

MAZANOV, S.S., inzh.; SIDOROV, P.N., inzh.

Review of B.V.TSetlin, E.V.Poluektov's book "Safety measures  
in operating hoisting machinery at machinery plants." Bezop.  
truda v prom. 3 no.9:35-36 S '59. (MIRA 13:2)  
(Hoisting machinery--Safety measures)  
(TSetlin, B.V.) (Poluektov, E.V.)

KOROLEV, A.A.; SIDOROV, P.N.

Operation of an elevator without operators. Bezop. truda v prom.  
3 no.11.19-20 N '59. (MIRA 13:3)  
(Elevators)

BAYKOV, S.P., kand. tekhn. nauk; EELENKO, I.S., kand. tekhn. nauk;  
 BELKOV, S.F., inzh.; EELYANCHIKOV, M.P., inzh.; BERNSHTEYN,  
 I.L., inzh.; BOGORODITSKIY, D.D., inzh.; BOLONOVA, Ye.V.,  
 kand. tekhn. nauk; BROZGOL', I.M., kand. tekhn.nauk;  
 VLADIMIROV, V.B., inzh.; VOLKOV, P.D., kand. tekhn. nauk;  
 GERASIMOVA, N.N., inzh.; ZHUKHOVITSKIY, A.F., inzh.;  
 KABANOV, M.F., inzh.; KAEVTSOV, V.M., kand. tekhn. nauk;  
 KOLOTENKOV, I.V., inzh.; KONDRAT'YEV, I.M., inzh.;  
 KUZNETSOV, I.P., kand. tekhn. nauk; L'VOV, D.S., kand.  
 tekhn. nauk; LYSENKO, I.Ya., kand. tekhn. nauk; MAKAROV,  
 L.M., inzh.; GLEYNIK, N.D., inzh.; RABINER, Ye.G., inzh.;  
 ROZHDESTVENSKIY, Yu.L., kand. tekhn. nauk; SAKHON'KO, I.M.,  
 kand. tekhn. nauk; SIDOROV, P.N., inzh.; SPITSYN, N.A., prof.,  
 doktor tekhn. nauk; SPRISHEVSKIY, A.I., kand. tekhn. nauk;  
 CHIRIKOV, V.T., kand. tekhn.nauk; SHEYN, A.S., kand. tekhn.  
 nauk; NIBERG, N.Ya., nauchnyy red.; BLAGOSKLONOVA, N.Yu., inzh.,  
 red. izd-va; SOKOLOVA, T.F., tekhn. red.

[Antifriction bearings; manual] Podshipniki kachenia; spra-  
 vochnoe posobie. Moskva, Gos. nauchno-tekhn. izd-vo mashino-  
 stroit. lit-ry, 1961. 828 p. (MIRA 15:2)  
 (Bearings (Machinery))

22150-65 EPF(c)/EPR/EWT(m)/T Pr-L/Ps-L DJ

S/0277/64/000/005/0036/0036

ACCESSION NR: AR4045075

SOURCE: Ref. zh. Mashinostr. mat., konstr. i raschet detal. mash. Otd. vy\*p., Abs. 5.48.258

AUTHOR: Sidorov, P. N.

TITLE: Progress in the design of roller-contact bearings

CITED SOURCE: Tr. Vses. n.-i. konstrukt. -tekhrol. in-ta podshionik. prom-sti, no. 3(35), 1963, 31-39

TOPIC TAGS: roller contact bearing, bearing design, bearing performance, bearing maintenance

TRANSLATION: The article discusses some new and updated designs of antifriction bearings which insure improvements in life, load capacity, allowable speed and precision of revolution, sensitivity (i. e. decreased friction losses), technological effectiveness, as well as operation, assembly and disassembly features.

Card 1/2

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ACCESSION NR: AR4045075

SUB CODE: IE

ENCL: 00

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Card 2/2

GONCHAROV, K.F.; DOBROBORSKIY, S.A.; SIDOROV, P.N.;  
KOROSTASHEVSKIY, R.V.; KABANETS, Ya.P.; GROMYKO, Ye.M.;  
KARASIK, P.I.; GAZAROV, L.A.; YAKHIN, B.A.; GORIN,  
N.V., red.; POLYANSKAYA, Z.P., tekhn. red.

[Ball and roller bearings; catalog and handbook] Shariko-  
vye i rolikovye podshipniki; katalog-spravochnik. Izd.2.,  
ispr. i dop. Moskva, 1963. 379 p. (MIRA 17:3)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy in-  
formatsii po avtomatizatsii i mashinostroyeniyu. 2. Nauchnyye  
sotrudniki Vsesoyuznogo nauchno-issledovatel'skogo konstruk-  
torsko-tekhnologicheskogo instituta podshipnikovoy promysh-  
lennosti (for all except Gorin, Polyanskaya).

L 40291-66 EWI(a)/EWI(m)/EWI(v)/T/EWF(k)/EWF(h)/EWF(l) DJ/RH  
ACC NR: AT6021888 (N) SOURCE CODE: UR/3218/63/000/003/0031/0039

AUTHOR: Sidorov, P. N. (Engineer)

42  
41  
Br1

ORG: None

TITLE: The development of antifriction bearing designs

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy konstruktorsko-tekhnologicheskii institut podshipnikovoy promyshlennosti. Trudy, no. 3(35), 1963, 31-39

TOPIC TAGS: antifriction bearing, durability, friction loss, steel

ABSTRACT: The author discusses newly produced and updated designs<sup>14</sup> of antifriction bearings. Improved durability and load capacity of bearings are considered. A classical expression is given for calculating the durability of antifriction bearings. Since the coefficient of work capacity is dependent on dimensions, the number of balls or rollers, and the type of contact between rolling members and races, new antifriction bearings have optimum dimensions where an increase in size might reduce ring or separator strength. In order to avoid this disadvantage, the following measures were taken: 1. The number of balls and rollers was increased by making roller bearing blocks of two or more rows of bearings. Increasing the number of rows improves the load capacity of the supports. Furthermore, static load capacity increases in proportion to the number of rows; 2. contact was modified by eliminating edge effect which

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ACC NR: AT6021888

is detrimental to bearing durability. This was done by using tapered rollers; 3. Another way of improving durability and load capacity is to divide the acting load into radial and axial. This may be done by using combination bearings. The angle of contact is also helpful in this respect; 4. pure steel was used which has a much better working surface, better clearances and other parameters. Increased permissible rotation speeds of bearings are studied. Improved precision of rotation and sensitivity (lower friction losses) are considered. The development of self-lubricating bearings has solved many servicing problems. Self-lubricating bearings have been in existence for quite a while, but self-lubricating roller bearings have just come into existence. It is hoped that this type of design will undergo further development. Simplification of assembly and disassembly of antifriction bearings is considered. It is advantageous to develop bearings which can be serviced without disassembling the units in which they are operating. The use of rollers enclosed in separators, hydraulic forcing and other measures and designs can eliminate unnecessary time loss on assembly and disassembly operations. Orig. art. has: 8 figures, 1 formula.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 004

Cord 2/2-*lo*



SIBIROV, P. P.

Sidorov, P. P. "Transfusions of blood, plasma, and serum in treating post-natal and post-abortion septic diseases", *Perelivniy- krovi*, Collection 3 (Izdatov), 1948, p. 102-06.

SC: U - 3042, 11 March 53, (letopis "Zhurnal "nykh Stety, No. 7, 1949)

SECRET, T. T.

Siuarov, P. P. "Birth trauma and its prophylaxis in the newborn" (Paper read at the joint in er-oblast meeting of the pediatricians of the South of the RSFSR and the obstetrician-gynecologists, 10 March 1948), Sbornik nauch. trudov (Rost. obl. nauch.-issled. akushersko-ginekol. In-t), Issue 8, 1948, p. 111-17.

SC: U-3261, 10 April 1953 (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

Siderov, P. P.

Siderov, P. P. and Nikol'skiy, V. V. "The study of vitamin B<sub>1</sub> as a pain-reducing and accelerating factor in normal labor", Sbornik nauch. trudov (Rost. obl. nauch.-issled. akushersko-ginekol. in-t), Issue 8, 1948, p. 118-26.

