

YANTOVSKIY, A.T.; GOFMAN, M.S., red.; SMESOVA, L.S., tekhn. red.

[Graphic representation of threaded fastenings; manual]  
Graficheskoe izobrazhenie krepezhnykh roz'bovykh izdelii;  
uchebnoe posobie. Izd.2., perer. Leningrad, Leningr. le-  
sotekhn.akad.im.S.M.Kirova, 1961. 52 p. (MIRA 15:8)  
(Fastenings)

MIKHAYLOV, F.I.; GOFMAN, N.L.

Sectional plank roads. Rats. i izobr. predl. v stroi. no.2:91-93  
'57. (MIRA 11:1)

(Roads, Plank)

MIKHAYLOV, F.I.; ~~GOFMAN, N.I.~~

Aerial skidding of logs. Rast. i izobr. predl. v stroi. no.2:93-96  
'57. (MIRA 11:1)

(Lumbering)

PROCEDURES AND REAGENTS INDEX

**\*A Volumetric Method for the Determination of Nickel by Titration with Dimethylglyoxime Solution.** R. I. Agladze and N. T. Hofman (*Zhur. Lab.*, 1946, 12, 243-246; *C. Ab.*, 1946, 68, 7056).—[In Russian]. Heat the sample solution to boiling and titrate in a weak  $NH_4OH$  solution with exactly 1% alcoholic dimethylglyoxime solution. Determine the titre of the solution by parallel volumetric, gravimetric, and electro-analytical methods. Determine the equilibrium point as follows: Place a narrow strip of filter paper (12 × 50 mm.) over another strip of filter paper moistened with dimethylglyoxime solution, on a piece of white cardboard; during the titration process place a small drop of the solution on the filter papers. The solution filters through the upper paper to the lower one moistened with dimethylglyoxime.

Until complete precipitation of Ni from the solution, a characteristic red spot of Ni dimethylglyoxime is formed on the lower paper. No red spot is formed when no Ni ions are present. The titration of the same solution is carried out in 3 beakers with a gradual increase in the accuracy of the titration. The solution in the last beaker must be concentrated to detect even traces of Ni. No more than 10-15 min. is required for all 3 samples. The experiments were carried out in synthetic solutions with pH ranging from 5.5 to 6.5. The quantity of dimethylglyoxime used for 3 titrations does not exceed that required for gravimetric determination. The presence of Mn does not interfere with the determination of Ni. Fe and Co ions have a detrimental effect on the titration. No Ni can be determined in the presence of even 0.05 g. of Fe and 0.01 g. of Co per l. The detrimental effect of Fe can be avoided by the addition of excess NaF to the solution. In the absence of Co ions, the ions interfering with the determination can be removed in the usual manner, and Ni determined in the solution. To decrease the quantity of alcohol required, the alcoholic solution of dimethylglyoxime can be replaced with aqueous dimethylglyoxime for the first precipitation. 5 references are given.

AS 5-514 METALLURGICAL LITERATURE CLASSIFICATION

FROM SCHMIDT  
CLASSIFIED BY DNY 151

COMMON ELEMENTS  
CHEMICAL MODEL  
OPERATIONAL MODEL

GOFMAN, N. T.

GOFMAN, N. T.

NORAKIDZE, G. K.

50) **STATE 1 BOOK REVISIONS** 007/1963  
 Norakidze and Gvatsalava, M., *Sulfide*. Institute of Chemistry, Georgian Academy of Sciences, Tbilisi, 1977. 515 p., 8,000 copies printed.  
 Additional Scientific Agency, Tbilisi. Scientific Publications of the Institute of Chemistry, Georgian Academy of Sciences, Tbilisi.  
 M., I.S. Subscriptions; M. of Publishing House: G.S. Shalvashvili; Tbilisi, M.S.

**REMARKS:** This book is intended for specialists working in the field of manganese technology and related fields.  
**CONTENTS:** This collection of articles presents not accomplished recently in the field of manganese electrochemistry. The two main objectives of research were: new industrial methods for the preparation of high-purity manganese, and the utilization of low-grade ores and manganese waste. Special attention is given to the

**Electrochemistry of Manganese, Vol. 1** 007/1963

In the low-grade manganese ores of the Urals (the Ural Alps) situated near the Dnieper industrial center, the presence of electrolytic manganese is of primary interest to the Soviet Union. The main objective of research is to find methods of enrichment of these ores with manganese and to study the properties of these alloys in different media for the purpose of their use in various types of electrochemical cells. The main objective of research is to study the properties of these alloys in different media for the purpose of their use in various types of electrochemical cells. The main objective of research is to study the properties of these alloys in different media for the purpose of their use in various types of electrochemical cells.

- Electrochemistry of Manganese, Vol. 1** 007/1963
2. Effect of reducing agents, surfactants, and oxidizing agents on the electrolytic deposition of manganese 121
  3. Effect of temperature, electrolyte concentration, and other factors on the electrolytic production of manganese 127
  - Ch. VIII. Agladze, E. I., E. T. Gvatsalava, Ye. M. Pechenkin, and L. M. Gvatsalava. *Electrochemistry of Manganese from Low Grade Ores by Means of Processes of Electrocrystallization* (Part I. Urals) 129
    1. Recovery of manganese from low grade ores by leaching 129
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  - Ch. IX. Agladze, E. I., and G. M. Dzemalova. *Anodic Polarization of Manganese in Aqueous Solutions* 137

007/1963  
 2-26-59

SOV/137-58-9-19501

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 195 (USSR)

AUTHORS: Agladze, R.I., Gofman, N.T.

TITLE: On the Problem of Corrosion of Manganese in the Presence Within the Metal of Admixtures of Nickel, Cobalt, and Copper (K voprosu o korrozii margantsa pri nalichii v metalle pri-mesey nikelya, kobal'ta i medi)

PERIODICAL: V sb.: Elektrokimiya margantsa. Tbilisi, AN Gruz. SSR. 1957, pp 15-24

ABSTRACT: The corrosion and the electrochemical behavior of short-circuited couples consisting of Mn and metallic admixtures (Cu, Ni, Co) depositing on the surface of Mn in a manganese electrolyte ( $MnSO_4$ ,  $(NH_4)_2SO_4$ ) was studied. In contact with these metals Mn corrodes with a noticeably positive difference effect, but the intensity of the work of all the couples studied is about equal. The work of the couples proceeds under cathode control. The data obtained provide no possibility to attribute the increased reverse solubility of Mn during its electrolysis in the presence of Cu, Ni, and Co to the work of the galvanic couples forming on the surface of the Mn.

Card 1/1

R.A.

1. Cobalt copper-manganese-nickel alloys--Corrosion 2. Manganese--Corrosion  
3. Electrolytes--Applications 4. Manganese--Solubility 5. Manganese  
--Electrolysis

SOV/137-58-8-16659

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 60 (USSR)

AUTHORS: Agladze, R.I., Gofman, N.T.

TITLE: Electrolysis of Manganese in the Presence of Impurities (Elektroliz margantsa v prisutstvii primesey)

PERIODICAL: V sb.: Elektrokimiya margantsa. Tbilisi, AN GruzSSR, 1957, pp 25-51

ABSTRACT: A study is made of the effect of Ni, Co, and Cu ion impurities upon Mn electrolysis. When Mn is subjected to electrolysis in the presence of impurities, an increase in the intensity of the effect of the impurities is observed according to the sequence  $Cu < Ni < Co$ . The degree of influence of the impurities depends upon the conditions of electrolysis and the bath composition. The quantity of ions of Me impurities in the Mn electrolyte in accordance with which cathodic deposition of Mn in the absence of a reducing environment is possible lies within the limits of 1-2 mg Co/liter, 2-2.5 mg Ni/liter, 15-25 mg Cu/liter. When the contents are higher, the metal does not remain on the cathode under these conditions. With increase in electrolysis time, and with current cd rising with an increase in the pH of the initial

Card 1/2

SOV/137-58-8-16659

### Electrolysis of Manganese in the Presence of Impurities

electrolyte (from 6 to 8), the effect of the impurities becomes more intensive and relative current efficiency drops. At a concentration of 80-120 g  $(\text{NH}_4)_2\text{SO}_4$ /liter of electrolyte, a sharp increase in relative current efficiency is observed. When the  $(\text{NH}_4)_2\text{SO}_4$  content rises to 220 g/liter, the current-efficiency curve declines. In the cathode metal, the content of metallic impurity rises with increase thereof in the electrolyte. The bulk of the impurities deposit on the cathode during the first few minutes. When Ni and Co contents are low (not over 1 mg/liter), the external appearance of Mn precipitates is characterized by dark edgings at the ends of the electrode, but if the content is higher there are occasional large areas of dissolution at various points on the cathode. On precipitation Co, Ni, and Cu distribute unevenly along the surface of an electrode covered with Mn.

G.S.

1. Manganese--Electrolysis    2. Manganese--Impurities

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SOV/137-58-8-16658

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 59 (USSR)

AUTHORS: Agladze, R.I., Gofman, N.T.

