Stereochemistry of the Synthesis of Acetylene With Bicyclic Ketones. Synthesis of Cis-1-ethynyl-1-oxy-6-decalone. Absorption Spectra of the Series of Tert.α-decalols

them that cis-ethynyl-α-decalols synthesized in the same way possess the same chemical properties and the same absorption spectra. There are 3 figures and 12 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (Institute of Organic Chemistry of the Academy of Sciences, USSR)

SUBMITTED: January 4, 1958

ALEKSANDROVA, G.V., inzh.; SOKOLOV, P.N., prof.

Asbestos-cement facing slabs coated with synthetic resins. Stroi. mat. 8 no.7:11-12 Jl '62. (MIRA 15:8)
(Asbestos cement) (Resins, Synthetic) (Building--Details)

27906
S/079/61/031/010/006/010
D243/D304

5 3700

AUTHORS: Nazarova, L.M., Kharlamova, Ye. N., Aleksandrova, G. Ye., and El'tekova, Ye. B.

TITLE: Interaction of benzole with phenyl derivatives of elements in Group IV of the Periodic Table and of their molecular composition by methods using tagged atoms

PERIODICAL: Zhurnal obshchey khimii, v. 31, no. 10, 1961, 3308-3311

TEXT: The report was to fill a gap in literature and investigate further the 1:1 molecular combination of triphenylmethane and benzole described previously by Anschütz (Ref. 2: Lieb. Ann., 235, 208 (1886)). The combustion of the molecular compounds and benzole for activity analysis was effected by the method of moist oxidation with a Van Slayk-Fol'kh mixture, the carbon monoxide being absorbed by a saturated solution of barium hydrate which was later filtered, washed and dried. Activity measurements were

Card 1/3

Interaction of benzole ...

taken over five minute periods, alternating with background measurements: At least five readings were taken with each specimen. Exchange experiments with benzole were done in glass ampoules. $Э(C_6H_5)_4$ (where Э = Sn, Si, Pb) was placed in a dry ampoule and benzole added in a molar ratio of 1:15. The ampoule was sealed under nitrogen and heated at 150° until complete solution of $Э(C_6H_5)_4$. After cooling the ampoule was opened, and excess benzole removed by a current of nitrogen. The dry remainder was left for some days in a fume cupboard and then removed to a desiccator for storage. Conclusions: 1) Tetraphenylsilicon, tetraphenyltin and tetraphenylead form stable molecular compounds with benzole which have a general formula $(Э(C_6H_5)_4)_7 \cdot C_6H_6$, whilst triphenylmethane forms a highly unstable 1:2 molecular compound with benzole. 2) A method of determining the molecular compositions of these compounds using tagged C^{14} atom was suggested. There are 3 tables and 2 references: 1 Soviet-bloc and 1 non-Sviet-bloc.

Card 2/3

27906
S/079/61/031/010/006/010
D243/D304

Interaction of benzole ...

ASSOCIATION: Fiziko-khimicheskiy institut imeni L. Ya. Karpova (Institute of Physical Chemistry imeni L. Ya. Karpov)

SUBMITTED: September 24, 1960

Card 3/3

NAZAROVA, L.M.; KHARLAMOVA, Ye.N.; ALEKSANDROVA, G.Ye.; EL'TEKOVA, Ye.B.

Study of the reaction of benzene with phenyl derivatives of the elements of the IV group of the periodic table and the determination of the composition of their molecular compounds by the tracer method. Zhur.ob.khim. 31 no.10:3308-3311 O '61. (MIRA 14:10)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova.
(Benzene) (Organometallic compounds)

NAZAROVA, L.M.; ALEKSANDROVA, G.Ye.

Relationship between the capacity of organometallic compounds for exchanging organic groups and their catalytic activity in polymerization. Vysokom.soed. 3 no.12:1822-1826 D '61. (MIRA 15:3)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova.
(Organometallic compounds) (Polymerization) (Catalysis)

ALEKSANDROVA, I.

Built by our own hands. Mast. ugl. 6 no.7:24-25 Jl '57. (MLRA 10:9)
(Coal miners--Dwellings)

Aleksandrova, I. A. -- "Operative Treatment of a Paralytic Heel of the Foot (Sequelae of Infantile Spinal Paralysis)." Khar'kov Medical Inst., Khar'kov, 1955 (Dissertation for Degree of Doctor of Medical Sciences.)

SO: Knizhnaya Letopis', No. 23, Moscow, Jun. 55, pp87-104

33981

S/062/62/000/002/006/013
B117/B138

5.3630

AUTHORS: Arbuzov, B. A., Vinokurova, G. M., and Aleksandrova, I. A.

TITLE: Synthesis of bifunctional organophosphorus compounds. 1. Addition of phenyl phosphine to unsaturated compounds

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 2, 1962, 290-295

TEXT: It had been shown previously (Ref. 3: B. A. Arbuzov, G. M. Vinokurova, and I. A. Perfil'yeva, Dokl. AN SSSR, 127, no. 6) that phenyl phosphine adds to acrylate, methacrylate, and allyl alcohol under formation of bifunctional adducts (yield 50-70 %). In the present investigation the addition of phenyl phosphine, allyl acetate, and 2-methyl-5-vinyl pyridine was performed by heating the reagents both without catalyst and with azo-bis-isobutyric acid dinitrile. In the absence of the catalyst, phenyl phosphine quite readily adds to methyl vinyl pyridine (adduct 50 %), but with far more difficulty to allyl amine and allyl acetate. In the presence of azo-bis-isobutyric acid dinitrile, the yield of adducts could be increased to 60 and even 80 per cent. All

Card 1/3

language publications read as follows: Ref. 2 M. M. Kaechut, J. Hechenbleikner et al., J. Amer. Chem. Soc. 81, 1103 (1959); Ref. 4 G. M. Kosolapoff, R. F. Struck, Proc. Chem. Soc., October (1960).

ASSOCIATION: Khimicheskiy institut Kazanskogo filiala Akademii nauk SSSR (Chemical Institute of the Kazan' Branch of the Academy of Sciences USSR)

SUBMITTED: July 14, 1961

ARBUZOV, B.A.; VINOKUROVA, G.M.; ALEKSANDROVA, I.A.

Synthesis of bifunctional organophosphorus compounds. Report No.1: Addtion of phenylphosphine to unsaturated compounds. Izv. AN SSSR Otd.khim.nauk no.2:290-295 F '62. (MIRA 15:2)

1. Khimicheskiy institut Kazanskogo filiala AN SSSR.
(Phosphine)
(Unsaturated compounds)

EL'YASHBERG, F.Ye., starshiy nauchnyy sotrudnik; ALEKSANDROVA, I.A., kand. med. nauk

Disability analysis following fractures of the femur and leg bones; based on data of the Medical Expert Commission for Work Capacity Evaluation and of the M.I. Sitenko Ukrainian Institute of Orthopedics and Traumatology. Ortop., travm. i protez. no.9:67-72 '62. (MIRA 17:11)

1. Iz Ukrainskogo instituta ortopedii i travmatologii imeni Sitenko (dir. - chlen-korrespondent AMN SSSR prof. N.P. Novachenko). Adres avtorov: Khar'kov, Pushkinskaya ul., d.80, Institut ortopedii i travmatologii.

ALEKSANDROVA, I.A., kand. med. nauk

Malunited malleolar fractures and their treatment. Vest. khir. no.12:53-58 '62. (MIRA 17:11)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta ortopedii i travmatologii imeni prof. M.I. Sitenko (dir. - prof. I.P. Novachenko).

ALEKSANDROVA, I.B.; BATALOVA, L.V.

