

OPALSKI, W.

Application of linear precision scales for testing runs and scales in optical micrometers of theodolites. p. 15, (PRZEGLAD GEODEZYJNY, Vol. 11, No. 1, January 1955, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5  
May 1955, Uncl.

P/028/60/009/001/002/002  
A076/A126

AUTHOR: Opalski, W.

TITLE: Report on scientific meeting of the PAN Geodetic Committee on September 16, 1959

PERIODICAL: Geodezja i Kartografia, no. 1, 1960, 81

TEXT: A scientific meeting organized by the Komitet Geodezji PAN (PAN Committee of Geodesy) was held on September 16, 1959, at the Palace of Arts and Culture in Warsaw. The meeting was attended by 45 persons, of whom 13 were guests from the USSR and Soviet-bloc countries, who were previously attending an international meeting of geodets and astronomers organized by the Główny Urząd Geodezji i Kartografii (Main Office of Geodesy and Cartography). Chairman of the PAN Committee of Geodesy, Professor M. Odlanicki-Poczobutt made the opening speech. The following two reports were presented during the meeting: - Engineer J. Śurań, ✓  
CSR on "The Choice of Stars for Equal-Height Methods" and Docent B. Dulian on "Polish Post-War Astronomical Measurements on Laplace's Points and Astronomic Gravimetric Levelling Points".

Card 1/1

S/035/62/000/011/072/079

A001/A101

AUTHOR: Opalski, Wieslaw

TITLE: Theoretical fundamentals of using orbits of artificial satellites for studying the shape of Earth

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 11, 1962, 21, abstract 11G195 ("Postepy astron.", 1962, v. 1, no. 1, 3 - 14, Polish; Russian and English summaries)

TEXT: The author describes briefly the main contents of articles on the Earth's potential and determination of gravity field parameters from observations of artificial satellites published in bulletins of the Institute of Theoretical Astronomy, AS USSR, (see RZhAstr. 1957, no. 10, 7972; 1960, no. 9, 8678, 8681, no. 11, 11029) and presents some information on these problems from the reports by D. C. King-Hele at the MFTC (MGGS) congress at Helsinki in 1960 and by I. D. Zhongolovich at a conference on artificial satellites held in Moscow in January 1961.

I. Zhongolovich

[Abstracter's note: Complete translation]

Card 1/1

OPALSKI, W.

Results of observations of the meridian star transits of stars  
made in the Jozefoslaw Observatory of the Warsaw Polytechnical  
College during 1958 - 1959. Postepy astronom 10 no.1:77  
Ja-M '62.

OPALSKI, W.

Report on the activities of the Chair of Geodetic Astronomy  
of the Polytechnic College in Warsaw during the period  
1950-1961. Postępy astronomii 10 no.3:273-279 '62.

OPALSKI, Wieslaw

Problems of astronomy. Geod i kart 12 no. 3/4: 251-259  
'63.

OPALSKI, Wieslaw

Astronomical and Geodetic Observatory of the Warsaw Technical  
University in Jozefoslaw. Przegl geod 35 no.11:487-489 N '63.

KRASNOV, M.D., polkovnik meditsinskoy sluzhby; YAKOBSON, N.Z., podpolkovnik meditsinskoy sluzhby; VASILENKO, Ye.F., podpolkovnik meditsinskoy sluzhby; GULIMOVA, L.A.; OPANASENKO, A.S.

Aerial dusting in the control of ticks. Voen.-med.zhur. no.8:42-45  
Ag '59. (MIRA 12:12)  
(TICKS)



CHEREMANOV, A.I.; CHEREMANOV, A.I.

Fauna of weevils in the coastal zone of Novosibirsk Reservoir.  
Trudy Biol. Inst. Sib. Otd. AN SSSR no. 10:7-23, 1963

(MIRA 17:50)

AUTHOR: Podgayetskiy, V.V., Gerasimenko, G.I.

TITLE: Mechanized Building-up of Surface of an Alloy in Direct  
Current

PERIODICAL: A + zoticheskoye obozreniye, 1960, No. 7, p. 33 (USSR)

ABSTRACT: For the surface of steel subjected to alkaline  
in use, the electrolyte of the following composition  
is used: 10% NaOH, 10% Fe, 10% NaCl, 10% Na<sub>2</sub>CO<sub>3</sub>,  
rest is water. In combination with this electrolyte,  
flux is used. The process is accomplished by means of  
anode-cathode direct electric current. The  
cathode is selected; the speed of electrolysis is  
10-20 mm/hour; speed of the process is 10-15 mm/hour.  
Under the conditions applied, the thickness of the  
first layer is 1-2 mm; of two layers 10-14 mm; of three  
layers 15-20 mm. The chemical composition of the  
layers is: 10-25% Fe, 10-20% Al, 10-15% Mn, 10-15% Ni,  
10-15% Cu, 10-15% Zn, 10-15% Pb, 10-15% Sn, 10-15% Bi,  
10-15% Ag, 10-15% Au. The result is metal coating.

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PODGAYETSKIY, V. V., OPANASENKO, S. I.

Comparison of methods of mechanized aluminum bronze deposition.  
Avtom. svar 13 no.8:58-56 Ag '60. (MIRA 13:8)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki  
im. Ye.O. Patona AN USSR.  
(Aluminum bronze)  
(Hard facing--Equipment and supplies)

VOINOV, Ye.A.; OPANASENKO, V.G.; POKROVSKIY, S.A. (Kiyev, ul.Chkalova, d.79,  
kv.10)

Clinical X-ray diagnosis of tumors of the soft tissues of the  
extremities. Klin.khir. no.7:28-33 J1 '62. (MIRA 15:9)

1. Kiyevskiy nauchno-issledovatel'skiy rentgeno-radiologicheskii i  
onkologicheskii institut.  
(EXTREMITIES (ANATOMY)--TUMORS) (DIAGNOSIS, RADIOLOGIC)

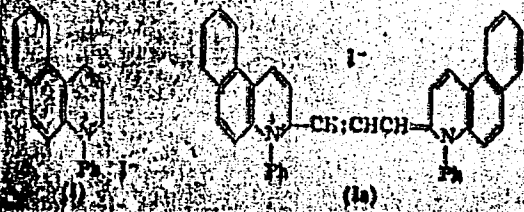
O PANASENKO, V. V.

**2-Acetyl-1-vinyl-3-methyl-5-phenyl-4-pyridylmethanol**  
**A. T. Litvin and E. F. Gerasimov**  
*Ukrainian Chem. Rev.*, 1958, 27, 100

**2-Acetyl-1-vinyl-3-methyl-5-phenyl-4-pyridylmethanol**. To a mixt. of 4 g. 2-acetyl-1-vinyl-3-methyl-5-phenyl-4-pyridylmethanol, 5 ml. HCl, 1 ml. PhNO<sub>2</sub>, and 3 ml. C<sub>6</sub>H<sub>6</sub> was added with ice cooling 4 g. cooled paraldehyde and the mixt. was heated to sealed tube 6-8 hrs. at 100°, then treated with Et<sub>2</sub>O, the lower layer dild. with EtOH and treated with Et<sub>2</sub>O, yielding 28% yellow β-naphthoquinoidine iodide (I), m. 118-8° (from H<sub>2</sub>O). I heated with CH<sub>3</sub>OH in pyridine 10 min. gave 20% di(1-phenyl-β-naphthoquinoidine)trimethinecyanine iodide (II), green, decomp. 250°, absorption max. 545 mμ (in EtOH). I and

2-acetyl-1-vinyl-3-methyl-5-phenyl-4-pyridylmethanol similarly gave 28% (1-phenyl-β-naphtho-2-quinoline)(1,3,3-trimethylindolenine-2-trimethinecyanine perchlorate), red-violet, decomp. 258°, absorption max. 580 mμ (in EtOH). I and 2-acetyl-1-vinylbenzothiazole ethiodide similarly heated in pyridine with a little Ac<sub>2</sub>O gave 33% green (1-phenyl-β-naphtho-2-quinoline)(3-ethyl-2-benzothiazole)trimethinecyanine iodide, decomp. 228°, absorption max. 590 mμ. I and 2-methylmercaptobenzothiazole heated in EtOH with NaOAc 5 min. gave 43% (1-phenyl-β-naphtho-2-quinoline)(3-ethyl-2-benzothiazole)monomethinecyanine iodide, orange, m. 276°, absorption max. 506 mμ. I and p-Me<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHO refluxed in pyridine 30 min. gave 47% (1-phenyl-β-naphtho-2-quinoline)-p-dimethylaminostyryl iodide, decomp. 188°, absorption max. 552 mμ. Introduction of Ph group in place of Et in the N atom of the naphthoquinoidine leads to bathochromic shift of absorption max.

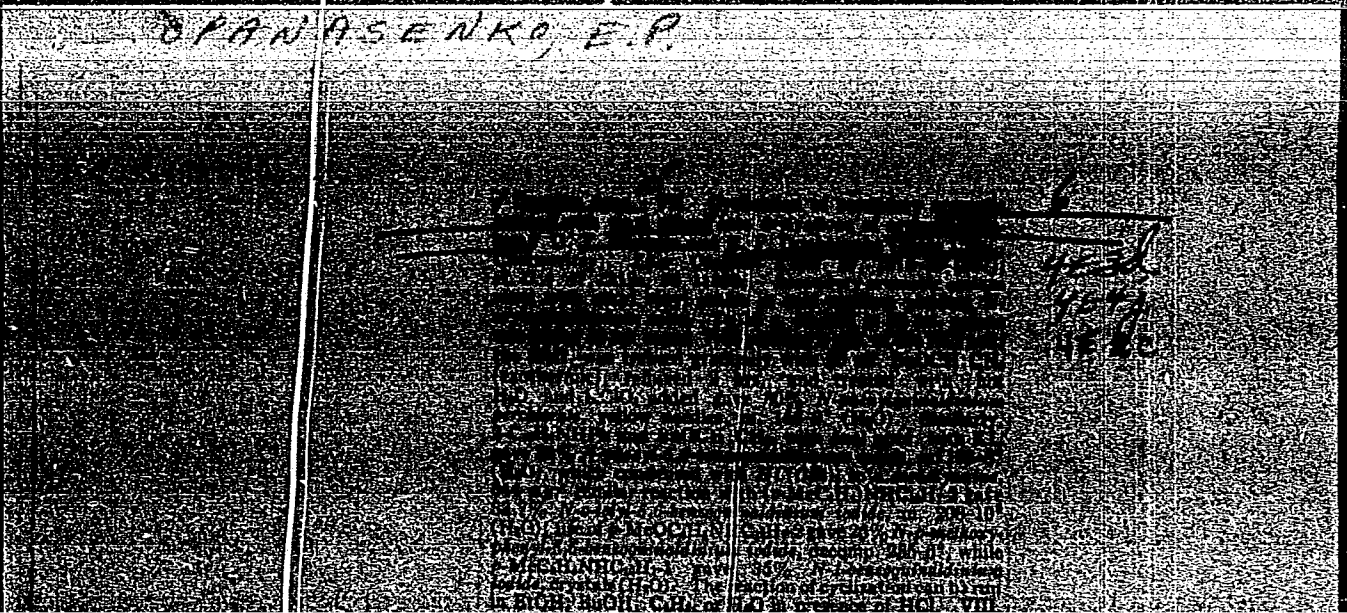
G. M. Kosolapoff



PILYUGIN, G.T.; ~~OPANSENKO, Ya. P.~~; TSVETKOVA, N.A.

