

Synthesis of Several Monomers on Alumochromium Catalysts SOV/153-2-4-26/32

main product; 2,3-dimethyl-butane amounted to 8-10% of the alkylate. The preparation of 2,3-dimethyl-butadiene-1,3 from 2,3-dimethyl-butane proceeds in two stages: a) Dehydration with the formation of two olefines: 1) tetramethyl-ethylene, and 2) 2,3-dimethyl-butene-1. b) Dehydration of the olefines to the end product. This reaction has not been considered in publications (except for the reference in the patent (Ref 5)). The authors investigated the first stage thoroughly on an alumochromium-potassium catalyst. The specifications for its production were provided by M. N. Marushkin (deceased) (IOKh AN SSSR = Institute of Organic Chemistry AS USSR). This catalyst showed the highest activity at 550°. The catalyzate reached a 87% yield with a content of unsaturated hydrocarbons of 60-67%. The investigation of the second stage has not yet been completed. An aromatization diagram of divinyl-acetylene-hydrocarbons is given. Several mono-, bi-, and tricyclic hydrocarbons with a prescribed structure were produced on the basis of the diagram. A diagram of the reactions of the synthesis of p-xylene from acetylene and acetone is suggested. Since there is no demand for acetone in the USA because of increasing phenol production,

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and its price according to the Sergeev method is already 1/3 - 1/4 of the present one, the synthesis method mentioned above might become useful for industry. In conclusion, a simple way of synthesis for polyphenyl systems is suggested. Moreover, the Favorskiy reaction is mentioned in the paper. There are 11 references, 5 of which are Soviet.

ASSOCIATION: Vostochno-Sibirskiy filial SO AN SSSR (East Siberian Branch of the Siberian Department of the Academy of Sciences, USSR)

Card 4/4

ZANINA, A. S., CAND CHEM SCI, "SYNTHESIS OF MONO- AND  
POLYCYCLICAL AROMATIC HYDROCARBONS ON A BASE OF ACETYL-  
ENE COMPOUNDS." Novosibirsk, 1961. (ACAD SCI USSR. SI-  
BERIAN DEPT., JOINT <sup>ACAD</sup> COUNCIL FOR CHEMICAL SCIENCES).  
(KL-DV, 11-61, 210).

-38-

5.1190  
5.3300

27903  
S/079/61/031/010/003/010  
D227/D302

AUTHORS: Kotlyarevskiy, I.L., and Zanina, A.S.

TITLE: Unsaturated hydrocarbons. XIV. Synthesizing polycyclic hydrocarbons by dehydro-cyclization of acetylene derivatives

PERIODICAL: Zhurnal obshchey khimii v. 31, no. 10, 1961,  
3206-3214

TEXT: The present work is a continuation of earlier studies, in which the authors showed the possibility of synthesizing polycyclic, aromatic hydrocarbons by dehydrocyclization of acetylenic glycols and their products of hydrogenation and dehydration. The main purpose of this work was to synthesize tri- and tetracyclic condensed aromatic compounds containing five membered rings, especially 1,2 - cyclophenhenonaphthalene (I), 1,2 - cyclopheneno-  
 $\Delta^{2'3'}$  - naphthalene (II), 1,2 - cyclopentanophenanthrene (III), 1,2 - cyclopentano -  $\Delta^{1'2'}$  - (or  $\Delta^{2'3'}$ ) - phenanthrene (IV), and chrysene (V). 1,2 - cyclopentanophenonaphthalene (I) and 1,2 -

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S/079/61/031/010/003/010  
D227/D302

Unsaturated hydrocarbons ...

cyclopentano-naphthalene were prepared from ethinylcyclohexonal and cyclopentanone by the Iotsich condensation followed by dehydration of product IV, as shown by the scheme in the presence of dilute sulphuric acid, and dehydrocyclization of compound VII on an aluminum-chromium catalyst promoted with magnesium oxide. Acetylenic glycol (VI) was perhydrogenated to 1-(1'-hydroxy cyclohexyl)-2-(1'-hydroxycyclopentyl)- ethane (VIII) which on dehydration with HCl in benzene gave 2-spiro-cyclohexyl-5-spiro-cyclopentyltetra-hydrofuran (IX). The latter on dehydrocyclization gave a mixture of (I) and (II), whose composition was determined by analysis, molecular weight and infrared spectrography. The synthesis of cyclopentanophenanthrene (III) and cyclopentano-phenanthrene (IV) is of great interest as both these compounds have a steroidal hormone structure. The method of preparation is shown by Scheme 2, the stages being similar to the previous synthesis. Chrysene (V) was obtained in a similar manner starting from  $\alpha$ - tetralone and 1 - ethinyl-cyclohexanol - 1. Compounds similar to those synthesized in the present work have recently X

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D227/D302

Unsaturated hydrocarbons ...

become important in studies of semi-conductive catalysis. Experimental procedure: The Iotsich condensation was carried out by slow addition of an acetylenic compound (ethinylcyclohexanol) to a solution of ethylmagnesium bromide in ether followed by addition of cyclopentanone. After stirring for some hours (in the case of  $\alpha$ -tetralone for 3 days) and standing overnight the reaction mass was decomposed with 1:1 HCl and the ethereal layer washed to neutral reaction, dried over KOH and distilled. The diol (VI) obtained was then heated with 40%  $H_2SO_4$  cocled and extracted with ether.

Distillation of the solution gave compound VII. Diol (VI) was hydrogenated in the usual manner using a skeletal nickel catalyst. The isolated product (VIII) had a mpt. of 97.5-98°C. Dehydration of this diol (VIII) was conducted in benzene by passing in dry HCl until an aqueous layer was formed. Washing with  $NaHCO_3$ , drying and distillation yielded the furan derivative (IX) which was subsequently aromatized by passing its benzene solution over an  $MgO \cdot Cr_2O_3 \cdot Al_2O_3$  (2:18:80) catalyst.

Distillation and recrystallization of the product gave compounds

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Unsaturated hydrocarbons ...

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I and II m.pts. 110-110.5°C and 111.5-112.5°C respectively. Similarly, aromatization of VII under analogous conditions yielded compounds I and II. Synthesis of other compounds involved exactly the same procedure using the specified starting materials. There are 6 figures, 1 table and 11 references: 5 Soviet-bloc and 6 non-Soviet-bloc. The 4 most recent references to English-language publications read as follows: R.A. Friedel, M. Orchin. Ultra-violet spectra of aromatic compounds. Chapman-Hall, London 1951; C.F. Koelsch, R. A. Scheiderbauer, J. Am. Chem. Soc. 65, 2311 (1943); P.S. Pinkney, G. A. Nesty, R.H. Willey, C.S. Marvel, J. Am. Chem. Soc. 58, 972 (1936); Pinkney, Marvel, J. Am. Chem. Soc. 59, 669 (1937).

ASSOCIATION: Institut khimii vostochno-sibirskogo filiala Sibirs-kogo otdeleniya Akademii nauk SSSR (Institute of Chemistry Eastern Siberian Branch, Siberian Division of the Academy of Sciences USSR)

SUBMITTED: October 4, 1960  
Card 4/6

X

ZANINA, A.S.; KOTLYAREVSKIY, I.L.

Synthesis of pseudocumene and prehnitene from acetylene derivatives.  
Trudy Vost.-Sib.fil.AN SSSR no.38:1/2-148 '61. (MIA 1514)  
(Benzene) (Acetylene)

L 16113-55 SPA(5)-2/SPM(2)/SPM(2) SPM(1)P P-4/P-5/P-10 R-5/1

ACCESSION NR: AP4045835

S/0062/63/000/012/2197/2201

AUTHOR: Kostylevskiy, L. L.; Zanina, A. S.; Shergina, S. I.

TITLE: Highly unsaturated polymers. Report No. 8, Synthesis and polycondensation of 1,4'-diethinylidiphenylmethane and 1,2-bis-(4'-ethinylphenyl)ethane

SERIALIZED BY SSRR 120 SERIALIZED IN CHIEF RANK NO 12 1003 2197-2201

TOPIC TAGS: polymer, unsaturated polymer, triple C=C bond, polycondensation, oxidizing polycondensation, infrared spectrum, diacetylene link, polymer backbones, polymer synthesis, dehydrochlorination, dehydrobromination, dehydrobromopropene

ABSTRACT: The authors report the synthesis of monomers and polymers and their properties and their relation to the particular polymer structure in such compounds as

pyridine solvent. The i.r. spectra of both monomers and polymers showed the triple

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L 16113-65  
ACCESSION NR: AP4045835

2

C=C bond band (doublet) and 1, 4 substitution at the benzene ring. Neither polymer gave the EPR signal, both discolored around 300. Their electrophysical properties are studied. A schematic scheme of the synthesis is presented.

Orig. art. has: 10 formulas.

ACCREDITATION: Institut Khimicheskoy i mefili i goreniiya GO Akademii nauk SSSR

SUBMITTED: 28 Aug 64

ENCL: 00

SUB CODE: GC, OC

NO REF SOV: 007

OTHER: 003

Card 2/2

ZANINA, A.S.; SHERGINA, S.I.; KOTLYAREVSKIY, I.L.