Effect of vitamin B_6 on cholesterol metabolism; effect of prolonged vitamin B_6 administration on the cholesterol content of organs and tissues in rabbits and rats. Vop. pit. 22 no.5:43-46 S-O '63. (MIRA 17:1)

1. Iz kafedry biokhimii (zav. - dotsent V.I. Yakubovskaya) Meditsinskogo instituta, Karaganda.

KUPRIYANOVA, I.T.; ALEKSANDROVA, I.G.; SHIBAYEVA, V.V.

Pyrenite from a pharmacite deposit. Zap.Vses.min.ob-va 94 no.5:602-607 '65. (MIRA 18:11)

1. Deystvitel'nyy chlen Vsesoyuznogo mineralogicheskogo obshchestva (for Kupriyanov).

ALEKSANDROVA, I.L.; VZOROVA, S.I.; BRAANDES, R.I.; GERASIMOV, I.F.; DARINSKIY, Anatoliy Viktorovich; KOMLYAKOVA, V.I.; KOSHELEVA, Ye.S.; LEVINA, B.M.; LIZOGUB, V.K.; RODIONOVA, F.A., red.; TATURA, G., tekhn. red.

[Reader on the economic geography of the U.S.S.R.] Khrestomatiia po ekonomicheskoi geografii SSSR; posobie dlia uchitelei. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 342 p. (MIRA 14:8)

(Geography, Economic)

RYBKINA, N.M.; ALEKSANDROVA, I.M., redaktor; SACHEVA, A.I., tekhnicheskiy redaktor

[How to protect a child from diphtheria] Kak uberech' rebenka ot zabolevaniia difterii. Moskva, Gos. izd-vo med. lit-ry, 1954. 19 p.
(Children—Diseases) (MLRA 7:10)
(Diphtheria)

ALEKSANDROVA, I.M.; ZYKOV, D.D.

True boiling point curves of heavy petroleum products. Khim. i tekh. topl. i masel 9 no.12:39-43 D '64. (MIRA 18:2)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.

ALEKSANDROVA, I.N., Cand Med Sci -- (diss) "Data for the pathomorphology of ~~hernias of the spinal column.~~ myelocele."
Sverdlovsk, 1958, 19 pp including cover (Sverdlovsk State Med Inst) 200 copies (KL, 50-58, 127)

GORBOVSKAYA, T.G., ALEKSANDROVA, I.N., OSADCHAYA, Ye.I. (Kiyev)

Role of trichomonas hominis in the course of bacillary dysentery.
Vrach.delo no.11:1191-1193 N'58 (MIRA 12:1)

1. Institut infektsionnykh bolezney AMN SSSR.
(TRICHOMONAS)
(DYSENTERY)

ALEKSANDROVA, L.N.

Labor inputs for wood preparation in the production of pulp. Trudy LTITSBP No.15:93-102 '65. (MIRA 18:8)

ALEKSANDROVA, I. P.

AID P - 3746

Subject	:	USSR/Chemistry
Card 1/1		Pub. 152 - 10/22
Authors	:	Poray-Koshits, A. Ye., B. A. Poray-Koshits, L. S. Efros, M. I. Krylova, D. A. Luvshits, K. Yu. Mar'yanovskaya I. P. Aleksandrova, and K. Ye. Ul'man
Title	:	Synthesis of some aromatic amines with trifluoromethyl groups and study of them as products for ice dyeing
Periodical	:	Zhur. prikl. khim. 28, 9, 969-975, 1955
Abstract	:	The preparation of benzotrichloride and benzotrifluoride and the nitration of benzotridluorides are described in detail. 16 references, 6 Russian (1863-1950).
Institution	:	None
Submitted	:	D 25, 1953

ALEKSANDROVA, I.P.

Study of X-ray absorption spectra of acetylacetonates of transition metals. K-absorption spectra of copper in acetylacetonate, cupric oxide, and cuprous oxide. Zhur.strukt.khim. 4 no.2:231-234 Mr-Ap '63. (MIRA 16:5)

1. Institut fiziki Sibirskogo otdeleniya AN SSSR, Krasnoyarsk.
(Copper--Spectra) (X-ray spectroscopy)

ALEKSANDROVA, I.P.; SHIGORIN, D.N.; SKOLDINOV, A.P.

X-ray spectra of quasi-aromatic inner-complexes of copper. Zhur. fiz. khim. 38 no.5:1203-1209 My '64. (MIRA 18:12)

1. Fiziko-khimicheskiy institut imeni Karpova. Submitted June 8, 1963.

VAYNSHTEYN, E.Ye.; ALEKSANDROVA, I.T.; TURANSKAYA, N.V.

Rare earth metals in gadolinites from beds of different genetic types. Geokhimiia no.6:498-505 '60. (MIRA 13:10)

1. Vsesoyuznyy institut mineral'nogo syr'ya i Institut geokhimii i analiticheskoy khimii im. V.I.Varnadskogo AN SSSR, Moskva.
(Gadolinite) (Rare earth metals) (Yttrium)

YUSHKO, S.A.; ALEKSANDROVA, I.T.

Use of structural etching for identifying some oxidated zinc minerals. Trudy MGRI 37:108-110 '61. (MIRA 15:1)
(Zinc) (Minerals--Analysis)

IVANOV, Ye.A.; ALEKSANDROVA, I.V.

Analysis of two methods for measuring the intensity of photosynthesis of Chlorella. Probl. kosm. biol. 3:415-427 '64.
(MIRA 17:6)

IVANOV, Ye.A.; ALEKSANDROVA, I.V. (Moskva)

Automatic control of algal culture. Usp. sovr.biol. 56 no.1: 90-97 Jl-Ag '63. (MIRA 16:10)
(ALGAE — CULTURE AND CULTURE MEDIA) (AUTOMATIC CONTROL)
(SPACE BIOLOGY)

ACCESSION NR: AT4037714 S/2865/64/003/000/0449/0459

AUTHOR: Ivanov, Ye. A.; Aleksandrova, I. V.

TITLE: On the problem of automatic control of the process of algae cultivation

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy* kosmicheskoy biologii, v. 3, 1964, 449-459

TOPIC TAGS: algae cultivation, air regeneration, Chlorella, algae, closed ecological system, manned space flight, automatic control

ABSTRACT: The problem of controlling the process of photosynthesis in unicellular algae (chiefly Chlorella) for the regeneration of air on spaceships during prolonged space flight is studied. Because of the small size and weight of the regenerating system, the rate of photosynthesis must by very high. The rate of photosynthesis I is a function of such parameters as the intensity and spectral composition of the light to which the algae are exposed E, the temperature of the suspension ν, the quantity of mineral salts dissolved α, and time ($I = I(E, \nu, \alpha, t, \ldots)$). To control photosynthesis, an optimal self-adaptive control system which determines and stabilizes the parameters of the growth of algae to assure an optimal value

Card 1/3

ACCESSION NR: AT4037714

of the function I. The mathematical theory of optimal control is applied to the solution of this problem. With certain simplifying assumptions, equations and the block diagram for the system of optimal control of the rate of photosynthesis of Chlorella are obtained. Transfer functions for the system are derived on the basis of which various properties of the control system are analyzed. It is shown that the optimal system for controlling the process of photosynthesis is an astatic, first-order system with respect to extremal values of I. The results of the studied version of controlling the process of photosynthesis of Chlorella show that to determine the block diagram and parameters, extensive biological studies are necessary. In the first place, numerous experiments must be carried out to determine the dependence of the rate of photosynthesis on the given number of parameters, under the assumption that other parameters have constant values which are close to extremal ones. Such experimental results make it possible to establish basic characteristics of the control system. Of no less importance is the study of the dynamic properties of algae. On the basis of these dynamic properties the stability and rapidity of action of a control system can be obtained. To determine the dynamic errors of the control system, the rate of change in time of the rate of photosynthesis, assuming that other parameters are constant, must be determined. The authors are conducting a series of biological experiments to

Card 2/3

ACCESSION NR: AT4037714

establish the relations mentioned above, but a great deal of preparatory work must be completed before an automatic system for controlling the process of photosynthesis can be designed.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: LS, MA

NO REF SOV: 003 OTHER: 003

Card 3/3

ACCESSION NR: AT4037711 S/2865/64/003/000/0415/0427

AUTHOR: Ivanov, Ye. A.; Aleksandrova, I. V.