TITLE: The Effect of Certain Additives Upon the Electrolysis of Manganese in the Presence of Impurities (Vliyaniye nekotorykh dobavok na elektroliz margantsa v prisutstvii primesey)

PERIODICAL: V sb.: Elektrokhimiya margantsa. Tbilisi, AN GruzSSR, 1957, pp 53-68

ABSTRACT: An investigation is made of the possibility of reducing the influence of additives upon the cathode process of Mn deposition by the introduction of additives. The sulfate ion and hydroxylamine have a pronounced positive effect upon the process of electrolysis with impurities. The current efficiency increases significantly. In order for the Mn electrolysis process to go normally in the presence of 2.5-3 mg Co/liter, 0.1-0.5 g  $SO_3^{2-}$ /liter is required. A higher content of the latter reduces current efficiency and increases the S contents of the metal. Thiourea has a positive effect both upon electrolysis with impurities and upon electrolysis from pure solutions. Introduction of up to 1 g thiourea per liter increases current

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SOV/137-58-8-16658

The Effect of Certain Additives (cont.)

efficiency, but maintenance of the conditioning of the metal in terms of S requires that the amount of thiourea introduced be limited to 0.1-0.3 g/liter.  $\text{SO}_3^{2-}$  and thiourea have no evident effect upon cathode polarization, for all practical purposes.

G.S.

1. Manganese--Electrolysis
2. Manganese--Impurities

Card 2/2

SOV/137-58-8-16657

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 59 (USSR)

AUTHORS: Agladze, R.I., Gofman, N.T., Tsintsadze, A.A.

TITLE: Sulfide Methods of Purifying a Manganese Electrolyte of Nickel and Cobalt (Ochistka margantsevogo elektrolita ot nikelya i kopal'ta sul'fidnymi metodami)

PERIODICAL: V sb.: Elektrokimiya margantsa. Tbilisi, AN GruzSSR, 1957, pp 69-105

ABSTRACT: A study is made of the possibility of purifying Mn electrolyte of Ni and Co by Mn sulfides precipitated from individual portions of Mn electrolyte or sulfate by some sulfide precipitant (ammonium or Na sulfides, ammonia water,  $H_2S$ ). The possibility is established of completely purifying the electrolyte of Co by introduction of 20-25 times the stoichiometric ratio of sulfide ion to Co. Raising the temperature to 90-100°C significantly speeds purification and reduces the amount of MnS introduced. The optimum purification pH is 5. The length of time required to agitate the electrolyte depends upon the amount of MnS introduced and upon the temperature. 1 hour is adequate stirring time at 20° and with 25 times the stoichiometric

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SOV/137-58-8-1665

Sulfide Methods of Purifying a Manganese Electrolyte of Nickel and Cobalt

quantity. On heating to boiling and 15 times the stoichiometric ratio, the optimum stirring time is 15 min. Purification from Ni occurs under the same conditions. Electrolysis from a purified MnS electrolyte gave good results. The current efficiencies are in the 55-60% range upon 12 hours of electrolysis. The sulfide S content of the metal is 0.02-0.03%. An investigation was also made of the purification of the electrolyte by sulfides of ammonium and Na. The optimum pH for purification is 4, and purification temperature 20-30° or 100°, with a stirring time of  $\leq$  30 min.

G.S.

1. Electrolyses-- purification
2. Manganese sulfides-- receipt of n
3. Electrolyses-- temperature factors

Card 2/2

SOV/137-58-9-18773

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 89 (USSR)

AUTHORS: Agladze, R.I., Gofman, N.T.

TITLE: Hydroxide, Xanthate, and Cementation Cleansing of Nickel and Cobalt From Manganese Electrolyte (O gidrookisnoy, ksantogenatnoy i tsementatsionnoy ochistke margantsevogo elektrolita ot nikelya i kobal'ta)

PERIODICAL: V sb.: Elektrokimiya margantsa. Tbilisi, AN GruzSSR, 1957, pp 107-130

ABSTRACT: The results of experiments in the hydroxide cleansing of Mn electrolyte (E) of Ni and Co are adduced, and the conclusion is drawn that this method cannot be recommended for practical use in view of the abundant co-precipitation of  $Mn(OH)_2$  and the significant losses of  $NH_3$ . Literature data are presented on the xanthate method of cleansing Mn and Zn E of Co and Ni. Xanthate properties are examined, and the results of experiments in which the influence of the pH of the solutions, the quantity of xanthates, temperature, duration of stirring, the possibility of clarification of the E after xanthate cleaning, and of removal of excesses thereof from the solution upon xanthate cleaning are

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SOV/137-58-9-18773

Hydroxide, Xanthate, and Cementation Cleansing of Nickel (cont.)

elucidated. The cleansed solution is subjected to a check-out electrolysis. The optimum conditions for the cleansing of Mn E of Ni and Co by xanthate and the consumption of the latter are determined.

N.P.

1. Electrolytes--Purification
2. Manganese hydroxide--Chemical reactions
3. Nickel--Condensation
4. Cobalt--Condensation
5. Xanthic acid esters--Properties

Card 2/2

SOV/137-58-8-16654

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 59 (USSR)

AUTHORS: Agladze, R.I., Gofman, N.T.

TITLE: Possibilities of Utilization of Sulfurous Waste Slimes in the Electrolytic Production of Manganese (O vozmozhnosti ispol'zovaniya sernistykh shlamov-otkhodov pri poluchenii margantsa elektrolizom)

PERIODICAL: V sb.: Elektrokhimii margantsa. Tbilisi, AN GruzSSR, 1957, pp 131-136

ABSTRACT: Examination is made of a series of experiments run to determine the possibility of utilization of oxidizing roast followed by leaching to concentrate sulfide cakes. It is found that for the cake composition in question 600°C and 2 hours are the optimum roasting conditions. The concentration of the cake is characterized by bringing the Mn:Ni ratio down from 7 to 2.1 and the Mn:Co ratio from 86 to 35. Thus, for each t metallic Mn it is possible to recover appx. 3.5 kg Ni and 0.25 kg Co.

G.S.

Card 1/1

1. Manganese--Production 2. Manganese ores--Processing 3. Nickel  
--Recovery 4. Cobalt--Recovery 5. Electrolysis

GOFMAN, N. T.

SOV/137-58-8-16663

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 60 (USSR)

AUTHORS: Agladze, R.I., Gofman, N.T., Gogishvili, N.Sh.

TITLE: Extraction of Manganese by Leaching of Usa Ores (Izvlacheniye margantsa iz usinskikh rud vyshchelachivaniyem)

PERIODICAL: V sb.: Elektrokimiya margantsa. Tbilisi, AN GruzSSR, 1957, pp 465-482

ABSTRACT: Experiments were run in 1- and 2-stage leaching (L) of Usa Mn chlorite-carbonate ore ( ~30% Mn) with acid anolyte. A study is made of the effect of the degree of comminution of the ore, pulp temperature, and the stoichiometric Mn-ore: H<sub>2</sub>SO<sub>4</sub> and solid-to-liquid ratios upon the degree of recovery of the Mn and the other components of the ore. Single-stage L by a solution containing 75 g H<sub>2</sub>SO<sub>4</sub> yields 71% recovery of Mn from ore in solution when the Mn-ore:H<sub>2</sub>SO<sub>4</sub> ratio is ~ 1:1 and the solid-to-liquid ratio ~ 1:9 at a temperature of 20°. The consumption of H<sub>2</sub>SO<sub>4</sub> in extracting Mn in an open-end process is 66% of the amount fed in, and the ore residue after L contains up to 18% Mn. The requirements per t Mn are 6.33 t ore, 2.012 t H<sub>2</sub>SO<sub>4</sub>.

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SDV/137-31-1-15663

Extraction of Manganese by Leaching of Usa Ores

0.388 t  $\text{NH}_3$ , and 19.43  $\text{m}^3$  water. For 2-stage L by solution containing 75 g  $\text{H}_2\text{SO}_4$ /liter, at an Mn-ore: $\text{H}_2\text{SO}_4$  ratio of 1:3.3 in the acid arm and 1:1 in the neutral arm and a solid-to-liquid ratio = 1:8, extraction of Mn attains 84% of the starting amount. The residue of ore after L twice contains 4-7% Mn. The degree to which the other components of the ore go into solution virtually doubles the extraction thereof in single-stage L. The requirements per t Mn are 5.3 t ore, 1.883 t  $\text{H}_2\text{SO}_4$ , 0.381 t  $\text{NH}_3$ , and 10.517  $\text{m}^3$  water.

The behavior of individual ore components in the resultant caustic solution and in electrolysis is examined, and data are presented on the accumulation thereof in the electrolyte. Electrolysis of purified solutions shows that it proceeds with standard indices and permits extraction of metal of normal quality. Energy consumption is 9.3 kwh/kg Mn.

N. P.

1. Manganese--Production
2. Manganese ores--Processing

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*SEE MIN, N. T.*

SOV/137-58-8-16662

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 60 (USSR)

AUTHORS: Agladze, R.I., ~~Gofman, N.T.~~, Pachuashvili, Ye.M.

