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677

YATAYKIN, L. M.

Recent data on fossil flora from travertines of Chistopol'.
Bot.shur. 44 no.9:1287-1291 S '59. (MIRA 13:2)

1. Kazanskiy gosudarstvennyy universitet im. V.I.Ul'yanova-
Lenina.
(Chistopol' District--Paleobotany)

YATAYKIN, L. (Kazan)

Work of the Kazan Branch of the All-Union Botanical Society in 1960.
Bot.zhur. 46 no.6:920 Je '61. (MIRA 14:6)
(Kazan--Botanical societies)

BARANOV, V.I.; YATAYKIN, L.M.

Recent find of upper Oligocene flora in western Kazakhstan.
Dokl. AN SSSR 136 no. 3:678-679 Ja '61. (MIRA 14:2)

J. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-Lenina. Predstavleno akademikom V.I. Sukachevym.
(Kustanay Province—Paleobotany, Stratigraphic)

YATAYKIN, L.M.

Kinel' flora and vegetation in the lower Kama region. Dokl. AN
SSSR 136 no.4:911-914 F '61. (MIRA 14:1)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-
Lenina. Predstavleno akademikom V.N. Sukachevym.
(Kama Valley—Paleobotany, Stratigraphic)

YATAYKIN, L.M.

Flora and vegetation of the Akchagyl stage in the region of the
Lower Kama. Nauch. dokl. vys. shkoly; biol. nauki no.1:135-139
'62. (MIRA 15:3)

1. Rekomendovana kafedroy sistomatiki rasteniy Kazanskogo
gosudarstvennogo universiteta im. V.I. Ul'yanova-Lenina.
(KAMA VALLEY---PALEOBCTANY)

BARANOV, V.I.; YATAYKIN, L.M.

Development of flora and vegetation during the Kinel' time in the
lower Kama Valley. Probl. bot. 6:18-26 '62. (MIRA 16:5)
(Kama Valley--Paleobotany, Stratigraphic)

YATAYKIN, L.M.

Use of correlation analysis in determination (specification) of
the age of horizons containing spore-pollen floras. Nauch. dokl.
vys. shkoly; biol. nauki no.4:118-120 '64. (MIRA 17:12)

i. Rekomendovana kafedroy sistematiki rasteniy Kazanskogo
gosudarstvennogo universiteta im. V.I. Ul'yanova-Lenina.

YATAYKINA, I.N.

Comparative characteristics of normal and callous plants as
exemplified by *Beta vulgaris*. Fiziol.rast. 12 no.4:736-739
Jl-Ag '65. (MIRA 18:12)

1. Kafedra botaniki, agronomii i kormoproizvodstva Kazan-
skogo veterinarnogo instituta. Submitted June 16, 1964.

PANKRATOV, V. (g.Kotlas); YATCHENKO, F. (g.Kotlas)

Creation of protective forest belts on the Pechora rail-
road. Zhel.dor.transp. 36 no.5:71-73 My '55. (MIRA 12:5)

1. Glavnyy inzhener Pechorskoy dorogi (for Pankratov).
2. Nachel'-
nik otдела zashchitnykh lesonasazhdeniy Pechorskoy zheleznoy
dorogi (for Yatchenko).
(Russia, Northern--Railroads--Snow protection and removal)
(Russia, Northern--Windbreaks, shelterbelts, etc.)

YATCHENKO, F.I.

Establishing shelterbelts in the tundra region along the Pechora
Railway. Rast.Krain.Sev.SSSR i ee osv. no.1:93 '56. (MLRA 10:2)

1. Otdel zashchitnykh lesonasazhdeniy Pechorskoy zheleznoy
dorogi.

(Railroads--Snow-protection and removal)
(Russia, Northern--Windbreaks, shelterbelts, etc.)

YATCHENKO, L.D.

Stratigraphy of the Lower Cretaceous deposits of the Lesser Balkhan.
Izv.AN Turk.SSR.Ser.fiz.-tekh.,khim.i geol.nauk. no.3:82-88 '62.
(MIRA 16:5)

1. Tsentral'naya kompleksnaya tematicheskaya ekspeditsiya
Upravleniya geologii i okhrany neдр pri Sovete Ministrov
Turkmen'skoy SSR.
(Lesser Balkhan Range, Geology, Stratigraphic)

YATCHENKO, L.D.

Age of the Turonian strata in the region of Sindzhou mountain (west
Kopet-Dag). Izv.AN Turk.SSR.Ser.fiz.-tekh., khim.i geol.nauk no.1:
120-122 '62. (MIRA 16:12)

1. Tsentral'naya kompleksnaya tematicheskaya ekspeditsiya
Upravleniya geologii i okhrany nedr pri Sovete Ministrov Turkmenskoy
SSR.

YATCHENKO, L.D.

Upper boundary of the distribution of the representatives of the genus Leptoplites. Izv. AN Turk. SSR. Ser. fiz.-tekh., khim. i geol. nauk no.3:126-127 '64 (MIRA 18:1)

Turonian and Lower Cretaceous sediments of the Eishemskoy anticline. Ibid.:127-23

1. Tsentral'naya kompleksnaya tematicheskaya ekspeditsiya Upravleniya geologii i okhrany neдр pri Sovete Ministrov Turkmenskoy SSR.

L 10255-57 (1) GW
ACC NR: AP/003072

SOURCE CODE: UR/0202/66/000/003/0124/0128

9

AUTHOR: Yatchenko, L. D.
 ORG: Turkmen Geological-Geophysical Expedition UG SM TurkmenSSSR (Turkmenskaya geolog-geofizicheskaya ekspeditsiya UG SM TurkmenSSSR)
 TITLE: Structure of the Maykop series in the western Kopet-Dag
 SOURCE: AN TurkmenSSR. Izvestiya. Seriya fiziko-tekhnikeskikh, khimicheskikh i geologicheskikh nauk, no. 3, 1966, 124-128
 TOPIC TAGS: geology, physical geology
 ABSTRACT: A description of the composite cross section along the profile Kyzyl-Cheshme-Ezzet-Bourma is given. The Maykop series, the main subject of this paper, is divided into two subseries -- Upper and Lower Maykop. The age of the Lower Maykop, at the base of which the Solenovskiy horizon is situated, has been assigned to the Middle Oligocene. The Upper Maykop, lying with unconformity on the Lower Maykop and Torymbeurskaya series, has been assigned to the Upper Oligocene. The unconformity of the Upper Maykop on different horizons of the Paleogene in the western Kopet-Dag is evidence that the folded structures were formed in the pre-Upper Maykop period. A sharp increase of the thickness of the Maykop series (by a factor of four) in a short distance (4-5 km) between the Bolshoy and Malyy Planly ranges can be related to subsidence of the Uzokdagskiy block, bounded on the east by the Ezzet-Karagezskiy deep fault.
 Orig. art. has: 1 figure. [JPRS: 37,710]

SUB CODE: 08 / SUBM DATE: 25Jul65 / ORIG REF: 005

Card 1/1

UDC: 551.7.

