AKOPYAN, A.A.; BIRYUKOV, V.G.; BUTKEVICH, G.V.; KOZHUKHOV, V.K.; KRAYZ, A.G.; NAYASHKOV, I.S.; SIROTINSKIY, L.I.; SAPOZHNIKOV, A.V.; SYROMYATNIKOV, I.A.; RABINOVICH, S.I.

A.V. Panov; on his 60th birthday. Elektrichestvo no.5:92 My '63. (MIRA 16:7)

(Panov, Aleksei Vasil'evich, 1903-)

SAPOZHNIKOV, A.V., kand.tekhn.nauk

Coordinations of the insulation of transformers protected by valve dischargers. Elektrotekhnika 35 no.2:46-49 F '64. (MIRA 17:3)

SAPOZHNIKOV, A.V., kand. tekhn. nauk (Moskva)

Insulation levels of high-voltage transformers. Elektrichestvo no.4:84-88 Ap '65. (MIRA 18:5)

L 22594-65 EWT(d)/EWP(k)/EWP(1)

ACC NR: AP6012999 SOURCE CODE: UR/0105/65/000/006/0090/0090

AUTHOR: Alekseyenko, G. V.; Borisenko, N. I.; Voyevodin, I. D.; Drozdov, N. G.; Krayz, A. G.; Man'kin, E. A.; Mayorets, A. I.; Nekrasov, A. M.; Nayashkov, I. S.; Pavlenko, A. S.; Rokotyan, S. S.; Sobolev, A. A.; Syromyatnikov, I. A.; Saposhnikov, A. V.; Sarkisov, M. A.; Chernichkin, D. S.; Chertin, A. M.

ORG: none

TITLE: S. I. Rabinovich (on the occasion of his 60th birthday)

SOURCE: Elektrichestvo, no. 6, 1965, 90

TOPIC TAGS: electric engineering personnel, electric transformer, hydroelectric power plant

ABSTRACT: The chief specialist of transformer building of the Gosplan (State Planning Commission) USSR, Samuil Isaakovich Rabinovich was born in 1905 in the town of Borisoglebsk of the Voronezh Oblast'. From his student years at the Gosudarstvennyy elektromashinostroitel'nyy institut (State Machine-Building Institute) he already showed interest for power transformers. In the early thirties he designed the first types of domestic Soviet 110 and 220 kV transformers; in 1939 he became the chief designer of the Moskovskiy transformatornyy zavod (Moscow Transformer factory). In 1946, he conducted the design and construction of lightning-resistant transformers; during 1949-1954,

Card 1/2 UDC: 621.314(092)

L 22594-66
ACC NR: AP6012999

he headed the design of the 400 kV transformer equipment for the Volzhskaya hydroelectric power station - Moscow power line; his subsequent work on the 500 kV equipment earned him the Lenin prize. From 1960, he has been working at the Gosplan USSR. He is also a member of the editorial board of the journal Elektrichestvo (Electricity). Orig. art. has: 1 figure. [JPRS]

SUB CODE: 10, 09 / SUBM DATE: none

Card 2/2 fw

ACC NR: AP6013618 SOURCE CODE: UR/0105/66/000/011/0086/0087

AUTHOR: Biryukov, V. G.; Britchuk, V. V.; Kozhukhov, V. K.; Krayz, A. G.; Nayashkov, I. S.; Nazarevskiy, N. I.; Panov, A. V.; Petrov, G. N.; Rabinovich, S. I.; Sapozhnikov, A. V.

36, 32, B

ORG: none

TITLE: E. A. Man'kin, on his 60th birthday

SOURCE: Elektrichestvo, no. 11, 1965, 86-87

TOPIC TAGS: electric engineering personnel, synchrotron

ABSTRACT: Emmanuil Abramovich MAN'KIN, who after 35 years of scientific-engineering work ranks as one of the senior workers in the transformer-building field, was 60 years old on 28 May 1965. After graduating in 1927 from the electrical machine building institute in Moscow he became an engineer of the Moscow transformer factory (presently Moskovskiy elektrozavod; Moscow Electric Factory). He constructed and headed until 1934 the transformer testing station. During the 1935-1942 period he was head of the bureau for the design of special transformers, and during these years carried out numerous theoretical investigations concerning electromagnetic transformer calculations. His methods for the calculation of transformer leakage earned

UDC: 621.314.21

Card 1/2

L 22432-66
ACC NR: AP6013618

him the degree of candidate of engineering sciences. Between 1942 and 1947 he was deputy head of the engineering department of the factory, and since 1947, while heading the Bureau of Electromagnetic Design of the Spetsial'nyy konstruktorskiy byuro (Special Construction Bureau) he has been one of the main designers of the world's first 280 MeV synchrotron. From 1955 to 1958 E. A. MAN'KIN headed the group of designers working on the 400 kV transformer equipment of the Volgograd-Donbass power line. Since 1960 he has been head of the transformer laboratory of the Vsesoyuznyy elektrotekhnicheskiy institut (All-Union Electrotechnical Institute) im. Lenin. In the same year he obtained the degree of Doctor of Engineering Sciences for his works "Electromagnetic design of transformers, reactors, and charged particle accelerators." In the course of his engineering and research activity he published more than 30 papers. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09, 20 / SUBM DATE: none

Card 2/2 BLG

ROKOTYAN, Ye.S., doktor tekhn.nauk, prof.; ZHUKEVICH-STOSHA, Ye.A.; SOLOV'YEV, O.P.; LYAMIN, G.N.; SAPOZHNIKOV, A.Ya.; LIPUKHIN, V.A.; KOGOS, A.M.; ISTOMIN, A.V., retsenzent; KAUFMAN, M.A., nauchn. red.; PODCHUFAROVA, S.I., red.; KOGAN, F.L., tekhn. red.

[Modern rolling mills abroad] Sovremennye prokatnye stany za rubezhom. Moskva, 1962. 419 p. (MIRA 16:8)

1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy informatsii mashinostroyeniya.

(Rolling mills)

GASANENKO, L.B.; MOLOTKOVA, M.N.; SAFOZHNIKOV, B.G.

Normal field of an infinite straight cable (field in the air). Uch. zap. LGU no.324:43-64 '64. (MIRA 18:4)

TARASOV, G.A.; SAPOZHNIKOV, B.O.

Method of the outer gradient. Vop.razved.geofiz. no.4: 9-22 '64. (MIRA 19:1)

L 33263-66 EWT(1) GW

ACC NR: AT6012790 SOURCE CODE: UR/3175/66/000/027/0135/0140

46

AUTHOR: Sapozhnikov, B.G. 23+1

ORG: VIRG

TITLE: Observations with the apparatus ANCh-1 at high transfer resistances of the receiving circuit

SOURCE: USSR. Gosudarstvennyy geologicheskiy komitet. Osoboye konstuktorskoye byuro. Geofizicheskaya apparatura, no 27, 1966, 135-140

TOPIC TAGS: mining engineering, prospecting, geophysic instrument, electric resistance /ANCh-1 geophysic instrument

ABSTRACT: This paper is concerned with alleviation of errors arising in geophysical prospecting with the low frequancy, ground potential prospecting set ANCh-1, due to high ground-to electrode transfer resistance (up to several megohms under bad field conditions). The errors are analyzed and a correction method discussed, based upon twin measurements of the ground potential, with the normal and with a lowered voltmeter resistance. Correction coefficient formulas and curves are given and the probable errors of corrected measurements analyzed. Suggestions for minor modifications of the set to enable twin potential measurements and an estimate of the electrode transfer resistance are given. Orig. art. has 3 figures.

SUB CODE: 08/ SUBM DATE: 00/ ORIG REF: 003

Card 1/1

SAPOZHNIKOV, B.M., inzhener.

New electrical circuit for elevators. Ger.khoz.Mosk.29 no.2:28-31 F '55. (MLRA 8:5)
(Elevators)

SAPOZHNIKOV, P. T.

"The Diffraction of Electromagnetic Waves by Lattices in a Rectangular Waveguide." Cand Phys-Math Sci, Moscow State Pedagogical Inst imeni V. I. Lenin, 10 Jan 55. (VM, 30 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

CHERNOKAL'TSEV, Yu.; SAPOZHNIKOV, D.; KOTYKH, A.

Advisability of compiling charts for radar use. Mor. flot 18 no. 6:3-4 Je '58. (MIRA 11:7)

1. Glavsevmorput' Ministerstva morskogo flota. 2. Nachal'nik partii radiolokatsionnogo obsledovaniya beregov (for Chernokal'tsev). 2. Starshiye inzhenery partii radiolokatsionnogo obsledovaniya beregov (for Sapozhnikov, Kotyukh).
(Nautical charts)
(Radar in navigation)

SAPOZHNIKOV, D. G.

"Calcareo-Dolomitic Muds of the Balkhash Lake," Dok. AN, 36, No. 4--5, 1942.

SAPOZHNIKOV, D.G.; SHATSKIY, N.S., redaktor; KRESTOVNIKOV, V.N., redaktor; POPOVA, S.T., redaktor; KARPOV, I.I., tekhnicheskiy redaktor.

Copper-bearing sandstone in the western region of central Kazakhstan. Trudy Inst.geol.nauk no.93:1-122 '48. (MLRA 9:8)

1. Chlen-korrespondent akademii nauk SSSR (for Shatskiy)
(Kazakhstan--Geology, Stratigraphic) (Kazakhstan--Copper ores)

SAPOZHNIKOV, D. G.

Geology - Balkhash, Lake

Recent sediments and geology of Lake Balkhash. Trudy Inst. geol. nauk AN SSSR no. 1,1951

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

SAPOZHNIKOV, D. G.

(3)

The copper-bearing sandstones of the basin of the Ishim River in Kazakhstan. D. G. Sapozhnikov and L. P. Zlatogurskaya. *Byull. Moskov. Obshchestva Ispytatel. Prirody, Otdel Geol.* 28, No. 6, 15–20(1953).—The following data concerning the Cu sandstones are given: (1) stratigraphic distribution in the Paleozoic series, (2) characteristics of the tectonic structure and lithology of the surrounding rock, and (3) characteristics of the ore minerals. Two tables give results of chem. analyses of the HCl extns. of a series of sandstones and siltstones and of some limestones. Six photomicrographs show 3 forms of segregation of the ore minerals in the cupriferous sandstones. G. S. Mucy.

10/12/54 CM

Sapozhnikov, D.G.

STRAKHOV, N.M.; BRODSKAYA, N.G.; KNYAZEVA, L.M.; RAZKHIVINA, A.N.; RATEYEV, M.A.; SAPOZHNIKOV, D.G.; SHISHOVA, Ye.S.; BELYANKIN, D.S., akademik, redaktor [deceased]; BEZRUKOV, P.L., doktor geologo-mineralogicheskikh nauk, otvetstvennyy redaktor; NOSOV, G.I., redaktor; AUZAN, N.P., tekhnicheskiy redaktor

[Marine and continental sedimentation today] Obrazovanie osadkov v sovremennykh vodoemakh. Moskva, Izd-vo Akademii nauk SSSR, 1954. 791 p. (MLRA 7:10)

(Sedimentation and deposition)

SAPOZHNIKOV, D. G.

USSR/ Geology - Minerals

Card 1/1 Pub. 86 - 14/36

Authors : Sapozhnikov, D. G., Dr. of Geol. Mineral. Sc.

Title : Lake Balkhash and its bottom deposits

Periodical : Priroda 2, 86-90, Feb 1954

Abstract : The various useful minerals extracted from the bottom deposits of Lake Balkhash (third largest in Central Asia), are described. The origin and accumulation of these minerals in the sludge of the lake are explained. Drawing; illustrations.

Institution : Acad. of Sc., USSR, Institute of Geological Sciences

Submitted : .....

SAPOZHNIKOV, D.G.

BUSHINSKIY, G.I.; STRAKHOV, N.M., akademik, glavny redaktor; SAPOZHNIKOV, D.G., otvetstvennyy redaktor; NOSOV, G.I., redaktor; KHVRAYEVA, N.A., tekhnicheskiy redaktor.

Lithology of Cretaceous deposits of the Dnieper-Donets Lowland. Trudy Inst.geol.nauk no. 156:3-307 '54. (MLRA 8:2)
(Dnieper Lowland--Geology, Stratigraphic)(Donets Basin--Geology, Stratigraphic)

SARKISYAN, S.G., KLIMOVA, L.T.; SAPOZHNIKOV, D.G., redaktor; NOSOV, G.I., redaktor; SOKOLOVA, T.P., tekhnicheskiy redaktor

[Orientation of pebbles and methods of studying them for paleogeographic construction] Orientirovka glaek i metody ikh izucheniia dlia paleogeograficheskikh postroenii. Moskva, Izd-vo Akademii nauk SSSR, 1955. 164 p. (MLRA 8:6)
(Pebbles) (Paleogeography)

SAPOZHNIKOV, D.G.

USSR/ Minerals - Ore deposits

Card 1/1 Pub. 46 - 4/21

Authors : Sapozhnikov, D. G.

Title : On the phases of sedimentary ore formation

Periodical : Izv. AN SSSR. Ser. geol. 20/2, 44 - 57, Mar-Apr 1955

Abstract : The process of the formation of sedimentary ore deposits is divided into basic phases, and an attempt is made to point out some peculiarities of the ore particles which were formed in the different phases. Fifteen references: one German, 14 Soviet (1912-1953). Map; diagrams.

Institution : .....

Submitted : June 8, 1954

USSR/ Geology - Mineralogy

Card 1/1 Pub. 124 - 4/25

Authors : Sapozhnikov, D. G., Dr. of Geol. Mineral. Sc.

Title : Problems of studying the sedimentary ore forming process

Periodical : Vest. AN SSSR 25/12, 29-31, Dec 1955

Abstract : The problems involved in the investigation of the sedimentary ore-forming processes are analyzed.

Institution : .....

Submitted : .....

SAPOZHNIKOV, D.G.

