

STIPCIC, N. (Zagreb); PAIG, M. (Zagreb); TOMAS, P. (Zagreb)

The ion optical system of a 200 kV Cockroft-Walton accelerator.
Glas mat fiz Hrv 17 no.1/2:107-112 '62.[publ. '63].

1. Institute "Ruder Boskovic", Zagreb.

STIPEK, Jaroslav, Ing. arch.

Department of communicable diseases in hospitals; 1. development.
Cesk. nemoc. 22 no.6:129-142 25 Nov 54.

1. Studijni a typisacni ustav v Praze
(HOSPITALS
communicable dis. department)

STIPEK, Jaroslav

Psychiatric hospital in Presovo. Cesk. zdravot. 4 no.11:
653-656 Nov 56.

1. Studijni typisacni ustav v Praze.
(HOSPITALS, PSYCHIATRIC,
in Czech. (Cz))

STIPEK, Jaroslav

Hospitalisation in infectious diseases. Cesk. zdravot. 5 no.10:786-
605 Oct 57.

1. Studijni a typisacni ustav v Prase.
(HOSPITALS,
infect. wards (Cz))
(COMMUNICABLE DISEASES,
infect. wards in hosp. (Cz))

STIPEK, Jaroslav, Inz.; BOHAC, V., Inz.; MASEK, Karel, MUDr.

Studies on typical central laboratories in hospitals and polyclinics.
Cesk.zdravot. 8 no.6:319-329 Je '60.

(LABORATORIES)
(HOSPITALS)

MAKOVICKY, E., doc. dr.; STIPEK, J., inz.

On the problem of technical aids in hospitals (with special reference to laundries and management of linen). Cesk. sdav. 10 no.10:497-503 '62.

1. Veduci katedry teorie a organizacie zdravotnictva Slovenskeho ustavu pre doskolovanie lekarov v Bratislave (for Makovicky). 2. Studijni, typizacni a vyvojovy ustav pro vystavbu zdravotnickych zarizeni v Praze (for Stipek).

(LAUNDERING)

(HOSPITAL HOUSEKEEPING)

STIPEK, J., inz.

New trends in designing in-patient units: Cesk. zdrav. 10 no.10:
504-518 '62.

1. Studijni, typizacni a vyvojovy ustav pro vystavbu zdravotnickych
zarizeni v Praze.
(HOSPITAL PLANNING AND CONSTRUCTION)

JAROLIMEK, J.; STIPEK, J.

Construction and planning of hospitals for children with orthopedic defects. Acta chir. orthop. traum. cech. 29 no.4:333-335 Ag '62.

1. Ustav pro organizaci zdravotnictvi fakulty vseobecneho lekarstvi University Karlovy v Praze, ved. prof. dr. V. Prosek, DrSc. Studijni a typizacni ustav v Praze.

(HOSPITAL PLANNING AND CONSTRUCTION) (SCOLIOSIS)

STIREK, F., in. arch.

Typy projektů pro konstituční politiku, Česk. zprav. 13 str. 4:
177-185 Ap'66.

1. Studijní, týžňovní a výzkumný materiál pro vyšetření národnost-
ních záležitostí v Praze.

STIPEK, J.

Children's wards with a polyclinic of the 1st and 2nd type.
Cesk. pediat. 20 no.8:734-738 Ag '65.

1. Studijni, typizacni a vyvojovy ustav pro vystavbu zdravotnickych zarizeni v Praze.

CZECHOSLOVAKIA

VECEREK, B.; KRAML, J.; PELICHOVA, H.; STEPAN, J.; CHMELAR, M.;
STIPEK, S.

1. Institute for Medical and Forensic Chemistry, Faculty
of General Medicine, Karlovy University, Prague - (for all).

Prague, Collection of Czechoslovak Chemical Communications,
No 11, November 1965, pp 3964-3968.

"Phosphatases. Part 2: Changes in the composition of human
intestinal and kidney alkaline phosphatase during purifi-
cation."

(6)

CA STIPETIC, J.

The precipitation of aluminum hydroxide according to Bayer as a problem on the formation of a nucleus. B. Herrmann and J. Sigmund (Inst. an Lake Metale, Zagreb, Yugoslavia). *Z. anorg. Chem.* 263, 266-67 (1950). An explanation is given for the role of the seeding crystal in the development of sodium aluminate soln. according to Bayer, (K. J. Bayer, U.S. 516,885 (1992)). The kinetics is examined, using seeding crystals of various sizes and histories. The reaction is said to be a genuine process of crystal. The following reactions are involved in the hydrolytic equil.: (1) $\text{Na}[\text{Al}(\text{OH})_4] \rightleftharpoons \text{Na}^+ + [\text{Al}(\text{OH})_4]^-$, (2) $[\text{Al}(\text{OH})_4]^- + \text{H}_2\text{O} \rightleftharpoons \text{H}[\text{Al}(\text{OH})_3] + \text{OH}^-$, (3) $\text{H}[\text{Al}(\text{OH})_3] \rightleftharpoons \text{H}^+ + [\text{Al}(\text{OH})_3]$, (4) $\text{H}_2\text{O} \rightleftharpoons \text{H}^+ + \text{OH}^-$. The results are evaluated in the light of more recent theories and apparently only $[\text{Al}(\text{OH})_4]^-$ serves as seed. The reaction is classified as autocatalytic. Alfred I. Moses

STIPATIC, J.

"The Rolling Mill in Sisk and the Petroleum Industry." p. 299, (NAFTA,
Vol. 5, no. 11, Nov. 1954. Zagreb, Yugoslavia.)

SO: Monthly List of East European Accessions, (EMAL), LC,
Vol. 4, No. 5, May 1955, Uncl.

STANIN, V.

Labor productivity in Yugoslav agriculture.

p. 1 (Foljeprivreda. Vol. 4, no. 6, June 1956. Beograd, Yugoslavia)

Monthly Index of East European Accessions (MEI) IC. Vol. 7, no. 2,
February 1956

STIPIĆ, B.

Equipment for automatic filling of batteries. p. 21. ELEKTROTEHNIČAR.
(Tehnicka knjiga) Zagreb. Vol. 10, no. 3/4, 1956

So. East European Accessions List Vol. 5, No. 9 September, 1956

HUNGARY

MESZAROS, Janos, Dr, ~~STIPKOVITS, Laszlo, Dr;~~ Hungarian Academy of Sciences, Animal Health Research Institute (director: MESZAROS, Janos, Dr, cand. of vet. sci.) (MTA -- Magyar Tudomanyos Akademia --, Allategeszsegugyi Kutato Intezet).

"Study of the Development of E. Coli Bacteremia in Experimentally Infected Chicks."

Budapest, Magyar Allatorvosok Lapja, Vol 22, No 1, Jan 67, pages 14-19.

Abstract: [Authors' English summary modified] The development of E. coli bacteremia was investigated in 6 week old chicks infected either with E. coli alone or in combination with PPLO. According to the experimental results, bacteremia developed in response to E. coli infection. This was indicated by a rise in body temperature and by the results of bacteriological testing of the organs. The bacteremia lasted for about a week after the infection. The E. coli bacteremia was prolonged by PPLO infection. Based on the experimental results, it is proposed that the entire carcass be judged as conditionally suitable for human consumption in the presence of severe air sacculitis and peritonitis. In the presence of mild acute symptoms, the body parts showing evidence of lesions and all of the parenchymatous organs must be discarded. Should the general meat inspection regulations permit it, carcasses showing chronic lesions can be judged as suitable for human consumption when the parts showing pathological lesions are discarded. 3 Eastern European, 8 Western references.

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HUNGARY

MESZAROS, Janos, Dr, ~~STIPKOVITS, Laszlo, Dr;~~ Hungarian Academy of Sciences, Animal Health Research Institute (director: MESZAROS, Janos, Dr, cand. of vet. sci.) (MTA -- Magyar Tudomanyos Akademia --, Allategeszsegugyi Kutato Intezet).

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653320004-7"

"Study of the Spreading of E. Coli Infection in Poultry Flocks Infected With Mycoplasma Gallisepticum."

