DESYATCHIKOV, B.A., otv.red.; KAGANOVSKIY, A.G., red.; SYRKIN-SHKLOVSKIY, L.Ye., red.

[Problems in the economics of the cotton-cleaning industry in Uzbekistan] Voprosy ekonomiki khlopkoochistitel'noi promyshlennosti Uzbekistana. Tashkent, Akad.nauk Uzbekskoi SSR. In-t ekonomiki, 1957. 320 p. (MIRA 12:11)
(Uzbekistan--Cotton gins and ginning--Costs)

SYRKIN-SHKLOVSKIY, M.Ye.

AUTHOR: Sergeyev, A.S., Docent

105-58-5-26/28

TITLE: Dissertations (Dissertatsii)

PERIODICAL: Elektrichestvo, 1958, Nr 5, pp. 93-93 (USSR)

ABSTRACT: For the Degree of Candidate of Technical Sciences:
At the Yerevan Polytechnic Institute imeni Marks (Yerevanskiy politekhnicheskiy institut im. Marksa):
A.Kh.Saradzhev on January 9, 1946 "Supplies for the Requirements of Automatized Hydraulic Power Plants". Official opponents: Professor A.Ya.Ter-Khachaturov and N.V.Gabashvili, Docent, Candidate of Technical Sciences.
At the Polytechnic Institute of Belorussia imeni Stalin (Belorusskiy politekhnicheskiy institut im.Stalina):
Ya.Yu.Slepyan on March 27, 1953 "Drying of Power Transformers by the Method of Losses in the Case of Electric Networks in Rural Districts". Official opponents: L.Ye.Ebin, Professor, Doctor of Technical Sciences and A.I.Sobolev, Docent, Candidate of Technical Sciences.
V.P.Krasin on May 29, 1953 "The Automatic Re-Establishment of Connection in Electric Networks and Plants of Mineral Oil Fields

Card 1/4

Dissertations

ly 2-6 kV voltage". Official opponents: I.I.Greben', Professor, Doctor of Technical Sciences and A.I.Rutskiy, Docent, Candidate of Technical Sciences.

At the Institute for Power Engineering AS Uzbek SSR (Institut energetiki AN Uzbekskoy SSR):

M.Ye.Syrkin-Shklovskiy on November 5, 1947 "Some Problems Connected with the Theory of Resonance in Multiphase Circuits". Official opponents: N.N.Shchedrin, Professor, Doctor of Technical Sciences and G.R.Rakhimov, Docent, Candidate of Technical Sciences.

A.A.Inogamov on December 29, 1949 "The Investigation of Asymmetric Modes of Operation of Three-Phase Transformers". Official opponents: N.N.Shchedrin, Professor, Doctor of Technical Sciences and M.Z.Khamudkhanov, Docent, Candidate of Technical Sciences.

I.A.Reyneke on December 29, 1949 "Investigation of the Basic Properties of Independent Inverters in Connection with the Problems of D.C.Transformation". Official opponents: V.P.Zakharov, Doctor of Technical Sciences and Rakhimov, G.R., Docent, Candidate of Technical Sciences.

Card 2/4

E.G.Faynshteyn on May 6, 1950 "Taking Account of the Influence Exercised by Rectification Load when Calculating Asymmetry Modes of Operations in Energy Systems". Official opponents: V.P. Zakharov, Professor, Doctor of Technical Sciences and G.R.Rakhimov, Docent, Candidate of Technical Sciences.
S.M.Timofeyev on February 21, 1953 "Investigation of an Electric Device for the Automation Control of Rotational Speed in Water Turbines with a Sensitive Element Operation According to The Electrodynamical Principle". Official opponents: N.N.Shchedrin, Professor, Doctor of Technical Sciences and M.Z.Khamudkhanov, Docent, Candidate of Technical Sciences.
L.M.Rotenburg on February 21, 1953 "Experimental Investigation of Steel Lines and the Analytical Calculation of Short-Circuit Currents in Complicated Networks with Steel Lines". Official opponents: N.N.Shchedrin, Professor, Doctor of Technical Sciences and G.R.Rakhimov, Docent, Candidate of Technical Sciences.

Dissertations

105-58-5-26/28

N.A.Troitskiy on September 26, 1953 "The Basic Properties of an Invertor with Additional Controlling Electromotive Force and Open Transformer Triangle". Official opponents: V.P.Zakharov, Professor, Doctor of Technical Sciences, M.Z.Khamudkhanov, Docent, Candidate of Technical Sciences and I.A.Reyneke, Docent, Candidate of Technical Sciences.

AVAILABLE: Library of Congress

1. Scientific reports--USSR 2. Power plants--Equipment 3. Electrical networks--USSR 4. Electrical equipment--Properties

Card 4/4

GRUDEV, D.I., doktor sel'skokhoz. nauk; KOTOV, P.Ya., nauchnyy sotrudnik; RODIONOVSKIY, M.S., nauchnyy sotrudnik; SYRKIN-SHKLOVSKIY, Ye A., nauchnyy sotrudnik; UNANOV, G.S., nauchnyy sotrudnik

Use of the tissue preparation VNIIMP-3 in the fattening of swines. Trudy VNIIMP no.15:13-19 '63. (MIRA 17:5)

PLYATSKOVSKIY, O.A., kand.tekhn.nauk; LIVSHITS, A.S., kand.tekhn.nauk; Prinimali uchastiye: AGAYEV, Kh.A.; EL'BERT, S.M.; BRAYLOVSKIY, V.P.; SYRKINA, A.F.; ORLOV, S.T.

Selection of wear resistant steels for mandrels of continuous and three-roll pipe mills. Biul.nauch.-tekh.inform.VNITI no.4/5:51-61 '58. (MIRA 15:1)

(Pipe mills)

SYRKINA, D. G.

Treatment of dysentery with synthomycin. Klin. med., Moskva 30 no.3:75-77 Mar 1952. (CIML 22:2)

1. Tashkent.

SHEVELVA, A.P., glavnyy vrach; SYRKINA, D.G.

Source of dysentery infection of infants. Zhur.mikrobiol.epid.i immun. no.9: 37-39 S '53. (MLRA 6:11)

1. Tashkentskaya gorodskaya infektsionnaya bol'nitsa. (Dysentery)

SYRKINA, D.G. (Tashkent)

Effect of furacillin on the rate of healing of the mucous membranes of the large intestines in dysentery. Klin.med. 34 no.4:90 Ap '56. (MLRA 10:1)

1. Iz 5-y Tashkentskoy infektsionnoy bol'nitsy.
(FURALDEHYDE) (DYSENTERY) (MUCOUS MEMBRANE)

SYRKINA, G. YE.

USSR/Medicine - Shock Nov/Dec 1947
Medicine - Tissue, Respiration

"The Question of the Amount of Oxygen Consumed by Tissues During the Early Stages of Shock," A. M. Charnyy, F. Ye. Syrkina, G. Ye. Syrkina, S. E. Krasovitskaya, Lab Pathol Physiol, Cent Inst for Improvement of Physicians, 6 pp

"Arkhiv Patolog" No 6

Studies conducted to determine three main points: 1) dynamics of oxygen and carbonic acid in subcutaneous gas bubbles in normal animals, 2) dynamics of oxygen and carbonic acid during early stages of shock, and 3) amount of oxygen consumed by tissues during early stages of shock, following application of oxygen-poor mixture. Speed of diffusion of gas bubbles injected subcutaneously determined during various stages of shock. Submitted, 23 Nov 1947. Deputy of Laboratory: Prof A. M. Charnyy. Director of Institute: V. F. Lebedeva.

PA 53T68

ARDAYEVA, A.; SYRKINA, I.

Plastic trays for meat chops. Mias.ind. SSSR 31 no.6:48 '60.
(MIRA 13:12)

(Meat industry—Equipment and supplies)

MARTYNOV, Yu.M.; SYRKINA, I.G.

Solubility of ferric chloride and antimony trichloride in CCl_4, $SiCl_4$, $SnCl_4$. Zhur.neorg.khim. 10 no.4:943-945 Ap '65. (MIRA 18:6)

MARTINOV, Yu.M.; SYRKINA, I.G.

Relation between solubility and adsorption of partially soluble substances in a nonelectrolyte solution. Zhur. fiz. khim. 39 no.3: 584-587 Mr '65. (MIRA 18:7)

SYRKINA, K.

"The Process of Polymerization in Electrical Discharges," Dok. AN, 26, No. 5, 1940. Mor. Lab. Catalysis, Inst. Chem. Phys., Leningrad, -1940-.

SY[illegible], [illegible]

"Investigation of the Process of Utilizing the Chemical Energy of Wood in the Furnace Generator of the Central Scientific Research Boiler and Turbine Institute (TsKTI.)" Cand Tech Sci, Forestry Engineering Academy, Leningrad, 1953. Dissertation (Referativnyy Zhurnal--Khimiya, Moscow, No 2, Jan 54)

SO: [illegible]

SYRK/MA /SID

V 2425. RESULTS OF INITIAL TESTS OF FIRST INDUSTRIAL PLANT FOR USING WOOD FOR POWER AND CHEMICAL PURPOSES IN COMBINATION. Syrkin, K.D. (Moscow: Mashgiz, 1954, "Furnace Installations (Topochnye Ustroistva)", Ed. A.A. Kanaev, TsNTI book 26, 256pp., 76-102). An illustrated description and operating results are given for a plant in which 3½ tons/h of waste wood are distilled in the upper part of a shaft and the charcoal burned below. Some of the volatile products pass through a vertical grate of water tubes to heat a water tube boiler and some travel upwards and into a plant for separation into acid, tar and gas. The flue gases from the boiler are used for predrying the wood. Satisfactory operation was achieved, though the chemical side needed further development. (RZh,84/02).

SYRKINA, K.D., kandidat tekhnicheskikh nauk.