0935 3012

YATCHENKO, M.G.
SILKINA, Ye.Z.; MISYURA, K.R.; KEYNO, H.K.; TYHYANKINA, Ye.V.; SIRIDOVA, A.G.;
ZUDINA, A.A.; MISYURENKO, A.T.; YATCHENKO, M.G., red.;

[Economy of the Khabarovsk Territory; a statistical manual] Narodnoe
khoziaistvo Khabarovskogo kraia; statisticheskii sbornik. [Khabarovsk]
Khabarovskoe knizhnoe izd-vo, 1957. 127 p. (MIRA 11:3)

1. Khabarovskiy kray. Statisticheskoye upravleniye. 2. Statisti-
cheskoye upravleniye Khabarovskogo kraia (for all, except Yachenko).
3. Nachal'nik Statisticheskogo upravleniya Khabarovskogo kraia
(for Yachenko)
(Khabarovsk Territory--Statistics)

KOTEL'NIKOV, M.M.; ZUDINA, A.A.; MISYURENKO, A.T.; YATCHENKO, M.G., red.;
MARKOVA, S.M., red.

[Area under cultivation and the number of cattle in Khabarovsk Territory; a statistical manual] Posevnye ploschadi i pogolov'e skota v Khabarovskom krae; statisticheskii sbornik. Khabarovsk, Khabarovskoe knizhnoe izd-vo, 1958. 167 p. (MIRA 12:12)

1. Khabarovskiy kray. Statisticheskoye upravleniye. 2. Nachal'nik Statisticheskogo upravleniya Khabarovskogo kraja (for Yatchenko).
(Khabarovsk Territory--Agriculture--Statistics)

YATKO, Mikola [Iatko Mykola, author's real name: Yatchenko, Nikolay Mi-
khaylovich]; PROTSENKO, E., red.; MUKHIN, I. U., tekh. red.

[Queen of labor] Koroleva truda. Moskva, Gos. izd-vo polit. lit-
ry, 1961. 53 p. (MIRA 14:8)

(Corn (Maize))

YATCHENKO, S.V.,

YATCHENKO, S.V.; GAVRILOV, F.P., redaktor; BALLOD, A.I., tekhnicheskiy
redaktor

[Lathe work] Tokarnoe delo. 6 izd., perer. i dop. Moskva, Gos.
izd-vo selkhoz. lit-ry, 1954. 535 p. (MLRA 7:9)
(Turning)

YATCHENKO, Semen Vasil'yevich, kandidat tekhnicheskikh nauk, dotsent;
SMIRNOV, A.G., redaktor; PAVZNER, V.I., tekhnicheskiiy redaktor

[Lathework] Tokarnoe delo. Izd. 7-oe, ispr. Moskva, Gos. izd-vo
selkhoz. lit-ry, 1956. 532 p. (MIRA 9:9)
(Turning)

YACHENKO, Semen Vasil'yevich.

[Turning] Tokarnoe delo. 8. izd. ispr. Moskva, Gos. izd-vo selkhoz.
lit-ry, 1958. 532 p. (KIRA II:10)

(Turning)

YATCHENKO, Semen Vasil'yevich; SHKOL'NIKOV, A.B., red.; ZUBRILINA, Z.P.,
tekh.n.red.

[Machining on lathes] Tokarnoe delo. Izd.9., perer., dop.
Mskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 493 p. (MIRA 13:6)
(Turning)

YATCHENKO, S.V., kand. tekhn. nauk; ZAYTSEV, A.I., inzh.; YAKOVLEV, F.I.,
inzh.; VAZHEL', V.Yu., inzh.

Surface hardening of AILOV alloy by burnishing. Mashinostroenie
no.3:38-40 My-Je '65. (MIRA 18:6)

YATEL', P.D.

V.G. DROBOT'KO, P.Ye. MARUSENKO, B.Ye. AIZENMAN, N.G. KOLESNIK, D.G. KUYAY, P.D. YATEL'

"A New Disease of Horses and Men" by V.G. Drobot'ko, P.Ye. Marusenko, B.E. Aizenman, N.G. Kolesnik, D.G. Kubyay, P.D. YATEL', V.D. Mel'nichenko.
RUSSIAN, per, Vrachebnoe Delo, No.3-4, 1946, pp.125-128.

YATEL', T. P.

Yatel', T. P.

"Aspects of Certain Immunity Reactions in Ontogenesis." Acad Med Sci USSR.
Kiev, 1955. (Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No. 27, 2 July 1955

KORNYUSHENKO, N.P.; YATEL', T.P.

Study on the biological and antigenic properties of certain strains
of the influenza virus isolated in Kiev in 1949-1953. Mikrobiol.
zhur. 17 no.2:29-36 '55 (MLBA 10:5)

I. Z Institutu infektsiynikh zakhvoryuvan' Akademii medichnikh
nauk URSR.

(INFLUENZA VIRUS

biol. & antigenic properties of strains isolated in Kiev)(Ukr)

55. Properties of Influenza Virus Strains Isolated in Kiev

"Characteristics of Influenza Virus Strains Isolated in Kiev in 1953 and 1954," by T. P. Yatel', Institute of Infectious Diseases, Academy of Medical Sciences USSR, Voprosy Virusologii, Vol 2, No 1, Jan/Feb 57, pp 47-52

The article describes studies of the antigenic and biological properties of 48 strains of influenza virus isolated between August 1953 and January 1955 in Kiev.

The strains were isolated largely by means of infecting 11-day chick embryos with nasopharyngeal smears. Hemagglutination activity, infectivity for chick embryos, and pathogenicity for white mice were determined. Type identification of the strains was accomplished by means of cross hemagglutination reactions with standard and local strains and corresponding immune rabbit serum. Type identification and antigenic characteristics are presented in Table 1 and Figure 1. Table 2 shows biological properties. The dynamics of anti-influenza antibodies in influenza patients examined in 1953 and 1954 are shown in Figure 2. Table 3 lists biological properties of strains of influenza virus isolated from patients with differing disease courses. The results of these investigations are analyzed in the text.