Research in the field of cyanine dyes. Part 7. Synthesis of alkoxy derivatives of benzoquinazolinium quaternary salts and their conversion. Zhur. ob. khim. 27 no.4:1018-1022 ap '57. (MIRA 12:8)

1. Chernovitskiy gosudarstvennyy universitet.  
(Quinazolinium compounds) (Dyes and dyeing)





P. LUBI N, G. T., O. PANAZENKO, S. P.

the mixt. heated in ampul 5 hrs. at 160° gave, after washing with H<sub>2</sub>O, sub. in EtOH, and addn. of satd. KI, 28% 1-(p-methoxyphenyl)-5,6-benzoquinolizinium iodide (D, m. 250-1°, which refluxed 40 min. with HC(OEt)<sub>3</sub>, pyridine, and Ac<sub>2</sub>O gave 21% bis(1-p-methoxyphenyl)-5,6-benzoquinoline-2-(1-methylpiperazine) iodide, green, decomp. above 300°, λ 642 mμ. If the quaternary salt is heated in pyridine with ethoxide of 2-acetamido-5-methyl-4-isoxazolone and the product treated with KClO<sub>4</sub>, there is formed 1-(p-methoxyphenyl)-5,6-benzo-2-quinoline (3-ethylbenzo-2-thiazole) trimethylsilylindolecarbamate methiodide in the above reaction gave 34% (1-p-methoxyphenyl)-5,6-benzo-2-quinoline 2,2,2-trimethyl

6  
1-4E3D  
1-4E4J  
1-4E2C

PILYUGIN, G. T.; PANASENKO, E. P.

gave deep violet (1-p-ethoxyphenyl-7,8-benzo-2-quinoline)  
(3-ethyl-2-benzothiazole)trimethinecyanine perchlorate, de-  
comp. 200°, λ 590 mμ; use of 2-acetanilidovinylidimethyl-  
indoleine methiodide similarly gave (1-p-ethoxyphenyl-7,8-  
benzo-2-quinoline) (1-p-ethoxyphenyl-7,8-

6  
1-4E3d,  
1-4E4d

Quinoline) p. 111. *Синтетические красители* 8-й том 3  
Синтетические красители perchlorate. X 340 mg  
G. M. Kosolapoff

PM JAG

AUTHORS:

Pilyugin G. T., Upanasenko Ye. r., Shinkorenko, S. V. 79-28-5 45/69

TITLE:

Investigations in the field of Synthetized Dyes  
(Issledovaniya v oblasti sinteticheskikh krasiteley)  
X. synthesis of  $\alpha$ -Aryl-2- $\beta$ -Anilino vinylquinolinium  
Derivatives and their Conversions (X. Sintez  
N-aryl-2- $\beta$ -anilino vinylkvinolinijevykh proizvodnykh i  
ikh prevrashcheniya)

PERIODICAL:

zhurnal Obshchey Khimii. 1958 Vol 28 nr 5.

ABSTRACT:

For the synthesis of trimethinecyanine dyes of  
asymmetrical structure mainly products are used which  
were obtained from diphenylformamide and quaternary  
salts of the heterocyclic compounds (references 1, 2)  
in the condensation of these products with other quaternary  
salts trimethinecyanines of asymmetrical structure form  
(references 3 - 7). In order to make possible further  
organic syntheses of this kind and to investigate in more

investigations in the Field of Synthesized Dyes  
A. synthesis of N-Aryl-2- $\beta$ -Anilinevinylquinolinium  
Derivatives and Their Conversions

79-28 5-45.69

detail the properties of the molecules of asymmetrical structure, the authors carried out the synthesis of similar intermediate products of quinoline derivatives having aryl radicals at the nitrogen heteroatom. In the present report results are given of the condensation of diphenylformamide with N-phenylquinaldinium perchlorate and N-phenylbenzoquinaldinium iodide (see schemes 1 and 2). The separated products, the N-phenyl-2- $\beta$ -anilinevinylquinolinium perchlorate (formula 1) and the N-phenyl-2- $\beta$ -anilinevinyl-5,6-benzoquinolinium iodide (2), were condensed with the quaternary salts of quinoline and benzothiazol with the formation of trimethinecyanines of asymmetrical structure (see scheme 3). Thus new products were synthesized: N-phenyl-2- $\beta$ -anilinequinolinium perchlorate and N-phenyl-2- $\beta$ -anilinevinyl-5,6-benzoquinolinium iodide. By condensation of these products with quaternary salts of heterocyclic compounds five new carbocyanines of asymmetrical structure were synthesized (N-phenyl-5,6-benzoquinoline 2) (N-phenyl

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Investigations in the Field of Synthetized Dyes.  
X. Synthesis of N-Aryl-2- $\beta$ -Anilino vinylquinolinium  
Derivatives and Their Conversions

79-28-5-45/63

-quinoline-2)-trimethinecyanineperchlorate;  
N-(p-tolyl-5,6-benzoquinoline-2)-N-phenylquinoline-  
-2)-trimethinecyanineperchlorate; N-(p-tolyl-5,6-  
-benzoquinoline-2)-(N-phenylquinoline-2)-  
-trimethinecyanineperchlorate; (N-phenyl-5,6-  
-benzoquinoline-2)-(N-phenyl-5,6-benzophenylquinoline-2)-  
-trimethinecyanineiodide; (N-phenyl-5,6-benzoquinoline-  
-2)-(3-ethylbenzthiazol-2)-trimethinecyanineiodide.  
There are 1 table and 7 references, 5 of which are  
Soviet.

ASSOCIATION: Chernovitskiy gosudarstvennyy universitet  
(Chernovtsy State University)

SUBMITTED: April 18, 1957

Card 3/3

5(3)

SOV, 79-29-9-57/76

AUTHORS:

Pilyugin, G. T., Opanasenko, Ye. P.

TITLE:

Investigations in the Field of Artificial Dyestuffs. XIII. Monomethine Quinothiacyanines of Unsymmetrical Structure

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 3062-3076 (USSR)

ABSTRACT:

In continuation of the papers of references 1-4 concerning the spectroscopic investigations of the cyanine dyestuffs the authors synthesized monomethine cyanine of unsymmetrical structure with aromatic and alkyl radicals at the hetero-residues of the molecules as well as dyestuffs containing only radicals. Similar compounds have hitherto been unknown (Refs 5-8). In the present paper cyanines were synthesized by the reaction of quaternary salts of heterocyclic bases with thiazolone imines, mercapto derivatives or quinolones in statu nascendi. In the first case the imine was melted with the salts in vacuum (Ref 9). Several monomethine cyanines were obtained, in which the bonding of the methine group took place in the 2,2- and 2,4-positions (Schemes 1,2,3). In the reaction with thiazolone imine the quaternary salts of N-aryl benzoquinadinium form only quinothiacyanines when melted according to the scheme,

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SOV/79-29-9-57/76

Investigations in the Field of Artificial Dyestuffs. XIII. Monomethine  
Quinothiacyanines of Unsymmetrical Structure

whereas in the melting of the salts of N-aryl quinaldinium derivatives the reaction takes place to a slight degree in another direction under the formation of dyestuffs of different structure (isocyanines). Their formation was determined spectroscopically on the basis of the absorption curves of a mixture of the dyes and the pure compounds (Figs 1-4). These dyestuffs were separated by chromatographing on aluminum oxide and identified with the isocyanines which were synthesized from the corresponding quaternary salts and quinolines in alcoholic-alkaline medium (Ref 10). 21 monomethine cyanines of unsymmetrical structure were synthesized (Table). The absorption maxima of the monomethine cyanines with aryl radicals at the hetero nitrogen atoms exhibit a shift to the range of longer waves, as compared to the compounds with alkyl radicals. The isomeric compounds with a phenylene group in different positions differ by their color, as may be seen from their absorption maxima. This applies both to the isocyanines and to the quinethiapseudocyanines. There are 4 figures, 1 table, and 12 references, 4 of which are Soviet.

Card 2/3

SOV/79-29-9-57/76  
Investigations in the Field of Artificial Dyestuffs. XIII. Monomethine  
Quinothiacyanines of Unsymmetrical Structure

ASSOCIATION: Chernovitskiy gosudarstvennyy universitet (Chernovtsy State  
University)

SUBMITTED: July 25, 1958

Card 3/3



S/079/60/030/04/56/080  
B001/B011

AUTHORS: Filyugin, G. T., Opanasenko, Ye. P.

TITLE: Investigations in the Field of Synthetic Dyes XVI Synthesis of Oxy- and Alkoxy-substituted Quaternary N-Arylquinolinium Salts and Their Conversions

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4 pp. 1303-1307

TEXT: In continuation of their investigations (Refs. 1,2) on the reaction of secondary aromatic amines of a symmetrical and asymmetrical structure with aldehydes, vinyl ethers, and acetone (with resulting quinolinium, quinolinidinium, and lepidinium salts, which, in turn, were converted into quinolinium dyes), the authors performed the reaction of p,p'-dioxydiphenylamine with methoxy phenyl- $\alpha$ -naphthyl amine, o-methoxy phenyl  $\beta$ -naphthyl amine with paraldehyde and vinyl-n.-butyl ether in acid medium (Scheme I). It can be seen from this scheme that salts of an isomeric structure may arise from the condensation of asymmetrical amines. The following salts were separated and examined as a result of this investigation: (I), (II), (IV). No side-products were found in this connection. Their structure was confirmed in the

Card 1/2

Investigations in the Field of Synthetic Dyes. S/079/60/030, 04, 05, 06, 08  
XVI. Synthesis of Oxy- and Alkoxy-substituted BO01/BO11  
Quaternary N-Arylquinaldinium Salts and Their Conversions

analytical way and by the absorption spectra of the symmetrical carbocyanines obtained from them. Thus, the following hitherto undescribed quaternary salts were synthesized: 1-p-oxyphenyl-6-oxyquinaldinium iodide and bromide, 1-naphthyl-6-methoxyquinaldinium iodide and 1-o-methoxyphenyl-5,6-benzquinaldinium perchlorate. Carbocyanines with a symmetrical structure were synthesized from these salts, and their absorption curves were determined in the visible spectrum region. Dyes (VI), (VII), (VIII), (IX), (X) were obtained by condensation of quaternary salts with orthoformaldehyde. The diagram shows the absorption curves of these dyes. The absorption curves of the dyes confirm the well-known principle that the amino groups have a strong influence on the color, and that the shifts of the maxima are within the limits of the spectrometric determinations. There are 1 figure and 1 table.

