

Electroinsulating lacquers for ...

P/014/62/041/004/002/004  
D204/D301

presented in graphical and tabular forms and discussed in some detail. It is concluded that the polyurethane lacquers investigated show good dielectric and mechanical characteristics, especially the elasticity after ageing at 150 and 180°C. Of the silicones, the best results were obtained for the mixture of silicone and alkyd resins, SiA. Further work on polyurethane and silicone resins will consist of definite determination of the class of insulation. There are 6 figures, 3 tables and 10 references: 2 Soviet-bloc and 8 non-Soviet-bloc. The references to the English-language publications read as follows: P. Sherwood, Canadian Paint Varnish, 5, 50, 1961; R. Chandler, Paint Manufacture, 30, 1960, 100-102.

ASSOCIATION: Instytut farb i lakierów w Gliwicach (Institute of Paints and Lacquers, Gliwice)

X

Card 2/2

BRUDNA, E. I.

BRUDNA, E. I. - "Study of the Indicators of Recovery in Chronic Dysentery in Children of an Early Age." Sub 29 Jan 52, Central Inst for the Advanced Training of Physicians. (Dissertation for the Degree of Candidate in Medical Sciences).

SO: Vechernaya Moskva January-December 1952

BRUDKOWSKA, Barbara, mgr inż.

Properties of the coating of certain electroinsulating lacquers.  
Przegl elektrotechn 41 no.4:144-146 Ap '65.

1. Paint and Lacquer Institute, Gliwice.

BRUDNA, Ye.I., kand.med.nauk; LUNEVA, K.K. [Lunieva, K.K.]

Etiology of toxico-septic diseases among newborn in maternity homes.  
Fed., akush. i gin. 19 no.15-16 '57. (MIRA 13:1)

1. Tsentral'naya nauchno-issledovatel'skaya laboratoriya gigiyeny i  
epidemiologii Ministerstva putey soobshcheniya.  
(INFANTS (NEWBORN)--DISEASES)

BRUDNA, ZDENEK.

TECHNOLOGY

BRUDNA, ZDENEK. Pehled elektronek. Praha, Statni nakl. technicke literatury, 1956.  
1111 p. OU

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

Brudna, Z.

Brudna, Z. Inflation of too many types of vacuum tubes. p. 342.  
SH. Cathode L. p. 343.

Vol. 4, no. 11, Nov. 1956  
SDELOVACI TECHNIKA  
TECHNOLOGY  
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957  
No. 5

BRUDNAYA, A., kand. sel'skokhoz. nauk; ANOSKINA, N.

Detecting the bean weevil. Zashch. rast. ot vred. i bol. 10  
no.9:37-38 '65. (MIRA 18:11)

1. Vsesoyuznyy institut zerna.

BRUDNAYA, A. A. and Yakimovich, E. D.

Principle Measures for Protection of Soy Beans from Pests and Diseases,  
Trudy Vsesoiuznogo Nauchno-Issledovatel'skogo Instituta Severnogo Zernovogo  
Khoziaistva i Zernobobovykh Kul'tur, no. 3, 1953, pp. 116-135. 15 M8523

SO - SIRA SI 90-53, 15 December 1953



BRUDNAYA, A. A. (1939) 41-5

Summary of the scientific research work of the Institute of Plant Protection for the year 1939. *Lenin Acad. Agr. Sci., Leningrad 1940*, 184 pp. (in Russian); cf. *C. A.* 34, 4213. Results of elaboration and improvement of control methods for the protection of stored grain against granary pests under the conditions of the [collective farms] at Kolkhozs. A. A. Brudnaya. *Ibid.* 41-5. — A 3-4% soln. of mineral oil concentrate to which was added 10%

of a tech. mixt. of hydroxybiphenyl was effective as a spray at 7.4 fl. oz. / sq. yd. against mites (*Tetranychus tarsonemus* Duf., *T. nevae* Zkhv., and *Lepidoglyphus destructor* Muls. Zkhv.) and the granary weevil, *Sitophilus granarius* L., in empty granaries. The results of the studying of grain crop diseases and pests in the Voronezh region on grassfield crop rotation. A. P. Ostapets. *Ibid.* 45-9. — Preps. of oxabazine gave the best results and were effective as sprays against the eggs of *Mayetiola destructor* Say.  $Na_2SiF_6$  baits poisoned 92.5% of *Agrotis segetum* Schiff., and dusting with this substance was also effective. Results of investigations on the basing and testing of experimental modifications of the control method system in the gardens of the Krasnodarsky region. V. Ya. Parfent'ev. *Ibid.* 112-20. — Of 7 spray schedules tested on apple trees the most effective comprised 2 applications before flowering of 1% Bordeaux mixt. as a fungicide, and 5 applications after flowering of 0.3% Ca arsenate (with 1% Bordeaux mixt. in the first 4) against the codling moth (*Carpocapsa pomonella* L.), other lepidoptera and fruit weevils. The method doubled or tripled the fruit yield as compared with orchards given the

standard spray schedule. The elaboration of methods of increasing the effectiveness of insecticides. P. V. Sazonov. *Ibid.* 130-5. Field expts. showed that a 0.1% soln. of  $BaCl_2$  gave adequate control of *Cleonus punctiventris* Germ. on beet when evenly distributed at as low a rate as 9 lb.  $BaCl_2$ /acre. Since good results are given at reduced rates of application only with readily water-sol. insecticides, the possibility of obtaining similar results with less-sol. substances by stabilizing their suspensions was studied. Thus, a considerable increase in the stability, dispersion and toxicity of a 3% suspension of Ca arsenate was obtained by the addn. of *NH\_4 alginate* (D) which reduced the min. lethal dose for larvae of *Pieris brassicae* L., and increased the mortality from 50.9 to 90%, with 7.5% control mortality. The presence of I in the spray reduced injury to bean foliage by Ca arsenate. Concd. suspensions of S stabilized by addn. of sulfite-cellulose alkali gave 75.7-90% mortality of red spider (*Tetranychus*) on cotton as against 64.3% for a standard S dust. The elaboration of a standard of the summer mineral oil for the control of pests on fruit cultures and the results of applying preparations of winter oils. A. D. Kralter. *Ibid.* 136-40. — Several fractions of petroleum oils obtained from 3 different sources in Russia were refined by treatment with 98%  $H_2SO_4$  at concns. of 5, 10, 50 or 200%, and tested for insecticidal and phytotoxic effects in lab. and field tests. Degree of refinement had little effect on ovicidal action against *Sitotroga cerealella* Oliv. and oils b. 300-400° were most effective. The least injurious to apple twigs of oils emulsified with soap were those

ASB-11A METALLOGICAL LITERATURE CLASSIFICATION

Table with columns for classification codes and a grid of dots for marking.

BRUDNAYA, A-A

COUNTRY : USSR  
 CATEGORY : General and Specialized Zoology. Insects. P  
 Harmful Insects and Acrids.  
 JOURNAL : Entomol., No. 1, 1958, No. 100000  
 AUTHOR : Brudnaya, A. A.  
 INSTIT. : Institute of Zoology, Academy of Sciences of the USSR  
 TITLE : Resistance of the Grain Choub Weevil (Sphastin sticticus) to Cold.  
 ORIG. PUB. : Tr. Isaev. n.-i. i hor. di. agr. gos. materialn. resursov  
 i sov. min. SSSR, 1958, vyp. 1, 116-117  
 SUMMARY : Experiments were conducted in the refrigerator chamber  
 at -10 and -22°. Insects being tested (10 specimens at each  
 of 12-30 repetitions) were placed in jars with moist of  
 medium dryness. Insects for the experiment at -10° were  
 first kept 5 days at 10°, 2 days at 5 and 10; 30 minutes  
 at 0°; and additionally for the experiment at -22° - 15  
 minutes at 5°. The first removal of the weevils was made  
 after 1, 3 and 5 days. The selected specimens were marked  
 successively from -10° to 5, 0 and 10°. After the removal,  
 a record of the loss of the pest was made daily during the  
 3 first days, and afterwards every 15th day. At -10°,

Card: 1/1

KIYASHKO, V., agronom; BRUDNAYA, A.A., kand.sel'khoz.nauk; ZUBOV, M.F.

Questions and answers. Zashch. rast. ot vred. i bol.  
7 no.7:41-42 JI '62. (MIRA 15:11)

1. Sovkhoz "Agronom", Krasnodarskogo kraja (for Kiyashko).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki (for Brudnaya).  
(Plants, Protection of)

BRUDNAYA, A., kand.sel'skokhozyaystvennykh nauk

Controlling pests of pulse crops. Muk.-elev. prom.  
28 no.7:4-6 JI '62. (MIRA 15:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i  
produktov yego pererabotki.  
(Legumes—Diseases and pests)  
(Insecticides)

BRUDNAYA, A.A., kand.sel'skokhoz.nauk; SOLODOVNIK, P.S.

