SIROTKIN, A. B.
BUGAKOV, V. S.; SIROTKIN, A. B.

Relation of the Coefficient of Diffusion to the Concentration of the Diffusing Metal.

ZhTF 7, 1577, 1937;
Techn. Phys. 4, 537, 1947

SIROTKIN, A.I.

Possibility of the occurrence of ice in the Dnieper Liman of the Black Sea and in the Sea of Azov. Trudy NIIAK no.12:50-56 '61. (MIRA 14:10)

(Dnieper Liman--Ice on rivers, lakes, etc.)
(Azov, Sea of--Sea ice)

POLUSHKIN, K.K.; YEMEL'YANOV, I.Ya.; DELENS, P.A.; ZVONOV, N.V.; ALEKSENKO, Yu.I.; GROZDOV, I.I.; KUZNETSOV, S.P.; SIROTKIN, A.P.; TOKAREV, Yu.I.; LAVROVSKIY, K.P.; BRODSKIY, A.M.; BELOV, A.R.; BORISYUK, Ye.V.; GRYAZEV, V.D.; POPOV, D.N.; KORYAKIN, Yu.I.; FILIPPOV, A.G.; PETROCHUK, K.V.; KHOROSHAVIN, V.D.; SAVINOV, N.P.; MESHCHERYAKOV, M.N.; PUSHKAREV, V.P.; SUROYEGIN, V.A.; GAVRILOV, P.A.; PODLAZOV, L.N.; ROGOZHKIN, I.N.; TETYUKOV, V.D.

"Arbus" atomic power plant with organic heat transfer agent and moderator. Atom. energ. 17 no.6:439 D '64 (MIRA 18:1)

22c

L 24212-65 EWT(m)/EPF(c)/EPF(n)-2/EPR Pr-4/Ps-4/Pu-4 DM

ACCESSION NR: AP5001265 S/0089/64/017/006/0439/0448

AUTHOR: Polushkin, K. K.; Yemel'yanov, I. Ya.; Delens, P. A.; Zvonov, N. V.; Alekseenko, Yu. I.; Grozdov, I. I.; Kuznetsov, S. P.; Sirotkin, A. P.; Tokarev, Yu. I.; Lavrovskiy, K. P.; Brodskiy, A. M.; Belov, A. R.; Borisyuk, Ya. V.; Gryazev, V. M.; Tetyukov, V. D.; Popov, D. N.; Koryakin, Yu. I.; Filippov, A. G.; Petrochuk, K. V.; Khoroshavin, V. D.; Savinov, N. P.; Meshcheryakov, M. N.; Pushkarev, V. P.; Suroyegin, V. A.; Gavrilov, P. A.; Podlazov, L. N.; Rogozhkin, I. N.

TITLE: Atomic electric power installation "Arbus" with organic coolant and moderator

SOURCE: Atomnaya energiya, v. 17, no. 6, 1964, 439-448

TOPIC TAGS: small nuclear reactor, organic coolant, organic moderator, reactor economy, nuclear reactor

ABSTRACT: The paper is a summary of the SSSR # 307 report at the Third Inter-

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L 24212-65

ACCESSION NR: AP5001265

national Conference on Peaceful Uses of Atomic Energy, 1964. It describes an installation of a reactor in which organic liquid serves as the coolant, and as the moderator. The low-power reactors of about 5 Mw are expected to be economical in the remote regions where the usual energy sources are not available. A regeneration system is described for the coolant which removes the products of radiolysis. Orig. art. has: 7 figures

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NR REF SOV: 000 OTHER: 000

Card 2/2

SIROTKIN, A.V.

Shoe industry in the Rumanian People's Republic. Kozh.-obuv.prom. 6 no.11:36 N '64. (MIRA 18:4)

SIROTKIN, S. F.

27191 SIROTKIN, S. F. - Uluchshenie Raboty Chesal'nykh Mashin. (Iz Opyta Fabriki IM. Balashova). Tekstil. Prom-St: 1949, No. 8, s. 34-35.

SO: Letop is' Zhurnal'nykh Statey, Vol. 36, 1949.

SIROTKIN, D. F., SMIRNOV, G. N.

Spinning machinery

Return of air from the dusty pits to the stripping machines., Tekst. prom. no. 1, 1952.

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

1. SIROTKIN, D. F.

2. USSR (600)

4. Spinning Machinery

7. Barn yarn clearer. Tekst. prom. 12 no. 12 1952.

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

SIROTKIN, D.F.; POPOV, I.V.

Introducing research, inventions, and suggestions on efficiency promotion. Tekst. prom. 18 no.11:40-43 N '58. (MIRA 11:12)

1.Uchenyy sekretar' tekhniko-ekonomicheskogo soveta Ivanovskogo sovnarkhoza (for Sirotkin). 2. Nachal'nik proizvodstvenno-tekhnicheskogo otdela sovnarkhoza (for Popov).
(Textile research)

SIROTKIN, D.F.

