HARDY, Gyula; VARGA, Jozsef; NYITRAI, Karoly; CZAJLIK, Istvan; ZUBONYAI, Laszlo

Synthesis, polymerization and copolymerization of vinyl-thioacetate. Magy kem folyoir 70 no. 4:174-179 Ap '64.

1. Research Institute of the Plastics Industry, Budapest and Department of the Plastics and Rubber Industries, Budapest University of Technical Sciences.

L 17001-66 EPF(n)-2/EWP(j)/T/ EWA(h)/EWA(1) GG/EM

ACC NR: AP6008606 SOURCE CODE: HU/0005/65/071/004/0175/0178

AUTHOR: Hardy, Gyula; Nyitrai, Karoly; Varga, Jozsef; Patko, Marton

ORG: Research Institute for the Plastics Industry, Budapest (Muanyagipari Kutato Intezet); Department of Plastics and Rubber Industry, Technical University, Budapest (Muszaki Egyetem Muanyag- es Gumiipari Tanszeke)

TITLE: Studies in the field of solid-state radiation polymerization. Part 6: Gamma-radiation-induced solid-state polymerization of vinyl laurate

SOURCE: Magyar kemiai folyoirat, v. 71, no. 4, 1965, 175-178

TOPIC TAGS: solid state, radiation polymerization, gamma radiation, monomer

ABSTRACT: Maximum polymerization rate was observed when the monomer's temperature was near the melting point, + 3°C. The mobility of the molecules of vinyl laurate at this temperature was considered to be relatively high. The polymerization reaction was investigated under various operational parameters and in the presence of various compounds. The results were presented and discussed in detail. Orig. art. has: 9 figures. [JPRS]

SUB CODE: 07 / SUBM DATE: 07Aug64 / ORIG REF: 001 / OTH REF: 004

Card 1/1

NYITRAI, Tibor

Electric currents in the earth's crust. Elet tud 16 no.5:140-142 29 Ja '61.

LORAND, Sandor, dr.; CZIKK, Janos, dr.; KOVACS, Tibor, dr.; NYITRAY, Gyula, dr.

Quantitative measuring of labor pains by tocometry as a routine examination method. Orv. hetil. 106 no.15:681-686 11 Ap '65

1. Fovarosi IV. ker. Tanacs Arpad Korhaz, Szuleszti Osztaly.

NYITRAY, Laszlo

Determination of the saponification value of official oils, fats and waxes. Acta pharm. Hung. 35 no.6:259-265 N '65.

1. Submitted June 3, 1965.

NYITRAY, Laszlo

Data to the determination of total alkaloids in Tinctura Strychni and the alkaloid content of Tinctura Belladonnae in non-aqueous medium. Acta pharm. Hung. 35 no.5:219-224 S '65.

1. Submitted March 25, 1965.

NYIZSNYANSZKY, Tibor, okleveles kohomernok

Basic molding materials in steel casting. Koh lap 12 no.11/12 Supplement: Ontode 8 no. 11/12 225-229 N-D '57.

1. Acelontode, Diosgyor.

MYKA, JOZEF.

Zelazowa Wola. [Warszawa] Sport i Turystyka [1954] 45 p. [Zelazowa Wola. illus., ports.]

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

NYKA, JOSEF.

Dolina Roztoki i Peiciu Stawow; monografia krajoznawcza. Warszawa, Sport i Turystyka, 1954. 133 p. (Dolina Roztoki and Peiciu Stawow; a tourist monograph. illus., maps, bibl.)

So East Europeans Accessions List Vol. 5, No. 1, Jan. 1956

NYKA, JOZEF

Podhalanski ezlak wolnosclowy. Warszawa, Sport i Turystyka, 1955. 121 p.
/The Podhale freedom track. illus., maps, bibi./

SOURCE: Monthly List of East European Accessions (EEAL) LC, Vol. 4, No. 11, November 1955, Uncl.

NYKA, J.

In the middle of Kazalmica in winter.

p. 10 (Turysta) No. 11, June 1957, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS, (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

NYKA, JOZEF

Burza nad Alpami. 227p.

Warszawa, Poland 1958

Monthly List of European Accessions (EEAI) LC, Vol. 8, No. 6, June 1959

Uncl.

NYKL, F.

NYKL, F. Measurement of parasitic capacity in television and mf amplifiers. p. 14

Vol. 4, no. 1, Jan. 1956
SDELOVACI TECHNIKA
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

NYKLES, V., MUDr.

Problems of dispensary services in industrial plants requiring solution. Cesk. zdravot. 4 no.6:350-351 June 56.

1. Vedouci zavodniho zdravotnickeho strediska Kralodvorskych zelezaren.

(INDUSTRIAL HYGIENE,
in Czech., dispensary serv. (Cz))

NYKLICEK, O.

Vaginal cytography in the diagnosis and therapy of estrogen insufficiency. Cas. Lek. cesk. 89 no.37:1025-1030 15 Sept. 1950. (CIML 20:1)

1. Of the Obstetrical and Gynecological Clinic in Hradec Kralove (Head--Prof. Jan Marsalek. M. D.).

NYKLICEK, Otakar, As. MUDr

Effect of androgen of vaginal cytogram. Ces. lek. cesk. 93 no. 51-52:1397-1400 24 Dec 54.

1. Z porodnicko-gynekologicke kliniky Palackeho university v Olomouci; prednosta prof. MUDr Jan Marsalek

(EPITHELIUM
vagina, cytol. eff. of adrogens)
(VAGINA, effect of drugs on
androgens, cytol. changes)
(ANDROGENS, effects
vaginal cytol., changes)

NYKLICEK, O.

CZECHOSLOVAKIA/Human and Animal Physiology - Reproduction. V-10

Abs Jour : Ref Zhur - Biol., No 1, 1958, 4319

Author : O. Nyklicek
Inst : -
Title : The Meaning of Vaginal Cytograms in Cases of Hyperplasia of the Endometrium.

Orig Pub : Acta Univ. palack. olomuc., 1955, No 6, 139-146

Abstract : Studies were conducted of 612 vaginal cytograms in 141 women above 35. There is a correlation between the oestrogen level and the cytogram. Hyperplasia of the endometrium is the result of a prolonged effect of oestrogens. The proliferation of the vaginal epithelium is most marked 14 days before menstruation. The oestrogen level gets lower 4-7 days before menstruation, and is lowest during menstruation. The non-correlation between the state of the endometrium and the cytological

Card 1/2

NYKLICEK, Otakar, MUDr

Improved form of vaginal cytogram for precise cytohormonal gynecological diagnostics. Cesk.gyn. 20 no.2:132-133 Mar 55.

1. Z. Ouns, Nachod.
(GYNECOLOGICAL DISEASES, diagnosis,
cytohormonal, use of improved form of vaginal cytography)
(VAGINAL SMEARS,
cytol., new form in gynecol. cytohormonal diag.)

NYKLICEK, Otakar, byv., assistent klinik

Hormonal problems of endometrial hyperplasia. Cas. lek. cesk. 94 no.42:1124-1127 14 Oct 55.

1. Z porodnicko-gynekologickych klinik v Hradci Kralove a v Olomouci. Prednosta prof. Dr. Jan Marsalek.
(ENDOMETRIUM, diseases
hyperplasia, etiol. role of estrogen level)
(ESTROGENS, in various diseases
endometrial hyperplasia, etiol. role of estrogen level)

KRIZ, Kamil, Dr.; NYKLICEK, Otakar, Dr.

Treatment of eclampsia with neuroplegics. Cesk. gyn. 21-35 no.2:119-122 Mar 56.

1. Z porodnidko-gynekologickeho odd. OUNZ v Nachode. (Prednosta: prim. Dr. O. Nyklicek) Z neurologickeho odd. OUNZ v Nachode. (Prednosta: prim. Dr. K. Kriz).

(ECLAMPSIA, ther.
chlorpromazine, promethazine & reserpine.
(CHLORPROMAZINE, ther. use
eclampsia, with promethazine & reserpine
(ANTIHISTAMINICS, ther. use
promethazine in eclampsia, with chlorpromazine & reserpine.
(PHENOTHIAZINE, deriv.
same
(RAUWULFIA ALKALOIDS, ther. use
reserpine, in eclampsia, with promethazine & reserpine.

NYKLICEK, Otakar

Contribution to the question of endocrinological menopause. Cesk. gyn. 36 no.3:201-206 1957.