New preparation for moist disinsectization of empty granaries.  
Soob. i ref. VNIIZ no.4:21-24 '61. (MIRA 16:5)  
(Granaries--Disinsection) (Alodan)

GERASIMOV, B.A.; BRUDNAYA, A.A.; KOROTKIKH, G.I., kand.sel'skokhoz.nauk;  
NIKIFOROV, A.M., agronom-entomolog

Questions and answers. Zashch. rast. ot vred. i bol. 8 no.9:  
39 S '63. (MIRA 16:10)

1. Nauchno-issledovatel'skiy institut ovoshchnogo khozyaystva,  
Moskovskaya oblast' (for Gerasimov).

KOZUB, M.; BRUDNAYA, A., kand. sel'skokhoz. nauk

Grain disinfection by methyl bromide at reduced temperature. Muk.-  
elev. prom. 30 no.3:20-21 Mr '64. (MIRA 17:4)

1. Direktor Orenburgskogo khlebopriyemnogo punkta (for Kozub).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki (for Brudnaya).

BRUDNAYA, A.A., kand.sel'skokhoz.nauk; SOLODOVNIK, P.S.

Alodan in moist disinsectization of granaries. Zashch. rast. ot  
vred. i bol. 6 no.12:27 D '61. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov  
yego pererabotki.



BRUDNAYA, A.A., kand. sel'skokhoz. nauk; CHUDINOVA, A.N.

Disinfecting peas by methyl bromide. Zashch. rast. ot vred. i bol.  
9 no.9:34 '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov  
yego pererabotki.

KALASHNIKOV, K.Ya., kand. sel'skokhoz. nauk; BRUDNAYA, A.A., kand. sel'-  
skokhoz. nauk; ZUBOV, M.F., kand. sel'skokhoz. nauk; KOROLEV, P.A.,  
inzh.-khimik; NIKIFOROV, A.M.

Questions and answers. Zashch. rast. ot vred. i bol. 9  
no.8:34-35 '64. (MIRA 17:12)

IVANOV, A.I., agronom; BEHUNOVA, A.I., kand. sel'skokhoz. nauk

Safety requirements for plant protection machines. Zashch. rast.  
ot vred. i bol. 9 no.7:34 '64. (MIRA 18:2)

1. Kuybyshevskaya stantsiya zashchity rasteniy (for Ivanov).

BRUDNAYA, A.A., kand. sel'skokhoz. nauk; KUREPKO, I.A.; PARFILOVA, M. Ye,  
kand. biolog. nauk; KOZAR', I.M., agronom; BESPYATYKH, A.M.,  
agronom-entomolog; KARGIN, V.N., agronom; KUZIIYEV, S., aspirant;  
TKHORIK, I.S.

From the practices in the use of poisonous chemicals. Zashch.  
rast. ot vred. i bol. 9 no.10:26-27 '64 (MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy ir titut zerna i pro-  
duktov yego pererabotki (for Brudnaya, Kurepko). 2. L'vovskiy  
awl'skokhozyaystvennyy institut (for Parfilova, Kozar').
3. Bakhchisarayskoye proizvodstvennoye upravleniye ( for  
Bezpyatykh). 4. Kolkhoz "Pobeda" )for Kargin). 5. Sredneaziat-  
skiy institut zashchity rasteniy (for Kuziyev). 6. Zaveduyu-  
shchiy otdelom zashchity rasteniy Yaroslavskoy opytnoy stantsii  
(for Tkhorik).

L 07271-67 EWT(1) JK  
ACC NR: AF0004514 (A)

SOURCE CODE: UR/0334/65/000/010/0021/0023

AUTHOR: Brudnaya, A. (Candidate of Agricultural Sciences)

13  
B

ORG: none

TITLE: New method for the determination of insidious contamination of beans by weevils

SOURCE: Mukomol'no-elevatornaya promyshlennost', no. 10, 1965, 21-23

TOPIC TAGS: plant disease, plant disease control, <sup>insect</sup> ~~plant~~ parasite, ~~parasitology~~ ~~test~~, ~~test method~~

ABSTRACT: The use of luminescent analysis, colorimetric reagents, and oil treatment at the Laboratory of the All-Union Scientific Research Institute of Grain and Grain Products (VNIIZ) for the detection of bean contamination by weevils proved that oil treatment is the more effective method for this purpose. The treatment is best effected with olive oil, machine oil, or liquid petrolatum on white, yellow, or beige beans. Oil-treated beans assume the color of amber which in contaminated beans is disrupted by light passages, i.e., larva paths. The passages range from a point at which the larvae enter the seed, diverge, and form cavities where larvae in various stages of

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UDC 664.7:633.379]:632.93

L 07271-67

ACC NR: AP6004514

development are located. The treatment is effected with about 1 - 1.5 ml of oil per gram of beans and in a half-hour the contaminated beans are picked out and the percentage of contamination determined. The oil treatment disclosed the same number of contaminated beans as that disclosed by dissection. Thus, the oil treatment method makes it possible to detect the contamination of beans by weevils at any stage of contamination. Although successful, the method must yet be tested on large quantities of beans in the field and storehouses. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 06/ SUBM DATE: none

Card 2/2 *pla*

L 23380-65 EWT(1)/FCC GW

ACCESSION NR: AR5002529

S/0169/64/000/010/B056/B056

SOURCE: Ref. zh. Geofizika, Abs. 10B345

AUTHOR: Podol'skiy, A. S.; Brudnaya, A. F.

TITLE: Methods for more specific and accurate computation of frosts by the Mikhalevskiy method as applied to the area of the Dushanbe agrometeorological station

CITED SOURCE: Sb. rabot Dushanbinsk. gidrometeorol. observ., vyp. 1, 1964, 67-75

TOPIC TAGS: agrometeorology, frost, advection frost, radiation frost, air temperature

TRANSLATION: The authors have introduced refinements into the Mikhalevskiy formula for precomputation of radiation frosts:  $M = T_1 - (T - T_1) \cdot C$ , where M is the expected minimum air temperature, T is the temperature indicated by the dry- and  $T_1$  is the temperature indicated by the wet-bulb thermometers at 1300 hours, and have refined the coefficient C, which is dependent on relative air humidity. The authors used not only cases of a negative temperature decrease, but also cases of nighttime radiation temperature decreases having a positive value. It was found that the values of the coefficient C, computed from observations in the Gissar

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L 23380-65

ACCESSION NR: AR5002529

valley, differ from the values obtained by Mikhalevskiy from data for Transcaucasian stations. These differences increase with increasing relative humidity of the air. The only exception is the humidity range 15-25%. On the basis of phytoclimatological observations, the authors constructed curves for conversion from minimum air temperatures in the psychrometric enclosure to the minimum temperatures at the level of the active surface of truck garden crops (2 cm), a cotton field and vineyard (118 cm). The success rate of computation of nighttime radiation decreases of temperature at a height of 2 m using the refined coefficients is 82%, provided that the computed values of the minima are considered unsuccessful when the error is greater than  $\pm 1.3^{\circ}\text{C}$ . The article includes an analysis of local criteria of radiation and advection frosts and also the principal synoptic conditions accompanying them. Yu. Mel'nik

SUB CODE: ES

ENCL: 00

Card 2/2



L 23378-65

ACCESSION NR: AR5002530

S/0169/64/000/010/B056/B056

SOURCE: Ref. zh. Geofizika, Abs. 10B346

AUTHOR: Brudnaya, A. F. B

TITLE: Improvement of the methods for instrumental measurements of soil moisture

CITED SOURCE: Sb. rabot Dushanbinsk. gidrometeorol. observ., vyp. 1, 1964, 75-89

TOPIC TAGS: soil moisture, agrometeorology, precipitation

TRANSLATION: Investigations have been made for the purpose of determining the possibility of decreasing the time involved in drilling work and decreasing the depth of drilling necessary in the time-consuming thermostat-weight method for measuring soil moisture. Data from five years of observations in sectors with winter wheat, cotton and pasturage have been analyzed at the Dushanbe Hydrometeorological Observatory. The decisive factor in soil moistening was the temporal distribution of precipitation. The author has proposed a system of periods and drilling depths for individual growing seasons in instrumental determinations of soil moisture. B. Konovodov.

Card 1/1

SUB CODE: ES

ENCL: 00

BRUDNAYA, E. I.

