

Thermocatalytic desulfurization of ...

S/020/62/144/002/025/028  
B101/B110

cycles its activity was only 7 - 10 % less. This is probably due to the deposition of Fe, Mn, Al, Mg, Cr, Si, etc. which are present in the fuels as organic complexes. (3) Losses in the form of coke, gas, and polymers amount to 3 - 5 %. (4) Consumption of catalyst per unit weight of fuel is ~0.27 % for gasoline, and ~0.40 % for ligroin. (5) The sulfur of the organic compounds is completely adsorbed by the catalyst and separated as SO<sub>2</sub> and elementary sulfur during regeneration. No corroding H<sub>2</sub>S is formed. (6) Additional cleaning of the distillate with alkali is unnecessary. The catalyst is recommended for use in refineries. There are 1 figure and 1 table.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk BSSR (Institute of General and Inorganic Chemistry of the Academy of Sciences BSSR)

SUBMITTED: January 26, 1962

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KOMAROV, V. S.; YERMOLENKO, N. F., akademik; VARLAMOV, V. I.;  
VOLNEYKO, I. N.

Highly active ferroaluminosilicate contact catalyst for  
thermal desulfuration of petroleum products. Dokl. AN SSSR  
147 no.6:1413-1416 D '62. (MIRA 16:1)

1. Institut obshchey i neorganicheskoy khimii AN Belorusskoy  
SSR. 2. AN Belorusskoy SSR (for Yermolenko).

(Petroleum products) (Desulfuration)  
(Catalysts)

ACCESSION NR: AP4039330

S/0250/64/008/004/0241/0245

AUTHOR: Komarov, V. S.; Yermolenko, N. F.; Varlamov, V. I.

TITLE: Thermocatalytic desulfurization of special kerosene and diesel fuel over iron aluminosilicate catalyst

SOURCE: AN BSSR. Doklady\*, v. 8, no. 4, 1964, 241-245

TOPIC TAGS: iron aluminosilicate, catalyst, thermocatalytic desulfurization, special kerosene, kerosene, diesel fuel

ABSTRACT: The activity of iron aluminosilicate catalysts in the thermocatalytic desulfurization of high-boiling petroleum distillates — special kerosene (S content, 0.125%) and diesel fuel — has been tested and the optimum desulfurization conditions and the catalyst life have been determined. The experiments were conducted in flow equipment by a standard procedure described earlier. In the case of special kerosene desulfurization, 450C was the optimum temperature. The gaseous products were 92.2—94.4% H<sub>2</sub> and

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ACCESSION NR: AP4039330

contained no  $H_2S$ , which is retained by the catalyst as iron sulfites. Because of the absence of  $H_2S$ , equipment corrosion is not a danger and chemical refining of the products is unnecessary; capital investment and production costs are, therefore, low. The loss of catalyst after 40 regenerations was only 0.28% and the degree of desulfurization averaged 88.1%, corresponding to a concentration of sulfur in the refined kerosene of 0.014%. It was concluded that this process is at present one of the cheapest and the most rational desulfurization processes for petroleum products which boil below 300C. However, the degree of desulfurization in diesel fuel at 450C depended to a great extent on the feed space velocity and on the feed/catalyst ratio. The highest degree of desulfurization (75.1%) was obtained at a space velocity of 0.3 hr and a feed/catalyst ratio of 1:1. The difficulty in desulfurizing diesel fuel apparently lies in the rapid contamination of the catalyst surface with coke. It was concluded, therefore, that desulfurization of high-boiling distillates requires a catalyst which would 1) stimulate sulfur-compound decomposition, 2) chemically bind sulfur and remove it from the reaction zone, and 3) have a low

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ACCESSION NR: AP4039330

coking capacity. This research was done at the Institute of General and Inorganic Chemistry, Academy of Sciences, BSSR. Orig. art. has: 1 figure and 4 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN BSSR  
(Institute of General and Inorganic Chemistry, AN BSSR)

SUBMITTED: 17Jan64      DATE ACQ: 09Jun64      ENCL: 00

SUB CODE: FP, GC      NO REF SOV: 009      OTHER: 000

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plus 15-20% excess, and the solution was cooled to 15-20°C, and HCl was added with stirring to adjust the pH to 6-6.5 and a solution of  $\text{NH}_3$  was added to raise pH to 6-6.5 and to adjust the chloride ions. After

SECRET

CONFIDENTIAL

KOMAROV, V.S.; YERMOLENKO, N.F.; VARLAMOV, V.I.

Thermocatalytic desulfuration of special kerosene and diesel fuel on  
an iron aluminosilicate catalyst. Dokl. AN BSSR 8 no.4:241-245 Ap  
'64. (MIRA 17:6)

1. Institut obshchey i neorganicheskoy khimii AN BSSR.



VARLAMOV, V.I.

Anatomical changes in the head and neck of the femur following  
synoviotomy in experimental conditions. Ortop.travm.i protez.  
21 no.2:27-31 F '60. (MIRA 13:12)  
(FEMUR) (SYNOVIAL MEMBRANES)

VARLAMOV, V.I., professor

Sequelae of acute obstruction of the mesenteric vessels without  
infarction (experimental study). Vest.khir. no.3:68-72 '62.  
(MIRA 15:3)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii  
(zav. - prof. V.I. Varlamov) Odesskogo meditsinskogo instituta  
im. N.I. Pirogova (rektor - prof. I.Ya. Deyneka).  
(MESENTERY—BLOOD SUPPLY) (INFARCTION)

VARLAMOV, V.I., prof.

New technic for placing knotted sutures on regional wounds of  
parenchymatous organs. Khirurgiia no.3:102-103 '62.

(MIRA 15:3)

1. Iz kafedry operativnoy khirurgii s topograficheskoy anatomiyey  
(zav. - prof. V.I. Varlamov) Odesskogo meditsinskogo instituta imeni  
N.I. Pirogova.

(LIVER---SURGERY) (SPLEEN---SURGERY) (SUTURES)

VARLAMOV, V.I., prof. (Odessa, D-57, ul akademika Pavlova, d.11, kv.35)

Interrelation between intestinal veins and intestinal arteries.  
Vest. khir. 91 no.8:122-124 Ag'63 (MIRA 17:3)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. - prof. V.I. Varlamov) Odesskogo meditsinskogo instituta imeni N.I.Pirogova (rektor - prof. I. Ya. Deyneka).

OL'DEKOP, Yu.A.; VARLAMOV, V.I.

Photodecarboxylation of mercury monochlorodiacetate. Sbor. nauch. rab.  
Inst. fiz.-org. khim. AN BSSR no. 7:75-77 '59. (MIRA 14:4)  
(Mercury compounds)

VARLAMOV, V.M., kapitan meditsinskoy sluzhby

Work of a mobile X-ray room. Voen.-med. zhur. no.5:68-69 My '61.  
(MIRA 14:8)

(RADIOGRAPHY—EQUIPMENT AND SUPPLIES)

VARLAMOV, V.M., mayor mechtsinskoy sluzhby

Experience in organization of the personnel of a fluorography  
unit. Voen med. zhur. no.2:33-34 '63. (MIR) 17-9

SAMYGIN, G.A.; VARLAMOV, V.N.

Conditions favorable for the survival of germinating seeds after  
freezing. Fiziol. rast. 11 no.2:308-315 Mr-Apr '64.

(MIRA 17:4)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy  
of Sciences, Moscow.



VARLAMOV, V.N.

Swelling of seeds at temperatures below freezing point. Fiziol.rast.  
12 no.1:94-98 Ja-F '65. (MIRA 18:37)

1. Institut fiziologii rasteniy imeni Timiryazeva AN SSSR, Moskva.

RASHKOVICH, L.N., kand.tekhn.nauk; MAYYER, A.A., kand.tekhn.nauk; VARLAMOV,  
V.F., inzh.

Study of conditions for the formation of dibasic calcium hydro-  
silicates. Sbor. trud. ROSNIIMS no.20:18-28 '61. (MIRA 16:1)  
(Calcium silicates)

ACCESSION NR: AR4036317

S/0081/64/000/004/B092/B093

SOURCE: Referativnyy zhurnal. Khimiya, Abs. 4B671

AUTHOR: Mayer, A. A.; Varshal, B. G.; Manuylova, N. S.; Varlamov, V. P.

