

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 157 (USSR) SOV/137-57-6-10564

AUTHORS: Kotlyar, I.Kh., Ponomarenko, R.M.

TITLE: Selection of Grades of Stainless Steels for the Manufacture of Tomato-canning Equipment (Vybor marok nerzhaveyushchikh staley, prigodnykh dlya izgotovleniya oborudovaniya tomatnogo proizvodstva)

PERIODICAL: Tr. Vses. n.-i. in-t konserv. i ovoshchesushil'n. prom-sti, 1956, Nr 6, pp 61-67

ABSTRACT: The corrosion resistance (CR) of grades EYal-T, Yal-T, and Zh-1 stainless steels in various tomato media was investigated as well as the effect of the contact of stainless steel and copper on the CR of steel. A part of the specimens was tested with a welding seam of the same grade steel. CR was determined by the loss in weight. The steels investigated are fairly resistant to tomato products of various concentrations. The welding seams possess the same CR as the parent metal. CR of steel in sulfite-treated tomato pulp containing 0.2% H_2SO_3 proved inadequate, and therefore the grades investigated cannot be recommended for use in equipment for processing sulfite-treated products.

N.K.

Card 1/1

KOTLYAR, I. Kh., kandidat tekhnicheskikh nauk.; KOCHETOVA, L.T., starshiy nauchnyy sotrudnik.; SKOPCHENKO, G.A., starshiy nauchnyy sotrudnik.; SYCHEVA, M.Ye., mladshiy nauchnyy sotrudnik.

Change in quality of canned baby foods during storage. Ref. nauch. rab. VNIKOP no.3:22-27 '55. (MLRA 9:11)
(food, Canned--Storage) (food--Bacteriology)

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>CA</p> <p>Regeneration of tartrate and lead salts from the residues of sugar analyses. I. Kh. Kotlyar, <i>Pishchetsaya Prom.</i> 1944, No. 12, 48-50.—Owing to the shortage of chem. reagents in the Soviet Union during the war, simple methods for the regeneration of tartrate and Pb salts used in the analysis for sugar are presented. S. Gottlieb</p> <p>28</p>																			
ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
MATERIALS INDEX										VALTIMER INDEX									
COMMON ELEMENTS										1ST AND 2ND ORDERS									
GROUPS										1ST AND 2ND LETTERS									
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE										A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE									

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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS																																									
PROCESS AND PROPERTIES INDEX																																																			
<p>11</p> <p>7</p> <p>The Passage of Tin from the Container into the Canned Foods. I. Kh. Kotlyar, S. D. Sytnik, and K. N. Babina (<i>Korroziya i Met'lye v Nry.</i> 1941, 7, (3), 54-57; <i>Chem. Zentr.</i>, 1943, 114, (1), 1727; <i>C. Abn.</i>, 1944, 88, 4055). [In Russian.] The degree of ripeness and the origin of canned vegetables do not affect the passage of tin from the tinned layer. Canned vegetables, including tomatoes, have a strong corroding effect on the tinfoil. It is suggested that the inner surface of the cans should be lacquered to prevent attack of the tin. Corrosion is diminished by coating the cans with sunflower oil.</p>																																																			
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AUTHOR INDEX																																																			
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1ST AND 2ND ORDERS													PROCESSES AND PROPERTIES INDEX													3RD AND 4TH ORDERS												
COMMON ELEMENTS													COMMON VARIABLES INDEX																									
OPEN MATERIALS INDEX													<p> <i>P</i> </p> <p> <i>2</i> </p> <p> The resistance of copper to the solvent action of tomatoes. I. Kh. Kotlyas, M. D. Oikhman and L. O. Shnaldman. <i>Konservnaya Prom.</i> 1935, No. 4, 13-21.--- Cu plates were immersed in hot tomato juice of 0.00% acidity and in a juice acidified artificially with citric or malic acid up to 2%, i. e., at pH 4.2-3.1. Circulation of the juice, variation in duration of boiling from 1 to 8 hrs., and brief admission of air during the expt. did not increase the solution of Cu. Cu plates wet with water or with tomato juice for some time before the expt. became covered with oxide films; this greatly increased the soln. by boiling juice. For this reason uninterrupted boiling is necessary in processing tomatoes in Cu app. In the industry, the juice passes alternately through Fe and Cu app. or piping. The Fe dissolved in the juice increases the destructiveness to Cu ten-fold. </p> <p style="text-align: right;">B. V. Shvartzberg</p>																									
ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION													E-Z																									
3RD AND 4TH ORDERS													1ST AND 2ND ORDERS													COMMON ELEMENTS												
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1ST AND 2ND ORDERS													3RD AND 4TH ORDERS													COMMON ELEMENTS												

SHAPIRSHTEYN, Ya.A., inzh.; KOTLYAR, I.I., inzh.; KHAZIN, Ye.A., inzh.

Mercury-type shunting disconnecting switch. Energ. 1
elektrotekh. prom. no.1:23-24 Ja-Mr'64. (MIRA 17:5)

L 44348-66 EWT(m)/EWP(j)/T IJP(c) WW/RM
ACC NR: AP6023056 (A) SOURCE CODE: UR/0191/66/000/004/0003/0004

AUTHOR: Zegel'man, V. I.; Zil'berman, Ye. N.; Kotlyar, I. B.; Svetozarskiy, S. V. 29
B

ORG: none

TITLE: Low temperature emulsion polymerization of vinyl chloride

SOURCE: Plasticheskiye massy, no. 4, 1966, 3-4

TOPIC TAGS: emulsion polymerization, vinyl chloride, polyvinyl chloride, vinyl plastic

ABSTRACT: Kinetics of vinyl chloride polymerization was studied at -20°C, pH=3-13, duration 0-4 hours, using a mixture of sodium alkylsulfonates with 14-18 carbon atoms as emulsifier and ammonium persulfate-ferrous sulfate (0-2 g/l (NH₄)₂S₂O₈) redox system as initiator. A maximum of 80-85% yields of polyvinyl chloride were obtained with an equimolar ratio of the components of the redox system at pH=3, polymerization duration equal to 2-4 hours, and 1-2% emulsifier. The polymer molecular weight was found to increase with increasing amount of emulsifier used. The low temperature polymerization used in this work gave PVC with 95-100°C glass transition. Orig. art. has: 4 figures.

15

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 001

UDC: 678.743.22 : 66.095.262.3

Card 1/1 blg

L 24534-66

ACC NR: AP6011016

properties in the polymerization of vinyl chloride were investigated. The properties of aqueous solutions of styromal were found to depend strongly on its molecular weight and on the degree of its neutralization. These factors played a substantial part in the use of salts of styromal as the emulsion stabilizer during the polymerization of vinyl chloride. The best results were obtained with a high molecular sample which had been 25% neutralized. The data obtained from the suspension polymerization show that the stabilizing properties of styromal depend considerably on its cross-linking tendencies. Orig. art. has: 4 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 07Oct63/ ORIG REF: 003/ OTH REF: 002

Card 2/2 *06/63*

L 24534-66 EWT(m)/EWP(j)/I/ETC(m)-6 IJP(c) DS/JD/WW/JG/RM

ACC NR: AP6011018

(A)

SOURCE CODE: UR/0080/66/039/003/0642/0646

AUTHOR: Kotlyar, I. B.; Shvarev, Ye. F.; Chernysheva, N. M.

ORG: none

TITLE: Some properties of aqueous solutions of sodium salts of styrene-maleic anhydride copolymer

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 3, 1966, 642-646

TOPIC TAGS: styrene, maleic anhydride, emulsion, copolymer, polymerization

ABSTRACT: The stability of concentrated emulsions stabilized with protective colloids is attributed at the present time to the formation of a stable film of stabilizer on the interface. The present article examines those properties of styromal, a styrene-maleic anhydride copolymer (whose sodium salt is a stabilizer employed in suspension polymerization) which can determine the stability of the protective film at the interface. Such properties are the molecular weight and the degree of neutralization of the copolymer in solution. The styromals studied had different molecular weights. Their viscosity, surface tension, pH, foaming, and stabilizing

Card 1/2

UDC: 542.951.92 + 547.27

ZIL'BERMAN, Yu.N.; KOTLYAR, I.B.; POMERANTSEVA, E.G.; OVCHINNIKOVA, L.M.

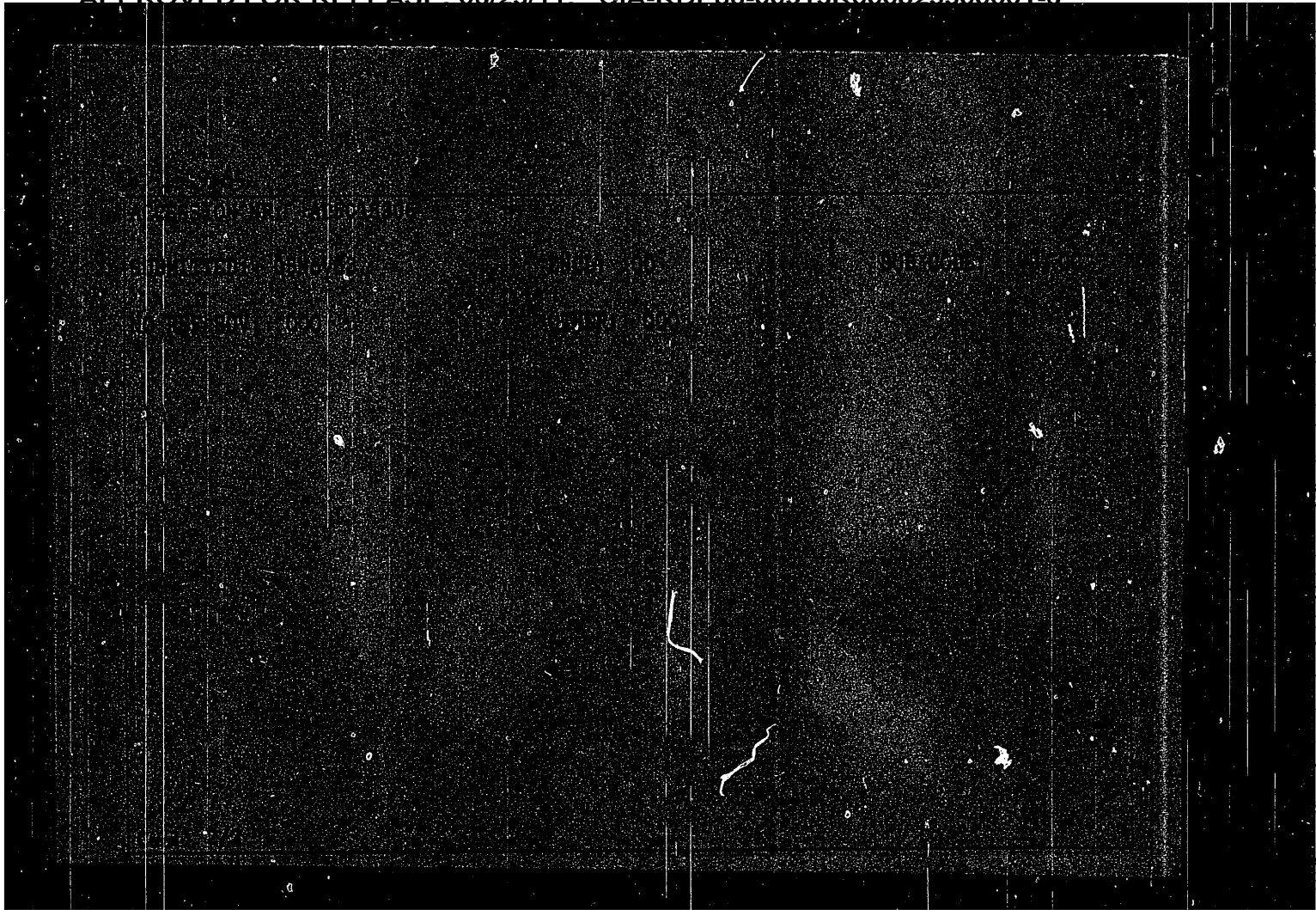
Some physicochemical bases of the formation of cyclohexanone oximes
by hydroxylamine sulfite. Khim.prom. 41 no.7:488-492 JI '65.

