L 19397-63 EWT(1)/EWP(q)/EWT(m)/EWP(B)/BDS AFFTC/ASD/ESD-3/IJP(C) JD
ACCESSION NR: AT3001931 S/2912/62/000/000/0321/0326

AUTHORS: Kuznetsov, S.I.; Derevyankin, V.A.; Shabalina, O.K.

TITLE: Some observations of the processes of dissolution and growth of crystals of Aluminum hydroxide in alkaline alumina solutions

SOURCE: Kristallizatsiya i fazovyye perekhody. Minsk, Izd-vo AN BSSR, 1962, 321-326

TOPIC TAGS: crystal, crystallization, crystallography, solution, dissolution, growth, Al, hydroxide, precipitation, leaching, dendrite, dendritic, lamellar, acicular, bemite, diaspore, hydrargillite, Ti

ABSTRACT: This paper is a progress report on the long-term project at the Ural'skiy politekhnicheskiy institut (Ural Polytechnical Institute) on the character of the dissolution and growth of crystals of alumina in alkaline Al solutions with especial reference to the Bayer method. The laboratory work was primarily done at the Institute; industrial experiments were performed by the Aluminum industry. Investigation methods employed: Electron microscope, X-ray diffraction, crystal-optical and chemical methods of analysis. Earlier stages of the authors' work were published in cited references. The present paper is a concentrated, informative,

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survey on the most interesting data on the dissolution and growth of Al-hydroxide crystals. (1) Processes of dissolution (leaching). Hydrargillite crystals in unsaturate alumina solutions, when heated to near b.p., break up into fragments. Upon this initial comminution, they dissolve promptly. Diaspore crystals usually dissolve at the faces, with the formation of fissures and perforations. At times, the holes in bemite or diaspore exhibit a sharply defined hexagonal shape. When Al hydroxides with additions of Si oxides are leached, growths of fairly equiaxial crystalline formations of Na hydroalumosilicate (some of 1.6-micron diam) form on the dissolving particles. Upon full dissolution of the hydroxide crystals on which these spherical particles had formed the latter exhibit apertures. Experiments show the presence of films of Ti compounds on the dissolving bemite and diaspore crystals. During leaching these films crystallize into acicular crystals visible under an optical microscope. Photographs of these formations are shown in the article. (2) Crystallization processes (separation of Al solutions). Without stirring, alumina solutions form practically only antiskeletal forms of crystalline growth, so that crystals of hydrargillite grow primarily in the form of lamellar dendrites. Lamellar growths form on the plane of the pinacoid. There are virtually no prismatic growths. Thoroughly stirred alumina solutions, expecially with primer, give rise to a greater probability of the deformation of growths and, hence, various defects. When, in a lamellar growth, spiral dislocation occurs, it may grow into a

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prism. Growing dendrites undergo deformations which increase the number of directions of growth. The dendrites lose their SC structure and assume a fairly equiaxial form. The decomposition products of alumina solutions are usually well crystallized; hence they lend themselves well to electron-microscope and X-ray-diffraction analysis. The various crystalline products and the sequence of their precipitation by various agents are described. The best precipitation of alumina solutions under the action of nonhydrargillitic primers for industrial purposes is obtained with the use of a bemite primer obtained by 250°C roasting of hydrargyllite. Optimal primer ratio: 0.2-0.3. A brief survey is also given on the process of recrystallization of hydrargillite into bemite and diaspore in water and alumina solutions, including the layerwise structure arising from the periodic "wave-like" character of the crystallization. Orig. art. has 5 figs.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ!! 16Apr63 ENCL: 00

SUB CODE: CH, PH, MA, EL NO REF SOV: 006 OTHER: 000

Card 3/3

IVANOV, A.L.; GVOZDEVA, K.G.; KUZNETSOV, S.I.

Behavior of sodium calcium aluminates during hydrochemical treatment. Zhur. prikl. khim. 36 no.4:707-712 Ap '63. (MIRA 16:7)

(Aluminates) (Hydration)

KUZNETSOV, S.I.; DEREVYANKIN, V.A.; TIKHONOV, V.N.; MYULLER, A.M.

Decomposition of aluminate solutions under the effect of additions of salts and iron hydroxide. Zhur. prikl. khim. 36 no.12: 2757-2759 D'63. (MIRA 17:2)

1. Ural'skiy politekhnicheskiy institut imeni Kirova.

KUZNETSOV, S.I.; DEREVYANKIN, V.A.

Stability of aluminate solutions. Zhur.prikl.khim. 37 no.1:192-194 Ja '64. (MIRA 17:2)

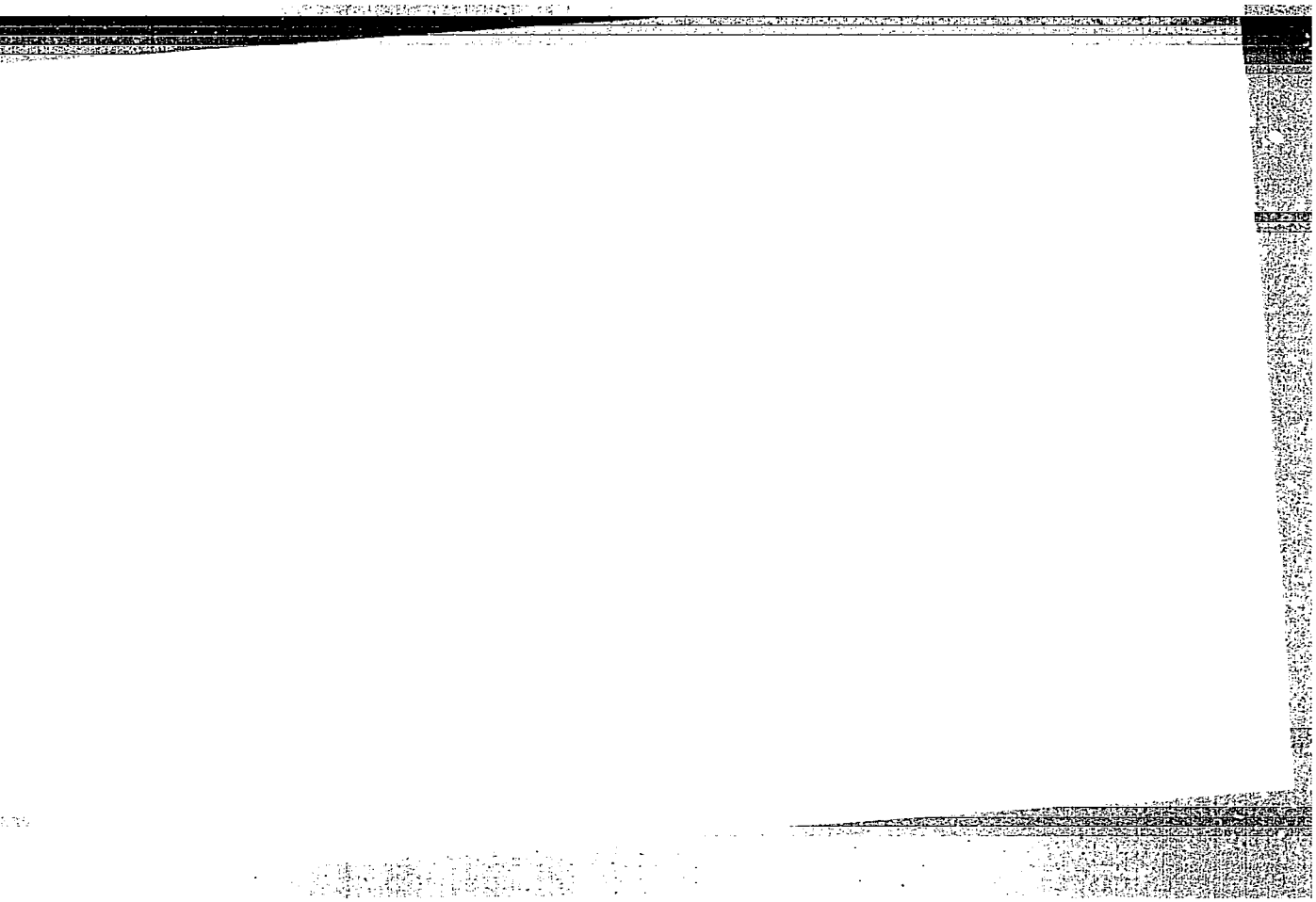
1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova.

SEREBRENNIKOVA, O.V.; KUZNETSOV, S.I.

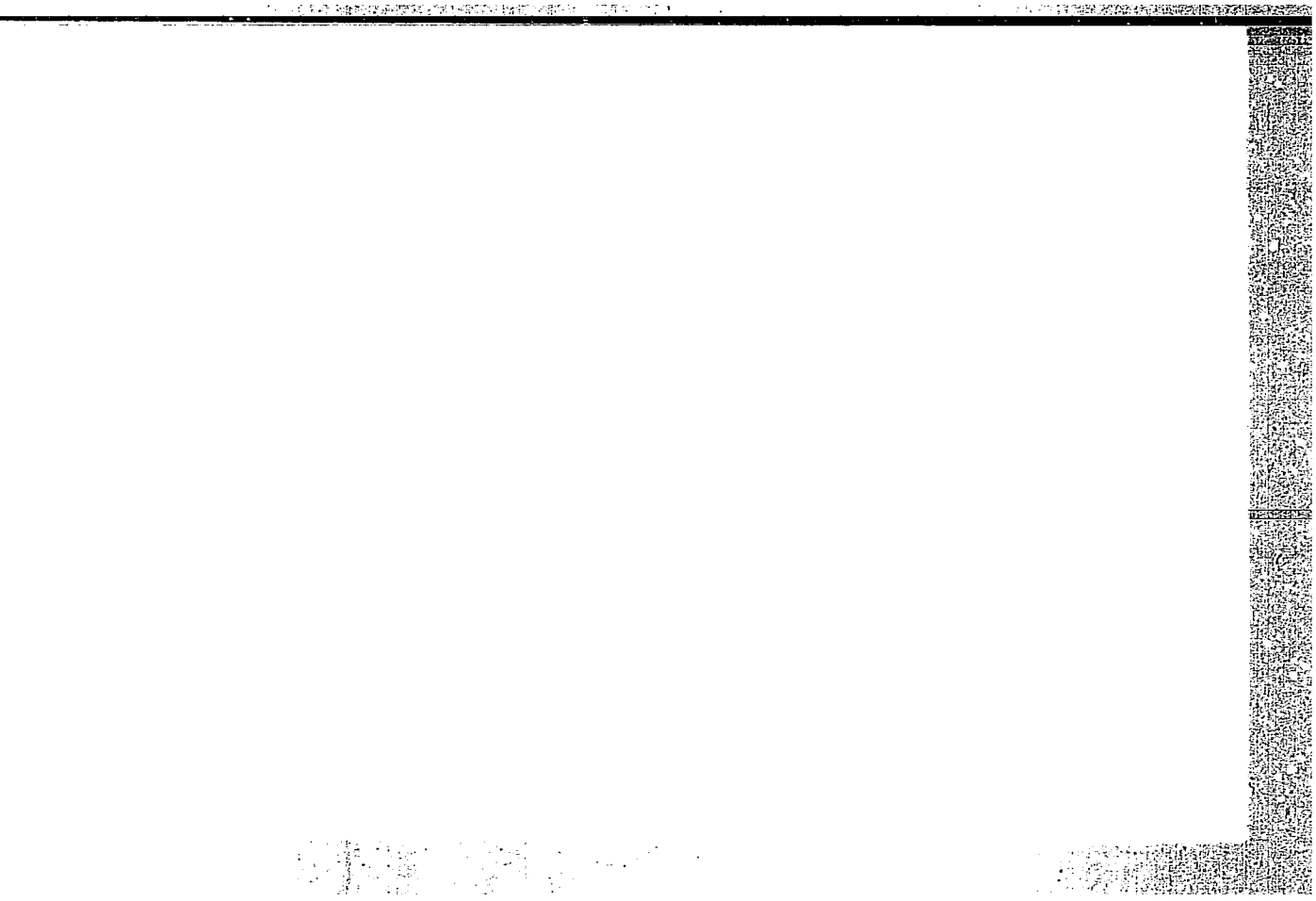
Decomposition of high concentration aluminate solutions.
TSvet. met. 37 no.11:65-70 N '64. (MIRA 18:4)

KRAUS, I.P.; DEREVYANKIN, V.A.; KUZNETSOV, S.I.

Solubility of sodium aluminosilicate hydrates in caustic soda solutions. TSvet. met. 38 no.5:46-51 My '65.
(MIRA 18:6)



APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928130007-1"



APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928130007-1"

ACC NR: AP6002588 SOURCE CODE: UR/0286/65/000/023/0081/0081

INVENTOR: Kuznetsov, S. I.; Fokin, V. V.; Rakhmatullin, R. M.

