

SIMEK, Josef

Organization problems in the Pozemni stavby national enterprise  
in Brno and their solution. Poz stavby 11 no.3:123-126 '63.

1. Reditel narodniho podniku Pozemni stavby Brno.

MASURKA, Vladimir; JIMSK, Josef

Our experiences with surgical therapy of cholelithiasis.  
Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad Kral) 4 no.4:  
561-566 '61.

1. Chirurgická klinika; přednosta prof. MUDr. J. Procházka.  
(CHOLELITHIASIS surg)

HORNIK, Jiri; SIMEK, Jan

Differential manometer with electronic indicator. Sdel tech  
12 no.11:418-420 N '64.

SIMEK, J.; HAVEL, V.; VESELY, C.

Contribution to the study of reticulocytes following phenylhydrazine administration. Cesk. fysiол. 8 no.6:553-554 N '59

1. Fysiologicky ustav. Lek. fak. KU Hradec Kralove.  
(ERYTHROCYTE COUNT, pharmacol.)  
(PHENYLHYDRAZINE, pharmacol.)

SIMEK, J.; HAVEL, V.; VESELY, C.

Nucleic acid metabolism in the bone marrow and in the spleen in nephrectomized and anemized rats. Cesk. fysiол. 9 no.1:56-57 Ja 60.

1. Fysiologicky ustav lek. fak. KU, Hradec Kralove.

(BONE MARROW metab.)

(SPLEEN metab.)

(NUCLEIC ACID metab.)

(NEPHRECTOMY exper.)

SIMEK, J.

Changes in bile secretion after brief anemia of the liver in rats irradiated by ionizing radiations and in normal conditions. Cesk. fysiocl. 9 no.2:180 Mr '60.

1. Fysiologicky ustav lek. fak. KU, Hradec Kralove.  
(BILE)  
(LIVER physiocl)  
(RADIATION INJURY exper)

SIMEK, Josef

Biliary secretion of exogenous bilirubin following ligation of the hepatic artery in normal conditions and following tetrachloroethane liver lesions in rats. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad. Kral.) 4 no.2 suppl.:203-208 '61.

1. Katedra fyziologie; prednosta prof. MUDr. Jaroslav Melka.

(BILIRUBIN metab) (BILE chem) (LIVER physiol)

SIMEK, Josef

Study of late post-irradiation changes in the regenerative capacity of the hematopoietic system. Sborn.ved.prac.lek.fak.Karlov.univ. (Hrad.Kral) 6 no.1:Suppl.:85-118 '63.

1. Katedra fyziologie Lekarske fakulty Karlovy university v Hradci Kralove; prednosta prof. MUDr. J. Melka.



MELKA, Jaroslav; SIMEX, Josef

Development of changes in the excretory function of liver tissue after subtotal hepatectomy. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad. Kral.) 6 no. 5 suppl.:543-550 '63

1. Katedra fyziologie; (prednosta: prof. MUDr. J. Melka) Univerzita Karlova v Hradci Kralove.

SIMEK, Josef

Effect of short-term ischemia of the liver on the secretory function of the tissue in different age rats. Sborn. ved. prac. lek. fak. Karlov. univ. (Hrad.Kral.) 6 no.5 suppl.: 551-556 '63

Effect of short-term ischemia of the liver on the secretion of exogenous bilirubin by rats of different ages. Ibid.: Suppl.:557-564

1. Katedra fyziologie (prednosta: prof. NUDr.J.Melka) Univerzita Karlova v Hradci Kralove.

~~SHINEK, Josef~~ [Simek, Josef]

Effect of sodium desoxycholate on bile secretion in irradiated rats. Cesk. otolaryng. 12 no.6:119-122 D'63.

1. Kafedra fiziologie MF KU, Gradets Kralove; rukovoditel':  
prof. dr.med. Ya. Melka.

+

SIMEK, Josef

Remote effects of E.coli endotoxin on the leukogram of rats long after their X-ray irradiation. Sborn. ved. prac. lek. fak. Karlov. Univ. 9 no.1:227-233 '64.

1. Katedra fyziologie (prednosta: prof. MUDr. J. Melka), Karlovy University v Hradci Kralove.

MELKA, Jaroslav; SENEK, Josef; Technická spolupráce: KRAUSOVÁ, B.;  
TICHA, H.

Functional efficiency of regenerating liver tissue in rats of  
different age groups. 1. Study of the basal values of bile  
and endogenous bilirubin excretion. Sborn. ved. prac. lek. fak.  
Karlovy Univ. 9 no.1:441-448 '64.

1. Katedra fyziologie (prednosta: prof. MUDr. J. Melka)  
Karlovy University v Hradce Kralove.

SIMEK, Josef

Pile foundation on lots with very aggressive water. Poz stavby 13  
no.2:59-62 '65.

1. Pozemni stavby, Hradec Kralove, Development Worksite Pardubice.

SPIEK, Josef; MCRADNY, VA. Milena. STRANSKY, Alib.

Changes in food intake, glycemia and glycogen content in the rat liver in the early stages after partial hepatectomy and simple laparotomy. Č. ro. ved. prac. lek. fak. Karlov. Univ. 8 no. 3: 331-338 '65.

1. Katedra fyziologie (prednosta: prof. MUDr. J. Melka) Karlov University v Hradci Kralove.

SIMEK, Josef; HERADILKOVA, Milena; STRANSKY, Albert

A contribution to the study of the mechanism of early changes  
in the glycogen content of the liver and glycaemia after  
partial hepatectomy or simple laparotomy. Part 1 & 2. Sborn. ved.  
prac. lek. fak. Karlov. Univ. 8 no.3:357-373 1965.

1. Katedra fyziologie (prednosta: prof. MUDr. J. Melka) Karlovy  
University v Hradci Kralove.



PREISOVA, J.; NEMCOVA, S.; SIMEK, K.

Results of culture & antibiotic treatment in anterior eye segment bacterial infections. Cesk. fysiол. 14 no.4:249-255 Aug 58.

1. Oční klinika MU v Brně, přednosta prof. MUDr. Jan Vanysek--Mikrobiologický ústav SFN b Brně, přednosta prof. MUDr. Vaclav Tomasek.

(MICROCOCCAL INFECTIONS

anterior eye segment, diag. & antibiotic ther. (Cz))

(ANTIBIOTICS, ther. use

micrococcal infect. of anterior eye segment (Cz))

(EYE DISEASES,

micrococcal infect. of anterior eye segment, diag. & antibiotic ther. (Cz))

PREISOVA, J.; SIMEK, K.; MOSTER, M.

On the pathogeneity of staphylococci of the conjunctival sac and on its relation to local treatment with antibiotics. Cesk. ofth. 17 no.6:461-467 S '61.

1. Očni klinika v Brne, prednosta prof. MUDr. Jan Vanysek, Dr. Sc., Mikrobiologický ustav SFN v Brne, prednosta prof. MUDr. Vaclav Tomasek.

(CONJUNCTIVA microbiol)  
(STAPHYLOCOCCUS pharmacol)  
(ANTIBIOTICS pharmacol)

SIMEK, K.

Contribution to the competition for the best scheme for improvement of repairing and adjusting fliers of cotton flier frames. p. 43. (Textil, Praha, Vol. 9, no. 2, Feb. 1954)

SO: Monthly list of East European Accessions (EEAL), LC Vol 4, No. 6, June 1955, Uncl

MILER, I.; KOSTKA, J.; SIMEK, L.; LANC, A.