Conference on the study of the distribution of ores in sedimentary formations. Geol.rud.mestorozh. no.1:125-127 Ja-F '59. (MIRA 12:5)

(Ore deposits) (Rocks, Sedimentary)

SAPOZHNIKOV, D.G., doktor geologo-mineral. nauk

Mineral salts are a valuable source of raw materials for the chemicals industry. Vest. AN SSSR 29 no.4:157-158 Ap '59. (MIRA 12:5)

(Saline waters) (Chemicals industry)

SOV/2o-124-2-46/71

3(8)

AUTHORS: Sapozhnikov, D. G., Tsvetkov, A. I.

TITLE: Separation of the Aqueous Calcium Carbonate on the Bottom of the Issyk-Kul' Lake (Vydeleniya vodnogo karbonata kal'tsiya na dne oz. Issyk - Kul')

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 2, pp 4o2 - 4o5 (USSR)

ABSTRACT: Among the bottom sediments of the Issyk-Kul' lake especially the new carbonate formations which widely occur in the shore zone (Ref 1) are striking. On the basis of analyses carried out at the Institut geologicheskikh nauk AN USSR (Institute of Geological Sciences, AS USSR) the author expressed the assumption that the new formations contain calcium hydrocarbonate. This was confirmed later on. The carbonate substance grows like a cap on bits of rock which are lying on the ground or it covers cracks in the surf zone forming irregular shapes following the unevennesses of the substratum. Also loaf-shaped formations can be found on the bottom. Sometimes they have a diameter of up to 0.5 m. The substance of the new formations forms hard limestone with holes and pores and

a very uneven surface. The new formations remind of single varieties of limestone tuff, sometimes of organogenic formations. The carbonate substance is not homogeneous. It contains sand grains and small shells of mollusks. The surface of the new formations is covered with small hummocks of a height of up to 0.5 mm free from organic substance, however, coated with a thin (fractions of millimeters)slimy film:its origin has not yet been determined. The new formations are developed mainly in the shore zone. They are found everywhere in the lake, mainly on the open shore. They are not observed in the bays near the mouths of great rivers. On the bottom of the lake a number of small splinters of the new mentioned formations can be found which are equally carried to the shore by the surf. In the cut of the formations mentioned 2 phases are visible: a) grains of normal calcite; b) a finely disperse substance with a much weaker double refraction than in the case of calcite which, however, is sufficiently high (yellow and orange-yellow colors of interference). Substance b) forms roundish purely crystalline precipitates (0.5 - 1.0 mm). The constants and results

of chemical, thermoanalytical and X-ray analysis of substance b are given (Table 2). The authors obtained the empirical formula $CaCO_3.0.65H_2O$. The binding of water in the carbonate investigated is very strong. For this reason it may be identified neither with the hydrocalcites (Ref 2) nor with their hexa- and pentahydrates which, as is known, are very unstable. Figure 1 shows the thermogram. Table 2 gives data on the X-ray analysis of the carbonate before and after heating up to 400° including data on standard calcite. The above described new formations have hitherto not been known. There are 1 figure, 2 tables, and 2 references, 1 of which is Soviet.

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii Akademii nauk SSSR (Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry, Academy of Sciences, USSR)

PRESENTED: August 18, 1958, by D. S. Korzhinskiy, Academician

SAPOZHNIKOV, D.G.; KORIN, I.Z., red. izd-va; PRUSAKOVA, T.A., tekhn. red.

[Theory of the evaluation of sedimentary ore deposits; applied to platform area conditions] K teorii prognoza osadochnykh rudnykh mestorozhdenii; primenitel'no k usloviiam platformennykh oblastei. Moskva, Izd-vo Akad. nauk SSSR, 1961. 140 p. (MIRA 14:11)
(Ore deposits)

SAPOZHNIKOV, D.G.; KAVUN, V.I.; KALININ, V.V.; ROZHKO, M.N.

Characteristics of the distribution of iron and manganese in the Karadzhal deposit. Geol.rud.mestorozh. no.4:19-36 Jl-Ag '61. (MIRA 14:10)

1. Institut geologii rudnykh mestorozhdenii, petrografii, mineralogii i geokhimii AN SSSR, Moskva.
(Atasu region--Iron ores)
(Atasu region--Manganese ores)

SAPOZHNIKOV, D.G.; VISELKINA, M.A.

Exogenous uranium deposit associated with a variegated continental formation. Geol.rud.mestorozh. no.3:22-42 My-Je '62. (MIRA 15:6)
(Uranium ores)

VOL'FSON, F.I.; GINZBURG, I.I.; SAPOZHNIKOV, D.G.; SOKOLOV, G.A.; YANITSKIY, A.L.

Eightieth birthday of B.P. Krotov. Geol.rud.mestorozh. no.5:117-118 S-O '62. (MIRA 15:12)

(Krotov, Boris Petrovich, 1882-)

SAPOZHNIKOV, D.G.; BORUSHKO, T.I., red.izd-va; SUSHKOVA, L.A., tekhn.red.

[Karadzhal ferromanganese deposit (in central Kazakhstan)] Karadzhal'skoe zhelezo-margantsevoe mestorozhdenie (v TSentral'nom Kazakhstane). Moskva, 1963. 194 p. (Akademiia nauk SSSR. Institut geologii rudnykh mestorozhdenii, petrografii, mineralogii i geokhimii. Trudy, no.89). (MIRA 17:4)

SAPOZHNIKOV, D.G.

Current problems in studying manganese deposits. Geol. rud. mestorozh. 6 no.2:85-91 Mr-Ap '64. (MIRA 17:6)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR.

SAPOZHNIKOV, L. G.

18

L 50199-65 EPA(s)-2 /EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b)/EWA(c) Pu-4
IJP(c) WVH/ES/JD/WW/JG

AM5014982 BOOK EXPLOITATION UR/553.061:546.79

Batulin, S. G.; Golovin, YE. A.; Zelenova, O. I.; Kashirtseva, M. F.; Komarova, G. V.; Kondrat'yeva, I. A.; Lisitsin, A. K.; Perel'man, A. I.; Sindel'nikova, V. D.; Chernikov, A. A.; Shmariovich, YE. M.

Exogenous epigenetic deposits of uranium; formation conditions (Ekzonennyye epigeneticheskiye mestorozhdeniya urana; usloviya obrazovaniya). Moscow, Atomizdat, 1965. 321 p. illus., biblio. Errata slip inserted. 1100 copies printed.

TOPIC TAGS: deposit formation, epigenetic theory, exodiagenetic deposit, surface uranium accumulation, uranium bituminous deposit, uranium deposit, uranium, nuclear fuel.

PURPOSE AND COVERAGE: This book is intended for readers specializing in the geology of ore deposits, in particular for those concerned with atomic raw materials, and also for students of higher-education institutions. In the book, for the first time in Soviet and foreign literatures, the epigenetic theory of uranium-deposit formation is expounded. Many Soviet and foreign source materials

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have been used in this book, and some of the investigations carried out by the present authors are published in this book for the first time. Several names of Soviet scientists working in this field are mentioned. V. A. Uspenskiy collaborated on Ch. X, and M. A. Viselkina on Ch. III. The authors thank A. A. Saukov, deceased, Corresponding Member Academy of Sciences USSR, and F. I. Vol'fson, D. G. Sapozhnikov, V. I. Gerasimovskiy, M. F. Strelkin, G. S. Gritsayenko, and I. P. Kushnarev, Doctors of Geologico-Mineralogic Sciences; V. I. Danchev, Candidate of Geologico-Mineralogic Sciences, and N. A. Volokovykh. There are about 12 pages of references of which about 3/4 are Soviet.

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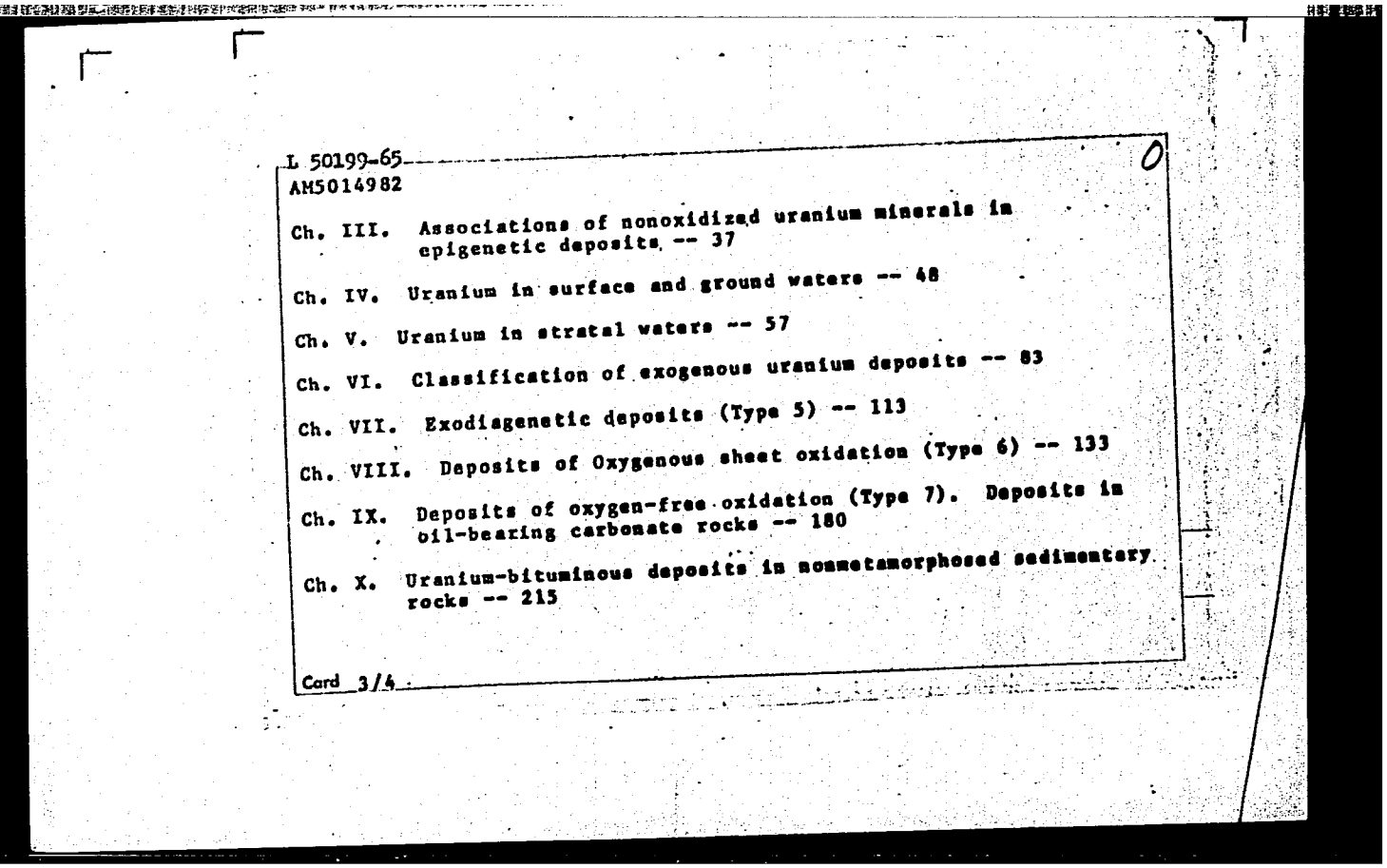

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AM5014982

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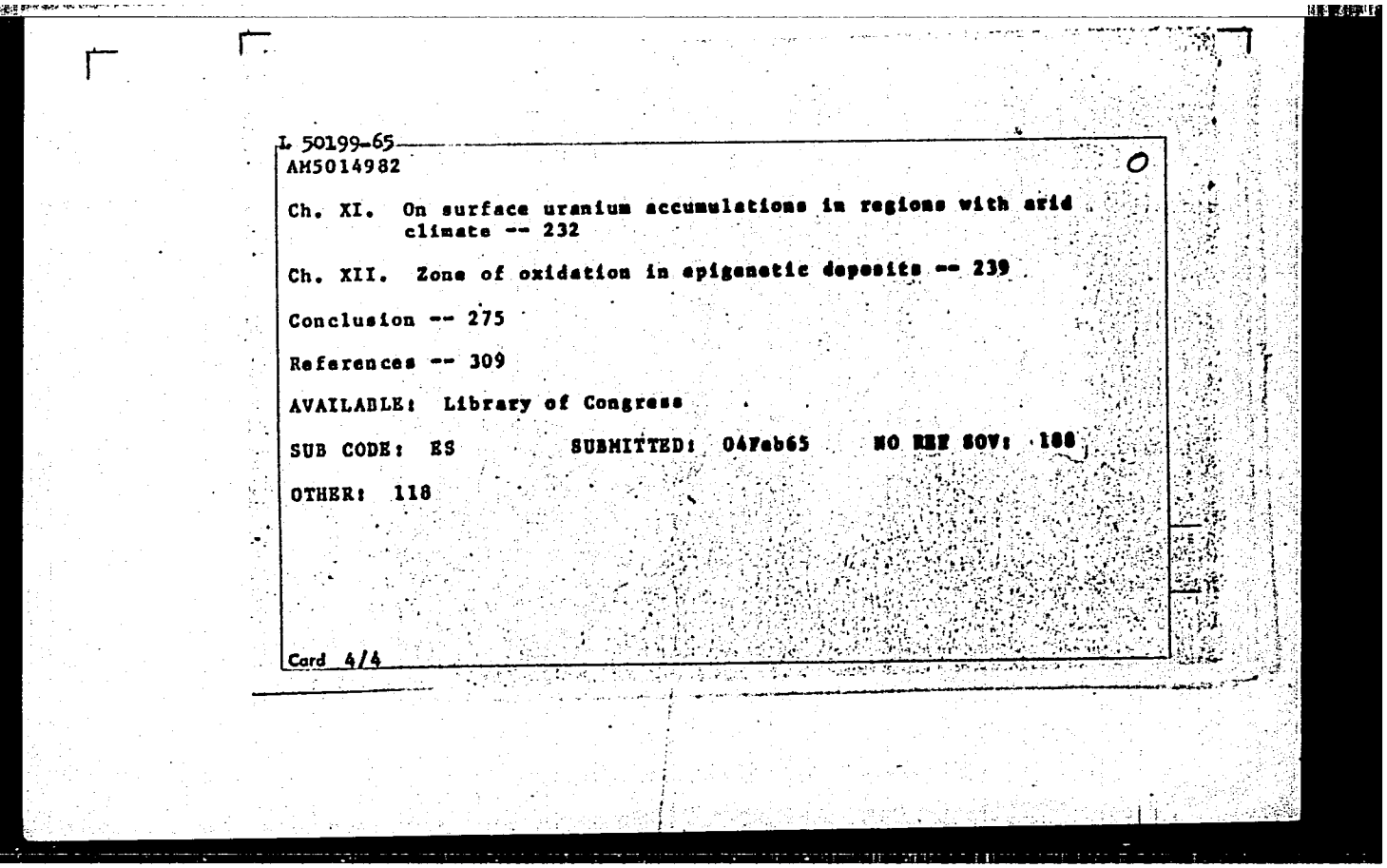

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Ch. XI. On surface uranium accumulations in regions with arid climate -- 232

Ch. XII. Zone of oxidation in epigenetic deposits -- 239

Conclusion -- 275

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AVAILABLE: Library of Congress

SUB CODE: ES SUBMITTED: 04Feb65 NO REF SOV: 188

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BUGEL'SKIY, Yu.Yu.; VITOVSKAYA, I.V.; GODLEVSKIY, M.N.; ZVEREVA, Ye.A.; KORIN, I.Z.; NIKITIN, K.K.; NIKITINA, A.P.; PISEMSKIY, G.V.; SAPOZHNIKOV, D.G.; SOKOLOV, G.A.; CHUKHROV, F.V.; SHCHERBAKOV, D.I.; EDEL'SHTEYN, I.I.; YANITSKIY, A.A.

