not connected with assumption regarding the peripheral character of the interaction. The relativistic generalization of SU(6) symmetry, considered by M. A. Beg and A. Pais (Phys. Rev. v. 137B, 1514, 1965; Phys. Rev. Lett. v. 14, 267, 577, 1965), leads to the same results. Relations are derived for the reaction amplitudes and their relative contributions. It is also shown that the fact that a  $1 + 3 \cos^2\theta$

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ACC NR: AP5025261

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distribution is observed in the reaction  $\pi^+ + p \rightarrow N^{*++} + \pi^0$  for incident meson momenta 0.9 and 1.14 Bev/c, and does not agree with the experimental data in this reaction at 1.2 Bev/c is a confirmation of the U(12) symmetry. The predictions of U(12) with respect to the spin structure of the amplitudes of isobar production reactions in meson-nucleon collisions agree with experiment. At the same time, the polarization of the  $\Xi^-$  hyperon produced in the reaction  $K^- + p \rightarrow \Xi^- + K^+$  is equal to zero in the U(12)-symmetry approximation, thus contradicting the experimental data. Two explanations of this fact are proposed within the framework of the relativistic generalizations of SU(6). Authors are grateful to I. Yu. Kobzarev and I. Ya. Pomeranchuk for discussions. Orig. art. has: 10 formulas. 44, 55 44, 55

SUB CODE: GP/ NP SUBM DATE: 25Jun65/ ORIG REF: 000/ OTH REF: 020

Card 2/2

RdS

L 22623-66 EWT(m)/T

ACC NR: AP6004947

SOURCE CODE: UR/0056/66/050/001/0283/0285

AUTHOR: Zakharov, V. I.; Kaydalov, A. B.

ORG: none

TITLE: Possible radiative decays of heavy mesons with violation of charge parity

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 1, 1966, 283-285

TOPIC TAGS: meson, strong nuclear interaction, pion, meson interaction, Gamma transition, parity principle, vector meson, radioactive decay

ABSTRACT: The authors consider the radiative decays of  $f^0$ , B,  $A_1$ , and  $A_2$  mesons in relation to the hypothesis advanced by J. Bernstein, G. Feinberg, and T. Lee (Preprint, 1965) that charge conjugation may not be conserved in electromagnetic interactions of hadrons. Attention is called to the fact that a study of the radiative decays of these heavy mesons (with masses 1250, 1070, 1310, and 1220, respectively) can be very useful as a test of the validity of this hypothesis. A confirmation of this hypothesis will be provided by observation of the decays  $f^0 \rightarrow \pi^0 + \gamma$  or  $A_2^0 \rightarrow \pi^0 + \gamma$ , whose rates are estimated to be of the order of several per cent of the rates of decay due to strong interaction. Of particular interest

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ACC NR: AP6004947

would be a measurement of the ratio of the decay rates of  $A_2^0 \rightarrow \pi^0 + \gamma$  and  $A_2^+ \rightarrow \pi^+ + \gamma$ , which could serve as a measure of the C-nonconservation in electromagnetic interactions. The possible decay of vector mesons with violation of charge parity is also discussed briefly and it is concluded that a confirmation of the radiative decays discussed in the present article is more promising from the experimental point of view than the study of the corresponding decays of vector mesons. The authors thank L. B. Okun' for discussions. Orig. art. has: 9 formulas.

SUB CODE: 20/      SUBM DATE: 27Aug65/      OTH REF: 005

Card 2/2 *sw*

1 277hl-66 EWT(m)/T

ACC NR: AP6018709

SOURCE CODE: UR/0386/66/003/011/0459/0462

24  
21  
B

AUTHOR: Zakharov, V. I.; Kaydalov, A. B.

ORG: none

TITLE: Possibility of determining the relative signs of the amplitudes of hadron decays of hyperons

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 11, 1966, 459-462

TOPIC TAGS: hyperon, pion, selection rule, quantum electrodynamics, strong nuclear interaction

ABSTRACT: The authors show that whereas the isotopic-spin selection rules do not make it possible to determine the sign of the amplitudes of hadron decays of  $\Lambda^0$ ,  $\Sigma^-$ , and  $\Xi^-$  hyperons (the upper index denotes the charge of the decaying hyperon, and the lower the charge of the produced pion), it is possible to determine experimentally the relative signs of the amplitudes of  $\Lambda^0$  and  $\Lambda^0$  or  $\Sigma^+$  and  $\Sigma^+$  by measuring the transverse polarization of the protons in the decays  $\Lambda \rightarrow p\pi^-$  and  $\Sigma^+ \rightarrow n\pi^+$ . This possibility is based on the fact that in addition to the total decay probability it is also possible to measure other independent parameters, especially a parameter ( $\beta$ ) that determines the correlation between the polarization vectors of the initial and final hyperons in the direction of the momentum of the final hyperon. It is shown by simple calculations that such a measurement yields different values in the case of

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L 27744-66

ACC NR: AP6018709

positive and negative decay amplitudes. This method is applicable only to decays in which the isotopic spin of the final state is determined by the isotopic-spin selection rules. The authors thank I. Yu. Kobzarev for continuous interest in the work, and L. B. Okun' and I. Ya. Pomeranchuk for useful discussions. Orig. art. has: 9 formulas.

SUB CODE: 20/    SUBM DATE: 07Apr66/    ORIG REF: 004/    OTH REF: 002

Card 2/2

KAYDALOV, D.

Building of communism and improving the form of labor organization.  
Sots.trud 4 no.11:33-41 N 59. (MIRA 13:4)  
(Division of labor)

KAYDALOV, D.

Division of labor at the present time and in the future. Vop.ekon.  
no.9:34-44 S. '61. (Division of labor)

KAYDALOV, D.

From socialist to communist labor. Sov.snakht. 11 no.1:9-11 Ja  
'62. (MIRA 14:12)  
(Coal mines and mining--Labor productivity)



KAYDALOV, Dmitriy Petrovich; KURBATOVA, G., red.; DANILINA, A.,  
tekh.n.red.

[Communism, labor, and man] Kommunizm, trud i chelovek.  
Moskva, Gos.izd-vo polit.lit-ry, 1960. 109 p. (MIRA 13:6)  
(Labor and laboring classes)

PISKUNOV, V.; ZHUK, I.; KURILIN, N.; KAYDALOV, D.; VYSOTSKAYA, V.