Specific Prevention of Pertussis, published by MEDITS, MOSCOW, 1968  
ed. by E. S. Zakharenko, Dir. Lab. of Specific Prophylaxis of Pertussis,  
Inst. Hyg. and Microbiol. in S.P. Omskaya,  
Acad. Medical Sci. USSR

At the scientific conference on the specific prophylaxis of pertussis conducted by  
the Institute of Hygiene and Microbiology in S. P. Omskaya, Acad. Medical Sci.  
USSR, together with other Institutes and medical establishments, papers were read by  
the following: (See Table of Contents)

E. S. Zakharenko (Inst. of Hyg. and Microbiol. in S. P. Omskaya AMM USSR): Problem of specific prophylaxis of pertussis	3
B. V. Gordian and I. S. Lashchenko (same as Zakharenko): Effectiveness of pertussis immunization in epidemiologic observations	19
E. A. Reizakh'yan (2nd Moscow Med. Inst in S. I. Pirogov): Clinical- epidemiologic effectiveness of the pertussis vaccine in epidemics	29
A. V. Silashova (Inst. of Pediatrics AMM USSR): Clinical study of reactivity in children vaccinated with pertussis vaccine	37
B. S. Filozofov et al. (Ukr Inst. of Epidemiol. Microbiol. and Hygiene and Inst. for the Care of Mothers and Children of the Kievian SSR): Study of the effectiveness of immunization against pertussis	44
E. S. Kozlovskaya and E. I. Brudnaya (Central Scientific Res. Lab. of Hygiene and Epidemiology of the Ministry of Communications USSR): Effectiveness of vaccination with pertussis vaccine among infants in the Moscow Railroad Boy Nursery.	53
B. T. Gvoz'dal'man et al. (Dzharzh Scientific Res. Inst. for Vaccines and Sera): Effectiveness of vaccination against pertussis in epidemiologic observation.	58
B. V. Gordian and T. B. Romanov (see above): Epidemiologic effectiveness of pertussis-diphtheria vaccination	64
I. A. Kozlovskaya (Republican Sanitary-Epidemiologic Station of the Ministry of Health of the Georgian SSR): Epidemiologic and immunologic effectiveness and reactivity of the pertussis- diphtheria vaccine	74
I. P. Pavil'yanskiy et al. (Yuzh Scientific Res. Inst. for Vaccines and Sera): Reactogenicity and epidemiologic effectiveness of adsorbed pertussis-diphtheria and pertussis vaccines	87
B. A. Kostova (Leningrad Inst. of Epidemiol. Microbiol. and Hygiene in. Paster): Data on reactogenicity and immunologic and epidem- iologic effectiveness of the pertussis and pertussis-diphtheria vaccine	93
B. G. Poyarkov et al. (The Central, etc. see Kazakhstan above): Experiments in the use of pertussis and pertussis-diphtheria vaccine in Children's Institutions of the Railroad Transport System	101
V. A. Kozlovskaya (Republican Sanitary-Epidemiologic Station of the Belorussian SSR): Study of reactogenicity and epidemiologic effectiveness of pertussis and pertussis-diphtheria vaccine	111

BRUDNAYA, E.I.; PAK, Ye.A.

Studies on the effectiveness of mycerin in the treatment of coli  
enteritis in children. Antibiotiki 5 no.6:104-107 N-D '60.  
(MIRA 14:3)

1. TSentral'naya nauchno-issledovatel'skaya laboratoriya gigiyeny  
i epidemiologii Ministerstva putey soobshcheniya, detskaya bol'nits,  
Lyublino.

(MYCERIN)

(ECHERICHIA COLI)

SPIVAK, M.Ya.; ARGUDAYEVA, N.A.; NABIYEV, E.G.; CHISTOVICH, G.N.;  
RIVLIN, M.I.; SEMENOV, M.Ya.; KRUGLIKOV, V.M.; SHAL'NEVA, A.M.;  
TITROVA, A.I.; RAYKIS, B.N.; MILYAYEVA, Ye.N.; BRUDNAYA, E.I.;  
GODINA, I.F.; VOL'FSON, G.I.; SOSONKO, S.M.; KOLESINSKAYA, L.A.;  
VYSOTSKIY, B.V.; MALYKH, F.S.; MIROTVORTSEV, Yu.I.; SYCHEVSKIY,  
P.T.; GOPACHENKO, I.M.; KARPITSKAYA, V.M.; FETISOVA, I.A.;  
MARTYNYUK, Yu.V.; EMDINA, I.A.

Annotations. Zhur. mikrobiol., epid. i immun. 40 no.3:128-131  
Mr '63. (MIRA 17:2)

1. Iz Kemerovskogo meditsinskogo instituta i Kemerovskoy  
klinicheskoy bol'nitsy No.3 (for Spivak, Argudayeva). 2. Iz  
Kazanskogo instituta usovershenstvovaniya vrachey imeni  
Lenina (for Nabiyev). 3. Iz Leningradskogo kozhnogo dispansera  
No. 1 (for Chistovich, Rivlin). 4. Iz Rostovskoy oblastnoy  
sanitarno-epidemiologicheskoy stantsii (for Semenov). 5. Iz  
Stavropol'skogo instituta vaktzin i syvorotok (for Kruglikov,  
Shal'neva, Titrova, Raykis). 6. Iz Kuybyshevskogo instituta  
epidemiologii, mikrobiologii i gigiyeny i Tsentral'nogo insti-  
tuta usovershenstvovaniya vrachey (for Milyayeva). 7. Iz  
Vsesoyuznogo nauchno-issledovatel'skogo instituta zhelezn-  
dorezhnoy gigiyeny Glavnogo sanitarnogo upravleniya Minis-  
terstva putey soobshcheniya i Detskoy polikliniki st. Lyublino

(Continued on next card)

SPIVAK, M.Ya.----- (continued) Card 2.

Moskovskoy zheleznoy dorogi (for Brudnaya, Godina). 8. Iz Vrachebno-sanitarnoy sluzhby Severnoy zheleznoy dorogi (for Vol'fson, Sosonko, Kolesinskaya). 9. Iz Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny i Primorskoy krayevoy protivochumnoy stantsii (for Vysotskiy, Malykh, Mirotvortsev, Sychevskiy, Gopachenko). 10. Iz Yaroslavskogo meditsinskogo instituta (for Karpitskaya). 11. Iz Aralmorskoy protivochumnoy stantsii (for Fetisova). 12. Iz L'vovskogo instituta epidemiologii, mikrobiologii i gigiyeny (for Martynyuk, Endina).

BRUDNAYA, E.N.

Results of using diadynamic currents in compound sanatorium and health-resort treatment at the southern coast of the Crimea. Sbor. nauch. rab. vrach. san.-kur. uchr. profsoiuzov no.1:33-39 '64.

(MIRA 18:10)

1. Bazovyy sanatoriy imeni V.V.Kuybysheva Yaltinskogo territorial'nogo soveta po upravleniyu kurortami professional'nykh soyuzov.

L 38628-65 EWT(1)/EWA(3)/EWA(b)-2 JK  
ACCESSION NR: AP5011377

UR/0016/64/000/008/0133/0134

AUTHOR: Berin, M. G.; Brudnaya, K. B.; Tuktarova, Sh. Z.; Rzhvakaya, G. F. 17  
16 B

TITLE: Action of certain organophosphorus compounds during experimental intestinal  
infections 6

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 8, 1964,  
133-134

TOPIC TAGS: bacterial disease, intestinal disease, ester, experiment animal,  
drug treatment, organic phosphorus compound

Abstract: Certain mixed esters of ethylphosphinic, synthesized at the  
Kazan Chemcotechnological Institute under the direction of Professor A. I.  
Hazumov, show antimicrobial action on a series of pathogenic microorganisms  
in vivo tests. The most active compounds in relation to the intestinal  
infections were the mixed ethyl isopropenyl ester of ethylphosphinic acid  
(preparation 607) and the mixed methyl isopropenyl ester of ethylphosphinic  
acid (preparation 606).

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ACCESSION NR: AP5011377

Since these preparations are low in toxicity, show weak anticholinesterase activity, and are active in relation to intestinal infections, their action during experimental infection caused by *S. typhi* (strain No. 4446), *S. typhimurium*, *Sh. dysenteriae Flexneri* and *E. coli* (type 0111), was investigated. Tests were made on 18-20 g mice. A total of 125 mice were used. Treatment was conducted with a 1% aqueous solution of the preparations, which were administered per os in a dosage of 100 mg/kg. Treatment began at different intervals (simultaneously with infection, after 2-3 and 20-24 hours after infection). The preparations were given once, or in some cases in a one-time equivalent over 5, 8 or 10 days. Additionally the multiple subcutaneous injection of the preparations (in experiments with *S. typhimurium*) was tested. The chemotherapeutic activity of the preparations was evaluated according to the longevity of the treated animals in comparison with the control animals, by extracting the infectious agents, and sometimes by the value of the "bacteriological index" of the spleen.

As a result, the preparations 606 and 607 in the dosages used did not exhibit sterilization activity during the experimental infections caused by various intestinal infectious agents. The results also indicated that the complex esters of ethylphosphinic acid had a certain therapeutic effect under the conditions mentioned. In experimental typhoid fever in mice, 607

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AP5011377  
ACCESSION NR: AP5011377

was more active than 606 but less active than biomyacin. In paratyphoid in mice, 607 rendered a therapeutic effect only when used simultaneously with the infection; 607 had a chemotherapeutic effect within the first days after infection in experimental dysentery in mice; 606 had an effect against E coli, strain O111, both when administered simultaneously with infection and after 2 and 24 hours.