TITLE: Dehydration of certain zeolites in a vacuum and their rehydration under hydrothermal conditions

CITED SOURCE: Sb. tr. Resp. n.-i. in-t mestn. stroit, materialov, no. 27, 1963, 3-23

TOPIC TAGS: zeolite, dehydration, rehydration, natrolite, analcine, desmin

TRANSLATION: Baking of natural natrolite (Nt) in a vacuum at 200C does not change its properties, but at 400C complete dehydration occurs. Previously dehydrated Nt treated with steam at 20-250C changes into p-natrolite(PNt). PNt has the same chemical composition and crystalline form as the native Nt, but differs in that the water in it is primarily absorbed water and not water of crystallization as in the natural form. Therefore, PNt has twice the dielectric permeability. Saturation with water vapor at 20-250C does not change the properties of natural Nt and

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ACCESSION NR: AR4036317

Pnt. During treatment of vapor saturated Pnt at 300C, it changes completely into analcime and sodium hydroaluminat. Natural Nt under the same conditions changes only slightly. Apparently, the presence of water of crystallization makes the substance resistant to the effects of strongly heated steam. Therefore, one should look into this phenomenon as a reason for the complete stability of analcime in an atmosphere of steam at 300C. In other words, the resistance of the mineral to the effects of strongly heated steam is determined by the physical type of water present in it. The presence of water of crystallization in the lattice of Nt provides its crystals with mechanical resistance. After baking in a vacuum at 200C, desmin (Dm) fully retains the ability to be rehydrated. Due to its tridimensional structure, the crystal lattice of Nt does not change during dehydration in a vacuum, which permits the water during rehydration to return in the same quantity. On the other hand, the two dimensional stratified lattice of Dm is destroyed during heating in a vacuum at 400C, and because of that Dm loses the ability to be rehydrated to a considerable extent. During rehydration of dehydrated

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ACCESSION NR: AR4036317

Nt and Dm, the water which returns is mainly adsorptive in character. Experiments have shown that in acidic volcanic, water-containing glass, the water is also adsorptive in character. This permits us to make an analogy between perlites and zeolites, many of which similarly swell up when heated. Authors' summary.

DATE ACQ: 10Apr64

SUB CODE: IC

ENCL: 00

Card 3/3

RASHKOVICH, L.N.; VARLAMOV, V.P.; SUDINA, N.K.

Effect of the composition of the initial mixture on the kinetics of interaction of  $\text{Ca}(\text{OH})_2$  with quartz under conditions of hydrothermal treatment. Dokl. AN SSSR 156 no. 3:685-688 '64.  
(MIRA 17:5)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy institut stroitel'nykh materialov i konstruktsiy. Predstavleno akademikom P.A.Rebinderom.

RASHKOVICH, L.N.; VARLAMOV, V.P.

New calcium fluosilicate. Dokl. AN SSSR 156 no. 5:1091-1094  
Je '64. (MIRA 17:6)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy institut  
stroitel'nykh materialov i konstruktsiy. Predstavleno akademikom  
P.A.Rebinderom.

VARLAMOV, V.P.

Wireless tachometer used in turbodrilling. Neftianik 1 no.4:  
23-25 Ap '56. (MLRA 9:10)

1. Nauchnyy sotrudnik Vsesoyuznogo nauchno-issledovatel'skogo  
instituta bureniya nefi.  
(Oil well drilling) (Tachometer)



*VARLAMOV, V.P.*

93-58-3-6/17

**AUTHOR:** Rubinovich, Ya. V., and Varlamov, V. P.

**TITLE:** Hydraulic Signal Communication Channel With the Bottom Hole in Turbine Drilling (Gidravlicheskiy kanal svyazi s zaboyem pri turbinnom burenii)

**PERIODICAL:** Neftyanoye khozyaystvo, 1958, Nr 3, pp 24-28 (USSR)

**ABSTRACT:** The authors state that the inclusion of a tachometer in turbine drilling would lead to greater utilization of the turbine drilling method and automation of the drilling process. When a well is drilled by this method the transmitter of the tachometer must be mounted on the turbodrill and connected by a communication line with recording instruments above the ground. Extensive experience has shown that communication with the bottom hole is best established via a hydraulic line, and attempts have been made in the last two years to develop methods by which the signals from the bottom hole are transmitted to surface recording instruments via the fluid in the drill pipe. Under this system the fluid which passes through three opening's in the turbodrill bearing can be shut off three times by a winged disc attached to the turbodrill shaft. The liquid flow through the three openings is shut off three times during one revolution of the turbodrill shaft and this produces three periodic pressure impulses which are transmitted to the surface recording instruments.

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Hydraulic Signal Communication (Cont.)

93-58-3-6/17

Initial field experiments have disclosed that periodic pressure pulses at a frequency of 20 to 80 hertz are indistinct but that when the turbodrill is not used the single pressure pulses, produced at the bottom of the drill pipe which is equipped with a special nozzle, are quite distinct. Fig. 1 presents oscillograms of signals produced in turbine drilling showing that at a depth of 900 m, the amplitude of the signals is similar to that of noise and is difficult to record. Fig. 2 presents oscillograms of single impulses obtained in drilling experimental wells (without a turbodrill) at oil fields of the Pokhvistnevskaya Drilling Department (Pokhvistnevskaya kontora bureniya). The single impulses produced at the end of the drill pipe which is equipped with a special nozzle remained practically stable and their amplitude even at a depth of 2,500 m exceeded the amplitude of the noise. Fig. 3 shows that the signals last 0.5-0.6 seconds. The authors conclude that when a tachometer is included in turbodrilling the interval between the impulses must be extended 2-3 seconds. Such intervals will make possible clear selection of the signals from the pump noise which is within the range of 1-2 hertz. There are three figures and seven Soviet references.

AVAILABLE: Library of Congress

Card 2/2

VARLAMOV, V.P., inzh.

Studies of a hydraulic "turbotachometer". Trudy VNIIBT no.3:63-82  
'61. (MIRA 15:1)  
(Turbodrills) (Hydraulic machinery)

VARLAMOV, V.P., inzh.

Devices for checking the insulation of electrodrills. Trudy VNIIBT  
no.3:83-88 '61. (MIRA 15:1)

(Boring machinery--Testing)

MALININA, V.I.; VARLAMOV, V.P.

New method for the analysis of petroleum and bitumen without preliminary ashing. Zav.lab. 24 no.11:1374-1375 '58.

(MIRA 11:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut.

(Petroleum--Analysis) (Bitumen--Analysis) (Spectrophotometry)

cn

22

The oxidation of paraffin under pressure. V. VARLAMOV. *Moskovskoe Zhurnale Deda* 1942, No. 4-C, 41-6.—Extensive expts. were carried out by the following method: 100-200 g. Crassy-paraffin (m. 82°) and 500-1000 cc. 2 N Na<sub>2</sub>CO<sub>3</sub> were oxidized in an iron autoclave at 100-180° and 15-20 atm. for 3-4 hrs. with air at the rate of 200-400 l./hr. Results: (1) the rate of oxidation is directly proportional to the pressure. (2) 20-74% of the paraffin enters into reaction; (3) the usual fatty acids (dark colored) are 63-78%, the sol. acids 7-8%, the hydroxy acids 10% of the oxidized paraffin. The fatty acids had acid nos. of 172-210 and the oxoacids showed an ester no. of 80; and (4) the volatile reaction products contained low-mol. alcs., aldehydes and ketones which were not further investigated, although, as V. points out, these products may have considerable industrial value

R. Birlouze

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

2 2

*CA*

The oxidation of paraffin with air in the presence of catalysts. V. Varlamov. *Moskovo-Zhivotoe Delo* 1932, No. 6, 47-53; cf. C. A. 27, 3505. It was expected that by carrying out the oxidation of paraffin in the presence of catalysts in the absence of H<sub>2</sub>O under atm. pressure the oxidation products would not contain hydroxy acids (these acids form soaps of objectionable dark color and of low detergent value). These expectations did not materialize. The oxidation was carried out by blowing air (100 l./hr.) through Gromy paraffin (m. 52°) at 160-190° for 6-8 hrs. in the presence of various catalysts (1/mg. atom). *Results*.-- (1) Higher yields of acids were obtained in these series (up to 64.4%), contg. a high proportion of hydroxy acids; and (2) Mn, Cr, Co and Ni are pos. catalysts, while the alk. carbonates are retarding catalysts. E. Bulous

