

SOMOVA, L.

Strengthen the financial service in enterprises: The plant and its
finances. Fin.SSSR 38 no.2:61-65 F '64. (MIRA 17:2)

1. Nachal'nik finansovo-sbytovogo otдела Baltiyskogo sudostroitel'nogo
zavoda Soveta narodnogo khozyaystva Litovskoy SSR.

SOMOVA, M.

Activist group of a trade union. Sov. profsoliuzy 17 no.21:
28-30 N '61. (MIRA 14:10)

1. Profgruporg brigady kommunisticheskogo truda zavoda
"Moskabel'".

(Moscow—Trade unions)

SOMOVA, N. M. --

"The Agglutination Reaction in Tuberculosis." Cand Med
Sci, First Leningrad State Medical Inst, Leningrad, 1953.
(RZhBiol, No 2, Sep 54)

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

SO: Sum. No. 481, 5 May 55

SOMOVA, N.M. (Leningrad); GERASIMOVA, N.F. (Leningrad).

Practical application of the bacteriologic method in the diagnosis of tuberculosis. Klin.med. 31 no.12:19-23 D '53. (MIRA 7:1)

1. Iz kafedry mikrobiologii (zaveduyushchiy - professor V.N. Kosmodamianskiy) i Leningradskogo meditsinskogo instituta im. akad. I.P.Pavlova i bakteriologicheskoy laboratorii (zaveduyushchiy N.F.Gerasimova) Klinicheskoy bol'nitsy im. F.F.Eresmana.
(Tuberculosis--Diagnosis)

SOMOVA, N.M., SERGEYEVA, N.A.

Pathogenic microflora in rodents found in a harbor area. Zhur.
mikrobiol.epid. i immun. 28 no.9:123-128 S '57. (MIRA 10:12)

1. Iz Leningradskoy protivokhuzhnykh laboratorii Ministerstva zdoravo-
okhraneniya SSSR.

(RODENTS,

pathogenic microorganisms isolated from various animals
found in harbor area (Rus))

SOV/16-59-6-19/46

17(2,6)

AUTHORS: Sergeyeva, N.A., Somova, N.M. and Gur'yanova, L.I.

TITLE: The Pathogenic Microflora of Rodents, Obtained From the Leningrad Merchant Port. II.

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, Nr 6, 30
pp 91-95 (RUSP)

ABSTRACT: A systematic study of rodents captured in the Leningrad dock area revealed, among other pathogenic microbes, many strains of Erysipelothrix rhusiopathiae. N.G. Olsuf'yev, Ye.M. Tsvetkova, Danayeva, G.D. Vilyavin and N.I. Kratokhvil' have also shown that these bacteria may be found in rodents and other small animals. V.K. Stefanskiy and A.A. Grinfel'd described 35 cases of erysipeloid among workers in Odessa Fish Plants. P. Svintsov, G.I. Rozhkov, I.S. Gil'man, P.N. Slipenko and A.I. Brind noted cases of erysipelas among veterinary workers and workers in the meat industry. In the present study rodents (mostly grey and black rats) were captured from all parts of the dock area and dock installations. Animals infected with Erysipelothrix rhusiopathiae were found only in the Kleyevoy zavod (Glue Plant), the

Card 1/2

SOV/16-59-6-19/46

The Pathogenic Microflora of Rodents, Obtained From the Leningrad Merchant Port, II.

storages and port refrigerator section. Epidemiological study revealed a connection between the infected rodents and the incidence of erysipelas among workers in the storehouses, refrigerator section, glue plant, etc. There are: 15 Soviet references and 1 table.

ASSOCIATION: Leningradskaya protivochumnaya portovaya i gorodskaya nablyudatel'naya stantsiya (Leningrad Port and City Anti-plague Observation Station).

SUBMITTED: May 21, 1958

Card 2/2

ANDREYEVA, A.P.; BAKULINA, L.I.; GREENCHUK, A.I.; GUR'YANOVA, L.I.;
PUN'KO, T.A.; SUMOVA, N.M.; YUDINOVA, P.V.

Microflora of rodents in Leningrad. Report No.2. Zhur. mikrobiol.,
epid. i immun. 32 no.9:133-134 S 61. (MIRA 15'2)

1. Iz Leningradskoy protivochumnoy portovoy i gorodskoy nablyudatel'noy
stantsii.

(LENINGRAD RODENTIA MICROBIOLOGY)

L 54949-65 EWT(1)/EWA(j)/T/EWA(b)-2 BW/JK

ACCESSION NR: AP5014288

UR/0016/65/000/006/0043/0047
616.981.49-022.39(471.23-2)

28
24
B

AUTHOR: Grebenchuk, A. I.; Bakulina, L. I.; Vashchenok, G. I.; Somova, N. M.;
Pun'ko, T. A.; Andreyeva, A. P.; Yudinova, P. V.; Bartasheva, V. A.; Balabonova,
L. S.

TITLE: Salmonellosis in rodents in Leningrad

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 6, 1965, 43-47

TOPIC TAGS: salmonella, rodent carrier, disease control

ABSTRACT: Approximately 46,000 rodents were examined in a study of salmonellosis in rodents in Leningrad in 1960-1962. These included 36,000 gray rats, 850 black rats, 6100 house mice, and 2700 other murine rodents (9 species). The rodents were caught in various food establishments, apartments, etc. in the city and suburbs. 301 serological types of salmonella were isolated from this material; 151 were typed as Isachenko-Danich organisms; the remainder were distributed among 18 serological types from the B, C, D, E, and F groups. All but one of the latter were isolated from the organs of the gray rats and house mice, a matter of epidemiological in-

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L 54949-65

ACCESSION NR: AP5014288

terest because these rodents belong to synanthropic species. No salmonellas were isolated from rodents caught in open places such as gardens, parks, and cemeteries. Most of the types (32%) were isolated during warm weather, 14% in the fall. The commonest of the salmonellas isolated from the rodents were *S. enteritidis* (42%) and *B. typhimurium* (40%); *S. suispestifer*, *S. paratyphi C*, and others were rarer. The types of salmonellas (15) isolated from the rodents were also isolated from sick persons during the same period. The percentage of the various types isolated from man was about the same as in the rodents. Orig, art. has: 3 tables.

ASSOCIATION: Leningradskaya protivochumnyaya stantsiya i gorodskaya nablyudatel'naya stantsiya (Leningrad Port and Municipal Plague Observation Station);
Leningradskaya sanitarno-epidemiologicheskaya stantsiya (Leningrad Sanitary-Epidemiological Station)

SUBMITTED: 26Feb64

ENCL: 00

SUB CODE: LS

NO REF SOV: 007

OTHER: 000

Card 2/2

SEREBROVSKIY, Valeriy Borisovich; GORELOVA, V.M., inzh., red.;
SOMOVA, T.M., inzh., ved. red.; GUDINA, N.A., tekhn.red.

[Surface quality of machine parts] Kachestvo poverkhnosti detalei mashin. Izd.4. Pod red. Gorelova V.M. Moskva, Mashgiz, 1962. 51 p. (Nauchno-populiarnaya biblioteka rabochego-stanochnika, no.8) (MIRA 16:6)

(Mechanical engineering)
(Surfaces (Technology))

PETRIK, M.I.; SHALIN, G.M., inzh., retsenzent; SOMOVA, T.M., inzh.,
ved. red.; CHURMANOVA, V.V., tekhn. red.

[Precise adjustment of machine-tool brackets] Pretsizionnye
nastroiki gitar stankov; spravochnoe posobie. Moskva, Mash-
giz, 1963. 152 p. (MIRA 16:7)

(Machine tools)

GUBERGITS, A.Ya., prof., zasl. deyatel' nauki Udmurtskoy Avtonomnoy SSR, otv. red.; VORONCHIKHIN, S.T., zasl. deyatel' nauki Udmurtskoy Avtonomnoy SSR, red.; GAZIZOV, A.M., red.; ZARAYCHAYA, A.A., red.; MAMAYEV, A.N., red.; ORESEKOV, T.M., zasl. vrach Udmurtskoy Avtonomnoy SSR, red.; ODIYANKOV, G.A., red.; RUPASOV, N.F., red.; SOROVA, V.I., red.; KOREPANOVA, L.V., red.; MASHAGATOV, V.F., kand. med. nauk, red.; VORONTSOVA, Z.Z., tekhn. red.

[Problems in the pathology of the biliary tract; collected scientific works of the First Republic Clinical Hospital] Voprosy patologii zhelchnykh putei; sbornik nauchnykh trudov 1-i Respublikanskoy klinicheskoy bol'nitsy. Izhevsk, Udmurtskoe knizhnoe izd-vo, 1960. 222 p. (MIRA 15:3)

1. Zaveduyushchiy terapevticheskimi klinikami Izhevskogo meditsinskogo instituta (for Gubergits). 2. Terapevticheskaya klinika Izhevskogo meditsinskogo instituta (for Oreshkov, Mashagatov). 3. Zaveduyushchiy fakul'tetom khirurgicheskoy kliniki Izhevskogo meditsinskogo instituta 1-oy Respublikanskoy klinicheskoy bol'nitsy Ministerstva zdravookhraneniya Udmurtskoy Avtonomnoy SSR (for Voronchikhin). 4. Fakul'tet khirurgicheskoy kliniki Izhevskogo meditsinskogo instituta 1-oy Respublikanskoy klinicheskoy bol'nitsy Ministerstva zdravookhraneniya Udmurtskoy Avtonomnoy SSR (for Odiyankov).