Production of p-xylene during aromatization of furans. Zhur.,  
prikl.khim. 36 no.1:203-208 Ja '63. (MIR 16:5)  
(Xylene) (Furan) (Aromatization)

SHERGINA, S.I.; ZANINA, A.S.; TROTSENKO, Z.P.; KOTLYAREVSKIY, I.L.

Chemical properties of diethynlarenes. Izv. AN SSSR. Ser. khim.  
no.3:574-578. '65. (MIRA 18:5)

1. Institut khimicheskoy kinetiki i goreniya Sibirsckogo otdeleniya  
AN SSSR.

L 11245-65 EWT(m)/EWP(t)/T RM

ACC NR: AF6002103

SOURCE CODE: UR/0062/65/000/011/2077/2079

44 55 44 55 44 55 44 55 AUTHOR: Kotlyarevskiy, I. L.; Zamina, A. S.; Shergina, S. I.; Kushta, V. G. 50

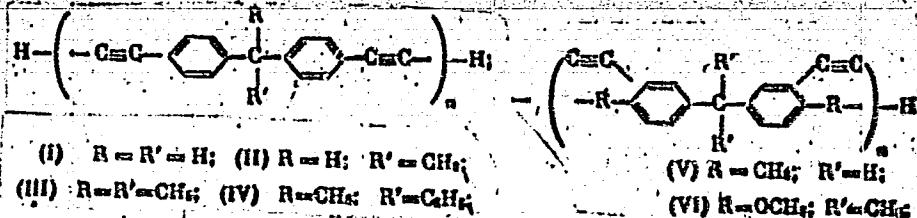
ORG: Institute of Chemical Kinetics and Combustion of the Siberian Department  
of the Academy of Sciences SSSR (Institut khimicheskoy kinetiki i goreniya  
Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Electrophysical properties of certain polyethynylpolyarenes 1,44,55

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 11, 1965, 2077-2079

TOPIC TAGS: organic semiconductor, semiconducting polymer, pyrolysis

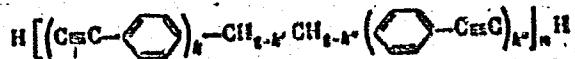
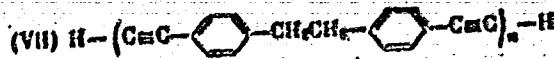
ABSTRACT: A study has been made of the electrical conductivity, its temperature dependence, and conduction type of polyethynylpolycrrene oligomers I to X and of the pyropolymers produced by heat treatment of these oligomers at 300, 400, and 500°C.



ord 1/3

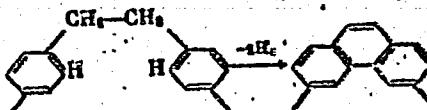
UDC: 537.311+541.6+547.362

L 19245-66  
ACC NM AP6002105



(VIII') k=k'=1; (IX) k'=1; k'=2; (X) k=k'=2

All the polymers were p-type. All of compounds I to II, when heat treated up to 300°C, remained typical dielectrics at room temperature. Activation energy for conduction increased with the degree of branching. After heat treatment of I to VI to 400°C and especially to 500°C, properties typical of semiconductors appeared owing to the formation via triple bonds of three-dimensional cross-linked structures. However, even in this case, the conductivity of I to VI did not exceed 10<sup>-7</sup> to 10<sup>-11</sup> mho/cm owing to breaks in their conjugated systems. In contrast, oligomer VII, after heat treatment at 500°C, irreversibly acquired a high conductivity (10<sup>-4</sup> mho/cm) at an activation energy of 0.1 ev, a thermoelectric power of 37  $\mu$ v/c, and a nonlinear volt-ampere characteristic. The typical semiconducting properties of VII heat treated at 500°C were attributed to cyclization:



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L 11245-66

ACC-NR. AP6002105

Of oligomers VIII to X, \* has the most interesting properties (conductivity of the 500C pyropolymer,  $10^{-4}$  mho/cm). It is concluded that preparative efforts aimed at obtaining polyethynylpolyarenes with predetermined properties (good solubility and conductivity) should be directed toward the synthesis of oligomers similar to VII and having substituents in the methylene bridge. Orig. art. has: 1 table and 1 figure.

[SM]

SUB CODE: 11, 20/ SUEM DATE: 04Mar65/ ORIG REF: 003/ ATD PZESS: 4173

BC

Card 3/3

L 11706-66

BWT(m)/EWP(j)/T RM

ACC NR: AP6002106

SOURCE CODE: UR/0062/65/000/011/2079/2081

AUTHORS: Shergina, S. I.; Kotlyarevskiy, I. L.; Zanina, A. S.

ORG: Institute for Chemical Kinetics and Combustion, Siberian Branch of the  
Academy of Sciences SSSR (Institut khimicheskoy kinetiki i goreniya, Sibirskogo  
otdeleniya Akademii nauk SSSR)

TITLE: Polyacetylene compounds, derivatives of di-, tri-, and tetraphenylethylene

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 11, 1965, 2079-2081

TOPIC TAGS: polymer, organic chemistry, conjugated polymer, organic synthesis  
process, acetylene

ABSTRACT: To extend the investigations of the authors (Izv. AN SSSR. Ser. khim. 1963, 2197) and in particular to study the properties of conjugated polymers, the following polyacetylene monomers were synthesized: 4,4-diethynylstilbene I, 1,1,2-tris-(p-ethynylphenyl)ethylene II, and 1,1,2,2-tetrakis-(p-ethynylphenyl)ethylene III. The initial stages of the synthesis consist of the acetylation of a hydrocarbon which contains a double bond between phenyl nuclei. A reaction scheme for the synthesis is presented. Oxidative polycondensation of the monomers I, II, and III in presence of cuprous chloride yielded the corresponding oligomers. The latter gave a narrow intensive EPR signal of  $\approx 10^{18}$  unpaired spins per gram and had an electrical

UDC: 542.91+547.362

Card 1/2

L 14706-66

ACC NR: AP6002106

resistance of  $\approx 10^{14}$  ohm cm. The yields, melting points, and IR absorption of the C=C and C-H bonds for the synthesized monomers are listed. Orig. art. has: 3 equations.

SUB CODE: 07/ SUBM DATE: 04Mar65/ ORIG REF: 001/ OTH REF: 001

BVK  
Card 2/2

L-24298-65 EWT(m)/EWP(j)/T RM

ACC NR: AP6009801

SOURCE CODE: UR/0062/66/000/002/0358/0360

AUTHOR: Kotlyarevskiy, I. L.; Shergins, S. I.; Zenina, A. S.ORG: Institute of Chemical Kinetics and Combustion, Siberian Department  
of the Academy of Sciences, SSSR (Institut khimicheskoy kinetiki i  
goreniya Sibirs'kogo otdeleniya Akademii nauk SSSR)

TITLE: Preparation of diacetylene derivatives of 1,2-diphenylethane and 1,4-diphenylbutane

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 2, 1966,  
358-360

TOPIC TAGS: aromatic hydrocarbon, alkyl benzene, polycondensation, polymer, solubility

ABSTRACT: The effect of substituents in the ethylene bridge of 4,4'-diethynylidiphenylethane-1,2 (I) on the solubility of polymers obtained by oxidative polycondensation of the corresponding monomers was investigated.  $\alpha$ ,  $\beta$ -dimethylbenzyl and analogous compounds with methyl, ethyl and n-propyl substituents on the dimethyl group were acetylated, chlorinated and treated with  $PCl_5$  and  $NaNH_2$  to form the corresponding diacetylenic derivatives of I. Increasing the size of the substituent

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UDC: 542.91+547.362

L 24298-66

ACC NR: AP6009801

increased the solubility of the polymers formed by heating the monomers in pyridine in the presence of oxygen and cuprous chloride: a 10% colloidal solution in cyclohexane of the polymer was obtained from the monomer in which the dimethyl had n-propyl substituents. However, the polymer obtained from 1,4-bis(4'-ethynylphenyl)butane was insoluble.  
Orig. art. has: 2 tables and 2 figures.