Operational data on the first industrial furnace unit designed for the complete chemical and energy utilization of wood. [Trudy] TSKTI 26:76-102 '54. (MLRA 8:2)
(Power plants) (Wood as fuel)

SERKINA, K. D.

4

714. EXPERIENCE WITH COMBINED STEAM GENERATION AND CHEMICAL UTILIZATION OF WOOD WASTES. Pomerantsev, V.V., Sirkina, K.D., Liverovskii, A.A. and

possibilities of the application of this method in industry. The installation of the furnace-gas producer unit for combined operation while slightly

KORCHUNOV, Yu.N.; SYRKINA, K.D.; TYUL'PANOV, R.S.

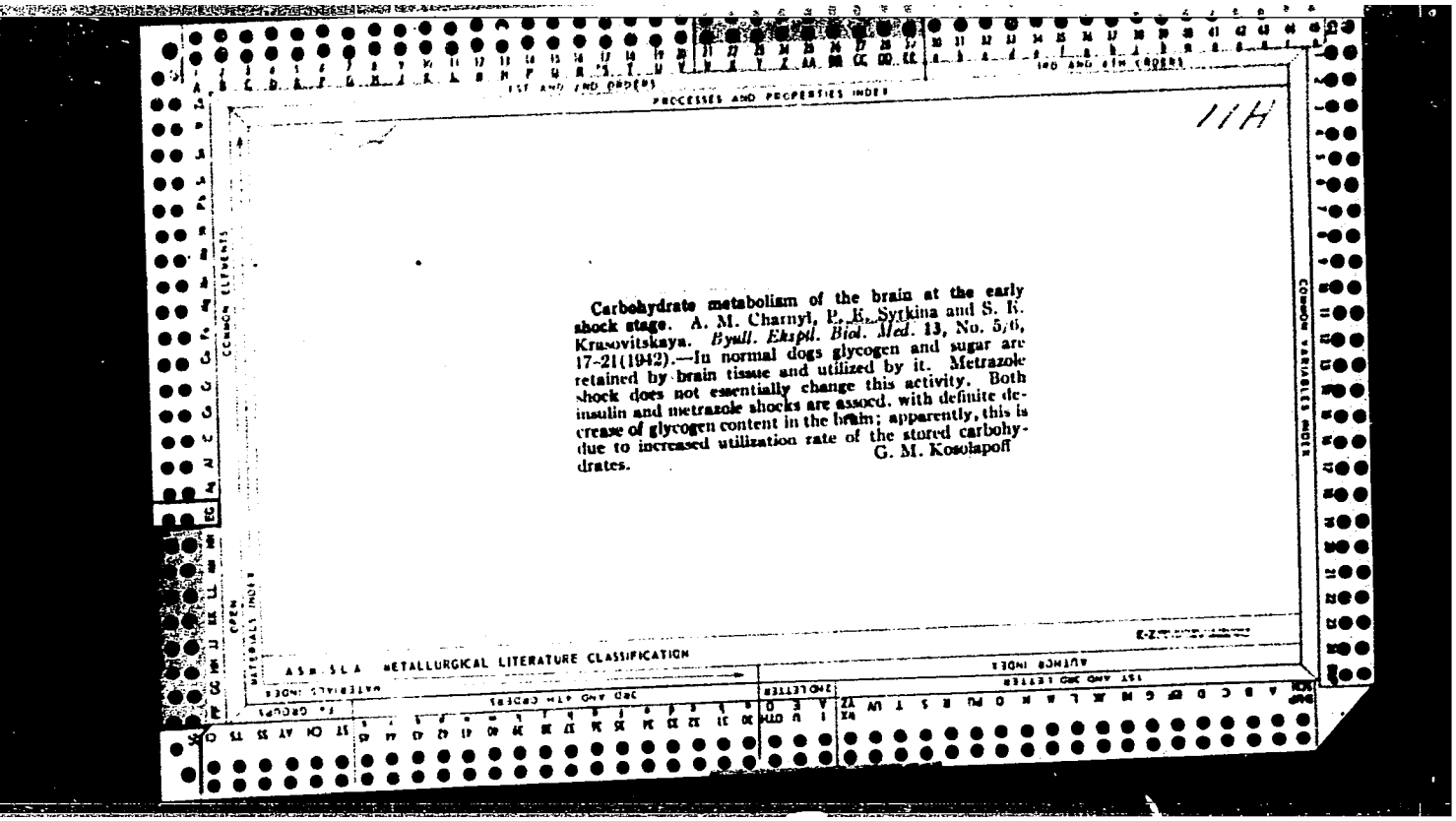
Experimental study of the operation of the distillation shaft of gas producers designed by the Central Boiler and Turbine Institute. Gidroliz. i lesokhim.prom. 11 no.8: 4-6 '58. (MIRA 11:12)

1. TSentral'nyy nauchno-issledovatel'skiy kotloturbinnyy institut.
(Gas producers)

KATSNEL'SON, Boris Davidovich;KORCHUNOV, Yuriy Nikolayevich; LIVEROVSKIY, Aleksey Alekseyevich; POMERANTSEV, Viktor Vladimirovich, doktor tekhn.nauk,prof.; [illegible], Kseniya Dmitriyevna; TISHCHENKO, Dmitriy Vyacheslavovich,; TSATSKA, Elio Markovich; SHMULEVSKAYA, Esfir' Ionovna; POMERANTSEV, V.V., red.; ZHITNIKOVA, O.S., tekhn. red.

[Layer methods of the use of fuel as a source of power and chemicals]Sloevye metody energokhimicheskogo ispol'zovaniia topliv. [By] B.D.Katsnel'son i dr. Moskva, Gosenergoizdat, 1962. 186 p. (MIRA 15:9)

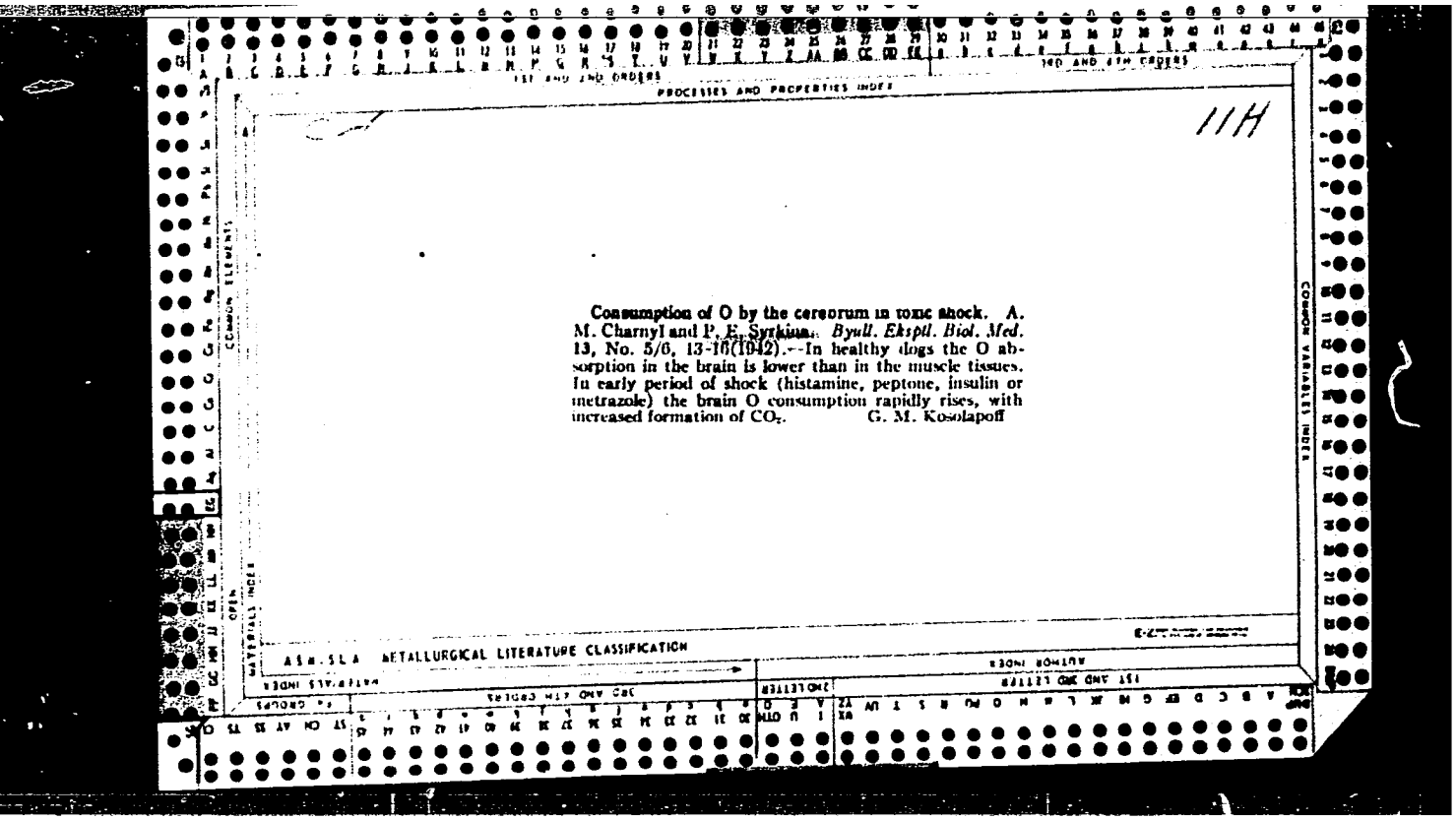
(Fuel) (Chemicals)