It was concluded on the basis of these results that two types of virus, A and A¹, were isolated both during interepidemic periods of 1953 and 1954 and during the epidemic outbreak in November and December 1953. Thirty strains of type A and 15 of type A¹ were isolated. The type classification of the remaining three strains was not precisely established. The strains isolated were not identical to the laboratory strains in antigenic structure. Certain differences were noted even among strains belonging to the same type. On the basis of the fact that strains isolated from patients with sporadic cases of influenza in the summer of 1953 were identical to strains responsible for the outbreak in November and December 1953, it was supposed that interepidemic strains participated in the genesis of the 1953 winter outbreak. When studies of the biological and antigenic properties of strains belonging to the same type but isolated from patients with different courses of disease (severe to light) and apparently healthy virus carriers were compared, it was impossible to establish any appreciable differences in their properties. (U)

Sum 1429

YATEL', T. P.

VASHCHENKO, M.A.; YATEL', T.P.; LITOVCHENKO, S.V.

Disorders of the nervous system in influenza C. Vrach, delo no. 4;
373-376 Ap '57. (MLRA 10:7)

1. Vtoroye klinicheskoye otdeleniye (zav. - prof. N.I. Moroskin),
epidemiologicheskoy otdel (zav. - kand. med. nauk H.P. Komyushenko)
Instituta infektsionnykh bolezney AMN SSSR i kafedra nervnykh
bolezney (zav. - deystv. chlen AMN SSSR, prof. B.N. Man'kovskiy)
Kiyevskogo meditsinskogo instituta.
(NERVOUS SYSTEM--DISEASES) (INFLUENZA)

MAKSIMOVICH, N.A.; KORNUSHENKO, N.P.; BOTSAN, N.Ye.; YATEL', T.P.

Virusological and morphological peculiarities of acute pneumonia in
small children. *Pediatrics* no.9:34-40 S '57. (MIRA 10:12)

1. Iz Instituta infektsionnykh bolezney AMN SSSR (Kiyev)
(PNEUMONIA)

YATEL, T.P.
KORNYUSHENKO, N.P.; RYBINSKAYA, L.N.; YATEL', T.P. (Kiyev)

Influenza C in adults and children. Vrach.delo no.11:1207-1209
N°57. (MIRA 11:2)

1. Institut infektsionnykh bolezney AMN SSSR
(INFLUENZA)

USSR/Virology. Human and Animal Viruses. Grippe Virus

E

Abs Jour : Ref Zhur - Biol., No 4, 1959, No 14629

Author : Korniyushenko N.P. Rybinskaya L.N., Yatel', T.P.

Inst : -

Title : An Epidemic of Influenza Type C.

Orig Pub : V sb. Gripp., N., Mediz, 1958, 44-51.

Abstract : No abstract

Card : 1/1

USSR/Virology. Human and Animal Viruses. Grippe Virus

E

Abs Jour : Ref Zhur - Biol., No 4, 1959, No 14625

Author : Yatel, T.P.

Inst : -

Title : A Comparative Characteristic of the Strains of Influenza
Virus During Epidemic and Inter-Epidemic Periods.

Orig Pub : V sb.: Gripp, N., Midgiz, 1958, 80-90

Abstract : No abstract

Card : 1/1

E

USSR/Human and Animal Viruses. Grippe Virus
Abs Jour : Ref Zhur - Biol., No 4, 1959, No 14605

Author : Yatel', T.P.
Inst :
Title : The Study of a Few Strains of Grippe Virus Adapted to the Organism of White Mice.

Orig Pub : V sb.: Gripp., M., Medgiz, 1958, 90-95

Abstract : The usual form of adaptation was observed following intranasal injection of allantoic cultures of the type A (recently isolated as well as laboratory strains). Immediately following the first passages lung lesions resulted in the animals, leading to their death. A particular form of the adaptation process took place following infection of the mice with recently isolated strains of the virus Type A. Having produced a severe, frequently

Card : 1/2

- 6 -

summary. strains

Yatel, I. P.

KORNYUSHENKO, N.P., YATEL', T.P.

Virological and epidemiological studies on obliterated forms in influenza. Zhur.mikrobiol.epid. i immun. 29 no.6:49-53 Je '58 (MIRA 11:7)

1. Iz Instituta infektsionnykh bolezney AN SSSR.
(INFLUENZA,
remission, virol. & epidemiol. aspects (Rus))

KORNYUSHENKO, N.P.; YATL', T.P.; RYBINSKAYA, L.N.

Etiological and epidemiological characteristics type C influenza in
Kiev in 1956. Vop. virus. 4 no.1:43-46 Ja-F '59. (MIRA 12:4)

1. Institut infektsionnykh bolezney AMN SSSR, Kiyev.
(INFLUENZA, epidemiol.
C, in Russia (Rus))

YATEL', T.P.

Life and activities of H.G.Ushinski; on the 25th anniversary
of his death. Mikrobiol.zhur. 21 no.2:68-70 '59.

(MIRA 12:9)

(BIOGRAPHS)

KORNYUSHENKO, N.P.; YATEL', T.P.

Joint scientific conference of institutes on the influenza
problem, held in Kiev. Mikrobiol.zhur. 21 no.4:69-70 '59.
(MIRA 12:11)

(INFLUENZA RESEARCH--CONGRESSES)

VASHCHENKO, M.A.; LITOVCHENKO, S.V.; YATEL', T.P.

Neurological syndromes in influenza during the 1959 epidemic. Vrach.
delo no.8:55-59 Ag '60. (MIRA 13:9)

1. Institut infektsionnykh bolezney AMN SSSR i klinika nervnykh
bolezney (zav. kafedroy - deystvitel'nyy chlen AMN SSSR, prof. B.N.
Man'kovskiy) Kiyevskogo meditsinskogo instituta.
(INFLUENZA) (NERVOUS SYSTEM---DISEASES)

YATEL', T.P.

Study of type A₂ influenza virus strains isolated in Kiev during the interepidemic period of 1960-1961. Mikrobiol. zhur. 25 no.3:10-17 '63. (MIRA 17:1)

1. Institut infektsionnykh bolezney Ministerstva zdoravokhraneniya UkrSSR, Kiyev.

YATEL', T.P., kand.med.nauk (Riyev)

Virological and serological characteristics of influenza in 1962.
Vrach. d. lo no.3:103-107 Mr 164. (MIRA 17:4)

1. Institut infeksionnykh bolezney Ministerstva zdravookhraneniya
UkrSSR.

YATEL', T.P. (Kiyev)

Nature of the antigen structure and biological properties of the
type A influenza virus in the process of natural evolution
(1957-1959). Sbor.nauch.trud. Inst.infek.bol. no.4:36-41 '64.
(MIRA 18:6)

YATEL', T.P.

