PANOVA, G. D.

USSR/Chemistry - Polarographic analysis

Card 1/1 Pub. 22 - 16/45

Authors : Ryabov, A. V., and Panova, G. D.

Title : Polarographic analysis of unsaturated organic compounds

Periodical : Dok. AN SSSR 99/4, 547-549, Dec 1, 1954

Abstract : The application of the polarographic method during the analysis of unsaturated organic compounds is discussed. The polarographic analysis method was applied in the study of gaseous unsaturated-compounds - ethylene, propylene, n-butylene, vinyl chloride, etc. - as well as liquid unsaturated-compounds - allyl alcohol, dichloroethylene, methylmethacrylate, methacrylic acid, butylacrylate, butylmethacrylate, etc. The results obtained are tabulated. Two USSR references (1948 and 1949). Tables.

Institution : State University, Gorkiy

Presented by: Academician A. N. Frumkin, June 26, 1954

PANOVA, G. D.

USSR.

Polarographic reduction of dibromoethane and chloro-1,2-dibromoethane—bromination products of ethylene and vinyl chloride. A. V. Ryabov, G. D. Panova, and L. I. [illegible] (Uchenye Zapiski Gor'kov. Gosudarst. Univ. 1953, No. 24, 81-9; Referat. Zhur., Khim. 1954, No. 22213).—The reduction of dibromoethane (I) and chloro-1,2-dibromoethane (II) formed during bromination of C_2H_4 (III) and vinyl chloride (IV) with Br-H_2O contg. 6% MeOH and satd. with NaBr was studied at a dropping Hg cathode. I and II were reduced polarographically; $E_{1/2}$ was −1.6[illegible] V., resp., regardless of the pH. The calcd. values of the coeff. a in $E = E_{1/2} - (0.059/a) \log i/(i_d - i)$ were for I [illegible] and for II 0.34; thus, the reduction of I and II was irreversible. A mixt. of I and II and correspondingly III and IV could be analyzed polarographically. The method consisted of absorbing the gaseous product in Br-H_2O, combining the excess Br with a 3% soln. of NH_3, and analyzing the soln. polarographically. The max. was depressed by an addn. of 0.02% gelatin. In alk. soln. II was hydrolyzed noticeably. M. Hosch

L 5326-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JW/GG

ACCESSION NR: AP5021109 UR/0056/65/049/002/0456/0458

103
73
8

AUTHORS: Panova, G. Kh.; 44,55 Samoylov, B. N. 44,55

TITLE: Experimental detection of an anomaly in the specific heat of a metal with heavy impurity atoms

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 2, 1965, 456-458

TOPIC TAGS: specific heat, magnesium, solid solution, lead containing alloy, crystal impurity, Debye temperature 31,44,55

ABSTRACT: An anomaly in the behavior of the specific heat, predicted in general form by Yu. Kagan and Ya. Iosilevskiy (ZhETF v. 45, 819, 1963) for crystals containing heavy impurity atoms, was detected experimentally in the alloy MgPb (2.8 atomic per cent Pb). The measurements were carried out on polycrystalline samples of pure Mg and of the alloy, which was a substitutional solid solution with hexagonal lattice, similar in its parameters to the Mg lattice. The measurements were made on cylindrical samples 50 mm in diameter and

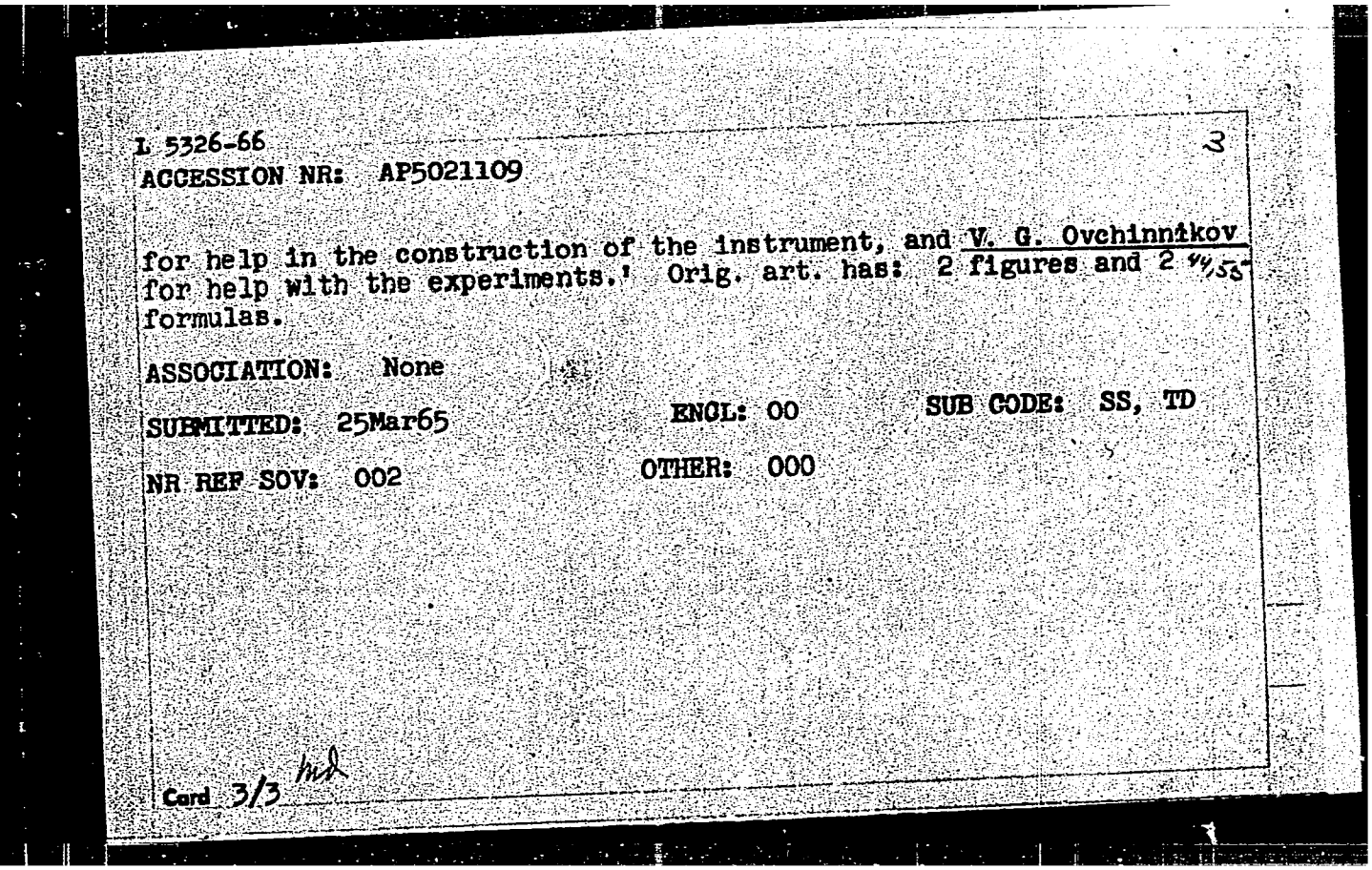
Card 1/3 0901 1102

L 5326-66 27

ACCESSION NR: AP5021109

50 cm long, using an adiabatic calorimeter. The measurement procedure is described in detail. The measurements were made in the temperature range 1.2 -- 20K. From a study of the obtained plots of the specific heat against the temperature, the authors calculate the coefficients of the electronic specific heat and the Debye temperature which are found to be respectively 1.31 millijoule/mole-deg^2 and 311 ± 10K for Mg and 1.11 millijoule/mole-deg^2 for MgPb. A plot of the relative specific heat against the ratio of the temperature to the Debye temperature shows the former to have a maximum near 10.6K. The results thus confirm the effect observed by Kagan and Iosilevskiy. Small additions of a heavy impurity in a light lattice changed the specific heat of the crystal lattice very strongly, with 2.8 atomic per cent of Pb leading to a doubling of the specific heat at 10.6K. The authors thank Yu. Kagan and N. A. Chernoplekov for useful discussions and continuous interest in the work, M. N. Andriyanov, V. A. Zinov'yev, V. I. Kutaytsev, and N. T. Chebotarev for preparing and analyzing the samples, N. P. Orlov and D. N. Astrov for supplying the graduated semiconductor thermometer, V. Ye. Keylin

Card 2/3



L 5326-66 3
ACCESSION NR: AP5021109

for help in the construction of the instrument, and V. G. Ovchinnikov for help with the experiments.' Orig. art. has: 2 figures and 2 formulas.

ASSOCIATION: None

SUBMITTED: 25Mar65 ENCL: 00 SUB CODE: SS, TD

NR REF SOV: 002 OTHER: 000

Card 3/3 hdl

PANOVA, G.Kh.; SEKOYAN, S.S.; VERESHCHAGIN, L.F.

Bismuth phase diagram at pressures up to 100,000 kg/cm^2 and a temperature of 500° C. Fiz. met. i metalloved. 11 no. 2:215-219 F '61. (MIRA 14:5)

1. Institut fiziki vysokikh davleniy.
(Bismuth—Thermal properties) (Phase rule and equilibrium)

18 9200 1145, 1147, 1045 also 2108 S/126/61/011/002/005/025
24 2130 1035, 1043, 1164 E021/E435

AUTHORS: Panova, G.Kh., Sekoyan, S.S. and Vereshchagin, L.F.