Fate of endotoxin in the intestine of newborn bacteria-free piglets mono-contaminated with Escherichia coli. Folia microbiol. (Praha) 9 no.5:277-283 S '64.

1. Department of Immunology, Institute of Microbiology, Czechoslovak Academy of Sciences, Prague 4.

SIMEK, Lubor

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees:

Affiliation: Dept Biology & Physiology, CSAZV/VUCHP (Abbr not identified) Kostelee n. Orli.

Source: Prague, Sbornik CSAZV Veterinarni Medicina Vol 6(34), No 9, Sep 61; pp705-714

Data: "Hemograms in Early Weaned Pigs Reared Using Chloramphenicol"

MANDEL, Leos

TRAVNICEK, Jiri

SIMEK, Lubor

690 981643

Simek, M.

✓ 352. Polarographic determination of the ribo-  
flavine and thiamine contents of foods. E. Kevei,  
M. Kúszel and M. Simek (Inst. Res. in Canning,  
Meat Packing and Kóffig., Budapest, Hungary).  
*Acta Chim. Acad. Sci. Hung.* 1955, 8 (3-4), 345-  
363.---Riboflavine is extracted in 0.1 N HCl and  
any bound vitamin is liberated with taka-diastase.  
For purification, the riboflavine is adsorbed on  
fuller's earth activated with KCl, and eluted with  
hot 80 per cent. acetone. The extract is clarified  
with basic Pb acetate. The determination is  
carried out in a phosphate buffer of pH 7.6,  $E_1$   
being -0.57 V (measured against a S.C.E.).  
Thiamine is extracted in an alcoholic HCl soln.,  
and any bound vitamin is liberated with taka-  
diastase. For purification, the thiamine is adsorbed  
on charcoal activated by steam and KCl, and  
eluted with 0.2 N HCl followed by 25 per cent.  
ethanol. Although the adsorption is quant., only  
90 per cent. of the vitamin may be eluted, so that a  
correction factor for each batch of adsorbent must  
be evaluated. The determination is carried out in  
an acetate buffer of pH 6.3,  $E_1$  being -1.34 V  
(measured against a S.C.E.). The difference between  
parallel determinations of standard riboflavine and  
thiamine soln. are  $\pm$  2.5 and 6 per cent., respec-  
tively.  
J. H. WARON

SIMEK, M.

Control measurement of dams.

p. 4  
Vol. 5, no. 1/2, Mar. 1955  
VODNI HOSPODARSTVI  
Praha

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 3  
March 1956

STMEK, M.

M.B. Volk and M. Beran's Laboratorni sklo. I. dil (Laboratory Glass. Vol. 1);  
a book review/

CHEMICKÉ PRŮMYSLI. (Ministeratvo chemického průmyslu) Praha, Czechoslovakia  
Vol. 9, no. 1, Jan. 1959

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



SIMEK, M.

Introduction to radioastronomy. p. 693.

POKROKY MATEMATIKY, FYSIKY A ASTRONOMIE. (Jednota ceskoslovenskych matematiku a fysiku) Praha, Czechoslovakia. Vol. 3, no. 6, 1958.

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

313, 1.

Elasticity of concrete bars and the influence of the pressure of water and temperature changes. p. 372.

Vol. 4, no. 12, Dec. 1964  
JOURNAL OF CONSTRUCTION  
Prague, Czechoslovakia

Source: East European Accession List. Library of Congress  
Vol. 3, no. 3, August 1956

SIMEK, Miroslav, doc.

Photometric determination of nickel in steels. Hut listy 19  
no.9:663-665 S '64.

1. Chair of Analytical Chemistry, Faculty of Natural Sciences,  
J.E.Purkyne University, Brno.

*Ed Smith, Jr*  
*1951*

*Supra*  
*11*

**Salts of hydroxy oximes** A. Oko and M. Stuck (Masaryk Univ., Brno) *Collection Czechoslov. Chem. Commun.* 13, 115 (1948) (in English). The change of linkage to carbonyl O alters considerably the properties of the salts, so that they have a constitution quite different from the salts of the corresponding dioximes. The Ni salt of AcC(O)NOHMe is readily sol. in H<sub>2</sub>O and is not easy to isolate. On standing, the salt slowly decamp with exp. of the red Ni salt of the dioxime and liberation of Ac<sub>2</sub>. In general the salts of AcC(O)NOHMe were too unstable to prep. in pure form. **Salts of  $\alpha$ -benzil monooxime:** Ni, X Ni(OH), X H (X = oxime), gray ppt; cobalt salt, NiCo, red brown cryst. ppt; supra salt, X CuOH, amorphous dark green ppt; Ni salt of phenanthroquinone monooxime, (X NiOH) · X H, brown ppt. Ni salt of monitrosuctophenone, X Ni(OH) · X H, yellow-green ppt. Ni salt of  $\alpha$ -benzil dioxime, (X Ni) · X H, other ppt. This may be assumed to have a metal-O linkage as it is quite different from the red salt of  $\alpha$ -benzil dioxime.

Alfred Hoffman

CA

Salts of dimethylglyoxime as a dibasic acid. A. Chad  
and M. Šimek (Masaryk Univ., Brno, Czech). *Collection  
Czechoslov. Chem. Commun.* 15, 977-80 (1951) (in English),  
cf. *C.A.* 43, 3710. The salts  $M_2D_2N_2O_4 \cdot nH_2O$ , with  $M$   
 $= Na$  or  $K$ , and  $L_2H_2N_2O_4$ , where  $D = MeC(=NO)-C(=NO)-Me$   
are reported. They are stable but sparingly  
sol. in concd. alk. solns., readily oxidized to a red soln. in  
less-concd. alk. solns., and revert to  $N_2O_4$  in slightly alk.  
or in acidic solns. None of these salts oxidize  $KI$ . At-  
tempts to prep. a  $Ba$  salt were unsuccessful. B. P. B.

SIMEK, M.

340. Micro-determination of alkali metals in silicates. M. Simek (Ustav analytické chemie přírodovědecké fakulty, Brno, Czechoslovakia) (*Chem. Listy*, 1954, 48 (10), 1570-1581).—A combination of 8-hydroxyquinoline (I) and ammonium oxalate is used for the removal of interfering cations in a single operation. *Procedure*—Evaporate the sample (10 to 20 mg) with 40 per cent. HF (4 ml) and conc. H<sub>2</sub>SO<sub>4</sub> (0.2 ml) in a platinum dish, add more HF (1 ml) and again evaporate. Expel H<sub>2</sub>SO<sub>4</sub> by heating, wash the contents of the dish into a flask with H<sub>2</sub>O (10 ml), add 4 per cent. aq. ammonium oxalate (0.5 ml) and a 4 per cent. soln. of I [prepared by dissolving I (4 g) in warm glacial acetic acid (8 ml) and diluting with H<sub>2</sub>O (88 ml) (3 to 4 ml), warm the soln. to 60°C, and add dropwise, with constant stirring, 50 per cent. aq. ammonium acetate. Cease the addition when permanent turbidity is obtained; when this changes to a crystalline ppt., add a further quantity (1 ml)