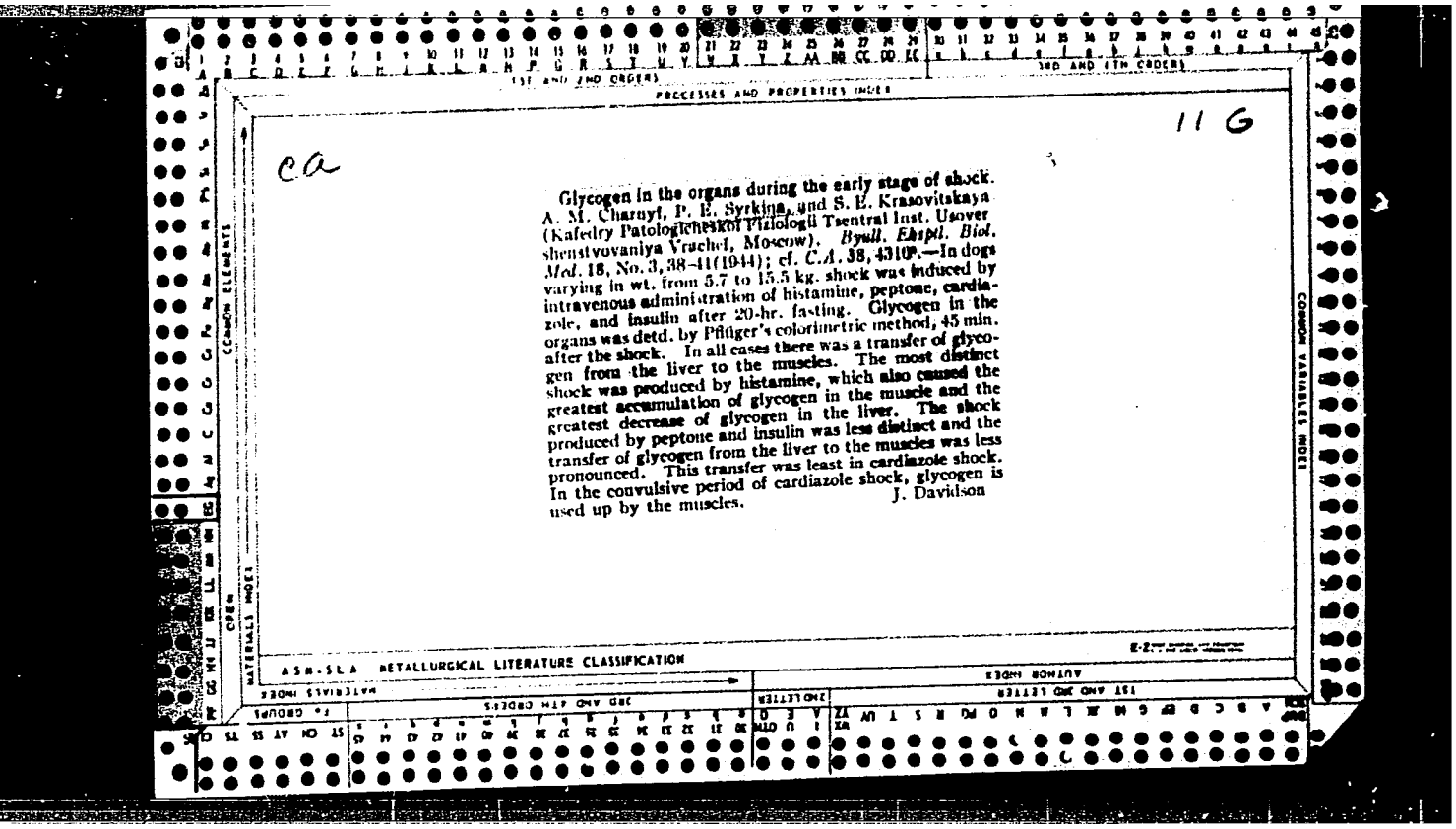
11H

Carbohydrate metabolism of the brain at the early shock stage. A. M. Charnyi, P. E. Sytkina and S. E. Krasovitskaya. *Byull. Eksptl. Biol. Med.* 13, No. 5/6, 17-21(1942).—In normal dogs glycogen and sugar are retained by brain tissue and utilized by it. Metrazole shock does not essentially change this activity. Both insulin and metrazole shocks are assocd. with definite decrease of glycogen content in the brain; apparently, this is due to increased utilization rate of the stored carbohydrates.

G. M. Kosolapoff



Consumption of O by the cerebrum in toxic shock. A. M. Charnyi and P. E. Syrkina. *Byull. Eksptl. Biol. Med.* 13, No. 5/6, 13-16(1942).--In healthy dogs the O absorption in the brain is lower than in the muscle tissues. In early period of shock (histamine, peptone, insulin or metrazole) the brain O consumption rapidly rises, with increased formation of CO_2. G. M. Kosolapoff



CA

11 G

Glycogen in the organs during the early stage of shock. A. M. Charuyf, P. E. Syrkina, and S. E. Krasovitskaya (Kafedry Patologicheskoi Fiziologii Tsentral Inst. Usovershenstvovaniya Vrachei, Moscow). *Byull. Eksptl. Biol. Med.* 18, No. 3, 38–41(1944); cf. *C.A.* 38, 4310⁹.—In dogs varying in wt. from 5.7 to 15.5 kg. shock was induced by intravenous administration of histamine, peptone, cardiazole, and insulin after 20-hr. fasting. Glycogen in the organs was detd. by Pfliger's colorimetric method, 45 min. after the shock. In all cases there was a transfer of glycogen from the liver to the muscles. The most distinct shock was produced by histamine, which also caused the greatest accumulation of glycogen in the muscle and the greatest decrease of glycogen in the liver. The shock produced by peptone and insulin was less distinct and the transfer of glycogen from the liver to the muscles was less pronounced. This transfer was least in cardiazole shock. In the convulsive period of cardiazole shock, glycogen is used up by the muscles.

J. Davidson

SYRKINA, P. YE.

"The Cure of Oxyhemoglobin Dissociation in Toxic Fever," Farmakol. i Toxicol., 9, No. 4, 1946. Ch., Lab. Physiology, Central Inst. Advanced Training for Physicians, -1946

SYRKINA, P. YE.

USSR/Medicine - Shock
Medicine - Tissue, Respiration

Nov/Dec 1947

"The Question of the Amount of Oxygen Consumed by Tissues During the Early Stages of Shock," A. M. Charnyy, P. Ye. Syrkina, G. Ye. Syrkina, S. E. Krasovitskaya, Lab Pathol Physiol, Cent Inst for Improvement of Physicians, 6 pp

"Arkhiv Patolog" No 6

Studies conducted to determine three main points: 1) dynamics of oxygen and carbonic acid in subcutaneous gas bubbles in normal animals, 2) synamics of oxygen and carbonic acid during early stages of shock, and 3) amount of oxygen consumed by tissues during early stages of shock, following application of oxygen-poor mixture. Speed of duffusion of gas bubbles injected subcutaneously determined during various stages of shock. Submitted , 23 Nov 1947. Deputy of Laboratory: Prof A. M. Charnyy. Director of Institute: V. P. Lebedeva.

PA 53T68

SYRKINA, P. YE.

KRASOVITSKAYA, S.Ye.; SYRKINA, P.Ye.; SCHNITZER, I.S.; SHAPIRO, S.M.

Anoxia syndrome in hypertonia. Ter.arkh. 22 no.2:8-13 Mr-Ap '50. (CLML 19:3)

1. Of the Department for the Therapy of Internal Diseases (Head -- Prof. M.S.Vovsi, Major General Medical Corps, Active Member of the Academy of Medical Sciences) and of the Department of Pathological Physiology (Head -- Prof. A.M.Charnyy), both of the Central Institute for the Advanced Training of Physicians.

SYRKINA, P. Ye.

"Data on the Question of the Role of Anoxia in the Development of Toxic Pulmonary Edema." Sub 26 Jun 51, Central Inst for the Advanced Training of Physicians.

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

SO: Sum. No. 480, 9 May 55

Syrkina, P. E.

62

Spectrographic determination of silicon in the blood. P. E. Syrkina. *Gigiena i Sanit.* 1954, No. 0, 45–7.—A detn. of blood Si, giving results within 10% is described. This employs the 2510.1- and 2881.5-A. lines of Si; the upper electrode is solid Cu, the lower one is a thin Cu tube through which is fed the test soln. by means of a capillary tube and under slight pressure. The background of Fe lines is produced by solns. of $K_4Fe(CN)_6$ which is used for the accurate location of Si lines. The actual method depends on the formation of Si spectrum on excitation of specimen in a condensed spark with an Fe spectrum background. The calibration curve is prepd. from pure $K_2SiO_4.H_2O$.

G. M. Kosolapoff

SYRKINA, P.Ye; RASHEVSKAYA, A.M.

Dissociation curves of oxyhemoglobin in certain occupational diseases of the lung. Terap. arkh. 26 no.3:67-73 My-Je '54. (MLRA 7:9)

1. Iz kafedry patologicheskoy fiziologii (zav. prof. A.M.Charnyy) i kafedry professional'nykh bolezney (zav. prof. S.M.Genkin) TSentral'nogo instituta usovershenstvovaniya vrachey.

(HEMOGLOBIN
*oxyhemoglobin, dissociation curves in occup. pulm. dis.)
(LUNGS, diseases,
*occup., oxyhemoglobin dissociation curves in)
(OCCUPATIONAL DISEASES,
*lung dis., oxyhemoglobin dissociation curves in)

SYRKINA, P.Ye.

[Gas analysis in medical practice; a manual for clinicians and experimenters] Gazovyi analiz v meditsinskoi praktike; posobie dlia klinitsistov i eksperimentatorov. Moskva, Medgiz, 1956. 221 p. (MLRA 10:4)

(GASES--ANALYSIS) (PHYSIOLOGICAL CHEMISTRY)

ARDAYEVA, A.N.; KIPNIS, F.B.; SYRKINA, R.A.