Economic literature in 1961. Vop.ekon. no.4:120-126 Ap '61.  
(MIRA 14:3)

(Bibliography--Economics)

~~SECRET~~ KAYDALOV, P.K.

KOLTUN, Sergey Ivanovich; KAZARINOV, Boris Nikolayevich; KAYDALOV, P.K.,  
Inzhener, spetsent; DUGINA, N.A., tekhnicheskiy redaktor.

[Improvements in forge shops; practices of the Ural Machine  
Manufacturing Plant] Usovershenstvovaniia v kuznechnom tsekhe;  
iz opyta Uralmashsavoda. Moskva, Gos.nauchno-tekhn.isd-vo  
mashinostroit.lit-ry, 1956. 51 p. (MLRA 10:6)  
(Forging machinery)

KAYDALOVA, A. A.

PA 50/49T71

USSR/Medicine - Malaria  
Medicine - Dysentery

May/Jun 49

"Annotated List of Russian Books" 5 pp

"Pediatriya" No 3

Reviews 11 books, among them "Monocytosis in Infantile Malaria, by A. G. Zvereva, "Problems of Infantile Neuromalaria in the Transcaucasus," by A. I. El'darov, Clinical and Differential Diagnoses of Acute Gastrointestinal Diseases and Chronic Dysentery in Young Children," A. S. Benderskaya, "Using Gramicidien Enemas in the Treatment of Dysentery in Young Children," by A. A. Kaydalova, and "Data on Infantile Lambliosis From Chernocit-skaya Children's Clinical Hospital, " by V. V. Arkhipova.

BA 50/49T71

ACHARKAN, V.A.; BARSKOV, I.M.; BIRYUKOV, I.S.; BORODINA, L.Ya.; BRENNER, M.M.;  
GORBLIK, B.Ye.; GUMEROV, M.N.; ZORKAYA, N.M.; IOYRYSH, A.I.;  
KAYDALOVA, O.N.; KAPUSTIN, Ye.I.; LEBEDEVA, M.A.; LESHKOVTSYEV, V.A.;  
LYSENKO, V.P.; MARKIN, A.B.; MIKHAYLOV, N.N.; NEST'YEV, I.V.; NECHAYEV,  
N.V.; NIKOL'SKIY, A.V.; OSTROUKHOV, M.Ya.; PISARZHEVSKIY, O.N.;  
POLUBOYARINOV, M.M.; POPOV, Yu.N.; PRASOLOV, M.A.; POKATAYEV, Yu.N.;  
RIMBERG, A.M.; RYABOV, V.S.; SEMKOV, B.F.; SPERANSKAYA, Ye.A.; TAKOYEV,  
K.F.; TRIFONOVA, G.K.; TROFIMOVA, V.I.; SHAKHNAZAROV, G.Kh.; SHKAREN-  
KOVA, G.P.; SHMERLING, K.G.; EYDEL'MAN, B.I.; MIKAE LYAN, E.A., red.;  
MUKHIN, Yu.A., tekhn.red.

[U.S.S.R. as it is; a popular illustrated handbook] SSSR kak on est';  
populiarnyi illiustrirovannyi spravochnik. Moskva, Gos.izd-vo polit.  
lit-ry, 1959. 462 p. (MIRA 12:2)

(Russia)

I 1966-66

ACCESSION NR: AP5021447

UR/0146/65/008/004/0110/0114  
681.142.017.71

AUTHOR: Kaydanov, A. I.

102  
B

TITLE: Application of electrothermal analogies to the analysis of heat regimes in radioelectronic equipment.

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 4, 1965, 110-114

TOPIC TAGS: electronic equipment, thermal analyzer method, radio electronics equipment

ABSTRACT: The method of electrothermal analogy developed by G. N. Dul'nev and A. I. Kaydanov (O teplovom rezhime mnogoblochnykh konstruktsiy radioelektronnykh apparatov. Izv. vuzov SSSR "Priborostroyeniye," 1964, T. VII, No. 3) is applied to the analysis of various thermal regions in complex radioelectronic devices. Two structures are considered, one a three-unit rack with horizontal chassis, the other a three-unit rack with vertical chassis. A schematic of the first structure is shown in Fig. 1 of the Enclosure, along with its equivalent heat-model. The cross-hatched zones correspond to heated zones while the heavy lines depict a "compartment" (a space bounded by several isothermal surfaces). In the horizontal-chassis case each

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L 1966-66

ACCESSION NR: AP5021447

compartment has three isothermal surfaces: two horizontal, denoted by odd numbers, and one vertical, denoted by even numbers. Conductivities of the type  $\sigma_{3,0}$ ,  $\sigma_{7,0}$ , and  $\sigma_{11,0}$ , indicate good thermal contact between the heated zone and the front panel. A diagram is also presented for the case of vertical chassis, wherein each compartment is bounded by four isothermal surfaces. The analysis is generalized into a universal model, shown in Fig. 2. If the method of calculating thermal conductivities is known, the problem reduces to the solution of a set of linear algebraic equations which can be obtained by the application of Kirchhoff's laws to the thermal model. Orig. art. has: 3 figures. [04]

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad Institute of Precision Mechanics and Optics)

SUBMITTED: 07Oct64

ENCL: 02

SUB CODE: EC

NO REF SOV: 002

OTHER: 000

ATD PRESS: 4115

Card 2/4

L 1966-66  
ACCESSION NR: AP5021447

ENCLOSURE: 01

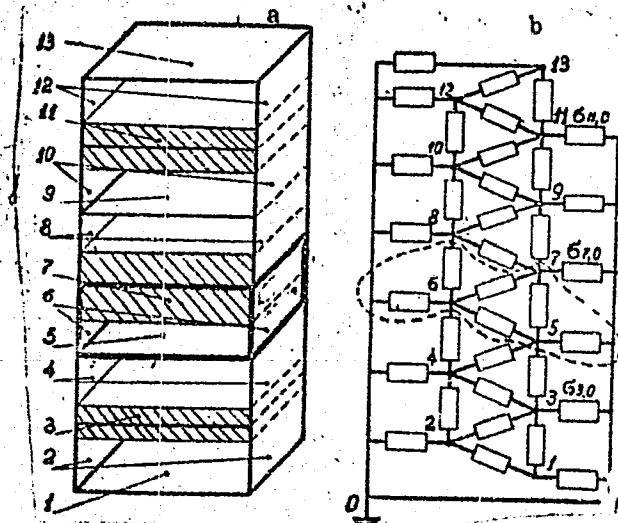


Fig. 1. Diagram of three-unit rack with horizontal chassis and equivalent heat-model

