

S/079/62/032/009/007/011
I048/I242

Synthesis and autooxidation...

ASSOCIATION: Kievskiy polytekhnicheskij institut (The Kiev
Polytechnic Institute)

SUBMITTED: August 19, 1961

Page 3/3

L 12889-63

EPF(c)/EWP(j)/EWT(m)/BDS ASD/AFFTC Pr-4/Pc-4 RM/WW

ACCESSION NR: AP3001425

S/0138/63/000/004/0001/0005

77
72

AUTHOR: Shatalov, V. P.; Gostev, M. M.; Kry*lova, I. A.; Artemov, V. M.;
Shestakova, O. G.; Korbanova, Z. N.; Slúkin, A. D.; Sotnikov, I. F.; Torbinskiy,
A. N.

TITLE: ⁶ Low-temperature polymerized ¹⁵ butadiene-styrene rubber with a carbon black-oil filler

SOURCE: Kauchuk i rezina, no. 4, 1963, 1-5

TOPIC TAGS: polymerization, carbon black filler, oil filler, butadiene rubber, styrene rubber

ABSTRACT: Studies were conducted on the preparation of stable dispersions of various types of carbon black, with and without surface-active substances. The latter included potassium Rosinate, Leukanol, and ammonium caseinate. The dispersions were prepared in ball mills, in jet mills, and by means of a vibrator. The kinetic and aggregate stability of the dispersions were determined. Potassium rosinate and Leukanol produced dispersions which did not separate for several days. The oil emulsion was prepared with the aid of stearic acid and triethanolamine. The carbon black dispersion was mixed with the latex of butadiene-styrene rubber

Card 1/2

L 12889-63

ACCESSION NR: AP3001425

and into it was introduced the oil emulsion. The coagulation of this mass was best achieved by pouring it into a 9% solution of sodium chloride containing 7% sulfuric acid at 40C. It was found that the introduction of carbon black into the latex previous to coagulation had a favorable effect on the technological properties of the vulcanizates and permitted the processing of rubbers with a higher molecular weight. The KhAF brand of carbon black and the use of potassium rosinate as emulsifier produced vulcanized rubbers of superior strength and abrasive properties, with a higher modulus of elasticity and with a better adhesion to the cord. Pasy*nikov, N. V., Bondaryev, A. Ye., and Gergasevich, T. V. participated in the work. Orig. art. has: 3 tables.

ASSOCIATION: Voronezhskiy zavod sinteticheskogo kauchuka i Voronezhskiy shinny*y zavod (Voronezh Synthetic Rubber Plant and Voronezh Tire Plant)

SUBMITTED: CO

DATE ACQ: 30May63

ENCL: 00

SUB CODE: 00

NO REF SOV: 002

OTHER: 002

Card 2/2

L-22023-66 EWT(m)/EWP(j)/T IJP(c) GS/RM
ACC NR: AT6005938 (A) SOURCE CODE: UR/0000/63/000/000/0050/0060

AUTHORS: Shatalov, V. P.; Zhilina, R. I.; Furticheva, R. P.; Antonova, A. M.;
Popova, Ye. N.; Semilutskaya, A. A.

ORG: Laboratory for the Chemistry of High-Molecular-Weight Compounds, Voronezh State
University (Laboratoriya khimii vysokomolekulyarnykh soyedineniy Voronezhskogo
gosudarstvennogo universiteta); TsNIL Voronezh Plant SK im. S. M. Kirov (TsNIL voronezh-
skogo zavoda SK)

TITLE: Synthesis of hydroperoxides and the study of their initiating properties in
the process of emulsion polymerization of mixtures of butadiene and styrene

SOURCE: Voronezh. Universitet. Laboratoriya khimii vysokomolekulyarnykh soyedineniy.
Trudy, no. 2, 1963. Monomery, khimiya i tekhnologiya SK (Monomers, chemistry, and
technology of synthetic rubber), 50-60

TOPIC TAGS: butadiene, styrene, copolymerization, organic oxide, emulsion
polymerization, hydrocarbon, hydroperoxide

ABSTRACT: It was the object of this investigation to synthesize a number of halogen-
containing organic hydroperoxides and the hydroperoxides of cymene, methane, 1,1-
diphenyl-ethane and its derivatives, and to study the initiating properties of the
synthesized compounds on the copolymerization reaction of butadiene and styrene. The
various hydroperoxides were obtained by first synthesizing the corresponding hydro-
carbons and then by subjecting the hydrocarbons to autooxidation. The following

