"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKIEWICZ, Stanislaw; DAHLIG, Wlodzimierz; CIEMNIEWSKI, Jozef

Obtaining of aluminum organic compounds. II. Reactions of metallic aluminum with alkylchlorides in the gas phase. Rocz chemii 35 no.5: 1293-1300 '61.

1. Katedra Technologii Organicznej I. Politechnika, Warszawa.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKIEWICZ, Stanislaw; DAHLIG, Wlodzimierz; MESZORER, Ludwik

Obtaining of aluminum organic compounds. III. Reactions of the iodine- or bromo- exchange to aluminum organic compounds. Rocz chemii 35 no.5: 1301-1307 '61.

1. Katedra Technologii Organicznej I, Politechnika, Warszawa.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKIEWICZ

Distr: 4E2c(j)/4E3d

Sodium salt of (ethylmercury)thiosalicylic acid. Alicja Swirska, Janina Kotler-Brajtburg, Włodzimierz Dahlig, and Stanisław Pasynkiewicz (Politech., Warsaw). *Przemysł Chem.* 39, 371–2(1960).—Prepn. of the title compd. from *o*-(HS)$C_6H_4CO_2H$ (I) and EtHgCl (II) based on a new method of II synthesis from $EtAlCl_2$.NaCl (III) (Polish 42,054) is described. II was obtained in 91% yield by adding 76.8 g. III in 180 ml. dry $Me_2C_6H_4$ (IV) to 112.8 g. $HgCl_2$ in 180 ml. IV at 50° max., stirring the mixt. 30 min., keeping it 12 hrs. at room temp., slowly adding 300 ml. H_2O with cooling, filtering off II, washing it with H_2O and EtOH, and drying it at 50° and 200 mm. (m. 192–3°). A 90% yield of *o*-(EtHgS)$C_6H_4CO_2H$ (V), m. 103–5°, was obtained by adding 51.3 g. I to a soln. of 33 g. NaOH and 90 g. II in 900 ml. H_2O at 40° max., keeping the mixt. 3 hrs. at room temp., adding 10% aq. H_2SO_4 to pH 7, filtering unreacted II, cooling, adding more H_2SO_4, filtering pptd. V, washing, and drying at 50° *in vacuo*. The V Na salt was prepd. from V by dissolving it in hot alc. NaOH, cooling the soln., and crystg. the product.

Andrew T. Guttenmann

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKIEWICZ, Stanislaw; DAHLIG, Wlodzimierz; TOMASZEWSKI, Boleslaw

Reactions of aluminum organic compounds; obtaining of ketones from nitriles and aluminum organic compounds. Rocz chemii 36 no.9:1383-1384 '62.

1. Zaklad Technologii Organicznej I, Politechnika, Warszawa.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 36901-66 EWP(j) RM
ACC NR: AP6027100 (N) SOURCE CODE: PO/0099/66/040/001/0047/0053

AUTHOR: Starowieyski, Kazimierz; Pasynkiewicz, Stanislaw

ORG: Department of Organic Technology, Polytechnic Institute, Warsaw (Katedra Technologii Organicznej Politechniki)

TITLE: Complexes of organoaluminum compounds with nitriles, their structure and infrared spectra

SOURCE: Roczniki chemii - annales societatis chimicae polonorum, v. 40, no. 1, 1966, 47-53

TOPIC TAGS: organoaluminum compound, organic nitrile compound, IR spectrum, molecular structure

ABSTRACT: Infrared spectra of the reaction products of nitriles with methyl and ethyl derivatives of organoaluminum compounds were investigated, in order to determine the structure of the resultant complexes and the relative acidity and electron acceptor capacity of organoaluminum compounds. The authors thank Master Engineer C. Cybulski, Rock Salt Mine, Inowroclaw, for the NaCl plates and Mrs. D. Tyszkowska for skillful technical assistance. Orig. art. has: 2 tables. [Orig. art. in Engl.] [JPRS: 35,397]

SUB CODE: 07, 20 / SUBM DATE: 23Feb65 / ORIG REF: 001 / OTH REF: 008 / OTH REF: 006

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

DAHLIG, Wlodzimierz; PASYNKIEWICZ, Stanislaw; WOJNAROWSKI, Tadeusz

Reactions of the aluminum organic compounds. I. Synthesis of the ketones from acid chlorides and complex salt of thyl aluminum dichloride with solium chloride. Rocz chemii 34 no.2:401-412 '60. (EEAI 10:1)

1. Katedra Technologii Organicznej I Politechniki, Warszawa.
(Organic compounds) (Ketones) (Chlorides)
(Salt) (Ethyl aluminum dichloride) (Aluminum)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

DAHLIG, Wlodzimierz; PASYNKIEWICZ, Stanislaw

Reaction of aluminum organic compounds with ethyl chloride. Rocz chemii 34 no.3/4:1197-1198 '60. (EEAI 10:3)

1. Zaklad Technologii Organicznej I Politechniki, Warszawa
(Aluminum) (Chloroethane) (Organic compounds)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ECKSTEIN, Zygmunt; DAHLIG, Wlodzimierz; HETNARSKI, Bogumil; PASZKIEWICA, Stanislaw

Method of obtaining organic mercury compounds from mercury salts and organic alluminum compounds. Przem chem 39 no.4:225-228 Ap '60.

1. Zaklad Syntezy Organicznej, Polska Akademia Nauk, Warszawa i Katedra Technologii Organicznej I i II, Politechnika, Warszawa.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

P/014/60/039/005/001/XX
A221/A026

AUTHORS Dahlig, Włodzimierz; Pasynkiewicz Stanisław

TITLE Reactions of Organic Aluminum Compounds. Synthesis of Triethyl Aluminum

PERIODICAL: Przemysł Chemiczny 1960 Vol. 39, No 5 pp. 300 - 303

TEXT: Triethyl aluminum is a component of the low-pressure ethylene polymerization catalyst and an important semi-product for many organic syntheses. So far, seven methods of triethyl aluminum synthesis are known and mentioned in literature (Ref. 1 - 6). The authors are of the opinion that for laboratory and small industrial plants the method described in (Ref. 1) is the most suitable and they worked out their own version of it using as raw materials aluminum and ethyl chloride. During the reaction between alkyl chloride and aluminum a mixture of dialkylchloraluminum and alkylo-dichloraluminum, called sesquichloride results. By warming up the sesquichloride with metallic sodium, trialkylaluminum, NaCl and Al are obtained. $3RCl + 2Al \rightarrow R_2AlCl + RAlCl_2$ ($R_2AlCl \cdot RAlCl_2$) $+ 3Na \rightarrow R_3Al + 3NaCl + Al$ Reaction between diethylchloraluminum and metallic sodium at 110 - 160°C is easy but violent and yielding about 50% only. In order to slow down the reaction, the

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

P/014/60/039/005/003/004
A221/A026

Reactions of Organic Aluminum Compounds. Synthesis of Triethyl Aluminum

next experiment was carried out with an appreciable quantity of xylene, 40 - 50% by volume, as compared with diethylcloraluminum used for this experiment. By using clean, fine pulverized aluminum with energetic stirring and a reflux cooler, the reaction started at 140°C and was carried out at 140 - 155°C for 6 - 9 hours. The second part of the experiment was carried out in two stages 1) to the suspension of metallic sodium in xylene, about half of $(C_2H_5)_2AlCl$ was added. Under these circumstances triethylaluminum is formed which reacts with excess aluminum according to the following equation: $6(C_2H_5)_2AlCl + 6Na \rightarrow 4(C_2H_5)_3Al + 6NaCl + 2Al$ $4(C_2H_5)_2Al + 3Na \rightarrow 3Na[Al(C_2H_5)_4] + Al$ 2) only after this stage is completed, the remainder of $(C_2H_5)_2AlCl$ is added. This second stage procedes slowly according to the following equation: $3Na[Al(C_2H_5)_4] + 3(C_2H_5)_2AlCl \rightarrow 6(C_2H_5)_3Al + 3NaCl$. The same method can be also applied for trimethylaluminum synthesis. The authors carried out 6 experiments each time, slightly modifying the procedure. The results of same are produced in Table 1. Methods of analyses of reaction products are also given. There are 3 figures, 1 table and 6 references: 1 English, 3 German and 2 Soviet.

Card 2/3

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

DAHLIG, Wlodzimierz; PASYNKIEWICZ, Stanislaw; WAZYNISK, Kazimierz

Reactions of organic aluminum compounds. Synthesis of tetraethyllead from triethylaluminum and lead acetate. Przem chem 39 no.7: 436-438 Jl '60.

1. Zaklad Technologii Organicznej I, Politechnika, Warszawa

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKIEWICZ, S.

The chemistry of organoaluminium compounds. p. 209.

WIADOMOSCI CHEMICZNE. (Polskie Towarzystwo Chemiczne) Wroclaw. Vol. 13, no. 4, Apr. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 7, July 1959

UNCL.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 23579-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Pe-4 RPL WW/WE/
RM

ACCESSION NR: AP4049372 P/0014/64/043/010/0534/0537

AUTHOR: Pasynkiewicz, S.