TITLE: Phase Diagram of Bismuth at Pressures and Temperatures up to 100000 kg/cm^2 and 500°C

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.11, No.2, pp.215-219

TEXT: The p-T phase diagram for bismuth had been investigated up to 100000 kg/cm^2 and 500°C in order to compare the results with other authors. The pressure equipment will be described in a later paper. A bismuth wire, 0.5 mm diameter, was placed in a container. The medium for transmitting the pressure was silver chloride which gives a quasi-hydrostatic pressure up to high pressures. The sample was heated by an electric current. The pressure in the container was determined from the force developed by the press. The apparatus was calibrated from the known polymorphic transformations of bismuth (24800 and 27000 kg/cm^2) thallium (43400 kg/cm^2) and barium (77400 kg/cm^2). The temperature was determined by the integral electrical power received by the wire after establishing that, with constant geometry of the sample

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S/126/61/011/002/005/025
E021/E435

Phase Diagram of ...

and constant thermal conductivity of the surrounding medium, the temperature of the middle of the sample was linearly proportional to the power and practically did not change with change in specific heat conductivity of the investigated sample or with pressure. This was done using different metals at various pressures. This method gave a temperature measurement with an accuracy of $\pm$ 5 - 10°C and eliminated the disadvantage of using electrical leads required for other methods of measurement. In the investigations of the phase diagrams of bismuth, polymorphic transformations were detected by means of the rapid changes in the electrical resistance of the sample. The relation between the resistance R (ohms) and the power W (watts) received by the sample was established and Fig.4 shows some of the results (жидкость - liquid; curves 1 to 12 relate to pressures of 28000 to 100400 kg/cm^2). From the results a phase diagram was constructed and is given in Fig.5 (dotted line - data of Bundy; top left of diagram - "liquid"). The average accuracy of the results was estimated as 2% for both temperature and pressure. The results are in good agreement with those of F.P.Bundy (Ref.6).

Card 2/5

S/126/61/011/002/005/025
E021/E435

Phase Diagram of ...

There are 5 figures, 1 table and 9 references: 4 Soviet and 5 non-Soviet.

ASSOCIATION: Institut fiziki vysokikh davleniy
(Institute of Physics of High Pressures)

SUBMITTED: May 20, 1960

Card 3/5

S/126/61/011/002/005/025
E021/E435

Phase Diagram of ...

Fig.4

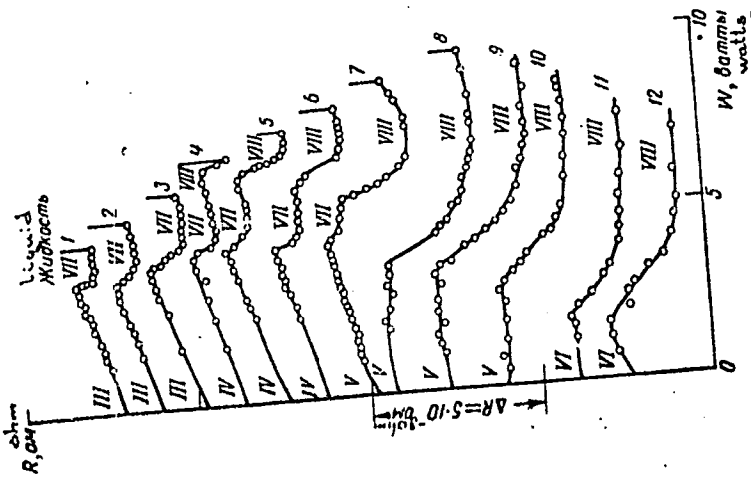

Рис. 4. Зависимость электросопротивления от мощности для различных значений давления:
1 — 28 000; 2 — 36 000; 3 — 44 000; 4 — 48 000; 5 — 52 000; 6 — 60 000; 7 — 68 000; 8 — 72 500; 9 — 76 500; 10 — 84 500; 11 — 97 000; 12 — 10 400 кг/см²

Card 4/5

S/126/61/011/002/005/025
E021/E435

Phase Diagram of ...

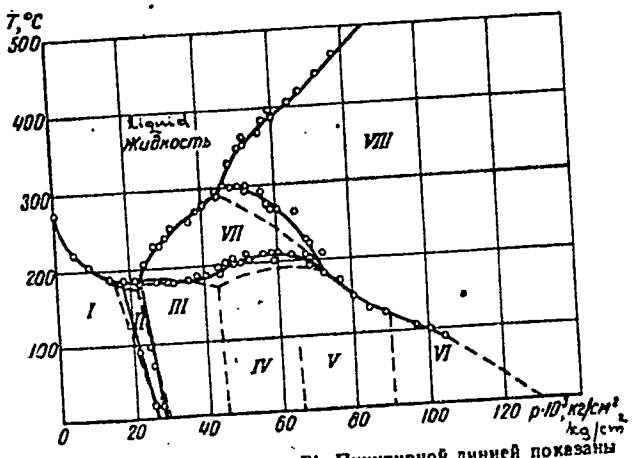

Рис. 5. Фазовая диаграмма Bi. Пунктирной линией показаны данные Банди.

Card 5/5

FEDOROV, L.T., kand.tekhn.nauk; LEONT'YEVSKIY, B.B.; GIL'DENBLAT, Ya.D., kand.tekhn.nauk; KORENISTOV, D.V.; ROSSINSKIY, K.I., kand.tekhn. nauk; KUZ'MIN, I.A., kand.tekhn.nauk; KONDRATSKAYA, A.A., inzh.; NISAR-MUKHAMEDOVA, G.N., inzh.; PANOVA, G.M., inzh.; ROZHDESTVENSKIY, G.L., inzh.; SENIKOLENOV, A.S., inzh.; TSAREVSKIY, S.V., inzh.; ZHUKOVA, M.F., inzh.; GRISHIN, M.M., retsenzent; KRITSKIY, S.N., doktor tekhn.nauk, red.; MENKEL', M.F., doktor tekhn.nauk, red.; GALAKTIONOV, V.D., kand.geol.-min.nauk, red.; ZAVALISHIN, I.S., inzh., red.; MALYSHEV, N.A., inzh., red.; MIKHAYLOV, A.V., doktor tekhn. nauk, red.; PETROV, G.D., inzh., red.; RAPOPORT, Ya.D., red.; RUSSO, G.A., kand.tekhn.nauk, glavnyy red.; SEVAST'YANOV, V.I., inzh., red.; TITOV, S.V., inzh., red.; TISTROVA, O.N., red.; LARIONOV, G.Ye., tekhn.red.

[Hydrology and water economy of the Volga-Don] Gidrologiia i vodnoe khoziaistvo Volgo-Dona. Pod red. S.N.Kritskogo i M.F.Menkelia. Moskva, Gos.energ.izd-vo, 1960. 146 p. (MIRA 13:11)

1. Moscow. Vsesoyuznyy proyektno-izyskatel'skiy i nauchno-issledovatel'skiy institut "Gidroproyekt" imeni S.Ya.Zhuk. 2. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin). (Don River--Water resources development)

PANOVA, G.V.; SYSHCHENKO, T.Ye.; FIRAGO, B.A.; SHCHEGOLEV, D.Ye.

Observations of the second artificial earth satellite (1957 β) at station No.039(Pulkovo). Biul.sta.opt.nabl.isk. sput.Zem. no.6:1-5 '59. (MIRA 13:6)

1. Glavnaya (Pulkovskaya) Astronomicheskaya observatoriya AN SSSR.
(Artificial satellites--Tracking)

82479
S/035/60/000/04/16/017
A001/A001

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1960, No. 4, p. 71, # 3393

3.1230 3.2300

AUTHORS: Panova, G. V., Syshchenko, T. Ye., Firago, B. A., Shchegolev, D. Ye.

TITLE: Observations of the Second Earth's Artificial Satellite (1957 β) at Station No. 039 (Pulkovo)

PERIODICAL: Byul. st. optich. nablyudeniya iskusstv. sputnikov Zemli, 1959, No. 6, pp. 1-5 (English summary)

TEXT: Results of observations and processing of photographs taken with two standard cameras are described in detail. Coordinates were determined by the method of A. A. Kiselev and partially by A. N. Deych's method. One "node" point was obtained from one negative relative to which coordinates and time were interpolated several times. The following factors were taken into account: diurnal rotation of the sky, refractional parallax of the sputnik, systematic errors in measuring the edge of the sputnik track, track curvature and sputnik acceleration. Relative time instants were reduced to the standard time of the USSR with

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LOGVINENKO, A.A.; PLUZHNIKOV, V.Kh.; PANOVA, G.V.; SYSHCHENKO, T.Ye.; FIRAGO, B.A.; SHCHEGOLEV, D.Ye.; NEVEL'SKIY, A.V., nauchnyy sotrudnik

Results of photographic observations of artificial earth satellites. Biul.sta.opt.nabl.isk.sput.Zem. no.11:20-28 '60. (MIRA 14:12)

1. Nachal'nik stantsii nablyudeniya iskusstvennykh sputnikov Zemli No.031 (for Logvinenko). 2. Nachal'nik stantsii nablyudeniy iskusstvennykh sputnikov Zemli No.60 (for Pluzhnikov). 3. Glavnaya (Pulkovskaya) astronomicheskaya observatoriya AN SSSR (for Panova, Syshchenko, Firago, Shchegolev). 4. Astronomicheskaya observatoriya Ural'skogo gosudarstvennogo universiteta (for Nevel'skiy).
(Artificial satellites--Optical observations)
(Astronomical photography)

PANOVA, G.V.; PIRAGO, B.A.; SHCHEGOLEV, D.Ye.

Synchronized observations of the American satellite "Echo -I"; preliminary results. Biul. sta. opt. nabl. isk. sput. Zem. no.30:3-5 '62. (MIRA 16:6)

1. Glavnaya (Pulkovskaya) astronomicheskaya observatoriya AN SSSR.

(Artificial satellites—Tracking)

SHUGAM, Ye.A.; BERGER, L.I.; RUKHADZE, Ye.G.; PANOVA, G.V.

Absorption spectra, conductance and its energy of activation of some salicylal-N-alkyliminates. Zhur. fiz. khim. 39 no.2:481-483 F '65. (MIRA 18:4)

1. Institut khimicheskikh reaktivov Vsesoyuznogo nauchno-issledovatel'skogo institut khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv i Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

L 13520-63 EWP(j)/EWT(m)/BDS ASD Pc-4 RM/MAY

ACCESSION NR: AP3001154 S/0190/63/005/006/0837/0841

AUTHOR: Terent'yev, A. P.; Rukhadze, Ye. G.; Mochalina, I. G.; Panova, G. V.