Budapest, Magyar Allatorvosok Lapja, Vol 22, No 1, Jan 67, pages 19-22.

Abstract: [Authors' English summary modified] The spreading of E. coli infection from animal to animal was studied in 106 chicks infected with M. gallisepticum under experimental conditions. According to the experimental results, the infection with some strains of E. coli does spread within a flock from one animal to the other. Chicks exposed to contact infection develop fever and a positive serological reaction; even losses can occur with symptoms and pathologic lesions characteristic of CRD. The E. coli strains used for infection were successfully re-isolated from the fibrinous air sacs of chicks which succumbed to the infection. 5 Hungarian, 8 Western references.

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S/079/60/030/007/009/020
B001/B063

AUTHORS: Romadan, I. A., Stipniyek, G. T.

TITLE: Alkylation of Phenol by Means of Molecular Compounds From Alcohols and Boron Fluoride

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 7, pp. 2193-2196

TEXT: Considering the results of many previous investigations on the synthesis of alkyl phenols and alkyl-phenyl ethers (Refs. 1-11) the authors have found already earlier that naphthalene, diphenyl, benzene, and toluene can be easily alkylated with molecular compounds formed from alcohols and boron fluoride (Refs. 12-17). The present paper describes the alkylation of phenol with ethyl-, propyl-, n-butyl, isobutyl-, and isoamyl alcohols in the presence of boron fluoride, at ordinary and elevated pressures, with and without solvents, and at different temperatures. The yields and the ratios between alkyl phenols and alkyl-phenyl ethers were found to depend on the temperature and the solvents used. Alkylation of phenol with the above molecular compounds led to almost pure p-alkyl phenols (yield of 70-80% as referred to phenol). A mixture

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Alkylation of Phenol by Means of Molecular
Compounds From Alcohols and Boron Fluoride

S/079/60/030/007/009/020
B001/B063

of alkyl phenols and alkyl-phenyl ethers in the ratio 80-85 : 20-25 is formed under pressure. The latter can be easily isomerized into p-alkyl phenols already during distillation. This isomerization proceeds even more easily by heating in a CCl_4 solution to 130-140°C at 12-15 atm

(Table 1 and Fig.). These experiments showed that the phenol partly resinified when it was heated in an autoclave to 160-170°C. In order to determine the optimum temperature at which the above molecular compounds decompose and alkylation takes place simultaneously, temperature was measured every five minutes (by means of a thermocouple and a potentiometer). It was found that each alcohol had a specific maximum temperature at which an intense exothermic decomposition occurred. Decomposition and alkylation take place within a short time (Fig.). The products obtained and their physical properties are listed in Table 2. There are 1 figure, 2 tables, and 22 references: 18 Soviet, 2 US, and 2 German.

ASSOCIATION: Rizhskiy politekhnicheskii institut (Riga Polytechnic Institute)

SUBMITTED: July 6, 1959

Card 2/2

GUDRINIYETSE, E. [Gudriniece, E.] (Riga); IYEVIN'SH, A. [Ievins, A.] (Riga);
VANAG, G. [Vanags, G.] (Riga); STIPNIYETSE, H. [Stipniece, H.] (Riga);
MATEUS, E. [Mateuss, E.] (Riga)

Sulfonation of β -diketones. XIII. Salts of 5-phenylcyclohexanedione-
1, 3-sulfo-2-acid (phenidonsulfo-2-acid. Vestis Latv ak no. 8:95-98
'60. (KEAI 10:9)

1. Akademiya nauk Latvyskoy SSR, Institut khimiyi.

(Ketones)	(Sulfonation)	(Phenylcyclohexanedione)
	(Phenidone)	(Sulfonic acids)

STIPRAYS, A.

1. LIYEFINA, L.: OSE, Z.: STIPRAYS, A.: VAYVADE, A.

2. USSR (600)

4. Corrosion and Anticorrosives

7. Colloid-chemical phenomena on the surface of metals and inhibition of corrosion in salt solutions. Latv.PSR Zin.Akad.Vestis, no. 8, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

STIPRAYS, A.

Colloid-chemical phenomena on the surfaces of metals and retardation of corrosion in salt solutions. VIII. Corrosion of aluminum and iron as a function of the concentration of solution. L. Liepiņa, A. Vaivade, Z. Ošis, and A. Stipenis (Inst. Chem., Acad. Sci. Latv. S.S.R., Riga, Latvian SSR Zinātņu Akad. Vēstis 1954, No. 3 (Whole No. 80), 107-13 (in Russian); cf. C.A. 47, 11021b.

--In 0.001-3*N* KCl at 20°, the long-range (50 days) corrosion rate of Al follows the equation $\Delta g = kc^a$, where Δg is the wt. loss, c concn. of KCl, and k and a are consts., e.g. 0.8 and 0.43, resp. Similar relations hold for Al and K sulfate solns., but here the corrosion is slower. In shorter exposures, e.g. 15 days in KCl, this law is not obeyed and a max. corrosion rate is observed at 1*N* concn. An explanation for the equation is proposed: at higher concns. of Cl⁻, the polyoxychlorides, formed probably through the intermediate steps of adsorption on the primary hydroxide (boehmite) and ion exchange, peptize the primary hydroxide deposits; in dil. solns., the primary boehmite passes into the less reaction-active bayerite and hydrargillite which block the surfaces and slow down the corrosion. Resemblance between the above equation and relations expected from the adsorption isotherm and mass-action law are pointed out. In the corrosion of Fe, the short-time corrosion is higher in the more dil. solns.; chlorides and sulfates of the alkali and alkaline earth metals were investigated. In long-time tests, the corrosion rate was max. in 0.1-0.001*N* solns. This is explained by blocking of the cathodic areas by an electrophoretic pptn. of the positively charged colloidal particles of the hydroxidic primary and secondary corrosion products. The irregularities are explained by changes in the rates of formation and aging of the secondary corrosion products such as magnetite. The relative amts. of the latter in the corrosion products increased with the diln. of the electrolyte. The magnetite forms by a reaction of the bivalent Fe ions with the secondarily formed (by oxidation) trivalent hydroxide boehmite.

SIMASZKY, Janos; SLOWIK, Felicia; STIPUIA, Magdolna

Wegener's granulomatosis. Orv. hetil. 101 no.14:489-492 3 Ap '60.

1. Debreceni Orvostudományi Egyetem, Korbonstani Intezet.
(GRANULOMA)
(PERIARTERITIS NODOSA)

HUNGARY

HORANYI, Bela, Dr., MOLNAR, Sandor, Dr., and STIPULA, Magda, Dr., of the Neurological Clinic at the University for Medical Sciences (Orvostudományi Egyetem Neurológiai Klinikája) (Director: HORANYI, Bela, Dr.), Budapest.

"Sarcoidosis of the Skeletal Musculature"

Budapest, Ideggyógyászati Szemle, Vol 20, No 2, Feb 1967, pp 60-66.

Abstract: Two cases of the sarcoidosis of the skeletal musculature were described and discussed. Both were verified by means of muscle biopsy. One was the so-called myopathic form; the second, the asymptomatic form (a partial phenomenon of general sarcoidosis). The authors discussed the general clinical, laboratory, electromyographic, and pathologic aspects of muscular sarcoidosis. 14 references, including 2 German, 6 Hungarian, and 6 Western.

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HARASZTI, Antal, dr.; PAPP, Gabor, dr.; STIPULA, Magda, dr.

Changes in the lymph nodes related to measles. Gyermekgyógyászat 12
no.12:366-372 D '61.

1. A Debreceni Orvostudományi Egyetem Korbonctani Intezetének (igazgató:
Endes Pongrac dr., egyetemi tanár) és Gyermekklinikájának (igazgató:
Kulin Laszlo dr., egyetemi tanár)

(MEASLES pathol) (LYMPH NODES pathol)

STIPULA, Magda, dr.

A case of ectopic pinealoma. Idegyogy. szemle 15 no.9:272-277 s '62.