(MIRA 18:8)

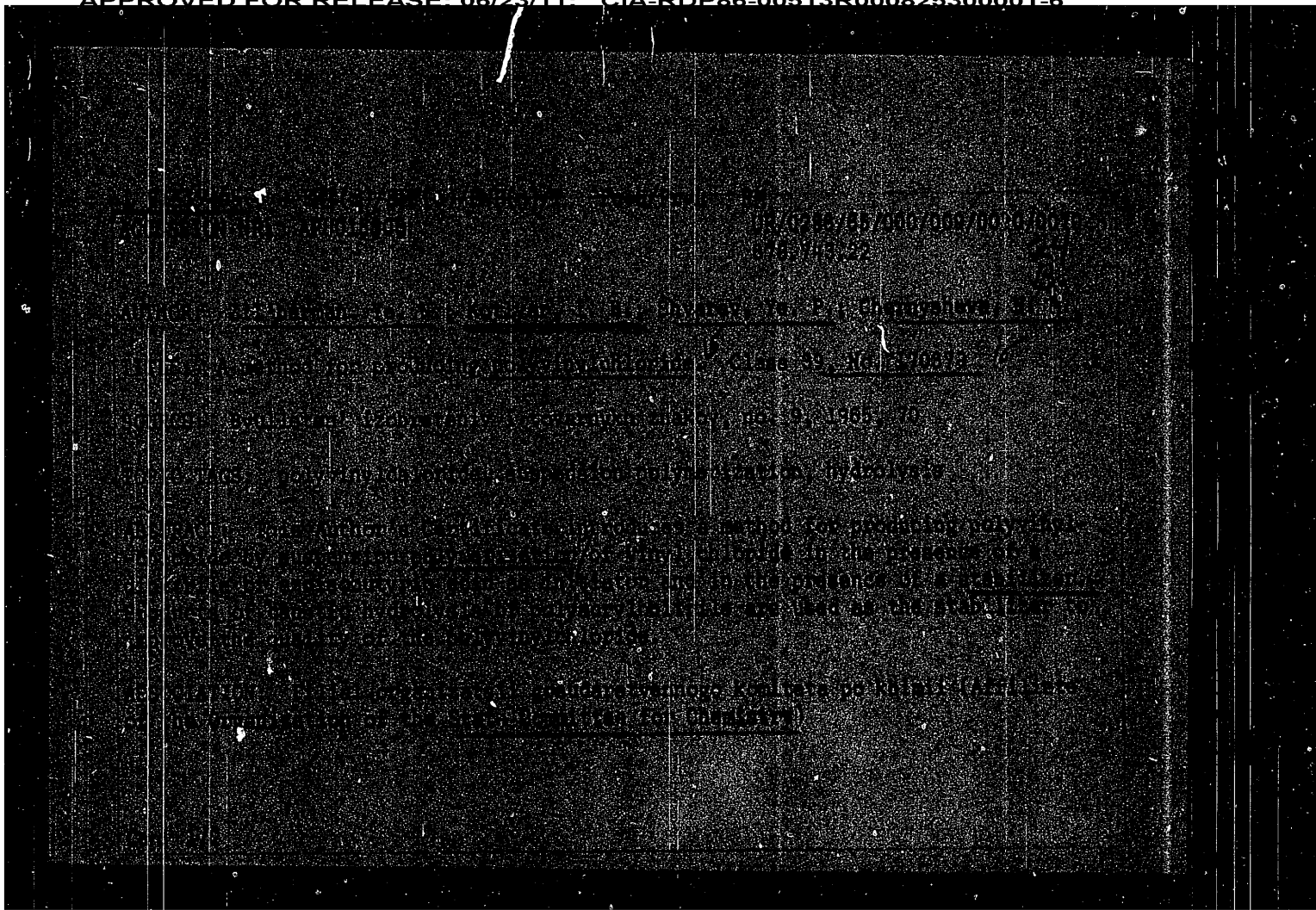
KOTLYAR, I.B.; RYBKIN, E.P.

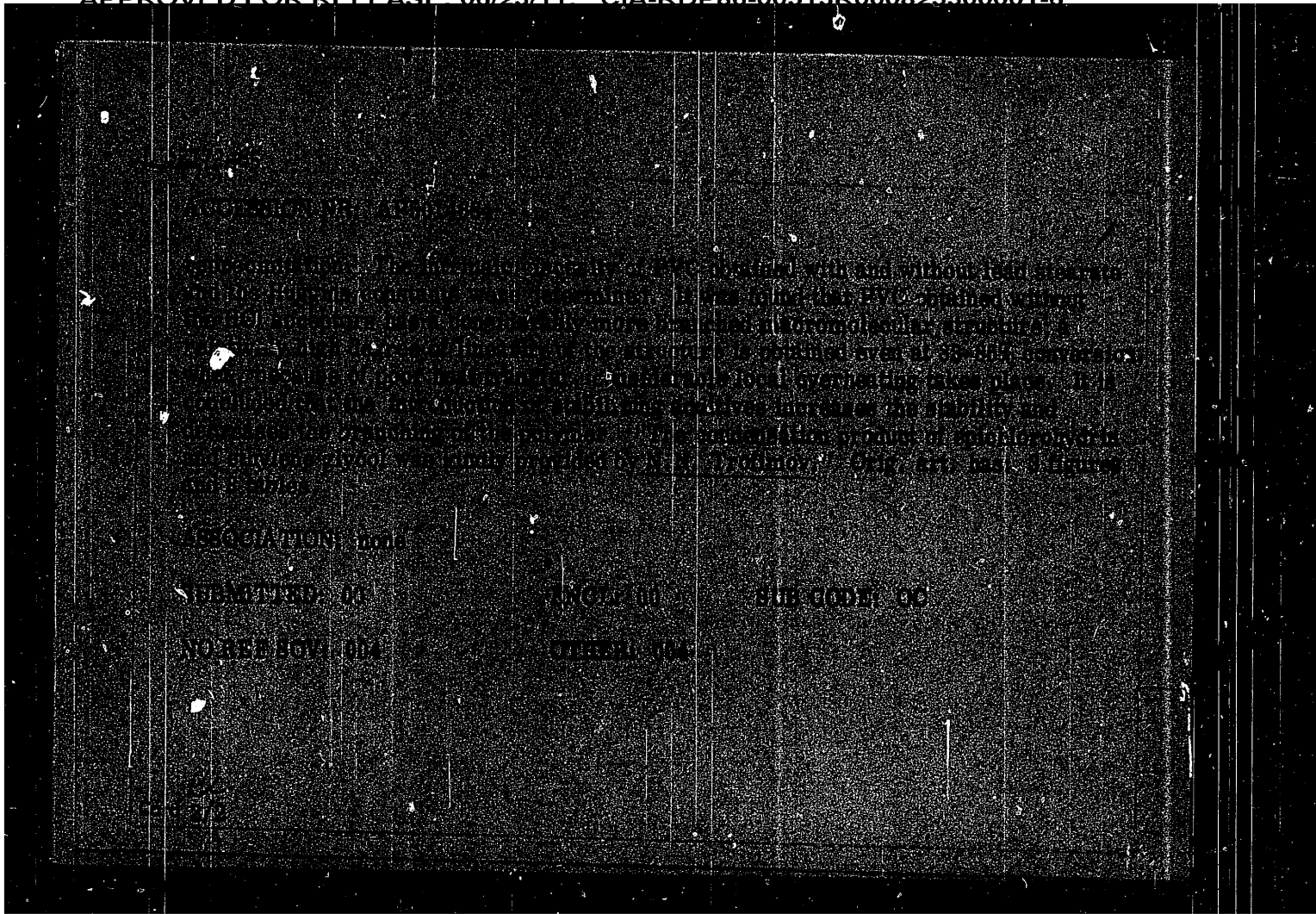
Effect of the intensity of mixing on the rate of oximation of
cyclohexanone by hydroxylamine sulfate in a heterogeneous medium.
Khim. prom. 41 no.3:175-177 Mr '65. (MIRA 18:7)