(BILIARY TRACT--DISEASES)

ZVYAGIN, L.M., kandidat meditsinskikh nauk; GIRSHOVICH, E.A.; ~~SOMOVA, V.V.~~

Transfusion of N.G. Belen'kii's therapeutic serum in insufficient lactation. Akush. i gin. no.3:51-54 My-Je '55 (MLRA 8:10)

1. Iz gosspital'noy khirurgicheskoy kliniki (zav. kafedroy-prof. F.G.Uglov) i akushersko-ginekologicheskoy kliniki (zav.kafedroy-prof. I.I.Yakovlev) i Leningradskogo meditsinskogo i stituta ineni akad. I.P.Pavlova)

(LACTATION DISORDERS

hypogalactia, ther.,serum of Belen'kii)

(BLOOD SERUM

serum of Belen'kii in ther. of hypogalactia)

SOMOVA, Yo.

Consolidated indices for establishing estimates in planning
assignment. Shakht. stroi. no.8:31-32 Ag '58. (MIRA 11:9)
(Mining engineering—Estimates and costs)

BUTOMO, D.G.; ZAMOTORIN, M.I.; ZEDIN, N.I.; SOMOVA, Ye.P.

Earing of copper strip. TSvet. met. 36 no.7:77-81 J1 '63.
(MIRA 16:8)
(Copper) (Rolling (Metalwork))

30000, 1.1.

(Changes in hemopoiesis in anaphylaxis. Pat.fiziol.i eksp.terap.
9 no.4:82-85 J1-Ag '65. (MIRA 18:9)

1. Kafedra patologicheskoy fiziologii (zav. - prof. S.M.Pavlenko)
Leningovskogo ordena Lenina meditsinskogo instituta imeni I.M.
Sechenova.

SOMOVA, Ye.P.

Picture of hepatic and splenic punctates during changes
in the immunological reactivity of the body. Zhur.mikrobiol.,
epid. i immun. 42 no.10:14-19 0 '65.

(MIRA 18:11)

1. I Moskovskiy ordena Lenina meditsinskoy institut imeni
I.M.Sechenova. Submitted July 24, 1964.

SOMOWA, E.

Economic problems of the Central Administration of Steel Construction on the basis of its activities. (To be contd)

p. 5 (Budownictwo Przemyslowe) Vol. 4, no. 2, Feb. 1955, Warszawa, Poland

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

SOMONA, E.

Economic problems of the Central Administration of Steel Construction on the basis of its activities. (Conclusion)

p. 15 (Budownictwo Przemyslowe) Vol. 4, no. 3, Mar. 1955, Warszawa, Poland

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

RUMANIA/Nuclear Physics - Installations and Instruments.
Methods of Measurement and Research

C

Abt Jour : Ref Zhur Fizika, No 8, 1959, 1721

Author : Alper, S., Auelander, J., Bergen, D., Friedlander, E.,
Schnyri, A.

Inst : *Institute of Atomic Physics, Bucharest, Rumania,
as Institute Central Research for Physics, Budapest,
Hungary

Title : Research in Identification of Muon-stopped Particles in
Nuclear Emulsions. I. Determination of Ionization Range
from the Average Characteristic Quantities in Two
Segments of the Track

Orig Pub : Studii si Cercetari fiz. Acad. RPR, 1959, 9, No 2, 105-
109

Abstract : The authors have measured multiple scattering and the
Chad 1/2

number of gaps in 20 tracks of protons, pions, and muons,
at definite distances from the end of the ionization range.
It was found that only in the cases of long tracks
it is possible to establish, with statistical reliability,
that the residual ionization range differs from zero.

Chad 2/2

- 18 -

SOMR, J.

"The amateur making of a 1.1 cubic centimeter combustion motor."

p. 158 (Letecký Modelář) Vol. 8, no. 7, July 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

SOMS, M.K.

Apparatus for continuous local anesthesia. Med.prom. 12 no.7:55-57
J1'58 (MIRA 11:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskogo
instrumentariya i oborudovaniya.
(LOCAL ANESTHESIA)
(MEDICAL INSTRUMENTS AND APPARATUS)

SAVACHENKO, Rakhil' Ipat'yevna; inzh.; MASTRYUKOV, Vladimir Aleksandrovich,
klinitsist-khirurg. Prinimel uchastiye SOMS, M.K. KAZNIN, V.P.,
red.; LYUDKOVSKAYA, N.I., tekhn.red.

[Manual on apparatus used for inhalation anesthesia] Rukovodstvo
po apparature dlia ingaliatsionnogo narkoza. Moskva, Gos.izd-vo
med.lit-ry Medgiz, 1960. 158 p. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskogo
instrumentariya i oborudovaniya (for Savachenko).
(ANESTHESIOLOGY--EQUIPMENT AND SUPPLIES)

GAL'PERIN, Yu.S.; SOMS, M.K.; YUREVICH, V.M.

New Soviet apparatus RN-59 for artificial respiration during
anesthesia. Khirurgia 36 no.7:139-142 Je '60. (MIRA 13:12)
(RESPIRATORS)

BELILOVSKIY, M.A.; GAL'PERIN, Yu.Sh.; SOMS, M.K.

Analysis of activating devices used in biologically controlled
artificial respiration. Nov. med. tekhn. no.3:125-133 '65.
(MIRA 19:1)

L 31983-66

ACC NR: AP6005338

SOURCE CODE: UR/0413/66/000/001/0080/0080

INVENTOR: Gal'perin, Yu. Sh.; Soms, M. K.; Bardiye, N. M.; Gorlin, I. M.

ORG: None

TITLE: Artificial respiration equipment. Class 30, No. 177597 [announced by the All-Union Scientific Research Institute for Medical Instrument and Equipment (Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskikh instrumentov i oborudovaniya)]

SOURCE: Izobreteniya, promyshlennyye obrastay, tovarnyye znaki, no. 1, 1966, 80

TOPIC TAGS: artificial respiration, respiration equipment, respiration device

ABSTRACT: An Author Certificate has been issued for an artificial respiration device containing a power-operated blower, a membrane box, inspiration and expiration bellows, a humidifier-heater, a dosimeter kit with an elastic bag, and a system of tubing complete with cocks and valves. To perform supplementary respiration as well as artificial respiration with active inspiration and passive expiration, the membrane box is equipped with a contact device for control, when the patient attempts to breathe, an electromagnetic valve in the suction line of the blower, and a cock which will take the patient off the expiration bellows and simultaneously connect it with the atmosphere. To simplify the set-up procedure for specific operating

Card 1/2

UDC: 615.816-78

SUB CODE: 00/ 0000

Card 2/2 LC

ACC NR: AP7002596 (A,N) SOURCE CODE: UR/0413/66/000/023/0102/0102

INVENTOR: Soms, M.K.; Krishtul, I.B.; Polyakov, V.I.; Dmitriyev, V.N.; Gradetskiy, V.G.

ORG: none

TITLE: Pneumatic time relay. Class 42, No. 189234 [announced by All-union Scientific Research Institute of Medical Instruments and Equipment (Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskikh instrumentov i oborudovaniya); Institute of Automation and Telemechanics AN SSSR (institut avtomatiki i telemekhaniki AN SSSR)]
(TEKHNIЧЕСКОЕ УПРАВЛЕНИЕ)

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 102

TOPIC TAGS: pneumatic device, pneumatic control, automatic pneumatic control, TIME RELAY, TIME SWITCH

ABSTRACT: An Author Certificate has been issued for the pneumatic time relay shown in Fig. 1. To provide independent fine control of switching time the receiving nozzle of the jet unit is connected through uncontrolled resistance to the dead-end chamber, one end of which forms a diaphragm.

Card 1/2

UDC: 681.118.5-525

ACC NR: AP7002596

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652410017-4"

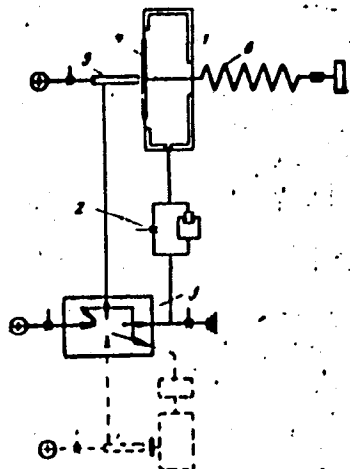


Fig. 1. Pneumatic time relay

1 - Dead-end chamber; 2 - uncontrolled resistance; 3 - jet unit; 4 - flapper; 5 - nozzle; 6 - controlled spring.