Il'ia Isaakovich Ginzburg, 1882?-1965; obituary. Geol.rud.mestorozh. 7 no.4:109-110 Jl-Ag '65. (MIRA 18:8)

KALININ, Vasiliy Vasil'yevich; SAPOZHNIKOV, D.G., doktor geol.-miner. nauk, otv. red.

[Iron-manganese ores of the Karadzhal deposit] Zhelezo-margantsevye rudy mestorozhdeniia Karadzhal. Moskva, Nauka, 1965. 122 p. (MIRA 18:12)

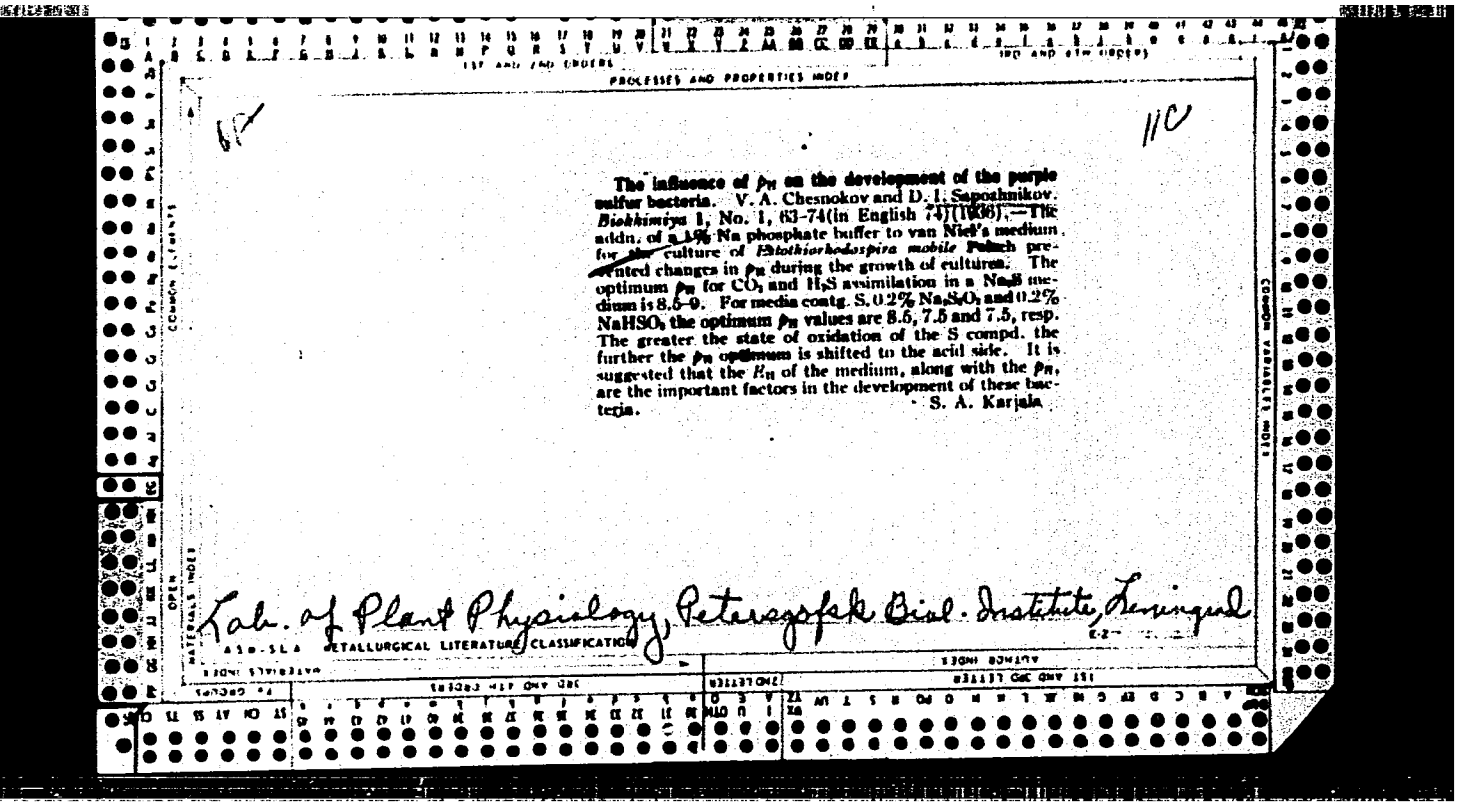
SAPOZHNIKOV, D.G.; SHAKINA, L.S.

Coordination conference on weathering surface. Geol.rud.mestorozh. 7 no.4:100-102 Jl-Ag '65. (MIRA 18:8)

SAPOZHNIKOV, D.I.; ALKHAZOV, D.G.; EYDEL'MAN, Z.M.; BAZHANOVA, N.V.; LEMBERG, I.Kh.; MASLOVA, T.G.; GIRSHIN, A.B.; POPOVA, I.A.; SAAKOV, V.S.; POPOVA, O.F.; SHIRYAYEVA, G.A.

Incorporation of O^{18} from heavy oxygen water into violaxanthin due to the action of light on plants. Bot. zhur. 46 no. 5:673-676 My '61. (MIRA 14:7)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.
(Oxygen—Isotopes) (Violaxanthin)



PROCESSES AND PROPERTIES INDEX

The influence of p_H on the development of the purple sulfur bacteria. V. A. Chesnokov and D. I. Saposhnikov. *Biokhimiya* 1, No. 1, 63-74(in English 74)(1936).—The addn. of a 1% Na phosphate buffer to van Niel's medium for the culture of *Ectothiorhodospira mobile* Pelsch prevented changes in p_H during the growth of cultures. The optimum p_H for CO_2 and H_2S assimilation in a Na_2S medium is 8.5–9. For media contg. S, 0.2% $Na_2S_2O_3$ and 0.2% $NaHSO_3$ the optimum p_H values are 8.5, 7.5 and 7.5, resp. The greater the state of oxidation of the S compd. the further the p_H optimum is shifted to the acid side. It is suggested that the E_H of the medium, along with the p_H, are the important factors in the development of these bacteria.

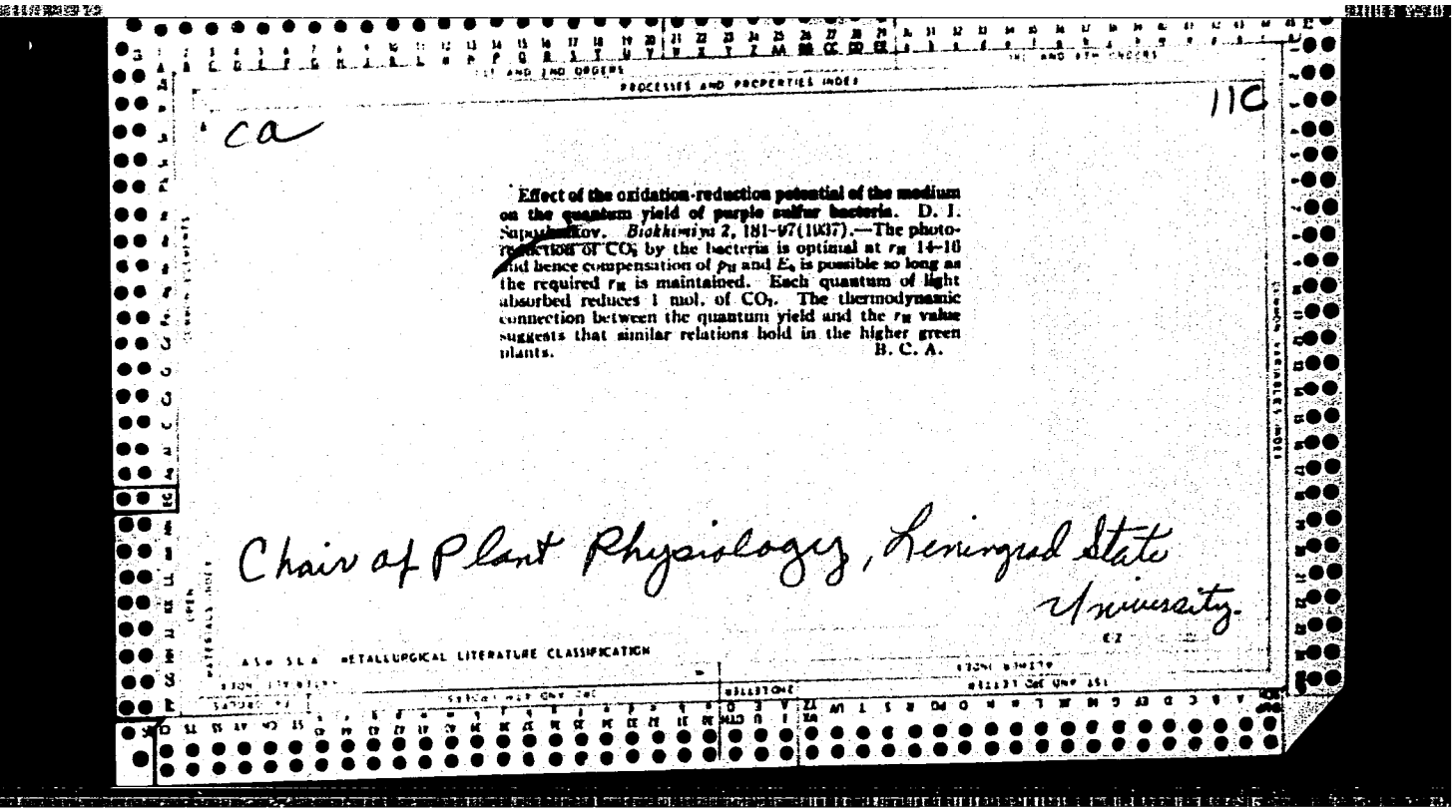
S. A. Karjala

Lab. of Plant Physiology, Petersgofsk Biol. Institute, Leningrad

METALLURGICAL LITERATURE CLASSIFICATION

SAPOZHNIKOV, D.

The growth of purple sulfur bacteria on organic acids.
V. CHESNOKOV AND D. SAPOZHNIKOV. vol. 1, no.2; p. 157 ,1936
(LAB. OF PLANT PHYSIOLOGY PETERHOFSK BIOLOGICAL INST. L.G.U.)



PROCESSES AND PROPERTIES INDEX

11C

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Effect of the oxidation-reduction potential of the medium on the quantum yield of purple sulfur bacteria. D. I. Sapozhnikov. *Biokhimiya* 2, 181-97(1937).—The photoreduction of CO_2 by the bacteria is optimal at r_H 14-16 and hence compensation of p_H and E_h is possible so long as the required r_H is maintained. Each quantum of light absorbed reduces 1 mol. of CO_2. The thermodynamic connection between the quantum yield and the r_H value suggests that similar relations hold in the higher green plants.
B. C. A.

Chair of Plant Physiology, Leningrad State University.

