S/044/61/000/007/032/055
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AUTHORS: Pavlov, A.A., and Poputsillo, V.P.

TITLE: The calculation of the simplest optimal relay systems of second order

PERIODICAL: Referativnyy zhurnal. Matematika, no. 7, 1961, 68, abstract 7 B 312. ("Avtomat. upr. i vychisl. tekhn." vyp 3, M., Mashgiz, 1960, 419-444)

TEXT: The authors consider the problem of the determination of the optimal law of control and the determination of the structure of the optimal controlling part of a system of automatic control.

[Abstracter's note : Complete translation.]

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Card 1/1

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D201/D303

AUTHORS: Pavlov, A.A. and Poputsillo, V.P.

TITLE: Design of simple optimal second-order relay systems

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 5, 1961, 30-31, abstract 5 V259 (V sb. Avtomat. upr. i vychisl. tekhn. no. 3, M., Mashgiz, 1960, 419-444)

TEXT: Optimal relay automatic control systems of the second order are considered. The systems have various linear parts and are described by degenerate ordinary differential equations of the second order with constant coefficients. The relay element is assumed to be ideal. First an optimum relay control system (RCS) is considered, whose linear part represents integrating circuits connected in series. The second example - an optimal RCS with the linear part being a series connection of an aperiodic and integrating circuit.

Card 1/2

Poputsilli, V.P.

PHASE I BOOK EXPLOITATION SOV/4275

Avtomaticheskoye upravleniye i vychislitel'naya tekhnika, vyp. 3 (Automatic Control and Computer Techniques, No. 3) Moscow, Mashgiz, 1960. 489 p. Errata slip inserted. 7,000 copies printed.

Ed. of Publishing House: G.F. Polyakov; Tech. Ed.: T.F. Sokolova; Managing Ed. for Literature on Machine Building and Instrument Making (Mashgiz): N.V. Pokrovskiy, Engineer; Editorial Board: V.V. Solodovnikov, Doctor of Technical Sciences, Professor (Chairman), N.N. Bogolyubov, Academician, A.Yu. Ishlinskiy, Academician, Ukrainian SSR, V.V. Kazakevich, Doctor of Technical Sciences, Professor (Deputy Chairman), A.A. Lyapunov, Doctor of Physics and Mathematics, Professor, B.N. Petrov, Corresponding Member, Academy of Sciences USSR, Ye.P. Popov, Doctor of Technical Sciences, Professor, G.S. Pospelov, Doctor of Techical Sciences, Professor, B.A. Ryabov, Doctor of Technical Sciences, Professor, B.V. Anisimov, Candidate of Technical Sciences, Docent, V.V. Petrov, Doctor of Technical Sciences, Docent, V.N. Plotnikov, Candidate of Technical Sciences, Docent (Scientific Secretary), V.B. Ushakov, Doctor of Technical Sciences.

PURPOSE: This book is intended for scientific workers, engineers, and aspirants working in the field of automatic control.

COVERAGE: The book is the third collection of reports read at the seminar on automatic control and computer engineering of the NTO priborostroyeniya (Scientific and Technical Society for Instrument Making), the MVTU im. Baumana (Moscow Higher Technical School imeni Bauman), and the MAI im. Ordzhonikidze (Moscow "Order of Lenin" Aviation Institute imeni Ordzhonikidze). It contains papers on current topics in automatic control and computer engineering which, according to the author, are significant for the solution of problems involved in the complex automation of industrial processes by means of control machines and includes discussion of the design of linear and nonlinear automatic control systems. The book covers some questions related to the dynamics of such systems, ways of increasing operational speed, and means of obtaining optimum transient processes. Automatic control systems involving discrete computers, systems with variable parameters, sampled-data control systems, the dynamic accuracy of these systems during random motions, and the theory of sampled-data systems are discussed. No personalities are mentioned. References are found at the end of each article.

AVAILABLE: Library of Congress

Card 4/4

AC/rb/afm
9/21/60

PAVLOV, A.A.; POPUTSILLO, V.P.

Calculation of simple optimum relay systems of the second order.
Avtom. upr. i vych. tekh. no.3:419-444 '60. (MIRA 13:11)
(Automatic control)

GRADOVA, M.G.; POPUT'YEVA, Z.V.; SHOKINA, N.I.

Some characteristics of the clinical aspects and the content of DNA and RNA in the leucocytes during leukemia in children. Vop. gemat. v pediat. no.3:300-309 '64.

Content of desoxyribonucleic and ribonucleic acids in the leucocytes of the peripheral blood in children with hemorrhagic diseases and anemia. Ibid.:390-397

Nucleic acids in blood leucocytes in lymphogranulomatosis and some tumors in children. Ibid.:425-432

(MIRA 18:7)

VENCLIK, Hynek; POPUZNIK, Vladislav

Bacterial flora and its significance in the postoperative course after tympanoplasty. Cesk. otolar. 9 no.3:138-142 Je '60.

1. Otolaryngol. oddel., prednosta MUDr. H. Venclik; Mikrobiologicke oddel., prednosta MUDr. Vl. Potuznik KUNZ, Ceske Budejovice.
(OTOSCLEROSIS surg.)
(OTITIS MEDIA surg.)

POPV, A.A., gornyy inzh.; SHEMETOV, Ye.A., kand.tekhn.nauk

Expedient method for the drainage of the Nikopol' deposit open pit mining areas. Gor. zhur. no. 6:5-8 Je '61. (MIRA 14:6)

1. Trest Nikopol'-Marganets (for Popov). 2. Khar'kovskiy gornyy institut (for Shemetov).
(Nikopol' region (Ukraine)--Manganese mines and mining))

POPV, Petur

Possibilities of applying heptachlor preparation to the pests of cultivated crops. Selskostop nauka [2] no. 2: 216-222 '63.

POPV, P

The youngest fox hunters. Radio i televiziia 13 no.8:226 '64.

KUZIVANOV, V.A.; POPV, Ye.I.

Working up readings of overdamped gravimeters in measurements made at sea. Prikl. geofiz. no.29:157-167 '61. (MIRA 14:6)
(Gravimetry)

POPVASILEV, I.

An unusual supravital motor reaction of the platysma. Nauch. tr. vissh. med. inst. Sofiia 43 no.3:83-85 '64.

1. Chair of Forensic Medicine (Director: Prof. M. Markov), Higher Medical Institute, Sofia.

FALK, Kh.; POPVASILEV, Iv.

Haptoglobins and a technic for their determination. Suvr. med. 12 no.10:85-92 '61.

1. Iz Instituta po sudebna meditsina na Khumboltoviia universitet - Berlin (Direktor prof. d-r med. O. Prokov).
(HAPTOGLOBINS)

POPVASILEV, Iv.G.

Plant agglutinins (phytagglurinins) in theory and practice.
Sŭvr. med. (Sofiia) 16 no.2:106-115 '65.

1. VMI, Sofiia, Katedra po sudebna meditsina (rukovoditel: prof. M. Markov). Submitted April 1964.

POPVASILEV, Iv. G.

A newborn infant buried alive for 13 hours. Suvr. med. (Sofiia) 16 no.10:612-613 '65

1. Katedra po sudebna meditsina, Vissh meditsinski institut Sofiia (rukovoditel - prof. M. Markov).

IOAN, Viorica; POPVICI, Margareta; MOSANU, Elena; ELIAN, M.; NENITESCU, C.D.

Syntheses of ketones with a tricyclic skeleton containing the cyclopropane ring. Studii cerc chim 14 no.2:171-178 F '65.

1. Institute of Organic Chemistry, Rumanian Academy, Bucharest.
Submitted November 17, 1964.

NOVOSELOVA, A.V.; PASHINKIN, A.S.; POPVKIN, B.A.