Card 3/4



L. 1966-66

ACCESSION NR: AP5021447

ENCLOSURE: 02

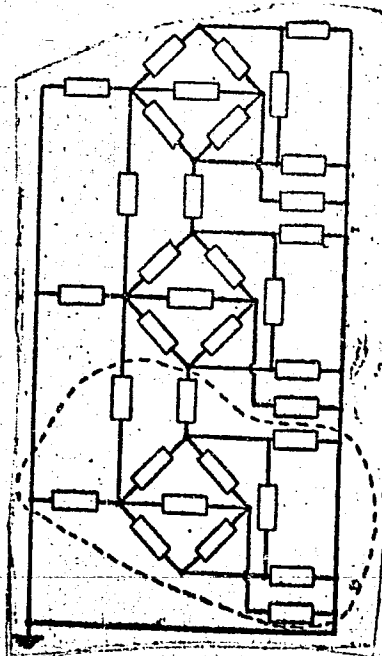


Fig. 2. Heat-model of the "universal" rack

*KS*  
Card 4/4

1. 18507-66

ACC. NR. AP6002184

SOURCE CODE: UR/0146/65/008/006/0145/0148

40  
B

AUTHOR: Kaydanov, A. I.

ORG: Leningrad Institute of Fine Mechanics and Optics (Leningradskiy institut tochnoy mekhaniki i optiki)

TITLE: Calculation of heat conduction in electronic equipment

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 6, 1965, 145-148

TOPIC TAGS: heat conduction, electronic equipment

ABSTRACT: The heat exchange between individual conditionally isothermic surfaces, in a unitized electronic equipment, is carried out by radiation, convection, and conduction. Thus, the heat conductance between surfaces  $i$  and  $j$  due to all the above heat-exchange mechanisms is given by:  $\sigma_{ij} = \sum_k a_{ijk} \cdot f_{ijk}$ , where  $a_{ijk}$  is a function of geometrical parameters and  $f_{ijk}$  is a function of temperatures of surfaces  $i$  and  $j$ . Formulas are given for the temperature functions of convective components of the heat conduction between (a) outer surfaces and the ambient medium and

Card 1/2

UDC: 621.396.6.017.7

ACCESSION NR: AP4041654

S/0146/64/007/003/0101/0107

AUTHOR: Dul'nev, G. N.; Kaydanov, A. I.

TITLE: Thermal conditions in multiple-unit structures of electronic equipment

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 3, 1964, 101-107

TOPIC TAGS: electronic equipment, thermal effect, temperature field, multiple unit electronic equipment

ABSTRACT: A new method for analysis of the thermal conditions in multiple-unit cabinet-type electronic equipment is offered. Approximating the real structure by a theoretical parallelepiped with "heated zones" and spaces between them, the average surface temperatures are calculated by a method of electric-thermal analogy; this method uses Kirchhoff's equations for calculating thermal circuits. Equations for a 3-unit structure are set up, and the iteration method is recommended for simplifying the set of equations. A simplification of the equivalent

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ACCESSION NR: AP4041654

circuit may be obtained by assuming the vertical conductance equal first to 0, then to  $\infty$ ; the necessary correction factor may be obtained from a simulator. Potentialities of the method were verified by experiments (no details reported) and calculations on a "Mercedes" electromechanical computer and on an EMV-LITMO electronic computer; tabulated results show satisfactory agreement between estimated and experimental values. Orig. art. has: 4 figures, 5 formulas, and 1 table.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad Institute of Fine Mechanics and Optics)

SUBMITTED: 10Oct63

ENCL: 00

SUB CODE: EC, TD

NO REF SOV: 005

OTHER: 000

Card 2/2

KAYDANOV, F.G. (Leningrad); KOSTENKO, M.V. (Leningrad); PEREL'MAN, L.S.  
(Leningrad)

Precise determination of wave parameters and analysis of error in solving telegraph equations using the example of a two-wire power transmission line. Elektrichestvo no.3:15-21 Mr '65.

(MIRA 18:6)

KAYDANOV, L., mayor.

~~-----~~  
All students -- classified specialists. Voen. sviaz. 16 no.1:16-17  
Ja '58. (MIRA 11:2)

(Radio operators--Study and teaching)

KAYDANOV, L.Z.

Some physiological mechanisms of selective mating in *Drosophila*  
*melanogaster*. Vest. LGU 18 no.9:143-149 '63. (MIRA 16:6)  
(Fruit flies) (Reproduction) (Conditioned response)

KAYDANOV, L.Z.

Conditioned reflex mechanisms of the sexual selection (selective mating) in chickens. Issl. po gen. no.2:25-36 '64. (MIRA 18:4)



ACC NR: AP7002409

SOURCE CODE: UR/0363/66/002/012/2246/2247

AUTHOR: Kaydanov, V. I.; Mel'nik, R. B.; Fedorenko, Ye. Sh.

ORG: Polytechnic Institute im. M. I. Kalinin, Leningrad (Politekhnicheskii institut)

TITLE: Growing of highly doped n-type lead telluride single crystals and determination of the distribution of iodine, chlorine and bromine

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 12, 1966, 2246-2247

TOPIC TAGS: lead compound, telluride, distribution coefficient, single crystal growing

ABSTRACT: n-Type PbTe single crystals were grown by zone melting, and the dopants used were  $PbI_2$ ,  $PbBr_2$  and  $PbCl_2$  with excess lead (2 at. % or  $3 \times 10^{20} \text{ cm}^{-3}$ ). This combination of impurities is thought to produce one electron in the conduction band per atom of halogen. X-ray structural and metallographic analyses showed the ingots obtained to be single crystals and bicrystals. The distribution of the impurities over the length of the ingot was described by the equation of normal crystallization for the three halides with different values of the effective distribution coefficients. Since each halogen atom gives one electron in the conduction band only in the presence of excess lead, it is assumed that the effective distribution coefficients being sought characterize the distribution of the simplest groups  $PbI$ ,  $PbBr$  and  $PbCl$  in the