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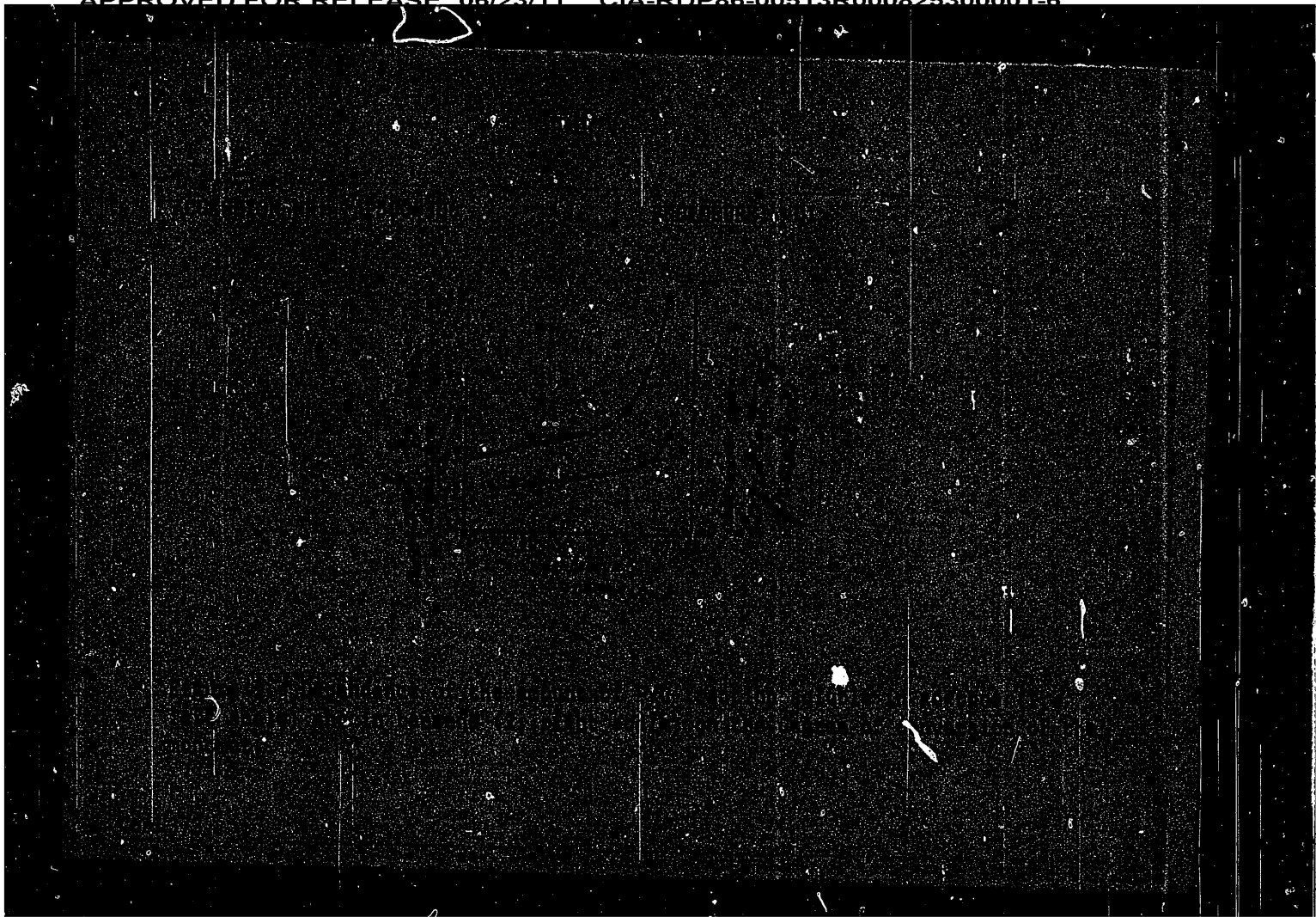




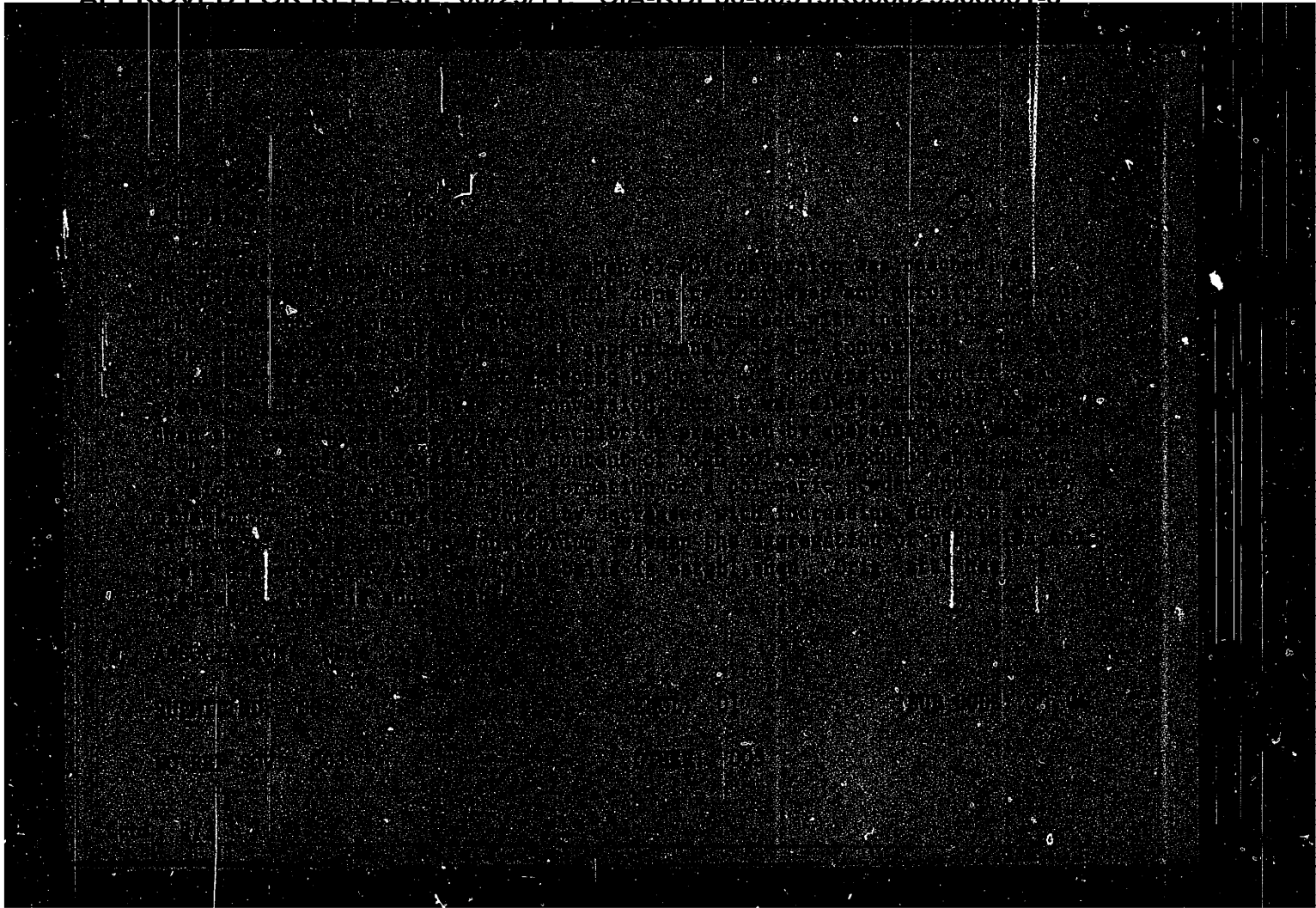
ACQUISITION MR. ADAMS
ACTION: [illegible]
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BY: [illegible]
SUBJECT: [illegible]
[The remainder of the page contains several paragraphs of extremely faint, illegible text, likely a technical report or document.]

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ACCESSION NR: AP4018167

the latex are obtained with 0.5% emulsifier; higher and lower emulsifier concentrations increase these properties. Stable latexes with relatively coarse particles can be obtained with low synthile sulfonate emulsifier concentrations. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: MA, PH

NR REF SOV: 003

OTHER: 008

Card 2/2

ACCESSION NR: AP4018167

S/0191/64/000/003/0043/0045

AUTHORS: Shevlyakov, A.S.; Kotlyar, I.B.; Mukhina, I.A.

TITLE: Effect of the concentration of the emulsifier synthine sulfonate on properties of polyvinylchloride latex.

SOURCE: Plasticheskiye massy*, no.3, 1964, 43-45

TOPIC TAGS: polyvinylchloride latex, emulsifier, concentration, synthine sulfonate, latex property, latex stability, particle size, aggregate stability

ABSTRACT: The effect of the concentration of the emulsifier synthine sulfonate on polyvinylchloride latex properties was examined. The synthine sulfonate was prepared by sulfochlorination of saturated C₁₂-C₁₈ hydrocarbons. In the 0.1% emulsifier concentration range, which is the critical concentration, there are rapid changes (1) in the saturation of the particle surfaces with emulsifier, (2) in the latex aggregate stability and (3) in the particle size. Minimum saturation of the particle surface and minimum aggregate stability in

Card 1/2

33438

S/064/62/000/001/001/008
B110/B138

Continuous method of producing...

$2 \text{O}^{-0} + (\text{NH}_2\text{OH})_2 \cdot \text{H}_2\text{SO}_4 \rightarrow 2 \text{O}^{\text{=NOH}} + \text{H}_2\text{SO}_4 + \text{H}_2\text{O}$, with H_2SO_4 being neutralized by NH_3 . Thus, the acidity indicates the stage of oxime

formation. Preliminary experiments were carried out to determine τ , the contact period which must elapse before the acidity of the reacting mass becomes constant, and the percentage extraction of A as dependent on its concentration in the initial sulfate solution. Results: $\tau = 15 - 20$ min; optimum A concentration ~ 20 g/liter. B and the stage II sulfate solution containing 20 - 25 g/liter of A pass continuously into oximator 1 (Fig. 1) of stage I. The resulting mixture is passed into 2, where it is neutralized with gaseous NH_3 . The bottom layer in separator 3, spent sulfate solution, is passed into an evaporator, the upper one (oxime solution and B) into collector 4, and thence into stage II oximator 5, where it is mixed with a new A solution. NH_3 is used in the stage II neutralizer 6. The upper oxime layer in separator 7 passes to the next stage, and the sulfate solution passes via collector 8 into oximator 1. A stoichiometric ratio must be preserved between the fresh amounts of B and A fed into 1 and 5. There are 1 figure and 2 tables.

Card 2/2

33438

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B110/B138

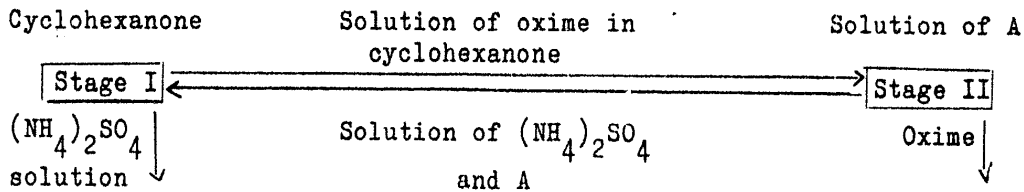
15.8080

AUTHORS: Kotlyar, I. B., Matveyeva, G. N., Smolyan, Z. S., Fogel', Ts. I., Gulyakov, V. M., Kudryavtsev, Ye. N.

TITLE: Continuous method of producing cyclohexanone oximes

PERIODICAL: Khimicheskaya promyshlennost', no. 1, 1962, 18 - 19

TEXT: A two-stage, continuous method of oxime production has been developed. Not only could it be automated, it also produces better quality oximes, and reduces losses of hydroxylamine hydrosulfate (A):



Reaction I is conducted with an excess of cyclohexane, and II with an excess of A. The formation of cyclohexanone oximes follows the reaction

Card 1/8 2

21145

Optimum acidity in the process...