TITLE: Percolation Leaching of Usa Ore (Vskrytiye usinskoy rudy perkolirovaniyem)

PERIODICAL: V sb.: Elektrokhimiya margantsa. Tbilisi, AN GruzSSR, 1957, pp 483-501

ABSTRACT: An investigation is made of percolation leaching of the ores of Usa. When the solution is delivered to the percolator at a rate of 100-150 cc/hr in a single piece of equipment 5 to 22g Mn may be extracted per liter of solution. An increase in temperature to 50-60°C makes it possible to operate at rates 4-5 times as high as at ordinary temperatures with the same extraction of Mn per unit volume of solution. The degree of Mn recovery attains 85-93%. Multi-stage percolation with 3 percolators in tandem showed up to 85% Mn recovery, while ~60% of the amount of H<sub>2</sub>SO<sub>4</sub> introduced was consumed in combining with Mn. Multi-stage percolation with 70 g H<sub>2</sub>SO<sub>4</sub>/liter at room temperature and 250 cc passage of solution per hour revealed extraction of up to 94% of the starting Mn and a concentration

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SOV/137-58-8-16662

Percolation Leaching of Usa Ore

of solutions of up to 30-36 g Mn/liter. The depleted grit contains 4-7% Mn. The solutions emitted from the final percolator contain the following, in g/liter: Fe 3-4, Mg 2-3, Al 1.5-2, Ca 1-2, SiO<sub>2</sub> 2. Calculations are made of requirements per ton of metallic Mn for 2 varieties of percolation leaching. When solution strength is up to 40 g Mn/liter, the requirements are as follows: Ore 4.48 t, H<sub>2</sub>SO<sub>4</sub> 2.25 t, ammonia 0.4 t, water 18.5m<sup>3</sup>. At solution strengths of up to 30 g Mn/liter, requirements are as follows: 5.45 t ore, 3.021 t H<sub>2</sub>SO<sub>4</sub>, 0.4 t ammonia and 18.9 m<sup>3</sup> water.

G.S.

1. Manganese ores--Processing 2. Industrial plants--Equipmen. 3. Industrial plants--Operation 4. Mathematics

Card 2/2

S/081/60/000/013(I)/008/014  
A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 13 (I), p. 423,  
# 53243

AUTHORS: Gofman, N. T., Lezhava, T. I., Dzhaparidze, D. I.

TITLE: Chromium Chloride Electrolysis. Information 2. Preparation of  
Chrome Metal ✓

PERIODICAL: V sb.: Gidroelektrometallurgiya khroma, Tbilisi, AN GruzSSR, 1959,  
pp. 149-164

TEXT: The authors studied the effect of various conditions on  $\text{CrCl}_3$  electrolysis to obtain Cr metal. It was established that the optimum composition of the electrolyte at the stabilization of its acidity and  $\text{Cr}^{2+}$  concentration was as follows (in g/l): Cr 120;  $\text{NH}_4\text{Cl}$  50, KCl 70, D = 25 - 32 amp/dm<sup>2</sup>, temperature 25 - 35°C, current efficiency for Cr is 19 - 4.5%. Current efficiency for  $\text{H}^2$  is 6-7%. Stable concentration of  $\text{Cr}^{2+}$  in an open bath is 50 - 53 g/l. In a closed bath the  $\text{Cr}^{2+}$  concentration stabilizes at a level of 95 g/l with current efficiency increasing up to 67 - 72%. Stable supply of the ✓

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S/081/60/000/013(I)/008/014  
A006/A001

Chromium Chloride Electrolysis. Information 2. Preparation of Chrome Metal

acid from the anolyte is attained by addition to the anolyte of HCl of 1.19 specific weight in an amount of 1.9 ml/amp-hour for an open bath and 0.85-1.2 ml/amp-hour for a closed bath. The negative effect of Cu and the impossibility of its elimination by treatment with current is connected with the reduction of  $\text{Cu}^{2+}$  by  $\text{Cr}^{2+}$  ions. Information 1, see RZHKhim, 1960, No. 7, # 27353.

Z. Solov'yeva

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

Card 2/2

L 54514-65 EWT(m)/EWP(t)/EWP(b) LJP(c) JD  
ACCESSION NR: AR5014265

UR/0091/65/011/007/L032/L032

SOURCE: Ref. zh. Khimiya. Abs. 7L222

10  
B

AUTHOR: Gofman, N.T.

TITLE: Electrolytic manganese from Mazul'skiy ore

CITED SOURCE: Sb. Elektrokhiimiya margantsa. T. 2. Tbilisi, AN GruzSSR, 1963, 109-122

TOPIC TAGS: electrolytic manganese, manganese ore refining, carbonate ore, iron concentrate, magnetic concentration, ore leaching

TRANSLATION: The possibility of dressing Mazul'skiy carbonate ore, which is characterized by a low Mn content and a high content of Fe, P, and clayey components, was explored. The study showed that the recovery of iron and manganese concentrates by magnetic concentration is not profitable. The method of hydroelectrometallurgical recovery of manganese was found to be the most effective for the dressing of Mazul'skiy ore, but it requires a thorough economic substantiation of profitability. It is proposed that the solutions be prepared by a new composite method involving leaching of crude ore with conc. H<sub>2</sub>SO<sub>4</sub>, roasting of the mass thus obtained, and leaching of the calcine either

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L 54514-65

ACCESSION NR: AR5014265

with water, or with spent anolyte. A solution of  $(\text{NH}_4)_2\text{SO}_4$  and an iron concentrate are also obtained. Yu. Gamburg

SUB CODE: MM

ENCL: 00

Card

*rl*  
2/2

L 39289-65 EWT(m)/EWG(m)/EWP(t)/EWP(b) Pad IJP(c) RDM/JD/HW

ACCESSION NR: AP5009307

UR/0564/65/X01/003/0301/0583

AUTHOR: Gofman, N. T.

TITLE: Seminar on the electrochemistry of manganese and related metals, held in Tbilisi, 29 Sep - 2 Oct 1964

SOURCE: Elektrokimiya, v. 1, no. 3, 1965, 381-383

TOPIC TAGS: chemical conference, electrochemistry, manganese, manganese alloy, manganese compound, electrolysis, electroplating

ABSTRACT: An All-Union Seminar on the Electrochemistry of Manganese and Related Metals was held in Tbilisi from 29 September through 2 October 1964. Over 250 specialists attended the Seminar, during which 92 papers were presented in three sections, as follows:

Section 1. Cathodic deposition of manganese and related metals. The following papers were noted:

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L 39289-65

ACCESSION NR: AP5009307

17

R. I. Agladze (Tbilisi) reviewed research on the electro-winning and industrial applications of manganese and its compounds, especially in producing chemical sources of electric energy, the anodic behavior of manganese and alloys in various media, etc.

G. Ya. Sioridze (Zestafoni), N. T. Gofman (Tbilisi), N. Sh. Gogishvili and R. I. Agladze (Tbilisi), A. G. Pecherskaya and N. M. Gedz' (Dnepropetrovsk and Krivoy Rog), S. A. Zaretskiy (Moscow), D. P. Zosimovich (Kiev) and others discussed various aspects of the industrial production of electrolytic manganese, including the treatment of ores and electrolysis of chloride solutions.

D. P. Zosimovich and N. A. Shvab (Kiev), A. B. Sushkov, A. S. Vorob'yeva and V. N. Mikhina (Moscow), S. N. Basmanova and R. I. Agladze (Tbilisi) and D. A. Bogveradze (Zestafoni) presented data on the electro-winning of high-purity manganese.

fb

Card 2/5

I 39289-65  
ACCESSION NR: AP5009307

Many papers were devoted to the electrolytical deposition of chromium and alloys, rhodium and alloys, nickel, cobalt, zinc, vanadium, selenium and tellurium (A. I. Alekperov and M. A. Babayeva, Baku), and antimony. 21

M. M. Mel'nikova, V. V. Bondar', and Yu. M. Polukarov (Moscow) examined the magnetic properties and structure of electrodeposited Co-Mn-P alloys. 21

Reports of a general nature included those of V. V. Stender (Dnepropetrovsk) and O. K. Gal'dikene and Yu. Yu. Matulis (Vil'nyus) on theoretical problems of the electrolytic deposition of metals. Ye. M. Nankhashvili (Tbilisi) investigated radiochemical processes. Yu. M. Loshkarev and V. P. Galushko (Dnepropetrovsk) treated electrolysis of the chloride solutions of electronegative metals.

Section 2. Electrochemical preparation of compounds of manganese and related metals.

Card 3/5

L 39289-65

ACCESSION NR: AP5009307

Industrial and laboratory research data were reported on electrolytic preparation and properties of permanganates of alkaline metals, barium and aluminum, potassium manganate, manganese dioxide, and Mn (III) compounds. 3

Section 3. Physicochemical properties and uses of manganese, its alloys and compounds.

L. I. Antropov and L. A. Gorbachevskaya (Kiev) reported research data on the electrochemical properties of electrolytic manganese, methods of preparing manganese electrodes for the chemical sources of energy, and on new sources of energy using manganese anodes.

P. D. Lukovtsev (Moscow) presented a theory of the reduction of manganese dioxide under operating conditions in the chemical sources of energy.

Card 4/5

L 39289-65  
ACCESSION NR: AP5009307

L. N. Dzhabaridze, N. I. Lagidze, and K. G. Makharadze (Tbilisi)  
and E. A. Mendzheritskiy and V. N. Dam'ye (Moscow) studied the per-  
formance of the chemical sources of energy which use manganese and com-  
pounds as activators of the electrodes.

