CZECH/37-59-1-16/26

AUTHORS: Marie Simerská, Vladimír Syneček

A Contribution to the Semi-Focusing Method with a Plane TITLE:

Polycrystalline Sample

PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 1,

pp 102-104 + 1 plate

ABSTRACT; Fig 1 shows the semi-focusing method with a divergent

beam of monochromatic X-rays I for the case when the width of the effective area of the sample is small compared with the radius of the focusing circle and the radius of the camera. In this case only rays passing through Points P<sub>1</sub> and P<sub>2</sub> are completely focused. The width of the diffraction lines for other angles for a given total divergence of the primary beam, 25, can be minimised according to Fig 2 (see also Eqs 1, 2, and 3).

A similar calculation can be used for an oscillating

Sample. The absorption factor is, in this case, given by Eq (6). Fig 4 shows the absorption for various regions

of oscillations &.

Card 1/2

There are 4 figures and 2 English references.

CZECH/37-59-1-16/26

A Contribution to the Semi-Focusing Method with a Plane Polycrystalline Sample

ASSOCIATION: Ústav technické fysiky ČSAV, Praha

(Institute of Technical Physics, CSAV, Prague)

Card 2/2

SUBMITTED:

September 9, 1958

CIA-RDP86-00513R001654310002-9" APPROVED FOR RELEASE: 08/31/2001

CZECHOSLOVAKIA/Solid State Physics - Structural Crystallography. E

: Ref Zhur Fizika, No 4, 1960, 8659 Abs Jour

: Simerska Marie, Synecek Vladimir Author

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: A Contribution to the Semi-Focusing Method with a Flat Title

Polycrystalline Sample

Orig Pub : Czechoslo. fiz. zh., 1959, 9, No 3, 395-398

Abstract : See Abstract 8658.

Card 1/1

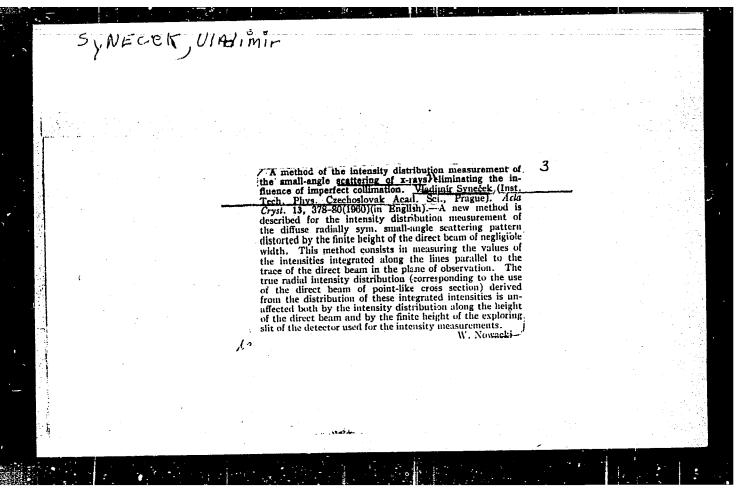
CIA-RDP86-00513R001654310002-9" APPROVED FOR RELEASE: 08/31/2001

## SYNECEK, V.

Quantitative method for the determination of fiber texture in wires. I. Principle method and analytic expression of the absorption factor. p. 406

CESKOSLOVENSKY CASOPIS PRO FYSIKU. (Ceskoslovenska akademie ved. Ustav technicke fysiky) Praha, Czechoslovakia. Vol. 9, no. 4, 1959.

Monthly List of East European Accessions (EFAI), LC. Vol. 8, no. 10, Oct. 1959 Uncl.



ACCESSION NR: AP4041976

2/0055/64/014/007/0510/0516

AUTHOR: Synecek, V.

TITLE: On the determination of scale and temperature factors in crystal structure analysis

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 7, 1964, 510-516

TOPIC TAGS: scale factor, temperature factor, crystal structure, a ray diffraction, crystal structure analysis

ABSTRACT: A procedure for reducing the relative intensities of x-ray diffractions to an absolute scale and for simultaneously determining the temperature factor is described. It is based on principles similar to those of the exact, rocedure given by Kartha for determining the scale factor c but has the advantage that its use is not limited to a prior knowledge of the temperature factor M. The relations given here can be transformed into Wilson's well-known statistical treatment by introducing certain approximations. The reliability of Wilson's method is discussed; the only factor seriously affecting the accuracy

Card 1/2

ACCESSION NR: AP4041976

of values of c and M obtained by either method is the mutual overlap of individual atomic electron densities resulting from the use of small ranges of reciprocal volume for calculations.

ASSOCIATION: Institute of Solid State Physics, Czechoslovak Academy of Sciences

SUBMITTED: 29Dac63

ENCL: 00

SUB CODE: SS

Card 2/2

NO REF SOV: 000

OTHER: 003

the strength of the strength o

SYNECHK, V.; SEBO, ..

On the configuration of Guinier-Preston zones in Al-Ag and Al-Zn alloys. Chekhosl fiz zhurnal 14 no.5:622-628 \*64

1. Institute of Solid State Physics, Gzechoslovak Academy of Sciences, Frague 6, Cukrovarnicka 10 (for Synecek). 2. Iaboratory of Metal Physics, Slovak Academy of Sciences, Bratislava, Februaroveho vitasstva 135 (for Sebo).

PATEL S-JAME WW., Maria; SYNECTE, -V.

Small-angle X-ray diffraction studies on rat-tail tenden. Acts physical acad. sci. Hung. 28 no.1:1-17 165.

1. Pascarch Institute for Technical Physics, Imporian Academy of Sciences, Budapest, and Institute of solid State Physics, Czochoslovak Academy of Sciences, Prague. Submitted October 23, 1964.

SYNECKY, Ladislav; DIKANT, Michal; VOJTEK, Vojtech

Protection of induction coils in medium frequency induction furnaces. Elektrotechnik 17 no.1:26-28 Ja '62.

1. Podnikova elektroudrzba, n.p. Chemosvit (for Dikant and Vojtek) 2. Vedouci elektroudrzby, Ceskomoravska-Kolben-Danek, n.p., zavod slevarny - Stalingrad II (for Synecky).

## SYNECKY, Ladislav

Shortcomings of the electric tension tester Vadas. Elektrotechnik 17 no.6:175-176 Je '62.

1. Slevarny, Ceskomoravska-KolbenDanek Praha.

SYNECKY, L.

Electrical heating of oxygen for medical inhaling apparatus. Elektrotechnik 17 no.9:268-269 S 162.

1. Ceskomoravska-Kolben-Danek Praha.

SYNFK, D.

Organization of food-industry enterprises. p. 285.

(Prumysl Potravin. Vol. 8, no. 6, 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

KABELAC, Josef; SYNEK, Ivan

Determining the passage of stars by the method of interrupted lighting in the field of vision. Studia geophys 8 no. 2: 120-126 '64.

1. Chair of Higher Geodesy, Czech High School of Technology, Prague 2, Karlovo namesti 13.

#### CIA-RDP86-00513R001654310002-9" APPROMED FOR RELEASE 108/31/2001 CATEGORY

: RZKhime, No. 51960, No. ABS. JOUR.

19051

Rektorik, Z., Rybacek, L., Synek, J., and Zajicek,

AUTUR THST.

t Not given

TITE

Eye Drops Containing Minc Sulfate Prepared According to PhBs II, Their Composition, and Preparation

Methods.

ORIG. PUB.

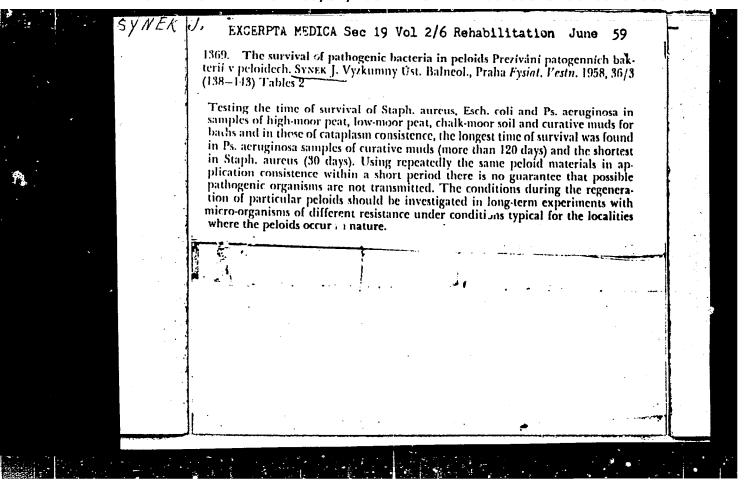
Ceckoslov Farmac, 7, No 9, 508-511 (1958)

ABSTRACT

The composition and preparation method for the above-indicated medicinal preparation have been checked from the point of view of possible incompatibility of phenylmercuriborate with NaCl, and the effect of various synthesis aids and of the temperature of the solvent on the hydrolysis of ZnSO4. It is proposed to dissolve ZnSO4 (0.25%) and the synthesis aids (0.5% CH, COONa and 0.6% NaCl) in a solution of phenylmercuriborate (0.602%) at about 20°. The above procedure eliminates the

GARD: 1/2

	COUNTRY : Cz	echoslovakia H-17	
		Khim., No. 51960, No.	
	AUTHOR :		
	TITLE		
	ORIG. FUB. :	a serimercury cation with	
•	S W	ncompatibility of the phenylmercury cation with the Ci anion and avoids the use of warm water as indicated in the Czechoslovak Phermacopoeia II, which increases the hydrolysis of ZnSO. A more which increases the hydrolysis of znSO. A more satisfactory forumulation for the preparation of eye drops containing ZnSO, and borate buffer solution (pH 6.3) is given.	
	capo: 2/2	293	



PRIVORA, M.; SYNEK, J.