Behavior of selenium admixture during vacuum distillation of tellurium. Zhur. neorg. khim. 3 no.9:2211-2212 S '58.
(MIRA 11:10)

(Tellurium) (Selenium) (Distillation, Fractional)

POPWICZ, J.

POLAND / Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 906.

Author : Sikorska-Tomicka, H., Popwicz, J., Czerepko, K.
Inst : Not given.
Title : A New Method for Chromatographic Detection of Bi^{3+}, Pb^{2+}, Cu^{2+}, and Hg^{2+}.

Orig Pub: Chem. analit., 1957, 2, No 3, 262-265.

Abstract: For the detection of Bi^{3+}, Pb^{2+}, Cu^{2+} and Hg^{2+}, a strip of filter paper ~20 cm. in length is inserted into a hermetic chamber and one end is immersed into a solution containing a mixture of propanol, 2 N HNO_3 and caprolactam (60:39:1), and is chromatographed for 3 hours. The paper is then dried in air, immersed in a solution coloring reagent (2 grams KI, 5 grams caprolactam and 0.5 grams NaH_2PO_2

Card 1/2

POPWICZ, O.

The calculation of cages by the Cross method. p.147.

(PRZEGLAD GORNICZY. Vol. 13, No. 3, Mar. 1957. Warszawa, Poland)

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

SERGEYEV, A.V., dots.; POPYALKOVSKIY, V.I., inzh., retsenzent; STRUZHESTRAKH, Ye.I., inzh., red.

[Establishment of technical norms for work in machine shops] Tekhnicheskoe normirovanie truda v mekhanicheskikh tsekhakh. Izd.3., perer. i dop. Moskva, Izd-vo "Mashinostroenie," 1964. 310 p. (MIRA 17:5)

1. KULAGIN, P.I., POPYALKOVSKIY, V.I., Eng.

2. USSR (600)

4. Lathes

7. Work of the lathe operator and Stalin prize winner. Vest mash No. 11 1952.

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

POPYALKOVSKIY, Yu. K.

AUTHOR: Popyalkovskiy, Yu. K., 32-2-48/60

TITLE: Preparation of Samples by Means of an Ultracentrifuge (Prigotovleniye obraztsov s pomoshch'yu supertsentrifugi)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 239-240 (USSR)
Received: April 6, 1958

ABSTRACT: It was stated that it is much easier to investigate test samples by an electron microscope (Э М-3) it they were centrifuged previously, especially by an ultracentrifuge with 20000 revs per minute. In this way the single particles of the preparation (a suspension) are more separated from oneanother and better distributed on the microscope slide. This method was also employed for the preparation of samples for electronographical analyses. The investigation of $PbCO_3$ samples showed that the most favorable conditions for the formation of an electron diffraction at the microscope slide are given with a close distribution of the particles in one layer. That shows that a coagulation of particles which implies the application and dessiccation of the drop of suspension not centrifuged can be avioded. There are 3 figures, and 2 Slavic references.

Card 1/2

Preparation of Samples by Means of an Ultracentrifuge. 32-2-48/60

ASSOCIATION: Irkutsk State Scientific Research Institute (Irkutskiy gosudarstvennyy nauchno-issledovatel'skiy institut)

AVAILABLE: Library of Congress

1. Ultracentrifuges-Applications 2. Electron microscopes-Equipment

Card 2/2

POPYALKOVSKIY, Yu.K. (Irkutsk)

Machanism of separation in a flat condenser. Izv. AN SSSR. Otd. tekh. nauk. Met. i topl. no.3:123-124 My-Je '62. (MIRA 15:6)
(Electrostatic separators)

5(4),9(6) SOV/32-25-2-60/78

AUTHOR: Popyalkovskiy, Yu. K.

TITLE: The Use of Electrophoresis in the Manufacture of Samples for Electron Microscopy (Ispol'zovaniye elektroforeza pri prigotovlenii obraztsov dlya elektronnoy mikroskopii)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 2, p 238 (USSR)

ABSTRACT: A method for the manufacture of samples for electron microscopic investigations of suspensions and colloid solutions has been developed. By means of electrophoresis preparations with an even particle distribution can be obtained. A trough (Fig) with metal plate electrodes on either side is used, in the center of which, i.e. between the electrodes, there is a colloid base on which the particles are deposited. As soon as an electric current passes through the colloid solution filled into the trough the colloid particles deposit in an even layer on the colloid lamina mentioned above. The thickness of the deposit depends on the voltage and the time. In this way the samples can be produced in a very short time, e.g. in the case of a concentration in the dispersed phase of 20 mg/l and a voltage of 10 V/cm the process takes as little as 2-3 minutes.

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'The Use of Electrophoresis in the Manufacture of Samples for Electron Microscopy

SOV/32-25-2-60/78

The most reliable results were obtained in the precipitation of hydrophobic particles. There is 1 figure.

ASSOCIATION: Irkutskiy gosudarstvennyy nauchno-issledovatel'skiy institut redkikh metallov (Irkutsk State Scientific Research Institute of Rare Metals)

Card 2/2

KRUTOV, Vitaliy Ivanovich; POPYK, K.G., kand. tekhn. nauk, retsenzent; YELISEYEV, M.S., inzh., red.; MODEL', B.I., tekhn. red.

[Automatic control of internal combustion engines] Avtomaticheskoe regulirovanie dvigatelei vnutrennego sgoraniia. 2., dop. i ispr. izd. Moskva, Mashgiz, 1963. 623 p. (MIRA 16:7)
(Internal combustion engines)
(Automatic control)

LENIN, I.M., prof., doktor tekhn. nauk; POPYK, K.G., dotsent, kand. tekhn. nauk

Review of the textbook "Internal combustion engines" in three volumes. Energomashinostroenie 11 no.4:45-46 Ap '65. (MIRA 18:6)

1. Zaveduyushchiy kafedroy "Avtomobil'nyye i transportnyye dvigateli' Moskovskogo avtomekhanicheskogo instituta (for Lenin).

POPYK, K.G.; SHFRINK, B.E., prof., retsenzent

[Dynamics of motor-vehicle and tractor engines] Dinamika avtomobil'nykh i traktornykh dvigatelei. Moskva, Mashinostroenie, 1965. 257 p. (MIRA 18:7)

KRUTOV, Vitaliy Ivanovich; AYZERMAN, M.A., doktor tekhn. nauk, retsenzent; POPYK, K.G., kand. tekhn. nauk, retsenzent; MELEKHOV, A.S., inzh., red.; GELLER, I.Yu., red. izd-va; MODEL', B.I., tekhn. red.

[Automatic control of internal combustion engines] Avtomaticheskoe regulirovanie dvigatelei vnutrennego sgoraniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 344 p.
(Gas and oil engines) (Automatic control) (MIRA 11:10)

IVANOVSKIY, G.A.; POPYREVA, M.V.; SEREBRENNIKOVA, A.A.

Results of tissue therapy in diseases of the nervous system. Zhur.nevr.i psikh. 53 no.10:804-809 O '53. (MLRA 6:10)

1. Klinika nervnykh bolezney i neyrokhirurgii Sverdlovskogo meditsinskogo instituta. (Nervous system--Diseases) (Tissue extracts)

POPYREVA-GORELYSHEVA, M. V.: Master Med Sci (diss) -- "The clinical-morphological comparison of certain tumors of the cerebellum and the fourth ventricle". Sverdlovsk, 1959. 19 pp (Sverdlovsk State Med Inst), 150 copies (KL, No 13, 1959, 112)

ZAYTSEV, Vikentiy Petrovich, kand. tekhn. nauk, dots.; NITOCHKIN, Aleksandr Yefimovich, inzh.; POPYRIN, Ivan Andreyevich, inzh.; SURVILLO, Vladimir Lyudvigovich, doktor tekhn. nauk, prof.[deceased]; KAN, A.V., inzh., retsenzent; TERENT'YEV, G.B., kand. tekhn. nauk, retsenzent; KAZAROV, Yu.S., red.; YUDINTSEV, A.F., red.; CHISTYAKOVA, R.K., tekhn. red.; SHISHKOVA, L.M., tekhn. red.