S/081/61/000/006/006/015
B101/B201

precipitate results. If there is no water (excess of SO_3) these effects are never observed. [Abstracter's note: Complete translation.]

X

Card 3/3

24445

Optimum acidity in the process...

S/081/61/000/006/006/015
B101/B201

more than ~ 50% in this case). Considering that acidity does not exceed 65% under operational conditions, and that yields of II attain 96%, the latter view may be regarded as the correct one. Optimum acidity of the reaction mixture must be such acidity as ensures a complete binding of the water, as the presence of even smallest water amounts causes the yield of II to drop sharply, while impairing its quality. Such an acidity is brought about by having the process take place in the presence of 1.5 - 2% SO_3 . Based on stoichiometric calculations, a diagram has been constructed of the acidity of the reaction mass as a function of the moistness of initial I, serving to determine the optimum acidity that is required for a I of a given moistness. The authors' view on the structure of the primary product of regrouping of I and on the degree of the optimum acidity that is required for obtaining maximum yields of II is confirmed by experimental data. A simple and quick method of qualitative control of an occasional water content in the reaction mixture is offered. In this method, 5 ml of the mixture are shaken with 30 ml of distilled water. If water is present (lack of SO_3) a stable foam is formed, and a flaky

Card 2/3

24445

53610S/081/61/000/006/006/015
B101/B201

AUTHORS: Kotlyar, I. B., Gulyakov, V. M.

TITLE: Optimum acidity in the process of cyclohexanone oxime regrouping to caprolactam

PERIODICALS: Referativnyy zhurnal. Khimiya, no. 6, 1961, 199-200, abstract 6Ж83 (6Zh83). ("Tr. po khimii i khim. tekhnol. (Gor'kiy)", 1959, vyp. 3, 631-636)

TEXT: Two views are maintained in the literature regarding the structure of the primary product of cyclohexanone oxime (I) regrouping to caprolactam (II) under the effect of H_2SO_4 or fuming sulfuric acid. According to one, this product is an ester of the lactim form of II with H_2SO_4 ; (in this case, so much fuming sulfuric acid is required for binding the water contained in commercial I and separated in the reaction that the acidity of the reaction mixture is $\sim 80\%$). In the second view, this product is considered to be a salt of II with H_2SO_4 (acidity need not be

Card 1/3

S/081/61/000/020/039/089
B140/B110

AUTHORS: Kotlyar, I. B., Gulyakov, V. M.

TITLE: Optimum temperature of the regrouping process of cyclohexanone oxime in the lactam of ϵ -aminocaproic acid

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 158, abstract 20Zh70 (Tr. po khimii i khimtechnol., (Gor'kiy) no. 3, 1960, 492 - 494)

TEXT: It has been found that the lactam of ϵ -aminocaproic acid with maximum yield and optimum properties regarding the permanganate number is obtained by regrouping cyclohexanone oxime in H_2SO_4 with 1 - 2% SO_3 excess at 100 - 105°C. A schematic diagram of the production equipment is given. [Abstracter's note: Complete translation.]

Card 1/1

84-58-2-12/46

AUTHOR: ~~Kotlyar, I.~~, Secretary of the Party Bureau (Khar'kov)

TITLE: Close Contact With Local Organizations (V tesnom kontakte s mestnymi organizatsiyami)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 2, p 8 (USSR)

ABSTRACT: The article tells about instances where the higher level party bureaus helped operational units to solve their problems, and how close mutual contacts with other establishments, such as collective farms, factories, athletic societies, ~~the DOSAAF etc~~, contributed to the improvement of production indicators of the operational unit.

AVAILABLE: Library of Congress

1. Political Sciences - USSR

Card 1/1

SHCHEVYAKOVA, L.A.; KOTLYAR, G.Ya.; VLEDUTS, G.E.

Use of systems of binary structural notations for retrieval of
information about organic compounds. NTI no.4:31-34 '65.

(MIRA 18:6)

KOTLYAR, G.V.

New representatives of the genus *Productus* from the Upper Permian of the southern part of the Maritime Territory. Trudy VSEGEI 93:123-133 '64.
(MIRA 18:7)

KOTLYAR, G.V.; POPEKO, L.I.

Age of Permian sediments in the Chironskoye field (Onon-Shilka
interfluve). Izv.vys.ucheb.zav.; geol. i razv. 6 no.10:28-34
0 '63. (MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut
i Chitinskoye geologicheskoye upravleniye.

BOBROV, V.A.; KOTLYAR, G.V.

Sediments of the Kazan stage in eastern Transbaikalia and north-eastern Mongolia. Dokl. AN SSSR 149 no.5:1141-1144 Ap '63.
(MIRA 16:5)

1. Geologorazvedochnoye upravleniye Mongol'skoy Narodnoy Respubliki i Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut. Predstavleno akademikom A.L.Yanshinym.
(Transbaikalia--Geology, Stratigraphic)
(Mongolia--Geology, Stratigraphic)

KOTLYAR, G.V.

Genus *Yakovlevia* Fredericks. Dokl. AN SSSR 140 no.2:459-460
S '61. (MIRA 14:9)

1. Predstavleno akademikom D.V.Nalivkinym.
(Brachiopods, Fossil)

MIKLUKHO-MAKLAY, A.D.; KOTLYAR, G.V.

Work of the Bureau of the Perm Interdepartmental Commission of
the Stratigraphic Committee in the first half of 1964. Sov. geol.
8 no.3:149-150 '65. (MIRA 18:5)

SAMSONOV, G.V.; PILIPENKO, A.T., prof., doktor khim. nauk; NAZARCHUK, T.N., kand. khim. nauk; Primalni uchastiye: POPOVA, O.I., kand. khim. nauk; KOSOLAPOVA, T.Ya.; OBOLONCHIK, V.A.; KOTLYAR, G.Kh., mladshiy nauchnyy sotr.; KUCHAY, L.N.; KOPYLOVA, V.P.; KABANNIK, G.T.; KLIBUS, A.Kh.; MODYLEVSKAYA, K.D.; RADZIKOVSKAYA, S.V.; NIKITINA, Ye.A., red.; KAMAYEVA, O.M., red. izd-va; KARASEV, A.I., tekhn. red.

[Analysis of high-melting compounds] Analiz tugoplavkikh soedinenii. Moskva, Metallurgizdat, 1962. 256 p. (MIRA 15:7)

1. Chlen-korrespondent Akademii nauk USSR (for Samsonov).
(Intermetallic compounds--Analysis)
(Nonmetallic materials--Analysis)

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SUBJECT: Metals and Metallurgy		

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BN/pw/bmc
10-30-62

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Ch. II. Chemical Properties of Refractory Compounds		48
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Phosphides of transition metals		79
Sulfides of rare earths		84
Nonmetallic compounds [B ₄ C, SiC, Si ₃ N ₄ , BN, BP]		86
Ch. III. Methods of Determining Basic Components of Refractory Compounds		99
Ch. IV. Analysis of Refractory Compounds		143
Carbides of transition and alkaline earth metals		143
Nitrides		174
Borides		181
Silicides		210
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Analysis of Refractory (Cont.)

SOV/6030

COVERAGE: The book contains data from the literature and from laboratory research on the chemical and mechanical properties, crystalline structure, chemical analysis, production, and industrial and other applications of silicon carbide and other refractory compounds. Methods of determining the basic components of refractory compounds (carbon, boron, nitrogen, and silicon) are reviewed and detailed methods for the chemical analysis of all presently known refractory compounds given. The authors are associated with the Institut metallokeramiki i spetsial'nykh splavov, AN SSSR (Institute of Powder Metallurgy and Special Alloys, Academy of Sciences USSR). No personalities are mentioned. There are 327 references: 175 Soviet and the remainder mainly English and German.

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KOTLYAR, G. KH.

PHASE I BOOK EXPLOITATION

SOV/6030

Samsonov, G. V., Corresponding Member, Academy of Sciences UkrSSR; A. T. Pilipenko, Doctor of Chemical Sciences, Professor; T. N. Nazarchuk, Candidate of Chemical Sciences; O. I. Popova, Candidate of Chemical Sciences; and T. Ya. Kosolapova, V. A. Obolonchik, G. Kh. Kotlyar, L. N. Kuchay, V. P. Kopylova, G. T. Kabanik, A. Kh. Klibus, K. D. Modylevskaya, and S. V. Radzikovskaya.

Analiz tugoplavkikh soyedineniy (Analysis of Refractory Compounds) Moscow, Metallurgizdat, 1962. 256 p. 3250 copies printed.

Ed.: Ye. A. Nikitina; Ed. of Publishing House: O. M. Kamayeva; Tech. Ed.: A. I. Karasev.

PURPOSE: This book is intended as a laboratory manual for personnel in plant laboratories of the machinery, chemical, and aircraft industries and scientific research institutes. It can also be used by chemistry students at universities and schools of higher education.

Card 1/4

KOTLYAR, G.I.; LEBEDEVA, G.Ya.

Polarographic analysis of the changes in corn protein during
drying. Izv. vys. ucheb. zav.; pishch. tekhn. no.2:155-158 '63.
(MIRA 16:5)

1. L'vovskiy trgovo-ekonomicheskii institut, kafedra khimii.
(Proteins) (Corn (Maize)--Drying) (Polarography)

KOTLYAR, G.I.

Amperometric determination of mercapto groups in the proteolysis
of grain [with summary in English]. Biokhimiia 24 no.1:15-18
Ja-F '59. (MIRA 12:4)

1. Chair of Chemistry of the Trade-Economic Institute, Lvov.
(MERCAPTO GROUP)
(CONDUCTOMETRIC ANALYSIS)
(GRAIN--ANALYSIS)

KOTLYAR, G. I.
KOTLYAR, G. I.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Biological Chemistry

✓ Polarographic studies of the proteolytic activity of grain.
G. I. Kotlyar (Com. and Econ. Inst., Lvov). *Biokhimiya*
18, 423-4 (1953).—The polarographic activity of proteins
and products of their hydrolysis detn. the constituents of
protein mols., polypeptides and amino acids with ~~—SH~~
and ~~—SS—~~ groups. Polarographic methods of Kolthoff
and Lingane (*Polyarografiya*, 1948 (*C.A.* 46, 3624i)) were
employed, and a new method has been developed for the
polarographic detn. of the proteolytic activity of grain
based on the increase in the height of the catalytic wave in
autolysis in water mixts. of ground grain. The increase
in the height of the wave corresponds to a high degree
(±3%) to the increase in the concn. of water-sol. N, not
precipitable by 2% $\text{CCl}_3\text{CO}_2\text{H}$, present in the autolytic
mixts. of the ground-up grain. It characterizes the kinetics
of the proteolysis of the protein substances and conditions
the degree of disaggregation of the protein mols. in the first
stages of proteolysis, the most important stage in bread
making. It reflects the changes in the proteolytic activity
of the enzymes during grain germination and flower storage.
It enables the detection of differences between proteolytic
activity of different wheat varieties and of different-year
crops. Only 3-5 g. of the grain are required for a polaro-
graphic detn. B. S. Levine

KOTLYAR, G. I.