This diaphragm acts as the flapper of the switching unit and is coupled with a controlling spring. The switching unit nozzle is connected to the control line of the jet-unit. [WP]

SUB CODE: 13/ SUBM DATE: 14Dec65/ ATD PRESS: 5114

Card 2/2

TURCHINS, Ya.B., otv. red.; PURIN, V.R., kand. ekon. nauk, red.; TUMSHEVITS, V.F., kand. ekon. nauk, red.; SOMS, R.V., red.; TEYTEL'BAUM, A., red.; LEVI, S., red.; PILADZE, Ye., tekhn. red.

[Developing the national economy of the Latvian S.S.R.] Razvitie narodnogo khoziaistva Latviiskoi SSR; sbornik statei. Riga, Izd-vo Akad. nauk Latviiskoi SSR, 1961. 461 p. (MIRA 14:11)

1. Latvijas Padomju Sotsialistiskas Republikas zinatnu akademiya. Ekonomikas institut.

(Latvia—Economic conditions)

SCHE, D.

First joys. p. 8. Aripile Patriei. Bucuresti. Vol. 1, No. 8, Aug. 1955.

SOURCE: East European Accessions List (EEAL), LC. Vol. 5, No. 3, March 1956.

SCMUZ, D.

SCMUZ, D. The fighter. p. 10

Vol. 4, no. 9. Sept, 1955

ARIPIL PATRIEL

TECHNOLOGY

Bucuresti

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), IC, VOL. 4. no. 9,
Sept. 1955, Uncl.

SOMIZ D.

The Pursuit Plane. Aripile Patriei (The Wings of the Fatherland),
#5:10:May 55

SONZ, D.

Young Parachutists (Teen Age Parachutists). Arnaldo Patrici (The Wings of the
Fatherland), #6:27:June 55

S'OMYK, P.M.

High rewards obligs. Mekh.sil'.hosp. 9 no.12:3-4 D '58.
(MIRA 12:1)

1. Zamestitel' zaveduyushchego sel'skokhozyaystvennym otdelom
TSentral'nogo komiteta kommunisticheskoy partii Ukrainy.
(Ukraine--Repair and supply stations)

SAVIN, D.K., nauchn. sotr.; FRANKOVSKIY, TS.F., nauchn. sotr.;
NAURUZBAYEV, S.K., nauchn. sotr.; SON, I.E., nauchn.
sotr.; SUSLIN, V.D., nauchn. sotr.; MARTYUSHEV, Ye.D.,
nauchn. sotr.; ORLOVSKAYA, A., red.; YEGOROVA, V., red.

[Mechanization of livestock feeding] Mekhanizatsiya ot-
korma skota. Alma-Ata, Kainar, 1965. 237 p.

(MIRA 18:7)

1. Kazakhskaya Akademiya sel'skokhozyaystvennykh nauk.
Nauchno-issledovatel'skiy institut mekhanizatsii i
elektrifikatsii sel'skogo khozyaystva. 2. Kazakhskiy
nauchno-issledovatel'skiy institut mekhanizatsii i
elektrifikatsii sel'skogo khozyaystva (for all except
Orlovskaya, Yegorova).

SON, V.M.

Propagation of short pulses in 1-type coaxial cable lines. Trudy
ustab. inst. fiz. sr. 16:87-93 '63. (MIRA 17:10)

L. Leningradskiy elektrotekhnicheskiy institut svyazi im. prof.
M.A. Bonch-Bruyevich.

SONYOI, B.; NAGY, I.

The National Championship of Parachutists; in place of a report. p. 8
Vol. 9, No. 10, Oct, 1956.

SOURCE: East European List, (EEAL) Library of Congress Vol. 6, No. 1
January 1956.

BUSILA, V.T.; POP, O.; VASILESCU, I.; TOPCIU, VI.; POPIAN, R.; CUCURUZ, L.;
ALEXANDRESCU, R.; ISACSON, I.; SON, C.; CRAVCEVSCHI, V.; ZILBERMAN, L.;
FITARAU, A.; JICMAN, M.

Clinical study of leptospirosis. Stud. cercet. inframicrobiol., Bucur.
8 no.2:259-280 1957.

1. Comunicare prezentata la Institutul de inframicrobiologie al
Academiei R.P.R. in sedinta din 5 martie 1956.

(LEPTOSPIROSIS

pathol. & epidemiol. of L. pomona, L. canicola & other
leptospiral infect. in Rumania, case reports & review)

SON, Yu.A.; SEMENOVA, L.M.

Instruments for measuring the pitch of precision gears. Stan. 1 instr.
30 no.2:23-24 F '59. (MIRA 12:3)
(Measuring instruments) (Gear cutting)

CZECHOSLOVAKIA/Allergy

U-2

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 27613

Author : Brozman, M., Sonak, R.

Inst : Not Given

Title : The Change in the Course of Arthus Phenomenon and in Precipitins' Titer During Drug Induced Sleep.

Orig Pub : Bratisl. lek. listy, 1956, 1, No 9, 513-523.

Abstract : The rabbits' light sleep that had been induced by urethan and medinal failed to change the course of Arthus phenomenon (AP) or the titer of precipitins (TP). Deep sleep was accompanied by depressed AP and a lowered TP for 3 days. When a toxic dosage of hypnotics was given no depression of AP and TP was observed.

Card : 1/1

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SONAK, R.

Demonstration of stimulated antibody formation in organs of sensitized animals by means of serological methods. Cas.lek.cesk 99 no.49:1337-1344 2 D '60.

1. MHES, Bratislava, riaditel MUDr. Frantisek Lacko.

(ANTIGENS ANTIBODY REACTION)

KOLLAROVA, K.; SONAK, R.

Treatment of allergic diseases with auto-vaccines. Bratisl. lek.
listy 42 no.1:36-43 '62.

1. Z alergologickeho oddelenia FN v Bratislave, prednostka MUDr.
F. Kollarova, a z Mestskej hyg.-epid. stanice v Bratislave, riaditel
MUDr. F. Lacko.

(ALLERGY ther) (VACCINE THERAPY)

SONAK, R.

CZECHOSLOVAKIA

SONAK, R.

City Hygiene-Epidemiological Station (Mestski
hyg-epidem. stanica), Bratislava

Bratislava, Lekarsky Obzor, No 2, 1963, pp 71-80

"Streptococci and the Serological Reactions in
Rheumatic Diseases."

FERENCEI, M.; MASAR, I.; PALANOVA, A.; PUCEKOVA, G.; SONAK, R.

Use of the hemagglutination test for the determination of the diphtheria antitoxin level and the Schick test in epidemiological practice. Cesk. epidem. 12 no.5:276-281 S '63.

1. Mestska hygienicko-epidemiologicka stanica v Bratislave -
Odbor SNR pre zdravotnictvo Krajska hygienicko-epidemiologicka
stanica v Banskej Bystrici a v Bratislave.
(HEMAGGLUTINATION) (DIPHThERIA ANTITOXIN)
(DIPHThERIA TOXIN) (IMMUNITY)

ANTOLOVA,T.; HANZEL,J.; NOVAK,A.; SONAK,R.

Apropos of diphteria bacteria carrier states. Bratisl. lek.
listy 44 no.5:269-280 '64.

1. Mestska hygienicko-epidemiologicka stanica v Bratislave
(riaditel: MUDr. r.Lacko) a II.detska klinika Lek.fak. Univ.
Komenskeho v Bratislave (veduca: prod. MUDr. J. Michalickova).

*

NOVAK, A.; SONAK, R.

Importance of determining the level of diphtheria antitoxin in the blood in clinical pract. *Česk. pediat.* 19 no.8:681-687 Ag '64.

1. II. detská klinika Lekárskej fakulty University Komenského v Bratislave, (prednostka prof. dr. J. Michalicková) a Mestská hygienicko-epidemiologická stanica v Bratislave (riaditeľ MUDr. F. Lacko).

SONAKOVA, VALERIA

Svalovy system. Bratislava, Slovenske pedagogicke nakl., 1954. 98 p. (The muscular system; a textbook. illus.)

DNLM Not in DLC

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

SONCHIK, K. K.: Master Tech Sci (diss) -- "Investigation of delaying the discharge in electrical breakdown of certain solid dielectrics". Tomsk, 1958.
10 pp (Min Higher Educ USSR, Tomsk Order of Labor Red Banner Polytech Inst
Im S. M. Kirov), 150 copies (KL, No 3, 1959, 110)

SONCHIN, K. K.
Sonchin, K. K. [Tomsk, Politechnicheskii Institut (Polytechnical Institute)]
On Discharge Time Delay in Ionic Crystals

(The Physics of Dielectrics; Transactions of the All-Union Conference on the Physics of Dielectrics) Moscow, Izd-vo AN SSSR, 1958. 245 p. 3,000 copies printed.