[Refrigerator ships] Refrizheratornye suda. [By] V.P.Zaitsev i dr. Leningrad, Sudpromgiz, 1963. 523 p. (MIRA 16:6)
(Refrigerator ships)

POPYRIN, L.S., kand.tekhn.nauk; YEFIMOV, N.T., inzh.; TARANOV, A.G., inzh.; YEFIMOVA, I.S., inzh.

Selection of optimum design paramters and networks for connecting regenerative heaters of large condensing electric power plants. Elek.sta. 34 no.2:20-26 F '63. (MIRA 16:4)
(Boilers) (Steam power plants)

POPYRIN, L.S., kand. tekhn. nauk

Concerning the expediency of manufacturing single-shaft 500 Mw. turbines. Elek. sta. 32 no.1:24-27 Ja '61. (MIRA 16:7)

(Steam turbines)

POPRIN, L.S., kand. tekhn. nauk; KAPLUN, S.M., inzh.

Principles of the overall optimization of the shape of a thermal electric power plant based on mathematical programming with electronic computers. Teploenergetika 12 no.8:52-58 Ag '65. (MIRA 18:9)

1. Energeticheskiy institut Sibirskogo otdeleniya AN SSSR.

POPYRIN, L.S., kand.tekhn.nauk; MEKIBEL', A.I., inzh.; YEFIMOV, N.T., inzh.

Selecting the initial parameters of high-capacity condensation type electric power plants for regions with cheap fuel. Teploenergetika 8 no.12:13-16 D '61. (MIRA 14:12)

1. Transportno-energeticheskiy institut Sibirskogo otdeleniya AN SSSR.

(Electric power plants)

POPYRIN, L.S., kand. tekhn. nauk; PSHENICHNOV, N.N., inzh.

Determination of the optimum values of finite parameters and their characteristics of the condensing system of the K-500-240 hydraulic turbine-generator unit using electronic computers. Elek. sta. 35 no.8:21-27 Ag '64. (MIRA 17:12)

POPYRIN, L.S., kand. tekhn. nauk; KARPOV, V.G., inzh.; PSHENICHNOV, N.N.; VOYTSEKHOVSKAYA, G.V.

Use of digital computers in the choice of optimum finite parameters of large condensing turbine systems. Teploenergetika 10 no.12:26-33 D '63. (MIRA 17:8)

1. Energeticheskiy institut Sibirskogo otdeleniya AN SSSR.

POPYRIN, L.S.

Selecting optimal terminal parameters and unit capacities for turbines of major condensing electric power plants in central Siberia. Izv.Sib.Otd.An SSSR no.2:3-10 '61 (MIRA 14:3)

1. Transportno-energeticheskiy institut Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Siberia—Electric power plants)

POPYRIN, L. S., Candidate Tech Sci (diss) --- "The selection of the optimal end parameters for large condensation electric-power stations". Moscow, 1959. 15 pp (Acad Sci USSR, Power Engineering Inst im G. M. Krzhizhanovskiy), 150 copies (KL, No 24, 1959, 140)

STYRIKOVICH, M.A.; MATVEYEV, G.A. , doktor tekhn.nauk; POPYRIN, L.S., inzh.

Selecting the optimum unit power for single-shaft and double-shaft turbines. Teploenergetika 6 no.4:31-38 Ap '59. (MIRA 12:3)

1. Chlen-korrespondent AN SSSR (for Styrikovich). 2. Energeticheskiy institut AN SSSR.

(Steam turbines)

STYRIKOVICH, M.A.; MATVEYEV, G.A., doktor tekhn. nauk; POPYRIN, L.S., inzh.

Selecting the end pressure and passage cross sections for the last stages of high-capacity steam turbines. Elek. sta. 30 no.3:34-40 Mr '59. (MIRA 12:5)

1.Chlen-korrespondent AN SSSR (for Styrikovich).
(Steam turbines)

POPYRIN, L. S.

Selecting final parameters for large condensing turbines. Izv. Sib. otd. AN SSSR no.8:38-45 '60. (MIRA 13:9)

1. Transportno-energeticheskiy institut Sibirskogo otdeleniya AN SSSR.

(Steam turbines)

POPYRIN, L.S., kand.tekhn.nauk; PCHENICHNOV, N.N., inzh.

Selection of optimal cross sectio dimensions of the exhaust system and low-pressure units of large condensing turbine units. Teploenergetika 12 no.1:30-35 Ja '65.

(MIRA 18:4)

1. Energeticheskiy institut Sibirskogo otdeleniya AN SSSR.

POPYRIN, L.S. (Irkutsk); KAPLUN, S.M. (Irkutsk)

Overall optimization of the parameters of thermal electric power plants. Izv. AN SSSR. Energ. i transp. no.5:602-619 S-O '64. (MIRA 17:12)

PORYRIN, L.[illegible]; KAPLUN, [illegible]

Methods [illegible] thermal [illegible] of equipment and the nature [illegible] thermal network [illegible] on mathematical modeling and the use of electronic calculating [illegible]. Izv. AN SSSR.Energ. i transp. no.1:50-[illegible] Jan-F '65. (MIRA 18:4)

POPYRIN, L.S. (Irkutsk); KAPLUN, S.M. (Irkutsk); DIRBA, D.A. (Irkutsk)

Algorithm for the optimization of the parameters of thermal power systems. Izv. AN SSSR. Energ. i transp. no.3:96-104 My-Je '65. (MIRA 18:12)

1. Submitted February 1, 1965.

ROSHCHIN, A.M.; KAPLUN, S.M.; POPYRIN, L.S.

Problems in determining hydrodynamic parameters of water and water vapor conditions in calculating with eoectronic computers. Izv. SO AN SSSR no.6. Ser. tekh. nauk no.2:72-79 '65.
(MIRA 18:11)

1. Irkutskiy energeticheskiy institut Sibirskogo otdeleniya AN SSSR.

SOV/96-58-11-7/21

AUTHOR: Styrikovich, M.A., Corresponding Member of the Academy of Sciences USSR
Matveyev, G.A., Doctor of Technical Science
Popyrin, L.S., Engineer

TITLE: The Selection of End Pressure (Vacuum) for Large Regional Electric Power Stations (Vybor konechnogo davleniya dlya GRES bol'shoy moshchnosti)

PERIODICAL: Teploenergetika 1958, Nr 11, pp 42-46 (USSR)

ABSTRACT: In designing large power stations it is not usual to make individual prescriptions for the technical and economic features of the condensing equipment and water-supply systems. On the contrary, to secure the greatest possible standardisation, the turbine manufacturers make a single type of condenser for a given type of turbine. As will be seen from Table 1, all Soviet turbines now produced or projected are intended for a vacuum of 0.03 - 0.035 atm and have condensers with a specific steam loading in the range 35 - 46 kg/m^2hr. The power station water-supply is designed in accordance with the manufacturer's data on the