1. Gyn. odd. OUNZ v Nachode, prednosta primar MUDr. Otakar Nyklicek.
(CLIMACTERIC, FEMALE, physiol.
eff. of hormones in pre- & post-climacteric (Cz))
(HORMONES, eff.
on pre- & post-climacteric in female (Cz))

2824. NYKLÍČEK O. Univ.-Frauenklin. Hradec Králové, Olomouc. • Vergleichende Studie über die Korrelation zwischen Histologie der Endometriumschleimhaut und Zytologie des Scheidenabstriches bei der glandulärzystischen Hyperplasie. The correlation between endometrial biopsy and vaginal smears in glandulocystic hyperplasia ZBL. GYNÄK. 1955, 77/20 (775-783) Graphs 2 Tables 3

It was concluded from 612 vaginal smears from 141 patients with histologically confirmed endometrial hyperplasia, that vaginal cytology may at least in part replace hormone determinations. Distinction is made between 3 types of vaginal smear, viz. hyperoestric, normoestric and hypoestric. From different cytological examinations in the same patient a curve can be plotted. The hyperoestric type is found in 75% of all cases of endometrial hyperplasia. The maximum is demonstrable at least 14 days before the haemorrhage. About 4-7 days before the bleeding, the curve begins to fall, which is pronounced at the first day of the bleeding. In the course of the haemorrhagic period, a further significant fall of the curve is observed. In 5% of the cases, there was no agreement between the histological and the cytological findings. This difference is attributed to the individual sensitivity of the endometrium and of the vaginal epithelium. It is concluded that endometrial hyperplasia occurs as the consequence of prolonged action of oestrogens.

Navratil - Graz (X, 5)

NYKLICEK, Otakar, Dr.

Cytology of advanced pregnancy & relation to carrying-through of gestation. Cesk. gyn. 22/36 no.8:591-598 Dec 57.

1. Por.-gyn. odd. OUNZ Nachod, prednosta prim. Dr Otakar Nyklicek.
(VAGINAL SMEARS
in advanced pregn., classif. (Cz))
(PREGNANCY,
vaginal smears in advanced pregn., classif. (Cz))

ANTOS, Jaroslav; NYKLICEK, Otakar

Vascular changes in cancer of the cervix uteri; cyto-colposcopic studies. Neoplasma, Bratisl. 5 no.2:199-206 1958.

1. Clinique obstetricale et gynecologique de L'Academie militaire de Medicine Jean Ev. Purkyne, Hradec Kralove, Section obstetricale et gynecologique de l'hopital a Nachod. Adresse des auteurs: Dr. J. Antos, Gynekologicka klinika VLA, Hradec Kralove, Dr. O. Nyklicek, Gynekol. odd. nemocnice, Nachod.

(CERVIX NEOPLASMS, pathology, vasc. (Fr))

NYKLICEK, Otakar

Evaluation of restricted perinatal death rate during the past 3 years in the Hradec Kralove county. Cesk. pediat. 8 no.6:531-538 5 July 58.

1. Porodnickogynekologicke oddeleni nemocnice v Nachode, prednosta Dr. Otakar Nyklicek.
(INFANT MORTALITY
perinatal. in Czech. (Cz))

NYKLICEK, Otakar

Bacteriological conditions of the amniotic fluid and vagina and their role in damages in newborn. Cas. lek. cesk. 97 no.12:367-374 21 Mar 58.

1. Porodnickogynekologicke oddeleni nemocnice v Nachode prednosta prim. Otakar Nyklicek.

(AMNIOTIC FLUID, microbiology,
relation to fetal abnom. (Cz))
(VAGINA, microbiology,
same)
(ABNORMALITIES, etiol. & pathogen,
amniotic & vaginal microbiol. (Cz))

NYKLICEK, O.

Cell dyskaryosis in the vaginal cytology. Neoplasma, Bratisl. 7 no. 2: 187-192 '60.

(VAGINAL SMEARS)

NYKLICEK, O.

Actinosensitivity of cervical cancer. Cas.lek.cesk 100 no.46:Lek Veda Zahr 243-246 17 N '61.

1. Porodnicko-gynekologicke oddeleni nemocnice OUNZ v Nachode, prednosta MUDr. Otakar Nyklicek.

(CERVIX NEOPLASMS radiother)

ANTOS, J.; NYKLICEK, O.

Experience with the testing of radiosensitivity in cancer of the uterine cervix. Neoplasma 9 no.6:555-562 '62.

1. Regional Institute of Public Health, Obstetrico-Gynecological Clinic, Hradec Kralove, CSSR Hospital at Nachod, Obstetrico-Gynecological Department, Nachod, CSSR.
(CERVIX NEOPLASMS) (RADIOTHERAPY)
(MENSTRUATION)

NYKLICEK, O.; KORIM, M.

Simple improvement for staining specimens in several baths for cytological examination. Cesk. gynek. 28 no.9:642-643 N'63.

1. Gyn.-por. odd. OUNZ v Nachode, vedouci dr. O.Nyklicek, CSc.

*

NYKLICEK,O.

Current status of cytodiagnosis in the Czechoslovakian SSR.
Cesk. gynek. 29 no.1:1-3 F'64

1. Gyn.-por. odd. OUNZ v Nachode; vedouci: MUDr.O.Nyklicek, CSc.

*

NYKLICEK, O.; KOPECNY, J.

Histological bases of cytology on the day of labor. Cesk. gynek. 29 no.1:39-40 F'64.

1. Gyn.-por. odd. OUNZ v Nachode (vedouci: dr. Otakar Nyklicek, CSC); Patol.-anat. ustav lek. fakulty KU v Hradci Kralove; (prednosta: prof.dr. A. Fingerland, DrSc.)

NYKLICEK,O.

Interpretation of inflammations in the cytological picture.
Cesk. gynek. 29 no.3:187-190 Ap'64

1. Gyn-por. odd. nemocnice v Nachode;vedouci: MUDr. O.Nyklicek, CSc.

VACHA, Karel; VOTIK, Ota; NYKLICEK, Otakar

Inveterate inversion of the puerperal uterus. Sborn. ved. prac. lek. fak. Karlov. univ.: Suppl. 8 no.4:435-443 '65.

1. Gynekologicko-porodnicka klinika (prednosta prof. MUDr. K. Vacha, DrSc.) a Gynekologicke oddeleni Obvodniho ustavu narodniho zdravi Nachod (prednosta doc. MUDr. O. Nyklicek, CSc.).

L 13135-66 EWT(m)/EPF(n)-2/EWP(j)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) IJP(c) JD/WW/
ACC NR: AP6002031 (A) SOURCE CODE: UR/0185/65/010/012/1369/1371
HW/JG/RM

AUTHORS: Klyucharev, O. P.; Palatnyk, L. S.; Nykolaychuk, A. D.

ORG: Physicotechnical Institute AN UkrSSR, Kharkov (Fizyko-tekhnichnyy instytut AN URSR); Kharkov Polytechnic Institute im. V. I. Lenin (Kharkivs'kyy politekhnichnyy instytut)

TITLE: X-ray structure analysis of isotope targets used for nuclear investigations

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 12, 1965, 1369-1371

TOPIC TAGS: x ray study, crystal structure analysis, titanium, hafnium, zirconium

ABSTRACT: Titanium, zirconium, and hafnium foils 1 -- 7 μ thick were prepared by thermal dissociation of their iodides. The deposition of thin isotope layers on a heated substrate was carried out in two stages: preparation of the break up of the iodides outside the chamber, and thermal dissociation of the end product in the form of a directed flux of molecules in a continuously evacuated chamber. X-ray investigations were carried out of foils deposited on a molybdenum substrate at temperatures of 950 -- 1250C every 50C using 20 -- 30 samples of each

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L 13135-66

ACC NR: AP6002031

element. The photos were taken using a sintered silver powder standard. The texture was observed on flat-plate photographs. In the case of zirconium there was practically no texture in this temperature range. The texture of the titanium and hafnium foils depends on the temperature of dissociation of the iodides, a change in the temperature during dissociation giving rise to unordered orientation of the crystallites relative to the substrate. The foils consisted of fine crystallites, their size depending on the temperature at which the iodides were dissociated -- the higher the substrate temperature, the larger the crystals. Metallographic investigation of the surfaces of the foils revealed no pores or other microscopic defects (at a magnification of 200 -- 400). The foils could find use as protective (anticorrosive, fire-resistant, etc.) covering. Orig. art. has: 1 table and 2 figures.

SUB CODE: 20/ SUBM DATE: 19Apr65/ ORIG REF: 003

Card 2/2 HW

NYMBURSKY, Borivoj, inz.