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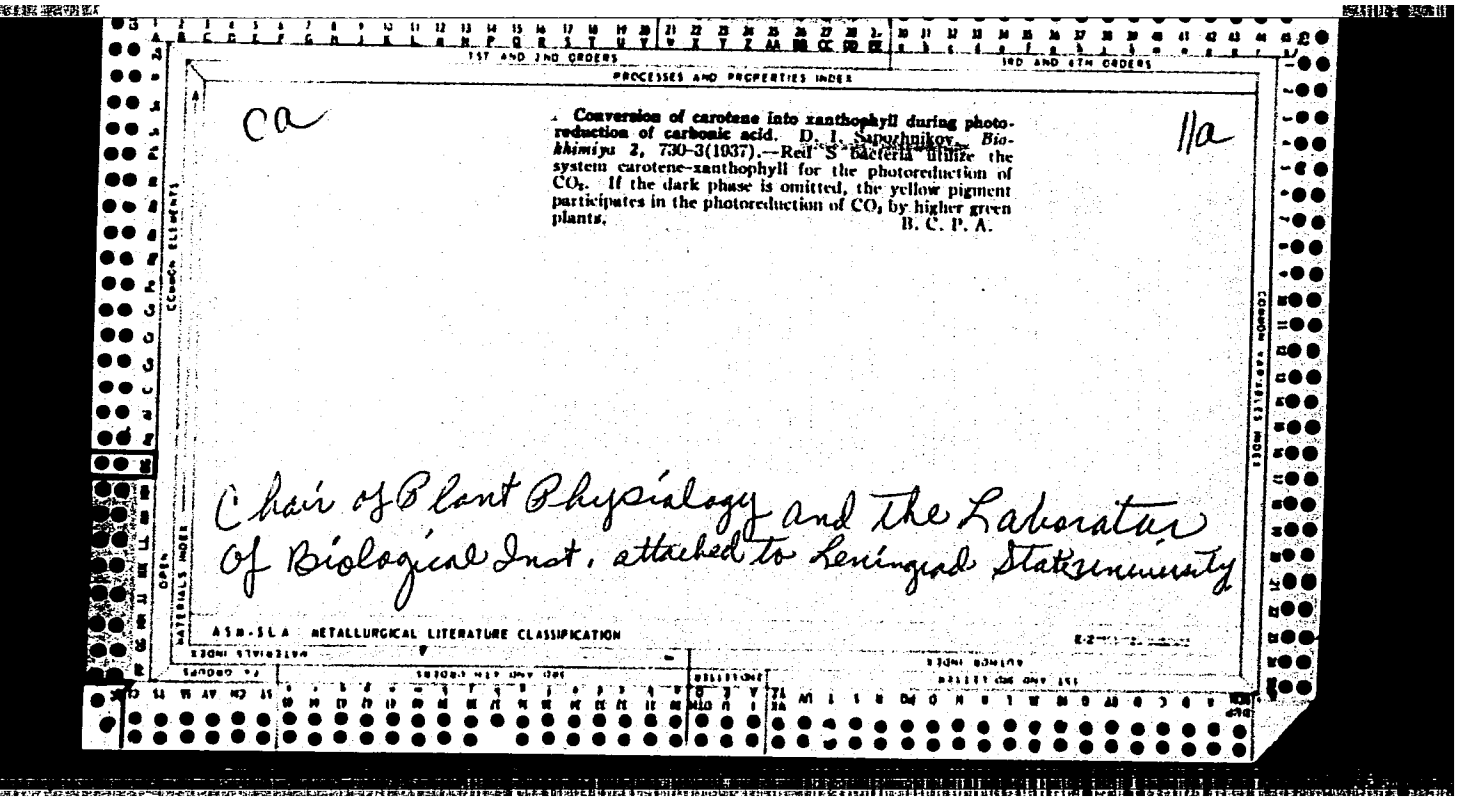
A1a SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

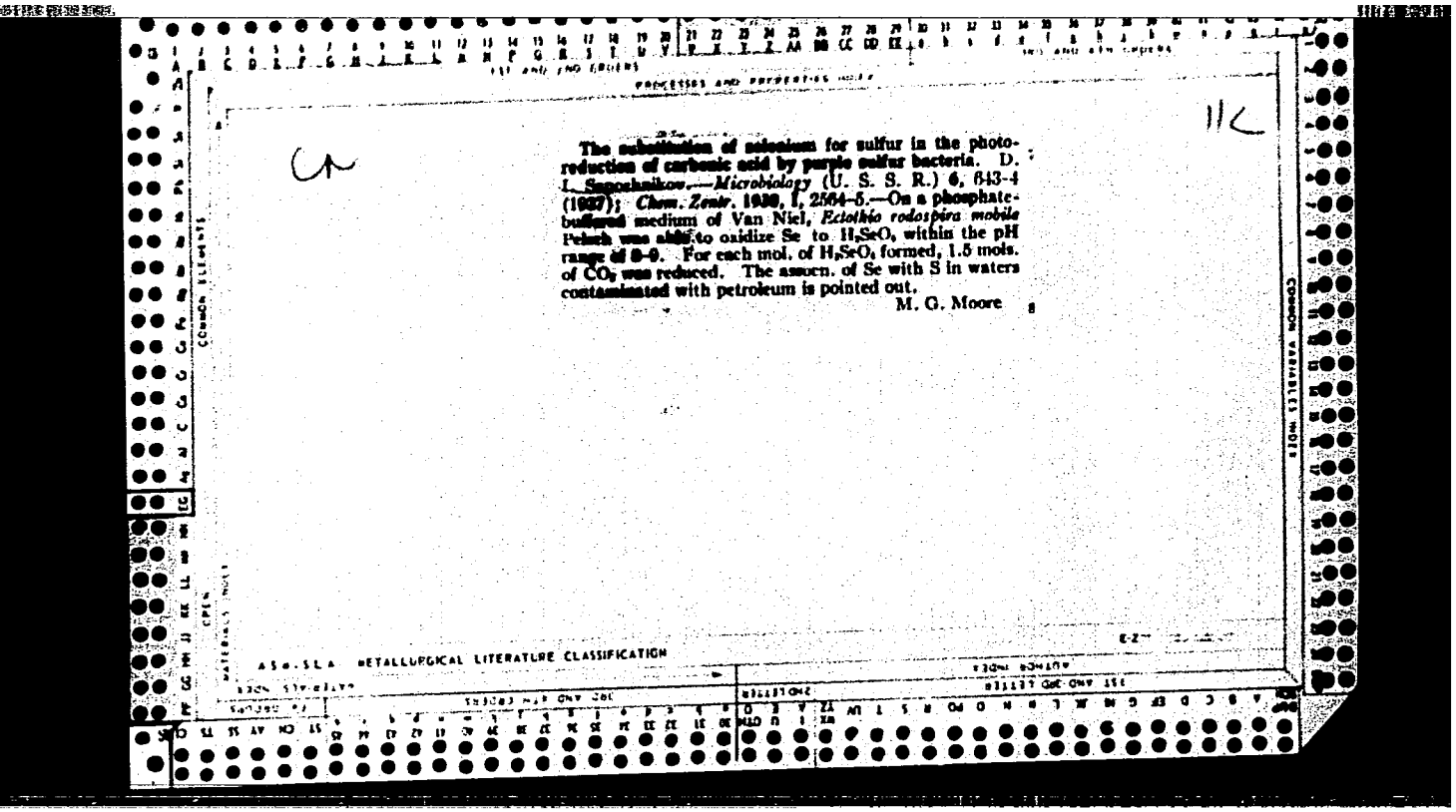
CA

11a

Conversion of carotene into xanthophyll during photoreduction of carbonic acid. D. I. Sapozhnikov. *Biokhimiya* 2, 730-3(1937).—Red S bacteria utilize the system carotene–xanthophyll for the photoreduction of CO_2. If the dark phase is omitted, the yellow pigment participates in the photoreduction of CO_2 by higher green plants.
B. C. P. A.

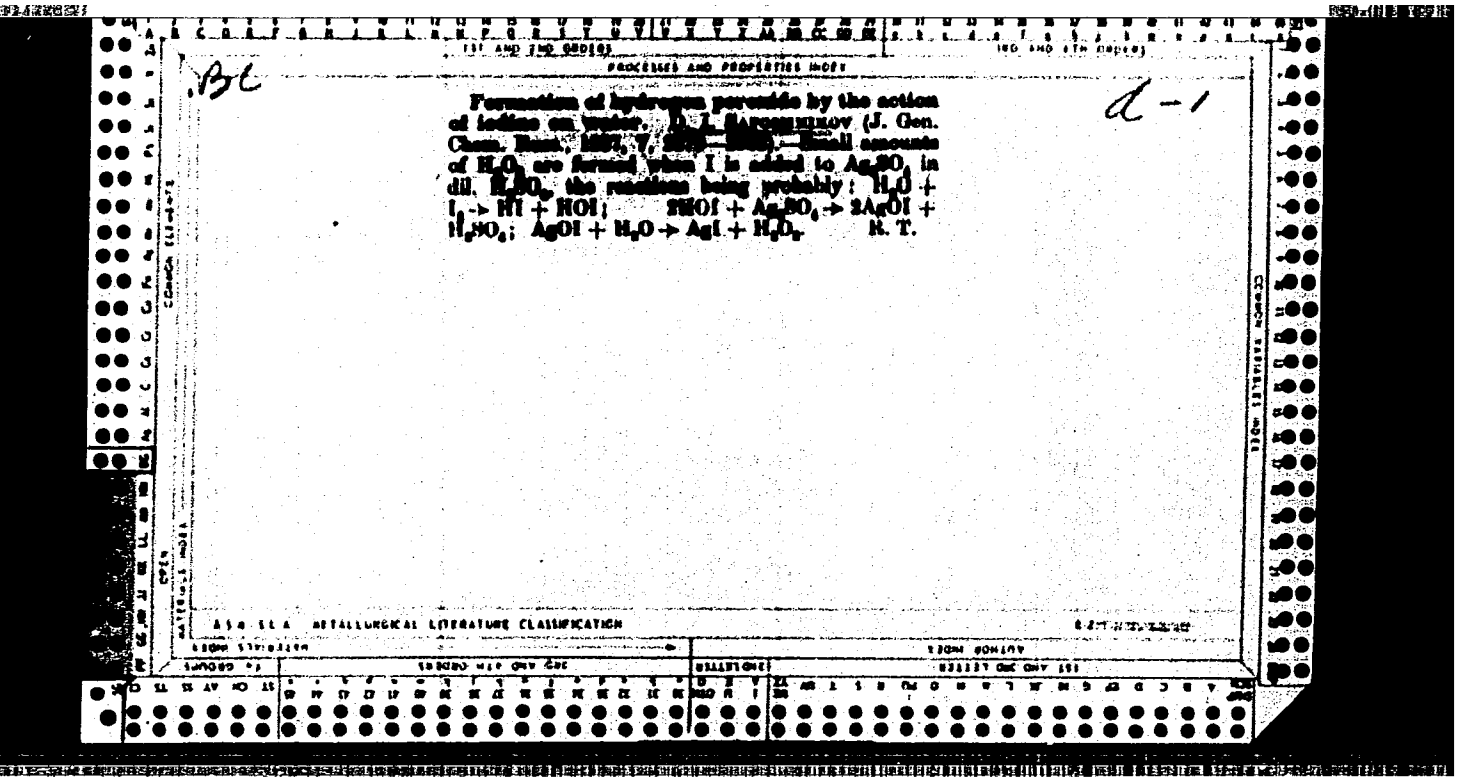
Chair of Plant Physiology and the Laboratory of Biological Inst. attached to Leningrad State University