TITLE: Industrial application of aluminorganic compounds, Part 2

B

SOURCE: Przemysl chemiczny, v. 43, no. 10, 1964, 534-537

TOPIC TAGS: aluminoorganic compound, knock prevention, fuel additive, tetraethyllead, tetramethyllead, organotin compound, organomercury compound, organometal synthesis

ABSTRACT: The author reviews the various applications of organoaluminum compounds, giving reactions and citing references, including his own contributions. A major portion of the article is devoted to the reactions by which antiknock compounds, particularly tetraethyllead, can be obtained. The production of tetramethyllead is also discussed. Other applications described are syntheses of organometallic compounds via reactions of organoaluminum compounds with metal salts. Particular attention is focused on reactions producing organotin and organomercury compounds. The synthesis of carbonyl compounds, ketones in particular, is reviewed. The author also mentions organoaluminum compounds which are used as fuel additives or rocket fuels, and concludes with a brief discussion of the safety of processing and handling organoaluminum compounds. Orig. art. has: 33 equations.

Card 1/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 23579-65

ACCESSION NR: AP4049372

ASSOCIATION: Katedra Technologii Organicznej I Politechniki Warszawskiej (Department of Organic Technology, First Warsaw Polytechnic Institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: OC, FP

NO REF SOV: 005 OTHER: 088

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

68971

~~16(1)~~ 16,5400 S/020/60/131/02/009/071

AUTHOR: Pasynkov, B.

TITLE: A Class of Transitive Single-valued Spectra for Bicompacta

PERIODICAL: Doklady Akademii nauk SSSR, 1960,Vol 131,Nr 2,pp 253-254 (USSR)

ABSTRACT: P.S.Aleksandrov [Ref 1] has shown that the limit space of every Hausdorffian transitive spectrum of finite complexes is a bicompact. The author defines a special class of spectra (extremal spectra) for which there exists a one-to-one relation to compacts:
Principal theorem: Every bicompact X is a limit space of a certain extremal - and unique up to isomorphism - spectrum.
There are 9 definitions and 3 theorems altogether.
The author thanks P.S.Aleksandrov for the leading of the work.
There is 1 Soviet reference.

PRESENTED: November 19, 1959, by P.S.Aleksandrov, Academician

SUBMITTED: November 18, 1959

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PUSTYNNIKOV, Il'ya Andreyevich; PASYNKOV, B., red.; CHEPUSHTANOVA, G., tekhn.red.

Rubtsovsk. Barnaul, Altaiskoe knizhnoe izd-vo, 1959. 47 p. (MIRA 13:3)
(Rubtsovsk--History)
(Rubtsovsk--Economic conditions)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.A.

Film as material for [illegible]. Vest. AN SSSR 35 no.12 [illegible]
'65. MIRA 18:1

1. Moskovskiy gosudarstvennyy universitet. Submitted October [illegible], 1964.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.A.

Partial [illegible] prod. Trudy Mosk. mat. ob-va 13:136-245 '65. (MIRA 18:9)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.A.

Spectral combinatorial characteristics of the dimension dim X of the bicompactum X. Vest. Mosk. un. Ser.1: Mat., mekh. 20 no.3:47-50 My-Je '65. (MIRA 18:9)

1. Kafedra vysshey geometrii i topologii Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.A.

V.Gurevich's formula. Vest. Mosk. un. Ser. 1: Mat., mekh. 20 no.4:3-5 Jl-Ag '65. (MIRA 18:9)

1. Kafedra vysshey geometrii i topologii Moskovskogo universiteta imeni M.V. Lomonosova.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.A. (Moskva)

Spectral expandability of topological spaces. Mat. sbor. 66 no.1:35-79 Ja '65. (MIRA 18:4)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

VASYNKOV, B.A.

A class of mappings and [illegible]
Sib. mat. zhur. 5 no. 2 [illegible]

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

Interrelations between zero-dimensional mappings, universal spaces, dimensionality, open zero-dimensional mappings, and inverse spectra. Dokl. AN SSSR. 144 no.6:1217-1220 Je '62. (MIRA 15:6)

1. Predstavleno akad. P.S.Aleksandrovym.
(Topology)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

Concurrence of different definitions of dimensionality for locally bicompact groups. Dokl.AN SSSR 132 no.5:1035-1037 Je '60. (MIRA 13:6)

(Groups, Theory of)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

Generalization of topological products. Dokl. AN SSSR 150 no.1: 40-43 My '63. (MIRA 16:6)

1. Predstavleno akademikom P.S.Aleksandrovym.
(Topology)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PIGAREV, N.V.; AYNGORN, S.M.; SOROKIN, M.A., obshchiy red.; PASYNKOV, B., red.; CHEPUSHTANOVA, G., tekhn.red.

[Economy of the Altai Territory; statistics] Narodnoe khoziaistvo Altaiskogo kraia; statisticheskii sbornik. Barnaul, Altaiskoe knizhnoe izd-vo, 1958. 298 p. (MIRA 12:10)

1. Altayskiy kray. Statisticheskoye upravleniye. 2. Zamestitel' nachal'nika Statisticheskogo upravleniya Altayskogo kraya (for Pigarev). 3. Nachal'nik svodnogo sektora Statisticheskogo upravleniya Altayskogo kraya (for Ayngorn). 4. Nachal'nik Statisticheskogo upravleniya Altayskogo kraya (for Sorokin).
(Altai Territory--Statistics)

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV B.

AUTHOR: ALEKSANDROV P, PASYNKOV B. 42-5-4/17

TITLE: Elementary Proof That the Identical Mapping of a Simplex is Essential (Elementarnoye dokazatel'stvo sushchestvennosti tozhdestvennogo otobrazheniya simpleksa)

PERIODICAL: Uspekhi Mat.Nauk, 1957, Vol.12, Nr.5, pp.175-180 (USSR)

ABSTRACT: With the aid of Sperner's lemma (there exists at least one simplex of the triangulation τ of the simplex T^n with the property that to its vertices there correspond only different - and consequently all - vertices of the simplex T^n) and the Lebesgue's lemma for open coverings the authors give two proofs (one of Aleksandrov and one of Postnikov) of the theorem: The identical mapping of the closed simplex onto itself is essential. Both proofs are indirect and very simple.

SUBMITTED: October 18, 1956
AVAILABLE: Library of Congress

1. Topology 2. Conformal Mapping

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

Pasynkov, B.

ALEKSANDROV, P.; PASYNKOV, B.

Elementary proof of the substantiality of the identical mapping of a simplex. Usp. mat. nauk 12 no.5:175-179 S-O '57. (MIRA 10:11)
(Topology)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

Reversed spectra and dimensionality. Dokl.AN SSSR 138 no.5:1013-1015 Je '61. (MIRA 14:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom P.S.Aleksandrovym.
(Eigenvalues) (Topology)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

Absence of polyhedral spectra for bicompacts. Dokl. AN SSSR 14[illegible] (MIRA 15:1)
no.3:546-549 Ja '62.

1. Predstavleno akademikom P.S.Aleksandrovym.
(Geometry, Projective)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

ω-Mappings and reversed spectra. Dokl. AN SSSR 150 no.3: 488-491 My '63. (MIRA 16:6)

1. Predstavleno akademikom P.S. Aleksandrovym.
(Topology)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

On snake-like compact spaces. Chekhosl mat zhurnal 13 no.3:473-476 S '63.

1. Gosudarstvennyy universitet, Moskva, SSSR.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

Partial topological products. Dokl. AN SSSR 154 no.4:767-770 F '64. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova. Predstavleno akademikom P.S. Aleksandrovym.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

Universal compacts of given weight and dimensionality. Dokl. AN SSSR. 154 no.5:1042-1043 F'64. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. Predstavleno akademikom P.S. Aleksandrovym.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

AUTHOR: Pasynkov, B.

SOV/20-121-1-...

TITLE: On Polyhedral Spectra and Dimensionalities of the Bicompacta, Especially the Bicompact Groups (O poliedral'nykh spektrakh i razmernosti bikompaktov, v chastnosti bikompaktnykh)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 121, Nr 1, pp 45-48 (USSR)

ABSTRACT: The author considers spectra in the sense of Aleksandrov [Ref 1] The spectrum $S = \{X_\alpha, \omega_\alpha^\beta\}$ is called polyhedral if the X_α are polyhedra; if the projections of the ω_α^β for certain X_β and X_α are simplicial and affine, then S is called simplicial The spectrum $S = \{X_\alpha, \omega_\alpha^\beta\}$ is called n-dimensional in the sense of dim if $\dim X_\alpha \leq n$ for all α.

Theorem: a) Every bicompactum is the space of a certain polyhedral spectrum

b) For zero-dimensional bicompacta this spectrum may be a zero-dimensional spectrum, a simplicial spectrum or a spectrum with projections "onto"

Theorem: a) If the bicompactum X is the space of an n-dimensional $S = \{X_\alpha, \omega_\alpha^\beta\}$, then $\dim X \leq n$

b) If the bicompactum X is the space of an n-dimensional

Card 1/3

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

On Polyhedral Spectra and Dimensionalities of the Bicompacta, SOV/20-121-1-17/[illegible]
Especially the Bicompact Groups

polyhedral spectrum, then for every closed set $\Phi \subseteq X$ there exist arbitrarily narrow neighborhoods, the boundary of which belongs to the space of a certain $(n-1)$-dimensional spectrum of the compactum

c) If $\dim X = n$, where $n = 0$ or $n = 1$ and if X is the space of an n-dimensional polyhedral spectrum, then

$$n = \dim X = \operatorname{ind} X = \operatorname{Ind} X.$$

Herefrom there follows that dim X in general cannot be defined as the smallest of the dimensionalities of the approximating polyhedra.