ORG: none

TITLE: Method of producing aluminum powder. Class 49, No. 176790

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 81

TOPIC TAGS: aluminum, aluminum powder

ABSTRACT: This Author Certificate introduces a method for the production of aluminum powder. To simplify the technological process, the aluminum is first dispersed in melted sodium hydroxide at 660—680C and, after cooling, the alkali is washed off the aluminum powder with an organic solvent such as alcohol. [AZ]

SUB CODE: 11/ SUBM DATE: 09Feb63/ ATD PRESS: 4185

Card 1/1 HW UDC: 621.762.224:669.71

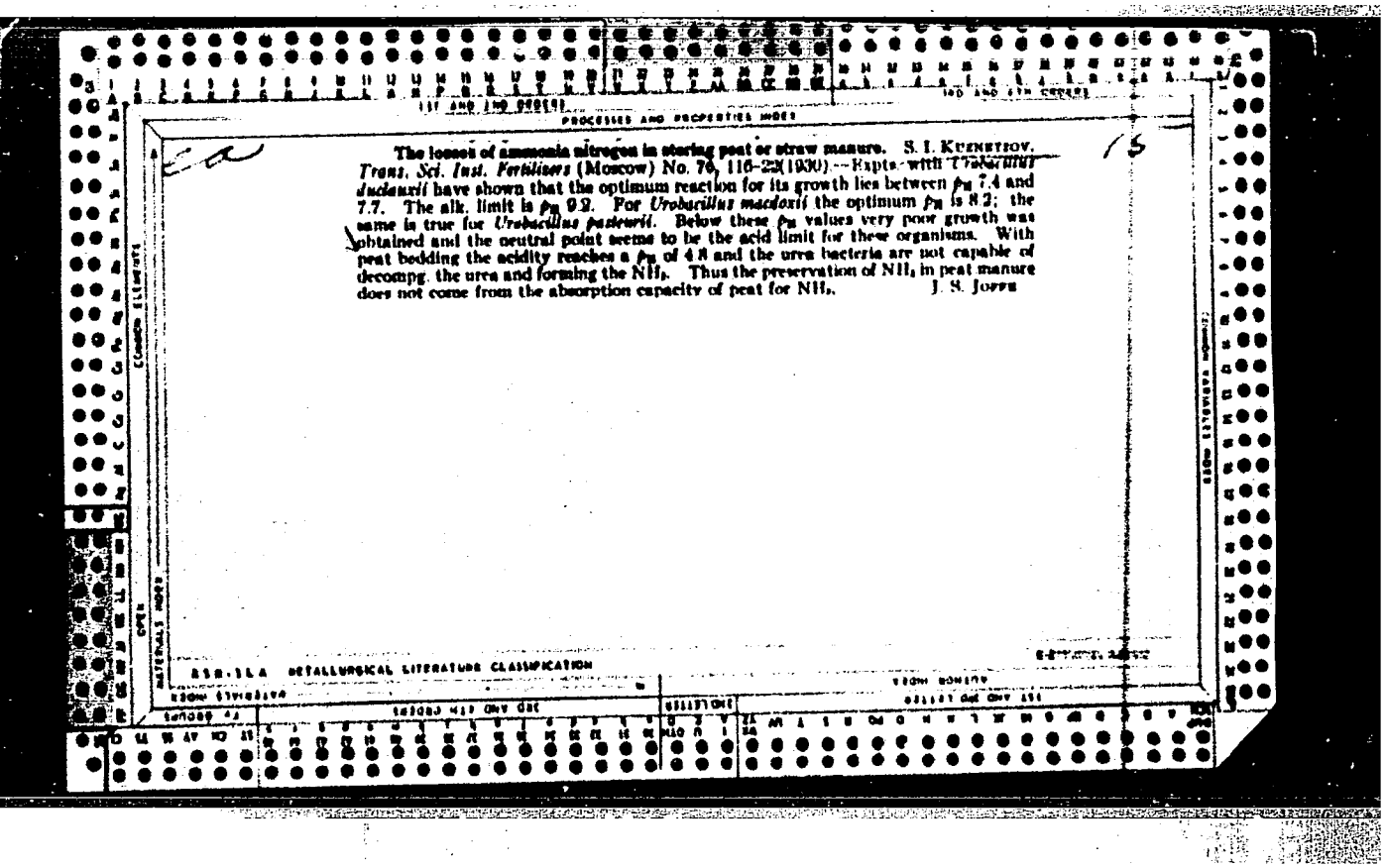
KORYUKOV, W.N.; KUZNETSOV, S.I.; DEREVYANKIN, V.A.

Effect of radiation on the decomposition rate of aluminate solutions. Zhur. prikl. khim. 38 no.5:1122-1125 My '65.
(MIRA 18:11)

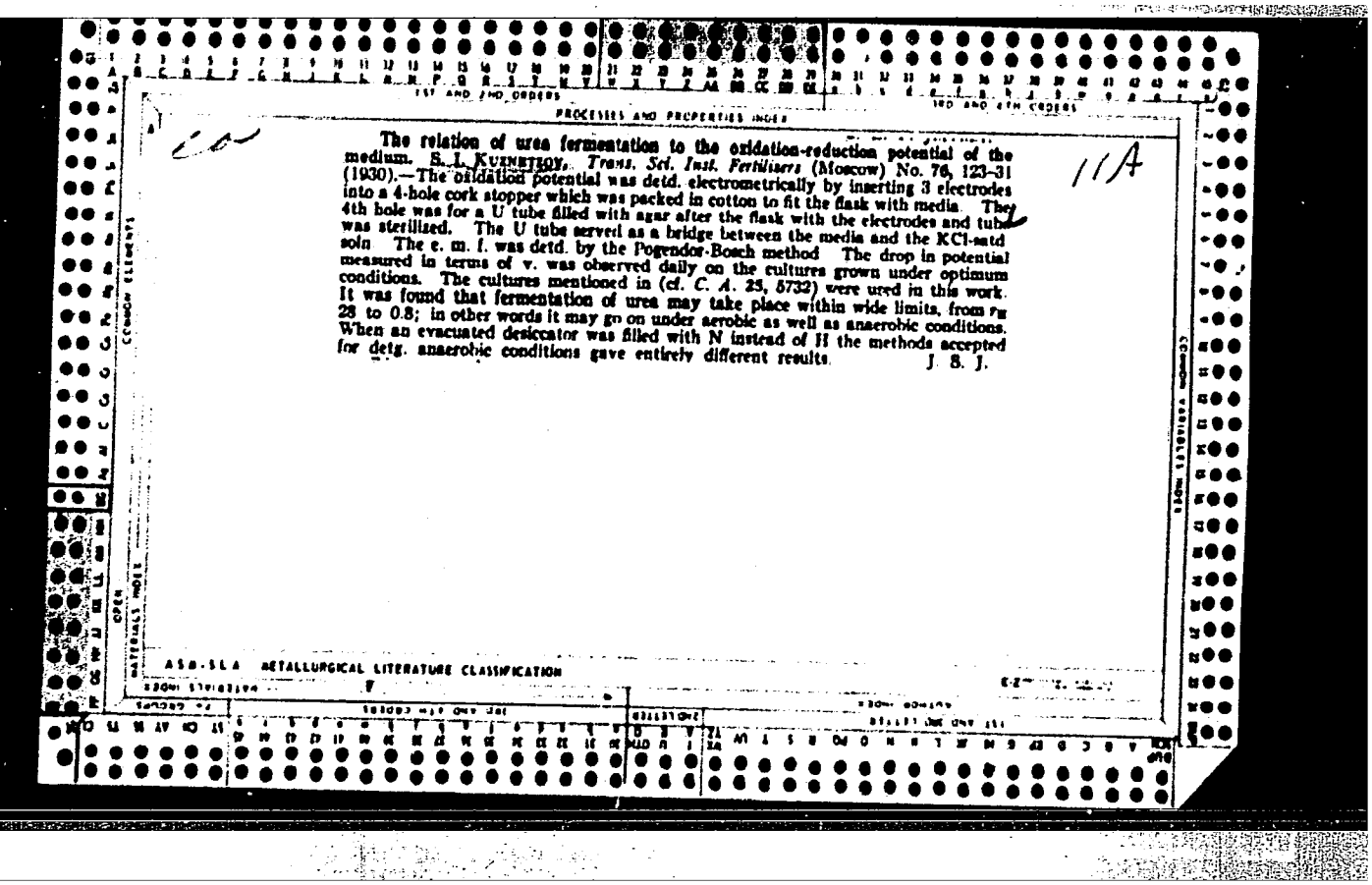
1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova.

KUZNETSOV, S.I.; TIKHONOV, V.N.; DEREVYANKIN, V.A.

Decomposition of aluminate solutions under the effect of titanium dioxide gel and sodium aluminosilicate hydrate additions. Zhur. prikl. khim. 38 no.7:1603-1604 Jl '65. (MIRA 18:7)



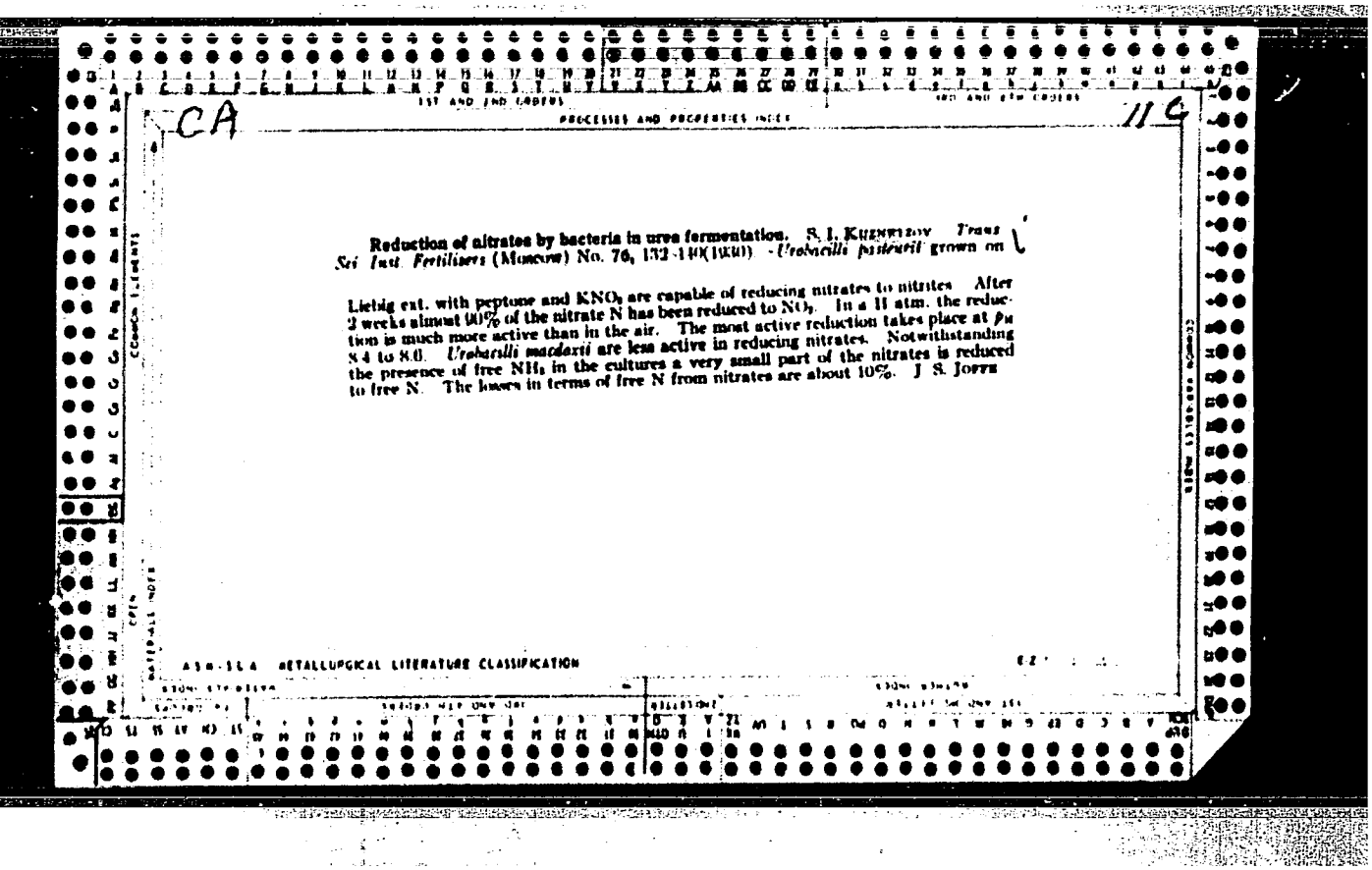
The losses of ammonia nitrogen in storing peat or straw manure. S. I. Kuznetsov. *Trans. Sci. Inst. Fertilizers* (Moscow) No. 76, 116–22(1930).—Expts. with *Urobacillus Duclauxii* have shown that the optimum reaction for its growth lies between p_H 7.4 and 7.7. The alk. limit is p_H 9.2. For *Urobacillus maddoxii* the optimum p_H is 8.2; the same is true for *Urobacillus pasteurii*. Below these p_H values very poor growth was obtained and the neutral point seems to be the acid limit for these organisms. With peat bedding the acidity reaches a p_H of 4.8 and the urea bacteria are not capable of decompg. the urea and forming the NH_3. Thus the preservation of NH_3 in peat manure does not come from the absorption capacity of peat for NH_3. J. S. Joffe



PROCESSES AND PROPERTIES INDEX

The relation of urea fermentation to the oxidation-reduction potential of the medium. S. I. KUZNETSOV. *Trans. Sci. Inst. Fertilizers* (Moscow) No. 76, 123–31 (1930).—The oxidation potential was detd. electrometrically by inserting 3 electrodes into a 4-hole cork stopper which was packed in cotton to fit the flask with media. The 4th hole was for a U tube filled with agar after the flask with the electrodes and tube was sterilized. The U tube served as a bridge between the media and the KCl-satd soln. The e. m. f. was detd. by the Pogendor-Bosch method. The drop in potential measured in terms of v. was observed daily on the cultures grown under optimum conditions. The cultures mentioned in (*cf. C. A.* 25, 5732) were used in this work. It was found that fermentation of urea may take place within wide limits, from p_H 28 to 0.8; in other words it may go on under aerobic as well as anaerobic conditions. When an evacuated desiccator was filled with N instead of H the methods accepted for detg. anaerobic conditions gave entirely different results. J. S. J.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