TITLE: Analysis of two methods used in measurements of the photosynthetic rates of a chlorella culture

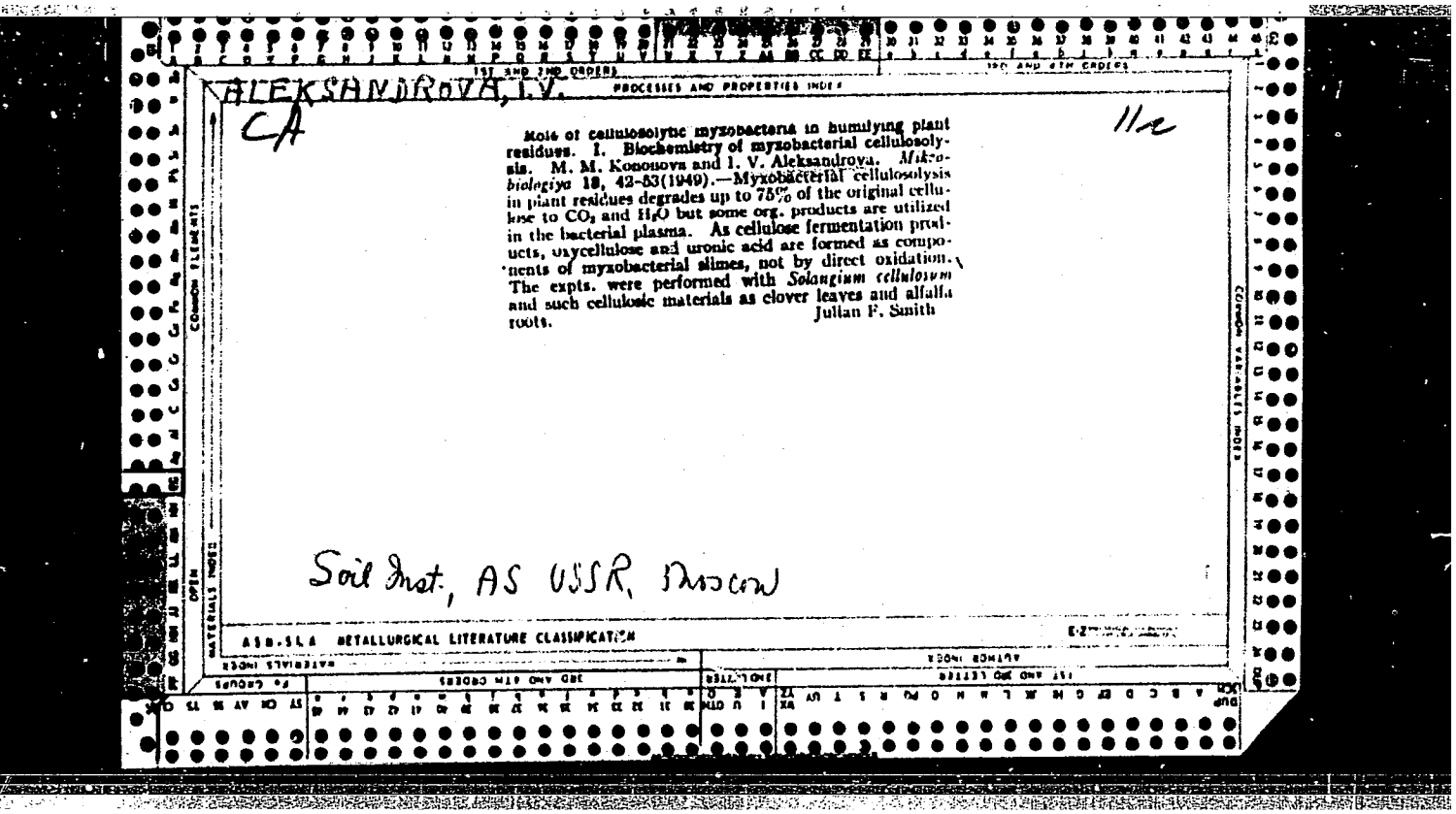
SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy* kosmicheskoy biologii, v. 3, 1964, 415-427

TOPIC TAGS: photosynthesis, closed ecological system, manned space flight, air regeneration, algae, Chlorella, capillary manometry, polarography

ABSTRACT: Automatic regeneration of the atmosphere on board spaceships can be accomplished within a closed ecological system. An algae culture will be an essential component of such a system. The rate of photosynthesis in an algae culture constitutes a basic controlled parameter which can be measured by capillary-manometric or polarographic methods. Mathematical analysis has shown the polarographic method offers greater advantages if a chlorella culture is used.

ASSOCIATION: none

Card 1/2



ALEKSANDROVA, I.V.

CA

11a

Role of cellulosolytic myxobacteria in humifying plant residues. I. Biochemistry of myxobacterial cellulosolysis. M. M. Kononova and I. V. Aleksandrova. *Mikrobiologiya* 18, 42-53(1949).—Myxobacterial cellulosolysis in plant residues degrades up to 75% of the original cellulose to CO_2 and H_2O but some org. products are utilized in the bacterial plasma. As cellulose fermentation products, oxycellulose and uronic acid are formed as components of myxobacterial slimes, not by direct oxidation. The expts. were performed with *Solangium cellulosum* and such cellulosic materials as clover leaves and alfalfa roots.

Julian F. Smith

Soil Inst., AS USSR, Moscow

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

ALEKSANDROVA, I. V.

"The Process of Humus Formation in Primitive Soils." Sub 25 Apr 51, Soil Inst, Acad Sci USSR.

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

SO: Sum. No. 480, 9 May 55

CA ALEKSANDROVA, I. V.

15

The process of humus formation in several primitive mountain soils. I. V. Aleksandrova. *Pochvovedenie* 1951 601-10.—It is pointed out that humus formation need not be necessarily assocd. with lignin, as suggested by an earlier theory. Algae, lichens, and mosses, none containing lignin, also give rise to humus. These plants give a neg. lignin reaction with florogiucine, whereas alfalfa roots give a pos. reaction (bright-green coloration). Samples of soil material developing on serpentine, granite, and diorite rocks show a high org.-matter content, 10% with a lichen flora and 42% on a mountain-meadow soil of a grain-grass mixt. assocn. flora. More than 1% N was found in these primitive soils. The C:N ratio fluctuates between 10 and 12. About 50% of the total org. matter is made up of humic and fulvic acids, the ratio of the 2 being less than 1. The mountain-meadow soil contains more humic acid. A characteristic of the humic acid of primitive soils is its mobility. As much as 70% of all humic acid can be extd. with one aliquot of 0.1 *N* alkali. Data are presented on the elementary compn. of the humic acid from different primitive soils, carboxyl and phenol groups, coagulation threshold when treated with $CaCl_2$, and light absorption. J. S. Joffe

1952

Aleksandrova, L. V.

USSR

Utilization of humic substances by soil micro-organisms. L. V. Aleksandrova (*Pochvovedenie*, 1953, No. 6, 29–30).—Soil organisms able to utilise humic matter as sole source of C grew better on media containing easily available org. C. Sulphate-reducing organisms can utilise humic acids. Water-sol. org. compounds present in solonetz soils are widely distributed in stony steppe soils.

