"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Lanameter; a suitable microscope for dust laboratory of hygienic-epidemiological stations. Pracovni lek. 10 no.1:51-52 Mar 58.

1. Ustav fysikalni chemie CsAv.
(DUST,
microscope for laboratory studies (Cz))
(MICROSCOPY,
microscope for laboratory dust studies (Cz))

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Safety and Sanitation. H-6

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5185.

Author : Spurny, Kvetoslav; Kloudova, Helena.
Inst :
Title : Experiment of Dosimetry of X-Ray and Γ -Ray Radiations and of Determination of Concentration of Radioactive Aerosols in Operators' Positions.

Orig Pub: Pracovni lekar, 1958, 10, No 2, 167-170.

Abstract: The work in the sphere of dosimetry and determination of radioactive aerosols using simple equipment and based on known methods modified by the authors is described. The x-ray and γ -ray radiations were measured in separable ionization chambers with a modified Wulf electrometer. The autoradiographic method

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Card : 2/2

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Spurny, K.

CZECHOSLOVAKIA/Physical Chemistry --Colloid Chemistry. Dispersed Systems. B-14

Abs Jour: Referat Zhur - Khim, No. 9, 1959, 30723

Author : Spurny, K.

Inst : Not given

Title : The Sampling of Aerosols with Membrane Ultrafilters.

Orig Pub: Zdravotni Techn a Vzduchotechn, 1958, No 1, 31-33

Abstract: No abstract.

Card 1/1

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

Natural and industrial air pollution and its measurement. Gig. i san. 23 no.2:91 F '58. (MIRA 11:4)
(PRAGUE--AIR--POLLUTION)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K., RNDr. (Praha 12, Machova 7.)

Studies on aerosols in East Germany. Cas. lek. cesk. 97 no.17, Lek. veda zahr:95-96 25 Apr 58.
(SEROSOLS,
research in E. Germany (Cz))

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.; MACHALA, O.

Radioactive fallout in Prague in 1958. p. 157.

ZDRAVOTNI TECHNIKA A VZDUCHOTECHNIKA. (Ceskoslovenska akademie ved. Ceskoslovenska vedecka technicka spolecnost pro zdravotni techniku a vzduchotechniku) Praha, Czechoslovakia. Vol. 2, no. 4, 1959.

Monthly list of East European Accessions (EEAI), Vol. 9, no. 1, Jan. 1960

Uncl.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K. ; LOCHMANOVA, E.

Problem of air pollution in Czechoslovakia.. p. 510.

ENERGETIKA. Praha, Czechoslovakia. Vol. 9, no. 10, Oct. 1959.

Monthly list of East European Accessions (EEAI) LC. Vol. 9, no. 2, Feb. 1960
Uncl.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

COUNTRY : CZECHOSLOVAKIA
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Safety and Sanitation
ABS. JOUR. : RZKhim., No. 23 1959, No. 82754

AUTHOR : Spurny, K.
INST. : - Ustav Fyzikalni Chemie CSAV
TITLE : A Device for Measuring Aerosol Concentration

ORIG. PUB. : Pracovni lekar., 1959, 11, No 4, 197-203

ABSTRACT : The method is based on darkening of the filter paper surface when passing aerosol through it. The intensity of color is then compared visually with standard samples. Experiments that established concentration of solid particles in aerosol were conducted on smoke derived from the combustion of coal and coke. Experiments demonstrated applicability of the method when the deposition of solid particles on the filter ranged from 0.008 to 0.425mg/cm^2 For the purpose of improving accuracy and

CARD: 1/3

H - 30

ABS. JOUR. : RZKhim., No. 23 1959, No. 82754

AUTHOR :

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

TITLE :

ORIG. PUB. :

ABSTRACT Con'd : extending limits of the device (that comprises a round filter), it was divided into 4 sections, each one having different hydraulic resistance. This was acheaved by providing porous layers of different thickness. The resistance of each section was made to decrease in geometrical progression from the periphery to the center. Operation of the filter when based on the air rates obtained from previous experiments (the quantity of air passing through each section for a given interval of time) and on the degree of darkening, produces

CARD: 2/3

CARD: 3/3

H - 31

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Spurny, K.

CZECHOSLOVAKIA

"Radioactive Labelling of Membrane Filters for the Assay of Airborne Material"

Authors: G. KUBIE
Mining Institute
Czechoslovak Academy of Sciences
Prague, 8

K. SPURNY
Institute of Physical Chemistry
Czechoslovak Academy of Sciences
Prague, 12

SO: NATURE, 10 September 1960, UNCL.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, KVETOSLAV

Aerosoly (by) Kvetoslav Spurny (et at.) Praha, Statni Nakladatelstvi Technicke Literatury, 1961.
342 P. Illus., Diagrs., Graphs, Tables.
Bibliography: P. 329-337.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

Z/023/61/000/001/005/006
A207/A126

AUTHORS: Spurný, Květoslav, and Pich, Josef

TITLE: The dispersity of industrial aerosols in the lower atmosphere

PERIODICAL: Studia Geophysica et Geodaetica, no. 1, 1961, 85 - 91

TEXT: Industrial aerosol is produced by the dispersion of solid and liquid particles of industrial raw materials or industrial waste in the atmosphere, or by the condensation of the vapours of organic and inorganic substances and chemical reactions in the gaseous state. The authors present in this paper their experiences in capturing aerosol samples from the atmosphere and also the results of measuring the dispersity of industrial aerosols in the Prague atmosphere. For the collection of the particles, the authors used the weathercock (Fig. 1) and fixed to it a holder for small meshes with needle-like microcrystals of Cu_2O. Submicronic particles can be collected on these "needles" by means of diffusion. The microcrystals are prepared by the oxidation of copper meshes used as the sample carrier in electron microscopy. Oxidation takes place as a small flow of air passes through a copper mesh at a temperature of 400 - 500°C. Meshes thus oxidized