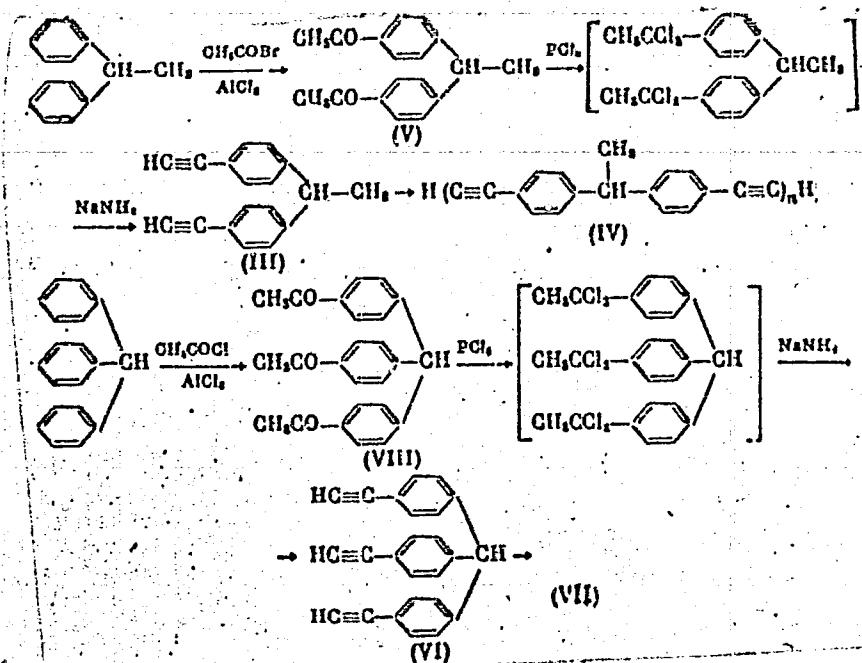
SUB CODE: 07/ SUBM DATE: 05Jul65/ OTH REF: 002

Card 2/2 FV

L 28441-66	EWT(m)/EMP(j)/T	IJP(c)	WW/RM
ACC NR:	AP6017878	SOURCE CODE: UR/0062/66/000/005/0902/1908	
AUTHOR: <u>Kotlyarevskiy, I. L.; Zanina, A. S.; Shergina, S. I.; Loboda, L. I.</u>			
ORG: <u>Institute of Chemical Kinetics and Combustion, Siberian Department, Academy of Sciences SSSR (Institut khimicheskoy kinetiki i goreniya Sibirskego otdeleniya Akademii nauk SSSR)</u>			
TITLE: Highly unsaturated polymers. Communication 16. <u>Polyacetylene compounds, derivatives of di-, tri-phenylmethane and diphenylethane</u>			
SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 5, 1966, 902-908			
TOPIC TAGS: organic semiconductor, semiconducting polymer, heat resistant polymer, polyacetylene, polyarylene, oligomer			
ABSTRACT: New highly unsaturated oligomers IV and VII (see below) having alternating arylene and diacetylene groups in the backbone were prepared which combine high <u>heat resistance</u> and solubility in some organic solvents. It is noted that such oligomers are of practical interest, even if their electrical conductivity proves to be low, for such applications as heat resistant dielectrics. Oligomers IV and VII were prepared as follows: 15			
Card 1/3	UDC: 547.362+542.952		

L 28441-66

ACC NR. AP6017878

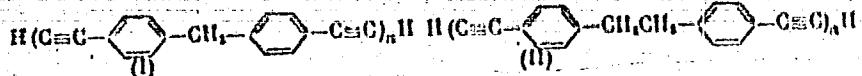


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L-2844L-66

ACC NO: AP6017878

### Oligomers I and II;



were prepared earlier. Owing to the presence of a methyl substituent, oligomer IV, unlike I, was almost fully soluble in pyridine. Oligomer IV was obtained in the form of light-yellow films; it did not fuse up to 500°C. but darkened at 340°C. Oligomer VII had apparently a tridimensional network structure; a dark brown powder, it was much darker in color than I and IV. VII gave a narrow intense EPR signal, indicating the presence of conjugation despite the formal disruption of conjugation by the CH groups present between phenyl rings. A number of monomers, mono-, di-, and triacetylene derivatives of diphenyl-methane and -ethane were also prepared. [SM]

SUB CODE: 071 SUBM DATE: 25Dec63/ ORIG REF: 002/ OTH REF: 001  
ATD PRESS: 5005

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L 44191-66 EWP(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6013281 (A) SOURCE CODE: UR/0413/66/000/008/0079/0079

57  
L3INVENTOR: Kotlyarevskiy, I. L.; Zanina, A. S.; Gusenkova, N. M.; Sokolov, I. Ye.; Cherepov, Ye. I.

ORG: none

TITLE: Preparation of oligomers. Class 39, No. 180797 [announced by the Institute for Chemical Kinetics and Combustion, Siberian Branch, Academy of Sciences, SSSR (Institut khimicheskoy kinetiki i gorenija Sibirskogo otdeleniya Akademii nauk SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 79

TOPIC TAGS: oligomer, polyarylene, polyacetylene, polycondensation, heat resistant material, dielectric strength

ABSTRACT: This Author Certificate introduces a method for preparing an oligomer of the polyarylene polyacetylene series by oxidative polycondensation of diacetylene. To obtain soluble polymer compounds with high heat resistance and dielectric strength, 2,2-bis-(4'-methoxy-3'-ethynylphenyl)-propane is suggested as the diacetylene.

[LD]

SUB CODE: 0711/ SUBM DATE: 29Mar65/

Card 1/1 acrus

L 45725-66 EWT(m)/EWP(j)/T RM  
ACC NR: AP6024413 (N)

SOURCE CODE: UR/0020/66/169/001/0111/0113

AUTHOR: Dulov, A. A.; Slinkin, A. A.; Rubinshteyn, A. M.; Kotlyarevskiy, I. L.;  
Shvartsberg, M. S.; Andriyevskiy, V. N.; Zanina, A. S.; Shergina, S. I.

ORG: Institute of Organic Chemistry im. N. D. Zelinskii, Academy of Sciences, SSSR  
(Institut organicheskoy khimii Akademii nauk SSSR); Institute of Chemical Kinetics and  
Combustion, Siberian Branch, Academy of Sciences, SSSR (Institut khimicheskoy kinetiki  
i goreniya Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Influence of disturbance of conjugation on the properties of semiconducting  
polymers<sup>b</sup>

SOURCE: AN SSSR. Doklady, v. 169, no. 1, 1966, 111-113

TOPIC TAGS: semiconducting polymer, conjugated polymer, semiconductor conductivity

ABSTRACT: It has been frequently reported in the literature that the disturbance of conjugation in organic semiconductors as a result of either nonplanarity of aromatic rings or introduction of aliphatic, oxygen, or sulfur bridges into the conjugated chain lowers the electric characteristics. In the present paper, the intensity of the influence of these different types of conjugation disturbances was compared in a series of polymers of a single class, the polyarylenopolysacetylenes, whose electrical conductivity and ESR spectra were measured. The introduction of various groups disturbing the conjugation into the conjugated chain was found to hinder the processes of

UDC: 541.67

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L 45725-66

ACC NR: AP6024413

current transfer. The relative effectiveness of this hindering influence of different groups may change with the flexibility of the molecules, which affects the intermolecular interactions. In particular, the biphenylene grouping, which sharply decreases the electric properties of "linear" structures, does not affect the properties of polymers consisting of more flexible oxygen-containing molecules. It is notable that bridge groups do not appreciably lower the semiconducting properties. The paper was presented by Academician Karanskiy, B. A., 23 Oct 65. Orig. art. has 1 table.

SUB CODE: 07/ SUBM DATE: 23 Jul 65/ ORIG REF: 014/ OTH REF: 003

Card 2/2 ULR

ZANINA, I.Ye.

Boundary between the Devonian and Carboniferous in the central part  
of the Russian Platform. Inform.sbor.VSEGEI no.42:85-90 '61.  
(MIRA 15:1)

(Russian Platform--Paleontology, Stratigraphic)

STEPANOV, D.L., prof., red.; ZANIHA, I.Ye., red.; MOBZALEVSKAYA,  
Ye.A., red.; OVECHKIN, N.K., red.[deceased]; REINGARTEN,  
V.P., red.; GUEBOTINA, N.N., red.

[Problems of the characteristics and forms of the development of the organic world; transactions] Voprosy zakonomernosti i form razvitiia organicheskogo mira; trudy. Moskva, Nedra, 1964. 209 p. (MIRA 17:9)

1. Vsesoyuznoye paleontologicheskoye obshchestvo. 7th sessiya.

OBUT, A.M., red.; ZANINA, I.Ye., red.; MODZALEVSKAYA, Yo.A., red.;  
OVECHKIN, N.K., red.; KENGARTEN, V.P., red.; STEPANOV, D.L.,  
red.; SUBBOTINA, N.N., red.; OBUT, A.M., red.; VLASOVA, L.V.,  
red. izd-va; GOROKHOVA, T.A., red. izd-va; IVANOVA, A.G.,  
tokhn. red.

[Importance of biosphere in geological processes, Problem of  
interrelation of paleontology and tectonics; transactions]  
Znachenie biosfery v geologicheskikh protsessakh. Voprosy  
vzaimosviazi paleontologii i tektoniki; trudy V i VI sessii  
Vsесоiuznogo paleontologicheskogo obshchestva. Moskva, Gos-  
geoltekhizdat, 1962. 247 p. (MIRA 15:9)

1. Vsesoyuznoye paleontologicheskoye obshchestvo.

(Paleontology) (Geology, Structural)

STAPANOV, D.L., professor, redaktor; ZANINA, I.Y., redaktor; MODZALINSKAYA,  
Ye.A., redaktor; OVECHKIN, N.K., redaktor; RENCARTEM, V.P., redaktor;  
SUBBOTINA, N.M., redaktor; GOROKHOVA, T.A., redaktor izdatel'stva;  
GUROVA, O.A., tekhnicheskiy redaktor

[Problems in paleobiogeography and biostratigraphy; proceedings of  
the 1st session of the All-Union Paleontological Society (January  
24-28, 1955)] Voprosy paleobiogeografii i biostratigrafii; trudy  
I sessii Obshchestva (24-28 ianvarya 1955 g.). Moscow, Gos. nauchno-  
tekhn. izd-vo lit-ry po zool. i okhrane nedor, 1957. 200 p. (M)RA 10:10)

1. Vsesoyuznoye paleontologicheskoye obshchestvo  
(Paleontology)

TRIZNA, Valentina Borisovna; ZANINA, I.Ye., red.; RAGINA, G.M., vedushchiy  
red.; GENNAD'YEVA, I.M., tekhn.red.