Materials on the study of type B influenza in Kiev in 1963.
Mikrobiol. zhur. 27 no.1:16-22 '65. (MIRA 18:7)

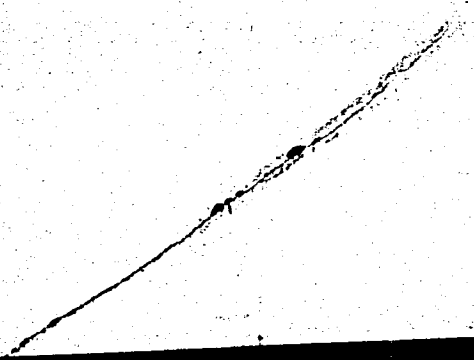
1. Institut infektsionnykh bolezney Ministerstva zdravookhraneniya
UkrSSR.

BERZIN, A.K.; YAKOVLEV, B.M.; YATIS, A.A.

Use of nuclear photoemulsions in studying the neutron background of a 25 Mev. betatron. *Izv. TPI* 122:21-26 '62.

Use of type IA-2 nuclear photoemulsions in studying the spectrum of betatron neutrons. *Ibid.*:27-29

(MIRA 17:9)



YAKOVLEV, B.M.; YATIS, A.A.

Background in nuclear emulsions formed under the action of
radioactive impurities and cosmic rays. Izv. vys. ucheb. zav.;
fiz. no. 3:88-91 '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki
i avtomatiki pri Tomskom politikhicheskom institute imeni Kirova.

YAKOVLEV, B.M.; YATIS, A.A.

Studying the background and energy spectrum of neutrons from a betatron with the aid of nuclear emulsions. Izv. vys. ucheb. zav.; fiz. no.4:3-9 '63. (MIRA 16:9)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki i avtomatiki pri Tomskom politekhnicheskoye inenitute imeni S.M. Kirova.

(Betatron) (Neutrons) (Photography, Particle track)

YAKOVLEV, B.M.; YATIS, A.A.

Use of a slide rule in determining the energy of neutrons from the paths of recoil protons in a nuclear photoemulsion. *Izv.vys.ucheb. zav.; fiz. no.3:127-130 '63.* (MIRA 16:12)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki i avtomatiki pri Tomskom politekhnicheskoye imeni Kirova.

SOKOLOV, L. S.; VATIS, A. A.

"Differential Cross Sections for Scattering of Deuterons with Energy 13.6 MeV on Li, B, C, Ca, Mn, F in the Angular Interval 145-179 degrees."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

ACCESSION NR: AP4041850

S/0139/64/000/003/0088/0091

AUTHORS: Yakovlev, B. M.; Yatis, A. A.

TITLE: On the size of the background in nuclear emulsions, produced under the influence of radioactive impurities and cosmic rays

SOURCE: IVUZ. Fizika, no. 3, 1964, 88-91

TOPIC TAGS: nuclear emulsion, particle trajectory, photographic processing, radioactive material, cosmic ray

ABSTRACT: In view of the importance of the background when nuclear emulsions are used with weak radioactive sources or with nuclear reactions of small cross sections or of low energies, the authors estimated the background in Soviet nuclear emulsions type NIKFI Ya-2, T-3, T-1, and A-2, with emulsion thickness 100 and 200 microns. Emulsions of various ages were tested. Particle tracks and stars with from two to five prongs were studied and processed. To prevent

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ACCESSION NR: AP4041850

regression of the tracks and stars in the emulsions, the latter were stored at 0°C. All emulsions were processed under identical conditions. The sources of the tracks and stars were shown to be impurities in the gelatin and cosmic rays. If a glass substrate was used, additional sources might have been radioactive impurities in the glass. Data were obtained on the distribution of the number of tracks as functions of the length, and on the variation of the number of events with the "lifetime" of the emulsion. Comparison with Ilford emulsions indicates that the contamination of the glass substrates is about the same in Ilford and in Soviet emulsions. Methods of reducing the background are discussed. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki i avtomatiki pri Tomskom politekhnicheskoye imeni S. M. Kirova (Scientific-Research Institute of Nuclear Physics, Electronics, and Automation at the Tomsk Polytechnic Institute)

Card 2/3

ACCESSION NR: AP4041850

SUBMITTED: 23May63

ENCL: 00

SUB CODE: NP

NR REF SOV: 002

OTHER: 001

Card

3/3

ACCESSION NR: AR4022438

S/0058/64/000/001/A037/A037

SOURCE: RZh. Fizika, Abs. 1A333

AUTHORS: Berzin, A. K.; Yakovlev, B. M.; Yatis, A. Q.

TITLE: Investigation of the neutron background of a 25-MeV betatron with the aid of nuclear emulsions

CITED SOURCE: Izv. Tomskogo politekhn. in-ta, v. 122, 1962, 21-26

TOPIC TERMS: betatron, betatron neutron background, nuclear emulsion technique, optimal Gamma ray dose, Gamma ray intensity, neutron flux, Gamma bremsstrahlung

TRANSLATION: Results are presented of measurements of the neutron background in the betatron laboratory of the Tomsk Polytechnic Institute with the aid of nuclear emulsions. Knowledge of the neutron background is essential in the study of photonuclear reactions, and

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ACCESSION NR: AR4022438

also when betatrons are used in medicine and biology. The measurement procedure is described in detail. Photographic plates with emulsions 100 and 200 microns thick were used. The optimal gamma-ray dose was 4--6 roentgens. To avoid errors due to the paper cover of the plates, the latter were irradiated without paper in a dark room. The constancy of the intensity of the gamma radiation was monitored with the aid of two ionization chambers. The neutron flux was measured at 12 points. Its maximum value was 6.38×10^4 neutron/cm² per roentgen of gamma bremsstrahlung. V. Voronin.

DATE ACQ: 03Mar64

SUB CODE: PH

ENCL: 00

Card 2/2

YATKO, N. [IAtko, Mykola] (Odessa)

The goal of his life. Nauka i zhyttia 9 no.9:29-31 S '59.
(MIRA 13:1)

(Kyrychenko, Fedir Hryhorovych)

YATKOVETS, P.F.; LIVSHITS, Yu.N.

