SAVKEVICH, I.A., inzh.; MAL'CHENKO, V.I., inzh.; KLEBANOVA, M.M., inzh.; OSTAPENKO, V.D., kand.tekhn.nauk

Semidry pressing of roofing tiles. Stroi.mat. 5 no.11: 27-28 N '59. (MIRA 13:3)
(Voronezh--Tiles, Roofing)

BESKROVNAYA, O.V.; SAVKEVICH, S.S.

Certain data on the effect of late catagenesis on the structure of pore space. Trudy VNIGRI no.228:132-137 '64 (MIRA 17:8)

PATROVSKIY, Ventseslav [Patrovský, Věnceslav], inzh.; SAVKEVICH, S.S. [translator]; POPOV, N.P., nauchnyy red.; AFANAS'YEVA, Yu.N., red.izd-va; BYKOVA, V.V., tekhn.red.

[Analytical chemistry of the rare elements. Translated from the Czech] Analiticheskaia khimiia redkikh elementov. Pod red. N.P. Popova. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1960. 175 p. (MIRA 14:3)
(Metals, Rare and minor--Analysis)

SAVKEVICH, S.S.; SHAKS, I.A.

Infrared absorption spectra of Baltic amber (succinite).
Zhur. prikl. khim. 37 no. 4:930-931 Ap '64. (MIRA 17:5)

SAVKEVICH, S.S.; SHAKS, I.A.

Infrared absorption spectra of Baltic amber. Zhur.prikl. khim. 37 no. 5:1120-1122 My '64. (MIRA 17:7)

SAVKEVICH, S.S.; SHAKS, I.A.

Infrared absorption spectra of Baltic amber. Zhur. prikl. khim. 37 no.12:2755-2757 D '64. (MIRA 18:3)

SAVKEVICH, V.

"On the Schema of Urns with Variable Composition," Dokl. AN SSSR, 28, No.1, 1940

Inst. Mathematics and Mechanics, Leningrad State U.

SAVKIN, A.M.

25(5) PHASE I BOOK EXPLOITATION SOV/2581

Veselkov, P. S., Yu. A. Gaydukov, S. Ye. Kasenitser, V. G. Kontorovich, G. A. Pishchulin, A.M. Savkin, A.S. Tolstykh, and A.S. Pastorskiy

Ravnomernaya rabota mashinostroitel'nykh zavodov (Uniform Work of Machine-Manufacturing Plants) Moscow, Mashgiz, 1958. 171 p. Errata slip inserted. 4,000 copies printed.

Reviewer: A. K. Bondarenko, Engineer; Ed.: V. A. Letenko, Candidate of Economic Sciences; Tech. Ed.: V. D. El'kind; Managing Ed. for Literature on the Economics and Organization of Production (Mashgiz): T. D. Sakaganskiy.

PURPOSE: This book is intended for engineering and technical personnel in machine-manufacturing plants

COVERAGE: This book discusses the national economic importance of uniform operation of plants according to a schedule, and points out planning problems that should be solved to permit work uniformity in manufacturing establishments. It defines organizational and technical prerequisites for uniform work, shows the influence of financial agencies of establishments on production uniformity, and describes methods of measuring work uniformity. The last two chapters are devoted to work practices at the Moscow "Elektrozashchetchik" Plant and the Pervyy Moskovskiy chasovoy zavod (First Moscow Watch and Clock Plant). No personalities are mentioned. There are no references.

AVAILABLE: Library of Congress

JG/ac
11-6-59

Card 5/5

SMEKHOV, A.A.; MEKLER, A.P., kand. tekhn. nauk, retsenzent; SAVKIN, A.M., kand. ekon. nauk, retsenzent; ANDREYEV, K.I., inzh., red.; BARYKOVA, G.I., red. izd-va; UVAROVA, A.F., tekhn. red.

[Automation in warehouses]Avtomatizatsiia na skladakh. Moskva, Mashgiz, 1962. 267 p. (MIRA 15:12)
(Warehouses--Equipment and supplies) (Automation)

ACC NR: AP7003280 SOURCE CODE: UR/0250/66/010/012/0933/0935

AUTHOR: Savkin, A. Ye.; Lugina, A. S.; Bokut', B. V.

ORG: Institute of Physics, AN BSSR (Institut fiziki AN BSSR)

TITLE: Observation of generation at the sum frequency of the emissions from a ruby and a neodymium laser in a KDP crystal

SOURCE: AN BSSR. Doklady, v. 10, no. 12, 1966, 933-935

TOPIC TAGS: ruby laser, neodymium laser, laser emission, frequency mixing, frequency converter

ABSTRACT: The authors were able to mix in a KDP crystal the ordinary wave of a ruby laser (λ_R = 6943 Å) and the extraordinary wave of a neodymium laser (λ_{Nd} = 10600 Å) and produce emission at the sum frequency in the phase-matching direction. Both lasers were fed from a single capacitor bank and the two were pumped individually by a single IFP-2000 lamp. The ruby and neodymium lasers generated 3.8 J and 2.65 J at a pump voltage of 2800 v, corresponding to 1760 J energy for each pump lamp. The method of obtaining both temporal and spatial coincidence of the generated radiations and parallelism of their beams is described. Generation from the KDP crystal at the sum frequency was observed throughout the duration of the ruby laser emission. This report was presented by Academician AN BSSR B. I. Stepanov. Orig. art. has: 2 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 07Jul66/ ORIG REF: 003/ OTH REF: 001

Card 1/1

SAVKIN, F.

USSR/Radio Equipment Jan 48
Headsets

"New Piezoelectric Earphones," F. Savkin, 1 p

"Radio" No 1

Describes new-type piezoelectric earphone being manufactured by a factory of the Ministry of the Production of Means of Communications. Shows cutaway diagram of new earphone, and graphically compares the frequency characteristics of the new headset with the electromagnetic headset manufactured by "Krasnaya Zarya" works.

3/49T103

SOV/123-59-7-7/25

18(5,7)

AUTHOR: Rubtsov, N.M., Doctor of Technical Sciences, Savkin, G.Ya. and Stepanov, Yu.A., Engineers, and Balandin, G.F., Candidate of Technical Sciences

TITLE: Producing Steel Castings by the Squeezing-Out Method

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 7, pp 17-18 (USSR)

ABSTRACT: According to the method developed by E.S. Stebakov (Liteynoye Proizvodstvo, Nr 12, 1956) many large casting shapes, with thin walls, for aircraft manufacture can be produced from aluminum alloys. The laboratory of the foundry at MVTU "Imeni Baumann" has carried out similar experiments for work pieces of 500 by 900 cm with wall thickness of 4 to 5 mm made from steel. The experiments with steel have been executed in the manner as the above-mentioned experiments made with aluminum (L.P. 12/1956). One drawing explains only the special method of pouring the metal into the molds. There follows a description and explanation of how

Card 1/2

Producing Steel Castings by the Squeezing-Out Method

important it is to have a quick flow and a fast cooling-off for the metal. In case the flow of the metal was slower than 2 m per second, thin-walled castings could not be produced during the experiments. The accomplishment of the required velocity of flow can only be achieved by means of automatically controlled mechanical installations. There are 1 diagram and 1 microphotograph

SHUGAL', B.Ye.; SAMOYLOV, V.M.; VOROB'YEV, S.E., inzh., retsenzent; SAVKIN, I.P., inzh., red.