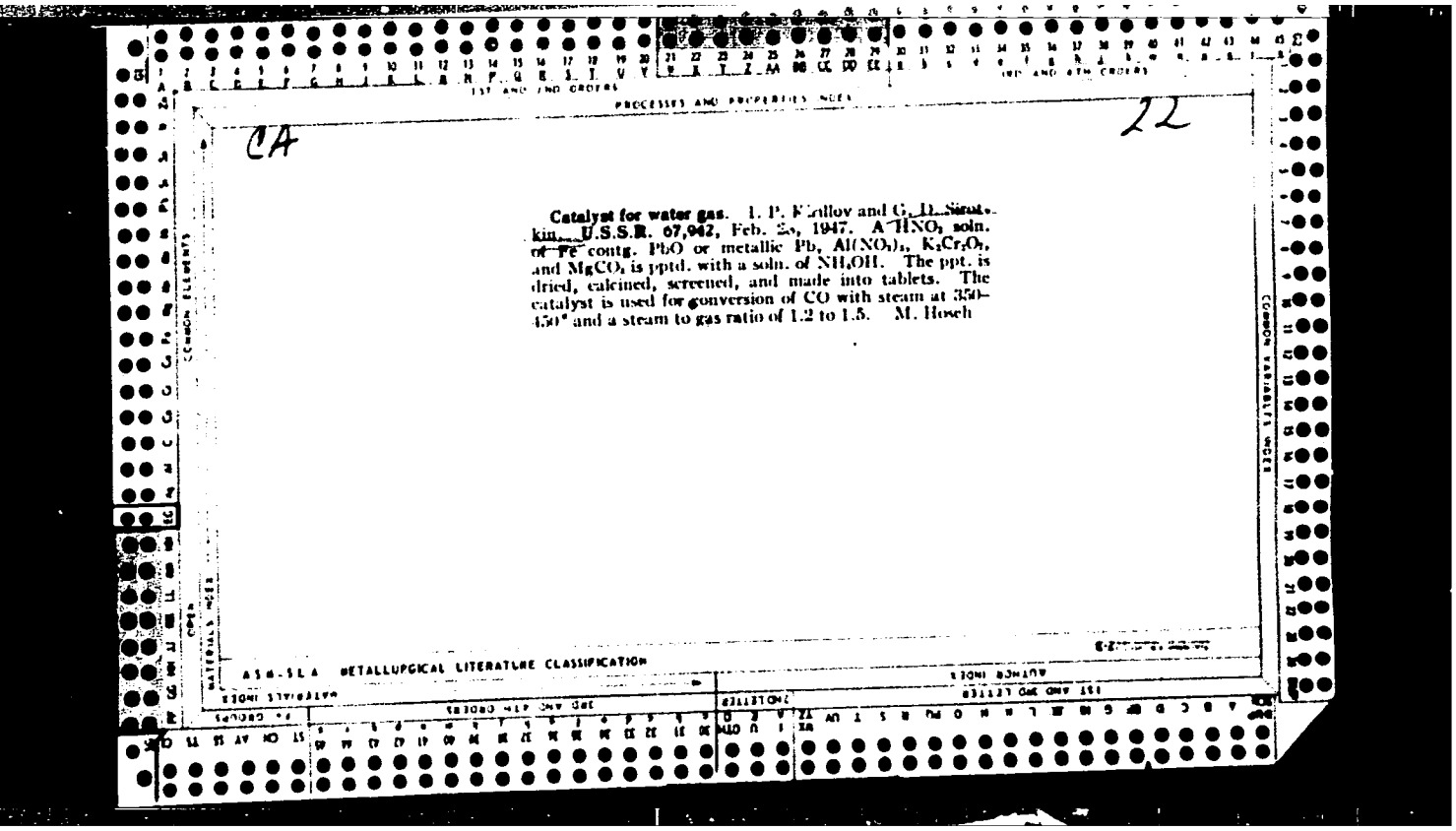
For the introduction of new methods and technology in cotton spinning. Tekst. prom. 18 no. 7:21-23 Jl '58. (MIRA 11:7)

1. Uchenyy sekretar' tekhniko-ekonomicheskogo soveta Ivanovskogo sovnarkhoza.

(Cotton spinning)

SIROTKIN, D.F.

Technical and economic activities of the Economic Council. Tekst. prom. 19 no.11:94-95 N '59. (MIRA 13:2)
(Ivanovo Province--Economic councils)
(Textile industry)



CA

12

Catalyst for water gas. I. P. Kirillov and G. H. Sirotkin. U.S.S.R. 67,942, Feb. 28, 1947. A HNO_3 soln. of Fe contg. PbO or metallic Pb, $Al(NO_3)_3$, $K_2Cr_2O_7$, and $MgCO_3$ is ptd. with a soln. of NH_4OH. The ppt. is dried, calcined, screened, and made into tablets. The catalyst is used for conversion of CO with steam at 350–450° and a steam to gas ratio of 1.2 to 1.5. M. Hoseh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PA 70T18

USSR/Chemistry - Vanadium Compounds, Mar 1948
As Catalysts
Chemistry - Sulfur Dioxide, Oxidation of

"Deterioration on Service of a Vanadium Catalyst for Oxidizing SO_2," G. D. Sirotkin, Ivanovo Chem Technol Inst, 4 pp

"Zhur Prik Khim" Vol XXI, No 3, p. 245-8

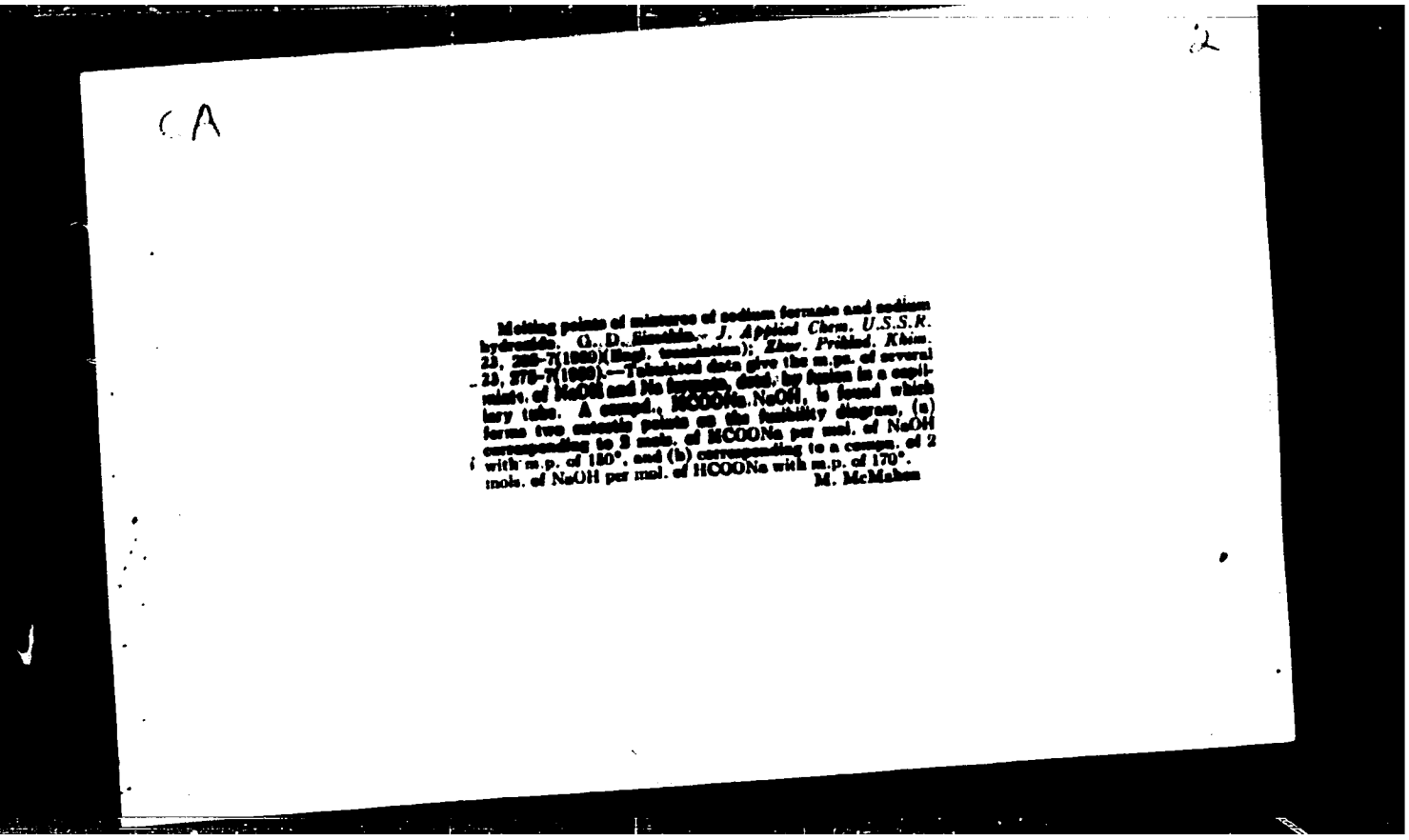
Analyzed sample obtained from the Chernorechensk chemical works, where sulfuric acid is manufactured by the contact process. Sirotkin considers the usual explanations of vanadium catalyst deterioration (arsenic and excessive temperatures) to be inapplicable in this case, and suggests that the trouble may be connected with physicochemical transformations of silicon dioxide. Submitted 11 Jun 1947.