Osteomyelitis of the thoracic portion of the spine complicated by posterior mediastinitis with an esophageal fistula. Vest.Khir. 77 no.3:108-109 Mr '56. (MLRA 9:7)

1. Iz Petrozavodskogo okruznogo gosptalya.

(SPINE, dis.

osteomyelitis, thoracic, with exophageal fistula & mediastinitis)

(OSTEOMYELITIS

spine, thoracic, with mediastinitis & esophageal fistula)

(FISTULA

esophagomediastinal in mediastinitis & osteomyelitis of spine)

(ESOPHAGUS, fistula

same)

(MEDIASTINUM, fistula

same)

BLANK, Yu.S.; YATLINKO, I.I.

Some results of a study on the luminescence of polarized ZnS-Cu,
Cl films. Fiz. tver tela 5 no.9:2688-2690 S '63. (MIRA 16:10)

AUTHOR: Yatmanov, A.; Yevteyev, P.; Rubtsov, V. SOV-107-58-4-21/57
TITLE: When Will There Be Radio Parts? (Kogda zhe budut radiodetali?)
PERIODICAL: Radio, 1958, Nr 4, pp 14-15 (USSR)
ABSTRACT: The article contains correspondence from radio amateurs in various parts of the Soviet Union, complaining of the lack of radio components or materials for making these components. There are 2 drawings.
1. Radio equipment--Availability 2. Radio equipment--Maintenance
3. Radio operators--Amateurs

Card 1/1

PIVOVAROV, N.V.; RABINOVICH, S.G.; TAKCHENKO, A.N.; USMANOV, V.B.;
YATMANOV, B.A.

Photocompensating stabilizers. Izv. tekh. no.3:44-46 Mr '65.
(MIRA 18:5)

YATMANOVA, K.Sh.

Heat-insulating and wall materials based on building gypsum and
portland cement. Trydy Inst. antiseism. stroi. AN Turk. SSR 3:231-
234 '58. (MIRA 13:10)

(Insulation (Heat))

(Gypsum)

(Walls)

YATROV, S. N.

"Technological Basis of Oil and Gas Well Drilling in the Complex Deposit Areas of the Saratov Volga Region." Cand Tech Sci, Inst of Petroleum, Acad Sci USSR, Moscow, 1955. (KL, No 15, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

YATROV, S. N.

AID P - 2090

Subject : USSR/Mining

Card 1/1 Pub. 78 - 3/24

Author : Yatrov, S. N.

Title : Three-cutter bits with lower fluid courses

Periodical: Neft. khoz., v.33, no.4, 9-15, Ap 1955

Abstract : Bits with lower fluid courses are discussed. Their greater efficiency as compared with other designs of fluid courses is emphasized on the basis of the data presented. Diagrams, tables.

Institution: None

Submitted : No date

~~KATROV, Sergy Nikolayevich~~; PERSHINA, Ye.G., vedushchiy redaktor;
TROFIMOV, A.V., tekhnicheskiiy redaktor

[Boring with drilling muds] Burenie na vodnykh rastvorakh. Moskva,
Gos.nauchno-tekhn. izd-vo nef. i gorno-toplivnoi lit-ry, 1957.
53 p. (MLRA 10:6)

(Boring)

YATROV, S. N.
SHMAREV, A.T., inzh.; YATROV, S.N., inzh.; GALUSTOV, S.G., inzh.

Use of hydraulic rupture of layers in the underground gasification
of solid fuels. Mekh.trud.rab. 11 no.9:22-24 S '57. (MIRA 10:11)
(Gasification of coal)

YATROV, S.N.; SMIRNOV, A.S.; GOL'DSHTEYN, I.Ye.; GLUSHCHENKO, Ye.I.

Change in the quality of clay muds in drilling sulfate- and salt-bearing sediments. Neft.khoz. 37 no.12:7-12 D '59.

(MIRA 13:5)

(Oil well drilling fluids)

YATROV, Sergey Nikolayevich. Prinimala uchastiye: CHERNYAVSKAYA, L.F.,
kand.tekhn.nauk. SERB-SERBINA, N.N., kand.khim.nauk, retsenzent;
GEYMAN, M.A., red.; DUBROVINA, N.D., vedushchiy red.; TROFIMOV,
A.V., tekhn.red.

[Drilling fluids] Promyvochnye zhidkosti v bureni skvazhin.
Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry,
1960. 312 p. (MIRA 13:12)

1. Institut fizicheskoy khimii AN SSSR (for Serb-Serbina).
(Drilling fluids)

REBINDER, P.A., akademik; SERB-SERBINA, N.N., kand.khim.nauk; YATROV, S.N.,
kand.tekhn.nauk, dotsent

M.N. Shkabara's [doktor geol.-mineral.nauk] book "Drilling and grout-
ing fluids in drilling mine shafts" and A.A. Linevskii's review of it.
Shakht. stroi. 4 no. 5:30-31 My '60. (MIRA 14:4)
(Shaft sinking) (Drilling fluids)
(Shkabara, M.N.)

YATROV, Sergey Nikolayevich; GOL'DSHTEYN, Izrail Yefremovich; GLUSHCHENKO, Yekaterina Ivanovna; LATUKHINA, Ye.I., vedushchiy red.; POLOSINA, A.S., tekhn. red.

[Natural drilling fluids for drilling gas wells under complex conditions] Estestvennye promyvochnye zhidkosti dlia bureniia gazovykh skvazhin v oslozhnennykh usloviakh. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 41 p. (MIRA 14:7)
(Shebelinka region--Drilling fluids)

YATROV, Sergey Nikolayevich; DUBROVINA, N.D., vedushchiy red.;
BABALYAN, G.A., prof., doktor tekhn.nauk, red.; VORONOVA, V.V.,
tekhn. red.

[Natural drilling muds in boring; muds with a base of drilled
rocks] Estestvennye promyvochnye rastvory v bureni; rastvory
na osnove vyburenykh porod. Moskva, Gostoptekhizdat, 1963.
205 p. (MIRA 16:6)

(Drilling fluids)

YATROV, S.N.; REZNICHENKO. I.N.; DZHANGIROV, S.S.

Controlling the solid-phase content in drilling muds using an
ejector-hydrocyclonic device. Burenie no.2:5-8 '64. (MIRA 18:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhniko-ekonomicheskikh issledovaniy po neftyancy, neftekhimicheskoy i gazovoy promyshlennosti i GRK "Krasnodarneft".