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

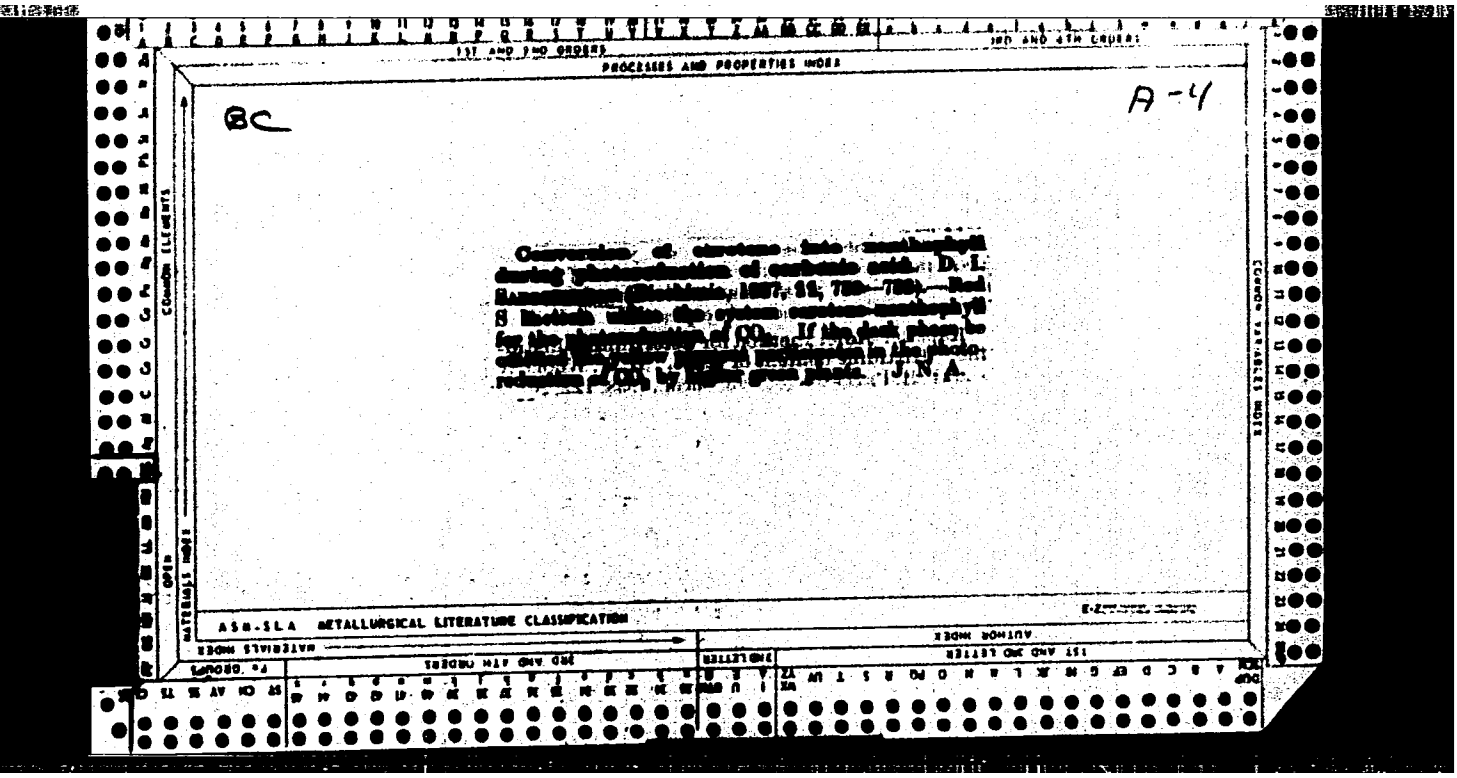


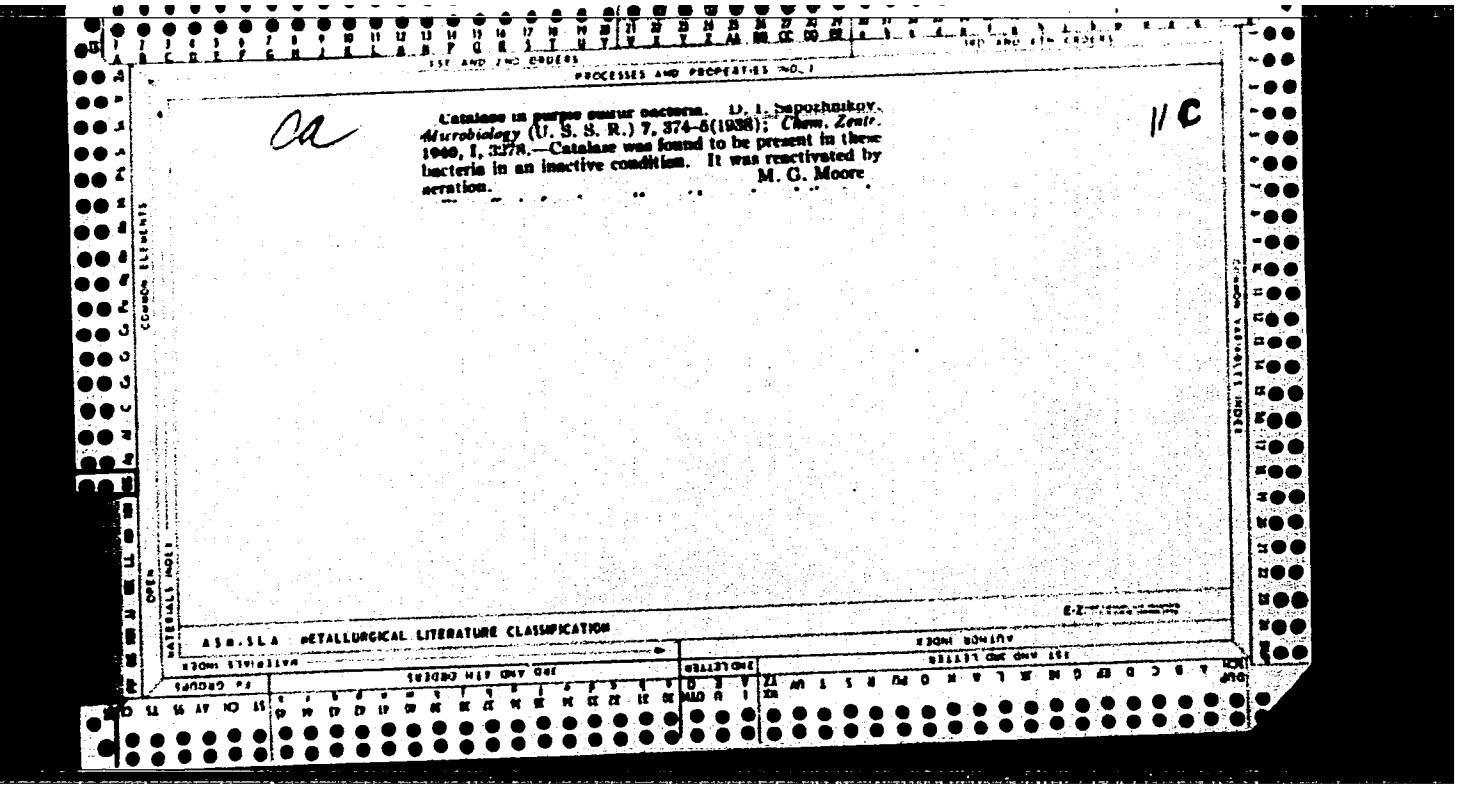
The substitution of selenium for sulfur in the photoreduction of carbonic acid by purple sulfur bacteria. D. I. Saposhnikov.—*Microbiology* (U. S. S. R.) **6**, 643-4 (1937); *Chem. Zentr.* 1938, I, 2564-5.—On a phosphate-buffered medium of Van Niel, *Ectothio rodospira mobile* Pelsch was able to oxidize Se to H_2SeO_4 within the pH range of 8-9. For each mol. of H_2SeO_4 formed, 1.5 mols. of CO_2 was reduced. The assocn. of Se with S in waters contaminated with petroleum is pointed out.

M. G. Moore



Formation of hydrogen peroxide by the action of iodine on water. [illegible] (J. Gen. Chem. [illegible]). Small amounts of H_2O_2 are formed when I is added to Ag_2SO_4 in dil. H_2SO_4, the reactions being probably: $H_2O + I_2 \rightarrow HI + HOI$; $2HOI + Ag_2SO_4 \rightarrow 2AgOI + H_2SO_4$; $AgOI + H_2O \rightarrow AgI + H_2O_2$. N. T.





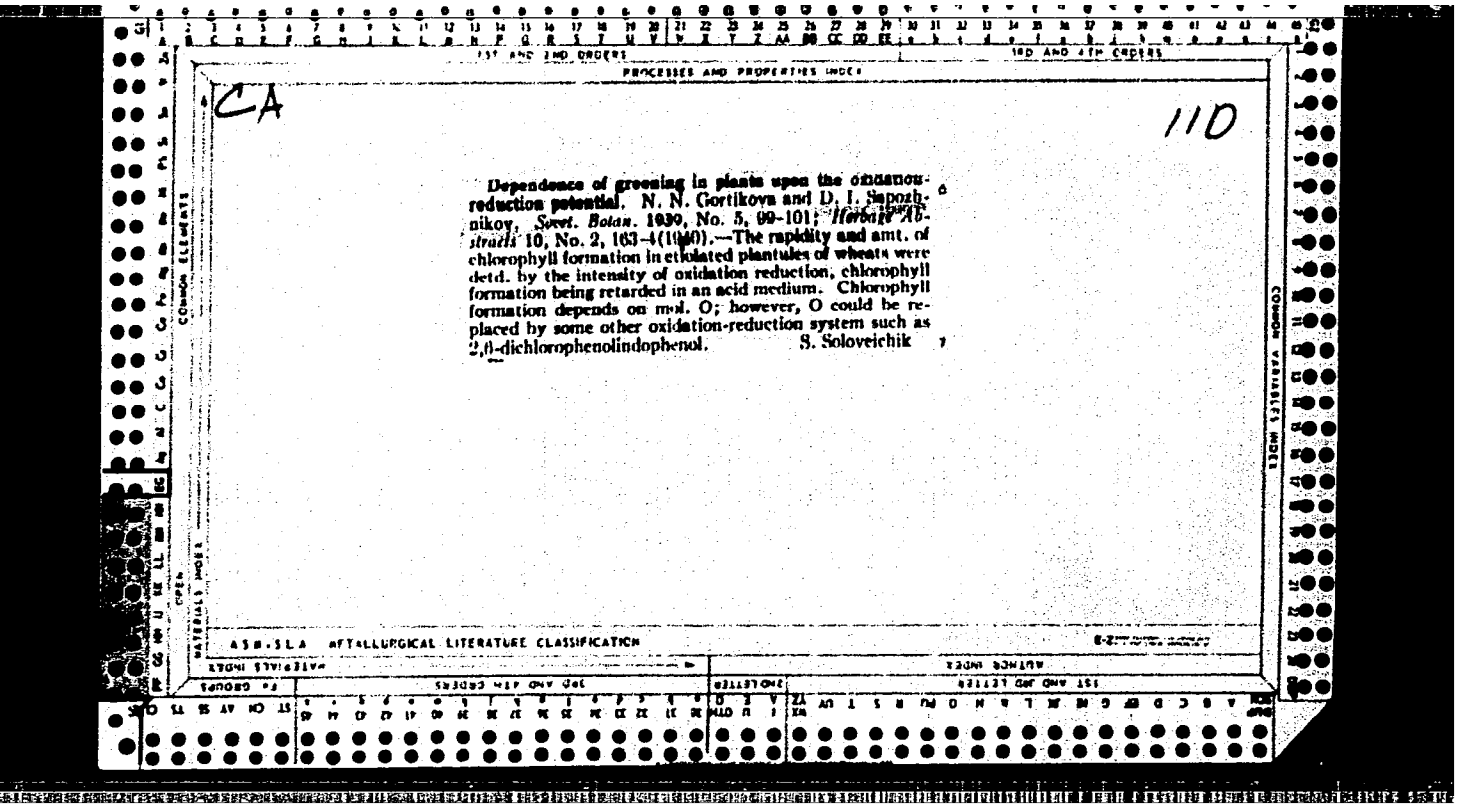
PROCESSES AND PROPERTIES NO. 1

ca

Catalase in purple sulfur bacteria. D. I. Sapozhnikov. *Mikrobiologiya* (U. S. S. R.) 7, 374–6(1938); *Chem. Zentr.* 1940, I, 3278.—Catalase was found to be present in these bacteria in an inactive condition. It was reactivated by aeration. M. G. Moore

11 C

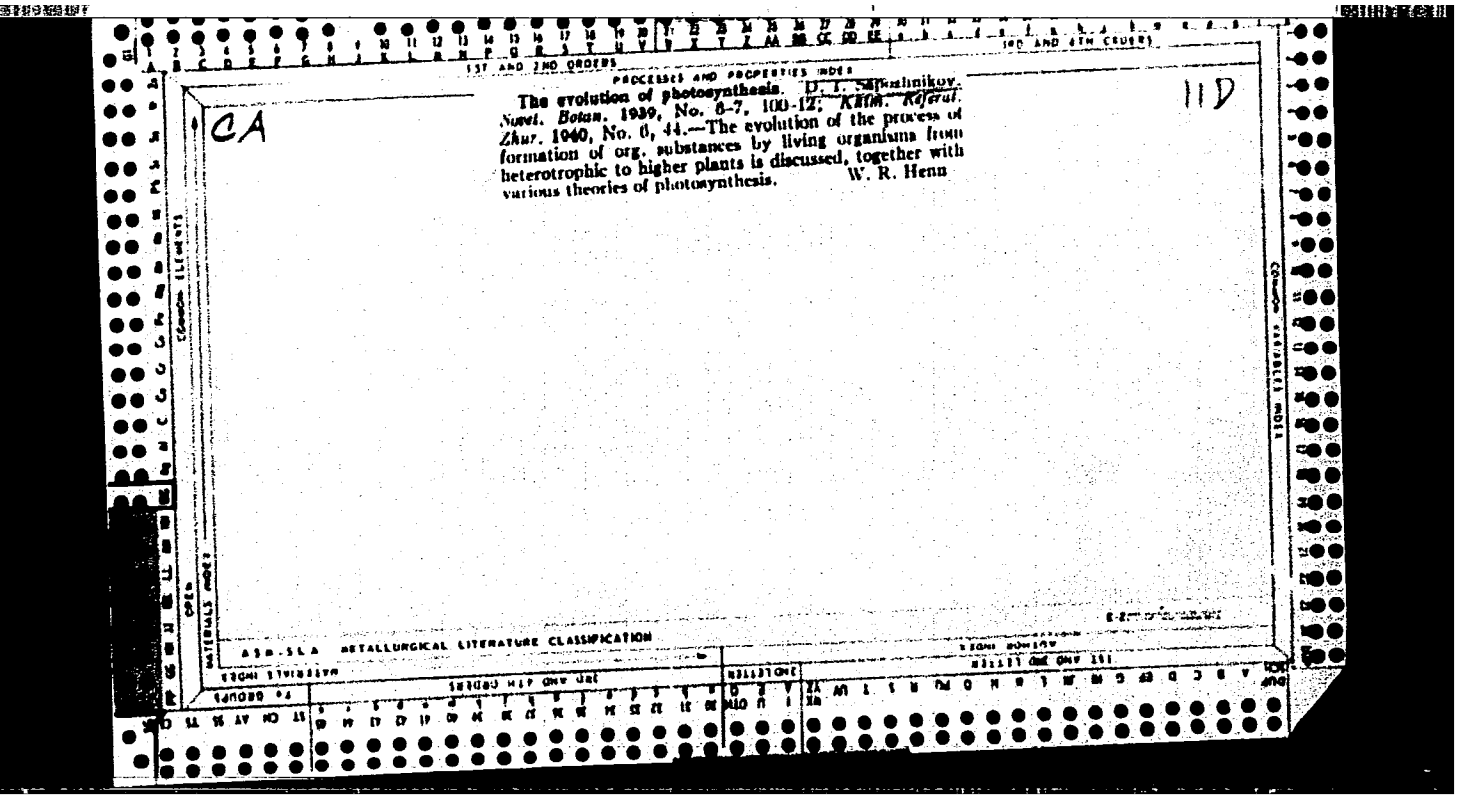
A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION



CA

110

Dependence of greening in plants upon the cinnamon-reduction potential. N. N. Gortikova and D. I. Saposhnikov. *Sovet. Botan.* 1939, No. 5, 99–101; *Herbage Abstracts* 10, No. 2, 163–4(1940).—The rapidity and amt. of chlorophyll formation in etiolated plantules of wheat is were detd. by the intensity of oxidation reduction, chlorophyll formation being retarded in an acid medium. Chlorophyll formation depends on mol. O; however, O could be replaced by some other oxidation-reduction system such as 2,6-dichlorophenolindophenol. S. Soloveichik