Theorem: If the bicompactum X is the space of an n-dimensional simplicial spectrum, then $n \geqslant \operatorname{Ind} X$

Theorem: For a bicompact topological group X it is

$$\dim X = \operatorname{ind} X = \operatorname{Ind} X.$$

There are 6 references, 3 of which are Soviet, 2 American, and 1 Dutch.

Card 2/3

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

On Polyhedral Spectra and Dimensionalities of the Bicompacta, SOV/20-121-1-
Especially the Bicompact Groups

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova
(Moscow State University imeni M.V.Lomonosov)

PRESENTED: May 6, 1958, by P.S.Aleksandrov, Academician

SUBMITTED: April 25, 1958

1. Topology 2.Mathematics

Card 3/3

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.A.

Zero-dimensional open mappings raising the dimension. Usp. mat. nauk 18 no.5:183-190 S-O '63. (MIRA 16:12)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.A.

On the coincidence of vairous dimensionality definitions for factor spaces of locally bicompact groups. Usp.mat.nauk 17 no.5:129-135 S-O '62. (MIRA 15:12)
(Groups, Theory of) (Topology)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.

Universal spaces for certain classes of spaces. Dokl. AN SSSR 153 no.5:1009-1012 D '63. (MIRA 17:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. Predstavleno akademikom P.S. Aleksandrovym.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.A.

Reciprocally single-valued correspondence between bicompacts and certain classes of spectra. Trudy Mat. inst. AN Gruz. SSR 27:43-52 '60. (MIRA 15:3)

(Topology)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.A. (Moskva)

Spectra and dimensions of topological spaces. Mat. sbor. 57 no.4:449-476 Ag '62. (MIRA 15:8)
(Topology)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B. N.

"On universal spaces"

report submitted at the Intl Conf of Mathematics, Stockholm, Sweden, 15-22 Aug 62

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYUKOV, F.V., polikovnik meditsinskoy sluzhby

Bolshevik physician; on the 40th anniversary of the death of V.F. Khistoforov. Voen.-med.zhur. no.3:84 Mr '61. (MIRA 14:7)
(KHRISTOFOROV, VALENTIN FEDOROVICH, 1890-1921)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYUKOV, F.V.; SELIVANOV, Ye.F. (Leningrad)

Petrograd women workers as nurses and hospital attendants during the Great October Socialist Revolution. Fel'd. i akush. 22 no.10: 9-12 O '57. (MIRA 11:1)

(LENINGRAD--NURSES AND NURSING)
(RUSSIA--REVOLUTION, 1917-1921)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, G. A., Engr PA 26/49T17

USSR/Electricity Aug 48
Hydroelectric Plants
Oil Pressure

"Oil-Pressure Relay for Mills," D. A. Kondrat'yev, G. A. Pasynkov, Engr, 1 p

"Elek Stants" Vol XIX, No 8

Describes initiative displayed at hydroelectric-power station where the technical staff perfected automatic oil-pressure regulator to control oil supply for type Sh-8 and Sh-16 coal mills. Includes sketch of apparatus.

FDB 26/49T17

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

AKRAMOV, V.V., kand.tekhn.nauk; AGEYEV, D.V., doktor tekhn.nauk, prof.; RAMDAS, A.M., doktor tekhn.nauk, prof.; VERKHOVSKIY, A.V., doktor tekhn.nauk, prof.; GOLINKEVICH, N.A., kand.tekhn.nauk, dots.; DERTEV, N.K., doktor tekhn.nauk, prof.; MATTES, N.V., doktor tekhn. nauk, prof.; RYZHIKOV, A.A., doktor tekhn.nauk, prof.; PASYNKOV, O.N., otv.za vypusk

[New method for calculating thermal stresses] Novyi raschetnyi metod vychisleniia termicheskikh napriazhenii. Gor'kii, 1958. 57 p. (Gorkiy.Politekhnicheskii institut. Trudy, vol.14, no.3) (MIRA 13:7)

(Thermal stresses)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASTMAK, P. E.

"The [illegible] theory [illegible]," by P. E. P[illegible]
(p. 57)

SO: Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki, 19[illegible], V[illegible], N[illegible] ( )

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, M.

New qualities of textiles and indices of technical specifications.
Sov.torg. no.2:61 F '59. (MIRA 12:2)
(Textile industry--Specifications)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 41001-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM
ACCESSION NR: AR5005649 S/0081/64/000/022/S064/S064

SOURCE: Ref. zh. Khimiya, Abs. 22S458

AUTHOR: Shatalov, V.P.; Gostev, M.M.; Bondarev, A.Ye.; Pasynkov, N.V.

TITLE: Alumina-filled rubber prepared by low-temperature polymerization

CITED SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t, vyp. 2, 1963, 83-102

TOPIC TAGS: synthetic rubber, low temperature polymerization, rubber filler, alumina filler, Gamma alumina, microcrystalline alumina, rubber plasticity, rubber strength, silica gel, rubber wear, carbon black/SKS-30 rubber, HAF carbon black

TRANSLATION: A sample of Al_2O_3 containing 94-99% of the γ-form was obtained by decomposing $Al_2(SO_4)_3 \cdot 18H_2O$ in an electric furnace at 900-1100C with a gradual increase in temperature. The grain size of the microcrystalline aggregates of Al_2O_3 was 0.05-0.1 mm, the index or refraction was 1.754-1.756, the surface pH was 5-9, and the density of the dry powder was 12-13 g/100 cc. The adsorptive capacity of this Al_2O_3 was higher than that of silica gel. The absorption of moisture during storage for

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L 41001-65
ACCESSION NR: AR5005649

2

50 days in air was ≤ 3-5%. This γ-Al_2O_3 was added on the rollers and into the latex of SKS-30AR and SKS-30ARK rubber. The plasticity of SKS-30AR decreased less when alumina was added to the latex than when it was added on the rollers; the modulus, hardness and elasticity of the vulcanizates were also lower. When alumina was added on the rollers, the vulcanizates had a strength which was close to that of rubber with HAF carbon black and higher than after the addition of silica gel, as well as having a greater elongation at break and residual elongation and a lower modulus. The wear of rubber containing γ-alumina was equal to that of rubber with silica gel and less than that with HAF carbon black. When γ-alumina was added to the latex of SKS-30AR, the strength of the vulcanizates was somewhat higher than when it was added on the rollers, but the remaining properties were practically the same. The normal degree of filling with γ-alumina is 30-40% for SKS-30ARK and 70-80% for SKS-30AR. A. Sh.

ENCL: 00 SUB CODE: MT

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

KRYLOVA, I.A., GOSTEV, M.M., KOVRIZHKO, [illegible], SHROV, P.I., [illegible]
K.A., PAZYNKOV, N.V., ZOTNIKOV, I.F.

Effect of surface-active agents on the strength characteristics of the vulcanizates of carbon black extended [illegible]. Kauch. i rez. 24 no.12 [illegible]-14 D '65.

1. Institut fizicheskoy khimii AN SSSR i Voronezhskiy sinteticheskiy kauchuka im. S.V. Lebedeva.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 46293-66 EWP(j)/EWT(m)/EWP(t)/ETI IJP(c) RM/JWD/JD

ACC NR: AR6016971 (A) SOURCE CODE: UR/0081/65/000/024/S077/S077

AUTHOR: Gostov, M. K.; Artemov, V. M.; Shatelov, V. P.; Pavlykov, N. V.

TITLE: Stabilizing aqueous dispersions of carbon black with tallow oil soap, and properties of carbon black-oil filled butadiene styrene rubbers based thereon

SOURCE: Ref. zh. Khimiya, Abs. 24S546

REF SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t, vyp. 3, 1964, 181-185

TOPIC TAGS: butadiene styrene rubber, carbon black, filler, chemical dispersion

ABSTRACT: Aqueous dispersions of carbon black stabilized with the K-soap of tallow oil (I) blend well with SKS-30 ARK latex, oil emulsions and their mixtures. Mixtures of carbon black-oil filled rubbers obtained by coagulating mixtures consisting of latex, PN-6 oil emulsions (37.5 weight/parts of oil on the polymer), aqueous dispersions of carbon black NAF stabilized with I (50 parts by weight of carbon black on oil filled rubber), have better properties in comparison to carbon black-oil filled rubber in which the carbon black is added on the rolls.
D. Krasteleva. [Translation of abstract].
SUB CODE: 11, 07

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

Pasynkov, R.E.

21

Microscopic theories of the ferroelectric properties of barium titanate. R. E. Pasynkov. *Izvest. Akad. Nauk S.S.S.R., Ser. Fiz.* 21, 340-51(1957).—Theoretical. The theories of ionic displacement and the electronic theory are compared. The more general case in the theory of ionic displacement, namely the displacement of ions in all sublattices, is considered. S. Paksver

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, R.M., inzh.