[Early Carboniferous polyzoans of the Kuznetsk Basin] Rannekamen-  
nougol'nye mshanki Kuznetskoi kotloviny. Leningrad, Gos.nauchno-  
tekhn.izd-vo neft.i gornotoplivnoi lit-ry. Leningr. otd-nie, 1958.  
298 p. (Leningrad. Vsesoiuznyi neftianoi nauchno-issledovatel'skil-  
geologorazvedochnyi institut. Trudy, no.122). (MIRA 14:8)  
(Kuznetsk Basin--Polyzoa, Fossil)

APPROVED FOR RELEASE 09/19/2001. Ye. CIA-RDP86-00513R001963810004-9"

OVECHKIN, N.K., red.; REICHTER, V.P., red.; SUBBOTINA, N.N., red.;  
ABKEVICH, P.L., red. izd-va; IVANOVA, A.G., tekhn. red.

[Fortieth anniversary of Soviet paleontology, 1917-1957. Transaction  
of the 4th session of the All-Union Paleontological Society] Sorok let  
sovetskoi paleontologii 1917-1957; trudy IV sessii Vsesoiuznogo paleon-  
tologicheskogo obshchestva. Moskva, Gos. nauchno-tekh. izd-vo lit-ry po  
geologii i okhrane nedr, 1961. 209 p. (MIRA 14:8)

1. Vsesoyuznoye paleontologicheskoye obshchestvo.  
(Paleontology)

MALYAVKINA, Valentina Semenovna; ZANINA, I.Ye., red.; RUSAKOVA, L.Ya.,  
vedushchiy red.; YASHCHUNZHINSKAYA, A.B., tekhn.red.

[Spores and pollens of the Lower Cretaceous in the eastern part of  
the Gobi] Spory i pyl'tsa nizhnego mela Vostochno-Gobiiskoi depressii.  
Leningrad, Gostoptekhizdat, 1958. 131 p. (Leningrad. Vsesociuznyi  
neftianoi nauchno-issledovatel'skii geologorazvedochnyi institut.  
Trudy, no.119). (MIRA 16:8)

(Gobi--Palynology)

POLENOVA, Yelena Nikolayevna; ZANINA, I.Ye., nauchnyy red.; DAYEV, G.A.,  
vedushchiy red.; GENNAD'YEVA, I.M., tekhn.red.

[Devonian ostracods of the Kuznetsk and Minusinsk Basins] Devonskie  
ostrakody Kuznetskogo basseina i Minusinskoi kotloviny. Leningrad.  
Vsesoiuznyi neftianoi nauchno-issledovatel'skii geologorazvedochnyi  
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(Kuznetsk Basin--Ostracoda, Fossil)  
(Minusinsk Basin--Ostracoda, Fossil)

ABUSHIK, A.F.; ZANINA, I.Ye., red.; VERSTAK, G.V., red.izd-va;  
IVANOVA, A.G., tekhn.red.

[Silurian ostracods of the Siberian Platform] Siluriiskie  
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ZANINA, I.Ye.

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MARKOVSKIY, B.P., otv.red.; ZANIHA, I.Ye., red.; KIPARISOVA, L.D., red.;  
MIKLUKHO-MAKLAY, K.V., red.; POKROVSKAYA, I.M., red.; RADCHEMKO,  
G.P., red.; ROSSOVA, S.M., red.izd-va; GUBROVA, C.A., tekhn.red.

[New species of ancient plants and invertebrates of the U.S.S.R.]  
Novye vidy drevnikh rastenii i bespozvonochnykh SSSR. Moskva,  
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(MIRA 13:12)  
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MARKOVSKIY, B.P., otv.red.; ZANINA, I.Ye., red.; KIPARISOVA, L.D., red.;  
MIKLUKHO-MAKLAY, K.V., red.; POKROVSKAYA, I.M., red.; RADCHENKO,  
G.P., red.; GOROKHOVA, T.A., red.izd-vs; GUROVA, O.A., tekhn.red.

[New species of ancient plants and invertebrates of the U.S.S.R.]  
Novye vidy drevnikih rastenii i bespozvonochnykh SSSR. Moskva,  
Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr. Pt.2.  
1960. 521 p. (MIRA 13:10)

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STEPANOV, D.L., prof., nauchnyy red.; ZANINA, I.Ye., red.; MODZALEVSKAYA, Ye.A., red.; OVECHKIN, N.K., red.; RENGARTEN, V.P., red.; SUBBOTINA, N.N., red.; ABKEVICH, P.L., red.izd-va; IVANOVA, A.G., tekhn.red.

[Problems in the biostratigraphy of continental formations;  
transactions of the third session of the All-Union Paleontological Society, Jan.24-29, 1957] Voprosy biostratigrafii kontinental'nykh tolshch; trudy III sessii Vsesoiuznogo paleontologicheskogo obshchestva, 24-29 ianvaria 1957 g. Moskva, Gos. nauchno-tekhn.izd-vo lit. po geologii i okhrane nedr, 1959. 243 p. (MIRA 12:10)

1. Vsesoyuznoye paleontologicheskoye obshchestvo.  
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"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001963810004-9

ZAININA, I.Ye.

Ostracoda of the Visean stage in the Moscow Basin. Trudy VNIGRI no. 98:  
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(Moscow Basin--Ostracoda, Fossil)

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001963810004-9"

STEPANOV, D.L., prof., red.; ZANINA, I.Ye., red.; MODZALEVSKAYA, Ye.A.,  
red.; OVECHKIN, N.K., red.; HENGARTEN, V.P., red.; SUBBOTINA,  
N.N., red.; GOROKHOVA, T.A., red.izd-va; IVANOVA, A.G., tekhn.red.

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biologii i biostratigrafi; trudy II sessii Vsesoyuznogo paleonto-  
gicheskogo obshchestva. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po  
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DUNAYEVA, A.V.; ZANINA, M.S.; TSYGANNOVA, A.M.

Studying spatial variations in the characteristics of the snow  
cover. Trudy GG) no.108:19-25 '60. (MIRA 13:11)  
(Snow surveys)

*Z. A. NINA, M.S.*

PHASE I DOCUMENTS  
SOV/DOCS  
SOV/2-24

Leningrad: Glavnaya geofizicheskaya observatoriya i laboratoriya v Antarktike (Problems of Meteorological Observation Methods and of Observations in Antarctica) Leningrad, Gidrometeorologicheskii Institut, 1959, 105 p. (Series: Zonal. Trudy, No. 86) Erratum slip inserted. 1,200 copies printed.  
Operating Agency: U.S.S.R. Glavnaya universitetskaya hidrometeorologicheskaya akademiya pri Sovete Ministrów.

Ed. (Title page): Z.I. Pleshchinskaya, Candidate of Geographical Sciences  
Ed. (Inside back): T.V. Gataurova; Tech. Ed.: N.Y. Valtov.  
PURPOSE: The publication is intended for meteorological workers in offices of the Hydroeteorological Service and in hydroeteorological stations.  
CONTENTS: This is a symposium of 11 articles, published as No. 86 of the Transactions of the Main Geophysical Observatory, Leningrad, I. Voznyayev, General editor. The articles are devoted to special features in the distribution of meteorological elements and the radiation condition in the USSR and in Antarctica. Other articles analyze methods of meteorological and astronomical observations and the processing of their results. References are given at the end of each article.

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DUNAYEVA, A.V.; ZANINA, M.S.

Technique of calculating the predictability of the appearance of  
the snow cover. Trudy GGO no.113:51-56 '60. (MIRA 14:3)  
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SHAPIRO, I.S., inzh.; SEREDKIN, L.N., tekhn.; ZANINA, N.K., inzh.; SHAROVA,  
N.I., inzh.

Electrodes for the air-arc cutting of metals. Svar. proizv.  
no.8;20-22 Ag '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut avtogennoy  
obrabotki metallov (for Shapiro, Seredkin). 2. Filial  
Vsesoyuznogo nauchno-issledovatel'skogo instituta elektromekhaniki  
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(Electric metal cutting) (Electrodes)

CA

21

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C. Scandura

1931

ZANINA, Ye.N.; KALININ, O.M.; FALEVA, T.A.

Theoretical information coefficient of correlations and  
its use in the statistical analysis of anthropometric data.  
Prim. mat. metod. v biol, no.2:107-109 '63.

(MIRA 16: 11)

ZANIN, YE. N. (Leningrad)

"Information-Theory Correlation Factor and Its Use in Statistical Processing  
of Anthropometric Data"

Report presented at the 3rd Conference on the use of Mathematics in Biology,  
Leningrad University, 23-28 Jan. 1961.