TITLE: Studies on high-molecular pyridine derivatives. 1. Polyamides on the basis of 2,6-lutidine

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 5, no. 6, 1963, 837-841

TOPIC TAGS: pyridine derivative, polyamide, 2,6-lutidine, interfacial polycondensation

ABSTRACT: To achieve the synthesis of desired polyamides a solution of the dichloride of pyridine-2,6-dicarboxylic acid in benzene was reacted by interfacial polycondensation with an alkaline or acid aqueous solution of a number of aliphatic and aromatic diamines. These were ethylenediamine, tetramethylenediamine, o-phenylenediamine, benzidine, o-tolidine, 4,4'-diaminodiphenylmethane, 4,4'-diaminobenzophenone and 4,4'-diaminodiphenylsulphone. The resulting polyamides were white or slightly colored substances, almost insoluble in organic solvents. The lengthening of the aliphatic chain lowered the melting point of the polyamides from 298-300C to 235-240C and slightly increased their solubility and viscosity. The presence of aromatic rings in the macromolecules rendered them harder and more thermoresistant

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L 13520-63

ACCESSION NR: AP3001154

and lowered their solubility. The obtained polyamides were outstanding in their resistance to concentrated hydrochloric acid, sodium hydroxide, bromine, and hydrogen peroxide. X-ray examination revealed their amorphous structure. Orig. art. has: 1 formula and 2 tables.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 20Nov61 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: OO NO REF SOV: 010 OTHER: 002

Card 2/2

L 16060-65 EWT(m)/EPF(c)/EWP(j)/EWP(t)/EWP(b) Pc-4/Pr-4/Pad IJP(c)/
RPL/ESD(gs)/BSD/AFWL/ASD(a)-5/AS(mp)-2/APGC(b) JD/JW/HW/RM
ACCESSION NR: AP4046176 S/0079/64/034/009/3013/3019

AUTHOR: Terent'yev, A. P.; Panova, G. V.; Rukhadze, Ye. G.

TITLE: Chelates with optically active ligands I. Schiff bases and chelates of copper, nickel and cobalt (+2) with (-) propylenediamine

SOURCE: Zhurnal obshchey khimii, v. 34, no. 9, 1964, 3013-3019

TOPIC TAGS: Schiff base, copper chelate, nickel chelate, cobalt chelate, propylenediamine, Schiff base synthesis, Schiff base optical activity, chelate optical activity, rotational dispersion, salicyl aldehyde, ring substituent, absorption spectrum

ABSTRACT: The history of the study of complexed compounds is presented. Their optical properties yield information on their structure. The paper describ-ed methods and reports yields of the synthesis of optically active Schiff bases from propylenediamine and substituted salicyl aldehyde (5-chloro, 5-bromo, 3-methoxy) by boiling 0.01 g/mole propylenediamine and 0.02 g/mole of the corresponding aldehyde in methanol; the chelates are obtained from these Schiff bases

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L 1606-65
ACCESSION NR: AP4046176

with the corresponding acetate. The structural formulas are presented. Rotational dispersion curves in the 640-450 mμ range and absorption spectra were determined. These are figured. The presence of substituents at the aldehyde component (Cl, Br, NO_2, OCH_3) had no significant influence upon the rotational dispersion of the Schiff bases and chelates. The influence of the OCH_3 group was somewhat greater, due probably to the action of this group upon the hydrogen bond. The orig. art. has: 4 figures, 5 tables and 2 formulas.

ASSOCIATION: None

SUBMITTED: 31May63 ENCL: 00

SUB CODE: GC, MT NO REF SOV: 005 OTHER: 010

Card 2/2

L 16059-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4/Pa-4 ESD(gs)/BSD/AFWL/
ASD(a)-5/AS(mp)-2/RAEM(a)/APGC(b)/RPL JW/RM
ACCESSION NR: AP4046177 S/0079/64/034/009/3019/3024

AUTHOR: Terent'yev, A. P.; Panova, G. V.; Rukhadze, Ye. G. 19 B

TITLE: Chelates with optically active ligands II. Schiff bases and chelates of copper, nickel and cobalt(+2) with (-) alpha-phenylethylamine

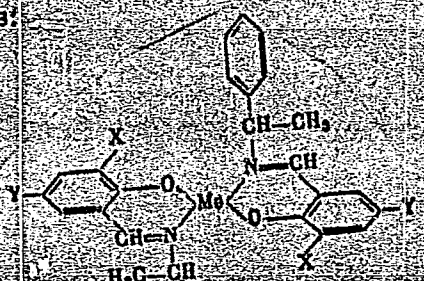
SOURCE: Zhurnal obshchey khimii, v. 34, no. 9, 1964, 3019-3024

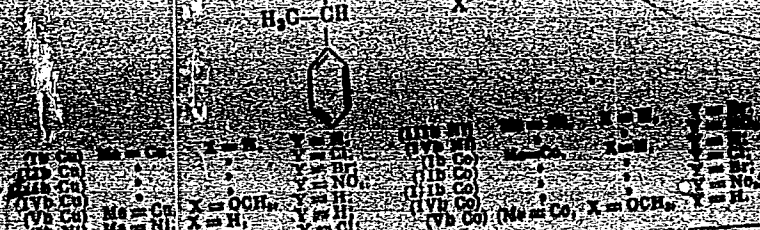
TOPIC TAGS: chelate, ligand, optically active ligand, copper chelate, nickel chelate, cobalt chelate, alpha-phenylethylamine, Schiff base, substituted salicylaldehyde, rotational dispersion, absorption spectrum

ABSTRACT: Referring to report I. in the preceding pages which dealt with synthesis and spectropolarimetric data of similar compounds with propylenediamine, the [illegible]-phenylethylamine, synthesizing Schiff

L 16059-65
ACCESSION NR: AP4041177

and chelates as follows:





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L 16059-65
ACCESSION NR: AP4047177

The Schiff bases were obtained from the phenylethylamine and the substituted (5-chloro, 5-bromo, 5-nitro) salicyl aldehyde in methanol, the chelates with the corresponding metal acetates. Preparation is described, yields and characteristics tabulated; rotational dispersion curves of the chelates in the 650-450 m range and absorption spectra are figured. The rotational dispersion curves of the Schiff bases were in the positive range and had the usual form. Introduction of nickel and cobalt into the Schiff base did not change this curve while the Schiff base with copper gave an abnormal rotational dispersion curve, first negative, then positive and again negative. The presence of substitutions (Cl, Br, NO_2, OCH_3) at the aldehyde component had no significant influence on the rotational dispersion of Schiff bases or chelates. Orig. art. has: 3 formulas, 4 figures and 5 tables

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet imeni M. V. Lomonosova (Moscow State University)

SUBMITTED: 31May62 ENCL: 00
SUB CODE: GC, MT NO REF SOV: 002 OTHER: 002

Card 2/3

L 13521-63 EWP(j)/EWT(m)/BDS ASD Pc-4 RM
ACCESSION NR: AP3001155 S/0190/63/005/006/0842/0845

62
61

AUTHOR: Terent'yev, A. P.; Rukhadze, Ye. G.; Panova, G. V.; Mochalina, I. G.

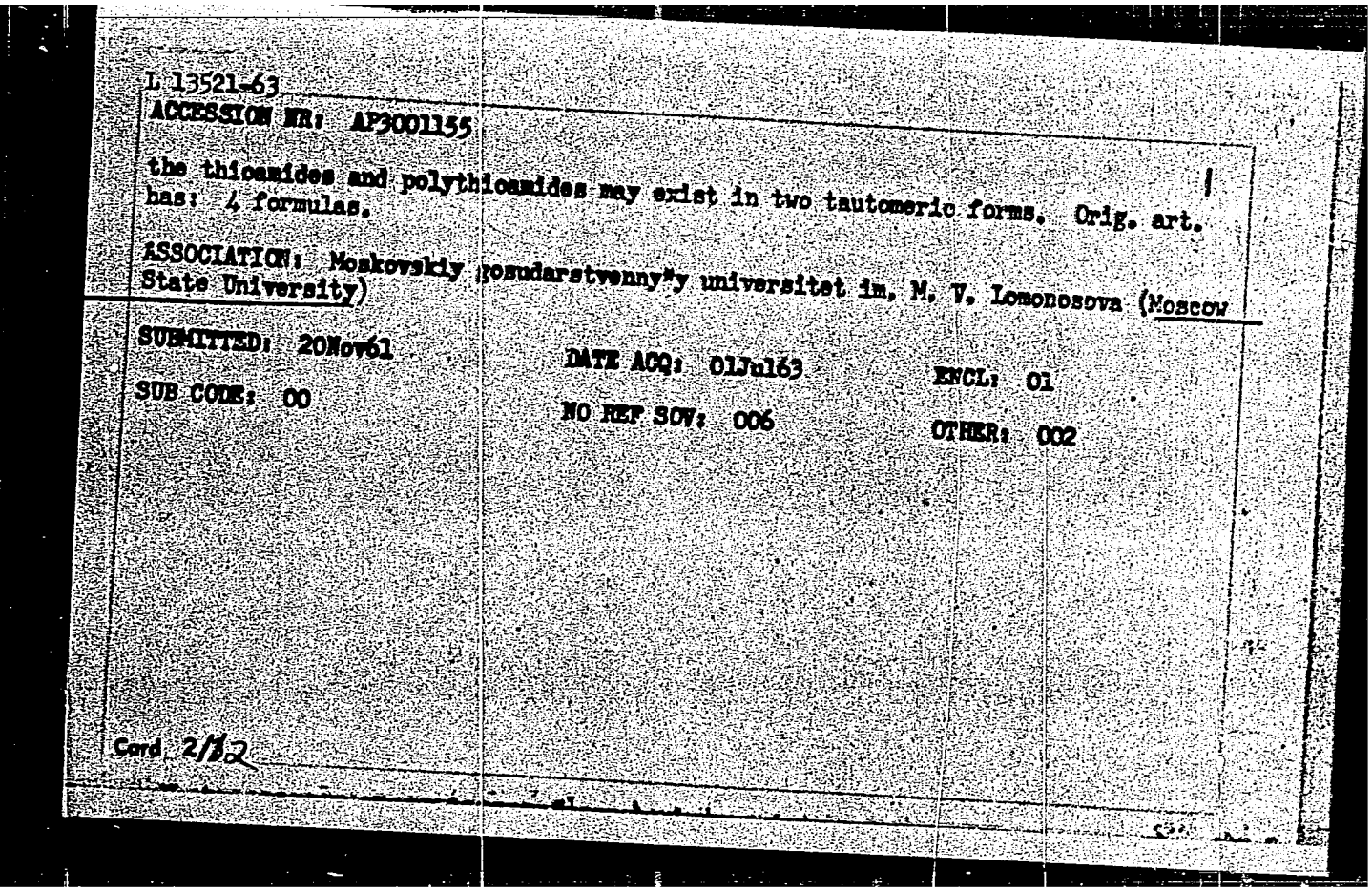
TITLE: Studies on high-molecular pyridine derivatives. 2. Polyamides and polythioamides on the basis of certain alkylpyridines