of the acetate soln., followed by a dropwise addition of 5 N aq. NH<sub>3</sub> until salts of I are no longer pptd. Heat the mixture on the steam-bath for 15 min., collect the ppt. after an hour's standing, and wash it with hot H<sub>2</sub>O (3 × 0.75 ml) and 1 per cent. aq. NH<sub>3</sub> (3 × 0.75 ml). Evaporate the filtrate to dryness, gently heat the residue to expel ammonium salts, dissolve it in H<sub>2</sub>O (2 ml), add H<sub>2</sub>SO<sub>4</sub> (1:4) (1 drop), 4 per cent. I (1 drop), 4 per cent. ammonium oxalate (0.25 ml), and ppt. the last traces of Ca with aq. NH<sub>3</sub> in the hot soln. Allow the ppt. to stand for 1 to 2 hr., filter and wash it with 0.5 per cent. aq. ammonium oxalate in 1 per cent. aq. NH<sub>3</sub> (3 × 0.75 ml) and with H<sub>2</sub>O (2 × 0.5 ml). Evaporate the filtrate, heat the residue, dissolve it in hot H<sub>2</sub>O (1 ml), filter the soln. into a weighed platinum crucible, and wash any residue on the filter with H<sub>2</sub>O (3 × 0.5 ml). Treat the filtrate with H<sub>2</sub>SO<sub>4</sub> (1:4) (1 drop), evaporate, heat the residue for 45 min. at 700°C, and weigh as sulphate. G. GLASER

SIMEK, M.; Okac, A.

On products of oxidation of nickel dimethylglyoxime. In German. p. 253.

CHEMIA ANALITYCZNA. (Komisja Analityczna Polaskiej Akademii Nauk i Naczelan Organizacja Techniczna) Warszawa, Poland, Vol. 3, no. 3/4 1958

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 7, July 1959  
Uncl.

COUNTRY : CZECHOSLOVAKIA  
CATEGORIES : Inorganic Chemistry. Complex Compounds  
ABS. JOUR. : RZKhim., No. 1 1960, No.694  
AUTHOR : Okac, A.; Simek, K.  
INST. : -  
TITLE : On Reactions of Dimethylglyoximate of Nickel  
with Oxidizing Agents  
ORIG. PUB. : Chem. listy, 1958, 52, No 10, 1903-1911  
ABSTRACT : The reaction of  $\text{Ni}(\text{DH})_2$  ( $\text{DH}_2$ -dimethylglyoxime)  
with oxidants ( $\text{Br}_2$ ,  $\text{I}_2$ ,  $\text{H}_2\text{O}_2$ ,  $\text{PbO}_2$ ,  $\text{Fe}(\text{CN})_6^{-3}$ ,  
 $\text{S}_2\text{O}_8^{-2}$ ,  $\text{O}_2$  and others) in alkaline medium, as  
well as the composition of the red complex  
which is formed during this reaction, was  
studied; spectrophotometrical measurements  
and paper electrophoresis were used for this  
purpose. During the reaction of  $\text{Ni}(\text{DH})_2$  with

CARD: 1/4

8-11



COUNTRY :  
CATEGORY :  
ABS. JOUR. : RZKhim., No. 1 1960, No. 694  
AUTHOR :  
INST. :  
TITLE :  
ORIG. PUB. :  
ABSTRACT : Br<sub>2</sub> in CCl<sub>4</sub> the little-stable addition compound  
cont'd Ni(DH)<sub>2</sub>Br<sub>2</sub> is formed. The course of the curves  
obtained by the method of continuous variations  
and photometric titration of oxidized alkaline  
solutions of Ni(DH)<sub>2</sub> points to the formation  
of the red complex anion with a ratio of Ni:  
DH<sub>2</sub> = 1:3. The oxidation reaction is a two-  
electron one. Paper electrophoresis showed  
that this anion has two negative charges,  
CAPD: 2/4

COUNTRY :		C
CATEGORY :		
ABS. JOUR. :	RZKhim., No. 1	1960, No. 694
AUTHOR :		
TITLE :		
ORIG. PUB. :		
ABSTRACT :	liberated during this reaction, it is slowed down, with growth of the concentration of OH <sup>-</sup> , and in solutions with concentration of KOH > 8 M, the reaction almost does not proceed. The oxidation of Ni(DH) <sub>2</sub> with oxygen proceeds slowly; the reaction is more complex than in other cases because DH <sub>2</sub> itself also oxidizes in it simultaneously.-- K. Kamen	
NOTE:	L/A	

COUNTRY :  
CATEGORY :

ARS. JOUR. : RZKhim., No. 1 1960, No. 695

AUTHOR :  
TIT. :  
TYPE :

ORIG. PUB. :

ABSTRACT  
cont'd

: the presence of  $DH_2$  is reduced quantitatively. The formed red solutions were reduced in an atmosphere of  $N_2$  by the action of  $SnCl_2$  or  $NH_2OH \cdot HCl$  in a  $KOH$  medium, or by the action of  $CoSO_4$  in  $NH_4OH$  medium in the presence of  $KCN$ . Under these conditions, the reduction proceeds rapidly, with the exchange of 2 electrons; the reaction is fully reversible. The

CARD:

2/6

COUNTRY :  
CATEGORY :

ABS. JOUR. : RZKhim., No. 1 1960, No. 695

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT  
cont'd

: investigated processes, which have great importance for the analytical application of the most soluble oxidation product of  $\text{Ni}(\text{DH})_2$ , for photometrical determination of small quantities of Ni the existence of the following mechanism may be assumed. When  $\text{Ni}(\text{DH})_2$  is dissolved in alkalis, the reaction  $\text{Ni}(\text{DH})_2 + 2\text{OH}^- = [\text{NiD}_2]^{-2} + 2\text{H}_2\text{O}$  takes place, and in strongly

CARD:

4/6

COUNTRY	:		0
CATEGORY	:		
RES. JOUR.	:	RZKhim., No. 1	1960, No. 695
AUTHOR	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	$[NiD_3]^{-4} + 3H_2O = Ni(DH)_2 + DH^- + 3OH^-$ or	
FORMULA	:	$[NiD_3]^{-2} + 3H_2O = Ni(DH)_2 + DH^- + 3OH^- + 2e.$	
		-- K. Kover	
DATE:		6/6	

SIMEK , m.

7 4  
FAT (ND)

// The determination of susceptibility of complex compounds in solutions. M. Šimek and O. Navrátil (Přirodovědecká fak., Brno, Czech.). *Collection Czechoslov. Chem. Commun.* 25, 2746-50 (1960) (in German).—The calibration of a simple magnetochem. app. and a method for detg. the susceptibility of metal complexes in solns., even in the presence of excess reagent, are described. With the assumption that the soln. behaves ideally, a relation is derived for calcg. the susceptibility of a component of a soln. Only 2 measurements are needed: one of the soln. to be analyzed and one of the comparison soln. The method is especially suitable for detg. the magnetic moment of a metal complex that cannot be isolated from soln. E. Brdka—

\*[at the Masaryk University]

JINDA, H.

Magnetochemistry. Part 4: Oxidation of nickel(II) salts of  $\alpha$ -L-histidine with bromine and iodine. Coll Cz Chem 27 no.2:337-342 F '67.

1. Institut für analytische Chemie, Purkyne-Universität, Brno.

SIMEK, M.

Magnetochemistry. Part : Reaction of nickel(II)- dimethylglyoximes  
with oxidation agents. Coll Cz Chem 27 no.2:461-464 F '62.