On the disinfectant value of soap with hexachlorophene. Cesk. epidem. 12 no.4:249-253 JI '63.

1. Ustav epidemiologie a mikrobiologie v Praze.
(SOAPS) (HEXACHLOROPHENE) (ANTISEPTICS)

VLACIL, F.; SYNEK, J.

Determination of chloramphenical contents in the sodium salt of chloramphenical succinate. Coll Cz chem 29 no.7:1618-1625 Jl '64.

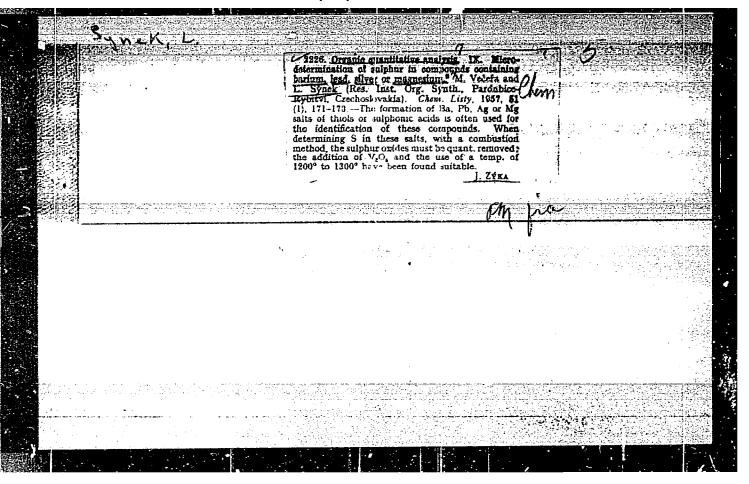
1. Institut fur analytische Chemie, Technische Hochschule fur Chemie, Prag.

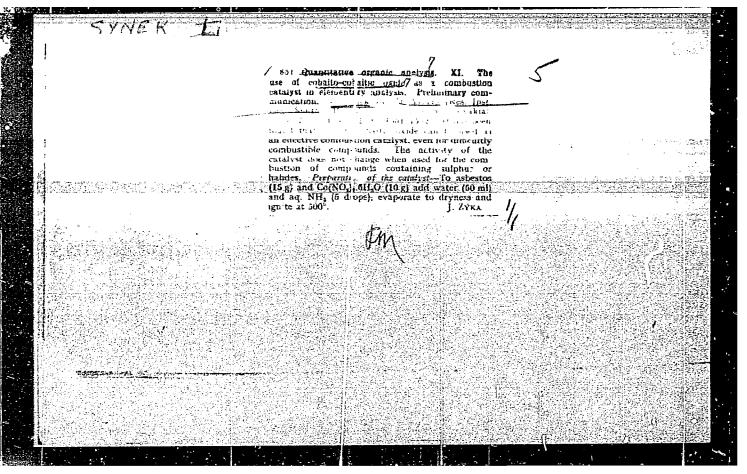
ment of Analytical Chemistry, Pharmaceutical Faculty, Comenius University (Radioizotopove Oddelenie Katedry Analytickej Chemie Farmaceutickej Fakulty UK), Bratislava; Dopartment of Technical APPROVED FORTELEASE 08/31/2001

"Analytical Methods Based on Reflection and Absorption of Radioactive Radiation. IV. Evaluation of Process Control Application of the Radiometric Method in Technical Control of Contrast Materials."

Prague, Ceskoslovenska Farmacie, Vol 15, No 9, Nov 66, pp 508-509

Abstract: The authors discuss a process control method applied to substances used as injection materials which contain iodine. The method is set to detect such concentrations of iodine which are below a specified minimum, or a true a set maximum. The method uses a reflection of the radioactive rays. The analysis is completed in 10 minutes, while a chemical analysis requires 1½ to 3 hours. The chemical method uses a wet decomposition of the substance and argentometric determination applying poten-





CZECHOSLOVAKIA/Analytical Chemistry - Analysis of Organic

E-3

Substances.

Abs Jour

: Ref Zhur - Khimiya, No 2, 1959, 4378

Author

Vecera, M., Synek, L.

Inst

•

Title

Qualitative Organic Analysis. XVIII. Microdetermination

of Carbon and Hydrogen Using Cobaltous-Cobeltic Oxide as

a Combustion Catalyst.

Orig Pub

Chem Listy, 51, No 12, 2266-2274 (1957) (in Czech)

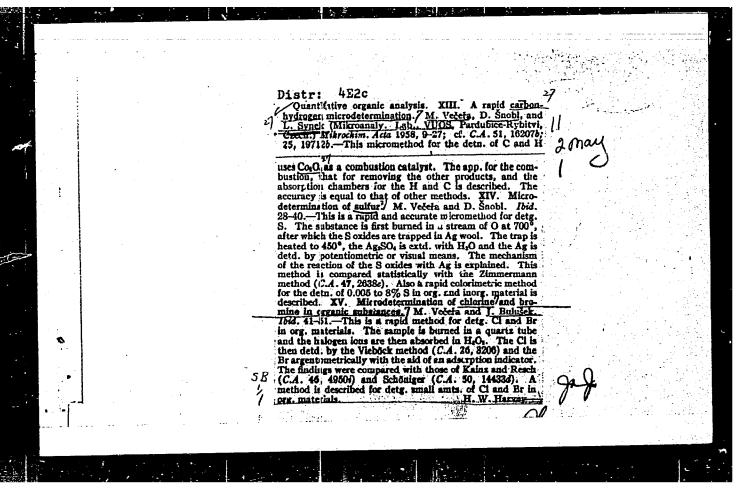
Abstract

Z simple and reliable micromethod has been developed for the determination of C and H in organic substances. The combustion is carried out in a quartz tube of 300 mm length and 9 mm I. D., using CO<sub>3</sub>O<sub>4</sub> on assestos (thickness

of catalyst bed 2.5 mm) as catalyst (RZhKhim, 1958, 43082). A 3-5 mg sample is ignited in a Pt-dish in a stream of 0<sub>2</sub> for 3-5 min; for substances having high va-

por pressures, 5-10 min are required. The high

Card 1/2



CZECHOSLOVAKIA/Analytical Chemistry. Analysis of Organic Substances.

E-3

Abs Jour: Ref Zhur-Khim , No 13, 1958, 43082.

Author : X. Vecera Miroslav, Bulusek Jaroslav.

XI. Synek <u>Ladislav</u>, <u>Vecera Miroslav</u>.

Inst Title

: Organic Quantitative Analysis. X. Micro-Determination

of Chlorine and Bromine in Organic Substances. XI. Use of Cobalto-Gobaltic Oxide as Combustion Catalyst

in Elementary Analysis.

Orig Pub: Chem. listy, 1957, 51, No 8, 1475-1481, 1551-1552;

Collet. czechosl. chem communs, 1958, 23, No 2, 257-264,

331-333.

Abstract: X. 1-5 mg (determination of Cl) or 4-7 mg (determina-

tion of Br) of the substance are used in the combustion

Card : 1/5

CZECHOSLOVAKIA/Analytical Chemistry. Analysis of Organic Substances.

E-3

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43082.

red and methylene blue 3:1) which has a grey transition shade, 10 ml of freshly neutralized saturated solution of HgO.Hg(CN)2 are added, and after 1 minute the titration is carried out with 0.01 N H2SO4 to the initial gray shade (Viebock F., Ber., 1932, 65, 496). Br is determined by titration of exactly neutralized solution with 0.01 N solution of AgNO3 in the presence of an adsorption indicator (0.1% aqueous solution of Brilliant Yellow) until the yellow-green color changes to orange (RZhKhim, 1955, 46100). A detailed description is given of the selection of optimal conditions of combustion as well as a comparison of the proposed procedure with the

Card : 3/5

E CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Organic Substances.

Abs Jour: Ref Zhur-Khim, No 12, 1959, 42138.

Author: Vecera, M.; Sunek, L.
Inst: Czechoslovakian Chemical Society.