[Handbook on the use of cutting, percussion, upsetting and mechanized tools] Spravochnik po ekspluatatsii rezhushchego, udarnogo, vysadnogo i mekhanizirovannogo instrumenta. Moskva, Mashinostroenie, 1965. 343 p. (MIRA 18:10)

FINKEL'SHTEYN, Grigoriy Matveyevich; SAVKIN, I.P., ved. red.; LADONINA, L.V., tekhn. red.

[Using phosphate coating for increasing the strength of metal-cutting tools; survey of foreign techniques] Primenenie fosfatirovaniia dlia povysheniia stoikosti rezhushchego instrumenta; obzor zarubezhnoi tekhniki. Moskva, GOSINTI, 1962. 35 p. (Tema 7) (MIRA 17:4)

GALDIN, Mikhail Vasil'yevich; SHPOLYANSKIY, Vadim L'vovich; SAVKIN, I.P., nauchn. red.; SHALYT, N.A., red.

[Ensilage harvester] Silosouborochnye kombainy. Moskva, Proftekhizdat, 1963. 84 p. (MIRA 17:4)

ANTIPOV, V.V., kand. tekhn. nauk; POLYAKOV, M.L., inzh., retsenzent; SAVKIN, I.P., inzh., red.

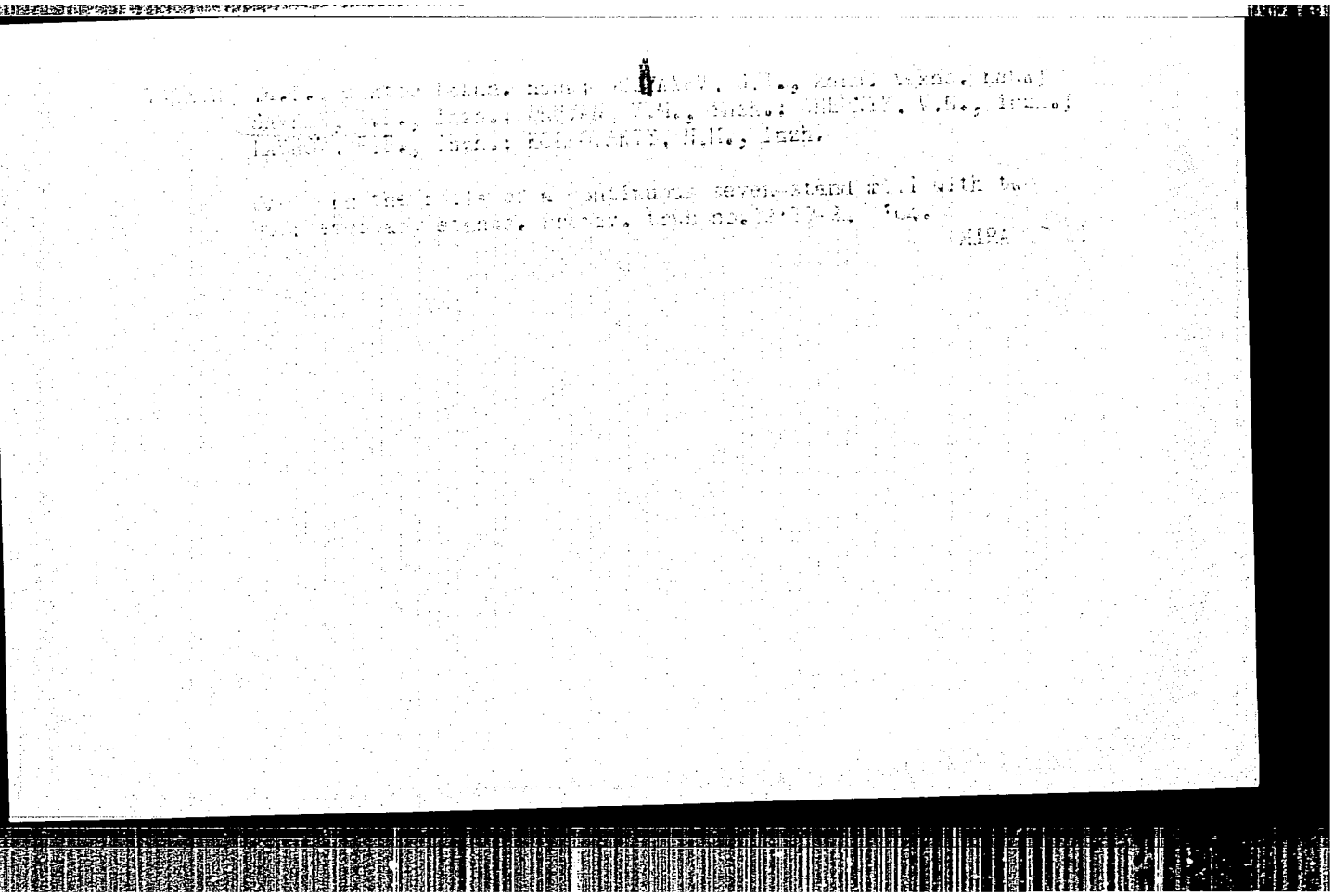
[Wear of precision parts and the disturbance of the performance of a diesel-engine fuel system] Iznos pretsizionnykh detalei i narushenie kharakteristiki toplivnoi apparatury dizelei. Moskva, Mashinostroenie, 1965. 130 p. (MIRA 18:7)

VASIL'YEV, A.V., kand. tekhn. nauk; RAPPOPORT, D.M., inzh.; RAYEVSKIY, N.P., doktor tekhn. nauk, retsenzent; SAVKIN, I.P., inzh., red.; EL'KIND, V.D., tekhn. red.

[Strain measurement and its use in the investigation of tractors] Tenzometrirovanie i ego primenenie v issledovaniiakh traktorov. Moskva, Mashgiz, 1963. 338 p. (MIRA 17:3)

VELICHKIN, I.I., kand. tekhn. nauk; NISNEVICH, A.I., kand. tekhn. nauk; ZUBIYETOVA, M.P., kand. tekhn. nauk; ZHDANOVSKIY, N.S., doktor tekhn. nauk, retsenzent; SAVKIN, I.P., inzh. red.

[Rapid wear tests of diesel engines] Uskorennye ispytaniia dizel'nykh dvigatelei na iznosostoikost'. Moskva, Izd-vo "Mashinostroenie," 1964. 182 p. (MIRA 17:7)



1. SAVKIN, M.
2. USSR (600)
4. Mine Railroads
7. On the underground railroads. Znan. sila No. 4, 1953.

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

SAVKIN, M.M.