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 5, no. 6, 1963, 842-845

TOPIC TAGS: pyridine, polyamide, polythioamide, alkylpyridine, tautomerism

ABSTRACT: The present investigation is a continuation of the earlier work by the authors on polyamides on the basis of 2,6-lutidine. Since the objective was the synthesis of thioamides and polythioamides, this study also included alpha-picoline. These compounds were obtained by prolonged heating of the corresponding alkylpyridine and of diamines (benzidine, o-tolidine, and o-dianizidine) with an excess of sulfur at 160-200C. Where 2,6-lutidine constituted the base, it was necessary to react it with a double amount of diamine and a tenfold quantity of sulfur in order to obtain polythioamides, while at a 4:1:10 ratio only one methyl group of 2,6-lutidine entered into the reaction. These synthesized polythioamides are colored powdery substances, some of which show an amorphous structure on a Debyegram, while infrared spectra revealed the presence of a thioureide group. It is concluded that

Card 1/2



L 13521-63
ACCESSION NR: AP3001155

the thioamides and polythioamides may exist in two tautomeric forms. Orig. art. has: 4 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 20Nov61 DATE ACQ: 01Jul63 ENCL: 01

SUB CODE: 00 NO REF SOV: 006 OTHER: 002

Card 2/2

TERENT'YEV, A.P.; RUKHADZE, Ye.G.; PANOVA, G.V.

Four-coordinate chelates with unequally paired ligands. Dokl. AN SSSR 155 no. 4:872-873 Ap '64. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. 2. Chlen-korrespondent AN SSSR (for Terent'yev).

L 13520-63 EWP(j)/EWT(m)/BDS ASD Pc-4 RM/MAY

ACCESSION NR: AP3001154 S/0190/63/005/006/0837/0841

AUTHOR: Terent'yev, A. P.; Rukhadze, Ye. G.; Mochalina, I. G.; Panova, G. Y.

TITLE: Studies on high-molecular pyridine derivatives. 1. Polyamides on the basis of 2,6-lutidine

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 5, no. 6, 1963, 837-841

TOPIC TAGS: pyridine derivative, polyamide, 2,6-lutidine, interfacial polycondensation

ABSTRACT: To achieve the synthesis of desired polyamides a solution of the dichloride of pyridine-2,6-dicarboxylic acid in benzene was reacted by interfacial polycondensation with an alkaline or acid aqueous solution of a number of aliphatic and aromatic diamines. These were ethylenediamine, tetramethylenediamine, o-phenylenediamine, benzidine, o-tolidine, 4,4'-diaminodiphenylmethane, 4,4'-diaminobenzophenone and 4,4'-diaminodiphenylsulphone. The resulting polyamides were white or slightly colored substances, almost insoluble in organic solvents. The lengthening of the aliphatic chain lowered the melting point of the polyamides from 298-300C to 235-240C and slightly increased their solubility and viscosity. The presence of aromatic rings in the macromolecules rendered them harder and more thermoresistant

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L 13520-63

ACCESSION NR: AP3001154

and lowered their solubility. The obtained polyamides were outstanding in their resistance to concentrated hydrochloric acid, sodium hydroxide, bromir and hydrogen peroxide. X-ray examination revealed their amorphous structure. Orig. art. has: 1 formula and 2 tables.

ASSOCIATION: Moskovskiy gosudarstvenny"y universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 20Nov61 DATE ACQ: 01Jul63 ENCL: 00

SUB CODE: OO NO REF SOV: 010 OTHER: 002

Card 2/2

ACCESSION NR: AT4033995 S/0000/63/000/000/0123/0128

AUTHOR: Terent'yev, A. P.; Rukhadze, Ye. G.; Mochalina, I. G.; Panova, G. V.

TITLE: A study of the chelate polymer series. IX. Polymers of some thioamides and polythioamides with metals

SOURCE: Geterotsepny*ye vy*sokomolekulyarny*ye soyedineniya (Heterochain macromolecular compounds); sbornik statey. Moscow, Izd-vo "Nauka," 1963, 123-128

TOPIC TAGS: chelate compound, polymer, chelate polymer, thioamide, polythioamide, chelate structural property, polymer structure, chelate trans configuration, chelate cis configuration, polymerization

ABSTRACT: A large number of chelate polymers were synthesized by equimolecular reactions between thioamides or polythioamides of alpha-picoline or 2,6-lutidine in a suitable solvent (dimethylformamide, chloroform, benzene) and methanol solutions of metallic salts (Cu, Ni, Zn, Co, Mn). Yields ranged from 39 to 93%, calculated N content from 9.00 to 11.60%, determined N content from 8.12 to 11.89%, respective metal contents from 10.33 to 15.93 and 9.96 to 15.85%. The polymers obtained were yellow, green, cinnamon or orange, or in light, dark and reddish shades of these colors. Three types of chelate structures are illustrated, the presence of tetra- and pentacyclic linkages is suggested, and the authors discuss

Card 1/2

ACCESSION NR: AT4033995

the feasibility of trans- and cis-configurations. Orig. art. has: 2 tables and numerous chemical formulas.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 31Jul62 DATE ACQ: 30Apr64 ENCL: 00

SUB CODE: OC NO REF SOV: 005 OTHER: 001

Card 2/2

ACC NR: AP5011474 SOURCE CODE: UR/0078/65/039/004/1002/1006

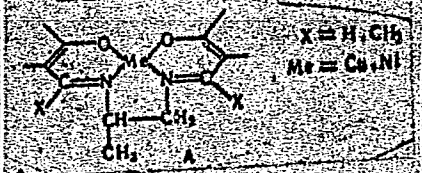
AUTHOR: Terent'yev, A. P.; Rukhadze, Ye. G.; Panova, G. V.; Shigorin, D. N.

TITLE: Infrared spectra of optically active chelates of copper and nickel with hydroxyaldimines and hydroxyketimines

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 4, 1965, 1002-1006

TOPIC TAGS: infrared spectrum, copper chelate, nickel chelate, optical activity, hydroxyaldimine, hydroxyketimine, steric hindrance

ABSTRACT: The paper continues a study of optically active chelates containing the chelate unit A:



Card 1/2

L 18987-65

ACCESSION NR: AP5011474

The IR spectra were recorded with a Hilger spectrometer using KBr pellets. The results, which are fully tabulated, show that an increase in steric hindrance in the molecules (associated with the substitution of $X=CH_3$ for X=H) causes a decrease in the frequency of the stretching vibrations of the C=N group included in the quasi-aromatic ring. A comparison of compounds with the same steric factor indicates that with a decrease in the order of the C=C bond, on which the metal ring is built, the vibrational frequency of the C=N group increases. Bands which characterize the deformation vibrations of C-H and the vibrations of C=N groups are located in the range of 1430-1470 cm^{-1}. The frequencies of 1430-1385 cm^{-1} and 1370-1356 cm^{-1} characterize plane deformation vibrations of CH_3 and CH_2 groups. Bands at 1195-1190 cm^{-1} correspond to plane deformation vibrations of C-H groups. Frequencies of 770-800 cm^{-1} correspond to nonplanar vibrations of the C-H groups. In the range below 670 cm^{-1} are located frequencies characterizing the deformation vibrations of the chelate unit and the stretching

vibrations of Me-O and Me-N. Orig. art. has: ...

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University); Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute)

SUBMITTED: 13May64 ENCL: 00 SUB CODE: OC, OP

NO REF SOV: 004 OTHER: 005

Card 2/2

TERENT'YEV, A.P.; RUKHADZE, Ye.G.; PANOVA, G.V.; VIKTOROVA, N.M.

Chelate compounds with optically active ligands. Part 4: Copper and nickel chelates with hydroxynaphthaldimine and hydroxyketimines. Zhur. ob. khim. 35 no.6:1104-1110 Je '65. (MIRA 18:6)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

S/190/62/004/004/012/019
B117/B138

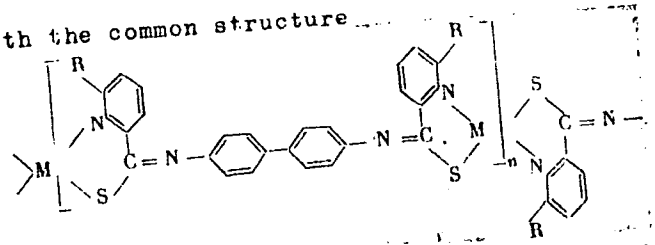
15.8600

AUTHORS: Terent'yev, A. P., Rukhadze, Ye. G., Rode, V. V., Panova, G. V.