Card 1/2

L 22028-66

ACC NR: AT6005938

hydrocarbons and halohydrocarbons were synthesized: cymene, p-methane, 1,1-diphenylthane, 1-phenyl-1-ethylphenylethane, 1-phenyl-1-cumene-ethane, chlorocumene, isopropylchlorocumene, bromocumene, isopropylbromocumene, and fluorocumene. The reaction yields and the characteristic physical constants for the synthesized compounds are tabulated. The initiating properties of the hydroperoxides in the copolymerization reaction of butadiene and styrene were studied in the presence of two redox systems: a) trilon B-rongalite-ferrous sulfate-hydroperoxide, and b) hydroquinone-sodium sulfite-ammonia-hydroperoxide. A 78% solution of Nekal and potassium soap of synthetic fatty acids or a mixture of potassium and sodium soaps of hydrated rosin and synthetic fatty acids (C₁₀ - C₁₆) served as emulsifier. The experimental results are tabulated. It is concluded that the more active hydroperoxides produce the hardest rubbers which, when vulcanized, yield vulcanizates of high strength. 15
Orig. art. has: 3 tables. 15 #156

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 016/ OTH REF: 001

Card 2/2 Ada

ZHIL'NIKOV, V.I.; SLUKIN, A.D.; SHATALOV, V.P.; KHLOPOTUNOV, G.F.

Rosin emulsifier for butadiene-styrene rubbers. *Gidroliz. i lesokhim.prom.* 16 no.3:21-23 '63. (MIRA 16:5)

1. Voronezhskiy zhirkombinat (for Zhil'nikov). 2. Tsentral'no-Chernozemnyy sovet narodnogo khozyaystva (for Slukin). 3. Voronezhskiy zavod sinteticheskogo kauchuka (for Shatalov, Khlopotunov).
(Rubber, Synthetic) (Emulsifying agents)

SHATALOV, V.P.; KHLOPOTUNOV, G.F.; SLUKIN, A.D.; ZHIL'NIKOV, V.I.

Hydrogenation of rosin under atmospheric pressure. *Gidroliz.*
i lesokhim. prom. 16 no.6:5-7 '63. (MIRA 16:10)

L 41001-62 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM
ACCESSION NR: AR5005649 S/0081/64/000/022/8064/8064

23
21
B

SOURCE: Ref. zh. Khimiya, Abs. 228458

AUTHOR: Shatalov, V.P.; Gostev, M.M.; Bondarev, A.Ye.; Pasynkov, N.V.

TITLE: Alumina-filled rubber prepared by low-temperature polymerization

CITED SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t,
vyp. 2, 1963, 83-102

TOPIC TAGS: synthetic rubber, low temperature polymerization, rubber filler, alumina
filler, Gamma alumina, microcrystalline alumina, rubber plasticity, rubber strength,
silica gel, rubber wear, carbon black/SKS-30 rubber, HAF carbon black

TRANSLATION: A sample of Al_2O_3 containing 94-99% of the γ -form was obtained
by decomposing $Al_2(SO_4)_3 \cdot 18H_2O$ in an electric furnace at 900-1100C with a gradual
increase in temperature. The grain size of the microcrystalline aggregates of Al_2O_3
was 0.05-0.1 mm, the index of refraction was 1.754-1.756, the surface pH was 5-9,
and the density of the dry powder was 12-13 g/100 cc. The adsorptive capacity of this
 Al_2O_3 was higher than that of silica gel. The absorption of moisture during storage for

Card 1/2

L 41001-65

ACCESSION NR: AR5005649

2

50 days in air was < 3-5%. This γ - Al_2O_3 was added on the rollers and into the latex of SKS-30AR and SKS-30ARK rubber. The plasticity of SKS-30AR decreased less when alumina was added to the latex than when it was added on the rollers; the modulus, hardness and elasticity of the vulcanizates were also lower. When alumina was added on the rollers, the vulcanizates had a strength which was close to that of rubber with HAF carbon black and higher than after the addition of silica gel, as well as having a greater elongation at break and residual elongation and a lower modulus. The wear of rubber containing γ -alumina was equal to that of rubber with silica gel and less than that with HAF carbon black. When γ -alumina was added to the latex of SKS-30AR, the strength of the vulcanizates was somewhat higher than when it was added on the rollers, but the remaining properties were practically the same. The normal degree of filling with γ -alumina is 30-40% for SKS-30ARK and 76-80% for SKS-30AR. A. Sh.

ENCL: 00

SUB CODE: MT

Bye 2/2
Card

L: 37019-65 EWT(m)/EPF(c)/EPR/EWP(j) Pc-4/Pr-4/Ps-4 WW/RM

ACCESSION NR: AR5003012

S/0081/64/000/020/S082/S082

SOURCE: Ref. zh. Khimiya, Abs. 205511

AUTHOR: Mikhant'yev, B. I.; Kretinin, S. A.; Gostev, M. M.; Shatalov, V. P.;
Markina, E. I.; Senyuk, Ye. P.