1. Institut fur analytische Chemie, Purkyne-Universitat, Brno.



3112, 4.

Velocity measurements of the Lyrids 1963. Bull. astr. obs. 5:  
200-203, 1964

1. Astronomical Institute, Czechoslovak Academy of Sciences,  
Prague, Cze.

L 63301-65 EWP(z)/EWP(b)/EWP(t) Pad IJP(c) JD/HW

ACCESSION NR: AP5020849

CZ/003A/6A/000/009/0663/0665

AUTHOR: Simek, Miroslav (Doctor)

15  
B

TITLE: Photometric determination of nickel in steels

SOURCE: Hutnicke listy, no. 9, 1964, 663-665

TOPIC TAGS: nickel steel, nickel, photometric analysis

ABSTRACT: Influence of ammonium citrate on the red color of dimethylglyoxime complexes is discussed. Citrate and tartrate influence the oxidation of the Ni complex. Description of the process suggested by the author, separation of the nickel complex, and the photometric determination are described. The extinction of the red complex at 470 or 500 nm is measured. Orig. art. has 3 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MI, OP

NO REF SOV: 000

OTHER: 011

JPRS

KC  
Card 1/1

L 3120-66 EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5026886

CZ/0034/65/000/006/0424/0425  
25  
24  
38

AUTHOR: Simek, Miroslav (Docent)

TITLE: Separation of titanium in steels by means of sulfosalicylic acid on a strongly basic anion S 27

SOURCE: Hutnicke listy, no. 6, 1965, 424-425

TOPIC TAGS: titanium, anion, chelate compound, steel, chemical separation

ABSTRACT: The proposed method allows the separation of small amounts of Ti (on the order of mg or micrograms) and is based on the formation of anion Ti chelate with sulfosalicylic acid; this is quantitatively retained on a strongly basic anion. Cr, Ferrous ion, Ni, Co, Cu, and Mn are not retained under the experimental conditions. V, W, Mo, Cb, Ta, and U are retained together with Ti as anion chelates. V is separated from Ti by means of a solution of NaF in 0.1 M sulfuric acid. The other metals do not interfere too much with the determination of Ti which is made photometrically. The reagents required for the analysis, and the methods of operation are described in detail. Orig. art. has: 4 tables, 1 formula.

Card 1/2

L 3120-66

ACCESSION NR: AP5026886

ASSOCIATION: Katedra analyticke chemie, prirodovedecka fakulta, universita  
J. E. Purkyne, Brno (Department of Analytical Chemistry, Faculty of Natural Sciences,  
J. E. Purkyne University)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IC

NR REF SOV: 002

OTHER: 007

JPRS

PC

Card 2/2

L 31410-66

ACC NR: AP6022963

SOURCE CODE: CZ/0008/65/000/009/1076/1078

AUTHOR: Simek, Miroslav; Novotny, Ivan

ORG: Department of Analytical Chemistry, Faculty of Natural Sciences, J.E. Purkyne University, Brno (Katedra analytické chemie, přírodovědecká fakulta, Universita J.E. Purkyne)

TITLE: Preparation of volumetric solutions of acids and bases using highly acidic Katex S and highly basic Anex S.

SOURCE: Chemické listy, no. 9, 1965, 1076-1078

TOPIC TAGS: hydrochloric acid, sodium hydroxide, aqueous solution

ABSTRACT: The authors prepared volumetric solutions of hydrochloric acid on a strongly acid Katex S, and volumetric solutions of carbonate-free sodium hydroxide on a strongly basic Anex S. The concentration of the acid and the base is determined directly by the standard NaCl solution used. The preparation of volumetric solutions by classical means is rather tedious and requires a long time. The column filled with the Katex or Anex S may be used for fast preparation of solutions of accurate normalities. The greatest advantage of the method is in the preparation of dilute carbonate-free hydroxide solutions. For 1 l of a 0.1 N HCl or NaOH only 100 ml of Katex S or 130 ml of Anex S are needed. The ionex can be regenerated. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 02Oct64 / ORIG REF: 001 / OTH REF: 004

Card 1/1 *QT*

*0915 1047*

L 29647-66 EWP(j)/ETC(f) RM/DS

ACC NR: AP6020148

SOURCE CODE: CZ/0008/65/059/012/1456/1462

AUTHOR: Simak, Miroslav

25  
B

ORG: Department of Analytical Chemistry, Faculty of Natural Sciences, J. E. Purkyně University, Brno (Katedra analytické chemie, Přírodovědecká fakulta, Univerzita J. E. Purkyně)

TITLE: Analytical characterizations of some new ion exchange resins of Czechoslovak manufacture

SOURCE: Chemické listy, v. 59. no. 12, 1965, 1456-1462

TOPIC TAGS: ion exchange resin, vinyl compound/Anox AP-1 ion exchange resin, Katex KP-1 ion exchange resin

ABSTRACT: The author describes new Czech products based on polystyrene and divinylbenzene. A strongly acid Katex KP-1 and a strongly basic Anox AP-1 are very suitable for analytical applications. Both have good mechanical and chemical properties, and may be used at any pH. The only disadvantage of these products is that they are produced in grain sizes of 0.3 - 1.5 mm, and when used in chromatography they must be ground to smaller suitable sizes, which is a tedious operation. Their adsorption properties are similar to those of Dowex I and Dowex 50, or of Amberlite IR 120 and Amberlite IRA 400. Orig. art. has: 5 figures and 3 tables. [JPRS]

SUB CODE: 07 / JRN DATE: 02Oct64 / ORIG REF: 004 / OTH REF: 004

Card 1/1 cc

L 31389-66 EWP(j)/EWP(t)/ETI IJP(c) RM/JD/HW  
ACC NR: AP6021094 SOURCE CODE: CZ/0008/66/000/001/0074/0077

35  
B

AUTHOR: Simok, Miroslav

ORG: Department of Analytical Chemistry, Faculty of Natural Sciences, J. E. Purkyně University, Brno (Katedra analytické chemie přírodovědecké fakulty university J. E. Purkyně)

TITLE: Complexometric and polarographic determination of traces of Cd and Zn in nickel, copper and aluminum using a highly basic anion exchange resin

SOURCE: Chemické listy, no. 1, 1966, 74-77

TOPIC TAGS: anion exchange resin, polarographic analysis, chemical separation, complex molecule, chemical laboratory apparatus, trace analysis

ABSTRACT: The determination is based on the method of separation of chlorine containing complexes of Cd and Zn on the strongly basic Anex S in a medium of 1 to 2N hydrochloric acid. The presence of nitrates and sulfates does not interfere with the separation. The apparatus and the reagents are described. Separation of Cd and Zn from Ni, Cu, and Al is discussed. Determination of traces of Zn and Cd in pure nickel is described. Orig. art. has: 4 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 08Dec64 / ORIG REF: 003 / OTH REF: 003  
SOV REF: 003

Card 1/1 "C

L. 45364-66

ACC NR: AP6026465

SOURCE CODE: CZ/0092/66/017/002/0090/0092

29  
27  
B

AUTHOR: Simek, M.