70T18

SIROTKIN, G. D.

[redacted]

70T18



CA

2

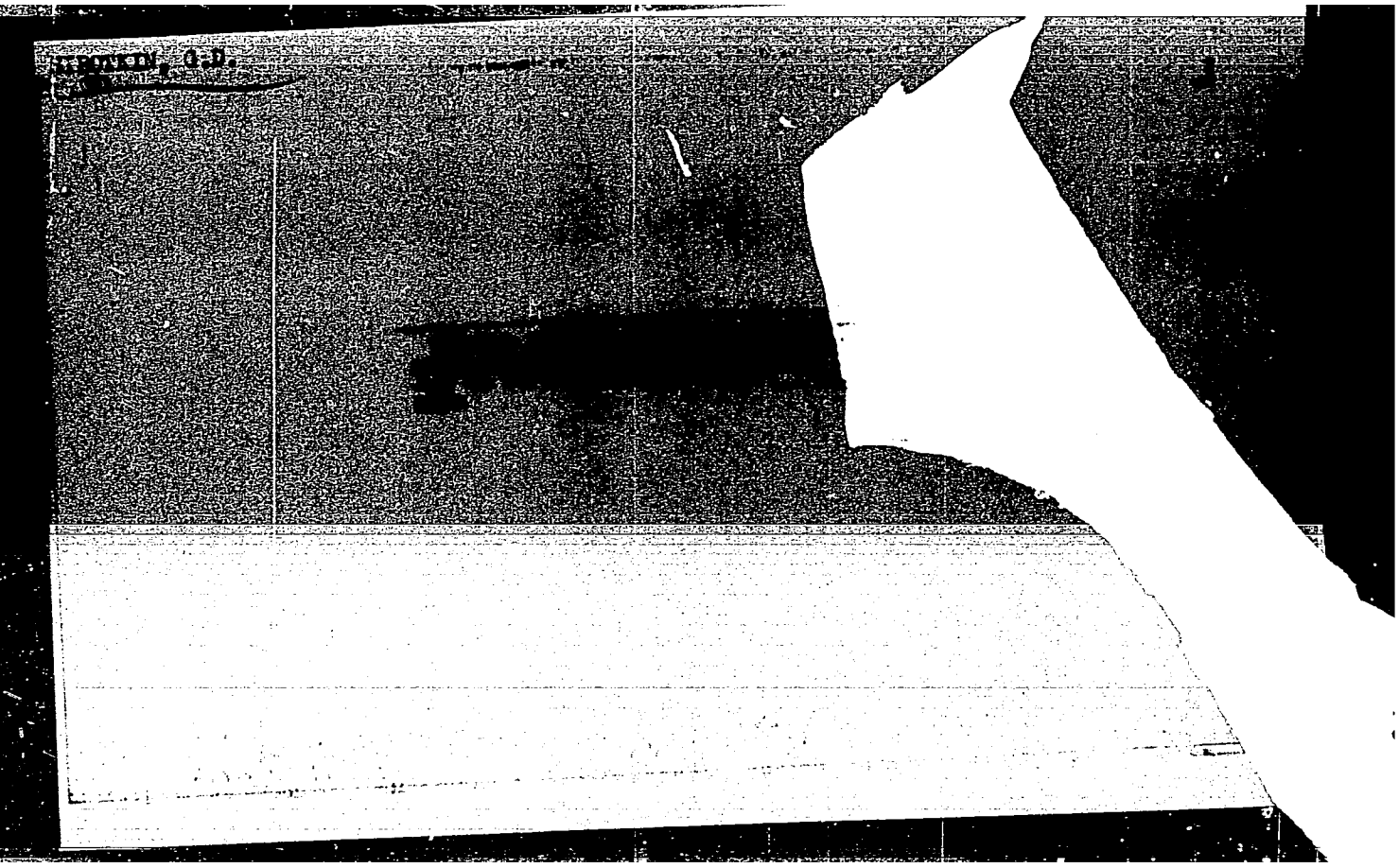
Melting points of mixtures of sodium formate and sodium hydroxide. G. D. Simakhin.—*J. Applied Chem. U.S.S.R.* 23, 265–7(1950)(Engl. translation); *Zhur. Prikhid. Khim.* 23, 275–7(1950).—Tabulated data give the m.pts. of several mixts. of NaOH and Na formate, detd. by fusion in a capillary tube. A compd., $HCOONa.NaOH$, is found which forms two eutectic points on the fusibility diagram, (a) corresponding to 3 mols. of $HCOONa$ per mol. of NaOH with m.p. of 180°, and (b) corresponding to a compn. of 2 mols. of NaOH per mol. of $HCOONa$ with m.p. of 170°.
M. McMahon

CA

70

The rate of synthesis of sodium formate. G. D. Strothin (Chem.-Technol. Inst., Ivanovsk). *Zhur. Prikład. Khim.* (J. Applied Chem.) 24, 1208-10(1951).—Tracing the reaction rate of CO with aq. NaOH contg. various amts. of preformed HCO_2Na indicates that addn. of the formate to the aq. phase accelerates the reaction up to ratio of 1:1 (molar) of the formate to NaOH. The autocatalysis is connected with greater ease of adsorption of CO by HCO_2Na-NaOH than by pure NaOH. The rate const. (except with 71% added formate) varies but little, 0.12-0.09 (1st order), although obviously the reaction is more complex.