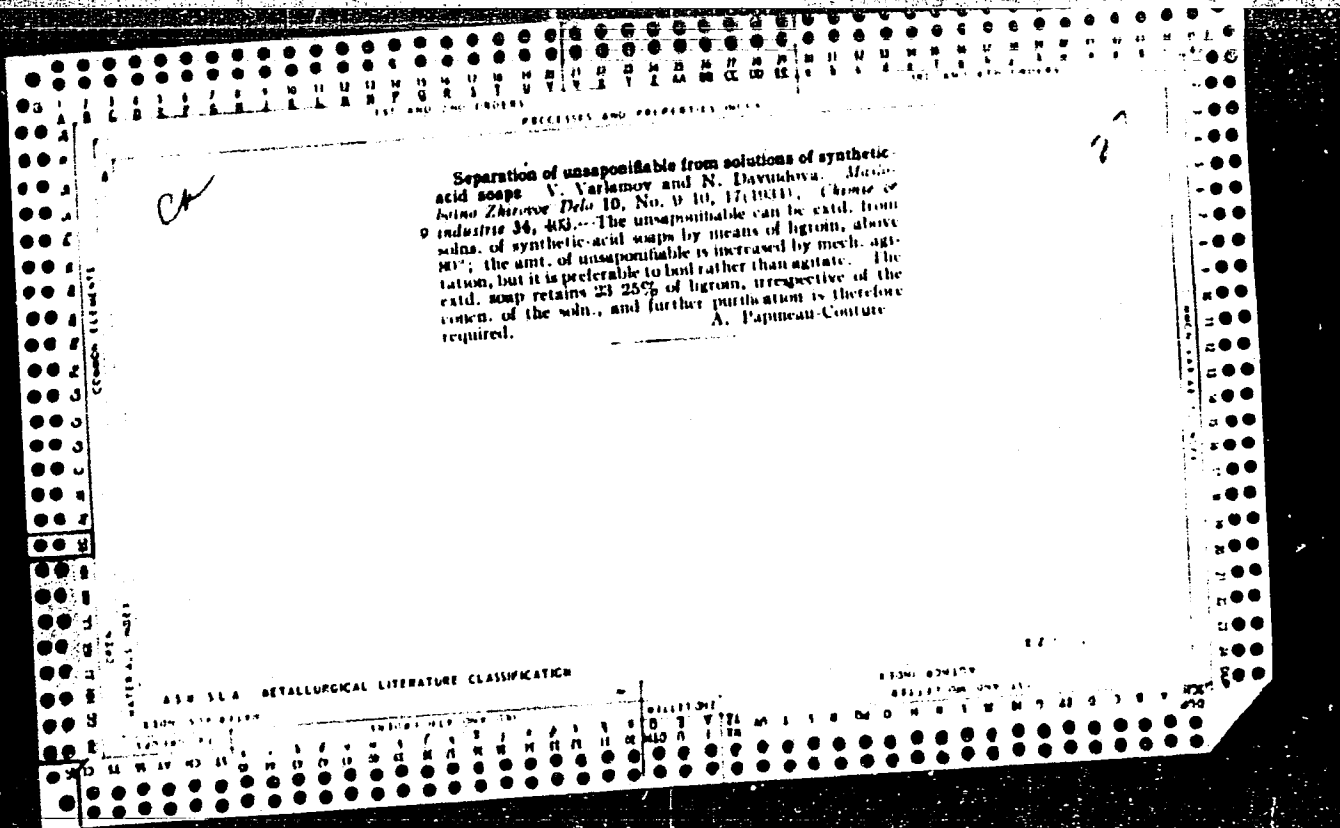
ASB.SLA METALLURGICAL LITERATURE CLASSIFICATION

The separation of the unsaponifiable matter from the oxidation products of paraffin.  
 V. VARLAMOV. *Makoleino-Zhirovoe Delo* 1932, No. 7, 30-33 (v. s.). — Unsaponifiable  
 matter was completely sepd. from the oxidation products of paraffin by treating 400 g.  
 of the latter dissolved in 2.7 l. of benzine (b. 120-160°) with the calcd. amt. of 1:5  
 NaOH. The oxidation products consisted of 19.2% insol. solid acids, 18.1% hydroxy  
 acids, 19.1% liquid insol. acids, 27.1% sol. acids and volatile compds. and 16.5% un-  
 saponifiable. E. Birlouze

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ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION





LIST AND INDEX CIPHERS  
 PROCESSES AND PROPERTIES INDEX  
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ca

22

Refining of synthetic acids—V. Varlamov and Z. Kenigsberg. *Makolomno Zhirnye Delo* 11, 201(1915).—The method of Rabinovich and Osenova (*Ibid.* 10, 11-31(1914)) for decolorizing mixts. of synthetic acids was improved by treating oxidized petrolatum with 4 parts by wt. of naphtha, b. 75-115°, washing the soln. with 0.5% of 0.3-0.5% H<sub>2</sub>SO<sub>4</sub> and bleaching with 5% of active clay.  
 Chas. Blanc

ASS-3LA METALLURGICAL LITERATURE CLASSIFICATION

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



22

The oxidation of petroleum hydrocarbons. V. Varlamov and G. Oyat'eva. *Sbornik Rabot Inst. Khim. U.S.S.R.* 1937, 26-30. A temp. increase from 115° to 155° increases considerably the speed of the oxidation of white petrolatum. The quality of the acids obtained is lowered only slightly. The obtaining and the utilization of the vapor products of petrolatum oxidation. V. Varlamov, et al. *Ibid.* 50-3. The vapor products of petrolatum oxidation were investigated. They were absorbed in dry settlers, absorbed in alk. scrubbers and adsorbed by charcoal. For a complete desulfurization of the air it is necessary to use charcoal adsorbers. The recovery of acids from the oxidized product by solvents. I. Nesterov

N. Davydova and G. Oyat'eva. *Ibid.* 50-64. For the separ. of the acids from the other nonsaponifiable substances the following were tried out as solvents: H<sub>2</sub>SO<sub>4</sub>, alc., phenol, fufural and C<sub>6</sub>H<sub>6</sub>N<sub>2</sub>O<sub>4</sub>. Best results were obtained with phenol and with fufural. The extraction by high molecular weight hydrocarbons of nonsaponifiable substances from soaps of synthetic acids. V. Varlamov and G. Oyat'eva. *Ibid.* 65-6. By means of a single treatment with paraffin of the soap the content of nonsaponifiable substances is lowered from 23% to only 6%. The obtaining of organic acids from synthetic oxyacids. Z. Kenigsberg. *Ibid.* 71-87. During the hydrogenation of the K and of the Na salts of the oxyacids a partial transformation into the satd. and unsatd. org. acids takes place. An increase of the nonsaponifiable substances takes place simultaneously, which is accompanied by the decompn. of a part of the oxyacids. Through Khim. Referat. *Zhur.* 1, No 7, 20, 200000. W. R. Hoop

CENTRAL INDEX

ASD-SEA METALLURGICAL LITERATURE CLASSIFICATION



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

LET AND ENG LETTERS

PROCESSED AND REPRODUCED

26

Drying oil from aluminum salts of synthetic oxoacids.  
A. Ya. Drobizh and V. Varlamov. *Makobolno*  
*Zhurnal Dolo* 13, No. 4, 401-10377; cf. C. A. 30, 60561  
Chav. Blanc

COMMON ELEMENTS

SPECIALS NOTE

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

LET AND ENG LETTERS

LET AND ENG LETTERS

LET AND ENG LETTERS

26

**Obtaining drying oil from sardine oil. V. Varlamov**

<sup>1</sup> and Z. Budyazhina. *Masloboiwo Zhirovno Delo* 14, No. 3, 28-30(1938).—On heating refined sardine oil in a Cu flask with superheated steam at 270-80° in the presence of oxides and sol. salts of Ca, Ba, Zn, Pb and Mn until 35-45% of solid fatty acids is distd. off, a distn. residue of polymerized highly unsatd. glycerides is obtained. This product when dissolved in white spirit gives quickly drying coats of high luster, hardness, elasticity and resistance to water comparable to the paints obtained with linseed oil. The solid acids when deodorized and hydrogenated give fat mixts. suitable for soap making. C. B.

<sup>2</sup>

ASH 31.4 METALLOGICAL LITERATURE CLASSIFICATION

8-2-7

Quality of polymerized oils from crude and refined linseed oil. V. YANLAMOY, G. PRINNY, and Z. ROZLACHINA (Mashv. Zhur. Dolo, 1939, No. 5, 30-33).—The strength of the films obtained from polymerized crude oil is > that from refined linseed oil. R. T.