PROCESSES AND PROPERTIES INDEX

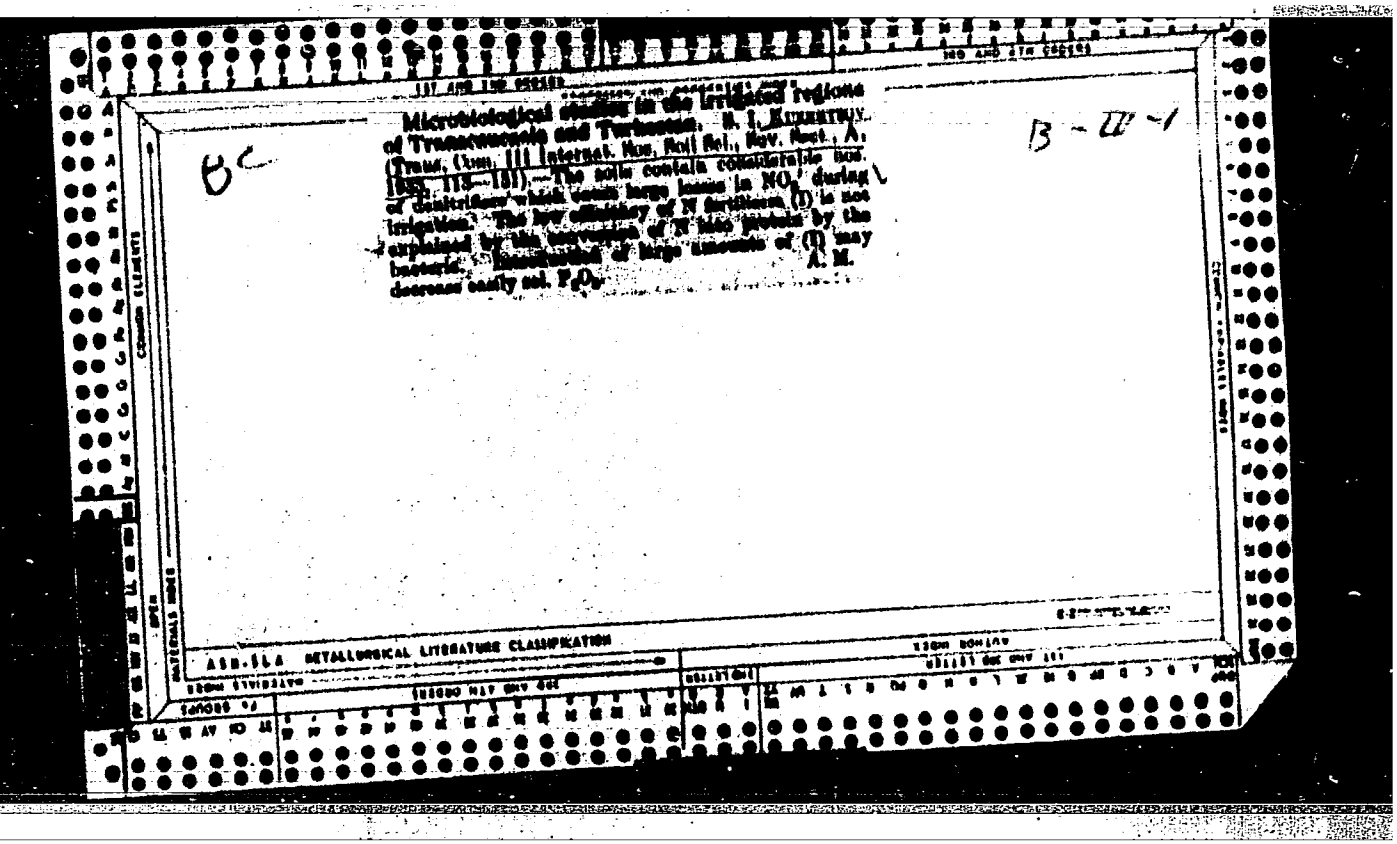
11 G

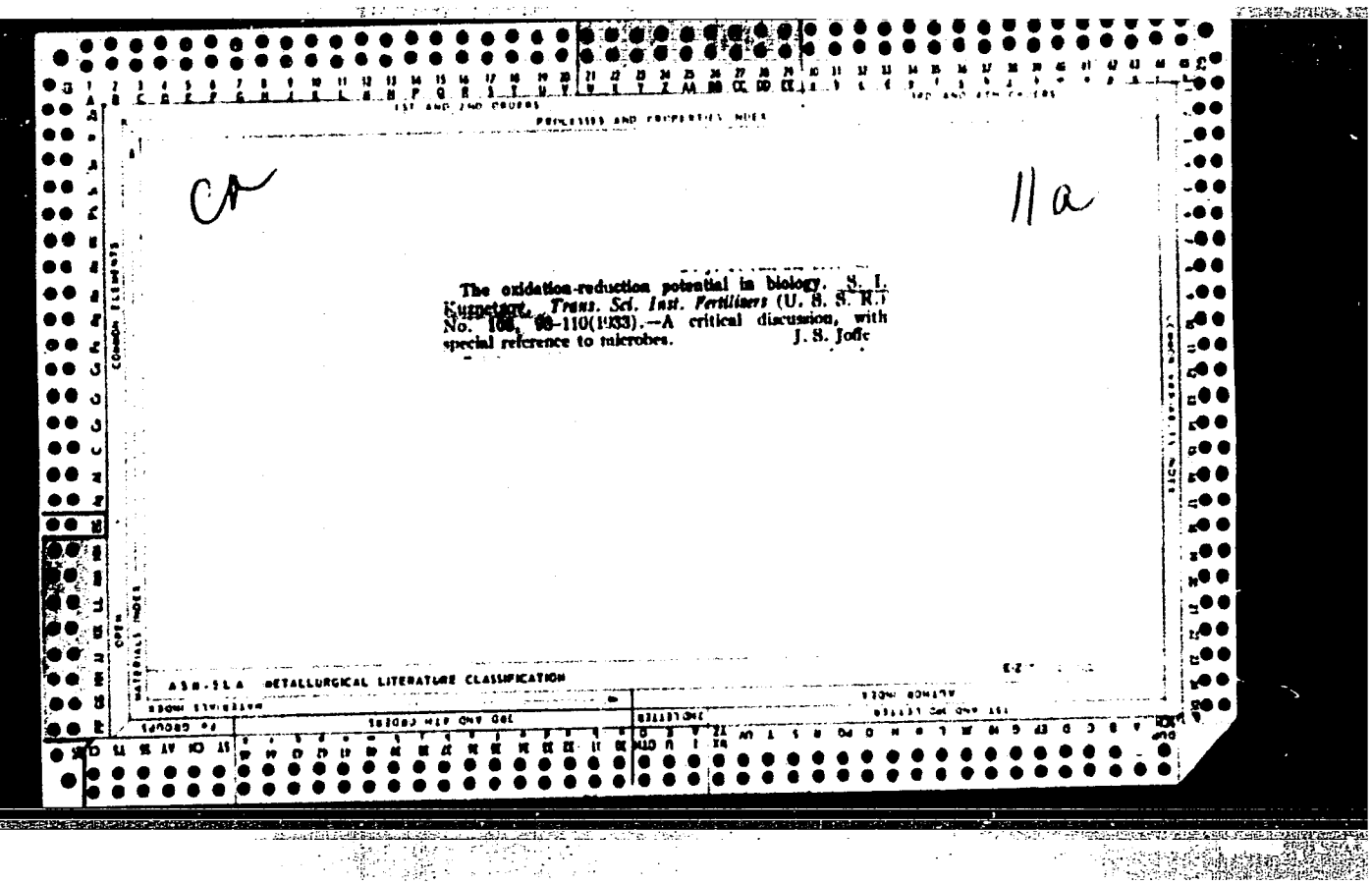
Reduction of nitrates by bacteria in urea fermentation. S. I. Kuznetsov *Trans Sci Inst. Fertilizers* (Moscow) No. 76, 132-148(1930). -*Urobacilli pasteurii* grown on Liebig ext. with peptone and KNO_3 are capable of reducing nitrates to nitrites. After 2 weeks almost 90% of the nitrate N has been reduced to NO_2. In a H atm. the reduction is much more active than in the air. The most active reduction takes place at *p*H 8.4 to 8.6. *Urobacilli maclarii* are less active in reducing nitrates. Notwithstanding the presence of free NH_3 in the cultures a very small part of the nitrates is reduced to free N. The losses in terms of free N from nitrates are about 10%. J. S. Joffe

A56-114 METALLURGICAL LITERATURE CLASSIFICATION

KUZNETSOV, S. I. and KARZINKIN, G. S.

"New method in Limonology," Tr, limn. stantsii v Kosin [Transactions of the Limnological Station at Kosina], Nos. 13-14, p 47, 1931.

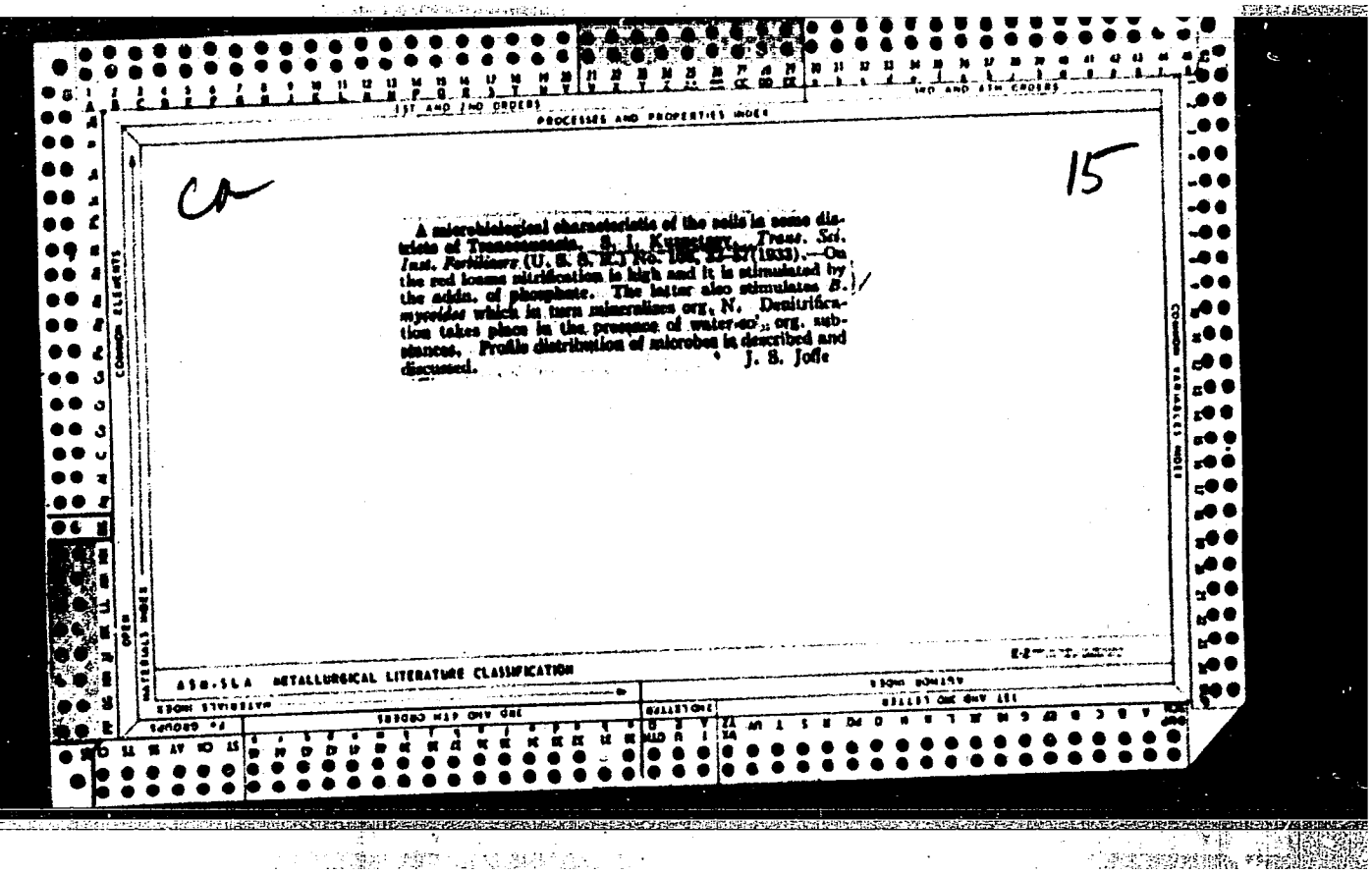




Cr

11a

The oxidation-reduction potential in biology. S. I. Kupreianov. *Trans. Sci. Inst. Fertilizers* (U. S. S. R.) No. 108, 99–110(1933).—A critical discussion, with special reference to microbes. J. S. Joffe

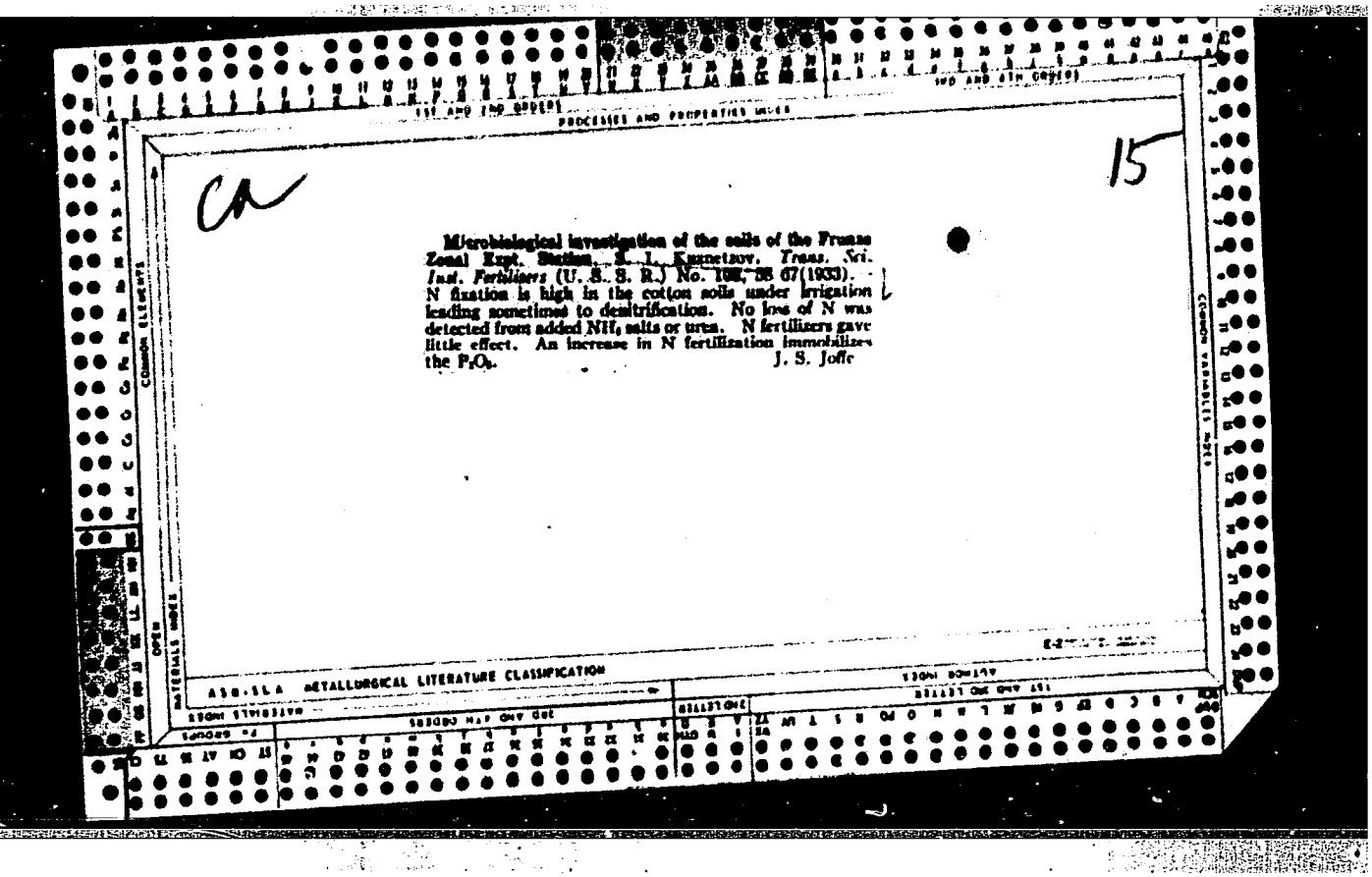


Ca

15

A microbiological characteristic of the soils in some districts of Transcaucasia. S. I. Kuznetzov. *Trans. Sci. Inst. Fertilizers* (U. S. S. R.) No. 106, 33–57 (1933).—On the red loams nitrification is high and it is stimulated by the addn. of phosphate. The latter also stimulates *B. myxoides* which in turn mineralizes org. N. Denitrification takes place in the presence of water-sol. org. substances. Profile distribution of microbes is described and discussed. J. S. Joffe