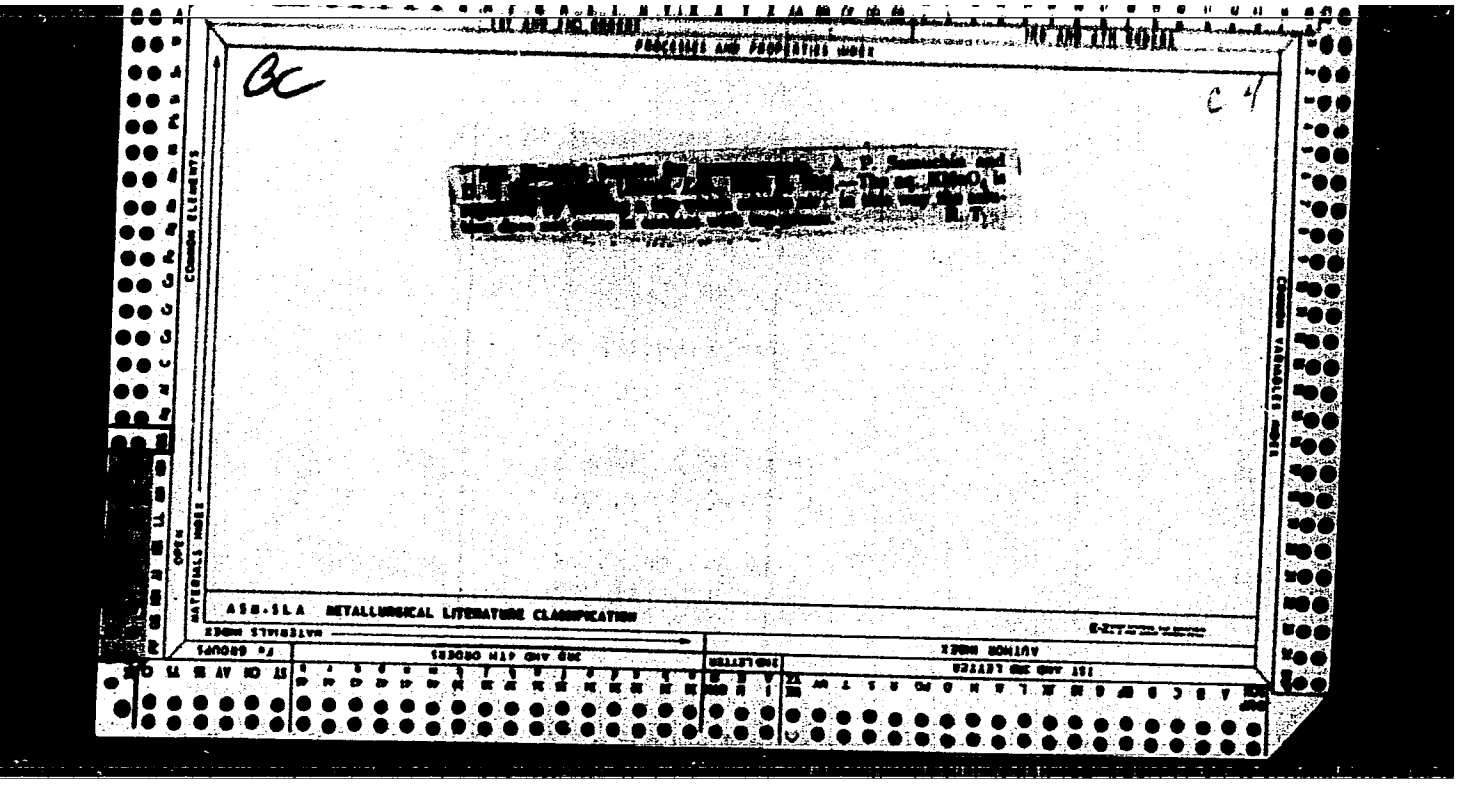
PROCESSES AND PROPERTIES INDEX

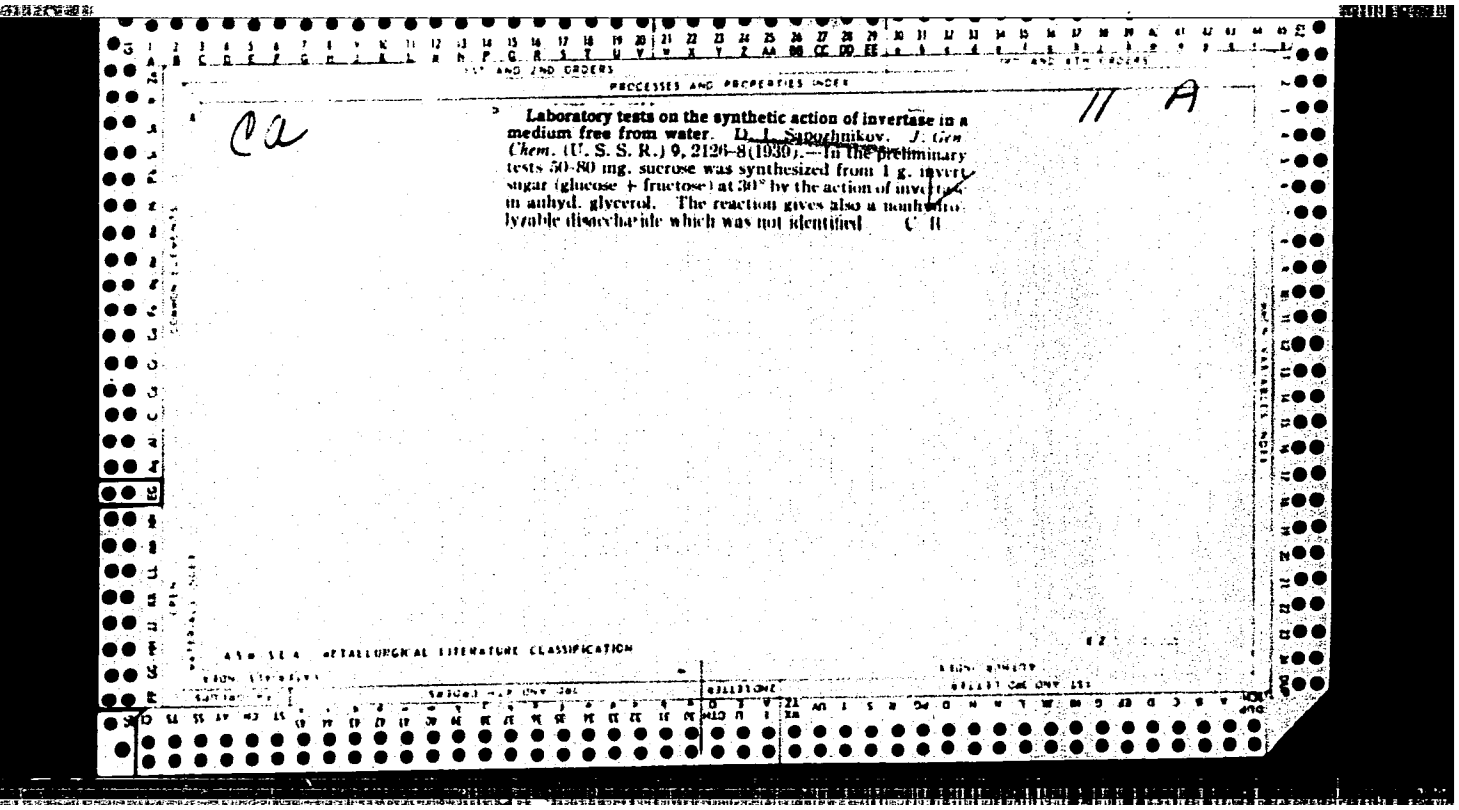
CA

11D

The evolution of photosynthesis. D. I. Sapozhnikov. *Novit. Botan. Sada.* 1939, No. 8-7, 100-12; *KhIm. Referat. Zhur.* 1940, No. 0, 44.—The evolution of the process of formation of org. substances by living organisms from heterotrophic to higher plants is discussed, together with various theories of photosynthesis. W. R. Henn

METALLURGICAL LITERATURE CLASSIFICATION





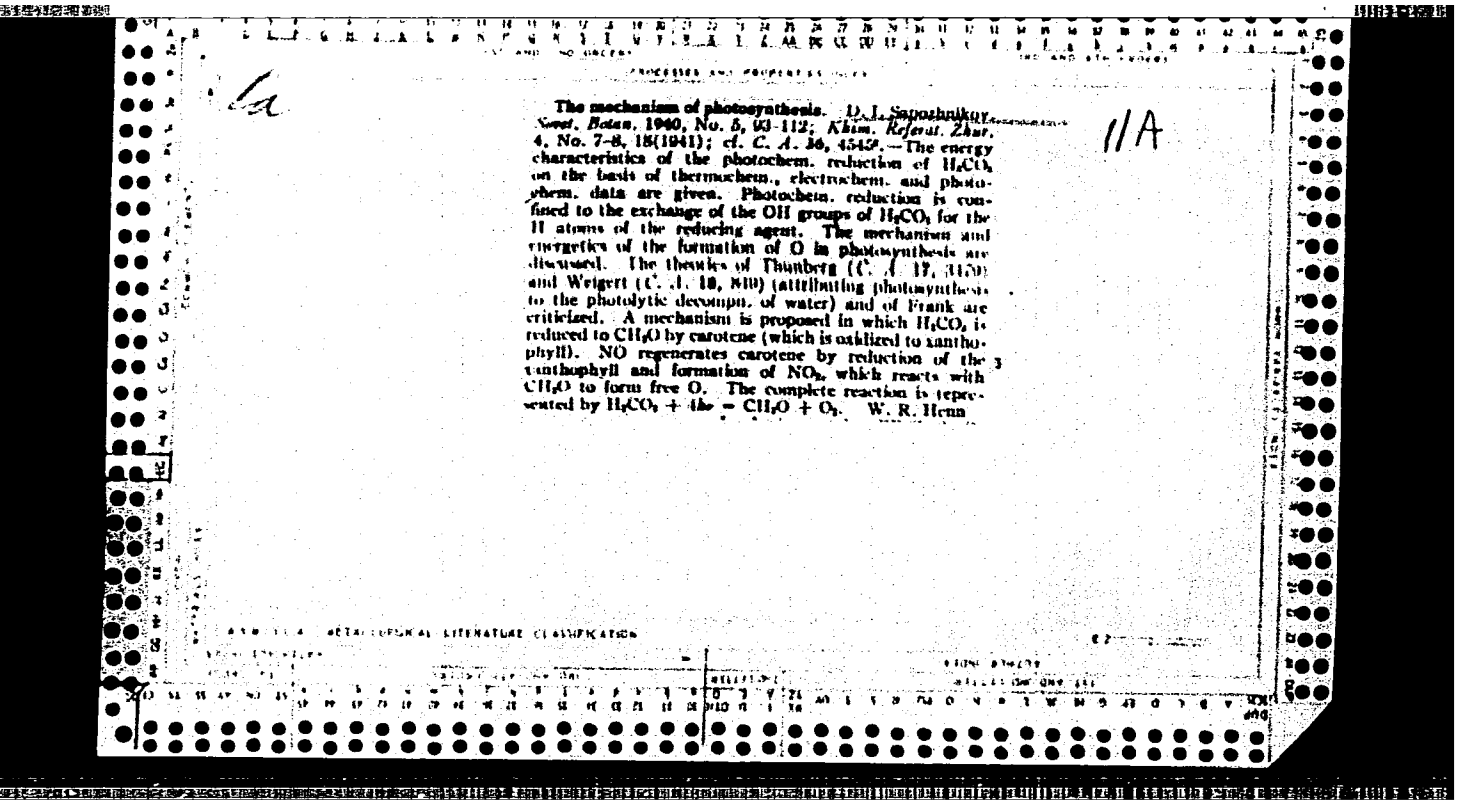
PROCESSES AND PROPERTIES INDEX

C2

11 A

Laboratory tests on the synthetic action of invertase in a medium free from water. D. I. Saropchnikov. *J. Gen Chem.* (U. S. S. R.) 9, 2126–8(1930).—In the preliminary tests 50-80 mg. sucrose was synthesized from 1 g. invert sugar (glucose + fructose) at 30° by the action of invertase in anhyd. glycerol. The reaction gives also a nonhydrolyzable disaccharide which was not identified. C. H.

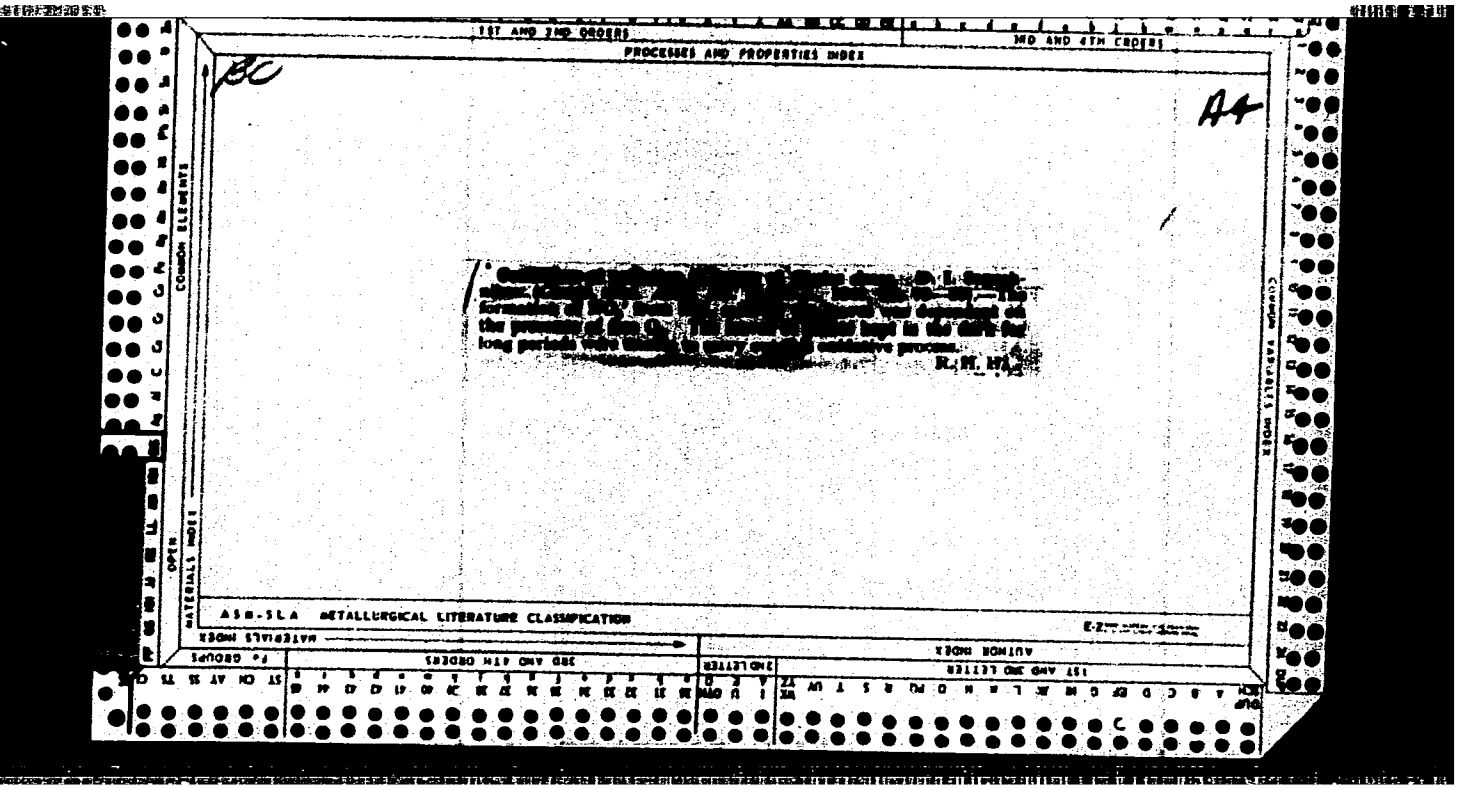
ASM SEA METALLURGICAL LITERATURE CLASSIFICATION