ASA-STA METALLURGICAL LITERATURE CLASSIFICATION

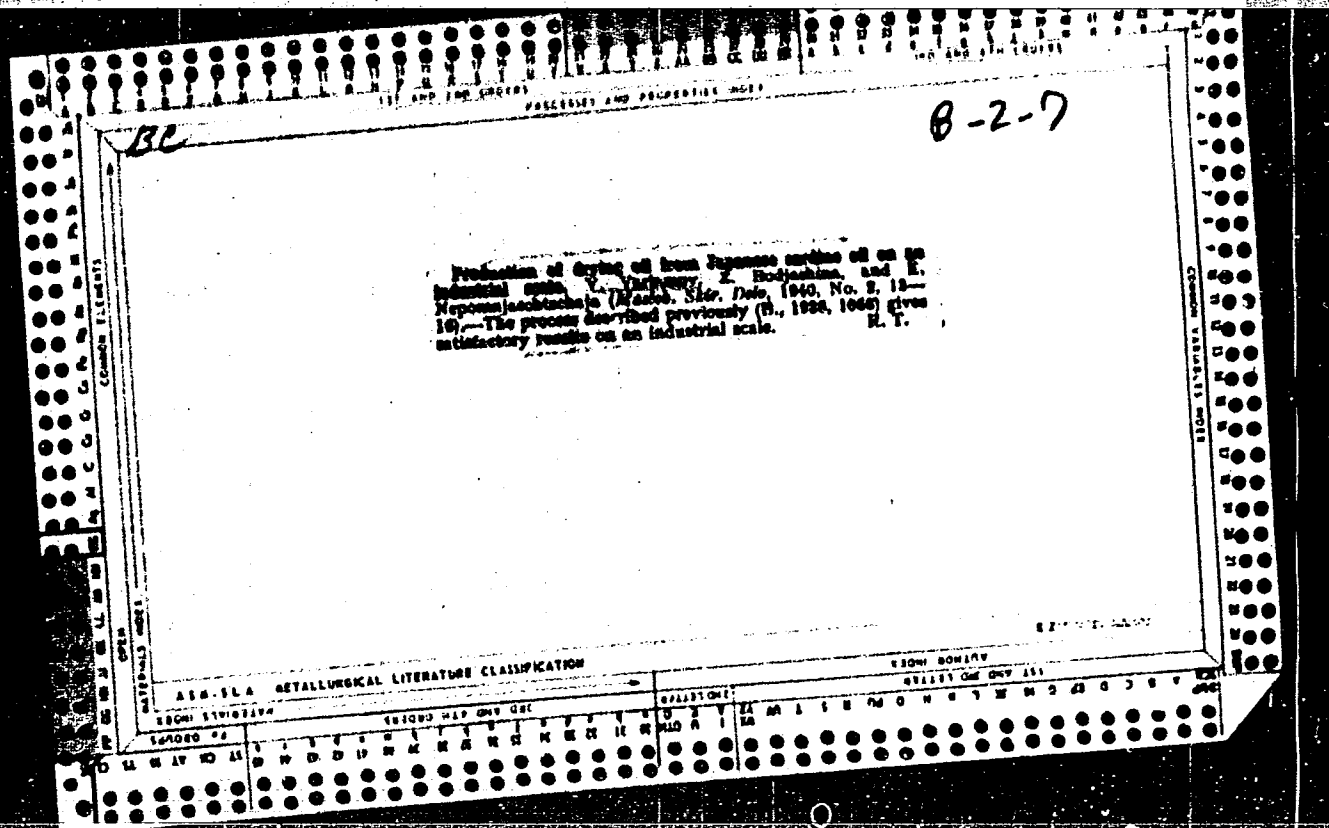
GROUPS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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The use of the oil of *Oenothera biennis* as a drying oil.  
 V. Varkhakov and G. Oyat'eva. *Moskovskie Znanosti*  
*Dela* 15, No. 4, 30-1(1939).--The seeds of the plant  
 contain 6.88% H<sub>2</sub>O and 27.36% oil based on oven-dry  
 seeds (extrd. with petr. ether). The oil has d<sub>4</sub><sup>20</sup> 0.9291, n<sub>D</sub><sup>20</sup>  
 1.4801, acid no. 0.99, sapon. no. 195.7, I no. 147.58 and  
 unsaponifiable matter 1.84%. The compn. of fat acids  
 is: palmitic 5.6-5.7, oleic 20.4-7.6, linoleic 58.1-64.5  
 and linolenic acid 2.2-0.7%. Heated 2 hrs. at 150° and  
 then treated with 3% CaMnO<sub>4</sub> drier (contg. 0.06% of  
 active Mn), the oil dries in 24 hrs. to a sufficiently hard  
 film. In the permeability to water and protective prop-  
 erties it is inferior to linseed oil films. Chas. Blanc

ASS. S. A. METALLURGICAL LITERATURE CLASSIFICATION  
 1939: 671.811.1









SAMYGIN, G.A.; VARLAMOV, V.N.; MATVEYEVA, N.M.

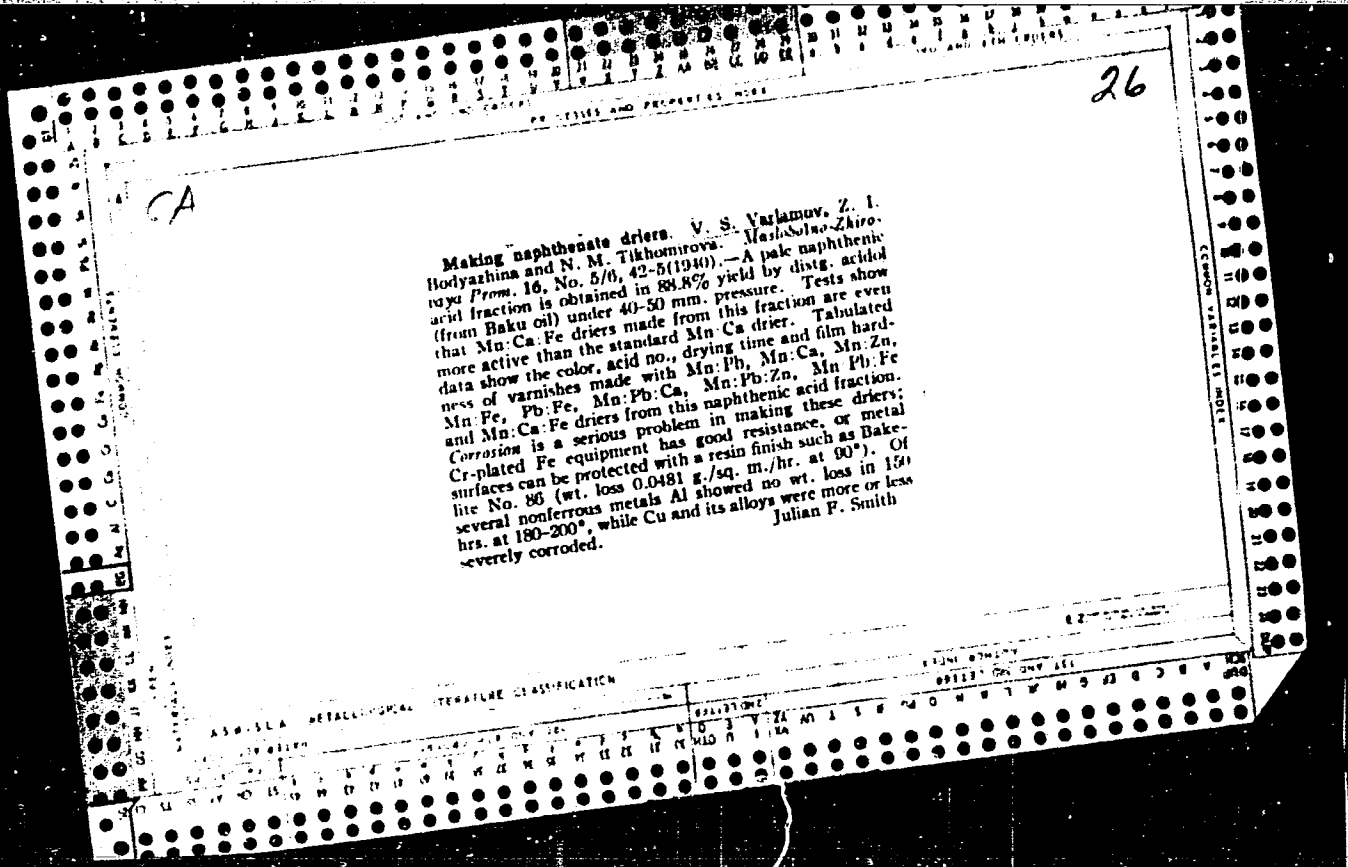
Ability of seeds to resist ultralow temperatures. *Fiziol.*  
rast. 7 no.1:97-100 '60. (MIRA 13:5)

I. K.A. Timiriazev Institute of Plant Physiology, U.S.S.R.  
Academy of Sciences, Moscow.  
(Seeds) (Plants--Frost resistance)