Important scientific center in Siberia. Izv.vost.fil.AN SSSR no.7:134-135 '57. (MIRA 10:10)

(Siberia--Research)

28(1) SOV/118-59-1-15/16

AUTHORS: Savkin, M.M., Candidate of Technical Sciences and Mogilevskiy, V.M., Engineer

TITLE: Automation of Conveyers in the Kuznetsk Basin (Avtomatizatsiya konveyerov v Kuzbasse)

PERIODICAL: Mekhanizatsiya i Avtomatizatsiya Proizvodstva, 1959, Nr 1, pp 57-60 (USSR)

ABSTRACT: The present degree of automation in the Kuznetsk Basin is relatively low. Of 10,500 conveyers only 239 scraper conveyers and 290 band conveyers were remote-controlled by July 1958. A great many workers still operated equipment. A number of devices have been tested and some adopted. The best results showed relays with a non-contact magneto-inductive pickup VIRS-2s. The Laboratory for Automation of the KuzNIUI (Kuznetsk Scientific Research Institute for Coal) has developed, tested and prepared for serial production a device for

Card 1/3

Automation of Conveyers in the Kuznetsk Basin.

automatic control of band conveyers, called the RULT, the tachometer pickup of which is built into the return roller of the band conveyer. In 1957, 70 relays RUK-2 were installed, supplemented in 1958 by 50 relays VIRS-2s. Relays RUK-2 proved less reliable, on account of frequent amplifier failures. Considerable advance in the automation of conveyers has been made, by germanium transistors used in weak-current remote-control systems. The next step in the automation of conveyer lines will be designing control systems and using the regular feed circuit as a transmission channel. The laboratoriya gornoy avtomatiki i telemekhaniki (The Laboratory for Mining Automation and Telemechanics) of the West-Siberian Section of the AS USSR has worked extensively in the field of transmission of control signals via high-frequency currents, throughout the mine's regular network. It is also working on remote

Automation of Conveyers in the Kuynetsk Basin.

control systems. The article mentions several improvements in some mines and contains a general description of operation of available systems of remote control There are 4 diagrams.

SAVKIN, M.M.; IL'IN, A.A.

Frequency division multiplexing of a mine power cable system for purposes of remote control and communications. Trudy Inst.gor. dela Sib.otd.AN SSSR no.2:221-231 '59. (MIRA 13:5)
(Electricity in mining) (Mine communications)
(Remote control)

SAVKIN, M.M., kand.tekhn.nauk, otv.red.; SAVKIN, M.M., kand.tekhn. nauk, otv.red.; GREBENNIKOVA, M.M., red.izd-va; MAZUROVA, A.F., tekhn.red.

[Papers from the Second Conference of Young Scientists] Materialy Vtoroi nauchno-tekhnicheskoi konferentsii molodykh uchenykh ZSFAN. Otvet.red.M.M.Savkin. Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1957. 109 p. (MIRA 14:2)

1. Nauchno-tekhnicheskaya konferentsiya molodykh uchenykh. 2d, Novosibirsk, 1955.
(Science--Congresses)

SAVKIN, M.M., kand.tekhn.nauk, otv.red.; IVANOVA, G.L., red.; MAZUROVA, A.F., tekhn.red.

[Materials of the Third Scientific and Technical Conference of Young Scientists] Materialy Nauchno-tekhnicheskoi konferentsii molodykh uchenykh. Otv.red.M.M.Savkin. Novosibirsk, Izd-vo Sibirskogo otd-niia Akad.nauk SSSR, 1960. 178 p. (MIRA 13:9)

1. Nauchno-tekhnicheskaya konferentsiya molodykh uchenykh. 3d, Novosibirsk, 1957.
(Science--Congresses)

SAVKIN, M.M.; MOROZOV, Yu.A.

Investigations into the causes and nature of electrical troubles in contact networks in mines. Trudy Inst. gor. dela Sib. otd. AN SSSR no.3:240-251 '60. (MIRA 14:4)
(Electricity in mining)

S/194/62/000/012/030/101
D201/D308

AUTHOR: Savkin, M. M.

TITLE: New trends in the development telemechanics in the Kuzbass mining industry

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1962, 66, abstract 12-2-132 m (In collection: Uchenyye Sibiri-Kuzbassu. Kemerovo, 1961, 323-335)

TEXT: The Laboratory of Mining Automation and Telemechanics of the In-t gornogo dela Sibirskogo otdeleniya AN SSSR (Institute of Mining Industry, Siberian Branch AS USSR) has developed in 1959 a new HF communication and remote signalling system "СИБИР" (Sibir'-59), differing essentially in several ways from the usual types of such installations. The Sibir'-59 system represents a complex telemechanical installation with power lines as communication channels. The system allows for remote automatic signalling of passage of trains through signal points, maintaining HF communication. The installation has an attachment for printing automatically on a paper

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ribbon the train number and the time of its passage through the control point. The supply is from 127 or 220 V a.c. mains of industrial frequency, power requirements about 60 W. The system includes the control points and subscriber stations. The installation can work as a remote signalling or communication system. Communication is possible with one subscriber only as determined by the busy condition system. Light calling system is used. Special equipment is installed at determined control points for remote signalling. The special equipment consists of a HF transmitter and a coil pick-up for the magnetic field, placed between the rails. When a train passes its illuminated number appears at the control desk. Further possible telemechanical developments in Kuzbass are considered.
[Abstracter's note: Complete translation.]

MIKHIREV, P.A.; KOSTYLEV, A.D.; VOLOD'KO, K.P.; SAVKIN, M.M.; MOGILEVSKIY, V.M.

Means for automatic control of the operation of a single-bucket loader. Gor. zhur. no.3:69-70 Mr '63. (MIRA 16:4)

SAVKIN, K.M., st. nauchn. sotr., kand. tekhn. nauk, otv. red.;
[illegible], A.A., red.

[Radio communication systems and high-frequency remote control in the mining industry] Radiosviaz' i vysokochastotnaia telemekhanika v gornoi promyshlennosti. Otv. red. K.M.Savkin. Novosibirsk, Red. izd. otdel Sibirskogo otd-niia AN SSSR, 1964. 173 p. (MIRA 17:8)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut gornogo dela.

SAVKIN, P.

Relying on the experience of the masses. Sov. profsoiuzy 5 no.5: 20-21 My '57. (MLRA 10:6)

(Dnepropetrovsk--Rolling mills)

SOV/86-58-7-32/38

AUTHOR: Savkin, P. K., Lt Col

TITLE: Mechanical Wind Finder (Mekhanicheskiy vetroopredelitel')

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 7, pp 83-84 (USSR)

ABSTRACT: This article gives a description of a mechanical wind finder used in a Soviet Air Force unit to facilitate the determination of wind data in the air. All navigational elements necessary for the wind computation are determined on the radar bombsight indicator. Then with the aid of the above-mentioned device, the drift angle, ground speed, wind velocity, and wind angle, as well as the magnetic heading and the route angle can be found simply and rapidly. One diagram.

Card 1/1

KLYUYEV, G.M., kand.tekhn.nauk; YUNITSKAYA, Ye.I., starshiy inzh.; RYAKOVA, E.Ya.; Prinimali uchastiye: PETROV, A.M.,; SHISHKIN, A.F.; KNAUS, O.M.; RUSAKOVA, R.A.; STEPANOVA, L.G.; KALINKIN, V.F.; GOPKALOVA, N.K.; SACHKOV, V.F.; FROLOV, M.F.; LUKASHOVA, T.T.; SAVKIN, P.S.