This volume publishes reports presented at the All-Union Conference on the Physics of Dielectrics, held in Dnepropetrovsk in August 1956 sponsored by the "Physics of Dielectrics" Laboratory of the Fizicheskii Institut imeni Lebedeva AN SSSR (Physics Institute imeni Lebedev of the AS USSR), and the Electrophysics Department of the Dnepropetrovskiy gosudarstvennyi universitet (Dnepropetrovsk State University).

AUTHOR: Sonchik, K.K. SOV/139-58-4-11/30

TITLE: On the Statistical Time Lag in Common Salt (0 staticheskoy zapazdyvaniy v kamennoy soli)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, 1958, Nr 4, pp 73 - 75 (USSR)

ABSTRACT: A paper read at the Inter-university Conference on Dielectrics and Semi-conductors, Tomsk, February, 1958. Contradictory views were expressed by various authors on the magnitude of the static time lag. In the experiments described in this paper, the author coloured to intensive yellow specimens of common salt by irradiating with X-rays (120 kV, 10 mA) for a duration of 4 hours. The X-ray irradiation was effected after depositing onto the specimens in vacuum tin electrodes which were almost no barrier at all to the passage of X-rays. The test rig is shown in the sketch, Figure 1. The distribution of the experimental points of the time lag versus voltage of the discharges for non-irradiated and irradiated specimens is entered in the graphs, Figure 2. The statistical evaluation of the data for a voltage of 9.2 kV is graphed in Figure 3. The breakdown tests were effected in air, using a square-shaped

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On the Statistical Time Lag in Common Salt SOV/139-58-4-11/30

voltage surge with a front duration of 2 to 3 x 10⁻⁸ sec thick. The observed difference in the delay time of the discharge of the non-irradiated and irradiated 0.12 mm thick specimens was merely of the order of 10% and this indicates that under the pertaining conditions, if it exists at all, the statistical time lag does not exceed 10⁻⁸ sec. There are 3 figures and 9 references, 1 of which is English, 1 German, 2 Japanese and 5 Soviet.

ASSOCIATION: Tomskiy politekhnicheskii institut imeni S.M.Kirova
(Tomsk Polytechnical Institute imeni S.M. Kirov)

SUBMITTED: February 25, 1958

Card 2/2

SOV/139-93-6-25/29

AUTHOR: Sonchik, Z.K.

TITLE: On the Second Stage of Breakdown of Solid Dielectrics
(O vtoroy stadii proboya tverdykh dielektrikov)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika,
1958, Nr 6, pp 158-160 (USSR)

ABSTRACT: The current theory of breakdown of solid dielectrics deals only with the first stage of breakdown when the electrical strength falls and current rises without any increase in the applied voltage. The second stage, during which a large current passes through the dielectric and partial destruction of the latter occurs, is not covered by the current theory. The present paper reports experimental data on the second stage of breakdown of ionic crystals NaCl, KCl, KBr and KI. The author recorded oscillograms of breakdown on application of square voltage pulses with $(2-3) \times 10^{-8}$ sec fronts. From these oscillograms the time of fall of the voltage (t_{sp}) on breakdown was found (Fig 1). The oscillograms were magnified five times and the smallest time interval that could be measured was 10^{-9} sec. Table 1 gives the arithmetic mean values of t_{sp} (each

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On the Second Stage of Breakdown of Solid Dielectrics

obtained from at least ten oscillograms). The table shows that the value of t_{op} both in uniform and non-uniform fields is of the order of 10^{-8} sec and it increases with increase of the lattice constant (on transition from NaCl to KCl) and with increase of the sample thickness. Acknowledgement is made to Professor Dr.A.A.Vorob'ev for his advice. There is 1 figure, 1 table and 14 references of which 10 are Soviet, 3 English and 1 German.

ASSOCIATION: Tomskiy Politekhicheskoy Institut imeni S.M.Kirova
(Tomsk Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: 15th May 1958

Card 2/2

GORCHIK, K. K. (TPI)

"The time of lagging of the discharge in the ion crystals is the shorter, the higher the excess voltage at the sample and the crystal lattice energy are"

Report presented at a Conference on Solid Dielectrics and Semiconductors,
Tomsk Polytechnical Inst., 3-8 Feb. 58.
(Elektrichnostvo, '58, No. 7, 83-86)

9(3)
AUTHORS: Vorob'yev, A.A., Vorob'yev, G.A., Sonchik, Y.K. SOV/143-58-10-19/24
TITLE: A Case of Lightning Strokes
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Energetika, 1958, Nr 10, pp 145-146 (USSR)
ABSTRACT: A thermal thunderstorm was observed over Tomsk on June 29, 1958, at 1200 hours. Lightnings struck two poplars and a building located on the hill Voskresenskaya gora within the city. Observers saw five lightning strokes. Two strokes hit the lightning arresters of the building. Two strokes hit two poplars which were located within the protection zone of the lightning arresters. The fifth stroke hit in a great distance of the other four. The authors present four photographs showing the destructions of the trees caused by lightnings. One of the poplars was hit at a height of 10 m (the total height was 16 m). There, the lightning went thru a wooden box for starlings having sheet metal top and bottom. The box was split. The rind of both poplars was torn off and a large splinter destroyed

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A Case of Lightning Strokes

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a window located at a distance of 4 m from the trees. A woman working in the kitchen noticed electrical discharges during the lightning strokes. The water and power mains and the central heating were in the immediate vicinity. A receptacle in the kitchen was destroyed. The plug at the power meters was burnt, and the telephone became defective. The authors assume that the discharges inside the building were caused by the lightning current passing thru the roots of the poplars. The authors point to the danger caused by trees in the immediate vicinity of buildings during thunderstorms. Therefore, lightning arresters are necessary. Further, it is mentioned that some people claimed to have seen a red-colored spherical lightning at a height of some ten meters, disappearing with a loud noise. There are 4 photographs.

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344-6-7-4, 6 5

AUTHOR: Sonchik, K. K.

48-22 4-15/24

TITLE: On the Time Lag in the Discharge of Ionic Crystals
(O vremeni zapazdyvaniya razryada v ionnykh kristallakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya,
1958, Vol. 22, Nr 4, pp. 423-426 (USSR)

ABSTRACT: The physical processes in the electric breakdown exhibit different times of development in different dielectrics and under different conditions. The duration of the electric breakdown is a characteristic of the specific substance and permits to evaluate the mean velocity of the discharge expansion. The periods of discharge delay computed by Whitehead, Simpson et al. (Reference 1) for solid dielectrics show marked differences between each other. The experimental data also are incomplete and often contradictory. The author developed a new method and a new scheme for the determination of the lag times of discharge in solid dielectrics by means of applying a single rectangular voltage pulse. Here, a high voltage oscillograph with a high recording velocity and samples with me-

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tallic electrodes with a low resistance were employed. In the recording of processes with a duration of 10^{-8} seconds and less the synchronization of time involution and of the investigated phenomena by means of a spark relay (Reference 8) (because of the great time spread during the elaboration) could not be regarded as sufficient. The author applied a hard (zhestkaya) synchronization without commutation elements according to the scheme proposed by G. A. Vorob'yev (Figure 2). This hard synchronization consisted in eliminating the time spread between the inset of time involution and of the investigated phenomenon. The pulse was always visible at the same place on the scree of the tube. Time calibration was conducted by means of a high-frequency generator. The period of discharge delay was determined in natural monocrystals of rock salt from the site of Artemov (Ukrainian SSR). The delay period came out as about $\Psi = 37.5\%$, that is to say, if $t_{\text{lag}} = \tau$ holds in this case, $\Psi = n_t/n_0 = \exp(-t_{\text{lag}}/\tau)$.

As a result of the measurements it was stated, that the period of discharge delay is reduced with an increase of excess voltage. The preliminary experiments gave the result, that no reduction of the discharge period takes place in

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irradiated samples and samples, which were illuminated during experiments, in comparison to not irradiated samples. This proves, that the statistical time lag in rock salt (with a thickness of 0,12 mm) is very small, if it exists at all. The author is indebted to A. A. Vorob'yev and G. A. Vorobyev for valuable advice. There are 2 figures and 8 references, 2 of which are Soviet.

ASSOCIATION: Tomskiy politekhnicheskiy institut (Tomsk Polytechnical Institute).

AVAILABLE: Library of Congress

1. Crystals--Discharge 2. Time--Applications 3. Crystals
--Properties 4. Voltage--Applications

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SONCHIK, K.K.

Measuring the electric conductivity of ionic crystals using pulses.
Izv. TPI 95:264-271 '58. (MIRA 14:9)

1. Predstavleno professorom doktorom A.A.Vorob'yevym.
(Ionic crystals--Electric properties)

24(3)

AUTHOR:

Sonchik, K. K.