Detailed abstracts of the papers were published. The next seminar  
was scheduled for 1966.

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: -000

ENCL: 00

OTHER: 000

SUB CODE: GC, IC

ATD PRESS: 3223-F

*ce*  
Card 5/5

L 52620-65 EWT(m)/EWP(1)/EWP(t)/EWP(a)/EWP(b) Pad LJP(c) JD/HW

ACCESSION NR: AP5010990

UR/0183/65/008/001/0104/0110

AUTHOR: Gofman, N. T.; Nikolayshvili, T. N.

18  
17  
6

TITLE: Electrodeposition of cobalt coatings with predetermined characteristics

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 8, no. 1, 1965, 104-110

TOPIC TAGS: plating, cobalt, electrolysis

ABSTRACT: This work was an attempt to determine whether cobalt plated metallic mirrors could be produced with predetermined plating characteristics: a pure cubic lattice and maximum crystal orientation. There are two forms of cobalt-- $\alpha$ - and  $\beta$ -cobalt--with hexagonal and cubic lattices respectively. The transition temperature is  $400^{\circ} \pm 20^{\circ}$ . Freshly plated electrolytic cobalt consists of a mixture of the  $\alpha$  and  $\beta$  phases, the hexagonal lattice being normally prevalent. Data in the literature with regard to the effect of plating conditions on the structure of electrolytic cobalt coatings are contradictory. It was necessary to look for electrolysis conditions which would stabilize the cubic form of cobalt. The 1.3-4.8 pH region was studied; the cathode current density was  $1-5 \text{ a/in}^2$ ; the temperature was 18 to  $30^{\circ}$ ; the cobalt concentration was 0.5-2 M. In no case was it possible to .

Card 1/2

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ACCESSION NR: AP5010990

obtain a cobalt plating in the pure cubic form. It was found that the fraction of the cubic phase increases as the pH and current density are reduced. The temperature had no noticeable effect on the plating structure. It is recommended that composite cobalt-lead anodes with an area ratio of 1:1 should be used in the case of protracted electrolysis in order to stabilize the plating process. It was found that reproducible results are possible in oriented cobalt platings. When the plating is done from low concentration cobalt sulfate solutions (0.5M), magnetic saturation is reached at a field strength of 350-400 oersteds. When the temperature is raised, saturation is slowed down.

ASSOCIATION: Gruzinskiy politekhnicheskiy institut imeni V. I. Lenina (Georgian Polytechnic Institute)

SUBMITTED: 21Oct63

ENCL: 00

SUB CODE: MM

NO REF SOV: 009

OTHER: 005

LL2  
Card 2/2

GOFMAN, N.T.

Seminar on the Electrochemistry of Manganese and Related  
Metals (Tiflis September 29 - October 2, 1964).  
Elektrokhimiia 1 no.3:381-383 Mr '65.

(MIRA 18:12)

GOFMAN, O.

Foreign trade of the German Democratic Republic at the present stage.  
Vnesh. torg. 42 no.10:15-21 '62. (MIRA 15:10)

1. Sotrudnik Ministerstva vneshney i vnutrighermanskoy torgovli  
Germanskoy Demokraticheskoy Respubliki.  
(Germany, West-Commerce)



PROCESSING AND PROPERTY INDEX

1ST AND 2ND ORDERS

22

*ca*

viskous crude oils. S. N. Pavlova and P. S. Hofman. O. N. T. I. Gorno-God.-Neflyanoe Izdel., *Crude Oils, Bitumens and Gums from Non-Concession Deposits 1936, 46-61.* -The Ukhita crude oils derived from different wells have varying sp. grs. (0.899-0.947), different viscosities and nearly the same S contents (about 15%). The amounts of gasoline vary from 2.5 to 15.5%. The kerosene and light-gas-oil fractions are 8.3-15.7 and 11.8-27.5%, resp. The stripped crude oils (fuel oils) vary from 50 to 71.8%, have ds. 0.947 to 1.023 and pour points of -6° to +12°. The lubricating-oil fractions are similar in viscosity to those from light Bilid-Kibat crude oil and are characterized by comparatively high pour points. The bottoms are suitable for the prepn. of asphalt. The properties are tabulated. A. A. B.

METALLURGICAL LITERATURE CLASSIFICATION

CLASSIFICATION	SUBJECT	AUTHOR
650.87	OILS	PAVLOVA, S. N.

*N*

Permian crude oils from the Shors deposit. B. N. Pavlov and P. S. Hofman. *O. N. T. I. Gorno-Gol. Neftyanas Indul. Crude Oils, Bitumens and Gases from Non-Caucasian Deposits 1936*, 173-201. The crude oil from the Shors deposit has a sp. gr. of about 0.873,  $K_{20}$  viscosity 1.83-2.01, pour point  $-10^{\circ}$  to  $-14^{\circ}$ , flash point  $-9^{\circ}$  to below  $-12^{\circ}$ , excise resins 32.4-37.5, asphaltens 1.24-1.63, Conradson C 3.37-4.72, S 1.38-2.07, paraffin 2.70-3.47 (m. 30-4 $^{\circ}$ ), acids 0.010-0.012 and ash 0.024-0.104%. This "L" sand oil yielded on

distn. (lab.) gasoline (b. up to 200 $^{\circ}$ ) 18, kerosene (200-300 $^{\circ}$ ) 13, light gas oil 3.0, heavy gas oil 7.9, lubricating oil fractions 34.0 and heavy bottoms 22.5%. The crude oil is high in paraffin, asphaltene and S and has a low sp. gr. It has a high percentage of fractions b. below 100 $^{\circ}$ . The gasoline fractions are high in aromatic compds., although "benzene" and "toluene" fractions are absent. The gasoline fractions have a positive doctor reaction even after treatment with H<sub>2</sub>SO<sub>4</sub>. The kerosene distillate is

*22*

high in fractions b. below 210 $^{\circ}$  and needs special refining because of the high S content. The stripped crude oil is high in sp. gr., resins, asphaltens and S. The lubricating-oil fractions have a satisfactory viscosity-flash ratio. This crude oil is suitable for paraffin apps. The crude oil from the "N" sand has a sp. gr. of 0.9173, Abel-Pensky flash point 13 $^{\circ}$ , pour point  $-20.3^{\circ}$ ,  $K_{20}$  viscosity 4.11, excise resins 48, acids 0.013, paraffin 3.07 (m. 52 $^{\circ}$ ), asphaltens 2.9 and total S 0.265%. In a lab. distn. wire obtained: gasoline 14.9, kerosene (b. 200-300 $^{\circ}$ ) 8.2, light gas oil 11.2, heavy gas-oil and lubricating-oil fractions 37.1 and asphaltic bottoms 27.67%. The gasoline has smaller fractions b. below 100 $^{\circ}$  than that from the "L" sand crude oil, and both the gasoline and the kerosene fractions need special treatment for the removal of S. The topped crude oil has high viscosity and pour point and is high in resins and asphaltens. The spindle, machine and light cylinder-oil fractions have a comparatively low sp. gr., a good viscosity-flash ratio and a high pour point. The heavy bottoms can be used for the manuf. of road asphalt. A. A. Burzhitskiy

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

Ca

22

Chimion crude oil (eastern parcel, sand "M," well no. 47). A. S. Velikovsky and P. S. Hodman, *J. N. T. I. Geol.-Geol.-Nefityne Indol., Crude Oils, Bitumens and Gases from Non-Caucasian Deposits 1936, 226-30.*— This crude oil has d. 0.8743,  $K_w$  viscosity 1.04, pour point below  $-13^\circ$ , Abel-Pensky flash point  $+12.5^\circ$ , cation resin 24.9, asphaltene 2.7, Conradson C 4.64, S 0.327, paraffin (Hilde) 4.16 (m.  $53^\circ$ ), ash 0.008 and acids 0.0000%. A lab. distn. yielded gasoline 16.8, kerosene 13.0, light gas oil 5.6, heavy gas oil 8.0, lubricating-oil distillates 31.0 and bottoms 25.5%. In spite of low content of S, the gasoline fractions are high in B and require special processing. They contain 12% aromatic compds. and approx. equal amts. of naphthenes and antd. compds. The gasoline is intermediate in anti-knock value between those from Grozny and from Baku. The kerosene fractions contain about 10.5% of aromatic

compds. and a slight excess of paraffin over naphthenes hydrocarbons; they make a better motor fuel than those from Grozny. The lubricating-oil fractions have high pour points and favorable sp. gr. and flash point and viscosity ratios. The heavy bottoms, which amtd. to 23-25% of the crude oil, did not yield a satisfactory road asphalt.