Inasmuch as the preparations exhibited some degree of chemotherapeutic effect against intestinal infections, the author concludes that in the bio-mechanism of these microbes there is a common ring which is the point of application of the action of organophosphorus compounds. Further study is recommended.

ASSOCIATION: Kazanskiy meditsinskiy institut (Kazan Medical Institute)

SUBMITTED: 10Oct63

ENCL: 00

SUB CODE: LS, OC

NO REF SOV: 000

OTHER: 000

JFRS

Card 3/3

L 29965-66 EWT(1)/T JK

ACC NR: AR6004358

SOURCE CODE: UR/0299/65/000/019/B042/B042

AUTHOR: Berim, M. G.; Brudnaya, K. B.; Rzhenskaya, G. F.; Tuktarova, Sh. Z.

TITLE: Problem of the antibacterial action of amidophosphonoformic ester, phosphorilated acetals and hydrazones

51  
50  
B

SOURCE: Ref. zh. Biologiya, Abs. 19B272

REF SOURCE: Nauchn. tr. Kazansk. med. in-t, v. 14, 1964, 99-100

TOPIC TAGS: ~~organic chemistry~~, bactericide, organic phosphorus compound, ester, acetal

ABSTRACT: The antibacterial effect of amidophosphonoformic ester, phosphorilated hydrazones and phosphorilated acetals are studied. Some serotype (O-111, O-26, O-55) intestinal bacteria, proteus vulfaricus, stimulants of typhoid fever, dysentery, murine typhus, staphylococcus, streptococcus, and also diphtheria stimulators ~~as test~~ bacteria were used. The latter microorganism was shown to be the most sensitive to the compounds in question. The addition of chlorine atom to the alkyl radical, or an increase in the carbon atom number in it does not

Card 1/2

L 29965-66

ACC NR: AR6004358

increase the antibacterial action of amidophosphonoformic esters. The presence of a double bond in the alkyl radical increases the antibacterial action. The same is true regarding the introduction of a methoxy-group into phenyl radical. Preparation No.16: 3,3dimethoxyphenyl-4,4-bis-amidophosphonoformic dimethyl ester proved to be the most active of all the investigated phosphoroorganic compounds. Phosphorilayed hydrazones showed a slight antibacterial action, whereas the acetals are not active at all.

N. Blinov

SUB CODE: 06,07/ SUBM DATE: none

Card 2/2 CC

BERIM, M.G.; BRUDNAYA, K.B.; RZHEVSKAYA, G.F.; TUKTAROVA, Sh.Z.

Antimicrobial effect of the esters of amidophosphonoformic acid, phosphorylated acetals and hydrazones. Nauch. trudy Kaz. gos. med. inst. 14:99-100 '64. (MIRA 18:9)

1. Kafedra mikrobiologii (zav. - dotsent Z.Kh.Karimova) i kafedra farmakologii (zav. - dotsent T.V.Raspopova) Kazanskogo meditsinskogo instituta.

BRUDNAYA, K.B.; SLEPOVA, R.I.

Detection of Mycobacterium tuberculosis in the sputum in relation to the form of the tuberculous process and the quantity of antibiotics taken. Nauch. trudy Kaz. gos. med. inst. 14:377-378 '64. (MIRA 18:9)

1. Kafedra mikrobiologii (zav. - dotsent Z.Kh. Karimova)  
Kazanskogo meditsinskogo instituta.

BRUDNAYA, S. M.

"Allergic Skin Reaction Used as a Method to Diagnose the Early Stages of  
Ascariidosis." Cand Med Sci, Gor'kiy State Medical Inst, Gor'kiy, 1953. (RZhBiol,  
No 4, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher  
Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

*BRUDNAYA, S.M.*

BRUDNAYA, S.M.

Case of a warble fly as a parasite in the human body. Med. paraz.  
i paraz. bol. supplement to no. 1:48 '57. (MIRA 11:1)

1. Iz kafedry obshchey biologii Chitinskogo meditsinskogo instituta.  
(WARBLE FLIES)

KASSIRSKAYA, E.G.: BRUDNAYA, E.I.

New antibiotic treatment of chronic dysentery in children.  
Sovet.med. 19 no.5:73-74 My '55. (MLRA 8:8)

1. Iz Tsentral'noy nauchno-issledovatel'skoy laboratorii  
gigiyeny i epidemiologii (nach. B.A. Ivanov) Ministerstva  
putey soobshcheniya SSSR.

(DYSENTERY, in inf. and child  
ther.,  
antibiotics)

(ANTIBIOTICS, ther. use  
dysentery, in child)



BRUDNAYA, V.E.I.

Length and periodicity of bacteria excretion in children with  
chronic dysentery. Zhur. mikrobiol. epid. i immun 28 no.2:130-131  
F '57 (MLRA 10:4)

1. Iz Tsentral'noy laboratorii gigiyeny i epidemiologii  
Glavsanupra Ministerstva putey soobshcheniya.  
(DYSENTERY)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

17

CA

BRUDNAYA, YE. YE.

The preparation of tablets for disinfection of water. Ya. I. Gorodets'kii and E. E. Brudnaya. *Trans. Ukrain. Inst. Exptl. Pharm.* 1; 115-20 (in Russian); 1207 in English, 120-1) (1938).—NaCl was found to be the most suitable base for the prepn. of chloramine tablets. These tablets lose about 30% of their Cl content within 6 months. With further storage no more loss occurs, if the tablets are kept away from direct sunlight. In 10 min. after such tablets are dissolved in H<sub>2</sub>O, they liberate 80% of their active Cl content. R. Levine

COMMON ELEMENTS

COMMON VARIABLES INDEX

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

BRUDNER, I. Kh.

Trichomonal urethritis in males. Zdrav. Belor. 5 no.6:61-62  
Je '59. (MIRA 12:9)

1. Glavnyy vrach Brestskogo oblkozhvendispensera.  
(URETHRA--DISEASES)

BRUDNER, I.Kh.

Case of trichomycosis flava. Sbor.nauch.rab.Bel.nauch.-issl.kozhno-  
ven.inst. 6:375 '59. (MIRA 13:11)

(HAIR--DISEASES)  
(MEDICAL MYCOLOGY)

BRUDNER, I.Kh.

Work of the interdistrict skin and venereal disease clinics in  
Brest Province. Zdrav.Belor. 5 no.1:54 Ja '60. (MIRA 13:5)

1. Glavnyy vrach Brestskogo oblkozhvendispensera.  
(~~BREST PROVINCE--VENEREAL DISEASES--HOSPITALS~~)

BRUDNER, I.Kh.; LEYKIN, L.S.

Work of interdistrict dermatovenereological dispensaries of the  
Brest area. Vest.derm.i ven. 34 no.12:45 '60. (MIRA 14:1)

1. Iz Brestskogo oblastnogo kozhno-venerologicheskogo dispansera  
(glavnyy vrach I.Kh. Brudner, i Baranovichskogo mezhrayonnogo  
kzhno-venerologicheskogo dispansera (glavnyy vrach L.S. Leykin).  
(BREST PROVINCE--DERMATOLOGY) (BREST PROVINCE--VENEREAL DISEASES)

BRUDNIK, J.

Blazek, F. Ventilation and climatic conditions in some mines of the Ostrava-Karvina Basin. p. 172.

UHLI, Praha, Vol. 5, no. 5, May 1955.

SC: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,  
Uncl.

93. THE I-X DIAGRAM: ITS USE IN MINE ATMOSPHERE INVESTIGATIONS.  
Blazek, F. and Bruchik, J. (Uhli (Coal, Prague), July 1956, 227-229).

2



BRUDNIK, J.

The geothermal gradient in the Ostrava-Karvina area.

P. 413. (UHLI) (Praha, Czechoslovakia) Vol. 7, no. 12, Dec. 1957

SO: Monthly Index of East European Accession (SEAI) LC Vol. 7, No. 5, 1958

BRUDNIK, M.M.; KOSTRIN, K.V.

Placing the equipment of petroleum refinery units in open areas.  
Nefteper. i neftekhim. no.12:38-40 '64. (MIRA 18:2)

1. Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke  
nefti.

BRUDNIK, S.S.

Every technical solution should have an economic substantiation. Priborostroenie no.5:31-32 My '63. (MIRA 16:8)

BRUDNIK, S.S.; TARAN, V.A.

Practical methods for the determination of optimum reliability. Pri-  
borostroenie no.7:23-25 J1 '63. (MIRA 16:9)

BRUDNIK, S.S., inzh.; KUSOV, I.F., inzh.; TARAN, V.A., kand. tekhn. nauk

Using computers for calculating optimum allowances for the parameters of an executive component in securing given reliability and minimum cost of production and operation. Priborostroenie no.4: 16-19 Ap '65. (MIRA 18:5)

BRUDNIK, S.S., inzhener.