1. Budapesti Orvostudományi Egyetem Neurologiai Klinikája (Igazgató:
Horányi Béla dr. egyetemi tanár).

(PINEALOMA)

(BRAIN NEOPLASMS)

(THROMBOPENIA)

L 11082-66

ACC NR: AT6022820

SOURCE CODE: HU/2505/65/028/003/0245/0252

AUTHOR: Heiner, Lajos--Kheyner, L.; Stipula, Magda--Shtipula, M.; Domonkos, Jeno--
Domonkos, Y.

ORG: [Heiner, Domonkos] Neurological Clinic, Medical University, Szeged (Orvostudo-
manyi Egyetem Idegklinikaja; [Heiner, Domonkos] Brain Research Institute, Medical
University, Szeged (Orvostudományi Egyetem Agykutató Intézete); [Stipula] Neurological
Clinic, Medical University, Budapest (Orvostudományi Egyetem Idegklinikaja)

TITLE: Correlation between carbohydrate metabolism and atrophy in tonic and
tetanic muscles

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 28, no. 3, 1965,
245-252

TOPIC TAGS: biologic metabolism, muscle physiology, carbohydrate

ABSTRACT: The relationship between atrophy, metabolism, and other changes brought
about by denervation have been examined in tonic and tetanic muscles. Atrophy was
found to appear earlier in the tonic muscle than in the tetanic one. During the 2-3
weeks' observation period, the atrophic process did not in all respects
follow the changes which occurred in metabolism. Changes in the glycolytic
metabolism appear earlier after denervation than does a histologically
demonstrable atrophy. Changes in oxidative metabolism appear after the process

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ACC NR: AP7001424

(A)

SOURCE CODE: UR/0413/66/000/021/0141/0141

INVENTORS: Saksaganskiy, T. A.; Shandorov, G. S.; Tokar', I. F.; Stipura, A. P.;
Shipitsyn, V. M.; Zel'dina, T. S.; Yurchenko, N. P.

ORG: none

TITLE: A method of testing hollow products for hermetic seal and for strength.
Class 42, 188094 [announced by All-Union Scientific Research, Construction, and
Engineering Institute of the Pipe Industry (Vsesoyuznyy nauchno-issledovatel'skiy
i konstruktorsko-tekhnologicheskiy institut trubnoy promyshlennosti)]

SOURCE: Izobreneniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 141

TOPIC TAGS: liquid gas container, liquid nitrogen, hermetic seal, pipe, static test,
test method

ABSTRACT: This Author Certificate presents a method of testing hollow products for
hermetic seal and for strength. The method involves filling a hollow product with
water and connecting it to a working cylinder in which the necessary pressure is
produced. To create high testing pressures, liquid gas, such as nitrogen, is in-
troduced into the cylinder. This gas, while vaporizing, creates the necessary test-
ing pressure. The intensity of this pressure depends on the amount of the introduced
gas and on the rate of its vaporization. The working cylinder may be partly filled
with water which forms an ice layer when some of the liquid gas is introduced. A

Card 1/2

UDC: 620.165.29:620.178

ACC NR: AP7001424

measured amount of liquid gas is then poured onto the ice layer. To create a testing pressure higher than 800 kg/cm^2 , the working cylinder may be fully filled with liquid gas and then chilled by being submerged in a bath of the same liquid gas.

SUB CODE: 13/ SUBM DATE: 02Jul65

Card 2/2

STIRAND, C.

CZECHOSLOVAKIA / Electronics

H

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9804

Author : Pekarek, Ludek, Stirand, Oto

Inst : Fysikalni ustav CSAV, Prague, Czechoslovakia

Title : Energy Balance in the Formation of Layers in an Electric Discharge.

Orig Pub : Ceskosl. casop. fys., 1956, 6, No 3, 277-286

Abstract : An investigation is made of the energy relations in the formation of moving strata in neon. On the basis of the measurement and of the determined dependence of the gradient of the electric potential on the pressure at direct current it is shown that the vanishing of the strata is accompanied by an increase in the losses in the positive column. The dependence of the intensity of the emitted light on the pressure in the case of dc is also anomalous. This anomaly shows that the appearance of the strata is accompanied by a reduc-

Card : 1/2

CZECHOSLOVAKIA / Electronics

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Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9804

Abstract : tion in the energy radiated in the form of light. On the basis of an analysis of the measurements performed, a general conclusion is made that during the time of spontaneous formation of the strata, which do not diminish their intensity from the cathode to the anode, there always occurs a reduction in the energy levels in the plasma.

Bibliography, 5 titles.

Card : 2/2

Distr: 4E3c/4E3d

Energy balance during striation formation in an electric discharge. Luděk Pekárek and Oto Štránský (Czechoslov. Acad. Sci., Prague). *Czechoslov. J. Phys.* 6, 304-75 (1958) (in Russian).—P. and S. studied exptl. the production of moving striations in a Ne gas discharge. The measurement of the elec. potl. gradient for const. current indicates that the disappearance of the striations is accompanied by increased losses in the pos. column. The pos. peak of the light intensity is greater than the neg. peak, although the total energy emitted shows reversed behavior. The transient stratification wave has an amplifying effect, while no amplification takes place with stationary striations. The spontaneous formation of striations which do not decrease in intensity from the cathode to the anode is always connected with lowering of the energy losses in the plasma.

A. Krenhoffer

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24.7900 (1035, 1144, 1160) Z/037/61/000/001/002/007
E024/E335

AUTHOR: Štirand, Oto

TITLE: Automatic Apparatus for Studying Changes in Absorption-
curve Parameters During Paramagnetic Electron Resonance
on Metre Waves

PERIODICAL: Československý časopis pro fysiku, 1961, No. 1,
pp. 15 - 24

TEXT: For practical applications of paramagnetic electron
resonance (PER), materials with very narrow absorption curves
are important. The narrowest curve so far discovered is that
of a solution of potassium in liquid ammonia (Ref. 1). This
solution is unstable but attempts at solving the mechanism of
instability have so far failed (Refs. 2, 3). The aim of the
present work was to study possible changes in all the parameters
of the paramagnetic resonance absorption curve during disin-
tegration of the solution. The instrument built for this
purpose is described in the present paper. The main requirements
for this instrument are high stability and high sensitivity.

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E024/E335

Automatic Apparatus for Studying Changes in Absorption-curve
Parameters During Paramagnetic Electron Resonance on Metre
Waves

Because of long-term measurements, full automation of the measurement was essential. The minimum width of the absorption curve is approximately 0.02 Oe and this guided the choice of frequency. Had a conventional high-frequency such as 10 kMc/s been chosen, a high intensity of the magnetic field would have been required. This in turn demands extremely high homogeneity of the magnetic field and therefore a lower intensity of the magnetic field and the metre range of radio waves was chosen. For a frequency of 30 Mc, a magnetic field of 10 Oe is necessary. For the detection of the signal, the autodyne method (Ref. 4) was chosen. The apparatus consists of the following main components. The measured sample is placed into a magnetic field formed by Helmholtz coils. The measuring probe is basically a coil of the autodyne oscillator placed so that its magnetic field is perpendicular to the field of the Helmholtz coils. The
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Automatic Apparatus for Studying Changes in Absorption-curve
Parameters During Paramagnetic Electron Resonance on Metre
Waves

grid circuit of the autodyne oscillator also fulfills the role of grid detector. The low-frequency signal from the detector is amplified by an amplifier of variable band width. If the modulation of the magnetic field is several times larger than the width of the measured resonance curve, the resonance curve can be observed on an oscilloscope. If the modulation is smaller than the width of the curve, we obtain the answer with the aid of a synchronous detector, from the modulation of the field. Its value is given by the steepness of the resonance curve at the given point. The output from the synchronous detector is registered, together with the sweeping of the magnetic field. The Helmholtz coils obtain the current from an electronic supply which also provides the modulation of the current. The DC current is measured by a compensating arrangement. The intensity of the DC magnetic field is adjusted so that resonance occurs when the potentiometer, sweeping the