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The Selection of End Pressure (Vacuum) for Large Regional Electric Power Stations

condensers. This leads to irrational results; in a number of large power stations with turbines of 200 MW located in various climatic regions and burning fuels of different costs, identical condensers are used as observed in Table 2. The turbine manufacturers should now provide a range of condenser sizes for each type of turbine. Fuel costs are particularly important in this matter since they may range from 140 roubles per ton in the European part of the country to 10 roubles per ton in Siberia. Local climatic conditions and, therefore, cooling-water temperature, vary widely. Cooling-water conditions are at present simply taken from an All-Union standard. Determination of the vacuum from the annual mean cooling-water temperature gives rise to considerable error and it would be better to use monthly mean figures. The conditions that should be assumed for technical and economic

 calculations on condensers are then discussed. In

The Selection of End Pressure (Vacuum) for Large Regional Electric Power Stations

determining the power consumption of circulating pumps, allowance is made for a considerable reduction in output during the winter season. Fig.2. graphs the relationship between power expenditure on circulation-pump drive and power loss in the turbine resulting from impaired vacuum for three different climatic regions of the country. The method of making economic comparisons between different types of condensing conditions is explained. Replacement and repair costs for two variants are compared in table 3. A graph showing various condenser characteristics as a function of fuel cost and cooling-water temperature is given in Fig.3. The increased useful output of electricity as a function of the cooling-water temperature and fuel costs is seen in Fig.4. The results of calculations of the best water-velocity in the condenser are plotted in Fig.5. The following conclusions are drawn from the calculations. The optimum vacuum in the condenser of a turbine type PVK-200 depends considerably on the cooling-water

The Selection of End Pressure (Vacuum) for Large Regional Electric Power Stations

temperature and the price of fuel; it ranges from 0.025 atm for a cooling-water temperature of 6 °C and expensive fuel to 0.45 atm for 15 °C and cheap fuel. The standard condenser supplied by the Leningrad Metal Works for turbine type PVK-200 does not permit the greatest economy to be obtained particularly in southern regions or where fuel is expensive. A further two or three types of condenser should be designed for this turbine and characteristics are recommended. Various other recommendations of the same kind are made about condenser design. There are 5 figures, 3 tables and 2 literature references both of which are Soviet.

ASSOCIATION: Energeticheskiy institut AN SSSR (Power Institute, Academy of Sciences, USSR)

STYRIKOVICH, M.A.; MATVEYEV, G.A., doktor tekhn. nauk; POPYRIN, L.S., inzh.

Selecting the final pressure for state-owned high-capacity regional electric power plants[with summary in English]. Teploenergetika 5 no.11:42-46 N '58. (MIRA 11:11)

1. Energeticheskiy institut AN SSSR. 2. Chlen-korrespondent AN SSSR (for Styrikovich).
(Electric power plants)

SOV/96-59-4-6/21

AUTHORS: Styrikovich, M.A., Corresponding Member of the Academy of Sciences of the USSR,
Matveyev, G.A., Doctor of Technical Sciences and
Popyrin, I.S., Engineer

TITLE: Selection of the Best Unit Outputs for Single and Two-shaft Turbines (Vybor optimal'nykh yedinichnykh moshchnostey odnoval'nykh i dvukhval'nykh turbin)

PERIODICAL: Teplcenergetika, 1959, Nr 4, pp 31-38 (USSR)

ABSTRACT: The advantages of using very large turbines are first discussed. The problem then arises of when to make them with one and when with two shafts. The common Soviet practice of making single shaft turbines of up to 400 MW with a minimum number of exhausts does not adequately take account of actual operating conditions in the majority of regions of the Soviet Union. The maximum output that can be obtained from a single exhaust condensing turbine with given initial steam conditions and regenerated cycle is governed by the flow of steam through the section of the last stage of the turbine. In the next few years the turbine manufacturers will use last blades 940 mm long at 3,000 rpm which give an outlet

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Selection of the Best Unit Outputs for Single and Two-shaft Turbines

area of 7.3 sq m. Further increase in the total exhaust section and consequently in the turbine output can be obtained by subdividing the steam flow in the last stages of the turbine. There are two practical ways of doing this: either by increasing the number of exhausts to three or four for a single shaft turbine or by using two shaft turbines. The advantages of these approaches are considered in relation to normal cooling water temperatures. The influence of fuel cost on the best size of turbine is also considered. Technical and economic calculations were made for a turbine type PVK-200 in the five variants illustrated in Fig.1 in order to determine the best final steam conditions and the best value of loading of the exhaust section of the last stage. The first variant uses a single shaft, the second and third use two shafts each running at 3,000 rpm with 6 and 8 exhausts respectively. The fourth and fifth variants are two shaft sets running at different speeds.

Card 2/4 Curves showing the variation in output of these variants

Selection of the Best Unit Outputs for Single and Two-shaft Turbines

as the pressure in the condenser is altered are given in Fig.2. The factors that were taken into account in the calculation are described, they include the cost of the turbine, the cost of the generator and the cost of the foundations. These cost data are collected together in table 1. The construction and operating costs are compared using eq.4 with a pay-off time of ten years. Efficiency and output curves for the different variants are given in Fig.4. When the final steam conditions that have been adopted for currently produced and proposed future sets, which are given in table 2, are compared with the optimum values, see Fig.3, it will be found that the turbines of the Leningrad and Khar'kov Works cover a very narrow range of variation of the magnitudes that govern the final steam conditions and this reduces the efficiency of power stations using these turbines because insufficient attention is paid to actual operating conditions. Curves relating the best limiting output of a single shaft turbine with the price of fuel and the cooling water temperature are given in Fig.5. It is seen that in a number of regions of the Soviet Union the

Selection of the Best Unit Outputs for Single and Two-shaft Turbines

limiting output of a single shaft turbine ranges as follows: 200 - 250 MW for the South-West and Central European part and 350 - 400 MW for Siberia and the South. The best limiting output for two shaft turbines with various total exhaust areas, fuel prices and cooling water temperatures are given in Fig.6. It will be seen from this figure that in different regions of the Soviet Union the best maximum output of a two-shaft turbine varies over a wide range or, to put it another way, for a turbine of a given output the total exhaust area of the last stages should vary over a wide range to suit different conditions. There are 6 figures, 2 tables and 1 Soviet reference.

ASSOCIATION: Energeticheskiy Institut AN SSSR (Power Institute Ac.Sc. USSR)

POPYRIN, L.S.; YEFIMOV, N.T.

Prospective initial parameters of steam in large condensation electric power plants of central Siberia. Izv.Sib.otd.AN SSSR no.12:3-13 '61. (MIRA 15:3)

1. Energeticheskiy institut Sibirskogo otdeleniya AN SSSR, Irkutsk.
(Siberia—Steam power plants)

STYRIKOVICH, M.A.; POPYRIN, L.S., kand.tekhn.nauk

Some remarks concerning the selection of the finite parameters of large LMZ condensing turbines of a new series. Teploenergetika 8 no.5:81-85 My '61. (MIRA 14:8)

1. Chlen-korrespondent AN SSSR (for Styrikovich).
(Steam turbines)

POPYRIN, L.S., kand.tekhn.nauk.

Practice of choosing the initial parameters of steam in electric power plants in foreign countries. Teploenergetika 10 no.2:88-89 F '63. (MIRA 16:2)

(Electric power plants)

LEVENTAL', G.B., kand. tekhn. nauk; POPYRIN, L.S., kand. tekhn. nauk;
MELENT'YEV, L.A.

Choice of the parameters of condensing electric power plants in accordance with district conditions. Teploenergetika 10 no.7:2-8 Jl '63. (MIRA 16:7)

1. Sibirskiy energeticheskiy institut Sibirskogo otdeleniya AN SSSR. 2. Chlen-korrespondent AN SSSR (for Melent'yev).
(Electric power plants)

POPYRIN, L.S., kand.tekhn.nauk

Use of single-shaft and double-shaft turbines abroad.
Teploenergetika 8 no.5:91-93 My '61. (MIRA 14:8)
(Turbines)

KUZNETSOV, Yu.A.; MAKAROV, A.A.; MELENT'YEV, L.A.; MERENKOV, A.P.; NEKRASOV, A.S.; TSVETKOV, N.I.; KUZNETSOV, Yu.A.; MAKAROVA, A.S.; KARPOV, V.G.; MANSUROV, Yu.V.; SYROV, Yu.P.; KHRILEV, L.S.; TSVETKOVA, L.A.; VOYTSEKHOVSKAYA, G.V.; YEFIMOV, N.T.; LEVENTAL', G.B.; KHANAYEV, V.A.; BELYAYEV, L.S.; GAMM, A.Z.; KARTELEV, B.G.; KRUMM, L.A.; LIOPO, T.N.; SVIRKUNOV, N.N.; DRUZHININ, I.P.; KONOVALENKO, Z.P.; KHAM'YANOVA, N.V.; SHVARTSBERG, A.I.; NIKONOV, A.P.; STARIKOV, L.A.; POPYRIN, L.S.; PSHENICHNOV, N.N.; TROSHINA, G.M.; CHEL'TSOV, M.B.; SVETLOV, K.S.; SUMAROKOV, S.V.; TAKAYSHVILI, M.K.; TOLMACHEVA, N.I.; KHASILEV, V.Ya.; KOSHELEV, A.A.; KUDINOVA, L.I., red.