SOV/20-123-1-19/56

TITLE:

The Temperature Dependence of the Delay of Discharge in Rock Salt (Temperaturnaya zavisimost' zapazdyvaniya razryada v kamennom soli)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 1, pp 76-77 (USSR)

ABSTRACT:

The author investigated the delay of a discharge in rock salt in dependence of the applied voltage at the temperatures of -70, 20 and 140° in a homogeneous- and inhomogeneous electric field under the action of single rectangular voltage pulses with amplitudes of up to 30,000 V. The front of the pulses remains conserved for $(2 + 3) \cdot 10^{-8}$ sec. The pulses were recorded by means of a high-voltage electron oscillograph. The thickness of the samples for investigation of breakdown in a homogeneous and inhomogeneous field amounted to $d = 0.2$ mm and $d = 0.25$ mm respectively. The tin electrodes were then vaporized on to the samples in the vacuum. Breakdown at -70° took place in benzene, but at 20° and 140° in transformer oil. The excessive voltage U_{ex} on the sample was determined as the ratio between the amplitude U of the rectangular voltage pulse and the static

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Discharge in Rock Salt

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breakdown voltage $U_{st}(\beta = U/U_{st})$. The time of delay was determined from the oscillograms as the difference in time between the instant of time in which the voltage on the sample attained the value U_{st} and the breakdown. The delay times measured for 10 to 20 samples were statistically evaluated and herefrom the mean time of delay was determined. A diagram shows the dependence of the time of delay in NaCl samples on temperature for $\beta = 1.15$ and $\beta = 1.25$. In a homogeneous as well as in an inhomogeneous field the time of delay decreases with increasing overvoltage. Such a decrease occurs at low as well as at high temperatures. Besides, also a decrease of the delay time of the discharge is observed at a given overvoltage in the case of increasing temperature. With rising temperature thermal ion oscillations increase; by this the further approach of the electron avalanche is rendered more difficult and the velocity of the discharge decreases. The short times of development

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of the discharge (order of magnitude from 10^{-7} to 10^{-8} sec) indicate that the electric breakdown of rock salt is of electronic character in the temperature range investigated. The author thanks Professor A. A. Vorob'yev for the interest he displayed in connection with this work as well as for his valuable advice. There are 1 figure and 5 references, 3 of which are Soviet.

ASSOCIATION: Tomskiy politekhnicheskii institut im. S. M. Kirova
(Tomsk Polytechnic Institute imeni S. M. Kirov)

PRESENTED: June 19, 1958, by V. D. Kuznetsov, Academician

SUBMITTED: June 12, 1958

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24(3)

AUTHOR: Sonchik, K.K.

SOV/139-59-1-22/34

TITLE: Temperature Dependence of the Discharge Lag in Rock Salt
(Temperaturnaya zavisimost' zapazdyvaniya razryada v
kamennoy soli)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika,
1959, Nr 1, pp 124-127 (USSR)

ABSTRACT: Increase of the breakdown voltage of solids, when pulses of 10^{-7} to 10^{-8} sec and shorter duration are applied, is due to a discharge lag. The time lag consists of a statistical time lag t_{st} and a time necessary for formation of the discharge t_f . In ionic crystals the time t_{st} may be neglected and the time lag taken to be equal to t_f . The author reports studies of the discharge lag in rock-salt as a function of the applied voltage at temperatures of -70, +20 and +140 °C in uniform and non-uniform electric fields; applied in the forms of single square pulses of 30 kV amplitude and a $(2-3) \times 10^{-8}$ sec front. The pulse generator was described earlier (Ref 5). A high-voltage c.r.o. was used to record the pulses. The samples were cut in the direction [100] from a single piece of natural rock-salt. Their dimensions

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were 20 x 20 x 4 mm. For tests in a uniform field a hemispherical hole was drilled in one side (its diameter was 10 mm) in such a way as to make the sample thickness at its thinnest place equal to 0.2 mm. For breakdown in non-uniform field the samples had a conical cavity with the cone angle of 60°. This cavity was rounded off at the bottom and the sample thickness at this point was 0.25 mm. Vacuum-deposited tin electrodes were used. Breakdown tests at -70°C were carried out in benzene, and those at +20 and +140 °C in transformer oil. The overvoltage β was defined as the ratio of the applied voltage U to the static breakdown voltage U_{st} . U_{st} was taken to be the breakdown voltage when a single pulse was applied with a 5×10^{-6} sec front and when the probability of breakdown ψ was 90%. Samples of the same thickness, and with the same overvoltage applied to them, exhibited different time lags. The reported values are averages which were obtained after appropriate statistical treatment. If the logarithm of the ratio n_t/n_0 (n_t is the number of samples which broke down after a time lag t_1 or after a longer time, and n_0 is the total number of samples

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tested) is plotted as the ordinate, with the time lag t_1 as the abscissa, then the step-like curve so obtained may be approximated by a straight line given by:

$$n_t/n_0 = \exp(-t_1/\tau) \quad (1)$$

Such an equation is characteristic of an ionization process with τ as the mean time lag. Fig 2 shows the plot of $\log(n_t/n_0) = f(t_1)$ at $\beta = 1.09$ for NaCl samples in a non-uniform field at $+140^\circ\text{C}$. The value of t_1 at $(n_t/n_0) = 36.8\%$ was taken as the mean time lag τ . The time lags at other overvoltages and temperatures were determined in a similar fashion and their distribution could also be approximated by the straight line of Eq (1). Fig 3a represents the dependence of the time lag t_1 on the overvoltage β in breakdown of NaCl samples in a uniform field; Fig 3b represents the same dependence in a non-uniform field. With rise of the overvoltage the value of t_1 decreases both at low and at high temperatures. At a given overvoltage the time lag increases with increase of temperature. Electric strength E of NaCl crystals on breakdown in uniform field at -70°C

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particularly in the region of high values of β
(over 1.2), the time lag decreases with lowering of
temperature. This should also be taken into account in
design of electrical insulation. Acknowledgement is
made to Professor Dr. A.A. Vorob'yev for his advice.

Card 5/5 There are 3 figures and 10 references, 6 of which are
Soviet, 3 English and 1 Japanese.

ASSOCIATION: Tomskiy Politekhicheskii Institut imeni S.M. Kirova
(Tomsk Polytechnical Institute imeni S.M. Kirov)

SUBMITTED: May 15, 1958

SOV/109-4-8-5/35

AUTHORS: Vorob'yev, A.A., Vorob'yev, G.A., Mesyats, G.A. and Sonchik, K.K.

TITLE: ~~Pulse and Oscillographic~~ Techniques for the Measurement of Discharge Lags in Dielectrics

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1257 - 1259 (USSR)

ABSTRACT: The discharge lags in ^{the} dielectrics, subjected to action of rectangular voltage pulses, can be determined by using the circuit of Figure 1. In this, the capacitances C_1 and C_2 are discharged, while the thyatron T is triggered. A voltage pulse is thus produced across the resistance R_1 ; this can be used for the investigation of dielectrics. The voltage pulse appearing at the capacitance C_1 , which is connected in parallel with the vertical plates of the oscillograph, is used as the time base. In this manner, a synchronism is achieved between the investigated phenomenon and the time base so that the pulse always appears at the same spot of the

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Pulse and Oscillographic Techniques for the Measurement of Discharge Lags in Dielectrics

screen. The resistances R_2 , R'_2 and R_g and capacitance C_n can be determined from the condition of the required writing speed for the tube. The deficiency of the circuit lies in the absence of a horizontal portion in the time base preceding the leading edge of the pulse. The circuit of Figure 1 can produce pulses having a rise time of 3×10^{-8} sec. If it is necessary to obtain faster pulses, having amplitudes of the order of 20 kV, a different technique is used. A suitable pulse generator, which can give rise times of the order of 10^{-9} sec is illustrated in Figure 2. In this, the resistances R_1, R_2, \dots, R_n divide the voltages over the switching gaps P_1, P_2, \dots, P_n . When the gap P_1 discharges the capacitance C_1 , a larger voltage is applied to the gap P_2 , which is rapidly broken down. The last gap, P_n , receives the highest over-voltage.

Card2/3

SONCHIK, K.K.

Second stage in the breakdown of solid dielectrics. Izv.vys.ucheb.
zav.; fiz. no.6:158-160 '59. (MIRA 12:4)

1. Tomskiy politekhnicheskii institut im. S.M. Kirova.
(Dielectrics--Testing)

«*vestnik khimicheskoy promyshlennosti*», 24, 1938

Transactions of the 2d All-Union Conference on the Physics of Dielectrics, Moscow, Issued at SCST, 1960. 522 p. Errata slip inserted. 5,000 copies printed.

Sponsoring Agency: Academy of Sciences, USSR, Physicochemical Institute Leningrad P.N. Lebedev
Ed. or Publishing House: Izv. Sverdlovskogo gos. univ., Seriya I, Fiziko-khimicheskiy i Khimicheskii Fakultety
Technical Periodic: No. 6, 1970
Author(s): G.M. Lazarev, Doctor of Physics and Mathematics (Dissertation), and E.P. Filippova, Candidate of Physics and Mathematics.

the collection of reports is intended for scientific investigating the physical of disorders.