Developing new types of containers and container materials based on the use of plastics. Trudy NIL Tary no.4:108-119 '60. (MIRA 14:12)

(Container industry)
(Plastics)

SYRKINA, R.L.

Use of electric anesthesia and electrically induced sleep under experimental conditions and in the surgical clinic. Trudy 1-go MMI 3:154-156 '57. (MIRA 14:5)
(ELECTRIC ANESTHESIA) (SLEEP—THERAPEUTIC USE)

SYRIA 1.4

PA 17T31

USSR/Medicine - Malaria May/Jun 1947
Medicine - Complement Fixation

"The Complement Fixation Reaction in Malaria," S. E. Sirkina, Sector of Experimental Malaria and Medical Protozoology of the Institute of Malaria and Medical Parasitology of the Academy of Medical Sciences, USSR, 6 pp

"Meditsinskaya Parazitologiya" No 3

Clinical data, with tabular presentation, to the effect that the largest number of positive reactions was noted in the investigation of serums received at the end of an attack, regardless of the presence of parasites in the blood.

17T31

SYRKINA, V.Ye.

Factual data to support a psychology course. Vop. psikhol. 2 no.4:144-153 Jl-Ag '56. (MLRA 9:10)

(Psychology--Study and teaching)

SYRKINA, V.Ye.

Formation of cognitive interests in children ("Cognitive interests and conditions for their formation in childhood" by L.I.Bozhovich. Reviewed by V.E.Syrkina). Vop.psikhol. 2 no.5:176-180 S-O '56. (MLRA 10:1)
(Learning, Psychology of)
(Bozhovich, L.I.)

CIRKINA, E.B. Церкина, Е. Б.

Mobile form of organic substances in the peats of the Latvian S.S.R. Latvijas P.S.R. Zinātnu Akad. Vēstis '49, No.10, 59-63. (MLRA 4:1)
(CA 47 no.21:11625 '53)

SIRKINA, Ye.B.

CIRKINA, E.B.

Characterization of organic matter in soils of Latvian S.S.R. Latvijas P.S.R. Zinātnu Akad. Vēstis '51, 41-7. (MLRA 5:10)
(CA 47 no.21:11625 '53)

SYRKINA, S.A.

Morphological alterations in blood elements under the influence of antimalarial chemotherapeutic preparations and related compounds. Sh. D. Moshkovskii and S. A. Syrkina. *Med. Parasitol. Parasitic Diseases* (U. S. S. R.) ~~7, 890–900~~ (in English, 908)(1938).—Of 32 compds. studied, certain members of the acridine series provoked the appearance of characteristic basophilic inclusion bodies in the blood cells of mice and birds. The ability to provoke the appearance of these bodies showed a marked parallelism with the antimalarial effectiveness of the drugs. Antimalarials of the quinoline series and derivs. of benzothiazole, phenanthroline and C_6H_6, with side chains similar to those of the acridine series, but having no effect on avian malaria, did not possess this property. S. A. Karjala

BYRKINA, S. A.

"Tests of the Antimalarial Effectiveness of Paludrine on Siskins and Lennets Infected With Plasmodium relictum", Med. Paraz. i Paraz. Bolez., Vol. 17, No. 3, pp 231-33, 1948.

SYRKINA, S.A.

Investigation of the effect of chemotherapy in sporozoite infections with Plasmodium gallinaceum. Med. paraz. i paraz. bol. 24 no.2:155-159 Ap-Je '55. (MLRA 8:10)

1. Iz sektora eksperimental'noy malyarii i meditsinskoy protozoologii Instituta Malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G.Sergiyev, zav. sektorom. - prof. Sh.D. Moshkovskiy)
(MALARIA, experimental,
gallinaceum. in chicks, eff. of antimalarials)

SYRKINA-KRYGLYAK, S.A.

A study on the antimalarial effect of some alkaloids in relation to Plasmodium gallinaceium and Plasmodium berghei. [with summary in English]. Med.paraz. i paraz.bol. 26 no.1:54-58 Ja-F '57. (MLRA 10:6)

1. Iz otdela farmakologii Vsesoyuznogo nauchno-issledovatel'skogo instituta lekarstvennykh i aromaticheskikh rasteniy (dir. instituta N.Ya.Itskov, zav. otdelom - prof. A.D.Turova)

(ALKALOIDS, eff.
Hydrangea hortensis, antimalarial eff.)
(ANTIMALARIALS
Hydrangea hertensis alkaloids)
(PLANTS
Hydrangea hortensis alkaloids, antimalarial eff.)

VERMEL' Ye.M.; SYRKINA-KRUGLIAK, S.A.

Antineoplastic activity of the alkaloid febrifugin in experiments on animals. Vop. onk. 6 no.7:56-61 Je '60. (MIRA 14:4)
(CYTOTOXIC DRUGS) (ANTIPYRETICS)

VERMEL', Ye.M.; SYRKINA-KRUGLYAK, S.A.

Contact method of selection of antineoplastic preparations (on cells of ascites tumors). Vop.onk. 7 no.8:73-82 '61. (MIRA 15:1)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta lekarstvennykh i aromaticheskikh rasteniy (dir. - D.Ya. Itskov).
(CYTOTOXIC DRUGS)

L 35351-66 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6011418 SOURCE CODE: UR/0202/66/000/002/0035/0039

AUTHOR: Sukhanov, S.; Arustamova, M. V.; Syrkina, V. F. 28 B

ORG: Physico-Technical Institute, AN TurkmSSR (Fiziko-tekhnicheskiy institut Turkmenskoy SSR)

TITLE: InSb magnetoresistive sensors

SOURCE: AN TurkmSSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 2, 1966, 35-39

TOPIC TAGS: magnetoresistance, sensor, transducer

ABSTRACT: The results of an experimental investigation of five InSb magnetoresistive sensors of various sizes and shapes (disk, square, rectangle) are reported; temperature range +20 +100C; supply, ac 1000 cps. A $\Delta\rho/\rho_0 = f(H)$ plot shows that the Carbineau disk has maximum resistance variation. A plot of

Card 1/2 UDC: 621.382.2

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$\Delta\rho/\rho_0$ vs. temperature is also shown. Some results are held doubtful because of possible specimen contamination in the course of the raster-making operation. It is proven that a rectangular sensor has maximum sensitivity and that the sensitivity increases with (a) better suppression of E_x by the raster, (b) smaller raster interval, and (c) sharper raster face. Magnetoresistive sensors are held suitable for use in magnetometers, level gages, pressure gages, encoders, etc. Orig. art. has: 3 figures and 1 table.

SUB CODE: 09 / SUBM DATE: 03Dec65 / ORIG REF: 003 / OTH REF: 001

Card 2/2

5.4500(?)

25(5), 5(1)

AUTHORS: Vaynshteyn, B.I., Breger, A.Kh., Syrkus, N.P.

S/064/59/000/07/002/035
B005/B123

TITLE: Computation of a Radiation-chemical Apparatus With a Strong Gamma Radiation Source for the Oxidation of Benzene to Phenol

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 7, pp 560-565 (USSR)

ABSTRACT: A radiation-chemical process which could reach practical importance, is the direct oxidation of benzene to phenol with oxygen, in the presence of products of water radiolysis (Refs 1-3). Under certain technological conditions stated in the paper, this process becomes a chain reaction. The yield then amounts to 30-60 molecules per 100 ev absorbed energy. The technological scheme for carrying out this oxidation is described in publications (Ref 3). The authors of the present paper calculated the capacity of radiation-chemical apparatus of various constructions that work with intensive γ-rays. The computations were made for γ-sources from Co^{60} preparations with a total activity of $\sim 10^6$ g-equivalent radium or from the fuel elements of a reactor, type VVR-Ts with a thermal power of 10 Mw. The capacity of such an apparatus is computed from

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S/064/59/000/07/002/035
B005/B123

Computation of a Radiation-chemical Apparatus With a Strong Gamma Radiation Source for the Oxidation of Benzene to Phenol

the formula: $Q = K \frac{wGM}{N} \eta$ (Q = capacity of apparatus in kg per hour; K = coefficient considering the dimensions of the apparatus; w = dose rate of the source of γ-radiation in watts; G = radiation-chemical yield (number of molecules per 100 ev absorbed energy); M = molecular weight of the product in g/mol; N = Avogadro number; η efficiency of the radiation-chemical apparatus (proportion of dose rate of γ-radiation that is absorbed by the chemical system, to the dose rate that is supplied by the source). For phenol it results for G = 30: $Q = 1.05 \cdot 10^{-3} w \eta$. The computations made are described in detail. Detailed data of the construction of radiation-chemical apparatus and the optimum dimensions of the radiation source are given. Figure 1 shows schematic cross sections through some possible variants of a radiation-chemical apparatus for the oxidation of benzene to phenol. Table 1 gives the working characteristics for various variants of such radiation-chemical apparatus, where Co^{60}-preparations or the fuel elements of the VVR-Ts reactor are used as radiation source. Table 2 shows the

Card 2/3

Computation of a Radiation-chemical Apparatus With a Strong Gamma Radiation Source for the Oxidation of Benzene to Phenol

S/064/59/000/07/002/035
B005/B123

accessible doses of γ-radiation of a source consisting of all fuel elements of the VVR-Ts reactor. Table 3 shows the relations between the capacity Q and $T = \bar{t}$ (T = working time of the fuel elements in the reactor, $\bar{t}$ = time of cooling). According to calculations of the authors the yearly production of phenol in one of the apparatus described, with a radiation-chemical yield of G = 60 molecules per 100 ev in a reactor with the thermal power of 1000 Mw, amounts to about 10,000 t. In the present paper a previous article of the authors is referred to that was submitted to the konferentsiya po mirnomu ispol'zovaniyu atomnoy energii (Conference on the Peaceful Uses of Atomic Energy), held in Tashkent from September 28 to October 3, 1959. There are 8 figures, 3 tables, and 8 references, 7 of which are Soviet.