ASSOCIATION: Chernovitskiy gosudarstvennyy universitet (Chernovitskiy State University)

SUBMITTED: February 21, 1959

Card 2/2

PILYUGIN, G.T.; OPANASENKO, Ye. P.

Synthetic dyes. Part 18: Synthesis of isomeric N-arylquinaldinium salts and their conversions. Zhur. ob. khim. 31 no.4:1233-1240  
Ap '61. (MIRA 14:4)

1. Chernovitskiy gosudarstvennyy universitet.  
(Quinaldinium compounds)

PILYUGIN, G.T.; OPANASENKO, Ye.P.; ISAK, A.M.

Synthetic dyes. Part 25: Synthesis of isomeric N-arylquinaldinium salts and their transformation to cyanine dyes. Zhur.ob.khim. 32 no.5:1398-1403 My '62. (MIRA 15:5)

1. Chernovitskiy gosudarstvennyy universitet.  
(Quinaldinium compounds) (Cyanine dyes)

PILYUGIN, G.T.; OPANASENKO, Ye.P.; PERENKO, O.Ye.

Synthetic dyes. Part 33: Synthesis of 1-o-methoxyphenyl-7,  
8-benzoquinaldinium perchlorate and its transformations.  
Zhur.ob.khim. 33 no.10:3228-3231 O '63. (MIRA 16:11)

1. Chernovitskiy gosudarstvennyy universitet.

PILYUGIN, G.T.; PETRENKO, C.Ye.; GPANASENKO, Ye.I.

Study of synthetic dyes. Part 40: 1-o-Hydroxyphenylquinazolinium perchlorate and its transformations. Zhur. ob. khim. 34 no. 10: 3333-3336 1974.

Study of synthetic dyes. Part 41: 1-o-Hydroxyphenylbenzoquinazolinium perchlorates and their transformation to carbocyanine dyes. Ibid.: 3337-3341 (MIRA 1974)

1. Chernovitskiy gosudarstvennyy universitet.

PETRENKO, G.Ye.; Pilyugin, G.I., OPANASENKO, Ye.P.

Synthetic dyes. Part 49: Styryl dyes from derivatives of  
N-aryl quinaldinium salts. Zhur. org. khim. 1965, 11, 1486  
1486 Ag '65. (NEPA 18 11)

1. Chernovitskiy gosudarstvennyy universitet.

OPANASYUK, A A

PHASE I BOOK EXPLOITATION

SOV/4652

Kuznetsov, Nikolay Semenovich, and Anatolly Aleksandrovich  
Opanasyuk

Peredovyye metody razmetki po shablonam i kalibram (Advanced  
Layout Methods With Templets and Gauges) Moscow, Mashgiz, 1960. 68  
p. (Series: Biblioteka razmetchika, vyp. 5) 10,000 copies  
printed.

Editorial Board of Series: N. S. Kuznetsov, Engineer, B. Ya.  
Miroshnichenko, Candidate of Technical Sciences, S. V.  
Lisitsyn (Ed. of this booklet) Engineer, and T. M. Somova,  
Engineer; Ed.: T. M. Somova; Tech. Ed.: N. A. Dugina.

PURPOSE: This booklet is intended for layout men in machining  
shops.

COVERAGE: This is the fifth in a series of thirteen booklets  
comprising the "Library of a Layout Man". Included is  
information on the achievements of leading layout men in  
their use of plane and 3-dimensional templets, gages, and  
master parts. By means of concrete examples the authors

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Advanced Layout (Cont.)

SOV/4652

attempt to show that the use of gages, and templets results in simplification of work procedure and increase in labor productivity. No personalities are mentioned. There are 19 references, all Soviet.

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Special cases for the use of templets	23
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3. Special cases for the use of templets in 3-dimensional layouts	43
4. Using drawings as templets	47

~~Card 2/3~~

YAKOVLEV, N.I.; GUMISEV, A.S.

Observations on the seasonal and 24-hour activity of Culex  
mosquitoes in the suburban area of Novosibirsk. Med. parazit.  
(MIRA) 1964. 33 no. 1. 27-30. Jan 1964

OPANOMICZ, H.

(9)

WARTWA, RUDOLFE, W. 'Agitation of ...  
 Seria z dziedziny ...  
 WARSZAWA, Vol. I, No. 3, 1951.

University (English article, pp. 165-169;  
 Warszawa); English article, pp. 165-169.

9. "On the General Internal Representation of Perturbation  
 Expansion of Heterogeneous and Its Relation to  
 Random-Dynamics Representation." W. JASZCZAK, of the  
 Institute of Theoretical Physics, Poczta Polowa 44, ul.  
 Instytut Fizyki Teoretycznej, Uniwersytet Warszawski;  
 English article, pp. 171-176.

10. "Influence of the Activation Temperature of Special  
 Distribution of Photosensitivity of the ODS System of the  
 Latent Layer." W. CIAŁOWSKI and A. JASZCZAK, of the  
 Polsh Academy of Sciences, Polska Akademia Nauk, ul. 17  
 Polish Academy of Sciences, Instytut Fizyki Teoretycznej,  
 Polsh Academy of Sciences, Instytut Fizyki Teoretycznej,  
 ul. 17, Warszawa; English article, pp. 177-183.

PO/0045/66/030/006/0933/0941

ACC NR: AP7003277

AUTHOR: Opanowicz, A.

ORG: Department of Technical Physics, Technical University, Lodz

TITLE: Negative photoconductivity and optical quenching in CdSe crystals

SOURCE: Acta physica polonica, v. 30, no. 6, 1966, 933-941

TOPIC TAGS: photoconductivity, optic quenching, cadmium selenide, single crystal structure, photosensitivity, single crystal growing, temperature dependence

ABSTRACT: The specific distribution of photosensitivity and optical quenching of photocurrents at -175 to 100C was studied on single CdSe crystals grown by sublimation in a hydrogen atmosphere in 700-900C, 1200-1230C, and 1150-1180C temperature zones. Negative photoconductivity was observed in the 7150-7500 Å region, particularly at room temperature, on crystals denoted as CsSe II, i.e., crystals grown 8-10 hr in the 1200-1230C or 1150-1180C zones. Negative photoconductivity showed a distinct maximum at room temperature at 7300 Å and was strongly dependent on temperature. Optical quenching of photocurrents, induced by excitation in the intrinsic absorption region, was determined for three bands whose long-wave limits amount to 7800, 12,000, and 20,000 Å, respectively. The effects of negative photoconductivity, optical quenching in the 7150-12 000 Å region, and the mode of spectral distribution of photosensitivity were related to surface defects of the crystal lattice. The author

UDC: none

Card 1/2

ACC NR: AP7003277

sincerely thanks Dr. A. Wrzesińska for her very helpful comments on this paper, and Dr. A. Baczyński and Dr. H. Lożykowski for fruitful discussions during the performance of this work. The author also thanks the management of the Industrial Institute of Electronics for making it possible to perform a part of these experiments. Orig. art. [26]  
has: 9 figures.

SUB CODE: 20/ SUBM DATE: 28Feb66/ ORIG REF: 002/ OTH REF: 006/ SOV REF: 005  
ATD PRESS: 5114

Card 2/2

OPANOV, B.

Case of retroperitoneal echinococcosis simulating acute surgical abdomen. Khirurgiia, Sofia 10 no.11:1041 1957.

1. Iz Khirurgichnoto, otdelenie na Gradskata bolnitsa - Lovech.  
(ABDOMEN, ACUTE, differential diagnosis,  
retroperitoneal, from acute abdom. (Bul))  
(ECHINOCOCCOSIS, differential diagnosis,  
retroperitoneal, from acute abdom. (Bul))  
(RETROPERITONEAL SPACE, diseases,  
echinococcosis, differ. diag. from acute abdom. (Bul))

CZAJKOWSKI, M.; CIANCICZ, A.

Polycrystalline photoconductive layers, type  $\text{PbS}_x\text{-CdSe}_{1-x}$ .  
Przem inst elektron prace 4 no. 1557-60 1983.

1. Zaklad Fizyki Ciala Stalego, Przemyslowy Instytut Elektryki, Torun.

L 11151-63 BDS/EWP (4)--ASD--JD

ACCESSION NR: AP3003185

P/0053/63/000/004/0246/0251

AUTHOR: Czajkowski, Mieczyslaw; Opanowicz, Andrzej

TITLE: Influence of activation temperature on sensitivity spectral response of polycrystalline CdS layers

SOURCE: Przegląd elektroniki, no. 4, 1963, 246-251

TOPIC TAGS: thermal activation, polycrystalline CdS

ABSTRACT: The effect of thermal activation on the spectral response of CdS-photocell sensitivity has been investigated. The Cu and Cl activators were taken from water solutions of CuSO<sub>4</sub> and NaCl. Their concentrations before annealing were 5·10<sup>-4</sup> gram and 10<sup>-2</sup> gram per gram of CdS, respectively. Ten-gram portions were used in the activation process. After the addition of the impurities, the CdS was dried at a temperature of 80C for 8-10 hr, then annealed in closed porcelain pots in a special furnace. Activation processes at 450, 550, 700, 850, 1000, and 1100C were investigated. The annealing time for all temperatures was 60 min. The product was then washed in distilled water, dried at 100C for 6 hr, and pressed into tablets, which after sintering at 550C for 30 min were used for making polycrystalline layers. The curves of the sensitivity

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I 11151-63

ACCESSION NR: AP3003185

spectral response were obtained with the use of a monochromator with a tungsten-filament lamp (2854K). The following are the findings of the investigation: 1) the shape of the sensitivity spectrum response curve for polycrystalline CdS layer depends mainly on the type of activator and the excess of cadmium produced during the activation process; 2) the polycrystalline layer preserves in general outlines the property of the CdS single crystal, and 3) oxidation products play the role of a cohesive in the case of compressed layers. It is also possible that the excess of cadmium in the case of layers being pulverized in vacuum, is the result of oxidation. Orig. art. has: 3 figures and 2 formulas.