: Organic Quantitative Analysis. XVIII. Microdeter-Title

mination of Carbon and Hydrogen Using Cobalt Mixed

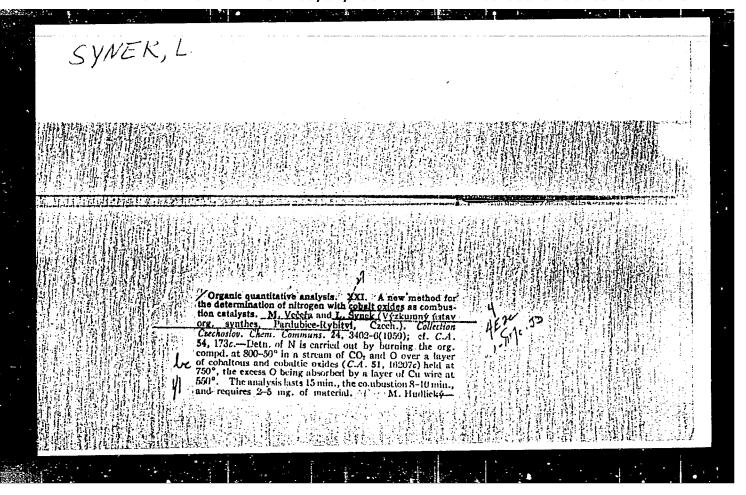
Oxide as Combustion Catalyst.

Orig Pub: Collect. czechosl. chem. commun., 1958, 23, No 7,

1202-1212.

Abstract: No abstract. See Ref Zhur-Khim, No 2, 1959, 4378.

Card 1/1



VECERA, M.; VOJTECH, F.; SYNEK, L.

Quantitative organic analysis. XXII. New method for rapid automatic combustion of organic substances; microdetermination of carbon and hydrogen. Coll Cz Chem 25 no.1:93-100 Ja '60. (EEAI 9:12)

1. Forschungsinstitut fur organische Synthesen, Pardubice-Rybitvi.
(Chemistry, Analytic-Quantitative)
(Combustion) (Organic compounds)
(Carbon) (Hydrogen)

VECERA, M.; SYNEK, L.; STERBA, V.

Rearrangement of aromatic hydrazo compounds. IV. Study of the acid catalysis and the effect of the medium and the temperature on rearrangement of hydrazobenzene. Coll Cz Chem 25 no.8:1992-2004 Ag '60. (EEAI 10:9)

1. Forschungsinstitut fur organische Synthesen, Pardubice-Rybitvi.

(Hydrazo compounds) (Aromatic compounds) (Rearrangements) (Catalysis) (Hydrazobenzene)

SYNEK, Milos

Invagination of the small intestine in adults. Rozhl. chir. 38 no.8:540-545 Aug 59

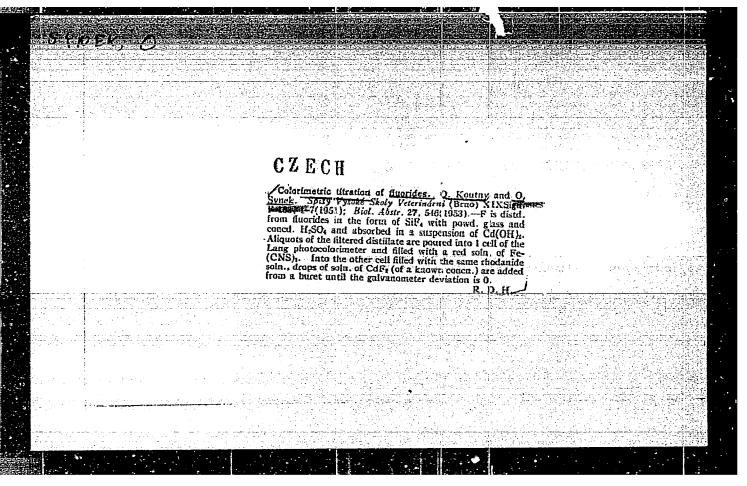
l. I. Chirurgicka klinika MU v Brne, prednosta prof. MUDr. J. Podlaha.

(INTUSSUSCEPTION)

SYNEK, Milos

Acute homorrhagic pancreatic necrosis in an adolescent. Rozhl. chir.40 no.1:32-35 Ja 561.

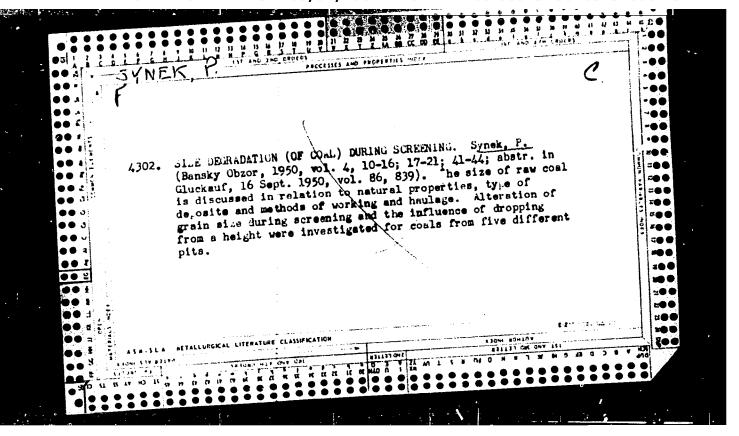
1. I. chirurgicka klinika v Brne, prednosta prof.dr. J.Podlaha. (PANCREAS dis)



SILLI, C. Koutny, C.; Synch, C.

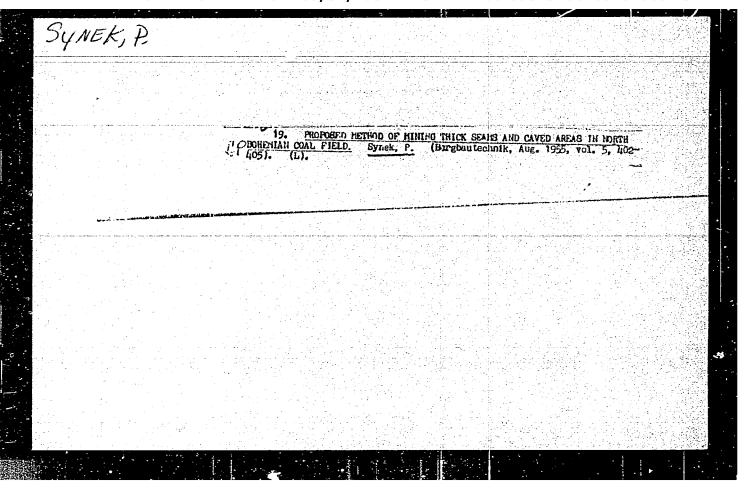
"Colorisatric Titration Of Fluorides." p. 237. (Spisy. Vol. 19, No. 177-184, 1951, Brno.)

Vol. 3, No. 3. SC: Lonthly list of Last Auropean Accessions, Library of Congress, <u>March</u> 1994, Uncl.



"Plan for mining by the shortwall method with backfilling in the vast seams of the North Eohemian Brown-Coal Mines; a contribution to a discussion."
Uhli, Praha, Vol A, To 6, June 1954, p. 165

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



SYNEK, Pavel; KOSEK, Miroslav; SYNEK, Vladimir

Plasma lipoproteins and lipoids in clinical diagnosis of arteriosclerosis. Cas.lek.cesk.99 no.29:1068-1075 19 Ag'60.

1. Oddeleni pro klinickou biochemii, prednosta MUDr. Miroslav Kosek, interni oddeleni, prednosta MUDr. Frantisek Kaderabek, a neurologiske oddeleni, prednosta MUDr. Karel Sedivy, CUNZ-nemocnice v Pribrami.

(ARTERIOSCLEROSIS blood)
(LIPOPROTEINS blood)
(LIPIDS blood)

SYNEK, P.; SYNEK, V.; NECASKOVA, A.; Research Institute for Experimental Therapy (Vyzkumny Ustav Exeprimentalni Terapie), Prague-Krc, Director (Reditel) Prof Dr O. SMAHEL; Neurological Clinic, Medical Faculty, Charles University (Neurologicka Klinika Lekarske Fakulty KU), Plzen, Head (Prednosta) Docent Dr E. KLIMKOVA-DEUTSCHOVA; Research Institute for Antibiotics and Biotransformations (Výzkumny Ustav Antibiotik a Biotransformaci), Roztoky near Prague.

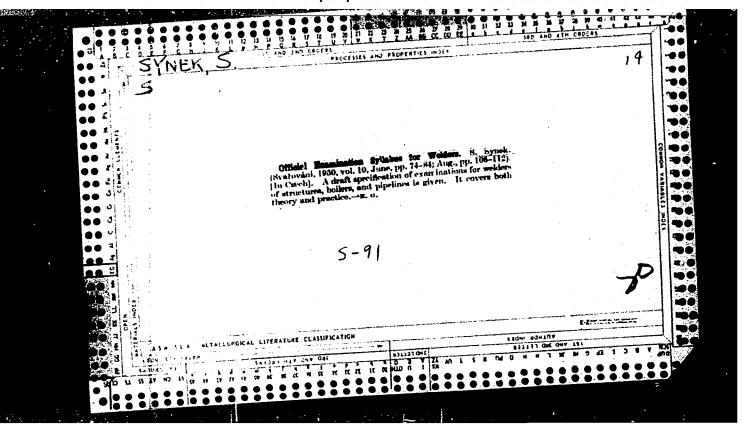
the same of the same of

"Treatment of Bacterial Infections with Emetine."