Grain-size distribution in the material produced by crushing rock. Sbor. trud. NIIZHelezobetona no.3:69-90 '60. (MIRA 15:2)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut zhelezobetonnykh izdelii, stroitel'nykh i nerudnykh materialov (for Petrov, Shishkin, Knaus, Rusakova, Stepanova, Kalinkin, Gopkalova, Sachkov, Frolov, Lukashova, Savkin).

(Stone, Crushed)

BAVRIN, F.S., inzh.

Examining limestone rock in air suspensions. Stroi. mat. 12 no.4:20-21 Ap '66. (MIRA 18:6)

SAVKIN, P.S.; PRECBRAZHENSKAYA, N.N.

Dynamics of water absorption and determination of the volumetric weight of rubble and gravel. Avt. dor. 28 no.12:16-17 D '65. (MIRA 19:1)

SAVKIN, P.V.; OZOL', V.L.

Increasing the output of the 140 pipe rolling mill and pipe drawing machines at the Lenin Plant. Met. i gornorud. prom. no.6:65-67 N-D '65. (MIRA 18:12)

SAVKIN, P.V., inzh.; KOLPOVSKIY, N.M., inzh.; VOL'PER, Yu.D., inzh.; NIKOLENKO, A.V., inzh.

Use of converter metal for the manufacture of electrically welded pipe. Met. i gornorud. prom. no.5:28-30 S-O '63. (MIRA 16:11)

1. Dnepropetrovskiy truboprokatnyy zavod imeni Lenina.

ACC NR: AP6025579 (N) SOURCE CODE: UR/0413/66/000/013/0009/0010

INVENTOR: Berdyanskiy, M. G.; Burakovskiy, V. N.; Brodskiy, I. I.; Kas'yan, V. Kh.; Pozin, Ya. M.; Savkin, P. V.

ORG: None

TITLE: Multiple-draft mill for drawing pipe on a short mandrel. Class 7, No. 183168 [announced by the Dnepropetrovsk Pipe Rolling Plant imeni Lenin (Dnepropetrovskiy truboprokatnyy zavod)]

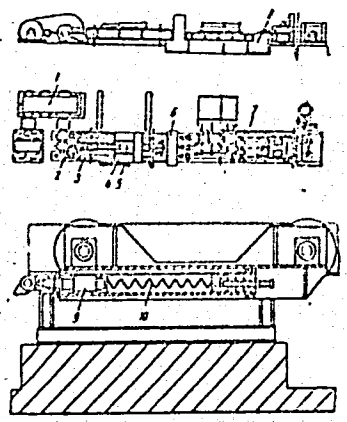
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 9-10

TOPIC TAGS: metal drawing, pipe, reliability

ABSTRACT: This Author's Certificate introduces: 1. A multiple-draft mill for drawing pipe on a short mandrel. The unit consists of a truck with a drive, unloaders, a stand with draw plate, a receiving table with troughs and a unit for setting the rods along with the mandrels into tubes. Operational reliability is improved and servicing is simplified by mounting the rods on a common movable truck and equipping them with spring compensators. 2. A modification of this device equipped with a lever mechanism for each drawing unit for clamping tubes, and a screw arrangement for moving the support.

Card 1/2 UDC: 621.774.372.002.5

ACC NR: AP6025579



1-main drive; 2-pull chain; 3-working tube; 4-truck; 5-unloader; 6-lubricator; 7-receiving table; 8-stand for rod support mechanisms; 9-rods; 10-springs

SUB CODE: 13/ SUBM DATE: 21Sep64

Card 2/2

SAVKIN, P.V.; KOLPOVSKIY, N.M.; IVANOV, I.P.

Influence of the quality of the metal of a round ingot on the formation of laps on the outside surface of seamless pipe. Met. i gornorud. prom. no.4:50-51 Jl-Ag '64. (MIRA 18:7)

SAVKIN, P.V.; KOLPOVSKIY, N.M.; GOLOVKO, O.F.

Production of open-hearth dynamo steel at the Lenin pipe rolling mill in Dnepropetrovsk. Met. i gornorud. prom. no.5:21-22 S-O '64. (MIRA 18:7)

SAVKIN, Petr Vasil'evich

Perfecting pipe production; work practice of the Lenin Pipe Rolling Factory. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954. 159 p. (55-41077)

TS280.Ch6

1. Pipe, Steel. 2. Rolling (Metal-work).

SAVKIN, P.V.

GESKIN,S.A., kandidat tekhnicheskikh nauk; SAVKIN,P.V., inzhener

The rolling of precise dimension pipes on a continuous rolling mill. Stal' 15 no.7:621-629 Jl '55. (MLRA 8:9)

1. Dnepropetrovskiy truboprokatnyy zavod im. Lenina.
(Rolling (Metalwork))

SAVKIN, P. V., inzh.; KOLPOVSKIY, N. M., insh.; GRENBERG, Ye. I., inzh.; ZASLAVSKIY, B. N., inzh.

Smokeless lubrication for pipe rolling on continuous mills. Met. i gornorud. prom. no.1:68-72 Ja-F '63. (MIRA 16:4)

1. Dnepropetrovskiy truboprokatnyy zavod imeni Lenina.

(Metalworking lubricants)
(Pipe mills)

SAVKIN, P.V., inzh.; PANYUSHKIN, N.V., inzh.; BERDYANSKIY, M.G., inzh.

Ways of improving the performance of automatic pipe mill equipment. Stal' 23 no.10:927-928 O '63. (MIRA 16:11)

SAVKIN, P.V.; KOLPOVSKIY, N.M.; IVANOV, I.P.

Reorganization of the 140 tube rolling mill. Metallurg 9 no.11:24-27 N '64. (MIRA 18:2)

1. Dnepropetrovskiy truboprokatnyy zavod im. Lenina.

SAVKIN, T. F.

Carrots

Mechanized planting of carrots grown for seed. Sad i og. No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952, Uncl.

BELYANCHIKOV, V.N., redaktor; LYADEYEV, A.P., redaktor; SAVKIN, T.I., redaktor; TIKHONOV, A.Ya., tekhnicheskiy redaktor

[Catalog of the principal parts of the ETN-251 excavator] Katalog osnovnykh detalei ekskavatora ETN-251. Moskva, Gos. nauchno-tekhn. izd-vo Mashinostroit. lit-ry, 1955. 106 p. (MLRA 8:7)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'nogo i dorozhnogo mashinostroyeniya.
(Excavating machinery)

SAVKIN, V., inzh.

All-purpose tractor. Tekh.mol. 29 no.9:19 '61. (MIRA 14:10)
(Tractors)

SAVKIN, V., ekonomist

Practice in planning labor indices for workshops and sections. (MIRA 15:8)
Sots.trud. 7 no.7:126-129 Jl '62.
(Kherson Province--Industrial management)

L 44252-66 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW

ACC NR: AP6012607 SOURCE CODE: UR/0182/66/000/004/0007/0010

AUTHOR: Prozorov, L. V.; Pishchulin, N. I.; Savkin, V. A.; Beskrovnyy, G. G.