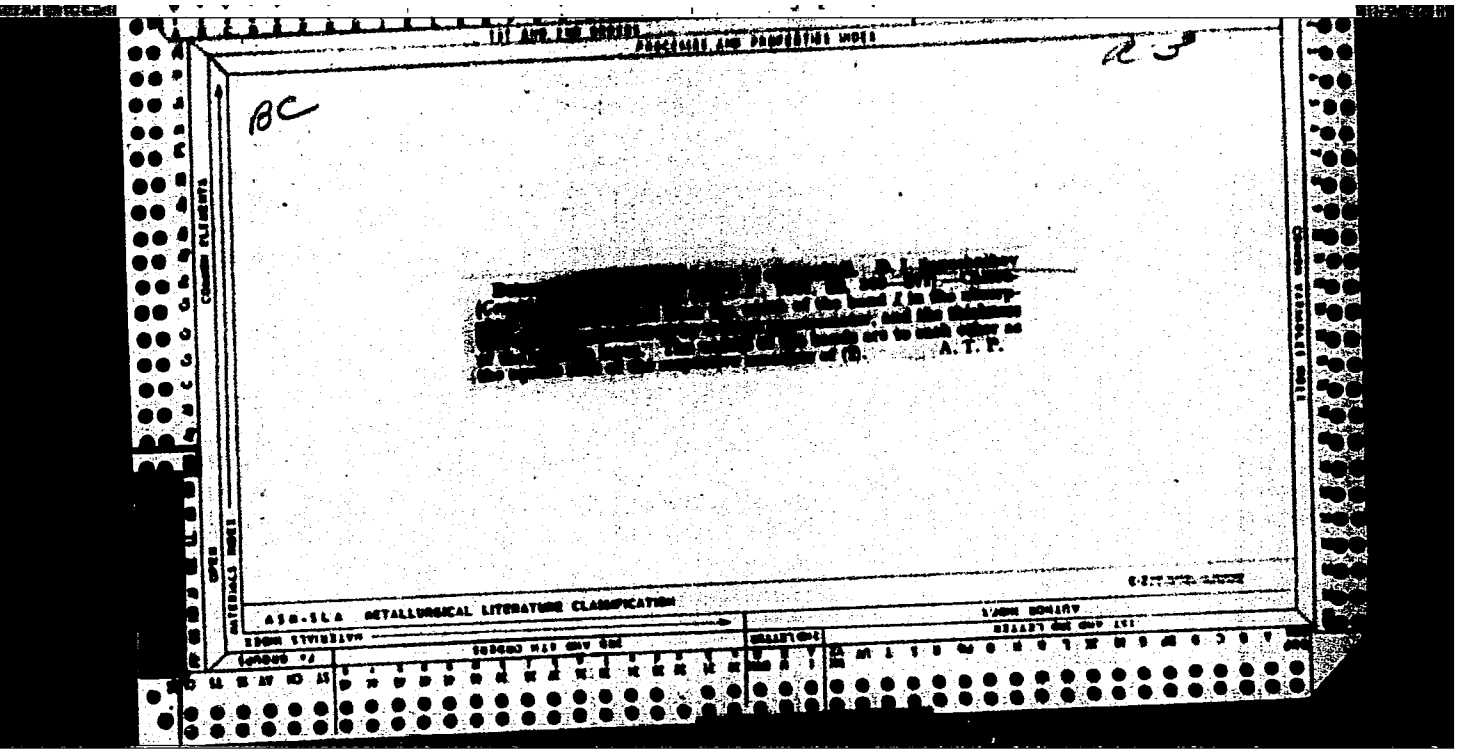


1a

11A

The mechanism of photosynthesis. D. I. Sapozhnikov. *Sovet. Botan.* 1940, No. 5, 93-112; *Khim. Referat. Zhur.*, 4, No. 7-8, 18(1941); cf. *C. A.* 36, 4545.—The energy characteristics of the photochem. reduction of H_2CO_3 on the basis of thermochem., electrochem. and photochem. data are given. Photochem. reduction is confined to the exchange of the OH groups of H_2CO_3 for the H atoms of the reducing agent. The mechanism and energetics of the formation of O in photosynthesis are discussed. The theories of Thunberg (*C. A.* 17, 3150) and Weigert (*C. A.* 18, 810) (attributing photosynthesis to the photolytic decompn. of water) and of Frank are criticized. A mechanism is proposed in which H_2CO_3 is reduced to CH_2O by carotene (which is oxidized to xanthophyll). NO regenerates carotene by reduction of the xanthophyll and formation of NO_2, which reacts with CH_2O to form free O. The complete reaction is represented by $H_2CO_3 + 4h\nu = CH_2O + O_2$. W. R. Henn





SAPOZHNIKOV, D. I. PA 5/49T7

USSR/Academy of Sciences May 48
Medicine - Botany

"The Priority of Russian Scientists," D. I. Sapozhnikov, 1¼ pp

"Priroda" No 5

Describes three cases where due credit has not been given Russian scientists for their botanical discoveries.

5/49T7

67T25

SAPOZHNIKOV, D. I.

USSR/Chemistry - Carotene, Determination May 1948
of
Chemistry - Analysis, Qualitative

"A New Method of Determining Carotin," D.I. Sapozhnikov, Bot Inst imeni V.L. Komarov, Acad Sci USSR, 2 pp

"Dok Ak Nauk SSSR, Nov Ser" Vol LX, No 6

P-1813-14

New method has several advantages: It is rapid when compared to the old ones, requiring about 30 minutes. Very little material is necessary for making the analysis. Limited number of reactions and dishes necessary for making the analysis. Submitted by Academician N.A. Maksimov 15 Mar 1948.

[redacted]

67T25

SAPOZHNIKOV, D. I.

USSR/Medicine - Xanthophyll Jun 1948
Chemistry - Analysis, Quantitative

"New Method of Separation and Quantitative Determination of Xanthophyll," D. I. Sapozhnikov, Lab imeni V. N. Lyubimenko, Bot Inst imeni V. L. Komarov, Acad Sci USSR, 2 pp

"Dok Ak Nauk SSSR" Vol LX, No 8

Method, based on previous work by authors ("Dok Ak Nauk" Vol LX, No 6, 1948), is simpler than the one developed previously. Submitted by Acad N. A. Maksimov 9 Apr 1948.

78134

PA 11/49T67

SAPOZHNIKOV, D. I.

USSR/Medicine - Chlorophyll Jul 48
Medicine - Photosynthesis

"Photoreduction of Silver Nitrate by Lyublmenko's Natural Chlorophyll (Phytochromoprotein Plastids)," D. I. Sapozhnikov, Ecol Physiol Lab imeni V. N. Lyublmenko and Bot Inst imeni V. L. Komarov, Acad Sci USSR, 3½ pp

"Dok Ak Nauk SSSR" Vol LXI, No 3

Investigates problem of whether aspidistra phytochromoprotein solutions can bring about photoreduction of silver nitrate by means of carotin-xanthophyll system existing in this complex. Describes experiments in detail. Results are positive. Submitted 16 May 48.

11/49T67

11/49T67

USSR/Medicine - Chlorophyll (Contd) Jul 48

11/49T67

USSR/Chemistry - Chromoprotein Oct 48
Medicine - Biochemistry

"Methods for Obtaining Artificial Phytochromoproteins," D. I. Sapozhnikov, Bot Inst imeni V. L. Komarov, Acad Sci USSR, 3 pp

"Dok Ak Nauk SSSR" Vol LXII, No 5, pp 665-7

PA 53/49T20

Of two solutions of phytochromatoproteins, one obtained from lysis of a green suspension had an ordinary spectrum, somewhat displaced toward the red, the other, from putting chlorophyll in yolk granules had a spectrum characteristic of chlorophyll b. Changes in the phytochromatic spectra

53/49T20

USSR/Chemistry - Chromoprotein (Contd) Oct 48

occured in darkness, but were accelerated by light. Qualitative research is in progress.

Submitted by N. A. Maksimov, 18 Aug 48.

53/49T20

SAPOZHNIKOV, D. I.

SAPOZHNIKOV, D.I.

Photosynthesis

Evolution and mechanics of photosynthesis., Trudy Bot. inst. AN SSSR Eksp. bot., no. 8, 1951

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED.

SAPOZHNIKOV, D. I.

Botany - Physiology

Separation and quantitative determination of phytochrome in the plastid, Trudy Bot. inst. AN SSSR. Eksp. Bot., Nov. 8, 1951.

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED.

SAPOZHNIKOV, D.I.

Nuclear Sci Abs. V-8 Jan 15, 1954 Chemistry

EVOLUTION OF PHOTOSYNTHESIS IN LOWER ORGANISMS. (TO THE PROBLEM ON THE ORIGIN OF AUTOTROPHY). D. I. Sapozhnikov [Sapozhnikov]. Translated by S. Shewchuck from Mikrobiologiya 20, Ed. 5, 438-51(1951). 26p. (UCRL-Trans-131)

The literature is reviewed covering various aspects of the evolution of plants from the heterotrophic anaerobiotics to the photosynthesizing aerobiotics. A scheme for energy production is presented which involves photoreduction, chemosynthesis, chemoreduction, and photosynthesis. Concepts of autotrophy and heterotrophy are discussed, and the characteristics of bacteria, algae, and other forms intermediate in the development of photosynthesizing plants are discussed. (C.H.)

Botanical Inst. im. Komarov, AS USSR, Leningrad

SAVOINNIKOV, D. I.

Photosynthesis

Careless work ("Nourishment of palnts by light [photosynthesis]." Reviewed by A. M. Kuzin, V. L. Levshin., Vest. AN SSSR, 21, No. 12, 1951

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

SAPOZHNIKOV, D.I.; LOPATKIN, Yu.B.; CHEKHONINA, N.S.

Index of the relationship of light and dark reactions of photosynthesis. Trudy Bot.inst. Ser.4 no.9:118-122 '53. (MLRA 6:6)

1. Botanicheskiy institut imeni V.L. Komarova akademii nauk SSSR. (Photosynthesis)

SAPOZHNIKOV, D.I.

New observations on chlorophyll. Trudy Bot.inst. Ser. 4 no.9:123-131 '53. (MLRA 6:6)

1. Botanicheskiy institut imeni V.L. Komarova akademii nauk SSSR. (Chlorophyll)

SAPOZHNIKOV, D.I.; GRAUERMAN, L.A.; KOSYAKOV, I.Ye.

Pilot plant testing of method for obtaining carotene from the leaves of green plants. Trudy Bot.inst., Ser.4 no.9:282-291 '53. (MLRA 6:6)

1. Botanicheskiy institut imeni V.L. Komarova akademii nauk SSSR.
(Carotene)

SAPOZHNIKOV, D.I.; YERMOLAYEVA, Ye.Ye.

Varvara Aleksandrovna Brilliant-Lerman; obituary. Bot.zhur. 39 no.6: 940-943 N-D '54. (MLRA 8:2)

1. Botanicheskiy institut im. V.L.Komarova Akademii nauk SSSR, Leningrad.
(Brilliant-Lerman, Varvara Aleksandrovna, 1888-1954)

SAPOZHNIKOV, David Iosifovich,

SAPOZHNIKOV, David Iosifovich, Academic degree of Doctor of Biological Sciences, based on his defense, 27 April 1955, in the Council of the Botanical Insy imeni Komarov Acad Sci USSR, of his dissertation entitled: "Physico-chemical principles of the evolution of phototrophic nutrition." For the Academic Degree of Doctor of Sciences.