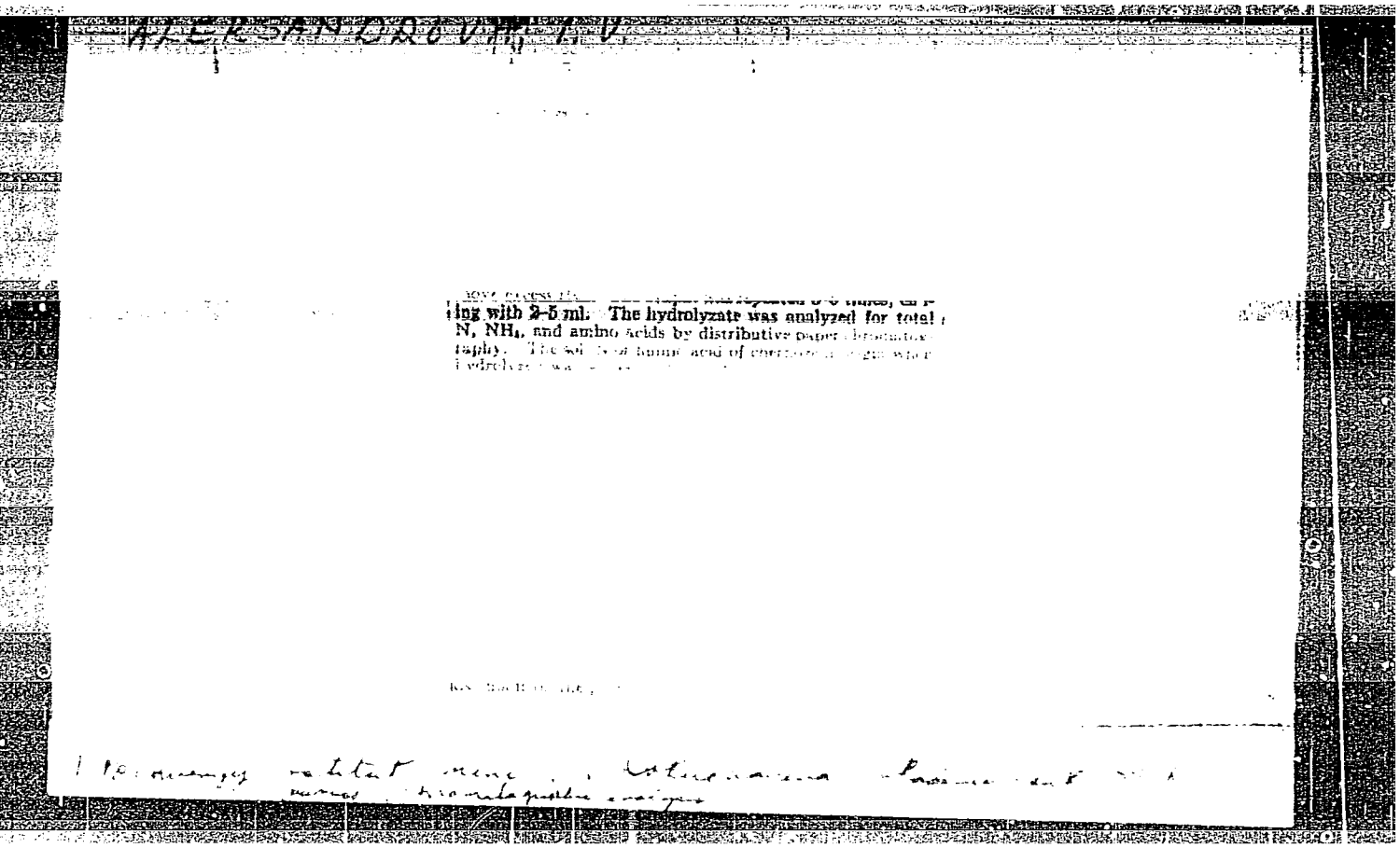
Soils & Fert. (A. G. P.).

ALEKSANDROVA, I. V.

USSR

The processes of humus formation in primitive soils. I. V. Aleksandrova. *Trudy Pochvennogo Inst. im. V. V. Dokuchaeva, Akad. Nauk S.S.S.R.* 41, 265-303(1953); cf. *C.A.* 46, 3193f.—A. studied the process of humus formation and the incidence and role of microörganisms in the following primitive soils: melkozem (a primitive soil stage contg. absorbed minerals) under mosses on serpentinites and diorites, primitive rocky-meadow soil under grain-grass flora, and melkozem under lichens on granite. Chemically, Ca content varied from 3.4 to 70.0 meq./100 g. soil, Mg from 3.4 to 31.2 meq./100 g. soil, pH varied from 5.0 to 6.5. Org. matter and C:N ratio were as described previously (*C.A.* 46, 3193f). Bacteriologically, there was a gradual increase in the no. of putrefactive organisms (0.4–41.0 million/g. soil), and of *Actinomyces* (0.16–40.0 million/g. soil), from lichen cover to mossy cover to higher plant cover. Nitrifying bacteria, both aerobic and anaerobic, were weakly developed; and there was no lignin in these soils. Fungi (*Dematium*, *Trichoderma*, etc.) were present, but latent. A. found that newly formed young humic acids (e.g., from primitive soils) of similar C content had similar growth-stimulating effects on roots of *Pisum sativum* and had similar great stimulant effect on catalase and peroxidase activity in *Bacillus luteus* and *Bacterium mycoides* and in *Sarcinium cellulosum*. Light absorption curves and $CuCl_2$ coagulation thresholds for Na humates of primitive soils were very similar to those of strongly podzol soil and relatively close to those of newly-formed humic acids, but different from those for chernozem or turfy-podzol soils. These (primitive) humic acid properties were ascribed to a simpler mol. structure and increased degree of dispersion. Chem. compn. of fresh and humified lichens, mosses, clover leaves, and alfalfa roots were compared. 83 references.

A. W. Daly



ing with 2-5 ml. The hydrolyzate was analyzed for total
N, NH_4, and amino acids by distributive paper
raphy.

USSR/Soil Science - Biology of Soils. J

Abs Jour : Ref Zhur Biol., No 22, 1958, 100026

Author : Kononova, M.M., Aleksandrova, I.V.

Inst : Academy of Sciences USSR

Title : Biochemistry of the Humus-Formation Process and Some Problems of Plant Nutrition.

Orig Pub : Izv. AN SSSR. Ser. biol., 1958, No 1, 74-88

Abstract : The process of humus formation was studied with the aid of a culture of the fungi Aspergillus niger and Penicillium (sp.) (P). The nutrient medium contained the mineral salts: KH_2PO_4, KCl, $MgSO_4$, $FeSO_4$, $ZnSO_4$ and $NaNO_3$. The only organic compound was glucose. In the process of developing the fungi in the nutrient medium, determination of the pH, the quantity of residual sugar (according to Bertran), the albuminous N (precipitated

Card 1/3

USSR/Soil Science - Biology of Soils. J

Abs Jour : Ref Zhur Biol., No 22, 1958, 100026

nature. The author's opinion on the biochemistry of the humus-formation process and the part played by the soil organic substances in plant nutrition are set forth. -- B.A. Rudenko

Card 3/3

ALEKSANDROVA, L.V.

Methods of determining the activeness of some soil ferments. Pochvovedenie no.9:73-77 S '59. (MIRA 13:1)

1.Pochvennyy institut im. V.V. Dokuchayeva Akademii nauk SSSR.
(Soils--Analysis) (Soil biology)

"Das Wesen der Humusstoffe und ihre Aufgabe in der Ernährung der Pflanzen."

report submitted for the 7th Intl. Cong. of Moorland Research Frankskovy Lagne/ Franzensbad-Prague, 15-19 Sep 60.

ALEKSANDROVA, I.V.