Prague, Casopis Lekaru Ceskych, Vol 105, No 26, 24 Jun 66, pp 701 - 704

Abstract : /Authors English swmmary\_7: Parenterally administered emetine frequently proves an effective drug in the treatment of bacterial and mycotic infections, particularly when antibiotics are without effect. The effect of emetine in septic conditions is probably related to its bactericidal action in vitro. The is no satisfactory explanation for its action. 15 western, 14 Czech references. (Manuscript received Oct 65). 1/1

72 -



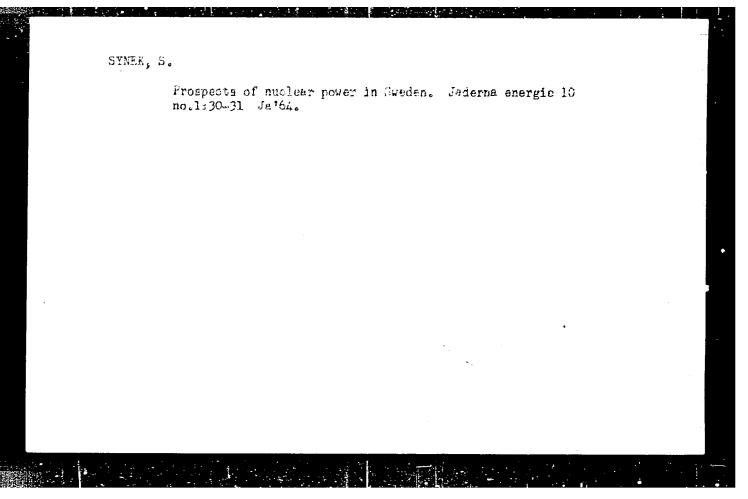
SYNEK, S.

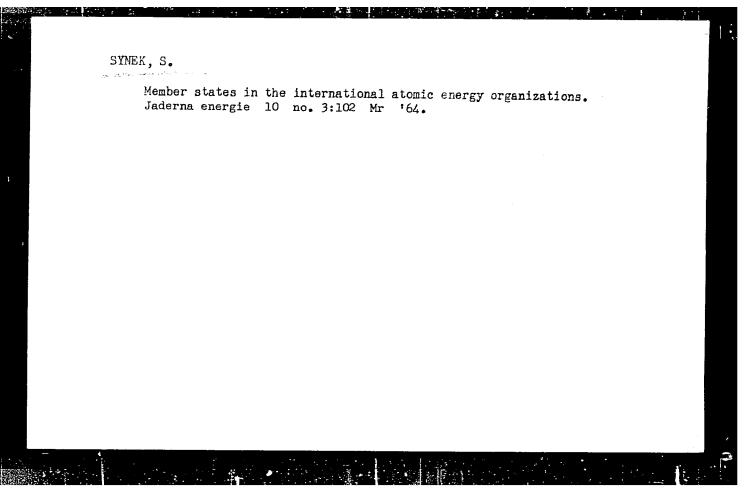
New regulations for transportation of radioactive substances in the Soviet Union. Jaderna energie 7 no.12:407 D '61.

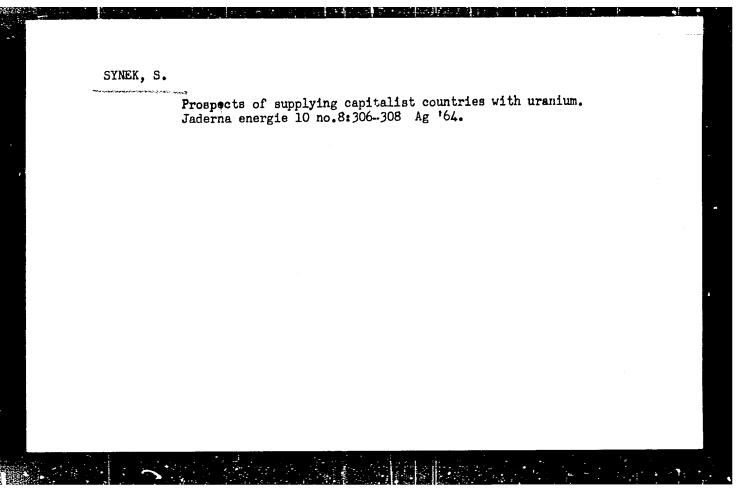
Reactor for production of superheated steam. Jaderna energie 7 no.12: 420 D'61.

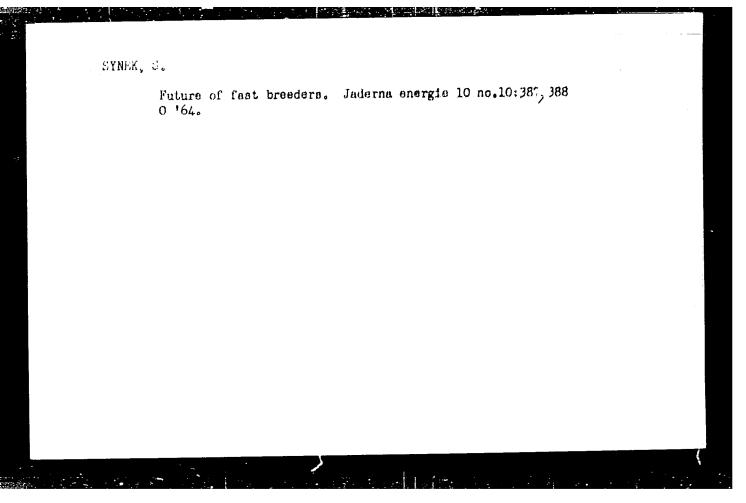
SYNEK, S.

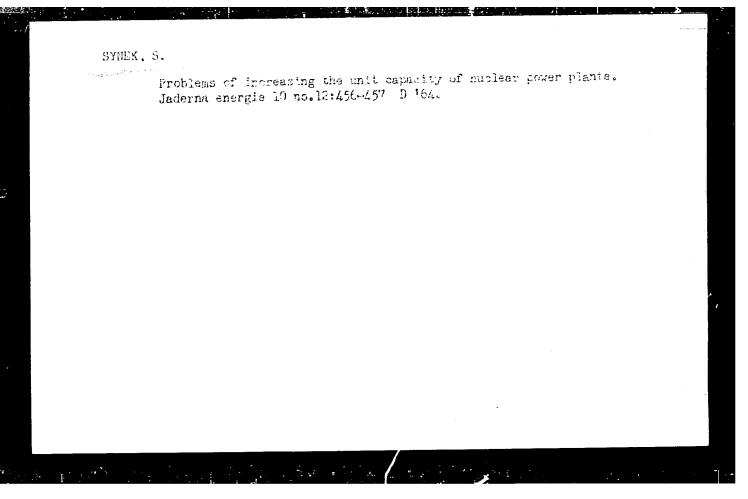
Development of nuclear reactors with liquid fuel. Jaderna energie 8 no.1:8 Ja 62.











SYNEK, V.; SAFAR, V.

Certain less frequent congenital anomalies of the shoulder joint. Acta chir.orthop.traum. cech. 27 no.5:432-437 0 60.

1. II klinika pro ortopedii a detskou chirurgii KU, prednosta prof. dr. Otakar Hnevkovsky (SHOULDER abnorm)

SYNEK, Pavel; KOSEK, Miroslav; SYNEK, Vladimir

Plasma lipoproteins and lipoids in clinical diagnosis of arteriosclerosis. Cas.lek.cesk.99 no.29:1068-1075 19 Ag 60.

1. Oddeleni pro klinickou biochemii, prednosta MUDr. Miroslav Kosek, interni oddeleni, prednosta MUDr. Frantisek Kaderabek, a neurologiske oddeleni, prednosta MUDr. Karel Sedivy, CUNZ-nemocnice v Pribrami.

(ARTERIOSCLEROSIS blood)
(LIPOPROTEINS blood)
(LIPIDS blood)

Synek, V.

The beer-brewing industry in Japan. p. 29, KVASNY PRUMYSL. (Ministerstvo potravinarskeho prumyslu) Praha. Vol. 2, no. 2, Feb. 1956.

Source: EEAL IC Vol. 5, No. 10 Oct. 1956

KLINKOVA-DEUTSCHOVA. Eliska: SALCHANOVA, Zdenka; SCHWARTZOVA, Kveta; SYNEK, Vladimir; SUSANKOVA, Vera.

Importance of neurological findings in the diagnosis of diseases caused by vibration. Prac. lek. 17 no.1:1-5 Ja '65

1. Neurologicka klinika lekarske fakulty Karlovy University v Plzne (prednostka: doc. dr. E. Klimkova-Deutschova).

GYMEK, Vladimir, sodpluxovník MUDr.

Hewly found cases of tubercologis in the Army in the years 1961-1963. Voj. zdrav. Histy 34 no.3:119-123 Je '65.