A58.51A METALLURGICAL LITERATURE CLASSIFICATION



CA

15

Microbiological investigation of the soils of the Pruass Zonal Expt. Station. S. L. Kuznetsov. *Trans. Sci. Inst. Fertilizers* (U. S. S. R.) No. 102, 38 67(1933). N fixation is high in the cotton soils under irrigation leading sometimes to denitrification. No loss of N was detected from added NH_4 salts or urea. N fertilizers gave little effect. An increase in N fertilization immobilizes the P_2O_5.

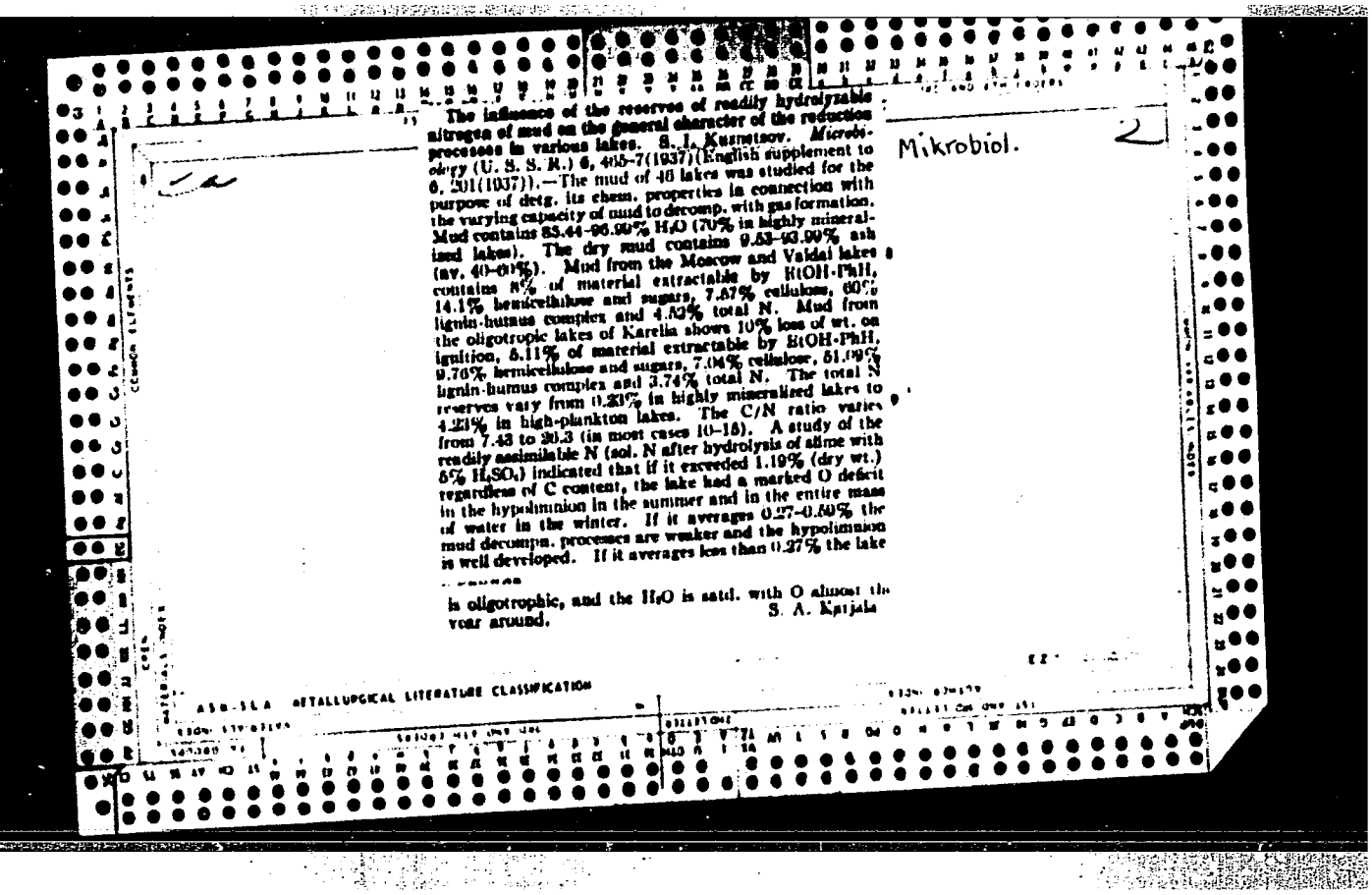
J. S. Joffe

KUZNETSOV, S. I.

"Comparative study of nitrogen, phosphorus and oxygen regime of Glubokoye and Beloye Lakes," Tr. Limn. st. v. Kosine, No 17, p 49, 1934.

KUZNETSOV, S. I.

"Effect of supply of easily hydrolyzable nitrogen in silt on the general character of the reducing processes in various Lakes," Mikrobiologiya, 6, p 186, 1937.



The influence of the reserves of readily hydrolyzable nitrogen of mud on the general character of the reduction processes in various lakes. S. I. Kuznetsov. *Microbiology* (U. S. S. R.) 6, 495–7(1937)(English supplement to 6, 501(1937)).—The mud of 46 lakes was studied for the purpose of detg. its chem. properties in connection with the varying capacity of mud to decomp. with gas formation. Mud contains 85.44–96.99% H_2O (70% in highly mineralized lakes). The dry mud contains 9.53–63.99% ash (av. 40–60%). Mud from the Moscow and Valdai lakes contains 8% of material extractable by EtOH-PhH, 14.1% hemicellulose and sugars, 7.87% cellulose, 60% lignin-humus complex and 4.03% total N. Mud from the oligotropic lakes of Karelia shows 10% loss of wt. on ignition, 5.11% of material extractable by EtOH-PhH, 9.70% hemicellulose and sugars, 7.04% cellulose, 51.09% lignin-humus complex and 3.74% total N. The total N reserves vary from 0.23% in highly mineralized lakes to 4.23% in high-plankton lakes. The C/N ratio varies from 7.43 to 20.3 (in most cases 10–18). A study of the readily assimilable N (sol. N after hydrolysis of slime with 5% H_2SO_4) indicated that if it exceeded 1.19% (dry wt.) regardless of C content, the lake had a marked O deficit in the hypolimnion in the summer and in the entire mass of water in the winter. If it averages 0.27–0.60% the mud decompn. processes are weaker and the hypolimnion is well developed. If it averages less than 0.27% the lake is oligotrophic, and the H_2O is satd. with O almost the year around.

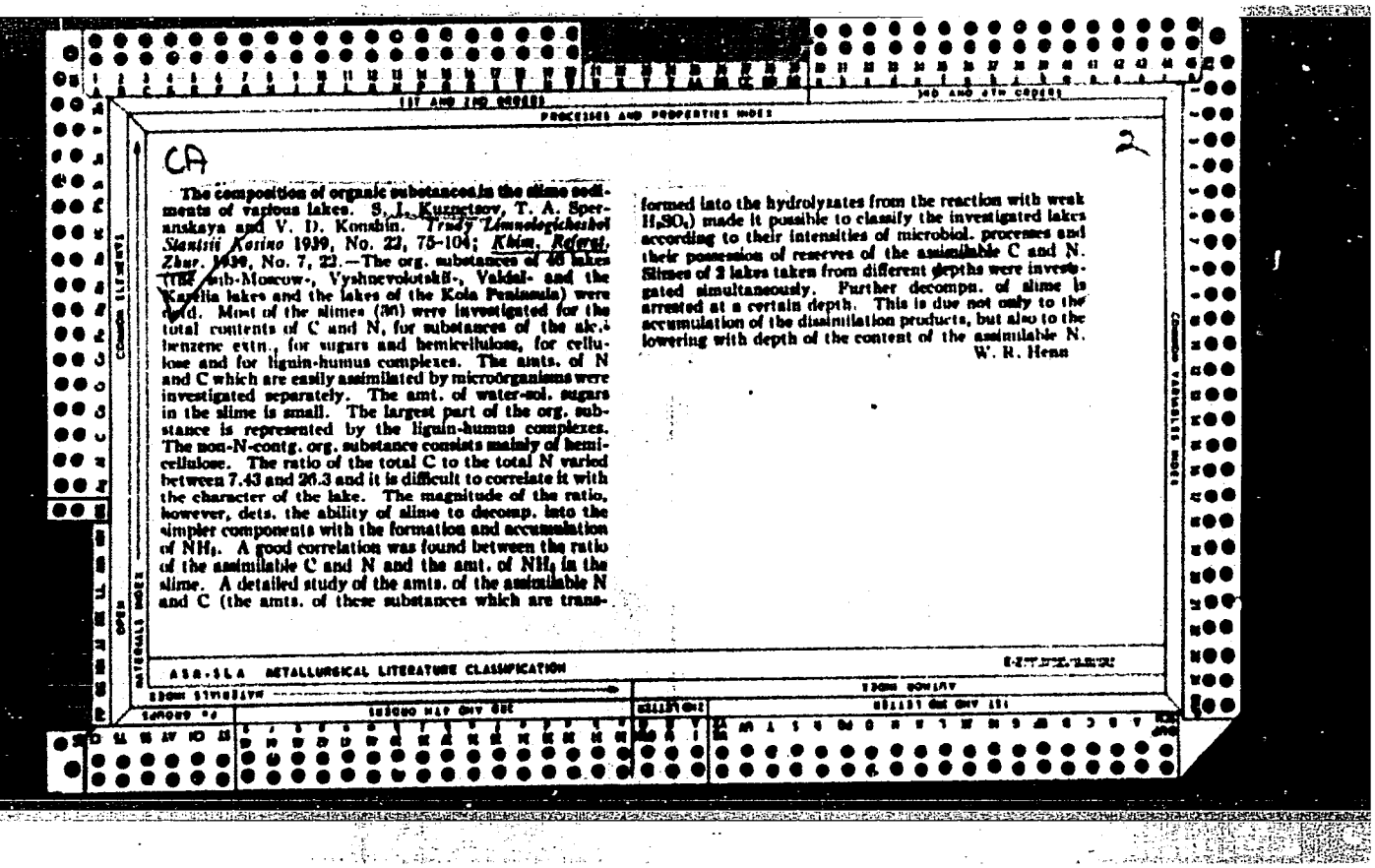
S. A. Kajala

Mikrobiol.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

KUZNETSOV, S. I.

"Quantitative estimate of microflora in connection with the development of a microzonal indicator of muds," Mikrobiologiya, 7, p 36, 1938.