Methods of investigating the qualitative composition of organic substances in soil solutions. Pochvovedenie no.11:85-87 N '60.
(MIRA 13:11)

1. Pochvennyy institut im. V.V.Dokuchayeva Akademii nauk SSSR.
(Soils--Analysis)

KONONOVA, M.M.; BEL'CHIKOVA, N.P.; ALEKSANDROVA, I.V.

Conference on methods applied for studying soil humus. Pochvovedenie no.11:110-112 N '60. (MIRA 13:11)

(Humus)

ALEKSANDROVA, I.V.

Role of the metabolism products of actinomyces in the formation of humus substances. Pochvovedenie no.12:8-14 D '62.
(MIRA 16:2)

1. Pochvennyy institut imeni V.V.Dokuchayeva.
(Actinomyces) (Humus)

ALEKSANDROVA, I.V.; DIMO, V.N.; MURATOVA, V.S.; NOGINA, N.A.; PRESNYAKOVA, G.A.; RAZORENOVA, N.A.; TSERLING, V.V.; SHKONDE, E.I.

Second Congress of Soil Science Delegates. Pochvovedenie no.1:93-102 Ja '63. (MIRA 16:2)
(Soil research--Congresses)

ALEKSANDROVA, I.V.

Role of the metabolic products of actinomycetes in the formation of humus substances. Analele biol 17 no.3:56-63 My-Je '63.

KONONOVA, M.M.; ALEKSANDROVA, L.N.; TITOVA, N.A.

Decomposition of silicates by soil organic substances.
Pochvovedenie no.10:1-12 O '64.
(MIRA 17:11)

1. Pochvennyy institut imeni Dokuchayeva AN SSSR, Moskva.

ALEKSANDROVA, I. V.

ALEKSANDROVA, I. V. -- "Propagation of Pheasants in the Southern Ukraine." Sub 13 Oct 52, Moscow Fur and Pelt Inst (Dissertation for the Degree of Candidate in Biological Sciences).

SO: Vechernaya Moskva January-December 1952

ALEKSANDROVA, I. V., and KONONOVA, M. M. (URSS
"La biochimie des processus de la formation des matières humiques"

report submitted for the 6th Intl. Congress of Soil Science,
Paris, France
28 August 1956

ALEKSANDROVA, I.V.

Materials on moose populations in the Oka Terrace Preserve and Moscow Province. Trudy Priok.-Terr.zap. no.1:144-156 '57.
(MIRA 12:7)
(Oka Terrace Preserve--Moose) (Moscow Province--Moose)

AIEKSANDROVA, I.V., kandidat biologicheskikh nauk.

Attracting the gray flycatcher (Myscicapa striata) to artificial nests. Biol. v shkole no.3:90 My-Je '57. (MLRA 10:6)

1. Prioksko-Terrasnyy zapovednik.
(Prioksko-Terrasnyy State Preserve--Passeres)
(Birds, Protection of)

ALEKSANDROVA, I.V., kand.biol.nauk

Attracting birds inhabiting open nests. Biol. v shkole 6:55-56 N-D '58. (MIRA 11:11)

1. Prioksko-Terrasnyy zapovednik Moskovskoy oblasti.
(Oka Terrace Preserve--Thrushes)
(Birds--Eggs and nests)

ALEKSANDROVA, I.V.

Materials on feeding habits of the song thrush during the nesting period. Zool.zhur. 38 no.1:135-136 Ja '59. (MIRA 13:4)

1. Oka-Terrace State Game Preserve.
(Oka Terrace Preserve--Thrushes)
(Birds--Food)

ALEKSANDROVA, I.V., kand.biol.nauk

Some problems in studying the biology of moose. Biol.v shkole no.5:79-80 S-O '59. (MIRA 13:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnogo syr'ya i pushniny, g.Kirov.
(Moose)

ALEKSANDROVA, I.V.; KRASOVSKIY, L.I.

Materials on the former moose population density in Russia. Zool. zhur. 39 no.9:1441-1442 S '60. (MIRA 13:9)

1. Oka-Terrace State Game Preserve.
(Moose)

ALEKSANDROVA, I.V.; KRASOVSKIY, L.I.

Fall habitats of the gray partridge in the Moscow area. Biul. MOIP. Otd. biol. 65 no. 4:34-40 Jl-Ag '60. (MIRA 13:10)
(MOSCOW PROVINCE—PARTRIDGES)

ALEKSANDROVA, I.V.; KRASOVSKIY, L.I.

Winter feeding of moose in Kirov Province. Zool. zhur. 40 no.8:1246-1250 Ag '61. (MIRA 14:8)

1. All-Union Research Institute of Animal Raw Material and Pelts (Kirov).
(Kirov Province--Moose) (Animals, Food habits of)

ALEKSANDROVA, I.V.

Instances of intensive invasion of elks by Paramphistomum cervi in Kirov Province. Zool. zhur. 41 no.5:780-782 My '62. (MIRA 15:6)

1. All-Union Research Institute of Animal Raw Material and Pelts, Kirov.

(Kirov Province--Paramphistomum) (Parasites--Elk)

GEORGIEV, Zh. M.; ALEKSANDROVA, K.; NIKOLOV, D. Khr.

Observation on the propagation of fishes near the Bulgarian Black Sea coast. Izv Zool inst BAN 9:255-292 '60.

(EEAI 10:9)

(Bulgaria—Fishes) (Black Sea)

GEORGIEV, Zh.; ALEKSANDROVA, K.; NIKOLOV, D.Khr.

Quantitative distribution of the roes and larvae of the anchovy Engraulis encrasicholus ponticus Alex., and the scad Trachurus mediterraneus ponticus Aleev in the Bulgarian territorial waters in 1960. Izv Inst ribovud BAN 2:109-120 '62.

ALEKSANDROVA, K.

Some data on the biology of Mugil ramada Risso (Mugilidae, Pisces). Izv Inst ribovud BAN 2:173-177 '62.

GEORGIEV, Zh.; ALEKSANDROVA, K.; NIKOLOV, D. Khr.

Some data on the distribution of the roes and larvae of some fish species off the Bulgarian Black Sea shore in 1961. Izv Inst ribovud BAN 3:173-182 '63.

ALEKSANDROVA, Koika

Growth of Mugil saliens Risso along the Bulgarian shore of the Black Sea. Izv Inst ribovud BAN 5:117-128 '64.

ALEKSANDROVA, K.I., kand. yuridicheskikh nauk

Responsibility for the non-fulfillment of the sea transportation plan and the standing time of ships. Trudy TSNIIMF no.48: 83-91 '63. (MIRA 16:8)

ALEKSANDROVA, K.I.

Characteristics of pastures of the Don Valley and ways for their improvement. Sbor.nauch.rab.asp. VGU no.2:73-79 '62.
(MIRA 18:11)

ALEKSANDROVA, K.I., kand. yuridicheskikh nauk

Errors in navigation and management under Soviet maritime law. Inform. sbor. TSNIIMF no.110 Mor. pravo i prak. no.23:10-17 '63. (MIRA 18:9)

ALEKSANDROVA, K. P.

"Acidity and Fermentations of the Stomach Contents in Children with Rickets," Vop. Ped. i Okhran. Mater. i Det., 16, No.6, 1948

Chair Hospital Pediatrics, Leningrad State Pediatric & Med. Inst.

PENCHUL, A.; ALEKSANDROVA, L.

Use of a water-oil emulsion for protecting marine diesel engine cooling systems from corrosion. Mor. flot 18 no.7:16 Jl '58. (MIRA 11:7)

1. Nauchno-issledovatel'skiy institut goryuche-smazochnykh materialov.
(Marine diesel engines--Cooling)

EPSHTEYN, Ya.A.; ALEKSANDROVA, L.A.