CONTENTS. The Second All-Union Conference on the Topics of Diagnostics held in Moscow at the Physico-Technical Institute of the Academy of Sciences (Physico Institute Issue No. 1) is numbered and is divided into sections. Representatives of the physico-technical section of the USSR and of several representatives of the physico-technical section contain most of the reports presented at the conference and a summary of the discussion with it follows. The reports in this collection deal with diagnostic properties, losses and planning in such specific industries as: electric power, metallurgy, chemical industry, and various other industries. Ferroelectric crystals, chemical sensors, and various other methods on diagnostics are investigated. The volume contains lists of other reports presented at the conference dealing with polarization, lists of other publications of diagnostics, which were published in the journal "Soviet Radio" and "Radio Engng. Electron. Phys." and in the journal "Soviet Radio". As references to many other reports.

Udalin, V.M. Development and Investigation of Certain Dielectric Pass-
ing and High Electrophotographic Sensitivity [Institute of Crystallography, A.S.
USSR, Moscow]

Discussion

University of N.M. Technological and I.N. Fed'ko. Effect of Heat
Treatment on the Electrophysical Properties of Certain Alkali-Free Silicate
Glasses

Author: A. S. Kiselevsky, Scientific Properties of Certain Crystals
 Localization: -Scientific Material Collection at SOO (Institute of Silicate
 Chemistry, AS USSR)

Electrical Properties of Organic Dielectrics

POULICHOVI, N.A. Dielctric Losses in $\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$

Electrostatic Properties of Carbonate Crystals [Pizicheskiiy
fuzi' set monitorirovaniya akademicheskoy universiteti: I. M. T. Loshakov
(Physics Division, Moscow State University Lenin Y. T. Loshakov)]

Discussion

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and A.S. Ibrim. Third kind of thermal breakdown [Leningrad Polytechnical Institute, M. P. Kalina (Leningrad Polytechnical Institute, M. P. Kalina)]

Forbyshev A.A. and I.I. Gontchik. Some Barium Salts of Discharge Catalysts in Solid Dielectrics. Leningrad Polytechnic Institute im. S.M. Kirova (Leningrad Polytechnical Institute Journal S.M. Kirov).

CHERNOZHUKOVA, and M. V. KLEYMAN. On the Possibility of a Screen Charge Mechanism in Solid Dielectrics [Zhurnal Prikladnoi Khimii 34, 1399 (1961)]

Wick, R. A.: Investigation of the Pulse Structure of Certain Polymers and Nite [Frank Polytechnical Institute (mend 3. N. Kirov)]

Buletin, I.L., investigation of Discharge Emission in Distilled Water

Discussion

Lebedev, A.I. USSR, Moscow, Institute of Physics, P.B. Lebedev, All-Union Scientific Center of the Academy of Sciences of the USSR, Moscow, USSR.

VOROB'YEV, A.A.; prof.; VOROB'YEV, G.A.; VOROB'YEV, N.I.; KALGANOV, A.P.;
KALYATSKIY, I.I.; KUCHIN, V.D.; MESYATS, G.A.; POKROVSKIY, S.P.;
SONCHIK, K.K.; CHEPIKOV, A.T.; DOLGINOV, A.I., red.; VORONIN, K.P.,
tekhn.red.

[High-voltage test equipment and measurements] Vysokovol'tnoe
ispytatel'noe oborudovanie i izmereniia. Pod red.A.A.Vorob'eva.
Moskva, Gos.energ.izd-vo, 1960. 583 p.

(MIRA 14:1)

1. Sotrudniki kafedry tekhniki vysokikh napryazheniy Tomskogo
politehnicheskogo instituta (for all except Dolginov, Voronin).
(Electric testing) (Electric measurements)

-5(2)

AUTHORS: Kremer, V.A., Vayl', I.I., Frizya, P.I., Gontchik, L.S.

TITLE: Rapid Method for the Analysis of Lead and Zinc in Bronzes Using a Potentiometric Titration After a Sulfide Precipitation
(Ekspress-metod analiza svintsa i tsinka v bronzakh putem potentsiometricheskogo titrovaniya po osazhdeniyu v vide sul'fidov)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 12, pp 1440-1441 (USSR)

ABSTRACT: In order to remove the influence of tin, antimony, iron, and nickel in these analyses (Refs 1-3) the lead and zinc to be determined were leached in a hydroxo complex. The potentiometric titration of the lead and zinc (and trace amounts of copper) was carried out in 2 M and 0.5 M hydroxide solutions (Fig 1). Definite steps in the potential curve can be observed, which indicates a quantitative precipitation of each kind of ion present. In a titration of 2 molar electrolyte solution (50-60°) the potential of the equivalence point was 450 mV for copper and 650 mV for lead. The titration curve for zinc has a less definite equivalence point, so that with a zinc determination in a 0.5 molar solution of NaOH at 70-80° it amounted to 750-770 mV. The potentiometric measuring apparatus and the method of storing the sodium sulfide solution were previously described (Ref 3). The titration was carried out using three electrodes of

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Rapid Method for the Analysis of Lead and Zinc in Bronzes Using a Potentiometric Titration After a Sulfide Precipitation

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synthetic argentite, and the same electrode was used each time for each of the different ions (copper, lead, and zinc). The analytical procedure for a OTsS bronze is given. The lead- and zinc content was determined using calibration curves. The relative error of the method is 1-2%. There are 2 figures, 1 table, and 4 Soviet references.

ASSOCIATION: Khar'kovskiy gornyy institut, Institut khimii Khar'kovskogo gosudarstvennogo universiteta i Khar'kovskiy zavod vtorichnykh tsvetnykh metallov (Khar'kov Mining Institute, Institute of Chemistry of the Khar'kov State University and Khar'kov Plant for Secondary Nonferrous Metals)

Card 2/2

OVCHINNIKOVA, L.D.; PONOMARENKO, N.I.; SONCHIK, N.A.

Experience in the production of a brain vaccine against tick-borne
encephalitis. Vop.virus. 4 no.5:563-566 S-O '59. (MIRA 13:2)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok
Ministerstva zdravookhraneniya SSSR.
(ENCEPHALITIS, immunol.)

BOOK INFORMATION
BOY/2146

100000. Nonhydro-iodosulfoxidatively sensitive rubidium 1 selenosulfonate. See 21 (Formulations of the Toxic Scientific Research Institute of Chemical and Biological Sciences, Vol. 11) 1966, 144-145. Toxicology material, 1960. 327 p. 1,700 copies printed.

Biographical sketch: B.O. Winkler (bap. 84.) Director of the Young Scientist Research Institute of Venereal and Germinal S.P. Karpov (bap. 84.) Prof. V.I. Kopylov (secretary); N.A. Ivanitsky and V.N. Popyov (deceased); T.O. A.Y. Chernykh.

REMARK: This collection of articles is intended for biologists, physicians, and medical personnel.

[illegible]

essential antigen for indirect hemagglutination reactions

Abstracts of the **Scientific Clinics at the Department of Microbiology of the Texas Medical Institute**. Institute of Microbiology, University of Texas Medical Branch, Galveston, Texas. 1964. 100 pp. \$1.00. (Microfilm \$2.00.)

57. Bedgley, J. H. (From Institute). Data for the Production of Anticancerous Agent

38. Trubshaw, R. O. and Toal, R. J. *Enzymes* (Frank Institute). Use of Encephalitis Vaccine as an Adjuvant in the Protection of Antigen-Phallid Germ

[illegible]

• Domesticated, Wild, Exotic, and Native (Trans-
formants). Experiment involving Native Variants Against
Spring-Summer Tick Experiments

• **Frithamoor, B.O., L.A., Yorkshire, and G.P., Selborne.** On the **Protective Capacity of Hypodermis Against Spring-summer Tick Infestation**

261

WILLIAMS, D. J. (Frank Institute); Department of Bacteriology of the Frank Medical Institute). "Anti-Bacterial Parallels in Ovalizing Serum's Agglutinating Serum

Bartholomew, J. A. (Croat Institute). On the Method of Preparing
Mineral Agglutinating System

Burnham, Ltd. (Preston Institute), The Effect of Various Preservatives, Time, and Storage Conditions on the Quality of Material Addition:106 8074

Baranovsk, L.A. (Vsesk Institute), Data on Preparation of Lateral
Typespecils Absorbed Beams

REMARKS, T. S. (Tosaki Institute). Accelerated Method for Oxidizing Adsorbed Acetaminilol Diuretic Salts

266
Tresham, J. O., Jr., L. E. Clayton, and L. A. Teroshina. On the Pos-

Generalization A.3. (Tosar Institute). Efficiency of the method of
analysis or using this data for determining the quality of bacterial
preparations

OVCHINNIKOVA, L.D., PONOMARENKO, N.I., SONCHIK, N.A.

Preparation of embryonal vaccine against spring and summer tick-borne encephalitis. Trudy TomNIIVS 11:250-254 '60.