ASSOCIATION: Przemyslowy Instytut Elektroniki (Institute of Industrial Electronics)

SUBMITTED: 00

DATE ACQ: 12Jul63

ENCL: 00

SUB CODE: SD

NO REF SOV: 003

OTHER: 021

cs/ *[Signature]*  
Card 2/2

OPARA, M.

"Science of heat" by [inz.] B.Cerne. Rd ed. Reviewed by M.Opara. Stroj  
vest 9 no.4/5:129 0 '63.

0/058/03/010/002/0-8/070  
A160/A101

AUTHORS: Czajkowski, M., Czapinski, A.

TITLE: The effect of the activation temperature on the spectral distribution of the photosensitivity of CdS polycrystalline layers

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 78, abstract 28528  
("Bull. Acad. polon. sci. Sér. sci. math. astron. et phys.", no. 3, 1962, v. 10, 177 - 183, English; summary in Russian)

TEXT: Investigations were carried out of the effect of the activation temperature on the shape of the spectral distribution curve of the sensitivity of photoconductive CdS polycrystalline layers. It is shown that the shape of these curves mainly depends on the type of activators included in the CdS microcrystals, and also on the excess Cd developing during the sintering process. The obtained results indicate that the oxidation products act as a contact coupling material. Due to this fact, the polycrystalline layer generally retains the properties of a single crystal.

[Abstracter's note: Complete translation]

Card 1/1

CZAJKOWSKI, Mieczysław; PANOWICZ, Andrzej

Influence of the activation temperature on the sensitivity  
spectral response of polycrystalline CdS layers. Przegląd  
elektroniki 4 no.4:246-251 Ap '63

1. Przemysłowy Instytut Elektroniki, Warszawa.

OPANSZKY, Laszlo (Cegled)

Warszawa or Moskvich? Auto motor 15 no.6:5 Mr '62.

L 25644-65 EWT(m)/EWP(b)/EWA(d)/EWP(t) MJW/JD/WB  
ACCESSION NR: AP5003503 8/0148/65/000/001/0115/0119

23  
17  
B

AUTHOR: Opara, B. K.; Pashkova, O. A.; Zhuk, N. P.

TITLE: Effect of yttrium on the oxidation resistance of chromium steels in air

SOURCE: IVUZ. Chernaya metallurgiya, no. 1, 1965, 115-119

TOPIC TAGS: chromium steel, yttrium containing steel, steel oxidation resistance, steel oxidation, yttrium effect, Armco iron

ABSTRACT: The effect of small additions of yttrium on the oxidation resistance of Fe-Cr alloys in air at high temperatures has been investigated. Small, 150-g ingots of Armco iron and Kh5, Kh13, and Kh25 steels containing 0-0.27% Y were melted in a nonconsumable-electrode arc furnace in an argon atmosphere, forged, and rolled into 1.5-mm strip. Oxidation tests were done in air at 900-1400C for 5 hr. The oxidation followed an exponential rate. Yttrium intensified the oxidation of Armco iron and Kh5 steel, but strongly delayed the oxidation of Kh13 and Kh25 steels. For example, an addition of 0.11% Y decreased the weight gain in Kh13 steel from 18 to 6 and from 160 to 110 g/m<sup>2</sup> hr at 1100 and 1400C, respectively; for Kh25 steel with 0.02% Y, the weight gain dropped from 2.1 to 1.0 and from 6.8 to 1.5 g/m<sup>2</sup> hr.

Card 1/2

L 25644-65  
ACCESSION NR: AP5003503

This disparity is probably due to a difference in the composition of the oxide films. Generally, yttrium promotes the diffusion of oxygen but improves the adhesion of the scale to the metal. Orig. art. has: 4 figures and 2 tables. [MS]

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 27Jun64

ENCL: 00

SUB CODE: MM

NO REF SOV: 004

OTHER: 005

ATD PRESS: 3185

Card 2/2

L 57546-65 EWG(j)/EWP(a)/EWT(m)/EPF(c)/EWP(1)/EPF(n)-2/EWG(m)/EWA(d)/EPR/I/  
EWP(t)/EWP(z)/EWP(b)/EVA(c) Pr-4/Ps-4/Pu-4 IJP(c) AT/WH/WW/MJW/JD/JG/WB

ACCESSION NR: AP5016351

UR/0149/65/000/002/0136/0139  
669.276

74  
72  
B

AUTHOR: Opara, B. K.; Zhuk, N. F.

TITLE: Oxidation resistance of dispersion-strengthened tungsten and copper

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 2, 1965, 136-139, and insert facing p. 135

TOPIC TAGS: tungsten, copper, oxidation, tungsten oxidation, copper oxidation, dispersion strengthened tungsten, dispersion strengthened copper

ABSTRACT: The oxidation behavior of tungsten strengthened with 0.7--5.0% ThO<sub>2</sub>, or 1.0% La<sub>2</sub>O<sub>3</sub> at 700, 800, and 900C, and of copper strengthened with 1--10% MgO, 1--3% ZrO<sub>2</sub>, 3% Al<sub>2</sub>O<sub>3</sub>, or 1--5% BN at 800C has been investigated. It was found that both ThO<sub>2</sub> and La<sub>2</sub>O<sub>3</sub> intensify tungsten oxidation (see Fig. 1 of the Enclosure) at all the temperatures tested. The oxidation rate of tungsten strengthened with thorium oxide is almost linear, and that of tungsten strengthened with lanthanum oxide is parabolic. Small additions of magnesium, aluminum, or zirconium oxides or boron nitride reduce the oxidation rate of copper owing to the increase in density of the Cu<sub>2</sub>O crystal lattice (see Fig. 2 of the Enclosure). Orig. art. has: 5 figures and 2 tables. [ND]

Card 1/3



L 57546-65

ACCESSION NR: AP5016351

ASSOCIATION: Moskovskiy institut stali i splavov, Kafedra korrozii metalov /  
(Moscow Institute of Steel and Alloys Department of Metal Corrosion)

SUBMITTED: 18Jun64

ENCL: 01

SUB CODE: MM

NO REF SOV: 004

OTHER: 001

ATD PRESS: 4039

Card 2/3

L 57546-65

ACCESSION NR: AP5016351

ENCLOSURE: 01

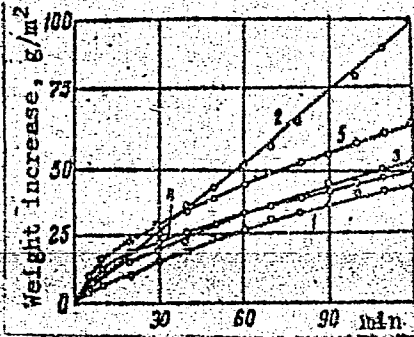


Fig. 1. Oxidation in air at 700C of VCh-type tungsten (1), and tungsten containing 5% ThO<sub>2</sub> (2), 3% ThO<sub>2</sub> (3), 0.7% ThO<sub>2</sub> (4), or 1% La<sub>2</sub>O<sub>3</sub> (5).

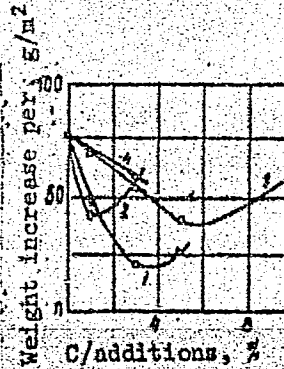


Fig. 2. Dependence of the oxidation rate of copper in air at 800C on the content of EN (1), ZrO<sub>2</sub> (2), MgO (3), and Al<sub>2</sub>O<sub>3</sub> (4).

Card 3/3

ИИРА, Б.П.; ИИТ, Н.П.

Heat resistance of precipitation hardened titanium alloys.  
Известия АН УССР: техн. науки, 8 no.2:136-139 (1964)

(1964)

1, Kafedra korrozii metallov Moskovskogo instituta stali i  
splyavov. Submitted June 18, 1964.

L 65004-65 EWP(e)/EWT(m)/EPF(c)/I/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) IJP(c)  
JD/HW/WB

ACCESSION NR: AP5007627

UR/0365/65/001/001/0099/0103  
620193.5

AUTHORS: Opara, B. K.; Zhuk, N. P.

TITLE: Oxidation resistance of dispersion strengthened cobalt

SOURCE: Zashchita metallov, v. 1, no. 1, 1965, 99-103

TOPIC TAGS: dispersion hardening, metal oxidation, cobalt base alloy, oxidation, aluminum containing alloy, cobalt, aluminum oxide, magnesium containing alloy, magnesium oxide, zirconium containing alloy, zirconium compound, corrosion resistance, corrosion resistant metal

ABSTRACT: Electrolytic cobalt, sintered cobalt and sintered cobalt-base alloys containing 1 or 10% magnesium oxide, 1 or 10% zirconium dioxide or 1% aluminum trioxide were subjected to oxidation tests in air at 900, 1000 and 1100C for 2 hr. The oxidation of cobalt and all the alloys at all the temperatures tested was found to follow a parabolic rate, which means that the oxidation is controlled by the diffusion through oxide film.<sup>18</sup> Of all the strengthening additions, only <sup>21</sup>magnesium oxide was found to improve the oxidation resistance of cobalt. The respective oxidation rate of alloy with 10% magnesium oxide at 900, 1000, and 1100C was 12.1, 35.5, and 55.2 g/m<sup>2</sup>.hr compared to 17.1,

Card 1/3

43  
39  
B

L 65004-65

ACCESSION NR: AF5C07627

43.1, and 67.1 g/m<sup>2</sup>hr for unalloyed cobalt or 26.6-30.7, 42.2-62.3, and 67.0-91.7 for cobalt-zirconium dioxide and cobalt-aluminum trioxide alloys. Sintered cobalt oxidized at a lower rate than the electrolytic cobalt did. 2

Increasing the sintering temperature from 1100 to 1300 promoted grain growth and intensified the oxidation of all the alloys tested, but especially the oxidation of cobalt and cobalt-magnesium oxide alloys. The oxide layer formed on cobalt-magnesium oxide alloys was found to be homogenous and consisted of cobalt monoxide. X-ray diffraction patterns of the oxide layer revealed no lines of magnesium oxide, and no change in the lattice parameters of cobalt monoxide was observed. Only spectral analysis showed the presence of approximately 0.4 - 0.5% magnesium. In alloys with zirconium or aluminum oxides the oxide layer, in addition to cobalt monoxide, contains inclusions of zirconium dioxide or aluminum trioxide. Two distinct zones were observed in the oxide layers of all the alloys tested: the inner fine-grained and the outer coarse-grained. This is explained by a different mechanism of oxidation. The oxidation in the inner zone proceeds by outward diffusion of cobalt, and in the outer zone by inward diffusion of oxygen. 18

Card 2/3

L 65004-65

ACCESSION NR: AP5007627

2

Orig. art. has 2 figures, 3 graphs, and 3 tables

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya (Central Research Institute for Technology and Machine Building)

SUBMITTED: 22 Sep 64

ENCL: 00

SUB CODE: MM, AC

NO REF SOV: 007

OTHER: 004

AID Press: +073-F

Pure Metal 16

Card

16  
3/3

ZHUK, N.P.; GPANA, B.E.