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serve as the carrier medium for collecting aerosol particles. Small discs with a diameter of 5 mm are cut from the meshes and placed in the holder on the weathercock. The contaminated atmospheric air passes through the meshes as a result of natural flow and the aerosol particles catch on the "needle-like" crystals. The sizes of the aerosol particles were measured both with an optical microscope by the usual methods and on photographs taken with an electron microscope. The dispersity of sub-micron particles was determined, by measuring the particles on the photographs. Thus, the dispersity could be measured in the size range $0.01 \leqq 2r \leqq 100.0\ \mu$. The numerical data of the dispersity were tabulated, and the mean values in the various size ranges, the averages of the Prague districts, the total averages and monthly averages were calculated. From these measured and calculated values, the differential and integral curves and the curves in the probability network were plotted. Measurements were carried out during a ten-month period in 1959, during which a total of 108 samples was collected and measured. The results showed that the dispersity of the aerosols is very stable and varies little with the place of observation and the season. Almost 80% of the particles of industrial aerosol are in the size range $0.05 < 2r < 5.0\ \mu$, and

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only about 5% of particles $2r \leq 1.0\ \mu$. The smallest size of primary particles of aerosols was found to be $2r = 30\ m\mu$. The long-term measurements showed that the size distribution of industrial aerosol particles corresponds to logarithmic-normal distribution in both the region of colloidal sizes and in the region of coarse suspensions. There are 5 figures and 19 references: 10 Soviet-bloc and 9 non-Soviet-bloc. The reference to the most recent English-language publication reads as follows: J. Cartwright, G. Nagelschmidt, J. Skidmore: Study of Air Pollution with the Electron Microscope. J. Roy. Met. Soc., 82, 1958, 82.

ASSOCIATION: Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague

SUBMITTED: June 27, 1960

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

Figure 1:

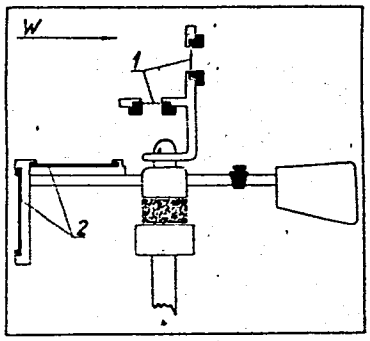

Fig. 1. Weathercock with microscope slides (2) and oxidized meshes for collecting aerosol samples (1).

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S/081/62/000/005/082/118
B149/B101

21720

AUTHORS: Spurný, Květoslav, Machala, Oldřich, Vondráček, Vladimír

TITLE: Radioactive fall-out in Prague in 1960

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 134, abstract 5G126 (Zdravotní techn. a vzduchotechn., v. 4, no. 4, 1961, 191-194)

TEXT: The growth in atmospheric radioactivity and radioactive fall-out in Prague were investigated after the explosion of a plutonium bomb in the Sahara on November 13, 1960. The radioactive fall-out (in curies/$m^2 \cdot 10^{-8}$ for 28 days) was 0.32 in January, 0.42 in February and 1.52 in March, that is, after the explosion it increased approximately four times; then the fall-out decreased to 0.07 in December 1960. A particularly sharp maximum of radioactivity ($1.7 \cdot 10^{-7}$ curies/m^2 for 28 days) was observed at Jevani station during the period between February 1, and March 7, which was accompanied by a considerable rainfall. The atmospheric radioactivity was measured at the height of 10 m by sucking 40-50 m^3 of air

Card 1/2

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B149/B101

Radioactive fall-out in...

through the filter. In March it increased about 2 times, as compared with the second half of February, by the end of the year it diminished by $1.5 \cdot 10^{-13}$ curies/m^3. The general radioactive fall-out in the territory of Prague (172 km^2) decreased considerably in 1960 (8.5 curies) compared with 1958 (77 curies) and 1959 (51 curies). [Abstractor's note: Complete translation.]

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Dispersal of industrial aerosols in the air of Prague. J. hyg. epidem., Praha 5 no.3:373-384 '61.

1. Institut fur physikalische Chemie der Tschechoslowakischen Akademie der Wissenschaften, Prag.

(AIR POLLUTION prev & control)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SHURMY, Svetoslav.

SURNAME (in caps); Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: Institute of Physical Chemistry (Ustav fyzikalni chemie), CSAV /Ceskoslovenska akademie ved; Czechoslovak Academy of Sciences/, Prague.

Source: Prague, Ceskoslovenska Hygiena, Vol VI, No 5, 1961, pp 281-286.

Data: "Aerosols of Exhaust Gases. Their Dispersion in the Prague Atmosphere."

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Aerodisperse type of atmospheric impurities. Cesk. hyg. 6 no.9: 560-564 O '61.

1. Ustav fyzikalni chemie CSAV, Praha.
(AIR POLLUTION)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Withdrawal of aerosol samples of the atmosphere surrounding industrial plants. Cesk. hyg. 6 no.9:565-571 O '61.

1. Ustav fyzikalni chemie CSAV, Praha.
(AIR POLLUTION)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav; PIXOVA, Jindriska

Determination of the concentration and dispersion of liquid aerosols. I. Comparison of direct methods. Pracovni lek. 13 no.3:125-131 Ap '61.

1. Ustav fyzikalni chemie CSAV, Praha.

(AEROSOLS)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Assessment of some physical-chemical properties of inhalation aerosols. Pracovni lek. 13 no.4:194-200 My '61.

1. Ustav fyzikalni chemie CSAV, Praha.

(AEROSOLS)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

KUBIE, Gustav; SPURNY, Kvetoslav

Determination of dustiness by the method of membrane filters labeled with radioactive nickel. Pracovni lek. 13 no.6:274-277 Ag '61.