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.
(ENCEPHALITIS) (VACCINES) (MIRA 16:2)

LISTOV, Konstantin Mikhaylovich; TROFIMOV, Kirill Nikolayevich. Prinsipali
uchastiye: GRISHIN, M.G.; SONCHIK, S.S.; SAVODNIK, A.V.; GNUTIKOV,
P.I., polkovnik, red.; STREL'NIKOVA, M.A., tekhn.red.

[Radio and radar engineering and its use] Radio i radiolokatsionnaya
tekhnika i ikh primeneniye. Moskva, Voen.izd-vo M-va obor.SSSR, 1960.
423 p. (Radio) (Radar) (MIRA 13:4)

Дорча, К. В. Р.

✓ Method of quantitative spectrum analysis of intermediates and tailings in the production. V. I. Danilova and V. K. Sanchik. *Trudy Sibir. fiz.-Tekh. Inst.* 1953, No. 32, 81-91. *Referat. Zhur., Khim.* 1954, No. 48559. Slags were analyzed for Sn, Si, Ca, Fe, Al, and W, and tailings for Sn and Fe by using 3 standards wherein a 2-g. sample was fed for 2 min. through the discharge zone between C electrodes with the aid of a special mechanism. For comparison, there was added to the sample 30% Cu as CuO. The activated arc was of 6 amp.; parallel to the condenser was inserted a 18-20 microfarad capacitance; and the distance between the electrodes was 2 mm. In the analysis of slag for 0.11-4% Sn the lines Sn/Cu 2863/2825, 2840/2825, and 2572/2018 (relative error 8-9%) were used. For 0.11-17% Sn the lines Sn/Cu 2572/2492 (9.6%), and 2661/2018

(--24%) were used. For 6.5-15.0% Al the lines Al/Cu 3082/3108 and 3092/3108 ($\pm 20\%$) were used. For 8-30% Ca the lines Ca/Cu 3179/3108 and 3158/3108 (± 7 to $\pm 30\%$) were used. For 0.90-34% Fe₂O₃ the lines Fe/Cu 3047/3064 (20%) and 2973/2961 (10%) were used. For 0.8-8.5% WO₃ the lines W/Cu 3215/3064 and 2947/2961 (12-16%) were used. For Si the lines Si/Cu 2881/2825, 2528/2492, and 2135/2502 were used. The duration of a slag analysis is 3 hrs. In the analysis of tailings for 0.90-4.5% Sn the lines Sn/Cu 2863/2825 were used (relative error 25%) and 2840/2825 (10-15%). For 6-21% Fe₂O₃ the lines Fe/Cu 3047/3064 (10-15%) were used. No calibration curves were made for As since its concn. in tailings changed very little. The method was tested on various Sn concentrates and was found suitable for detg. As, W, Pb, Bi, Sb, and Zn.

M. Hosh...

PM

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SONCHIK, V. P.

"Spectroscopic Determination of Some Electric Characteristics in
Glow Discharge." Cand Phys-Math Sci, Tomsk State U, Tomsk, 1954.
(RZhFiz, Mar 55)

SO: Sum. No. 670, 29 Sep 55—Survey of Scientific and Technical
Discussions Defended at USSR Higher Educational Institutions (15)

ANTIPOV, B.A.; ZUYEV, V.Ye.; KOKHANENKO, P.N.; SONCHIK, V.K.; FEDYUSHIN,
A.A.

Transparency of a horizontal atmospheric layer in the range from
0.7 to 14 . Part 1: Equipment and measurement methods. Izv.
vys.ucheb.zav.;fiz. no.2:105-110 '60. (MIRA 13:8)

1. Sibirskiy fiziko-tekhnicheskoy institut pri Tomskom gosuniversitete
im. V.V.Kuybysheva.
(Atmosphere--Optical properties)

82331

S/139/60/000/03/011/045

E073/E335

3.9000
AUTHORS: Antipov, B.A., Zuyev, V.I., Kokhanenko, P.N., Sonchik,
V.K. and Fedyushin, A.A.

TITLE: Transparency of the Horizontal Layer of the Atmosphere
in the Range of 0.7-14 μ . Part II. Dependence of the
Total Transparency of the Atmosphere in the Range
0.7-14 μ on the Thickness of the Precipitated Layer of
Water

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1960, Nr 3, pp 72 - 75 (USSR)

ABSTRACT: The authors made an attempt to determine an empirical
relation between the magnitude of the reduced signal V
(magnitude of the signal multiplied by a factor

L_i^2/S_i :- L_i being the distance between the emitter and
the receiver, S_i being the area of the emitter)
and the air humidity which would show satisfactory
agreement with experimental results obtained by the
authors. As sources of infra-red radiation, four
special emitters were used which were heated to 500 °C
and placed at a distance of 1210, 3494, 6645 and 9855 m
from the receiving equipment. The experimental set-up,

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E073/E314

Transparency of the Horizontal Layer of the Atmosphere in the Range of 0.7-14 μ . Part II. Dependence of the Total Transparency of the Atmosphere in the Range 0.7-14 μ on the Thickness of the Precipitated Layer of Water

the method of carrying out the experiments and the processing of the results were the same as those described in an earlier communication (same journal, No 2, pp 105-110). The air humidity and the intensity of the signals were determined simultaneously. The partial pressure of water vapours was determined directly and then the thickness of the precipitated water layer wL was calculated, where w - the thickness of the precipitated layer of water in mm for 1 km and L - the distance in km between the emitter and a receiver. For detecting the relation between the air humidity and the magnitude of the signal only those measurements were taken into consideration which were carried out in the absence of any visible clouding of the atmosphere (mist, haze, fog, rain). Of a total of 811 determinations only 140 complied with this condition. The experiments were carried out during various days in March, April, *H*

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E073/E314

Transparency of the Horizontal Layer of the Atmosphere in the Range of 0.7-14 μ . Part II. Dependence of the Total Transparency of the Atmosphere in the Range 0.7-14 μ on the Thickness of the Precipitation Layer of Water

July, August, September, October and November, 1958 and encompassed a wide range of variation of air humidity; the value of w varied between 0.7 and 17 mm/km and the wL values varied between 0.8 and 167 mm. It was found that the magnitude of the reduced signal V is not a linear function of \sqrt{wL} (see plot, Figure 1) but it appears that the dependence can be better expressed by a linear dependence of $\lg V$ on \sqrt{wL} . The following empirical relation was derived by the authors for the reduced signal V :

$$V = V_0 e^{-b \sqrt{wL}} \quad (2)$$

whereby V_0 is the magnitude of the reduced signal in the absence of water vapours in the air, b is a constant equalling in the given case 0.2319. Curves calculated according to this equation are in good

Cand3/4

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S/169/62/000/008/032/090
E202/E392

3.5/50

AUTHORS: Antipov, E.A., Zuyev, V.Ye., Kokhanenko, P.N.,
Sonchik, V.K. and Fedyushin, A.A.

TITLE: Methods and certain results of studies of horizontal
transparency of the atmosphere to long-wave
radiation

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 51,
abstract 3B232. (In the symposium: 'Aktinometriya i
atmosfern. optika' (Actinometry and atmospheric optics),
Leningrad, Gidrometeoizdat, 1961, 248 - 251)

TEXT: The effect of meteorological conditions on the trans-
parency of the atmosphere to long-wave radiation (0.7 - 14 μ)
over distances of 1.2, 3.5, 6.6 and 9.9 km was studied. Flat
metallic radiators with electrical heating were used as sources
of radiation. A vacuum thermo-element with a vibro-converter
and a measuring amplifier 20AM (28IM) served as a receiver.
The receiver was placed in the focus of a parabolic mirror.
Simultaneously with the measurements at all four points the
meteorological conditions were also measured, viz. temperature of
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Methods and certain results S/169/62/000/003/032/090
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the air, humidity, wind and intensity of precipitate. The results of the measurements were presented in the form of radiation curves vs. distance. The seasonal relation with maximum attenuation which coincides with the period of highest absolute humidity was found. A sharp attenuation of radiation was observed up to 3.5 km during the winter period, then it decreased, while during the summer period a sharp attenuation was observed up to 6.5 km.

[Abstracter's note: Complete translation.]

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89693

S/139/61/000/001/001/018

E032/414

6.3200

AUTHORS: Antipov, B.A., Zuyev, V.Ye., Kokhanenko, P.N.,
Sonchik, V.K. and Fedyushin, A.A.