A. A. B.

ABR-514 - DETAILURCAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

ca

yz

The Nuta (Sakhalin) crude oil. S. N. Pavlova and P. S. Holzman. *O. N. T. I. Gorno-Geol.-Nefityano Izdel., Crude Oils, Bitumens and Gases from Non-Caucasian De-*

1 *points* 1834, 301-9.—Nuta oil has d. 0.884-0.885, pour point +6°,  $E_{40}$  viscosity 1.31-1.33, Abel-Pensky flash point 80-2°, excise resins 4.0, asphaltenes 0.20-0.30, acids 0.092, S 0.29-0.39, C 0.44-0.53%, I no. 8.85-8.90, ash 0.01-0.008 and paraffin (Hilde) 1.71-1.79% (m. 51-6°). Lab. distn. gave gasoline (b. up to 150-60") 2.4, naphtha (b. 180-200") 20.3, kerosene (b. 200-70") 29.6, light gas oil (b. 270-300") 11.3, heavy gas oil 12.4, lubricating-oil fractions 30.3 and bottoms 5.2%. The naphtha fractions are high in aromatic componds and low in naphthenes. The kerosene distillate complies with the color specifications and the stripped crude oil has a low viscosity at a relatively high pour point. A distn. of the topped crude oil yields 65% of fractions of a low viscosity and up to 40% of lubricating-oil fractions with a high pour point. The lubricating-oil fractions are characterized by a good flash-point-viscosity ratio, and an unsatisfactory viscosity-specific gravity index, as well as a high pour point. It appears that the topped crude oil is a good cracking stock. A. A. Buehtinov

ASB-51A DETALLURGICAL LITERATURE CLASSIFICATION



Ekhabl crude oil. S. N. Pavlov and P. S. Hofmann, *Neftyanoe Akor.* 1936, No. 9, 42 ff. Oils from the Ekhabl field, located in the northeastern section of Sakhalin Island, contain no water, sp. gr. 0.8245,  $E_m$  viscosity 1.14 and  $E_w$  viscosity 1.04, pour point  $-30^\circ$ , A. P. flash point  $-15^\circ$ , excise resins 12, Conradson C 1.01, asphaltenes 0.08, paraffin 1.34%, m. p. of paraffin  $55^\circ$ , S (bomb) 0.24%, acidity 0.1002 mg KOH and 0.0078% SO<sub>2</sub>. It contains 48% gasoline (up to  $200^\circ$ ), 22.5% kerosene ( $200-300^\circ$ ), 10.5% oil fractions and 10% residue. The machine and spindle oils have a high pour point and the residue is suitable for road asphalt. A. A. Bochtling.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION  
 430M 317 0218M  
 140289





CA

22

Investigation of the Syrian petroleum. S. Pachov and P. M. Hofman. *Geokhimiya* 1949, No. 1, 10-11. *Ann. Inst. Geol. Acad. Sci. USSR*, 1949, No. 6, 10. Syrian petroleum from wells 8, 10 and 11 was investigated. Petroleum from well 10 has d. 0.859, Es<sub>10</sub> 1.31, flash point 3" and solidification temp. below -30°. Petroleum from all 3 wells contain resinous substances approx. 40, paraffin approx. 2 and S from 1.2 to 2.1%. The petroleum is a paraffine-naphthenic aromatic oil with a predominance of paraffine hydrocarbons. The yields of gasoline from wells 8, 10 and 11 are 3, 15 and 1%. Kerosene 11, 20 and 25%, resp. The gasoline has a low isocane no. and contains 0.02-0.05% of S. The illuminating properties of the kerosene are good. Expts. on reforming kerosene reduced the content of S to 0.1%. The oily fractions have a high solidification temp. and contain much S. High grade bitumen is obtained from the Syrian petroleum.

W. R. Henn

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

G. OF MAN, P. 10

5676. RAPID ADSORPTION METHOD OF DETERMINING HYDROCARBON AND  
 CONSTITUTION OF PETROLEUM FRACTIONS. *Engel's, G. A., and  
 Gofman, P. S.* (Moscow: Gosoptekizdat, 1955, Method of Investigating  
 Petroleum and Petroleum Products (Metody Ispytaniya Neftnykh i Neftnykh  
 261-275; abstr. in *Inf. Zh. Khim. (Ref. J. Chem., Moscow)*, 1956, (No. 19), 1974).  
 The method enables concentrations to be determined of methane, naphthalene,  
 hydrocarbons, three groups of aromatic hydrocarbons and carry substances in  
 kerosene, gas oil and tube fractions of petroleum. APT (20-30 mesh) silica gel  
 is used as adsorbent, and a deaerated 60 to 80°C straight distillation  
 fraction as solvent.

RM

Chernov, N. P.

"Toxoplasmosis in Patients with Congenital Heart Defects"

Yoprosy toksoplazmoza, report theses of a conference on toxoplasmosis,  
Moscow, 3-5 April 1961, publ. by Inst Epidemiology and Microbiology  
im. N. P. Gamaleya, Acad. Med. Sci USSR, Moscow, 1961, 69pp.

GIL', S.A.; WASHCHILKO, V.Ya.; YUMASHEVA, R.P.; IRZHANSKAYA, K.N.;  
GOFMAN, R.N.; YAKOVLEVA, A.N.

Clinical and physiological basis of diets of young children  
(with a single daytime sleep period). Vop.pit. 19 no.4:19-  
23 JI.-Ag '60. (MIRA 13:11)

1. Iz otdela fiziologii i vospitaniya rebenka (zav. - doktor med.  
nauk S.A. Gil') i fiziologicheskoy laboratorii (zav. kand.med.nauk  
R.N. Gofman) Khar'kovskogo instituta okhrany materintstvu i  
detstva imeni N.K. Krupskoy.

(INFANTS--NUTRITION)

GOFMAN, R.S.

New wage systems for workers of poultry feeding plants. Khar.prcm.  
no.4:82-85 O-D '62. (MIRA 16:1)

1. Vinnitskiy myasokombinat.

(Wages--Poultry plants)

ROYTMAN, M.S.; GOFMAN, S.A.; OLOMUTSKIY, L.P.; KARMADONOV, A.N.

Zero stability of synchronous detectors equipped with  
semiconductor diodes and transistors. *Izv. tekhn. no.9:27-*  
31 S '61. *(MIRA 14:8)*

(Electric measurements)  
(Transistors)  
(Diodes)

L 45911-66 EWT(m)/EWP(v)/T/E.P(k)/EWP(t)/ETI IJP(c) JD/HH/JH

ACC NR:

AR6015974

SOURCE CODE: UR/0275/65/000/011/B035/B035

AUTHOR: Gofman, S. A.39  
e

TITLE: Producing a PN alloy junction with a short reverse resistance regeneration time

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 11B274

REF SOURCE: Dokl. Nauchno-tekhn. konferentsii, posvyashch. dnyu radio. Tomsk, Tomskiy un-t, 1964, 41-44

TOPIC TAGS: PN junction, junction diode, silicon semiconductor, crystal dislocation

ABSTRACT: Reverse resistance restoration time is experimentally studied in a semiconductor diode as a function of the density of dislocations in the crystal. Dislocation density was intentionally increased by thermal quenching of Si crystals. The density of dislocations in a crystal was increased by a factor of several hundred when a specimen heated to 600-1200°C was immersed in liquid nitrogen or liquid air. Aluminum wire was fused to the resultant Si crystals at a temperature of ~700°C. Crystals with a dislocation density of  $\sim 5 \cdot 10^6/\text{cm}^2$  produced semiconductor diodes with a reverse resistance regeneration time of 0.05  $\mu\text{sec}$ . Bibliography of 4 titles.  
L. L. [Translation of abstract]

SUB CODE: 09, 20

Joining of dissimilar metals

Card 1/1

18

UDC: 621.382.002

USSR :

117/114

620.172.225 1681.2-272

The Method of Determining Mechanical Characteristics of a Flexible Elastic Specimen

Zh. tekhn. Fiz. 2(4), 722-728 1951

S. I. Gofman

U.S.S.R.

A method is described for testing small size elastic specimens made of various materials used in instrument making. Normal elasticity modulus and proportional limit can be determined and the initial part of a curve plotted similar to that obtained with tensile tests. The method enables testing straight or bent steel springs down to 5 mm. by 0.08 mm. in size. (BIBL.1)



*СБОРНИК, 5. 3.*

150

PHASE I BOOK EXPLOITATION

**AUTHOR:** See Table of Contents

**TITLE:** Theory and Design of Instrumenta-components in Precision Mechanics (teoriya i raschet elementov priborov tochnoy mekhaniki); Collected articles, Nr 22 (Sbornik statey, Vyp. 22)

**PUB. DATA:** Gos. nauchno-tekhn. izd-vo mashinostroitel'noy literatury, Moscow-Leningrad, 1957, 168 pp. 6500 copies

**ORIG. AGENCY:** Leningradskiy institut tochnoy mekhaniki i optiki

**EDITOR:** Bogdanovich, M. M., Cand. of Tech. Sciences, Docent; Ed. In-chief; Bol'shakov, S. A.; Ed. of Pub. House: Borodulina, I. A., Tech. Ed.: Sokolova, L. B.

**PURPOSE:** This collection is intended for engineer, technical and scientific personnel working in the field of instrument manufacturing. It may also be useful to students engaged in instrument-manufacturing studies at institutions of higher education.

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Theory and Design of Instrument-components in Precision Mechanics (Cont.)

COVERAGE:

The following subjects are discussed: theory and precision of clock mechanisms and design of their component parts, such as conoids and elastic steel-band transmissions; determination of the line of action of forces acting on the specimen in tension and compression tests; screwed connections of machine parts; torque developed in a spherical gyroscope; graphic and analytical method for determining limits of changes of variable vector-components; determination of the relative position of links in three-dimensional link mechanisms.