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Automatic Apparatus for Studying Changes in Absorption-curve Parameters During Paramagnetic Electron Resonance on Metre Waves

magnetic field, with the aid of a synchronous motor, is in its middle position. All AC voltages are obtained from a signal generator which also provides the signal for calibration. Calibration is either automatic or by hand. The frequency of the autodyne oscillator is compared with a crystal oscillator. All voltages are stabilised. A more detailed description of some parts of the apparatus is given; amongst them - the dimensions of the Helmholtz coils, details of the autodyne oscillator, details of the calibration procedure, etc. As an example of the use of this apparatus, the authors describe the measurement of the paramagnetic resonance curve of potassium in ammonia. The frequency was 15 Mc/s and resonance occurred at a magnetic field of 5.35 Oe. Modulation was chosen as 1/20 of the width of the resonance curve, frequency of the modulation 460 c.p.s. The time constant of the

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Automatic Apparatus for Studying Changes in Absorption-curve
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Waves

synchronous detector was 15 sec; the magnetic field was swept at a speed of 0.0073 Oe/min. The registration of a resonance curve between two inflexion points was 4 minutes, while the disintegration of the sample takes several hours. Sensitivity was such that a signal was detectable from a concentration of only 0.00015 mol K/l. NH_3 . The disintegration of a solution of potassium in ammonia was followed for up to 20 days. Any change in sensitivity was registered during automatic calibration of the instrument and could be taken into consideration in evaluating the results. The final result of the measurements was the width and amplitude of the resonance curve as functions of the time. The shape of the resonance curve remained constant. The maximum deviation of experimental points from the curve was about 3%. During about 100 days of constant operation of the equipment, only about 4 or 5 days had to be spent on maintenance

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E024/E335

Automatic Apparatus for Studying Changes in Absorption-curve
Parameters During Paramagnetic Electron Resonance on Metre
Waves

and repairs. Acknowledgments are expressed to Candidate of
Sciences L. Pekárek and Candidate of Sciences V. Krejč for
their comments on this paper.
There are 3 figures and 8 non-Czech references.

ASSOCIATION: Fyzikální ústav ČSAV, Praha
(Institute of Physics, ČSAV, Prague)

SUBMITTED: May 23, 1960

Card 6/6

9,2582

26006
Z/015/60/000/003/002/002
A205/A126

AUTHOR: Štirand, Oto, Engineer
TITLE: Molecular oscillators and amplifiers
PERIODICAL: Amatérské radio, no. 3, 1960, 77

TEXT: The article describes electromagnetic-wave excitation and amplification (maser), effected by the internal energy of an atomic or molecular system, developed in the USSR (Basov, Prokhorov) and in the US (Gordon, Caiger, Townes). According to quantum mechanics, the internal energy of an atomic or molecular system can obtain only certain levels, the energy difference of which is emitted in form of electromagnetic waves at molecule transitions from an upper to a lower level. Due to thermal movement, ammonia molecules separate always into 2 levels, the energy difference of which represents 23,870 mc. In case (active) ammonia molecules of the upper energy-level are supplied to a resonant cavity, thermal equilibrium will adjust, and the energy difference is emitted. Such a molecular oscillator has an output of only 10^{-9} to 10^{-10} w, but the electromagnetic waves emitted from the resonant cavity have a high, longlasting frequency stability, which is better than 10^{-9} . Such a system is able to amplify a supplied electromagnetic

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A205/A126

molecular oscillators and amplifiers

energy of 23,870 mc (maser). Ammonia gas masers are only seldom used, since they have a band width of some hundred cps and cannot be tuned. Tunable solid-state masers were developed in the USSR (Basov and Prokhorov) and in the US (H. Scovil). They use ions of a suitable paramagnetic crystal instead of ammonia gas. In case of thermal equilibrium, most of the ions in the basic state are of lowest energy. Excitation is achieved by a magnetic field. Since active ions cannot be separated from others, the crystal is exposed to an electromagnetic wave of a frequency f_p which excites part of the ions from the basic level (E_n) to an upper energy level (E_p). From this level, excited ions drop to the level (E_v) where they remain for a certain time, before dropping to the initial level (E_n). In case, electromagnetic energy of frequency (f_z), which should be amplified, is applied to a system, ion transition is enforced from level E_v to level E_n . The differential energy ($E_v - E_n$) can be considered a photon, and each photon impact on the crystal liberates more photons each with an energy of $E_v - E_n$. The advantage of such an amplifier is, that it can be tuned by changing the intensity of the magnetic field applied to the crystal. However, the parametric crystal must be cooled (approximately to -270°C), to be used as a source of auxiliary emission in a centimeter reflex klystron. A paramagnetic amplifier called "Versitron" was developed by Strandberg in the US; it increases the sensitivity of radar units by 30 dB. In conclusion, the author

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states, that radar equipment, using these new amplifiers is also used to track Soviet satellites and interplanetary rockets, orbiting at distances, which could not be tracked by conventional radar equipment. There are one figure and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Symposium on the Role of Solid State Phenomena in Electric Circuits, Polytechnic Inst. of Brooklyn, 1957. Ref. M.W.P. Strandberg.



Card 3/3

88739

24.7900 (1035, 1144, 1160) Z/037/61/000/001/006/007
2301 E073/E335

AUTHOR: Štirand, Oto

TITLE: The Physical Properties of Solutions of Alkali
Metals in Liquid Ammonia and Paramagnetic Electron
Resonance Absorption

PERIODICAL: Československý časopis pro fyziku, 1961,
No. 1, pp. 62 - 80

TEXT: In recent years there has been increased interest
in problems of the microphysical structure of solutions of
alkaline metals in liquid ammonia. The cause of the increased
interest in these solutions are certain physical properties
(magnetic properties, stability of the solutions, extreme
properties during paramagnetic electron resonance, absorption)
which could not be satisfactorily explained. Of greatest
interest is the paramagnetic electron resonance absorption,
particularly the width of the absorption resonance curve
which, for solutions of potassium and liquid ammonia, is the
narrowest established for any group of substances. The
results of measurement of the width of the resonance curve

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Z/037/61/000/001/006/007
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The Physical Properties of Solutions of Alkali Metals in Liquid Ammonia and Paramagnetic Electron Resonance Absorption

on this solution confirmed some conclusions on the theory of polarons, as reported by S.I. Pekar at a conference on semi-conductors in Leningrad in 1955. This solution became an important test medium for the validity of the solid-state theory. The aim of the review paper is to acquaint the reader with the available experimental results and their theoretical interpretation and point out the problems which remain to be solved in association with the question of stability of these solutions. The author outlines the development of views on the microphysical composition of a solution of alkaline metals in liquid ammonia, quoting experimental results on which these views are based. The electron theory of C.A. Kraus explains only qualitatively the properties of the electric conductivity of these solutions. However, Kraus was the first to attempt the explanation of the physical properties of these solutions and discovered their

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E073/E335

The Physical Properties of Solutions of Alkali Metals in Liquid Ammonia and Paramagnetic Electron Resonance Absorption unexpected complexity. The model of Kraus was applied for a period of almost twenty years during which the electron-gas theory was developed and increasing evidence accumulated that the Kraus theory was invalid. In 1946, R.A. Ogg (J. Amer. Chem. Soc 68, 1946, 155; Phys. Rev. 69, 1946, 668) presented a different model. He assumed that the solution contains electrons in the conductivity band and also in the form of F and F' centres. This model helped to explain a number of physical properties of the solution but it did not explain the properties of the optical absorption in the solution. In 1948, Davidov proposed applying the theory of polarons to explaining the properties of these solutions and his proposal was further developed by M.F. Deygen. This theory explains satisfactorily the known properties of the solutions. The optical absorption which could not be explained by absorption on the F centres could be explained by the absorption on the polarons. Pekar and Deygen have shown that the absorption