1. Hornicky ustav CSAV, Ustav fyzikalni chemie CSAV.

(NICKEL radioactive) (DUSTS)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

The aerodispersion form of noxious chemical agents in the air of industrial factories. Pracovni lek. 13 no.10:510-514 D '61.

1. Ustav fyzikalni chemie CSAV.

(AIR POLLUTION)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.; POLYDOROVA, M.

Analytic methods for determining aerosols by using the membrane ultrafilters. Coll Cz Chem 26 no.4:921-931 Ap '61.

1. Institut fur physikalische Chemie, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Aerosols) (Filters and filtration)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

HAVLICEK, V.; POLYDOROVA, M.; SPURNY, K.

Analytic methods for determining aerosols by using the membrane ultrafilters; electrical rigidity of membrane ultrafilters. Coll Cz Chem 26 no.4:932-936 Ap '61.

1. Institut fur physikalische Chemie, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Aerosols) (Filters and filtration)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

KUBIE, G.; JECH, C.; SPURNY, K.

Analytical methods for the determination of aerosols by using membrane ultrafilters. Part 4: Filter penetration by aerosol particles. Coll Cz Chem 26 no.4:1065-1071 Ap '61.

1. Mining Institute and Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague.

(Aerosols) (Filters and filtration)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.; KUBIE, G.

Analytic methods for determining the aerosols by using membrane ultrafilters. Part 5: Making and using membrane ultrafilters marked with radioactive nickel isotopes. Coll Cz Chem 26 no.8: 1991-1998 '61.

1. Institut fur physikalische Chemie, Tschechoslowakische Akademie der Wissenschaften, Prag.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Analytical method for determining the dust aerosols. Silikaty 6 no.3:314-321 '62.

1. Ustav fysikalni chemie, Ceskoslovenska akademie ved, Praha.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.

Chemical composition of solid industrial aerosols in Prague atmosphere. Cesk. hyg. 7 no.7:430-434 Ag '62.

1. Ustav fyzikalni chemie CSAV, Praha.
(AIR POLLUTION) (AEROSOLS)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav; BINEK, Bedrich

Properties of liquid aerosols with a generator with ring-shaped jets. Prac. lek. 14 no.2:95-98 Mr '62.

1. Ustav fyzikalni chemie CSAV, Praha.

(AEROSOLS)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.; POLYDOROVA, M.

Automatic aerosol sampler. Prac. lek. 14 no.7:337-339 S '62.

1. Ustav fyzikalni chemie CSAV, Praha.
(AIR POLLUTION) (DUST)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.; POLYDOROVA, M.; STARCUK, Z.

Analytic filters made of organic microfibers and their use in determining aerosol and dust concentrations. Pracovni lek. 14 no.8:369-375 O '62.

1. Ustav fyzikalni chemie CSAV, Praha Ustav jadernych vyzkumy CSAV, Praha.

(DUST) (AEROSOLS) (AIR POLLUTION RADIOACTIVE)
(AIR POLLUTION)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K., dr.

The 1st National Conference on Aerosols. Uhli 5 no.1:37 Ja '63.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA

SPURNY, K [Affiliation not given]

" First National Conference on Aerosol Dispensing Systems "

Zdravotni Technika a Vzduchotechnika, Prague, Vol 6, №2,63, pp 89-91

Abstract: The conference has been organized by the Institute of Physical Chemistry, Czechoslovak Academy of Sciences, in cooperation with the Czechoslovak Chemical Society at the Academy on 8 - 13 October,1962 in Liblice. Altogether 173 domestic and 62 foreign representatives took part in the conference. The main work of the conference has been concentrated around fundamentals in the research and development related to physical chemistry in the aerosol type dispensing systems. Also radioactive aerosol systems and aerosols for use in meteorology, astronomy, in the industry and agriculture and biological effects of aerosols have been discussed in various sections. All papers are being prepared for publication in a volume under the name "Aerosols ; Physical Chemistry and Applications" in 1963 by the Czechoslovak Academy of Sciences.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.

The 1st National Conference on Aerosols with foreign attendance.
Jaderna energie 9 no.3:105-106 Mr '63.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K., dr.

The 1st National Conference on Aerosols with international attendance. Rudy 11 no.3:94 Mr '63.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.

"Progress in microscopy" by M.Francon. Reviewed by K.Spurny.
Rudy 11 no. 11:380-381 N'63.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY,K.; PICH,J.

Analytical methods for determination of aerosols with help of membrane ultrafilters. Pt.6. Coll Cz Chem 28 no.11: 2886-2894 N'63.

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.

The 5th National Conference on Colloidal Chemistry in Odesa.
Chem listy 57 no.1:102 Ja '63.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Development of the physical chemistry of aerodispersion systems.
Chem listy 57 no.3:225-229 Mr '63.

1. Ustav fysikalni chemie, Ceskoslovenska akademie ved, Praha.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K.

The 1st National Conference on Aerosols with international attendance in Liblice, October 8 - 13, 1962. Chem listy 57 no.3:294-297 Mr '63.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

First National Conference on Aerosols with international attendance. Vestnik CSAV 72 no.1:100-104 '63.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav, dr.

Preparation of aerosols from liquid suspensions. Uhli 6 no.6: 208-209 Je '64.

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Portable pumps for equipment for taking samples of steam, fas and aerosols in the atmosphere. Prac. lek. 16 no.1:27-30 Ja'64

1. Ustav fyzikalni chemie CSAV [Ceskoslovenske akademie ved], Praha.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Retention of submicron aerosols by membrane filters. Prac. lek. 16 no.2:62-69 Mr'64

1. Ustav fyzikalni CSAV [Ceskoslovenske akademie ved], Praha.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

PICH, Josef, promovany fyzik; SPURNY, Kvetoslav, RNDr.