TARTAKOVSKIY, V. A., Doctor of Physical and Mathematical Sciences, and GOFMAN, S. I. Prof., Candidate of Technical Sciences, Docent. "Accuracy of Elastic Steel Band Transmissions," P. 19.

SOV/124-58-5-5021

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 11 (USSR)

AUTHORS: Tartakovskiy, V.A., Gofman, S.I.

TITLE: On the Operating Precision of Flexible-belt Transmissions (O tochnosti peredach uprugoy lentoy)

PERIODICAL: Teoriya i raschet elementov priborov tochnoy mekhaniki. Moscow-Leningrad, Mashgiz, 1957, pp 19-38

ABSTRACT: Examination is made of the transmission of a rotational motion by a nonstretchable belt via pulleys of radius R between two parallel shafts. A theoretical analysis is made of the effect of the elasticity (during flexure of the belt) on the variation in the angle of lag  $\delta$  (between the driven shaft and the drive shaft) as a result of increasing the tensile force P in the belt in proportion to the increase of the resistance on the driven shaft. The approximate formula

$$\delta = \frac{\sqrt{(EI)^3}}{6R^3} \left( \frac{1}{\sqrt{P_2^3}} - \frac{1}{\sqrt{P_1^3}} \right)$$

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SOV/124-58-5-5021

On the Operating Precision of Flexible-belt Transmissions

is obtained, and it is shown that in the case of the transmission parameters accepted in the manufacture of precision instruments the error resulting when the calculations are made with this formula does not exceed  $2 \times 10^{-5}$ . Reference is made to the satisfactory agreement between analytical expectations and the data obtained in experimental tests of instruments having a transmission of this type.

M.K. Kristi

1. Transmissions--Design
2. Power transmission belts--Elasticity
3. Power transmission belts--Performance
4. Mathematics--Applications

Card 2/2

GOFMAN, S.M.

Effect of hexonium and sympatholytin on the urination. Farm. i toka.  
23 no.2:158-161 Mr-Ap '60. (MIRA 14:3)

1. Kafedra farmakologii (zav. - prof. A.A.Belous) Stalingradskogo  
meditsinskogo instituta.  
(AUTONOMIC DRUGS) (DIURETICS AND DIURESIS)

KUMPAN, P.V.; KALININA, G.F.; IMANOV, M.N.; Prinsipali uchastiye:  
NECHAYEV, G.A., inzh.; DOROGOV, N.F., inzh.; GOFMAN, S.M.,  
inzh.; MAL'TSEV, V.I., inzh.; CHERNYSHOVA, L.B., inzh.;  
VORONINA, T.V., red. izd-va; BRUSINA, L.N., tekhn. red.

[Summer health - resort towns] Letnie kurortnye gorodki. Moskva,  
Gosstroizdat, 1962. 142 p. (MIRA 16:1)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut ob-  
shchestvennykh zdaniy i sooruzheniy.  
(Summer resorts)

GOFMAN, S.M.

Effect of some hypotensive preparations on the secretion of  
the neurohypophysis in experimental hypertension. Farm. i  
toks. 25 no.2:226-230 Mr-Apr '62. (MIRA 15:6)

1. Kafedra farmakologii (zav. - prof. A.A. Bolous) Volgogradskogo  
meditsinskogo instituta.

(PITUITARY BODY)  
(HEXONIUM)

(HYPERTENSION)  
(DIBENZYLAMINE)

BELOUS, A.A.; ~~GOFFMAN, S.W.~~

Effect of pituitrin on blood coagulation in experimental  
pituitrin hypertension. Farm. i toks. 25 no. 5:587-590  
S-O '62 (MIRA 18:1)

1. Kafedra farmakologii (zav. - prof. A.A. Belous) Volgo-  
gradskogo meditsinskogo instituta.



02. JAN. 1971.

28339

Voprosu o pycnyenii sistemy upravleniy stroitel'noy spekhodki. Izvestiya Akad. Nauk  
uzssr, 1969, No 2, S. 33-37-Ryazynaya na usbyek. Yas

So: Letopis No. 3h

ГОРЬКИЙ, Ш. М.

33126 способ моментных фокусов как частный случай способа последовательного уравнивания. сборник науч. трудов (Ташк. ин-т Инженеро-Э. Транспорта), вып. 2, 1949, С. 142-63.

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 8, p 135 (USSR) SOV/124-57-8-9524

AUTHOR: Gofman, Sh. M.

TITLE: Approximate Calculation of the Stability of Pin-jointed Trusses by Replacement of the Matrix of the Coefficients With a "Radial-structure" Matrix (Priblizhennyi raschet ustoychivosti svobodnykh ram sposobom zameny matritsy koeffitsiyentov matritsey luchevoy struktury)

PERIODICAL: Tr. Tashkentsk. in-ta zh.-d. transp., 1956, Nr 5, pp 187-203

ABSTRACT: This method of analysis is based on the fact that in some cases the characteristic-determinant matrix can be replaced by a matrix all of whose extradiagonal elements equal zero--excepting the elements in the one row and the one column corresponding to the displacement of the truss. A matrix of this type is called a "radial-structure" matrix. This concept is further extended to "cellular" matrices. Using a number of examples, the author shows how neglecting the values of the extradiagonal elements may produce a small error in the calculation of the "critical parameter", i. e., of the eigenvalue. For calculation of the eigenvalues a "trial-and-error method" is recommended, albeit the criteria to be used in deciding what to try are not elucidated in the paper.

L. K. Narets

Card 1/1

ГОТОВ, П. В.

22125 обобщение метода фокусов. сборник науч. трудов (Техн. ин-т  
Инженероы zh. - D. Transporta), Вып. 2, 1949, С. 164-71.

SO: LETONIS' NO. 31, 1949

GOFMAN, Sh.M., professor, doktor tekhnicheskikh nauk

Strength of' multispán, multistory frames subjected to nodal  
loading. Trudy TASHIIT no.3:92-111 '51. (MIRA 8:10)  
(Structural frames)

GOPMAN, Sh.M.

Calculating a system of crossbeams. Trudy Inst. soor. AN Uz, SSR no. 4:  
3-40 '54. (MIRA 11:3)

(Structural frames)

GOPMAN, Sh.N.

Matrix forms for calculating certain complicated flat frame systems.  
Trudy Inst. soor. AN Uz.SSR no.4:41-50 '54. (MIRA 11:3)  
(Structural frames)

GOPMAN, Sh.M., doktor tekhnicheskikh nauk, professor.

Evaluation of one determinant and some disparities related to  
Seidel iterative processes. Trudy TASHIIT no.5:178-186 '56.  
(MATRICES) (MLRA 9:12)



GOFMAN, Sh.M., doktor tekhnicheskikh nauk, professor.

Approximate calculation of the strength of free frames by the method of changing the matrix of coefficients to a matrix of radial structure. Trudy TASHIIT no.5:187-203 '56. (MLBA 9:12)  
(Structural frames) (Matrices)

GOFMAN, Sh.M., doktor tekhnicheskikh nauk, professor.

One variant in solving a system of trinomial matrix equations.

Trudy TASHIIT no.5:204-206 '56.

(MLRA 9:12)

(Matrices)

GOPIAN, Sh.M.; (ULAMOV, T.O. (Tashkent)

Using the method of gradual equilibrium in calculating frames  
for stability. Stroi.mekh. i rasch.soor. 1 no.2:26-32 '59.  
(MIRA 12:4)

(Structural frames)

GOFMAN, Sh.M. ; GULAMOV, T.G. (Tashkent)

Using the method of successive equilibrations in designing  
frames for stability. Stroi.mekh.i rasch.soor. 1 no.5:46-50  
'59. (MIRA 13:1)

(Structural frames)

GOPMAN, Sh.M., doktor tekhn.nauk, prof.; KUNTSOVITSKIY, N.M., tekhn.red.

[Using the methods of consecutive balancing in designing plane frames] Raschet ploskikh ram sposobami posledovatel'nogo uravnoveshivania. Tashkent, 1962. 232 p. (Tashkent. Institut inzhenerov zheleznodorozhnogo transporta. Trudy, no.15). (MIRA 16:3)  
(Structural frames) (Mechanics, Applied)

S/124/63/000/001/057/080  
D234/D308

AUTHOR: Gofman, Sh.M.

TITLE: Determination of natural frequencies of elastic systems with a finite number of degrees of freedom

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 1, 1963, 28, abstract 1V196 (Tr. Tashkentsk. In-ta inzh. zh.-d. transp., 1962, no. 22, 3-14)

TEXT: For determining the first eigenvalue of a symmetrical matrix  $A$  of a positive definite form the author uses the method of scalar product (N.V. Fadeyeva, Vychislitel'nyye metody lineynoy algebrы (Computational methods in linear algebra) M., Gostekhizdat, 1960). In order to accelerate the process of convergence, a new matrix  $B$  is introduced, connected with  $A$  by the relation

$$B = A - mE \quad (1)$$

where  $E$  is the unit matrix and  $m$  is a certain positive number, satisfying the condition that the matrix is not negative. It is pointed

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Determination of natural ...