G. M. Kosolapoff



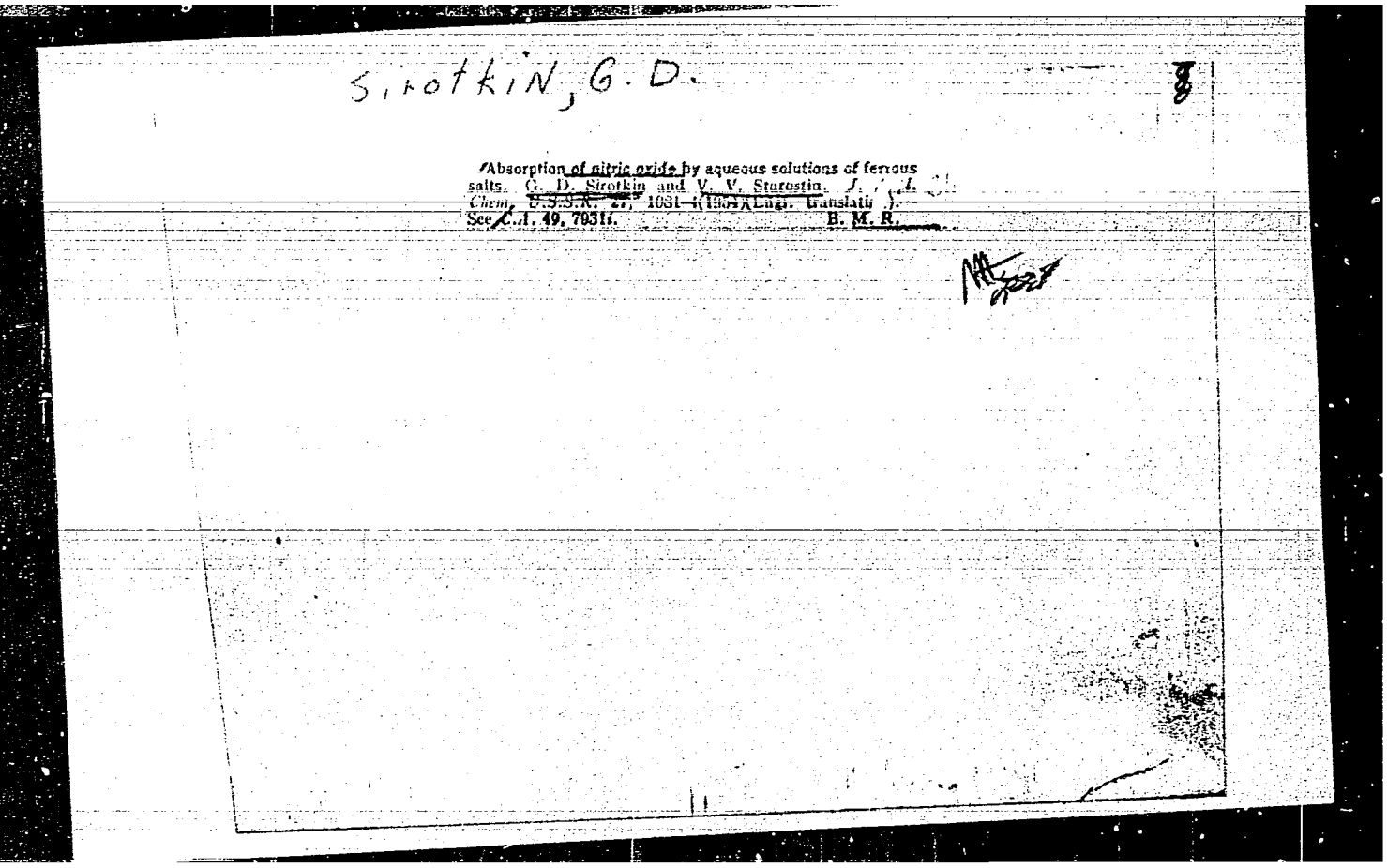
SIROTKIN, G. D.

Chemical Abstracts
May 25, 1954
Acids, Alkalies and
other Heavy Chemicals

(2)

Utilization of carbon monoxide in the production of sodium formate. G. D. Sirotkin (Cyanovsk Chem.-Technol. Inst.). *Zhur. Prikhl. Khim.* 26, 340–3(1953).—Thermodynamic consts. of the reaction NaOH + CO ⇌ HCOONa calcd. by the relations of Kapustinskii and Yatsimirskii (*C.A.* 43, 1241f) and addnl. data on the effect of the partial pressure of CO upon the rate of the reaction obtained by S. indicate that the reaction will go to completion even with the lowest CO pressures. The rate becomes too low which justifies the current industrial practice of allowing 30–40% of CO to escape with the tail gases. It is suggested that the wasted CO be absorbed in a soln. of Cu^+, stripped, and used to enrich the original gas from the CO generator. J. B.

12-12-54



Sirotkin, G. D.

Absorption of nitric oxide by aqueous solutions of ferrous salts. G. D. Sirotkin and V. V. Starostin. J. Gen. Chem. U.S.S.R. 27, 1081-4(1957)(Engl. translation). See C.A. 49, 7931f. B. M. R.