Calculating face distributors for axial-flow piston pumps.
Vest. mashinostr. 45 no.1:22-26 Ja '65. (MIRA 18:3)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, R.M., inzh.

Investigating the end distributor of the NPA-64 axial-flow piston pump. Vest. mashinostr. 44 no. 4:27-33 Ap '64. MRA 17:5

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, R.Ye.

Investigating the nonlinear properties of $BaTiO_3$ single crystals and polarized ceramics in strong alternating fields. Fiz.tver.tela 3 no.5:1587-1596 My '61. (MIRA 14:6)
(Barium titanate—Electric properties) (Electric fields)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

9.2180 (3203, 1162)
24.7800 (1035, 1144)

85878

S/048/60/024/011/014/036
B006/B056

AUTHORS: Zaytseva, V. I., Pasynkov, R. Ye., Pozern, V. I., El'gard, A. M.

TITLE: The Dielectric Properties of Polarized Ceramics in Strong, Variable Electric Fields

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 11, pp. 1357 - 1361

TEXT: The present paper is a reproduction of a lecture delivered on the 3rd Conference on Ferroelectricity, which took place in Moscow from January 25 to 30, 1960. The authors measured the dependence of the dielectric constant and of the tangent of the loss-angle of polarized ceramics upon the applied electric field strength, and give a report on the results obtained. In the introduction, the theory of the problem is briefly dealt with, and L. P. Kholodenko is mentioned. The measurements themselves were made in parallel- as well as in series connection, for which purpose a pulse operation resonance method was used. With a pulse duration of 10-20 msec and an interval between the pulses of 1-5 sec it was

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The Dielectric Properties of Polarized Ceramics in Strong, Variable Electric Fields

found that the samples were practically not heated. The measurements of voltage and current as well as the control of the shape (of voltage and current) in pulse operation was carried out by means of an oscilloscope of the type ЭНО-1 (ENO-1) with a frequency of 10 kc/sec. The temperature of the sample was controlled by means of a thermocouple. The samples were all produced in the same manner and had a thickness of 1.55 mm. The sample heated up to Curie point was polarized in a constant electric field of 0.8 kv/mm (1 hour), after which it was cooled down to room temperature in stages. ε'_{zz} and tan δ as a function of E were measured on samples of three different compositions: 1) $BaTiO_3$ (broken curve: non-polarized sample); 2) 94% $BaTiO_3$ - 6% $CaTiO_3$, and 3) 95% $BaTiO_3$ - 5% $CaTiO_3$ - 0.75% $CoCO_3$. The results are shown in the attached Figure. The course taken by the curve is discussed in detail. The experimental results agree in E-ranges, where no depolarization occurs, qualitatively with the theoretical results. There are 3 figures and 6 references: 2 Soviet, 3 US, and 1 Canadian.

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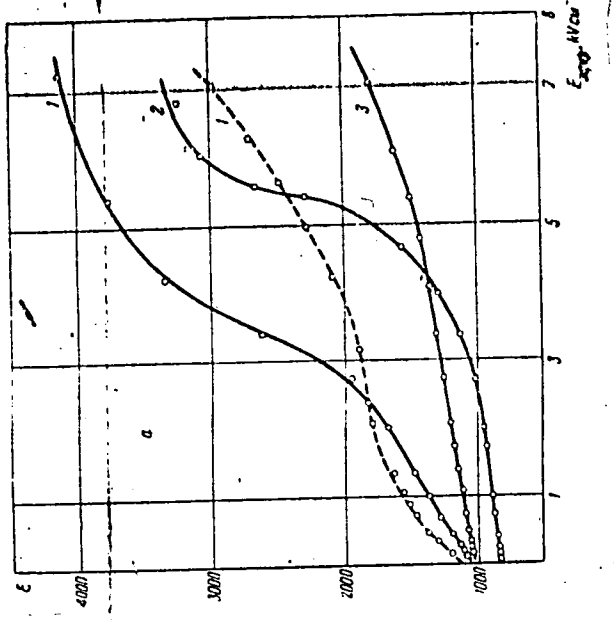

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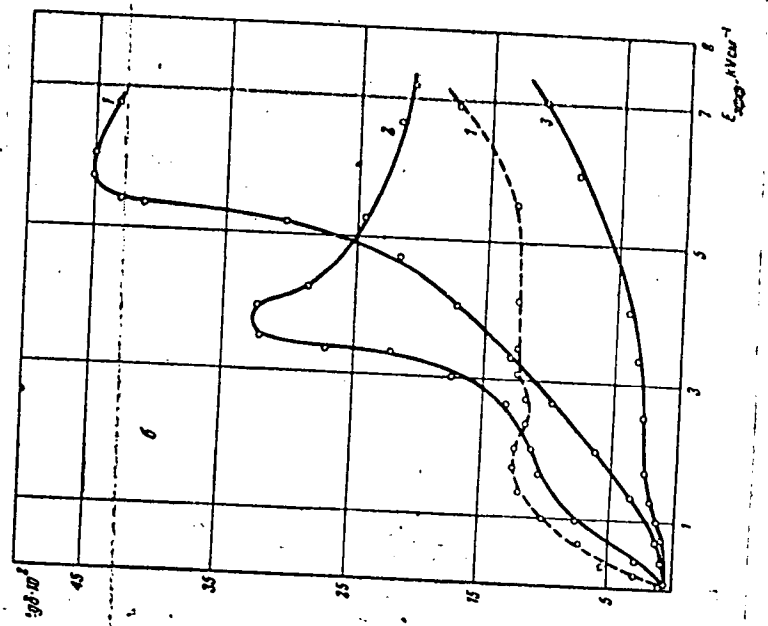

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

9.2181 (3203,2303)
24.7800 (1144,1162)

8 5879

S/048/60/024/011/015/036
B006/B056

AUTHORS: Velyukhanova, G. A., Pasynkov, R. Ye., Pozern, V. I., El'gard, A. M.

TITLE: The Piezoelectric Properties of Polarized Ceramics in Strong, Variable Electric Fields

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 11, pp. 1362 - 1365

TEXT: The present paper is a reproduction of a lecture delivered on the 3rd Conference on Ferroelectricity, which took place in Moscow from January 25 to 30, 1960. Under the same assumptions as made in Ref.1, the authors calculated the dependence of the piezomoduli d_{33} and d_{31} upon electric field strength; for the case of tetragonal symmetry, they obtain $d_{33}^{(1)}(E_z) = \frac{2\nu_{33} P_{oz}}{4\pi} \varepsilon_{zz}^{(1)}(E_z)$; $d_{31}^{(1)}(E_z) = \frac{2\nu_{31} P_{oz}}{4\pi} \cdot \varepsilon_{zz}^{(1)}(E_z)$; the superscript (1) denotes that the first harmonic is investigated; the ν_{ik} are

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The Piezoelectric Properties of Polarized Ceramics in Strong, Variable Electric Fields

S/048/60/024/011/015/036
B006/B056

the electrostriction coefficients, P_{oz} the components of polarization. It further holds that $\varepsilon^{(1)}_{zz}/\varepsilon_{zzo} \approx d^{(1)}_{33}/d_{33o} = d^{(1)}_{31}/d_{31o} = f(e_z)$. The third subscript o means that the moduli have been measured in the case of very weak fields. The field strength dependence of the piezo-moduli was measured on cylindrical samples which were radially and tangentially polarized, viz. for the following substances: 1) $BaTiO_3$, 2) 95%$BaTiO_3$ + 5%$CaTiO_3$, and 3) $BaTiO_3$ + 0.75% $CoCO_3$. To the sample (which was in the air), pulses with 8 kc/sec were applied with a pulse duration of 5 msec; the mechanical resonance frequency was about 15 kc/sec. The temperature of the samples, which practically did not change either at ~8 kv/cm, was controlled by means of thermocouples, and could be varied between -20 and +40°C. The results obtained, which are shown in diagrams, may be summarized as follows: 1) the ratio $d^{(1)}_{ik}/d_{iko}$ in all samples increases with the field strength (up to ~4.5 kv/cm), 2) in fields of more than 4.5 kv/cm, $d^{(1)}_{ik}/d_{iko}$ decreases rapidly for $BaTiO_3$, and less rapidly for

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The Piezoelectric Properties of Polarized Ceramics in Strong, Variable Electric Fields

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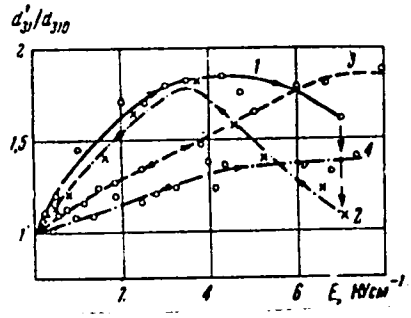
the second composition, and increases further for the third composition of the samples. 3) The behavior of $d_{33}^{(1)}$ and $d_{31}^{(1)}$ agrees qualitatively. 4) The curves (in both directions) $d_{ik}^{(1)}/d_{iko} = f(E_{\sim})$ recorded at 8 kv/cm in the course of 30 min, take a completely equal course for compositions 2 and 3 (Curves 3 and 4), and for 1 the curves recorded in the two directions (Curves 1 and 2) deviate from each other (cf. the attached figure). There is qualitative agreement with the theory. There are 4 figures and 6 references: 4 Soviet, 1 US, and 1 Canadian.