TITLE: Investigations in chelate polymers. IV. Polymers of 4,4'-bis-(α-thioalkylpyridineamido)diphenylene with metals

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 4, 1962, 566-570

TEXT: Polymers with the common structure



R = H- and CH_3-; M = Cu^{2+}, Ni^{2+}, Zn^{2+}, Co^{2+} were studied. For these com-

Card 1/3

Investigations in chelate polymers...

pounds, the chelate node of which can be written as 2(N,S)-M, the designation bis-(azathia) polychelate was proposed. From 4,4'-bis(α-thiopicolineamido)diphenyl ($C_{24}H_{18}N_4S_2$, needle-shaped orange crystals, melting point 238°C, yield 53%) and 4,4'-bis-(α-thio-2,6-lutidineamido)diphenyl ($C_{26}H_{22}N_4H_2$, orange red crystals, melting point 223°C, yield 22%, described for the first time), polychelate polymers were produced having qualitative yield with bivalent metals at room temperature. Using Debye-Scherrer photographs, the structure of these finely dispersed colored powders was found to be amorphous. Investigation of the heat resistance of bis-(azathia)polychelates showed that their decomposition sets in at about 200°C. Total destruction under formation of metal oxides, however, began only after 3 hr heating at 800-1000°C. Nickel and zinc polychelates proved to be more heat-resistant than polymers with copper and cobalt ions. Polychelates with the structure mentioned are also chemically stable. Investigation of their spectra showed that the absorption maxima of bis-(azathia)polychelates are somewhat displaced towards the long-wave range as compared with bis-(azaoxa)- and bis-disoxapolychelates, and that only polymers with zinc ions show weak luminescence. Magnetochemical investigations gave some information on the

TERENT'YEV, A.P.; PANOV, G.V.; MUKHACH, Yu.G.

Chelate compounds with optically active ligands. Part 1: Schiff bases and the chelate compounds of copper, nickel, and cobalt (+2) with (--)-propylenediamine. Zhur. ob. khim. 31 no.9:3019-3019 S '61.

Chelate compounds with optically active ligands. Part 2: Schiff bases and the chelate compounds of copper, nickel, and cobalt (II) with (---)-phenylethylamine. Ibid.:3019-3024

(MIRA 14:9)

1. Moskovskiy gosudarstvennyy universitet.

TERENT'YEV, A.P.; [illegible], Ye.G.; [illegible], G.V.; V[illegible]KTOROVA, [illegible]

Chelate compounds with optically active ligands. Part 3: Bis(o-hydroxyacetophenone)-(--)-propylenediimine and its chelate compounds with copper, nickel, and cobalt (II). Zhur. ob. khim. 3[illegible] no.9:3025-3028 S '64.

(MIRA 1[illegible]:1[illegible])

ACCESSION NR: AP4030786 S/0020/64/155/004/0872/0873

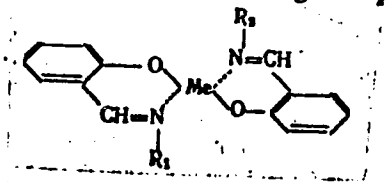
AUTHOR: Terent'yev, A. P. (Corresponding member AN SSSR); Rukhadze, Ye. G.; Panova, G. V.

TITLE: Tetra-coordinated chelates with unevenly paired ligands

SOURCE: AN SSSR. Doklady*, v. 155, no. 4, 1964, 872-873

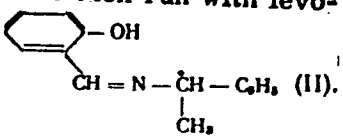
TOPIC TAGS: chelate, evenly paired ligand, unevenly paired ligand, salicylal phenylethylimine, polarimetric titration, racemic mixture, optically active compound, optically active compound separation, tetra coordinated chelate

ABSTRACT: The possibility of obtaining chelates in which the metal is attached to two different ligands was investigated using compounds of the type A:



Card 1/3

in which R_1 = CH_3- and R_2 = C_6H_5-; $C_6H_5CH_2$- or $C_6H_5CH(CH_3)$-. X-rays showed the products formed were mechanical mixtures of materials with paired ligands R_1=R_2. Experiments were then run with levo- and dextrorotatory salicylal alpha-phenylethylimine II:



where the differences in R_1 and R_2 is caused by their configuration. Polarimetric titration of a solution of mixed l- and d-salicylal-alpha-phenylethylimine with copper acetate established that a mixture of chelates with evenly paired ligands (in a ratio approximating the l- and d- form of the original amine) was formed in the solution. On crystallization a racemic mixture precipitated, leaving the solution enriched in the optically active form. Thus the optically active part of the amine may be separated from its racemate by crystallization. Experiments run with bis-(alpha-phenylethyldithiocarbamate)-nickel did not give positive results. In the type A compounds, the chelates most favored energetically are those in which R_1 = R_2, i.e., chelates with evenly paired ligands. Orig. art. has: 1 table and 2 formulas.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001239110006-8"

ACCESSION NR: AP4030786

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 16Nov63 ATD PRESS: 3071 ENCL: 00

SUB CODE: OC, GC NO REF SOV: 000 OTHER: 003

Card 3/3

ACCESSION NR: AP4040960 S/0020/64/156/005/1174/1177

AUTHOR: Terent'yev, A. P.; Panova, G. V.; Shigorin, D. N.; Rukhadze, Ye. G.

TITLE: EPR spectra of optically-active chelate compounds of copper with oxyaldimines and oxyketimines

SOURCE: AN SSSR. Doklady*, v. 156, no. 5, 1964, 1174-1177

TOPIC TAGS: EPR, EPR spectrum, chelate compound, optically-active chelate compound, copper, copper compound, copper chelate compound, aldimine compound, ketimine compound, copper-oxyaldimine compound, copper-oxyketimine compound

ABSTRACT: It is a well-known fact that the degree of delocalization of an unpaired electron can be studied directly by the electron paramagnetic resonance method. Hence, one and the same structural peculiarities of molecules can be found in the optical activity and EPR spectra. With this in mind, the authors studied the EPR spectra of the titled chelate compounds of copper. The analysis was carried out on a superheterodyne EPR spectrometer with a frequency of 9455 mc. All of the compounds in a chloroform solution produce EPR spectra which are characterized by four lines of a superfine structure, which originate as the result of the interaction of the copper atom's nuclear moment ($I_{Cu} = 3/2$) with the

Card 1/4

ACCESSION NR: AP4040960

magnetic spire moment of the unpaired electron. An additional superfine structure composed of five lines manifested itself in the EPR spectra for compounds II, IV and V of the Figure of Enclosure 01. The possibility of disrupting the molecular coplanarity is the greatest with these compounds. The additional superfine structure did not appear in the EPR spectra for compounds I and III. The assumption could be made that this is associated with the ability of chelates I and III, as the more coplanar, to form associates. Actually, the formation of associates could lead to the elimination of the additional superfine structure owing to the origination of a dipole spin-spin interaction. The presence of the additional hyperfine structure in the II, IV and V compounds and its absence in the I and III compounds can only be explained by the peculiarities of the molecular structure, especially by the intensive disruption of their coplanarity through the introduction of the CH_3 group instead of the aldehyde group's hydrogen atom. Disruption of the coplanarity produces an essential influence on the distribution of the electron density of the unpaired electron in the molecule. Authors conclude that one and the same structural pecularities of the investigated copper chelate compounds, associated with disruption of the molecular coplanarity under the effects of steric factors produce a change in the compound's optical activity and EPR spectra. "Authors thank N. V. Vereyna and N. A. Begunova for their help in conducting the experiment." Orig. art. has: 3 figures.

Card 2/4

ACCESSION NR: AP4040960

SUBMITTED: 17Mar64 ENCL: 01

SUB CODE: OP, IC NO REF SOV: 007 OTHER: 002

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-chemical Institute); Moskovskiy Gosudarstvennyy/im. M. V. Lomonosova (Moscow State. University) universitet

Card 3/4

L 13151-65 EWT(m)/EWP(j) Pa-4 ESD(gs)/RAEM(a)/ESD-3 RM

ACCESSION NR: AP4046178 S/0079/64/034/009/3025/3028

AUTHORS: Terent'yev, A.P.; Rukhadze, Ye.G.; Panova, G.V.; Viktorova, N.M.

TITLE: Chelates with optically active ligands. III. Bis-(o-oxyacetophenone)-(-)propylenediimine and its chelates with copper, nickel and cobalt (+2)

SOURCE: Zhurnal obshchey khimii, v. 34, no. 9, 1964, 3025-3028

TOPIC TAGS: chelate, optically active ligand, ligand, copper chelate, nickel chelate, cobalt chelate, asymmetrical center, rotational dispersion, spectral absorption, Schiff base, [illegible]stitution

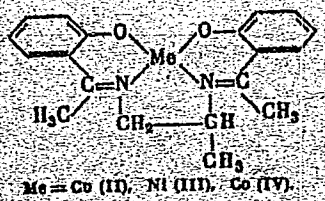
ABSTRACT: The earlier observed lack of influence of substitutions (Cl, Br, NO_2, OCH_3) at the aldehyde component upon optical rotation may be explained by their great distance from the asymmetrical

and the chelates (II, III, IV) as in the following schema

Card 1/3

L 15751-65

ACCESSION NR: AP4046178



Me = Co (II), Ni (III), Co (IV).

and their rotational dispersion and spectral absorption were determined. The rotational dispersion was tested in dimethylformamide. For comparison, the chelates obtained in report I (with salicyl

were almost the same as with the earlier compounds. ...
4 figures and 2 formulas.

Card 2/3

L 15151-65
ACCESSION NR: AP4046178

ASSOCIATION: None

SUBMITTED: 04Jul64 ENCL: 00

SUB CODE: GC, MT NR REF SOV: 003 OTHER: 001

Card 3/3

TERENT'YEV, A.P.; RUKHADZE, Ye.G.; RODE, V.V.; PANOVA, G.V.

Chelate polymers. Part 9: Polymers of 4,4'-bis-(α-thioalkylpyridinamido)diphenyls with metals. Vysokom. soed. 4 no.4:566-570 Ap '62. (MIRA 15:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Chelates)

TERENT'YEV, A.P.; RUKHADZE, Ye.G.; PANOVA, G.V.; SHIGORIN, D.N.

Infrared spectra of the optically active chelate [illegible] of copper and nickel with oxyaldimines and oxyketimines. Zhur. fiz. khim. 39 no.4:1002-1006 Ap '65.

1. Moskovskiy gosudarstvennyy universitet imeni [illegible] A. Fiziko-khimicheskiy institut imeni Karpova, Moskva. Submitted May 13, 1964.

LARIN, G.M.; PANOVA, G.V.; RUKHADZE, Ye.G.

Electron paramagnetic resonance of copper compounds with oxyaldimines. Zhur.strukt.khim. 6 no.5:699-705 S-O '65. (MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR i Moskovskiy gosudarstvennyy universitet M.V.Lomonosova. Submitted May 7, 1965.