TITLE: Butadiene-styrene rubbers filled with carbon black and oil and produced by high-temperature polymerization

CITED SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t, vyp. 2, 1963, 103-108

TOPIC TAGS: synthetic rubber, butadiene rubber, styrene rubber, carbon black filler, gas black filler, channel black filler, oil filled rubber, high temperature polymerization, rubber mechanical property, rubber emulsifier, synthetic fatty acid, colophony, latex coagulation

TRANSLATION: The authors studied the properties of butadiene-styrene rubbers of the SKS-30 type, produced by high-temperature polymerization with the addition of 17.6-50.0 parts by weight PN-6 oil and 50.0 parts by weight gas black, channel black or HAF black to latex stage. The following combinations were tested as
Card 1/2

L 37019-65

ACCESSION NR: AR5003012

emulsifying agents: Nekal and the Na soaps of synthetic fatty acids; Nekal and the K soaps of synthetic fatty acids; the K soap of hydrogenated colophony and the K soaps of synthetic fatty acids. The 20% carbon black dispersions were prepared by grinding in a ball mill for 24 hrs. in the presence of 4-6 parts by weight leukanol and 0.6 parts by weight NaOH (in relation to the carbon black). The oil emulsion was of commercial origin. During the coagulation of mixtures from Nekal latex, the best results were produced by CaCl_2 and CH_3COOH ; in the case of latex produced with the soaps of synthetic fatty acids, the best results were produced by a mixture of CaCl_2 , NaCl and CH_3COOH ; in the case of colophony latex, NaCl and H_2SO_4 gave the best results. During deformation of the initial rubber with 4500 g, raw mixtures of rubber filled with carbon black and oil (SMK rubber) had a somewhat greater plasticity and less reducibility than when carbon black was added to oil-filled rubber on the rollers. The strength of the SMK vulcanates was somewhat lower, however. The method of introducing the carbon black had no significant effect on the properties of rubber mixtures and vulcanates in soft rubber. The properties of rubber do depend, however, on the method of coagulation. The instantaneous (single-stage) coagulation of SMK rubber resulted in somewhat more rigid mixtures with increased strength and decreased relative elongation. A. Shvarts.

ml
SUB CODE: MT
Card 2/2

ENCL: 00

REF ID: A6016783

(A)

SOURCE CODE: UR/0081/65/000/023/S026/S026

AUTHOR: Shatalov, V. P.; Afanasov, F. P.; Mikhant'ev, B. I.

TITLE: Polymerization of isoprene under the influence of a homogeneous "cobaltic" system

SOURCE: Ref. zh. Khimiya, Abs. 23S166REF SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t, vyp. 3, 1964, 87-89

TOPIC TAGS: isoprene, catalytic polymerization, aluminum compound

ABSTRACT: The polymerization of isoprene (I) on an $\text{Al}(\text{iso-C}_4\text{H}_9)_2\text{Cl}$ (II) catalytic system (2 to 4%), with a CoCl_2 alcohol complex (III) (0.01%) and an addition of acrylnitril at various ratios of the components: (1:8:4, 1:8:8 and 1:16:4) is studied. The reaction was carried out without the presence of O_2 and moisture in an absolute benzene solution at 20 to 40° and the following concentrations: (I) 20%, (II) and (III) 2 to 4% and 0.01% (to I). The yield of the polymer is 49 to 80% of mol. wt. 105 800 - 193 400, cis - 1.4 links content of 60 to 69%, 1.4-trans 29 to 38% and 3.4 about 2%. The polymer is practically entirely soluble in benzene. The amount of gel-fraction amounts to only a few percent. V. Dudkin.

SUB CODE: 07/ SUBM DATE: none

Card 1/1 *BLG*

SHATALOV, V.P.; KHLOPOTUNOV, G.F.; SLUKIN, A.D.; ZHIL'NIKOV, V.I.;
SOTNIKOV, I.F.

investigating the process of colophony hydrogenation on a
palladium catalyst. *Gidroliz. i lesokhim. prom.* 17 no.6:22-24 '64.
(MIRA 17:12)

REF ID: A6616971 (A) SOURCE CODE: UR/0081/65/000/024/S077/S077

ACC NR: A6616971 (A)

SOURCE CODE: UR/0081/65/000/024/S077/S077

AUTHOR: Gostev, B. A.; Artemov, V. M.; Shatalov, V. P.; Pasynkov, N. V.