Mechanism of basic pigment secretion in the gastric mucous membrane. Biokhimiia 18 no.6:701-705 N-D '53. (MLRA 6:12)

1. Kafedra biokhimii Stalinabadskogo medinstituta.
(Pigments) (Mucous membrane)

ALEKSANDROVA, L.A.

Systematic position of genera Neyraudia Hook f. and Thysanolaena Nees of the Gramineae family according to the comparative anatomy of the leaf. Bot.zhur. 39 no.6:901-904 N-D '54. (MLRA 8:2)
(Grasses)

FILIPPOV, I.N.; GUNIN, I.V.; Prinimali uchastiye: DABAGYAN, N.P.; CHETVERIKOV, A.V.; MIROSHNICHENKO, V.G.; FRADIN, M.D.; PAVLOVSKIY, V.Ya.; FIL'CHAKOVA, V.A.; ALEKSANDROVA, L.A.; DUBROVIN, F.S.

Investigating the buckling of webs on lightweight I-beams. Stal' 23 no.10:915-918 O '63. (MIRA 16:11)

1. Ukrainskiy institut metallov. 2. Ukrainskiy institut metallov (for Dabagyan, Chetverikov, Miroshnichenko). 3. Zavod "Azovstal'" (for Fradin, Pavlovskiy, Fil'chakova, Aleksandrova, Dubrovin).

ALEKSANDROVA, L.A.

RT-726 /The use of rust inhibitors in lubricating oils/ Primenenie ingibitorov rzhavleniia v smazochnykh maslakh.
Neftianoe Khoziaistvo, (8): 47-52, 1948.

ALEKSANDROVA, L. A.

AID P - 288

Subject : USSR/Engineering

Card : 1/2

Author : Losikov, B. V., Makasheva, O. P. and Aleksandrova, L. A.

Title : Mechanism of action of anti-corrision additives to mineral oils

Periodical : Neft. Khoz., v. 32, #4, 65-72, Ap 1954

Abstract : The authors present the results of their experiments on the effect of temperature and additives on the formation of protective film over the surface of copper-lead specimens. Additives of Soviet types H_3 and H4 were used in the aviation lubricating oil of types PC-13, AzNII-TsIATIM-1 (Azerbaydzhan Scientific Research Institute - Central Scientific Research Institute of Aviation Fuels and Oils - 1). Copper-lead specimens of small plates or of powdered forms were subjected to tests. The mechanism of the formation of protective film is described and presented in 6 charts and 4 tables based on test results.

AID P - 988

Neft. Khoz., v. 32, #4, 65-72, Ap 1954 (additional card)

Card : 2/2

Institutions: Azerbaydzhan Scientific Research Institute (AzNII) and the Central Scientific Research Institute of Aviation Fuels and Oils (TsIATIM)

Submitted : No date

CHUMACHENKO, Ivan Ivanovich; POPOV, A.A., redaktor; ALEKSANDROVA, L.A., redaktor; VOLKOVA, tekhnicheskiy redaktor.

[Internal combustion engines for ships] Sudovye dvigateli vnutrennego sgoraniia. Moskva, Izd-vo "Morskoi transport." Pt.1. [Description of the construction of marine engines] Opisanie konstruktsii sudovykh dvigatelei. 1955.319 p. (MLRA 9:4)
(Marine engines)

ALEKSANDROVA, L.A.

AID P - 5077

Subject : USSR/Engineering

Card 1/2 Pub. 128 - 6/26

Authors : Losikov, B. V., Prof., Dr. Tech. Sci., and L. A. Aleksandrova, Kand. Tech. Sci.

Title : Corrosion inhibitors in lubricants for intermittently running machines.

Periodical : Vest. mash., 5, 12-15, My 1956

Abstract : Corrosion protection of machine parts is very important, especially when the machine is not running. Various admixtures, called corrosion inhibitors, are added to lubricants for improving their protective properties. The authors analyzed under laboratory conditions the effectiveness of different corrosion inhibitors. The method of the "moisture chamber" (GOST 4699-49) was used. The tests are described and other testing methods are discussed. The results are compared with results

36351

S/081/62/000/005/076/112
B162/B101

11 0140

AUTHORS: Losikov, B. V., Smirnov, M. S., Aleksandrova, L. A., Rubinshteyn, I. A., Ocheretyanyy, I. T., Dneprov, V. N.

TITLE: Application of neutralizing substances in engines working on high-sulfur diesel fuels

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 526, abstract 5M200 (Sb. "Prisadki k maslam i toplivam". M., Gostoptekhizdat, 1961, 381-388)

TEXT: Results of tests on diesel engines type 1[illegible] -10.5/13 ((1Ch - 10.5/13), 2[illegible] -8.5/11 (2Ch - 8.5/11), IT-9 - 3 (IT - 9 - 3), 3Д - 6 (3D - 6), [illegible] - 50Ф (M - 50F), and 2[illegible] - 100 (2D - 100) working on fuels with a sulfur content of 1.0 to 1.6% with ammonia gas fed to the combustion chamber of the engines in an amount of 0.08 - 0.14% by weight with respect to the fuel are given. It is shown that ammonia is a highly efficient means of reducing corrosion wear of the engines, preventing the formation of deposits and the burning of piston rings. It is found that the action

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of ammonia is linked with its ability of slowing down the formation of sulfuric anhydride during the combustion of the sulfur contained in the fuel. An explanation is given of the mechanism by which the ammonia acts on the basis of the idea of radical-chain mechanism of oxidation of sulfur compounds. [Abstracter's note: Complete translation.]

Card 2/2

LOSIKOV, B.V.; SMIRNOV, M.S.; RUBINSHTEYN, I.A.; ALEKSANDROVA, L.A.; OCHERETYANNYY, I.T.; DNEPROV, V.N.

Use of "neutralizing" substances in engines operating on high-sulfur diesel fuels. Khim.i tekh. topl.i masel 6 no.2:46-52 F '61. (MIRA 14:1)

(Diesel fuels)

26522
S/065/61/000/008/007/009
E194/E135

11.0170

AUTHORS: Losikov, B.V., Fat'yanov, A.D., Mikulin, Yu.V., Aleksandrova, L.A., Koznov, G.G., and Berezina, R.M.

TITLE: The use of residual fuels in gas turbines

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No. 8, pp. 47-53

TEXT: The mechanism of deposit formation and corrosion in gas turbines using residual fuels containing vanadium and sodium is discussed. Possible methods of avoiding the vanadium corrosion include injection into the combustion chamber of substances which react with vanadium pentoxide and the more convenient use of fuel additives. The object of the present work was to check, on typical materials used in gas turbines, the corrosivity of corrosion products of high-sulphur marine heavy-fuel grade ФС -5 (Fs-5) and to study the use of additives to reduce this corrosion. The tests were made on a model combustion chamber which had previously been used for testing high sulphur distillate fuels but for the present work fuel heating equipment was provided. The test samples were made up as plates of 40 x 25 x 4 mm which were

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The use of residual fuels in gas ....

placed in the path of flow of the combustion products. Corrosion was assessed by change in weight after the specimen had been exposed in the chamber and cleaned by electrolytic treatment in a solution of sodium carbonate and sodium hydroxide. It was found that corrosion is most intense in the first 2 - 3 hours and that it has reached a practically constant value at the end of 5 hours so that there was no need to continue the tests longer than this. The reference fuel was grade Ф-12 (F-12) containing 130 parts per million sodium and no vanadium. The vanadium content of the other fuels ranged from 16 to 35 parts per million vanadium. The first tests were made with nickel base alloys ЭИ-435 (EI-435) and ЭИ-602 (EI-602) which show little vanadium corrosion at temperatures below 650-700 °C; however, at higher temperatures the rate of corrosion rises rapidly. Alloys based on iron such as grade ЭИ-481 (EI-481) are much more affected by vanadium than are the nickel alloys, particularly at the higher temperatures. The higher the vanadium content of the fuel, the lower the temperature at which the rising inflection of the corrosion curve occurs. At a gas temperature of 800-850 °C appreciable corrosion is observed with 10 ppm vanadium in the fuel, whereas at 630-680 °C corrosion