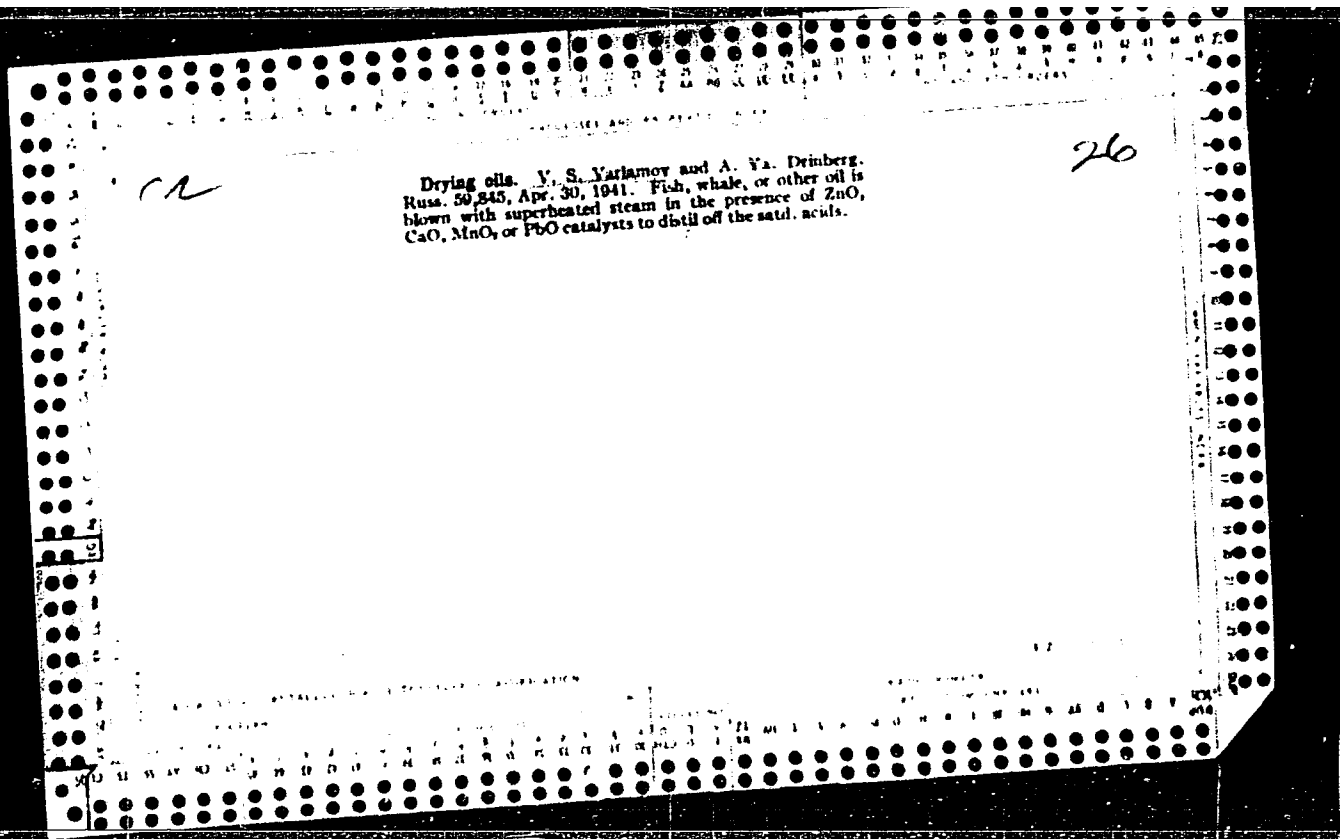
VARLAMOV, V.S., kand.tekhn.nauk; PEDAYAS, V.M.; GRIGORASHVILI, Ye.I.,  
inzh.; KASHCHEYEVA, Ye.D., inzh.

Production of aliphatic alcohols from liquid petroleum  
paraffin. Masl.-zhir.prom. 26 no.2:25-27 F '60.  
(MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov  
(for Varlamov, Pedayas). 2. Shebekinskiy kombinat sinteti-  
cheskikh zhirnykh kislot i zhirnykh spirtov (for Grigorash-  
vili, Kashcheyeva).  
(Paraffins) (Alcohols)







Drying oils. Y. S. Yariamov and A. Ya. Drinberg.  
Russ. 59,245, Apr. 30, 1941. Fish, whale, or other oil is  
blown with superheated steam in the presence of ZnO,  
CaO, MnO, or PbO catalysts to distill off the satd. acids.

13

CA

Alkyls modified with sunflower seed oil. N. Varlamov, Piskheva, Prom. 1, No. 1, 30(1941).—Sunflower seed oil is subjected to ester interchange by heating with glycerol 3 hrs. at 220-240° and condensing the product with phthalic anhydride, which is added slowly at 215-245° and heated 10 hrs. The product has good drying power and forms elastic films. Julian F. Smith

ASAC. SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION	GROUP	CLASSIFICATION	NUMBER

MAYYER, A.A., kand. tekhn. nauk; VARSHAL, B.G., kand. tekhn. nauk;  
MANYLOVA, N.S., kand. khim. nauk; VARLAMOV, V.P., inzh.

Dehydration of some zeolites in a vacuum and their rehydration  
under hydrothermal conditions. Sbor. trub. ROSNIIMS no.27:  
3-23 '63. (MIRA 17:1)

VARLAMOV, V.P., inzh.

For continuous progress in the work of efficiency promoters.  
Turf.prom. 36 no.3:6-9 '59. (MIRA 12:7)

1. Mosoblsobnarkhoz.  
(Moscow Province--Peat industry--Equipment and supplies)

GRACHEV, Yuriy Yasil'yevich; VARLAMOV, Vladimir Pavlovich; MAMIKONOV,  
A.G., kand. tekhn. nauk, red.; ISAYEVA, V.V., ved. red.;  
POLOSINA, A.S., tekhn. red.

[Automatic control in wells during drilling and exploi-  
tation] Avtomaticheskii kontrol' v skvazhinakh pri bureanii i  
ekspluatatsii. Moskva, Gostoptekhizdat, 1963. 233 p.  
(MIRA 16:6)

(Petroleum production) (Automatic control)

15-57-4-5511

Work of the USSR Scientific Research Institute (Cont.)

new design was the idea that the drill itself could emit the hydraulic signals. It was necessary to obtain hydraulic impulses the frequency of which was associated with the number of revolutions of the drill. A number of cogs equal to the number of openings in the bearing plate were made in the upper disk of the bearing. When the shaft revolves, the cogs of the disc cover the openings of the bearing plate. This causes the rate of flow to change at the given point. The resultant pressure impulses spread into the drilling liquid. They are picked up on the surface by means of a special instrument consisting of a piezoelectric receiver and an electronic frequency meter. The model was tested by the Pokhvistnevo office at depths of 850 and 2460 meters. The signal from the drill was received clearly and reliably from the tested depths. The possibility of controlling the operation of turbine drills at depths of 2000 m to 2450 m without use of a special electrical line of communication was thus established for the first time in the history of these drills. Oscillograms of the turbine drill operations at various depths are presented, together with a diagram showing the method

Card 2/3

15-57-4-5511

. Work of the USSR Scientific Research Institute (Cont.)

of mounting the tachometer.  
Card 3/3

M. G. M.

5(2)  
AUTHORS: Kudymov , B. Ya., Malinina, V. I., SOV/32-25-5-22/56  
Varlamov, V. P.

TITLE: Method of a Quantitative Spectral Analysis of Water on the Content of Chlorine, Bromine, Iodine and Sulphur (Metodika kolichestvennogo spektral'nogo analiza vod na sodержaniye khloro, ioda i sery)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 5, pp 583-584 (USSR)

ABSTRACT: A water spectral analysis was worked out, which may find vast application in geological laboratories. A spectrograph ISP-51 was employed, as the most sensitive spectral lines of the elements mentioned in the title lie in the visible spectrum. A spark generator IG-3 served as spectrum exciter and the discharge took place in a fulgurator (Fig, Scheme) with a capacity of 1 cm<sup>3</sup>. "Ortochrom" photofilms were used for the iodine and sulphur determination, and films of the "Spectral Type II" for the bromine and chlorine determination. The following spectral lines were used: Cl 4794.54, Br 4704.86, J 5161.19 and S 5453.88 Å. The determination accuracy was tested with artificial mixtures (Table 1) and the relative error in the halogen and sulphur determination was found to amount to

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SOV/32-25-5-22/56

Method of a Quantitative Spectral Analysis of Water on the Content of Chlorine, Bromine, Iodine and Sulphur

$\pm 15\%$ . The determination accuracy of spectral analysis on subterranean water samples was determined by comparing with data obtained from chemical analyses and amounts to  $\pm 20\%$  for chlorine in the case of a high chlorine content. There are 1 figure and 2 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut  
(All-Union Scientific Research Institute of Geological Petroleum Prospecting)

Card 2/2

7(6), 15(6)  
AUTHORS:

Malinina, V. I., Varlamov, V. P.