CA

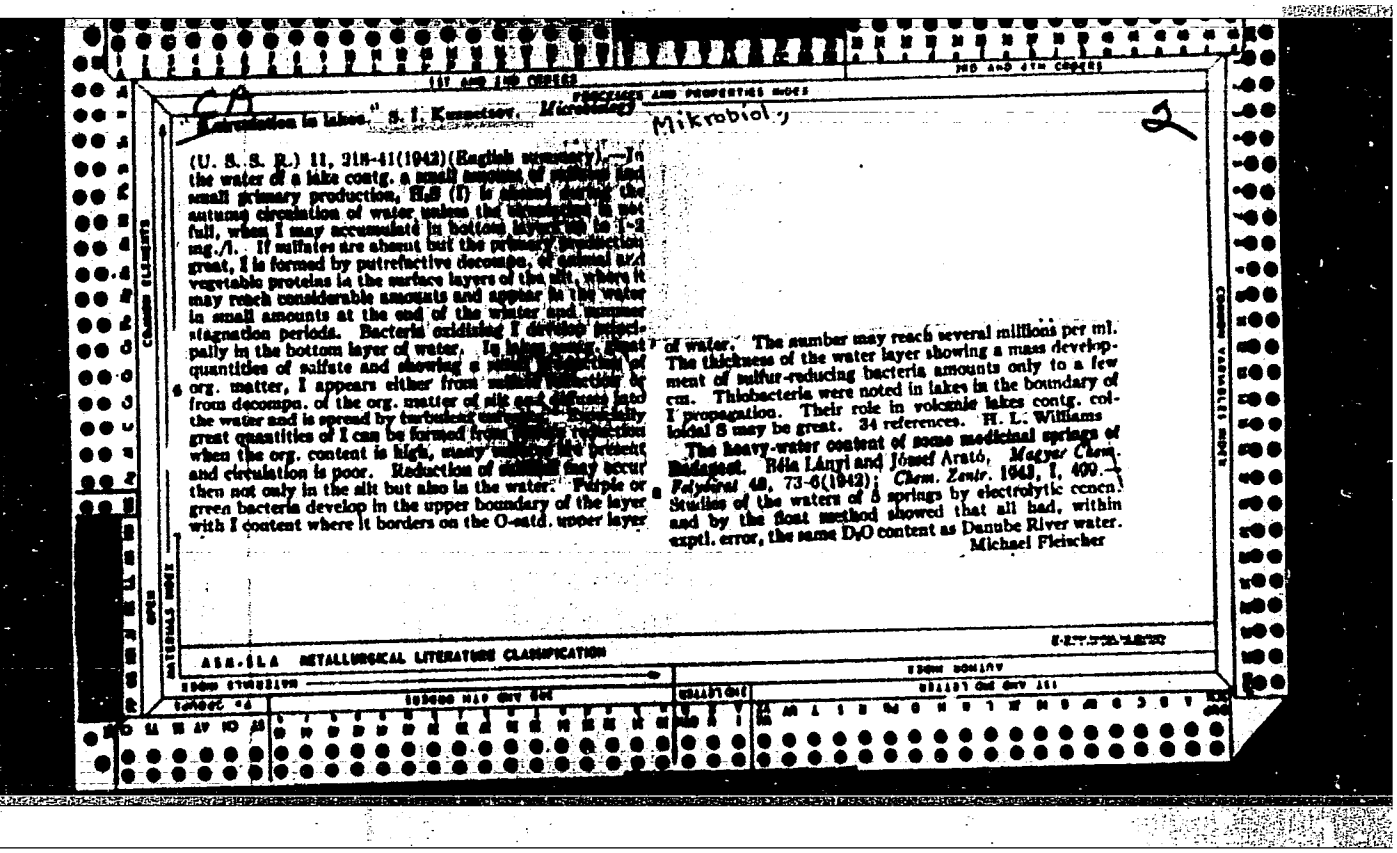
2

The composition of organic substances in the slime sediments of various lakes. S. I. Kurnetsov, T. A. Speranskaya and V. D. Konshin. *Trudy Limnologicheskoi Stantsii Kosino* 1939, No. 22, 75-104; *Khim. Referat. Zhur.* 1939, No. 7, 22.—The org. substances of 48 lakes (the sub-Moscow-, Vyshnevolotskii-, Valdai- and the Karelia lakes and the lakes of the Kola Peninsula) were anal. Most of the slimes (36) were investigated for the total contents of C and N, for substances of the alc.-benzene extn., for sugars and hemicelluloses, for cellulose and for lignin-humus complexes. The amts. of N and C which are easily assimilated by microorganisms were investigated separately. The amt. of water-sol. sugars in the slime is small. The largest part of the org. substance is represented by the lignin-humus complexes. The non-N-contg. org. substance consists mainly of hemicellulose. The ratio of the total C to the total N varied between 7.43 and 26.3 and it is difficult to correlate it with the character of the lake. The magnitude of the ratio, however, dets. the ability of slime to decomp. into the simpler components with the formation and accumulation of NH_3. A good correlation was found between the ratio of the assimilable C and N and the amt. of NH_3 in the slime. A detailed study of the amts. of the assimilable N and C (the amts. of these substances which are transformed into the hydrolyzates from the reaction with weak H_2SO_4) made it possible to classify the investigated lakes according to their intensities of microbiol. processes and their possession of reserves of the assimilable C and N. Slimes of 2 lakes taken from different depths were investigated simultaneously. Further decompn. of slime is arrested at a certain depth. This is due not only to the accumulation of the dissimilation products, but also to the lowering with depth of the content of the assimilable N.

W. R. Hess

KUZNETSOV, S. I. and KHARTULARI, Ye.M.

"Microbiological characterization of the processes of anaerobic decomposition of organic matter of the silt of Biloye Lake at Kosina," Mikrobiologiya, 10, p 834, 1941.



"Circulation in lakes." S. I. Kuznetsov. *Microbiology* (U. S. S. R.) 11, 318-41(1942)(English summary).—In the water of a lake contg. a small amount of sulfates and small primary production, H_2S (I) is absent during the autumn circulation of water unless the circulation is not full, when I may accumulate in bottom layers up to 1-2 mg./l. If sulfates are absent but the primary production great, I is formed by putrefactive decompn. of animal and vegetable proteins in the surface layers of the silt, where it may reach considerable amounts and appear in the water in small amounts at the end of the winter and summer stagnation periods. Bacteria oxidising I develop principally in the bottom layer of water. In lakes poor in sulfate quantities of sulfate and showing a considerable reduction of org. matter, I appears either from sulfate reduction by org. matter, I appears either from sulfate reduction by from decompn. of the org. matter of silt and diffuses into the water and is spread by turbulent exchange. Especially great quantities of I can be formed from sulfate reduction when the org. content is high, many sulfur bacteria develop and circulation is poor. Reduction of sulfate may occur then not only in the silt but also in the water. Purple or green bacteria develop in the upper boundary of the layer with I content where it borders on the O-satd. upper layer of water. The number may reach several millions per ml. The thickness of the water layer showing a mass development of sulfur-reducing bacteria amounts only to a few cm. Thiobacteria were noted in lakes in the boundary of I propagation. Their role in volcanic lakes contg. colloidal S may be great. 34 references. H. L. Williams

The heavy-water content of some medicinal springs of Budapest. Béla LÁnyi and József Arató, *Magyar Chem. Folyóirat* 48, 73-6(1942); *Chem. Zentr.* 1943, I, 499.—Studies of the waters of 5 springs by electrolytic concn. and by the float method showed that all had, within exptl. error, the same D_2O content as Danube River water.

Michael Fleischer

KUZNETSOV, S. I.

Dolivo-Dobrovol'skiy, G. B.

"Bactericidal Action of Ultrasonic Oscillations in Water,"

Gigiyena i Sanitariya, 1943, 7, 1

M-28, 14 Dec 54

KUZNETSOV, S. I.

USSR/Medicine - Sewage Apr 1946
Medicine - Water, Purification

PA40T68

"Comparison of Oxygen Utilization by Activated Sludges Obtained from Six Moscow Municipal Aeration Plants," S. I. Kuznetsov, Lyublino Laboratory, Scientific Research Dept, Moscow Sewage Disposal Trust, 8 pp

"Mikrobiologiya" Vol XV, No 2

Oxygen utilization by activated sludge mixed with liquid sewage is similar in all the sludges. During the first 15-30 minutes rates observed are very high, after which they slow down. Only one sludge behaved slightly different in this respect. Oxidation of different sewage waters by one and the same sludge

40T68

LC

USSR/Medicine - Sewage (Contd) Apr 1946

40T68

will not change the characteristic curve of oxygen absorption. Observation of two types of sludges show that the regeneration of sludges does not influence to any significant extent the intensity of oxygen absorption.

LC

40T68

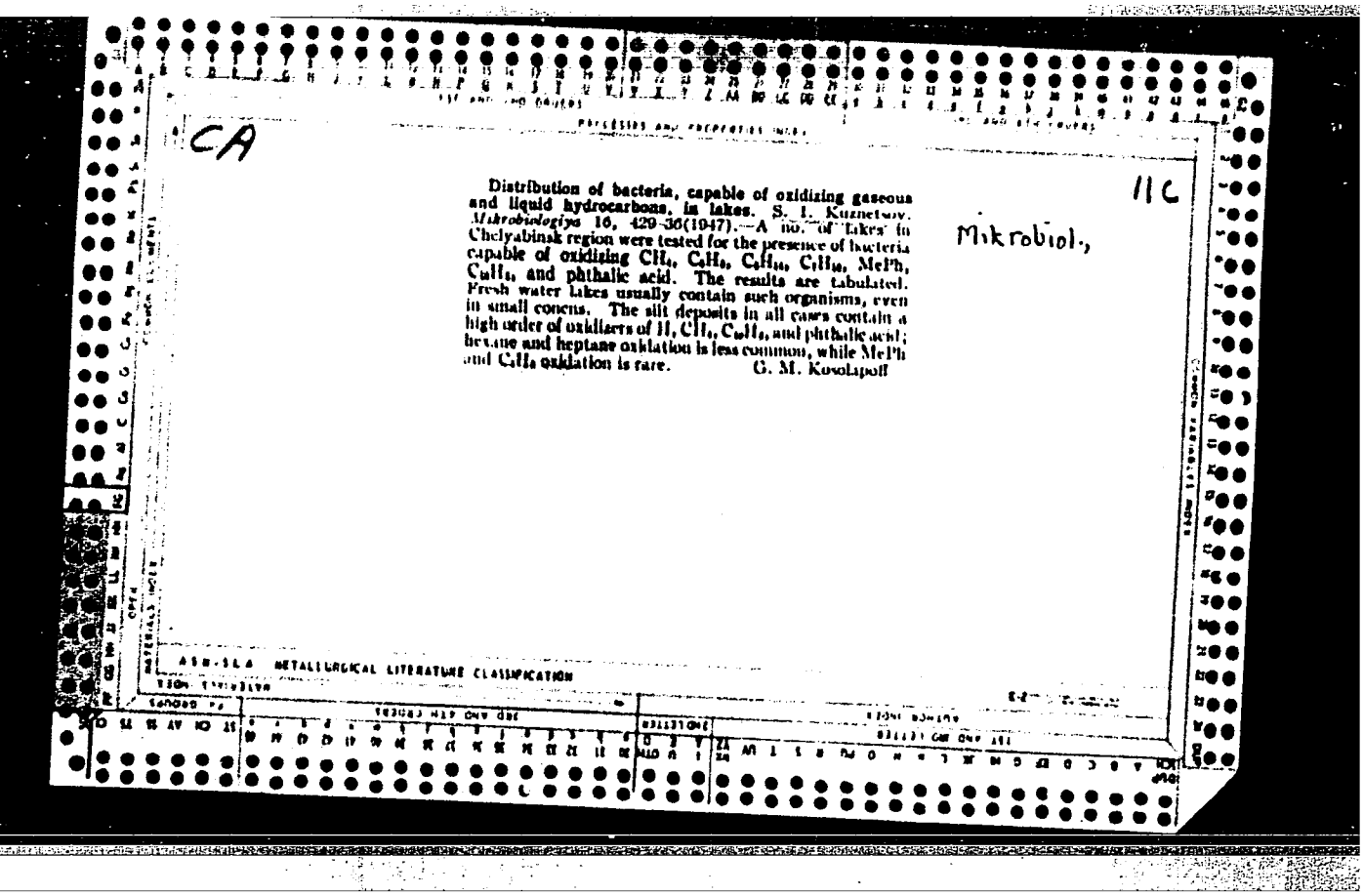
1. KUZNETSOV, S. I. and KUZNETSOVA, V. A. and SMIRNOVA, Z. S.

2. USSR (600)

4. Microorganisms

7. Study of the processes of oxidation by bacteria of hydrocarbon gases under conditions of their diffusion through sedimentary rock. Izv.Glav.upr.geol.fon. no. 3, 1947.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.



CA

Distribution of bacteria, capable of oxidizing gaseous and liquid hydrocarbons, in lakes. S. I. Kuznetsov. *Mikrobiologiya* 16, 429-36(1947).—A no. of lakes in Chelyabinsk region were tested for the presence of bacteria capable of oxidizing CH_4, C_2H_6, C_3H_{10}, C_7H_{16}, MePh, C_6H_6, and phthalic acid. The results are tabulated. Fresh water lakes usually contain such organisms, even in small concns. The silt deposits in all cases contain a high order of oxidizers of H, CH_4, C_6H_6, and phthalic acid; hexane and heptane oxidation is less common, while MePh and C_6H_6 oxidation is rare. G. M. Kosolapoff

11C

Mikrobiol.,

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BOKOVA, Ye N., KUZNETSOVA, V. A., and KUZNETSOV, S. I.

Mbr., All-Union Office, Neftegazos'emka (-1947-)

"Oxidation of Gaslike Hydrcarbons by Bacteria as a Basis of Microbiological Prospecting for Oil," Dokl. AN SSSR, 56 No. 7, 1947.

KUZNETSOV S. I. PA 44/49T73

USSR/Medicine - Microbiology, Jul/Aug 48
Medicine - Bacteria, Autotrophy

"Problem of Autotrophy in Microorganisms (Survey): I, Formulating an Understanding of Autotrophy in Bacteria," S. I. Kuznetsov, Inst of Microbiol, Acad Sci USSR, Moscow, 8½ pp

"Mikrobiologiya" Vol XVII, No 4

Reviews various experiments on subject. Mentions groups of autotrophic processes, mechanism of assimilation of carbonic acid in autotrophic bacteria, and role of autotrophic bacteria in exchange cycle of matter in nature. Method of

44/49T73

USSR/Medicine - Microbiology (Contd) Jul/Aug 48

simple tests using respiratory manometer devices (Roelfsen, 1935; Boemeke, 1939; Vogler, 1942; Kluyver and Manten, 1942, etc.) is frequently used in studies of exchange processes in autotrophic organisms. Gives table of experimental results. Submitted 13 Mar 48.

44/49T73

KUZNETSOV, S. I.

"Microbiological studies of the decomposition of organic matter in Lacustrine deposits," Tr. russk. gidrob. o-va [Transactions Russian Hydrobiological Society], No 1, 1949a.

KUZNETSOV, S. I.

33944. Osnovnyye Itogi I Ochyeryednyye Zadachi Mikrobiologichyeskikh Issiyedovaniy Ilovykh Ozyernykh Otlozhyeniy. Trudy Vsyesoyuz. Gidrobiol. O-va, T. 1, 1949, S. 73-90. -- Bibliogr: S. 89-90.

SO: Letopis': Zhurnal'nykh Statey, Vol. 46, Moskva, 1949.

KUZNETSOV, S. I.

PA 50/49T61

USSR/Medicine - Microorganisms May/Jun 49
Medicine - Microbiology

"Application of Microbiological Methods to the Study of Organic Matter in Reservoirs (and Lakes)," S. I. Kuznetsov, Inst of Microbiol, Acad Sci USSR, Moscow, 11 pp

"Mikrobiol" Vol XVIII, No 3, pp. 203-14

Among other advantages, claims microbiological methods facilitate calculating percentage of organic matter in dystrophic, oligotrophic, and eutrophic lakes, various changes in organic matter, and plankton, bacteria, detritus and iron compounds in reservoirs. Submitted 7 Feb 49.