ORG: Astronomical Institute, Czechoslovak Academy of Sciences, Ondrejov

TITLE: Errors in determining meteor velocities by the diffraction method

SOURCE: CSAV. Byul astron inst Chekhoslov, v. 17, no. 2, 1966, 90-92

TOPIC TAGS: meteor, meteor observation, radio diffraction method

ABSTRACT: The author discusses the effect of certain values upon the accuracy of the determination of meteor velocity by the radio diffraction method. The author analyzes the effect of an inaccurate reduction of the recording of the meteor diffraction method, and derives limiting curves, which allow information to be obtained for  $f_1 = 500$  c. p. s. and  $\lambda = 8$  m on the region of the distance of the meteors at their different velocities where a certain zone may be used for the velocity determination, lest the error should exceed  $\pm 10\%$  of the meteor-velocity value. The resulting velocity should then be determined using the mean value,

Card 1/2



I 44354-66

ACC NR: A16026465

rather than the weighted average. The author wishes to thank Z. Plavcova for her critical comments on the paper and Mrs. G. Havelkova for the numerical calculations and precise drawings. Orig. art. has: 2 figures, 3 formulas, and 1 table.  
[Based on author's abstract] [GC]

SUB CODE: 03, 18/ SUBM DATE: 17Sep65/

Card 2/2 *run*

ACC NR: AP7001705 SOURCE CODE: CZ/0092/66/017/006/0354/0359

AUTHOR: Simek, M.

ORG: Astronomical Institute of the Czechoslovak Academy of Sciences, Ondrejov

TITLE: The influence of diffusion on the determination of meteor velocities by radar

SOURCE: Ceskoslovenska akademie ved. Byulleten' astronomicheskikh institutov Chekhoslovakii, v. 17, no. 6, 1966, 354-359

TOPIC TAGS: meteor, error, velocity measurement, diffraction method, computer /ZUSE Z-23 computer, Minsk-22 computer

ABSTRACT: The author analyzes the influence of diffusion on the determination of a meteor's velocity by the diffraction method and compares the results with those of analyses made earlier by Kaiser and Dudnik, and by Kashcheyev and Lebedinyets [Dudnik B. S., Kascejev B. L., Lebedinec V. N., 1962, Rezultaty issledovanij po programme mezhdunarodnogo geofiziceskogo goda 8, 21; Kaiser T. R., 1953, Phil. Mag. Suppl. 2, 495; Kascejev B. L., Lebedinec V. N., 1961, Rezultaty

Card 1/2

ACC NR: AP7001705

issledovanij po programme mezdunarodnogo geofizicekogo goda 7, 22]. He shows that in their papers neither Kaiser nor the others gave the positions of the extremes on the diffraction curves for different diffraction values, and that their conclusions conflict with respect to the evaluation of measurement errors. The author explains his method of determining the influence of the diffusion coefficient on the shape of the diffraction curves and demonstrates that if the first maximum on the curve is neglected, and if the latter is so long that it contains at least two minima, then the mean value of the error in the velocity does not exceed + 4% of a diffraction value of two or less. The author thanks Miss Z. Plavcova and Mr. Z. Ceplecha for useful discussions, Mr. Ceplecha for drawing up the programs for the ZUSE Z-23, and Minsk-22 computers, and Mrs. J. Havelkova for drawing the diagrams and performing smaller calculations. Orig. art. has: 5 figures, 2 tables, and 6 formulas. [KP]

SUB CODE: 03/SUBM DATE: 09Jun66/ORIG REF: 002/SOV REF: 002/  
OTH REF: 001/

Card 2/2

L 31778-66

ACC NR: AP6021651

SOURCE CODE: CZ/0039/65/026/008/0449/0452

AUTHOR: Simek, Milos (Engineer)

36  
B

ORG: Astronomical Institute, CSAV, Ondrejov (Astronomicky ustav CSAV)

TITLE: Automatic recording of fast phenomena with irregular occurrence

SOURCE: Slaboproudy obzor, v. 26, no. 8, 1965, 449-452

TOPIC TAGS: recording equipment, signal identification, meteor trail

ABSTRACT: The article describes a recording system which makes use of signal retardation by means of a magnetic loop; after the desired signal is singled out in a discriminator the phenomenon to be measured is recorded in a storage tape recorder. The working conditions of the discriminator are described. The method has been used in recording radio reflections from meteoritic trails during measurement of the geocentric speed of meteorites. Orig. art. has: 6 figures and 3 formulas.

[Based on author's Eng. abst.] [JPRS]

SUB CODE: 09, 14, 03/ SUBM DATE: 28Sep64/ ORIG REF: 009/ OTH REF: 001

UDC: 621.317.087

Card 1/1

SIMEK, Pavel, dr.

Revision of the railroad transportation regulations. Doprava  
no.12:415-419 '62.

SIMEK, Pavel

Cables with aluminum conductors. Zel dop tech 11 no.10:306-307  
'63.

EXCERPTA MEDICA Sec 15 Vol 9/5 Chest Dis. May 56

1163. ŠIMEK R. Z. Liečebne pre detskú tubu v Lučivnej okr. Poprad. - Intra-  
venózne infúzie PASu v liečbe pľúcnej a mimopľúcnej tuby detí a mladistvých.  
Intravenous infusions of PAS applied in treating pulmon-  
ary and non-pulmonary tb in children and adolescents  
ROZH. TUBERK. 1955, 15/5 (227-230)

PAS infusions combined with small doses of streptomycin and INH were used in  
the treatment of 66 patients (42 girls and 24 boys) between the ages of 9-19 yr.  
Fifty-seven cases of pulmonary tb (42 with cavitation) and 9 extra-pulmonary tb.  
Average number of infusions was 42, dosage 8-20 g. of PAS in normal saline with  
the addition of vit. C. 66% of patients mainly with recent disease improved, cavity  
closure only in 7%, sputum conversion in 23%. Blumberg - Jevicku (XV, 7)

SINK. R.

Municipal manufacture of gas from natural gas and mineral oil, p. 214,  
MAGYAR KEMIKUSOK LAPJA (Magyar Kemikusok Egyesulete) Budapest,  
Vol. 11, No. 7, July 1956

SOURCE: East European Accessions List (EEAL) Library of Congress,  
Vol. 5, No. 11, November 1956



Simek, R.; Somlo, Gy.; Gloetzer, J.

Economical use of energy bearers in Hungary's chemical industry. p.341

MAGYAR KEMIKUSOK LAPJA. (Magyar Kemikusok Egyesulete)  
Budapest, Hungary. Vol.14, no.9, September 1959

Monthly List of East European Accessions (EEAI) LC, Vol.8, no.11  
November 1959  
Uncl.

PORA, Ferenc, okleveles mernok; RAPP, Tamas; BORBAS, Nandor; NAGY BIRO, Sandor; HLIYANSZKY, Istvar, dr. SCHUMICZKY, Imre; KERTESZ, Gabor; SIMEK, Rezső, okleveles vegyeszmernok; JANCSON, Tibor; TOTH, Istvan; AUERSWALD, Janos; KLAFFL, Gyula; CSERNAVOLGYI, Laszlo.

Production and utilization of natural gas. Energia es atom  
17 no.1:11-15 Ja'64.

1. Orszagos Koolaj- es Gazipari Troszt (for Pora, Kertes, Auerswald and Klaffl).
2. Voros Csillag Trakrogyar (for Borbas).
3. Fovarosi Gazmuvek (for Nagy Biro).; 4. Asvanyolajforgalmi Vallalat (for Hlinyanszky).
5. Dunai Vasmu (for Schumiczky).
6. VEGYTERV (for Simek and Csernavolgyi).