Mechanization of planning calculations. Vest.mash. 36 no.11:62-  
70 N '56. (MIRA 10:1)  
(Calculating machines) (Industrial management)

BRUDNIK, S.S., inzh.

Technical and economic efficiency in the instrument industry.

Priborostroenie no.5:28-29 My '62.

(MIRA 15:5)

(Instrument industry)

AK7001757

SOURCE CODE: UR/0274/66/000/010/B099/B100

AUTHOR: Taran, V. A.; Brudnik, S. S.; Kusov, I. F.

TITLE: Optimization of tolerances for parameters of a device on condition that the assigned reliability, accuracy and minimum production and operation costs are maintained

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 10B695

REF SOURCE: Tr. Mosk. in-ta elektron. mashinostr., vyp. 1, 1965(1966), 184-192

TOPIC TAGS: system reliability, industrial production, tolerance optimization, production cost, operation cost, parameter

ABSTRACT: Experience in the development of instruments and various devices has shown that, from the standpoint of reliability and cost, the use of high-precision elements is not justified. Therefore, there arises the problem of the optimization of tolerances for changes in the functional parameters of devices on condition that the assigned reliability and minimal costs are maintained. Optimization of tolerances for the alternation of the parameters of devices

W1

Carc 1/2



BRUDNIKOVA, M.B., KHANTIN, S.G., KIRVEL, M.M., PARAMONENKOVA, A.Ye.

"Effectiveness of DRIED Live NIIEG Tularemia Vaccine Being Turned Out  
by IEM," a monograph extract Effect of Vaccination Against Tularemia, 1953  
p. 143

Translation D 568409

BRUDNITSKAYA, I.A., Cand Chem Sci--(diss) "Calcium-protein complexes."  
Kazan', 1958. 15 pp (Min of Higher Education USSR. Kazan' Chem-Technological  
Inst in S.M. Kirov), 150 copies (KL,26-58,106)

-19-

BRUDNJAK, Z.

The value of agglutination in diagnosing swine erysipelas

The unreliability of the agglutination test in diagnosis of swine erysipelas

co-au: Kralj, M.

Inst. and Clinic for Infections Diseases, Vet. Fac. Zagreb University

Vet Arh 22: 51-59 1952

Vet Arh 22: 276-281 1952

YUGOSLAVIA/Diseases of Farm Animals. Diseases Caused by  
Bacteria and Fungi.

R-2

Abs Jour : Ref Zhur - Biol., No 4, 1958, 16916

Author : Brudnjak, Z.; Zelenka, F.; Sibalin, M.

Inst : -

Title : On Equine Leptospirosis.

Orig Pub : Veterin. arh., 1956, 26, No 5-6, 165-173.

Abstract : Sixteen cases of leptospirosis of horses were under obser-  
vation. In 3 of them the causative agent, *Leptospira*  
*pomona*, was isolated. The disease occurred in summertime  
and was characterized by a high fever, depression, loss of  
appetite, jaundice, and an acute hyperemia of the vessels  
of the conjunctive and sclera. In some instances, a skin  
rash and lesions of the eye were observed. The apparent  
source of infection were pigs which used the same stagnant  
water as horses. Meteorological conditions (rainy summer)  
favored the development of the disease. The treatment

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- 7 -

YUGOSLAVIA/Diseases of Farm Animals - Diseases Caused by  
Bacteria and Fungi.

R-2

Abs Jour : Ref Zhur = Diol., No 4, 1958, 16916

with penicillin (800 thous. to 1 million units daily  
until the aggregate dose of 2,400 thous. to 4 million  
units was reached) produced a good effect. -- F.L. Mayzil'

Card 2/2

L 20698-66 EWT(d)/T/EMP(1) LJP(a)

ACC NR: AP6011994

SOURCE CODE: UR/0020/65/161/004/0746/0749

AUTHOR: Brudnyy, Yu. A.

ORG: Dnepropetrovsk Agricultural Institute, Dnepropetrovsk (Dnepropetrovskiy sel'skokhozyaystvennyy institut)

22  
13

TITLE: Local best approximation of functions by polynomials

SOURCE: AN SSSR. Doklady, v. 161, no. 4, 1965, 746-749

TOPIC TAGS: polynomial, approximation, function analysis

ABSTRACT: Certain new results are given on <sup>10</sup>the relation between the properties of a function and the behavior of its best local approximations. The following problem is considered:  $B(I_0)$  is one of the functional spaces of  $LP(I_0)$ ,  $1 \leq p < \infty$ ,  $C(I_0)$ , or  $M(I_0)$ , where  $I_0$  is an interval on the real axis not necessarily finite,  $\|f; I\|$ , where  $I \subset I_0$  is the corresponding local norm. Eight theorems are given. Most of the results obtained hold for functions of  $n$  variables. The paper was presented by Academician S. N. Bernshteyn on 27 October 1964. Orig. art. has: 8 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 21Oct64 / ORIG REF: 003 / OTH REF: 003

Card 1/1 BK

Stapled and  
being rerun.

ACC NR: AR7001757

SOURCE CODE: UR/0274/66/000/010/E099/B100

AUTHOR: Taran, V. A.; Brudnik, S. S.; Kusov, I. F.

TITLE: Optimization of tolerances for parameters of a device on condition that the assigned reliability, accuracy and minimum production and operation costs are maintained

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 10B695

REF SOURCE: Tr. Mosk. in-ta elektron. mashinostr., vyp. 1, 1965(1966), 184-192

TOPIC TAGS: system reliability, industrial production, tolerance optimization, production cost, operation cost, parameter

ABSTRACT: Experience in the development of instruments and various devices has shown that, from the standpoint of reliability and cost, the use of high-precision elements is not justified. Therefore, there arises the problem of the optimization of tolerances for changes in the functional parameters of devices, on condition that the assigned reliability and minimal costs are maintained. The optimization of tolerances for the alternation of the parameters of a closed control

UDC: 621.396.6.019.3



ACC NR: AR7001757

system consisting of three units (amplifier, actuating mechanism, and feedback element) is investigated. The problem is solved on the basis of the method of linear programming and presupposes the determination of values of industrial tolerances for fluctuations in amplification and transmission factors at which the alternation of these parameters in time under the given operational conditions of the device makes it possible to ensure the required reliability of its operation and, at the same time, minimal production and operational costs. Six illustrations and a bibliography of 2 titles are included. [Translation of abstract]

[DW]

SUB CODE: H09/

2/2

LAPUK, B.B.; BRUDNO, A.L.; SOMOV, B.Ye:

Bottom water cones in gas pools.

(Gas, Natural)

Gaz.prom. 6 no.2:8-12 '61.  
(MIRA 14:4)

BRUDNO, A.L. (Moskva)

Price sample of optimum planning. Probl. kib. no.9:313-315 '63.  
(MIRA 17:10)

BRUDNO, A.L.

Summirovaniye ogranichennykh posledovatel'nostey lineynymi regulyarnymi metodami.  
Dan, 43 (1944), 191-193.  
Summirovaniye ogranichennykh posled-ovatel'nostey matritsami. Matem. SB., 16  
(58), (1945), 191-247.

SO: MATHEMATICS IN THE USSR, 1917-1947  
edited by Kurosh, A.G.,  
Markushevich, A.I.,  
Rashevskiy, P.K.  
Moscow-Leningrad, 1948

BRUDNO, A.L.

CAND PHYSICOMATH SCI

Dissertation: "Transformation and Summation of a Number of Limited Sequences by Teplitz  
Matrices."

27 June 49  
Moscow State Pedagogical Inst imeni V.I. Lenin.

SO Vecheryaya Moskva  
Sum 71

BRUDNO, A. L.

"Summation of Bounded Sequences of Toeplitz Matrices." Sub 20 Jun 51,  
Moscow Order of Lenin State U imeni M. V. Lomonosov.

Dissertations presented for science and engineering degrees in Moscow  
during 1951.

SO: Sum. No. 480, 9 May 55.

BRUDNO, A. L.

Defended his Doctors dissertation in the Mechanics and Mathematics Faculty of Moscow State University on 5 July 1952.

Dissertation: "Summation of Finite Series by Means of Toeplitz <sup>Matrices</sup> ~~Matrices~~,"

SO: Vestnik Moskovskogo Universiteta, Seriya Fiziko-Matematicheskikh i Yestestvennykh Nauk, No. 1, Moscow, Feb 1953, pp 151-157: transl. in ~~W-29782~~, 12 April 54, For off. use only.

BRUDNO, A.L.

USSR/Mathematics - Matrix

11 Jul 53

"Relative Norms of Toeplitz Matrices," A. L. Brudno  
DAN SSSR, Vol 91, No 2, pp 197-200

Considers the following two problems: a) to study the maximum possible magnitude of  $\|B\|$  as a function of  $\delta$ , if  $\|x\| \leq 1$  and  $\|A(x)\| \leq \delta$ ; b) to evaluate the maximum possible magnitude of  $\|B^m(x)\|$  if  $\|x\| < 1$  and  $\|A(x)\|_{\infty} \leq \delta$ . Presented by Acad S. L. Sobolev 27 Apr 53.