(Primeneniye matematicheskikh Metodov v Biologii. II, Leningrad, 1963 pp 5-11)

FEDOROVA, L.M.; ZANINA, Ye.P.; KORNEYENKO, V.P.

Simultaneous determination of gases in metals by emission  
spectroscopy. Zav. lab. 31 no.11:1347 '65.

(MIRA 19:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy  
metallurgii imeni Bardina.

ZANINA, Z.L.

Biological peculiarities of Anopheles superpictus grassi in the  
Rushan District of the Western Pamir. Med.paraz.i paraz.bol. 26  
no.6:721-732 N-D '57. (MIRA 13:4)

1. Iz Instituta zoologii i parazitologii imeni akad. Ye.N. Pavlov-  
skogo Akademii nauk Tadzhikskoy SSR.  
(RUSHAN DISTRICT--MOSQUITOES)

ZANINA, Z. L.: Master Biol Sci (diss) -- "Biological aspects of Anopheles superpictus Gr. and A. bifurcatus L. under the conditions of Rushanskij Rayon, western Pamir". Leningrad, 1958. 20 pp (Zoological Inst Acad Sci USSR, Academic Council), 200 copies (KL, No 5, 1959, 146)

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Biological characteristics of the forest malaria mosquito  
*Anopheles bifurcatus* L. (Diptera, Culicidae) in Rushan District  
(Western Pamirs) [with summary in English]. Ent. oboz. 37  
no.4:856-868 '58. (MIRA 11:12)

1. Institut zoologii i parazitologii Akademii nauk Tadzh.SSR,  
Stalinabad.  
(Rushan District--Mosquitoes)

ZANINA, Z.L.

Survey of the ecology and species of blood-sucking mosquitoes  
in districts of the western Pamirs. Trudy AN Tadzh.SSR 89:  
69-77 '58. (MIRA 13:5)

1. Institut zoologii i parazitologii AN Tadzhikskoy SSR.  
(Pamirs--Mosquitoes)

ZANINA, Z.L.

Effect of specific conditions in the western Pamirs on the distribution, numbers and period of development of malaria mosquitoes. Izv.Otd.est.nauk AN Tadzh.SSR no.2:3-16  
'59. (MIRA 13:4)

1. Institut zoologii i parazitologii AN Tadzhikskoy SSR.  
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ZANINA, Z. L.

Principal factors in the biology of malaria vectors in the  
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Marzikulovym.  
(Pamirs--Mosquitoes as carriers of diseases)

ZANINA, Z.L.

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Trudy Inst. zool. i paraz. AN Tadzh. SSR 24:159-168 '63.

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KRYLOV, M.V.; ZANINA, Z.I.

Smithia tadzhikistanica sp.n. from the red-tailed gerbil Meriones erythrourus Gray, 1842. Trudy Inst. zool. i paraz. AN Tadzh. SSR. 24:169-170 '63. (MIRA 17:11)

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CIA-RDP86-00513R001963810004-9

ZANINOVIC, Josip, dipl. inz.

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Hrv 12 no. 9/10: 298-299 '63.

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001963810004-9"

RAFAELI, Petar, dr.; ZANINOVIC, Mirko, dr.

Echinococcosis of the heart. Lijechn. vjesn. 84 no.7:661-672 '62.

1. Iz Kirurškog i Internog odjela Medicinskog centra u Sibeniku.  
(HEART DISEASES) (ECHINOCOCCOSIS)

ZANIS, I.V., insh.

Coiling flanges on pipe-bending machines. Mashinostroitel' no.11:25-26  
N '59. (MIRA 13:3)

(Flanges) (Machine-shop practice)

ZAMIS, I.V.

Attachment for machining shaped surfaces on lathes, machine tool  
no. 2:29 F '61. (WTR. 14:2)  
(Lathes--Attachments)

ZANIS, I.V.

Dies for forming along the radius. Mashinostroitel' no.10:25 0 '63.  
(MIRA 16:12)

ZANIS, I.V.

Efficient use of waste products. Mashinostroitel' no.3:25 Mr  
'64. (MIRA 17:4)

ZANIS, I.V.

Dies for forming stuffing boxes without waste. Mashinostroitel'  
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(Dies (Metalworking))

ZANIS, I.V.

Bladed die for cutting washers. Mashinostroitel' no.1:26 Ja '63.  
(MIRA 16:2)  
(Cutting machines)

ZANIS, I.V.

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no.5:32 My '63. (MIRA 16:7)

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ZANIS, I. V.

Die for trimming rivets. Mashinostroitel' no. 10:22 O '62.  
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(Dies(Metalworking))

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001963810004-9

RAMS, I.V.

Changes in the design of missiles. Fuzes-shells. priority. V No.8:  
A3 Ag 165. (MIRA 10/9)

APPROVED FOR RELEASE: 09/19/2001

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ZANISEK, LADISLAV  
MUDr., DrSc., FUDr.

Experiences with hydroviscous contrast medium in hysterosalpingography.  
[Czech. rev. 2/71] no. 5:363-366 June 67.

1. Gyn-Port Clinic 71A v Brdci Kralove, prednosta Dr. MUDr. Ladislav Zanisek.

(HYST ERGOSALPINGOGRAPHY  
use of hydroviscous contrast media (Cs))

(CONTRAST MEDIA  
HVA 6713000, use in hysterosalpingography (Cs))

ZANK, Kalman

Experiences in the use of the Benoto drilling installation. Magy ep  
ipar 10 no.6:284-285 '61.

ZANKA, N. I.; NEMETS, O. F.; TOKAREVSKIY, V. V.

"Determination by Model of the Nature of Levels of the Nucleus with the  
Help of Direct Reactions ( $d,p$ ) and ( $d,d'$ )."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22  
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Inst Physics, AS UkrSSR

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001963810004-9

ZANKAY; TANCSOS

Color television in the service of surgery. Radiotechnika  
11 no.11:336-337 N '61.

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001963810004-9"

ZANKHOYEV, G.F., gornyy inzh.

Using charges with air spaces in large-scale draw blasting.  
Vzryv. delo no.54/11:295-299 '64. (MIRA 17:9)

1. Trest Mamslyuda, Mamsko-Chuyskiy rayon, Irkutskoy oblasti.

ZANKIEWICZ, Alla

Casuistics of orbital traumas inflicted by wood. Klin. oczna  
27 no.2:181-185 1957.

l. Z Kliniki Okulistycznej A.M. w Białymostku Kierownik: doc.  
dr. med. M. Dymitrowska. Białystok, ul. Majowa 1 m. 1.  
(ORBIT, wds. & inj.  
wood inflicted inj. in child, surg. (Pol))

ZANKIEWICZ, Alla

Results of the treatment of diseases of the anterior chamber of the eye by means of subconjunctival implantation of preserved amnion. Polski tygod.lek. 15 no.39:1499-1501 26 S '60.

1. Z Kliniki Okulistycznej A.M. w Białymostku; kierownik: prof.  
dr med. Maria Dymitrowska.  
(EYE dis)  
(AMNION transpl.)

ZANKIEWICZ, W.

Coronary sinus rhythm in esophageal leads. Kardiol. Pol.  
7 no.3:221-224 J '64.

1. Z I Oddzialu Szpitala Miejskiego i z Pracowni Ekg  
Wojewodzkiego Szpitala im. J. Sniadeckiego w Bialymstoku  
(Kierownik: doc. dr W. Zankiewicz).

ZANKIEWICZ W. III. Szpit. miejsk., Białystok. Przelykowe odprowadzenia elektrokardiograficzne w świetle dotychczasowych i własnych badań. Oesophageal leads in the light of the author's and other researches. Polsk. Arch. Med. wewn. 1953, 23/1 (47-74) Graphs 5 Tables 1 Illus. 4

97 patients and 20 healthy subjects were examined. When carried out correctly the method is safe and can be used in seriously ill patients. Its value in the diagnosis of arrhythmias, paroxysmal tachycardia and infarction of the posterior wall is stressed. The latter can be diagnosed even when standard and precordial leads do not prove it. The latter can be diagnosed even when standard and precordial leads do not prove its presence. Terminal deflection of the atrial complex (Ta) was observed not only in the cases of A-V dissociation but also in cases with regular sinus rhythm. The 'U' wave was seen more frequently in the oesophageal than in the standard or precordial leads.

Gibinski - Bytom

SO: EXCEMPTA MEDICA, Section VI, Vol. 8, #1, January 1954

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Electrocardiography in wounds of the cardiac region. Kardiol. Pol. 5  
no.2:87-100 '62.

1. Z Pracowni Elektrokardiograficznej Wojewódzkiego Szpitala im.  
J. Sniadeckiego w Białymostku Kierownik: doż. dr W. Zankiewicz.

(HEART wds & inj) (ELECTROCARDIOGRAPHY)

ZANKIEWICZ, W.

Infarction of the atrial wall. Kardiol. Pol. 8 no.3:267-273 '65,

1. Z Pracowni Elektrokardiograficznej Wojewodzkiego Szpitala  
im. J. Sniadeckiego w Białymostku (Kierownik: doc. dr. W.  
Zankiewicz).

ZANKIEWICZ, Włodzimierz (Białystok, ul. Majowa 1/1 m. 1.)