#### L 12835-66

ACC NR: AP6005715

SOURCE CODE: CZ/0082/65/000/003/0235/0235

AUTHOR: Hirschova, E.; Laciga, Z.; Salcmannova, Z.; Schwartzova, K.; Synek, V.

ORG: Meurological Clinic, Medical Faculty, Charles University, Plzen (Neurologicka klinika lekarske fakulty KU)

TITLE: Epilepsy in arteriosclerotic angiopathy

SOURCE: Ceskoslovenska neurologie, no. 3, 1965, 235

TOPIC TAGS: clinical medicine, neurology, nervous system disease, circulatory system disease, cerebral cortex, electroencephalography

ABSTRACT: Clinical and EEG observations of 64 patients are reported. All showed epileptic seizures first after reaching 40 years of age. Most cases showed clinical aspects of arteriosclerosis. EEG showed an obvious slowing down of rhythm. The epileptic irritation originates in arteries close to the brain cortex. /JPRS/

SUB CODE: 06 / SUBM DATE: none

Card 1/1 HW

SIVAK, S.; SYNEK, V.

On the application of tuberculin tests in epidemiological practice. Cosk. epidem. 14 no.6:321-329 N 165.

1. 2. Okruhovy hyg.-epid. oddiel, Bratislava.

SYNEK, V.; KROFTA, V.; Neurological Clinic, Medical Faculty, Charles University (Neurologicka Klinika Lek. Fak. KU), Plzen, Chief (Prednostka) Docent Dr E. KLIMKOVA-DEUTSCHOVA.

# APPROVED GORIRELEASE \$08/31/2001 & CLEIA RDP86;00513R001654310002-9"

Prague, <u>Ceskoslovenska Neurologie</u>, Vol 29, No 6, Nov 66, pp 365 - 368

Abstract /Authors' English summary modified 7: EHG activity of the respiratory and auxiliary muscles was examined in 10 patients with lung emphysema and 10 patients with complicated silicosis with equal degree of respiratory involvement. In patients with emphysema, the activity of both respiratory and auxiliary muscles was markedly increased. In complicated silicosis the activity of respiratory muscles was inhibited, while the activity of the auxiliary muscles was increased. The differences between the 2 diseases are discussed. 1 Figure, 2 Western, 3 Czech, 1 Russian reference. (Manuscript received 1 Jun 66).

SYNEK, VLADIMIR.

Organizacia stavebnych procesov prudovou metodou; teoria a ekonomika prudovej metody. (Vyd. 1.) Bratislava, Statne nakladatel'stvotechnickej literatury, 1954. 478 p. (Technologicke pokyny) Organization of building processes by the assembly-line method; theory and economics of the assembly-line method. 1st. ed. diagrs., tables)

East European Accessions List

Vol. 5 No. 1

Jan. 1956

SYMEK, V.

The SKF self-adjusting roller bearings. p. 423. (Kozlekedestudomanyi Szemle, Vol. 6, no. 11/12, Nov./Dec. 1956. Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 9, Sept. 1957. Uncl.

# SYNEK, V.

Meningioma of the 3d cerebral ventricle. (Case reports). Cesk. neurol. 25 no.5:333-336 S '62.

1. Neurologicke oddeleni nemocnice v Pribrami, prednosta MUDr. K.Sedivy. (CEREBRAL VENTRICLE NEOPLASMS) (MENINGIOMA)

SYNEK, V.; MICHAL, F.

Importance of the EEG in the diagnosis of puerperal venous cerebral obstructions. Plzen. lek. sborn. 24:103-108 '64

1. Neurologicka klinika University Karlovy v Plzni (prednostka: Doc. dr. E. Klimkova-Deutschova, CSc.).

CZECHOSLOVAKIA UDC 616.24-003.65-057:(622):616.745-073.97

KLIMKOVA-DEUTSCHOVA, Eliska; SYNEK, Vladimir; FISAROVA, Marie; KROFTA, Vaclav; JANKOVA, Jarmila; Neurological Clinic, Med. Fac. Charles University (Neurologicka Klinika Lek. Fak. KU), Plzen, Chief (Prednostka) Docent Dr E. KLIMKOVA-DEUTSCHOVA; Department of Occupational Diseases, State Faculty Hospital (Oddeleni pro Choroby z Povolani Statni Fakultni Nemocnice), Plzen, Chief (Prednosta) Dr F. HUZL.

"Importance of Polyelectromyographic Examination of the Respiratory Muscles in Patients Suffering from Miner's Silicosis and Pneumoconioses."

Prague, Pracovni Lekarstvi, Vol 19, No 2, Mar 67, pp 49 - 51

Abstract /Authors' English summary modified 7: 50 patients in various stages of silicosis were examined polyelectromyographically. The findings were compared to X-ray photographs and to the vital lung capacity. In the stage of dust stigmatization and reticulation, the finding of normal and increased activity of the respiratory muscles prevail; high rate of decreased activity of these and an increased activity of auxiliary muscles are found in simple and

ROUS, Josef; SYNEK, Vladimir

Objective olfactometry. Plzen. lek. sborn. 23:6:-19 '64

1. Klinika nemoci usnich, nosnich a krenich, (prednosta: prof. dr. F. Kotyza), a Neurologicka klinika lekraske fakulty University Karlovy se sidlem v Plzni (prednostka: doc. dr. E. Klimkova-Deutschova).

L 04915-6? EWT(1) IJP(c) AT

ACC NR: AP6028707

SOURCE CODE: UR/0185/66/011/008/0825/0828

AUTHOR: Synel'nykov, K. D. -- Sinel'nikov, K. D.; Honcharenko, V. P. -- Goncharenko, V. P.; Honcharenko, D. K. -- Goncharenko, D. K.

ORG: <u>Physico-Technical Institute</u>, <u>AN UkrSSR</u>, <u>Khar'kov</u> (Fizyko-tekhnichnyy instytut AN URSR)

TITLE: Motion of a plasma jet across a nonuniform transverse magnetic field

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 8, 1966, 825-828

TOPIC TAGS: plasma jet, plasma flow, transverse magnetic field, magnetic field plasma effect

ABSTRACT: It is shown by using the equations of E. N. Parker (Phys. Rev., 107, 924, 1957.) that the motion of a plasma jet across a nonuniform magnetic field is decelerated if VB is positive and is accelerated in decreasing fields. The equation for the square of the drift velocity, which is proportional to linear field changes, is given. This jet motion is one of the simplest effects in plasma physics. The theory holds that, depending on conditions, a plasma jet must move as a whole across the magnetic field with a magnetic field of nearly zero in the jet if temperature of two components of the jet is small compared to the jet's kinetic energy of

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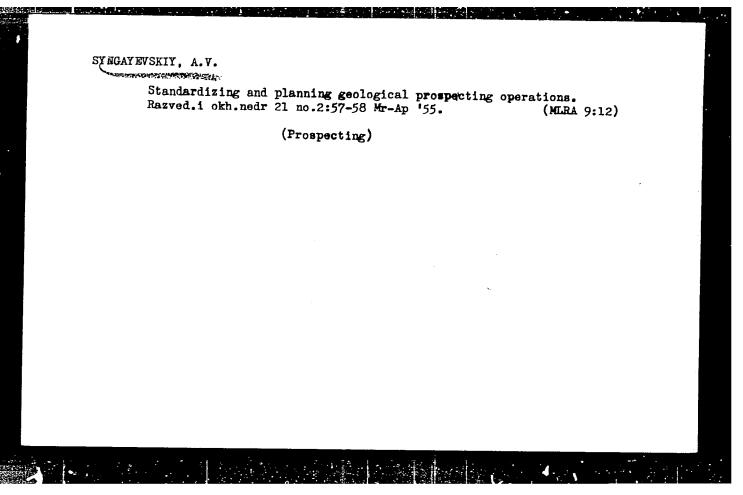
L 04915-67

ACC NR: AP6028707

notion, giving an electric field of  $E = v_X B/c$  and a polarization-generated space charge of a certain thickness. Plasma jet behavior under real conditions is proved by numerous experiments to differ from theoretical in direction and speed. The present article shows that experimentally observed behavior of a plasma jet in a transverse gradient field is in absolute agreement with elementary plasma drift theory. The subject studied is a delimited plasma mass first moving at constant velocity in a uniform field and then encountering a gradient field with consequent drift. Basic assumptions of the calculations are that (1) plasma mass has magnetic moment and (2) speeds and field gradients fulfill the adiabatic law for ions and depend on the method of plasma generation. Orig. art. has: 9 formulas and 1 figure.

SUB CODE: 20/ SUBM DATE: 06Sep65/ ORIG REF: 008/ OTH REF: 002

// Card 2/2



SYNGAYEVSKIY, D.I., inzhener [deceased]; SOVALOV, I.G., kandidat tekhnicheskikh nauk, redaktor; DAKHNOV, V.S., tekhnicheskiy redaktor.