276T72



*Будно, А. Л.*

Mechanization of Calculations in Metallurgical Research. 4  
 E. M. Zomaraeva, K. T. Suvorov, K. V. Demykin, and A. L.  
 Budno. (*Stal'*, 1955, (12), 1124-1129). [In Russian] This  
 is a contribution to a conference held to discuss experience  
 in the use of mechanized accounting and computing methods  
 in the iron and steel industry generally. It gives details of  
 some techniques involved and examples of successful applica-  
 tion in the steel industry, with special reference to coal  
 production.—S. K.

*Kuznetskiy metallurgicheskiy Kombinat  
 i Sibirskiy metallurgicheskiy  
 institut, Stal'proyekt.*

AUTHOR: BRUDNO, A.L. (Moscow) 39-1-4/8

TITLE: On the Dispersion Foundation of the Method of Smallest Squares (~~K dispersionnaya~~ obosnovaniyu metoda naimen'shikh kvadratov).

PERIODICAL: Matematicheskiy Sbornik, 1957, Vol. 43, Nr 1, pp. 37-48 (USSR)

ABSTRACT: Let

$$(1) y = \sum_{k=1}^n x_k c_k, \text{ where } c_k \text{ are assumed to be fixed}$$

but unknown. Let  $m$  complexes  $x_{1i}, \dots, x_{ni}$  ( $i = 1, \dots, m$ ) of the values of the variables  $x_1, \dots, x_n$  be given and the  $m$  numbers

$$(2) y_i = \sum_{k=1}^n x_{ki} c_k \quad (i = 1, \dots, m) \text{ are assumed to be}$$

measured. Let the measurements yield  $\eta_i = y_i + \Delta_i$ . The  $\Delta_i$  are assumed to be independent random magnitudes with normal dispersion, with mathematical expectation  $M \Delta_i = 0$  and equal dispersion  $D^2 \Delta_i = \Delta^2$ . Let the rank of the coefficients of (2) be  $n$ . Furthermore let the complex  $x_{10}, \dots, x_{n0}$  be

Card 1/3

On the Dispersion Foundation of the Method of Smallest Squares.

39-1-4/8

given and the best value  $y_0 = \sum_{k=1}^n x_{ko} c_k$  according to the already known values  $x_{ki}, \eta_i, x_{ko}$  is to be sought. According to the method of smallest squares it is

$$\theta_0 = \sum_{k=1}^n x_{ko} \xi_k ,$$

where the coefficients  $\xi_k$  give a minimum of the magnitude

$$\sum_{i=1}^m (\eta_i - \sum_{k=1}^n x_{ki} \xi_k)^2 .$$

Let  $\theta = \theta ([x_{ko}], [x_{ki}], [\eta_i])$  ( $k = 1, \dots, n; i = 1, \dots, m$ ).

Let  $\Theta$  be the set of all functions  $\theta$  with the following property: for arbitrary but fixed coefficients  $[c_k]$  the mathematical expectation is  $M\theta = y_0$ .

Theorem: 1.  $\theta_0 \in \Theta$

2. If  $\theta \in \Theta$  and if for any fixed  $[x_{ko}], [x_{ki}], [c_k]$  the function  $\theta$  is different from the function  $\theta_0$  on a

Card 2/3

On the Dispersion Foundation of the Method of Smallest  
Squares.

39-1-4/8

set of the values  $[x_{ki}]$  of positive measure, then for these  
 $[x_{k0}], [x_{ki}], [c_k]$  there holds the inequality

$$D^2 \theta_0 < D^2 \theta .$$

Theorem: For nearly all  $y$  let  $\frac{1}{\sqrt{2\pi}\Delta^2} \int_{-\infty}^{+\infty} f(y-\tilde{t}) e^{-\frac{\tilde{t}^2}{2\Delta^2}} d\tilde{t} = a+by$

where the integral is understood in the Lebesgue sense.

Then it is  $f(y) = a + by$  for nearly all  $y$ .

3 Soviet and 1 foreign references are quoted.  
ASSOCIATION: Laboratory for Steering Machines, Acad.Sci.USSR (Laboratoriya  
upravlyayushchikh mashin A.N. SSSR).

SUBMITTED: May 25, 1956

AVAILABLE: Library of Congress

Card 3/3

AUTHOR: Brudno, A.L. 38-22-2-8/8  
TITLE: An Example of two Toeplitz Matrices Which are Boundedly Compatible and Boundedly not Coverable (Primer dvukh matrixs Toplitsa, ogranichenno ne protivorechivyykh i ogranichenno ne pokryvayemykh)  
PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya Matematicheskaya, 1958, Vol 22, Nr 2, pp 309-320 (USSR)  
ABSTRACT: By construction of an example the author shows that there exist two Toeplitz matrices A and B so that  
1.) No bounded sequence is limited by A and B to different limit values.  
2.) There is no Toeplitz-matrix C which limitates all bounded sequences which are limited of A or B.  
The condition 2) also holds in the stronger form:  
3.) The norm of the functional f which is defined by

$$f(x) = \begin{cases} A^\infty(x) & \text{for } x \in \mathcal{A} \\ B^\infty(x) & \text{for } x \in \mathcal{L} \end{cases}$$

and which is additively continued onto the linear envelope

Card 1/2

An Example of two Toeplitz Matrices which are  
Boundedly Compatible and Boundedly not Coverable

38-22-2-8/8

of  $\mathcal{A}$  and  $\mathcal{B}$  in  $R_1$ , is not bounded. Here  $R_1 = \{x\}$  is the space of the bounded sequences  $x = \{x^1, x^2, \dots\}$  with ordinary addition and multiplication with constants;  $|x| = \sup |x^k|$ .  $\mathcal{A}$  denotes the set of the bounded sequences which are summable with the matrix  $A$ ,  $A^\infty(x)$  is the limit value of the addition for  $x \in \mathcal{A}$ .  $B$  has an analogous meaning. There are 2 non-Soviet references, 1 of which is German, and 1 French.

ASSOCIATION: Laboratoriya upravlyayushchikh mashin Akademii nauk SSSR  
(Laboratory for Controlling Machines of the Academy of Sciences of the USSR)

PRESENTED: by I.G. Petrovskiy, Academician

SUBMITTED: November 22, 1956

AVAILABLE: Library of Congress

1. Analytic functions 2. Matrices—Theory

Card 2/2

USCOMM-DC-55, 126

BRUDNO, A.L.

PHASE I BUCK EXPLOITATION SOV/3671

Akademiya nauk SSSR. Institut elektronnykh upravlyayushchikh mashin  
Tsifrovaya tekhnika i vychislitel'nyye ustroystva: (Sbornik)  
(Digital Technique and Computing Devices: Collection of Articles)  
Moscow, Izd-vo AN SSSR, 1959. 184 p. Errata slip inserted.  
3,000 copies printed.

Ed.: M.S. Bruk, Corresponding Member, USSR Academy of Sciences;  
Ed. of Publishing House: G.Yu. Shteynbok; Tech. Ed.: V.V.  
Volkhova.

PURPOSE: This collection of articles is intended for persons  
specializing in computer technique.

COVERAGE: Most of the work in this first issue of the Collection  
of Articles of the Institute of Electronic Control Machines of  
the Academy of Sciences, USSR, was carried out during 1958-1959,  
and was dedicated to digital techniques. The Institute conduc-  
ted studies aimed at creating a high-speed memory device of large  
capacity. One of the results of this work was improvement of the  
M-2 computer by replacing its static storage device with ferrite  
memory cores. The article concerns the use of transistors in  
digital computers, the stability of analog computers equipped with  
operational amplifiers, and the use of the M-2 computer  
in solving various problems. Future issues of this collection  
of articles will present the results of work in digital tech-  
nique in mathematical investigations, and in control machines and  
systems of control which operate on the principle of digital  
technique. Some personalities are mentioned in the articles.  
References accompany some of the articles.

Golomb, Z.B., A.L. Brudno, and M.M. Vladimirova. Calculation of  
Mutual and Self-Impedances of Multirun Electrical Networks with  
Digital Computers 128  
The authors describe the procedure adopted for this calcula-  
tion, which was made with the M-2 computer. There are 7  
references, all Soviet.

Golomb, Z.B., and I.A. Ruchek. Calculations of the Distribution  
of Mutual Powers in Long Distance Transmission Lines with Elec- 137  
tronic Digital Computers

The authors describe the procedure adopted for this calculation,  
in which they investigated, with the help of the M-2 digital  
computer, the problem of electronic computer voltage regula-  
tion in high voltage transmissions in which the relatively large  
number of step-down substations is used along the transmission  
route. There are four references, all Soviet.