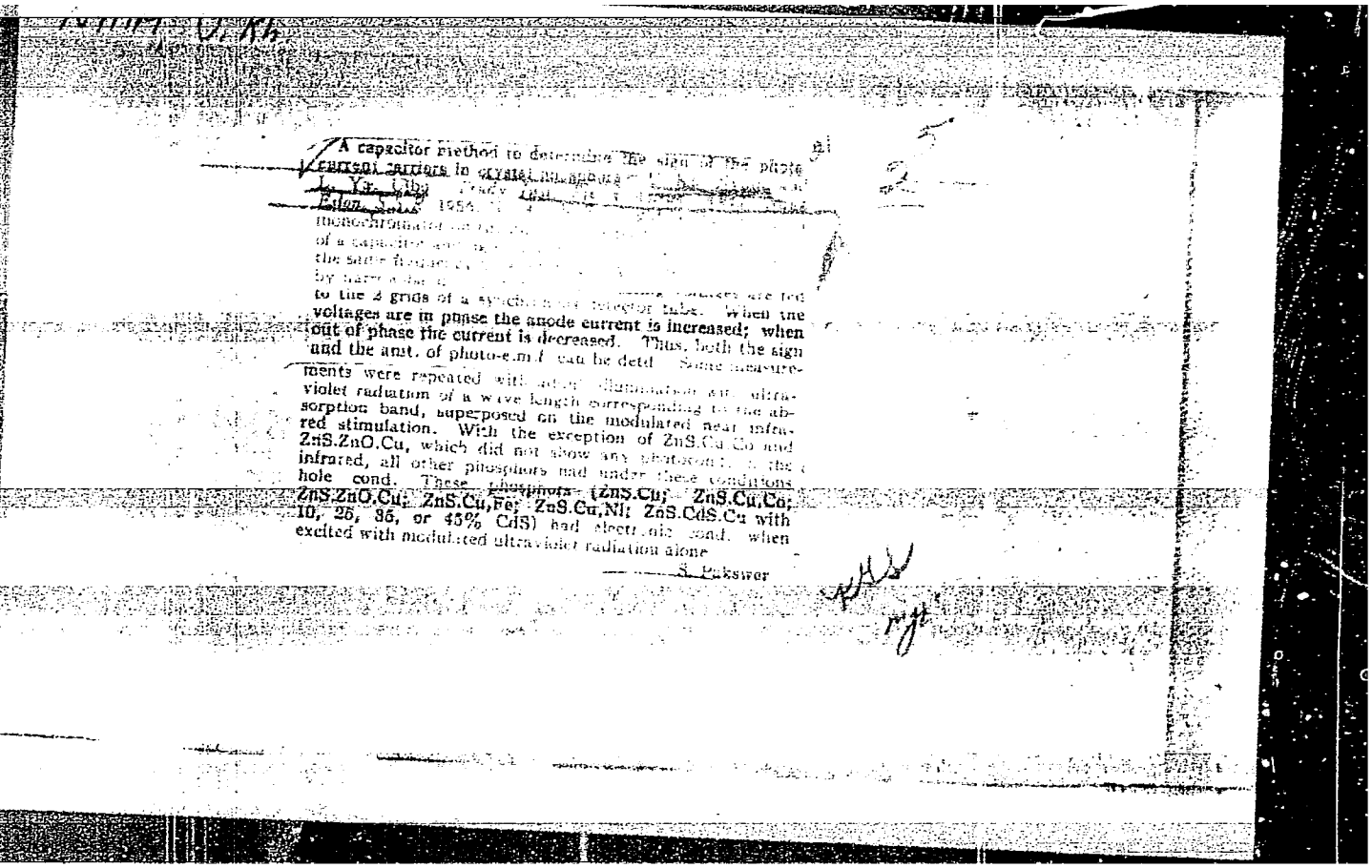
Forestry practice in the gradual shelterwood cutting system. Les cas 9 no.4/5:329-338 '63.

1. Ustav pro hospodarskou upravu lesu, Zvolen.

NYMM, E.M. [Nomm, E.], dotsent

Improve the training of veterinarians. Veterinariia 41 no.10:96-98 O '64. (MIRA 18:11)

1. Estonskaya sel'skokhozyaystvennaya akademiya.



A capacitor method to determine the sign of the charge carriers in crystal rectifiers

Yu. [illegible]

Leningrad, [illegible] 1954

[illegible] monocrystalline [illegible] of a capacitor [illegible] the same frequency [illegible] by means of the [illegible] to the 2 grids of a [illegible] tube. When the voltages are in phase the anode current is increased; when out of phase the current is decreased. Thus, both the sign and the amt. of photo-e.m.f. can be detd. Some measurements were repeated with additional illumination by ultraviolet radiation of a wave length corresponding to the absorption band, superposed on the modulated near infrared stimulation. With the exception of ZnS.Cu Co and ZnS.ZnO.Cu, which did not show any photoeffect in the infrared, all other phosphors had under these conditions hole cond. These phosphors (ZnS.Cu; ZnS.Cu,Co; ZnS.ZnO.Cu; ZnS.Cu,Fe; ZnS.Cu,Ni; ZnS.CdS.Cu with 10, 25, 35, or 45% CdS) had electronic cond. when excited with modulated ultraviolet radiation alone.

S. Fuksver

Nymm U. Kh.

48-5-3/56

SUBJECT: USSR/Luminescence

AUTHORS: Nymm U.Kh. and Uybo L.Ya.

TITLE: On the Condenser Method for Determination of the Sign of Photocurrent Carriers in Crystallophosphors (O kondensatornom metode opredeleniya znaka nositeley fototoka v kristallofosforakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21, #5, pp 648-651 (USSR)

ABSTRACT: A method was developed which makes it possible to determine the sign of photocurrent carriers using an amplifier with the narrow pass band and without application of an additional electric field to the condenser. The phase of voltage arising in the condenser during lighting uniquely depends on the sign of photocurrent carriers. The method is based on recording this phase by means of a phase-sensitive circuit, the synchronous detector. The magnitude and sign of the photo e.m. f. can be determined simultaneously by this method.

Card 1/2 The sign of charge carriers in several ZnS-Cu- and ZnS.CdS-Cu-phosphors was determined by this method and the results are

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S/048/59/023/011/003/012
B019/B060

243500 (1035, 1138, 1160)

AUTHOR: Nymm, U. Kh.

TITLE: Photoelectric Effects in the Luminous Powders ZnS-Cu (Ni, Fe, Co) and ZnS·CdS-Cu

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol. 23, No. 11, pp. 1286-1289

TEXT: The author investigated the photoelectric effects in a number of ZnS·CdS-Cu phosphors with a CdS-content of 45, 35, 25, 18, 8, and 0%, and in ZnS-Cu(Ni, Fe, Co, ZnO) phosphors by the so-called condenser method. Spectral and temperature dependences of the photoelectric response were determined, and the spectrum of luminous excitation and of thermofluorescence was measured for a few phosphors. The errors of the condenser method in the investigation of the internal photoeffect had already been investigated earlier (Refs. 8 and 9); nevertheless, this method exhibits a number of advantages, some of which are specified. The wavelength range of the spectrum of the photoelectric response was measured in a number of mixed ZnS·CdS-Cu phosphors. The effect corresponds to the character of electron photoconductivity and agrees with the Hall effect in ZnS and CdS mono-

Card 1/3

Photoelectric Effects in the Luminous Powders ZnS-Cu (Ni, Fe, Co) and ZnS·CdS-Cu

S/048/59/023/011/003/012
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crystals. With decreasing CdS content this spectrum shifts monotonically to the shortwave region, and the magnitude of the photoelectric response depends on the relaxation time of photoconductivity. Moreover, the photoelectric response strongly depends on temperature. The author and Ye. Ye. Bukke had earlier measured the photoelectric response at room temperature. The spectrum of the infrared photoelectric response in excited phosphors may be measured only at temperatures higher than room temperature. Fig. 1 is a graphical representation of the measurement results obtained from experiments made on ZnS·CdS-Cu phosphors with the abovementioned CdS contents. In the case of the ZnS-Cu phosphor this spectrum coincides with the fluorescence spectrum determined by K. S. K. Rebane (Ref. 14). The dependence of the infrared photoelectric response on temperature is shown in a diagram (Fig. 2). Data obtained here are in agreement with the notion held earlier that in a number of mixed crystals all energy levels shift proportionally to increasing content of a heavy component (CdS). The temperature dependence is correlated with the rising rate of liberation of the carriers. K. B. Tolpygo investigated the theoretical aspect of the influence of the frequency modulation and of the proper time for the case of the monopolar photoconductance. The photoelectric response attains a

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Photoelectric Effects in the Luminous Powders ZnS-Cu (Ni, Fe, Co) and ZnS·CdS-Cu

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B019/B060

maximum when the modulation period equals the recombination time. In the experiments made here the modulation frequency applied was 200 cycles, and a dependence of the considered effects on the capture level was observed. The spectrum of the photoelectric response in the phosphors ZnS-Cu(Ni, Fe, Co, ZnO) can be measured only at very high temperatures and with the fundamental absorption band. The magnitude and the temperature dependence of the photoelectric response are shown to depend on the nature of the other activators. A certain parallelism is observed between the temperature course of the photoelectric response and thermofluorescence, and finally, the condenser method is said to be suitable for the investigation of the center of capture in ZnS phosphors. The author thanks F. D. Klement for attention devoted to the work under review. There are 4 figures and 16 references: 12 Soviet.

ASSOCIATION: Tartuskiy gos. universitet (Tartu State University)

Card 3/3

KIYS, V.I.; NYMM, U.Kh.; PAE, A.Ya.; REEBEN, V.A.