Using the temperature-kinetic method to study the electrochemical corrosion of metals. *Vestn. met.* 2 no.1:95-100 Ja-P 1966.

(MIRA 19:1

1. Moskovskiy institut stali i splavov. Submitted April 29, 1965.

L 37702-66 EWI(m)/T/EMI(t)/ETI INF(c) JP/PW/JG/WB

ACC NR: AP6024525 SOURCE CODE: UR/0148/66/000/007/0077/0079

AUTHOR: Ivanov, Ye. G.; Opara, B. K.; Filippov, A. F.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: The oxidation resistance of Kh20N80 alloy containing lanthanum and cerium

SOURCE: IVUZ. Chernaya metallurgiya, no. 7, 1966, 77-79

TOPIC TAGS: *metal oxidation, corrosion resistance,* nickel alloy, chromium containing alloy, lanthanum containing alloy, cerium containing alloy, alloy oxidation resistance / Kh20N80 alloy

ABSTRACT: The purpose of this study was to determine the effect of small additions of lanthanum (0.001—0.148%) and cerium (0.001—0.16%) on the oxidation resistance of Kh20N80 alloy in air at 900—1200C. Specimens were held at all test temperatures for two hours and at 900C also for 200 hours. The oxidation resistance was found to increase with increasing cerium content (see Fig. 1). Alloying with lanthanum had the same effect. The increase of oxidation resistance was associated with improved protective properties of the oxide films formed on the lanthanum and cerium alloys. As the cerium content

Card 1/2

UDC: 669.14.018.45:669.087.046.51



L 37702-66

ACC NR: AP6024525

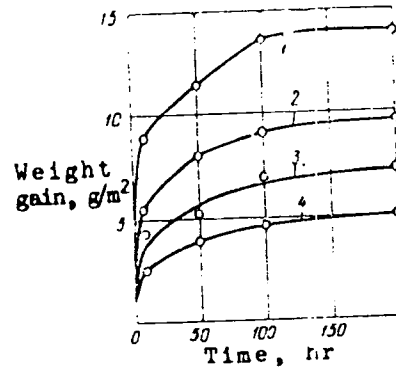


Fig. 1. Weight gain of Kh2ON80 alloy containing 0 (1), 0.006 (2), 0.033 (3), and 0.145% cerium (4) versus test duration at 900C

increased, the volatility of Cr<sub>2</sub>O<sub>3</sub> oxide dropped sharply. This is explained by a formation of complex spinel-type oxides, which greatly improved the oxidation resistance. Orig. art. has: 5 figures. [FM]

SUB CODE: 11/  
ATD PRESS: 0041  
Card 2/2

SUBM DATE: 19Mar66/ ORIG REF: 007/ OTH REF: 002  
heat resistant alloy, 18

UMANSKIY, A.A., kandidat meditsinskikh nauk; OPARA, V.M., glavnyy vrach.

Hemolyzed blood therapy of bronchial asthma. Sov.med. 17 no.5:27-29 My  
'53. (MIRA 6:6)

1. Korovogradskaya oblastnaya bol'nitsa. (Asthma) (Blood as food or  
medicine)

OPARA, Z

Isolation and purification of antigen VI from typhoid bacteria (*Salmonella typhosa*). A. W. Kurinaki, M. Matysiewicz, E. Liku, J. Lasek, and Z. Opata (Bull. Acad. Polon. Sci., 1954, 2, 33-37).  
Agar cultures of strains 779 and 56 of *S. typhosa* were washed with a buffered NaCl solution at pH 7.2 and 57°. The bacterial cells were then sedimented and the supernatant precipitated with cold ethanol or acetone in excess. The resulting sediment was dissolved fractionally in redistilled water. The 1st readily soluble fraction (native prep.) was biologically inactive when tested by adsorption of specific phage VI to r.b.c. sensitised with this prep. and by the inhibition reaction of viral haemagglutination with mumps, NDV, and influenza viruses. Subsequent native prep. were biologically active as also was a further prep. isolated from the bacteria remaining after the first process, by shaking them with a buffered solution at pH 8.7 at 20° and dialysing the supernatant against several changes of water. These native prep. strongly inhibited virus haemagglutination, and r.b.c. sensitised with these prep. agglutinated only with anti-VI sera. Using the method of diffusion precipitation in agar layers, these prep. were observed to contain two precipitating components. By fractional precipitation with acetone, 8 fractions were obtained from the native prep. All showed increases in immunological activity and in the activity towards specific phage and animal virus. One of these fractions (59% acetone) was found by diffusion precipitation to be immunologically homogeneous giving but one precipitation band and had a high coefficient of purity. Chromatographic analyses showed the presence of galactose, glucose, and xylose in the hydrolyzates of these fractions and in the native prep. but no rhamnose or thamnose which are always present in the hydrolyzates of the somatic antigens of typhoid bacteria.  
A. ACKROYD

OPARA, Z.

**Substrates of bacterial viruses. Reversibility of reaction and destruction of substrate.** A. W. Kowalewski and Z. Opara (*Bull. Acad. Polon. Sci.*, 1954, 2, 39-44).—Using the method of phage adsorption on T.B.C. sensitized with typhoid Vi prep., the existence of a substance with properties of a phage substrate could be demonstrated. Phage could be eluted from the r.b.c. sensitized with the substrate by heating at 37° so that concn. and purification could be achieved analogous to the purification of influenza, mumps, and NDV viruses. It is considered that this substance or substances which are found on the surface of the typhoid bacteria, regulate the phage adsorption to the cells and, after their destruction, the phage penetrates into the cells. A. ACKROYD.

gar

OPARA, Z.

POL. \*

Reactions of antigen Vi on the surface of erythrocytes. A. W. Kozłowski and Z. Opata. *Bull. Acad. Polon. Sci.*, 1954, 2, 81-84. The presence of electrolytes is essential for the adsorption of Vi antigen onto r.b.c. Sensitized r.b.c. liberate this antigen by washing with electrolyte-free spin. (purification by elution). Proteins, especially albumin, possibly inhibit the adsorption of Vi antigen onto the surface of r.b.c. The free NH<sub>2</sub> groups and the lipids and polysaccharides on the surface of r.b.c. are not essential for the adsorption of Vi antigen. Probably the blocking of hemagglutination and checking of hemolysis are similar to the overlapping reaction. B. VINBY.

*OPARA*

Poland /Microbiology. Medical and Veterinary.

F-6

Abs Jour: Referat. Zh.-Biol., No. 9, 1957, 35650

Author : Kozinski, Andrzej; Macierewicz, Maria; Mikulaszek, Edmund; Opara, Zofia

Title : The Isolation and Purification of the Vi-Antigen of the Typhoid Bacillus

Orig Pub: Med. doswiad. i mikrobiol., 1954, 6, No. 2, 161-168

Abstract: The Vi-antigen was obtained by means of extraction by a physiological solution of a suspension of typhoid bacilli and purified by a fractional precipitation with ethyl alcohol or acetone chilled to 0 degrees. The biological activity and degree of purity was determined by the reactions of passive precipitation and hemagglutination, by the retardation of hemagglutination with

Card 1/2

Opara Zofia

Reaction of antigen Vi with the surface of red blood cells (RBC). Andrzej W. Koriniak and Zofia Opara (Państwowy Zakład Hig., Warsaw, Poland). ~~Prace Towarzystwa Mikrobiol.~~ *Mikrobiol.* 6, 109-80 (1954); cf. *ibid.* 4, 217 (1952); preceding abstr. — Semipurified antigen Vi (I) adsorbed on RBC surface in the presence of electrolytes can be partially released into soln. by washing the RBC with electrolyte-free soln. The eluted component (II) contains in one biol. unit 1000 times less sugar and 500 times less protein than I. Periodate oxidation of II does not change its biol. activity; the isoelec. point of II is at pH 5.4. The free amino groups, polysaccharides, and the lipide part of RBC are not involved in adsorption of I, as tested by preliminary treatment of RBC with formic acid,  $KIO_4$ , and fat-dissolving solvents, resp. The RBC receptor groups for I are stable to heating for 30 min. at  $100^\circ$ , to repeated freezing, and to prolonged treatment with excess  $KIO_4$ .  $KIO_4$  removes, however, the receptor groups for virus. The adsorption of I inhibits the hemolysis of RBC in hypotonic solns. as well as hemolysis caused by virus. Serum proteins, especially albumin, form complexes with I and thus decrease the ability of I to adsorb on RBC; heating for 15 min. at  $100^\circ$  releases I from the complex.

I. Z. Roberts

OPARA, Z.

~~/ Substrates for bacterial viruses. 1. The reversibility of the reaction and destruction of substrates. Andrzej Władysław Kozłowski and Zofia Ojara (Państwowy Zakład Hig., Warszawa). *Acta. Doświadczaln. Mikrobiol.* 6, 253 (1954); cf. C. 1, 46, 4075g. -- The Vi antigen adsorbed on red blood cells (RBC) adsorbs the specific Vi phage at 0°; at higher temp. the virus is released into the surrounding medium. Sensitized RBC, after elution of phage, do not reabsorb it at low temp. I. Z. Roberts~~

*gaw*



OPARA, Z.

✓ VI antigen as a substrate for phage enzyme. A. W. Kozłowski and Z. Opara (Polish Acad. Sci., Warsaw). *Congr. Intern. Bactériol. Résultats communs*, 3<sup>e</sup> Congr., Brussels 1955, 77-8 (in English); cf. C.A. 48, 10911a; 49, 430a; 50, 9562a. -- VI antigen (I) (cf. C.A. 48, 10910a) after adsorption on erythrocytes (II), binds specific phages. Viruses inactivate I. Viruses acting on I-sensitized II are briefly adsorbed, then pass into the surrounding fluid, while the II irreversibly lose their binding power. This permits the purification of bacterial viruses by elution. I inactivated by virus retains its serological properties intact. The II-substrate-virus system is agglutinated by specific anti-phage serum at 0°. This reaction requires 0-7 bacteriophages per cell. Phage antiserum blocks the enzymic activity of virus, but if added after adsorption of phage to the cells, has no action on the enzymic process once started. Thermal inactivation of phage mainly involves the inactivation of enzyme, but ultraviolet-inactivated viruses retain their enzyme activity. Upon chromatographic analysis, highly purified I shows the same peak in serological and phage-substrate tests in different solvents. I is quickly inactivated by alkali and slowly by acids, but the inactivation is much the same in both cases. Possibly the phage splits off a small fragment not essential for serological activity.