Concept of the resistance of porous substances. Zdravot tech 7 no. 3:114-122 '64.

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav, RNDr.; MACHALA, Oldrich, promovany biolog

Radioactive fallout in Prague in 1963. Zdravot tech 7 no.4: 149-151 '64.

1. Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav, RNDr.

International conference on the measurement of aerosol dust concentration. Zdravot tech 7 no.4:183 '64.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY,K. (Praha 10, Malesice 272)

New possibilities for the use of membrane filters in biochemistry, microbiology and hygiene. Cesk. hyg. 10 no.1:50-54 F '65.

On a simple method for determining the degree of air pollution. Ibid.:54-55

1. Ustav fyzikalni chemie Ceskoslovenske akademie ved, Malesice.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav, RNDr. CSc.

International Colloquy on Dust Aerosols and Filtration, Paris, November 19-21, 1964. Rudy 13 no.2:66-67 F '65.

1. Institute of Physical Chemistry of the Czechoslovak Academy of Sciences, Prague.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Kvetoslav

Notes on filtration materials for respirators for protection against radioactive aerosols. Prac. lek. 17 no.1:22-23 Ja '65

1. Ustav fyzikalni chemie Ceskoslovenskej akademie ved, Praha.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, K ; HAMPL, V.

Preparation of radioactively labelled condensation aerosols. Pt.1. Coll Cz Chem 30 no.2:507-514 F '65.

1. Institute of Physical Chemistry of the Czechoslovak Academy of Sciences, Prague. Submitted February 5, 1964.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA

HAMPL, V; SPURNY, K

Institute of Physical Chemistry, Czechoslovak Academy of Sciences (for both)

Prague, Collection of Czechoslovak Chemical Communications, No 3, March 1966, pp 1152-1161

"Analytical methods for determination of aerosols by means of membrane ultrafilters. Part 8: Determination of the mean pore size by gas flow rate measurements."

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA

SPURNY, K.

Institute of Physical Chemistry of the Czechoslovak Academy of Sciences (Ustav fyzikalni chemie CSAV), Malesice

Prague, Ceskoslovenska Hygiena, No 1, 1965, pp 50-54

"Some New Possibilities for the Use of Membrane Filters in Biochemistry, Microbiology and Hygiene."

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA

SPURNY, K.

Institute of Physical Chemistry of the Czechoslovak Academy of Sciences (Ustav fyzikalni chemie CSAV), Malesice

Prague, Ceskoslovenska Hygiena, No 1, 1965, pp 54-55

"Methods of Purifying the Atmosphere."

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

L 33684-66 T DS/WW/RO

ACC NR: AP6024253 SOURCE CODE: CZ/0038/65/000/007/0241/0246

23

B

AUTHOR: Spurny, Kvetoslav

ORG: Institute of Physical Chemistry, CSAV, Prague (Ustav fyzikalni chemie CSAV)

TITLE: Theory of membrane filtration

SOURCE: Jaderna energie, no. 7, 1965, 241-246

TOPIC TAGS: aerosol, gas filter

ABSTRACT: An equation is derived for a capillary model of a membrane filter expressing the efficiency of separation of finely dispersed aerosols. Two mechanisms are considered: diffusion sedimentation in the capillary pores and impact capture on the filter surface. The characteristic curves $E = E(L)$, $E = E(q)$, $E = E(r)$ and $E = E(R)$ are calculated and compared with the experimental values, with good qualitative agreement. This paper was presented by V. Santholzer. Orig. art. has: 9 figures, 8 formulas and 2 tables. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 003 / SOV REF: 002
OTH REF: 019

Card 1/1 PB

UDC: 621.928.9:66.074.3:541.182.3

0915 1904

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

L 31591-66 RO

ACC NR: AP6022959 SOURCE CODE: CZ/0008/65/000/009/1066/1068

AUTHOR: Polydorova, Marie; Spurny, Kvetoslav; Paspa, Dalibor; Benak, Frantisek

ORG: Institute of Physical Chemistry, CSAV, Prague (Ustav fysikalni chemie CSAV); [Paspa, Benak] Developmental Workshop CSAV (Vyvojovedilny CSAV)

TITLE: Use of a membrane filter ribbon for continuous collecting of aerosol samples

SOURCE: Chemicke listy, no. 9, 1965, 1066-1068

TOPIC TAGS: aerosol, aerosol chemistry, gas filter

ABSTRACT: Improved apparatus for continuous sampling of aerosols is described. The previous manner of sampling was in a stepwise way. The samples are collected on belts made of paper or plastic and evaluated on the basis of light scattering caused by the solids collected on the filter. The authors designed a special membrane filter which is produced by the Czech firm Synthesia; this filter may be used for continuous measurements lasting 24 hours. The apparatus is similar to the AISI sampler made by the Research Appliance Co. of Allison Park, Pa. Orig. art. has: 2 figures. [JPRS]

SUB CODE: 07 / SUBM DATE: 25Jul64 / ORIG REF: 001 / OTH REF: 007

Card 1/1 BLG

0915 1043

L 42280-66

ACC NR: AP6031473 SOURCE CODE: CZ/0008/66/000/003/0343/0345

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

AUTHOR: Spurny, Kvetoslav

ORG: Institute for Physical Chemistry, CSAV, Prague (Ustav fysikalni chemie CSAV)

TITLE: Preparation of 'optically pure' water

SOURCE: Chemicke listy, no. 3, 1966, 343-345

TOPIC TAGS: filtration, distillation

ABSTRACT: Impurities found in distilled water that was not subjected to ultrafiltration are discussed. The occurrence of colloid particles resulting from microbial contamination is described. Particle entrainment during distillation and condensation is evaluated. Carryover of dissolved solids in bubbles of the boiling liquid is described. Optical and filtration methods for the quantitative determination of impurities in distilled water are discussed. Orig. art. has: 2 figures. [JPRS: 36,002]

SUB CODE: 07 / SUBM DATE: 30Jun65 / ORIG REF: 002 / OTH REF: 003

Card 1/1

0918 2133

CZECHOSLOVAKIA UDC 613.6:613.155(:561.182.3)-07

SPURNY, Kvetoslav; Institute of Physical Chemistry, Czechoslovak Academy of Sciences (Ustav Fyzikalni Chemie CSAV), Prague, Direc-

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, M., inz.arch

New hospital in Boskovice. Cesk.zdravot. 8 no.12:698-702 D '60.