[Methods for using electronic computers in the optimization of power engineering calculations] Metody primeneniia elektronno-vychislitel'nykh mashin pri optimizatsii energeticheskikh raschetov. Moskva, Nauka, 1964. 318 p. (MIRA 17:11)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Energeticheskiy institut. 2. Chlen-korrespondent AN SSSR (for Melent'yev).

L 35103-65

ACCESSION NR: AP5009727 UR/0104/64/000/008/0021/0027

AUTHOR: Popyrin, L. S. (Candiate of technical sciences); Pshenichnov, N. N. (Engineer) 15 13

TITLE: Determination of optimal values of the final parameters and characteristics of the condenser unit of the K-500-240 turbogenerator set with the aid of a computer

SOURCE: Elektricheskiye stantsii, no. 8, 1964, 21-27

TOPIC TAGS: steam turbine, steam auxiliary equipment, thermoelectric generator, computer/K-500-240 turbogenerator

ABSTRACT: The method of technico-economic determination of the optimal values of the final parameters of condenser units for steam turbines based on the use of electronic computers make possible more complete, rapid, and accurate consideration of a large number of interrelated operating factors. The results of calculations on the K-500-240 turbogenerator set give a rather complete picture of the characteristics and parameters of the condenser unit with reference to various conditions of turbogenerator operation in different parts of the SSSR. The plant variant of the condenser unit of

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L 35103-65

ACCESSION NR: AP5009727

the K-500-240 turbogenerator set is appropriate by virtue of its specifications for use in expensive-fuel regions, but not in cheap-fuel region, where the great majority of these units will be installed. The production of condensation equipment for the K-500-240 turbogenerator set with parameters determined for operating conditions in cheap-fuel regions will allow an improvement in the economy of the unit (a reduction of calculated expenditures by 28-50 thousand rubles per annum).

Orig. art. has: 4 graphs, 4 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EE, IE

NO REF SOV: 004 OTHER: 000 JPRS

Card 2/2

L 39726-65
ACCESSION NR: AP5007796 S/0281/65/000/001/0050/0061

17
B

AUTHOR: Popyrin, L. S.; Kaplun, S. M.

TITLE: Methods of selecting optimum designs of the equipment and type of the heat circuit for thermoelectric stations on the basis of mathematical modeling and the use of electronic computers

SOURCE: AN SSSR. Izvestiya. Energetika i transport, no. 1, 1965, 50-61

TOPIC TAGS: optimization, thermoelectric station, mathematical model, thermoelectric station design, heat circuit design, computer programming, algorithm

ABSTRACT: In a continuation of their previous work on the optimization of thermoelectric station design parameters, the authors discuss the principles for the mathematical modeling of individual units, aggregates and complete multi-unit thermoelectric installations for the optimization of design-component solutions and the form of the heat circuit. A method is considered for solving the problems, using an electronic computer, based on the combination of extremal methods of nonlinear mathematical programming and a combinational search of the best direction for the selection of an optimum variant. The solution algorithm,

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L 39726-65

ACCESSION NR: AP5007796

which is described at length, is concretized for the example of high-power steam-turbine electrostations. The authors conclude that the complex mathematical modeling of multi-unit thermoelectric installations in the form of algebraic functions of their parameters and characteristic external conditions permits the use of a single algorithm for the selection of the optimum profile by means of a computer program. The method suggested significantly reduces the number of intermediate steps in the optimization of the profile. Orig. art. has: 11 formulas, 1 table and 2 figures.

ASSOCIATION: None

SUBMITTED: 06Jul64 ENCL: 00 SUB CODE: DP, IE

NO REF SOV: 005 OTHER: 002

Card 2/2

POPYRIN, L.S., kand. tekhn. nauk

Methodology for the analytic determination of the optimum values of minimum temperature pressures of the regenerative heaters of large steam-turbine systems. Energomashinostroenie 10 no.8:4-11 Ag '64. (MIRA 17:11)

L 46116-66 EWT(d)/T/EWP(1) IJP(c)
ACC NR: AP6019734 SOURCE CODE: UR/0096/66/000/007/0072/0075

AUTHOR: Popyrin, L. S. (Candidate of technical sciences); Kaplun, G. M. (Engineer); Anishkova, A. G. (Engineer)

ORG: Power Engineering Institute SO AN SSSR (Energeticheskiy Institut SO AN SSSR)

TITLE: Mathematic model of a thermal power unit for complex analysis

SOURCE: Teploenergetika, no. 7, 1966, 72-75

TOPIC TAGS: mathematic model, thermal energy conversion, iteration, digital computer, steam turbine, thermoelectric power plant / BESM-2 digital computer

ABSTRACT: The authors discuss the procedures and results for setting up a mathematical model for thermal power installations based on promising steam turbine assemblies. The Seidel method is used for all computations. The final equation is the product of a whole system of assembly equations presented in vector form. This method may be used to study the thermal characteristics of a particular unit with respect to a large number of different units by logic coding. A universal program algorithm is set up with respect to the number of assemblies and their connections for choosing the type of assemblies or types of equation subsystems. The computations are verified on the BESM-2 digital computer. The results show a close correlation between systems

UDC: 62-501.72.621.311.22.001.57

Card 1/2

ACC NR: AP7005446 SOURCE CODE: UR/0281/66/000/005/0015/0025

POPYRIN, L. S. (Irkutsk); Kaplun, S. M. (Irkutsk); Anishkova, A. G. (Irkutsk)

"Optimization of the Make-up of Heating Surfaces in a Stream Generating Plant by Dynamic Programming Methods"

Izvestiya Akademii Nauk SSSR, Energetika i Transport, No. 5, 1966, pp. 15-25.

Abstract: The principles for optimization of the make-up of modern large steam generating plants are presented. Three algorithms are suggested which use the ideas of dynamic programming, and problems of their application in computerized calculation are analyzed. In analyzing the prospects for further development and application of algorithms to the solution of the problem of selection of optimal component heating surfaces of steam generating plants, the authors feel that the most important problems are: optimization of the design parameters of heating surfaces, and optimization of the number of heating surfaces. The algorithms presented in this article for optimization of the make-up of heating surfaces allow a rather strict determination of the problem of the expedient number of surfaces in a steam generating plant and of the design parameters of the surfaces to be used. The principles and algorithms presented in the article have been used in determination of the optimal component solutions of a steam generating plant to be used with a 1000 megawatt power unit, using two intermediate steam superheating stages. Orig. art. has: 3 figures and 5 formulas.

[JPRS: 39,568]

ORG: none / TOPIC TAGS: steam power plant, algorithm, dynamic programming

Card 1/1 SUB CODE: 10,12 / SUBM DATE: 21May66 / ORIG REF: 008 UDC: 621.180:001.24

AVVAKUMOV, V.A.; BAKIROV, K.Kh.; DEMCHUK, L.V.; IVANOV, Yu.A.; NEVOLIN, N.V.; POPYTALOV, D.I.; SHAKHIDZHANOV, Yu.S.; EVENTOV, Ya.S.