W. C. Tobie

OPAKA, Z.

1778. Influence of electrolytes on the adsorption of bacteriophage on erythrocytes sensitized with antigen. VI. Bacteriophage elution by electrolyte-free liquids. A. W. Kozłowski and Z. Oparska Bull. Acad. Polon. Sci., 1965, 8, 51-53 (Polish Acad. and Z. Oparska Bull. Acad. Dept. of Immunochemistry and Dept. of Sci., Inst. of Biochem. Medicine, Warsaw).—Bacteriophage VI adsorbed on sensitized r.b.c. is eluted with an electrolyte-free liquid (8% glucose) at a low temp. The quantity of phage eluted is the same as that from enzymic elution at 37°. E. C. BURKOWSKI.

①

OPARA, Z.

Investigations on substrates for bacterial viruses. 71. Determination of temperature of inactivation of enzymatic activity, viability of phage, and its ability to sensitize to passive phage hemagglutination. In English p. 127.

GEODEZJA I KARTOGRAFIA, Vol. 3, no. 4, 1955.

POLAND

SOURCE: EAST EUROPEAN ACCESSIONS LIST LC Vol. 5, no. 7, August 1955.

0. OFAR ,

A. S. Z. INCHI, M. S. P. -- Experiments with list of i. v. m. ...  
Destruction of ... active ... IV-identified virus.

30: Medycyna Doswiadczalna i Mikrobiologia ...  
fourth quarter 1971.

GRUZEWski, Aleksander; KOZINSKI, Andrzej; OPARA, Zofia

Investigations on substrates for bacterial viruses. II. Quantitative principles of reactions of phage with erythrocytes sensitized with substrates. Med. dosw. mikrob. 7 no.1:97-103 1955.

1. Z Pracowni Immunochemii Zakladu Biochemii PAN, Zakladu Mikrobiologii Lekarskiej A.M. w Warszawie i Instytutu Matematycznego PAN.

(BACTERIOPHAGE,

reaction with erythrocytes sensitized with substrates)

(ERYTHROCYTES,

reaction with bacteriophage of erythrocytes sensitized with substrates)

OPARA, Z.

3149. Substrates for bacterial viruses. V. Comparison of destruction of substrate by live phage and phage inactivated by ultraviolet rays. VI. Determination of temperature of inactivation of enzymic activity, viability of phage, and its ability to sensitise to passive phage haemagglutination. A. W. Kozinski and Z. Opara *Bull. Acad.*

*polon. Sci.*, 1955, 3, 123-126, 127-132 (Dept. of Immunochemistry of the Inst. of Biochem., Polish Acad. of Sci. and Dept. of Microbiology, Sch. of Med., Warsaw).—V. No differences are observed in the velocity of substrate destruction by live phage and by phage inactivated with u.v. rays.

VI. The critical temp. of phage viability and enzyme inactivation is between 70-59° and 72-49° and the ability of phage to sensitise to passive haemagglutination disappears at 63-70°.

E. C. BUTTERWORTH. (1)

OPARA, Z.

Substrates for bacterial viruses. III. Passive hemagglutination of erythrocytes sensitized with Vi-antigen in the presence of bacteriophage and specific antiphage serum. A. W. Kozinski and Z. Opara. *Med. Doświadczalna i Mikrobiol.* 7, 299-304 (1955); *Excerpta Med.*, Sect. IV, 9, 277-8 (1956); cf. C.A. 50, 9502a. — Vi-sensitized red blood cells after adsorbing specific Vi-phage, can agglutinate in the presence of antiphage serum. This reaction occurs at 0°. At higher temps. quick elution occurs accompanied by the destruction of Vi-substrate by a phage enzyme. The least amt. of phage/cell for passive hemagglutination was detd.; 6-7 phages/cell are sufficient to cause hemagglutination. The role of phage precursors is discussed. K. L. C.

KOZINSKI, Andrzej W.; OPARA, Zofia

Investigations on substrates for bacterial viruses. IV. Effect of temperature and of specific anti-phage serum on phage hemagglutination reaction. Med. dosw. mikrob. 7 no.3:305-309 1955.

1. Z Pracowni Immunochemii Zakladu Biochemii PAN i Pracowni Virusologicznej Zakladu Mikrob. Lek. A.M. w Warszawie.

(IMMUNE SERUM,  
anti-phage specific serum, eff. on bacteriophage hemagglut. react.)

(BACTERIOPHAGE  
eff. of anti-phage specific serum & temperature on bacteriophage hemagglut. reaction.)

(TEMPERATURE, effects,  
on bacteriophage hemagglut. reaction)

(HEMAGGLUTINATION,  
bacteriophage hemagglut. reaction, eff. of temperature & specific anti-phage serum.)



KOZ'NSKI, Andrzej W.; OPARA, Zofia

Investigations on substrates for bacterial viruses. V. Comparative investigation on substrates decomposed by living and ultraviolet-irradiated phages. Med.dosw.mikrob.7 no.4:445-449 1955.

1. Z Pracowni Immunochemii Zakl.Biochemii PAN i Pracowni Wirusologicznej Zakl.Mikrobiologii Lek. A.M. w Warszawie.

(BACTERIOPHAGE, effect of radiations on, ultraviolet rays, destruction of substrate by living & irradiated phages)

(ULTRAVIOLET RAYS, effects, on bacteriophage, destruction of substrate by living & irradiated phages)

KOZINSKI, Andrzej, W.; OPARA, Zofia

Investigations on substrates for caterial viruses. VI. Determination of temperature inactivating enzymatic activity, of viability, and of sensitizing capacity for passive phage hemagglutination. *Med.dow.mikrob.* 7 no.4:451-455 1955.

1. Z Pracowni Immunochemii Zakladu Biochemii PAN i Pracowni Wirusologicznej Zakladu Mikrobiologii Lekarskiej A.M. w Warszawie.

(BACTERIOPHAGE,

temperature inactivating enzymatic funct.,  
viability & sensitizing capacity for passive  
phage hemagglut)

(TEMPERATURE, effects,

on phage enzymatic activity, viability &  
sensitizing capacity for passive phage hemag-  
glut.)

(HEMAGGLUTINATION,

passive phage hemagglut., eff. of temperature)

07210 2.  
POLAND/Virology - Bacterial Virus (Phages)

D-1

Abs Jour : Ref Zhur - *Biologiya*, No 7, 10 April 1957, 260/5

Author : Kozinskiy, A.V., Opara, Z.

Inst : Academy of Sciences, Poland

Title : Studies of Substrata for Bacterial Virus. VII. The  
Effect of Antiphage Serum on the Decomposition of Antigen  
V., Caused by Phage Lysates.

Orig Pub : *Byul. Pol'skoy AN*, 1956, pti. 2, 4, No 1, 21-24

Abst : See Referat Zhur *Bio.*, 1957, 328

Card 1/1

OPARA, Z.

4188. Substrates of bacterial viruses. VII. Influence of antiphage serum on the destruction of antigen VI by phage lysates. A. W. Kozinski and Z. Opara. *Bull. Acad. Polon. Sci.*, 1956, 4, 19-22 (Dept. of Immuno-chemistry, Inst. of Biochemistry, Polish Academy of Sciences). In phage lysate, besides complete infectious phage, there exists an enzymic agent which destroys the phage substrate. This agent possesses an identical serological specificity to that of the bacteriophage and is neutralized by homologous anti-phage sera. In agreement with previous findings, this is an incomplete and non-infectious form of the virus having a different sedimentation const. 2

OPARD, D.

702  
0007. Co-precipitation of lipids with bacterial antigens. A. W. Kozifski, J. Mikulasek, and Z. Ogora. *Dokl. akad. polon. Sci.*, 1956, 4, 23-28 (Dept. of Microbiol., Sch. of Med., Warsaw).—An investigation was made of the phenomenon of co-ppts. observed when mixed systems are formed: antigen V—lipidic antigen—VI serum. It was observed that some bacterial antigens whose nature is unknown or disputable form, in the presence of Wassermann's antigen and cholesterol, mixed ppt. Several experiments were carried out in order to elucidate the serological system which was tested by quant. pptn. tests. At the same time the amounts of protein, polysaccharide, nucleoprotein, and, as a co-precipitating agent, cholesterol, were determined in the ppt. B. VINBY.

3

OPARA, Z.

1168. I. Synthesis of Vi antigen in the typhoid bacillus. A. W. Kozinski, Z. Opara, and Z. Kraft. II. Synthesis and properties of Vi antigen-albumin complex. E. Nikulaszek, Z. Opara, and A. W. Kozinski. *Bull. Acad. Polon. Sci.*, 1956, 4, 249-252, 253-255 (Inst. of Biochemistry, Polish Acad. of Sciences Warsaw, Poland).

4

Med

I. It was shown by Nicolle, Jude, and Diverneau (*Ann. Inst. Pasteur*, 1953, 84, 27) that typhoid bacilli grown at a temp. of 18° or 42° fail to synthesise Vi antigen and are immune to Vi phages. It is now found that the enzyme responsible for the synthesis of Vi antigen is present in cells cultivated at low temp. under conditions in which actual synthesis of antigen does not take place. It is concluded that synthesis does not occur at low temp. owing to the low energy level of transformation. Probably the antigen is synthesised from external substances and is not merely activated.

II. It has been shown by Kozinski and Opara (*Med. Dosw. Mikrobiol.*, 1954, 169) that Vi antigen from *S. typhi* forms with serum albumin a complex devoid of the ability to sensitise r.b.c. for passive hemagglutination with anti-Vi serum. The hypothesis is now advanced that the Vi antigen has one group that unites with r.b.c. or with albumin or that there are 2 groups whose arrangement makes it impossible for one of them to unite with the surface of the r.b.c. when the other has been blocked. These observations may be of importance in the pathogenesis of typhoid fever.

P. HAAS

OPARA, Z.