SIMEK, Rezsó

Natural gas hydrates and preventing their formation. Ipari  
energia 5 no.101-2 Ja '64.

1. Designing Enterprise of Chemical Plants, Budapest.

RAPP, Tamás, okl. vegyészmernök; SIMEK, Rezső, okl. vegyészmernök

Economy of gas utilization in satisfying the particular  
heat requirements of the population. Ipari energia 2  
no. 9/173-182 Ag-S '61.

1. Országos Energiagazdalkodási Hatoság (for Rapp).
2. Vegyiművek Tervező Vállalat (for Simek).

ZARUBA, Quido; SIMEK, Rudolf.

Analysis of the engineering geology conditions in the Mala Strana area. Sbor geol ved 1:109-132 '64.

1. Geological Institute of the Czechoslovak Academy of Sciences, Prague.

DRAHNY, M.; SIMEK, S.

Symposium "Technical and economic problems of nuclear energetics". Jaderna energie 8 no.4:142 Ap '62.

SRB, V.; SIMEK, S.

Igor' Vasil' evich Kurchatov and nuclear physics. Jaderna  
energie 9 no.5:172-174 My '63.

SIMEK, V.

SIMEK, V. Annual report of the machine-tractor stations. p. 63.

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

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



SILVER, V.

Use of a pressure manometer in chemical industry.

p. 122. (Chemický Průmysl. Vol. 7, no. 3, Mar. 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,  
February 1958

SILK, V.

Development of production in the Stalin Plants.

p. 510 (Chemický Průmysl. Vol. 7, no. 10. Oct. 1957, Prague, Czechoslovakia)

Monthly Index of East European Accessions (MEEA) 10. Vol. 7, no. 2,  
February 1958

ACCESSION NR: AP4020559

Z/0032/64/014/003/0216/0222

AUTHOR: Simek, V. (Engineer)

TITLE: Determination of limits of metal fatigue by tests of one sample

SOURCE: Strojirenstvi, v. 14, no. 3, 1964, 216-222

TOPIC TAGS: fatigue limits, testing technique, Locati's method, comparing test results, accuracy, practical application

ABSTRACT: Normal determination of limits of fatigue for a metal needs 6 to 10 samples and takes 2 - 4 weeks. Use of Locati's method which needs only one sample and is finished in a few hours, is suggested for the current checking of the quality of materials. The examined sample is tested at increasing loads, usually with 50-200,000 cycles at each loading. The method was compared to standard methods using Czech steels type CSN 12 030.1 with a tensile strength of 57 kp/mm<sup>2</sup> and 14 331.7 with a strength of 120 kp/mm<sup>2</sup>. Maximum difference between the methods was 10% but in most cases it was smaller. Wohler's auxiliary curves are discussed, and their determination by statistical calculation is described. Auxiliary curves constructed by the author for the comparative test are shown.

Card 1/2

ACCESSION NR: AP4020559

Differences in 12 030.1 steel varied from -8.0% to +0.7% for the selected curve, and -2.5% to +0.3% for the statistically calculated curve. For steel 14 331.7 these figures were -9.3% to -2.4%, and -1.7% to 0.2%, respectively. Orig. art. has: 5 figures, 8 tables.

ASSOCIATION: SVUMT, Prague

SUBMITTED: 00

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: ML, MD

NO REF SOV: 001

OTHER: 004

Card 2/2

STAN, ALBANA.

R. barstvi na tekoucich vodach. Praha, Statni zemedelske  
nakl., 1954. 442 p.

SOURCES: EEAL LC Vol. 5 No.10 Oct. 1956

SIMEK, ZDENEK.

Pod hladinou rek a rybníků. (1. vyd.) Praha, Orbis  
1955, 186 p. (Věda a život) (Under the surface of rivers  
and ponds. 1st ed. illus., col. plates, index)

SOURCE: East European Accessions List (EEAL) Library  
of Congress. Vol. 5, No. 1, January, 1956.

SIMEK, Z.

Simek, Z.

Prevention of disfigurement of the landscape near reservoirs. p. 22.

Vol. 10, no. 1, Feb. 1955  
OCHRANA PRIRODY

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSION, (EEAL), LC, VOL. 4, NO. 9,  
Sept. 1955, Uncl.

SERIAY, G. V.

Q23. Sinolev, O. V. *Theory of the automobile* [Teoriya avtomobilya], Moscow, Publ. by War Ministry, 1951, 400 pp. \$1.

Book is written to provide guidance on design theory and methods of experimental determination.

Contents: Basic parameters of Russian cars and trucks (11 pp.); Mechanics of wheel rolling (13 pp.); Vehicle motion (20 pp.); Tractive effort as determined by adhesion (30 pp.); Tractive resistance (50 pp.); Determination of tractive performance (100 pp.); Tractive economy (34 pp.); Determination of design parameters (37 pp.); Stability (22 pp.); Vibrations (16 pp.).

The text is essentially a mathematical treatment of the application of classic mechanics to the determination of automobile performance. It contains considerable data on Russian cars and results of component performance determinations. Reviewer found considerations of weight transfer problems and graphic vehicle performance determinations of particular interest. The chapter on resistance contains aerodynamic data extensively abstracted from elsewhere without revealing either fact or source. The chapter on stability is most inadequate, making no mention of effect of tire slip angle, location of drive, aerodynamic pressure center, and directional oscillations.

Vibration considerations are mainly based on Lala's work and are too brief. Apart from this, the reviewer is of the opinion that the text meets the requirements for a clear introduction into the complexities of automobile mechanics.

J. L. Korman, England



LITVER, G.M.; DAMPEL', N.N.; SIMEL'SON, I.B.; KOSTKIN, V.B.

Organic regeneration of skeletal muscles in rats. Biul. eksp. biol.  
i med. 52 no.8:101-105 Ag '61. (MIRA 15:1)

1. Iz kafedry obshchey biologii (zav. - prof. G.M.Litver) I Lenin-  
gradskogo meditsinskogo instituta imeni I.P.Pavlova. Predstavlena  
deystvitel'nym chlenom AMN SSSR N.A.Krayevskir.  
(REGENERATION (BIOLOGY)) (MUSCLE)

SEPPI, I.V., kandidat meditsinskikh nauk; SIMENACH, B.I. (L'vov)

Disorders of gastric function in chronic bacillary dysentery.  
Klin.med.33 no.8:47-49 Ag '55. (MLRA 8:11)

(STOMACH, in various diseases,  
dysentery, bacillary)

(DYSENTERY, BACILLARY, physiology,  
stomach)

SIMENACH, B.I., kapitan meditsinskoy sluzhby

Determining the blood circulation in the foot. Voenn.-med. zhurn.  
no.7:83 J1 '61. (MIRA 15:1)

(FOOT--BLOOD SUPPLY)

SIMENACH, B.I.

Examination of the ligamentous of the knee joint in the position  
of a freely suspended extremity. Ortop., travm.i protez. no.10:  
59-62 '61. (MIRA 14:10)

(KNEE)

SIMENACH, B.I.

Importance of pneumarthrography in the diagnosis of internal  
injuries of the knee joint. Vesta. rent. i rad. 38 no.3:27-35  
My-Je '63. (MIRA 17:7)

SIMENACH, B.I.

"Internal injuries" of the knee joint. Ortop., travm.i protez  
no.2:84-85 '62. (MIRA 15:3)  
(KNEE WOUNDS AND INJURIES)

SIMENACH, B.I.