New data on the geology of the Aktyubinsk part of the Ural Mountains region and western Mugodzhar Hills and the outlook for oil and gas. Sov. geol. 3 no. 11:68-84 N '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut.
(Aktyubinsk Province--Geology)

POPYTALOV, D.I.

Geology of the Dzhusa fold in the Aktyubinsk area of the Ural Mountain region. Trudy VNIGNI no.34:128-131 '61. (MIRA 15:7)
(Aktyubinsk Province--Petroleum geology)
(Folds (Geology))

SUBBOTA, M.I.; GOLDIN, A.S.; POPYTALOV, D.I.

Upward migration of hydrocarbons and salts from deeper strata under conditions of slanting platform structures. Trudy VNIGNI no.11:24-52 '58. (MIRA 13:1)
(Tuymazy District--Petroleum geology)
(Geochemical prospecting)

POR, Bertalan

Trade unions and creative art. Munka 8 no.10:32 O '58.

POR, F. ; NEUBAUER, E. ; FILO, O.

"Effect of cedilanid and glutamic acid on the exchange of electrolytes in decompensated heart defects." p. 290.

CESKOSLOVENSKA FYSIOLOGIE. Praha, Czechoslovakia, Vol. 7, no. 3, May 1958.

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

POR, F.

P

COUNTRY : RUMANIA
CATEGORY : General and Specialized Zoology. Insects. Morphology

: RZhBiol., No. 22 1958, No. 100654

AUTHOR : Por, F.
INST. : Academy of the Rumanian People's Republic
TITLE : New Findings on the Comparative Morphology of the Dragonflies. I. Mastication Stomach of the Larvae of Certain Dragonflies
ORIG. PUB. : Bul. Stiint. Acad. RPR, Sec. Biol. si Stiinte Agric. Ser. Zool., 1957, Vol.9, No.2, 145-15?

ABSTRACT : For the large systematic groups of larvae of dragonfly special types of structure are characteristic; species and generic differences have also been noted. The latter are especially well demonstrated in Coenagrioninae and Aeschnidae, but are also evident in Lestinae and Gomphidae. This points to the possibility of using these characteristics for taxonomic purposes. It is proposed that Lestinae and Anisoptera, especially Aeschnidae, be classed as phylogenetically related. The mastication stomach of various species is described. Abstractor's note: the statement that these data of the

CARD: 1/2

POR,F. (Kosice, Fakultna nemocnica)

Objectives and tasks of pharmacotherapy in all branches of medicine. Cesk. gynek. 30 no.1:2-4 Mr'65.

POR, F

Ecologic study of the Copepoda population in the Sfanta-Ana and Mohos basin. In German. p. 147

Bucharest. Muzeul National de Istorie Naturala "Grigore Antipa." TRAVAUX. Bucuresti, Rumania. Vol. 1, 1957

Monthly list of East European Accessions (EEAI) LC Vol 8, No. 6, June 1959 Uncl.

POR, F.; NEUBAUER, E.; FILO, O.

The influence of cedilanid and glutamic acid on electrolyte metabolism in cardiac failure. Rev. Czech. M. 4 no.3:217-224 1958.

1. Department of Internal Medicine, Medical Faculty, Komensky University, and the Technical University, Kosice. Director: Doc. F. Por.

(GLUTAMATES, effects
electrolyte metab. in congestive heart failure)
(DIGITALIS, effects
lanatoside C on electrolyte metab. in congestive heart failure)
(CONGESTIVE HEART FAILURE, metabolism
electrolyte metab., eff. of glutamic acid & lanatoside C)
(ELECTROLYTES, metabolism
in congestive heart failure, eff. of glutamic acid & lanatoside C)

POR, F.; TAKAC, M.; GOMBOS, B.; ROZLOZNIK, J.; BENICKY, L.; TAKOCOVA, M.

Ventilation and hemodynamic indices in acute and chronic silicosis. Bratisl. lek. listy 43 no.4:219-225 '63.

1. Interna klinika Lek. fak. Univ. P.J. Safarika v Kosiciach, veduci prof. MUDr. F. Por, a oddelenie pre choroby z povolania pri Internej klinike Lek. fak. Univ. P.J. Safarika, veduci-ordinar MUDr. B. Gombos.
(SILICOSIS) (RESPIRATORY FUNCTION TESTS)
(THORACIC RADIOGRAPHY) (PULMONARY CIRCULATION)
(ELECTROCARDIOGRAPHY) (BALLISTOCARDIOGRAPHY)

POR, Fr.; STANCAKOVA, A.

Effect of a prolonged administration of small doses of estradiol benzoate on the excretion of corticosteroids. Cas.lek.cesk 100 no.4:115-119 27 Ja '61.

1. Interna klinika lekarskej fakulty University P. J. Safarika v Kosiciach, prednosta doc. dr. Frantisek Por.

(ADRENAL CORTEX HORMONES urine)
(ESTRADIOL pharmacol)

NEUBAUER, E.; POR, Fr.

Level of antidiuretic hormone in the blood of diabetes insipidus patients in liver disorders. Cas. lek. cesk. 98 no.32-33:1006-1008 14 Aug 59.

1. Interna klinika LFUK v Kosiciach, prednosta doc. dr. Fr. Por.
(DIABETES INSIPIDUS, compl.)
(LIVER DISEASES, compl.)
(VASOPRESSIN, blood)

NEUBAUER, E.; POR, Fr.; KLVANOVA, H.

Preliminary studies on the titration of the antidiuretic hormone in the blood serum of diabetes insipidus patients after the injection of novocaine. Cas. Lek. Cesk. 100 no.49:1541-1545 8 D '61.

1. Interna klinika lekarskej fakulty University P. J. Safarika v Kosiciach, prednosta doc. MUDr. Fr. Por.

(VASOPRESSIN blood) (DIABETES INSIPIDUS blood)
(PROCAINE pharmacol)

NEUBAUER, E.; POR, Fr.; KLVANOVA, H.

Antidiuretic hormone in the serum of diabetes insipidus patients following injection of novocain. Activ. nerv. sup. 4 no.3/4:388-393 '62.

1. Faculty of Medicine, P.J. Safarik University, Kosice.
(VASOPRESSIN) (PROCAINE) (DIABETES INSIPIDUS)

TOMA, V., PORA, A., acad.; MADAR, I.

Hormonal influence on the glucose incorporation in vitro in the white rat thymus. Studii cerc biol s. zool 17 no.1:53-55 '65.

1. Chair of Animal Physiology, "Babes-Bolyai" University, Cluj.
Submitted June 11, 1964.

P/061/62/000/009/001/001
D406/D307

AUTHOR: Pora, Aleksy, Captain

TITLE: The use of anti-aircraft guns against helicopters

PERIODICAL: Przegląd Wojsk Lądowych, no. 9, 1962, 57-60

TEXT: The present work was motivated by the general lack of rules regarding the use of anti-aircraft artillery against helicopters, with the exception of one manual which deals with small-caliber guns only. Helicopter motion is resolved into 3 cases: (a) flight at 0-30° to horizontal, (b) flight at 30-90° to horizontal, and (c) hovering, and the use of small and medium caliber guns is discussed.

Card 1/1

PORA, A.Ye.; PREKUP, O.

Study of excretory processes in fresh-water fishes. Report No.1: Effect of the volume of water on excretory processes in some fresh-water fishes. Vop.ikht. no.14:119-138 '60. (MIRA 13:8)

1. Kafedra fiziologii zhivotnykh Kluzhskogo universiteta im. Viktora Babesha, Rumyniya.
(Fishes--Physiology) (Excretion)

PORA, A.Ye.; PREKUP, O.