Automatic spectrograph based on the UM-2 monochromator. Prib. i tekh.eksp. no.4:145-146 Jl-Ag '60. (MIRA 13:9)

1. Tartusskiy gosudarstvennyy universitet.
(Spectrograph)

9.4177 (also 1138, 1147)
26.2421

S/058/61/000/005/025/050
A001/A101

AUTHORS: Nymm, U.Kh., Aydla, A.K.

TITLE: The photoelectric polarization of mixed phosphors: zinc and cadmium sulfides

PERIODICAL: Referativnyy zhurnal. Fizika, no 5, 1961, 181, abstract 5V385 ("Tr. In-ta fiz. i astron. AN EstSSR", 1960, no 12, 249 - 261, Engl. summary)

TEXT: The authors studied photoelectric polarization in mixed phosphors ZnS.CdS-Cu. The main attention was paid to spectral regularities of photoelectric polarization in this series of phosphors and to determination of the sign of photocurrent carriers. A close correlation was found between the excitation spectrum of photoelectric polarization and other spectra of the same specimens. It turned out that intrinsic photoeffect in the fundamental absorption band is caused mainly by free electrons.

[Abstracter's note: Complete translation.]

Card 1/1

247700,

S/058/62/000/008/049/134
A061/A101

AUTHORS: Nymm, U. Kh., Rammo, I. Kh.

TITLE: On the photodielectric effect in ZnS-Cu and ZnS·CdS-Cu phosphors

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 44, abstract 8V308 ("Tr. In-ta fiz. i astron. AN EstSSR", 1961, no. 15, 184 - 202; summary in English)

TEXT: The photoconductivity of powdery crystal phosphors is studied with the aid of the photodielectric effect. The question as to the causes of the latter is discussed. It is shown that, in ZnS·CdS-Cu phosphors, the said effect is due to photoconductivity. Results of the change of photoconductivity and luminescence in crystal phosphors under the action of infrared radiation are presented and discussed. There are 62 references.

[Abstracter's note: Complete translation]

Card 1/1

[illegible]

... polarization of luminescence ... investigated for the Zn ... Cu phosphor ... to determine simultaneously ... regarded as proof that the electron ... character ... polarization are largely of a ... depends the conservation of ... are closely interrelated.

[Abstract ... note ... [illegible]]

Card 1/1

L 28348-66

ACC NR: AP6013092

the "green" centers convert to "blue" centers, an effect that can be reconciled with either the single center model or the model of different centers. It was thought that light might be thrown on the nature of the centers by electron paramagnetic resonance experiments, but measurements carried out at the request of the authors by Pung and Khaldre failed to show a significant EPR signal and thus precluded clarification of the nature of the centers. The authors attempted to detect and identify the unfilled ground states of the luminescence centers by measurements of the photoconductivity in the region of the spectrum where infrared quenching is observed. The parallel spectral variation of the quenching of photoconductivity and of luminescence indicates that the first stage in the process leading to quenching in both types of phosphors is the same. This can be explained by release of holes by the IR light from the green copper centers (there is a certain residual concentration of green centers even in the blue luminescing specimens). It would appear that either the blue centers represent an ionized state of the green centers (if one accepts the single center model) or that the blue centers are incapable of absorbing infrared in the excited state. It is concluded that the question of the model or models for the blue and green centers in copper-activated ZnS phosphors is a very complicated one and that on the basis of the data now available it is impossible to decide between the two hypotheses. The authors are grateful to A.Saar for participation in the experiments. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 001/ OTH REF: 013

Card 2/2

L 4479-66 EWT(l)/EWT(m)/FCC/T/EWA(h) IJP(c) GW

ACC NR: AP5024636 SOURCE CODE: UR/0048/65/029/009/1693/1695

AUTHOR: Nymmik, R.A.; Shestoperov, V. Ya.

ORG: Institute of Nuclear Physics, Moscow State University im. M.V.Lomonosov (Institute yadernoy fiziki Moskovskogo gosudarstvennogo universiteta)

TITLE: Calculation of some characteristics of extensive air showers in the framework of a model of a strongly fluctuating elementary interaction event /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1693-1695

TOPIC TAGS: primary cosmic ray, secondary cosmic ray, extensive air shower, nucleon interaction, inelastic interaction, spectral energy distribution

ABSTRACT: The authors, employing the shower development model of N.L.Grigorov and V. Ya.Shestoperov (Zh. eksperim. i teor. fiz., 34, 1539, 1958), have calculated some characteristics of extensive air showers on the assumption that the elementary interaction events initiating the showers are of two kinds: "pionization" processes, in which pions are multiply produced with an inelasticity of 0.29, and "catastrophic" events, in which the pionization process is followed by transfer of 70 % of the primary energy to three charged or neutral pions. Experimental evidence for the existence of such different interaction processes has been obtained by N.L.Grigorov, V.Ya.Shestoperov, and collaborators (Zh. eksperim. i teor. fiz., 46, 110, 379 (1964)). For the calculation it was

Card 1/2

09010255

ACC NR: AP5024636

assumed that the probability for pionization is 0.7, the probability for a catastrophic event with production of hard charged pions is 0.2, the probability for a catastrophic event with production of hard neutral pions if 0.1, the absorption and interaction free paths of nuclear active particles in the atmosphere are 120 and 83 g/cm^2, respectively, and that the exponent in the primary energy spectrum is 1.7. Fluctuations in the location of the catastrophic events were taken into account. It was found that in 75 % of the showers having 10^5 particles at sea level, over half the shower particles are due to catastrophic interactions. Taking account of fluctuations in the inelasticity and location of the initiating event reduces the estimated value of the primary proton energy, derived from the number of particles in the shower. It is concluded that the flux of ultrahigh energy particles obtained by L.G.Dedenko and G.T.Zatsepin (Tr. Mezhdunarodnoy konferentsii po kosmicheskim lucham, Vol. II, 222. Izd. AN SSSR, M., 1960), who did not take account of fluctuations, is greater than the true flux. It was found that the ratio of the energy flux in the nuclear-active component to that in the electron-photon component is several times less than it would be if there were no inelasticity fluctuations. Reliable experimental data on this ratio would therefore be of great interest. Orig. art. has: 3 figures.

SUB CODE: NP/ SUBM DATE: 00/ ORIG REF: 005/ OTH REF: 000

ACC NR: AP6035708 SOURCE CODE: UR/0413/66/000/019/0056/0056

INVENTORS: Grigorov, N. L.; Nymmik, R. A.

ORG: none

TITLE: A Cerenkov counter. Class 21, No. 186574

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 56

TOPIC TAGS: Cerenkov counter, particle counter, charged particle, cosmic ray particle, cosmic ray measurement, cosmic radiation

ABSTRACT: This Author Certificate presents a Cerenkov counter for recording charged particles of cosmic radiation. The counter contains a radiator, an optical system for collecting light, and a photoelectric multiplier (see Fig. 1).

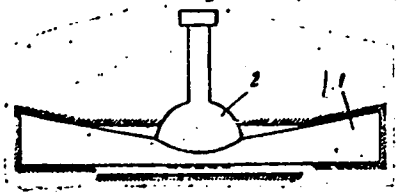


Fig. 1. 1 - radiator; 2 - photomultiplier

To attain a constant amplitude of pulses during the passage of a particle in various locations of the counter and to increase the effectiveness of a radiation particle

Card 1/2 UDC: 621.387.424

ACC NR: AP6035708

recording, the radiator is made in the form of a cylinder of a varying thickness that increases with the distance from the center of the photoelectric multiplier. The convex photocathode of the multiplier is placed to fit accurately against the radiator. Orig. art. has: 1 figure.

SUB CODE: 18 SUBM DATE: 04Mar63/ ATD PRESS: 5106

Card 2/2

L 45788-66 EWT(m)/EWP(1)/T IJP(c) RM

ACC NR: AP6030129 SOURCE CODE: UR/0120/66/000/004/0059/0062

46

41

8

AUTHOR: Kymnik, R. A.

ORG: NII of Nuclear Physics, MGU (NII yadernoy fiziki MGU); Institute of Physics and Astronomy, AN ESSR (Institut fiziki i astronomii AN ESSR)

TITLE: Large-area Cerenkov counter 19

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1966, 59-62

TOPIC TAGS: cerenkov counter, extensive air shower, PHOTOELECTRON MULTIPLIER

ABSTRACT. The results are reported of experiments with a Cerenkov counter which had a plexiglas radiator 580 mm in diameter and 46 mm in height (area, 0.27 m^2). A photomultiplier placed in the center of the disk fed pulses to a preamplifier (gain—15) which, in turn, fed them, via a delay (5×10^{-7} sec) line, to an AI-100 differential height analyzer. The analyzer input was opened for 4 μ sec by a coincidence circuit whenever a charged particle passed the Geiger-counter telescope. This unit permitted isolating the signal from the photomultiplier noise and exploring the uniformity of sensitivity of the counter; three methods were tested: 1) total internal reflection of the Cerenkov light; 2) diffuse scintillator (coated with MgO or white paint); 3) combined radiator with total reflection in the center and

UDC: 539.1.074.4

Card 1/2

L 45788-66

ACC NR: AP6030129

5

diffuse reflector around the periphery. The third method exhibited the most uniform sensitivity: the maximum (50% higher than the average) photon area occupied 10% or less of the entire counter area. An output photomultiplier pulse of 17 photoelectrons was finally attained. " The author wishes to thank N. L. Grigorov for his fruitful ideas, I. A. Savenko for lending his measuring instruments, L. I. Sarycheva and A. T. Abrosimov for useful discussions, and Yu. A. El'kin for coating the detectors with MgO." Orig. art. has: 4 figures.