TITLE: Transparency of the Horizontal Layer of the Atmosphere
in the Region 0.7 to 14 μ . III. Dependence of the
Total Transmission of the Atmosphere in the Region
0.7 to 14 μ on the Thickness of the Precipitated Layer
of Water

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1961, No.1, pp.17-19

TEXT: In previous papers (Refs.1 and 2) the present authors
described an apparatus and a method of measurement of the
transparency of the atmospheric layer next to the earth surface in
the region 0.7 to 14 μ and for distances between 1.21 and 9.86 km. ✓
The experimental material obtained was also reported. In the
present paper additional data recently obtained are reported.
As an approximation, the magnitude of the transmitted signal was
described in Ref.2 by the exponential law

$$v = v_0 e^{-a\sqrt{wL}} \quad (1)$$

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Transparency of the Horizontal ... E032/E414

where w is the thickness of the precipitated water in mm per km, L is the distance traversed by the radiation in km, a is a constant and v_0 is the intensity in the absence of the absorbing medium. Eq.(1) was obtained empirically and gave a sufficiently good representation of the experimental results. This expression accounts for the absorption of the infrared radiation by water vapour only and does not take into account absorption by carbon dioxide or effects due to atmospheric turbidity. The criterion for the applicability of Eq.(1) is the linear dependence between $\lg v$ and $a\sqrt{wL}$. The new data now reported are also well represented by Eq.(1) right up to $wL = 90$ mm. However, for greater values of wL , the dependence between $\lg v$ and \sqrt{wL} is no longer linear and in order to describe all the experimental data the following formula was employed

$$v = \frac{c}{1 + wL} + k \quad (2)$$

where c and k are constants. This expression is also purely empirical and the criterion for its applicability is a linear
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Transparency of the Horizontal ... E032/E414

relation between v and $(1 + wL)^{-1}$. Fig.2 shows the dependence of v on wL . During the measurements the sensitivity of the receiving apparatus was controlled by a 6 watt lamp at a distance of 5 m from the detector. It was found that the signal due to the lamp was very dependent on the humidity of the air. It is therefore pointed out that the use of a standard source at a short distance from the receiver may introduce errors unless corrections for the humidity are introduced. There are 2 figures and 2 Soviet references.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskii institut pri Tomskom gosuniversitete imeni V.V.Kuybysheva
(Siberian Physicotechnical Institute of the Tomsk State University imeni V.V.Kuybyshev)

SUBMITTED: February 13, 1960

Card 3/4

SONDAK, B.M. (Riga)

Use of gluing methods in the manufacture of women's clothing.
Shvein.prom. no.2:11-13 Mr-Apr '60. (MIRA 13:11)
(Riga--Dressmaking) (Gluing)

SONDAK, M.

Recurrence and exacerbation of tuberculosis in adults according to data of our dispensary in 1962. Sveik. apsaug. 9 no.3:18-20 Mr'64

1. Respublikinis tuberkuliozes dispensaris.

*

SONDAK, M.

Relapse and exacerbation of tuberculosis in adults according
to data of our clinic in 1962. Sveik. Apsaug. no.3:18-20 '64.

1. Lietuvos respublikinis tuberkuliozės dispensaris.

PAVLOVSKY, T. N.; SONDAK, Y. A.

Nematoda

Difference between trichiuroidea in man and in swine. Paraz. shor. no.13, 1951.

Monthly List of Russian Accessions. Library of Congress, April 1952. UNCLASSIFIED.

Sondak, VA

Assimilation of atmospheric nitrogen by the mammalian or-
ganism. A. M. Kuzin, V. A. Sondak, E. G. Plyshevskaya,
and V. V. Zertsalov. *Trudy Inst. Biol. Fiz., Akad. Nauk*
S.S.S.R. 1, 256-01(1955).—No true enrichment or assimila-
tion of N^{15} from the atm. was observed after rats were kept
12 days in a chamber the atm. of which had been labeled
with N^{15} . These results contradict an earlier claim by
Volskii (*Novaya Kontseptsia Dykhaniya, Gorki, 1954*), also
Soviet Zootekh. No. 1 (1952). G. M. Kosolapov

4/

SONDAK, V. A.

3938. Early changes in bone marrow and blood of irradiated animals, as shown by fluorescence microscopy. M. N. Meinel and V. A. Sondak. Dokl. Akad. Nauk, S.S.S.R., 1955, 103, 1221-1224; Refr. 28. Biol. Khim., 1956, Abstr. No. 21345. —Acridine Orange was injected into the blood of mice and rats before and after X-irradiation and after 2 hr. the bone marrow was studied under the fluorescent microscope, the fluorescence being induced by blue light. In the controls the cell nuclei of the bone marrow took up the dye only feebly and fluoresced with a dull green light. In the irradiated animals (doses of 100—500 r) there were as a rule small cell clusters with intense bright green fluorescence. Such a fluorescence can be obtained by treating smears of bone marrow with the dye without preliminary injection into the blood. This is dependent on denaturative changes in the nucleoproteids, and is shown if the dye is mixed with Acid Fuchsin and Congo Red. By treating a smear of bone marrow with Acridine Orange with Acid Fuchsin (without Congo Red) a bright red fluorescence is obtained, depending on the changes in ribonucleic metabolism of the cells. Changes in fluorescence of the peripheral blood after irradiation are also described. (Russian) T. R. PARSONS

RM
MT

USSR/Human and Animal Physiology - The Effect of Physical
Factors.

V-12

Abs Jour : Ref Zhur - Biol., No 4, 1958, 18793

Author : V.A. Sondak

Inst :

Title : Damage Done to an Organism by the Injection of Small Doses
of Radioactive Phosphorus.

Orig Pub : Biofizika, 1956, 1, No 3, 211-220

Abstract : A Study was made of the distribution, excretion and toxicity of indicator doses of P^{32} (a dose of 0.005 to 0.007 microcuries per gram of body weight for rats and 0.002 to 0.003 microcuries per gram for guinea pigs). Upon intramuscular injection of the preparation into rats there developed specific changes in the blood and histological changes in kidneys, liver and spleen. Observations were conducted over a period of 150 days.

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SONDAK, V.A.

✓ Luminescent microscopic studies of early changes in bone marrow and blood of irradiated animals. M. N. Mel'el and V. A. Sondak (Inst. Biol. Phys., Moscow). *Biofizika* 1, 262-73 (1956).—The most sensitive to irradiations are the organs with high metabolism of nucleoproteins, such as bone marrow and the mucosa of the small intestines. The effect of irradiations consists of depolymerizations of nucleoproteins and nucleic acids (Kuzin. *C.A.* 49, 18002i). In the text are given details for the illumination of an ordinary microscope for luminescent microscopy. The following dyes were used: acridine orange, conyphosphine and aurophosphine; tryptaffavine, auramine and berberine sulfate could be used also. It has been found (M. H. Melsel' and V. B. Korchagin, *Byull Ekspil. Biol and Med.* 38, 49 (1952)), that acridine orange produced a bright green luminescence of nucleic acids and nucleoproteins of the deoxyribose type and a red luminescence of the nucleoproteins of the ribose type. The concn. of the dyes was 1:10,000-1:100,000 in physiological salt solution. It is possible to inject these solns. into living animals after irradiation with x-rays which had received the dose: rats (200-230 g.) or mice (10-25 g.), 170 kv., 5 ma., filter 0.75 mm. aluminum, or 0.5 mm. copper; distance 20 cm., strength 59.5 r./min. After exposure for 2-3 hrs. some of the bone marrow cells showed early necrosis. The direct staining of the bone marrow smears was even more sensitive.

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Med

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Meisel, M.N., Sondak, V.A.

Using the mixture of acridine orange with an equal amount of Congo red and very small amount of fuchsin, it was possible to detect necrosis after $\frac{1}{4}$ hour irradiation. The number of necrotic spots increased with the dose: 100 r./my of bone marrow gave 128,600 r. 218, and 1000 r. 242 spots. The acridine orange can be replaced by ceriposphine. The auramine gave less satisfactory results. The necrotic spots are seen as bright green fluorescent spots. With the mixt. of acridine orange and fuchsin the bright red cytoplasm of the necrotic cells could be seen. The no. of red spots gradually increased and reached the max. in 9-12 hrs., and after that decreased. The same method of staining can be used for the blood smears. The definite changes were detected after total irradiation of the animals with 500-1000 r. in 10-12 hrs., with max. changes in 18-20 hrs. The reticulocytes almost completely disappeared, the number of leucocytes decreased, their nuclei were stained greenish-yellow, yellow, and orange. After intensive irradiation red blood cells showed dull red luminescence, probably as a result of changes in hemoglobin. The plasma itself acquired a dull greenish luminescence. In the later stages it was possible to see also the invading bacteria.

A.V. Tolstoukhov

2/2

"Effect of Vitamin P (Tannin From Tea Leaves) on Capillary Permeability," by V. A. Sondak, and A. I. Ruderman, Institute of Biological Physics, Academy of Sciences USSR, Moscow; Department of Roentgenotherapy, Central Institute of Roentgenology and Radiology, imeni V. M. Molotov, Moscow, Biofizika, Vol 1, No 4, 1956, pp 399-400

Cancer patients treated with X-rays were given therapeutic doses of vitamin P (tea tannin) to strengthen the capillary walls. Within 14-30 days normal vascular permeability was restored. Cessation of vitamin P administration resulted in a recurrence of pathologic vascular permeability, but a second course of tannin restored vascular permeability to normal. (U)