Treatment of reactive inflammatory process in closed injuries  
to the knee joint. Klin. khir. no. 12:33-37 D '62. (MIRA 16:2)  
(KNEE—WOUNDS AND INJURIES) (INFLAMMATION)

SIMENC, Ivan

The rocket mail in Slovenia. (To be contd.). PTT zbor 15  
no.12:232-233 D '61.



SMENC, Ivan

The rocket mail in Slovenia. PTT :bor 16 no.1/2:37-39 F '62.

C 15336-66 ENT(m)/EWP(j)/T RM

ACC NR: AP6000982

(A)

SOURCE CODE: UR/0286/65/000/022/0059/0059

AUTHORS: Gritsenko, T. M.; Kartsovnik, V. I.; Simenido, A. T.

ORG: none

TITLE: A method for obtaining polyoxyalkylene polyols. <sup>b</sup> Class 39, No. 176405<sup>b</sup>  
/announced by Vladimir Scientific Research Institute for Synthetic Resins (Vladimirskiy  
nauchno-issledovatel'skiy institut sinteticheskikh smol)/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 22, 1965, 59

OPIC TAGS: <sup>H/S</sup> polymer, polymerization, catalytic polymerization, quaternary amine, resin, catalyst, ammonium

ABSTRACT: This Author Certificate presents a method for obtaining polyoxyalkylene polyols by the polymerization of alkylene oxides in a medium of hydroxyl-containing compounds at a temperature of 50-80C in the presence of quaternary ammonium base catalysts. To increase the molecular weight of the polymers, the alcoholate or the hydroxide of tetramethyl ammonium is used as the quaternary ammonium base catalyst.

SUB CODE: 11/ <sup>07/</sup> SUBM DATE: 01Jul63

PC

Card 1/1

UDC: 678.644'142'4

FD-1245

USSR/Chemistry

Card 1/1 : Pub. 129-7/25

Author : Simenenko, K. N.; Simanov, Yu. P; Movoselova, A. V.

Title : ~~Basic beryllium acetate~~ Basic beryllium acetate. Report No 1. Monoclinic high temperature modifications of basic beryllium acetate.

Periodical : Vest. Mosk. un., Ser. fizikommat i yest. nauk, 9, No 1, 61-62, Feb 1954

Abstract : Basic beryllium acetate forms only one high temperature modification belonging to the monoclinic syngony and is unstable under ordinary conditions. The conversion of the cubic modification into the monoclinic at 146-148 degrees is apparently monotropic. Three references (all foreign)

Institution : Chair of Inorganic Chemistry

Submitted : September 14, 1953

AKHIEZER, A.I.; SIMENKO, A.G.

Theory of stripping reactions at high energies. Zhur. eksp. i teor.  
fiz. 33 no.4:1040-1042 0 '57. (MIRA 11:1)

1. Kharkovskiy gosudarstvennyy universitet i Fiziko-tekhnicheskiy  
institut Akademii nauk Ukrainskoy SSR.  
(Nuclear reactions)

SIMENKO, V. M.

USSR/Medicine - Intestines, Physiology  
Medicine - Intestines, Sensitivity

Jan 49

"Problem of the Sensitivity of the Internal Organs," A. I. Bronshteyn, A. V. Lebedinskiy, V. M. Simenko, Chair of Physiol, Chair of Faculty Surg, Mil Med Acad imeni S. M. Kirov, 12 pp

"Fiziol Zhur SSSR" Vol XXXV, No 1

Conducted tests on four animals with abnormally small intestines to determine degree of expansion before pain became noticeable. Determined that the animal sensory reactions could be observed not only when intestine was moved, but also when an electric charge acted on interior walls of the intestine. Charge produces reactions by: (1) stimulating peristalsis of the intestine (direct current), and (2) irritation of the sensory nerve in the caecum (pulsed current).

PA 17/49T62

SITENKO, A.G. [Sytenko, O.H.]; SIMENOG, I.V. [Symenoh, I.V.]

Theory of fluctuations in superconductors. Ukr. fiz. zhur.  
8 no.5:537-548 My '63. (MIRA 16:8)

1. Khar'kovskiy gosudarstvennyy universitet i Institut  
fiziki AN UkrSSR, Kiyev.

SITENKO, A.G.; SIMENOG, I.V.

Rule of sums and two-nucleon correlations in nuclei. Izd. fiz. 2  
no.4:603-613 0 '65. (MIRA 18:11)

1. Institut fiziki AN UkrSSR.

SIMENOG, I.V. [Symenoh, I.V.]

Theory of excitation of "zero" sound in nuclear matter. Ukr.  
Fiz. zhur. 9 no.2:128-138 F'64 (MIRA 17:7)

1. Institut fiziki AN UkrSSR, Kiyev.



L 27479-66 EWT(m)/T

ACC NR: AT6008416

SOURCE CODE: UR/3137/65/000/142/0003/0018

AUTHOR: Sitenko, A. G.; Simenog, I. V.

ORG: None

50  
BT

TITLE: Sum rules and two-nucleon correlations in nuclei

SOURCE: AN UkrSSR. Fiziko-tehnicheskij institut. Doklady, no. 142/T-016, 1965. Dvukhnuklonnyye korrelyatsii v yadrakh, 3-18

TOPIC TAGS: inelastic scattering, scattering cross section, electron scattering, correlation statistics, spectral distribution, nuclear shell model, even even nucleus, spin orbit coupling

ABSTRACT: The authors establish a general relation between the cross section for inelastic scattering of electrons and the spectral distributions of two-nucleon correlation functions in the nucleus. The cross section for inelastic scattering of a fast electron by an individual nucleon of the nucleus is first calculated on the basis of perturbation theory under the assumption that the nucleon is non-relativistic. This cross section is then expressed in terms of the spectral dis-

19

2

Card 1/2

L 27479-66  
ACC NR: AT6008416

0

tributions of the space-time correlation functions for the nucleons in the nucleus in terms of the current density, spin density, and spin current operators of the nucleons. This is followed by calculation of the two-particle correlation functions for the nucleons in the nucleus on the basis of the shell model of the nucleus. The angular and energy distribution of the electrons in inelastic scattering by even-even nuclei can then be determined on the basis of the obtained relations. The equations are simplified noticeably if spin-orbit interaction is neglected. By way of an example, some rules for the correlation functions are established for the nuclei  $He^4$ ,  $O^{16}$ , and  $Ca^{40}$ , and the influence of the motion of the center of mass on the correlation functions is considered with  $He^4$  as an example. Orig. art. has: 3 figures and 43 formulas.

SUB CODE: 20/    SUBM DATE: 00    .ORIG REF: 001/    OTH REF: 010

Card 2/2    BLG

L 27480-66 EWT(1)/EWT(m)/T IJP(c) AT

ACC NR: AT6008417

SOURCE CODE: UR/3137/65/000/142/0019/0031

AUTHOR: Sitenko, A. G.; Simenog, I. V.