SOV/32-24-11-19/37

TITLE:

Concerning a New Method for Analyzing Petroleum and Bitumens Without Prior Ashing (O novom metode analiza neftey i bitumov bez predvaritel'nogo ozoleniya)

PERIODICAL:

Zavodskaya Laboratoriya, 1958, Vol 24, Nr 11, pp 1374 - 1375 (USSR)

ABSTRACT:

In the determination of micro-elements in petroleum good results are obtained by the spectral method, but the previous ashing used in this method can lead to the loss of easily volatile micro-elements. This latter fact was mentioned at the IV. International Petroleum Congress in Rome in 1955. A method is described in this paper which is based upon the analysis of coke (obtained from the petroleum or bitumens). The petroleum is evaporated until a powdery coke is obtained. The coke is then reduced to particles 0.1 mm in size. In order to increase the sensitivity of the spectral analysis the coke samples were investigated on tissue paper strips treated with ammonium chloride. A ISP. -28 spectrograph and a current

Card 1/2

Concerning a New Method for Analyzing Petroleum and Bitumens Without Prior Ashing SOV/32-24-11-19/37

strength of 8-12 amperes were used. Si, P, K, Li, Ba, Sr, Mg, Ca, and Cr were determined qualitatively, and Mn, Ni, V, Fe, Cu, Na, and Ti were quantitatively determined. The analytical lines used were Mn 2593,73, Ni 3050,82, V 3183,93, Fe 2599,57, Cu 3373,9, Na 3302,32, Ti 3372,80 Å. AMF-2 microphotometer was used in the photometric analysis of the spectra. The relative experimental error was 15%. There are 2 Soviet references.

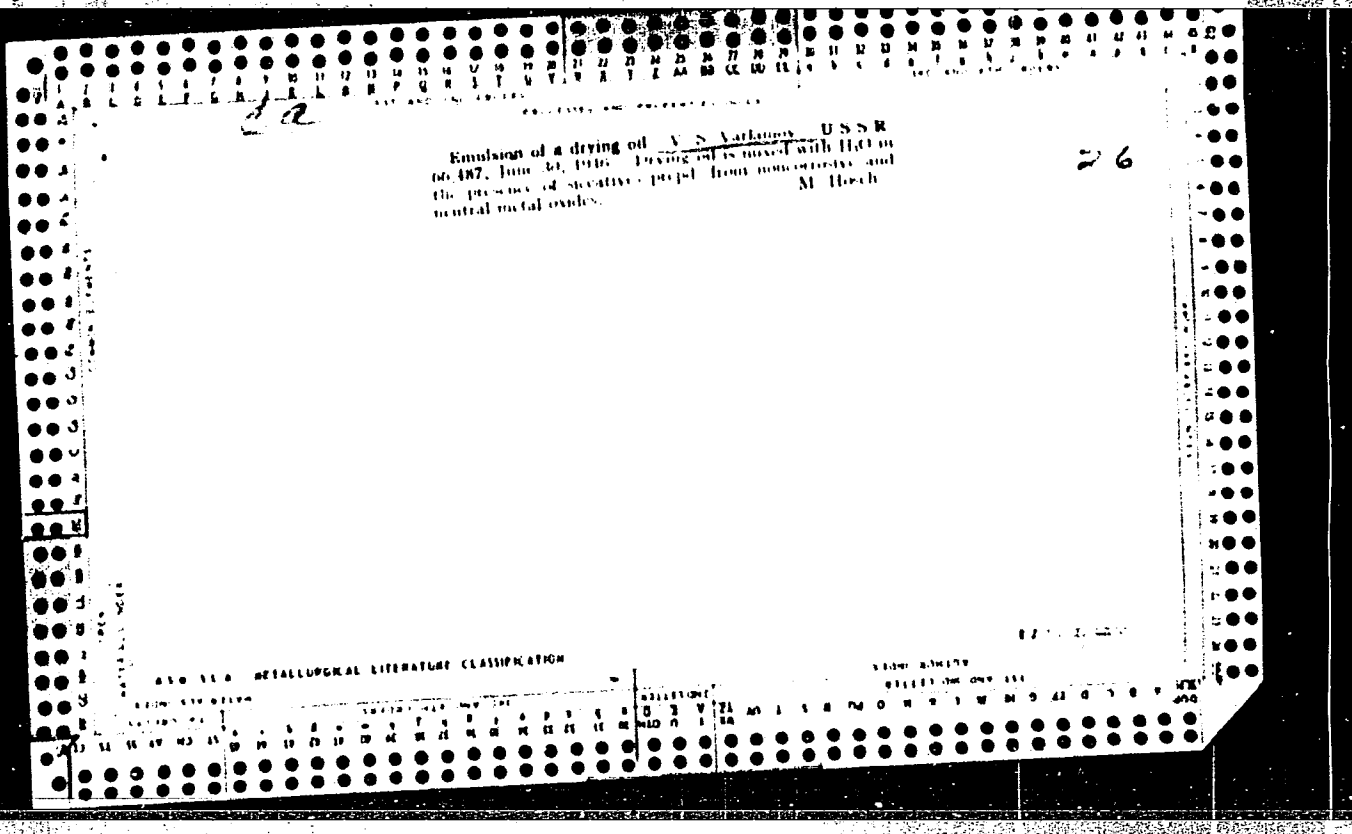
ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut (All-Union Scientific Research Institute for Petroleum Geological Prospecting)

Card 2/2

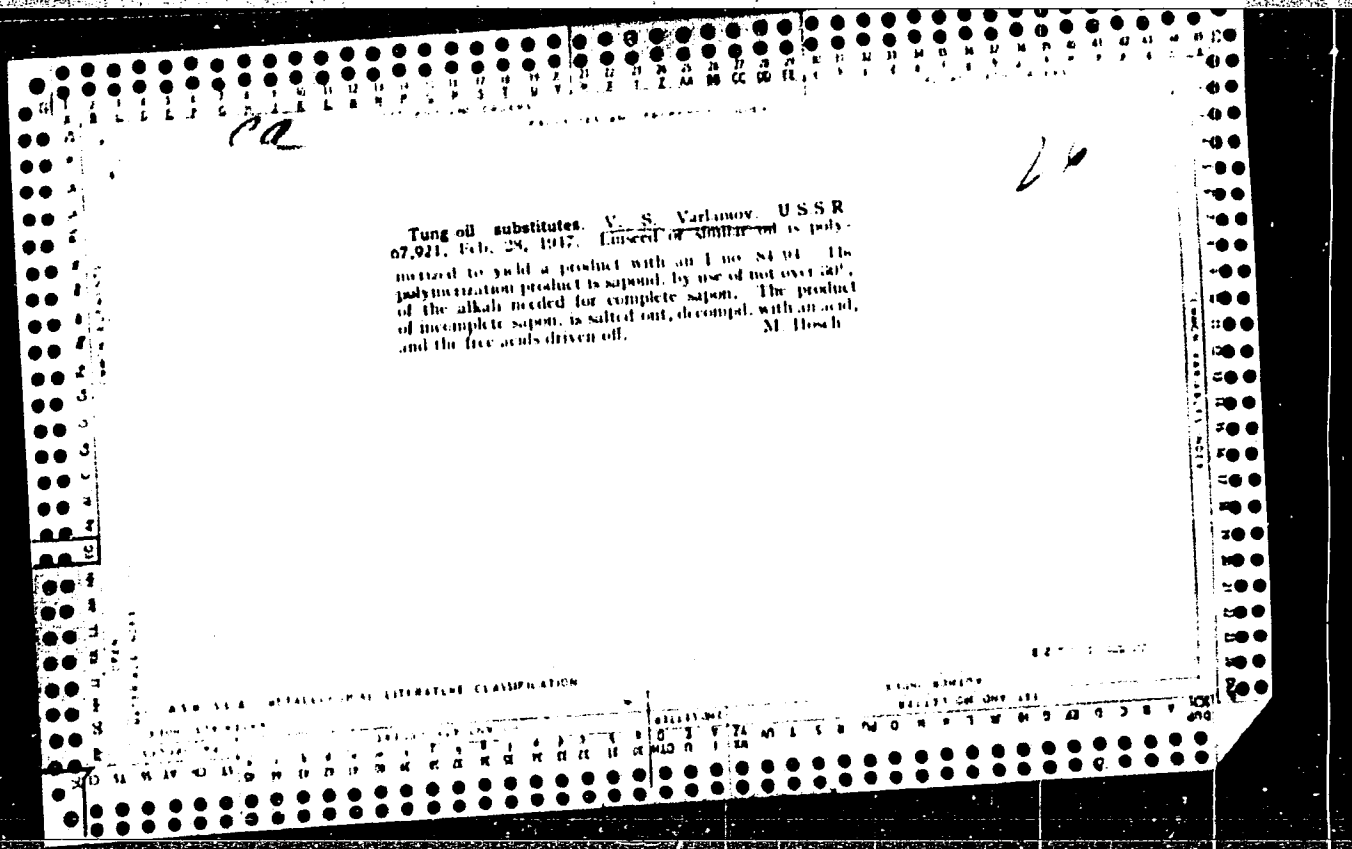
ca

Drying oil emulsions with zinc oxide as substitutes for straight drying oil. V. S. Varlamov. *Tekhnika Prom.* 1945, No. 2, 24-7. With Pb-300 drier as emulsifiers and ZnO as stabilizer, OW emulsions of linseed oil were prep'd., e.g. oil (acid no. 4.4) 60, water 40.7, ZnO 0.3%. The drier contained Pb 0.1, Mn 0.02%. This emulsion had 4.5 times the viscosity of the raw oil, and was stable over a 65-day test period. A similar emulsion but with linseed oil of acid no. 9.9 and a drier contg. Pb 0.12 and Mn 0.08%, showed after 18 days only traces of phase sep'n. attributable to evapn. of water. For use as paints these emulsions were successfully pigmented with ZnO, lithopone, whiting, Cr oxides, chrome green, litharge, red lead, and hematite. Yellow ochre, ultramarine, and posol. silica gel were not readily compatible with these OW emulsions. Economy in linseed oil, for 2 paint coats, is 27%. (ZnO pigment) or 24% (hematite pigment) as compared with straight oil paints. In a single coat the saving is greater. Julian P. Smith

AS 13 A METALLURGICAL LITERATURE CLASSIFICATION







VARLAMOV, V.S.; SLOZINA, Kh.Z.