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The Physical Properties of Solutions of Alkali Metals in Liquid Ammonia and Paramagnetic Electron Resonance Absorption of electron magnetic energy during paramagnetic electron resonance is caused primarily by the polarons. In solids the width of the resonance curve in PER (paramagnetic electron resonance absorption) in the case of absorption on F centres is primarily determined by hyperfine interactions; the curves are usually relatively wide (a few tens of Oe and even more). Deygen and Pekar have proved that in the case of absorption on polarons, the contribution of the energy caused by hyperfine interactions approaches zero. Deygen and Pekar did not calculate the width of the resonance curve. However, on the basis of their work, it can be assumed that this is very narrow. This conclusion is in good agreement with the experimentally determined very narrow absorption curve for the paramagnetic electron resonance in solutions of potassium and in liquid ammonia obtained by Hutchison and Pastor (Ref. 33). Discovery of the exceptional properties of the solution of potassium and liquid ammonia, i.e. the extremely narrow

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The Physical Properties of Solutions of Alkali Metals in Liquid Ammonia and Paramagnetic Electron Resonance Absorption resonance curve, permit its practical application for accurate measurement of the intensity of the magnetic field. However, the practical applicability is made difficult by the relatively short lifetime of the prepared solution. This was a great obstacle in determining the properties of the solution at room temperature (at low temperatures the solutions were stable). The problem of stability of the solution at room temperatures has not been studied systematically so far. Data in the literature indicate that it was not possible to prepare solutions which were reproducible as regards service life. Study of the decomposition of the solution was also made by methods which influence the decomposition. Solution of the problem of stability would contribute considerably to filling a gap in the knowledge of the properties of solutions of alkaline metals in liquid ammonia. Paramagnetic substances are being used for building special, very low-noise amplifiers in the centimetre wave range, for accurate measurement of the

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E073/E335

The Physical Properties of Solutions of Alkali Metals in
Liquid Ammonia and Paramagnetic Electron Resonance Absorption

intensity of the magnetic field, for various components with
special properties used in the microwave field, etc. It cannot
be ruled out that in future the solutions mentioned in the
paper will not be applied for similar purposes and, therefore,
it is important to solve the problem of stability of these
solutions. Acknowledgments are made to Candidate of Sciences
L. Pekárek and Candidate of Sciences Z. Frait for their
comments on the paper. y

There are 6 figures and 45 references: 8 Czech and
37 non-Czech.

ASSOCIATION: Fysikální Ústav ČSAV, Praha
(Physical Institute, ČSAV, Prague)

SUBMITTED: March 24, 1960

Card 6/6

Z/037/61/000/004/004/004
E073/E535

AUTHOR: ✓ Stirand, Oto

TITLE: Conference of All Wavelengths Optics and Spectroscopy
in East Germany

PERIODICAL: Československý časopis pro fysiku, 1961, No. 4, pp. 359-360

TEXT: The conference was organized by the East Germany Physical Society and held on October 27-31, 1960 in Jena. The Czech four-member delegation included Professor Doctor V. Kunzl, head of the Katedra elektroniky a vakuové fyziky Karlové university (Chair of Electronics and Vacuum Physics, Charles University), M. Závětová, Ústav technické fyziky ČSAV (Institute of Technical Physics, ČSAV), Docent Doctor I. Šantavý, Brno and O. Štirand, Fyzikální ústav ČSAV (Physics Institute, ČSAV). 83 communications were presented by delegates from East and West Germany, the Soviet Union, Britain, France, Italy, Roumania, Hungary, Poland and Czechoslovakia. The conference was subdivided into nine groups: 1) physiological optics; 2) microscopy; 3) spectroscopy; 4) infrared and ultra-violet spectroscopy; 5) contrast transmission; 6) wave and geometrical optics;

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Conference of All Wavelengths ...

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E073/E535

7) layer optics; 8) study of radiation, evaluation of photographic exposures; 9) photometry and meteorological optics.

H. Schober, Munich dealt with present concepts on sensing optical phenomena. E. Hartmann, Munich discussed new results relating to physiological gazzie. M. Françon (Paris) presented a paper on methods applying phase contrast. J. Rienitz, Berlin, described a new interference microscope. S. Frish (Leningrad) dealt with spectroscopic investigation of rare gases by means of high-frequency discharges. H. Bartels (Hannover) gave an overall review on the application of spectroscopy in diagnostic methods in plasmaphysics. A. Vaška, Laboratoř optiky ČSAV (Optics Laboratory ČSAV) presented the paper "Fatigue of cesium oxide cathodes as a result of exposure to infrared radiation" and O. Stirand presented the review paper "Radio spectroscopic investigation of the decomposition products of solutions of potassium in liquid ammonia". D. Maltz, Jena, G. Geppert, Leipzig dealt mainly with new instruments in the field of infrared and ultra-violet spectroscopy, whilst H. Fischer, Jena and R. Ritschl, Berlin, described some methods in this field. M. Závětová presented a paper "Optical properties of CdSb single
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Conference of All Wavelengths ...

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crystals and of the system $Zn Cd_{1-x} Sb$ in the infrared region!"
A. Lohmann (Braunschweig) discussed the application of information theory in optics. H. Hopkins (London) dealt with methods of measurement and calculation of transmission factors. E. Menzel (Darmstadt) discussed problems of optical transmission. H. Pohlack (Jena) presented an overall review on optics of thin layers and I. Santavý presented a paper "Theorem on reversibility for conducting layers". Chr. Poser and R. Ritschl (Berlin) dealt with the ratio of intensities of Hg lines in low pressure discharges. E. Lau and G. Hess (Berlin) dealt with problems of photometry over large areas. F. Hodan (Berlin) presented results on two-dimensional microscopic evaluation of a photographic picture. H. Korte (Braunschweig) gave an overall review paper on photometry. K. Lenz and L. Foitzik (Berlin) reported on investigation of the polarization of the light of the sky. The papers presented at the conference will be published by the organizers in a symposium. ✓

[Abstractor's Note: Slightly abridged translation.]

ASSOCIATION: Fysikální ústav ČSAV, Praha (Physics Institute,
Card 3/3 ČSAV, Prague)

STIRAND, Oto

Stationary striations in hydrogen and deuterium. Cs cas fys
12 no.5/6:552-554 '62.

1. Fysikalni ustav, Ceskoslovenska akademie ved, Praha.

PEKAREK, L.; KREJCI, V.; STIRAN, O.

Direction of motion of striations in an inert gas-hydrogen mixture. Chekosl fiz zhurnal 13 no.4:243-245 '63.

1. Fyzikalni ustav, Ceskoslovenska akademie ved, Praha.

STIRAND, Oto

"Physics of fully ionized gases" by L. Spitzer. Reviewed by
Oto Stirand. Cs cas fys 13 no. 4: 338-339 '63.

1. Fysikalni ustav, Ceskoslovenska akademie ved, Praha.

L 10603-65 EWT(1)/EWG(k)/EPA(ep)-2/EPA(w)-2/SEC(t)/T/EEC(b)-2/EMA(m)-2 P1-4/
Po-4/Pz-6/Pab-2h IJP(c)/ASD(f)-2/SSD/AEDC(b)/ASL(a)-5/AFWL/AFETR/RAEM(a)/ASD(d)/
BSD/AEDC(s)/ESD(gs)/ESD(t) AT
ACCESSION NR: AP4046326

Z/0055/64/014/009/0690/0697

AUTHOR: Stirand, O., Veprek, S.

TITLE: Spectral analysis of striations in the ²plasma of a positive column of
a low-pressure discharge in hydrogen (in German)

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 9, 1964, 690-697

TOPIC TAGS: spectral analysis, gas discharge, hydrogen, striation, positive
column, plasma

ABSTRACT: The optical spectral analysis of a standing periodic structure in the
plasma of a positive column of a low-pressure discharge in hydrogen (at a
pressure of a few Torr) is discussed. The spectral composition of the radiation
from the discharge along the axis of the discharge (over an interval of one
period) and the radiation absorption along a striation were measured. In this
way some information was obtained on the gaseous components which play a part
in the emission of light, that is, on their excitation, ionization, and dis-
sociation energies as well as on the distribution of metastable states of atomic
hydrogen. The results showed that molecular hydrogen is dissociated chiefly on
atomic hydrogen at the front of a striation. The hypothesis was advanced that
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ACCESSION NR: AP4046326

negative ions of the intrinsic gas (hydrogen) or ions of an admixture of other gases have an important influence on the process of recombination which takes place in the dark region of a striation. Orig. art. has: 4 figures.