SUB CODE: 18 / SUBM DATE: 05Jun65 / ORIG REF: 000 / OTH REF: 003/ ATD PRESS: 5084

pb

Card 2/2

KRIZ, J.

"Mechanization of sugar-beet propagation."
Sbornik. Annals. Rada B., Praha, Vol 27, No 1, Feb. 1954, p. 85

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

NYPL, J.

Harvesting is made easy. p. (4) of cover.
MECHANISACE ZEMEDELSTVI. Vol. 5, No. 3, Feb. 1955

SO: Monthly East European Accession, (EEAL), LC, Vol. 4, No. 9, Sept. 1955 Uncl.

Nypl, J.

Nypl, J. "ffect of the inter-row cultivation on the ;ield of sugar beets. P. 289
Vol. 3, no. 6, 1956
VESTNIK, Praha
CZECHOSLOVAKIA

SOURCE: EAST EUROPEAN ACCESSIONS LIST (EEAL) VOL6 NO 4 APRIL 1957

NYPL, J.

NYPL, J. How to prune sugar beet for cross cultivating. p. 29.

Vol. 6, no. 4, Feb. 1956
MACHANISACE ZEMEDELSTVI
AGRICULTURE
Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

NYPL, J.

"Experience acquired from the test of some sugar-beet machinery in 1958."
p. 59

MECHANISACE ZEMEDELSTVI. Praha, Czechoslovakia, Vol. 9, No. 3, 1959

Monthly list of East European Accession Index (EEIA), Library of Congress, Vol. 8, No. 7, July, 1959, Unclassified

NYPL, J.

"Simplification of thinning and mechanization of spring work in agriculture."

LISTY CUKROVARNICKE, Praha, Czechoslovakia, Vol. 75, No. 3, March 1959.

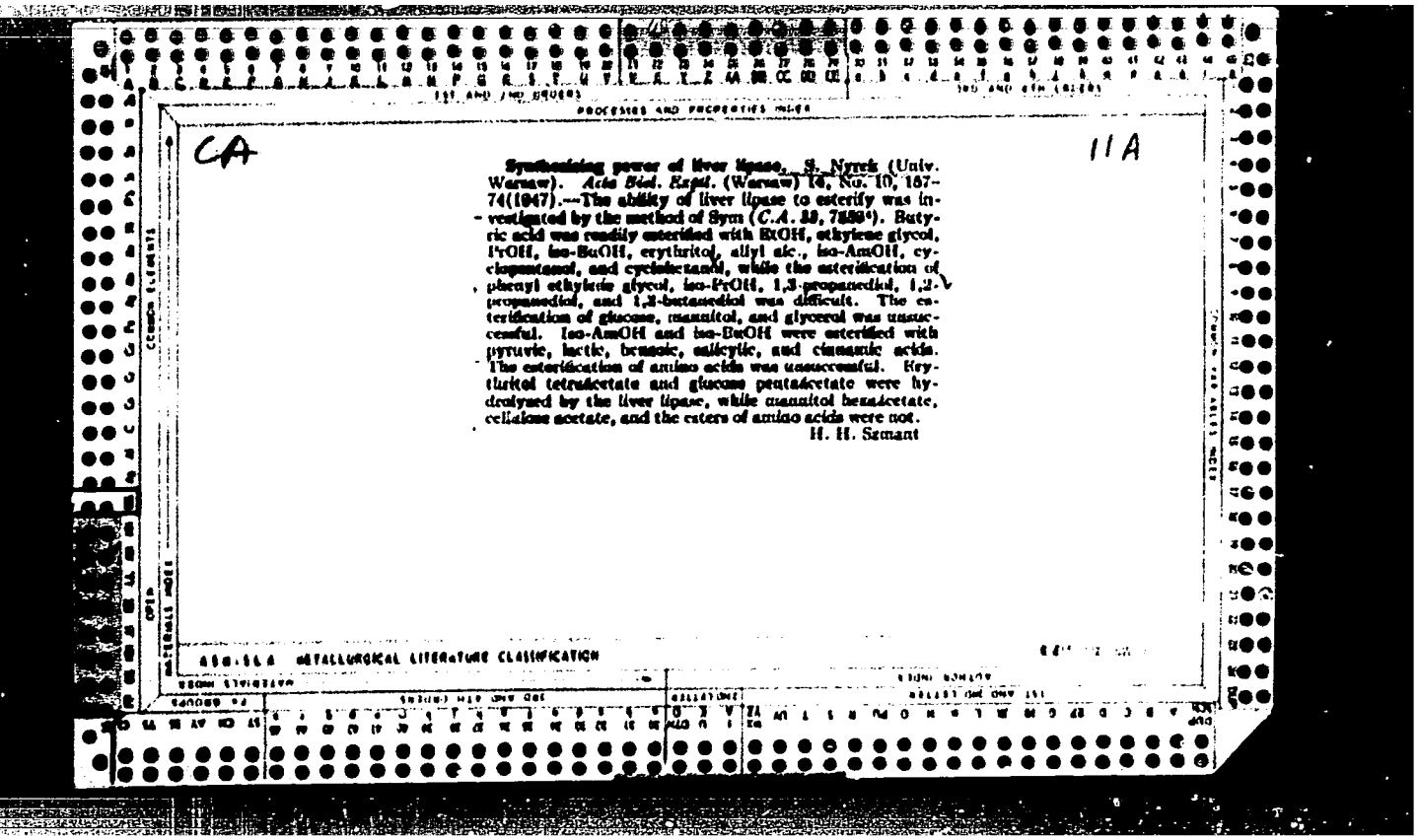
Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 7, September 1959.

Unclassified.

NYPL, Zdenek, dr.

Organizational and economic principles of a symposium on the origin of postmagmatic ore deposition. Geol pruzkum 6 no.2: 50-53 F'64