Isomerization and polymerization of unsaturated vegetable oils. Patent  
U.S.S.R. 77,549, Dec. 31, 1949.  
(CA 47 no.19:10254 '53)



VARLAMOV, Viktor Sergeevich; NAZAROVA, A., tekhn. red.

[Electrification of railroads]Elektrifikatsiia stal'nykh  
magistrali. Moskva, Izd-vo "Znanie," 1963. 32 p. (Novoe  
v zhizni, nauke, tekhnike. XII Seriia: Geologiya i geo-  
grafiia, no.8) (MIRA 16:4)  
(Railroads--Electrification)

VARLAMOV, V.S., kand.tekhn.nauk; IVANOVA, T.M., inzh.

Side reactions in the sulfonation of fatty alcohols. Masl.-  
zhir.prom. 28 no.12:19-21 D '62. (MIRA 16:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.  
(Sulfonation) (Alcohols)

1. VARLAMOV, V. S.
2. USSR (600)
4. Drying Oils
7. Ways for solving the problem of producing drying oils with a cottonseed oil base.  
Masl. zhir. prom. 17, no. 9, 1952.

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

22

CA

The nature of artificial ester acids. V. S. Varlamov and R. A. Kramarova. *Zhur. Priklad. Khim.* (J. Applied Chem.) 25, 392-7(1952). - Examn. of the "ester acids" obtained by air oxidation of the kerosine fractions of petroleum by detn. of phys. and chem. constants of rough fractions shows that the following structures are present: The portion sol. in petr. ether (some 15%) consists of hydrocarbons, alcs., carbonyl compts., acids, and lactones. The rest, 85%, of "ester acids" proper appear to be condensation products of hydroxy acids and acids with carbonyl groups as substituents. The av. mol. wt. is 150, contg. 6-8 C atoms and 3-4 O atoms. Some 5-8% of dibasic acids are present. Possibly the polymers are formed by condensation of the aldehyde groups to form chain products, although the formation of aldehyde-phenol-type condensates is also possible. The products appear to form from hydrocarbons that have a methylene group or a plurality of methylene groups. The oxidation is seen as addn. of at. O to the CH-groups to form secondary alc. groups, which then go over to the carbonyl derivs. G. M. Kosolapoff

VARLAMOV, V.S.

Chemical Abst.

Vol. 48 No. 9

May 10, 1954

Petroleum, Lubricants, and Asphalt

(2)  
The nature of artificial ester acids. (V. S. Varlamov and  
R. A. Kramarova. *J. Appl. Chem. U.S.S.R.* 25, 431-4  
(1952) (Engl. translation).—See C.A. 48, 7311j.

H. L. H.  
8-31-54  
JH

VARIAMOV, V.S., kandidat tekhnicheskikh nauk.

Remarks on the review by A.G.Sergeev, M.V.Irodov and others concerning  
the book "Processing of fats." Masl.-zhir.prom. 20 no.2:36-37 '55.  
(Oils and fats) (MLRA 6:5)

VARLAMOV, V.S.

Problems of the comprehensive development of industrial  
centers; based on the study of the economic relations of  
Orenburg. Vop. geog. no.61:74-86 '63. (MIRA 16:6)

(Orenburg—Industries)

VARLAMOV, V.S.; KAZANSKIY, N.N.

Average length of freight haul by railways in the future.  
Vop. geog. no.61:24-33 '63. (MIRA 16:6)

(Railroads—Freight)



BELOUSOV, I.I.; KAZANSKIY, N.N.; VARLAMOV, V.S.

Future development of interregional relations and freight traffic.  
Vop. geog. no.57:147-179 '62. (MIRA 15:10)  
(Transportation) (Freight and freightage)

POKSHISHEVSKIY, V.V., doktor geogr. nauk, prof.; VARLAMOV, V.S.; KHOREV,  
B.S.; STEPANOV, M.N.; BOTVINNIKOV, V.I.; KOLOBKOV, M.N.;  
VOROB'YEV, V.V., kand. geogr. nauk; KLIMOV, A.I.; STEPANOV,  
A.A.; MYAKUSHKOV, V.A., red.; BELICHENKO, R.K., mladshiy red.;  
MAL'CHEVSKIY, G.N., G.N., red.kart; VILENSKAYA, E.N., tekhn. red.

[Moscow - Vladivostok; railroad guide] Moskva - Vladivostok; pu-  
tevoditel' po zheleznoi doroge. Moskva, Geografiz, 1962. 266 p.  
(MIRA 15:11)

(Railroads--Guides)

VARLAMOV, V.S.; KAZANSKIY, N.N.; SEMENOV, P.Ye.

"Transportation geography of the U.S.S.R." by I.V. Nikol'skii.  
Reviewed by V.S. Varlamov, N.N. Kazanskii. Geog. i khoz. no.9:  
82-83 '61. (MIRA 14:11)

(Transportation)  
(Nicol'skii, I.V.)

VARLAMOV, V.S., kand.tekhn.nauk; Priminal uchastiye KHOPKO, T.V.

Storage capacity of the "Novost'" washing powder. Masl.-zhir. prom.  
27 no.9:15-17 S '61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.  
(Washing powders--Storage)



VARLAMOV, V.S., kand.tekhn.nauk; IL'INA, A.I.; KUDRYASHOV, A.I., inzh.;  
UDOVENKO, V.S., inzh.; KOGAN, G.A., inzh.

Continuous oxidation of paraffins under industrial con-  
ditions. Masl.-zhir.prom. 25 no.10:39-41 '59. (MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov  
(for Varlamov, Il'ina). 2. Shebekinskiy kombinat sintetiches-  
kikh zhirnykh kislot i zhirnykh spirtov (for Kudryashov,  
Udovenko, Kogan).  
(Shebekino--Paraffins)

VARLAMOV, V.S.

Population geography in new monographs on economic regions  
and Union republics. Vop.geog. no.45:253-258 '59.  
(MIRA 12:5)

(Bibliography--Population)

**"APPROVED FOR RELEASE: 08/09/2001**

**CIA-RDP86-00513R001858620015-5**

**APPROVED FOR RELEASE: 08/09/2001**

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VARLAMOV, V.S., kandidat tekhnicheskikh nauk.

Mechanism of the drying of film-forming substances of the ester  
type. Masl.-zhir.prom. 17 no.11:19-20 N '52. (MLRA 10:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.  
(Films (Chemistry))

~~VARLAMOV, V.S.~~, kandidat tekhnicheskikh nauk; PEDAYAS, V.M., inzhener;  
GRIGORASHVILI, Ye.I., inzhener; KASHCHEYEVA, Ye.D., inzhener;  
ASEYEVA, A.A., inzhener.

Production of synthetic fatty alcohols. Masl.-zhir.prom. 23 no.7:27-30  
'57. (MLRA 10:8)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut shirov (for Varlamov,  
Pedayas) 2.Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i  
zhirnykh spirtov (for Grigorashvili, Kashcheyeva, Aseyeva)  
(Alcohols)

VARLAMOV, V.S., kandidat tekhnicheskikh nauk; SIPLEYEVA, Z.V.

Acids obtained in the production of fatty alcohols. Masl.-zhir. prom.  
23 no.3:21-22 '57. (MLRA 10:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov (for Varlamov).
2. Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i zhirnykh spirtov (for Sipeyeva).

(Acids, Fatty) (Alcohols)

KHOREV, B.S.; VARLAMOV, V.S.