L 61480-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 JAJ/RM

ACCESSION NR: AP5016413 UR/0079/65/035/006/1104/1110
541.49:547.415.3

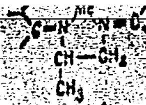
AUTHOR: Terent'yev, A.P.; Rukhadze, Ye. G.; Panova, G.V.; Viktorova, N.M.

TITLE: Chelates with optically active ligands. Part 4. Chelates of copper and nickel with hydroxynaphthaldimine and hydroxyketimines

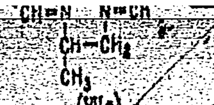
SOURCE: Zhurnal obshchey khimii, v. 35, no. 6, 1965, 1104-1110

TOPIC TAGS: copper organic compound, nickel organic compound, chelate, complex compound, optically active ligand, steric hindrance, Schiff base, molecular rotation

ABSTRACT: The aim of this study was to determine the effect of steric factors and of the character of the aldehyde and ketone components on the rotatory dispersion of the corresponding chelates. The following compounds were synthesized: bis (β-hydroxy-



(A)

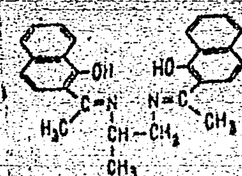


(VIIa)

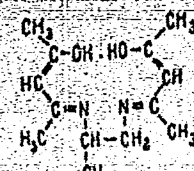
Card 1/3

L 61480-65

ACCESSION NR: AP5016413



(VIIIa)



(IXa)

From these Schiff bases, copper chelates (VIIa Cu, VIIIa Cu, IXa Cu) and nickel chelates (VIIa Ni, VIIIa Ni, IXa Ni) containing the same chelate unit (A) were ... absorption spectra in dimethylformamide

character of the rotation; remarks [illegible]

Card 2/3

L 61480-65

ACCESSION NR: AP5016413

passing from aldehyde to ketone derivatives is apparently due to steric hindrance, which disrupts the coplanarity of the molecules. Orig. art. has: 4 figures, 1 table and 4 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova (Moscow State University)

SUBMITTED: 17Feb64 ENCL: 00 SUB CODE: OC

NO REF SOV: 004 OTHER: 006

Card 3/3

TERENT'YEV, A.P.; RUKHADZE, Ye.G.; PANOVA, G.V.; MOCHALINA, I.G.

Macromolecular compounds, derivatives of pyridine. Part 2: Thioamides and polythioamides based on some alkyl pyridines. Vysokom.soed. 5 no. 6:842-845 Je '63. (MIRA 16:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Amides) (Polyamides) (Pyridine)

PANOVA, G.V.

PHASE I BOOK EXPLOITATION SOV/5575

Akademiya nauk SSSR. Astronomicheskiy sovet.

Byulleten' stantsiy opticheskogo nablyudeniya iskusstvennykh sputnikov Zemli, no. 6. (Bulletin of the Stations for Optical Observation of Artificial Earth Satellites, No. 6) Moscow, 1959. 23 p. 500 copies printed.

Sponsoring Agency: Astronomicheskiy sovet Akademii nauk SSSR.

Resp. Ed.: Ye. Z. Gindin; Secretary: O. A. Severnaya.

PURPOSE : This bulletin is intended for scientists and engineers concerned with optical tracking of artificial satellites.

COVERAGE : The bulletin contains 9 articles which present the results of satellite observations, and describe methods and specific equipment used for photographic observation of earth satellites. An appendix contains a listing of 84 Soviet satellite observation stations with station number. No personalities

Card 1/6

are mentioned. There are no references.

TABLE OF CONTENTS:

of the USSR]

c. Kalikhevich, F. F. Corrections of the Universal Time of Photographic Satellite Observations in the Above Department, Published in the Bulletin of Optical Satellite Tracking Stations No. 2

d. Klimishin, I. A. [Head of the Tracking Station of the Astronomical Observatory of the L'vov State University imeni I. Franko] [Astronomicheskaya observatoriya L'vovskogo gosuniversiteta im. I. Franko. Astronomic Observatory of L'vov University im. I. Franko](Methods used: Deych and Kayzer. Observers: R. F. Vavrinyuk, I. V. Shpichka, L. F. Lutsiv-Shumskiy. Measurements: A. A. Kopystyanskiy, and L. F. Lutsiv-Shumskiy.)

e. Bratiychuk, M. V. [Head of the Tracking Station, Uzhgorod State University] [Uzhgorodskiy gosuniversitet - Uzhgorod University.] (Calculator: Shvalagin)

f. Russo, Yu. D., and P. I. Chuprina. Odessa Astronomical Observatory. (Methods used: Deych and Tsesevich. Observer: V. V. Grek)

Card 5/6

Bulletin of the Stations (Cont.) SOV/5575

25

APPENDIXES

I. Artificial earth satellite observations by Soviet stations
II. Artificial earth satellite observations by stations abroad

AVAILABLE: Library of Congress

AC/dwm/jw
11-2-61

Card 6/6

YUDINA, V., instruktor; PANOVA, I., instruktor

Genuine, business-like patronage. Zhil.-kom. khoz. 11 no.7:12-13 Jl '61. (MIRA 14:7)

1. TSentral'nyy komitet profsoyuza rabochikh mestnoy promyshlennosti i kommunal'nogo khozyaystva, g. Krasnodar.
(Krasnodar Territory—Municipal services)

L 11377-63 BDS S/120/63/000/002/016/041 45

AUTHOR: Yakovlev, K. A., Basin, Yu. G., Kovalenko, N. G., and Panova, I. I.

TITLE: Two-channel oscillator

PERIODICAL: Pribory i tekhnika eksperimenta, March-April 1963, v. 8, no. 2, 69-72

TEXT: The article describes an oscillator for radiofrequency spectroscopy by means of the method of magnetic resonance in molecular beams; the oscillator has two separate oscillating high-frequency fields. The oscillating magnetic fields appear between parallel sections of two current-carrying tuned circuits; the oscillator generates a sinusiodal current with effective values between 5 and 20-25 amp. The minimum frequency deviation over the variation range 0.2-10 kc/min is ± 50 kc. The phase shift of currents in the tuned circuits is set between 0 and 360°; the phase can be shifted by 180° with a frequency of 220 cps.

Card 1/2

11377-63 S/120/63/000/002/016/041

Two-channel oscillator...

The frequency stability of the oscillator is at least $0.8 \cdot 10^{-4}$. There are three figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN GruzSSR (Physico-technical Institute, Academy of Sciences Georgian SSR)

SUBMITTED: April 23, 1962

Card 2/2

BOYTSOVA, Ye.P.; VOYEVODOVA, Ye.M.; ZAUYER, V.V.; KOL'TSOVA, T.T.; KRUCHININA, N.V.; MARTYNOVA, Z.I.; PANOVA, L.A.; POKROVSKAYA, I.M.; ROMANOVSKAYA, G.M.; SEDOVA, M.A.; STEL'MAK, N.K.; TABACHNIKOVA, I.P.

[Atlas of lower Cretaceous spore and pollen complexes of some regions of the U.S.S.R.] Atlas nizhnemelovykh sporovo-pyl'tsevykh kompleksov nekotorykh raionov SSSR. Moskva, Nedra, 1964. 551 p. (Leningrad, Vsesoiuznyi geologicheskii institut. Trudy, vol.124) (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut (for Boytsova, Kol'tsova, Kruchinina, Panova, Pokrovskaya, Romanovskaya, Sedova, Stel'mak, Tabachnikova). 2. Ural'skoye geologicheskoye upravleniye (for Martynova). 3. Severo-Vostochnoye geologicheskoye upravleniye (for Voyevodova). 4. Leningradskiy filial Vsesoyuznogo ordena Lenina proyektno-izyskatel'skogo i nauchno-issledovatel'skogo instituta im. Z.Ya. Zhuka (for Zauyer).

VOLKOVA, V.S.; PANOVA, [illegible]

Structure and palynologic characteristics of the [illegible] sections of the left bank of the lower Irtysh Valley. Tr. Inst. geol. i geofiz. Sib. otd. AN SSSR no.[illegible]:56-[illegible] [illegible].
(MIRA [illegible])

AGRANOVSKAYA, I.A.; ALYUSHINSKIY, Yu.A.; ASATKINA, Ye.F.; BOYTSOVA, Ye.P.; BOCHARNIKOVA, A.D.; VOYEVODOVA, Ye.; GROMOVA, N.S.; ZAUYER, V.V.; MARTYNOVA, Z.I.; PANOVA, L.A.; POKROVSKAYA, I.M.; ROMANOVSKAYA, G.M.; SEDOVA, M.A.; STEL'MAK, N.K.; KHAYKINA, S.L.; EDEL'SHTEYN, L.I. [deceased]; MAKRUSHIN, V.A., tekhn.red.

[Atlas of upper Cretaceous, Paleocene and Eocene spore and pollen complexes in certain regions of the U.S.S.R.] Atlas verkhnemelovykh, paleotsenovykh i eotsenobykh sporovo-pyl'tsevykh kompleksov nekotorykh raionov SSSR. Leningrad. 1960, 574 p. (Leningrad. Vsesoiuznyi geologicheskii institut. Trudy, vol.30). (MIRA 13:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut Ministerstva geologii i okhrany nedr SSSR (for Alyushinskiy, Asatkina, Boytsova, Gromova, Panova, Pokrovskaya, Romanovskaya, Sedova, Stel'mak, Edel'shteyn). 2. Ural'skoye geologicheskoye upravleniye Ministerstva geologii i okhrany nedr SSSR (for Agranovskaya, Bocharnikova, Martynova). 3. Severo-Vostochnoye geologicheskoye upravleniye Ministerstva geologii i okhrany nedr SSSR (for Voyevodova, Khaykina). 4. Leningradskiy filial Gidroproyekta Ministerstva elektrostantsiy (for Zauyer). (Palynology)

PANOVA, L D.

P L

PHASE I BOOK EXPLOITATION SOV/4157

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Sbornik standartnykh i tipovykh programm dlya BESM (Collection of Standard and Typical Programs for the BESM [High-Speed Electronic Computer]). Moscow, 1960. 73 p. Errata slip inserted. 5,000 copies printed.