Hexinberg, K.O. Conversion of Continuous Electrical Quantities 150  
Into Digital Codes. Conversion of continuously variable  
The author discusses the conversion of continuously variable  
analog electrical quantities into digital codes which ex-  
press these quantities by means of discrete electrical states.  
He presents, in table form, conversion methods or converter  
types together with the characteristics of each method or type.  
There are 8 references: 3 Soviet (one of which is a translation)  
and 5 English.

Brudno, A.L., and M.A. Larzanyuk. Operation of the M-2 Electronic 168  
Digital Computer (Part 2: Report)  
This is a report concerning the operation of the M-2 and results  
obtained from it in the period 1953-1958.

Kartsev, M.A., V.D. Zhuyazev, and V.P. Kuznetsova. High-Speed Elec- 175  
trostatic Printing Device  
The authors describe an experimental model of an electrostatic  
parallel printing device developed at the Laboratory in 1956-1957.  
The printing rate is 300 lines per sec.

Reznikov, M.D., and V.A. Tretyakhin. Ferrite-Transistor Trigger 179  
With One Transistor  
The author describes the trigger device which they developed  
at the Laboratory. They compare it with a similar one-transistor  
trigger described in the IRE Proceedings, 1956, No 3, enumerat-  
ing the disadvantages of this particular trigger and the ad-  
vantages of their trigger. There is one English reference.

Galynker, K.I. Decimal Counter Equipped With Ferrite-Transistor 183  
Triggers  
The author describes a counter in which the four-column  
scheme of a binary counter with feedback was applied. This  
counter may find application as an integrating device for  
decimal frequency division in systems of pulse generation  
and computing technique, and also in nuclear electronics.

BRUDNO, A.

"Mechanization of engineering and technical calculations in the  
designing of structures." Reviewed by A. Brudno. Stroi. mekh. i  
rasch. soor. 1 no.4:52 '59. (MIRA 12:10)  
(Electronic calculating machines)



16(+) 16.4000, 16.5400

05703

AUTHOR: Brudno, A.L.

SOV/38-23-5-7/8

TITLE: Topology of the Toeplitz Fields

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya matematicheskaya, 1959,  
Vol 23, Nr 5, pp 771 - 780 (USSR)ABSTRACT: Let  $R$  be the linear space of the bounded sequences $\{x^1, x^2, \dots\}$ ,  $A$  a Toeplitz matrix.

The author makes correspond  $\varepsilon$  system of convex central symmetric neighborhoods (of zero) of the space  $R$  to each given matrix  $A$ . Thus the linear space of bounded sequences is transformed into a topological pseudonormed locally convex space with "A-topology". The main result of the paper consists in the statement that equally strong Toeplitz matrices (i.e. matrices which sum the same bounded sequences) define the same topology so that one can speak of an  $\mathcal{O}_A$ -topology, where  $\mathcal{O}_A$  is the set of bounded sequences summable with  $A$  (Toeplitz field). This result is still generalized; the author especially states: If the Toeplitz matrix  $B$  is stronger than  $A$ , then the  $\mathcal{O}_B$ -topology is weaker than the  $A$ -topology and conversely; if at least one neighborhood of  $B$  contains any

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Topology of the Toeplitz Fields

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neighborhood of  $A$ , then the  $\mathcal{L}$ -topology is weaker than the  $\mathcal{O}$ -topology and the matrix  $B$  stronger than  $A$ .  
There are 3 references, 2 of which are Soviet, and 1 French.

ASSOCIATION: Institut elektronnykh upravlyayushchikh mashin AN SSSR  
(Institute of Electronic Control Instruments, AS USSR)

PRESENTED: by M.V. Keldysh, Academician

SUBMITTED: December 12, 1958

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80071  
S/020/60/131/06/003/071

AUTHOR: Brudno, A. L.

TITLE: Lur'ye's Method of Differential Rents for Most Economical  
Transportation Planning

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 131, No. 6,  
pp. 1238 - 1241

TEXT: It is asked for the optimum transportation plan for the delivery  
of goods from the producers with the powers  $M_i$  to the consumers with the  
capacities  $A_k$ , if the price of transportation from the  $i$ -th producer  
to the  $k$ -th consumer is  $a_{ik}$  and

$$\sum M_i = A_k, a_{ik} \geq 0, M_i > 0, A_k > 0$$

( $i = 1, \dots, m$ ;  $k = 1, \dots, n$ ).

The author describes explicitly the algorithm of the method of  
differential rents of A. L. Lur'ye (Ref.1) and shows that the problem  
can be solved with the aid of this algorithm after finitely many

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Lur'ye's Method of Differential Rents for Most Economical Transportation Planning

iterations. The number of steps depends only on n and m.  
There are 1 figure, 1 table, and 1 Soviet reference.

ASSOCIATION: Institut elektronnykh upravlyayushchikh mashin AN SSSR  
(Institute of Electronic Control Machines AS USSR)

PRESENTED: December 28, 1959, by J. G. Petrovskiy, Academician

SUBMITTED: December 21, 1959

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84764

S/042/60/015/003/006/016XX  
C111/C222

16.4100 16.6500

AUTHOR: Brudno, A.L.

TITLE: The Transitivity of the Least Square Method

PERIODICAL: Uspekhi matematicheskikh nauk, 1960, Vol.15, No.3, pp.137-138

TEXT: Theorem: For the linear function  $y = \sum_{k=1}^n c_k x_k$  let be given  $m+1$  groups of numbers(1)  $\rho_i; x_{1i}, x_{2i}, \dots, x_{ni} \quad (i=1, 2, \dots, m+1)$ 

and with the aid of them, according to the method of least squares let the coefficients  $\xi_k^{(m+1)}$  be determined which approximate the unknowns  $c_k$ , i.e. let  $\xi_k^{(m+1)}$  be chosen so that the form

$$F = \sum_{i=1}^{m+1} (\nu_i^{(m+1)} - \rho_i)^2, \text{ where } \nu_i^{(m+1)} = \sum_{k=1}^n \xi_k^{(m+1)} x_{ki},$$

becomes a minimum. Then one obtains the same values  $\xi_k^{(m+1)}$  by considering at first the first  $m$  groups

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The Transitivity of the Least Square Method

(2)  $\eta_i; x_{1i}, x_{2i}, \dots, x_{ni} \quad (i=1, 2, \dots, m),$

determining with aid of them, according to the method of least squares, the numbers  $\xi_k^{(m)}, \nu_i^{(m)}$ ; then forming new  $m+1$  groups by use of the obtained  $\nu_i^{(m)}$

$\nu_i^{(m)}; x_{1i}, x_{2i}, \dots, x_{ni} \quad (i=1, 2, \dots, m)$

(3)

$\eta_{m+1}; x_{1,m+1}, x_{2,m+1}, \dots, x_{n,m+1},$

and then determining from them the coefficients  $\xi_k^{(m+1)}$  according to the method of least squares.

The proof assumes that the rank of the matrix  $[x_{ki}]_{i=1, k=1}^{i=m, k=n}$  equals  $n$ , and is given by a direct calculation.

The theorem can be applied where the experimentally obtained values appear slowly one after another.

There is 1 figure.

SUBMITTED: December 13, 1958

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LAFUK, B.B.; BRUDNO, A.L.; SOMOV, B.Ye.

Cones of bottom water in oil fields. Neft. khoz. 39 no.5:  
45-50 My '60. (MIRA 14:9)  
(Oil field brines)

22376

S/038/61/025/003/001/001  
C111/C222

16,4000

AUTHOR: Brudno, A.L.

TITLE: Summation of a countable number of sequences

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya matematicheskaya,  
v.25, no.3, 1961, 385-410

TEXT: The author investigates the following problems:

1) Given two finite or countable sets of bounded sequences with the same cardinality. Does there exist a Toeplitz-matrix which transforms the sequences of the first set into sequences of the second set? Can it be chosen so that it is stronger than a given Toeplitz-matrix? How small can its norm be made?

2) Given an at most countable set of bounded sequences  $\{x_m\}$ , where to every sequence the limit value  $\{a_m\}$  is adjoined to which it can be summed, and a second also at most countable set of bounded sequences  $\{y_n\}$ .

Does there exist a Toeplitz-matrix which sums the sequences of the first set with the prescribed boundary values  $\{a_m\}$ ? Can it be chosen so that it does not sum the sequences of the second set? Can it be chosen stronger than a given Toeplitz-matrix? How small can its norm be made?

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Summation of a countable number...

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The author uses notations of (Ref.1: A.L.Brudno, Topologiya poley Teplitza [Topology of Toeplitz fields] Izvestiya Ak.nauk SSSR, seriya matem., 23 (1959), 771-780). Let  $e = x_0 = \{1, 1, \dots, 1\}$ .

§ 1 Basic theorem and basic lemma.