Card 3/3

AUTHORS: Syrkus, N. P., Breger, A. Kh., Vaynshteyn, B. I.

S/064/59/000/08/001/021
B115/B017

TITLE: The Fundamental Technological Characteristics of Apparatus for Carrying out Radiochemical Processes (Mainly for the Polymerization of Ethylene), on an Industrial Scale

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 8, pp 647-652 (USSR)

ABSTRACT: In the present paper the first attempt of a general consideration of the most important technological characteristics of a device for carrying out radiochemical processes is described by the example of a spherical apparatus. Besides, the technological characteristics of an apparatus used for radiochemical polymerization of ethylene were calculated. The efficiency of a spherical apparatus with a radius r and a monochromatic gamma radiation point source in the center of the sphere with an energy of q curies was calculated, and a formula was deduced. The method used to determine the energy of the absorbed gamma rays was employed for calculation which had been suggested at the Conference for the Peaceful Uses of Atomic Energy in Tashkent from September 28 to October 3, 1959. A diagram of the dependence of the function $[(1-\varepsilon)\mu]^{\alpha}$. $\mathcal{H}(\mu r, \varepsilon)$ on z at different values of the parameter α (1.5, 2.0 and

Card 1/3

The Fundamental Technological Characteristics of Apparatus for Carrying Out Radiochemical Processes (Mainly for the Polymerization of Ethylene) on an Industrial Scale

S/064/59/000/08/001/021
B115/B017

2.5) is given (Fig 1), where ε is a constant which depends on the conditions of the process ($0 \leq \varepsilon < 1$), γ the factor of the electron transformation, $\mathcal{H}(\gamma r, \varepsilon) = \int_0^{\gamma r} \exp\left[-(1-\varepsilon)\gamma \cdot \varrho\right] \varrho^{2\varepsilon} \cdot d\varrho$ with ϱ the distance of any point in the apparatus from the center, $z = (1-\varepsilon)\gamma r$ and $\alpha = 2\varepsilon + 1$. In the following also the efficiency of an infinitely large apparatus ($Q\infty$) with the same radiation source is computed. Also formulas for the computation of the specific efficiency and for the computation of the radius of the spherical layer is deduced. The energetic and the material useful coefficient for the apparatus given were computed, and it was found that in general the energetic useful coefficient is no unambiguous criterion for the efficiency of the apparatus. The technological characteristics of a cylindrical apparatus for radiochemical polymerization of ethylene (with Co^{60} as central radiation source) at 200 atm and 25° were then calculated. Diagrams of the distribution of the activity of the radiation dose in the apparatus (Fig 2), of the dependence of efficiency of the polymerisation apparatus with

Card 2/3

The Fundamental Technological Characteristics of Apparatus for Carrying out Radiochemical Processes (Mainly for the Polymerization of Ethylene) on an Industrial Scale

S/064/59/000/08/001/021
B115/B017

gamma-ray sources of different relative activity (with respect to 1-11,500 curie Co^{60}) on the radius of the apparatus (Fig 3), of the specific and weight efficiency of the apparatus (Fig 4), and of the distribution of the useful factor in the apparatus (Fig 5) are mentioned. The curves in figure 5 show that the apparatus for radiochemical polymerization of ethylene under given polymerization conditions can be computed from the mean values of dose activity $\eta_{e.app}$ and that the method can be employed also for apparatus used for other radiochemical processes. The dependence of the efficiency of the apparatus on the full activity of the gamma radiation source W_o under exactly constant conditions is mathematically proven. There are 5 figures and 9 references, 6 of which are Soviet.

Card 3/3

BREGER, A.Kh.: Prinimali.uchastiye: VAYNSHTEYN, B.I.; SYRKUS, N.P.; RYABUKHIN, Yu.S.; KOZLOV, L.A. KARPOV, V.L., red.; TARAKHOVSKAYA, N.K., red.; YAZLOVSKAYA, E., tekhn.red.

[Nuclear radiation sources and their application to radiochemical processes] Istochniki iadernykh izluchenii i ikh primenenie v radiatsionno-khimicheskikh protsessakh. Pod red. V.L. Karpova. Moskva, Vses.in-t nauchn.i tekhn.informatsii, 1960. 128 p. (MIRA 13:10)
(Radiation) (Radiochemistry)

SYRKUS, N.P

PHASE I BOOK EXPLOITATION SOV/5410

[illegible]nskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy [illegible]nergii, Tashkent, 1959.

Trudy (Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy) v. 2. Tashkent, Izd-vo AN UzSSR, 1960. 449 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Candidate of Physics and Mathematics; D. M. Abdurasulov, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Boroduline, Candidate of Biological Sciences; V. N. Ivashev; G. S. Ikramova; A. Ye. Kiv; Ye. N. Lebanov, Candidate of Physics and Mathematics; A. I. Nikolayev, Candidate of Medical Sciences; D. Nishanov, Candidate of Chemical Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences USSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin,

Card 1/20

Transactions of the Tashkent (Cont.) SOV/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Babakhanova.

PURPOSE : The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

Card 2/20

instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION IN ENGINEERING AND GEOLOGY

SYRKUS, N.P.

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21 5250

31546
S/081/61/000/022/004/076
B102/B108

AUTHORS: Breger, A. Kh., Vaynshteyn, B. I., Guzey, L. S., Ryabukhin, Yu. S., Syrkus, N. P.

TITLE: Gamma-radiation absorption in macrosystems

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 37, abstract 22B254 (Tr. Tashkentsk. konferentsii po mirn. ispol'zovaniyu atomn. energii. Tashkent, AN UzSSR, v. 2, 1960, 123-132)

TEXT: The gamma radiation energy absorbed by an object is determined as the difference between the γ-radiation energy flux from the source and γ-energy flux passing through the object's surface. An accumulation factor for the energy flux and a useful coefficient of the source with respect to γ-radiation are defined. The energy from Co^{60}(~2 g-equ. Ra) absorbed by the object was measured by means of a chemical dosimeter - a ferrosulfate solution filled into volumes of various shapes. The γ-radiation energy flux was also measured by the ferrosulfate method. It was shown that if the source was placed in the center of a cylinder the absorbed energy is twice as high as that when the source is located at the

Card 1/2

31516
S/081/61/000/022/004/076
B102/B108

Gamma-radiation absorption ...

bottom plane of a cylinder which is half as high. The accumulation factors were calculated by comparing the experimental and theoretical results without taking multiple scattering into account. γ-radiation absorption in volumes of complex shape was studied at various positions of the sources. [Abstracter's note: Complete translation.]

Card 2/2

Syrkus, N. P.

2

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B014/B007

AUTHORS: Bregor, A. Kh., Vaynshteyn, B. I., Guzev, L. S., Ryabukhin, Yu. S., Syrkus, N. P.

TITLE: The Absorption of Gamma-emission in Macrosystems From a Point Source

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 131, No. 6, pp. 1308 - 1311

TEXT: The authors define the absorbed power of γ-emission with $Q_a = \Phi_o - (\Phi_{surf} + \Phi_{scatt})$, where Φ_o is the total power of the energy flux of the γ-emission of the source, and Φ_{surf} - the power of the flux leaving the absorbing body, and Φ_{scatt} - the power of the scattered flux. The factor of the accumulation B_{Φ} of the integral energy flux of the γ-emission is defined by $B_{\Phi} = 1 + \Phi_{scatt}/\Phi_{surf}$ and by the notations $Q_a/\Phi_o = \eta$; $\Phi_{surf}/\Phi_o = \varphi_{surf}$ is obtained for the efficiency $\eta = 1 - B_{\Phi}\varphi_{surf}$. For a spherical absorbing body in the center of which the source is located, η may easily be written down. For a cylindrical body (Fig. 1) the

Card 1/3

φ_{surf} ... φ

test series, in which dosimetric solutions were located in cylindrical containers with different radii. In a copper tube, which was fitted to the cylinder axis, the γ-source could be moved from without. Measured values for five different cylinder diameters within the range of from 3 to 12 cm are graphically represented in Fig. 3. It is found that the relation $B_{\Phi} = F(h/r, \mu r)$ holds, where h denotes the height of the cylinder calculated from the source, r - the radius of the cylinder, and μ the coefficient of the linear weakening of the γ-emission in the substance (Fig. 3). In this way it was possible to determine not only the amount of the absorbed energy, but also the above introduced factor of the accumulation of the integral energy flux. This factor may be used also in investigations of the absorbed energy which are carried out with other configurations of the source or of the absorbing object. The authors thank N. A. Krasnoshchekova and Ye. D. Kalmykova for their help in performing this work. There are 4 figures and 12 references, 9 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific Research Institute of Physics and

Card 2/3

Chemistry imeni L. Ya. Karpov)

PRESENTED: December 17, 1959, by V. A. Kargin, Academician

SUBMITTED: December 16, 1959

Card 3/3

PETROV, N.A., red.; PETRENKO, L.I., red.; SAVITSKIY, P.S., red.; SINITSIN, V.I., red.; KOLOTYRKIN, Ya.M., red.; SYRKUS, N.P., red.; ROMM, R.F., red.; ANTYSHEV, P.I., red.; VARTAZAROV, S.Ya., red.; ZAYTSEV, A.I., red.; ZEZYULINSKIY, V.M., red.; ZEDGINIDZE, G.A., red.; MARTYNKIN, F.F., red.; ROGACHEV, V.I., red.; SLATINSKIY, A.N., red.; LEVINA, Ye.S., vedushchiy red.; TITSKAYA, B.F., vedushchiy red.; PERSHINA, Ye.G., vedushchiy red.; IONEL', A.G., vedushchiy red.; ZARETSKAYA, A.I., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Transactions of the Conference on the Introduction of Radioactive Isotopes and Nuclear Radiation into the National Economy of the U.S.S.R.] Trudy Vsesoiuznogo soveshchaniia po vnedreniiu radioaktivnykh izotopov i iadernykh izluchenii v narodnoe khoziaistvo SSSR. Pod red. N.A.Petrova, L.I.Petrenko i P.S.Savitskogo. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vol.1. [General aspects of isotope applications. Instruments with sources of radioactive radiation. Radiation chemistry. Chemical and petroleum refining industry]

(Continued on next card)

PETROV, N.A.---(continued) Card 2.
Obshchie voprosy primeneniia izotopov. Pribory s istochnikami radioaktivnykh izluchenii. Radiatsionnaia khimiia. Khimicheskaia i neftepererabatyvaiushchaia promyshlennost'. 1961. 340 p. Vol.2. [Construction and the industry of construction materials. Light industry. Food industry and agriculture. Medicine] Stroitel'stvo i promyshlennost' stroitel'nykh materialov. Legkaia promyshlennost'. Pishchevaia promyshlennost' i sel'skoe khoziaistvo. Meditsina. 1961. 267 p.
(MIRA 14:4)

1. Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheniy v narodnoye khozyaystvo SSSR. Riga, 1960.
(Radioisotopes) (Radiation)

Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheniy v narodnoye khozyaystvo SSSR. Riga, 1960.