1. Krajsky projektovy ustav pro vystavbu mest a vesnic, Brno.
(HOSPITALS)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

FORMANEK, Frantisek, dr.; SPURNY, Milan

Management of enterprises with detached plants. Podn org 18 no. 3:120-122 Mr '64.

1. Technical and Economic Research Institute of the Metallurgic Industry and Ore Mines.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, M.

"Cell Wall Structure of the Epidermal Cells of Pea Seed (Pisum Sativum)", P. 79, (BIOLOGIA, Vol. 26, No. 1, 1954, Praha, Czech.)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 3, March 1955, Uncl.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

Spurný

Application of the phloroglucinol reaction to the study of progressive lignification of cell walls. M. Spurný and Z. Sladký (Masarykova Univ., Brno, Czech.). *Preslia* 27, 243-52(1955).—The progressive lignification of the sclerenchymatic bast fibers of *Abutilon avicennae* was studied by the phloroglucinol reaction (I) and with 72% H_2SO_4. I was applied to the cross sections of the plant stems. The intensity of the reaction was compared with a color-scale prepd. by means of application of aniline dyes to the fixed gelatinous layer of a photographic slide. Results of the 2 methods differed considerably. I is subject to great errors and cannot be used for detn. of lignin, but only for distinguishing the lignified membranes. K. Macek

MT

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Milos

2/

Cultivation characteristics of desulfurizing bacteria from oil deposits. Milan Dostálek and Miloš Spurný (Ústav naftový výzkum, Brno, Czech.). *Českoslov. mikrobiol.* 1, 158–64(1956).—The possibilities were studied of cultivating desulfurizing bacteria isolated from water in oil deposits under lab. conditions. The used cultures contained bacteria of the *Desulfovibrio* genus together with accompanying microflora not identified in detail. Development of the cultures was estd. by measuring the production of H_2S and the length of the lag phase. Optimal initial pH was within the range 7–8, optimal initial oxidation-reduction potential of the nutrient soln. was within the limits for E_H from 0 to −40 mv., however, good development occurred below values E_H 150 mv., at pH 7. Addn. of yeast ext. had a stimulatory effect. Concn. of sulfate in the medium affected the length of the lag phase and the production of H_2S, the optimal concn. being 0.07–0.28% Na_2SO_4. At low concns. (0.0001–0.001*M*) practically 100% of the sulfate was converted to H_2S, but the lag phase was prolonged. In most expts. the lag phase lasted 24 hrs., the logarithmic phase a further 48–72 hrs., and the stationary phase approx. up to the 8th day of cultivation. Optimal period for pre-cultivating for further inoculation was 48–72 hrs. L. J. U.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY MILOS

Sulfate reduction followed by spot test for hydrogen sulfide. Jiří Úlehla, Miloš Spurný, and Milan Dostálek (Ústav naftový výzkum, Brno). *Českoslov. mikrobiol.* 1, 267-71 (1956).—A method is described for the quant. estn. of the biol. reduction of sulfates. It depends on the production of H_2S under conditions suitable for the development of bacteria which reduce S compds. A spot test is performed on paper satd. with $(AcO)_2Pb$. This can det. H_2S in the range 10-170 γ within ±8.7%. L. I. Urbánek

3

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA / Microbiology - General Microbiology. F

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38316.

Author : Spurny, M., Dostalek, M., Ulehla, J.
Inst : Not given.
Title : A Method for Quantitative Calculation of Sulfate Reducing Bacteria.

Orig Pub: Ceskosl. mikrobiol., 1956, 1, No 6, 272-281.

Abstract: A quantitative method is suggested for determining sulfate reducing bacteria, based on the curves of H_2S liberation in studied waters and the standard of H_2S formation in sulfate reducing mixed cultures with a known number of cells per ml. A nomogram is suggested which allows determination of the number of sulfate reducing bacteria within the limits of 10^1---10^8 bacteria per ml.

Card 1/1

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, M.; FORMANEK, F.; HEROLD, M.

Some problems of organization in ore-mining enterprises. p. 265.
(RUDY, Vol. 5, No. 8, Aug 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA / Microbiology - General Microbiology. F

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38315.

Author : Spurny, M., Dostalek, M.
Inst : Not given.
Title : Use of a Method for Calculating the Number of Bacteria on the Surface of a Culture Plate to Determine the Number of Bacterial-Companions of Sulfate Reducing Bacteria in Hydrogen Sulfide Waters.

Orig Pub: Preslia, 1957, 29, No 2, 125-131.

Abstract: As was shown in the preceding report by the authors (Ceskosl. Microbiol., 1956, 1, 272-281), the quantity of H_2S formed by the sulfate reducing bacteria depends on the number of entrained bacteria; the determination of the number of these bacteria by the method of culture plate proved

Card 1/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

DOSTALEK, M.; SPURNY, M.

Geomicrobiological oil prospection. I. Sensitivity of hydrocarbon bacteria. Folia microbiol 7 no.2:141-149 '62.