BUKINA, V.K.; PROKOP'YEVA, M.F.; YATRUDAKIS, S.E.

Quantitative determination of nitrosyl chloride, chlorine, and hydrogen chloride in gas mixtures. Uzb. khim. zhur. no.6:45-49 '60. (MIRA 14:1)

1. Institut khimii AN UzSSR.

(Nitrosyl chloride)

(Chlorine--Analysis)

(Hydrochloric acid)

YATRUDAKIS, S.M.; ZHDANOV, A.K.

Hydrogen peroxide in analytical chemistry. Part 1: Amperometric titration of chromium on an apparatus with a rotating platinum electrode. Uzb.khim.zhur. 8 no.5:23-30 '64.

(MIRA 18:5)

1. Institut khimii AN UzSSR i Tashkentskiy gosudarstvennyy universitet imeni Lenina.

ZHEANOV, A.K.; YATRUAKIS, S.M.

Use of hydrogen peroxide in analytical chemistry. Part 2: Amperometric titration of manganese with hydrogen peroxide. Uzb. khim. zhur. 9 no.5:18-24 '65. (MIRA 18:12)

1. Institut khimii AN UzSSR i Tashkentskiy gosudarstvennyy universitet imeni Lenina. Submitted Sept. 29, 1964.

YATSELENKO, V.S.

Concerning the article "Developing water-oil contact pools".
Neft. i gaz. prom. no.4:40-41 C-D '64 (MIRA 18:2)

YATSENKO, A. A.

Several data on the terrace structure in the Vitim and the
Upper Angara River systems. Uch. zap. MGPI 120:173-185 '58.
(MIRA 16:8)

YATSEFFO, A. A. Cand. Geograph. Sci.

Dissertation: "Experiment for Morphological Analysis of the Eastern and North-Eastern Parts of the Area Near Baykal Lake." Moscow Order of Lenin State U. Inzh. M. V. Lomonosov, 2 Jul 47.

SO: Vechernyaya Moskva, Jul, 1947. (Project #1736)

YATSENKO, A. A.

Ancient Valleys of the Northeastern Probaykal'ye

There exist numerous references to the ancient valleys in the Pro-baykal'ye and Zabaykal'ye, but the insufficiency of the data does not permit one to compile them and to make conclusions relative to the age of the valleys. The finding of Tertiary and possibly Mesozoic deposits in the valleys testifies to their considerable ancientness. The dis-junctive dislocations and traces of Quaternary deposits make difficult an analysis of the development of the hydrographic network. According to observations of the author, relicts of ancient river networks are preserved in the northeast Pribaykal'ye; they have been noted in the southwestern part of the Severo-Mysk Range, in the water sheds of the Svetla and Namama rivers, and right tributaries of the Barguzin river. (RZhGeol, No. 4, 1955) Uch. zap. Mosk. gor. pad. in-ta, 21, 1953, 108-124.

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

YATSENKO, A.A.

Observations on terraces of certain rivers in the Baikal mountain region. Izv.AN SSSR.Ser.geog. no.6:101-107 N-D '56. (MIRA 10:1)

1. Geograficheskiy fakul'tet Moskovskogo gosudarstvennogo pedagogicheskogo instituta imeni V.I. Lenina.
(Baikal region--Physical geography)

YATSENKO, A.A.

VASIL'YEVA, I.V., dots.; DAVYDOVA, M.I., dots.; KAMENSKIY, A.I., dots.;
KOTEL'NIKOV, V.L., dots.; TUSHINSKIY, G.K., prof.; YATSENKO, A.A...
dots.; KREYS, I.G., tekhn.red.; SHCHEPTEVA, T.A., tekhn.red.

[Programs of pedagogical institutes; physical geography of the
U.S.S.R.] Programmy pedagogicheskikh institutov; fizicheskaya
geografiya SSSR. [Moskva] Uchpedgiz, 1957. 22 p. (MIRA 11:3)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i
srednikh pedagogicheskikh uchebaykh zavedenii.
(Physical geography--Study and teaching)

YATSENKO, A.A.

On the problem of the synchronization and establishment of
the terrace age in the river system of the Baikal Highland.
Uch. zap. MGPI 120:187-193 '58. (MIRA 16:8)

YATSENKO, A.A.

Organizing a specialized seminar on the physical geography of the U.S.S.R. in the third and fourth years of the Geographical Faculty of the Moscow State Pedagogical Institute. Uch. zap. MGPI no.159:53-62 '60.

Physical geography of the U.S.S.R. in a textbook for the seventh grade. 77-83 (MIRA 16:9)

YATSENKO, A.A. (Moskva)

Role of geomorphological and pollen analyses in paleogeographical
reconstructions. *Bot. zhur.* 46 no.10:1465-1470 0 '61.
(MIRA 14:9)

(Paleobotany, Stratigraphic)

YATSENKO, A.A.

Main features of the relief structure of the Chukchi Peninsula.
Izv. AN SSSR. Ser. geog. no.4:79-85 JI-Ag '63. (MIRA 16:3)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut im. V.I.Lenina.
(Chukchi Peninsula--Landforms)

PELETMINSKIY, S.V.; YATSENKO, A.A.

Structure and motion of singularities in nonlinear electrodynamics.
Zhur. eksp. i teor. fiz. 45 no.5:1625-1633 N '63. (MIRA 17:1)

YATSENKO, A.A.

Morphological structure of the Chukchi Peninsula. Dokl. AN SSSR
151 no.5:1150-1152 Ag '63. (MIRA 16:9)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut im. Lenina.
Predstavleno akademikom A.A.Grigor'yevym.
(Chukchi Peninsula--Physical geography)

YATSENKO, A.A.

On the history of the relief development of the Chukchi Peninsula.
Vest. Mosk. un. Ser. 5: Geog. 19 no.1:73-74 Ja-F '64.
(MIRA 17:4)

YATSENKO, A. A.

The most important stages in the relief development of the
Chukchi Peninsula. Izv. Vses. geog. ob-va 96 no. 2:109-114
Mr. Ap '64. (MIRA 17:5)

ACCESSION NR: AP4040927

8/0185/64/009/006/0581/0592

AUTHOR: Yatsenko, A. A., Peletains'ky*, S. V. (Peletainkiy, S. V.)