Study of excretory processes in fresh-water fishes. Report No.2: Effect of the environmental temperature on excretory processes in the common carp and crucian carp. Vop. ikht. no.15:138-147 '60. (MIRA 13:9)

1. Kafedra fiziologii zhivotnykh Kluzhskogo universiteta im. Viktora Babosha, Rumyniya.
(Temperature--Physiological effect) (Excretion)
(Carp)

PORA, A.Ye.; PREKUP, O.

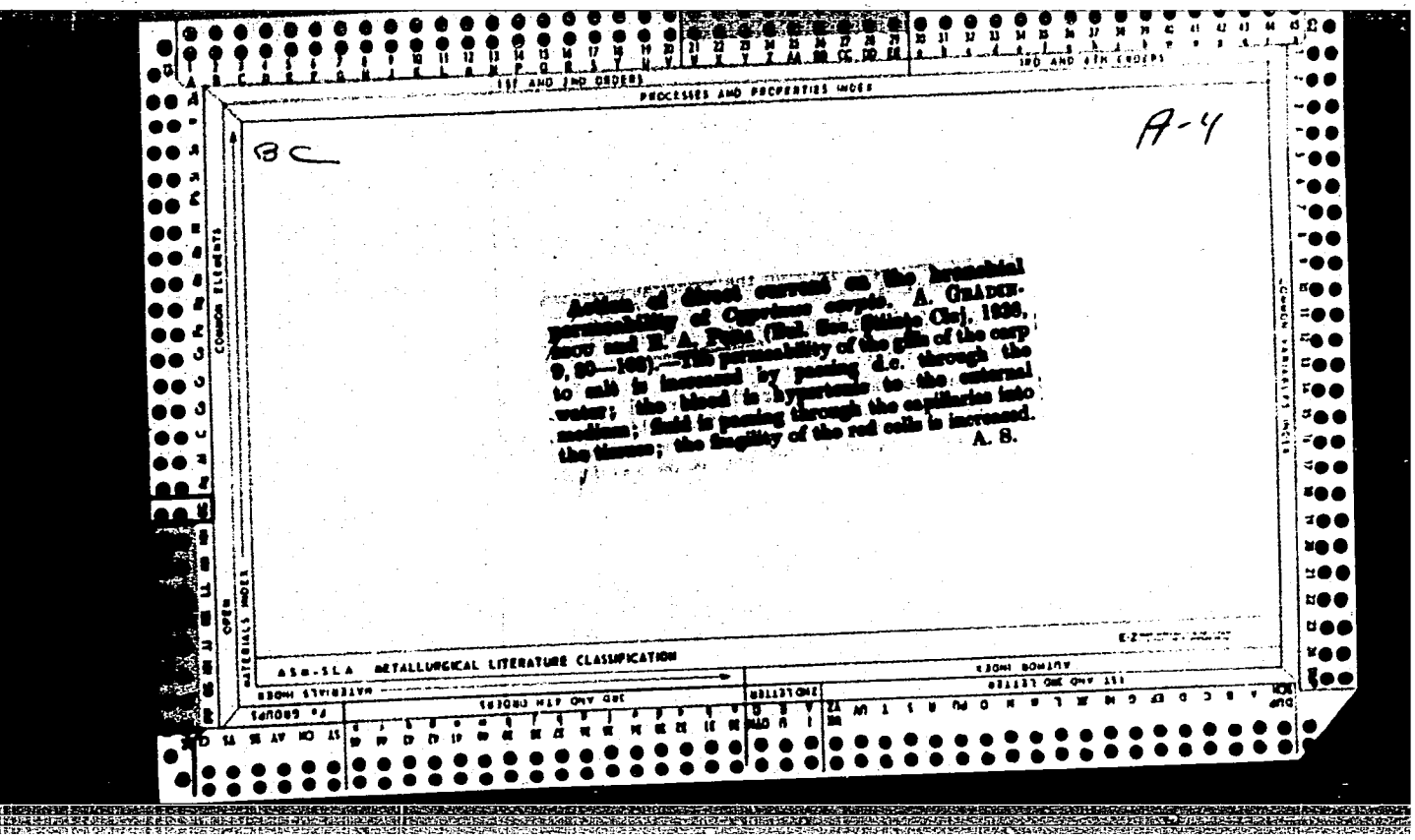
Study of excretory processes in fresh-water fishes. Vop. ikht. no.16:175-182 '60. (MIRA 14:4)

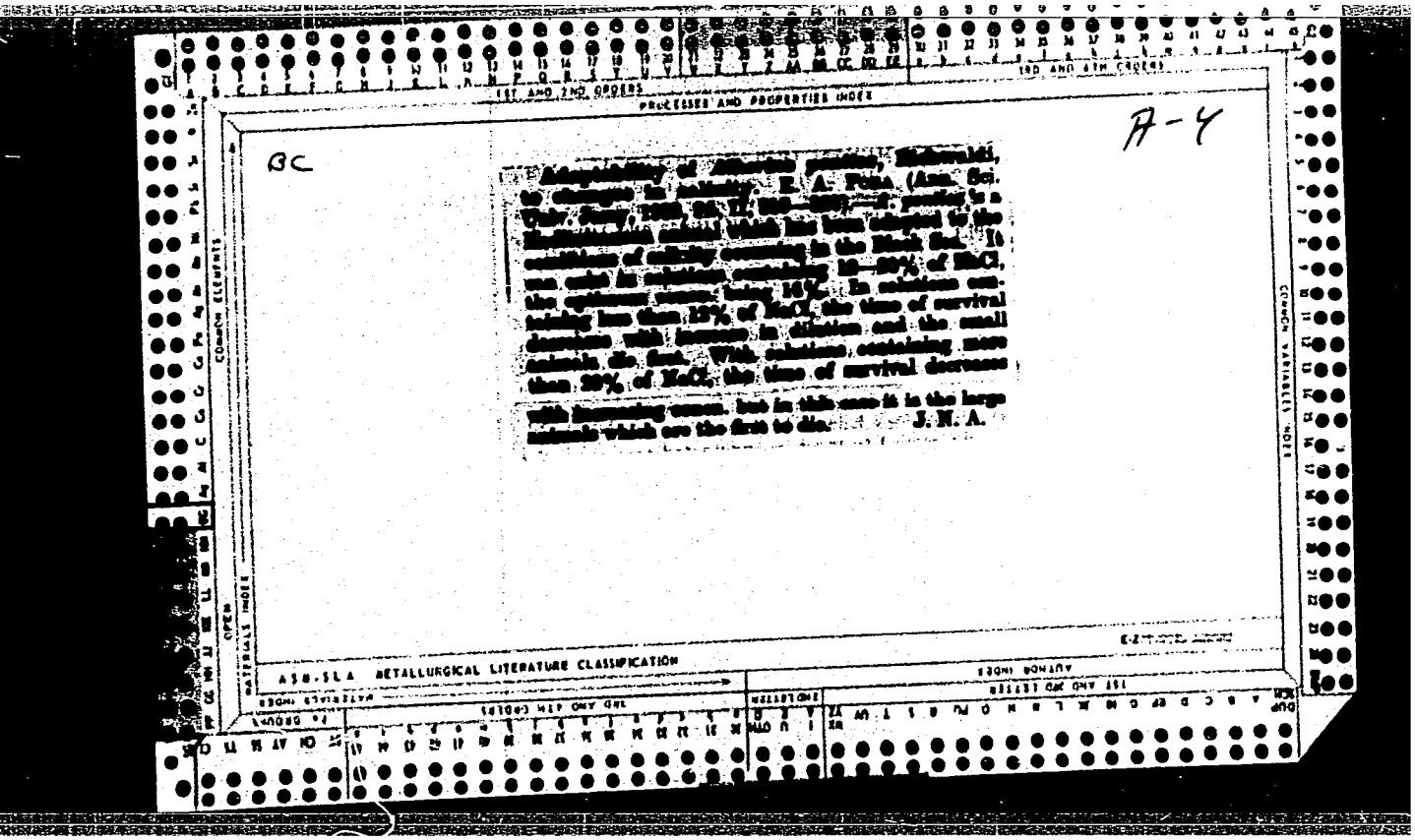
1. Kafedra fiziologii zhivotnykh universiteta imeni Babesha.
(Fishes--Physiology) (Excretion)

PORA, A.Ye.; ROSHKA, D.I.; PORUMB, I.F.