SC: U-3261, 10 April 1953 (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

SIDOROV, P.P. (Stalino)

Discussion on P.A.Beloshapko and V.M.Maliavinskii's article "Clinical aspects and conduct of the third (placental) stage of labor." *Akush.gin.* no.1:44-48 Ja-F '54. (MLRA 7:6)  
(Labor (Obstetrics)) (Beloshapko, P.A.) (Maliavinskii, V.M.)

SIDOROV, P.P.

Female pelvic fracture and its effects on the function of  
the sexual apparatus. Nov.khir.arkh. no.1:128 Ja-P '59.  
(MIRA 12:6)

1. Akushersko-ginekologicheskaya klinika Stalinskogo meditsin-  
skogo instituta.

(PELVIS--FRACTURE)

SIDOROV, P.P., [Sydorov, P.P.], prof.; MIROSHNICHENKO, V.P. [Miroshnychenko, V.P.]; KARPUSHIN, V.P. [Kerpushyn, V.P.]

Comparative characteristics of operations using obstetrical forceps under pupendal and ether inhalation anesthesia. Ped., akush. i gin. 23 no.6:4-47 '61. (MIRA 15:4)

1. Kafedra akusherstva i ginekologii (zav. - doktor med.nauk, prof. P.P.Sidorov [Sydorov, P.P.]) Donetskogo meditsinskogo instituta im. A.M.Gor'kogo (rektor - dotsent A.M.Ganichkin [Hanichkin, A.M.]) na baze klinicheskoy bol'nitsy im. M.I.Kalinina (glavnyy vrach - V.F.Zubko).

(ANESTHESIA IN OBSTETRICS)

Мирош П.П., проф., Т.С.СИННИ, к.и.н., канд. мед. наук

Prevention of post-natal haemorrhages in the third stage of labor in uterine inertia. Sov. med. 27 no.11:67-70 N 164. (MIKA 1977)

1. Akushersko-ginekologicheskaya klinika (zav. - prof. P.P.Sidorov)  
Dnepropetrovskogo meditsinskogo instituta na baze obshchestvoy i klinicheskoy  
polikliniki imeni Kalirina (glavnyy vrach V.F.Zubko), Dnepetrovsk.

SIDOROV, F. P.

Technology

(Formulation of a plan for organizational and technical measures in enterprises of river transport) Moskva, Izd-vo Ministerstva rechnogo flota SSSR, 1950.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.



LEONIDOV, Mikhail Fedorovich; SIDOROV, P.P., redaktor; KOBANOV, Ye.M.,  
redaktor; BOGOYAVLENSKIY, A.V., rezensent; KRASNAYA, A.K.,  
tekhnicheskiy redaktor

[Operating floating cranes in city harbors on a cost accounting  
basis] Iz opyta raboty plovuchikh kranov Gor'kovskogo porta na  
khozraschete. Moskva, Izd-vo "Rechnoi transport," 1955. 40 p.  
(Cranes, derricks, etc.) (MLBA 9:3)

SIDOROV, Pavel Petrovich; KALININ, B.A., retsenzent; ZOTOV, N.M., retsenzent;  
BRUNELLER, G.A., red.; KEERLIN, K.Z., red.izd-va; SALAZKOV, N.P.,  
tekhn.red.

[Ways of improving labor productivity in ship repairing and ship-  
building enterprises] Puti povysheniia proizvoditel'nosti truda v  
sudoremontnykh i sudostroitel'nykh predpriatiiakh. Moskva, Izd-vo  
"Rechnoi transport," 1957. 58 p. (MIRA 11:1)  
(Labor productivity) (Shipbuilding)

*S. I. SIDOROV P. F.*  
KALININ, Boris Arkhipovich; SIDOROV, P.P., red.; LOBANOV, Ye.M., red.izd-va;  
TSVETKOVA, S.V., tekhn.red.

[Development of maximum efficiency and production time standards  
in inland water transportations] Posobie po razrabotke tekhnicheskii  
obosnovannykh norm vyrabotki i vremeni na rechnom transporte. Moskva,  
Izd-vo "Rechnoi transport," 1957. 165 p. (MIRA 11:1)  
(Inland water transportation) (Labor productivity)

PROTASOV, Vasilii Semenovich, SIDOROV, Pavel Petrovich, KOLOMOYTSEV, V.P.  
retsenzent, GUREVICH, Sh.M., retsenzent, ARSEN'YEV, S.P., red.;  
IVANOV, L.A., red.; LOBANOV, Ye.M. red.izd-va.; YERMAKOVA, T.T.,  
tekh.n.red.

[Economics of river transportation] Ekonomika rechnogo transporta.  
Moskva, Izd-vo "Rechnoi transport," 1958. 321 p. (MIRA 11:9)  
(Inland water transportation)

YERMAKOV, Serafim Fedorovich; SIDOROV, P.P., red.; ARKHIPOV, Ye.Ye., re-  
tsenzent; LOBANOV, Ye.M., red. izd-va; BODROVA, V.A., tekhn. red.

[Guide to the establishment of norms for loading and unloading  
operations] Posobie normirovshchiku pogruzochno-rasgruzochnykh  
rabot. Moskva, Izd-vo "Rechnoi transport," 1961. 136 p.  
(MIRA 14:7)

(Loading and unloading)

GLAZKOV, Mikhail Mikhaylovich; YELISTRATOV, S.I., retsenzent;  
SIDOROV, P.P., red.; LOBANOV, Ye.M., red. izd-va;  
RIDNAYA, I.V., tekhn. red.

[Business accounting in a harbor section; from the work  
practice of the Moscow Western Harbor] Khozraschet uchastka  
porta; iz opyta raboty Moskovskogo Zapadnogo porta. Mo-  
skva, Izd-vo "Rechnoi transport," 1963. 37 p.

(MIRA 16:10)

(Moscow--Port districts--Finance)  
(Loading and unloading)

AMUSIN, Mikhail Davidovich, st. nauchn. sotr.; RUMYANTSEV, S.M.,  
red.; SIDOROV, P.P., red.

[River transportation during the completion period of the  
socialist reconstruction of the national economy of the  
U.S.S.R., 1933-1937] Rechnoi transport v period zavershe-  
niia sotsialisticheskoi rekonstruktsii narodnogo khoziaistva  
SSSR (1933-1937 godov). Moskva, Izd-vo "Rechnoi transport,"  
1963. 237 p. (MIRA 17:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut ekonomiki  
i ekspluatatsii vodnogo transporta (for Amusin).

SIDOROV, Pavel Petrovich, kand. ekon. nauk; KOVALEV, Aleksandr  
Ivanovich; Prinsipal uchastiye KANIBOLOTSKIY, F.P.;  
ARSEN'YEV, S.P., red.; DEMIN, A.M., red.

[Economics of river transportation; production economics,  
organization, and planning] Ekonomika rechnogo transporta;  
ekonomika, organizatsiia i planirovanie proizvodstva. Mo-  
skva, Transport, 1965. 283 p. (MIRA 18:5)



120-4-33/35

AUTHORS: Sidorov, P.S., Shapkin, A.A. and Dedov, V.B.

TITLE: An Automatic Fraction Collector (Automaticheskii kollektor fraktsiy)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.4, pp. 101 - 104 (USSR)

ABSTRACT: The article describes a simple apparatus for automatic collection of fractions based on the principle of registering falling liquid drops. The volumes of the collected fractions can be changed over a wide range of 1 to 50 drops. Normally, the collector collects up to 50 ml of the liquid. The apparatus consists of three interconnected parts: 1) a drop counter, consisting of a telephone selector switch; 2) a collector; 3) a platinum contact. The collector, consisting of a disc carrying the receivers, is fastened to the axis of a second selector switch. Fig. 1 shows the general view of the equipment. Each drop, as it falls, wets two platinum electrodes causing the counter circuits to operate. After a fixed number of drops, the counter gives a signal to change the receiver position. Electrolytic action is negligible ( $4 \mu\text{A}$  for  $10^{-3}$  sec). The electric circuit is described in Fig. 2. There are 2 figures and 3 non-Slavic references.