ASSOCIATION: Institute of Physics, Czechoslovak Academy of Sciences

SUBMITTED: 02Jan64

ATD PRESS:

EXCL: 00

SUB CODE: ME, CP

NO REF SOV: 001

OTHER: 011

Card 2/2

POP, E., acad.; SORAN, V.; VINTILA, Rozalia; STIRBAN, M.

Statistical studies regarding protoplasmic streaming in
rhizodermal cells of different sizes. Studii cerc biol s.
bot 16 no.6:503-511 '64.

1. Laboratory of Cytophysiology, Section of Plant Physiology,
Center of Biological Research, Rumanian Academy, Cluj Branch.

ICP, Emil, acad.; SOPAN, V. oncl.; VINTILIA, Rozalia; BOSINA, Ioan;
STIPBAN, Mircea

Effect of continuous treatment with D-glucose on the proto-
plasmic streaming. Pt. 2. Studii cerc. biol. s. bot. 16 no. 2:
81-89 '64.

1. Center of Biological Research, Section of Plant Physiology,
Laboratory of Cytophysiology, Growth, and Development, Rumanian
Academy, Cluj Branch.

CONSTANTINESCU, N.; STIRBU, A.; CHEPTEA, A.; TAINDEL, C.

Effect of the schedule of therapy in anti-rabies vaccination before and after infection. Stud. cercet. inframicrobiol., Bucur. 6 no.3-4:375-387 July-Dec 1955.

(RABIES, prevention & control
vacc. with Fermi vaccine, prev. & ther. results in exper. animals, eff. of timing & dos. of vaccine before & after infect. with street virus)

(VACCINES AND VACCINATION
rabies, Fermi vaccine, prev. & ther. results in exper. animals, eff. of timing & dos. of vaccine before & after infect. with street virus)

CONSTANTINESCU, N.; STIRBU, A.; CHEPTEA, A.; TAINDEL, C.

Study of the comparative protective action of rabies antiserum and phenolated vaccines in experimental rabies. Stud. cercet. inframicrobiol., Bucur. 7 no.3-4:423-470 July-Dec 56.

1. Comunicare prezentata in sedinta Institutului de inframicrobiologie al Academiei R.P.R.

(RABIES, experimental

comparative eff. of rabies antiserum & phenolated vaccines)

(IMMUNE SERUMS

rabies antiserum, protective eff. in exper. rabies, comparison with phenolated vaccines)

(VACCINES AND VACCINATION

rabies phenolated vaccine, protective eff. in exper. rabies, comparison with antiserum)

RUMANIA

STIRBU, A., Dr, TAINDEL, O., Dr, STOIAN, I., Dr and TOACSEN, F., Dr. Work performed at the "Dr. I. Cantacuzino" Institute (Institutul "Dr. I. Cantacuzino"), Bucharest.

"The Effectiveness of Antirabies Vaccination in Humans."

Bucharest, Microbiologia, Parazitologia, Epidemiologia, Vol 8, No 1, Jan-Feb 1963, pp 1-10.

Abstract: An attempt to evaluate the negative as well as the positive effects of anti-rabies vaccination on the basis of the practical results obtained in Rumania and the reports of world literature. . Emphasizes that anti-rabies vaccination is completely specific, creates a strong and lasting immunity, as well as an immunity that is both humoral and tissular.

Contains 2 tables and 25 references, many of them to pre-war literature.

1/1

STIREBU, A.; TOACSEN, E.; STOIAN, I.

Contribution of the "Dr. I. Cantacuzino" Institute to the problem of rabies (1945-1962). Arch. roum. path. exp. microbiol. 23 no.3: 743-748 S'63

1. Travail de l'Institut "Dr. I. Cantacuzino"; Service de la Rage. Bucarest.

L 1305 EWA(j)/T/EWA(b)-2 JK
ACC NR: AF6005731 SOURCE CODE: RU/0023/65/010/001/0063/0068

AUTHOR: Stirbu, A.--Shtirbu, A. (Doctor); Taindel, Cl.--Tayndel', K. (Doctor);
Stoian, I.--Stoyan, I. (Doctor); Toacsen, E.--Toaksen, Ye. (Doctor)

ORG: Dr. I. Cantacuzino Institute of Microbiology, Parasitology, and Epidemiology,
Bucharest (Institutul de Microbiologie, parazitologie, si epidemiologie Dr. I.
Cantacuzino)

TITLE: Prophylaxis of rabies in man in Rumania with vaccines prepared from the
'Babes' fixed virus strain

SOURCE: Microbiologia, parazitologia, epidemiologia, v. 10, no. 1, 1965, 53-68

TOPIC TAGS: vaccine, rabies, virus disease, nervous system disease, immunology

ABSTRACT: A review of the use of anti-rabies vaccine in Rumania since the establish-
ment of the first Anti-Rabies Institute. The first type used was vaccine inactivated
by drying (Pasteur method), then that inactivated by drying and heating (Babes type),
tht inactivated for 72 hours at 37 degrees centigrade (Ionescu type), that inactivated
for 2 hours at 37 degrees centigrade and since 1958 the Fermi type. Results of
vaccination in Rumania are similar to those reported elsewhere, with a mortality
rate of 0.13 to 0.34 percent of the subjects infected and vaccinated with the rabies
virus. The experimental use of hyperimmune serum associated with vaccination improved
the protection of animals against rabies. Orig. art. has: 1 table. [JPRS]

SUB CODE: 06 / SUBM DATE: 10May64 / ORIG REF: 010

Card 1/1 UDC: 616.988.21-085.371

CORLATEANU, Vasile; MURGU, Zaira; STIREU, Vasile

Diagram of the current in asynchronous motors in short circuit. Rev
electrotechn energet 4 no.2:275-293 '59. (EEAI 10:1)
(Electric motors, Induction) (Short circuits)

CORLATEANU, V., prof.; BERGMAN, Iosif; SERBAN, Gh.; LEONTE, P.; STIRBU, V.

Self-excitation of the three-phase machine with collector, fed by a stator with three brushes on the couple of the poles. Running of the self-excited machines having a load in series with primary circuit. Studii fiz tehn Iasi 12 no.2:249-265 '61.

1. Institutul politehnic, Iasi, Catedra de masuri si masini electrice, Laboratorul de masini electrice. 2. Membru al Comitetului de redactie, "Studii si cercetari stiintifice, Fizica si stiinte tehnice" -Filiala Iasi- (for Corlateanu).

BERGMAN, I.; CORLATEANU, V., prof.; SERBAN, Ch.; LEONTE, P.; STIRBU, V.

Some observations on the running of the three-phase machines with collector, fed by stator, under the working conditions of a generator. Studi fiz tehn Iasi 12 no.2:375-382 '61.

1. Membru al Comitetului de redactie, "Studii si cercetari stiintifice, Fizica si stiinte tehnice" -Filiala Iasi- (for Corlateanu).

STPSC, I.

Some methods for establishing the economic efficiency of geologic research.
. 165.

1959, p. 227. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din
România si Ministerul Industrial Petrolului) Bucuresti, Romania Vol. 10,
no. 1, Apr. 1959.

Monthly list of East European Acquisitions (WEAT) 10, no. 2, Aug. 1959

Incl.

L 63120-65

ACCESSION NR: AP5023246

RU/0012/64/000/005/0805/0807

AUTHOR: Alexiu, L. (Doctor, Major General); Strati, I. (Doctor, Lieutenant Colonel); Zelter, E. (Doctor, Lieutenant Colonel); Stirc, M. (Doctor, Captain); Vasilescu, T. (Doctor) ¹⁸_B

TITLE: Brucellosis etiology of some forms of rheumatism in young people. Considerations following the observation of a case

SOURCE: Revista sanitara militara, no. 5, 1964, 805-807

TOPIC TAGS: brucellosis, man, tissue disease

ABSTRACT: After a brief description of the latent and chronic primitive forms of human brucellosis, the authors present the case history of a young military recruit thought to be suffering from rheumatism who was found to have brucellosis. On the basis of similar cases reported in the literature as well as their own observation, they suggest thorough laboratory testing to investigate this possibility in all atypical cases of rheumatism in young people.