ORG: None

58  
B+

TITLE: <sup>19</sup>Inelastic scattering of electrons by nuclei and two-particle correlations in nuclei

SOURCE: AN UkrSSR. Fiziko-tehnicheskii institut. Doklady, no. 142/T-106, 1965. Dvukhnuklonnyye korrelyatsii v yadrakh, 19-31

TOPIC TAGS: inelastic scattering, scattering cross section, electron scattering, correlation statistics, spectral distribution, Fermi gas

ABSTRACT: The authors establish a general relation between the cross section for the inelastic scattering of fast electrons by nuclei and the spectral distributions of two-nucleon correlation functions in the nucleus in the case when the inelastic scattering is accompanied by a transfer of a definite momentum and a definite energy from the electron to the nucleus. The expression shows that inelastic scattering of electrons by nuclei is connected both with fluctuations of

Card 1/2

L 27480-66

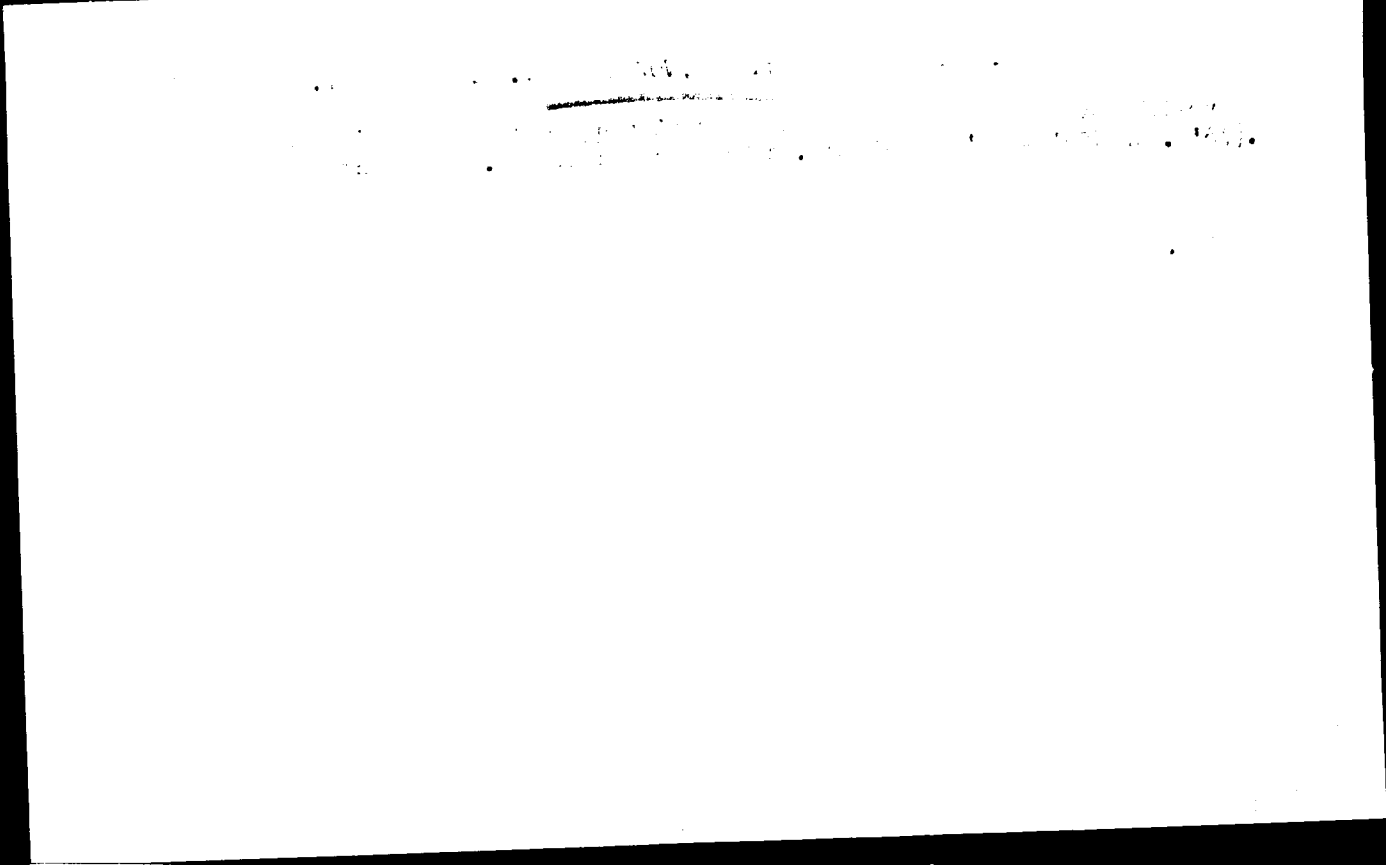
ACC NR: AT6008417

0

the nucleon density in the nuclei and with fluctuations of the nucleon currents; the latter acquire a more important role in the case of large-angle scattering of the electrons. The functions of two-nucleon space-time correlation, brought about by the Pauli principle and the two-particle interaction between nucleons, are then calculated for simple nuclear models, such as the model of the ideal Fermi gas, the superfluid model, and the Fermi-liquid model. The collective excitations due to residual interaction between the nucleons and the nuclei are considered. Orig. art. has: 8 figures and 21 formulas.

SUB CODE: 20/    SUBM DATE: 00/    ORIG REF: 006/    OTH REF: 005

Card 2/2    BLG



SIENSHTEYN, G. N.

"Problem of Surgical Treatment of Tubercular Empyema," Prob. Tuber., No. 2, 1949.  
Mbr., Surgical Dept., Clinic Tuberculosis in Adults, Leningrad State Med. Pediatrics  
Inst., -c1949-.

SPENCER, G. L.

35501. Torakoplastika na storone neeffektivnogo pnevmotoreksha. V  
SB: Voprosy grudnoy khirurgii. T. 111. M., 1949, c. 159-63.

Letois' Zhurnal'nykh Statey, Vol. 48, Moskva, 1949

SIMENSHTEYN, G. N.

"Treatment of Wounded Persons With Severe Pulmonary Emphysema of Gunshot Origin." Sub 20 Nov 51, Central Inst for the Advanced Training of Physicians.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sun. No. 480, 9 May 55.



SIMENSHEYN, G.N., kand.med.nauk, SHAPIRO, B.Ya., kand.med.nauk

Thoracoplasty in modern therapy of pulmonary tuberculosis [with summary  
in French]. Probl.tub. 36 no.5:14-21 '58 (MIRA 11:8)

1. Iz kliniki tuberkuleza legkikh (dir. - prof. A.Ya. TSigel'nik)  
I Leningradskogo meditsinskogo instituta imeni I.P. Pavlova.  
(COLLAPSE THERAPY,  
thoracoplasty (Rus))

SIMENSHTEYN, G.N., kand. med. nauk; SHAPIRO, B.Ya., kand. med. nauk

Prevention of the development of hemothorax following extra-  
pleural pneumolysis. Vest. khir. no. 6:35-37 '65. (MIRA 18:12)

1. Iz kliniki legochnogo tuberkuleza (zav. - prof. A.Ya. TSigel'-  
nik) 1-go Leningradskogo meditsinskogo instituta imeni Pavlova.

ARKHIPOV, G.N.; LITVINOV, A.M.; SIMMONSON, A.P.

Arrangement for utilizing waste heat of coke-oven standpipes. Koks  
i khim. no.7:18-19 '56. (MLBA 9:12)

1. Khar'kovskiy koksokhimicheskiy zavod.  
(Waste heat) (Coke ovens)

SIMEON, Ion, ing.

Setting out and execution of the curves in salt mines. Rev min 12  
no.10:470-472 0 '61.

(Salt mines and mining)