ORG: none

TITLE: Increase in the temperature of forgings during the hot extrusion of certain alloys

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 4, 1966, 7-10

TOPIC TAGS: automatic recording potentiometer, metal extrusion, hot die forging, temperature dependence, metal deformation / 10 steel, Kh15N10S3B (EP302) steel, EP150 steel, EI607 (KhN80TBYuO) steel, PSl-08 automatic recording potentiometer

ABSTRACT: The article presents the findings on the increase in the temperature of the direct-extruded rods of the steels 10, Kh15N10S3B (EP302), EP150 and EI607 (KhN80TBYuO) at various temperatures and degrees of deformation. The extrusion was carried out with press tools heated to 250-300°C, in 200-ton hydraulic press, on varying the degree of deformation by using die holes of various diameters. The temperature of the rod was measured immediately on emergence from the die with the aid of a special setup (Fig. 1): the emerging hot rod falls via a funnel into a container with water which is equipped with six chromel-alumel

UDC: 621.777

Card 1/3

L 44352-66

ACC NR: AP6012607

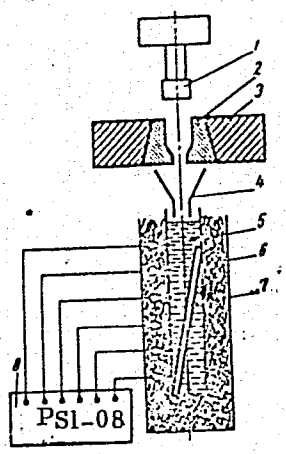


Fig. 1. Diagram of experimental setup for measuring the temperature of the forging

1 - punch; 2 - die; 3 - bolster; 4 - funnel; 5 - container with water; 6 - heat insulation; 7 - forging; 8 - recording device with thermocouples

Card 2/3

L 44352-66
ACC NR: AP6012607

thermocouples arrayed in a spiral over the height of the container. The rise in the temperature of the water is recorded by these thermocouples and automatically registered at 2-sec intervals by an PSl-08 automatic recording potentiometer. Blanks heated to various temperatures: 900, 1000, 1100 and 1200°C were deformed to various degrees (80, 69.7, 57.6, 43.5%). The thermal effect (increase in temperature) was determined each time by calibration in the container with water, i. e. by heating other, already extruded rods, to the same temperatures and placing them in the container with water and measuring the resulting rise in water temperature. The maximum increase in temperature was observed for blanks heated to 900°C and deformed 80%, i.e. for the lowest of the temperatures investigated and the highest of the degrees of deformation investigated: in this case the temperature of the emergent rod was higher by as much as 150-210°C. Thus, it is established that the thermal effect decreases with increasing temperature of the blank prior to its extrusion and increases with increasing degree of deformation of the blank. Orig. art. has: 8 figures, 1 table.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 003/
14

Card 3/3 blg

ACC NR: AP7003762 (N) SOURCE CODE: UR/0374/66/000/006/0803/0807

AUTHOR: Savkin, V. G.; Belyy, V. A.; Sogolova, T. I.; Kargin, V. A.

ORG: Department of Mechanics of Polymers, AN Belorussian SSR, Gomel' (Otdel mekhaniki polimerov, AN Belorusskoy SSR); Physicochemical Scientific Research Institute im. L. Ya. Karpov, Moscow (Nauchno-issledovatel'skiy fiziko-khimicheskiy institut)

TITLE: The effect of supermolecular structures on the self heating of plastics under cyclic loading

SOURCE: Mekhanika polimerov, no. 6, 1966, 803-807

TOPIC TAGS: cyclic load, molecular structure, plastic, polycaprolactam

ABSTRACT: It has been established that the degree of self heating of polycaprolactam samples subject to cyclic loading is determined by the supermolecular structures of the samples. The larger and less homogeneous the supermolecular structures of the cross section of the sample are, the higher is the self-heating temperature. Cyclic loading changes the supermolecular structure and, therefore, the mechanical and physical properties of a sample. The introduction

UDC: 678.5:539.43.015

Card 1/2

ACC NR: AP7003762

of artificial nucleation centers enhances ordering and minimizing of the supermolecular structures in the polymer and contributes to lowering the self heating temperature during cyclic loading. Orig. art. has: 6 figures. [AM]

SUB CODE: 20, 11/SUBM DATE: 01Mar66/ORIG REF: 011/

Card 2/2

AUTHOR: Savkin, V.I., Engineer SOV/28-58-6-10/34

TITLE: Methods for the Calculation of the Exact Sizes of Plane Gages (Metodika rascheta ispolnitel'nykh razmerov gladkikh kalibrov)

PERIODICAL: Standartizatsiya, 1958, Nr 6, pp 43-45 (USSR)

ABSTRACT: The precision of calibers is important in the manufacture of many machine parts. Reference books on deviations in these calibers [Ref 1,2] are very voluminous. For convenience, 8 tables have been compiled which contain the tolerances for shaft and opening calibers of 1 to 500 mm diameter. The intermediate tolerance values may be taken to the upper class of precision which is a technical improvement, but may not be recommended from an economic point of view. To take them to the lower class is in most cases technically not permissible. Practical experience has shown that they may be divided between

Card 1/2

Methods for the Calculation of the Exact Sizes of Plane Gages

the two classes by taking 2/3 to the upper class of precision and 1/3 to the lower. From the 8 tables compiled, 2 are shown as examples. There are 2 tables and 2 Soviet references.

ASSOCIATION: NONITOMASh

SAVKIN, V.I., inzh.

PL-1 leveller. Trakt. i sel'khozmash. no.12:38 D '59.
(MIRA 13:3)

(Agricultural machinery)

SAVKIN, V.I., inzh.

The ETN-171 and ET-151 new trench excavators. Gidr.i mel. 12 no.2:19-26 F '60. (MIRA 13:6)

1. Pribaltiyskaya mashinoispytatel'naya stantsiya.
(Excavating machinery)

SAVKIN, V.I., inzh.

Grid buckets for canal dredging. Gidr. i mel. 12 no.4:45-46 Ap '60. (MIRA 13:9)

1. Pribaltiyskaya mashinoispytatel'naya stantsiya.
(Dredging machinery) (Canals)

SAVKIN, V.I., inzh.

Mounted bog plows. Trakt. i sel'khozmash. 30 no.11:30-32 N '60.
(MIRA 13:12)

1. Pribaltiyskaya mashinoispytatel'naya stantsiya.
(Plows)

SAVKIN, V.I.

Brush cutter with active working parts. Trakt.i sel'khozmash. 31 no.8:39 Ag '61. (MIRA 14:7)

1. Pribaltiyskaya mashinoispytatel'naya stantsiya.
(Clearing of land)

SAVKIN, Vasiliy Yefimovich, dotsl polkovnik, kand. voyennykh nauk; SIMYAYEV, A.D., red.

[Paces of an offensive] Tempy nastupleniia. Moskva, Voenizdat, 1965. 196 p. (MIRA 18:7)

(A)
L 4192-66
AM5026843

BOOK EXPLOITATION UR/ 22 B41

Savkin, Vasiliy YEfimovich (Candidate of Military Sciences, Docent, Colonel)

Rate of advance (Tempy nastupleniya) Moscow, Voyenizdat M-va obor. SSSR, 1965. 0196 p. illus. 4,000 copies printed.