KOTLYAR, G. I. -- "Investigation of the Proteolytic Activity of Grain
of the Western Oblasts of the Ukraine in the 1949-1950 Harvest."
Sub 13 Jun 52, Moscow Inst of National Economy Imeni G. V. Plekhanov.
(Dissertation for the Degree of Candidate in Technical Sciences).

SO: Vechernaya Moskva, January December 1952

KOTLYAR, G.

Duty to the people. NTO 5 no.8:42-43 Ag '63. (MIRA 16:10)

1. Rektor Obshchestvennogo instituta tekhnicheskogo
tvorchestva pri Odeaskom oblastnom sovete Vsesoyuznogo obshchestva
izobretateley i ratsionalizatorov, glavnyy konstruktor Odesskogo
zavoda "Avtogenmash."

OVCHARENKO, Valentina Semenovna; MILOV, Aleksandr Pavlovich; SHEIN,
Mikhail Kuz'mich; NOVOZHILOVA, Pobeda Semenovna; OSIPOV,
M.I., red.; KOTLYAR, M.S., red.; DORODNOVA, L.A., tekhn.red.

[Training construction workers] Podgotovka rabochikh-stroitelei.
Moskva, Vses.uchebno-pedagog.izd-vo Proftekhizdat, 1960. 34 p.
(MIRA 13:11)

(Building trades--Study and teaching)

KOTLYAR, E.S., red.; GOROKHOV, Yu.N., tekhn.red.

[Catalog of books to be published in 1959 by the All-Union Publishing House for Textbooks and Educational Literature of the Ministry of Labor Reserves of the U.S.S.R.] Plan vypuska izdani Vsesoiuznogo uchebno-pedagogicheskogo izdatel'stva Trudreservizdat na 1959 god. Moskva, Vses. uchebno-pedagog. izd-vo Trudreservizdat, 1958. (MIRA 12:7)

1. Vsesoyuznoye ob'yedineniye knizhnoy torgovli.
(Bibliography--Technology)

NOVIKOVA, E.T.; ZABORINA, N.B.; GORBUNOVA, A.A.; KOTLYAR, E.M.; GALITSKAYA,
V.D.

Latex base heat and sound insulating materials for subflooring.
Stroi. mat. 11 no.8:17-18 Ag '65. (MIRA 18:9)

KOTLYAR, B.I., inzh.

Technical and economic indices of the tractor industry. Trakt.
i sel'khoz mash. 31 no.1:38-40 Ja '61. (MIRA 14:1)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.
(Tractor industry)

2/2 ... #4, p. 47-51, Ap 1956
Institution : Pub. 128 - 11/29
Submitted : None
 : No date

AID P - 4484

Subject : USSR/Engineering AID - 4484
Card 1/2 Pub. 128 - 11/29
Author : Kotlyar, E. I., Engineer
Title : Reorganization of the work in the project design and technological institutes.
Periodical : Vest. mash., #4, p. 47-51, Ap 1956
Abstract : The author critically surveys the work of the design and technological institutes in machine construction. He finds their work not sufficiently progressive technologically. Their machine designs are too theoretical and without proper consideration of economy in production. These institutes are over numerous but are not sufficiently equipped with laboratories and their work is not properly coordinated. He proposes fewer but larger institutes, properly equipped, and closely associated with the production plants.

KOTLYAR, D.K.

Summing up the fulfillment of the plan for 1963 of the more important scientific research work and the introduction of the achievements of science and technology into metallurgy in the Ukrainian S.S.R. Met. i gornorud. prom. no. 2:80 Mr-Ap '64.

(MIRA 17:9)

KOTLYAR, D.K.

Developing and introducing new equipment and technology into
the coke by-products industry. Met. i gornorud. prom. no.2:
83-84 Mr-Ap '65. (MIRA 18:5)

KOTLYAR, D.K., inzh.

Apparatus for the separation of coke samples [from "Coke and Gas," no. 10, 1960]. Met. i gornorud. prom. no.1:90 Ja-F '62.
(MIRA 16:6)

(Sampling--Equipment and supplies)

KOTLYAR, D.K.; MUQYEV, G.D.; MELEZHNIK, V.P.

In the State Committee of the Council of Ministers of the
Ukrainian S.S.R. for the coordination of scientific research.
Met. i gornorud. prom. no.3:83-85 My-Je '65.
(MIRA 18:11)

KOTLYAR, D.K., inzh.

Coordinating council on the study of plans for research in
the by-product coke industry of the Ukrainian S.S.R. Met. 1
gornerud. prom. no.3:86 My-Je '62. (MIRA 15:9)
(Coke industry)

BENUA, F.F.; DUKOR, Z.G.; KLYUSHENKOV, I.S.; KONSTANTINOV, V.P.;
KOTLYAR, D.I.; MAYKOV, N.K.; PRAYSMAN, A.D.; SERGEYEV,
V.I.; TRUFANOV, V.G.; FEDOROV, V.F.; FRUMIN, S.R.;
CHERTKOV, Kh.A.; SHIBANOV, B.V.; CHERNOV, M.I., red.;
VITASHKINA, S.A., red.izd-va; BODROVA, V.A., tekhn. red.

[Handbook on ship repairs in two volumes] Spravochnik po
remontu sudov v dvukh tomakh. Pod obshchei red. M.I.
Chernova. Moskva, Izd-vo "Rechnoi transport." Vol.1. 1963.
550 p. (MIRA 16:12)

(Ships--Maintenance and repair)
(Marine engineering--Handbooks, manuals, etc.)

L 31026-66

ACC NR: AP6022953

Experiments were performed on rabbits in a soundproof chamber. The record was made on a 16-channel electroencephalograph of the Biofizpribor Plant, with leads running from the visual-auditory cortex, the reticular formation of the mid-brain, the ventromedial and lateral nuclei of the hypothalamus. Scopolamine was given intramuscularly immediately prior to the experiment in a dose of 0.1 - 0.2 mg/kg of bodyweight, and aminazine, in a dose of 1-2 mg/kg. Administration of physiological saline solution served as the control. Following reinforcement of the conditioned defensive reflex in response to a signal, in all rabbits a burst of synchronized oscillations of biopotentials at a frequency of 8 - 9.5 oscillations/ second was observed in the medial leads of the hypothalamus, visual-auditory region of the brain, and reticular formation of the mid-brain. Immediately after administration of scopolamine, electrical activity and conditioned reflex activity did not noticeably change. In 10-15 minutes after administration of scopolamine, slow waves (2-3 oscillations/ second) characteristic of the sleeping state originated in the intersignal intervals in all leads studied. It was found that aminazin in contrast to scopolamine initially induces disappearance of the conditioned defensive reflex; at the same time, absence of the rhythm of 8 - 10 oscillations/second was noted in the medial levels of the hypothalamus, and the inhibition of the reaction of excitation and unconditioned reflex. When scopolamine was administered to rabbits, the conditioned-reflex defensive reaction did not disappear, while aminazine blocked both the conditioned as well as the unconditioned component of this reflex. O. B. D'yachkova took part in the work.

This paper was presented by Active Member AMN SSSR V. V. Parin. Orig. art. has: 2 figures: [JPRS]

SUB CODE: 06 / SUBM DATE: 03Jul64. / ORIG REF: 007 / OTH REF: 010

Card 2/2 4C

E 31026-66

ACC NR: AP6022953

SOURCE CODE: UR/0219/66/061/003/0069/0073

AUTHOR: Kalyuzhnyy, L. V.; Kotlyar, B. I.

ORG: Department of Physiology of Higher Nervous Activity/directed by Professor
L. G. Voronin/ Moscow University im. Lomonosov (Kafedra fiziologii vyshey nervnoy
deyatel'nosti Moskovskogo universiteta)

TITLE: Effect of injection of small doses of scopolamine and aminazine on the
electrical activity of the cortex, reticular formation, and certain levels of the
hypothalamus in defensive (avoiding) conditioned reflexes of rabbits

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 61, no. 3, 1966, 69-73

TOPIC TAGS: rabbit, conditioned reflex, bioelectric phenomenon, encephalology, EEG,
drug effect, cerebral cortex, brain, reflex activity

ABSTRACT: Dynamics of changes in conditioned-reflex defensive activity and
electrical activity of the cortex, reticular formation of the mid-brain and
medial and lateral levels of the hypothalamus upon administration of small
doses of scopolamine and aminazine were studied. The main emphasis was laid
on changes in the EEG in the form of synchronized oscillations of biopotentials
at a frequency of 8 - 10 oscillations/second, which originate in response to
a signal stimulus and evince a direct relationship to the conditioned reflex
at all stages of its manifestation; this synchronized rhythm, with reinforcement
of the feeding reflex, is concentrated in the lateral level of the hypothalamus,
and in the defensive reflex -- in its ventromedial structures.

Card 1/2

UDC: 615.784.4+615.786]-092.259:612.822.3:612.833.81

ARBUZOV, M.P.; VAYSHTEYN, E.Ye.; KOTLYAR, B.I.; KRASNOVA, V.V.

X-ray K-absorption spectra of iron in carbide phases formed during the quenching of hardened carbon steel. Fiz. met. i metalloved. 19 no.6:835-839 Je '65. (MIRA 18:7)

1. Institut problem materialovedeniya AN UkrSSR i Odesskiy pedagogicheskiy institut imeni Ushinskogo.

KALYUZHNYI, L.V.; KOTLYAR, B.I.

Electric activity of the cortex, lateral and ventromedial nuclei of the hypothalamus and some other formations of the brain following food and defense reflexes in rabbits. Nauch.dokl.vys.shkoly; biol. nauki no.4:60-66 '65. (MIRA 18:10)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

KOTLYAR, B.I.; KALYUZHNYI, L.V.

Changes in the electrical activity of the cortex and some subcortical structures during the defense (nonavoidance) reflex in rabbits. Nauch. dokl. vys. shkoly; biol. nauki no.4:56-60 '64. (MIRA 17:12)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.

L 19892-63
ACCESSION NR: AP3007179

artifacts in the electrograms during movement of the animal indicates the high reliability of the recording method.