Electrocardiogram in persons operated on in hypothermia. Polskie arch.  
med. wewn. 28 no. 7-999-1013 1958.

l. Z II Kliniki Chirurgicznej A. M. w Białymstoku Kierownik: prof. dr  
med. T. Jankowski i z Pracowni Elektrokardiograficznej Woj. Szpitala im.  
J. Śniadeckiego w Białymstoku. Kierownik: doc. dr med. W. Zankiewicz.

(HYPOThERMIA, eff.

on ECG in surg. patients (Pol))

(ELECTROCARDIOGRAPHY

eff. of hypothermia in surg. patients (Pol))

(SURGERY, OPERATIVE

eff. of hypothermia on ECG in surg. patients (Pol))

ZANKIEWICZ, Włodzimierz (Białystok, ul Majowa 1/1 m. 1.)

Observations and review of Wolff-Parkinson-White syndrome. Polskie arch.  
med. wewn. 27 no.8:1087-1103 1957.

1. Z I Kliniki Chorob Wewnętrznych A. M. w Białymostku Kierownik: prof.  
dr Med. M. Tułczyński i Pracowni Elektrokardiograficznej wojsk. Szpitala  
im. J. Śniadeckiego w Białymostku Kierownik: doc dr med W Zankiewicz.

(HEART BLOCK,  
Wolff-Parkinson-White synd. (Pol))

ZANKIEWICZ, Włodzimierz; BORON, Piotr

Therapeutic application of intravenous drip infusions of hyaluronidase  
in prolonged coronary insufficiency. Polskie arch.med.wewn. 30 no.9:  
1185-1190 '60.

1. Z I Kliniki Chorob Wewnetrznych A.M. w Białymostku p.o.  
Kierownika Kliniki: doc. dr med. W.Zankiewicz  
(HYALURONIDASE ther)  
(CORONARY DISEASE ther)

ZANKIEWICZ, Włodzimierz.

Effect of short waves on coronary insufficiency. Polski tygod.lek.  
10 no.33:1087-1092 15 Aug '55.

1. Z Oddzialu Chorob Wewnetrznych Wojewodzkiego Szpitala im.  
J. Sniadeckiego w Białymostku; dyrektor: dr. Adam Dowgird,  
ordinator: dr med. Włodzimierz Zankiewicz. Białystok, ul.  
Majowa 1/I, m. 1)

(CORONARY DISEASE, therapy,

short wave)

(DIATHERMY in various diseases,  
short wave, in coronary dis.)

ZANKIN, A. E.

M: Atlas Tipovykh Skham Vozdushno - reaktivnykh: turbo-vintovnykh Dvigateley  
(Atlas of Standard Designs of Jet-Engines and Turbine-Airscrew Engines), Moscow, 1950

Abstracted in USAF "Treasure Island", on file in Library of Congress, Air Information  
Division, Report No. 106968. Unclassified.

ZANKIN, A. V.

Country : USSR  
Category: Human and Clinical Physiology, Nervous System.  
Higher Nervous Activity - Behavior.

The Jour: Medical, N. 19, 1958, 89228  
Author : Gubarev, L.D.; Zalman, A.M.; Zalman, N.V.;  
Bogdan, M.T.; Rybnikov, M....  
Inst :  
Title : Arteriosclerosis in Patients with Brain Injuries.  
ORIG. Pub: Sov. USSR, Akad. Nauk, dokl.-zir., 1957, 7, N. 4, 255-28

Abstract: In thirty patients with closed injuries of the brain,  
disappearance of tonic excretion of defecation  
(AI) in the rectic tonite and spinal synapses  
was observed. Which is considered a result of de-  
pressive inhibition. Mayarity of AI was noted in  
patients with various degrees of damage of the right

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and left hemispheres. In injuries of the cere-  
bellum disappearance of AI was observed on the side  
of the lesion or bilaterally. Disturbance of  
AI resulted not only from damage of the correspond-  
ing neurons, but also in general cerebral manifesta-  
tions, conditioned by disturbances of the vegetative  
and trophical effects of the sympathetic nervous  
system upon the C.N.S. -- S.M. Zalman

Card : 2/2

ZANKINA, A.M.

Country : USSR  
Category: Human and Animal Physiology, Nervous System,  
Higher Nervous Activity, Behavior.

the Jour: Medical, No 10, 1958, 892-88

Author : Gorbun' L.D.; Zankina, N.N.; Zaitsev, N.V.;  
Engel's, M. Yu.; Efimov, E. V.

Inst: Institute of Pathology with Brain Injury.

Title : Aphasia in Patients with Brain Injury.

orig Pub: Zh. vopr. nervn. systemy i smyslovoi polosy, 1957, T. 5, N. 4, 213-224

Abstract: In fifty patients with closed injuries of the brain, disappearance of marked abreactive or affective (aff) in the visual, tactile and thermal modalities was observed, which is considered a result of definitive inhibition. Asymmetry of all tests is found in patients with various degrees of damage of the right

Card : 1/2

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and left hemispheres. In injuries of the cerebellum dysfunctions of all tests observed on the side of the lesion, or bilaterally. Disturbances of the auditory, or only from damage of the corresponding analyzer, but also in general cerebral manifestations, conditioned by disturbances of the vegetative and trophical effects of the sympathetic nervous system upon the C.N.S. -- N.N. Zankina

Card : 2/2

ZANKISOVA, I. G.

USSR / Microbiology. Microorganisms Pathogenic to Humans  
and Animals.

F-3

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 33900

Author : Zankisova, I. G.

Inst : Not given

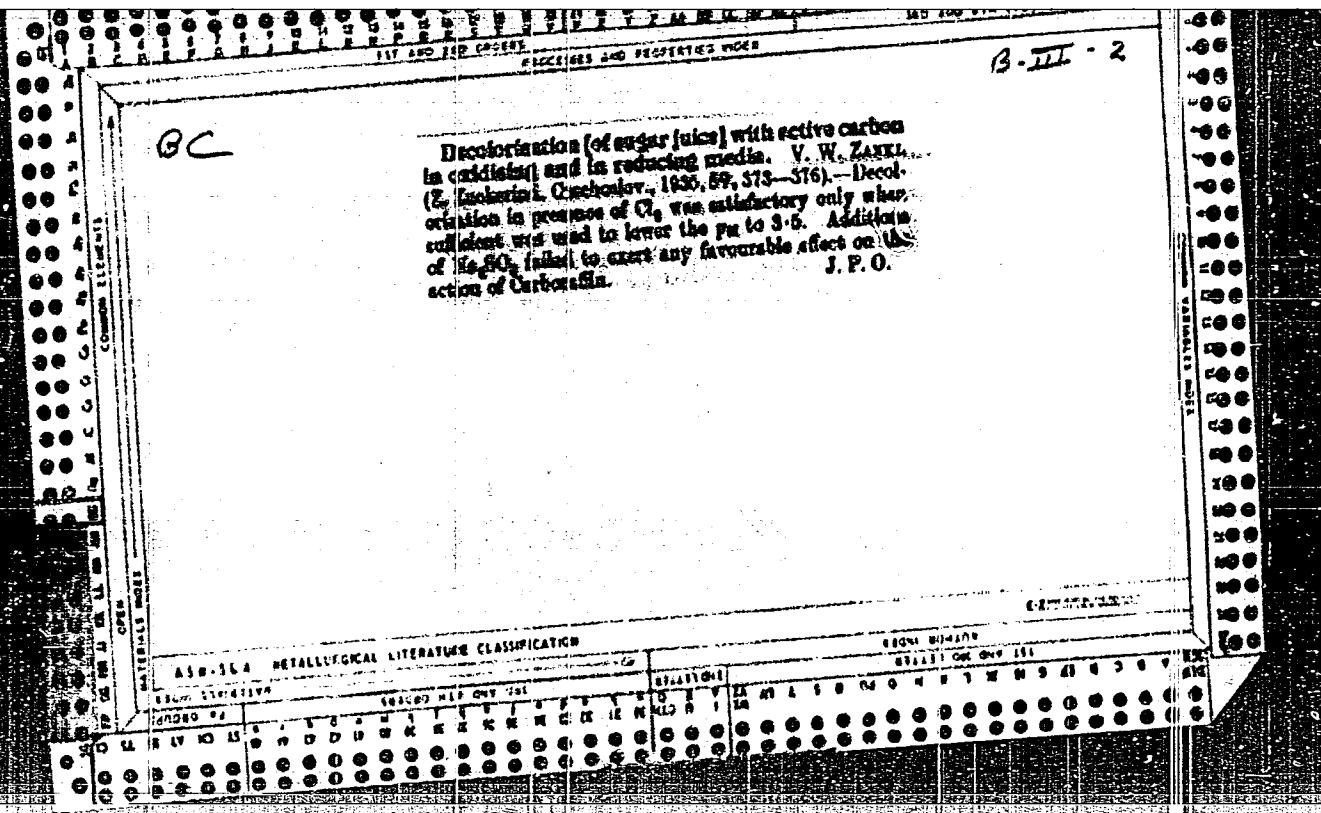
Title : Lung Tuberculosis Developed After Treatment with Anti-  
Bacterial and Chemical Preparations.