3749. Substrates for bacterial viruses. VIII. Properties of phages grown on bacteria containing, or devoid, of antigen VI. A. W. Kozinaki, H. Kubinski, Z. Opara, and S. Jasinska *Bull. Acad. Polon. Sci.*, 1958, 4, 305-311 (Depn. of Immunochimistry of the Inst. of Biochemisly, Polish Academy of Sci., Warsaw, Poland). Phages grown on *E. freundii*, which is devoid of the antigen VI, are capable of destroying antigen VI, though less efficiently than phages grown on *E. coli*, which contains antigen VI. It appears that the presence of antigen VI in the bacteria does not affect the infectivity of the phages. A method for titrating of the bacteria on which the phage is grown. A method for titrating phages avoiding use of pipette, is described. E. M. RATTENBURY

OPARA, Z.

USSR/Virology - Bacterial Viruses.

E-1

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9639

Author : Kozinskiy, A.V. Kubinskiy, G. Opara, Z. Yasinskaya, S.

Inst : -

Title : Investigation of Substrates for Bacterial Viruses.  
Properties of Phages which Multiply on Bacteria which DO  
or Do Not Contain Vi Antigen.

Orig Pub : Byul. Pol'skoy AN. Otd. 2, 1956, 4, No 9, 327-334

Abstract : Phage Vi-1 multiplied on cultures of Salmonella typhi, which contain Vi-antigen (phagolysate FTy), and also on a culture of E. freundi, in which this antigen is absent (phagolysate FEf). Phagolysate FEf can cause decomposition of Vi-antigen only to a minor degree, while the phagolysate FTy gave rise to marked decomposition of this antigen. The above-mentioned phages differed from one another by the speed of their elution from erythrocyte surfaces which were sensitized by Vi-antigen. Phage

Card 1/2



KOZIŃSKI, Andrzej, W.; OPARA, Zofia

Studies on substrates of bacterial viruses. VII. Effect of anti-phage serum on decomposition of Vi antigen by phage lysates. Med. dow. mikrob. 8 no.1:73-77 1956.

1. Z Pracowni Immunochemii Zakładu Biochemii P. A. N. i Pracowni Wirusologii Zakładu Mikrobiologii Am W. w Warszawie.

(IMMUNE SERUMS, effects,

anti-phage serum on decomposition of Vi antigen by phage lysates. (Pol))

(BACTERIOPHAGE,

eff. of anti-phage serum on decomposition of Vi antigen by phage lysates. (Pol))

(ANTIGENS AND ANTIBODIES,

Vi antigen decomposition by phage lysates, eff. of anti-phage serum. (Pol))

KOZINSKI, Andrzej. W.; MIKULASZEK, Edmund; OPARA, Zofia

Coprecipitation of bacterial antigens and lipids. Med. dosw. mikrob.  
8 no.1:103-108 1956.

1. Z Pracowni Immunochemii Zakladu Biochemii P. A. W. i s  
Pracowni Wirusologicznej Zakladu Mikrobiologii Lekarskiej  
A. M. w Warszawie.

(ANTIGENS AND ANTIBODIES,

mutual precipitation with lipids. (Pol))

(LIPIDS,

mutual precipitation with antigens. (Pol))

KOZINSKI, A.W.; KUBINSKI, H.; OPARA, Z.; JASINSKA, Z.

Research on substrates for bacterial viruses; properties of phages grown on bacteria containing or devoid of antigen Vi. Acta virol. Engl. Ed., Praha 1 no.1:12-19 Jan-Mar 57.

1. Immunological Laboratory, Institute of Biochemistry, Polish Academy of Sciences; virological Laboratory, Department of Medical Microbiology, Warszawa.

(BACTERIOPHAGES

properties of phages grown on bact. containing & devoid of Vi antigen)

(ANTIGENS

bact. containing & devoid of Vi antigen, eff. on properties of phages)

OPARA, Zofia (Warszawa, ul Chalubinskiego 5)

Selected problems in bacterial genetics. Postepy hig. med. dosw.  
11 no.3:235-252 1957.

1. Zakład Mikrobiologii Instytutu Reumatologicznego.  
(BACTERIA,  
genet. aspects, review (Pol))

OPARA, Z

Effect of antimetabolites on antigen Vi synthesis and variability in *S. typhi* (Salmonella typhosa). A. W. Kozinski, Z. Opara, and Z. Kraft (Polish Acad. Sci., Warsaw). *Nature* 179, 201 (1957). Bacteria inhibited by chloramycetin retained their ability to produce antigen Vi though they failed to synthesize protein or to grow. Cyanides, malonic acid, vacuum, absence of O<sub>2</sub>, and high concentrations of dinitrophenol inhibited the formation of antigen Vi. Lethal doses of ultraviolet radiation fail to inhibit antigen Vi synthesis. J. I. Lapuck

OPARA, Zofia

Studies on conditions of genetic metabolism in *E. coli*. Postepy Biochem.  
4 no.2:213-221 1958.

(ESCHERICHIA COLI, metabolism,  
genetic aspects (Pol))

OPARA, Zofia

Studies on the mechanism of transformation of streptomycin-resistance in pneumococci. I. Effect of chloromycetin on the appearance of a new phenotype. Med. dosw. mikrob. 11 no.3:273-281 1959.

1. Z Instytutu Biochemii i Biefizyki Polskiej Akademii Nauk, Warszawa.  
(CHLORAMPHENICOL, pharmacol.)  
(DIPLOCOCCUS PNEUMONIAE, pharmacol.)

OPARA-KUBINSKA, Zofia

Modification of DNA structure in bacteria. *Postepy biochem* 7 no.2:  
289-298 '61.

(DESOXYRIBONUCLEIC ACID chem)  
(BACTERIA chem)



OPARENKO, V.F., inzh.

Basic trends in the design of double-acting crank presses  
abroad. Vest. mash. 38 no.9:70-74 S '58. (MIRA 11:10)  
(Power presses)

OPARI A

RUMANIA / Chemical Technology, Chemical Products and Their Application. Pharmaceuticals. Vitamins. Antibiotics. H-17

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 16512

Author : Opari, A.; Chitoiu, G.

Inst : ~~Not given~~

Title : Physico-Chemical Reactions Occurring in the Preparation of Certain Liquid Medications

Orig Pub : Farmacia (Roman), 1957, 5, No 4, 344-350

Abstract : Presented herein are formulations of three liquid medications, for the purpose of demonstrating the occurrence of undesirable reactions that may take place in the event that chemical and physico-chemical properties of the components are not properly accounted for. Such reactions may be completely eliminated by strictly following the order of steps recommended in the methods of preparation of such mixtures. -- E. Natkhan

Card 1/1

RUMANIA / Chemical Technology, Chemical Products and Their  
Application. Pharmaceuticals. Vitamins. Antibiotics.

H-17

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 16507

Author : Stanciu, N.; Opari, A.; Isbasescu, C.; Boral, H.

Inst : Not given

Title : Preparation of Sorums for Injection

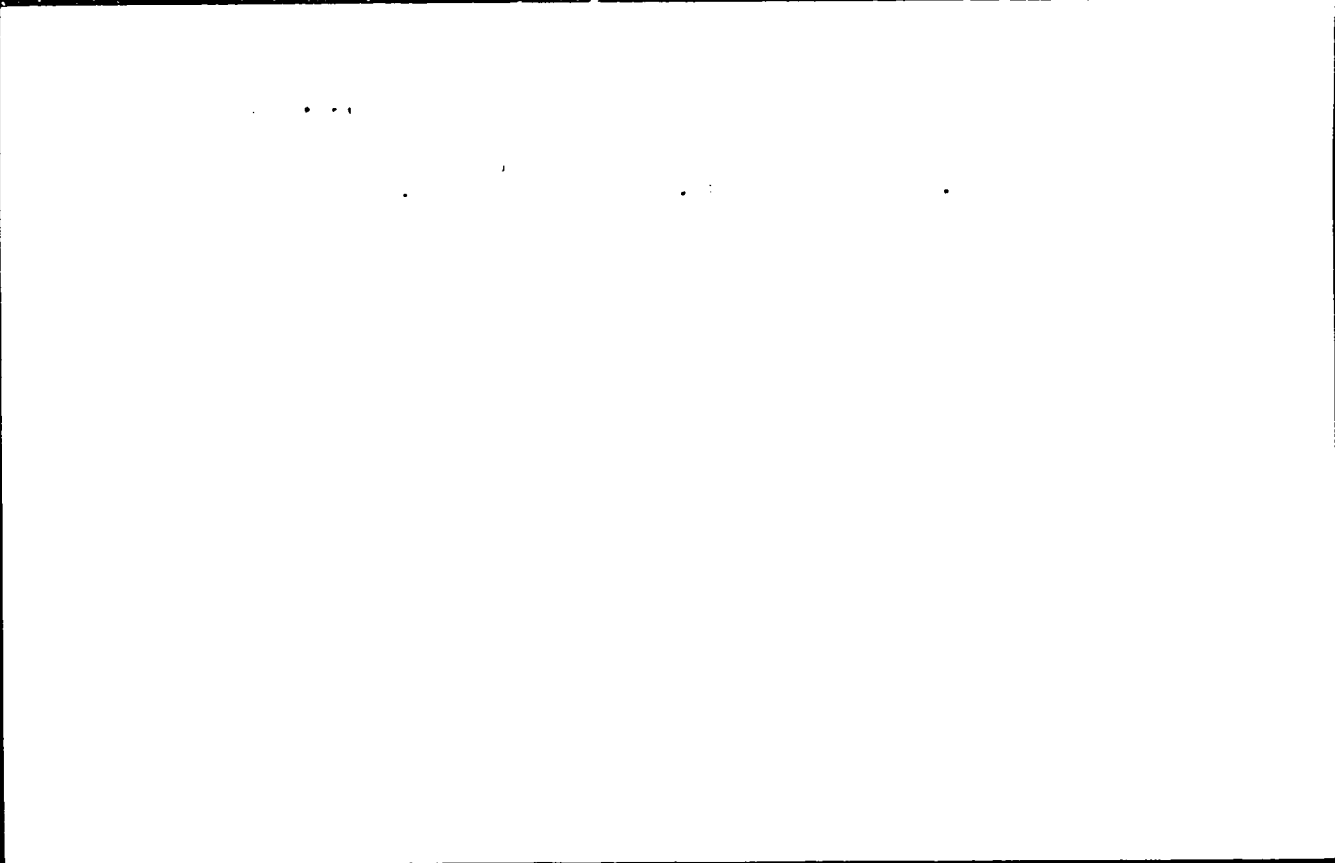
Orig Pub : Farmacia (Roman), 1957, 6, No 6, 539-549

Abstract : Description of the methods of preparation of indicated  
solutions and suspensions and also the preparation of  
solutions from sorums available in ampuls (in the dry  
form): ascorbic acid, adronalin, nicotine acid,  
methylone blue, and amidopyrino. -- E. Natkhan

Card 1/1

**"APPROVED FOR RELEASE: Tuesday, August 01, 2000**

**CIA-RDP86-00513R001238**



**APPROVED FOR RELEASE: Tuesday, August 01, 2000**

**CIA-RDP86-00513R0012381**

OPARIN, A.A., inzh.