1/2

L 63120-65

ACCESSION NR: AP5023246

ASSOCIATION: none

SUBMITTED: 00

NR REF SOV: 000

ENCL: 00

SUB CODE: 13

OTHER: 000

JPRS

KC
2/2

STIRIKOVICH, M. A.

1
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603. Stirikovich M. A. Problem involved in the theory
on the escape of moisture with steam (in Russian). *Izv. Akad.
Nauk SSSR Otd. tekhn. Nauk* no. 2, 281-285, Feb. 1952.

K-8

Stirmin, St.
ROMANIA/Optics - Optical Methods of Analysis

Abs Jour : Ref Zhur - Fizika, No 4, 1958, No 9560

Author : *Stirmin, St.*
Inst : Not Given
Title : Spectral Analysis in the Petroleum Industry

Orig Pub : Petrol si gaze, 1956, 7, No 9, 485-491

Abstract : Brief presentation of the ways of using Raman spectra and mass-spectroscopy for analysis of petroleum products, along with examples of analyses. Special sections are devoted to problems of use of spectral methods for the determination of thermodynamic constants of higher hydrocarbons and the requirements that must be met by spectral laboratories in the petroleum industry. For Part I see Petrol si gaze, 1956, 7, No 8.

Card : 1/1

STIRIS, I. Ya

BORISOV, K. Ye.; STIRIS, I. Ya., inzhener, nauchnyy redaktor; MALYSHEV, M. M.,
redaktor izdatel'stva; EL'KINA, E. M., tekhnicheskiy redaktor

[My experience in installing central heating systems] Moi opyt
montazha sistem tsentral'nogo otopeniia. Moskva, Gos.izd-vo
lit-ry po stroit. i arkhit., 1957. 34 p. (MLRA 10:7)

1. Instruktor peredovykh metodov truda instituta Orgstroy
Ministerstva stroitel'stva SSSR (for Borisov)
(Heating)

STIRKOVICH, M.

Research on the permissible salts content in steam and on the hydrodynamics of two-phase liquids by means of radioactive isotopes. Tr. from the Russian. p. 762.

Vol. 3, no. 6, 1955
SOVETSKA VEDA: ENERGETIKA
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5 No. 4 April 1956

12

STIRLING, B.

Present situation of the Hungarian heavy chemical industry. *Bella Stirling. Magyar Tark 3, No. 8, 1950*. Detailed data are published on the capacity of branches and present production. *Létyán Lényai*

ASME SLA METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
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131-5, Various

Be Also STIRLING, B

Utilization of roasted pyrites and red mud in pig iron production.
H. Stirling (*Bányászati és Kohászati Lap*, 1948, 81, 135-141;
J. Iron Steel Inst., 1948, 108, 102).—Due to shortage of Fe ore in
Hungary during the war, processes were developed for producing
Fe by reduction of briquetted or agglomerated roasted pyrites and
red mud in Krupp-Renn or Stieberg rotary furnaces. In the
latter furnace, Fe and slag are produced in liquid form. Low-grade

layer to give a thickness of $\frac{1}{8}$ in. The composite slab is rolled to
 $\frac{1}{8}$ in. thick to produce a stainless steel plate with a layer of mild steel
on one side $\sim\frac{1}{16}$ in. thick; this is then cut up and used to fabricate
doubly composite slabs, which are then rolled to the dimensions
required. The thickness of the stainless cladding can be varied
from a min. of $\frac{1}{8}$ in. to 30% of the plate thickness. In view of the
welding involved, the austenitic stainless steels are stabilized with
Nb or Ti, and the C is limited to 0.10%. Composition, heat-
treatment, mechanical properties, hot-forming, and welding are
discussed. J. B. ATRIMSON.

STERN, P.

KOZLO, M.; STIRLING, I.; FURDIAK, J. "Calcium obtained from sulfuric acid with the aid of hydrogen peroxide."
Magyar Kemikusok Lapja, Budapest, Vol 9, No 4, Apr. 1954, p. 120

SI: Eastern European Accessions List, Vol 3, No 13, Oct 1954, Lib. of Congress

PAPP, Andras, dr.; NEMETH, Tibor, dr.; STIRLING, Gertrud, dr.;
THALY, Imre, dr.; VAMOS, Geza, dr.; VINCZE, Egon, dr.

Data on the pathogenesis and therapy of inferior lobe cavitation.
Tuberk. kerdesei 9 no.3:122-125 June 56.

1. Az Allami Fodor Jozsef Tbc. Gyogyintezet (igaz.-foorvos:
Risiko, Tibor, dr.) es az Orszagos Koranyi Tbc. Gyogyintezet
(igazgato-foorvos: Dessauer, Pal, dr.) kozl.
(TUBERCULOSIS, PULMONARY, pathol.
cavitation of inferior lobe, pathogen. & ther. (Hun))

CSONTOS, L.; STIRLING-MCCSY, Maria

Diagnosis of enzootic abortion in ewes by the complement fixation test. Acta veter Hung 13 no.2:169-174 '63.

1. State Institute of Veterinary Hygiene (Director: T. Kadar), Budapest.

STIRN, Mirko (Ljubljana)

Practical experiences in the field of education in the enterprise
The "Planika" Shoe Industry, Kranj. Produktivnost 3 no.10:693-701
0 161.

BA. STIRNOV, G. D.

Section 8

Physiological analysis of mechanism of oscillation of the blood pressure arising as result of anemia of the central nervous system.
A. I. Buzov and G. D. STIRNOV. *J. Physiol. USSR*, 1981, 27, 621-631. - A tube was led through the rabbits skull by means of which the intracranial pressure could be altered and recorded. Raising the intracranial pressure caused oscillations in blood pressure. These are due to two factors: (1) a pressor response accompanied by action currents in the cervical sympathetic nerve, and (2) a subsequent depressor reflex arising in the vaso-sensory areas. Measurements of the O₂ saturation within the cerebral vessels suggested that the effect of increased cerebral pressure was due to anemia.
D. H. SMITH

SHIRSKY, P.; KUKLIK, B.

Calculation of the dynamics of a drum separator for
noncontinuous models of analog computers. Bul ENI
no. 2:31-35 '64.

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Determination of the thermal shock in the primary pipeline of the A 1 nuclear power station. Jaderna energie 10 no. 5: 171 My '64.

Calculation of the optimum thickness of the main gas pipe lining of the A 1 nuclear power station. Ibid.:171-172

1. Research Institute of Power Engineering, Prague.

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Dynamic characteristics of the A 1 steam generator elements.
Jaderna energie 10 no. 5:172-173 My '64.

1. Research Institute of Power Engineering, Prague.

DRAHNY, Milos; LEBL, Pavel; MANTANCIK, Jozef; STIRSKY, Pavel; BFRES, Julius;
KAISER, Pavel

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10 no. 5:173 My '64.

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KUKLIK, Bohoslav; BAHNY, Milan; CIBIKY, Pavel

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no.7:295 JI'64

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SECURITY, level: KKKK 14, B-hunter

Hypospatial control. Sistema energia 10 no. 7:153-254 VI '64

1. Research Institute of Energy and Energy, Moscow.

STIRSKY, Pavel

Control of gas-cooled heavy water power reactors. Jaderna energie
10 no.7:254 J1'64

1. Research Institute of Power Engineering, Prague.

L 25122-65 EWT(m)/EPF(n)-2/T/EPA(bb)-2 Pu-4

ACCESSION NR: AP4047435

Z/0038/64/000/010/0364/0372

AUTHOR: Stirsky, P. (Shtirski, P.); Hulovec, J. (Gulovets, Ya.)