TITLE: The classical theory of singularities in nonlinear field theory

SOURCE: Ukrayins'ky* fizy*chny* zhurnal, v. 9, no. 6, 1964, 581-592

TOPIC TAGS: Nonlinear electrodynamics, nonlinear field theory, classical singularity, electrodynamic field singularity, "four-trajectory," classical charge radius, singularity motion, radiation damping

ABSTRACT: The structures and motion of zero-mass singularities in a scalar field were studied according to nonlinear electrodynamic field theory. It was assumed that the radius of curvature of the "four-trajectory" was large compared to the "classical radius" of the singularity. On the basis of the electrodynamic principles of Lorentz, the equations of motion of the singularities were obtained, including the forces of radiation damping. The question of self-excitation of the charge with uniform motion was treated. Orig. art. has 32 numbered equations.

ASSOCIATION: Fiziko-tekhnichny* insty*tut AN UkrSSR, Kharkov (Physico-Technical Institute AN UkrSSR)

Card 1/2

TISHCHENKO, A.A.; YATSENKO, A.A.

A group of communist labor. Veterinariia 41 no.2:8-10 F '65.
(IBP. 18:3)

1. Ispolnyayushchiy obyazannosti direktora Cherkasskoy oblastnoy veterinarnoy laboratorii (for Tishchenko). 2. Predsedatel' mestnogo komiteta soveta professional'nykh soyuzov Cherkasskoy oblasti (for Yatsenko).

YATSENKO, A. F.

Dissertation: "Abnormal Dispersal of Centimeter Waves, in BaTiO_3 Ceramic," Cand Phys-Math Sci, Rostov-na-Donu State U, Rostov-na-Donu, 1953. Referativnyy Zhurnal--Khimiya, Moscow, No 8, Apr 54.

SO: SUM 284, 26 Nov 1954

Fusion of barium titanate by induction currents

N. S.

2

~~Fusion of barium titanate by conduction currents. N. S.
 Novosil'tsev, O. I. Prokumalo, and A. P. Yatsenko (V. M.
 Molotov State Univ., Rostov). *Invent. Akad. Nauk S.S.S.R.*
 Ser. Fiz. 20, 200-10 (1955).—BaTiO₃ ceramic materials (1)
 sintered at 1300-1400°, have low d. unless fused with fluxes
 which decrease the dielec. permeability. The elec. cond. of
 such I has an activation energy of 1.4 e.v., but they
 show changes in cond. if heated to 500°. At 800-900° some
 heating by the current occurs. The current increases with
 time above 600°. Tests were made to melt BaTiO₃ by cond.
 current. Higher-d. (5.0-5.8 g./cc.) ceramic materials, having
 a 50% increase in the dielec. permeability at the Curie
 point, was obtained. S. Paksver~~

Mason
DM

YATSENKO, A. F.

57-10-32/33

AUTHOR: Yatsenko, A. F.

TITLE: The Optical Transmission Spectrum of Barium Titanate (Opticheskiy spektr propuskaniya titanata bariya). (Letter to the Editor)

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol. 27, Nr 10, pp. 2422-2424 (USSR).

ABSTRACT: In order to define the range of the optical use of $BaTiO_3$ investigations of the transmission of the monocrystal as well as of a powder sample of the seignett-electric (tetragonal) barium titanate within the range of the wave lengths of from 0,2 to 25 μ were carried out. The author shows that the wide absorption band which covers almost the whole ultraviolet spectrum range depends on the transition of the electrons from the filled zone to the conduction zone (activation energy $\approx 3,0$ eV). The crystal lets pass well up to 6 μ in the visible and the near infrared zone. A complete absorption of waves with more than 11 μ and a weak absorption of the waves around 8,0 μ was observed. The powder sample disperses a radiation of less than 5 μ and shows an absorption band at 15 - 18 μ . Also measurements of the transmission of the $SrTiO_3$ - and the non-seignett-electric (cubic)

Card 1/2

$BaTiO_3$ - powders were carried out. Within the range of measuring

The Optical Transmission Spectrum of Barium Titanate.

57-10-32/33

exactness: these spectra coincide with that of the tetragonal barium titanate, with the only difference that the band for SrTiO_3 is a little displaced into the direction of the shortwave part. There are 1 illustration and 1 Slavic reference.

ASSOCIATION: Rostov State University (Rostovskiy gosudarstvennyy universitet).

SUBMITTED: February 11, 1957.

AVAILABLE: Library of Congress.

Card 2/2

24(2), 24(7), 24(3)

AUTHOR: Yatsenko, A. F.

SOV/48-22-12-11/33

TITLE: Infrared Absorption Spectra of Piezoelectric Crystals of the Perovskite Type (Infrakrasnyye spektry pogloshcheniya segnetoelektricheskikh kristallov tipa perovskit)

PERIODICAL: Izvestiya Akademii nauk SSSR: Seriya fizicheskaya, 1958, Vol 22, Nr 12, pp 1456-1458 (USSR)

ABSTRACT: IKS-6 spectrometers (from 0.7 to 25 μ) and DFE-4 spectrometers (from 0.3 to 0.7 μ) were used for the present investigation of absorption spectra. The latter spectrometer was also used to investigate the Raman spectrum. Powdery samples were prepared according to the method described in reference 1. Figure 1 shows the absorption spectra of BaTiO₃ and those of the non-piezoelectric fine-disperse BaTiO₃. Also infrared absorption spectra of other titanates (CaTiO₃, SrTiO₃, PbTiO₃), zirconates (SrZrO₃, BaZrO₃, PbZrO₃), stannates (SrSnO₃, BaSnO₃) and WO₃ were investigated. The respective data are summarized in the table. Power constants of the potential function of

Card 1/2

Infrared Absorption Spectra of Piezoelectric
Crystals of the Perovskite Type

SOV/48-22-12-11/33

valence- and deformation oscillations in the approximation of a harmonic oscillator (Table) were calculated for the majority of the substances investigated. The power constants of BaTiO_3 and of solid solutions having a Curie point in the proximity of room temperature contain an unimportant imaginary part. By a comparison of the frequencies of fundamental oscillations and their first harmonics, the mechanic anharmonic coefficients can be calculated. Attempts were made to obtain the Raman spectrum in BaTiO_3 , as it was supposed to determine the frequency of valence oscillations. The results, however, were negative, thus pointing to an unimportant asymmetry of Ti-O-bonds in BaTiO_3 . There are 3 figures, 1 table, and 5 references, 1 of which is Soviet.

ASSOCIATION: Rostovskiy-na-Donu gos. universitet
(Rostov-na-Donu State University)

Card 2/2

YATSENKO, A. F.