1. Ustredni ustav geologicky, Praha.

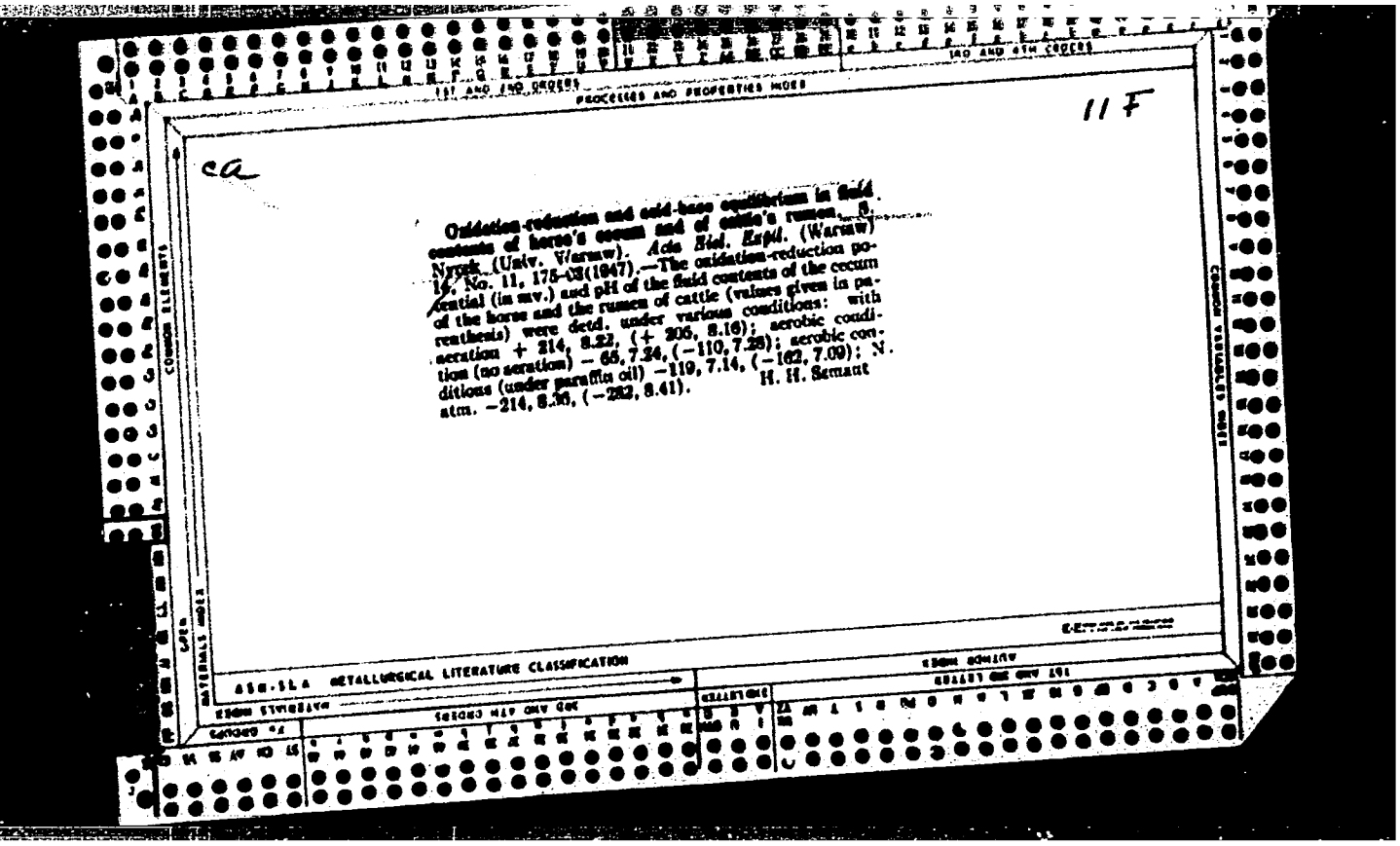


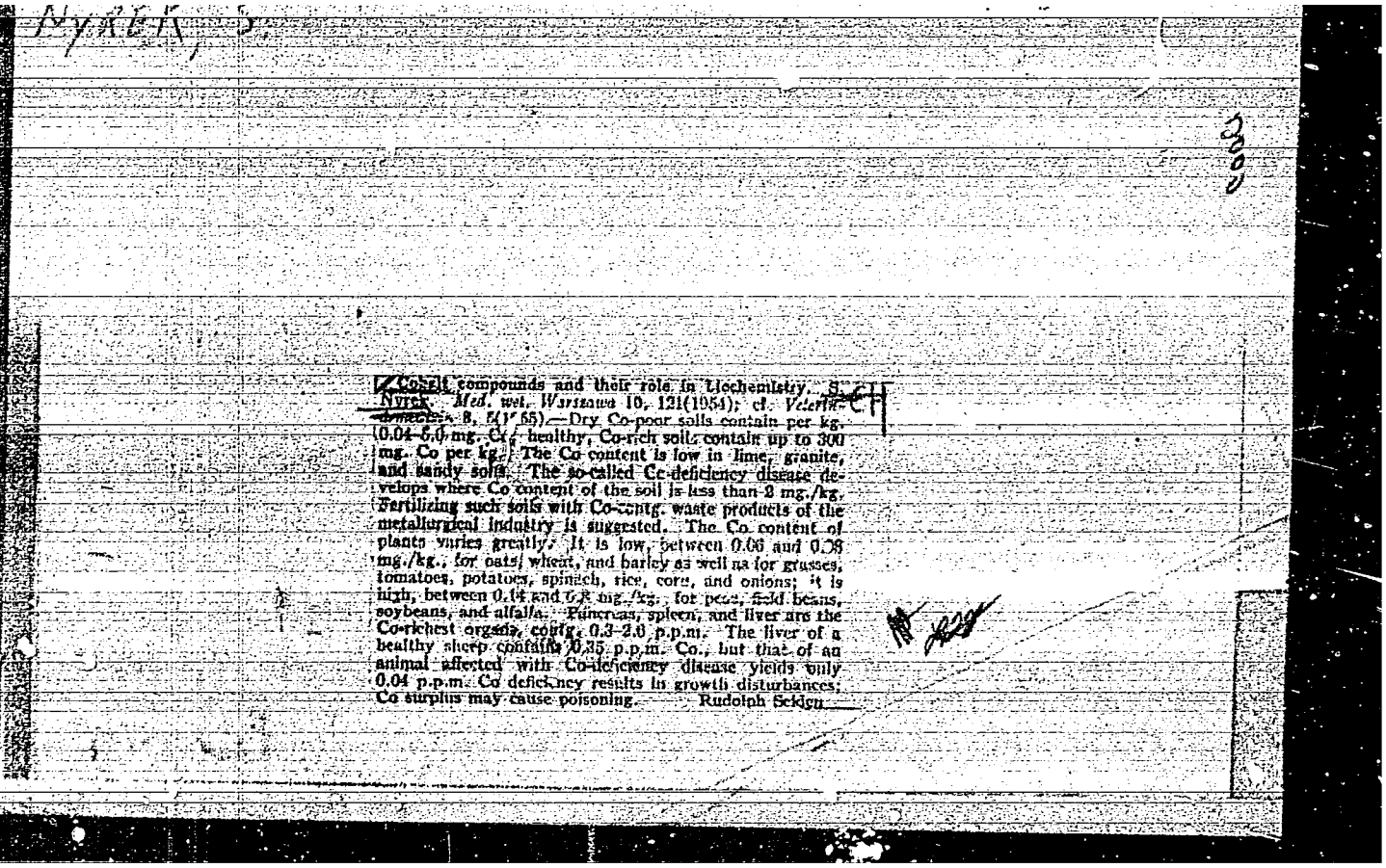
CA

11A

Synthesizing power of liver lipase. S. Nyrek (Univ. Warsaw). *Acta Biol. Exptl.* (Warsaw) 14, No. 10, 167-74(1947).—The ability of liver lipase to esterify was investigated by the method of Sym (*C.A.* 38, 7859⁴). Butyric acid was readily esterified with EtOH, ethylene glycol, PrOH, iso-BuOH, erythritol, allyl alc., iso-AmOH, cyclopentanol, and cyclohexanol, while the esterification of phenyl ethylene glycol, iso-PrOH, 1,3-propanediol, 1,2-propanediol, and 1,3-butanediol was difficult. The esterification of glucose, mannitol, and glycerol was unsuccessful. Iso-AmOH and iso-BuOH were esterified with pyruvic, lactic, benzoic, salicylic, and cinnamic acids. The esterification of amino acids was unsuccessful. Erythritol tetraacetate and glucose pentaacetate were hydrolyzed by the liver lipase, while mannitol hexaacetate, cellulose acetate, and the esters of amino acids were not.

H. H. Szmant





Co-rich compounds and their role in biochemistry. S. Nyrek. *Med. wet. Warszawa* 10, 121(1954); cf. *Veterin.* C.A. 8, 5(1955).—Dry Co-poor soils contain per kg. 0.04–6.0 mg. Co; healthy, Co-rich soils contain up to 300 mg. Co per kg. The Co content is low in lime, granite, and sandy soils. The so-called Co-deficiency disease develops where Co content of the soil is less than 2 mg./kg. Fertilizing such soils with Co-contg. waste products of the metallurgical industry is suggested. The Co content of plants varies greatly. It is low, between 0.06 and 0.08 mg./kg., for oats, wheat, and barley as well as for grasses, tomatoes, potatoes, spinach, rice, corn, and onions; it is high, between 0.14 and 0.8 mg./kg., for peas, field beans, soybeans, and alfalfa. Pancreas, spleen, and liver are the Co-richest organs, contg. 0.3–2.0 p.p.m. The liver of a healthy sheep contains 0.35 p.p.m. Co, but that of an animal affected with Co-deficiency disease yields only 0.04 p.p.m. Co deficiency results in growth disturbances; Co surplus may cause poisoning. Rudolph Seiden

MYREK, Stefan (Warszawa, Grochowska 281 m.9)

Role of biochemistry in the development of modern dentistry.
Czasopismo stomat, 8 no.1:1-7 Jan 55.
(DENTISTRY,
biochem. in)
(BIOCHEMISTRY,
in dent.)

POLAND / Human and Animal Physiology. Excretion. T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41375.

Author : Nagorski, F.; Nyrek, St.; Mazurezak, J.; Lukanska,F.
Inst : Not Given.
Title : Determination of the Glucuronic Acid Level in the Urine of Horses.

Orig Pub: Med. weteryn., 1957, 13, No 5, 279-282.

Abstract: The content of glucuronic acid in the urine of healthy (3-18 year old) horses as determined by the method of Quick, was 35.6-105.7%mg%. Twenty-four hours elimination was equal to 1,875-5,294g (it increased with age): no regular fluctuations of elimination during 24 hour periods were established.

Card 1/1

NYRIKOV, V. G., KUSHNIR, Yu. M., BUTSLOV, M. M. and BORDOVSKIY, G.
Institute for Electronic Optics of the State Committee for Radio Electronics, Moscow.