Radioaktivnyye izotopy i yadernyye izlucheniya v narodnom khozyaystve SSSR; trudy soveshchaniya v 4-kh tomakh. Tom 1: Obshchiye voprosy primeneniya izotopov, pribory s istochnikami radioaktivnykh izlucheniy, radiatsionnaya khimiya, khimicheskaya i neftepererabatyvayushchaya promyshlennost' (Radioactive Isotopes and Nuclear Radiations in the National Economy of the USSR; Transactions of the Symposium in 4 Volumes. v. 1: General Problems in the Utilization of Isotopes; Instruments With Sources of Radioactive Radiation; Radiation Chemistry; the Chemical and Petroleum-Refining Industry) Moscow, Gostoptekhizdat, 1961. 340 p. 4,140 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR, and Gosudarstvennyy komitet Soveta Ministrov SSSR po ispol'zovaniyu atomnoy energii.

Ed. (Title page): N.A. Petrov, L.I. Petrenko and P.S. Savitskiy; Eds. of this Vol.: L.I. Petrenko, P.S. Savitskiy, V.I. Sinitsin, Ya. M. Kolotyrkin, N.P. Syrkus and R.F. Romm; Executive Eds.: Ye. S. Levina and B. F. Titskaya; Tech. Ed.: E.A. Mukhina.

Card 1/12

Radioactive Isotopes (Cont.) SOV/5486

PURPOSE: The book is intended for technical personnel concerned with problems of application of radioactive isotopes and nuclear radiation in all branches of the Soviet economy.

COVERAGE: An All-Union Conference on problems in the introduction of radioactive isotopes and nuclear radiation into the national economy of the Soviet Union took place in Riga on 12-16 April 1960. The Conference was sponsored by: the Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR (State Scientific and Technical Committee of the Council of Ministers, USSR); Glavnoye upravleniye po ispol'zovaniyu atomnoy energii pri Sovete Ministrov SSSR (Main Administration for the Utilization of Atomic Energy of the Council of Ministers, USSR); Academy of Sciences, USSR; Gosplan USSR; Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee of the Council of Ministers, USSR, for Automation and Machine Building) and the Council of Ministers of the Latvian SSR. The transactions of this Conference are published in four volumes. Volume I contains articles on the following subjects: the general problems of the Conference topics; the state and prospects of development of radiation chemistry; and results and prospects of applying radioactive isotopes and nuclear radiation in the petroleum refining and chemical industries. Problems of designing and manufacturing instruments which contain sources of radioactive radiation and are used for checking and automation of technological processes are examined, along with problems of accident prevention in their use. No personalities are mentioned. References accompany some of the articles.

SOV/5486

SYRKUS, N.P.

4

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B150/B101

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AUTHORS: Topchiyev, A. V., Polak, L. S., Chernyak, N. Ya., Glushnev, V. Ye., Glazunov, P. Ya., Vereshchinskiy, I. V., Syrkus, N. P., Breger, A. Kh., Vaynshteyn, B. I.

TITLE: Radiation-heat cracking of hydrocarbons

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 74 - 75, abstract 9B513 (Sb. "Radioakt. izotopy i yadern. izlucheniya v nar. kh-ve SSSR. v. I". M., Gostoptekhizdat, 1961, 206-210)

TEXT: The low overall yield of radiolysis products from hydrocarbons at room temperature points to the absence of a chain reaction at that temperature. To examine the possibilities of a chain reaction in radiation cracking, n-heptane was irradiated by Co^{60} γ-rays at high temperatures. The samples were irradiated in 15 ml bulbs made of molybdenum glass with a wall thickness of ~1 mm. The amount of liquid heptane was 0.25 ml and the pressure in the ampoules on vaporization 2.5 T/273 atm. To prevent local preheating of the walls, the bulb was rotated twice a second. The

Card 1/2

4

S/081/62/000/009/019/075
B150/B101

Radiation-heat cracking of hydrocarbons

radiation dose output calculated on 1 ml of liquid n-heptane was $2 \cdot 10^{13}$ Mev/sec. It is shown that radiation-heat cracking of n-heptane occurs at considerably lower temperatures than purely thermal cracking which needs a temperature of ~500°C. The yield of liquid unsaturated hydrocarbons from radiation-heat cracking increases from 1.8 at room temperature to 340 at 450°C. The total radiation-chemical yield of low molecular hydrocarbons is 2000 at 400°C, being therefore ~10^3 times as great compared with the radiation-chemical yield of the same products at 20°C. By combining the radiation effect with temperature it is possible to obtain products which offer industrial interest at levels of yield which would be acceptable in practice. Possible sources of radiation for radiation-heat cracking are considered. [Abstracter's note: Complete translation.]

Card 2/2

VAYNSHTEYN, B.I.; BREGER, A.Kh.; SYRKUS, N.P.

Spent fuel elements as sources of gamma rays in radiochemical apparatus. Khim.prom. no.9:651-652 S '62. (MIRA 15:11)
(Gamma rays) (Radiochemistry)

S/138/62/000/012/009/010
A051/A126

AUTHORS: Khozak, V. K., Vaynshteyn, B. I., Breger, A. Kh., Kaplunov, M. Ya., Syrkus, N. P.

TITLE: Calculations of a radio-chemical equipment emitter for tire vulcanization using gamma radiation of spent heat-emitting sectors from a nuclear energy reactor .

PERIODICAL: Kauchuk i rezina, no. 12, 1962, 26 - 29

TEXT: Physical calculations were carried out on an emitter for radio-vulcanization of tires, using as the gamma source spent heat-emitting sectors, TBC (TVS), of a nuclear energy reactor. The efficiency coefficient (e.c.) of the γ-emitter is about 1% (at self-absorption in TVS - 60%). The use of various heat-emitting elements instead of TVS increases the equipment output by about 5 times. Using the TVS as the gamma source, which is the "waste product" of the reactor, increases the economic efficiency of the nuclear energy reactor. The calculations are based on the use of the TVS in the nuclear energy reactor with a thermal power of 760 Mw. The emitter chosen consisted of surfaces composed

Card 1/2

of TVS. Over a period of 180 days, the average activity of the emitter was found to be $\sim 10^7$ g·equiv. radium. Mathematical calculations showed that at a permissible non-uniformity of the field of dosages of ±15%, the ratio of the average absorbed dosage for the characteristic points to the lowest dosage absorbed is $\frac{D_{aver}}{D_{min}} = 1.10 \div 1.15$. The average power of the absorbed dosage during the working time of one series of TVS (180 days) was found to be 170 rad/sec. Calculations using heat-emitting elements as gamma source formed in the disassembly of the TVS showed that in this case the e.c. for gamma emission can be increased by about 5 times which is explained by the considerable drop on the self-absorption of the gamma-emitting sources. There are 5 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific Research Institute of the Tire Industry and Scientific and Research Physico-Chemical Institute, im. L. Ya. Karpov)

KARPOV, V.L.; BREGER, A.Kh.; YEROSHOV, M.Ye.; DROZDOV, V.Ye.; LISOV, G.N.; STOYENKO, S.G.; TORGOVITSKIY, D.M.; VAYNSHTEYN, B.I.; SYRKUS, N.P.

Large-scale radiation-chemistry plant with irradiator made from spent nuclear fuels. Atom. energ. 15 no.4:302-308 O '63. (MIRA 16:10)

SYRKUS, N. P.

L 12421-63 EWT(m)/BDS AFFTC/ASD

ACCESSION NR: AP3001414 S/0020/63/150/004/0866/0869

AUTHOR: Breger, A. Kh.; El*tekov, V. A.; Terent*yev, B. M.; Vaynshteyn, B. I.; Cyrkus, N. P.; Krasnoshchekova, N. A.; Osipov, V. P.; Gol*din, V. A.

TITLE: Absorption of Gamma-radiation energy in macrosystems.