Orig Pub : Tr. In-ta tuberkuleza. Akad. med. nauk SSSR, 1957, 9,  
94-100.

Abstract : No abstract.

Card 1/1

37



1st AND 2nd COLUMNS  
PRINTED AND RECORDED INDEX  
*PyC*

Determination of the "activity" of carbon,  
using permanganate. V. W. ZAXEL (Z. Zuckerind.  
Czechoslov., 1933, 59, 289-291).—Dil. permanganate  
reacts energetically with active C, but has practically  
no effect on inactive forms. Based on this observation  
a volumetric method has been worked out for deter-  
mining the "activity" of C and for distinguishing  
between different grades. J. P. O.

B-I-2

AIA-11A METALLURGICAL LITERATURE CLASSIFICATION

Decolorizations in oxidizing and reducing media with activated charcoal. V. W. Zankl, *Listy Československého chemického inženýrství*, 33, 297-300 (1935); Z. Žáček and V. Závada, *Rep. 99*, 373-6 (1935). - Carboraffin and norite said, with 3% anhyd. Cl did not decolorize a 5% molasses soln, any better than the free charcoal. In the air the charcoal released the adsorbed Cl quickly and completely. Only when the charcoal and molasses were kept in a Cl atm, until the  $\mu_{\text{H}}$  fell to 3.5 did the Cl stimulate the charcoal to further adsorption. Carboraffin to which 0.005% Na<sub>2</sub>SO<sub>4</sub> had been added showed a decolorizing effect which was equal to the sum of the action of the carbon and salt. Norite was not affected by the Na<sub>2</sub>SO<sub>4</sub> addns. In the concen. encountered in technology (0.005%) the Na<sub>2</sub>SO<sub>4</sub> did not exert any effect on carboraffin. Addns. of 0.08% MnO<sub>2</sub> increased the adsorption in molasses and methylene blue solns, by 10%. With an adsorption of large quantities of MnO<sub>2</sub> and with a subsequent regeneration with HCl, the carbon failed to regain very much of its original activity; the MnO<sub>2</sub> oxidized the active surfaces of the char and did not enlarge them as expected.

Frank Marsh

*Ch* ✓ An analytical evaluation of the reaction between activated carbons and permanganate. V. W. Zankl. *Listy Cukrov.* 33, 199-201; Z. Zuckerind. *Technolisk. Raport* 39, 289-91 (1935).—The reaction velocity between KMnO<sub>4</sub> and activated carbons is very rapid during the first 5 min. of contact. Then it proceeds extremely slowly for several hrs. For detg. the percentage of Mn adsorbed by the carbon, Z, placed 0.2 g. in an Erlenmeyer flask, added 25 cc. 0.5 N KMnO<sub>4</sub> soln., and mixed the suspension vigorously for 10 min. The contents of the flask was poured upon an asbestos filter, washed and the Mn detd. in the filtrate by means of iodometric titration. At the same time the molasses no. of the same charcoal was detd. by shaking 0.5 g. of the carbon with 100 cc. of a 5% molasses soln. for 30 min., filtering and detg. the degree of decolorization in the filtrate by means of an objective photometer. Analyses of 20 different brands of activated carbons revealed an adsorption of KMnO<sub>4</sub> ranging 0.0-64.3%. Carboraffin, Standard-Norit, Haigenite, Haigenite Special and Spodia, gave a direct relation between the Mn

adsorbed and the molasses no. For Supra-norite, Suchar, Aetcarboul and carbons activated according to Ostrejka, the correlation was remote and less apparent. Carbons with the exception of Carboraffin that were deactivated until they failed to adsorb any more molasses also failed to adsorb KMnO<sub>4</sub>. With carbons falling within the Carboraffin-Spodia series, it was possible to predict the molasses no. from the mg. of KMnO<sub>4</sub> adsorbed. Frank Marsh ✓

A10 SLA METALLURGICAL LITERATURE CLASSIFICATION

E100 834109

RECEIVED ON JUN 15 1963

ZANKL, Vojtech, inz.

Possibility of saving fuel in brick kilns. Energetika Cz 13  
no.10:529-531 O '63.

1. Vyvojove pracoviste cihelen G.Klimenta, n.p., Brno.

KOBZEV, V.V.; ZAN'KO, A.A.

Quantitative determination of sodium and potassium chlorides in  
their mixtures by the extraction method. Ukr.khim.zhur. 29  
no.6:627-631 '63. (MIRA 16:9)

1. L'vovskiy politekhnicheskiy institut.  
(Alkali metal chlorides)  
(Chemistry, Analytical--Quantitative)

ZAN'KO, A.A.; PANTHELYEVA, L.I.

Amperometric determination of magnesium. Trudy Kom. anal. khim. 4:  
135-140 '52. (MIRA 11:6)  
(Magnesium) (Conductometric analysis)

"APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001963810004-9

PANTELEIYAN LITAN'KO AA.

APPROVED FOR RELEASE: 09/19/2001

CIA-RDP86-00513R001963810004-9"

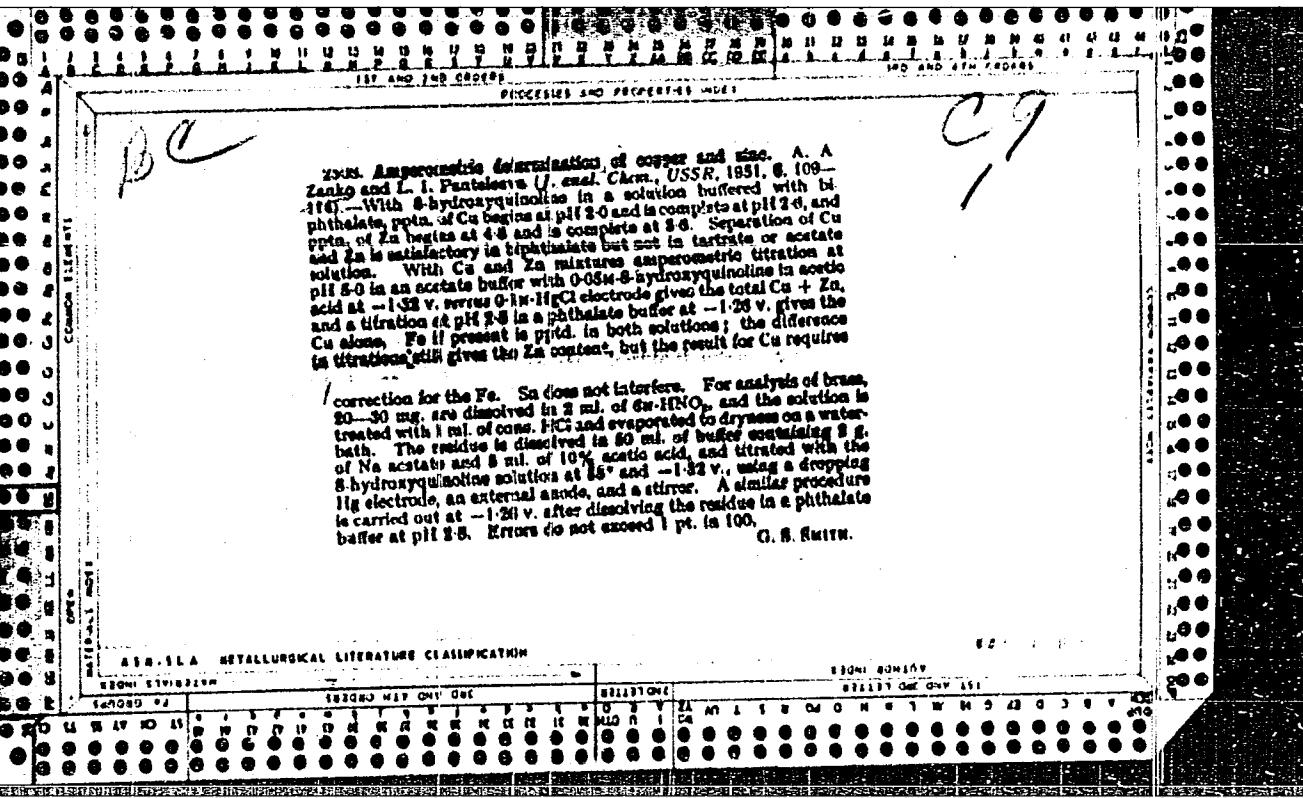
PANTELEYEVA, L.I.; ZAN'KO, A.A.

Rapid method for determining the alkali earth metals in barium  
glass. Nauch. zap. LPI no.29:101-108 '55. (MLRA 9:10)

(Glass--Analysis) (Alkali metals--Analysis) (Barium--Analysis)

7795\* Amperometric Determination of Copper and Zinc.  
(In Russian.) A. A. Zanko and I. I. Pantelova. *Zhurnal Analiticheskoi Khimii* (Journal of Analytical Chemistry), v. 10, Mar.-Apr. 1951, p. 109 (11).