Biology of the saurel in the Black Sea; seasonal variations in the lipoid metabolism (May-October). Vop. ikht. no.17:83-91 '61.
(MIRA 14:5)

1. Kluzhskiy filial Akademii nauk Rumynskoy Narodnoy Respubliki.
(Black Sea—Saurel) (Lipid metabolism)





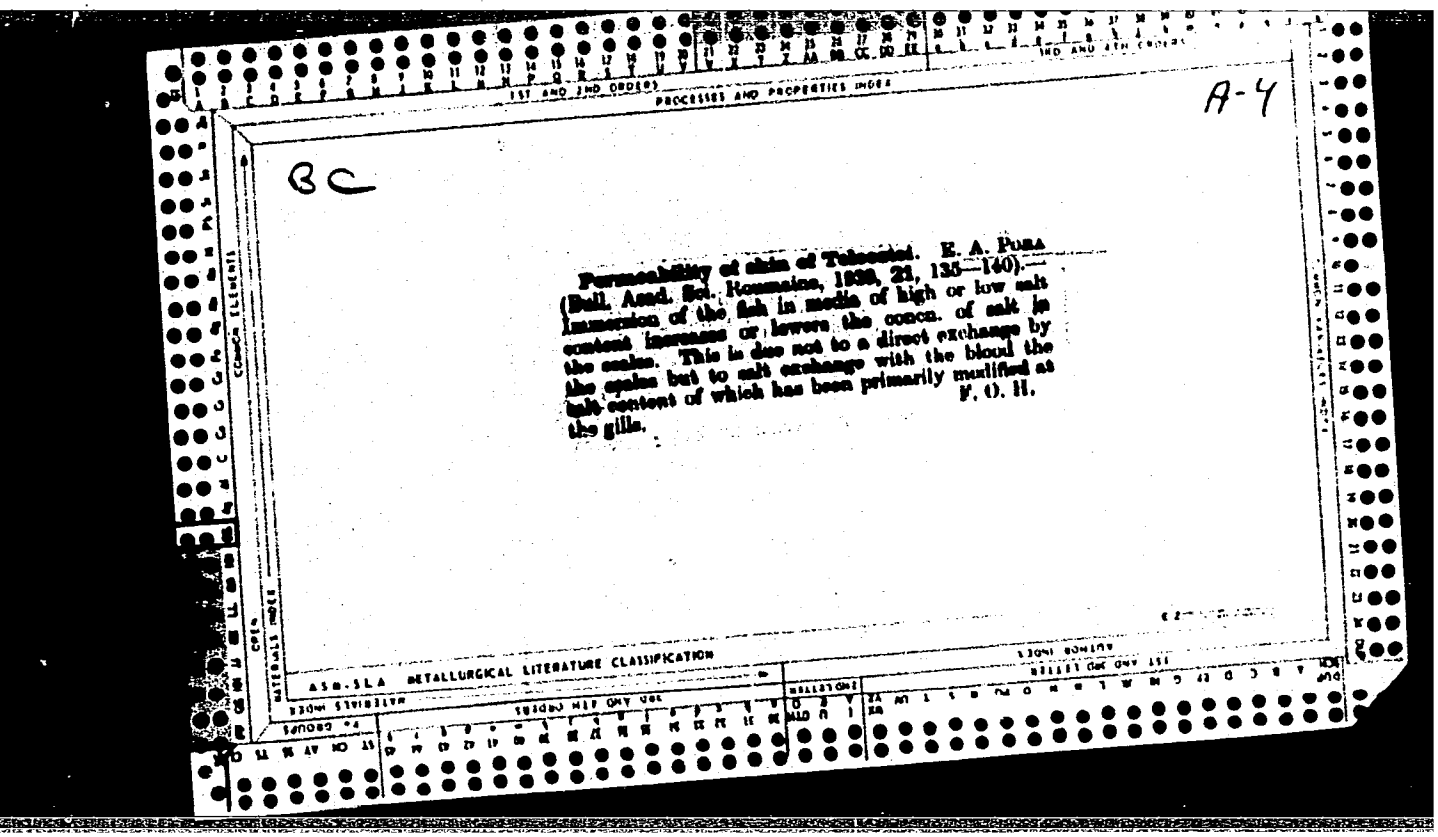
BC

a-4

PROCESSES AND PROPERTIES INDEX

Behaviour of Paramecium aquatile to variations in salinity. E. A. Pora (Ann. Sci. Univ. Jassy, 1938, 24, II, 327—331).—P. aquatile can exist in solutions containing 8—30% of NaCl. With less than 8% of NaCl, the animals die at first in small nos., but the no. of deaths increases with time. In solutions containing more than 30% NaCl, the no. of deaths decreases with time. J. N. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

11H

The effects of strophanthin and of the venom of the wasp Crabro on the melanophores of Carassius carassius. E. A. Puca and Florica Stoicovici. *Acad. Rep. Populare Romîne, Bul. Stiint., Sect. A*, 1, 767-75(1949)(French summary). Strophanthin (I) added to solns. contg. isolated scales of *Carassius* produces a contraction of the melanophores (II). The speed of the contraction depends on the concn. of I the activity of which is complete and irreversible. By pretreating the II with atropine I will produce no contraction. It appears that II is under the control of the parasympathetic nervous system. The contractions of the II produced by strophanthin injections are not sharp but in the region of the injection the color of the scales gets light by an irreversible contraction of II. The venom of the wasp *Crabro* produces a reversible contraction on the II of *Carassius* owing to a still unknown factor. Emanuel Merdinger

1951

GHIRCOIASIU, Maria; PORA, E.A., acad.; ROVENTA, Ecaterina; GHIRCOIASIU, Tudorita

Action of carbon tetrachloride on the nucleic acids, glycogen, and transaminase activity in the rat's liver and tegument. Studii cerc biol s. zool 16 no.6:493-499 '64.

1. Chair of Animal Physiology of the "Babes-Bolyai" University, Cluj.

ABRAHAM, A.; PORA, E.A., acad.; TOMA, V.

Influence of sexual hormones on the inclusion of methionine-S[35] in the thymus proteins. Studii cerc biol s. zool 17 no.1:65-69 '65.

1. Section of Animal Physiology, Center of Biological Research of the Rumanian Academy, Cluj. Submitted June 19, 1964.

TOMA, V.; KIS, Z.; PORA, E.A., acad.

Action of the somatotropin hormone on the inclusion of P^{32} in the thymus of white rats. Studii cerc biol s. zool 17 no.1:75-78 '65.

1. Chair of Animal Physiology, "Babeş-Bolyai" University, Cluj. Submitted June 11, 1964.

GHIRCOIASIU, Maria; PORA, E.A., acad.; ROVENTA, Ecaterina; HINTZ, Hedi ko

Suprarenalectomy influence on the nucleic acids, transaminase activity, and tegumentary and hepatic glycogen. Studii cerc biol s. zool 17 no.1:79-84 '65.

1. Chair of Animal Physiology, "Babes-Bolyai" University, Cluj.
Submitted June 19, 1964.

PORA, E.

"Contributions to the physiological study of breathing and blood circulation in the Trachurus trachurus of the genus Erebia Dalm of the Rumanian Carpathians, epiphron group. p. 161" Vol. 4, no. 1, Jan./Mar. 1952. Bururest, Rumania.

SO: "Monthly List of East European Accessions, L.C. Vol.2, No. 11, Nov. 1953, Uncl.