SOURCE: AN SSSR. Doklady, v. 150, no. 4, 1963, 866-869

TOPIC TAGS: absorption of energy of Gamma-radiation, Type K-60000 apparatus

ABSTRACT: The energy coefficient of net efficiency of Gamma-radiation, and the value of the cumulative factor of integral current capacity of Gamma-radiation were determined for model apparatus of heat exchanger and tubular, still-type pipe. These determinations were obtained by three non-related methods: statistical method of investigation by an electronic computer, experimental method, and calculation by a semiempirical method. The results based on 300 samples are quire representative. The life span of a single quantum for the heat exchanger was found to be 4 sec. and for the still-type pipe, it was 2 sec. Calculations were also made for other values of energy coefficients of net efficiency. The integral absorption capacity for the given models were determined experimentally by ferrosulfate dosimetry method. The satisfactory agreement of the results

Card 1/2

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ACCESSION NR: AP3001414

6

with all three methods confirms the validity of the program and the methods of calculation. A possibility exists for a tangible method of solution of the problem for an optimum construction of an apparatus and the optimum number and activity of the radiation source. "The authors express their gratitude to Voropayev, Yu. V., Ratov, A. B., Kasatkin, V. M., Kalmy*kova, Ye. D., and Shalyapin, N. K. for their help in conducting the experiments on the type K-60000 unit, as well as to Golenko, D. I. for a number of useful hints in programming this work. Orig. art. has: 2 tables, 2 graphs and 1 figure.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Institute)

SUBMITTED: 03May62	DATE ACQ: 01Jul63	ENCL: 00
SUB CODE: 00	NO REF SOV: 008	OTHER: 000

Card 2/2

SYRKUS, N.P.

Effect of irradiation techniques on the effectiveness of radiation-chemical processes. Dokl. AN SSSR 152 no.5:1185-1188 O '63. (MIRA 16:12)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavleno akademikom S.S.Medvedevym.

ACCESSION NR: AP4012181 S/0191/64/000/002/0003/0006

AUTHORS: Abkin, A. D.; Auer, A. L.; Breger, A. Kh.; Vaynshteyn, B. I.; Voropayev, Yu. V.; Gol'din, V. A.; Gromov, V. F.; Osipov, V. B.; Sy*rkus, N. P.; Ushakov, V. D.; Khomikovskiy, P. M.; Tsingister, V. A.; Chikin, Yu. A.

TITLE: Radiation polymerization of ethylene in enlarged laboratory apparatus.

SOURCE: Plasticheskiye massy*, no. 2, 1964, 3-6

TOPIC TAGS: ethylene, radiation polymerization, reactor design, reactor surface area, reaction rate, polymer yield, reactor temperature field

ABSTRACT: Radiation polymerization of ethylene was conducted in laboratory reactors of 1-2 liter capacity (fig. 1 & 2). Based on tolerances admitted in this work, it was found that the temperature field can be calculated with sufficient accuracy. Comparison of reaction rates and yield of ethylene polymer shows that these factors are independent of the specific surface of the reaction space. Thus

Card 1/4

ACCESSION NR: AP4012181

ércial scale apparatus can be designed by estimating the pro-
rate and yield dependence on pressure, temperature and dosage
te without concern for specific surface area of the reactor.
rig. art. has: 1 Table and 5 Figures

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 26Feb64 ENCL: 02

SUB CODE: MA NR REF SOV: 005 OTHER: 003

Card 2/42

AP401716 S/0138/64/000/002/0020/0023

AUTHORS: Knozak, V. K.; Vaynshteyn, B. I.; Krasnoshchekova, N. A.; Bregen, A. Ya.; Kuznetsov, M. Ya.; Syerkus, N. P.

TITLE: Design of a setup for radiation vulcanization of tires with the use of Co^{60} Gamma radiation

SOURCE: Kauchuk i rezina, no. 2, 1964, 20-23

TOPIC TAGS: radiation vulcanization, tire vulcanization, cobalt 60, Gamma radiation, biplanar radiator, efficiency

ABSTRACT: The authors have designed three variants of a setup to effect radiation vulcanization of tires (260-20 and 6.70-15) with Co^{60} Gamma radiation. The variants were: 1) a setup with one biplanar radiator of constant size (130 x 130 cm, 40 cm apart); 2) a setup with one biplanar radiator of different size for each (same as 1 for the 260-20 tire; 100 x 100 cm, 40 cm apart for the 6.70-15 tire); and 3) a setup with two biplanar radiators of constant size for each (the size of 1 for the 260-20 tire; the size of the second radiator in 2 for the 6.70-15 tire). The efficiency of each variant was computed according to the formula $\eta = \frac{100\ W_{abs}^{min}}{W_0}\%$

Card 1/2

ACCESSION NR: AP4017164

P_0 = the power of the gamma-ray source and $W^{min}_{abs} = P_{min} vd$ (P_{min} is the minimal absorbed radiation dose, v is the volume of the irradiated object, and d is the density of the irradiated object). The efficiency of all three variants for the 260-20 tire proved to be 2.8. For the 6.70-15 tire, the efficiency of the first variant was 0.7, for the second and third, 1.3. The authors' computations have shown that for the duration of vulcanization adopted (22 hours for the 260-20 tire and 19 hours for the 6.70-15 tire), it was necessary to have a radiator with a total activity of $\sim 10^6$ gram-equivalents of radium. The use of a press form of aluminum alloy with walls no thicker than 15 mm permitted the productivity of the setup (with the activity indicated) to be almost doubled. Orig. art. has: 1 figure, 1 table, and 2 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific Research Physical-Chemical Institute); Nauchno-issledovatel'skiy institut shinnoy promy*shlennosti (Scientific Research Institute of the Tire Industry)

SUBMITTED: 00 DATE ACQ: 23Mar64 ENCL: 00

SUB CODE: MA NO REF SOV: 005 OTHER: 002

Card 2/2

SYRKUS, N.P.

Some engineering and physical problems in the development of radiochemical apparatus. Khim. prom. no.2:134-141 F '64. (MIRA 17:9)

AVERBUKH, B.S.; ABRAMOVA, L.V.; BREGER, A.KH.; VAYNSHTEYN, B.I.; GOL'DIN, V.A.; KOCHESHKOV, K.A.; SYRKUS, N.P.; SHALYAPIN, N.K.; SHEVERDINA, N.I.

Determination of the optimum conditions for the reaction of radiation-chemical synthesis of dibutyltin dibromide. Zhur. fiz. khim. 38 no.10: 2445-2448 O '64. (MIRA 18:2)

1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova.

ALSHINBAYEV, M.R.; AMELIN, V.P.; ANDRIANOVA, O.V.; GASIYEV, Zh.; DEGRAF, G.A.; INKARBEKOV, A.B.; KOLOMYTSEV, I.V.; KOLTUSHKIN, I.S.; MALAKHOV, V.P.; MONASTYRSKIY, A.O.; REZNIKOV, B.N.; SAKHAROV, I.V.; SENNIK, V.K.; SOSNIN, V.A.; SURKO, V.I.; SURKOV, Ye.P.; SYRLYBAYEV, S.N.; USIKOV, N.V.; UCHAYEV, A.F.; SHESTOPALOV, Ye.V.; SHERMAN, R., red.; GOROKHOV, L., tekhn. red.

[Study manual for a machinery operator] Uchebnik-spravochnik mekhanizatora. Alma-Ata, Kazsel'khozgiz, 1963. 326 p. (MIRA 16:12)

1. Alma-Ata, Kazakhskiy gosudarstvennyy sel'skokhozyaystvennyy institut. Fakul'tet mekhanizatsii. 2. Sotrudniki fakul'teta mekhanizatsii Kazakhskogo gosudarstvennogo sel'skokhozyaystvennogo instituta (for all ecxept Sherman, Gorokhov). (Agricultural machinery)

SYRLYBAYEVA, M.N.

S

USSR / Human and Animal Morphology (Normal and Pathological).
Lymphatic System.

Abs Jour : Ref Zhur - Biol, No 21, 1958, No 97119

Author : Syrlybayeva, M.N.
Inst : Not given
Title : On the Topography of the Lymphatic System of the Serous Membranes of the Human Heart.

Orig Pub : Zdravookhr. Kazakhstana, 1958, No. 4, 54-62

Abstract : 75 complexes of the organs of the thoracic cavity of humans in the ages from 15-80 years were studied. It was shown that in serous membranes of the heart there is a dense, in some places single and in others double, network of lymph vessels (LV). Anastamoses are discovered between both networks of LV along the entire length of the epicardium (E) and pericardium (P). From the network of LV of E and P, efferent valvular and non-valvular LV form. From E of the ventricles, the lymph

Card 1/2

56

ventricle are bifurcate, right and left tracheobronchial, and pretracheal conglomerates of LN. In E of auricles, LN do not exist. Regional LN for E of auricles are bifurcate and right tracheobronchial LN of the right and left pulmonary arteries, and LN on the walls of superior and inferior vena cava. From P, lymph flows out along numerous LV. Regional LN for P are LN, located along the tracheobronchial tree, as well as LN of the anterior and posterior mediastinum.

Card 2/2

GINZBURG, I.; SYRMAY, A.

Ways to reduce ship repair costs. Mor.flot 7 no.10:29-32 O '47. (MLRA 9:6)

(Ships--Maintenance and repair)(Merchant marine--Cost of operation)

SYRMAY, A.

PA 30T92

USSR/Ships - Construction Oct 1947
Shipbuilding

"Regulating the Organization of Production," A. Syrmay, Engr, 4½ pp

"Morskoy Flot" No 10

For a more orderly organization of production as the determining factor in normal production of a plant, the following measures must be considered: 1) classification of plants, 2) receiving and preparation of orders, 3) preparation of production, 4) graphic accounting of work, 5) operational planning.

LC 30T92

SYRMAY, A. 1A 1/49T30

USSR/Engineering Apr 48
Shipping--Development

"Notes on Russian Techniques," A. Syrmay, Engr, 4 pp

"Morskoy Flot" No 4

First of two articles dealing with Soviet shipping techniques. Presents brief historical account of important advances made by Soviet shipping during past 200 years.

FDB 1/49T30

SYRMAY, A.

TA 1/49T26

USSR/Engineering May 48
Shipping

"Notes on Russian Techniques," A. Syrmay, Engr, 7 pp

"Morskoy Flot" No 5

Conclusion of an article begun in issue No 4. Gives various improvements in shipping brought about by Russian effort.