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SIDOROV, P.S.

BAIROV, Urkhan Khakimzhanovich; KRUTOVSKIKH, Nikolay Dmitriyevich;  
SIDOROV, Pavel Sidorovich; BOGOMOLOV, V.I., inzhener, retsenzent;  
BUBOK, K.G., redaktor; YEZDOKOVA, M.L., redaktor; EWENSON, I.M.  
tekhnicheskii redaktor

[Ventilating overheated sections in copper pyrite mines] Opyt  
provetrivaniia razogretykh uchastkov mednokolchodannykh shakht.  
Moskva, Gos.nauchno-tekhn.isd-vo lit-ry po cherno i tsvetnoi  
metallurgii, 1955. 46 p. (MLA 8:10)  
(Mine ventilation) (Chalcopyrites)

BAKIROV, U.Kh., gornyy inzhener; SIDOROV, P.S., gornyy inzhener

The ventilation of mining rooms. Gor. zhur. no. 5:40-44  
My '55. (MLRA 8:7)

(Mine ventilation)

YERMOLAYEV, A.A., inzhener; RYZHKOV, F.N., inzhener; SIDOROV, P.S., inzhener.

Experience in ventilating mines after large-scale explosions.  
Besop.truda v prom. 1 no.5:10-12 '57. (MLRA 10:7)

1. Unipromed' (for Yermolayev and Ryzhkov). 2. Degtyarskiy rudnik  
(for Sidorov).  
(Mine ventilation) (Mine explosions)

SIDOROV, R. I.

"An Investigation of the Composition of the Phenols of the Benzene and Kerosene Fractions in Tars of Baltic Oil Shale." Cand Chem Sci, Inst of Mineral Fuels, Acad Sci USSR, 23 Nov 54. (Vol. 12 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SC: Sum. No. 521, 2 Jun 55

SIDOROV, R.I.

Chromatographic separation of phenols of shale tar. Izv.Sib.  
otd.AN SSSR no.12:65-74 '59. (MIRA 13:5)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR.  
(Phenol) (Chromatographic analysis)

SIDOROV, R. I.; TROTSENKO, Z. P.

Study of the composition of industrial liquid-phase hydrogenates. Report No. 1: Composition of the broad fraction of a heavy oil liquid-phase hydrogenate of the moderate temperature tar from Cherekhovo coal. Trudy Vost.-Sib.fil.AN SSSR no.18:5-13 '59. (MIRA 12:10)

(Coal-tar products)

NIKOLAYEVA, D.Kh.; SIDOROV, R.I.

Study of the composition of industrial liquid-phase hydrogenates. Report No.2: Composition of the slime of the heavy-oil hydrogenate of the moderate temperature tar from Cherekhovo coal. Trudy Vost.-Sib.fil.AN SSSR no.18:14-20 '59.  
(MIRA 12:10)

(Coal-tar products)



SIDOROV, R.I.; NIKOLAYEVA, D.Kh.; TROTSSENKO, Z.P.

Study of the composition of industrial liquid-phase hydrogenates.  
Report No.3: Composition of the tar hydrogenate obtained at 450°.  
Trudy Vost.-Sib.fil.AN SSSR no.18:21-31 '59. (MIRA 12:10)  
(Coal-tar products)

SIDOROV, R. I.; TROTSENKO, Z. P.; NIKOLAYEVA, D. Kh.

Study of the composition of industrial liquid-phase hydrogenates.  
Report No.4: Composition of a hydrogenate of Cherekhovo coal.  
Trudy Vost.-Sib.fil.AN SSSR no.18:32-41 '59. (MIRA 12:10)  
(Coal-tar products)

KALECHITS, I.V. & SIDOROV, B.I.

Materials balance sheets of the liquid-phase hydrogenation of  
the tar of Cherenkhovo coal. Trudy Vost.-Sib. fil. AN SSSR no.18:  
42-48 '59. (MIRA 12:10)  
(Coal-tar products)

SIDOROV, R.I.

33602  
S/678/61/000/038/001/009  
A057/A126

11.0160

AUTHORS: Kalechits, I.V., Pavlova, K.A., Kaliberdo, L.M., Skvortsova, G.G., Bogdanova, T.A., Sidorov, R.I., Trotsenko, Z.P.

TITLE: On the chemism of transformations of bi-cyclic hydrocarbons under conditions of destructive hydrogenation

PERIODICAL: Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromatische-kikh uglevo-rodov v protsesse destruktivnoy gidrogenizatsii., 31 - 57

TEXT: Laboratory experiments on destructive hydrogenation of naphthalene, tetralin, and decalin were carried out under semi-industrial conditions in presence of industrial catalysts. The composition of the products obtained was classified, 17 single hydrocarbons were separated, and 11 more determined by spectrum analysis. It is shown that transformations of bi-cyclic hydrocarbons occur in the presence of tungsten catalysts and in vapor-phase processes preferably by consecutive hydrogenation isomerization, and final splitting. The transformations observed are explained by the carbenium-ionic theory.

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ory, and schemes for transformations of bi-cyclic hydrocarbons in vapor- and liquid-phase processes presented. In the present paper a discussion is presented of the problem of transformations of polycyclic hydrocarbons with a view of appropriate literature data. Among the problems to be solved is the question, whether a direct splitting of the ring is possible in hydrocarbons of the tetralin, tetrahydroanthracene, etc. type, or whether isomerization occurs before and which bonds and by what reasons are most easily split. This and related problems were investigated before. Experiments were carried out too, with a powdered Fe-semicoke catalyst at 470°C, 450 atm, 3 h and 10% catalyst. The products obtained were separated by fractional distillation, and the remainder chromatographically treated over silica gel [types MCM (MSM), or KCM (KSM)]. After separating methane-naphthenic and aromatic fractions, narrow cuts were prepared by fractional distillation. The cuts were specified by  $n_D^{20}$  and  $d_4^{20}$  values, and some also by Iaman spectra [taken on an KCH-51 (ISP-51) spectrograph]. The amount of cyclohexane and homologues, and of bicyclic hydrocarbons containing hexamethylene rings were determined by D.D. Zelinskiy's method of dehydrogenation catalysis. The content of paraffinic and monocyclic naphthenic hydrocarbons was determined by means of specific refraction  $R_p$  and molecular

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weight and nomograms. In fractions boiling above 144°C, the  $R_D$  value decreased, thus indicating the presence of bi-cyclic naphthenes. The authors assumed for these fractions: that 1) only a mixture of paraffinic and bicyclic naphthenes is present, or 2) only mono- and bicyclic naphthenes. A principal difference in the transformation mechanism of bicyclic hydrocarbons between liquid- and vapor-phase conditions can be seen by comparing the types of hydrocarbon groups in the hydrogenation products. Completely different occurs the vapor-phase hydrogenation in presence of tungsten catalysts. The isomerization process is much more intensive (twice as many products) than in liquid-phase hydrogenation, or without catalyst. The present experimental data, as well as those obtained in prior investigations (with other catalysts) can be explained by assuming the ionic mechanism. A partial occurrence of a radical mechanism is not excluded. There are 6 figures and 10 tables. ✓

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S/678/61/000/038/004/009  
A057/A126

AUTHORS: Sidorov, R.I., Trotsenko, Z.P., Nakhmanovich, A.S.