Resp. Ed.: V.M. Kurochkin, Candidate of Physics and Mathematics; Ed. of Publishing House: M.V. Yakovkin; Tech. Ed.: I.F. Kuz'min.

PURPOSE: This book is intended for digital computer programmers.

COVERAGE: The book is a collection of 10 articles giving 10 programs for the solution of various mathematical and numerical problems using the BESM (High-Speed Electronic Computer). No personalities are mentioned. There are no references.

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Collection of Standard (Cont.) SOV/4157

AVAILABLE: Library of Congress

AC/rn/jb
8-22-60

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PAKOVA, L. S.

Faxiolosa (Parasitic-Epizootic Disease), Moscow-Leningrad, 1954

PANOVA, L. G.

"Fascioliasis of agricultural animals"
Moscow-Leningrad. Sel'khozgiz, 1951. 108 pages
with illustrations.

SO: Vet., March 1952, Unclassified.

The author of the book acquaints the readers with the agents of fascioliasis of agricultural animals, with the pathogenesis and pathological anatomy, with the clinic, diagnosis and epizootiology of the illness and he also indicated the measures of the fight against it.

PUNCHED

COUNTRY : [illegible]
CATEGORY : Disease of Farm Animals.
Diseases Caused by Helminths.
ABS. JOUR. : RZhBiol., No. 3, 1959, No. 12170
AUTHOR : Golubev, [illegible] F.; Popov, [illegible]
: [illegible] of
: [illegible] logy [illegible]
Helminthic Diseases in Sheep at Leningradskaya
Oblast'.
ORIG. PUB. : Sb. Tr. n.-i. vet. in-t, 1957, vyp. 7,
14[illegible]-157
ABSTRACT : No abstract.

Card: 1/1

*Veterinary Science.

USSR/Zooparasitology - Parasitic Worms. G

Abs Jour : Ref Zhur Biol., No 1, 1959, 955

Author : Golubev, N.F., Popova, L.G.

Inst : Leningrad Scientific Research Institute of Veterinary Medicine

Title : Biology of the Agent of Dictyocaulosis in Sheep in Leningradskaya Oblast'

Orig Pub : Sb. tr. Leningr. n.-i. vet. in-t, 1957, vyp. 7, 158-166

Abstract : The development of larvae up to the invasion stage may continue in this oblast' during the entire pasturing season. The best conditions for development of the larvae exist in July-August. The invading larvae remain viable under the snow for the entire winter period, and the non-invading larvae die.

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PANOVA, L. G.

Opyt Vnedreniya Kompleksnogo Metoda Bor'by s Fastsiolezom Ovets V Praktiku Kolkhozov Tikhvinskogo Rayona Leningradskoy Oblasti, "Works on Helminthology" on the 75th Birthday of K. I. Skryabin, Izdat, Akad. Nauk, SSSR, Moskva, p. 483
Leningrad Sci. Res. Veterinary Inst.

PANOVA, L.G.

[Distomatosis in farm animals] Fastsiolez sel'skokhoziaistvennykh zhivotnykh. Moskva, Gos. izd-vo selkhoz. lit-ry, 1955. 32 p.
(Distomatosis) (MLRA 9:9)

TSION, Robert Adol'fovich; PANOVA, Lidiya Grigor'yevna; POLYAKOV, P.Ya., red.

[Sheep diseases] Bolezni ovets. 2., perer. i dop. izd. Leningrad, Kolos, 1964. 96 p. (MIRA 18:3)

S/185/63/008/002/008/012
D234/D308

AUTHORS: Popov, L. Ye., Karpov, G. I. and Panova, L. M.

TITLE: Spectrum of atomic effects participating in the process of the formation of short-range order in nickel-chromium alloys

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 2, 1963, 226-232

TEXT: The authors investigated an alloy of 16.6% Cr, 0.34% Si, 0.014% C, 0.03% S, 0.4% Fe, the rest Ni, annealed at 1000°C in vacuum and hardened in water, then subjected to cold plastic deformation. Some specimens were annealed again for 2 hours, and all were subjected to tempering. Procedures for measuring the electrical resistance and length are described. Cold deformed specimens have three stages: I) near 80 - 100°C, where ρ increases and length varies considerably, II) at 200 - 450°C, III) near 500°C, where ρ decreases. In the hardened alloy there is only one stage corresponding to the interval as in II above. Activation energies are

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Spectrum of atomic ...

0.97 ± 0.15 eV for the stage I; 1.66 ± 0.13 for the stage II and for the hardened alloy. It is most probable that the formation of K state at stage I is due to migration of dislocated atoms. Stage II is connected with migration of unbalance vacations and stage III with that of thermal vacancies. There are 2 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut (Siberian Physicatechnical Institute), Tomsk

KUDRYAVTSEVA, L.A.; PANOVA, L.M.; POPOV, L.Ye.; SUKHOVAROV, V.F.

Effect of various atomic defects on the kinetics of the formation of the K-state in nickel-molybdenum alloys. Fiz.met.i metalloved. 15 no.3:451-455 Mr '63. (MIRA 16:4)

1. Sibirskiy fiziko-tekhnicheskiy institut.
(Nickel-molybdenum alloys--Thermal properties)

S/126/63/015/003/017/025
E193/E383

AUTHORS: Kudryavtseva, L.A., Panova, L.M., Popov, L.Ye. and Sukhovarov, V.F.

TITLE: The effect of various atomic defects on the kinetics of formation of the K-state in nickel-molybdenum alloys

PERIODICAL: Fizika metallov i metallovedeniye, v. 15, no. 3, 1963, 451 - 455

TEXT: The object of the present investigation was to elucidate the nature of the low-temperature stage of relaxation of atomic defects in cold-worked nickel and its alloys. Experiments were conducted on a Ni-10% Mo alloy chosen for this purpose, because the formation of the K-state accompanied by a large increase in resistivity took place in quenched specimens of this material and because of the great difference in the atomic radii of Ni and Mo, which made it possible to assume that the movement of dislocated atoms would make little, if any, contribution to the formation of the K-state. The variation in electrical resistivity of cold-worked and quenched specimens during steplike, low-

temperature annealing was studied and the temperature-dependence of the internal friction of cold-worked, annealed and quenched specimens was determined. The results of electrical resistivity measurements are reproduced in Fig. 1, where ρ ($\mu\Omega$.cm) is plotted against the annealing temperature of cold-worked (curve 1) and quenched (curve 2) specimens. It will be seen that the low-temperature stage of the formation of the K-state was clearly defined in the cold-worked specimen and not revealed at all in the quenched alloy. The graph reproduced in Fig. 2, where the activation energy (U, kcal/mole) of the process is plotted against temperature (^{o}C) shows that the average value of U = 22 kcal/mole in the 50 - 150 ^{o}C interval increased at the end of the low-temperature stage of the process, corresponding to the deflection point on the curve shown in Fig. 1. Since, as has been stated above, dislocated atoms in the Ni-Mo alloy should not make any significant contribution to the formation of the K-state, the low-temperature stage of this process should be associated with atomic defects of a different type. The nature of these defects can be inferred from the results of internal-friction measurements

The effect of various ...

reproduced in Fig. 3, where $Q^{-1} \times 10^4$ is plotted against the temperature (^{o}C) for specimens slowly cooled from 950 ^{o}C (curve 1), quenched from 950 ^{o}C (curve 2) and subject to cold plastic deformation (curve 3). It will be seen that internal friction of the cold-worked specimen had two peaks. It was postulated that the low-temperature peak at about 50 ^{o}C (i.e. the temperature at which the electrical resistivity of the cold-worked material increased during annealing) was associated with vacancy pairs. The peak at about 120 ^{o}C was attributed to the change in orientation of specific configurations of dislocated atoms observed earlier by Seeger at al (Phil. Mag., 1960, 5, 56) in pure nickel. There are 3 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut
(Siberian Physicotechnical Institute)

SUBMITTED: July 25, 1962

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S/020/62/142/001/013/021
B104/B102

AUTHORS: Popov, L. Ye., Karpov, G. I., Panova, L. M., and Pleshkov, A. V.

TITLE: Formation of the K-state in cold-worked chrome-nickel alloys

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 1, 1962, 72-74

TEXT: The variations in electrical resistance and volume of cold-worked wire (2.2 mm in diameter) of a nickel alloy (16.6% Cr; 0.34% Si; 0.014% C; 0.03% S; 0.4% Fe) were investigated at different annealing temperatures. The samples were heated to 1000°C and quenched in water, and their diameters were then reduced to 1 mm. The electrical resistance dropped by 10% owing to destruction of the K-state. Subsequently, the samples were annealed for 10, 21, and 90 min at 20-600°C, intervals of 25°C. The variations in electrical resistance and length (Fig. 1) are divided into three temperature ranges: I: 20-120°C; II: 120-420°C; III: $t > 420$°C. In range I, the changes in lattice parameters, leading to the formation of the K-state, are small. The volume is changed by the elimination of lattice defects. In range II, the activation energy U required for the motion of defects

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Formation of the K-state in ...

leading to the formation of the K-state almost equals that of the hardened alloy. This stage is associated with the motion of vacancies. For the range II U = 1.56 ± 0.13 ev. In range III, the sharp increase in activation energy with rising temperature is due to the increasing influence of thermal vacancies. The activation energy in range I is about half as high as in range II (0.77-0.85 ev) and is close to the migration energy of dislocated atoms in nickel. There are 3 figures and 20 references: 6 Soviet and 14 non-Soviet. The four most recent references to English-language publications read as follows: I. A. Brinkman, C. E. Dixon, C. I. Meechan, Acta Met., 2, 38 (1954); R. A. Dugdale, Phil. Mag., 1, 597 (1956); G. R. Piercy, Phil. Mag., 5, no. 51, 201 (1960); L. M. Clarebrough, M. G. Hargreaves, M. H. Loretto, G. W. West, Acta Metallurgica, 8, no. 11, 797 (1960).