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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

24(3), 24(5)
AUTHOR: Pasynkov, R. Ye. SOV/48-22-12-1/33

TITLE: On the Question of the Quantummechanical Theory of Piezoelectricity (K voprosu o kvantovomekhanicheskoy teorii segnetoelektrichestva)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1958, Vol 22, Nr 12, pp 1422 - 1423 (USSR)

ABSTRACT: The work in question endeavors to illustrate the development of the quantummechanical theory of piezoelectricity. Two works are known at present which use quantummechanics: the theory by Barret (Ref 1) and the so-called electron theory by Janes (Dzheyns)- Wigner (Vigner) (Ref 2). The ideas developed by these authors are based on totally different mechanisms. The theory by Barret leads to the quantummechanical treatment of the anharmonic oscillators by Slater (Sleyter). (Ref 3). Here the existence of a spontaneous polarization is explained by the fact that the Ti- or Sr-ions, which oscillate freely in the immobile oxygen-octahedron, are shifted from the central position. In reference 2 the quantummechanical effects are taken into consideration only by observation of the electron

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structure of piezoactive aggregates. A disturbance of such a structure is then the source of spontaneous polarization. Here, only an unimportant rôle is attributed to the displacement of ions, essentially the same rôle as in references 1 and 3 to the deformations of electron shells. Hypotheses meet with a number of objections (Ref 4). The author considers the impossibility of explaining the frequency relaxation effects at which the ε diminishes hundredfold to be the greatest difficulty. The basic possibility of spontaneous polarization on account of spontaneous deformation of electron shells demonstrated by Janes is nevertheless an important result and must not be ignored when establishing a microscopical theory. For this reason it seems to be suitable for the object in view to submit the source of ions and electrons of piezoelectricity to common investigation. The following model is suggested as a first step on this way: the piezoactive ion aggregate is considered to be an independent molecule. The configuration interaction of these molecules is taken into consideration by the introduction of the effective field acting upon the particle:

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$$\vec{F}_{efj} = \nu_j \vec{E} + \sum_j \beta_{kj}(\vec{P}_i + \vec{P}_e).$$

$\vec{P}_i$ - Component of polarization due to the shifting of ions. $\vec{P}_e$ - Electron polarization, $\vec{E}$ - applied field, ν_j and β_j - constants. Single ions in the molecule can oscillate anharmonically. In order to take into consideration the source of ions of spontaneous polarization such terms must also be considered in the Hamiltonian which refer to the displacement of ions of greater orders of magnitudes. This task is solved within the system of the perturbation theory, similarly as in reference 1. This is a great step forward in so far as the equation of state is non-linear as far as the electron components as well as the ion components of total polarization are concerned, i.e. both sources of polarization are taken into account and not more is neglected than in references 1 and 2. There are 4 references, 1 of which is Soviet.

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

On the Question of the Quantummechanical Theory of Piezoelectricity SOV/46-22-12-1/33

ASSOCIATION: Institut poluprovodnikov Akademii nauk SSSR (Institute for Semiconductors of the Academy of Sciences,USSR)

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

Pasynkov, R.E.

15

Stabilized piezo ceramic materials. R. E. Pasynkov and V. V. Vinogradov. *Trest. Akad. Nauk S.S.S.R., Ser. Fiz.* 21, 450–4(1957).—Twenty compns. contg. $BaTiO_3$ with $CaTiO_3$, $PbTiO_3$, $SrTiO_3$ (10%), and $BaSnO_3$ (8%) were investigated. The compd. with the most stable electroacoustical characteristics was $BaTiO_3$ + 8% $CaTiO_3$ + 4% $PbTiO_3$ which is suitable for electroacoustical receivers but not for emitters because of its low sp. acoustical power. $BaTiO_3$ + 6% $CaTiO_3$ is recommended for emitters. Ceramics contg. $SrTiO_3$ or $BaSnO_3$ are not suitable for electroacoustical purposes because of instability and large hysteresis losses. S. Paksiver

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

Pasynkov, R. E.

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USSR

Thermodynamic theory of seignettoelectric substances having perovskite-type structure. G. A. Smolenskii and R. E. Pasynkov. *Zhur. Eksptl. i Teoret. Fiz.* 24, 69–77 (1953). The phase transition from cubic (nonseignettoelec.) to tetragonal (seignettoelec.) is calcd. A system of equations is obtained relating the components of the elec. field and the changes of thermodynamic potential with deformation to the polarization vector, the elastic and electrostriction consts., and to coeffs. of temp. and pressure. A discussion of these equations shows that an increase in spontaneous deformation of the crystal below the Curie point increases the rise in heat capacity and the speed of growth of polarization with falling temp. A solution of the equations for weak elec. fields gives a correct matrix of coeff. of electrostriction and piezoelec. moduli. The Curie point is linearly dependent on pressure, as experimentally found for $BaTiO_3$. The Curie point is displaced in the opposite direction if the compression is not isotropic but directed along the z axis only. The dielec. permeability of a "fixed" crystal (all piezoelec. deformations = 0) is smaller than in a "free" crystal.

S. Pakawer

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

SUBJECT: USSR/Luminescence 48-3-7/26

AUTHOR: Pasynkov R. Ye.

TITLE: On Microscopic Theories of Barium Titanate Ferroelectric Properties (O mikroskopicheskikh teoriyakh segnetoelektricheskikh svoystv titanata bariya)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya fizicheskaya, 1957, Vol 21, #3, pp 340-351 (USSR)

ABSTRACT: At present, two theories have been proposed for the explanation of ferroelectric properties of barium titanate:

1. "The theory of ion displacements" and
2. "The electronic theory".

The author discusses several variations of the ion displacement theory as developed by Mason and Matthias (1), Slater (2) and Devonshire (3) and comes to a conclusion that the explanation of spontaneous polarization by ion displacements in only one sublattice is unsufficient. Therefore, he proposes to generalize this by accepting oscillations for all ions in a crystalline lattice and outlines a sketch of this generalization. Then the

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

ZAYTSEVA, V.I.; PASYNKOV, R.Ye.; POZERN, V.I.; EL'GARD, A.M.

Dielectric properties of a polarized ceramic in strong variable electric fields. Izv. AN SSSR Ser. fiz. 24 no.11:1357-1361 N '60. (MIRA 13:12)

(Ceramics—Electric properties)
(Electric fields)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

VELYUKHANOVA, G.A.; PASYNKOV, R.Ye.; POZERN, V.I.; EL'GARD, A.M.

Piezoelectric properties of polarized ceramics in strong variable electric fields. Izv. AN SSSR Ser. Fiz. 24 no.11:1362-1365 N '60. (MIRA 13:12)

(Ceramics—Electric properties)
(Piezoelectricity) (Electric fields)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

24,7800 (1145, 1158, 1395)

23130
S/181/61/003/005/035/042
B125/B202

AUTHOR: Pasynkov, R. Ye.

TITLE: Study of the nonlinear properties of single crystals and of polarized $BaTiO_3$ ceramics in strong alternating fields

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1587-1596

TEXT: On the basis of the thermodynamical theory of ferroelectricity the author determines the dependence of ε_z and d_{ik} of a onedimensional single crystal and of the polarized ceramic $BaTiO_3$ on the electric field strength.

Equations of state of a ferroelectric: The author proceeds from the known expression for the thermodynamical potential of a single domain $BaTiO_3$ single crystal with tetragonal symmetry. The field is assumed to be applied along the axis of spontaneous polarization ($P_x = P_y = 0$; $E_x = E_y = 0$; $E_z \neq 0$; $P_z \neq 0$);

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Study of the nonlinear ...

$$\Phi(T;\ P_z;\ E_z;\ \sigma_{ik}) = \Phi_0(T) + \alpha P_z^2 + \frac{1}{2}\beta_1 P_z^4 + \frac{\gamma_1}{3} P_z^6 + \Big[\vartheta_{33}\sigma_{33} + \vartheta_{31}(\sigma_{11}+\sigma_{22})P_z^2 - \frac{1}{2}S_{ik}(\sigma_{11}^2+\sigma_{22}^2+\sigma_{33}^2) - S_{ik}(\sigma_{11}\sigma_{22}+\sigma_{11}\sigma_{33}+\sigma_{22}\sigma_{33}) - \frac{1}{2}S_{44}(\sigma_{12}^2+\sigma_{23}^2+\sigma_{31}^2)\Big] - P_z E_z, \quad (1)$$

then holds. P_z denotes the component of the polarization vector, E_z the corresponding component of the electric field strength, σ_{ik} the component of the elastic stress tensor, $\vartheta_{33} = 2.67 \cdot 10^{-12}$ bar^{-1}, $\vartheta_{31} = -1.17 \cdot 10^{-12}$ bar^{-1} - electrostriction constant, S_{ik} modulus of elasticity. The temperature dependence shown of α, β_1, and γ_1 has the typical properties of a phase transition of first kind near Curie point. In the following, the index z is omitted. Several equations have been studied earlier by L. P. Kholodenko. With $E = E^c$ (E^c coercive force) the system becomes unstable and the many-valued function P(E) takes on the characteristic form of a hysteresis loop. Due to the inadequate ansatz for Φ the calculated value of E^c is by one order