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UDC: 546.815'241:537.311.33

ACC NR: AP7002409

PbTe lattice. For the ingot containing the PbI<sub>2</sub> impurity, the effective coefficients were determined for two crystallization rates. This made it possible to obtain the value of the equilibrium coefficient of the simplest group from the relation

$$K_{eff} = \frac{K_0}{K_0 + (1 - K_0)e^{f\delta/D}}$$

where  $K_0$  is the equilibrium distribution coefficient,  $K_{eff}$  the effective distribution coefficient,  $f$  the growth rate,  $\delta$  the thickness of the diffusion layer, and  $D$  the diffusion coefficient. Since  $\delta/D$  is determined mainly by the properties of the solvent and is independent of the type of impurity, the value of  $\delta/D$  found for the PbI group and equal to  $0.6 \times 10^3$  was used for the determination of the equilibrium distribution coefficients of PbCl and PbBr. The values obtained are shown in Table 1. Orig. art. has: 2 figures and 2 tables.

Table 1

Ion	$r, \text{ \AA}$	$K_0$
Te <sup>2-</sup>	2.11	—
I <sup>-</sup>	2.2	0.19
Br <sup>-</sup>	1.96	0.043
Cl <sup>-</sup>	1.81	0.029

SUB CODE: 07/ SUBM DATE: 14Oct65/ ORIG REF: 003/ OTH REF: 003

Card 2/2

L 6334-66 EWT(m)/ETC/BWG(m)/EWP(t)/EWP(b)

IJP(c) RDW/JD

ACCESSION NR: AP5019876

UR/0181/65/007/008/2524/2527

AUTHOR: Yefimova, B. A.; Kaydanov, V. I.; Moyzhes, B. Ya.; Chernik, I. A.

TITLE: On the band model of SnTe

SOURCE: Fizika tverdogo tela, v. 7, no. 8, 1965, 2524-2527

TOPIC TAGS: <sup>77</sup>tin compound, <sup>77</sup>telluride, electric conductivity, Hall effect, thermoelectric power, Nernst effect, impurity band

ABSTRACT: By introducing impurities (Sn, Te, Cl) the authors have succeeded in obtaining polycrystalline samples of p-SnTe with concentrations at  $P_{300K} = 2.8 \times 10^{19} \text{--} 2.0 \times 10^{21} \text{ cm}^{-3}$ , and determine the band model of SnTe for this range of concentrations, which was not investigated thoroughly in the past. Measurements were made of the electric conductivity, thermoelectric power, Hall constant, and the isothermal constant of the transverse Nernst-Ettingshausen effect, as well as the variation of the thermoelectric power in a magnetic field. The authors suggest that the results obtained provide some new evidence of the correctness of the semiconductor model of SnTe with two valence bands. The anomalously large Nernst-Ettingshausen effect can then be explained by supplementing this model with an account of the intraband scattering. Orig. art. has: 2 figures, 1 formula, and 1 table.

Card 1/2

0925 0032

L-6334-66

ACCESSION NR: AP5019876

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors AN SSSR)

SUBMITTED: 12Mar65

ENCL: 00

SUB CODE: SS

NR REF SOV: 000

OTHER: 006

nw  
Card 2/2

57-2-28/32

AUTHORS: ~~Kaydanov, V. I.~~, Regel', A. R.

TITLE: On the Influence of the Thickness of Bismuth Films on Their Electric Properties (O vliyani tolshchiny plenok vismuta na ikh elektricheskiye svoystva)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1958, Vol. 20, Nr 2, pp.402-411 (USSR)

ABSTRACT: The electric properties of thin Bi-films were investigated here. They were produced in a vacuum by means of spray coating (vaporized metal coating) in a thermal way. The thickness of the samples varied from 2,4 to 42  $\mu$ . The authors investigated: the specific resistance of the films, the Hall effect, the modification of the resistance in a transverse magnetic field at temperatures of from -190 to +150<sup>o</sup>C. The following was determined: At a drop in temperature from +150 to -190<sup>o</sup>C the specific resistance first decreases and after attaining the minimum it again increases. The increase in resistance is the higher and the minimum is the more displaced to the right into the range of high temperatures the thinner the film is.

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57-2-28/32

On the Influence of the Thickness of Bismuth Films on Their Electric Properties

Thus the tests showed that the specific resistance, the galvanomagnetic effects and their temperature-dependences are functions of the thickness of film. The analysis of the results showed that this may be explained with the aid of the mechanism of a decrease in the mean free path of the current-carriers due to their being dispersed at the film-boundaries. A comparison of the dependence obtained here of the hole- and electron-mobility on the thickness of the sample with the Fuchs (Fuchs)-theory shows that the dispersion of the electrons and holes at the film-boundaries fundamentally shows a diffusion nature. I. V. Yavorskiy and S. A. Smirnova determined the structure-parameters of the films. O. D. Yelpat'yevskaya helped in the work and the discussion. V. N. Yermayeva helped with technical matters. There are 4 figures, 3 tables, and 27 references, 2 of which are Slavic.

ASSOCIATION: Institute of Semiconductors AS USSR, Leningrad  
(Institut poluprovodnikov AN SSSR, Leningrad)