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete im. V. V. Kuybysheva (Siberian Physicotechnical Institute at the Tomsk State University imeni V. V. Kuybyshev)

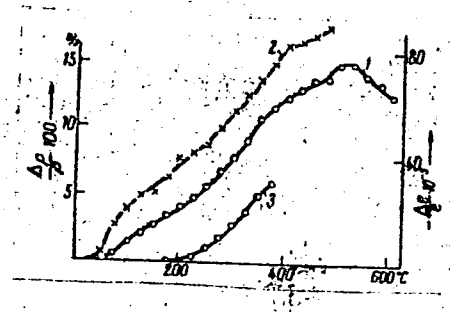
PRESENTED: July 20, 1961, by G. V. Kurdyumov, Academician

Formation of the K-state in ...

S/020/62/142/001/013/021
B104/B102

SUBMITTED: July 17, 1961

Fig. 1. Electrical resistance (1) and length (2) of cold-worked samples as a function of temperature. (3) is the electrical resistance of a merely hardened sample as a function of temperature.



Card 3/3

POPOV, L.Ye.; KARPOV, G.I.; PANOVA, L.M.

Spectrum of atomic defects participating in the formation of short-range order in nickel-chromium alloys. Ukr. fiz. zhur. 8 no.2:226-232 F '63. (MIRA 16:2)

1. Sibirskiy fiziko-tekhnicheskiy institut AN SSSR, Tomsk.
(Nickel-chromium alloys) (Crystals—Defects)

BARANOV, A.F., kand.med.nauk; MAROCHKINA, I.A., vrach; KONOPIKHINA, T.A., vrach; KOLOKOLOVA, N.V., kand.med.nauk; YAKIMENKO, O.V., kand. med.nauk; PANOVA, L.M., kand.med.nauk

Treatment of onychomycoses with keratolytic and fungicidal plasters. Vest.derm.i ven. no.1:65-67 '62. (MIRA 15:1)

1. Mikologichkoye otdeleniye Moskovskoy gorodskoy bol'nitsy No.23 imeni Medsantrud (for Marochkina, Kononikhina). 2. Poliklinika No.1 Ministerstva zdravookhraneniya RSFSR (for Kolokolova). 3. TSentral'naya poliklinika No.1 Ministerstva oborony SSSR (for Yakimenko). 4. TSentral'naya poliklinika No.1 Ministerstva zdravookhraneniya RSFSR (for Panova).

(DERMATOMYCOSIS) (NAILS (ANATOMY)--DISEASES)
(PLASTERS (PHARMACY))

POPOV, L.Ye.; KARPOV, G.I.; PANOVA, L.M.; PLESHKOV, A.V.

Mechanism of K-state formation in cold-deformed nickel-chromium alloys. Dokl. AN SSSR 142 no.1:72-74 Ja '62. (MIRA 14:12)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete im. V.V. Kuybysheva. Predstavleno akademikom G.V. Kurdyumovym.

(Deformations (Mechanics))
(Nickel-chromium alloys--Electric properties)

L 13047-65 EWT(m)/EWP(w)/EPF(n)-2/EWA(d)/EWP(t)/EWP(b) Pu-4/Pad ASD(f)-2/
AS(mp)-2/AEDC(a)/AFWL/SSD/ASD(m)-3/ASD(a)-5/ESD(t) JW/JD/HW/JG/MLK

ACCESSION NR: AT4046834 S/0000/64/000/000/0150/0154

AUTHOR: Popov, L. Ye.; Sukhovarov, V. F.; Panova, L. M.; Sakova, M. P. B

TITLE: Effect of atomic defect relaxation on diffusion transformation in Ni-Mo alloys

SOURCE: AN SSSR. Nauchnyy sovet po problemu zharoprochnykh splavov. Issledovaniya staley i splavov (Studies on steels and alloys). Moscow, Izd-vo Nauka, 1964, 150-154

TOPIC TAGS: diffusion, nickel, molybdenum, nickel molybdenum alloy, activation energy, migration energy, diffusion transformation, atomic defect, atomic defect relaxation

ABSTRACT: During stepwise tempering or heating at a constant rate, cold-worked nickel reveals two stages of atomic defect relaxation at temperatures higher than

L 13047-65

ACCESSION NR: AT4046834

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comparison with Ni-Cr and Ni-Fe alloys. Fig. 1 of the Enclosure shows that the cold-worked Ni-Mo alloy shows a marked increase in electrical resistance during tempering. Moreover, the sample length decreases. At temperatures above 200C, the activation energy in the cold worked alloy increases, reaching a constant value of 66±2 kcal./mole at 270-300C. Tests were also made involving measurement of the vacancy migration energy. It was found that for nickel, this energy is approximately equal to the vacancy formation energy. For a Ni-Cr alloy, the first (vacancy migration energy) is 39±2 kcal./mole and the second is 40±3 kcal./mole.

ASSOCIATION: none

SUBMITTED: 16Jun64 ENCL: 01 SUB CODE: MM

NO REF SOV: 006 OTHER: 008

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L 18552-63 EWP(q)/EWT(m)/BDS AFFTC/ASD Pad JD/WB

ACCESSION NR: AP3001695 S/0126/63/015/005/0703/0709

AUTHORS: Sukhovarov, V.F.; Popov, L.Ye; Karavayeva, V.V.; Panova, L.M.; Kharlova, R.P.; Makogon, M. B.

66
62

TITLE: Investigation of the atomic redistribution process in Ni + 10 at.% Mo alloy

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 5, 1963, 703-709

TOPIC TAGS: atomic redistribution, Ni-Mo alloy, nickel-molybdenum alloy

ABSTRACT: The thermal capacity and electrical resistivity of the alloy Ni + 10 at.% Mo was measured in studying formation of the K-state and its influence on the mechanical properties of the alloy. It is believed that short-range order formation is the necessary condition for K-state origin. The alloy was a homogeneous solid solution, the thermal treatment of which caused a variation in the degree of the short-range order. The difference between Ni and Mo atomic radii affects the activation energy of the formation and movement of vacancies which bring about the formation of K-state. A continuous heating of the specimen showed an uninterrupted increase in thermal capacity up to 330°C. At this point

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ACCESSION NR: AP3001695

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a decrease began and lasted to 390°. This phenomenon is explained by formation of the K-state and by its subsequent destruction at 400C where the thermal capacity resumed its increase. The tests showed that formation of K-state increases the magnitude of electrical resistivity. "We express our sincere appreciation to Professor M. A. Bol'shanina for drawing our attention to the Ni-Mo system and to Engineer L.K. Novikova for the hydrogen annealing of the samples". Orig. art has: 5 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'skiy institut (Siberian Physicotechnical Scientific Research Institute)

SUBMITTED: 07Jul62	DATE ACQ: 11Jul63	ENCL: 00
SUB CODE: ML	NO REF SOV: 020	OTHER: 015

Card 2/2

ARIYEVICH, A.M.; PANOVA, L.M.; FROLOVA, O.N.

Sulsen soap. Med.prom. 15 no.9:46 S '61. (MIRA 14:9)

1. TSentral'nyy kozhno-venerologicheskiy institut, TSentral'naya poliklinika i poliklinika No.I Ministerstva zdravookhraneniya RSFSR.
(SELENIUM SULFIDE--THERAPEUTIC USE)
(SEBACEOUS GLANDS--DISEASES)

BAROCHINA, B.Ya.; KATUSHKIN, V.P.; MINSTER, V.Sh.; PITINOVA, L.V.; PANOVA, L.N.; TRUSOVA, T.N.

Testing of a unit for the recovery of carbon disulfide. Khim. volok. no.4:69-73 '63. (MIRA 16:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (for Barochina, Katushkin, Minster).
2. Kalininskiy kombinat iskusstvennogo volokna (for Pitinova, Panova, Trusova).

ZEMSKOV, I.F.; KOLESNIKOV, E.I.; NIVIN, P.I.; PANOVA, L.N.

Selecting the activated carbon for the adsorption of carbon disulfide from the air of viscose manufacture under 'fluidized bed" conditions. Khim. volok. no.2:57-62 '64. (MIRA 17:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut po promyshlennoy i sanitarnoy ochistke gazov (for Zemskov, Kolesnikov).

PANOVA, L.N.; SUKHOLET, A.Yu.

Determination of the average degree of polymerization of cellulose and of its fractional content under plant laboratory conditions. Khim.volok. no.5:69-70 '60. (MIRA 13:12)

1. TSentral'naya zavodskaya laboratoriya Kalininskogo kombinata.
(Cellulose) (Polymerization)

MELESHKO, V.P.; PANOVA, L.N.

Theory of the chromatographic removal of electrolyte impurities from salt solutions. Trudy VGU 49:71-77 '58. (MIRA 13:5)
(Salts) (Electolytes) (Chromatographic analysis)

RYABININA, A.I.; PANOVA, L.N.

Causes of bright and dull lusters of viscose silk. Khim.volok. no.5:73-74 '59. (MIRA 13:4)

1. Kalininskiy kombinat.
(Rayon)

L 60857-65 EPF(c)/EWP(j)/EWT(m)/T RM
ACCESSION NR: AR5011416 UR/0081/65/000/006/S072/S072

SOURCE: Ref. zh. Khimiya, Abs. 6S489

AUTHOR: Nikolayev, A. F.; Panova, L. P.; Afanas'yeva, K. S.

TITLE: Preparation and properties of polyurethane foam plastics

CITED SOURCE: Tr. Leningr. tekhnol. in-ta im. Lensoveta, vyp. 63, 1964, 76-79

TOPIC TAGS: foam plastic, polyurethane plastic, polyurethane, kerogen

TRANSLATION: The authors demonstrate the possibility of using the air-oxidation products of oil-shale kerogen for the preparation of polyester-resin foam plastics based on mixtures of unpurified and purified dibasic acids. As a curing agent, use was made of 2,4-toluylene diisocyanate or the product of its reaction with metriol

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ACCESSION NR: AR5011416 0

were completed in 48 hrs. By heating up to 60-120°C the process can be accelerated. The physicomechanical properties of the samples as a function of the composition of the mixtures were also determined. Z. Ivanova.

SUB CODE: MT ENCL: 00

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