The use of residual fuels in gas ....

increases appreciably only with fuel of 30 ppm vanadium or more. In general, at temperatures of 650-850 °C the combustion products of fuels containing 14 - 35 parts per million vanadium increased the rate of corrosion by a factor of 4 to 15, depending on the alloy used. The effect of additives was checked on fuel grade F-12 (no vanadium) and Fs-5 containing 27 parts per million vanadium and 9 parts per million sodium using alloys EI-602, EI-481 and EI-417. The additives used were organic compounds of magnesium that are readily soluble in heavy fuels but differing in the structure of the organic radical. The use of additive to the extent of 0.2% weight of fuel greatly reduced vanadium corrosion. It was shown that some organic magnesium compounds are much more effective than others. It is concluded that with 30 parts per million vanadium in the fuel the use of 0.016% magnesium in the form of soluble organic compounds practically completely prevents vanadium corrosion. Tests were also made with injection into the combustion chamber of ammonia to the extent of 0.5% by weight of the fuel. This also practically prevents vanadium corrosion of the nickel and iron alloys within the temperature range tested.

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The use of residual fuels in gas ...

Use of ammonia at the rate of 0.2% weight is less effective. The best results were obtained when the ammonia was injected before the combustion zone. A further advantage of using soluble compounds as against the suspensions sometimes used is that erosive wear of the turbine blades is reduced. A mechanism of action of the additives is suggested.

There are 6 figures, 1 table and 14 references: 5 English and 11 Soviet (including 3 translations from Proceedings of World Petroleum Congress VII). The four most recent English language references read as follows:

Ref.1: A. Garner, P. Green, R. Harper, F. Pegg. J. Inst. of Petrol., Vol.39, 278, 1953.
Ref.2: Proc. Inst. Mech. Eng., Vol.168, No.3, 1954.
Ref.4: P. Lloid, R. Probert. Proc. Inst. Mech. Eng., Vol.163, 206, 1950.
Ref.9: H. King, H. Nutt. Trans. ASME, Vol.78, No.1, 185-196, 1956.

34255
S/114/62/000/002/002/004
E194/E955

11.0140
26.2120

AUTHORS: Losikov, B.V., Professor, Doctor of Technical Sciences, Fat'yanov, A.D., Engineer, Mikulin, Yu.V., Engineer and Aleksandrova, L.A., Candidate of Technical Sciences

TITLE: An investigation of the influence of combustion products of sulphurous distillate fuels on the constructional materials of gas turbines

PERIODICAL: Energomashinostroyeniye, no.2, 1962, 34-36

TEXT: The use of gas turbines is to be considerably extended and they will be required to run on fuel containing about 1% sulphur. It was accordingly of importance to study the influence of fuel combustion products on the corrosion of turbine parts. In principle both high and low temperature corrosion might occur, but the former is the more probable in gas turbines. The tests were made on a small laboratory combustion chamber with a fuel consumption of about 1 kg per hour in which were placed specimens made of sheet material, discs and runner blades of gas turbines. The tests were made with diesel fuel containing from 0.2 to 1.6% sulphur,

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An investigation of the ... S/114/62/000/002/002/004
E194/E955

taking as a standard the low-sulphur diesel fuel grade ДС (DS) to standard ГОСТ 4749-49 (GOST 4749-49) containing 0.2% sulphur, which is currently used in gas turbines. Corrosion was assessed by weighing the specimens. Before weighing they were cleaned electrolytically in a molten bath of 40% Na_2CO_3 and 60% NaOH at a temperature of 500-550°C with a current density of 0.25 A/cm^2. In the first series of tests measurements were made of the corrosion resistance of alloys exposed to corrosion products of sulphurous fuels. The exposures were made in steps of ten hours using steel based on iron (grade ЭИ 481 (EI 481)) and on nickel (grade ЭИ 437Б (EI 437B)) as compared with an ordinary steel grade 10 exposed for 50 hours at a temperature of 650°C. The nickel alloy was practically uncorroded at this temperature; there was appreciable corrosion of the iron-based alloy; and the steel grade 10 was considerably corroded. With steels based on iron it is found that increasing the sulphur content of the fuel may reduce the rate of corrosion. This was confirmed on another iron-based steel, grade 2X13 (2 Kh 13). Curves of corrosion loss as functions of temperature

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An investigation of the ... S/114/62/000/002/002/004
E194/E955

in combustion products of fuels containing 0.2 and 1% sulphur were plotted for nickel-based steels grades EI 437B, ЭИ 602 (EI 602) and ЭИ 435 (EI 435) and also for a number of other steels grades EI 481, 3X13 (3 Kh 13), ЭИ 417 (EI 417), ЭИ 612 (EI 612), ЭИ 607, (EI 607), ЭИ 617 (EI 617) and others. The results show that the corrosion resistance of the steels diminishes above a temperature of 600-700°C for iron-based steels and above 750-800°C for nickel-based steels. As sea-water might enter the fuel or the combustion air of marine gas turbines, admixtures of salt water were made to the combustion products. When salt water was present in the air to the extent of 1% weight of the fuel, the corrosion of alloys by combustion products was higher with sulphurous fuels than in low sulphur. If the amount of salt water is reduced to 0.3% there is considerable reduction in the corrosion loss with sulphurous diesel fuel. As turbines may operate intermittently tests were made of exposure to combustion products followed by exposure to normally moist air. Under the test conditions used the iron-based steels (EI 481, 1X18H9T (1 Kh 18N9T), 3 Kh 13 and 2 Kh 13) and nickel-based steels (EI 437 B) behave similarly in combustion

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34255

An investigation of the ... S/114/62/000/002/002/004
E194/E955

products of fuels containing 0.2 and 1% sulphur. When the sulphur content is increased to 1.4%, the corrosion of the iron-based steels increases quite rapidly, whilst that of the nickel-based does not. It is concluded that the combustion products of sulphurous fuels containing from 0.2-1% sulphur have practically identical corrosivity to steels based on iron and to those based on nickel. If the sulphur content is increased to 1.4-1.6% there is more corrosion. On a number of steels (for instance grades EI 481 and 2 Kh 13) the presence of low-humidity air in the combustion chamber causes the combustion products of sulphurous fuels to somewhat retard the corrosion process as compared with the products of low sulphur fuel, apparently because a protective sulphide film forms on the metal surface. Alternate action of combustion products and moist air, which corresponds to actual corrosion conditions in gas turbines, increases the corrosion of the steels by a factor of 2-3 for fuels containing 1.4-1.5%

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34255

An investigation of the ... S/114/62/000/002/002/004
E194/E955

sulphur as compared with fuels containing 0.2-1% sulphur. There are 6 figures, 3 tables and no references.

Card 5/5

34927
S/065/62/000/004/004/004
E194/E184

11.0137

AUTHORS: Fat'yanov, A.D., Mikulin, Yu.V., and Aleksandrova, L.A.

TITLE: Assessment of the deposit forming tendencies of high sulphur distillate fuels in a model combustion chamber

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.4, 1962, 56-59

TEXT: Diesel fuel currently produced from high sulphur Eastern crudes is more aromatic than corresponding fuel from low sulphur crudes. Such distillate fuels are widely used in gas turbines where deposit formation is a nuisance and high aromatic content is known to promote deposit formation. Accordingly, deposit formation tests were made in a laboratory combustion chamber rig described by N.A. Ragozin in his book (Ref.1: Topliva dlya vozdushno-reaktivnykh dvigateley (Fuel for Aviation Jet Engines), Gostoptekhizdat, 1956). Fuels of various sulphur contents in the range 0-0.77% and aromatic content in the range 6.45-23.6% were prepared by blending available fuels or by acid treatment. All the fuels were of similar viscosity and gravity.