1. Department of Technical Microbiology, Institute of Microbiology, Czechoslovak Academy of Sciences, Prague 6.

(SOIL microbiol) (HYDROCARBONS) (PETROLEUM)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, M

CZECH

Supplementary glass apparatus for use with Amsler's volumometer. M. Spurný and J. Úlehla (Univ. Brno, Czech.). *Presl*[illegible] (1952)(in English).—Supplementary glass app. were constructed for vol. detn. of small objects, for detn. with other volumetric liquids than mercury, and for detn. of the volume of liquid absorbed in the objects. These app. can be joined to Amsler's volumometer instead of the original capillary glass tube.

K. Macek

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA

SPURNY, O.; SURYNEK, J.; KOSTARZ, T.; Chair of Pathological Physiology, Veterinary Faculty, College of Agriculture (Katedra Patologicke Fysiologie Veterinarni Fak. VSZ), Brno.

"The Development of the Level of Ketones, Fatty Acids, and Ammoniacal Nitrogen in the Blood of Calves Fed Acidophilic and Non-skim Milk."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 5, Sep 66, p 391

Abstract: Two groups of 6 calves were investigated between the ages of 4 days and 6 months. One group received non-skim milk with 4% of fat, and later hay, grain meal, and beet; the second milk fermented by acidophilic microbial agents, later skim milk, siloed corn, hay, and grain meal. Only the levels of EFA and NEFA between the ages of 4 and 8 weeks were different; this resulted mainly from the supply of milk fat to the 1st group. The levels of EFA decrease to that of adult animals already in the 10th week. There is a temporary increase in the levels of ketones and EFA in the 15-16th and 16-18th weeks, respectively. 3 Western, 2 Czech references. Submitted at 3 Days of Physiology of Domestic Animals at Liblice, 10 Dec 65.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, ZDENEK

CZECHOSLOVAKIA/Laboratory Equipment, Apparatus, Their Theory, Construction and Application. F.

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46522

Author : Zdenek Spurny, Jiri Hruska
Inst : -
Title : Chemical Dosimeter of Fe^{2+}/Fe^{3+} type.

Orig Pub : Jaderna energie, 1957, 3, No 12, 401-405

Abstract : The properties of the ferrosulfate dosimeter (D) under the action of soft x-rays were studied. The D i s a l. 10^{-3} M solution of $(NH_4)_3Fe(SO_4)_2 \cdot 6H_2O$ in 0.8 n. H_2SO_4.

The concentration of Fe^{2+} and Fe^{3+} is determined by usual methods and calorimetrically. The Fe^{3+} concentration in the solution changes irreproducibly during the first 5 hours after the solution preparation in consequence of the spontaneous oxidation of Fe^{2+}. After that the change is insignificant, but several

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA/Laboratory Equipment, Apparatus, Their Theory, Construction and Application. F.

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46522

days later the solution becomes little useful for dosimetric measurements. The quantum yield (QY) of the process is constant (with an accuracy to 10%) at doses above 1000 Roentgen units and is equal to 21 atoms per 100 ev. QI is greater, if the doses were less, and is reproducible with the accuracy of up to 30%. The QY of 40 atoms per 100 ev corresponds to a dose from 0 to 300 Roentgen units. The possibility of the D application at weak intensities down to 1.8 Roentgen units per min. was established. After the irradiation has been discontinued, the Fe^{3+} concentration rises insignificantly in the duration of several minutes. The conclusion was arrived at that at doses above 1000 Roentgen units the described D is more convenient than the ionization one.

Card 2/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Z.

19 3 7/8

Kinetics of the oxidation by irradiation of cystine in aqueous solution. Rudolf Brdička and Zdeněk Spurný. *Chem. listy* 51(81), 1267-73(1957); *Collection Czechoslov. Chem. Communs.* 23, 561(1958).—The decrease of cystine in aq. soln. caused by soft x-rays in presence of air O was measured by its polarographic reaction in solns. of $2 \times 10^{-3}M$ $CoCl_2$, $0.1N$ NH_4Cl, and $0.1N$ NH_3. In these solns. cystine concn. of 10^{-4} to 10^{-5} can be detd. well by comparison of the polarographic curves with a standard soln. At const. irradiation of 33 r./sec. during 8 min. the reaction was approx. bimol. After longer irradiation the reaction did not correspond to the calcd. values. The equation $RSSR + O_2 = RSO_2SR$, with intermediate RSO_2H, is suggested. G. P. Rosenbaum

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

ZDENEK SPURNY

CZECHOSLOVAKIA/Physical Chemistry - Radiation Chemistry, Photochemistry, Theory of Photographic Process. B-10

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7266.

Author : Zdenek Spurny
Inst :
Title : Radiation Chemistry.

Orig Pub: Chem. listy, 1957, 51, No 1, 186-206.

Abstract: Review. Bibliography with 197 titles.

Card : 1/1

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Z.

"Sixteenth birthday of Dr. Frantisek Behouenk; a biographical sketch."

JADERNA ENERGIE. Praha, Czechoslovakia, Vol. 4, October 1958.

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

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

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

Abs Jour : Ref Zhur - Fizika, No 6, 1959, 12298

Author : Spurny Zdenek
Inst : -
Title : Brief Description of the Present Day State of Chemical Dosimetry.

Orig Pub : Jaderna energie, 1958, 4, No 8, 220-226.

Abstract : Survey article.

Card 1/1

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECHOSLOVAKIA / Physical Chemistry. Radiation Chemistry. Photochemistry. Theory of the Photographic Process. B-10

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 76767.

Author : Brdicka, R. and Spurny, Z.
Inst : Not given.
Title : The Kinetics of the Radio-Oxidation of Cystine in Aqueous Solutions.

Orig Pub: Collect Czechoslov Chem Commun, 23, No 4, 561-568 (1958) (in German with a Russian summary).

Abstract: See RZhKhim, 1958, 42587.