[The problem of rapid construction using monolithic reinforced concrete] K voprosu o skorostnom stroitel'stve is monolithogo shelezobetona. Moskva, Gos. izd-vo stroitel'noi lit-ry, 1948. 86 p.

(Reinforced concrete construction) (MLRA 8:2)

Fig. lation of clay minerals in the Upper Famennian rocks and ones of the Dehail ma trough. Dokl. AN SSER 164 no.4:906-909 0 165.

(MIRA 18:10)

1. Jahoratoriya osadochnykh poleznykh iskopsyemykh AN SSSR. Submitted May 12, 1965.

EPA(s)-2/EWT(E)/EWP(t)/EWP(b) IJP(c) JD/JG ACCESSION NR: AT5012682 UR/2513/65/015/000/0213/0223 AUTHOR: Gladyshev, V.P.; Synkova, D.F.; Yenikeyev, R.Sh.; Kucherenko Voylokova, V. V TITLE: Electrochemical concentration methods in the analysis of bismuth SOURCE: AN SSSR. Komissiya po analiticheskoy khimii. Trudy, v. 15, 1965. Metody kontsentrirovaniya veshchestv v analiticheskoy khimii (Methods of concentrating substances in analytical chemistry), 213-223 TOPIC TAGS: bismuth analysis, bismuth concentration, electrochemical concentration, bismuth depr don, amalgam electrode, spectroscopic analysis, cementation, lead determinat polarography ABSTRACT: The authors studied the possibility of using two variants of the electrochemical concentration process in analy ing pure bismuth: (1) deposition at a solid cathode with a controlled potential, and (2) the amalgam method. Using the first method, the authors showed that bismuth could be separated by electrodeposition from a large number of elements present in amounts of 10<sup>-4</sup> to 10<sup>-6</sup>%. Electrolysis was carried out in nitric acid solutions. The following elements were determined in bismuth (spectrographically): Pb, Sb, Cd, Zn, Mn, Fe, Co, Ni, Cr, Ti, In, Tl, Al, As, V, Ca, Mg, Card 1/2

L 52283-65		
ACCESSION NT: AT5012	1689	
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bismuth In addite	uon was used in an oscillorolanoma-Lichegative metals.	
dvity of the method to the	units of up to 10-20 can be similarly determined	
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SYNKOVA, D. P.

The Second All-Union Conference on the Preparation and Analysis of High-Purity Elements, held on 24-28 December 1963 at Gorky State University im. N. I. Lobachevskiy, was sponsored by the Institute of Chemistry of the Gorky State University, the Physicochemical and Technological Department for Inorganic Materials of the Academy of Sciences USSR, and the Gorky Section of the All-Union Chemical Society im. D. I. Mendeleyev. The opening address was made by Academician N. M. Zhavoronkov. Some 90 papers were presented, among them the following:

V. P. Gladyshev, L. A. Gudovskaya, A. I. Ivankova, and D. P. Synkova. Fluorimetric and oscillographic polarography methods for determining Te and Se, respectively, in high-purity bismuth, with sensitivity of 10<sup>-5</sup> to 10<sup>-6</sup>%.

(Znur ANAL Khim 19 No. 6, 1964 p. 777-79)

SYNKOVA, J.; KRASNA, V.

Influence of factors of communal hygiene on the incidence and course of rheumatic fever in children. p. 501.

CESKOSLOVENSKA HYGHENA. Praha, Czechoslovakia. Vol. 4, no. 9, October. 1959.

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

# KRASNA, Vera; SYNKOVA, Jana On the problem of the effect of certain aspects of living conditions

On the problem of the effect of Gertain aspects of 1111ing conditions on febris rheumatica in children. Cesk.epidem.mikrob.imun.9 no.5/6: 342-347 J1'60.

1. Hygienicko-epidemiologicka stanice UNV Praha. (RHEUMATIC FEVER social)

SYNKOVA, Jarmila; HOJANOVSKY, Jiri

Shagass' test in differential diagnosis of depressive states. Cesk. psychiat. 55 no.4:233-239 June 59.

1. Psychiatricka klinika v Brne.

(PSYCHOSES, NANIC DEPRESSIVE, diag.).

NAHUNEK K.; RODOVA,A.; SYNKOVA,J.; Technicka spoluprace: Tovarek,J.

Dichloropromazine VUFB. Therapeutic experience in psychoses.
Cesk. psychiat. 55 no.5:307-311 0 '59.

1. Psychiatricka klinika a III. interni klinika MU v Brne.
(PSYCHOSES ther.)
(TRANQUILIZING AGENTS ther.)

CHALUPA, B.; SYNKOVA, J.; SERVCIK, M.

👫 . ം വിവര്യമുന്നുക്ക് എന്നുക്കുന്നും

Electroencephalographic changes and memory disorders in acutuintoxication with industrial poisons. Cas.lek.cesk. 98 no.38: 1207-1208 18 S '59.

1. Klinika chorob z povolani v Brne, prednosta doc. MUDr. K. Kadlec.
Psychiatricka klinika v Brne, prednosta prof. MUDr. J. Hadlik.
(OCCUPATIONAL DISEASES)
(POISONING)
(ELECTROENCEPHALOGRAPHY)
(MEMORY)

#### SYNKOVA, Jarmila

Prolonged EEG investigation of changes consecutive to acute intoxication with certain industrial poisons. Cesk. psychiat. 56 no.3:179-183 Je '60.

1.Psychiatricka klinika v Brne.
(ELECTORENCEPHAIOGRAPHY)
(POISONING compl.)

HOSAK, L.; SYNKOVA, J.; GROSS, J.

Experience with the influence of flattened and flat electroencephalograms by cyanazide-VUFB. Activ. nerv. sup. 3 no.2:207-208 61.

1. Psychiatricka klinika thiversity J. B. Purkyne & Brne.

(ELECTROENCEPHALOGRAPHY pharmacol) (HYDRAZINE pharmacol)

SYNKOVA, J.; RODOVA, A.

Electroencephalographic findings during prochlorperasine therapy with special reference to excitometer crises. Activ. nerv. sup. 3 no.2: 208-209 61.

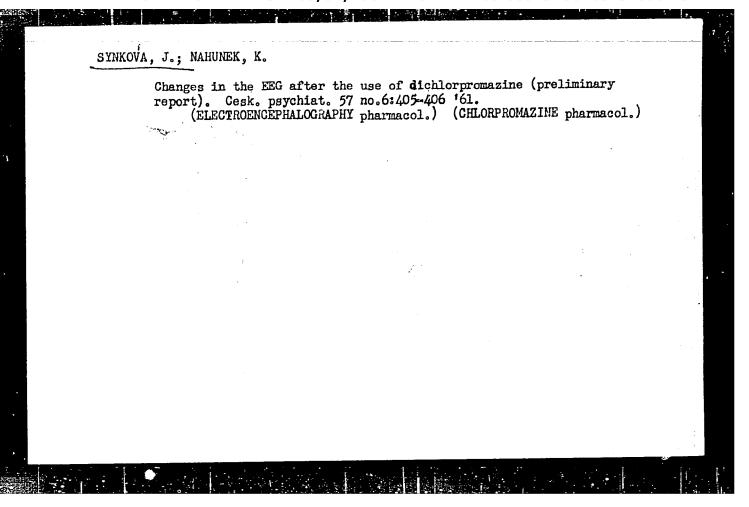
1. Psychiatricka klinika University J. Ev. Purkyne, Brno.

(PROCHLORPERAZINE ther)
(EXTRAPYRAMIDAL TRACTS pharmacol)
(ELECTROENCEPHALOGRAPHY pharmacol)
(MOVEMENT DISORDERS ther)

SYNKOVA, J.; CHALUPA, B.; SEVCIK, M.

An objective method for the detection of certain injuries in the CNS in acute industrial poisoning. Cesk. psychiat. 57 no.2:104-112 '61.

1. Psychiatricka klinika v Brne -- Klinika chorob z povolani.
(OCCUPATIONAL DISEASES diag) (POISONING diag)
(CENTRAL NERVOUS SYSTEM dis.)



SYNKOVA, J.; NAHUNEK, K.; RODOVA, A.

Comparative activating effect of dichlorpromazine and chlorpromazine on the electroencephalogram. Activ. nerv. sup. 4 no.2:214-215 '62.

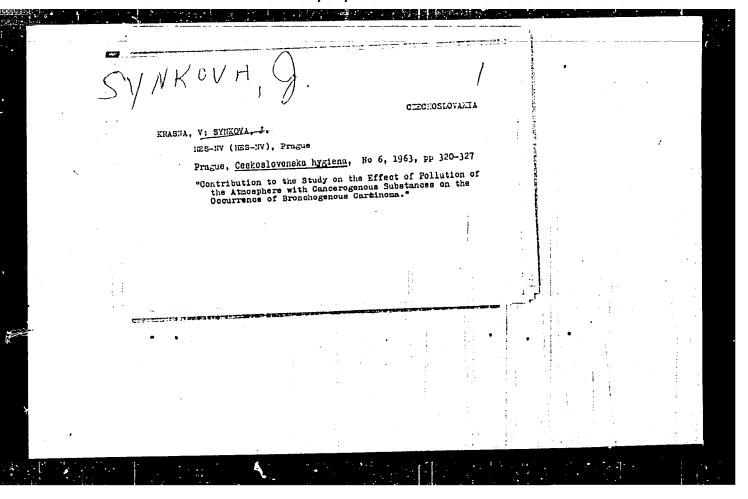
1. Psychiatricka klinika lekarske fakulty University J. E. Purkyne v Brne.