S/124/63/000/001/057/080  
D234/D308

out that in many practical cases  $m$  can be chosen using a less rigid condition

$$\sum_k \sum_i b_{ik} \approx 0 \quad (2)$$

where  $b_{ik}$  are the elements of  $B$ . The transition to  $B$  according to (2) is especially useful if the first and the second eigenvalue of  $A$  differ little. In such cases  $m$  should be chosen as large as possible. An example of the determination of the eigenvalues of a 4-order matrix is given.

[Abstracter's note: Complete translation]

L 58922-65 EWT(d)/EWT(n)/EWP(w)/EWA(d) EM

ACCESSION NR: AR5013974

UR/012/65/000/004/002/002

SOURCE: Ref. zh. Mekhanika, Abs. 4V133

AUTHOR: Gofman, Sh. M.

TITLE: Generalized approximation method for solving the problems of stability and natural vibrations of elastic systems

CITED SOURCE: Tr. Tashkentsk. in-ta inzh. zh.-d. transp., v. 29, 1964, 3-6

TOPIC TAGS: elasticity theory, vibration frequency

TRANSLATION: A matrix method for solving the problem of stability and vibrations of any two- or three- dimensional system is developed. Several points of load (no more than 3-5 in practice), determined by the parameters  $P_1, P_2, \dots, P_n$ , are taken to determine the loss of stability or natural vibrations. After  $n$  points of the unknown system are selected, the displacement vector from these loads is determined by the expression  $Y^i = FP$ , where  $F$  is the matrix composed of the displacement of the  $i$ -th point caused by the force  $P_k = 1$ . The expression  $Y^i = \nu \sum P$  is obtained for the vector of the unknown displacements under the action of compressive or inertial forces, where  $\nu$  is a parameter determining the total Card 1/2



L 58922-65

ACCESSION NR: AR5(113974)

0

compressive load or the square of the frequencies of the natural vibrations and  $\Phi$  has the same meaning as F. Equating the two expressions for minimum parameter, the author has either the secular equation  $|\Phi - F - \sqrt{E}| = 0$ , or the equation  $|\Phi - F - \frac{1}{\sqrt{E}}| = 0$ . Bibliography of 9 entries. G. Ya. Anosov

SUB CODE: ME

ENCL: 00

Card 2/2 *dm.*

GOREUNOV-POSADOV, M.I.; GOFMAN, Sh.M. (Tashkent)

Book reviews and bibliography. Gen., fund. 1 mekh. grun. 6  
no.3:31-32, 3 of cover. '64 (MIRA 17:7)

VOLKOV, D. I., KONDORSKIY, E. I., KRINCHIK, G. S., MIRYASOV, N. A., PARSANOV,  
A. P., RODE, V. E., CHECHERNIKOV, V. I., and GOFMAN, U. (Moscow)

"Results of Studies of Certain Magnetic and Magneto-Optical Properties of  
Ferro-Magnetics:"

- I "Saturation Magnetization of CuNi Alloys at Low Temperatures."
- II "Magnetic Properties of MnB System."
- III "Temperature Dependence of Paramagnetic Susceptibility of Ferrites."
- IV "Magneto-Optical Resonance in Ferromagnetics." (Krinchik)

report presented at Colloquium on Magnetism, Grenoble, France, 2-5 Jul 58.

Eval: B - 3,111,755 3 Sep 58.

18(6)

307/56-35-2-54/60

AUTHORS: Kondorskiy, Ye. I., Rode, V. Ye., Gofman, U.

TITLE: The Saturation Magnetization of Nickel-Copper Alloys at Low Temperatures (Nemagnichennost' nasyshcheniya nikel'-mednykh ~~splavov~~ pri nizkikh temperaturakh)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki. 1958, Vol 35, Nr 2 (8), pp 549-550 (USSR)

ABSTRACT: The aim of this paper is the verification of the "law of the 3 straight lines"  $I = I_0(1 - CT)^{2/3}$  for saturation magnetization at low temperatures and the determination of the parameter C in the above-given formula for nickel-copper alloys with a copper content  $\leq 50\%$ . The measuring device permitted immediate observation of the variation of the saturation magnetization of the specimen when its temperature is varied. The temperature variation was carried out by evacuation of the vapors of the boiling liquid (oxygen, nitrogen, hydrogen, and helium) in which the specimen was placed. The variation of the magnetization was measured by means of a photoelectrical fluxmeter. A table shows the values of

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SOV/56-35-2-54/60

The Saturation Magnetization of Nickel-Copper Alloys at Low Temperatures

The magnetization  $I_0$  and of nickel-copper alloys in a field of  $H = 3300$  Oersted<sup>0</sup> for various temperatures and also the values of  $C$ , calculated according to a formula of Bloch (Blokh). From these values of  $C$  it is possible to obtain (in the case of pure metals) the exchange integral  $J$ . The results of these calculations are given in a table. The exchange parameter  $J$  which was calculated in this way remains constant (with an accuracy of 10 - 15 %) for all the investigated nickel-copper alloys. There are 1 table and 3 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: May 28, 1958

Card 2/2

RODE, V.; GOPMAN, U.

Sensitivity of nickel - copper alloys in the saturation region.  
Nauch.dokl.vys.shkoly; fiz.-mat.nauki no.3:148-150 '59.  
(MIRA 13:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Nickel-copper alloys)

307(5)-67-4-7/7

Chentsov, B.

The Fifth All-Union Conference on the Physics of Low Temperatures (5-ye Vsesoyuznoye sovmestniye po fizike nizkikh temperatur)

PERIODICAL: Uspehi fizicheskikh nauk, 1959, Vol 67, Nr 4, pp 743-750 (USSR)

ABSTRACT:

This Conference took place from October 27 to November 1 at Tbilisi. It was organized by the Otdelnoye fizicheskoye nauchnoye obshchestvo Akademi nauk SSSR (Department of Physical and Mathematical Sciences of the Academy of Sciences, USSR), the Akademiya nauk Gruzinskoy SSR (Academy of Sciences, USSR), Gruzinskaya SSR, and the Fizicheskoye gosudarstvennoye uchebnoye zavedeniye im. Shalva (Tbilisi State University imeni Shalva). The Conference was attended by about 500 specialists from Tbilisi, Moscow, Khar'kov, Kiev, Leningrad, Sverdlovsk, and other cities as well as by a number of young Chinese scientists at present working in the USSR. About 50 lectures were delivered which were divided according to research fields.

4. S. Borovik-Khannov (IPF) delivered a report on investigations he carried out on the anisotropy of the weak ferromagnetism in monoclinic samples of the antiferromagnetic MnCO (the effect of anisotropy of the antiferromagnetic dynamical theory developed by him was predicted by the theoretical discussion E. A. Alifanov (IPF). In the course of graphical investigations he carried out of the magnetic structure of MnCO and FeCO at low temperatures. Kapitza stressed the importance of the method based on Neftalovich's theory. V. F. Kravchenko (VNIIFR), who has lectured as well as by A. S. Borovik-Khannov, reported on measurements carried out by him (in the IPF) of the magnetic anisotropy of the antiferromagnetic CuSO and CoSO-monocrytals.

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10. A. Turay (IPF AN SSSR, Sverdlovsk) spoke about his theoretical investigations of the susceptibility, the susceptibility, the specific heat, and the resonance frequencies of antiferromagnetics and weak ferromagnetics. M. Ya. Izrael'skiy (ZhPTI) spoke about simultaneous measurements of electric resistance of iron in magnetic fields in a wide temperature range with simultaneous plotting of the magnetization curves. V. A. Izrael'skiy, G. V. Fedorov, E. F. Zhukovskiy, and M. I. Burdakov (IPF AN SSSR) spoke about measurements of magnetization and the Hall effect of polycrystalline samples of nickel and bismuth at low temperatures. Ya. I. Kondratskiy,

V. Rado, N. Gofman, and Chern. Shteyn (SNT) gave reports on susceptibility measurements in nickel and its alloys, and copper at low temperatures; E. I. Zhukovskiy (SNT) spoke about the spectrum of the paramagnetic resonance of  $\gamma$  in ferrites at low temperatures of liquid nitrogen. E. I. Kadantsev and V. F. Kravchenko (ZhPTI) dealt with the kinetic phenomena in ferromagnetic liquids at low temperatures and with calculations of relaxation times. V. F. Kravchenko, V. Bar'yehker and S. Polubinskiy (ZhPTI) carried out a theoretical investigation of the relaxation of the magnetic moment in ferromagnetic Vlasov (IPF AN SSSR) observed a slightly polarized elastic (ultrasonic) wave of a frequency of 10<sup>7</sup> cycles when passing through a ferromagnetic medium in the direction of the magnetic field, is subjected to the direction of the plane of the order of 10<sup>-3</sup> - 10<sup>-4</sup> turn of the polarization. Kravchenko pointed out that in this case the direction of the phenomenon may be observed, namely the rotation of another of ultrasonic wave. The length is equal to the distance of the Larmor orbit of the electron. V. V. Kravchenko, V. V. Kravchenko, and V. V. Kravchenko.