TITLE: Investigation of the composition of industrial liquid-phase hydrogenation products. Report 5. Investigations of the composition of mixtures of aromatic hydrocarbons of the liquid-phase hydrogenation products obtained from heavy oil of medium-temperature tar of Cheremkovo coal

PERIODICAL: Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromatischeskikh uglevodorodov v protsesse destruktivnoy gidrogenizatsii., 68 - 76 ✓

TEXT: Mixtures of aromatic hydrocarbons were investigated, separated from an industrial liquid-phase hydrogenation product of a heavy oil of medium-temperature coal tar from Cheremkovo, which was studied already in an earlier paper [Ref. 1: Trudy Vostochno-Sibirskogo filiala SO AN SSSR, Seriya khimicheskaya, 18, 5 (1959)]. The purpose was to determine the homologous series of

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aromatic hydrocarbons and their quantity in these mixtures. The mixtures were distilled on laboratory rectification columns, and the fractions obtained were specified by refraction indices, specific and molecular weight, by ultraviolet absorption spectra, and qualitative picric acid tests. Some fractions were identified by the n-d-M method (Van Nes - Van Westen's method). Tetralin was determined by N.D. Zelinskiy's dehydrogenation method. Tabulated results of 56 fractions of samples 1 - 3 show a content (in relation to the total neutral part of the product) of homologous series of: 7.7% benzene, 7.4% indane, 14.6% tetralin, and naphthalene. No compounds of the homologous series of diphenyl and cyclohexylbenzene could be observed. The fractions of sample 4 (boiling at 210 - 320°C) show a considerable complex composition. They contain a small amount (0.3%) of compounds of the benzene series, compounds with one aromatic and one naphthenic ring, compounds with two aromatic rings (among these naphthalene), and some with simultaneous two aromatic and one naphthenic ring (probably acenaphthenes, and possibly fluorenes). Fractions boiling above 320°C contain neutral oxygen compounds of a homologous series represented by the formula  $C_nH_{2n-18}O$ . By chromatographic separation of a fraction boiling at 420° - 520°C, an oxygen compound containing C - 87.6%, H - 6.26%, and O - 6.14%

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was isolated. Assuming also a single oxygen atom in the molecule, the authors suggest the formula  $C_nH_{2n-2}O$  for the homologous series. Thus, apparently, the latter belongs to the aforementioned type of oxygen compounds, but contains a fourth benzene ring. There are 1 figure and 3 tables.

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11.0120  
AUTHORS:

Sidorov, R.I., Nedel', M.M., Khvostikova, A.A., Ivanova, L.S.  
Kositsyna, E.I.

TITLE:

Investigation of the composition of industrial liquid-phase hydrogenation products. Report 6. Investigation of the composition of the gasoline fraction in the hydrogenation product of petroleum residues

PERIODICAL:

Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromatischeskikh uglevodorodov v protsesse destruktivnoy gidrogenizatsii., 77 - 86

TEXT:

The composition of the gasoline fraction obtained from a liquid-phase hydrogenation product from mazout of Ramashkin and Andizhan petroleum was investigated in order to improve the efficiency of hydrogenation plants. The amount of the gasoline fraction, separated by fractional distillation in a laboratory-scale column, was 26.1% of neutral oil, 0.67% (2.7% of the methane-naphthenic fraction) of which were hydrocarbons boiling at 20 - 50°C. The

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33605

8/678/61/000/038/005/009

A057/A126

Investigation of the composition of.....

latter contain 1.01% 2-methylbutane, 0.93% n-pentane, and 0.75% non-saturated hydrocarbons, or a small quantity of cyclopentane. Determinations by the GROZNI1 method [Abstracter's note: not described here] showed the following composition of the investigated gasoline: 8% non-saturated, 25% aromatic, 17.5% naphthenic, and 49.2% paraffinic hydrocarbons. The high content of aromatic hydrocarbons indicates the usefulness of this gasoline as automobile fuel. The single components in the methane-naphthenic fractions were separated also chromatographically on ИСМ (ShSM) 60 - 150 mesh silica gel, with 12 activity units. The final identification of each component was carried out by means of Raman spectra. 117 compounds, i.e. about 77% of the methane-naphthenic concentrate were identified and some regularities observed. It was observed that naphthenes contain only 12% compounds with quaternary carbon atoms, while paraffinic contain 29.0%. Naphthenes with quaternary atoms are apparently less stable in liquid-phase hydrogenations. Aromatic hydrocarbons were separated in the present study chromatographically and then by fractional distillation into 34 fractions. 14 compounds were identified by means of Raman spectra [on a ИСП-51 (ISP-51) device] and ultraviolet spectra [on a СФ-4 (SF-4) device]. The composition of the aromatic fraction indicates

Card 2/3

33606

S/678/61/000/038/006/009  
A057/A126

5.3300  
AUTHORS:

Sidorov, R.I., Nedel', M.M., Khvostikova, A.A., Ivanova, L.S.

TITLE:

Investigation of the composition of industrial liquid-phase hydrogenation products. Report 7. Investigation of the composition of the hydrogenation product obtained from petroleum residues

PERIODICAL:

Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromati-cheskikh uglevodorodov v protsesse destruktivnoy gidrogenizatsii., 87 - 94

TEXT:

Detailed investigations of liquid-phase hydrogenation products obtained under industrial conditions from petroleum residues are important for studying the chemism of these processes and for the exploitation of the products. Results obtained with hydrogenation products of a petroleum residue are presented and discussed in the present paper. By comparison of the present results with those obtained earlier with coal hydrogenation products, some conclusions can be drawn on the effect of the raw material composition

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A057/A126

Investigation of .....

on the yields. A wide fraction of the following composition was used: 91.9% neutral oil, 1.1% bases, 0.3% compounds extractable with 10% NaOH solution, 1.8% tarry compounds separated by treatment with acid and alkali, 1.5% sulphur, and 3.4% water losses. Only the composition of the neutral oil was investigated in the present experiments. The oil was separated by a laboratory-scale fractional distillation column, and the fractions were treated chromatographically on  $\text{MCM (ShSM)}$  silica gel. The obtained results demonstrate the considerable effect of the raw material on the yield. The aromatic fractions were investigated in details. The number of carbon atoms in side chains of the molecule of the aromatic hydrocarbons was calculated in an analogous way as suggested by N.R. Hazelwood [Ref. 5: *Analyt. Chem.*, 26, 1073 (1954)]. Calculations made by the Van Nes - Van Westen method gave contradictory results. Crystalline carbazole was found in the wide fraction of the petroleum residue hydrogenation product. A separation of the gasoline fraction is recommended. Another test, related to the effect of the composition of the raw material on the hydrogenation product, was made by chromatographic analysis (using  $\text{ShSM}$  silica gel) of a mazout obtained from Romashkin petroleum. The following conclusions can be drawn: An almost complete hydrogenation of

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A057/A126

Investigation of.....

nonsaturated hydrocarbons, conversion of nonhydrocarbons into hydrocarbons, cracking of hydrocarbons with long side chains, hydrogenation of aromatic polycyclic hydrocarbons to hydroaromatic ones with subsequent splitting of naphthenic rings, are resulting in the final product: hydrocarbons with one aromatic ring. These processes occur simultaneously and the relation in the quantity of final products corresponds to the composition of the raw material. There are 5 tables.

X

Card 3/3

33607

S/678/61/000/038/007/009  
A057/A126

53300  
AUTHORS:

Sidorov, R.I., Khvostikova, A.A., Nakhmanovich, A.S.,  
Shergina, N.I.

TITLE:

Investigation of the composition of industrial liquid-phase  
hydrogenation products. Report 8. Composition of highly con-  
densed aromatic hydrocarbons

PERIODICAL:

Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya  
khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromati-  
cheskikh uglevodorodov v protsesse destruktivnoy gidrogenizat-  
sii., 95 - 102

TEXT:

The composition of high-molecular aromatic hydrocarbons, pres-  
ent in a liquid-phase hydrogenation product obtained from medium-temperature  
semicoke tar, is investigated and the content of hydrocarbon "types" determined  
in the present paper, which is part of a series of reports. The investigation  
concerns a liquid-phase hydrogenation product obtained under industrial conditions  
from a heavy oil of medium-temperature tar of Cheremkovo coal. The product con-  
tained 4.6% water, 10.9% phenols, 2.4% bases and loss, and 82.1% neutral oil. ✓

Card 1/2

33608

S/678/61/000/038/008/009

A057/A126

5.3300  
AUTHOR:

Sidorov, R.I.

TITLE:

Investigation of the composition of industrial liquid-phase hydrogenation products. Report 9. The composition of aromatic hydrocarbons of a liquid-phase hydrogenation product obtained from medium-temperature tar of Cheremkovo coal

PERIODICAL:

Akademiya nauk SSSR. Vostochno-Sibirskiy filial. Trudy. Seriya khimicheskaya, no. 38, Moscow, 1961. Prevrashcheniya aromati-cheskikh uglevodorodov v protsesse destruktivnoy gidrogenizat-sii., 103 - 111

TEXT:

The purpose of this paper is to determine the "type" composition of aromatic hydrocarbons of a wide fraction of liquid-phase hydrogenation products from experimental data of present and earlier investigations. Some new results on the composition of high-boiling aromatic hydrocarbons are presented, and a procedure for determining the composition of higher boiling aromatic concentrates is described. It is shown that the Van-Nes - Van Westen n-d-M method

Card 1/2



SIDOROV, R.I.