USSR

Absorption of nitric oxide by aqueous solutions of ferrous salts. G. D. Sirotkin and V. V. Starostin (Chem.-Technol. Inst., Ivanovo). *Zhur. Prikład. Khim.* 27, 1141–4(1954).—Absorption of NO in aq. solns. of $FeSO_4$ and $FeCl_2$ was detd. and the equil. const. $K = V/(22.4 - V)P_{NO}$ was calcd.; V = liters of NO absorbed by 1 mol. of Fe^{++}. Max. absorption was obtained at 0° and P_{NO} = 1 atm.; at 50° the complex $[FeNO]_{++}$ is unstable and absorption was low. Absorption was independent of the concn. of $FeCl_2$ and decreased with increasing concns. (0.215 and 0.618 *M*) of $FeSO_4$. The calcd. values of the heat and entropy of absorption are −11 kcal./mol. NO and −37.7 e.u., resp. I. Bengowitz

05875
SOV/78-4-11-28/50

5(4)
AUTHOR: Sirotkin, G. D.

TITLE: The Equilibrium in the Melts of Sodium- and Potassium Nitrates and Nitrites

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 11, pp 2558 - 2563 (USSR)

ABSTRACT: The chemical transformation of alkali nitrates at high temperatures has been dealt with several times, also by L. Osipov and A. Yevin'sh (Ievins). These investigations were mostly concerned with the qualitative determination of the thermal transformation. Therefore, the author investigated the equilibrium of the reaction $MeNO_3$ liqu $\rightleftharpoons$ $MeNO_2$ liqu $+\frac{1}{2}O_2$ gas. The chemically pure nitrates and nitrites were melted in a porcelain crucible for several hours in a crucible furnace with the air passing through. In certain intervals, samples were taken and analyzed for NO_2 and NO_3. At the beginning of the experiments, the nitrate-nitrite ratio always changed rapidly and approached a constant composition characteristic of the respective temperature in the course of the experiment. The dissociation process

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The Equilibrium in the Melts of Sodium- and Potassium Nitrates and Nitrites

is given in tables 1,2. Tables 3,4 give the equilibrium constants of the thermal dissociation of the sodium nitrate and potassium nitrate at different temperatures. The reaction of the thermal decomposition of the nitrates is accompanied by a thermal absorption amounting to 27 kcal/g-mol for $NaNO_2$ and to 26 kcal/g-mol for KNO_2. The equilibrium pressure of the oxygen over the melt considerably depends on the temperature and concentration of the nitrite. For sodium salts, it is approximately computed by the formula $\log P_{O_2} = 11 - 11800/T + 2\log \frac{[NaNO_3]}{[NaNO_2]}$; for potassium salts, by the formula $\log P_{O_2} = 10 - 11360/T + 2\log \frac{[KNO_3]}{[KNO_2]}$, in which P_{O_2} denotes the oxygen pressure in atm, $[MeNO_3]$ and $[MeNO_2]$ (Me=Na, K) denote the molar concentrations of the alkali nitrates and -nitrites, respectively. The high dependence of the oxygen pressure on the temperature and nitric concentration accounts for the fact

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The Equilibrium in the Melts of Sodium- and Potassium Nitrates and Nitrites SOV/78-4-11-28/50

that the melts of potassium nitrate and -nitrite used as a thermostatic agent in industrial catalytic processes become gradually poorer in nitrite though they are protected from contact with air. The oxidation of the nitrite at temperatures below 400° already occurs in the presence of oxygen traces. There are 2 figures, 5 tables, and 6 references, 2 of which are Soviet.

ASSOCIATION: Ivanovskiy khimiko-tekhnologicheskiy institut (Ivanovo Institute of Chemical Technology)

SUBMITTED: July 11, 1958

Card 3/3

17.2400
24.6700

S/560/61/000/008/010/010
E032/E514

AUTHORS: Kurnosova, L. V., Kolobyanina, T.N., Logachev, V.I., Razorenov, L.A., Sirotkin, I.A. and Fradkin, M.I.

TITLE: Detection of anomalies in the radiation above the southern part of the Atlantic Ocean at altitudes between 310-340 km

PERIODICAL: Akademiya nauk SSSR, Iskusstvennyye sputniki zemli, 1961, No.8, pp.90-93

TEXT: The second Soviet satellite carried a counter telescope designed to record the total cosmic ray intensity. This telescope was a part of a more complex device whose function was to record the nuclear cosmic ray component. A brief description of the apparatus was given by S. N. Vernov, V. L. Ginzburg, L. V. Kurnosova, L. A. Razorenov, M. I. Fradkin (Ref.1: UFN, 63, No.1b, 131, 1957). The present paper is concerned only with the anomalously large counting rates obtained while the satellite was passing over certain regions of space. The telescope consisted of two groups of counters with effective areas of 120 and 25 cm^2. The distance between them was 35.8 cm. The amount of matter between the two groups of counters was about 4 g/cm^2 (largely perspex).

Thus, the telescope recorded electrons with energies > 8 MeV and protons with energies > 60 MeV. The particle flux recorded by the telescope was greater than the cosmic ray flux at all the points where the measurements were recorded. In the region of the equator the average flux was 1.2 particle cm^{-2} sec^{-1}, while at high altitudes the figure was 3.3 particle cm^{-2} sec^{-1}. Another unexpected result was the discovery of regions with anomalously large intensities. Among these regions was that above the southern part of the Atlantic Ocean where on August 19, 1960 there was an increase in the counting rate every time the satellite passed through the region. This is indicated by Fig.1 which shows the counting rate as a function of local Moscow time. The three peaks (1,2,3) correspond to the passage of the satellite through the anomaly. The anomaly lies between 25 and 50° S and 0 and 55° W. A further anomaly was discovered between 50 and 65° S and 30° W and 40° E. A third anomaly was found in the northern hemisphere between 60 and 65° N and 137 and 170°E. It is suggested that the northern anomaly may be associated with the outer radiation belt and is affected by solar flares. The South Atlantic and Southern anomalies may be associated with the existence in the southern

hemisphere of large negative magnetic anomalies (Ref.4: B. M. Yanovskiy. Zemnoy magnetizm. M., GTTI, 1953), i.e. regions in which the magnetic field strength is lower than the normal field strength. A. J. Dessler (Ref.5: J. Geoph. Res., 64, 713, 1959) has suggested that negative anomalies may act as sinks for the charged particles in radiation belts. V. L. Ginzburg has pointed out to the present authors that T. D. Carr, A. G. Smith and H. Bollhagen (Ref.6: Phys. Rev. Lett., 5, 418, 1960) have discussed the variation in the intensity of radio-waves of Jupiter and have pointed out that the longitude dependence of this intensity becomes understandable if it is assumed that there are magnetic field anomalies on Jupiter. In such regions the charged particle concentration will be enhanced and there will be an increase in the radio emission. This effect may be analogous to the increase in the intensity of radiation in the region of magnetic anomalies reported in the present paper. Acknowledgments are expressed to Professor V. L. Ginzburg and Professor N. A. Dobrotin for their advice. There are 2 figures and 6 references: 4 Soviet and 2 non-Soviet.
SUBMITTED: December 27, 1960
Card 3/4

SIROTKIN, I. A

2

32719
S/560/61/000/009/009/009
D045/D114

9.6150
21 6000

AUTHORS: Dragun, G. S., Kurnosova, L. V., Logachev, V. I., Razorenov, L. A., Sirotkin, I. A., and Fradkin, M. I.