TITLE: Some dynamic properties of a nuclear electric power generating plant ^B 19
with a heavy-water gas-cooled reactor

SOURCE: Jaderna energie, no. 10, 1964, 364-372

TOPIC TAGS: nuclear powerplant, heavy water cooled reactor, power level, transient, turbogenerator, thermal shock

ABSTRACT: This article describes briefly the dynamic properties of the control system which ensures operation at a given power level of the turbogenerator. Some nonsteady-state regimes [transients] of the power plant which can develop as a result of failure or breakdown of the plant equipment or of the control system are analyzed. The Czechoslovak nuclear power plant is equipped with a relatively large control system whose function is to ensure normal operation of all three blocks in the 66-100% power level range. The dynamic properties of this type of nuclear electric power generating plant permit, in the case of failure of the electric-water system, very rapid adjustment of the power level. Results of the

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calculation of the dynamic behavior of the control and safety equipment are given for the following cases of failure: 1) erroneous extraction of all control rods, 2) rupture of the main piping in the inseparable part, 3) interruption of power to the reactor itself, 4) disconnection through breakdown of one or two circulation blowers, and 5) disconnection through breakdown of the turbogenerator. The analyses show that the control system described is capable of ensuring normal plant operation. The authors state, however, that the system could be improved. Different methods are described for limiting the effect of thermal shocks during reactor breakdown or failure. The dynamic properties of the plant at non-nominal power levels and its behavior in an electric power network are evaluated. Orig. art. has: 8 figures and 1 table.

ASSOCIATION: [Stirsky] Vyskumny ustav energeticky, Prague (Research Institute of Power Engineering); [Hulovec] Zavody V. I. Lenina, Pilsen (Lenin Works)

SUBMITTED: 00

ENCL: 00

SUB CODE: NP, EE

NO REF SOV: 000

OTHER: 007

Card 2/2

Strisky, Pavel, Hrdy, Jan

Some dynamic properties of an electric power plant with heavy
water gas-cooled reactor. Jaderna energie 10 no.10:364-372
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1. Research Institute of Power Engineering, Prague (for Strisky).
2. Zavody V.I. Lenina National Enterprise, Plzen (for Hrdy).

STARSKY Pavel, Ing. (Sov.)

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Data Techn. Sci. No. 1: 79-99, 1967.

1, Research Institute of Power Engineering, Moscow. Submitted
June 16, 1967.

L 30917-66 EWT(m)/T

ACC NR: AP6022916

SOURCE CODE: CZ/0038/66/000/001/0021/0021

AUTHOR: Stirsky, Pavel; Polak, Vincent

70
B

ORG: Power Research Institute, Prague (Vyzkumny ustav energeticky)

TITLE: Control circuit of the A2 nuclear power station—three-pressure versions

19

SOURCE: JADERNA ENERIE, no. 1, 1966, 21

TOPIC TAGS: nuclear electric power plant, nuclear power technology, control circuit, heat conduction, heat convection

ABSTRACT: The article is an abstract of the authors' report No 1 dated 30 July 64 published as a part of Research Contract No 45-64-386/1. The article is published in Czech and in English. Technical equipment for the three-pressure versions required for the A2 power station are described. A heat flow diagram for the station is given. The operation aspects of the start up, steady state operation, additional cooling, and shut down operation are discussed. Some of the control circuits are described.

[JPRS]

SUB CODE: 10, 09, 18 / SUM DATE: none

Card 1/1 110

UDC: 621.039.5 A2 621.039.56

0915 0992

L 30918-66 EWT(m)/T

ACC NR: AP6022917

SOURCE CODE: CZ/0038/66/000/001/0022/0022

AUTHOR: Stirsky, Pavel; Polak, Vincent

71
B

ORG: Power Research Institute, Prague (Vyzkumny ustav energeticky)

TITLE: Design of the control circuit of the A2 nuclear power station--Version II.
Main blowers steam-driven 79

SOURCE: Jaderna energie, no. 1, 1966, 22

TOPIC TAGS: nuclear power technology, automatic control technology, control circuit,
nuclear electric power plant

ABSTRACT: The article is an abstract of the authors' report No 5 of 1st June 63, connected with Research Project No 45/61-284/I. The article is published in Czech and in English. Development of the design of the control equipment for the steam drive alternate is described. Principles used for the selection of the automatic features are discussed. The operation of the automatic controls during various phases of operation, start up, normal operation, and shut down is described. [JPRS]

SUB CODE: 10, 09, 18 / SUBM DATE: none

Card 1/1 ll

UDC: 621.039.5 A2 621.039.56

0915 0993

ACCESSION NO: AP4012005

S/0208/64/004/001/0078/0095

AUTHORS: Popov, V. N. (Moscow); Stepanov, V. A. (Moscow); Stisheva, A. G. (Moscow);
Travnikova, N. A. (Moscow)

TITLE: Programming program

SOURCE: Zhurnal vy*chisl. matem. i matem. fiz., v. 4, no. 1, 1964, 78-95

TOPIC TAGS: programming, program, triple address machine, binary code, uncondi-
tional transmission, conditional transmission, manual programming, machine language

ABSTRACT: A programming program is set up for a triple-address machine with a nine-
place binary code of operation and twelve-place addresses. The system of commands
for the machine has all the basic arithmetic and logical operations and operations
on commands. There are commands of unconditional transmission of control and com-
mands of conditional transmission according to the sign worked out by the preceding
command. The machine has a large external memory. Programming programs have been
in use since October 1962. The time of programming is small; in the processing of
one bit of information the time expenditure corresponds to 1000-2000 machine
commands. Programs composed by a programming program are 1.5-2.5 times longer than

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programs set up manually. The solution time for problems by programs composed by a programming program is 1.5-5 times greater than by programs composed manually. This relationship depends strongly on the quantity of cycles and variable addresses in them, and also on the quantity of procedures. The authors discuss the input language of a programming program, the history of programming programs, and transcoding of information. They construct a table of boundary of conditional addresses, treat preliminary processing of information and its translation into machine language, classification of procedures and formulation of procedure-schemes, and processing of information on blocks and variable addresses. The problem of programming operators is separated into two stages: regulation of the operations and their programming. Regulation of operations is reduced to separation of all syntactical units of the language into the sequences necessary for the program. Determination of the length of the program, construction of scales, and appropriation of true addresses are discussed. There are certain deficiencies in the programming program. It may have uneconomical formation of variable addresses. Now blocks are set up due to which these and other deficiencies are remedied. Included in a programming program is a block for processing variable addresses, linearly dependent on the parameter, with the help of commands of recovery and transaddress. With new processing of blocks an abstract of blocks is not set up, and the restriction on the quantity of blocks is

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removed. A clearing of cycles and blocks is done. Clearing of a cycle means carrying out operations on the cycles which can be accomplished up to the beginning of working of the cycle. Clearing of a block means carrying out operations in the preparatory part of a block which can be used in it. The preparatory part of a block is the collection of descriptions and operators from the beginning of the block to the first mark, or to the first operator of the transfer, or to the first operator of the cycle. "G. M. Zaikina and S. A. Toporishcheva took part in various stages of the work on the programming program. The working out of the general scheme of the programming program is due to S. S. Lavrov. The authors express their gratitude to them for the valuable advice and constant interest." Orig. art. has: 1 table and 4 formulas.

ASSOCIATION: none

SUBMITTED: 22Mar63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: CP

NO REF SOV: 004

OTHER: 000

Card 3/3

STIRSKY, Pavel

Contribution to the analysis of the stability area of cool reactor control with regard to heavy water reactors. Jaderna energie 9 no.7:233-234 JI '63.

1. Vyzkumny ustav energeticky, Praha.

STIRSKY, P. VLASEK, V.

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(Energetika. Vol. 7, no. 1, Jan. 1957. Praha, Czechoslovakia)

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

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Prevention of human rabies in Rumania with vaccines prepared from a strain of "Babes" fixed virus. Microbiologia (Bucur) 10 no.1:63-68 Ja-F'65.

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STISHKOVSKIY, A.A., inzh.

Using machinery in ensiling potatoes. Trakt. i sel'khoz mash. no.5:
27-33 My '58. (MIRA 11:6)
(Ensilage) (Potatoes)

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The ZKN-2 machine for continuous steaming of potatoes.

Biul.tekh.-ekon.inform. no.6:59-61 '58.

(Potatoes--Storage)

(MIRA 11:8)