Composition of concentrates of aromatic hydrocarbons of low  
molecular weight analyzed by the "type" of molecules. Trudy  
Vost.-Sib.fil.AN SSSR no.38:125-131 '61. (MIRA 15:4)  
(Hydrocarbons)

SIDOROV, R.I.

Graphic interpretation of the results of structural group analysis  
of aromatic hydrocarbon mixtures. Trudy Vost.-Sib.fil.AN SSSR  
no.38:132-141 '61. (MIRA 15:4)  
(Hydrocarbons)

VAABEL', A.S.; KALIBERDO, L.M.; SIDOROV, R.I.

Selecting a steady state for separation by means of gas-liquid chromatography of a mixture of oxygen compounds formed in the oxidation of propylene to propylene oxide. *Izv. SO AN SSSR no.7*  
Ser.khim.nauk no.2:86-92 '63. (MIRA 16:10)

1. Institut nefte- i uglekhimicheskogo sinteza Sibirskogo otdeleniya AN SSSR, Angarsk.

IVANOVA, L.S.; SHERGINA, N.I.; SIDOROV, R.I.

Composition of phenols of mean temperature Cheremkhovo coal tar investigated by the methods of spectrophotometric analysis and gas-liquid chromatography. Izv. SO AN SSSR no.11 Ser.khim.nauk no.3: 108-113 '63. (MIRA 17:3)

1. Institut nefte- i uglekhimicheskogo sinteza Sibirskogo otdeleniya AN SSSR, Angarsk.

IVANOVA, M.P.; SIDOROV, R.I.; KOSITYNA, E.I.; GOLOVANOVA, N.I.

Composition of the gasoline fraction of petroleum from the  
Markov field. Khim. i tekhn. topl. i masel 8 no.12:13-17 D '63.  
(MIRA 17:1)

1. Sibirskoye otdeleniye AN SSSR.

SIDOROV, R.I.; BABOSHIN, B.K.; RUDAKOV, G.A.

Investigating the composition of hydrocarbon terpene mixtures  
by the method of gas-liquid chromatography. Report No. 1:  
Studying conditions of the partition of terpenes. Gidroliz.  
i lesokhim. prom. 16 no.2:12-14 '63. (MIRA 16:6)

1. Institut nefte-i uglekhimicheskogo sinteza Sibirskogo  
otdeleniya AN SSSR.

(Terpenes)

(Chromatographic analysis)

SIDOROV, R.I.

Graphic interpretation of the results of structural-group  
analysis of mixtures of hydrocarbons. Trudy Khim. anal. khim. 13:  
68-78 '63. (MIRA 16:5)

1. Vostochno-Sibirskiy filial Sibirskogo otdeleniya AN SSSR.  
(Hydrocarbons)

BABOSHIN, B.K.; SIDOROV, R.I.; RUDAKOV, G.A.; NIKOLAYEVA, Z.K.;  
IVANOVA, L.S.

Investigating the composition of terpene carbohydrate mixtures  
by the method of gas-liquid chromatography. *Gidroliz. i*  
*lesokhim. prom.* 16 no.4:14-15 '63. (MIRA 16:7)

1. Institut nefte- i uglekhimicheskogo sinteza Sibirskogo  
otdeleniya AN SSSR.  
(Gas chromatography) (Terpenes—Analysis)





L 58856-65 EPF(c)/EWP(j)/EWT(m) Pc-4/Pr-4 RM

ACCESSION NR: AP5017979

UR/0065/65/000/007/0020/0023  
543.544

AUTHOR: Sidorov, R. I.; Denisenko, A. II.; Ivanova, M. P.; Polyakova, L. A.;  
Agapova, I. N.

23  
B

TITLE: Determination of the concentration of aromatic hydrocarbons in petroleum fractions by gas-liquid chromatography

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 7, 1965, 20-23

TOPIC TAGS: aromatic, paraffin, hydrocarbon, petroleum, gas-liquid chromatography

ABSTRACT: Adipic ester of polyethylene glycol, di- $\beta$ -cyanethyl ester of ethylene glycol, tri- $\beta$ -cyanethyl ester of glycerin, tetra- $\beta$ -cyanethyl ester of pentaerythrite, and  $\beta, \beta'$ -oxydipropionitrile were used as stationary phases in a study of chromatographic determination of paraffinic, naphthenic, and aromatic hydrocarbon groups in 150°-250°C petroleum fractions. Selectivities of these stationary phases in separation of *n*-paraffins from aromatics in the 25°-180°C range varied from 7.7 to 21.5%. No separation of an individual compound within each group of compounds can be achieved with either one of these stationary phases. Concentration of aro-

Card 1/2

L 58856-65

ACCESSION NR: AP5017979

omatics in petroleum fractions can be best determined using tetra- $\beta$ -cyanethyl ester of pentaerythrite. Orig. art. has: 3 tables, 3 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: GC

NO REF SOV: 001

OTHER: 000

*hjp*  
Card 2/2

SIDOROV, R.I.; KHVOSTIKOVA, A.A.

Treatment of the INZ-600 solid carrier for gas-liquid chromatography.  
Zhur. anal. khim. 20 no.7:898-899 '65. (MIRA 18:9)

1. Irkutsk State University.

СВОБОДЫ, К. П. И. РАВЕНСТВА,

Principle of a relative polarity of stationary phases during  
the separation of complex mixtures of phenols in gas-liquid  
chromatography. Izv. AN SSSR no. 7 Ser. Khim. nauk no. 2: 101-  
108, 1964. (MIRA 18:122)

Institut' nafto- i ugol'noy khimii sibirskogo  
otdeleniya AN SSSR, Novosibirsk. Submitted April 20, 1964.

MELIK-ASLANOV, A.S.; SIDOROV, S.A.; MIRZADZHANZADE, A., red.

[Sand-jet method for perforating wells and drilling-in]  
Gidropeskostruinyi metod perforatsii skvazhin i vskrytie  
plasta. Baku, Azerneshr, 1964. 115 p. (MIRA 18:2)

SIDOROV, S.I.

Automation of branched conveyor lines on the surface of salt mine  
No.3. Sbor.nauch.trud.UkrNIISol' no.6:54-62 '62. (MIRA 17:3)

MIKHAYLOV, V.G.; KRAPIVIN, M.G.; SIDOROV, S.I.

Study of cutters and conditions of drilling with manual electric  
drills. Sbor.nauch.trud.UkrNIISol' no.6:52-54 '62. (MIRA 17:3)



OSTROUKHOV, I.V.; SIDOROV, S.I. ...

Prospects of using self-propelled equipment in salt mines. Gor.  
zhur. no.4:22-25 Ap '64. (MIRA 17:4)

1. Ukrainskiy nauchno-issledovatel'skiy institut solyanoy  
promyshlennosti, g. Artemovsk.

CONTRIBUTOR, I.W. ...; BILGROW, S.I.

The ... for mining salt. Mexh. ... (MIRA 1979)

SEBOROV, S.I.; NIKHAPOV, V.G.; KRAPCHIN, M.G.

Drilling holes in rock salt using electric drills with mechanical  
feed. Sbor. mash. trud. UkhNII Sol' no. 7:48-58 '64  
(NIRA 18:1)

Investigations to determine the basic parameters of long-stroke  
drills for the drilling of rock salt. Ibid.:58-69

SEYOBANKO, I. N., izdat.: SEYOBANKO, S. I., 1944.

The SBU-28 unit for boring holes in rock salts. Mekh. i avt. proizv.  
18 no. 3:20-21 - 1964. (MIRA 17:10)

OSTRICHNIKOV, I.V.; GILGROV, S.I.