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of magnitude higher, than the experimental values. This can be eliminated only by an exact domain theory of the ferroelectrics. When using a dimensionless polarization and a dimensionless field strength equation

$$p^5 - p^4 + p\xi = e \tag{8}$$

holds for the condition $5p^4 - 3p + \xi > 0$ and

$$\begin{cases} (p_0 + p_{in})^5 - (p_0 + p_{in})^3 + (p_0 + p_{in})\xi = e, \\ p_0^5 - p_0^3 + \xi p_0 = 0, \\ 5(p_0 + p_{in})^4 - 3(p_0 + p_{in})^2 + \xi > 0. \end{cases} \tag{9}$$

follows with $p = p_0 + p_{in}$. Fig. 2 shows the graphical solution of (8), i.e., $p = f(e)$ for T = 20 and 80°C. The author then studies $p_{in}(e)$ for $e \leq 0.5$. With $e = e_0 \sin\omega t$ equations (12) are obtained for determining the total di-

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Study of the nonlinear ...

electric constant ε and its component $\varepsilon^{(n)}$. The amplitudes of all harmonics and the constant component increase with increasing E_0/E. With the positive semiwave P_{in} increases only weakly, with the negative one it increases more strongly. This dependence $P_{in}(t)$ causes a nonlinear increase of the first harmonic, the occurrence of higher harmonics and a constant component of the amperage. The function $\varepsilon^{(1)}(E)$ has a maximum. For the dependence of the piezomoduli d_{33} and d_{31} on the field strength

$$d_{ik}^{(n)}(E) = \frac{v_{ik} P_0}{2\pi} \varepsilon^{(n)}(E) \qquad (17)$$

is obtained, in general form:

$$\frac{\varepsilon^{(n)}(e_0)}{\varepsilon_0} = \frac{d_{ik}^{(n)}(e_0)}{d_{0ik}} = g^{(n)}(e_0).$$

The author then writes $e = e_{const} + e_0 \sin\omega t$. With changing temperature the character of the functions $\varepsilon(e)$ and $d_{ik}(e)$ changes to the same degree as the

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shape of the hysteresis loop. With rising temperature the nonlinear effects become more distinct. Fig. 7 shows the theoretical hysteresis loops and the calculated curves $g^{(1)}(e_o) = g^{(1)}(E_o/E^c)$ for T = 80 and 20°C. The dependences observed for $\varepsilon(e)$, $d_{33}(e)$, $d_{31}(e)$ also hold for the temperatures below the second phase transition. The same holds for the effect of mechanical stress. At pressures below 100 kg/cm^2 a relatively stable metastable state occurs. The results of the present paper qualitatively also hold for polycrystalline ferroelectrics. E^c and E^{crit} probably increase more strongly than in a specimen with 95% $BaTiO_3$ + 5% $CaTiO_3$. The above method of describing nonlinear properties of a ferroelectric does not give a full theoretical explanation of these phenomena. There are 10 figures and 9 references: 5 Soviet-bloc and 4 non-Soviet-bloc. The most recent two references to English-language publications read as follows: D. Meherhofer. Phys. Rev., 112, 413, 1958; A. L. Gray a. I. M. Herbert, Journ. Acustica, 6, 1956.

SUBMITTED: December 9, 1960

Card 5/8

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, R.Ye.

Quantum mechanical theory of seignettoelectricity. Izv. AN SSSR. Ser.fiz. 22 no.12:1422-1423 D '58. (MIRA 12:2)

1. Institut poluprovodnikov AN SSSR.
(Quantum mechanics) (Ferroelectricity)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

SUBJECT: USSR/Luminescence

48-3-24/26

AUTHORS: Pasynkov R.Ye and Vinogradov V.V.

TITLE: Stabilized Piezoceramic Materials (Stabilizovannyye p'yezokeramicheskiye materialy)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya fizicheskaya, 1957, Vol 21, #3, pp 450-454 (USSR)

ABSTRACT: One of the most important applications of ferroelectrics in technology is their use for manufacturing various electroacoustic transformers.

However, a number of essential problems connected with peculiarities of piezoceramic materials as ferroelectrics were not clear enough.

In order to solve some of these problems, an investigation of the properties of barium titanate and some of its solid solutions was performed. Conclusions drawn from this investigation are as follows:

1. $BaTiO_3$ possesses a considerable non-stability of electroacoustic parameters in the range from -40 to $+40^{0}C$;

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

48-3-24/26

TITLE: Stabilized Piezoceramic Materials (Stabilizovannyye p'yezokeramicheskiye materialy)

INSTITUTION: Institute of Semiconductors of the USSR Academy of Sciences

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress.

Card 3/3

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, R.Ye.

Microscopic theories of the seign[illegible] electric properties of barium titanate. Izv. AN SSSR. Ser.fiz. 21 no.3:340-351 Mr '57. (MIRA 10:7)

1. Institut poluprovodnikov Akademii nauk SSSR.
(Barium titanates--Electric properties) (Ferroelectric substances)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, B.Ya., MINOGRADOV, V.V.

Stabilized piezoceramic materials. Izv. AN SSSR. Ser.fiz. 21 no.3:450-454 Mr '57. (MLRA 10:7)

1. Institut poluprovodnikov Akademii nauk SSSR.
(Piezoelectric substances)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, R. Ye

SMOLENSKIY, G.A.; PASYNKOV, R.Ye.

On the molecular theory of ferroelectric substances. Zhur.eksp. i teor.fiz. 25 no.1:57-73 Je '53. (MLRA 7:10)
(Ferroelectric substances) (Molecular theory)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

Perfect Ferr

USSR

537.226.2 : 536.7

8253. Thermodynamical theory of Seignette-electric substances with perovskite-type structure. G. A. SMOLENSKII AND R. E. PASYNKOV. *Zh. eksper. teor. Fiz.*, 24, *No.* 1, 69–77 (1953) *In Russian.*

Discusses the ferro-electric phase transition of the second kind from the cubic into tetragonal form for perovskite-type crystals, piezo-effect and electrostriction being allowed for. It is shown that the increase of spontaneous deformations below the Curie point causes an increase in the discontinuous change of specific heat and in the rate of increase of polarization with falling temperature. The tensor components for the dielectric permittivity are calculated for the cases both with and without elastic stresses in weak fields; coefficients of electrostriction and tensor components of the piezoelectric moduli are determined. It is shown that the permittivity of a constrained crystal is smaller than that of a free one.

F. LACHMAN

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, R.E.

5

USSR

Molecular theory of seignettoelectric bodies, G. A. Smolenskii and R. B. Pasynkov. *Zhur. Eksptl. i Teoret. Fiz.* 25, 57-73(1953).—The existing mol. theories of seignettoelectricity are examd. A model of local minima is proposed. It is established, moreover, that phase transition corresponds to the crit. Curie point. The question of low-temp. phase transformation is investigated. The inconsistency of application of the model of local minima to explain the properties of $BaTiO_3$ is shown. The adequacy of existing methods of computing, based on the use of a model of anharmonic oscillators from the thermodynamic theory of disturbance, applied to computation of free energy of assocn. of anharmonically vibrating ions, is established. It is explained that the order of properties of seignettoelectrics is connected with the fluctuation of the displacement of these ions. The question of applicability of the anharmonic oscillator to other crystals with a perovskite-type structure is investigated.

V. N. Bednarski

BB

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, R.E.

RT-742 (The theory of ferroelectricity) K teorii segnetoelektrichestva.
DOKLADY AKADEMII NAUK SSSR, 79(3): 431-434, 1951.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

CA

PASYNKOV, R. Ye.

The theory of seignettoelectricity G. A. Smolenskii and R. E. Pasynkov (Silicate Chem. Inst., Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 79, 431–4 (1951); cf. *C.A.* 45, 3075g.—The thermodynamic potential of a perovskite-type seignettoelec. substance near its Curie point is written down as a function of the components of the polarisation vector, the elec. field strength vector, the deformation tensor, the elastic consts., and consts. depending on the temp. and pressure. Partial differentiation with respect to the polarization and the deformation components yields a system of equations permitting investigation of the different states of a one-domain single crystal. As a result of deformation of the crystal in the absence of an elec. field, below the Curie point, the discontinuity of the heat capacity and the rate of growth of the spontaneous polarization increase with decreasing temp. In an elec. field, deformation and piezoelec. moduli have opposite signs in $BaTiO_3$ and in $PbZrO_3$. The shift of the Curie point of a seignettoelec. substance under static pressure depends on the sign of the vol. electrostriction λ_v: in the case $\lambda_v > 0$ ($BaTiO_3$, $PbTiO_3$), the Curie point moves to lower, and in the case of $\lambda_v < 0$ ($PbZrO_3$) to higher, temps.; with zero electrostriction, the Curie point is independent of the pressure. The polarization, at a given temp., decreases with increasing pressure in the case $\lambda_v > 0$, increases with $\lambda_v < 0$, and remains unchanged with $\lambda_v = 0$. Of the existing theories of seignettoelectricity, that of Mason and Matthias (*C.A.* 43, 2055*d*) leads to the conclusion that in $BaTiO_3$ the transition point is close to the Curie point, which is in conflict with exptl. data; the treatment by M. and M. of the model in which the Ti^{++} ion forms covalent bonds with the O^{--} ions and the elementary cell contains 6 minima of potential energy, is legitimate only in the case of the potential barrier, u_0, between the minima, fulfilling the inequality $u_0 \gg F\mu$ (where F = internal field, μ = elec. moment of the elementary cell), whereas actually $u_0 \approx F\mu$. The theories of Devonshire (*C.A.* 44, 1775*e*) and Slater (*C.A.* 44, 8180*d*), under which the Curie point is detd. by the dimensions of the central ion and the octahedron, are unable to account for the decrease of the Curie point from $PbTiO_3$ to $BaTiO_3$ and from $PbZrO_3$ to $BaTiO_3$.