TITLE: Equipment for investigating the nuclear components of cosmic rays installed on space rockets and artificial earth satellites

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. No. 9, Moscow, 1961, 86-110

TEXT: Equipment installed on the third Soviet artificial Earth satellite and on space rockets, for investigating the nuclear components of cosmic rays, is described. The results of the measurements carried out with the aid of the described devices have already been published in previous issues of the journal. All the devices consist of the following basic elements: a charged particle detector (integral Cherenkov counter); an electronic system for amplifying signals, for selecting the required ionizing events and for storing them; and elements for matching the photomultiplier output with the input of the electronic circuit and the output of this circuit with the radiotelemetric system. A block diagram of a unit for recording the nuclei

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Equipment for investigating the ...

of cosmic rays is given in fig. 1. The Cherenkov counter can be used for investigating temporary changes in the intensity of the nuclear component and the dependence of this intensity on distance from the Earth. The advantages of the counter are that the radiotechnical device used is relatively simple and that a sufficiently large number of particles can be registered per unit of time. The disadvantage of its use is that the quantity of light, divided in the detector, and the number of photoelectrons taken from the cathode of the photomultiplier is small, and consequently the value of the output pulse is small and large statistical fluctuations occur. A device for measuring the characteristics of Cherenkov counters and several aspects of calibration are described and illustrated. It is stated that the instruments for measuring the nuclear components of cosmic radiation installed on the first and second space rockets had an additional channel designed for registering radiation in an area of increased radiation intensity. A sharp increase in intensity was observed at distances of $27 \cdot 10^3$ km (first rocket) and $17 \cdot 10^3$ km (second rocket) in an area later called the inner radiation belt. A block diagram of one version of the electronic system is shown in fig. 17. As can be seen from the figure, information on the condition of

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the triggers of the accumulating system can be transmitted through the radiotelemetric system. The following parts of the radio system are described and illustrated: emitter follower; flip-flop-cells; and summation cells. The described parts were used in designing devices for measuring nuclei beyond the edge of the atmosphere; depending on the problems set and the actual conditions, a final selection of the parameters was made and essential changes in individual elements carried out. Two diagrams are included showing the arrangement of devices for registering nuclei with (1) $Z \geq 5$ and $Z \geq 15$, and (2) $Z \geq 2$. The authors thank radio technician V. Marovskiy, laboratory worker V. Razhin and designer G. Yegorov for their cooperation. There are 29 figures and 7 Soviet references.

SUBMITTED: April, 17, 1961

Card 3/3

SIROTKIN, I. A.

2

3.2420 (1482, 2806, 1049)

17.2400

33305
S/560/61/000/010/003/016
D299/D302

AUTHORS: Ginzburg, V. L., Kurnosova, L. V., Logachev, V. I., Razorenov, L. A., Sirotkin, I. A., and Fradkin, M. I.

TITLE: Study of charged-particle intensity during the flight of the 2nd and 3rd Sputniks

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. no. 10. Moscow, 1961, 22-33

TEXT: During the flight of the 2nd and 3rd Sputniks, the flow of charged particles at altitudes between 187 and 339 km and latitudes of -65 to +65° was recorded by means of a telescope consisting of 2 rows of gas-discharge counters; the telescope was part of measuring equipment for cosmic rays. As a result of the measurements, the intensity of the charged particles and its latitude dependence were determined. The counting rate N_c and

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D299/D302

Study of charged-particles...

the global intensity J_{gl} at various latitudes are listed in a table. It was found that at all latitudes the recorded intensity was several times higher than the intensity of cosmic rays recorded in the stratosphere and in free space beyond the earth's magnetic field. This difference is particularly noticeable in the region of the geomagnetic equator, where the measured intensity was six times that of cosmic rays. Several regional anomalies of intensity were observed, apparently related to the anomalies of the earth's magnetic field. For the entire track of the space-ships, detailed graphs were made of the time dependence of the intensity and hence of its dependence on geographical coordinates and altitude of the space-ship. From these graphs, maps were made of the intensity distribution on the earth's surface. It is noted that, with repeated passage of the space-ship above the same terrestrial point and almost same altitude, the recorded intensity differed sometimes from that on the first passage; in some cases, the intensity was almost double. This difference

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was particularly noticeable at high latitudes. As the orientation of the apparatus changes during the second passage, this difference in intensity may not be real. The obtained equi-intensity lines for the south-Atlantic and southern anomalies constitude a slight refinement to the earlier obtained data (in the references); the maximum number of counts in the southern anomaly was 60 per second, and in the south-Atlantic anomaly it was 70 per second. The anomalies are particularly great in the Southern Hemisphere. The intensity distributions in the anomaly regions, recorded at altitudes of 306 - 339 km and at altitudes of 187 - 265 km during the two flights, differ from each other. This difference is apparently due to the different flight-altitudes. The connection between the anomalous structure of the radiation belts and the anomalies of the earth's magnetic field is evident; it would be premature, however, to assume that the regional anomalies of the magnetic field on the earth's surface have a substantial influence on charged-particle flow up to altitudes of 200 - 300 km. The many anomalies in the South- and

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Study of charged-particles...