82051

24.7800

s/058/60/000/03/11/030

Translation from: Referativnyy zhurnal, Fizika, 1960, No. 3, p. 205, # 6393

AUTHOR: Yatsenko, A. F.TITLE: The Anomalous Dispersion of Centimeter Waves in BaTiO₃ Ceramics ¹⁵PERIODICAL: Uch. zap. Fiz.-matem. fak. Rostovsk.-n/D un-t, 1959, Vol. 46, No. 7, pp. 87-92

TEXT: The dependence was studied of the complex dielectric constant (ϵ' and ϵ'') of BaTiO₃ ceramics on the wavelength within the range of $\lambda = 4-25$ cm. The method of measuring line loaded in an "infinite way" was used. In front of the sample to be measured one or two matching dielectrical transformers were placed into the waveguide. The thickness of the transformers was not exactly $\lambda/4$. The complex refractive index of the sample for these cases was calculated. The measurement at a given frequency was checked by measurements of the input complex impedance at adjacent frequencies. It was shown that in the range of wavelengths mentioned ϵ' varies in dependence on λ from 300 to 800 ($\epsilon = 1,050$), and $\epsilon'' \sim 150$. The relaxation frequency of BaTiO₃ is $(2.5 + 0.4) \cdot 10^9$ c. It was established that the dispersion formula $\epsilon^* = \epsilon + (\epsilon_0 - \epsilon)/(1 - j\omega\tau)$ poorly describes the course of dispersion in BaTiO₃ ²¹

Card 1/1

V. M. Petrov ¹¹

85865

S/O48/60/024/011/001/036
B006/B056

9.5320

AUTHOR: Yatsenko, A. F.

TITLE: The Temperature Dependence of the Infrared Absorption Spectra of BaTiO₃, PbTiO₃, and PbZrO₃

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 11, pp. 1308 - 1310

TEXT: The present paper is the reproduction of a lecture delivered on the occasion of the 3rd Conference on Ferroelectricity, which took place in Moscow from January 25 to 30, 1960. As the ferroelectric effects in barium titanate and other perovskite-type crystals are brought into connection with particularities in the temperature dependence of one of the optical branches of the vibrational spectrum by several other authors, the author of the present paper investigated the temperature dependence of the absorption bands of the perovskite-type compounds. In view of the fact that in BaTiO₃ the bands of the deformation vibrations had no "ferroelectric" character whatever, the temperature course of the valence

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85865

The Temperature Dependence of the Infrared Absorption Spectra of $BaTiO_3$, $PbTiO_3$, and $PbZrO_3$ S/048/60/024/011/001/036
B006/B056

vibration bands was investigated. Fig.1 shows the absorption spectrum of the valence- and deformation vibrations of $BaTiO_3$, $PbTiO_3$, WO_3 , and $SrSnO_3$. The temperature dependence of absorption in the valence bands of $PbTiO_3$ and $PbZrO_3$ is shown in Fig.2. For the first series, it is characteristic that with an increase of temperature, the fine structure of the high-frequency side vanishes, whereas on the low-frequency side a valence satellite is formed. $PbZrO_3$ shows how all lead-containing perovskites on the high-frequency side had a "lead" satellite, which vanishes with increasing temperature and has no anomalies at Curie point. The results are finally briefly discussed and compared with those obtained by other authors. The author thanks S. P. Rubtsova for help in the measurements. There are 2 figures and 9 references: 6 Soviet, 1 US, 1 British, and 1 Indian.

ASSOCIATION: Rostovskiy-na-Donu gos. universitet (Rostov-na-Donu State University)

Card 2/2

85866

24,7800 (1144,1552)
9,2180 (3203,1162)

S/O48/60/024/011/002/036
B006/B056

AUTHORS: Yatsenko, A. F. and Popova, T. P.

TITLE: Some Electrical Properties of Bariumtitanate Activated
With Rare Earths

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960.
Vol. 24, No. 11, pp. 1311 - 1313

TEXT: The present paper is the reproduction of a lecture delivered at the 3rd Conference on Ferroelectricity, which took place in Moscow from January 25 to 30, 1960. The authors investigated the electrical properties of BaTiO_3 samples containing additions of 0.1-3 mole% of rare earth oxides (denoted by TR): $\overset{\wedge}{\text{Sm}}_2\text{O}_3$, $\overset{\wedge}{\text{Pr}}_2\text{O}_3$, $\overset{\wedge}{\text{Nd}}_2\text{O}_3$, $\overset{\wedge}{\text{Y}}_2\text{O}_3$, $\overset{\wedge}{\text{Tb}}_2\text{O}_3$, $\overset{\wedge}{\text{Dy}}_2\text{O}_3$, $\overset{\wedge}{\text{Er}}_2\text{O}_3$, $\overset{\wedge}{\text{Lu}}_2\text{O}_3$, $\overset{\wedge}{\text{Tm}}_2\text{O}_3$, $\overset{\wedge}{\text{Yb}}_2\text{O}_3$, and $\overset{\wedge}{\text{Gd}}_2\text{O}_3$. The electrical characteristics measured in the case of some of the samples investigated are given in the Table. The method of producing the samples is briefly described. Small TR-additions in general increased the stability of the tetragonal phase. The

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Some Electrical Properties of Barium-titanate Activated With Rare Earths

85866

S/048/60/024/011/002/036
B006/B056

temperature dependence of the dielectric constants¹¹ was measured in the case of all samples, and also the tangent of the loss angle at $V=50$ v and $\nu = 1000$ cps. The ϵ value at room temperature, ϵ_0 , as well as at Curie point ϵ_0 are also given in the Table. Fig.1 shows $\epsilon(t)$ and $\text{tg } \delta = f(t)$ for BaTiO_3 with different Pr-additions. Most of the compounds investigated had a high dielectric constant, and some of them also had considerable loss angles. In general, a decrease of ϵ_0/ϵ_0 as well as a decrease and broadening of the ϵ -maximum was found in the $\epsilon(t)$ -curve with increasing TR-content. Also the temperature course of resistivity was found to be dependent on the TR-additions, viz. in an interesting manner: TR concentrations of 1-3% exerted no influence, the curves showed the same course as with pure BaTiO_3 (exponential decrease of resistivity with increasing temperature); samples containing 0.1% Sm_2O_3 , 0.1% Er_2O_3 , 0.1% Tb_2O_3 , and 0.1% Nd_2O_3 , when heated at Curie point, had a resistivity peak (increase by several orders of magnitude), whereas when cooled at the same place they had a flat maximum (Fig.2).

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