Theorem 1: Let

$$e = x_0, x_1, \dots \tag{1}$$

be bounded sequences (of  $R_2$ ), let  $\mathcal{L}$  be their linear closure,  $\beta$  -- additive operator given on  $\mathcal{L}$  and assuming the values of  $R_2$ , where

$\|\beta(e) - e\| = 0$ . Let  $A$  -- Toeplitz-matrix. 1.1. In order that there exists a Toeplitz-matrix  $B$  so that  $B \supseteq A$  and  $\|B(x_n) - \beta(x_n)\| = 0$  for all

$n = 0, 1, \dots$  it is necessary and sufficient that there exists a neighborhood  $\mathcal{E}$  of the matrix  $A$  so that the operator  $\beta$  is bounded on  $\mathcal{E} \cap \mathcal{L}$ .

1.2. If the sufficient conditions are satisfied and  $\sup_{x \in \mathcal{E} \cap \mathcal{L}} \|\beta(x)\| = M < \infty$

then the matrix  $B$  can be chosen so that  $\sup_{x \in \mathcal{E}} \|B(x)\| = M$ . 1.3. The

boundedness of the operator  $\beta$  in the natural normalization of the  
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Summation of a countable number...

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factor space  $(R_2/O_0)$  is not sufficient and the boundedness of  $\beta$  in the  $A$ -normalization is not necessary.

Lemma 5: Let  $A$  -- Toeplitz-matrix;  $x_0, x_1, \dots, y_1, y_2, \dots$  be two countable sets of bounded sequences,  $G$  -- linear closure of  $\{x_0, x_1, \dots, y_1, y_2, \dots\}$ ,  $\bar{G}$  -- linear closure of  $\{x_0, x_1, \dots\}$ , where none of the points  $y_n$  belongs to the closure of  $\bar{G}$  in the  $\mathcal{A}$ -topology. Then there exists a neighborhood  $\mathcal{E}$  of the matrix  $A$  so that none of the points  $\{y_n\}$  belongs to the closure of  $\bar{G}$  with respect to the  $\bar{\mathcal{E}}$ -normalization, and to every fixed neighborhood  $\mathcal{E}$  and every positive number  $\epsilon$  on  $G$  one can define a linear functional  $l$  (without the free axiom of choice) for which

$$l(x) = 0 \text{ for all } x \in \bar{G}, \tag{19}$$

$$l(y_n) \neq 0 \text{ for all } n=1,2,\dots \tag{20}$$

$$|l(x)| < \epsilon \text{ for all } x \in \mathcal{E} \cap G \tag{21}$$

(the line over a letter denotes the closure with respect to  $\|\cdot\|$ ).

§ 2. Transformation and summation of a countable number of sequences

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Summation of a countable number...

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with a matrix being stronger than a given one.

Theorem 2: 1°. In order that there exists a Toeplitz-matrix  $B \supseteq A$  which sums the bounded sequences  $e = x_0, x_1, \dots$  with the limit values $l = a_0, a_1, \dots$  it is necessary and sufficient that the functional  $\beta$ which is given on  $\{x_m\}$  by the equations  $\beta(x_m) = a_m$  ( $m=0, 1, \dots$ ) andadditively continued on  $\mathcal{L}$  (linear closure of  $\{x_m\}$ ), is bounded in the $\mathcal{A}$ -topology. 2°. The boundedness of the functional  $\beta$  in the naturalnormalization of the factor space  $(R_2/\mathcal{A}_0)$  can be insufficient. 3°. Ifthe sufficient condition is satisfied then for every neighborhood  $\mathcal{E}$  of the matrix  $A$  (on which the functional  $\beta$  is bounded) the matrix  $B$  can be chosen so that  $\sup_{x \in \mathcal{E}} \|B(x)\| = \sup_{x \in \mathcal{E} \cap \mathcal{L}} |\beta(x)|$ . 4°. In order that thematrix  $B$  besides does not sum the bounded sequences  $y_1, y_2, \dots$  it isnecessary and sufficient that none of the sequences  $y_n$  belongs to theclosure of  $\mathcal{L}$  with respect to the  $\mathcal{A}$ -topology. 5°. If the conditions 1° and 4° are satisfied then there exists a neighborhood  $\mathcal{E}$  of the matrix  $A$ 

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so that the functional  $\beta$  is bounded on  $E$ , i.e.  $\sup_{x \in E \cap G} |\beta(x)| < \infty$ , and

the closure of the linear closure of  $\{x_m\}$  contains no single point  $y_n$  in the  $\bar{E}$ -normalization. 6°. To every neighborhood  $\bar{E}$  with these properties and  $\epsilon > 0$  a Toeplitz matrix  $B$  can be chosen which satisfies the theorem and the inequality

$$\sup_{x \in \bar{E}} \|B(x)\| < \sup_{x \in E \cap G} |\beta(x)| + \epsilon.$$

7°. The sequences  $\{x_m\}$ ,  $\{a_m\}$ ,  $\{y_m\}$  and the matrix  $A$  can be so that for every neighborhood  $\bar{E}$  of the matrix  $A$  and for every matrix  $B$  which satisfies the theorem there holds the inequality

$$\sup_{x \in \bar{E}} \|B(x)\| > \sup_{x \in E \cap G} |\beta(x)|.$$

§ 3. Transformation and summation of a finite number of sequences by a matrix being stronger than a given one. ✓

The author formulates the correspondingly simplified special cases of the theorems 1 and 2.

§ 4. Transformation and summation of a finite or countable number of sequences by a Toeplitz-matrix. The author considers the special case  
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A = E; the neighborhoods  $\mathcal{E}$  of the matrix E are spheres of the  $R_2$ . The author formulates the corresponding special cases of the theorems 1 and 2 for the countable and finite case, e.g. theorem 1 in the finite case: Theorem 1'': For the existence of a Toeplitz-matrix B which transforms the bounded sequences  $e = x_0, x_1, x_2, \dots, x_m$  into the bounded sequences  $e = z_0, z_1, \dots, z_m$  it is necessary and sufficient that every linear relation between the sequences  $\{x_\mu\}$  as vectors of the  $R_2$  is also satisfied for the sequences  $\{z_\mu\}$  as vectors of the  $R_2$ .

§ 5 contains examples.

There are 4 Soviet-bloc and 1 non-Soviet-bloc reference. The reference to the English-language publication reads as follows: R.P.Agnew, Convergence fields of methods of summability, Ann.of Math., 46 (1945), 93-101.

P.Erdos and P.C.Rosenbloom, Toeplitz Methods which sum a given sequence, Bull, of the Amer.Math.Soc., 52 No.6 (1946), 463-464.

ASSOCIATION: Institut elektronnykh upravlyayushchikh mashin Ak.nauk SSSR  
(Institute of Electronic Control Devices Acad.Sci.USSR)

SUBMITTED: November 4, 1959  
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BRUDNO, A.L.

Summation of a denumerable number of sequences. · Izv. AN SSSR.  
Ser. mat. 25 no.3:385-410 My - Je '61. (MIRA 14:6)

1. Institut elektronnykh upravlyayushchikh mashin AN SSSR.  
(Sequences (Mathematics))  
(Topology)

BRUDNO, A.L.

Existence of a summing method stronger than those given. Izv.AN  
SSSR.Ser.mat. 25 no.4:591-600 JI-Ag '61. (MIRA 14:8)

1. Institut elektronnykh upravlyayushchikh mashin AN SSSR.  
(Topology)

BRUDNO, A.I., doktor fiziko-matematicheskikh nauk; BRONSHTEYN, D.I., mezhdunarodnyy grommeyster

Conversation on electronic grand master. Nauka i zhizn' 29 no.3:102-104. Mr '62. (MIRA 15:7)  
(Chess) (Cybernetics)



BRUDNO, A.L. (Moskva)

ξ - Solutions of linear algebraic systems. Probl.kib. no.8:  
187-190 '62. (MIRA 16:4)

(Linear equations)  
(Programming (Electronic computers))

BRUDNO, A.L. (Moskva)

Stability and useful time of a machine. Probl.kib. no.8:243-  
252 '62. (MIRA 16:4)

(Electronic computers)

BRUDNO, A.L. (Moskva)

Bounds and estimates for reducing excessive variants. Probl. kib.  
no.10:141-150 '63. (MIRA 18:4)

ACCESSION NR: AP4013321

S/0020/64/154/003/0545/0548

AUTHORS: Adel'son-Ver'skiy, G.M.; Brudno, A.L.; Kronrod, A.S.;  
Reznikovskiy, P.T.

TITLE: Instruction code for a three-address machine without an  
address register

SOURCE: AN. SSSR. Doklady\*, v.154, no.3, 1964, 545-548

TOPIC TAGS: instruction code, order code, three address instruction,  
three address machine, address register, base register, B box, B line,  
indexing register, computer

ABSTRACT: Complete instructions for setting up an instruction code  
for a machine with 4096 storage cells containing 43 word columns is  
given. A complete code table is included. Orig. art. has: 1 table.

ASSOCIATION: Institut teoreticheskoy i ekperimental'noy fiziki Gosu-  
darstvennogo komiteta po ispol'zovanyu atomnoy energii (Institute of  
Theoretical and Experimental Physics of the State Committee for Use of

Card : 1/2