... using the operating element of the SP-77 combine for the  
development of dark-colored crude salt in Kalkaman Bol'shoy  
Lake. Sber. nauch. truz. UkrNIISol' no.7:77-82 '64  
(MIRA 18:1)

... .., inzh.; VAGORONNI, ... .., zam. ... ..

collection and automatic calculation of conditions of rotary motion  
in cart. Sov. fiz. ucheb. zap.; Ser. fiz. 8 m. 1977-1978. 185.  
(SMA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sojuznyy pro-  
duktivnosti i razvitiya. 2. Novosibirskiy ordena Trudovogo  
Krasnogo Znameni politekhnicheskii institut imeni S. Ordzhonikidze  
Uchebno-nauchnyy tsentr. 3. Rekomendovana Katedroy gornoy elektromekhaniki  
i avtomatizatsii proizvodstvennykh protsessov v gornoy promyshlennosti  
Novosibirskogo ordena Trudovogo Krasnogo Znameni politekh-  
nicheskogo instituta imeni S. Ordzhonikidze.

SIDOROV, S.K.

Quality of fiberboard. Eum.prom. 36 no.5:14-15 My '61.  
(MIRA 14:5)

1. Glavnyy inzh.Mariyskogo kombinata.  
(Hardboard)

SIDOROV, S.K.; DOROSHENKO, A.V.

Dependence of the mean magnetic moment of the alloy atom on the manganese content in disordered nickel manganese alloys. Fiz. met. i metalloved. 18 no.6:811-820 D '64.

(MIRA 18:3)

1. Institut fiziki metallov AN SSSR.



CA

2

Magnetic susceptibility of vapors of some organic substances. Ya. Shur and S. Sokorov. *Nature* 137, 317 (1936); cf. Ya. Yanus and Ya. Shur, *Comp. rend. acad. sci. U. S. S. R.*, 465(1934); cf. *C. A.* 28, 6036<sup>1</sup>; 29, 6116<sup>1</sup>.—C<sub>6</sub>H<sub>6</sub> has the same magnetic susceptibility in the liquid and vapor states. Identical results were previously obtained with C<sub>6</sub>H<sub>6</sub>. Evidently org. compds. do not change in magnetic susceptibility when passing from the liquid to the vapor state (cf. Vaidyanathan, *C. A.* 22, 17; Rao and Varadachari, *C. A.* 30, 970<sup>1</sup>). G. M. P.

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

SECTION ONE

SECTION TWO

SECTION THREE

SECTION FOUR

SECTION FIVE

SECTION SIX

SECTION SEVEN

SECTION EIGHT

SECTION NINE

SECTION TEN

SECTION ELEVEN

SECTION TWELVE

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SECTION FIFTEEN

SECTION SIXTEEN

SECTION SEVENTEEN

SECTION EIGHTEEN

SECTION NINETEEN

SECTION TWENTY

SECTION TWENTY ONE

SECTION TWENTY TWO

SECTION TWENTY THREE

SECTION TWENTY FOUR

SECTION TWENTY FIVE

SECTION TWENTY SIX

SECTION TWENTY SEVEN

SECTION TWENTY EIGHT

SECTION TWENTY NINE

SECTION THIRTY

1ST AND 2ND ORDER      3RD AND 4TH ORDER

PROCESSES AND PROPERTIES INDEX

2

CA

The state of the nickel atom in the gamma-phase of the nickel-silica system. Ya. I. Davletov and S. Sidman. *Compt. rend. acad. sci. U. R. S. S. 10, 381-2(1958)* (in English).—A special improved horizontal Wehn-type magnetic balance was used to det. the magnetic moment of the Ni atom in a series of Ni-Si alloys. The  $\gamma$ -phase in the alloys showed a high diamagnetism, indicating that the magnetic moment of the Ni atom is 0. The Ni atom must then be in the  $4S$  state. T. H. Danksberger

COMMON SUBJECT INDEX

1ST AND 2ND ORDER

3RD AND 4TH ORDER

ABSTRACTS METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDER

3RD AND 4TH ORDER

1ST AND 2ND ORDER

3RD AND 4TH ORDER

PROCESSES AND PROPERTIES INDEX

2

*Ca*

State of the nickel atom in the  $\gamma$ -phase of a nickel-cobalt alloy. Ya. G. Dar'yan and S. K. Shabanov. *J. Exptl. Theoret. Phys. (U. S. S. R.)* 9, 26-27(1968).—Theoretical

atoms of pure degassed Zn and Ni were heated together in vacuo for 16 hrs. at 1000°, then for 3 days at 750°. The crystal lattice then had a parameter  $a = 0.364$  Å. Like other  $\gamma$ -alloys, the NiZn as obtained is strongly dia-

magnetic;  $\chi \times 10^4 = -0.208$  for 20.26% Ni; 0.348 for 18.7 and 0.688 for 16.1% Ni. On heating from 20 to 220° the  $\chi$  values change, resp., to 0.31, 0.25 and 0.61; the nos. of electrons per atom  $\sigma$ , resp., 1.865, 1.627 and 1.676. D. and S. conclude that in the  $\gamma$ -phase alloy, the Ni atom is neutral and in the  $\delta$  state; the Hume-Rothery rule is applicable. The pertinent magnetic balances with photo-circ. registrations are described. Cf. also C. A. 33, 8239. F. H. Rathmann

METALLURGICAL LITERATURE CLASSIFICATION

62

SEARCHED INDEXED SERIALIZED FILED

MAY 1968

LIST AND THE ORDER) PROCESSED AND PROPERTY MARK

Hall effect in an AuCu<sub>3</sub> alloy in and out of the orderly condition. A. Koman and M. Simonyi (Compt. rend. Acad. Sci. U.R.S.S., 1950, 23, 143-144).—It has been predicted theoretically that the magnitude of the Hall effect in alloys should change at an order-disorder transition. This has been confirmed experimentally for AuCu<sub>3</sub>, a three-fold change in the Hall const. being observed. J. A. K.

METALLURGICAL LITERATURE CLASSIFICATION

SIGNATURE

Met Qbs  
V.9

Properties of Alloys

\*The Arrangement of Atoms in the Alloy AuCu<sub>3</sub> and the Hall Coefficient.  
A. Komar and S. Selyov (U.S.S.R.), 1911, 4, 102, (1911), (1911), (1911)  
[Encl.]. See abstract from a Russian source; Met. Abs. 1911, p. 8.

CA

9

Distribution of atoms in the AuCu<sub>3</sub> alloy and the Hall constant. A. Komar and S. Sidorov. *J. Tech. Phys.* (U. S. S. R.) 11, 711 (1941). - The alloy was prepd. by melting the pure metals, homogenized at 880° 10 hrs., tempering at 380°, 395°, 381°, 381° (2 hrs., then quenching in water) gave sp. resistivity  $\rho$  approx. const. 11.3 ohm. cm., Hall const.  $R = -0.01 \times 10^{-6}$  magnetic (g. s. units approx. const.). (2) Tempering at 379° 1 hrs. gave  $\rho = 7.85$ ,  $R = -0.01 \times 10^{-6}$ . (3) On tempering at 377° to 410° (20 to 60 hrs.)  $\rho$  slightly decreases with lower temp.,  $R$  positive, rising to  $+172 \times 10^{-6}$  for 350°, 24 hrs.,  $\rho = 0.005$ . (4) With a second sample, numerically slightly different, but analogous results were obtained. The inversion temp., corresponding to the disorder-order transition, lies at about 380°, with  $R$  changing from negative to positive. Such a behavior of  $R$  had to be expected at the transition to ordered distribution of the alloying atoms, in view of the superzones intersection with the Fermi distribution surfaces (cf. C. A. 33, 4179; 34, 2987). The thermoelec. e. m. f. of the couple Ni-AuCu<sub>3</sub> diminishes with increasing degree of ordering (cf. C. A. 33, 6213).

ASB 334 METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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SIDOROV, S. K.

The Effect of Regularization on Hall's Effect in Alloys.

Ural Industrial Institute imeni Kirov, Sverdlovsk, 1943.

SO: U-1837, 14 April 52.