N. Thon

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, R. E.

537.226.2

8731. About the problem of the molecular theory of ferroelectrics. G. A. SMOLENSKII AND R. E. PASYNKOV, *Zh. tekhn. fiz.*, 25, No. 1(7), 57–73 (1955). In Russian.

Contemporary molecular theories of ferroelectricity are reviewed. A general form of the local minima model is discussed. There phase transitions correspond to the critical Curie point. Low-temperature phase transitions are investigated. Properties of barium titanate are not explained satisfactorily by the model with a constant number of local minima for all temperature ranges. The existing method of calculation, based on the application of the anharmonic oscillator model, is shown to be identical with the application of the thermodynamic displacement theory for calculation of free energy of association of anharmonically oscillating ions. Several properties of ferroelectrics depend on fluctuations of displacements of these ions. The possibility of application of the anharmonic oscillator model to other crystals with perovskite type structure is considered.

J. LUKASZEWICZ

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

VELYUKHANOVA, G.A.; PASYNKOV, R.Ye.; POZERN, V.I.; POPOV, V.P.

Study of the mechanical nonlinearity of certain polycrystalline ferroelectrics. Fiz. tver. tela 5 no.2:506-512 F '63.
(MIRA 16:5)
(Ferroelectric substances--Testing)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

L 17540-66 EWT(1)/EEC(k)-2/T/EWA(h) IJP(c)

ACC NR: AP6001807 SOURCE CODE: UR/0107/65/000/012/0035/0036

AUTHOR: Pasynkov, V. (Professor); Chirkin, L. (Candidate of technical sciences); Lototskiy, B. (Engineer); Okunev, Yu. (Engineer)

ORG: Leningrad Electrotechnical Institute (Leningradskiy elektrotekhnicheskiy institut im. V. I. Lenina)

TITLE: Thin-film negistors and varistors

SOURCE: Radio, no. 12, 1965, 35-36

TOPIC TAGS: varistor, negistor, thin film element

ABSTRACT: Based on the well-known M. A. Lampert, K. L. Chopra, Tiry and other American works, a brief description of semiconductor devices having negative differential resistance is presented. Similar negistors have been developed in the USSR. They have an S-shaped I-V characteristic, throw-over voltages of 1—10 v, maximum currents of 1—20 ma, and differential resistances of 1—100 kohms. Their negative resistance falls off with the increasing ambient temperature and collapses at about 100C. Some details of the preparation of thin films are given. Orig. art. has: 2 figures and 1 table.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 005

Card 1/1

UDC:

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, V.G.

Improved construction of scraper conveyer. Gidroliz. i lesokhim. prom. 14 no.7:30 '61. (MIRA 14:11)

1. Vakhtanskiy kanifol'no-ekstraktsionnyy zavod.
(Conveying machinery)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

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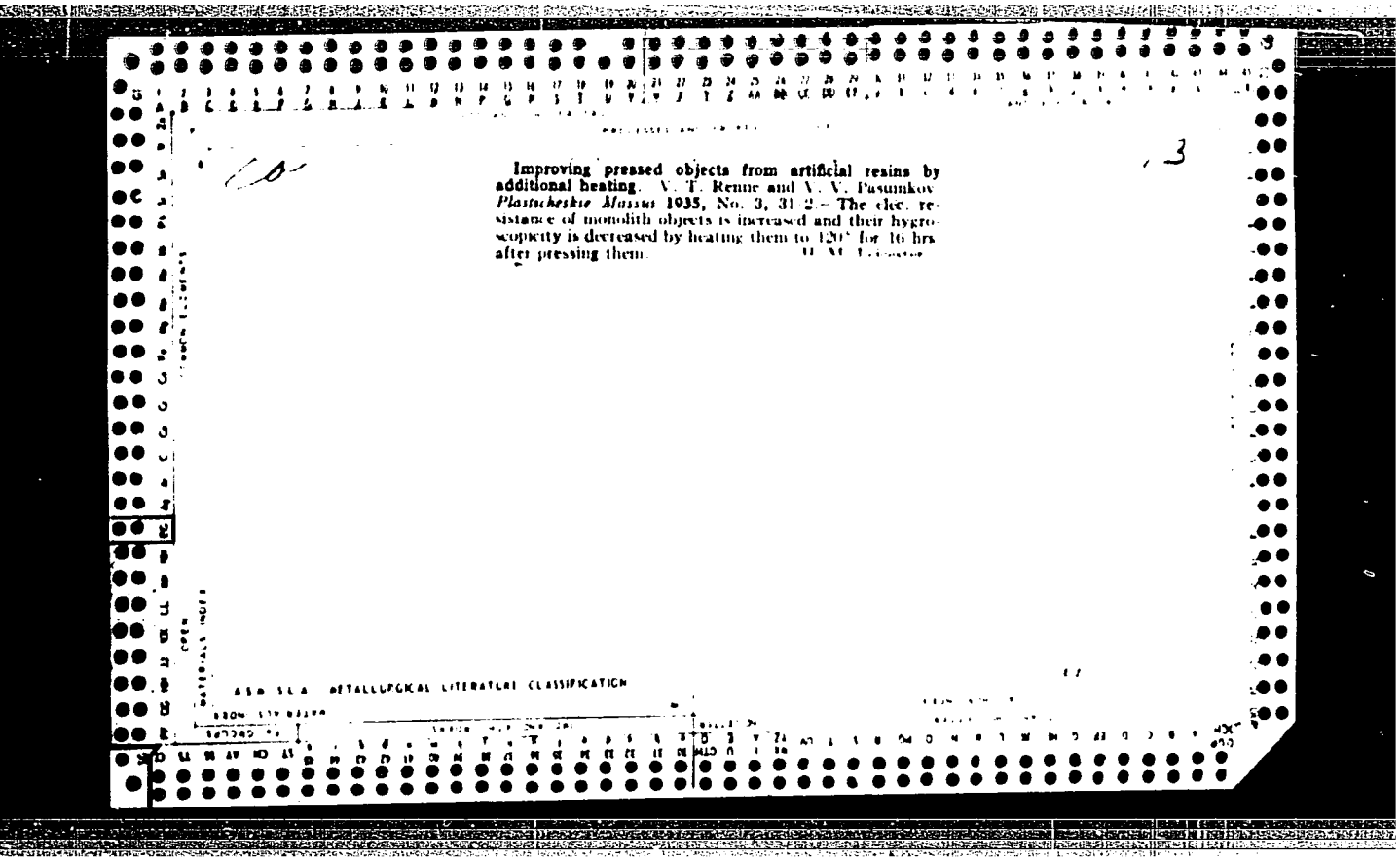

Improving pressed objects from artificial resins by additional heating. V. T. Renne and V. V. Pasumkov *Plasticheskie Massui* 1935, No. 3, 31-2.—The elec. resistance of monolith objects is increased and their hygroscopicity is decreased by heating them to 130° for 16 hrs after pressing them.