50/49T61

C II

1/C

Microbiological studies of lakes of Kokchetav, Kurgan, and Tyumen regions. I. Microbiological characteristics of the mineralization processes of organic matter in lakes of varying degrees of salinity. S. I. Kuznetsov. *Trudy Lab. Sapropel. Otlozhenii, Akad. Nauk S.S.S.R. (Inst. Lesa)* 1950, No. 4, 5-11.—Among the various lakes studied, partic-
ularly intense mineralization is found to occur in the low-
salinity lakes of Makushino region. In these the bacterial
count reaches 12,000,000 per ml., with the ratio of total no.
to that of saprophytes being 26:12. Bacterial biomass
reaches 7.5 mg./l. In saline lakes of meadow regions the
turnover of org. matter is slower, with bacterial counts
being 200,000-800,000 per ml. and the biomass reaching but
0.2-0.3 mg./l. The nitrifying ability of the waters can be
used as an index of mineralization of org. matter in a reser-
voir, while the ratio of total saprophytes to the spore-forming
forms is an index of the nature of the decompn. of the org.
matter. The nonspore forms are higher in eutropic lakes in
which the amt. of org. matter destroyed is high, here the
spore-bearing forms account for about 10% of total sapro-
phytes. **II. Microbiological characteristics of processes of decomposition of organic matter in silt deposits.** *Ibid.* 13-
28.—In Kurgan and Kokchetav regions the main body of
bacteria are found in the surface layers of the lake deposits.
Anaerobic forms that destroy org. matter with formation of
CH_4 are also concd. in the 1st m. of depth. Decompn. of
org. matter at greater depths is retarded owing to deficiency
in carbohydrates and nitrogenous matter. Sulfate-reduc-
ing bacteria are usually found in surface layers and in silt
deposits of lakes relatively rich in sulfates, although some
are found at 2-3 m.

G. M. Kosolapoff

Present possibilities of methane formation in oil-gas strata in the Saratov and Bugurusian areas. S. I. Kuz-netsov (Acad. Sci. U.S.S.R., Moscow). *[illegible]* 19, 193-202(1950). Bacterial counts in gas- and oil-bearing strata show capacity for liberating CO_2 from rocks at a rate of 2 g./ton/day in the Saratov and Bugurusian fields. Occurrences of desulfurizing bacteria and of petroleum are clearly related. Probably CH_4 is formed at rock surfaces by bacterial action on CO_2 and H_2.

Julian F. Smith

MUSATOVA, A. YA., KUZNETSOV, S. I.

Marine Biology

Regulation of the productivity of water bodies by the use of biological methods in the application of fertilizers., Trudy Inst. microbiol., no. 1, 1951.

Mikrobiol., AN SSSR,

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.
2

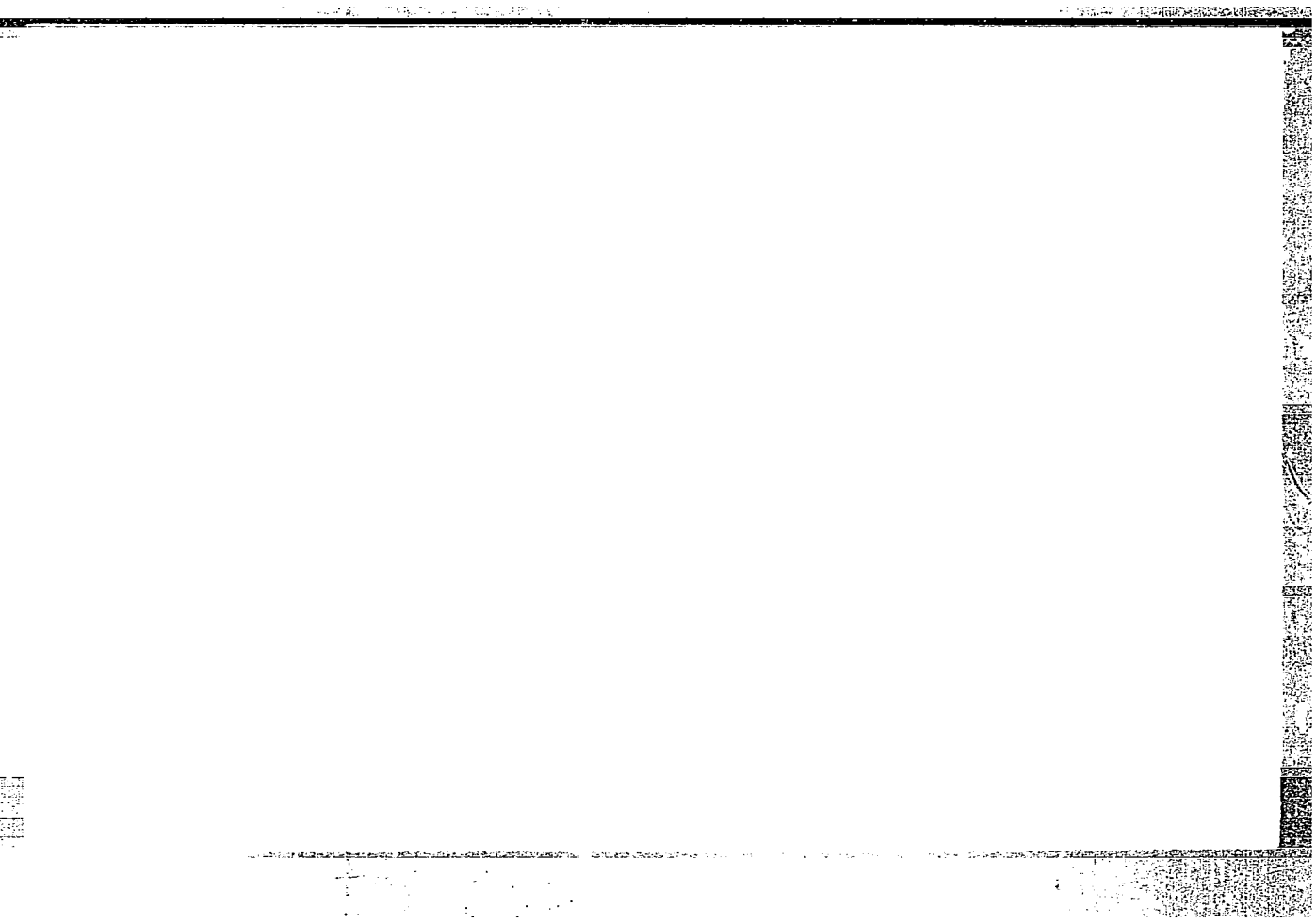
KUZNETSOV, S. I.

"Comparative Characterization of the Biological Mass of Bacteria and Phytoplankton in the Surface Layer of Water in the Middle of Lake Baykal," Transactions of Lake Baykal Freshwater Biological Station, 13, 217, 1951

KUZNETSOV, S. I.

"Role of Microorganisms in the Formation of Sapropelic Deposits," Mikrobiologiya, 20, No.3, pp 245-256, 1951

Translation M-686, 16 Aug 55



APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928130007-1"

KUZNETSOV, S.I.

YEGOROVA, A.A.; DERYUGINA, Z.P.; KUZNETSOV, S.I.

Characteristics of saprophytic microfloral in lake water in various degrees of nutrition. Trudy Inst. mikrobiol. no.2:139-149 '52. (MLRA 5:12)

(WATER, bacteriology,
saprophytic bact. in lakes)
(BACTERIA,
saprophytic, in lake water)

KUZNETSOV, S. I.

"Comments on E. A. Rukina and V. I. Biryuzova's Article 'Method of Obtaining Membrane Ultrafilters Free of Bacteria Content for Direct Counts,'" S. I. Kuznetsov

"Mikrobiologiya" Vol 21, No 4, p 477

Kuznetsov comments on an article in which Rukina and Biryuzova complained that the high content of bacteria found in membrane filters commonly used in laboratories interfered with correct readings. Using the authors formula of $X = \frac{S.N}{SV}$ in the calculation of bacteria found in one ml of water (Razumov's method of Testing Water), the commentator finds that 2½ bacterial cells found in one field of vision, should be regarded as a permissable margin of error. Believes that Rukina and Biryuzova exaggerate the bacterial content of membrane filters, and suggests that they should design a membrane filter suitable for production and satisfactory to their use.

228T24

228T24

1. KUZNETSOV, S. I. (Prof.)

2. USSR (600)

4. Soils - Bacteriology

7. Work of an outstanding Russian microbiologist ("Problems and methods of soil mirobiology." S. N. Vinogradskiy. Reviewed by Prof. S. I. Kuznetsov). Priroda 42, No. 5, 1953.

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

KUZNETSOV, S.I.

Principal approaches to the study of relations between primary production of organic matter in bodies of water and the bacterial mass. (MLRA 8:5)
Trudy probl. i tem. soveshch. no.2:202-212 '54.
(Lakes) (Microorganisms)

EKZERTSEV, V.A.; KUZNETSOV, S.I.

Study of the microflora of oil fields of the Second Baku. Mikrobiologiia 23 no.1:3-14 Ja-F '54. (MLRA 7:2)

1. Institut mikrobiologii Akademii nauk SSSR, Moscow. (Second Baku--Petroleum) (Microorganisms)

FD 303

USSR/Biology

Card 1/1

Author : Razumov, A. S.

Title : Review of S. I. Kuznetsov's book, "Rol' mikroorganizmov v krugoovorote veshchestv v ozerakh" [The role of microorganisms in rotation of substances in lakes] Published by the Academy of Sciences, Moscow, 1952

Periodical : Mikrobiologiya, 23, 361-363, May/June 1954

Abstract : The book is an exhaustive 300 page limnological study of the role of microorganisms in the rotation of the various chemical and physical components of the water and bed-mud in lakes and ponds. It describes the investigative techniques and the equipment used in the study. The review is very favorable.

Institution : --

Submitted : --

KUZNETSOV, S.I. Doctor of Biological Sciences

"Basic types of the Formation of sediments of calcium carbonate in fresh waters and the role of microorganisms in this process".

Report given at jubilee held on June 20-21, 1955 in honor of 25th anniversary of foundation of Inst. of Microbiology, AS USSR

KUZNETSOV, S. I.

"Use of Radioactive Carbonic Acid G-14 for Determining the Comparative Amount of Photosynthesis and Chemosynthesis in a Series of Lakes of Various Type," edited by A. A. Imshenetskiy, Corresponding Member, Academy of Medical Sciences USSR, Moscow, Publishing House of the Academy of Sciences USSR, 1955, 239 pp

Sum 1467

KUZNETSOV, S. I., SOROKIN, Y. I., LYALIKOV, N. N. and IVANOV, M. V.

"Application of Radioactive Isotopes to the Study of Processes of Photosynthesis and Chemosynthesis and Chemosynthesis in Lakes," a paper presented at the Atoms for Peace Conference, Geneva, Switzerland, 1955

15-57-4-5129

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4, p 150 (USSR)

AUTHOR: Kuznetsov, S. I.

TITLE: Microbiological Activity Induced in Strata to Intensify Petroleum Extraction and Increase Yield (Razrabotka metodov mikrobiologicheskogo vozdeystviya na plast s tsel'yu intensifikatsii neftedobychi i uvelicheniya nefteotdachi)

PERIODICAL: V sb: Metody uvelicheniya nefteotdachi plastov. Moscow, Gostoptekhizdat, 1955, pp 187-194

ABSTRACT: Two methods for increasing petroleum yield are noted, namely: 1) use of a microbiological method for reducing the viscosity of petroleum; 2) decomposing petroleum to methane, carbonic acid, and other gases in an anaerobic environment. Use of cultures of clostridium or prectridium is recommended for the

Card 1/2

Microbiological Activity Induced in Strata (Cont.)

improvement of physical properties of petroleums (on the basis of tests). These organisms are able to ferment the heavy components of petroleum; at the same time they develop rapidly at the expense of sugars of industrial molasses. The author opposes cycling of sulfur bacteria into the stratum. These bacteria will form a large amount of hydrogen sulfide which has a strong corrosive action on equipment.

Card 2/2 V. P. K.

Kuznetsov, S.I.

KUZNETSOV, S.I.

Microorganisms of hot springs of Kamchatka. Trudy Inst. mikrobiol. no.4:130-154 '55. (MLRA 9:1)
(WATER,
microorganism of hot springs of Kamchatka)
(BACTERIA,
in hot springs in Kamchatka)

KUZNETSOV, S.I.; KARZINKIN, G.S.; YEGOROVA, A.A.; KASTAL'SKAYA, M.A.; KARASIKOVA, A.A.; IVANOV, M.V.; ZAVARZIN, G.A.; DERYUGINA, Z.P.

Rigid vegetation as green fertilizer for increasing the productivity of fish farms. Vop.ikht. no.5:119-137 '55. (MLRA 9:5)

1. Institut mikrobiologii Akademii nauk SSSR i Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii, VNIRO.
(Fish culture)

KUZNETSOV, S.I.

"Study of the number of bacterial population in reservoirs and formation of organic substances at the expense of photo-and chemical synthesis." The 13th Limnological Congress, Helsinki, 27 July-7 August, 1956.

Sum 1274

Kuznetsov, S.I.

USSR / General Biology - General Hydrobiology. B

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38108.

Author : ~~Kuznetsov, S. I.~~
Inst : Not given.
Title : Experimental Utilization of Green and Mineral Fertilizers in Ponds of Fishkhoz "Ust-Koysug" in the Rostov District.

Orig Pub: Tr. Vses. gidrobiol. o-va, 1956, 7, 37-51.

Abstract: The need of fertilizers was determined by the method of Mhydrobiological productivity" (Frantsev, "Mikrobiologiya," 1932, 1, 2). Times for introduction and the quantity of necessary fertilizers are indicated. In introducing green fertilizers the bacterial makeup plays the chief role for zooplankton.

Card 1/2 38

USSR / General Biology - General Hydrobiology. B

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38108.

Abstract: When mineral fertilizers were used filarioide formed first, periphyton on these, and after 3 weeks, phytoplankton. The best growth tempo of bream young fry was observed when green fertilizers were introduced.

Card 2/2

KUZNETSOV, S.I.

KARZINKIN, G.S., prof.; KUZNETSOV, S.I., prof.