137 AND 138 ORDERS PROCESSING AND PROPERTIES INDEX 137 AND 138 ORDERS

M

\*The effect of the ordering of the atoms on the Hall Effect in the Alloys AuCu<sub>3</sub> and AuCu. S. Sidorov (*Zhur. Eksp. i Teoret. Fiziki*, 1944, 10, (6), 503-512).—(In Russian). In the alloy AuCu<sub>3</sub>, Hall's const. varies from the value  $R = -645 \times 10^{-9}$  c.g.s.m. for the disordered state, through zero to  $R = +326 \times 10^{-9}$  c.g.s.m. for a degree of order approaching unity. In the alloy AuCu the variation of Hall's const. and electrical resistance with degree of ordering has a stepped character, which is connected with the existence of the stable intermediate phase AuCu II. In the transition from disorder to order, Hall's const. changes from  $-739 \times 10^{-9}$  to  $+362 \times 10^{-9}$  c.g.s.m. Hall's const. measured at liquid-nitrogen temp. differs little from the value at room temp. The relationship between Hall's const. and annealing temp. (for ordering) is explained by the distortion of the Fermi surface owing to the appearance of extra zones during ordering. Hall's const. for AuCu<sub>3</sub> and AuCu in the disordered state varies linearly with the composition of the alloys. A simple relationship has been established between Hall's const. and electrical resistance for the ordered alloys investigated.—N. A.

Citation

CLASSIFICATION

454-514 METALLURGICAL LITERATURE CLASSIFICATION

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CLASS. NO. 44

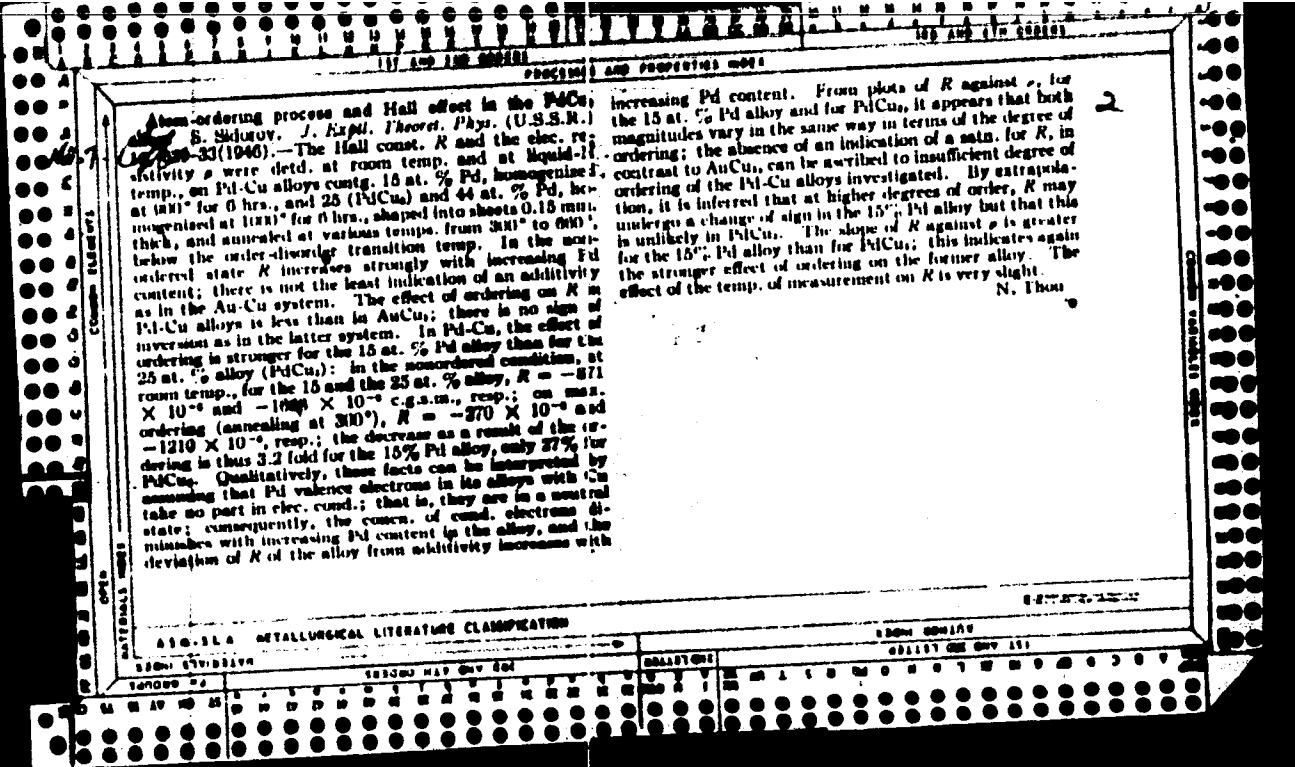
SEARCHED - INDEXED

SERIALIZED

1944 02-179

01.187 001 004 111





PA 36T88

USSR/Physics Sep/Oct 1947

Alloys  
Galvanomagnetic Phenomena

"Electromagnetic Properties of Some Stable Alloys,"  
S. K. Bidorov, Institute of Physics of Metals, Ural  
Branch, Academy of Sciences of the USSR, 6 1/2 pp  
"Izv Ak Nauk, Ser Fizich" Vol II, No 5

The study of the electromagnetic properties of stable alloys is interesting from two standpoints: 1) a measurement of the properties permits a quantitative determination of the number of electrons in the lattice of the alloy, and 2) results of such a study can be utilized for the theory of electromagnetic properties

IC 36T88

USSR/Physics (Cont'd) Sep/Oct 1947

Article discusses the results which were obtained by measuring Hall's effect, and also the changes in electrical resistance in transverse magnetic fields. Experiments were conducted on Au-Cu<sub>2</sub>, Cu-Pd, and Au-Cu alloys.

STDCRCV, S. K.

IC

36T88

SIDOROV, S. K.

PA 61226

**USSR/Electronics**  
**Electromagnets**  
**Magnetic Measurements**

Jan 1948

"A Compact Electromagnet," S. K. Sidorov, Inst Phys  
of Metals, Ural Br, Acad Sci USSR, 1 1/2 pp

"Zavod Labor" Vol XIV, No 1

Describes an easily and economically produced compact  
electromagnet, which permits measurement of magnetic  
and galvanomagnetic properties at room temperature as  
well as at temperatures at which nitrogen boils.

61226

SIDOROV, S.K.; DOROSHENKO, A.V.

Dependence of the magnetization of nickel-manganese alloys  
on the composition and order in the distribution of atoms.  
Fiz. met. i metalloved 20 no.1:44-54 J1 '65. (MIRA 18:11)

1. Institut fiziki metallov AN SSSR.

L 07099-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6029110

SOURCE CODE: UR/0048/66/030/006/0968/0971

AUTHOR: Klyushin, V.V.; Sidorov, S.K.; Kelarev, V.V.; Getman, I.Ya.; Arkhipov, V.Ye. 13  
B

ORG: Institute of Metal Physics, Academy of Sciences of the SSSR (Institut fiziki metallov Akademii nauk SSSR)

TITLE: Antiferro-ferromagnetic phase transition in the  $Fe(Pt_xPd_{1-x})_3$  system [Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk] III

SOURCE: AN SSSR, Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 968-971

TOPIC TAGS: phase transition, ordered alloy, electric resistance, spontaneous magnetization, coercive force, iron alloy, platinum alloy, palladium alloy

ABSTRACT: The  $Fe(Pt_xPd_{1-x})_3$  system was selected for investigation in view of its suitability for study of the behavior of the antiferromagnetic-ferromagnetic phase transition. The end compositions  $FePt_3$  and  $FePd_3$  are binary alloys with known properties, which become ordered ( $AuCu_3$  type ordering) at 710 and 820°C, respectively. The mixed ternary alloys (with 25 atomic percent iron) are also characterized by  $AuCu_3$  type ordering. The investigated compositions are tabulated (16 different specimens); the specimen preparation procedure and the resistivity measurement method were the same as described by V.V.Klyushin, I.Ya.Getman, V.N.Zubankov, and V.V.Kelarev (Fiz. metallov i metallovedeniye, 21, 153, 1966). The temperatures of the phase

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ACC NR: AP6029110

transitions were determined from the anomalies in the temperature dependences of the electric resistivity. Also measured were the values of the spontaneous magnetization and the coercive force. These were determined by means of a vibrating magnetometer to within 3% for rod specimens. The composition dependences of the Neel and Curie points, the magnetic moment and the coercive force are presented in figures. A radical change or break in the curves is evinced in the region of 37 to 50 atomic percent Pd. The results and specifically the probable character of the antiferromagnetic phase transition are discussed at some length. It is concluded that the transition is realized by the process described by S.K.Sidorov and A.V.Doroshenko (Fiz. metallov i metallovedeniye, 18, 811, 1964), involving gradual rotation of the magnetic moments in the entire volume of the specimen or appearance of ferromagnetic phase nuclei in the antiferromagnetic phase and the growth of these nuclei. Which of these mechanisms predominates will be determined in further studies. Orig. art. has: 1 table and 2 figures.