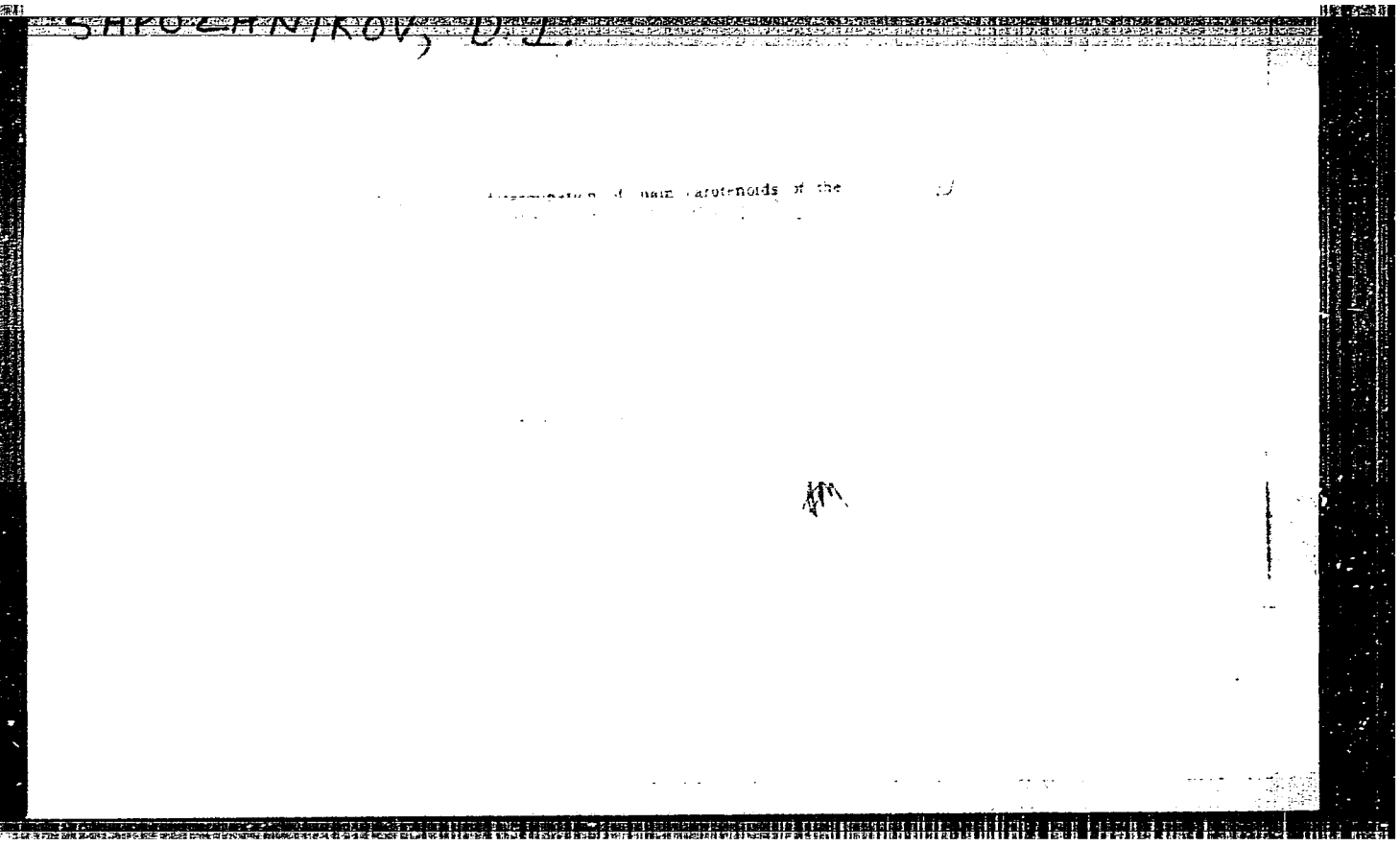
SO: Byulleten' Ministerstva Vysshego Obrazovaniya SSSR, List No. 6, 17 March 1956, Decision of Higher Certification Commission Concerning Academic Degrees and Titles.

JPRS 512

SAPOZHNIKOV, D. I.

Analytical studies of the pigments of green leaf plastids by the method of chromatography. D. I. Sapozhnikov, I. A. Bronshtein, and T. A. Krasovskaya (V. L. Komarov Botan. Inst., Acad. Sci. U.S.S.R., Leningrad). *Biokhimiya* 20, 280-91(1955).—A two-directional paper chromatographic procedure is described for the qual. and quant. detn. of the plastid pigments of green leaves. Carotene also is sepd. from the primary spot with the aid of pure petr. ether. Carotene and xanthophyll are sepd. from chlorophyll and from one another with the aid of 3:1 benzene-petr. ether. Xanthophyll can be sepd. into luteoxanthol and violaxanthol with a 2:1 benzene-petr. ether mixt. Pheophytin, if present, will migrate in conjunction with carotene using the same solvent mixt. They can then be sepd. with petr. ether which fixes the pheophytin to its position but moves the carotene upward. Chlorophylls a and b are sepd. by a mixt. of 96% EtOH and petr. ether (1:14). Thus, by using benzene-petr. ether for direction I and EtOH-petr. ether (1:14) for direction II all the plastid pigments can be sepd., cut apart, and used in the quant. detns. Methods for the elution of each constituent are presented. Quant. detns. of carotene can be made directly from its alc. ext. without having to resort to preliminary chlorophyll sapon. B. S.

(2)



SAPOZHNIKOV, D.I.; MASLOVA, T.G.

State of chlorophyll in the leaves of green plants. Trudy Bot.inst. Ser.4 no.11:97-115 '56. (MLRA 9:9)
(Chlorophyl) (Lipoproteins)

BAPOZHNIKOV, D. I.

"Entstehung und Evolution der phototrophen Ernahrunngsweise," a paper presente d at the International Symposium on the Origin of Life, Moscow, 19-24 Aug 1957.

SAPOZHNIKOV, D.I.

AUTHOR SAPOZHNIKOV, D.I., KRASOVSKAYA, T.A., PA - 3378
KAYEVSKAYA, A.N.,

TITLE Changes Observed in the Relation between the Main Carotinoids in the plastids of green Leaves Exposed to Light.
(Izmeneniye sootnosheniya osnovnykh karotinoidov plastid zelenykh list'-yev pri deystvii sveta - Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 2, pp 465-467,(U.S.S.R.)
Received 6/1957 Reviewed 8/1957

ABSTRACT By several research works it was shown that the oxygen eliminated on the occasion of photo-synthesis originates from water. So far, however, no certain intermediate products of this reaction were proved. Although here hypotheses on the part of the carotenoids as oxigen-transporters were expressed, a clear confirmation is still lacking. The authors applied a new method of inactivating the enzymes as well as chromatography on paper, and following the fluctuations of the relation of the 4 basic carotenoids, carotene, lutein, violoxanthin and neoxanthin in leaves of several kinds of of plants. Lamellac were cut out from leaves of cyclamens, Sakhalin-buckwheat, broad bean, dendelion and others and they were exposed to a 3H-8-lamp. The different intensity light was effected by different distaces of the source of light. Lamellae which served for an experiment and as control were fixed with acetone at -78o. The analysis of the carotenoids was carried out according to the methodology previously described by the authors. Illustration 1 shows that the content of carotene and neoxanthin stays nearly unchanged, whereas the content of lutein increases on the oc-

Card 1/2

Changes Obseved in the Relation between the Main Caro- PA 3378
tinoids in the Plastids of Green Leaves Exposed to Light.

casion of decreasing violoxanthin. This takes place in connection with an intense exposure to light. Illustration 2 illustrates the dependency of the fluctuation of the difference of the content expressed as percentages of lutein and violoxanthin on the intensity of light. Already at 5,000 lk this difference increases noticeably and attains its maximum at 8,000 lk. Further increase of the intensity of light has no influence on the difference. On the occasion of exposure to light of high intensity the sum of the content expressed as percentage of luthein and violoxanthin remains stable. Dimishing the intensity leads to the opposite effect. The phenomenon makes it possible to assume that in the green leaves there exists a system of enzymes which regulates the proportion of lutein and violoxanthin. It is possible that this system is related tothe oxygen transport in the process of photosynthesis.
(4 illustrations. 4 citations from Slavic publications).

ASSOCIATION Botanical Institute of the Academy of Science of the U.S.S.R.
PRESENTED BY KURSANOV, A.L., Member of the Academy.
SUBMITTED 2.7.1956
AVAILABLE Library of Congress.
Card 2/2

AUTHORS: Sapozhnikov, ~~D. I.,~~ Bazhanova, N. V. SOV/20-120-5-59/67

TITLE: A Description of the Reaction of Light in Isolated Chloroplasts (K kharakteristike svetovoy reaktsii v izolirovannykh khloroplastakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 5, pp.1141-1143 (USRR)

ABSTRACT: It was proved in an earlier paper (Ref 1) that lutein and violaxanthin are transformed into each other under the influence of light and darkness. It was assumed that the transformation of violaxanthin into lutein under the action of light has to be regarded as one of the reactions of oxygen transfer in the photosynthesis process. The authors investigated this reaction in isolated chloroplasts obtained from the leaves of the horse bean (Vicia faba). The investigation has shown that 1) the isolated chloroplasts react to light under aerobic conditions by increasing their lutein content and reducing that of violaxanthin. 2) The climax of these changes takes place two minutes after the beginning of the experiment. Then, the changes decrease. 3) If isolated chloroplasts are kept in the dark under anaerobic conditions the

Card 1/2

difference between the percentage of the content of lutein and violaxanthin increases. 4) In isolated chloroplasts anaerobiosis hinders the reaction of light. There are 4 figures and 2 references, 2 of which are Soviet.

ASSOCIATION: Botanicheskiy institut im. V. L. Komarova Akademii nauk SSSR (Institute of Botany imeni V. L. Komarov, AS USSR)

PRESENTED: January 28, 1958, by A. L. Kursanov, Member, Academy of Sciences, USSR

SUBMITTED: January 25, 1958

1. Photosynthesis 2. Plants--Physiology 3. Chlorophylls--Photochemical reactions 4. Light--Biochemical effects 5. Oxygen --Biochemical effects

SAPOZHNIKOV, D.I.

Origin and evolution of phototrophy. Trudy Bot.inst.Ser.
4 no.13:20-45 '59. (MIRA 13:3)
(Photosynthesis)

SAPOZHNIKOV, D.I.; MAYEVSKAYA, A.N.; POPOVA, I.A.

Quantitative determination of chlorophyll a and b by paper chromatography. Fiziol.rast. 6 no.3:376-379 My-Je '59. (MIRA 12:8)

1. V.L.Komarov Botanical Institute, Leningrad.
(Chlorophyll) (Plants--Chemical analysis)
(Paper chromatography)

SAPOZHNIKOV, D.I.; MAYEVSKAYA, A.N.; KRASOVSKAYA-ANTROPOVA, T.A.; PRIALGAUSKAYTE, L.L.; TURCHINA, V.S.

Effect of anaerobic conditions on changes in the ratio of main carotinoids in green leaves [with summary in English]. Biokhimiia 24 no.1:39-41 Ja-F '59. (MIRA 12:4)

1. Botanical Institute, Academy of Sciences of the U.S.S.R., Leningrad.

(LUTEIN) (VIOLAXANTHIN)
(PLANTS, EFFECT OF OXYGEN ON)

KONOVALOV, I.N.; SAPOZHNIKOV, D.I.; EYDEL'MAN, Z.M.

Effect of Darwin's theory of evolution on the development of research in certain branches of plant physiology. Bot. zhur. 44 no.11:1546-1552 N '59. (MIRA 13:4)

1. Botanicheskiy institut im. V.L.Komarova Akademii nauk SSSR, Leningrad.
(Plant physiology)

17(3)

AUTHORS: Sapozhnikov, D. I., Eydel'man, Z. M., Bazhanova, N. V., Popova, O. F.

SOV/20-127-5-54/58

TITLE: The Inhibitory Effect of Hydroxylamine on the Light Reaction in the Course of Xanthophyll Transformation

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1128-1131 (USSR)

ABSTRACT: In the most recent papers the participation of carotenoids in the transfer of oxygen in the course of the photosynthesis is assumed (Refs 1-5). The content of violaxanthine was reduced at illumination whereas that of lutein increased. This difference was reduced in the dark. Sapozhnikov Krasovskaya, and Mayevskaya (Ref 3) assumed an enzymatic nature of this mutual transformation of the two xanthophylls mentioned and the possible participation of this ferment system in the oxygen transfer. Furthermore it was proved that the violaxanthine formation was inhibited under anaerobic conditions (reaction in the dark) whereas the light reaction was not suppressed by the anaerobiosis. Since oxygen is transferred in the light reaction of the xanthophyll transformation it was important to investigate the inhibition conditions of this

Card 1/3

reaction. Hydroxylamine is a photosynthetic poison which acts as a specific inhibitor of the oxygen separation during the photosynthesis (Refs 6-9). Water weed (Elodea canadensis), i. e. the youngest shoot tips, 2 - 3 cm long, served as investigation object. After having been dried they were placed in boiling dishes with poison solutions of certain concentration. Figure 1 shows the results of a typical experimental series. A part of the boiling dishes with experimental- and control plants was exposed to the light of a 1000 watt lamp, the other one left in the dark. Various expositions (Fig 2) (2-120 minutes) in the poison solution and various poison concentrations (Fig 4) ($1 \cdot 10^{-4}$ - $6 \cdot 10^{-2}$ mol) as well as the illumination intensity (Fig 3) were tested. The following conclusions are drawn from the results: (1) The light reaction of the xanthophyll transformation may be completely inhibited by certain concentrations ($4 \cdot 10^{-2}$ mol). (2) The concentration of the inhibitor necessary for the inhibition of the light reaction increases with rising light intensity. (3) The assumption concerning the enzymatic character of the light

The Inhibitory Effect of Hydroxylamine on the Light Reaction in the Course of Xanthophyll Transformation

SOV/20-127-5-54/58

reaction of the mutual transformation of xanthophylls as well as concerning a close connection between this system and the oxygen transfer in the course of the photosynthesis is confirmed. There are 4 figures and 15 references, 6 of which are Soviet.

PRESENTED: April 23, 1959, by A. I. Oparin, Academician

SUBMITTED: March 16, 1959

Card 3/3

SAPOZHNIKOV, D.I.; BAZHANOVA, N.V.; MASLOVA, T.G.

Extractability of chlorophyll with petroleum ether from leaves of different plants[w.s.i.E.]. Trudy Bot. inst. Ser.4 no.14:89-99 '60. (MIRA 14:3)

(Chlorophyll) (Extraction(Chemistry)) (Ligroine)

EYDEL'MAN, Z.M.; SAPOZHNIKOV, D.I.; BAZHANOVA, N.V.; POPOVA, O.F.

Comparative study of the effect of photosynthetic poisons on photochemical conversion of some xanthophylls. Fiziol. rast 7 no.2:129-132 '60. (MIRA 14:5)

1. Komarov Botanical Institute, U.S.S.R Academy of Sciences, Leningrad.

(Xanthophylls)
(Photosynthesis)
(Phosphorylation)

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