North-Pole regions, their disposition and variation, suggest that these anomalies are the edges of the outer radiation belt of the earth. The latitude dependence of the intensity is shown in a graph (for the Northern Hemisphere); it is noted that, at high latitudes, the increase in intensity ceases. The obtained data on the intensity distribution give evidence of the edge effects of the radiation belts at 200 - 300 km altitude and of certain peculiar features not observed previously. In particular, the great temporal anomalies are noted; thus, the "northern anomaly" recorded on August 20, 1960, at 7 hr. 40 min. (world time) and the south-polar anomaly recorded on December 1, 1960, at 14 hr. 22 min. These anomalies are apparently due to solar activity. The line of least intensity (the "radiation equator") is shown in a figure. With regard to the composition of the radiation, it is likely that the increase in the counting rate (as compared to that from primary cosmic rays) is due to protons with $E_p >$ 60 Mev; although no definite conclusion is possible as yet, it

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is assumed (as a working model) that the inner radiation belt if formed by protons and that the number of electrons of energies higher than $\sim$ 2 Mev is small. The above results confirm the existence of a high-intensity region down to 200 km altitude (from 1000 km). On the other hand, the radiation at 50 - 150 km is practically independent of altitude. The altitude dependence of the intensity (for 200 - 2000 km) is shown in a figure. Tentatively, the altitude h and the atmospheric density ρ can be expressed by the values:

h, km	100	150	200	300	400	500
ρ, gm $\cdot$ cm^{-3}	10^{-9}	10^{-11}	10^{-12}	10^{-13}	2×10^{-14}	2×10^{-15}

h, km	600	700	800	900	1000
ρ, gm $\cdot$ cm^{-3}	6×10^{-16}	2×10^{-16}	6×10^{-17}	3×10^{-17}	10^{-17}

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D299/D302

Study of charged-particles...

On the basis of the incomplete data available, the internal radiation-belt in the equatorial region for altitudes above 400 - 600 km can be approximated by a very simple model, where only ionization losses are taken into account. At higher latitudes, the pattern is more complicated; it becomes necessary to render more precise the composition, spectrum and altitude-variation of the charged particles. At altitudes below 400 - 600 km, considerable deviations from the formula $J \sim p^{-1}$ occur. This is due to diffusion of the particles in a direction transverse to the magnetic field; this diffusion mechanism is related to collisions between particles. A second diffusion mechanism exists, related to the presence of electric fields E which cause particle-drift. The diffusion processes require further investigation. Finally, the radiation dose is estimated beneath a layer of matter of the order of 4 gm/cm^{-2} at an altitude of 200 - 300 km. Assuming recorded proton energies (in the equa-

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Study of charged-particles...

torial region) of $E_p \geq 60$ Mev, the daily radiation dose constitutes approximately 30% of the permissible dose. In the region of the south-Atlantic anomaly at 300 km altitude, the radiation dose is by an order of magnitude higher than at the equator. There are 10 figures, 1 table and 10 references: 7 Soviet-bloc and 3 non-Soviet-bloc (including 2 translations). The reference to the English-language publication reads as follows: S. Yoshida, G. H. Ludwig, J. A. Van Allen, J. Geophys. Res., 65, 807, 1960.

SUBMITTED: May 15, 1961

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Card 7/7

SOV/79-29-3-20/61

5 (3)

AUTHORS: Yesafov, V. I., Stashkov, L. I., Sirotkin, L. B., Suvorov, A. L., Novikov, Ye. G.

TITLE: On the Characteristics of the α,β-Unsaturated Ketones. VII (K kharakteristike α,β-nepredel'nykh ketonov. VII)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 845-849 (USSR)

ABSTRACT: The present paper is issued as first publication of experimental data on the hydrolytic cleavage of the aliphatic aromatic α,β-unsaturated ketones containing an aryl radical which is directly combined with the carbonyl group. Ketones of this type were obtained by dehydration of the β-ketols which had been synthesized according to the method of Grignard, V. and Colonge, I. (Ref 2).

$$(CH_3)_3C\text{-}\overset{CH_3}{\overset{|}{C}}=O + CH_3COAr \xrightarrow{C_6H_5N(CH_3)MgJ} (CH_3)_3C\text{-}\overset{CH}{\overset{|}{\underset{OH}{\overset{|}{C}}}}\text{-}CH_2COAr$$

Experiments with respect to the hydrolytic cleavage of the β-ketols were carried out as well. The data of table 2 show that the β-ketols are far more unstable than the corresponding

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SOV/79-29-3-20/61

On the Characteristics of the α,β-Unsaturated Ketones. VII

α,β-unsaturated ketones and prove to be more sensitive to very weak hydrolysis reagents. Besides, the behavior of the β-ketols in the hydrolysis differs from that of the α,β-unsaturated ketones by the fact that a change of the NaOH-concentration exerts a slight influence upon the cleavage intensity of the β-ketols whereas the hydrolytic cleavage of the α,β-unsaturated ketones is considerably influenced. The rate of hydrolysis of the aliphatic aromatic ketones investigated increases significantly when the NaOH concentration is increased from 0.01 to 0.1 n. 8 β-ketols hitherto unknown were synthesized and described. It was determined how far the hydrolytic cleavage of the β-ketols and at the same time that of the α,β-unsaturated ketones develops and it was proved that the latter separate but little HBr on bromination. There are 2 tables and 4 references, 2 of which are Soviet.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet (Ural State University)

SUBMITTED: February 18, 1958

Card 2/2

SIROTKIN, L.M.

Change in the design of rectification column plates. Neftianik 6 no.3:21 Mr '61. (MIRA 14:10)

1. Nachal'nik remontno-mekhanicheskogo tsekha Khersonskogo neftepererabatyuvayushchego zavoda.
(Plate towers)

AUTHOR: Sirotkin, L.N. 113-58-6-4/16

TITLE: Modernized Trucks of the Yaroslavl' Automobile Plant (Modernizirovannyye avtomobili Yaroslavskogo avtozavoda)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 6, p 7-9 (USSR)

ABSTRACT: The Yaroslavl' Automobile Plant has modernized the serial production of the YaAZ-210, YaAZ-210D and YaAZ-210E trucks and produced a new model, YaAZ-214. After the modernization, the three automobiles were renamed YaAZ-219, YaAZ-221 and YaAZ-222 respectively. The effected changes are described in detail. There are 5 drawings and 1 table.

ASSOCIATION: Yaroslavskiy Avtozavod (The Yaroslavl' Automobile Plant)

Card 1/1 1. Automobile industry--USSR 2. Truck models--Revision

SIROTKIN, L.M.