Utilizing coarse vegetation as green manure on the Volga Delta fish farms. Trudy VNIRO 32:22-28 '56. (MIRA 10:10)
(Volga Delta--Fish ponds)
(Fresh-water flora)

S.I Kuznetsov

USSR/Microbiology - General Microbiology F-1

Abs Jour :: Ref Zhur-Biologiya, No 1, 1957, 475

Author :: S. I. Kuznetsov
Inst ::
Title :: On the Problem of the Possibility of Radio Synthesis

Orig Pub :: Mikrobiologiya, 1956, 25, No 2, 195-199

Abstract :: Filarioidea bacteria are the basic form of microorganisms in the hydrosulfide depths of the Black Sea. Kriss and Rukina (Dokl. AN SSSR, 1953, 63, No 6, 106) classed them with the purpurin sulfur bacteria and assumed that the synthesis of organic matter (0.001 mg/l in 24 hours) is carried out by these autotrophic forms by utilizing the energy of radioactive

Card 1/3

USSR/Microbiology - General Microbiology F-1

Abs Jour : Ref Zhur-Biologiya, No 1, 1957, 475

Abstract : disintegration (radio synthesis). On comparing numerical data (1g of radium emits 2.3 calories in one minute and $2.22 \cdot 10^{12}$ imp/min; for the synthesis of 1 mg of glucose 3.9 calories are required; this corresponds to $3.75 \cdot 10^{12}$ imp/min in radioactive disintegration) it was found that the synthesis of 0.001 mg/l of glucose in 24 hours may take place as a result of $2.6 \cdot 10^{3}$ imp/min of specific water activity. However, from experiments with phytoplanctons it is known that on the reduction of one molecule of CO_2 in the process of photosynthesis only 20% of the absorbed energy is utilized, and that the synthesis of 0.001 mg/l

Card 2/3

F

USSR/Microbiology - General Microbiology. Water and Air Microorganisms.

Abs Jour : Ref Zhur Biol., No 22, 1958, 99333

Author : Kuznetsov, S.I.

Inst : Baikal Limnological Station, AS USSR

Title : Microbiological Characteristics of Waters and Soils of the Baikal

Orig Pub : Tr. Baykalsk. limnol. st. AN SSSR, 1957, 15, 388-396

Abstract : It was established that the vertical distribution of bacteria in Lake Baikal is subject to drfinite rules. The largest number of bacteria is associated with the water level of 10-25 m and falls sharply in the hypolimnion. The total number of bacteria in surface layers, in October 1949, fluctuated from 150 to 300 thousand, and in deep layers, from 15 to 40 thousand per 1 ml.

Card 1/2

USSR/Microbiology - General Microbiology. Water and Air Microorganisms. F

Abs Jour : Ref Zhur Biol., No 22, 1958, 99333

The total number of bacteria in mud deposits reaches the largest amount (130-400 million) in the uppermost surface layer of mud, and at a depth of 5 cm becomes lowered to 30-60 million per 1 g of wet mud. In the corroboration of previous studies by Nechayeva and Salimovskaya-Radina (Tr. Baykal'sk. Limnologich. stantsii, 1935, VI) Azpbacter chroococcum, Clostridium pasteurianum, nitrifying bacteria and denitrificators were uncovered in Baikal deep-water muds. -- V.L. Mekhtiyeva

Card 2/2

KUZNETSOV, S.I.

Kuznetsov

USSR / Microbiology. General Microbiology. Geological Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23962

Author : Kuznetsova, V. A.; Ashirov, K. B.; Gromovich, V. A.; Ochinnikova, L. V.; Kuznetsov, S. I.

Inst : Not given

Title : Experiment of Suppressing the Development of Sulfate Restoring Bacteria in a Petroleum Layer of Kalinovskiy Bed

Orig Pub : Mikrobiologiya, 1957, 26, No 3, 330-337

Abstract : A relation has been established between the presence of a great amount of H_2S in a petroleum layer and the amount of sulfate-restoring bacteria. The activity of sulfate-restoring bacteria under the conditions of salty layer waters was proved, as well as their utilization of petroleum as a source of organic substance. The addition of formalin (about 400 mg/l) to the water before tossing it into the well (Kalinovskiy Deposit, Dybynbarskiy Oblast') led to the suppression of bacterial development in neighboring wells connected with the experimental well by a common flow of layer waters. By this, a real possibility for terminating bacterial formation of H_2S was determined.

Card 1/2

Card 2/2

15

KUZNETSOV, S.I.

USSR / Microbiology. General Microbiology. Geological Activity. F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23963

Author : Kuznetsov, S. I.; Telegina, Z. P.
Inst : Not given
Title : Some Data on the Physiology of Propane Oxidizing Bacteria

Orig Pub : Mikrobiologiya, 1957, 26, No 5, 513-518

Abstract : From the subsoil floor of the various regions of Soviet Union, where microbiological searches for petroleum were being conducted, several pure cultures of propane oxidizing bacteria were isolated. Of four cultures, three were related to mycobacteria and one to p. Pseudomonas. The addition of glucose (experiments in a Warburg apparatus) before introduction

Card 1/2

USSR / Microbiology. General Microbiology. Geological Activity. F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23963

of propane increased the consumption of O_2 by 1.5-2 times as compared with endogenic respiration, while the addition of propane increased the consumption of O_2 by 4-10 times. I.e., these bacteria, in the presence of propane, do not utilize the easily-oxidizing organic compounds. The propane oxidizing bacteria are able to absorb free CO_2 (experiments with $C^{14}O_2$) by the chemo-synthesis process; furthermore, oxidation of propane serves as the source of energy. It is assumed that propane oxidizing bacteria are reliable indicators of petroleum.

Card 2/2

Country : USSR F

ZHADIN, V. I., KUZNETSOV, S. I. and [illegible]-NESSOVSKIY, N. V.

"Isotopes in Solving Hydrobiology Problems."

paper to be presented at the 2nd UN Intl.' Conf. on the peaceful uses of Atomic Energy, Geneva, 1 - 13, Sept 58.

KUZNETSOV, S. I.

"The Role of Microorganisms in the Erosion of Sulphurbeds and of Sulphide Ores."

report submitted for the International Congress for Microbiology, Stockholm, Sweden, 4-9 Aug 1958.

KUZNETSOV, S. I.

USSR / Microbiology. General Microbiology. Micro-organisms of Water and Air. F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23952

Author : Kuznetsov, S. I.
Inst : Institute of Microbiology
Title : The Basic Means of Formation of Calcium Carbonate Sediments in Sweet-Water Reservoirs and the Role of Microorganisms in this Process

Orig Pub : Tr. In-ta mikrobiol, AN SSSR, 1958, vyp 5, 170-185

Abstract : Three types of processes were studied as a result of which the formation of $CaCO_3$ sediments in natural reservoirs with participation of bacteria is possible. To the first type belong reservoirs with alkaline water, similar to Lake Sevan, where sedimentation of $CaCO_3$

Card 1/3

USSR / Microbiology. General Microbiology. Micro-organisms of Water and Air.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23952

takes place by precipitation from a saturated solution. In this case the role of bacteria in the calcite sedimentation is small. In reservoirs of the second type, an example of which is Lake Belovod', this process is conditioned by the activity of sulfate-reducing bacteria, which accomplish the restoration of $CaSO_4$ in CaS, and calcite is formed secondarily by interaction of the latter with carbon dioxide. In reservoirs of the third type, to which Lake Viysyaagu (Estonia) may be referred, calcite is deposited as a result of decomposition of calcium humate by bacteria. In all studied cases, the participation of bacteria in the formation of a sediment of

Card 2/3

Chronicle - All Union Conference on Geochemical and Radiometric Methods of Search and Prospecting for Mineral Oil and Natural Gas Deposits. I

SOV/7-58-6-14/16

Republic, Czechoslovakia, Poland, Rumania and Yugoslavia. D. I. Shcherbakov, Member Academy of Sciences, USSR, Academician Secretary of the Otdeleniye geologo-geograficheskikh nauk (Department of Geographical Sciences) opened the conference. 20 main reports were given. 65 Soviet experts and 7 foreign scientists contributed with information and reports. They may be divided into 3 groups: 1. General theoretical problems (6 reports); 2. Methods, techniques and equipment for the search and prospecting of petroleum and natural gas deposits (7 reports); 3. Practical application of the methods and analysis of the results in search and prospecting of mineral oil and natural gas deposits (7 reports). A. A. Saukov spoke about migration of chemical elements, V. A. Sokolov about the scientific bases of geochemical prospecting methods. S. I. Kuznetsov dealt in his report with microbiological prospecting methods. F. A. Alekseyev discussed the scientific basis of the radiometric prospecting method (reduced gamma intensity field). A. I. Silin-

Card 2/4

Chronicle - All Union Conference on Geochemical and Radiometric Methods of Search and Prospecting for Petroleum and Natural Gas Deposits. I

SOV/7-58-6-14/16

Bekchurin spoke about the movement of deep subterranean waters. A. B. Ronov reported on investigation results dealing with the distribution of organic carbon in the sedimentary rocks of the Russian Platform. Methods and technique were the subject of the following reports: G. A. Mogilevskiy - The present stage of the problem of anomaly of gas bacteria and a suitable method for its solution; Ye. A. Bars - hydrochemical investigations in prospecting for petroleum and natural gas; V. A. Kovda and P. S. Slavin - soil geochemical features for the yield of petroleum and natural gas to be expected; V. N. Florovskaya - a luminiscence-bituminological method for the investigation and prospecting of natural gas and petroleum deposits; V. A. Sokolov - gasanalytical method and equipment and ways to complete them; and others. The use of geochemical methods in various regions of the USSR was also treated: Timano-Pechorskaya gazoneftanosnaya provintsiya (A. N. Krems, G. G. Grigor'yev, A. S. Medvedev), Saratovskoye Povolzh'ye (Ye. M. Geller), Stavropol'ye

Card 3/4

Chronicle - All Union Conference on Geochemical and Radiometric Methods of Search and Prospecting for Petroleum and Natural Gas Deposits. I SOV/7-58-6-14/16

(V. N. Kortsenshteyn), Kola Peninsula (I. A. Petersil'e) and others.

Card 4/4

IVANOV, M.V.; LYALIKOVA, N.N.; KUZNETSOV, S.I.

Role of Thiobacillus in the weathering of rocks and sulfide ores [with summary in English]. Izv.AN SSSR Ser.biol. 23 no.2:183-191 Mr-Ap '58. (MIRA 11:4)

1. Institut mikrobiologii AN SSSR.
(THIOBACILLUS) (WEATHERING)

KUZNETSOV, S.I.

OVCHINNIKOV, B.M., KUZNETSOV, S.I.

Lidiia Petrovna Kharitonova; an obituary. Mikrobiologiia 27 no.2:27-271 Mr-Ap '58 (MIRA 11:5)
(KHARITONOVA, LIDIIA PETROVNA, 1904-1957)

KUZNETSOV, S.I.

3(?) PHASE I BOOK EXPLOITATION SOV/2713

International Conference on the Peaceful Uses of Atomic Energy. 2nd, Geneva, 1958

Doklady sovetskikh uchenykh; polucheniye i primeneniye izotopov (Reports of Soviet Scientists; Production and Application of Isotopes) Moscow, Atomizdat, 1959. 388 p. (Series: Its: Trudy, vol. 6) 8,000 copies printed.

Eds. (Title page): G.V. Kurdyumov, Academician, and I.I. Novikov, Corresponding Member, USSR Academy of Sciences; Ed. (Inside book): Z.D. Andreyenko; Tech. Ed.: Z.D. Andreyenko.

PURPOSE: This book is intended for scientists, engineers, physicians, and biologists engaged in the production and application of atomic energy to peaceful uses; for professors and graduate and nongraduate students of higher technical schools where nuclear science is taught; and for the general public interested in atomic science and technology.

COVERAGE: This is volume 6 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy held in Geneva from September 1 to 13, 1958. Volume 6 contains 32 reports on: 1) modern methods for the production of stable radioactive isotopes and their labeled compounds, 2) research results obtained with the aid of isotopes in the field of chemistry, metallurgy, machine building, and agriculture, and 3) dosimetry of ionizing radiation. Volume 6 was edited by: S.V. Levinskiy, Candidate of Medical Sciences; V.N. Prusakov, Candidate of Chemical Sciences; and V.V. Sedov, Candidate of Medical Sciences. See Sov/2081 for titles of volumes of the set. References appear at the end of the articles.

KUZNETSOV, S. I. (USSR)

"Hauptrichtungen in der Erforschung der Mikroflora der Wolga Stauseen."

report submitted for the 14th Intl. Limnological Congress, Vienna, 20 Aug - 8 Sept 1959.

PAVLOVSKIY, Ye.N., akademik, otv.red.; AKATOVA, N.A., red.izdaniya; SHTEGMAN, B.K., red.izdaniya; ZHADIN, V.I., red.; KUZIN, B.S., red.; KUZNETSOV, S.I., red.; KHL'NER, A.G., red.

[Transactions of the Sixth Conference on Problems of the Biology of Inland Waters (June 10-19, 1957)] Trudy VI soveshchaniia po problemam biologii vnutrennikh vod.(10-19 iiunia 1957 g.) Moskva, Izd-vo Akad.nauk SSSR, 1959. 659 p. (MIRA 12:8)

1. Soveshchaniye po problemam biologii vnutrennikh vod. 6th, 1957. 2. Zoologicheskiy institut AN SSSR (for Zhadin).
(Fresh-water biology--Congresses)

KUZNETSOV, S.I.