(ELECTROENCEPHALOGRAPHY) (CHLORPROMAZINE) (CHLORPROMAZINE rel cpds)

SEVCIK, M.; CHALUPA, B.; HRAZDIRA, C.L.; KLHUJKOVA, E.; SYNKOVA, J.

Acute group poisoning with active organic phosphates. Prac. lek. 14 no.7:317-321 S 162.

1. Klinika nemoci z povolani v Brne, prednosta doc. cr. J. Vyskocil. (PHOSPHORUS POISONS ORGANIC) (NEUROLOGY)



KRASNA, V.; SYNKOVA, J.; Technicka spoluprace; JURAJDOVA, J.;

KRUTZNER, E.; WITZOVA, D.

Contribution to the study on the effect of pollution of the atmosphere with cancerogenous substances on the occurrence of bronchogenous carcinoma. Gesk. hyg. 8 o.6:320-327 Jl '63.

1. HES-NV Praha.

(AIR POLLUTION) (SMOKING)

(CARCINOMA, BRONCHOGENIC)

(HYDROCARBONS) (ARSENIC)

#### CZECHOSLOVAKIA

HANYSOVA, Z.; CHLOUPKOVA, K.; BOJANOVSKY, J.; BOUCHAL, M.; SYNKOVA, J.; Psychiatric Clinic, J.E. Purkyne University, Brno. Zoriginal version not given J.

" A Clinical Comparison of a Placebo, Diazepam, and Diazepoxide at Short-Time Application in Neuroses."

Prague, Activitas Nervosa Superior, Vol 8, No 4, Nov 66, pp 438 - 439

Abstract: A comparison between diazepoxide (Librium Roche) and diazepam (Valium) was made in an investigation conducted on 37 hospitalized patients (20 neurasthenias, 12 depressive neuroses, 4 anxious neuroses, and 1 mixed neurosis). 10 mg of Valium and 30 mg of Librium were used as one dose. An improvement was achieved with both drugs, but a deterioration occurred with the placebo. Valium acts better on neuroses than librium. The anxiolytic effect of both drugs was the same. No references. Submitted at the 8th Psychopharmacological Meeting at Jesenik, 18 - 22 Jan 66. Article is in English.

67

.GRITSEV, N.D. (Ufa); SYNKOVA, V.G. (Ufa)

Final purification of waste waters containing petroleum by
filtration through wood shavings. Vod. i san.tekh. no.11:31-32
(MIRA 11:12)
N 58.
(Sewage--Purification) (Filters and filtration)

LEPIESZKIEWICZ, Zygmunt, mgr inz.; SYNORADZKI, Jerzy, mgr inz.

Certain control and signaling installations applied to weirs and chamber locks. Gosp. wedna 22 no.10:433-436 0 '62.

1. Hydroprojekt, Warszawa.

SOV/110-58-10-19/24 AUTHOR: Synorov, F.V. (Cand.Phys.Math.Sci.) & Lobashevskiy, L.V. (Engineer)

TITLE: On The sliding contact in the Great Soviet Encyclopaedia

(0 'Skol'zyashchem kontakte' v Bol'shoy Sovetskoy Entsiklopedii)

PERIODICAL: Vestmik Elektropromyshlennosti, 1958, No.10. pp. 72-74 (USSR)

ABSTRACT: In the article 'The sliding contact' in the Great Soviet

Encyclopaedia it is stated that the volt-ampere characteristics of contact are linear and that there is no polar effect in the copper/brush contact when stationary. These statements are not confirmed by experiments described in this article. Tests show, firstly, that a copper/copper contact is linear at current densities up to 100 A/cm² and does not depend on the direction of flow of current. Then the contact characteristics of a brush/brush contact are given, in Fig.2. With one type of brush the contact resistance is practically independent of current density and direction, but in another

linearity is disturbed, apparently by local heating effects. Next, the resistance of a stationary copper/brush contact is shown by the graphs in Fig. 3. to depend on the magnitude and direction of the

current. This also applies to sliding contacts in electrical machines. Tests were made of the transient voltage-drop at low current-densities; the curves in Fig. 4. indicate that polar

Card 1/2 differences also occur at very low current-densities where the

On 'The sliding contact' in the Great Soviet Encyclopaedia SOV/110-58-10-19/24

influence of the current on the properties of the contact is excluded. Heating of the contact increases the thickness of oxide layer on the copper surface and hence increases the contact resistance. The contact resistance between a brush and gold does not alter with temperature, because no oxide film is formed. There are 4 figures and 1 literature reference (Soviet)

1. Sliding contacts--Electrical properties 2. Sliding contacts--Test results 3. Sliding contacts--Encyclopedias 4. Literature--Errors

Card 2/2

SYNOROV, V. F. Cand Phys-Math Sci -- (diss) "Electric properties of thin layers of antimonides of alfuminum, indium, and gallium obtained by the method of Academician S. A. Vekshinskiy." Tomsk, 1957. 9 pp. (Min of Higher Education USSR. Tomsk State Univ im V. V. Kuybyshev), 100 copies (KL, 42-57, 91)

-4-

86097

26, 2532 9.4300 (3203, 1043, 1143)

S/112/59/000/012/008/097 A052/A001

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 12, p. 10 # 23990

AUTHOR:

TITLE:

Electric Properties of Thin AlSb, InSt and GaSb Layers Produced by

S. A. Vekshinskiy's Method

PERIODICAL: Tr. 1-y Mezhvuzovsk, konferentsii po sovrem, tekhn, dielektrikov i

poluprovodníkov. 1956, Leningrad, 1957, pp. 170-176

TEXT: Electric properties of thin layers produced by the Vekshinskiy spraying method have been investigated. On the portions of binary compounds where the concentration of components corresponds to the stoichiometric relation AIIIE, semiconductor chemical compounds AlSb, InSt and GaSb with ZnS-type structure are formed, which is confirmed by X-ray structural and electronic microscopic investigations. The temperature dependence of electric conductivity 6, Hall constant R and thermal electromotive force coefficient a in the temperature range from -180 to +150°C has been studied. All specimens were of the p-type. The temperature

Card 1/2

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S/112/59/00u/012/008/097 A052/A001

Electric Properties of Thin AlSb, InSb and GaSb Layers Produced by S. A. Vekshinskiy's Method

course of **d**, R and a has some anomalies inexplicable within the framework of conventional theory. It is shown that AlSb, InSb and GaSb have surface levels of acceptor type which lie near the filled zone and give rise to p-conductivity. For thin layers having a fine dispersed polycrystalline structure the main concentration of holes is determined by transitions between the surface and the filled zone, whereby a degenerated state of the hole gas has taken place in the investigated samples. On account of this property of thin layers AlSb, InSb and GaSb are very similar and individual distinctions of the compounds smooth out at low temperatures. The sign inversion of E with some InSb samples at 100°C is explained by the presence of intrinsic conductivity. Information concerning methods of producing and measuring thin layers is supplied. There are 16 references.

ASSOCIATION. Siberian Physiko-Technical Institute

V. A. K.

Translator's note: This is the full translation of the original Russian abstract,

Card 2/2

YNORCY.

120-5-31/35

Presnov, V.A., Pyatnichuk, G.K., and Synorov, V.F.

An Instrument for the Measurement of Electrical Conductivity TITLE:

and Hall's Constant in Thin Semi-conducting Layers.

(Pribor dlya izmereniya elektroprovodnosti i postoyannoy

kholla v tonkikh sloyakh poluprovodnikov)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.5, pp. 119-120 (USSR).

ABSTRACT: The instrument (Fig.1) can be used for raid measurement of electrical conductivity and Hall's constant for given areas on thin specimens deposited on slides of glass or other dielectric material. The slide 3 with the deposited samples 4 is kept in position by the cam 2 on a moveable table 1. The table moves on a lath along the guide 7. The fixer 5 keeps the table and, consequently, also the sample in the required positions. A panel 8 on a moveable table has current, compensation and Hall electrodes 6 attached to it. This panel is kept in place by springs 13 and is moved by means of the lever 9 and cam 10, perpendicularly to the plane of the specimen, and keeps the direction of motion by means of the four rods 12. The electrodes can move freely along the bushes, pressed into the panel, under the action of bronze springs 11. The scheme produces the Cardl/3 necessary control of contact pressure on the specimen and the

120-5-31/35

An Instrument for the Measurement of Electrical Conductivity and Hall's Constant in Thin Semi-conducting Layers.

panel can be raised when the table I carrying the specimen is moved. The simple construction of the electrodes means that one can have a collection of electrodes made from different materials and having contact surfaces of different form and size, and that one can deposit on their surface various coatings. When working with very thin layers one can put end pieces of soft metal (e.g. indium or tin ) on the ends of the electrodes to protect the layer. distance between the electrodes on the panel can be varied depending on the size of the sample. The samples were deposited on slides 23 x 80 mm in area, the surface area of the samples themselves being 23  $\times$  50 mm<sup>2</sup>. After the deposition, the latter surface is divided by means of a standard pattern into sections 23 x 4 mm with gaps of 1 mm between them. The device is suspended between the poles of an electromagnet on two pivots 14. connecting the device with a platform placed on the windings of the electromagnet. Provision is made for the control of the position of the device between the poles of the electromagnet. The device lies in a gap of 25 mm between the poles of the electromagnet. Brass was used for the metallic parts and organic card2/3glass for insulation. Measurements were carried out (Ref.1) of

#### CIA-RDP86-00513R001654310002-9 "APPROVED FOR RELEASE: 08/31/2001

SYNOROV, V. F.