FDB 1/49T26

SYRMAY, A.

Nov 48

USSR/Engineering
Ships, Repair
Ships, Repair Equipment

"Regulating Technological Discipline -- The Urgent Task of Ship Repair Enterprises," A. Syrmay, Engr, 4 pp

"Morskoy Flot" Vol VIII, No 11

Stresses importance of comprehensive preparation before making repairs on ships. Lists examples where operations had to be terminated due to inefficient pre-repair planning. Suggests greater use of advanced repair techniques.

33/49T53

FDB

SYRMAY, A.

SYRMAY, A.; OBERMEYSTER, A.

Some problems of improving the construction of sea-going vessels. (MLRA 7:5)
Mor.i rech.flot 14 no.4:17-20 Ap '54.
(Shipbuilding)

SYRMAY, A.

Operational speed of seagoing vessels. Mor. flot 16 no.7:4-9 Jl '56.
(MLRA 9:11)

1. Nauchnyy sotrudnik Instituta kompleksnykh transportnykh problem Akademii nauk SSSR.
(Merchant ships--Speed)

AUTHOR SYRMAY A. PA - 2734

TITLE Atomic Energy in Transport. (Institute for Complex Transport Problems, Academy of Sciences of the USSR)
(Atomnaya energiya na transporte.(v istitute kompleksnykh transportnykh problem AN SSSR) -Russian)

PERIODICAL Atomnaia Energiia, 1957, Vol 2, Nr 4, pp 395-395, (U.S.S.R.)
Received 5/1957 Reviewed 6/1957

ABSTRACT In 1955-56 this Institute began with the investigation of those problems which are connected with the construction of atomic power reactors for purposes of transpport. The most important problem here is the development of reactors which satisfy the aggravated conditions characterizing the field of transport. The above Institute carried out technological-economic computations on the appropriate computation of atomic ocean vessels with a tonnage of 10,000 to 12,000 tons for general freight and with a tonnage of 25,000 to 30,000 tons for oil and oil products. Two variations of atomic power reactors were investigated: steam turbines and gas turbines. A diagram shows the data of the net cost of the transport of oil and oil products for different types of power reactors-tanker with operation by oil (lubricating oil?), tankers with atomic drive and gas turbine with a performance degree (η) of the device of 0.3 to 0.4. At equal net costs of the transport, the speed of a tanker with gas-turbine atomic power reactor is almost twice as high than the speed of a steam-turbine tanker with operation by oil. If we have to select the method with the lowest net costs we see the following: The net costs for a ves-

Card 1/2

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Card 2/2

SYRMAY, A.G.. Prinimali uchastiye. ZHURILOV, V.I., mlad. nauchnyy sotr.; KANTOROVICH, Ya.B., kand. tekhn. nauk, retsenzent; VORONOV, Ye.K.,glav. ekonomist, retsenzent; OBERMEYSTER, A.M., otv. red.; DOBSHITS, M.L., red. izd-va; SUSHKOVA, L.A., tekhn. red.

[Method of deciding upon the running speed andcarrying capacity of seagoing vessels] Metodika obosnovaniia skorosti khoda i gruzopod"emnosti morskikh sudov. Moskva, Izd-vo Akad. nauk SSSR, 1961. 50 p. (MIRA 14:11)

1. Gosudarstvennyy proyektno-konstruktorskiy i nauchno-issledovatel'skiy institut morskogo transporta Ministerstva morskogo flota SSSR (for Voronov). 2. Institut kompleksnykh transportnykh problem AN SSSR (for Zhurilov).

(Naval architecture)

SYRMAY, A.G., nauchnyy sotr.; OBERMEYSTER, A.M., nauchnyy sotr.; BRONFMAN, A.I., nauchnyy sotr.; SHIMKO, K.N., kand. tekhn. nauk; PARAKHONSKIY, B.M., kand. ekon. nauk. Prinimali uchastiye: ZHURILOV, V.I., nauchnyy sotr.; ZUBKOV, M.I., nauchnyy sotr.; SHVARTS, G.L., nauchnyy sotr.; MIKHEYEV, A.P., doktor tekhn. nauk, prof., otv. red.; BYKOV, I.K., red. izd-va; DOROKHINA, I., tekhn. red.

[Water and air transportation in capitalist countries: trends in the development of equipment] Vodnyi i vozdushnyi transport kapitalisticheskikh stran; tendentsii razvitiia tekhnicheskikh sredstv. Moskva, Izd-vo Akad.nauk SSSR, 1961. 350 p. (MIRA 15:1)

1. Akademiya nauk SSSR. Institut kompleksnykh transportnykh problem.

(Merchant marine) (Aeronautics, Commercial)

S/193/61/000/003/007/009/
A004/A101

AUTHOR: Syrmay, A. G.

TITLE: New marine means of transportation and their development prospects

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 3, 1961, 59 - 61

TEXT: In his survey on naval transportation the author mentions the new hydrofoil crafts attaining a speed of 100 km/h. According to the author it is intended to build a considerable number of these craft carrying 100, 300 and 450 passengers. Moreover, he cites two new types of seacraft, transportation submarines and ships moving on an air cushion. He mentions that the former are better suited for the transportation of liquid cargos than surface crafts and points out that the latter are able to attain a speed of 200 km/h. Concerning fuel and power installations the author states that the future development can be divided into two stages. The first stage of about 10 years will see the fullconversion of all naval power installations to liquid fuel. During this period the most widespread type of marine power plant will be the two-stroke low-speed diesel engine with gas turbine pressure charging directly coupled to the propeller shafts and having a power of 20.000 - 25.000 hp each. The author presents some basic

Card 1/2

S/193/61/000/003/007/009
A004/A101

New marine means of transportation and their ...

technical data on small-dimensioned marine engines: cylindric power - 2.000 - 2.500 bhp; specific fuel consumption - 145 - 150 g/bhp.h; mean effective pressure - 9.5 - 10.5 kg/cm^2; relative weight - 40 - 50 kg/bhp; cylinder diameter - 800 - 900 mm; piston stroke - 1.700 - 1.800 mm; rpm - 110 - 115. According to the author steam-turbine power plants will be used only for power ranges exceeding 25.000 - 30.000 hp where they have certain advantages in comparison with diesel installations. Within the next five to ten years economical gas-turbine marine engines will be produced operating on liquid fuels or atomic propellants. Simultaneously prospective research work is being carried out in the field of direct conversion of chemical or atomic energy into electric power. The overall automation of navigation will make it possible to reduce the crew of ships considerably. The author states that the reconstruction of the naval transport fleet which will be carried out during the next years will make it possible to increase the tonnage of the tanker fleet by 30 - 35% and that of the dry-goods fleet by 45 - 50%, while the labor productivity of the floating stock will increase 2 - 2.5 times. [Abstractor's note: The whole article under the above-mentioned title runs from page 56 to 61. According to request the abstract comprises only the last three paragraphs of page 59 as well as page 60 and 61]. There is 1 figure.

Card 2/2

YERMAKOV, Andrey Pavlovich; SYRMAY, Anatoliy Germanovich; KLYAUS, Ye.M., red.izd-va; POLENOVA, T.V., tekhn.red.

[Atomic energy and transportation] Atomnaia energiia i transport. Moskva, Izd-vo AN SSSR, 1963. 149 p. (MIRA 16:11)

(Transportation, Atomic-powered)

STARSHOV, I.M.; SYRMOLAYEVA, G.P.

Catalytic effect of metals on coking in the pyrolysis of propane. Nefteper. i neftekhim. no.2:26-29 '64. (MIRA 17:8)

1. Kazanskiy khimiko-tekhnologicheskiy institut im. S.M. Kirova.

COUNTRY : ROMANIA
CATEGORY :

ABS. JOUR. : RZBiol., No. 3 1959, No. 10195

AUTHOR : Syrmon, E., Marica, D., Deac, I.
INST. : ---
TITLE : The Finding of R-Forms of Streptococci in Strangles of Horses

ORIG. PUB. : Probl. zootehn. Si veterin., 1958, No 4, 30-33

ABSTRACT : No abstract.

CARD: 1/1

F

Syrmus, T. Series with unbounded partial sums in the summability field of a matrix method. Uč. Zap. Tartu. Gos. Univ. 42 (1956), 143–151 (Estonian. Russian summary)

The following theorem is known [Mazur and Orlicz, C. R. Acad. Sci. Paris 196 (1933), 32–34; Studia Math. 14 (1954), 129–160; MR 16, 814; K. Zeller, Math. Z. 53 (1951), 463–487; MR 12, 604]: (i) A conservative matrix method (*) $\lim_n \sum_k a_{nk}x_k$ (sequence-to-sequence-transformation) sums an unbounded sequence if it sums a bounded divergent sequence. One cannot immediately carry over (i) to methods (**) $\sum_n \sum_k a_{nkl}u_k$ (series-to-series-transformation), since not every method (**) corresponds to a method (*) [see, e.g., Rechard, Proc. Amer. Math. Soc. 2 (1951), 730–731; MR 13, 339]. The author considers the summability field of (**) and certain subdomains of it as FK-spaces and gives representations of continuous linear functionals in these spaces. In this way he proves the truth of (i) and certain extensions for methods (**). *K. Zeller* (Tübingen).

SYRMUS, T. [Sõrmus, T.]

Some generalizations of Mercer's theorem for double sequences. Eesti tead.akad.tehn.füüs. no.1:37-49 '62.

1. Tartuskiy gosudarstvennyy universitet.

SYRMUS, T. [Sormus, T.]

A generalized Mercerian theorem. Eesti tead akad tehn fuus 11 no.2:99-106 '62.

1. Tartuskiy gosudarstvennyy universitet.