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SOV/177-58-5-5/30

17(12)

AUTHORS:

Bogatyrev, M.F., Guard Lieutenant-Colonel of the Medical Corps, Mel'nikov, Yu.N., Captain of the Medical Corps, and Gofman, V.A., Major of the Medical Corps

TITLE:

The Application of Furacillin in Surgery (Primeneniye furatsillina v khirurgicheskoy praktike)

PERIODICAL:

Voyenno-meditsinskiy zhurnal, 1958, Nr 5, pp 27 - 32 (USSR)

ABSTRACT:

The authors report on the application of furacillin in surgical treatment. According to S.P. Zayeva's data, furacillin is highly effective against anaerobic infections. She has proved that vitamin C increases the effect of furacillin, and furacillin on its part reduces the content of vitamin B<sub>1</sub> and PP in the organism. S.G. Mogil'nitskiy, N.I. Magalif, P.I. Stradyn', and M.M. Ferber indicate that a furacillin solution locally applied does not stimulate the tissue and helps to develop granulation and

Card 1/2



GOFMAN, V.A.; TIKHONOV, V.P. (Volgograd)

Diffuse endoalveolar lithiasis of the lungs. Klin. meč.  
40 no.12:124-126 D '62. (MIRA 17:2)

1. Iz kafedry propedevticheskoy terapii (zav. - prof. I.V. Zherdin) Volgogradskogo meditsinskogo instituta i terapev-  
ticheskogo otdeleniya Volgogradskoy oblastnoy klinicheskoy  
bol'nitsy (glavnyy vrach - zaslužhennyy vrach RSFSR A.I.  
Gusev).

GOFMAN, V.I.

Process of automatic "erasing" in magnetic recording. Trudy  
Geof.inst. no.4:115-121 '53. (MLRA 7:12)  
(Magnetic recorders and recording)

*GOPMAN, V.I.*

GOPMAN, V.I., kand. tekhn. nauk (Moskva).

I.M. Rabinovich's geometric method used in investigating damped vibrations. Issl. po teor. sooruzh. no.7:135-158 '57. (MIRA 10:9)  
(Vibration) (Geometry)



(A) L 8481-66

ACC NR: AP5028534

SOURCE CODE: UR/0286/65/000/020/0126/0126

AUTHORS: Gabay, Ye. V.; Gofman, V. I.; Dudchenko, V. V.; Yemelt'yanov, I. K. 16  
B

ORG: none

TITLE: A hydraulic pressure amplifier. Class 63, No. 175829 [announced by Omega Tractor Plant (Omezhskiy traktorny zavod)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 126

TOPIC TAGS: hydraulic device, mechanical power transmission device, mechanical hydraulic pressure amplifier, amplifier design, amplifier stage, amplifier equipment

ABSTRACT: This Author Certificate presents a hydraulic pressure amplifier containing a casing, a support for a differential lever, and a plunger (see Fig. 1).

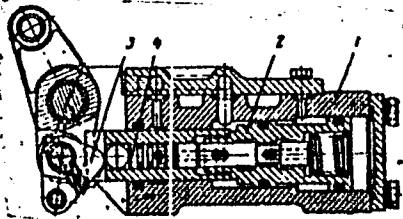


Fig. 1. 1 - Casing; 2 - piston;  
3 - support of the differential  
lever; 4 - plunger.

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UDC: 629.114.2:621.226

L 8481-66

ACC NR: AP5028534

To cause an automatic return of the plunger to its original position, the amplifier is made up of stages. The large-area stage is turned toward the return direction, and the space formed by the stages is permanently connected with the pressure main line. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 12Sep64

BVK.  
Card 2/2

BEZPALOV, Innokentiy Fedorovich; GOZMAN, V.L., professor, zasluzhennyy  
deyatel' nauki i tekhniki, redaktor; PUL'KINA, Ye.A., tekhnicheskiy  
redaktor

[Kordin, a new soundproofing material; its manufacture and ways  
of using it in building] Kordin - novyi zvukoizolatsionnyi  
material; proizvodstvo i sposoby primeneniia v stroitel'stve.  
Leningrad, Gos.izd-vo lit-ry po stroit. i arkhitekture, 1955. 47 p.  
(MIRA 9:3)

1. Chlen-korrespondent Akademii arkhitektury SSSR (for Gozman)  
(Soundproofing)

GOFMAN, V.V.; inzh.; DERGILEVA, V.Ye., inzh.

Making agloporite with furnace slag in sintering basins. Stroi.  
mat. 6 no.11:28-29 N '60. (MIRA 13:11)  
(Building materials)



GOFMAN, V.V., inzh.; TELISOV, A.N., inzh.

Semi-automatic production line for making wall blocks using  
cellular concretes. Stroi. i dor. mashinostr. 4 no.11:28-30  
K '59 (MIRA 13:3)  
(Assembly-line methods) (Building blocks)

GOFMAN, V.V., inzh.; DERGILEVA, V.Ye., inzh.

Unit for making lightweight fillers using cinders from the heat  
and electric power plants. Stroi.mat. 5 no.9:27-28 S '59.  
(MIRA 12:12)

(Building materials)

GOFMAN, V.V., inzh.

Concrete mixing plants made of consolidated units. Maki.  
stroil. 19 no.5:23-24 My '62. (MIRA 15:5)  
(Concrete plants)

GOFMAN, V.V., inzh.; KARPOVTSEV, A.N., inzh.

New equipment for the production of slag "pumice." Stroi. i dor.  
mash. 7 no.9:27-28 S '62. (MIRA 15:10)  
(Slag)

GOFMAN, Ya.B.

Case of a double intestinal obstruction by fecaliths in dolicholon  
and megacolon. Sov.med. 18 no.5:19-20 My '54. (MLRA 7:5)

1. Iz gosital'noy khirurgicheskoy kliniki (zaveduyushchiy -- professor  
B.A.Petrov) I Moskovskogo ordena Lenina meditsinskogo instituta na  
baze Moskovskogo gorodskogo nauchno-issledovatel'skogo instituta skoroy  
pomoshchi im. Sklifosovskogo. (Intestines--Obstructions) (Calculi)

NAZAROV, M.S.; OVSYANNIKOV, N.G.; SOYUZOV, A.A.; MITAISHVILI, A.A.;  
YUDIN, P.G.; SOLOV'YEV, I.F.; SVIRIDOV, A.A.; RUMYANTSEV, S.M.;  
KOLICHENKO, K.N.; NIKULIN, M.R.; ORLOV, D.A.; MAYORSKIY, G.I.;  
SEMEHOV, I.Ya.; SUTYRIN, M.A.; KOVALEV, A.I.; VLASOV, A.A.;  
LEVIN, Ya.L.; KLIMOVITSKIY, A.Z.; METAL'NIKOV, G.F.; PANUSHKIN,  
G.P.; CHECHETKIN, A.V.; MIKHEYEV, V.D.; KOLOKOL'NIKOV, K.A.;  
MOISEYEVA, A.I.; TIRON, G.I.; KRYLOVA, V.F.; GOFMAN, Ya.M.;  
BUDCHANOV, B.F.

K.I. Korshunova; an obituary. Rech. transp. 20 no.12: 79 D '61.  
(MIRA 14:12)

(Korshunova, Kseniia Ivanovna, 1910-1961)

GOFMAN, Ye.; MAMIOFA, I., inzh.

Regulations are silent. Izobri rats. no.1:47-49 Ja '61.

(MIRA 14:1)

1. Konsul'tant Gor'kovskogo oblastnogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov (for Gofman). 2. Leningradskiy oblastnoy sovet Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov (for Mamiofa).

(Building---Technological innovations)

ГОФМАН, Ye. A.

Gofman, Ye. A.- "The effect of cytotoxic antireticular serum on the flow of the inflammatory process," Sbornik trudov Khar'k. vet. in-ta, Vol. XIX, Issue 2, 1949, p. 200-10, - Bibliog: 25 items

SO: U-1934, 29 Oct 53. (Letopis 'Zhurnal 'nykh Statey, No. 16, 1949).



GOFMAN, Ye. A.

Dissertation: "Foraminifera of the Jurassic Deposits of Dagestan and Their Stratigraphic Significance. Land Geol-Min Sci, Moscow State U, Moscow, 1953. Referativnyy Zhurnal--Geologiya, Geografiya, Moscow, Jul 54.

SO: SUM No. 356, 25 Jan 1955

KONYUKHOV, I.A.; KRYMGOL'TS, G.Ya.; GOFMAN, Ye.A.

Stratigraphy of Jurassic deposits in central Dagestan. Vest.Mosk.un. 8 no.  
3:141-148 Mr '53. (MLBA 6:6)

1. Kafedra geologii nefi i gaza. (Dagestan--Geology, Stratigraphic)

GOPMAN, Ye.A.

Distribution of foraminifers in middle Jurassic deposits of Daghestan.  
Vest.Mosk.un.Ser.biol.,pochv.geol.,geog. 11 no.2:171-173 '56.  
(MIRA 10:10)

1. Kafedra paleontologii.  
(Daghestan--Foraminifera, Fossil)

Го́рман, Я. А.

KHAIN, V. Ye., AFANAS'YEV, S. L., BURLIN, Yu. K., GOFMAN, Ye. A., LOUIZE, M. G.,  
and RIKHTER, V. G.

"New Data on the Geology of the North-Western Caucasus"

report delivered in the Geologic Section, 1 March-4 June 1957.

Chronicle of the Activity of the Geologic Section, Byulleten' Moskovskogo  
Obshchestva Ispytateley Prirody, Otdel Geologicheskii, No. 6, p. 115-118, 1957.