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Assessment of the deposit forming... S/065/62/000/004/004/004
E194/E184

compared with low sulphur fuel. It is concluded that fuels with up to 0.9% sulphur and up to 25% aromatics do not cause appreciable deposit formation on nozzles or in the combustion chamber.
There are 4 figures and 4 tables.

Card 3/3

LOSIKOV, B.V., doktor tekhn.nauk, prof.; FAT'YANOV, A.D., inzh.;
MIKULIN, Yu.V., inzh.; ALEKSANDROVA, L.A., kand.tekhn.nauk

Studying the effect of products of combustion of distillation sulfurous fuels on the structural materials of gas turbines.
Energomashinostroenie 8 no.2:34-37 F '62. (MIRA 15:2)
(Diesel fuels--Testing) (Steel--Corrosion)

ACCESSION NR: AP4017575 S/0065/64/000/003/0058/0062

AUTHOR: Losikov, B. V.; Fat'yanov, A. D.; Aleksandrova, L. A.; Golovistikov, I. V.; Berezina, R. M.

TITLE: Oils for gas turbine installations

SOURCE: Khimiya i tekhnol. topliv i masel, no. 3, 1964, 58-62

TOPIC TAGS: oil, oil antioxidant, antifriction additive, gas turbine oil, ionol, butyl phenol, pentachloro diphenyl, sovol

ABSTRACT: The purpose of the work was to find an all-purpose oil for the lubrication of both bearings and the reducer of a gas turbine. It should have low viscosity and good antioxidant and antifriction properties (no sediments formed). The choice was a transformer oil which was tested with a number of additives to provide the above properties. After extensive experiments, the authors found that the addition of ionol (4-methyl-2,6-di-tert-butylphenol) in a proportion of 0.2-0.7% increases oil stability at 170-200C and gives incomparably better results as an antioxidant than tributyl-, triphenyl- and

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ACCESSION NR: AP4017575

tricresyl phosphates (sediment reduced from 0.9 to 0.1%). It was further found that the addition of 1% sovol (pentachlorodiphenyl), a chemically stable and fully inert compound, raises the anti-wear (antifriction) properties of the oil to the level of the MK-22 oil (critical load 45 and 50 kg, respectively). The addition of more than 2% sovol does not improve the anti-wear property. Both additives are compatible. Laboratory tests were verified by an actual turbine run. Oil for gas turbines with ionol and sovol additives is at present manufactured according to the GOST 10289-62 standard. Orig. art. has: 4 figures and 4 tables.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 23Mar64 ENCL: 00

SUB CODE: CH, FL NO REF SOV: 000 OTHER: 000

Card 2/2

LOSIKOV, B.V.; FAT'YANOV, A.D.; ALEKSANDROVA, L.A.; BEREZINA, R.M.

Separate quantitative determination of SO_2 and SO_3 in the exhaust gases of engines. Khim. i tekh. topl. i masel 9 no.6: 44-47 Je'64 (MIRA 17:7)

LOSIKOV, B.V.; FAT'YANOV, A.D.; ALEKSANDROVA, L.A.; GOLOVISTIKOV, I.V.; BEREZINA, R.M.

Lubricants for gas-turbine systems. Khim. i tekh. topl. i masel 9 no.3:58-62 Mr'64 (MIRA 17:7)

ACCESSION NR: AP4036724 S/0020/64/156/002/0372/0374

AUTHOR: Kurilenko, A. I.; Smetanina, L. B.; Aleksandrova, L. B.; Shiryayeva, G. V.; Karpov, V. L.

TITLE: Modification of the surface properties of grafted polystyrene caprone fibers

SOURCE: AN SSSR. Doklady*, v. 156, no. 2, 1964, 372-374

TOPIC TAGS: polystyrene, caprone fiber, polymer, gamma radiation, polyester, epoxoid, styrol sorption, styrol desorption, fiber resin, resin surface tension

ABSTRACT: The authors studied the effect of polystyrene grafts on caprone fibers using an industrial polyester, PN-1, and epoxoids. The grafting polymerization was initiated by Co^{60} γ-radiation employing a method which first required exposure under vacuum and then was carried out in a gas phase. This process also provided for the development of homopolymers. Four experiments were performed. The results are presented in graphs showing the kinetics of destroyed radicals in caprone fibers, the kinetics of the sorption and desorption of styroles in caprone fibers, the influence of grafted polystyrenes on the wettability of fiber resins, and the influence of grafted polystyrenes on the adhesion of resins to caprone fibers. The surface tension of the resin in each of the experiments was constant and indicated

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KURILENKO, A.K.; ALEKSANDROVA, L.B.

Determination of the contact angle in fiber wetting. Khim. volok. no.3:65-67 '65. (MIRA 18:7)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. Karpova, Moskva.

L 27310-66 EWT(m)/EPF(n)-2/EWP(j) IJP(c) WW/GG/RM

ACC NR: AP6008977 (A) SOURCE CODE: UR/0190/65/007/011/1935/1940

AUTHORS: Kurilenko, A. I.; Smetanina, L. V.; Aleksandrova, L. B.; Karpov, V. L.

ORG: Branch of the Physico-Chemical Institute im. L. Ya. Karpov (Filial fiziko-khimicheskogo instituta)

TITLE: Graft polymerization of styrene on caprone and lavsan fibers /First communication in the series "Modification of properties of highly oriented fibers by graft polymerization of vinyl monomers"/

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 11, 1965, 1935-1940

TOPIC TAGS: caprone, radiation polymerization, graft copolymer, polymerization

ABSTRACT: It was the object of the investigation to extend the work published by A. I. Kurilenko, L. B. Smetanina, L. B. Aleksandrova, G. V. Shiryayeva, and V. L. Karpov (Dokl. AN SSSR, 156, 372, 1964) and to study the graft polymerization of styrene on caprone and lavsan fibers. The polymerization was initiated by a preliminary irradiation of the fibers in vacuum by Co^{60} γ-radiation and subsequent exposure of the fibers to the monomer vapors or by direct irradiation of the fibers in the monomer vapor. The experimental results are represented in terms of the fractional weight increase of the fibers

$$\Delta P = \frac{P - P_0}{P_0} \cdot 100\%,$$

Card 1/2 UDC: 66.095.26+678.674+678.675+678.746

ACC NR: AP6008977 O

P_o and P--the weight of specimen before and after graft polymerization. The kinetics of monomer sorption and disappearance of free radicals was studied. The experimental results are presented graphically (see Fig. 1).

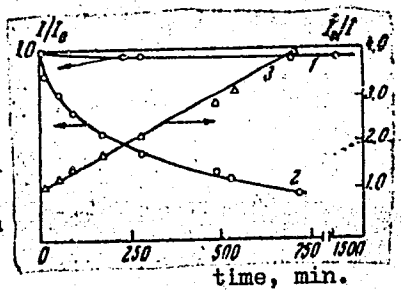

Fig. 1. Kinetics of radical disappearance in caprone fibers. Fibers irradiated with 2.7 Mrad, intensity of radiation - 150 rad/sec, temperature 26C. 1 - epr signal intensity of irradiated fibers in the absence of styrene; 2 - in the presence of styrene; 3 - same as 2 but plotted in reciprocal coordinates.

It is concluded that the rate of styrene graft polymerization is controlled by the diffusion of styrene to the free radicals on the fibers. The grafting of styrene onto the fibers changes the mechanical properties of the latter. Orig. art. has: 2 tables, 3 graphs, and 1 equation.

SUB CODE: 11/ SUBM DATE: 19Dec64/ ORIG REF: 005/ OTH REF: 002

Card 2/2 90