TOPIC TAGS: military action, military operation, armed force logistics, tactical warfare, nuclear warfare, ground force tactic

PURPOSE AND COVERAGE: This book studies a wide range of questions related to the rate of advance in modern conditions. The book views the significance of fast rates of advance and analyzes the material principle of achieving fast rates of advance in World War II as well as in modern conditions. Also, the problems of increasing mobility of troops and means of achieving a fast rate of advance are discussed. The book introduces a series of practical recommendations on the improvement in troop mobility and in air transportation and on the perfection of commanding them. Comments published by open foreign and Soviet military presses on this subject are included. This book is recommended for officers and generals of the Soviet Army.

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L 4192-66
AM5026843

TABLE OF CONTENTS (abridged):

SUB CODE: MS SUBMITTED: 23Apr65

NO REF SOV: 050 OTHER: 027

BVK
Card 2/2

SAVKIN, Yu. G.

SAVKIN, Yu. G. --"Problems of the Automation of Primary Adjustment in Lathe Work." Min Higher Education USSR. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Sciences).

So.: Knizhnaya Litopis', No. 7, 1956.

Savkin, Yu. G.

AUTHOR: Savkin, Yu.G., Candidate of Technical Sciences 117-3-1/28

TITLE: Automatic Setting Device for Lathe Type Machine Tools (Avtomaticheskiy naladchik dlya stankov tokarnoy gruppy)

PERIODICAL: Mashinostroitel', 1958, # 3, p 1-5 (USSR)

ABSTRACT: The article gives general operation principles of devices for automatic setting of lathe type machines, and a detailed description of an automatic setting device produced at the laboratory "Metal Cutting Machine Tools" of the Moscow Institute of Aviation Technology (Moskovskiy aviatsionnyy technologicheskiy institut).

The device features a movable swinging template moving in the direction of displacement of the cross slide, and a measuring head which closes the electric circuit and produces three kinds of signals: plus - if the dimension of the part being machined is larger than pre-set, zero - if the dimension of the part is proper, and minus - if the dimension is smaller than pre-set. The adjustment (re-setting) of machine is fully automatic.

Tests on the "1П61" lathe (of the plant "Stankokonstruktsiya") have proven the applicability of the setting device for primary setting as well as for automatic resetting during the cutting

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process. The machining accuracy in tests was within the third accuracy degree. The dimension deviations of parts machined in tests are shown in a table. The information includes schematic drawings and photographs.

There are 2 figures, 2 photographs, and 1 table.

AVAILABLE: Library of Congress

DAVRIN, Yu. G.
P.D.

PHASE I BOOK EXPLOITATION SOV 3384

Moscow, Aviatsionnyy tekhnologicheskiy institut

Voprosy avtomatizatsii i mekhanizatsii tekhnologicheskikh protsessov (Problems in the Automation and Mechanization of Manufacturing Processes) Moscow, Oborongiz, 1959. 103 p. (Series: Its: Trudy, vyp. 39) Errata slip inserted. 6,300 copies printed.

Sponsoring Agency: Ministerstvo vysshego obrazovaniya SSSR.

Ed.: A. I. Isayev, Doctor of Technical Sciences, Professor; Ed. of Publishing House: I. A. Suvorova; Tech. Ed.: N. A. Pukhlikova; Managing Ed.: A. S. Zaymovskaya.

PURPOSE: This collection of articles is intended for engineer-technologists and scientific workers in the field of technology of machine construction, and students in the same special field.

COVERAGE: This collection of articles considers, on the basis of investigations conducted, methods for the automation of manufacturing processes involving the machining of parts on metal-cutting machine tools; it presents information

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regarding a suitable selection of machine tools for lot production and deals with methods of mechanizing the machining and inspection of parts having a complex form.

The report of B. V. Shaskol'skiy and Yu.G. Savkin presents the results of investigations of automation of the primary adjustment in lathe work. The authors consider an extremely timely problem, the positive solution of which, under actual manufacturing conditions, may have far-reaching technical and economic effects.

In the report of B. V. Shaskol'skiy and A. A. Nikolayev, the authors consider a problem which up to now has been only slightly dealt with -- the problem of selecting suitable types of lathes for lot production. The material presented in this report is of interest to designers working in the field of machine-tool construction and to industrial engineers.

A. I. Isayev and L. M. Pomerantsev present in their report the results of investigations in the field of the mechanization of machining and inspection of the blade surfaces of propeller-type hydroturbines. Based on an investigation of the machining process of model blades, the report presents a draft

design of the equipment and machinery necessary for machining and checking the dimensions of full-scale hydroturbine blades. The results of these investigations may be of use to industrial engineers and engineers who work in the field of hydroturbine construction.

The report of I. V. Dunin-Barkovskiy and A. N. Kartasheva considers the problem of criteria for reliable checking of measuring instruments, a problem which, in connection with the development of the manufacture of different kinds of devices for automatized technological processes, presents definite practical and scientific interest.

The report of A. A. Chistakov on a method for determining the permissible unbalance in the rotors of high-speed turboengines will be useful for designers and engineers in motor and turbine plants.

The collection was prepared for printing by Docent S. I. Gurevich, Candidate of Technical Sciences. References are given at the end of each article.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

Card 5/5

AC/fal
4-4-60

SAVKIN, Yu.G.; NIKOLAYEV, A.A.

Investigating the operation of an electric servosystem with a two-position copying device and electromagnetic clutches in feed drives. Nauch.dokl.vys.shkoly; mash. i prib. no.1:42-50 '59. (MIRA 12:8)

1. Stat'ya predstavlena kafedroy "Mekhanicheskaya obrabotka i metallorezhushchiye stanki" Moskovskogo aviatsionnogo tekhnologicheskogo instituta.
(Machine tools--Numerical control) (Electric controllers)

SAVKIN, Yu.G.

"Collected problems in projective drawing" by T.S.Borichevskii, V.P.Matanov, L.M.Pyzhevich. Mashinostroitel' no.7:46 '61. (MIRA 14:7)

(Geometrical drawing)
(Borichevskii, T.S.)
(Matanov, V.P.) (Pyzhevich, L.M.)

PETELINA, N.N., kand.sel'skokhozyaystvennykh nauk; SAVKINA, A.D., agronom

"Buckwheat cultivation" by G.V. Kopel'kievskii. Reviewed by N.N. Petelina, A.D. Savkina. Zemledelie 23 no.1:92-93 Ja '60. (MIRA 13:12)

(Buckwheat) (Kopel'kievskii, G.V.)

[illegible]INA, N.N., kand. sel'skokhoz. nauk; [illegible]

Phosphorus fertilizers for buckwheat. Zemledelie 27 no.5:77-78 My '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zernobobovykh kul'tur.