Card 1/1

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

The Change of the Concentration of Fe^{+2} in Irradiated 4 N H_2SO_4 Solutions SOV/76-32-6-44/46

metrically. The increase of the Fe^{+3} concentration was measured spectrophotometrically at 480 mμ and with 15% potassium thiocyanate solution. The results of the measurements obtained are represented graphically. From the mentioned observations may be seen that the mentioned phenomenon can be measured well only in the case of small ionization dosages (0 - 2.000 r); on the other hand it was found that this phenomenon is independent of the type of ionization radiations and that it does not occur in the case of an elimination of the oxygen from the solution. There are 1 figure and 5 references, 3 of which are Soviet.

ASSOCIATION: Chekhoslovatskaya Akademiya nauk, Institut yadernoy fiziki, Praga (Prague, Institute of Nuclear Physics, Czechoslovakian Akademy of Sciences)

SUBMITTED: November 10, 1957

Card 2/3

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

The Change of the Concentration of Fe^{+2} in Irradiated 4 N H_2SO_4 Solutions SOV/76-32-6-44/46

1. Iron--Chemical reactions 2. Salts--Performance 3. Salts--Radiation
4. Spectrophotometers--Applications

Card 3/3

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Z.

"Changes in the Fe^{2+} concentration in irradiated 4n-H_2SO_4 solutions."

p. 544 (Chemicke Listy, Vol. 52, no. 3, Mar. 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 9, September 1958

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECH/37-59-3-11/29

AUTHORS: Kočí, Jiří and Spurný, Zdeněk

TITLE: A Simple Photometer for Photographic Dosimetry

PERIODICAL: Československý časopis pro fysiku, 1959, Nr 3, pp 277-279

ABSTRACT: A simple, cheap photometer for measuring very small optical densities on X-ray films used for dosimetry, particularly for the protection of personnel, was constructed. The schematic construction of the instrument is shown in Figure 1. A 4-V incandescent lamp 1 is adjustably mounted between two mirrors 2 , each illuminating one fixed aperture 3 . Each beam passes through a fixed polaroid 4 . Having passed through the polarizers, one beam traverses the measured film, while the other passes through a developed, but unexposed, film 5 . Each beam then passes through a second polaroid, acting as analyzers, 6 . After passing through another aperture 7 , the beams enter a Hüfner prism 8 and an eyepiece 9 . One analyzer, which can be directly calibrated in roentgen units, is rotated until the two halves

Card1/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

CZECH/37-59-3-11/29

A Simple Photometer for Photographic Dosimetry

of the field of view are equally illuminated. The sensitivity of this densitometer is such as to measure optical densities of 0.01.
There are 1 figure, 1 table and 2 references, of which 1 is English and 1 Czech.

ASSOCIATION: Ústav jaderného výzkumu ČSAV, Praha (Institute for Nuclear Research of the Czechoslovak Ac.Sc., Prague)

SUBMITTED: November 10, 1958

Card 2/2

Abstract : Description of the construction and of the principal parameters of a simple polarization photometer, intended for the processing of film dosimeters for individual control. The operating principle of the photometer is based on a gradual variation of the intensity of light upon crossing of two polarization foils. The photometer is calibrated directly in roentgens, The measurement accuracy is approximately 0.1 roentgen. -- V.I. Lend'yel

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Card 1/1

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

KOCI, Jiri; SPURNY, Zdenek

A simple photometer useful for the measurement of blackening of films in photographic dosimetry. Pracovni lek. 11 no.8:412-414 Oct 59.

1. Ustav jaderneho vyzkumu CSAV, Praha.
(RADIOMETRY, equip. & supply) (PHOTOMETRY, equip. & supply)

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SPURNY, Zdenek; ZAMECNIK, Jiri; HRUSKA, Jiri

Chemical dosimeter in ionizing radiotherapy.I.Possibility of use. Cesk. rentg. 13 no.3:188-191 June 59.

1. Ustav jaderneho vyzkumu CSAV, doz. odd., vedouci prof. dr. F. Behounek Onkologicky ustav v Praze, reditel MUDr. F. Vadura. Z.S., Praha 8, Onkolog. ustav Praha 8, Na Truhlarce 100.
(RADIOTHERAPY, appar. & instruments
dosimeter, chem. (Cz))

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COUNTRY : [illegible]
CATEGORY :

ABS. JOUR. : RZKhim., No. 23 1959, No. 81461

AUTHOR : Spurny, Z.
INST. : Not Given
TITLE : Variations of Fe^{2+} Concentration Upon the Irradiation of Its 4N Solution.

ORIG. PUB. : Collect. Czechosl. Chem. Communs, 1959, 24, #3, 1010-1011

ABSTRACT : See RZKhim, 1959, #5, 14715.

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SPURNY, Zdenek

Survey of dosimetric methods. Jaderna energie 6 no.3:83-88 Mr '60.

1. Ustav jaderneho vyzkumu, Ceskoslovenska akademie ved, Praha.

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SPURNY, Z.

Measurement of high radiation doses. Jaderna energie 6 no.3:104 Mr '60.

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SPURNY, Z.

Solution of some problems of health dosimetry in the Savannah River Laboratory. Jaderna energie 6 no.6:210-211 Je '60.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURNY, Z., kandidat chemickych ved

Possibilities of using radioactive waste and powerful sources of radiation in the national economy. Nova technika no.6:270-272 '60.

1. Ustav jaderneho vyzkumu, Ceskoslovenska akademie ved.

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SPURNY, Z., C.Sc.

"Introduction to nuclear engineering" by R.Stephenson. Reviewed by Z. Spurny. Nova technika no.6:288 '60.

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SPURNY, Z.

"Dosimetry of radioactive isotopes" by E. A. Liberman. Reviewed by Z. Spurny. Jaderna energie 6 no.2:45 F '60.

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SPURNY, Zdenek

Use of Czechoslovak optical glass for industrial dosimetry.
Jaderna energie 6 no.5:163-165 My '60.