ASSOCIATION: Kafedra fiziologii vysshey nervnoy deyatel'nosti Gosudarstvennogo universiteta im. M. V. Lomonosova, Moscow (Department of the Physiology of Higher Nervous Activity, [Moscow] State University)

SUBMITTED: 12Jul62

DATE ACQ: 30Sep63

ENCL: 02

SUB CODE: AM

NO REF SOV: 001

OTHER: 000

Card 3/5

L 19892-63

ACCESSION NR: AP3007179

diameter. The base of each socket is connected to a corresponding electrode by means of a fine insulated wire which is soldered to the electrode above the phosphate cement. Fixing the electrodes and the adapter rosette in this manner permits the animal to be subjected to experiment for 8-10 months; even if the rosette becomes detached from the skull, the electrodes are not displaced, and the rosette does not lose contact with them. The arrangement is shown in Figs. 1-2 of the Enclosure. During the time of the experiment, a head (Fig. 1B) containing a number of prongs made of steel wire 0.2 to 0.3 mm in diameter is plugged into the rosette. The head socket is then fixed to the rosette by means of a screw socket sleeve. An insulated cable leads out from the back of the socket head. By means of a counterweight, the cord is held at a slight tension any time the animal moves. In experiments over a two-year period, the recording of biocurrents has been performed in the course of food-obtaining movements while the animal moves freely about an experimental chamber (60 x 75 cm in diameter). During the course of the experiment, the animal grabs a ring in his mouth and presses with his feet on a pedal. The absence of

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L 19892-63

ACCESSION NR: AP3007179

S/0239/63/049/009/1115/1116

AUTHOR: Kotlyar, B. I.

TITLE: Technique for recording brain potentials in freely moving rabbits

SOURCE: Fiziologicheskiiy zhurnal SSSR, v. 49, no. 9, 1963, 1115-1116

TOPIC TAGS: brain biopotential, electrode implanting, nichrome electrode, phosphate cement, monitoring free moving animal

ABSTRACT: A technique for recording brain biopotentials of freely moving animals has been developed based on the method devised by N. N. Lyubimov and L. G. Trofimov. Nichrome electrodes are fixed by means of phosphate cement on skull bone cleared of the periosteum. In 7 to 10 days when the wound has healed, a small plexiglass rosette 12 mm in diameter and 9 mm high is fixed on a part of the skull free of electrodes with the same quick-drying phosphate cement. The rosette contains 9 brass sockets 1.4 mm in

Card 1/5

VORONIN, L.G.; KOTLYAR, B.I.

Cortical electrical activity during the process of forming
and reinforcing motor food and defense conditioned reflexes.
Zhur. vys. nerv. deiat. 13 no.5:917-927 S-0163 (MIRA 16:11)

1. Chair of Physiology of Higher Nervous Activity, Moscow
University.

VAYNSHTEYN, E.Ye.; OVRUTSKAYA, R.M.; KOTLYAR, B.I.; LINDE, V.R.

Use of X-ray spectrum analysis in studying the valent state of manganese atoms in certain oxide semiconductors. Fiz. tver. tela 5 no.10:2935-2939 0 '63. (MIRA 16:11)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR i Odesskiy pedagogicheskiy institut im. K.D. Ushinskogo.

OVRUTSKAYA, R.M.; KOTLYAR, B.I.; VAINSHTEYN, E.Ye.

Shape and width of X-ray $K_{\alpha 1,2}$ lines of manganese in MnTe in the temperature region of antiferromagnetic transformations. Fiz. met. i metalloved. 15 no.2:303-304 F '63.
(MIRA 16:4)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR i Odesskiy pedagogicheskiy institut imeni Ushinskogo.
(Manganese telluride—Magnetic properties)
(X-ray spectroscopy)

KOTLYAR, B.I.

Neural substratum of epileptiform audiogenic reactions in rats.
Nauch.dokl. vys. shkoly; biol. nauki no.4:62-68 '63
(MIRA 16:11)

1. Rekomendovana kafedroy fiziologii vyshey nervnoy deyatel'-
nosti Moskovskogo gosudarstvennogo universiteta im. M.V.
Lomonosova.

*

KOTLYAR, B.I.; FLESS, D.A.

Mechanism of the action of corazole on the central nervous system.
Nauch. dokl. vys. shkoly; biol. nauki no.2:98-103 '62. (MIRA 15:5)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti
Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova.
(METRAZOLE--PHYSIOLOGICAL EFFECT) (BRAIN)

The effect of small additions of ... S/226/62/000/006/011/016
E039/E535

a sufficiently large admixture of rare earth elements (more for Ce and significantly less for Y) the effect on the absorption spectrum for iron is to produce an increase in width of the final photoelectric transition level and the appearance of a supplementary absorption band on the short wavelength side of the edge. From the analysis of the experimental data inferences are drawn on the possible mechanism of the effect of admixtures on the energy state of the atoms of the basic components of the ferrites. There are 10 figures. ✓

ASSOCIATIONS: Institut neorganicheskoy khimii SO AN SSSR
(Institute of Inorganic Chemistry SO AS USSR),
Institut metallokeramiki i spetsialnykh splavov
AN USSR (Institute of Metalceramics and Special
Alloys AS UkrSSR),
Odesskiy pedagogicheskiy institut im.K.D.Ushinskogo
(Odessa Pedagogic Institute imeni K.D.Ushinskiy)

SUBMITTED: April 14, 1962

Card 2/2

45259
5/226/62/000/006/011/016
E039/E535

18.8100

AUTHORS: Vaynshteyn, E.Ye., Gunchenko, A.I., Kotlyar, B.I.,
Ovrutskaya, R.M. and Shapiro, G.A.

TITLE: The effect of small additions of oxides of yttrium,
lanthanum and cerium on certain magnetic character-
istics of magnesium-manganese ferrites and their X-ray
spectra

PERIODICAL: Poroshkovaya metallurgiya, no.6 , 1962, 72-80

TEXT: The properties of Mn and Mg-Mn ferrites containing
43 to 50% Fe_2O_3 , from 19 to 50% MnO, from 15 to 28% MgO and for
some ferrites with additions of up to 5% oxides of calcium and
zinc are investigated. The addition of up to 2% La_2O_3 had very
little effect on the induction of the ferrites while the addition
of CeO_2 and Y_2O_3 caused a marked decrease in the induction. The
effect of these additions on the X-ray K spectra of Fe and Mn in
these ferrites is also examined. The changes in the K spectra are
well correlated with the changes in magnetic induction of the
corresponding ferrites. The absorption spectra are most sensitive
to the addition of Y_2O_3 and less so to CeO_2 . In ferrites containing
Card 1/2

Some results of X-ray spectrum ...

21974
S/020/61/137/005/018/026
B103/B208

Vernadskogo Akademii nauk SSSR (Institute of Geochemistry
and Analytical Chemistry imeni V.I. Vernadskiy of the
Academy of Sciences USSR)
Odesskiy pedagogicheskiy institut im. K.D. Ushinskogo
(Odessa Pedagogical Institute imeni K.D. Ushinskiy)

PRESENTED: November 16, 1960 by A.P. Vinogradov, Academician

SUBMITTED: November 7, 1960

Fig. 1. Legend: (1) $\text{Fe}(\text{C}_5\text{H}_5)_2$;
(2) $\text{Fe}(\text{C}_5\text{H}_5)_2\text{Cl}$, abscissa: X-ray
quanta, ev; ordinate: absorption

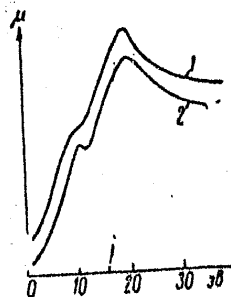


Fig. 1

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B103/B208

Some results of X-ray spectrum ...

with the iron spectrum in $K_3Fe(CN)_6$ ($\eta' = \eta - 1 \approx 1$; $n = 1.7$, $\Gamma = 7.5$ ev)).

The authors conclude therefrom that the width of the selective absorption bands changes most in the spectra of ferrocene. It is increased by nearly 50% owing to extension of the transmission end level of the photoelectron in the molecule. As was expected from theoretical calculations, a sufficiently intense band appears in the X-ray spectra of the metal in aromatic complexes which is due to the transition of the 1s electron of the absorbing atom to the group of molecular levels of corresponding symmetry, in addition to a series of bands of the "exciton"-type. The authors express their gratitude to V.V. Voyevodskiy for his interest in the work and for the supply of substances. Mention is made of Ye.M. Shusterovich and M.Ye. Dyatkina. There are 3 figures, 2 tables, and 18 references: 13 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Inorganic Chemistry of the Siberian Department of the Academy of Sciences USSR). Institut geokhimii i analiticheskoy khimii im. V.I.

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21974

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B103/B208

Some results of X-ray spectrum ...

the central atom, the distance between the energy levels by which the $1s$ electron is captured in the K-absorption, and the width of the selective absorption bands must increase as well. On the other hand, the intensity of these bands must decrease and may only little deviate from the value calculated by equation (2) for nearly ionic compounds such as $Mn(C_5H_5)_2$.

It is assumed on the basis of the available experimental material that in bis-cyclopentadienyl complexes with typical covalent bonds (like ferrocene) the increase of the relative intensity of the selective absorption lines approaches the maximum intensity. In this case, the difficulties in calculating the fine structure of metal spectra may be avoided and also the energy constants of the absorbable atom can be calculated without any hindrances. Figs. 2 and 3 show the calculation of the X-ray K-absorption spectra in $Fe(C_5H_5)_2$ and $Fe(C_5H_5)_2Cl$ molecules. They are in good agreement with the data theoretically calculated. The authors consider the calculation of these values by R.L. Baringskiy (Zhurn.strukturn.khimi, 1, 200 (1960)) to be wrong. The amounts of charges concentrated on the iron atoms were in both complexes about + 0.7, $n = 1.75$, $\Gamma = 11.2$ ev (as compared

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B103/B208

Some results of X-ray spectrum ...

sorbing atom in the molecule. The application of relation (2) in the calculation of the K-absorption edge of the metal atom in molecules of the ferrocene-type meets with difficulties. The value τ_n/τ_0 obtained experimentally is higher than that calculated from (2) with consideration of (1). This divergence can be explained by the effect of the electric field of the molecule on the hydrogen-like system which is formed after ionization of the central atom. Table 2 contains the characteristics of all irreducible representations of group D_{5d} . The odd representations of this group are due to transformation of a six-dimensional base. In this field of symmetry the number of states on which the 1s electron knocked loose during the K-absorption may be captured are thus increased to six, as compared with only 3 p-states of a hydrogen-like system in fields of another symmetry or in the absence of an external field. If the distance between these levels is small, a doubling of the relative intensity of the lines of the selective X-ray absorption of the central atom might be expected, contrary to molecules in whose field the levels are not "multiplied". With increasing degree of ionicity of the binding forces in molecules of the $Me(C_5H_5)_2$ type, and with increasing intensity of the field acting upon

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B103/B208

Some results of X-ray spectrum ...