Microbiological characteristics of reservoirs of the Volga River.
Trudy Inst. biol. vodokhran. no.1:69-81 '59. (MIRA 13:2)
(VOLGA VALLEY--WATER--BACTERIOLOGY)

SOV/30-59-2-6/60

17(2)
AUTHOR: Kuznetsov, S. I., Doctor of Biological Sciences

TITLE: The Geological Activity of Microorganisms (Geologicheskaya deyatel'nost' mikroorganizmov) The Essential Results and Tasks of Investigating (Osnovnyye rezul'taty i zadachi issledovaniya)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 2, pp 30-33 (USSR)

ABSTRACT: Laboratory experiments carried out by V. A. Ekzertsev, Ye. N. Bokova, A. L. Andreyevskiy showed that petroleum can be destroyed under anaerobic conditions and separation of methane, nitrogen and carbonic acid. As investigations of the gas and petroleum deposits in the Kalinovka, Kuybyshevskaya oblast' (district of Kuybyshev) showed this process takes also place in nature. The problem of the importance of microorganisms in the formation of petroleum has, however, hitherto remained a hypothesis. Investigations carried out on the formation of combustible gases furnished more real results. As can be seen from the papers by B. L. Isachenko and M. V. Ivanov, much factual material has been collected on the part of bacteria in the formation of sulfur deposits. In the USSR investigations

Card 1/2

The Geological Activity of Microorganisms. The Essential Results and Tasks of Investigating

have been carried out dealing with the geological activity of the group of bacteria Thiobac. ferrooxidans. It was found that they occur in pyritic coal, sulfide copper and iron ores and acid drainings from coal and ore pits. N. M. Strakhov denies the role of iron bacteria in ore formation; the author of the present paper does not quite agree to this. In the course of microscopic investigation of limonites and brown iron-ores A. G. Vologdin found traces of bacterial cells. Finally, the author states that hitherto the geological activity of microorganisms has only been investigated under laboratory conditions which, however, certainly vary to a considerable extent from natural conditions. It is therefore not possible to draw conclusions without any reservation on the natural processes only based upon laboratory data. Further microbiological investigations have to be carried out under natural conditions. It is also necessary to find ways and means which facilitate the control of the geological activity of microorganisms.

VINBERG, Georgiy Georgiyevich; ROSSOLIMO, L.L., retsenzent; KUZNETSOV, S.I., retsenzent; TURBIN, N.V., akademik, red.; BULAT, O., red.izd-va; TIMOSHCHUK, Iv., tekhn.red.

[Primary production of bodies of water] Pervichnaia produktsiia vodoemov. Minsk, Izd-vo Akad.nauk BSSR, 1960. 329 p. (MIRA 13:8)

1. AN BSSR (for Turbin).
(Phytoplankton)

KUZNETSOV, S.I.

Principal trends in the study of reservoir microflora. Trudy Inst. biol. vodokhran. no.3:3-8 '60. (MIRA 14:3)
(Reservoirs) (Water--Microbiology)

KUZNETSOV, S.I.; GAMBARYAN, M.Ye.

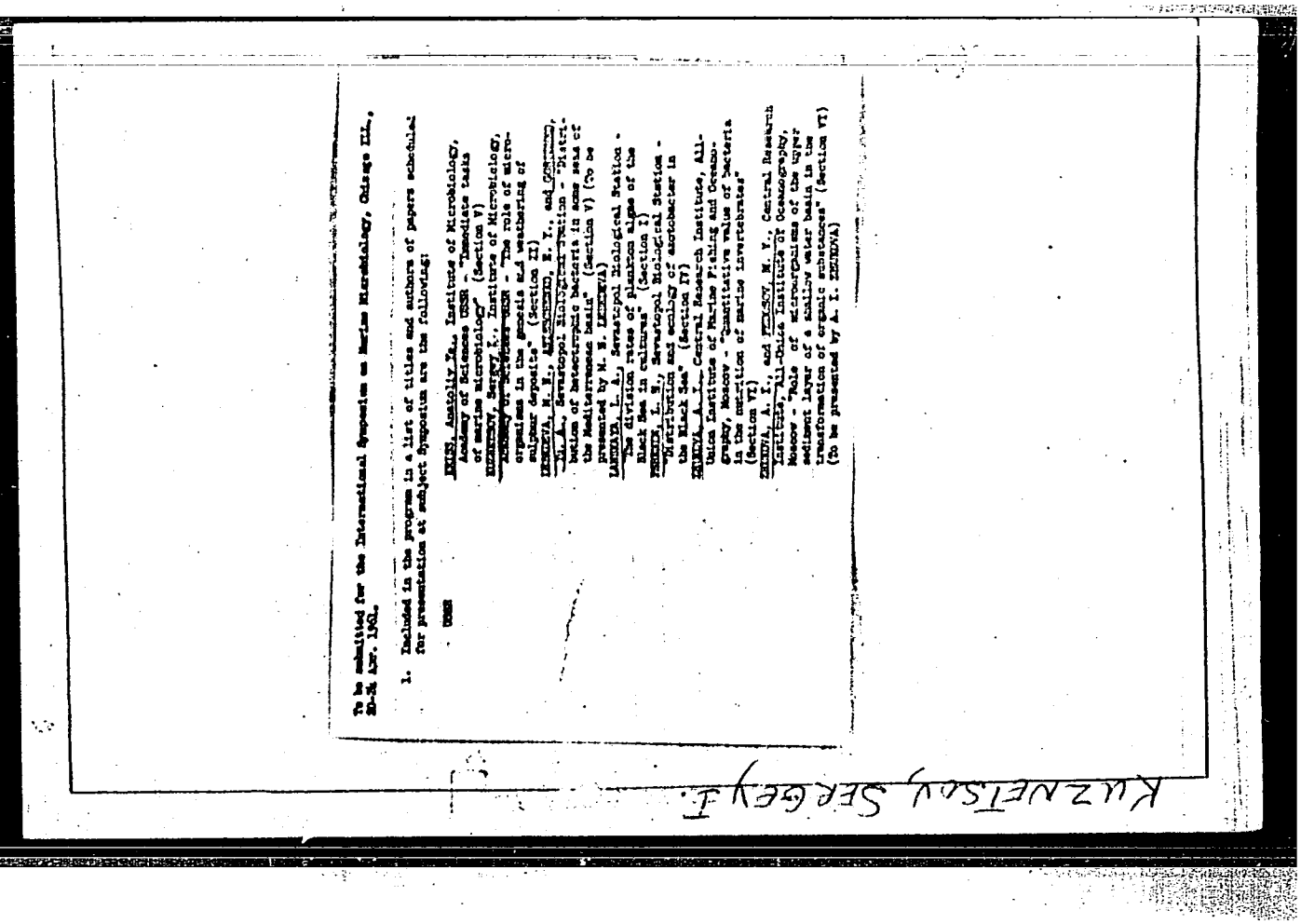
Estimating the photosynthetic production of organic matter in Lake Sevan. Izv. AN Arm. SSR. Biol. nauki 13 no. 4:63-69 Ap '60. (MIRA 14:2)

1. Sevanskaya gidrobiologicheskaya stantsiya Akademii nauk ArmSSR.
(SEVAN, LAKE—PHOTOSYNTHESIS)

KUZNETSOV, S.I.; SOKOLOVA, G.A.

Some data on the physiology of Thiobacillus thioparus. Mikrobiologiia 29 no.2:170-176 Mr-Ap '60. (MIRA 14:7)

1. Institut mikrobiologii AN SSSR.
(THIOBACILLUS)



To be submitted for the International Symposium on Marine Microbiology, Chicago Ill., 20-24 Apr. 1962.

1. Included in the program is a list of titles and authors of papers scheduled for presentation at subject Symposium are the following:

USSR

ZOBELL, Anatoliy Ya., Institute of Microbiology, Academy of Sciences USSR - "Immediate tasks of marine microbiology" (Section V)

KUZNETSOV, Sergey I., Institute of Microbiology, Academy of Sciences USSR - "The role of microorganisms in the genesis and weathering of sulphur deposits" (Section II)

IVANOVA, M. N., ANTIPCHENKO, E. I., and OKUNEVA, N. A., Sevastopol Biological Station - "Distribution of heterotrophic bacteria in some seas of the Mediterranean basin" (Section V) (To be presented by M. N. IVANOVA)

LAMANOV, L. A., Sevastopol Biological Station - "On division rates of plankton algae of the Black Sea in cultures" (Section I)

PETROV, L. N., Sevastopol Biological Station - "Distribution and ecology of acetobacter in the Black Sea" (Section IV)

SIDOVA, A. I., Central Research Institute, All-Union Institute of Marine Fishing and Oceanography, Moscow - "Quantitative value of bacteria in the nutrition of marine invertebrates." (Section VI)

ZHUKOVA, A. I., and FEDOSOV, M. V., Central Research Institute, All-Union Institute of Oceanography, Moscow - "Role of microorganisms of the upper sediment layer of a salinity water basin in the transformation of organic substance" (Section VI) (To be presented by A. I. ZHUKOVA)

KUZNETSOV, SERGEY I.

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Basic trends in the study of the geological activity of micro-organisms. Trudy Inst.mikrobiol. no.9:5-11 '61. (MIRA 15:5)

1. Institut mikrobiologii AN SSSR, Moskva.
(Micro-organisms)
(Geology)

KUZNETSOV, S.I.; PANTSKHAVA, Ye.S.

Effect of methane producing bacteria on the intensification of electrochemical corrosion of metals. Dokl. AN SSSR 139 no.2:478-480 Jl '61. (MIRA 14:7)

1. Institut mikrobiologii AN SSSR. 2. Chlen-korrespondent AN SSSR (for Kuznetsov).
(Electrolytic corrosion) (Methanobacterium)

KUZNETSOV, S.I.; IVANOV, M.V.; LYALIKOVA, N.N.; IMSHENETSKIY, A.A., otv. red.; SHCHERBAKOV, A.P., red. izd-va; SHEVCHENKO, G.N., tekhn. red.

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1. Chlen-korrespondent Akademii nauk SSSR (for Imshenetskiy).
(Geology) (Microbiology)

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Among the titles and authors of papers and other expected participants at the 15th International Congress of Limnology in Madison, Wisconsin, 20-25 Aug 62, are the following:

USSR

CATENKAYA, E. S., Kaliningrad College of Fishery, Kaliningrad - "The role of high aquatic plants in trophic cycles of fresh water bodies"

GORBUNOV, K. V., Astrakhan State Reservation, Astrakhan - "The role of cellulose bacteria in biological productivity of water bodies"

IVLEV, V. S., Sevastopol Biological Station (acad A. O. Kovalevsky, Sevastopol - "The transformation of energy on the highest trophic levels of a production process" and "Energetics of fish production" (Review Paper, Session IV)

[illegible] Kiselyova, Laboratory of Forestry, Academy of Sciences USSR - "The trophic of water bodies on different stages of their historical development"

[illegible], P. V., Kamchatka Department, Pacific Institute of Marine Fishery and Oceanography - "On the connection of flowing down of young fish of red salmon with the condition in a lake"

[illegible], Evgeniy Mikaylovich, Kamchatka Department, Pacific Institute of Marine Fishery and Oceanography - "The influence of a diminish of admission of red salmon producers on the phosphate regime of spawning lakes"

[illegible], Sergey Ivanovich, Institute of Microbiology, Academy of Sciences USSR - "The role of microorganisms in the destruction of organic substances in a water body" and, "Decomposition-Processes, results and limnological significance, microbiological" (Plenary Session IV)

[illegible], Ye. Yu., Hydrobiology Station, Sevan, Armenian SSR - [illegible] accepted invitation but has not submitted paper)

[illegible], V. Ya., Zoological Institute, Academy of Science USSR - "On the evolution of tendipedid larvae (Chironomidae) in connection with the conditions of existence"

[illegible], I. M., Laboratory of Limnology, Academy of Sciences USSR - "On the main concepts and directions of hydrology in the Soviet Union"

[illegible], A. G., Zoological Institute, Academy of Sciences USSR - "Microbiology of the detritus of lakes"

[illegible], L. L., Institute of Geography, Academy of Sciences USSR, and [illegible], Grigoriy I., Siberian Department of the Academy of Sciences USSR - "The Lake Baykal"

[illegible], Nikolay Nikolayevich, Institute of Biology of Water Reservoirs, Academy of Science USSR - "Ecology of the periphyll: Phytopods in connection with the estimation of the role of the littoral zone of the life of Volga water reservoirs"

[illegible], O. M., Limnological Institute, Siberian Department of the Academy of Sciences USSR - "The ice regime of the Baykal Lake"

[illegible], N. S., Biological Faculty, Moscow University, Moscow - "Influences of small concentrations of poisonous matter on hydro-organisms", and "On the question of the influence of sewage on waters"

[illegible], K. K., Limnological Institute, Siberian Department, Academy of Sciences USSR - "Turn-over of the organic matter and some biogenic elements in the Baykal Lake"

[illegible], Aleksandra Ivanova, Zoological Institute, Academy of Sciences USSR - "The fauna of high mountain water bodies of Middle Asia"

[illegible], V. I., Zoological Institute, Academy of Sciences USSR - "Migration of the radioactive phosphorus at fertilizing a water body"

[illegible], F. A., Dnepropetrovsk Scientific Institute of Hydrobiology of the State University, Ukrainian SSR - "Acclimatization of fishes' food organisms from the fauna of estuary complex (of the Caspian relict type) in water reservoirs of the Ukraine and the Crimea"

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"Capillary methods for studying micro-organisms" by B.V.Perfil'ev, D.R.Gabe. Reviewed by S.I.Kuznetsov. Mikrobiologiia 31 no.3: 571-573 My-Je '62. (MIRA 15:12)
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(PERFIL'EV, B.V.) (GABE,D.R.)

KUZNETSOV, Sergey Ivanovich; ROMANENKO, Vitaliy Ivanovich; KUZIN, B.S., otv. red.; SHTEGMAN, B.K., red.; STRELKOV, A.A., red. izd-va; AREF'YEVA, G.P., tekhn.red.

[Microbiological study of inland bodies of water; a laboratory manual] Mikrobiologicheskoe izuchenie vnutrennikh vodoemov; laboratornoe rukovodstvo. Moskva, Izd-vo Akad. nauk SSSR, 1963. 128 p. (MIRA 16:4)
(WATER--MICROBIOLOGY)
(BACTERIOLOGY--CULTURES AND CULTURE MEDIA)

USPENSKIY, Yevgeniy Yevgen'yevich [deceased]; KUZNETSOV, S.I., otv. red.; PARNES, Ya.A., red.izd-va; GUS'KOVA, O.M., tekhn. red.

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(MICROBIOLOGY)

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1. Institute of Microbiology, Academy of Sciences of the U.S.S.R., Moscow.

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1. Institut biologii vnutrennikh vod AN SSSR i Dagestanskoye otdeleniye Kaspiyskogo nauchno-issledovatel'skogo instituta rechnogo i ozernogo khozyaystva. 2. Chlen-korrespondent AN SSSR (for Kuznetsov).

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