AUTHORS: Synorov, V.F., and Presnov, V.A.

120-6-33/36

TITLE:

Method of Investigating the Electrical Properties of Thin Layers on an Insulated Base in a High Vacuum (Metodika issledovaniya elektricheskikh svoystv tonkikh sloyev na

izoliruyushchey podlozhke v vysokom vakuume)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.6, p. 115 (USSŔ).

ABSTRACT: Investigation of the electric conductivity, the thermal e.m.f. coefficient and the Hall constant of thin layers of semi-conductors deposited on a glass base in vacuum requires evolving special methods of measurement. Frequently, new experimental tasks occur, for instance, investigation of the properties of specimens stored for a long time in a high This task imposes the necessity of ensuring the possibility of repetition of the measurements at definite intervals of time, maintaining the ambient conditions constant. The solution of these problems is possible if mechanically-strong and stable specimens of ohmic contacts are available. In this paper, a method is described of producing such contacts for specimens which are then fitted into an ampule 200 mm long, 15 - 20 mm dia with 6 external leads. The sequence of Cardl/3 the operations is illustrated by Fig.1, p.115. It is based on

#### CIA-RDP86-00513R001654310002-9 "APPROVED FOR RELEASE: 08/31/2001

120-6-33/36

Method of Investigating the Electrical Properties of Thin Layers on an Insulated Base in a High Vacuum.

Siberian Physico-technical Scientific Research Institute (Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'-ASSOCIATION:

skiy Institut)

SUBMITTED:

May 18, 1957.

AVAILABLE:

Library of Congress

Card 3/3

SUBJECT

PERIODICAL

USSR / PHYSICS

CARD 1 / 2

PA - 1952

AUTHOR

PRESNOV, V.A., SYNOROV, V.F.

TITLE

The Production and Investigation of Intermetallic Compounds in

Thin Layers.

Zurn. techn.fis, 27, fasc. 1, 123-126 (1957)

Issued:  $2/195\overline{7}$ 

The present work endeavors to explain the possibilities of the production of compounds of the type AIIIBV by the method developed by the Academician S.A. VERŠINSKIJ. Here A III and B denote elements of the third and fifth group respectively of the periodic system.

By reciprocal evaporation several groups of binary preparations of the systems Al-Sb, In-Sb, Ga-Sb were obtained on glass bases. The electric properties were investigated in dependence on the concentration of the components. On this occasion this concentration changed steadily along the sample. The investigated layers had a thickness of from 10<sup>-4</sup> to 10<sup>-5</sup> cm. The specific resistance and the coefficient of the thermoelectromotoric force were measured by the compensation method with the following results: The specific resistance of the thin metal films changed only little along the sample and is near the known value. The specific resistance of the samples with binary composition changes considerably along the sample (maximum Q = 30 ohm.cm). The course taken by the modification of the coefficient of thermoelectromotoric force agrees well with the course taken by the curve of the specific resistance. Maximum values of up to 220

CARD 2 / 2 PA - 1952 Žurn. techn. fis, 27, fasc. 1, 123-126 (1957) microvolt/ $\nabla$  were found. In the domain with maximum semiconductor properties also HALL'S constant was measured. The sign of HALL'S constant agreed with the sign of the coefficient of thermoelectromotoric force, and was positive in every case. Within the limits of measuring accuracy the maximum of semiconductor properties is near the ratio 1:1 of atomic concentrations. Thus, an intermetallic compound with the stoichiometric composition A TITBV probably forms within certain domains of the binary alloy with varying concentration. This is also confirmed by investigation of x-ray structure. Measurements of the course taken by the temperature of electric properties are shown in form of a diagram; the results obtained are: electric conductivity changes only little within the entire measuring domain from the temperature of liquid air up to 150° C. Also HALL'S constant changes only little up to room temperature, but it diminishes rapidly at high temperatures. Further data concern the concentration of the charge carriers, activation energy, the mobility of holes and the coefficient of the thermoelectromotoric force. The electric properties of the thin layers of AlSb, InSb and GaSb differ consider-

INSTITUTION: Siberian Physical-Technical Institute Tomsk.

ably from the properties of the massive samples of these compounds.

24.7700

65956

sov/58-59-4-8550

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 4, pp 166 - 167 (USSR)

AUTHOR:

Synorov, V.F.

TITLE:

Application of Academician S.A. Vekshinskiy's Method for the Study of

Thin Films of AIIIBV-Type Compounds

PERIODICAL:

Uch. zap. Tomskiy un-t, 1957, Nr 28, pp 22 - 35

ABSTRACT:

The author verified the possibility of obtaining intermetallic compounds of the A<sup>IIIBV</sup> type by the method of cocondensing vapors of elements of the III and V groups in a high vacuum. He studied the electrical properties of the thin films resulting from this operation. The samples to be analyzed were prepared from the Al<sup>N</sup>-Sb, Ga<sup>N</sup>-Sb, In<sup>N</sup>-Sb, In<sup>N</sup>-Sb, Al - Bi, AGa - Bi, and Tl - Bi systems, of which the first three were studied in detail. The measurement of the electrical properties of the samples versus the component concentration, which varied continuously along the length of the sample, showed that the specific resistance and thermo-emf coefficient have maximum values on those sections where the concentration of the components corresponds to the stoichiometric relation of A<sup>III</sup>B<sup>N</sup>. For the Al - Sb, Ga - Sb, and In - Sb systems the formation of

Card 1/2

65956

SOV/58-59-4-8550

Application of Academician S.A. Vekshinskiy's Method for the Study of Thin Films of  $A^{III}B^V$ -Type Compounds

semiconducting chemical compounds of AlSb, GaSb, and InSb with a ZnS-type lattice was confirmed by X-ray diffraction and electron microscopic studies. The temperature dependence of the electrical conductivity, the thermo-emf coefficient, and the Hall constant were measured in thin films of the above-mentioned compounds. Some incongruity was detected in the temperature course of the electrical conductivity and Hall constant, as well as an anomalous course of the thermo-emf coefficient which cannot be explained within the framework of the conventional theory of impurity semiconductors. It is shown that the temperature dependence of the electrical properties of thin films ( $\sim 10^{-5}~\rm cm$  thick) of AlSb, GaSb, and InSb finds a satisfactory explanation when the singularities of the polycrystalline structure of the samples are taken into account, as well as the presence of acceptor levels on the surface of the degenerated state of the hole gas. (Tomsk. Gos. Un-t, USSR).

L. Uvarov

Card 2/2

SYNOROV, V.F.

Effect of surfaces on the electric properties of A b -type compounds. Izv. vys. ucheb.zav.; Fiz. no.1:57-62 '58. (MIRA 11:6)

1.Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete im. V.V. Kuybysheva.

(Surfaces (Technology)) (Aluminum antimonide-Electric properties)

(Indium antimonide-Electric properties)

ZHURAVLEV, V.K.; SYNOROV, V.F.

Electric conductivity of semiconductor films exposed to high-frequency currents. Izv. vys. ucheb. zav.; fiz. no.2:85-91 '58. (MIRA 11:6)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete im. V.V. Kuybysheva.

(Semiconductors)

AUTHOR: Synorov, V.F. SOV/139-58-4-13/30

TITIE: — Surface Properties of Semi-conductors (Poverkhnostnyye

svoystva poluprovodnikov)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika,

1958, Nr 4, pp 80 - 85 (USSR)

ABSTRACT: It has been shown by the results of various authors (Refs 1-8) that on the surface of compounds of the type

A<sup>III</sup>B<sup>V</sup> inversor layers may form which are linked with the presence of surface acceptors. The author of this paper investigated the influence of a transverse electrostatic field with electric conductivity of n-type single crystal specimens of AlSb, InSb and GaSb. The applied technique and the results were published in an earlier paper (Ref 8). In this paper, some results are given of the measurements. In Figure 3, the temperature dependence is graphed of the resistance of a thin, ground layer of AlSb (bottom curve) and of the relative variation of the resistance due to the presence of a transverse field (top curve). In Figure 4, the change of the contact potential difference as a function of time is graphed for ground and for filed (in vacuum) specimens

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