SUBMITTED: July 30, 1957

AVAILABLE: Library of Congress

Card 2/2

1. Bismuth films-Resistance 2. Bismuth films-Electrical properties

**"APPROVED FOR RELEASE: 06/13/2000**

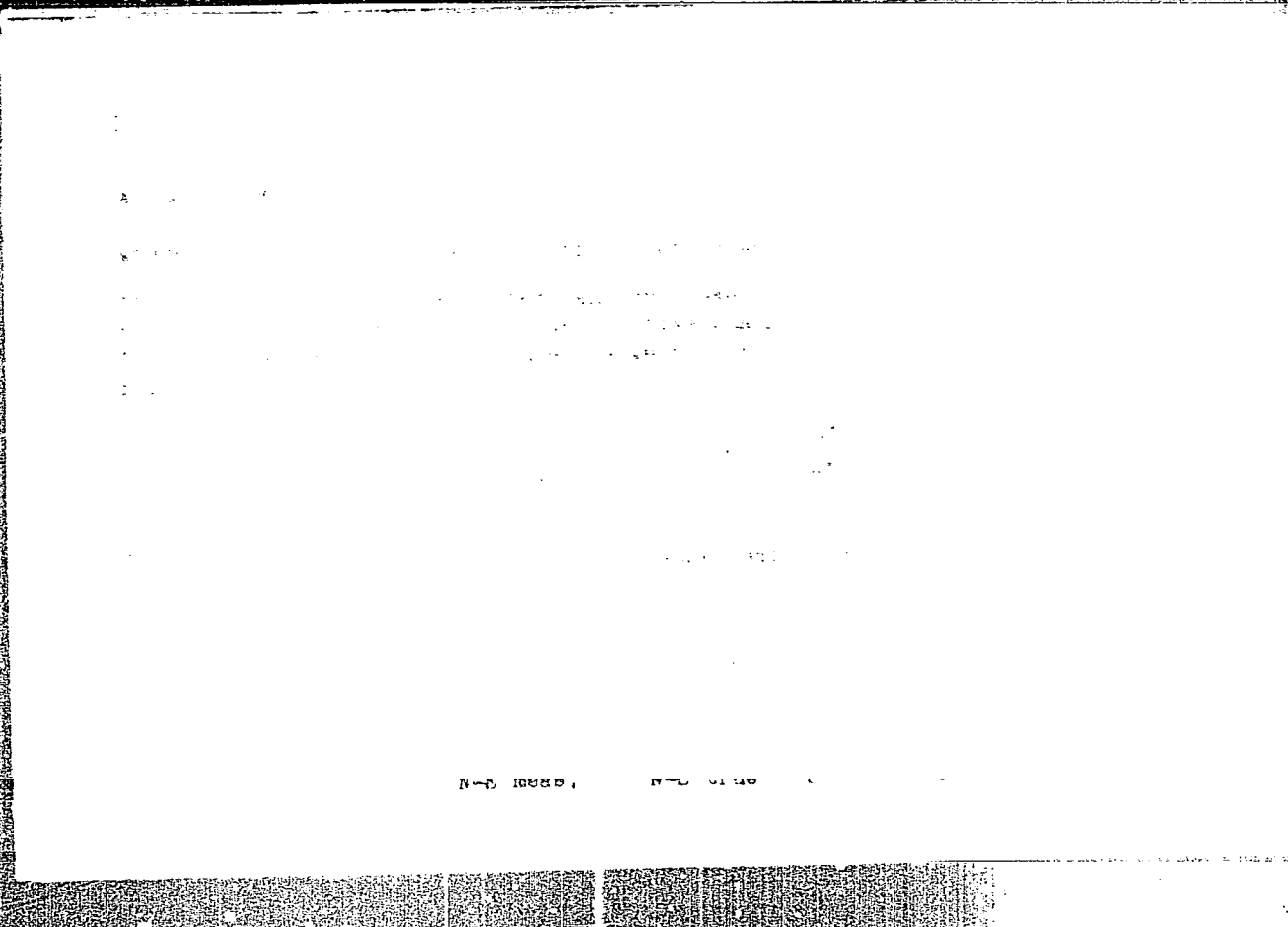
**CIA-RDP86-00513R000721220008-9**

**APPROVED FOR RELEASE: 06/13/2000**

**CIA-RDP86-00513R000721220008-9"**

where the isothermal Hall emf is





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"APPROVED FOR RELEASE: 06/13/2000

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CIA-RDP86-00513R000721220008-9"

L 21227-66 EWT(m)/ETC(f)/EWG(m)/EWP(t) IJP(c) RDW/JD

ACC NR: AP6003823 SOURCE CODE: UR/0181/66/003/001/0295/0297

AUTHORS: Zhitinskaya, M. K.; Kaydanov, V. I.; Chernik, I. A.

ORG: Leningrad Polytechnic Institute im. M. I. Kalinin  
(Leningradskiy politekhnicheskij institut)

TITLE: On the nonparabolicity of the conduction band of lead telluride

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 295-297

TOPIC TAGS: conduction band, lead compound, telluride, Nernst effect, Etingshausen effect, carrier density, carrier scattering

ABSTRACT: The authors report the results of an investigation of the electric conductivity  $\sigma$ , the Hall constant  $R$ , the thermoelectric power  $\alpha$ , and the coefficient  $Q$  of the isothermal transverse Nernst-Etingshausen effect, made on ten samples of n-type PbTe with concentrations  $2.1 \times 10^{18}$  --  $1.9 \times 10^{20} \text{ cm}^{-3}$  in the temperature interval 77 -- 300K. The samples were prepared by zone melting and subsequent

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L 21227-66

ACC NR: AP6003823

heat treatment in such a way that the investigated properties were not dependent on the method of sample preparation. Plots of the values of  $Q$  and of the dimensionless Nernst-Ettingshausen effect did not agree with the results expected from a simple parabolic model. The experimental results were analyzed on the basis of the theory developed by J. Kolodziejczak and S. Zukatynski (Phys. Stat. Sol. v. 5, 145, 1964) for an ellipsoidal nonparabolic band as applied to cubic crystals. And show that the effective mass of the carriers increases in the semiconductor with increasing concentration in accordance with Kane's model, generalized to the case of ellipsoidal equal-energy surfaces. From the analysis of the data it is concluded that the experimental dependence of the measured quantities on the carrier density can be attributed to a mixed scattering of the carriers by acoustic lattice vibrations and impurity ions. Orig. art. has: 2 figures and 2 formulas.

SUB CODE: 20/ SUBM DATE: 09Jun65/ ORIG REF: 001/ OTH REF: 004

Card 2/2 dda

TRUSOVA, V.N., inzh.; KAYDANOVA, I.P., inzh.

New constructions of porcelain support insulators. Elektrotehnika  
35 no.12:47-48 D '64. (MIRA 18:4)

KAYDANOVA, S.I.; MEYERSON, Ya.A.

Characteristics of the formation of motor reactions in unilateral lesions of the cerebral hemispheres. Zhur. vys. nerv. deiat. 14 no.2:223-228 Mr-Apr '64. (MIRA 17:6)

1. Laboratory of Pathology of Higher Nervous Activity, Sechenov Institute of Evolutionary Physiology, U.S.S.R. Academy of Sciences, Leningrad.