Fig. 1 shows the corrected spectra of the ferrocene compounds. It may be seen from these curves that the structure of the K-absorption edges of iron is the same in both cases. In the calculation of these edges, the authors assumed the structure of the system to be similar to the hydrogen structure in which an electron knocked loose from the K-shell moves outside of the completed shells of the absorbing atom in gaseous molecules or in crystalline complexes with an approximately central field symmetry. The system of the selective absorption lines and the continuous edge may be calculated in this approximation by means of the following equations:

$$\epsilon_n = \epsilon_\infty \frac{\eta^2}{n^2} Ry \quad (1), \quad \text{and} \quad \frac{\tau_n}{\tau_\infty} = \frac{4\eta^2}{\pi\Gamma} \frac{n^2-1}{n^5} \quad (2),$$

where ϵ_n and ϵ_∞ denote the energy of the transition of the K-electron to one of the np-levels of the system and the boundary of the continuous spectrum, τ_n is the height of the n-th absorption line, τ_∞ is the height of the continuous spectrum, Γ the width of the absorption lines and the boundary of the continuous spectrum, Ry the Rydberg constant, n the effective principal quantum number of the n-energy level, and η the effective charge of the K-ionized ab-

Card 2/9

21974

S/020/61/137/005/018/026
B103/B208

5.5310 1273, 1282, 1334

AUTHORS: Vaynshteyn, E.Ye., Kopelev, Yu.F. and Kotlyar, B.I.

TITLE: Some results of X-ray spectrum analysis of ferrocene and its derivatives

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 5, 1961, 1117 - 1120

TEXT: The authors checked some theoretical calculations of the molecular orbits and of the distribution of electron charge in molecules of aromatic complexes. They proceeded from the fine structure of the K-absorption spectra of iron in $\text{Fe}(\text{C}_5\text{H}_5)_2$ and $\text{Fe}(\text{C}_5\text{H}_5)_2\text{Cl}$ which have been studied in their laboratory. Their results have been reported on the All-Union Conference on X-ray Spectroscopy in Rostov-na-Donu, June 30, 1959. Table 1 shows the position of the principal maximum of these K-spectra and of some other iron compounds:

Table 1

Compound:	$\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$	$\text{K}_4[\text{Fe}(\text{CN})_6]$	$\text{K}_3[\text{Fe}(\text{CN})_6]$	$\text{Fe}(\text{NO}_3)_3$	$\text{Fe}(\text{C}_5\text{H}_5)_2$	$\text{Fe}(\text{C}_5\text{H}_5)_2\text{Cl}$
Energy, ev	0	1.9	3.8	6.8	6.1	6.1

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Investigation of the Fine Structure of X Ray
Absorption K Edges of Manganese in MnTe in
the Temperature Range of Antiferromagnetic
Transition

S/020/61/136/001/028/037
B004/B056

indicative of a continuous variation in probability of the respective electron transition. 4) Vanishing or considerable decrease in intensity of the long-wave white line was observed on passing through the Néel point. Position and relative intensity of the first absorption maximum, which are due to transitions of photoelectrons of the absorbing atom within the range of the 4p states of the metal, remain unchanged just like on passing through the Curie point. The problem of interaction between tellurium atoms and manganese atoms requires further investigations. There are 3 figures and 8 references: 6 Soviet, 1 US, and 1 British. ✓

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Inorganic Chemistry of the Siberian Division of the Academy of Sciences USSR). Odesskiy pedagogicheskiy institut im. K. D. Ushinskogo (Odessa Pedagogical Institute imeni K. D. Ushinskiy)

PRESENTED: July 4, 1960 by A. P. Vinogradov, Academician

SUBMITTED: June 29, 1960

Card 3/3

Investigation of the Fine Structure of X Ray S/O20/61/136/001/028/037
Absorption K Edges of Manganese in MnTe in the B004/B056
Temperature Range of Antiferromagnetic
Transition

conditions were 30 kw, 40 ma, exposure 6 hours. Absorption spectra of Mn in MnTe were investigated in the temperature range of 280 - 325°K. Resolution of the apparatus was examined by taking the absorption spectra of pure Mn and of KMnO_4 . The experimental data lead to the following conclusions: 1) A considerable decrease in energy of the 4p state of the transition metal occurs on the transition from metal to telluride. The long wave displacement of the maximum on the absorption curve of Mn in MnTe attains 5.4 ev. 2) At the absorption edge of para-phase MnTe alloy, a clear "white" absorption line appears which is near the range of initial absorption in the metal spectrum and agrees with the maximum of the intense white KMnO_4 absorption line. In the case of KMnO_4 , the relationship between occurrence of this line in the spectrum and transition of photoelectrons into the hybridized 3d state may assumed to be proved. 3) On approaching the Néel point, the para-phase of MnTe exhibits a systematic and continuous decrease in intensity of the white line which probably is

Card 2/3

S/020/61/136/001/028/037
B004/B056

AUTHORS: Vaynshteyn, E. Ye., Kotlyar, B. I., and Obrutskaya, R. M.

TITLE: Investigation of the Fine Structure of X Ray Absorption K Edges of Manganese in MnTe in the Temperature Range of Antiferromagnetic Transition

PERIODICAL: Dokiady Akademii nauk SSSR, 1961, Vol. 136, No. 1, pp. 133-135

TEXT: In a paper on absorption spectra of iron in ferrites(Ref. 1) reference was made to a probable relation of some particular features of ferrite structure of X-ray spectra to the influence of antiferromagnetic orderliness of the electron spin. The authors checked this assumption by investigating the temperature dependence of the fine structure of spectra of magnetically active atoms in antiferromagnetics within the Néel temperature (T_N) region. A manganese telluride with $T_N = 310^\circ\text{K}$ which was supplied by N. P. Grazhdankina was used. Iron $K\alpha_{1,2}$ lines were used as comparison. Previous experiments showed that in the case of 4 mg/cm^3 Mn content a distinct K edge structure is obtained. The best experimental

Card 1/3

KALISHEVSKAYA, T.M.; KOTLYAR, B.I.; KUDRYASHOV, B.A.

Study of the reflex pathways of the physiological anticoagulation system. *Biul. eksp. biol. i med.* 52 no.7:5-9 J1 '61. (MIRA 15:3)

1. Iz laboratorii biokhimi i fiziologii svertyvaniya krovi (zaveduyushchiy - prof. B.A. Kudryashov) pri kafedre biokhimi zhivotnykh, biologo-pochvennogo fakul'teta Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova. Predstavlena deystvitel'nym chlenom AMN SSSR S.Ye. Severinym.
(BLOOD--COAGULATION)

KOTLYAR, B.I.; KRASNOVA, V.V.; ZENKEVICH, I.G.

X-ray tubular spectrograph with focusing devices according to
Johann-Cochois's method. Nauch. zap. Od. ped. inst. 25 no.2:
102-104 '61. (MIRA 18:2)

L 19364-63

ACCESSION NR: AR3006967

fluence of the electric field of the molecule on the hydrogen-like system is disclosed, and the effective charge of the iron ion in the investigated compound is found to be +0.7. I. Nikiforov.

DATE ACQ: 06Sep63

SUB CODE: PH

ENCL: 00

Card 2/2

L 19364-63 EWP(j)/EPF(c)/EWP(q)/EWP(m)/BDS AFFTC/ASD/APGC Pc-4/
Pr-4 RM/WW/WH/MAY

ACCESSION NR: AR3006967

S/0058/63/000/008/D015/D015

SOURCE: RZh. Fizika, Abs. 8D106

AUTHORS: Vaynshteyn, E. Ye.; Kopelev, Yu. F.; Kotlyar, B. I.

TITLE: Investigation of structure of ferrocene and ferricyanum by means of X-ray K-absorption spectra

CITED SOURCE: Nauchn. zap. kafedr. matem., fiz. i yestestvozn. Odessk. gos. ped. in-t, v. 25, no. 2, 1961, 59-64

TOPIC TAGS: ferrocene, ferricyanum, spectral structure, K-absorption, X-ray

TRANSLATION: An x-ray spectrograph with ⁶quartz crystal (1340 planes) was used to investigate the K absorption edge of iron in $\text{Fe}(\text{C}_5\text{H}_5)_2$ and $\text{Fe}(\text{C}_5\text{H}_5)_2\text{Cl}$. The calculation of the absorption edge was carried out under the assumption that the system is hydrogen-like. The in-

Card 1/2

MOLODKINA, L.N.; KOTLYAR, B.I.

Some data on the pharmacodynamics of promedol. Nauch. dokl. vys.
shkoly; biol. nauki no.4:85-91 '61. (MIRA 14:11)

1. Rekomendovana laboratoriyey patofiziologii Moskovskogo gosudar-
stvennogo universiteta im. M.V.Lomonosova.
(PROMEDOL)

Investigation of the Fine Structure of X-ray
Absorption Spectra of Iron in Some Antiferro-
magnetics and Ferrites

SOV/20-125-1-13/67

K. D. Ushinskogo (Odessa Pedagogical Institute imeni K. D.
Ushinskiy)

PRESENTED: November 19, 1958, by A. P. Vinogradov, Academician

SUBMITTED: November 17, 1958

Card 4/4

Investigation of the Fine Structure of X-ray
Absorption Spectra of Iron in Some Antiferro-
magnetics and Ferrites

SOV/20-125-1-13/67

group of the ferrites investigated the said wavelength also does not depend on the nature of the bivalent metal. 2) The ordered distribution of the electron spins in the antiferromagnetic lowers the relative intensity of the longwave range in the absorption spectrum of the transition metal, as compared to the paramagnetic or ferromagnetic state of the substance. 3) At the shortwave side of the X-ray absorption spectra of all ferrites investigated here a more or less clearly marked fine structure was observed. 4) These conclusions are merely of a provisional nature and must therefore be substantiated by further purposive and systematic experiments. Some of these are being carried out at present in the authors' laboratory. There are 4 figures and 12 references, 5 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I.
Vernadskogo Akademii nauk SSSR (Institute of Geochemistry and
Analytical Chemistry imeni V. I. Vernadskiy of the Academy
of Sciences, USSR) Odesskiy pedagogicheskiy Institut im.