"Use of an Image Ampliefier for Increasing the Distinctness of the Image in an Electron Microscope."

XXX

report presented at 4th Intl. Conference on Electron Microscopy, Berlin GFR. 10 - 17 Sep 1958.

MYRKOV, A. A.

MYRKOV, A. A. "The Lithological-Mineralogical Characteristics and Conditions of Formation of the Productive Stratum of the Donbass." Min Higher Education USSR. Novocherkassk Polytechnic Inst imeni S. Ordzhonikidze. Novocherkassk, 1956. (Dissertation for the Degree of Candidate in Geologicomineralogical Science)

So: Knizhnaya Letopis', No. 19, 1956.

15-57-7-9309

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 80 (USSR)

AUTHOR: Nyrkov, A. A.

TITLE: The Mineral Composition of the Mudstones of the Donbass (Mineralogicheskiy sostav argillitov Donbassa)

PERIODICAL: V sb: Vopr. mineralogii osadoch. obrazovaniy, Nr 3-4, L'vov, L'vovsk. un-t, 1956, pp 315-325

ABSTRACT: More than 60 core samples from Middle Carboniferous rocks of the Donbass were studied by thermal, chemical, X-ray, microscopic, and other methods. This study established the fact that the principal rock-forming mineral in the mudstones in these samples is hydromica. Certain facies changes were observed in the composition of the hydromica. The hydromicas of marine clays were enriched by alkalies, but continental and transitional mudstones contain hydromicas that are commonly poor in alkalies. Other clay minerals in the mudstones do not exceed 10 percent of the total. Among these, kaolin

Card 1/2

The Mineral Composition of the Mudstones (Cont.)

was identified in all facies, but minerals of the montmorillonite group were not detected in the continental facies.

Card 2/2

V. G. Rikhter

15-1957-10-13971

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, p 91 (USSR)

AUTHOR: Lazarev, V. S., Radushev, V. I., Nyrkov, A. A.

TITLE: The Problem of the Mineralogy of the Roof and Floor Rocks of the Coal Layers in the Donbass (Donets Basin) (K voprosu o mineralogicheskom sostave krovli i podoshvy ugol'nykh plastov Donbassa)

PERIODICAL: Vopr. mineralogii osadoch. obrazovaniy. Books 3-4. L'vov, L'vovsk. un-t, 1956, pp 337-344

ABSTRACT: The mineralogy of the roof and floor rocks of a number of Middle Carboniferous coal beds has been studied by X-ray methods, by thermal and chemical analyses, and by means of the microscope. The samples for study were taken from mines in the Ukrainian Donbass and from drill holes in the Rostovskaya oblast'. The chief rock-forming mineral in the argillites next to the coal is hydromica of the illite type. Less abundant minerals are kaolinite, montmorillonite, beidellite,

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The Problem of the Mineralogy of the Roof and Floor Rocks of the Coal Layers in the Donbass (Donets Basin) 15-1957-10-13971

monothermite, pyrophyllite, dispersed quartz, gibbsite, and nontronite. The hydromicas of the illite type consistently show endothermic reactions at 120° to 180° and 540° to 560° on all the thermal curves. Depending on the ratio of RO to R_2O_3, illites may be subdivided into alkaline--$RO:R_2O_3 < 0.15$, normal--$RO:R_2O_3 = 0.15-0.70$, and alkaline earth--$RO:R_2C_3 > 0.70$. It was ascertained that alkaline-earth illite is confined to the roof rocks, alkaline illite to the coal beds. Normal illite is present both in the roof rocks and in the floor rocks. Nontronite, pyrophyllite, and monothermite were discovered only in soil from the coal beds. Non-clay minerals in the argillites are present in insignificant quantities and do not differ in composition from those in other clastic rocks of the Donbass. In order to solve the problem of the facies conditions of accumulation of the roof rocks and floor rocks of the coal beds, it is necessary to make broader studies of the mineral composition of the argillaceous rocks enclosing the coal layers.

Card 2/2

Ye. V. Ostrovskaya

NYRKOV, A.A.

Calculation errors in crystallochemical formulas. Zap. Vses. min. ob-va 86 no.4:516-517 '57. (MIRA 11:1)

1.Novocherkasskiy politekhnicheskiy institut.
(Crystallochemistry)

NYRKOV, A.A.; KOBILEV, A.G.

Use of diagenetic products for facies analysis as exemplified by Donets Basin argillites. Izv. vys. ucheb. zav.; geol. i razv. 2 no.7:37-42 Jl '59 (MIRA 13:3)

1. Novocherkasskiy politekhnicheskiy institut.
(Donets Basin--Argillite)

MYRKOV, A.A.

"Sulunite," a new mineral of the ferruginous chlorite group.
Zap. Vses. min. ob-va 88 no.5:571-577 '59.
(MIRA 13:2)

(Donets Basin--Chlorites)

NYRKOV, A.A.

Thermal study of hauerite. Min.sbor. no.14:362-366 '60.
(MIRA 15:2)

1. Politekhnicheskiy institut imeni Sergo Ordzhonikidze, Novocherkassk.
(Raddusa--Hauerite)

S/081/63/000/003/010/036
B144/B186

AUTHORS: Nyrkov, A. A., Kobilev, A. G.

TITLE: Thermal analysis of zeolites

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 155, abstract 3E35 (Tr. 6-go Soveshchaniya po eksperim. i. tekhn. mineralogii i petrogr., 1961. M., AN SSSR 1962, 152-158)

TEXT: The results are given of differential thermal analysis, dynamic dehydration, and chemical analysis of some zeolites (I). The conversion products were studied by x-ray analysis and optically. The investigation covered chabazite, heulandite, desmine, thomsonite, harmotome, mesolite, and natrolite. The dependence was studied of the temperature of the exothermic reaction on the Si:Al ratio. On dehydrogenation, I (with the exception of chabazite), heated to >730°C, lost their crystalline structure and became roentgenologically amorphous and optically isotropic. A temperature increase brought about the formation of a crystalline phase (nephelite for soda-I and basic plagioclase for calcium-I). Heating of I containing mainly barium to

Card 1/2

Thermal analysis of zeolites

740°C led to the new formation of hyalophane and barbterite. The results of the differential thermal analysis show that in some I the water separates in several stages; this confirms the opinion as to the non-uniform character of water in I. [Abstracter's note: Complete translation.]

NYRKOV, A.A.

Methods for calculating the crystallochemical formulas of hydromicas. Min. sbor. no.15:386-395 '61. (MIRA 15:6)

1. Politekhnicheskiy institut, Novocherkassk.
(Hydromica—Analysis)

NYRKOV, A.A.

More about the "sudunite." Zap.Vses.min.ob-va 90 no.3:354-355 '61.
(MIRA 14:10)

(Chlorites)

NYRKOV, A.A.

Role of hydromicas in the earth's crust and some problems of their systematics and nomenclature. Izv. AN SSSR. Ser.geol. 27 no.12:95-101 D '62. (MIRA 16:2)

1. Novocherkasskiy politekhnicheskiy institut.
(Hydromica—Nomenclature)

NYRKOV, A.A.

Siliceous concretions in the Lower Jurassic terrigenous sediments of the eastern Caucasus. Lit. i pol. iskop. no.2: 147-149 Mr-Ap '64. (MIRA 17:6)

1. Novocherkasskiy politekhnicheskiy institut.

NYRKOV, D.

At the Bugul'ma Grain Elevator. Muk.-elev.prom. 25 no.2:23-24 F '59. (MIRA 12:4)

1. Direktor Bugul'minskogo elevatora Tatarskogo upravleniya khleboproduktov.
(Bugul'ma--Grain elevators)

NYRKOV, S. V.

NYRKOV, S. V.

Some problems in developing the productive forces of Western Siberia. Izv.vost.fil. AN SSSR no.2:9-15 '57. (MLRA 10:9)

1. Zapadno-Sibirskiy filial Akademii nauk SSSR.
(Siberia, Western--Natural resources)

NIRKOV, S.V.; MEKKEL', S.A.; TARASENKO, M.L.

[Advanced technology of the Kuznetsk Basin mines and its efficient utilization; on the practiceof mines working flat and inclined seams]Peredovaia tekhnika na shakhtakh Kuzbassa i voprosy ee ratsional'nogo ispol'zovaniia; po dannym o rabote shakht, razrabatyvaiushchikh pologie i naklonnye plasty. Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1958. 85 p.
(MIRA 15:9)
(Kuznetsk Basin--Coal mines and mining)

L 37641-66

ACC NR: AP6021824 SOURCE CODE: UR/0413/66/000/012/0120/0120

INVENTOR: Akhromeyev, Zh. P.; Nyrkov, V. I.