Efficient types of piling for buildings erected on sandy soil. Transp.  
stroil. 15 no.7:21-23 J1 '65. (MIRA 18:7)

OPALIN, A. I.

Ferments; their role and significance in the life of organisms. Moskva  
Izd. I.L. Frokkel', 1923. 100 p.

OPARIN, A. I.

"The Crisis of Life (Problemy zhizni i smerti)", 1961.

Microbiologiya i Zoologiya, 1961, 10, 1-2, 1-10.

PROCESSES AND PROPERTIES INDEX

78

**Biochemical processes in the sugar beet during storage.** A. I. OPAREN, N. N. D'YACHKOV, I. V. GLAZUNOV AND T. M. IVANOVA. *J. Sugar Ind.* (U. S. S. R. 15, 303-01)(1931); *Forts About Sugar* 27, 179.—The changes in stored sugar beets due to internal physiol. alterations were studied. Where temp., humidity and aeration are kept const., the quantity of CO<sub>2</sub> evolved by respiration in a unit of time is const. The quantity of sucrose which disappears, however, is not proportional to the amt. of evolved CO<sub>2</sub>, and increases with the time of storage. At 1st the sucrose lost is much less than that which corresponds to the CO<sub>2</sub> evolved, but later it is greatly in excess. In the absence of O the beets continue to evolve CO<sub>2</sub> regularly during the entire period of storage, the amt. of evolved gas, however, is reduced to 1/4, but there is a rather marked decrease in sucrose. On the whole, for every C atom that appears as CO<sub>2</sub>, 4 C atoms disappear as sucrose. Gradual wilting of the beet has no influence on respiration. Beets kept in air of 75% relative humidity evolve as much CO<sub>2</sub> per unit of time as beets kept over water. Roots and root hairs are not formed in dry air, and the mobilization of sucrose proceeds very slowly. In general, the drier the air, the smaller the loss of sucrose due to respiration; this, of course, applies only to beets that have been freed from microorganisms by sterilization, as when the surface of the beet is covered by a coating of slaked lime. Storing beets in an atm. contg. 1% C<sub>2</sub>H<sub>4</sub> resulted in a somewhat increased loss of sucrose, which was greatly increased by vapors of ether. Freezing and thawing of beets destroy all living cells, and respiration is practically suspended; sucrose is then lost very rapidly. Frozen beets, therefore, should not be thawed, but should be sliced in a frozen condition. G. G.

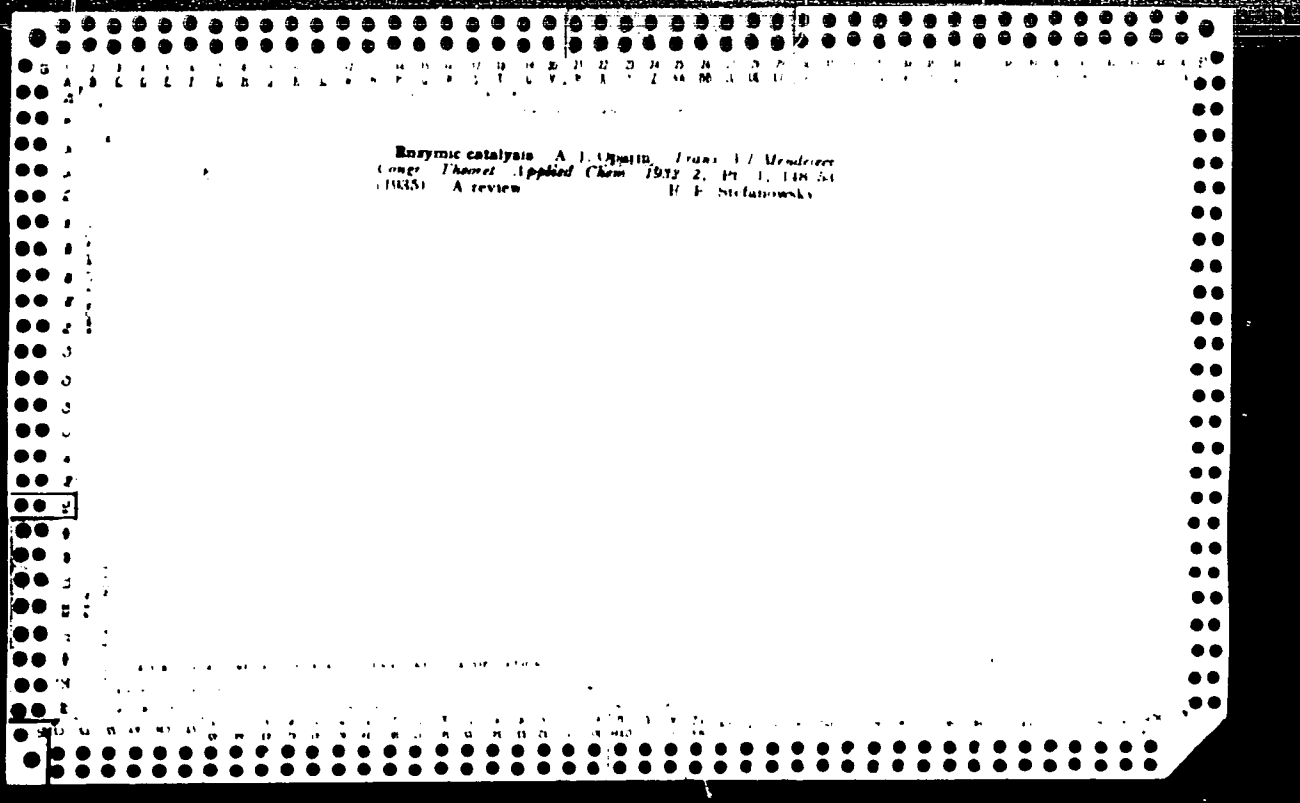
METALLURGICAL LITERATURE CLASSIFICATION

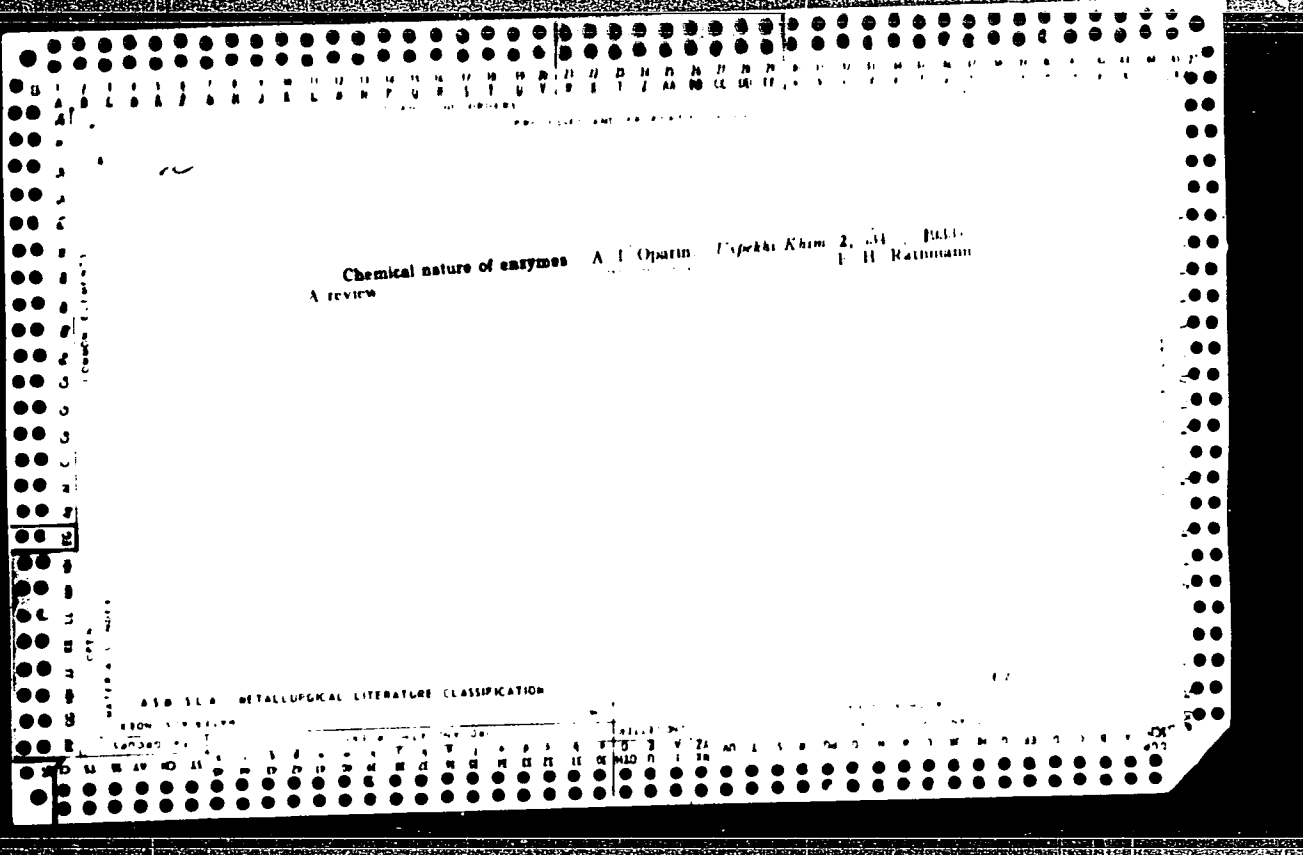
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PROCESS AND PROPERTIES INDEX

BC

B III 2

Metabolism in sugar beetroots at low temperatures. Storage of beetroots in a frozen state. A. OPRIN (Compt. rend. Acad. Sci. U.R.S.S., 1934, 2, 116-121).—Cooling beetroots to  $< -3^{\circ}$  first freezes the free  $H_2O$ . The latent heat of fusion causes a rapid rise of temp. in the interior of the root. Further cooling only slowly freezes the  $H_2O$  retained in the colloids of the protoplasm. Respiration, with loss of sucrose (I), continues slowly until the second stage of freezing is complete. On subsequent thawing, (I) is converted into glucose and fructose only. By complete freezing by severe natural frost loss of (I) in beetroots is reduced by  $> 55\%$ .  
R. S. C.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

FROM DOWNY      FROM DOWNY

GROUPS	GROUPS	GROUPS	GROUPS
1	2	3	4
5	6	7	8
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89	90	91	92
93	94	95	96
97	98	99	100