TRAUGOTT, N.N.; KAYDANOVA, S.I.; MEYERSON, Ya.A.

Impairments of motor functions on the side of the injured hemisphere and possible mechanism of these impairments. Acta nerv. sup. (Praha) 6 no.4:384-396 '64.

1. Institut evolyutsionnoy fiziologii im. I.M. Sechenova, AN SSSR i Psikhonevrologicheskiy institut im. V.M. Bekhtereva, nevrologicheskoye otdeleniye, Leningrad.



KAYDANOVA, S.I.; MEYERSON, Ya.A.

Characteristics of the activity of the auditory analyzer in aphasia.  
Zhur. vys. nerv. deiat. 11 no.4:602-608 J1-Ag '61. (MIRA 15:2)

1. Sechenov Institute of Evolutionary Physiology, U.S.S.R. Academy  
of Sciences, and Chair of Nervous Diseases, Kirov Military Medical  
Academy, Leningrad.  
(CONDITIONED RESPONSE) (HEARING) (APHASIA)

SILINA, N.P.; KAYDANOVA, S.N.

Using pressure and ultrasonics in extracting bitumen from rocks.  
Neftgaz.geol. i geofiz. no.2:34-36 '64. (MIRA 17:4)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut.

SILINA, N.P.; KAYDANOVA, S.N.

Rapid method for the extraction of bitumen from rocks. Trudy  
VNIGRI no.227 Geokhim.sbor. no.9:259-262 '64.

(MIRA 18:1)

KHAZANOV, M.A., prof.; KAYDANOVSKAYA, R.S., ordinator; MELAMED, R.I., ordinator

Clinical course and genesis of intermittent claudication (thrombo-  
angiitis of the brain blood vessels) (Buerger's disease), Zdrav.  
Belor. 5 no.9:37-39 S '59. (MIRA 12:12)

1. Iz kliniki nervnykh bolezney Minskogo meditsinskogo instituta.  
(BRAIN--DISEASES)

KAYDANOVSKAYA, S.I.

Gonorrheal abscess of the cervix uteri. Vest. vener., Moskva no.1:52-53 Jan-Feb 1953. (GLML 24:2)

1. Of Novosibirsk Municipal Dermato-Venereological Dispensary (Scientific Supervisor -- N. I. Khasin).

KAYDANOVSEYNA, S. I.

"The Problem of Gonorrheal Ulcers."

Vestnik venerologii i dermatologii (Bulletin of Venerology Dermatology),  
No 1, January-February 1954, (biomper), Moscow.

**MAZUROVA, N.I.; KAYDANOVSKAYA, S.I.**

Results of examination of women who had been sources of gonorrheal infections. Vest.ven. i derm. 30 no.5:42-45 S-0 '56. (MIRA 9:12)

1. Iz Novosibirskogo gorodskogo kozhno-venerologicheskogo dispansera (dir. P.I.Kolpakov, nauchnyy rukovoditel' - dotsent M.I.Khasin)  
(GONORRHEA, diag.  
latent gonorrhoea in women as in sources of infect.)

KAYDANOVSKAYA, S.I.

Problem of trichomoniasis in women. Vest.derm. i ven. 33. no.3:  
74-76 My-Je '59. (MIRA 12:9)

1. Iz Novosibirskogo gorodskogo vendispensera (glavnyy vrach  
F.I.Kolpakov, nauchnyy rukovoditel' - prof.A.K.Yakubson).  
(VAGINITIS, TRICHOMONAS, manifest.  
clin. picture (Rus))



AUTHOR: Kaydanovskiy, I. Candidate of Physical and Mathematical Sciences SOV/29-58-10-8/28

TITLE: Radio Exploration of the Moon (Radiorazvedka lunny)

PERIODICAL: Tekhnika molodezhi, 1958, <sup>26</sup>№ 10, pp 9 - 9, 13 - 13 (USSR)

ABSTRACT: By means of radio waves with a wavelength varying from 1 mm to 1 m - the temperature gradient of the moon surface layer may be investigated. The matter of the moon surface is well transparent for radio waves. It is therefore possible that a radio telescope may collect radiations from a certain depth. Since the current of thermal radio radiation is proportional to the temperature of the radiating body the telescope directed towards the moon may be regarded as a thermometer which shows the summary temperature. By the reception of waves of different length the temperature of the different layers is measured. On the moon temperature fluctuations are very intensive. The thicker the layer is the smaller the amplitudes of temperature fluctuations will be. A constant temperature was observed by measurements of the waves of  $\lambda > 3$  cm. Radio-

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Radio Exploration of the Moon

SOV/29-58-10/8/28

radiation of a wave length less than 2 cm changes within a month. The depth where the temperature is constant is close to the depth where 1 cm radio waves length penetrate, e.g. 2-3 cm. For the sake of comparison it is mentioned that the level of constant temperature on the earth is at a depth of several meters. A heat conductivity which is so weak as that exhibited by the moon surface can only be paralleled by dust in vacuum. Thus, investigations showed that the main part of the moon surface is covered by a dust layer of several cm thickness. Further investigations will reveal whether there is a solid rock mass below the mentioned dust layer or not. There is 1 figure.

ASSOCIATION: Pulkovskaya Observatoriya (Pulkovo Observatory)

Card 2/2

SHCHUCHINSKIY, L.G.; AVAKYAN, S.; KAYDANOVSKIY, L.

Magnetographic method of control of welded pipe joints. Zav.  
lab. 30 no.1:117 '64. (MIRA 17:9)

KAYDANOVSKIY, L.L., inzh.

Protective helmet for welders. Stroi. truboprob. 7 no.6:21 Je '62.  
(MIRA 15:7)

1. Stroitel'no-montazhnyy uchastok No.12 Yuzhgazprovodstroy, g.  
Rostov.

(Welding--Safety measures)

KAYDANOVSKIY, L.L., inzh.

Magnetizing device with a permanent magnet for magnetographic checking. Stroi.truboprov. 7 no.9:26 S '62. (MIRA 15:11)

1. Stroitel'no-montazhnoye upravleniye No.12 tresta Yuzhgazprovodstroy, Rostov-na-Donu.

(Magnetic testing—Equipment and supplies)  
(Pipe joints—Testing)

KAYDANOVSKIY, L.L., inzh.