In the central Angara Valley. Geog.v shkole 19 no.6:7-18 N-D '56.  
(MLRA 10:1)

(Angara Valley--Description and travel)

VARLAMOV, Vasily Savel'yevich; BELIKOVA, L.S., redaktor; CHEBYSHEVA, Ye.A.,  
tekhnicheskii redaktor

[Manufacture of drying oils and dessicants] Proizvodstvo olif i  
sikkativov. Moskva, Pishchepromizdat, 1957. 99 p. (MLP# 10:10)  
(Drying oils)

TOVBIN, I.M., inzh.; PETROV, N.A., kand. tekhn. nauk; MAYOROV, D.M.,  
kand. khim. nauk; STERLIN, B.Ya., kand. tekhn. nauk; NEVOLIN, F.V.;  
VARLAMOV, V.S., kand. tekhn. nauk; CHERKAYEV, V.G., kand. khim.  
nauk; BLIZNYAK, M.V., inzh.; ORECHKIN, D.B., kand. tekhn. nauk;  
RADCHENKO, Ye.D., inzh.; SHEPOT'KO, O.F., inzh.

Obtaining higher unsaturated alcohols by the method of selective  
hydrogenation of whale oil. Masl.-zhir. prom. 29 no.3:18-21  
Mr '63. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekimi-  
cheskikh protsessov (for Mayorov). 2. Vsesoyuznyy nauchno-  
issledovatel'skiy institut zhirov (for Sterlin, Nevolin,  
Varlamov). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut  
sinteticheskikh i natural'nykh dushistykh veshchestv (for  
Orechkin, Radchenko, Shepot'ko).  
(Whale oil) (Alcohols)

VARLAMOV, V.S.

New publication on economic geography. Izv. Vses. geog. ob-va. 96  
no. 4:359-361 JI-Ag '64. (MIRA 17:10)

VARIAMOV, V.S.

Quantitative evaluation of economic and geographical condition  
of cities. Vop. geog. no. 66:130-140 '65.

(MIRA 18:6)



VARLAMOV, Ye.; KNYAZHENSKIY, M.

Rated method of accounting and planning. Avt.dor. 28 no.3:20-22  
(MIRA 18:5)  
Mr '65.

1. Glavnyy bukhgalter Glavnogo upravleniya po stroitel'stvu avtomobil'nykh dorog soyuznogo znacheniya (for Varlamov).
2. Glavnyy bukhgalter "Sevkavdarstroya" (for Knyazhinskiy).

VARLAMOV, Ye.G.; NISMAN, A.Ye.

Using new bookkeeping systems in road building. Avt.dor. 20  
no.12:32 D '57.

(Road construction--Accounting)

(MIRA 12:4)

VARLAMOV, Ye.G.; VOLODARSKIY, V.I., ekonomist

Eliminate expenses due to inefficiency. Transp. stroi. 15 no.7:34-35  
Jl '65. (MIRA 16:7)

1. Glavnyy bukhgalter Glavdorstroya (for Varlamov).

STAKHIYEV, Yu.M.; VARLAMOV, Yu.F.

Plane saw designed by A.P. Den'kach. Der. prom. 13 no.121  
28-29 D '64 . (MIRA 18:2)

CHASHCHIN, A.M.; LEBEDEVA, N.M.; PERINYKH, M.S.; VARLAMOVA, A.I.

Removing resinous impurities from technical acetic acid.

Gidroliz. i lesokhim. prom. 16 no.2:10-12 '63.  
(MIRA 16:6)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektnyy institut  
lesokhimicheskoy promyshlennosti.  
(Acetic acid)

VARLAMOVA, E.L.

Complications during acrichine therapy for children with lambliasis.  
Sov. med. 25 no.5:137-138 My '61. (MIRA 14:6)

1. Iz 9-y detskoy infektsionnoy bol'nitsy Frunzenskogo rayona  
Moskvy (glavnyy vrach: A.M. Fel'dman). (QUINACRINE—TOXICOLOGY) (GIARDIASIS)

VARLAMOVA, I.

VARLAMOVA, I.

Sculptress Vera Akimushkina. Rabotnitsa 35 no.8:p.2 of cover  
(MIRA 10:9)

Ag '57.

(Akimushkina, Vera Mikhailovna)

USSR /Chemical Technology. Chemical Products  
and Their Application

I-26

Lacquers. Paints. Drying oils. Siccatives.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32614

Author : Varlamova I.N., Golubev B.P.

Title : Method for the Determination of the Dimensions  
of Particles of Aluminum Powder

Orig Pub: Zavod. laboratoriya, 1956, No 1, 80-82

Abstract: A rapid determination is made using a single  
0.1 g sample of the powder (P), by measuring:  
a) average thickness of particles I on the  
basis of the surface area occupied by the sam-  
ple when it is distributed in a continuous  
single layer on water; b) average transversal

USSR /Chemical Technology. Chemical Products  
and Their Application

I-26

Lacquers. Paints. Drying oils. Siccatives.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 32614

dimension of the particles I under the micro-  
scope, at 200-1000 magnification; this dimension  
is determined by means of an eyepiece grating  
or object-micrometer, or on a microphotograph  
by means of a scale-ruler.

Card 2/2



VARLAMOVA, L.S.; POZHARSKAYA, A.M.

Medicinal forms of some X-ray contrast preparations. Med.  
promyshl. SSSR 17 no.8:36-37 Ag'63 (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsev-  
ticheskiy institut imeni S.Ordzhonikidze.

GVOZDETSKIY, N.A., prof.; ZHUCHKOVA, V.K., dots.; ALISOV, B.P., prof.;  
VASIL'YEVA, I.V., dots.; VARLAMOVA, M.N., tekhnik-kartograf;  
DOLGOVA, L.S., dots.; ZVORYKIN, K.V., st. nauchnyy sotr.;  
ZEMTSOVA, A.I., assistent; IVANOVA, T.N.; LEBEDEV, N.P., st.  
prepodavatel'; LYUBUSHKINA, S.G.; NESMEYANOVA, G.Ya., mlad.  
nauchnyy sotr.; PASHKANG, K.V., st. prepod.; POLTARAUS, B.V.,  
dots.; RYCHAGOV, G.I., st. prepod.; SPIRIDONOV, A.I., dots.;  
SMIRNOVA, Ye.D., mlad. nauchnyy sotr.; SOLNTSEV, N.A., dots.;  
FEDOROVA, I.S., mlad. nauchnyy sotr.; TSESEL'CHUK, Yu.N.,  
mlad. nauchnyy sotr.; SHOST'INA, A.A., mlad. nauchnyy sotr.;  
Prinimali uchastiye: BELOUSOVA, N.I.; GOLOVINA, N.N.;  
KALASHNIKOVA, V.I.; KOZLOVA, L.V.; KARTASHOVA, T.N.;  
PAN'KOVA, L.I.; URKIKHO, V.; PETROVA, K.A., red.; LOPATINA,  
L.I., red.; YERMAKOV, M.S., tekhn. red.

[Physicogeographical regionalization of the non-Chernozem  
center] Fiziko-geograficheskoe raionirovanie nechernozemnogo  
tsentra. Pod red. N.A.Gvozdetskogo i V.K.Zhuchkovoï. Moskva,  
Izd-vo Mosk. univ., 1963. 450 p. (MIRA 16:5)  
(Physical geography)

SOV/48-23-9-36/57

24(7)

AUTHORS: Varlamova, N. I., Sventitskiy, N. S.

TITLE: The Spectroscopic Determination of High-percentage Components of Noble Metal Alloys

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 9, pp 1133 - 1135 (USSR)

ABSTRACT: In the introduction to the present paper the necessity of developing spectroscopic methods for highly alloyed noble metal alloys is pointed out, and small sample dimensions and the possibility of carrying out control-investigations of finished work pieces is demanded. The experiments carried out by the authors show that the high-frequency spark is best suited as a light source, because in this case the excitation conditions may be most easily regulated. The investigation of Ag-Cu-alloys (Cu-content between 8 and 50%) is then described. The experiments were carried out with a high-frequency spark of an amperage of 0.5 a, and a voltage of 220 v. At these "soft" conditions a sensitivity to the physical state of the samples manifested itself. By increasing the discharge capacitance an increase of concentrator-sensitivity was attained, in which case the inten-

Card 1/2

The Spectroscopic Determination of High-percentage  
Components of Noble Metal Alloys

SOV/48-23-9-36/57

sity of both the Ag-lines and of the Cu-lines was varied. Furthermore, no difference was found in the calibration curves of cast and worked samples at various discharge conditions. Analogous results were attained in the determination of Cu in alloys with nickel and in the determination of gold in ternary alloys of the system Au-Cu-Ag. Finally, it is stated that the experiments described may form the basis for a development of exact methods of analyzing the types of alloys investigated, and the possibility is pointed out for investigating the variation of the metallo-physical states of the alloys by means of the spectrum of low-energy sparks. There are 1 figure and 8 references, 7 of which are Soviet.

Card 2/2