OSHCHIPKOV, F.P.; FROLOV, V.K.; Prinimali uchastiye: SAVKINA, G.A., inzh.; LYAKHOVETSKAYA, M.A., inzh.; SLIVINSKIY, I.G., inzh.; PARASHINA, Z.V., tekhnik; NIKIFOROVA, Z.V., tekhnik

Founding of ZS-4 glass in pot furnaces. Stek. i ker. 18 no.7:5-8 Jl '61. (MIRA 14:7)

(Glass manufacture)

PASHKOV, B.M.; SAVKINA, G.D.

Ultracortenol treatment for patients with eczematous and glandular cheilitis. Vest.derm. i ven. 34 no.11:64-65 N '60. (MIRA 13:12)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof. B.M.Pashkov) Moskovskogo meditsinskogo stomatologicheskogo instituta (direktor - dotsent G.N.Beletskiy) Ministerstva zdravookhraneniya RSFSR.

(PREDNISOLONE rel.cpds.)
(CHEILITIS ther.)
(ECZEMA ther.)

SAVKINA, G.D., ordinator

Glandular cheilitis and its role in the development of malignant degeneration. Teor. i prak. stom. no.5:89-94 '61 (MIRA 16:12)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof. B.M.Pashkov) Moskovskogo meditsinskogo stomatologicheskogo instituta.

SAVKINA, G.D.

Clinical aspects and treatment of exfoliative cheilitis. Vest.derm. i ven. 35 no.5:43-47 '62. (MIRA 15:5)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof. B.M. Pashkov) Moskovskogo meditsinskogo stomatologicheskogo instituta (dir. - dotsent G.N. Beletskiy) Ministerstva zdravookhraneniya RSFSR.

(LIPS--DISEASES)

BEZZABOTNOV, A.S.; SAVKINA, G.D.

Treatment of some forms of cheilitis with Bucky's rays. Vest. derm. i ven. 38 no.9:41-44 S '64. (MIRA 18:4)

1. Kafedra kozhnykh i venericheskikh bolezney (zav. - prof. B.M. Pashkov) Moskovskogo meditsinskogo stomatologicheskogo instituta Ministerstva zdravookhraneniya RSFSR i kozhnyy otdel (zav. - prof. N.S.Smelov) TSentral'nogo kozhno-venerologicheskogo instituta (dir. - dotsent N.M.Turanov) Ministerstva zdravookhraneniya SSSR, Moskva.

SAVKINA, M.F.

H-2

Category : USSR/Photoeffect - Electron and Ion Emission

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1650

Author : Bliskunov, N.A., Dobretrov, L.N., Parkhomenko, V.S., Savkina, M.F., Chistyakova, M.A.

Title : Cathodes with an Activator in the Oxide Layer (Preliminary Report)

Orig Pub : Tr. N.-i. in-ta. M-vo radiotekhn. prom-sti SSSR, 1956, vyp, 1 (29), 48-50

Abstract: The authors remark that it is possible to obtain a readily-activated cathode without interlaminations by introducing the activator not into the core, but directly into the coating. Preliminary experiments have shown that cathode with an admixture of 0.06% Si in the coating are easier to activate than cathodes with pure carbonate on pure nickel or on silicon nickel. These cathodes have nearly the same emission properties as cathodes employing nickel cores with Ca impurities, coated by pure carbonates.

Card : 1/1

YEVSTIGNEYEV, V.B.; SAVKINA, I.G.

Dark and photochemical reduction of protochlorophyll. Biofizika, 4 no.3:289-299 '59. (MIRA 12:7)

1. Institut biokhimii im. A.N. Bakha AN SSSR, Moskva.
(CHLOROPHYLL,
protochlorophyll, dark & photochem. restoration (Rus))

KRETOVICH, V.L.; YEVSTIGNEYEVA, Z.G.; ASEYEVA, K.B.; SAVKINA, I.G.

Nitrogenous substances in the vleeding sap of the pumpkin [with summary in English]. Fiziol.rast. 6 no.1:13-20 Ja-F '59. (MIRA 12:2)

1. A.N. Bach Institute of Biochemistry of the U.S.S.R. Academy of Sciences, Moscow.
(Pumpkin) (Sap) (Nitrogen)

SOV/20-124-3-57/67

17(3)

AUTHORS: Yevstigneyev, V. B., Gavrilova, V. A., Savkina, I. G.

TITLE: On the Photoreduction of Bilirubin and Protoporphyrin in Connection With the Study of the Photoreduction of Chlorophyll (O fotovosstanovlenii bilirubina i protoporfirina v svyazi s izucheniyem fotovosstanovleniya khlorofilla)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 3, pp 691-694 (USSR)

ABSTRACT: The chemical mechanism of the reaction, mentioned in the title, of chlorophyll and its analogues (discovered and studied at the laboratoriya fotobiokhimii = Laboratory of Photo-Biochemistry of the Institute mentioned in the Association) (Refs 1,2) so far remains unclarified. The authors quote the findings hitherto made with regard to this problem (Refs 1-10). For the purpose of obtaining further data, bilirubin (Ref 12) was tested with regard to its photoreductibility. Bilirubin contains the same 4 pyrrole rings, connected by methine bridges, as the porphyrins, the bond chain, however, remaining open. Therefore, there is a bilirubin absorption maximum in organic solvents in the short wave range of the spectrum, at about 450 mμ. Solutions of reactive bilirubin in pyridine and alcohol were investigated. They contained ascorbic acid or phenyl hydrazine. In vacuum tubes, the evacuated solutions were illuminated

On the Photoreduction of Bilirubin and Protoporphyrin in Connection With the Study of the Photoreduction of Chlorophyll

through a light filter BS-8 which cuts off the ultraviolet spectrum range below 370 mμ, and subjected to spectrophotometry. The tests showed that the bilirubin maximum decreased only slowly and irreversibly, whereas the absorption maxima of chlorophyll and other porphyrin pigments (with or without magnesium in the molecule center) changed significantly and reversibly (Refs 1,2). The counter-reaction did not occur on the addition of air. These findings were confirmed by the electrometrical measuring method of the redox potentials of photoreducible solutions. The test results with bilirubin directly substantiate the assumption that a closed system of conjugate double bonds plays the most important role in the photoreduction of pigments. The results of the tests with the photoreduction of protoporphyrin, as carried out by the authors, also point to this fact (see diagram; Ref 12). Figure 1 shows the changes of the absorption spectrum of an evacuated protoporphyrin solution in pyridine that contains ascorbic acid. They occurred with illumination and with the counter-reaction of the reduced product at room temperature and at -40°. From the analogy with the primary processes that take place in the photoreduction of the pheophytins

a and b, of proto-pheophytin, and hematoporphyrin (Refs 2,3), the authors assume that the now formed, highly unstable reduced product (absorbed in the 470-475 mμ range) constitutes the primary photo-reduced form of protoporphyrin, i.e. a free radical of the type of an ionized semiquinone (Ref 4). Although the lateral substituting groups are not of fundamental importance for the photoreductibility of the pigment, they may nevertheless affect the kinetics of partial reactions, and consequently the result of the reaction in general (Refs 2,3). The capacity of protoporphyrin to form the primary electrode-active form is confirmed by electrometrical measurings of the redox potentials (Fig 2). The above results prove the fact that the photoreduction of protoporphyrin - which does not contain a cyclopentanone ring - yet occurs on the same pattern as in the case of chlorophyll. These results re-confirmed the fact that this very ring system of conjugate double bonds is the localizing point of the photochemical reduction process of the pigment. The absorbed light quanta by acting upon the π-electrons of the system of said bonds, induce the system (due, apparently, to a conversion into a biradical, Ref 16) into a state in which it is capable of receiving a surplus electron. The localizing of the latter (if it occurs at all)

On the Photoreduction of Bilirubin and Protoporphyrin in Connection With the Study of the Photoreduction of Chlorophyll

still remains unknown. In conclusion approaches of the solution of this problem are indicated.- There are 1 figure and 16 references, 13 of which are Soviet.