Improve technical information. Stroi. truboprov. 8 no.1:24  
Ja '63. (MIRA 16:5)

1. Stroitel'no-montazhnoye upravleniya No.12 tresta Yuzhgazprovodstroy,  
Rostov-na-Donu.

(Pipelines--Design and construction)

KAYDANOVSKIY, M.

Our experience in education through work. Sots.trud 4 no.3:  
118-121 Mr '59. (MIRA 12:4)

1. Direktor L'vovskoy shkoly, stantsiya L'vovskaya, Podol'skiy  
rayon, Moskovskaya oblast'.  
(L'vovskaya--Vocational education)

KAYDANOVSKIY, M. [Kaidanovs'kiy, M.], kand.fiz.-mat.nauk

Radio waves survey the moon. Znan.ta pratsia no.2:18 F '59.

(MIRA 12:10)

(Moon)



KAYDANOVSKIY, M.L.

School factory. Politekh.obuch. no.2:60-64 F '57. (MLRA 10:5)

1. Direktor L'vovskoy sredney shkoly Podol'skogo rayona Moskovskoy oblasti.

(Technical education)

PA 149T100

KAYDANOVSKIY, N. L.

USSR/Physics - Servomechanisms Regulation, Automatic Sep 49

"The Nature of Mechanical Auto-Oscillations (Jumps) Arising When Dry Friction is Present," N. L. Kaydanovskiy, 10 pp

"Zhur Tekh Fiz" Vol XIX, No 9 - pp. 985-996

Compares various theories to explain jumps; S. E. Khaykin and Kaydanovskiy's, Bowden and Ishlinskiy's, and Kragel'skiy's. Author shows importance of his interpretation of damping to elucidate mechanism of jumps. Describes actual tests and equipment, with theoretical discussion. Coefficients in the

149T100

USSR/Physics - Servomechanisms (Contd) Sep 49

Differential equation describing auto-oscillations are experimentally determined. Graphs and oscillographic photographs show force (in dynes) versus velocity (in cm/sec) for various values of one essential coefficient (A, of the order of magnitude  $10^4$  dyne-sec.cm<sup>-1</sup>) in the differential equation.

149T100

Category : USSR/Radiophysics - Application of radiophysical methods

I-12

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1976

Author : Kaydanovskiy, N.L., Mirzabekyan, E.G., Khaykin, S.E.

Title : Polarization Radiometer for a Wavelength of 3.2 cm and its Use.

Orig Pub : Tr. 5-go soveshchaniya po vopr. kosmogonii. 1955, M., AN SSSR, 1956, 113-122

Abstract : The diameter of the parabolic mirror of the radiometer antenna is 4 meters. The antenna feeder is a cylindrical waveguide terminated at the focus of the paraboloid with a cylindrical cavity resonator with an annular slit facing the mirror, in which only  $H_{11}$  modes can propagate. The symmetry of the antenna permits reception of radio waves of any polarization without distorting its character. To analyze the polarization and to calibrate the apparatus, the cylindrical waveguide has a block of interchangeable sections, containing a "quarter-wave plate", fully-absorbing plate, and a crossed absorber with a somewhat different absorption coefficient. The radiometer output signal is modulated by rotating the "half-wave plate." The analyzer is a transition piece from the cylindrical waveguide to the rectangular waveguide entrance to the receiver mixing head. The modulation frequency equals four times the number of turns of the "half-wave plate." At a time constant of 16 seconds, the sensitivity of the radiometer in the measurement of the polarization component is  $0.5^{\circ}K$ , corresponding to a minimum detectable degree

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Category : USSR/Radiophysics - Application of radiophysical methods

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1976

of polarization of radio waves from the sun on the order of  $3 \times 10^{-4}$ . The radiometer was used to investigate the polarization of radio waves from the quiet sun. In the reception of radio waves from the entire sun as a whole, no noticeable polarization was observed. During the observation in the partial (74% area) solar eclipse of 1954, it was found that after the first contact there occurs a partial polarization of the received radiation. Soon after the first contact, the degree of polarization reaches 1%, after which it drops to zero at the instant of the maximum phase, increases again to 1% shortly before the fourth contact, and drops to zero after the fourth contact. A possible reason for the above effect may be the total magnetic field of the sun or the sphericity of the source of the radio waves.

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Category : USSR/Radiophysics - Application of radiophysical methods

I-12

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1992

Author : Kaydenovskiy, N.L., Turusbekov, M.T., Khaykin. S.E.

Title : Thermal Radio-Waves from the Moon.

Orig Pub : Tr. 5-go soveshchaniya po vopr. kosmogonii. 1955, M., AN SSSR, 1956, 347-354, diskus 354-355

Abstract : Description of a method for experimental determination of the dependence of the moon's radio brightness on its phase, using the displacement of the "center of gravity of the radiation" along the lunar equator; this method does not require the antennas to have a small directivity compared with the angular dimensions of the moon. Results are reported on the investigation of 2.3 and 10 cm radio waves from the moon, performed with this method. The 3.2 cm observations were made with a 4-meter radio telescope and a modulation radiometer of the tuning-fork type, insuring a sensitivity of  $2^{\circ}$  relative to the antenna temperature. The 10-cm waves were measured with a reflector 7.5 m in diameter and with a disk-type radiometer having a sensitivity of  $5^{\circ}$ . The sensitivity was determined with the aid of a partly-absorbing plate, immersed in the waveguide of the radio telescope, which in turn was aimed at the zenith or at the measured source of radio waves.

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Category : USSR/Radiophysics - Application of radiophysical methods

I-12

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1999

Author : Kaydanovskiy, N.L., Kardashev, N.S.

Title : Results of Observation of Discrete Sources of Cosmic Radio Waves at a Wavelength of 3.2 cm.

Orig Pub : Tr. 5-go soveshchaniya po vopr. kosmogonii. 1955, M., AN SSSR, 1956, 436-437

Abstract : See Ref. Zhur. Fiz., 1956. 23593

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V 1421  
62- RESULTS OF OBSERVATIONS OF DISCRETE SOURCES OF  
COSMIC RADIATION AT  $\lambda = 3.2$  cm WAVE LENGTH. N. L.  
Kaidanovskii, N. S. Kardashev and I. S. Shklovskii. Doklady  
Akad. Nauk. S.S.S.R. 104, 517-1961955; Oct. . In Russian.