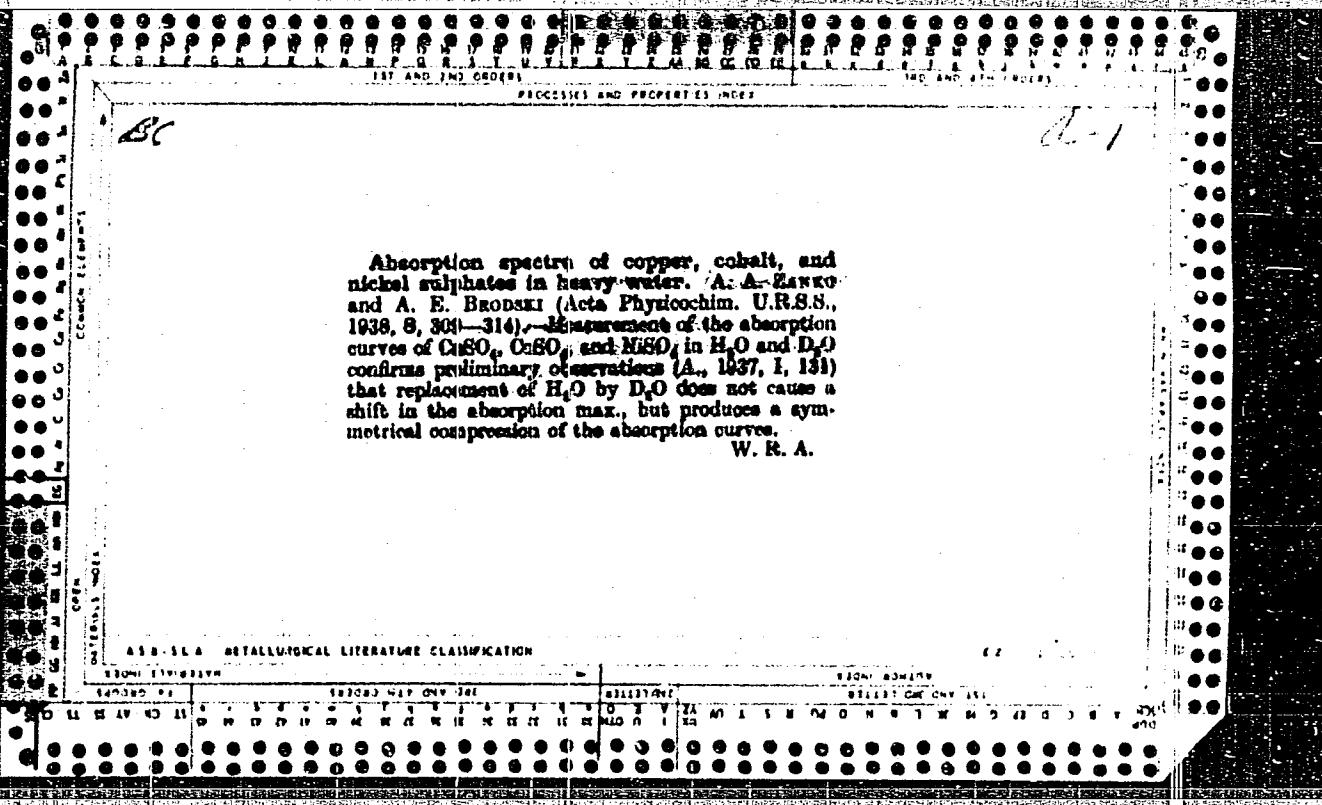
Reduction of oxyquinoline at the dropping mercury electrode in solutions of different acidities was studied experimentally. Conditions of deposition of oxyquinolates of copper and zinc were investigated. Methods for above determinations in mixtures and alloys are described. Typical data are tabulated and charted.



The absorption spectra of copper, cobalt and nickel sulfates in heavy water. A. A. Zanzo and A. I. Brodskii. *Acta Physicochim. U. R. S. S.*, 8, 39-44 (1938) (in English).—The spectral transmissions of solutions of  $\text{CuSO}_4$ ,  $\text{CoSO}_4$ , and  $\text{NiSO}_4$  in  $\text{H}_2\text{O}$  and  $\text{D}_2\text{O}$  were examined with a spectrophotometer to determine the effect of the solvent on the positions of the bands. No shifts ascribable to the solvent were detected but with  $\text{D}_2\text{O}$  the absorption bands were less intense and were depressed below those with  $\text{H}_2\text{O}$ . C. Kless

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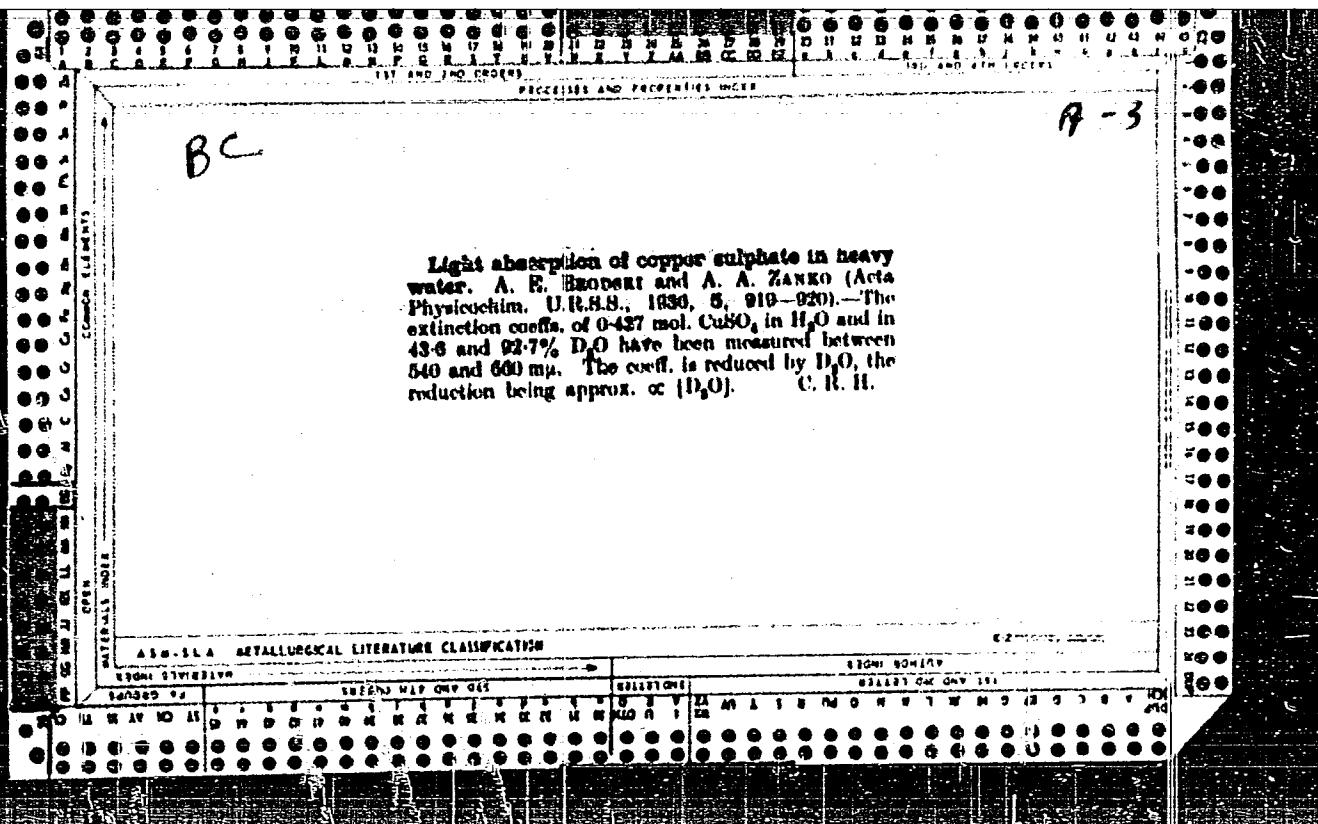
**CIA-RDP86-00513R001963810004-9"**



B C

9-3

Light absorption of copper sulphate in heavy water. A. B. BRODENT and A. A. ZANKO (Acta Physicochim. U.R.S.S., 1930, 5, 919-920).—The extinction coeff. of 0.487 mol.  $\text{CuSO}_4$  in  $\text{H}_2\text{O}$  and in 43.6 and 92.7%  $\text{D}_2\text{O}$  have been measured between 540 and 600 m $\mu$ . The coeff. is reduced by  $\text{D}_2\text{O}$ , the reduction being approx.  $\propto \{\text{D}_2\text{O}\}$ . C. R. H.



CA

Amporometric determination of copper and zinc A. A.  
Zan'ku and L. I. Panteleeva (L'vov Polytech. Inst., L'vov,  
U.S.S.R.). Zhur. Issled. Khim. O, 109-14 (1951). Cu and  
Zn present together can be titrated amperometrically with  
an approx. 0.05 M nitric soln. First, carry out the titration  
in an acetate buffer soln. at pH 5.0, thereby obtaining  
the Cu + Zn. Next, titrate in a biphthalate buffer soln. at  
pH 2.8, thus obtaining Cu content. The difference in the  
2 vols. gives the vol. of titrant required for Zn. Fe, when  
present, will ppt. in both buffers, thus permitting the detn.  
of Fe + Cu. To det. Cu, appropriate correction should be  
made. M. Hirsch