1. Ustav jaderneho vyzkumu, Ceskoslovenska akademie ved, Praha.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001652730004-3

SPURYN, Z.

"Properties and structure of atoms" by B.Sarry, Reviewed by Z.Spurny. Jaderna energie 6 no.7:243 Jl '60.

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SPURNY, Zd.

"Power in a nucleus" by Walter Hosang. Reviewed by Z.Spurny. Jaderna energie 6 no.7:243 Jl '60.

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SPURNY, Z.

Chlorine elimination in the tetrachlorocarbon radiolysis. Coll Cz Chem 25 no.5:1254-1257 My '60.

1. Institut fur Kernforschung, Tschechoslowakische Akademie der Wissenschaften, Prag.

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[illegible]

[illegible] Czechoslovakia

Academic Degree:

Affiliation: Nuclear Research Institute (Ustav jadrového výskumu) of the CSAV [Československá akademia vied; Czechoslovak Academy of Sciences], Prague

Source: Bratislava, Jaderná Energie, No 3, 61, pp 139-140

Title: "Personnel Monitoring Systems [in Czechoslovakia]"

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21296
Z/038/61/000/006/002/002
D235/D304

21.8100 (1558, 1033, 1138)

AUTHOR: Spurný, Zdeněk

TITLE: Radiothermoluminiscence dosimeter I

PERIODICAL: Jaderná energie, no. 6, 1961, 205 - 206

TEXT: This is the first part of an article dealing with the principle, materials and design of radiothermoluminiscence dosimeters. This part describes the principle of radiothermoluminiscence [Abstractor's note: Designated RTL], its possible uses in dosimetry, and the various materials suitable for such purposes. The rapid development of nuclear physics and its applications in radiobiology, radiotherapy, radiation chemistry, reactor engineering, etc., have given rise to the need of a simple, small-size dosimeter capable of measuring gamma radiation doses over the range of 1 - 1000 r. Such a dosimeter is especially needed for applications, where the usual dosimetric methods (ionization measurement, calori-

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D235/D304

Radiothermoluminiscence ...

metry, chemical dosimeters, etc.) cannot be employed. RTL appears to be a promising answer to this problem, since the integral amount of liberated light energy is directly proportional to the dose of radiation used for the excitation of thermoluminiscent crystals. This method has the additional advantage that RTL is very sensitive to radiation and that it is reversible, i.e. the same crystal can be reused after cooling. Also, the deexcitation of crystals is controllable in that the absorbed energy is not emitted immediately, but can be liberated at any desirable time after excitation. F. Daniels (Ref. 3: Report of Symposium IV, Chemistry and Physics of Radiation Dosimetry, Army Chem. Center, Maryland, Part I, 148, /1950/) was the first one to study the use of lithium-fluoride crystals for military dosimetric purposes. Later, V.V. Antonov-Romanovskiy et al. (Ref. 9: Izv. ANSSSR, ser. fiz. 10, 477, 1946) reported on a Soviet design of a RTL dosimeter using crystals of strontium sulfide activated with samarium and europium. High costs of the crystals, however, have so far prevented a wider use

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Radiothermoluminiscence ...

of this dosimeter. In recent years, V.M. Nosenko et al. (Ref. 12: ZhTF, 26, 9, 2046, 1956) and A.V. Arkhangelskaya et al. (Ref. 13: Optika i spektr., 4,5, 681, 1958) reported on the intensive RTL of calcium sulfate activated with manganese. These crystals are easy to produce; highly sensitive to ionizing radiation; insensitive to daylight, so that they can detect also soft corpuscular radiation, need not be enclosed in light-tight cases and do not display any triboluminiscence at all. The Dozimetrické oddělení ÚJV ČSAV (Dosimetric Section, ÚJV, Czechoslovak AS), therefore, worked out a laboratory production method of these crystals, and built a RTL dosimeter in the shape of a tube, 20 mm long, 3 mm in diameter, capable of measuring gamma radiation doses over the range of 1 - 10,000 r. The production method of crystals, their physical and dosimetric parameters, and the design of the measuring system will be described in the following part of this article. There are 4 figures and 13 references: 5 Soviet-bloc and 8 non-Soviet-bloc. The four most recent references to English-language publications

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D235/D304

Radiothermoluminiscence ...

read as follows: F. Daniels et al., Science 117, 343, 1953; J.H. Schulman et al., Symposium on Special Topics of Radiation Dosimetry, Vienna, 1960; N. Höring et al., Symposium on Special Topics of Radiation Dosimetry, Vienna, 1960; J.H. Schulman et al., Nucleonics 18, 1960, no. 3, 92 /Abstractor's note: Technical editor for this article is F. Běhounek/.

ASSOCIATION: Dozimetrické oddělení ÚJV ČSAV (Dosimetric Section, ÚJV, Czechoslovak AS)

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S/089/61/010/002/014/018
B102/B209

AUTHORS: Spurny, Zdenek

TITLE: On the problem of the characteristics of irradiated glass

PERIODICAL: Atomnaya energiya, v. 10, no. 2, 1961, 172-173

TEXT: S. M. Brekhovskikh (Atomn. energiya, Vol. 8, p. 37) made the suggestion to characterize the radiation effect in glass by the following four specific quantities: a) Stability coefficient of glass to the effect of ionizing radiation K_{st} (the logarithm of the dose at which transmissivity drops by 5%), b) saturation coefficient K_s (logarithm of the dose at which the glass is saturated with color centers), c) the minimum transmissivity for light T_{min} (transmissivity in the range of saturation by color centers), and d) coefficient of darkening intensity Q (the ratio of light transmissivity before irradiation to that after irradiation with 10^6r). The present "Letter to the Editor" gives a report on measurements of these coefficients of various glass types. In order to be able to perform uniform measurements of these coefficients, the following conditions must be fulfilled: 1) Co^{60}

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