SUB CODE: 20,07

SUBM DATE: 00

ORIG. REF: 005

OTH REF: .007

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*bdh*

SIDOROV, S. M.

2703. SIDOROV, S. M. Samoproizvol'nyy karyy Selozhenki, Zdravookhraneniye  
Kazakhstan, 1948, No 7, s. 45-47.

SO: Letopis' Shermal'nykh Staley, Vol. 7, 1949

*spontaneous rupture of the yolk sac*

11777, . . .

21347 СИНОВ, Л. Л. К вопросу о "Золотой смерти". Здравоохранение Казахстана, 1949, No. 3, S. 36-38.

SC: Litoia, No. 31, 1949.

*question of golden death - epidemic typhus health*



SIDOROV, S. II.

- 34.38. Itogi pervogo respublikanskogo soveshchaniya Sudojno-meditsinskih ekspertov i pervoy sessii nauchnogo obshchestva sudobnykh medikov i kriminalistov kazakhskoy SSR (Alma-Ata). Zdravookhraneniye kazakhstana, 1949, No. 5, s. 45-48.

*Results of the First Republic Conference of Legal Medical Experts and the First Session of the Scientific Society of Legal Medicine and Criminology in Kazakh SSR.*

SO: Kazhnaya Letopis' No. 6, ~~1955~~ 1949

38299 SIDOROV, S. M. and SIDOROVA, L. I.

○  
Mozhet li primenyat'sya sul'fat-anabazin kak protivouksusnoye sredstvo? Zdravookhraneniye Kazakhstana, 1949, No 6, s. 22-24

*How sulphate can become the ability to function as an anti-oxidant agent?*

USSR/Human and Animal Morphology - Formative Elements.

R-4

Abs Jour : Referat Zhur - Biologii, 1957, No 16, 70577

Author : Sidorov, S.M.

Title : A New Test for Carboxyhemoglobin Determination.

Orig Pub : Sb. nauch. rabot po sudob. med. i pogramich. obl No 2, M. Medis., 1955, 191-193

Abstract : A new convenient test for HbCO, can be done with a small qu. of blood under any condition of lego-medicinal work. 1ml of blood is diluted 10-fold with dist. H<sub>2</sub>O. To 2 m. of this solu. is added 3-5 drops 20% solution of ferrocyanidoyellow (blood-salt), and then 3-5 drops of 0.01% solution of potassium bichromate. Mix lightly. A positive reaction for HbCO gives a carmine-red color after 20-40 sec. Normal blood treated similarly assumes a brownishgreen color. After standing, red colored flakes settle at the bottom of the test-tube in the first case, and brownishgray in the second. In a positive reaction

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... in the blood, whereas the reactions of HoppeZeiler, Kawayama, Vachholz, does not show

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SIDOROV, S.M.; MOLOTOV, B.V.

Objective method for the fixation of additional traces of a gunshot.  
Sud.-med.ekspert. 3 no.4:54-56 O-D '60. (MIRA 13:11)

1. Byuro Glavnoy sudebno-meditsinskoy ekspertizy (nach. - prof. S.M.Sidorov) Ministerstva zdravookhraneniya Kazakhskoy SSR.  
(PHOTOGRAPHY, BALLISTIC)

SIDOROV, S.M., prof.; MARKAR'YAN, O.M.

Case of closed traumatic rupture of the heart. Sud.-med. ekspert.  
4 no.4:54 O-N-D '61. (MIRA 14:12)

1. Byuro Glavnoy sudebnomeditsinskoy ekspertizy (nachal'nik - prof.  
S.M. Sidorov) Ministerstva zdravookhraneniya Kazakhskoy SSR.  
(HEART...RUPTURE)

SIDOROV, S.M.; MOLOTOV, B.V.

Study of lesions inflicted with blunt objects with a rounded surface. Sud.med. ekspert. 6 no.4:51-53 O-D'63 (MIRA 16:12)

1. Byuro Glavnoy sudebno-meditzinskoy ekspertizy (nachal'nik; prof. S.M. Sidorov) Ministerstva zdravookhraneniya KazSSR.

SIDOROV, S.M.

Small turbine motor for high-speed photographic recording equipment.  
Usp.nauch.fot. 6:116-120 '59. (MIRA 13:6)  
(Photography, High-speed--Equipment and supplies)  
(Photographic optics)  
(Turbines)

37131

S/122/62/000/004/003/006  
D221/D302

26.2/23

AUTHOR: Sidorov, S.N., Engineer

TITLE: High-speed small-size sliding bearings with an elastic support

PERIODICAL: Vestnik mashinostroyeniya, no. 4, 1962, 27 - 29

TEXT: The life of high speed bearings is determined by the parameter  $dn$ , where  $d$  is the diameter of the journal, in mm;  $n$  is the RPM. In conditions of fluid lubrication this coefficient is limited to 180,000 - 200,000 mm r.p.m., which corresponds to a peripheral speed of 10 - 12 m/sec. Further improvement may be attained by reducing the shaft diameter. Unbalance of the rotor causes however a relative displacement of its center of gravity with respect to the axis of rotation. This produces important dynamic loads which result in forces acting on the bearings. The axis of the rotor then describes a cone with its apex at the center of gravity, and harmonic vibrations will be generated. The system has many degrees of freedom with amplitudes difficult to compute. The author introduces

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High-speed small-size sliding ...

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some simplifications so as to enable the amplitudes to be analyzed and deduces the equation of the forced vibrations. The rotor oscillations were recorded by an oscillograph with a 160 magnification. The ФП -10 (FP-10) recorder employed a speed of 40 m/sec for the film. The above permitted the discernment of two components in the vibrations: One of low frequency determining the precession of the rotor, and the other which characterizes the nutation of its axis. The bearing is provided with pressure lubrication fed through two diametrically opposite holes. This separates the journal from the bearing. The damping is ensured by oil-resistant rubber rings. The journals are made of carbide rods, BK 15 (VK15). Results of the investigations are quoted, as well as the method of calculating small high-speed units. The experiments have confirmed the validity of this procedure. There are 5 figures and 7 Soviet-bloc references. X

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BELOV, A.I.; IVANOV, K.I.; KLOCHKO, N.A.; SIDOROV, S.F.; USHKOV, N.N.;  
YARMAK, M.F.

Ways of improving bits for BA-100 air percussion drilling rigs.  
Vzryv. delo no. 46/3:232-233 '61. (MIRA 15:1)  
(Boring machinery)

SIDOROV, S.S.

Hydrothermal metamorphism of rocks in a postvolcanic process  
as revealed by a study made in the Ebeko Volcano (Kurile Islands).  
Dokl. AN SSSR 154 no. 3:619-620 Ja '64. (MIRA 17:5)

1. Sakhalinskiy kompleksnyy nauchno-issledovatel'skiy institut  
Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom V.S.  
Sobolevym.

KIRSANOV, I.T.; SERAFIMOVA, Ye.K.; SIDOROV, S.S.; TRUBENKO, V.F.;  
FARBEROV, A.I.; FEDORCHENKO, V.A.; SHILOV, V.N.

Eruption of the Ebeko Volcano from March to April, 1963.  
Biul. vulk. sta. no.36:65-72 '64. (MIRA 17:9)