Machine for the manufacture of paper bags for the packaging of bitumen. Neftepер. i neftekhim. no.9:31-32 '64. (MIRA 17:10)

1. Khersonskiy neftepererabatyvayushchiy zavod.

SIROTKIN, M.P., dotsent, kandidat tekhnicheskikh nauk.

Determination of flood-line limits in a terrain for reservoir construction. Sbor.st.po geod. no.6:49-51 '54. (MLRA 9:6)
(Reservoirs) (Surveying)

SIROTKIN,M.P., dotsent kandidat tekhnicheskikh nauk

Tasks of geodesy in connection with the construction of large hydrotechnical installations. Sbor.st.po geod. no.7:43-48 '54. (Geodesy) (Water resources development) (MLRA 8:11)

SIROTKIN, Mikhail Pavlovich, kandidat tekhnicheskikh nauk; FLOROVSKIY, Yu.S., redaktor; KUZ'MIN, G.M., tekhnicheskiy redaktor

[Geodetic work in geological and hydrological investigations for hydraulic construction] Geodezicheskie raboty pri geologicheskikh i gidrologicheskikh izyskaniiakh dlia gidrostroitel'stva. Moskva, Izd-vo geodezicheskoi lit-ry, 1955. 125 p. (MLRA 8:6)
(Geodesy) (Hydraulic engineering)

SIROTKIN, M.P., kandidat tekhnicheskikh nauk.

Errors in computing capacities of reservoirs on the basis of topographic maps. Geod.i kart. no.7:44-49 S '56. (MLRA 9:11)
(Topographical surveying) (Reservoirs)

3(4)

AUTHOR: Sirotkin, M. P., Candidate of Technical Sciences SOV/6-58-12-8/14

TITLE: Choosing the Scale of a Topographical Survey for the Projection of a Drainage System (O vybore masshtaba topograficheskoy s"yemki dlya proyektirovaniya osushitel'noy seti)

PERIODICAL: Geodeziya i kartografiya, 1958, Nr 12, pp 45-47 (USSR)

ABSTRACT: This is a comment on the paper "Choosing the Scale of a Topographical Survey and the Height of the Relief Section for the Projection of a Drainage System" by S. M. Dvoryankov in the Geodeziya i kartografiya, 1957, Nr 2. The comment was written on request of the editors who demanded a discussion on the subject. It is pointed out that choosing the scale is a task of land surveyors and architects, but primarily it is to be considered as a geodetical problem.- The paper by Dvoryankov is discussed and various discrepancies are pointed out. In a summary it is stated that the present paper is a valuable contribution, its principal value lying in the selection of the survey scale by way of experiment, which is the only proper way to solve the problem set up.

Card 1/1

3(4) SOV/154-59-2-22/22

AUTHORS: Sirotkin, M. P., Docent, Candidate of Technical Sciences, Florovskiy, L. S., Docent, Candidate of Technical Sciences

TITLE: Books on Geodesy Required by Civil Engineers and Students (O knige po geodezii, neobkhodimoy dlya inzhenerov i studentov stroiteley)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1959, Nr 2, pp 155-157 (USSR)

ABSTRACT: Seven books which were published in 1956, 1957 and 1958 are discussed. Although this represents a greater number of books published on surveying than before, none of them can be recommended to a civil engineer or student in civil engineering. The demand is great and many of the books mentioned are already sold out. All these books are one-sided and do not correspond to their titles. The main deficiency of all of them is the absence of calculations to coordinate the accuracy of the recommended surveying methods with the standards laid down in civil engineering.

Card 1/2

SOV/154-59-2-22/22

Books on Geodesy Required by Civil Engineers and Students

ASSOCIATION: Moskovskiy institut gorodskogo stroitel'stva (Moscow Institute for Town Planning)

Card 2/2

USCOMM-DC-61,363

BELIKOV, Yevgeniy Fedorovich, dotsent; VORONIN, Viktor Aleksandrovich, inzh.; GLOTOV, Georgiy Fedorovich, dotsent; ZELENKOV, Yuriy Vladimirovich, inzh.; IVANOV, Leonid Fedorovich, inzh.; KORENEV, Gleb Sergeyevich, inzh. [deceased]; MASLENNIKOV, Anatoliy Stepanovich, inzh.; SIROTKIN, Mikhail Pavlovich, dotsent; ULITIN, Andrey Il'ich, inzh.; URUSOV, Nikita Yur'yevich, inzh.; FLOROVSKIY, Yuriy Sergeyevich, inzh.; SHAKHIDZHANYAN, Grand Aleksandrovich, inzh.; EGLIT, Vitaliy Ivanovich, inzh.; VASIL'YEVA, V.I., red.izd-va; ROMANOVA, V.V., tekhn.red.

[Guidebook on principles of engineering geodesy used in planning and building hydroelectric power stations] Spravochnoe rukovodstvo po inzhenerno-geodezicheskim izyskaniiam pri proektirovanii i stroitel'stve gidroelektrostantsii. Pod obshchei red. E.F.Belikova. Moskva, Izd-vo geodez.lit-ry, 1960. 447 p. (MIRA 13:11)
(Hydroelectric power stations) (Geodesy)

SIROTKIN, M.P., kand.tekhn.nauk

Computing topographical volumes by methods of approximate integration. Izv.vys.ucheb.zav.; geod.i aerof. no.6:39-46 '61.
(MIRA 15:3)

1. Moskovskiy inzhenerno-stroitel'nyy institut.
(Surveying)

SIROTKIN, Mikhail Pavlovich; BELIKOV, Ye.F., retsenzent; FLOROVSKIY, Yu.S., retsenzent; GLOTOV, G.F., red.; VASIL'YEVA, V.I., red. izd-va; ROMANOVA, V.V., tekhn. red.

[Handbook on geodesy for builders] Spravochnik po geodezii dlia stroitelei. Moskva, Geodezizdat, 1962. 279 p. (MIRA 15:9)
(Surveying) (Building)

SIROTKIN, Mikhail Yakovlevich

(Chuvash Pedagogical Inst)
Academic degree of Doctor of Philological Sciences, based on his defense, 1 April 1953, in the Council of the Inst of World Literature imeni Gor'kiy, Acad Sci USSR, of his dissertation entitled: "Chuvash Soviet Literature."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 222, 12 Nov 55, Byulleten' MVO SSSR, No. 19, Oct 56, Moscow, pp. 13-24, Uncl. JPRS/NY-536