ORG: none

TITLE: Device for the hermetic joining of two pipelines. Class 47, No. 182988

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 120

TOPIC TAGS: pipeline, hermetic seal

ABSTRACT: An Author Certificate has been issued for a device for joining two pipelines hermetically, which is made in the form of nipples fastened to the pipelines

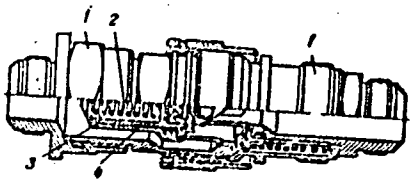

Fig. 1. Device for the hermetic joining of two pipelines

1 - Nipples; 2 - hermetic chamber; 3 - cylinder; 4 - shut-off valve rod.

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UDC: 621.643.416

L 37641-66
ACC NR: AP6021824

and outfitted with built-in shut-off valves having springs for closing off the pipelines when disassembled and connected with each other by a swing nut (see Fig. 1). To relieve internal pressure on the thread, one of the nipples has a pressure-release chamber, which is enclosed by a cylinder and a shut-off valve rod coaxial to the nipple housing. To assure the nipples' hermetic seal, W-shaped grooves containing vulcanized rubber. Orig. art. has: 1 figure. [WH]

SUB CODE: 13/ SUBM DATE: 27May64/ ATD PRESS: 5048

Card 2/2 vmb

NYRKOV, Ye.S.

Calculating the puncture strength of joints for high-tension cables having viscous impregnation. Trudy MEI no.28:205-223 '56.
(Electric cables) (MLRA 10:6)

NYRKOV, YE. S. Cand Tech Sci -- (diss) "Calculation of the disruptive strength of connectors of the high-voltage cable having viscid soaking." Mos, 1957 20 pp with charts 20 cm. (Min of Higher Education USSR. Moscow Order of Lenin Power Inst im V.I. Molotov. Dept of Electrotechnical Materials and Cables), 100 copies

(KL, 21-57, 102)

24(3) SOV/161-58-3-8/27

AUTHOR: Nyrkov, Ye. S., Candidate of Technical Sciences, Assistant (Moscow)

TITLE: Calculation of the Insulation of Coupling by Using Maxwell's Theory of the Model of the Condenser (Raschet podmotki muft pri primenenii teorii modeli kondensatora Maksvella)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Elektromekhanika i avtomatika, 1958, Nr 3, pp 65-77 (USSR)

ABSTRACT: Calculation of this coupling is carried out by means of an approximation method. For the purpose of calculating voltages on the surface the theory of the Maxwell-condenser may be employed. This condenser is a unilaterally limited infinitely extended disk condenser, which is shown by figure 1 with potential- and field lines in the Cartesian system of coordinates. In formula (1) the relation between Cartesian coordinates and the parameters of the potential- and field lines is written down. In formulas (2), (3), and (4) the voltage, as well as the radial and longitudinal components are given. Two diagrams (Figs 2, 3) are a graphical representation of voltage conditions. Furthermore, conical reinforcements of a condenser are investigated, which are developed according to an arbitrary equi-

Card 1/2

potential surface of the Maxwell condenser (Fig 4). Two methods are given for the linking of the plane with the profiled part, and by way of examples, several profiles are shown which were determined according to the first method. (Figs 5, 6, 7). The formulas for the calculation of the insulating winding (podmotki) are then developed for two different conditions, and finally annular protective rings are investigated. An example is given (Figs 8, 9). There are 9 figures and 4 references, 2 of which are Soviet.

This article was recommended for publication by the Kafedra elektrotekhnicheskikh materialov i kabeley Moskovskogo energeticheskogo instituta (Chair for Electrotechnical Materials and Cables at the Moscow Institute of Power Engineering)

ASSOCIATION: Kafedra elektrotekhnicheskikh materialov i kabeley Moskovskogo energeticheskogo instituta (Chair for Electrotechnical Materials and Cables at the Moscow Institute of Power Engineering)

SUBMITTED: January 10, 1958

8(2)

AUTHORS: Bragin, Sergey Mikhaylovich, Doctor of Technical Sciences, Professor, Nyrkov, Yevgeniy Semenovich, Candidate of Technical Sciences, Assistant

SOV/161-58-4-23/28

TITLE: Discharge Voltage on the Surface of the Insulation (Razryadnoye napryazheniye po poverkhnosti izolyatsii)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Elektromekhanika i avtomatika, 1958, Nr 4, pp 188 - 201 (USSR)

ABSTRACT: The experiments described here were carried out on models of cables in order to determine the dependence of the breakdown-voltage on the dimensions of the model and the picture of the electric field at the model end (external zone effect). The cable model consisted of a brass tube on which was wound a paper insulation. The model was boiled in the MP-1 impregnating compound and a tinfoil electrode which was earthed during experiments, was wound on the model. To increase the break-down voltage U_b of these cable models with a length of up to 500 mm, the following means were examined: Semi-conductor paper beneath the tinfoil cover, additional windings at the sample ends, additional windings on tinfoil cover ends. The results are shown in the diagrams of figures 1, 2 and 3. The results of the

Card 1/3

examination of the dependence of the breakdown voltage on the discharge length, the thickness of the insulation and the cable core radius of the cable model, are shown as diagrams in figures 4 and 5. These indicate that U_b increases with the increase of the discharge length, the insulation thickness and the decrease of the cable core radius. This relation is shown as the equation (1). The influence of the bevel at the cable end on U_b has been examined. The experiments showed that the increase in the length of the bevel reduces the breakdown voltage at a constant discharge-length. The experiments showed further that U_b decreases with the increase of the cable core length and the cable core radius. The conformities during the breakdown of oilfilms in the insulation were determined. The experiments (Table 3) showed that, when additional windings are missing, and during experiments in air, the breakdown voltage is lower than with an oilfilm. The experiments proved that the discharge voltage increases proportionally with the root of the discharge length. It has been determined that generally the breakdown voltage can be shown by the empiric equation (3). Finally, the conformities during the flash-over on blank cable ends are shown. Based on the experimental

data obtained here and by other authors, the experimentally obtained relations were compared with those computed from known equations. These were the equations by Tepler, M. I. Mantrov, the empiric equation of the authors (Ref 4) and the empiric equations (7) and (8) of the authors. Based on these comparisons, the following was established: The U_b curve in dependence on the discharge-length during the experiment in air can be determined according to equation (8) for two experimental conditions: a discharge-length is larger than the critical one, or equal to it. The U_b of the oilfilm between the surfaces can be determined according to equation (3). The value K_{film} contained in this equation (reduced discharge-voltage of the film on the respective surface) can be assumed for cable paper as follows (Ref 6): For a film between smooth surfaces - 8-13.5, for a film between unsmooth surfaces - 16-22, and for a film with smooth surface of the insulation and an unsmooth additional winding - 14-18. There are 9 figures, 4 tables, and 7 references, 5 of which are Soviet.

ASSOCIATION: Kafedra elektrotekhnicheskikh materialov i kabeley Moskovskogo energeticheskogo instituta (Chair for Electrical Materials and Cables at the Moscow Institute of Power Engineering)

SUBMITTED: May 16, 1958

8(2)

AUTHOR: Myrkov, Yevgeniy Semenovich, Candidate of Technical Sciences, Assistant

SOV/161-58-4-24/28

TITLE: On Calculating the Diameter of the Wrapping of the Joint-boxes of a Single-core Cable (K raschetu diametra podmotki soyedinitel'nykh muft odnozhil'nogo kabelya)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Elektromekhanika i avtomatika, 1958, Nr 4, pp 202 - 216 (USSR)

ABSTRACT: The designs of the joint-boxes of three-core high-tension cables are very similar and differ only inasmuch as the three single-phase joints of the three-phase cable are provided with a humidity protection coat. At first, the type-design of a joint-box is shown and described in figure 1. The characteristic of the built joint-box design is shown next. The construction data of the various joint-boxes of the USSR and the USA (Refs 1, 2) are given in (Table 1). The known methods for calculating a joint-box are shown, that is the calculating of the wrapping diameter on joints with a continuous shielding and of that on joints with a ring-type shielding. The calculation of the wrapping diameter is given next, based on experimentally obtained relations during breakdown (Ref 5). The conformities for the breakdown of the cable insulation and that of

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the joint, and the relevant equations (20), (21) and (22) are shown. These conformities serve as a basis for the calculation of the wrapping diameter. The calculation on the basis of an example is shown in the appendix. There are 6 figures, 6 tables, and 5 references, 3 of which are Soviet.

ASSOCIATION: Kafedra elektrotekhnicheskikh materialov i kabeley Moskovskogo energeticheskogo instituta (Chair for Electrical Materials and Cables at the Moscow Institute of Power Engineering)

SUBMITTED: May 16, 1958

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PRIVEZENTSEV, Vladimir Alekseyevich; ANISIMOV, B.V., inzh., retsenzent; TROITSKIY, I.D., kand.tekhn.nauk, retsenzent; MYRKOV, Ye.S., kand.tekhn.nauk, retsenzent; LINKOV, A.V., inzh., red.; MATVEYEV, G.I., tekhn.red.

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