Card 3/4

Investigation of the Fine Structure of X-ray
Absorption Spectra of Iron in Some Antiferro-
magnetics and Ferrites

SOV/20-125-1-13/67

of the Iogann type. Some of the spectra of $\alpha\text{-Fe}_2\text{O}_3$ and $\text{MnO}\cdot\text{Fe}_2\text{O}_3$ recorded in this way are illustrated in 2 diagrams. A remarkable (almost treble for iron oxide and double for $\text{MnO}\cdot\text{Fe}_2\text{O}_3$) change of absorber thickness influences but very little the relative intensity of the longwave range in the absorption spectrum of iron in these compounds, leads, however, to an impoverishment in the fluctuations and to a distortion of the true ratio of their intensities at the shortwave side of the absorption limit. It was found by a similar series of experiments that the optimum density of the absorber corresponds to the density 5 mg/cm^2 . Two further diagrams show the group of the absorption edges of iron in various compounds and the absorption edge of iron in iron ferrite and iron oxide. The following provisional conclusions were drawn from the experimental data: 1) the wavelength of the first absorption maximum and the position of the center of the absorption edge of iron in $\alpha\text{-Fe}_2\text{O}_3$ in the ferrites investigated practically do not depend on the magnetic state of the substance. In the

Card 2/4

24(7),24(3)

AUTHORS:

Vaynshteyn, E. Ye., Kotlyar, B. I.,
Shapiro, G. A.

SOV/20-125-1-13/67

TITLE:

Investigation of the Fine Structure of X-ray Absorption Spectra of Iron in Some Antiferromagnetics and Ferrites (Issledovaniye tonkoy struktury rentgenovskikh spektrov pogloshcheniya zheleza v nekotorykh antiferromagnetikakh i ferritakh)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 1, pp 55-58 (USSR)

ABSTRACT:

In the authors' opinion this is the first experimental investigation into the subject given in the title. The purpose is to clarify the direction and the magnitude of the variations in the fine structure of X-ray-K-absorption spectra of iron in antiferromagnetics and ferrites. These variations are related to those occurring in the magnetic state of the said substances. A further aim is that of finding ways for the most suitable development of these investigations. The antiferromagnetic modification of iron oxide ($\alpha\text{-Fe}_2\text{O}_3$) and the group of ferrites Ni, Co, Mn, Sr and Zn were selected for the experiment. The authors used a focusing X-ray spectrograph

Card 1/4

23331 S/058/51/000/006/016/063
A001/A101

J

The fine structure ...

interpreted as a result of cross transitions of 1s-electrons of the absorbing atoms to the vacant places in p-shells of O^{2-} ions; the excited state of the latter is caused by the existence of an indirect bond between magneto-active atoms according to Kramer's hypothesis.

I. Nikiforev

[Abstracter's note: Complete translation]

Card 2/2

23332
S/058/61/000/006/016/063
A001/A101

9,4300 (1147, 1155, 1151)

AUTHORS: Vaynshteyn, E. Ye., Kotlyar, B. I., Shapiro, G. A.

TITLE: The fine structure of iron X-ray absorption spectra in some ferrites

PERIODICAL: Referativnyy zhurnal. Fizika, no. 6, 1961, 150, abstract 6V111
("Nauchn. zap. kafedr matem. fiz. i yestestvozn. Odessk. gos. ped. in-t", 1959, v. 24, no. 1, 34 - 39)

TEXT: The K-spectra of Fe absorption in antiferromagnetic oxide α -Fe₂O₃ and ferrites of Ni, Co, Mn, Cr and Zn were investigated on a X-ray focusing (according to Johann) spectrograph with a quartz crystal (1340). It was found out that the position of the first absorption maximum in all substances investigated did not practically depend on the magnetic state of the substance and was not sensitive to replacement of one bivalent metal by the other. In the antiferromagnetic α -Fe₂O₃ occurs decrease of absorption in the initial region of the K-edge (in comparison with para- and ferromagnetic modification), which is due to ordering of electron spins and overlapping of the vacant part of 3d-shell with 4s and 4p-states. The shortwave fine structure of absorption K-edges in ferrites can be

Card 1/2

KOTLYAR, B.I.

Localization of clonic spasms of an epileptic seizure. Nauch.dokl.
vys.shkoly; biol.nauki no.2:73-76 '59. (MIRA 12:6)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti
Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(EPILEPSY) (BRAIN)

S/137/61/000/002/023/046
A006/A001

Investigation of the K_{β} - Group of the X-Ray Emission Spectrum of Mn and Cu in
Some Alloys of the Cu-Mn and Cu-Mn-Al Systems

to the binary alloy shifts this line to the short-wave side by 1.67 ev as compar-
ed to pure Cu. In the Cu_2MnAl alloy this shift to the short-wave side is 0.94 ev.
For the Cu_2MnAl alloy the wavelength of the Mn K_{β_1} maximum is shifted to the
long wave side by 1.89 ev when passing the Curie point. ✓

I. D.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

S/137/61/000/002/028/046
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1961, No. 2, p. 1 # 22h3

AUTHORS: Kotlyar, B. I., Shapiro, G. A.

TITLE: Investigation of the K_{β} - Group of the X-Ray Emission Spectrum of Mn and Cu in Some Alloys of the Cu-Mn and Cu-Mn-Al Systems.

PERIODICAL: "Nauchn. zap. Fiz.-matem. fak. Odessk. gos. ped. in-t.", 1960, Vol. 22, No. 1, pp. 71-76

TEXT: The authors studied binary Cu alloys containing Mn 9.6; 14.2 19.1 and 33.5 at. %; and ternary alloys containing (in at. %) Mn 22.7; 24.6 and Al 8.2; 24.6 respectively. The latter alloy corresponds to Cu_2MnAl and is strongly ferromagnetic. The spectra were produced by the primary method in a vacuum spectrograph according to Yogan in the first order of reflection from a quartz plane (1340). The wavelength of Mn K_{β_1} in the Cu_2MnAl alloy is shifted by 0.61 ev toward the long-wave side and the maximum shift of K_{β} of Cu to the long-wave side is observed for an alloy with 8.2 at. % Al. In this alloy the maximum shift of K_{β_5} of Mn is toward the short-wave side. In an alloy with 23.9 at. % Mn, K_{β_5} of Cu is shifted to the long-wave side by 0.94 ev. The addition of 8.2 at. % Al

Card 1/2

SOV/81-60-2-3852

Translation from: Referativnyy zhurnal. Khimiya, 1960, Nr 2, p 44 (USSR)

AUTHOR: Kotlyar, B.I.

TITLE: The Problem of the Roentgenspectral Investigation of Magnetic Transformations of Geisler's Alloys

PERIODICAL: Nauchn. zap. kafedr. matem., fiz. i yestestvozn. Odessk. gos. ped. in-t, 1958, Vol 22, Nr 2, pp 60 - 61

ABSTRACT: In Geisler's alloy of the $\text{Cu}_{1-x}\text{MnAl}_x$ composition the short-wave boundary of the $K_{\alpha 5}$ -band of Mn shifts to the side of higher energies in the case of the transition from the paramagnetic to the ferromagnetic state. On the contrary, the short-wave boundary of the $K_{\alpha 5}$ -band of Cu shifts at the same time to the side of lower energies. From this fact the conclusion is drawn that in the case of a transition from the paramagnetic to the ferromagnetic state the Cu electrons pass into the 3d-band of Mn filling the "vacancies" in this band.

Card 1/1

V. Neshpor



KOTLYAR, B.I.

Role of the cerebral cortex in the development of pathological motor reactions in rats induced by acoustic stimulations.
Nauch.dokl.vys.shkoly;biol.nauki no.4:98-101 '58.

(MIRA 11:12)

1. Rekomendovana kafedroy fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.
(CEREBRAL CORTEX) (CONVULSIONS) (SOUND--PSYCHOLOGICAL EFFECT)

Dokl.Akad.Nauk, 110, fasc.1, 44-47 (1956) CARD 2 / 2

PA - 1476

of the magnetic state of the alloys. In the case of Cu a modification of the asymmetry index similar to that in the case of Mn was observed. The modification of the magnetic state of the alloy Cu_2MnAl exercises practically no influence on the position of the $\text{K}\beta_1$ -line of Mn and Cu. Also the form of these lines remains constant within the limits of measuring errors. However, on the occasion of a transition from the ferromagnetic to the paramagnetic state a considerable modification of the position and form of the $\text{K}\beta_5$ -lines of both components of the alloy is noticed. Further modifications are pointed out. The $\text{K}\beta'$ -line of manganese behaves on the whole like the $\text{K}\beta_5$ -line. On the occasion of the transition from the ferromagnetic to the paramagnetic state the maximum of the $\text{K}\beta'$ -line is thus shifted by $\sim 1,8$ MeV in the direction of long waves. The experimental material obtained here leaves no doubt as to the marked influence exercised by the magnetic state of the alloys on the X-ray spectra of the atoms. Some observations made by the authors are in good qualitative agreement with the theory taking account of the s-d-exchange interaction in ferromagnetics. For the purpose of acquiring more detailed knowledge concerning the ferromagnetism of alloys consisting of non-ferromagnetic components it would be necessary to extend the scope of research work. Also other alloys ought to be investigated.

INSTITUTION: Institute for Geochemistry and Analytic Chemistry of the Academy of Science in the USSR.
Pedagogic Institute of Odessa.

KOTLYAR, B.I.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1476
 AUTHOR VAJNSREJN, E.E., KOTLJAR, B.I.
 TITLE The X-Ray Emission Spectra of Mn and Cu in GEISLER'S Alloy in the
 Interval of Temperatures of Magnetic Transformation.
 PERIODICAL Dokl. Akad. Nauk, 110, fasc. 1, 44-47 (1956)
 Issued: 11 / 1956 reviewed: 11 / 1956

The spectra were recorded by means of a focussing vacuum X-ray spectrograph of the JOHANN type with quartz serving as reflecting crystal. The fine structure of the $K\alpha_{1,2}$ lines of the elements was investigated by means of the secondary excitation method and the lines of the $K\beta$ group were investigated by means of the primary method.

In the case of the primary method GEISLER'S alloy, which was prepared in form of wedges of from 1 to 2 cm thickness, was pressed into the pickup head of the anode, and was exposed in the case of two different modes of operation of the X-ray tube of the spectrograph (namely at a temperature that was noticeably below, and one that was noticeably above CURIE temperature). In the case of the secondary excitation method of the spectra the melting temperature was modified within range of magnetic transformation (300 - 340°) by 5° in each case. The data concerning the modification of the asymmetry index of the $K\alpha_{1,2}$ lines of Me in Cu_2MnAl in the case of a change of temperature in the interval 300-340° is shown in a diagram. Outside this interval the temperature index remains constant. The $K\alpha_1$ - and the $K\alpha_2$ -line change their form in a similar manner. The widths of the two lines and the position of their maxima do not depend on the modification

KOTLYAR, B.I.

Fluorescent method for investigating the asymmetry and breadth of the K_{α} , -line of copper and manganese atoms in Heusler alloys. Izv.AN SSSR.Ser.fiz.20 no.7:790-793 J1 '56. (MLRA 9:11)

1. Rentgenospektral'naya laboratoriya Odesskogo pedagogicheskogo instituta imeni K.D.Ushinskogo.
(Copper--Spectra) (Manganese--Spectra)
(Manganese-copper-aluminum alloys)