ASSOCIATION: Institut biokhimii im. A. N. Bakha Akademii nauk SSSR (Institute of Biochemistry imeni A. N. Bakh of the Academy of Sciences, USSR)

PRESENTED: September 17, 1958, by A. N. Terenin, Academician

SUBMITTED: September 15, 1956

SAVKINA, I. G., YEVSTIGNEYEV, V. B., GAVRILOVA, V. A. (USSR)

"Examination of the Photoreduction and Photosensitizing Ability of Chlorophyll by Measurement of Electroconductivity."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

YEVSTIGNEYEV, V.B.; SAVKINA, I.G.

Studying photoreduction of chlorophyll and its analogues in various solvents by measuring its electric conductivity. Biofizika 6 no. 1:30-39 '61. (MIRA 14:2)

1. Institut biokhimii im. A.N. Bakha AN SSSR, Moskva.
(CHLOROPHYLL) (OXIDATION-REDUCTION REACTION)
(PHOTOCHEMISTRY) (ELECTRIC CONDUCTIVITY)

SAVKINA, I.G.; YEVSTIGNEYEV, V.B.

Comparing the photosensitizing activity of chlorophylls a and b in solution. Dokl.AN SSSR 138 no.4:958-961 Je '61. (MIRA 14:5)

1. Institut biokhimii imeni A.N.Bakha AN SSSR. Predstavleno akademikom A.N.Tereninym.

(CHLOROPHYLL)

YEVSTIGNEYEV, V.B.; SAVKINA, I.G.; GAVRILOVA, V.A.

Photoelectrochemical properties of chlorophyll and phthalocyanine films on polarized electrodes. Biofizika 7 no.3:298-305 '62. (MIRA 15:8)

1. Institut biokhimii imeni A.N.Bakha AN SSSR, Moskva.
(CHLOROPHYLL) (PHTHALOCYANINE) (ELECTROCHEMISTRY) (PHOTOCHEMISTRY)

L 10120-63 EWT(l)/EWT(m)/ES(a)/ES(b)/ES(c)/FS(k)/BDS AMD/AFFTC/
ESD-3 Pb-4 RML/RM/MAY
ACCESSION NR: AP3001477 S/0217/63/008/003/0335/0343

68
66

AUTHOR: Savkina, I. G.; Yevstigneyev, V. B.

TITLE: Spectral and photochemical properties of water-soluble chlorophyll analogs

SOURCE: Biofizika, v. 8, no. 3, 1963, 335-343

TOPIC TAGS: spectral properties, photochemical properties, water-soluble chlorophyll analogs, water-soluble pheophytin analogs, conjugated bond system

ABSTRACT: Spectral and photochemical properties of water-soluble analogs are of great interest because water is a more natural medium than the organic solvents in which chlorophyll properties are often studied. In this work water-soluble chlorophylls and pheophytins were investigated by alkaline hydrolysis of primary pigments. Absorption spectra were measured on a Bekman model DU spectrophotometer and fluorescence was measured on a recording device comparable to a glass ISP-51 spectrograph and a photoelectric FEP-1 attachment with a recording EPP-09 potentiometer. Potassium salts of chlorophillines and water-

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soluble derivatives of pheophytin are not soluble in sulfur and petroleum ethers, acetone, or pyridine but are soluble in water, methyl alcohol, and ethyl alcohol. Absorption spectra (measured in methanol, ethanol, and buffer solutions with pH 3, 5, 7, 9, and 11) do not differ for water-soluble compounds and corresponding unsaponified compounds in the visible area. Both have the same two basic peaks in the red and blue-violet bands. Similarity of absorption spectra of water-soluble compounds with spectra of primary pigments confirms that the alkaline action during hydrolysis does not affect the basic part of the molecule, the conjugated bond system, which determines its basic spectral and photochemical properties. Fluorescence spectra for water solutions and methanol solutions are comparable in intensity. The photooxidizing capacity of water-soluble chlorophyll analogs is demonstrated with dissolved oxygen of air, and their capacity to photoreduce is demonstrated with ascorbic acid in the presence of pyridine. Orig. art. has: 5 figures.

ASSOCIATION: Institut biokhimii im. A. N. Bakha AN SSSR, Moscow (Institute of Biochemistry, AN SSSR)

SUBMITTED: 18Dec62 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: 00 NR REF SOV: 011 OTHER: 009

Card 2/2

L 9871-63 BDS
ACCESSION NR: AP3001355 S/0048/63/027/006/0782/0786

49
48

AUTHOR: Savkina, I. G.; Yevstigneyev, V. B.

TITLE: Absorption and fluorescence spectra of water-soluble analogs of chlorophyll [Report of the Eleventh Conference on Luminescence held in Minsk from 10 to 15 September 1962]

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v. 27, no. 6, 1963, 782-786

TOPIC TAGS: water-soluble chlorophyll derivatives, chlorophyll hydrolysis products, absorption, fluorescence, chlorophyllin, pheophytin hydrolysis products

ABSTRACT: Investigation of water-soluble analogs of chlorophyll is a promising approach to understanding of the properties of this important organic pigment. The present study is part of a series of systematic investigations of the products of alkaline hydrolysis of chlorophyll: chlorophyllides and chlorophyllins. The present paper gives the results of measurements of the absorption and fluorescence spectra of the products of alkaline hydrolysis of chlorophylls a and b (chlorophyllins) and pheophytins a and b distilled from sucrose. The absorption

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ACCESSION NR: AP3001355

spectra were recorded on a Beckman DU spectrophotometer; the fluorescence spectra on a set-up assembled about an ISP-51 spectrograph with an FEP-1 attachment coupled to an EPP-09 graphic recorder. The fluorescence spectra were measured in methanol and buffer solutions at pH = 7 with excitation by filtered light from a high-pressure discharge tube; the absorption spectra were measured in methanol, ethanol and buffer solutions at different pH. Some spectra are reproduced in the figures. The absorption and fluorescence spectra of water solutions of the products obtained by saponification of chlorophylls and pheophytins indicate that as regards optical properties such products do not differ significatly from the initial compounds. Hence the alkaline hydrolysis technique yielding water-soluble salts can be used for studying or simulating chlorophyll containing systems. Orig. art. has: 3 figures.

ASSOCIATION: Institut biokhimii imeni A. H. Bakha Akademii nauk SSSR (Biochemistry Institute, Academy of Sciences, SSSR)

SUBMITTED: 00 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: PH,CH NR REF SOV: 003 OTHER: 004

jafnh
Card 2/2