(2)

*KAYDANOVSKIY, N.L.*

USSR / Radiophysics

I

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9938

Author : Kaydanovskiy, N.L.

Inst : Not given

Title : Concerning the Problem of Measuring Antenna Diagrams with the Aid of Extraterrestrial Sources of Radio Waves.

Orig Pub : Radiotekhn. i elektronika, 1956, 1, No 5, 683

Abstract : Brief communication, in which it is indicated that the author solved in 1950, using numerical integration, the problem of the broadening of the directivity pattern of an antenna for the case, when the pattern is plotted not using a point source, but an extended source, whose angular dimensions are comparable with the half-width of the pattern. The calculation was carried out for two distributions of the radio brightness over the disk of the sun (uniform and one

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USSR / Radiophysics

I

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9938

Abstract : with a brightened limb). It turned out that for patterns that are too narrow there takes place a small apparent broadening of the pattern while the shape is retained. This conclusion permits, without solving the inverse problem, into the directivity pattern plotted with the aid of the sun. Calculation curves are given. The presence of the limb brightening increases the broadening of the pattern. Later, the problem of utilization of extraterrestrial sources for plotting patterns was partially treated in other works (see Referat Zhurnal - Fizika, 1955, 7509, 25649; 1956, 14385)

Card : 2/2

KAYDANOVSKIY, N.L.; KOROL'KOV, D.V.; SOBOLEVA, N.S.; KHAYKIN, S.E.

Polarization of radioemission from sun spots as observed on the  
3. 2 cm wave. Dokl.AN SSSR 112 no.6:1012-1015 F '57.

(MLRA 10:5)

1.Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR,  
Pulkovo. Predstavleno akademikom M.A. Leontovichem.  
(Sun spots) (Radio astronomy)

KAYDANOVSKIY, N. L., KOROLKOV, D. V., SOBOLEVA, N. S.

"Study of the Polarization of 3 cm Radioemission of the Sun,"

paper submitted for the Symposium on Radio Astronomy, Paris, 30 Jul - 6 Aug 58.



KAYDANOVSKIY, N. L.

B. B. Braude, N. A. Yespkina, N. L. KAYDANOVSKIY, S. E. Khaikin, "Investigation of the radio telescope with the variable reflector profile of the Main Astronomical Observatory An USSR." Scientific Session Devoted to "Radio Day", May 1958, Trudrezervizdat, Moscow, 9 Sep. 58

Results of a theoretical and experimental investigation of the directivity pattern and gain of a new radio telescope with high resolving power (pattern width at a 3 cm wavelength is of the order of one angular minute) proposed and realized by S. E. Khaikin and N. L. Kaidanovskii, are presented.

Specific peculiarities of the antenna system are analyzed from the viewpoint of forming the directivity pattern, in particular, the dependence of the pattern width in the vertical plane on the elevation.

A method of measuring the directivity characteristics and the gain at distances close to the antenna and by means of solar radio emission is described.

The peculiarity in the antenna reflector construction permits the influence of inaccuracies in the reflector surface on the basic characteristics of the antenna system to be investigated experimentally. Results are presented of a comparison of the appropriate measurements with computations.

The reasoning on the possibility of constructing a radio telescope with a directivity pattern width of the order of parts of an angular minute at microwave frequencies is presented.

KAIDANOVSKIY, N. L.

S. E. Khaykin, N. L. KAIDANOVSKIY, "Requirements for radio telescope antennas." Scientific Session Devoted to "Radio Day", May 1950, Trudrezervizdat, Moscow, 9 Sep. 50

Requirements for radio telescope antennas are analyzed from the viewpoint of one of the most important problems of radio astronomy, the detection of the greatest possible number of discrete sources of radio emission, the determination of their coordinates and emission flux, the investigation of the brightness distribution of this emission in the case of sufficiently extended sources. Requirements on radio telescopes to solve other radio astronomy problems can be diminished somewhat but these changes are insignificant in the majority of cases.

SOV/120-59-2-5/50

**AUTHORS:** Khaykin, S.E., and Kaydanovskiy, N.L.  
**TITLE:** A New Radio Telescope of High Resolving Power (Novyy radioteleskop vysokoy razreshayushchey sily)  
**PERIODICAL:** Pribory i tekhnika eksperimenta, 1959, Nr 2, pp 19-24 (USSR)  
**ABSTRACT:** The reflector is made up of separate flat strips tangential to a paraboloid, whose axis is directed to the point of observation; the points of contact lie in a horizontal plane passing through the focal point of the paraboloid. The reflecting surface is made highly accurate in form by adjusting each strip individually. A plane wave is transformed to a cylindrical one with its axis vertical. A second mirror (a paraboloidal cylinder) transforms the latter wave to a spherical one. The axis of the telescope may be set in any direction by adjusting the positions of the strips and of the radiator. The horizontal dimension is 120 m, the vertical one 3 m; this gives a beam with a divergence of 1.2' in azimuth and 1° about the line of sight at 3 cm wavelength. A telescope with a reflecting area of 10<sup>4</sup>-10<sup>5</sup> m<sup>2</sup> can be built for centimetre wavelengths on this principle. Many observations in radio astronomy are hampered by lack

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A New Radio Telescope of High Resolving Power

of resolving power in the equipment. Large telescopes are needed to give high resolution, and these should work at the shortest possible wavelengths. The decimetre-centimetre region is the best from all points of view. Most of the known radio sources show a falling intensity in this region (variation roughly as  $\lambda^{0.8}$ ). However, the observation conditions improve rapidly as this region is entered, because the general thermal background of the galaxy falls rapidly. In principle, the shorter the wavelength the higher the sensitivity attainable (the practical sensitivity is limited by the effective temperature of the internal noise sources in the receiver, as well as by the incoming thermal radiation. Modern low-noise masers already provide sensitivities in this wavelength range that are many times larger than those available at metre wavelengths); the gain is more than sufficient to offset the fall in the radiation flux. Hence almost all the sources that are detectable at long wavelengths can still be detected at these short wavelengths; so can sources whose intensities vary little with wavelength, and which are undetectable at longer

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