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

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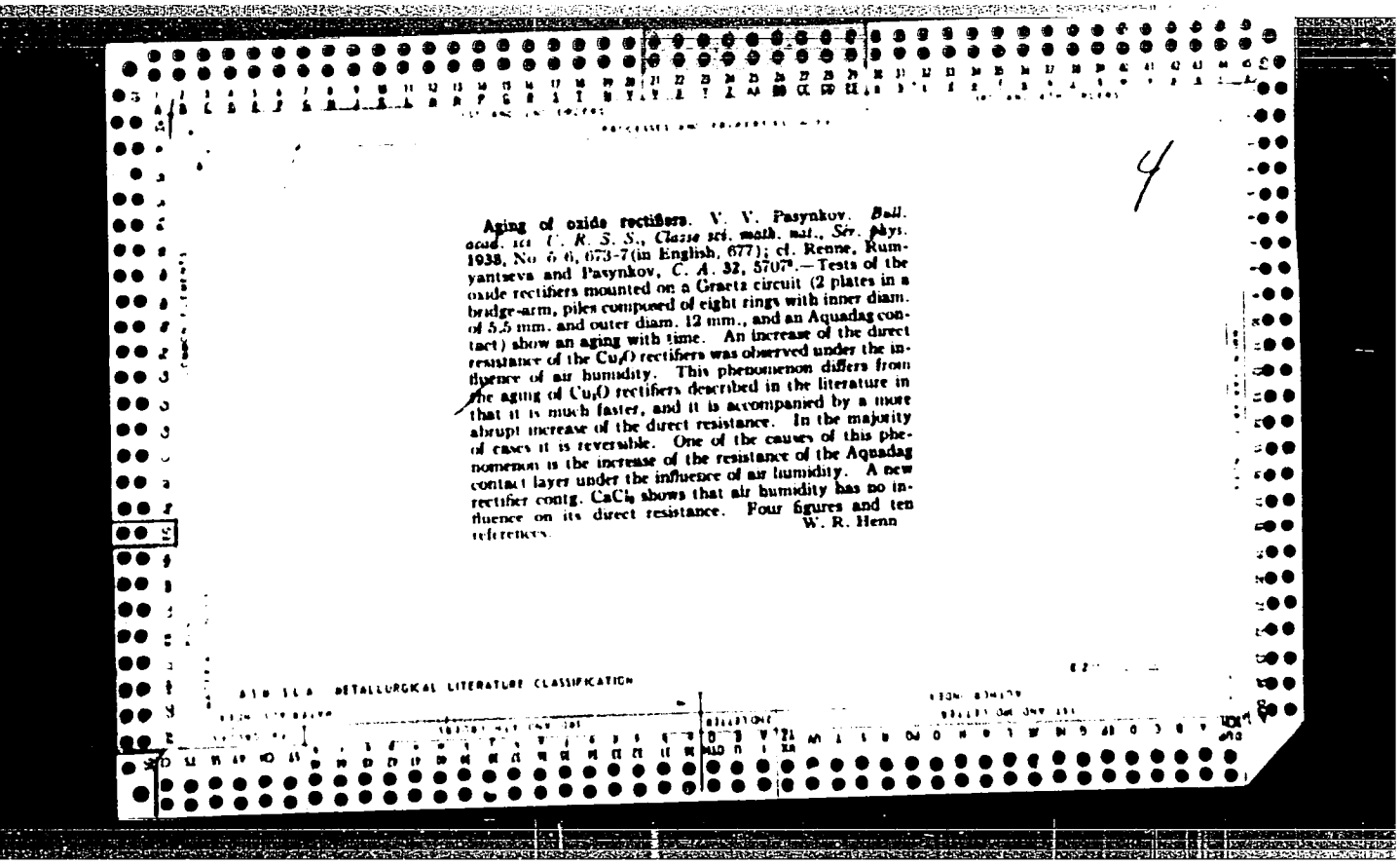
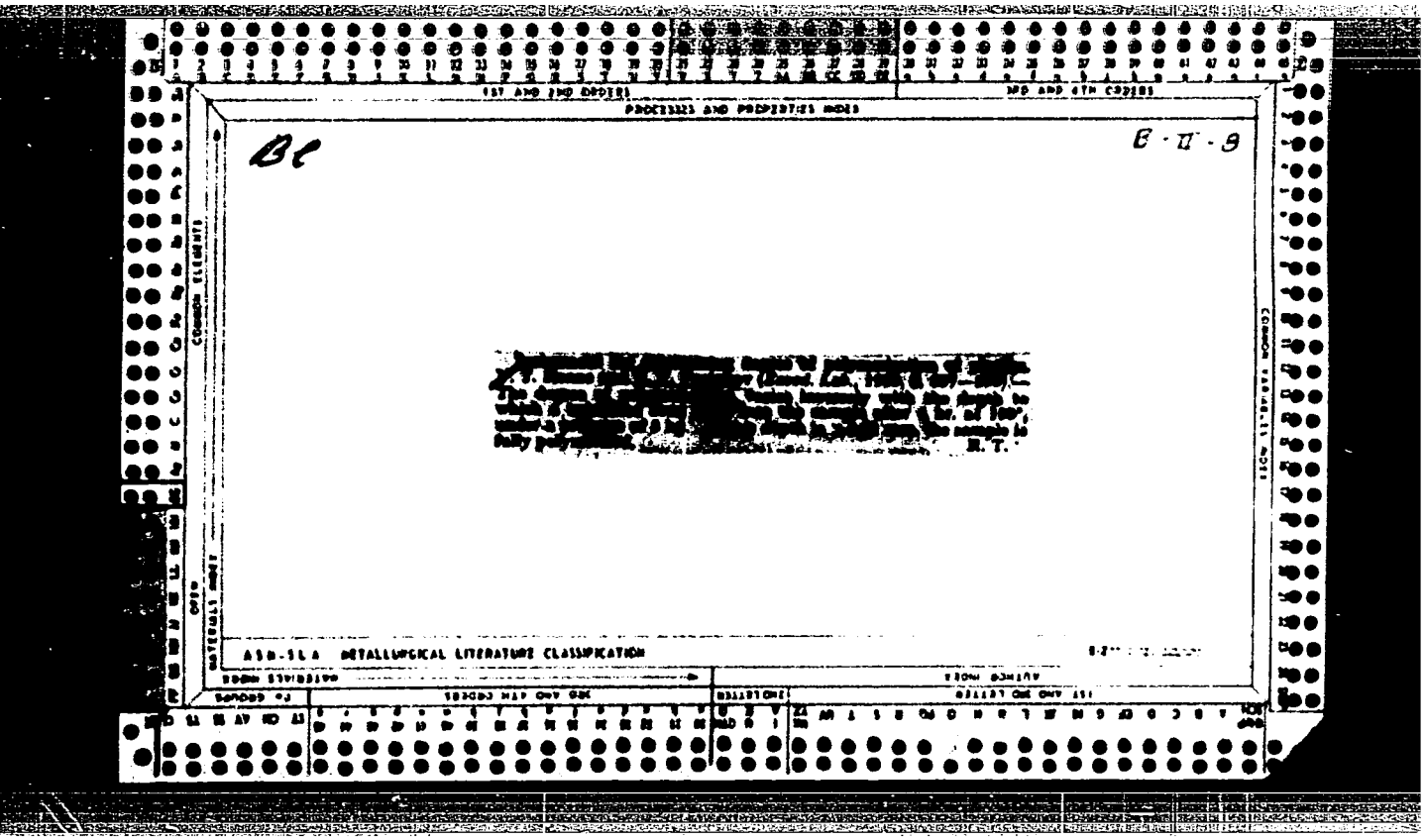


Aging of oxide rectifiers. V. V. Pasynkov. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. phys.* 1938, No 6, 673-7(in English, 677); cf. Renne, Rumyantseva and Pasynkov, *C. A.* **32**, 5707⁹.—Tests of the oxide rectifiers mounted on a Graetz circuit (2 plates in a bridge-arm, piles composed of eight rings with inner diam. of 5.5 mm. and outer diam. 12 mm., and an Aquadag contact) show an aging with time. An increase of the direct resistance of the Cu_2O rectifiers was observed under the influence of air humidity. This phenomenon differs from the aging of Cu_2O rectifiers described in the literature in that it is much faster, and it is accompanied by a more abrupt increase of the direct resistance. In the majority of cases it is reversible. One of the causes of this phenomenon is the increase of the resistance of the Aquadag contact layer under the influence of air humidity. A new rectifier contg. $CaCl_2$ shows that air humidity has no influence on its direct resistance. Four figures and ten references. W. R. Henn

A10 11.8 METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PA 4/49T32

PASYNKOV, V. V.

Jan 48

USSR/Electricity
Electrical Equipment
Telemechanics

"In the Leningrad Electrical Engineering Inst imeni Ul'yanov (Lenin)," S. A. Rinkevich, Dr Tech Sci, V. V. Pasynkov, Cand Tech Sci, 1½ pp

"Elektrichestvo" No 1

In May 47 subject Institute had conference. Briefly describes proceedings of the Elec Equipment and Power Eng Sec, Vacuum Tech and Electrophys Sec, Radio Eng Sec, and Instr Constr and Telemech Sec.

4/49T32

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, V. V. Docent

PA 20/49T24

USSR/Electricity Dec 48
Insulators
Insulation, Electric

"Measuring the Specific Resistance of Laminated Electrical-Insulation Material," V. V. Pasynkov, Docent, Cand Tech Sci, Leningrad Elec Eng Inst imeni Ulyanov, 3 pp

"Elektrichestvo" No 12

Due to wide application of subject material a series of tests was conducted to bring GOST Standards up to date. Discusses briefly results of tests conducted on various materials in accordance with GOST 40125.

20/49T24

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

TASYMOV, V.V.

21716 TASYMOV, V.V. Izgotovlenie [illegible] elektronnarrev[illegible]nykh priyorov. Leningr. Elektrotekhn. In-T im. Ulyanova (Lenina), Vyp. [illegible], [illegible], s. 14-20 -- Bibliogr: 5 Nazv.

SO: Letopis'Zhurnal'nykh Statey, No. [illegible], Moskva, 1949

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, V. V.
elektrotekhnicheskie materialy.
Moscow, 1955.
microfilm.

Textbook on electrical, chemical and technical materials for universities engineers.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

PASYNKOV, V. V.

"Ye. A. Svirskiy," Elektrichestvo, No. 1, 1950.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001239