TITLE: Stabilizing aqueous dispersions of carbon black with tallow oil soap, and properties of carbon black-oil filled butadiene styrene rubbers based thereon

SOURCE: Ref. zh. Khimiya, Abs. 248546

2.0
B

REF SOURCE: Tr. Labor. Khimii vysokomolekul. soyedineniy. Voronezhsk. un-t, vyp. 3, 1964, 181-185

TOPIC TAGS: butadiene styrene rubber, carbon black, filler, chemical dispersion

ABSTRACT: Aqueous dispersions of carbon black stabilized with the K-soap of tallow oil (I) blend well with SKS-30 ARK latex, oil emulsions and their mixtures. Mixtures of carbon black-oil filled rubbers obtained by coagulating mixtures consisting of latex, PN-6 oil emulsions (1.0 weight/parts of oil on the polymer), aqueous dispersions of carbon black KAF stabilized with I (50 parts by weight of carbon black on oil filled rubber), have better properties in comparison to carbon black-oil filled rubber in which the carbon black is added on the rolls.
D. Krastoleva. [Translation of abstract].

SUB CODE: 11.07

REF ID: A66001

1. Preparation and properties of butadiene-styrene rubber filled with aluminum oxide

2. Preparation and properties of butadiene-styrene rubber filled with aluminum oxide

SOURCE: Ref. zh. Khimya, Abs. 245548

REF SOURCE: Izv. Labor. Khimii vysokomolekul. soedineniy. Voronezhsk. un-t, vyp. 3, 1964, 196-199

TOPIC TAGS: butadiene styrene rubber, filler, aluminum oxide, chemical dispersion, surface active agent, tensile strength, vulcanization

ABSTRACT: 15% aqueous dispersions of Al_2O_3 were prepared with and without the use of surface active agents: K-soaps of hydrated, disproportionated and natural rosin, disperser NF, Nekal, OP-10. The dispersions were mixed with butadiene styrene latex and PH-6 oil. The use of surface active agents improves the dispersion of Al_2O_3 in the rubber, at the same time increasing the strength of the vulcanizates. Introduction of Al_2O_3 into the latex eliminates the difficulties arising in mixing it with rubber on the rolls. I. Ayzinson. [Translation of abstract].

SUB CODE: 11 07 20

Card 1/1

L 36711-65 EPF(c)/ENP(j)/EWT(m) Pc-4/Pr-4 RM

ACCESSION NR: AP5003122

S/0080/65/038/001/0170/0173

AUTHOR: Kostsova, A. G.; Smol'yatinov, Yu. L.; Shatalov, V. P.; Kovrizhko, L. F.

TITLE: Synthesis of technical dodecylmercaptan

26
24
B

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 1, 1965, 170-173

TOPIC TAGS: technical dodecylmercaptan, synthesis, synthetic rubber, polymerization regulator

ABSTRACT: Technical dodecylmercaptan was synthesized from higher alcohols obtained by oxidation of paraffins at the Shebekinsk Chemical Co. of Synthetic Fatty Acids. (Shebekinskom khimicheskome kobinate sinteticheskikh zherny*kh kislot). A wide fraction of alcohols (C₉-C₁₀-C₁₂-C₁₃-C₁₄) and a narrow fraction (C₁₀-C₁₂-C₁₃), obtained by vacuum distillation of the former, was used. The alcohols were brominated or chlorinated (HBr, or gaseous HCl) to the haloalkyls which were then reacted with H₂S in an alcoholic solution of KOH. The resultant

Card 1/2

L 36711-65

ACCESSION NR: AP5003122

2

mixtures of mercaptans, predominantly dodecylmercaptan, were designated technical dodecylmercaptan. The narrow fraction gave a better product. Preliminary tests with the technical dodecylmercaptan indicated it was a good polymerization regulator for synthetic rubber. Orig. art. has: 4 tables

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University)

SUBMITTED: 26Dec62

ENCL: 00

SUB CODE: GC, MT

NR REF SOV: 003

OTHER: 008

Card 2/2

1 3320-00 EWI(m)/ENT(j) IJE(c) RM
ACC NR: AP6021772

SOURCE CODE: UR/0413/66/000/012/0032/0032

INVENTOR: Shatalov, V. P.; Velikanova, L. A.; Volovodov, A. I.; Kovrizhko, L. F.;
Kudryavtsev, L. D.; Sotnikov, I. F.; Kozlova, M. N.

ORG: none

TITLE: Catalyst for the hydrogenation of ethylbenzene to styrene. Class 12,
No. 182697; [announced by Voronezh Synthetic Rubber Plant im. S. M. Kirov
(Voronezhskiy zavod sinteticheskogo kauchuka)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 32

TOPIC TAGS: dehydrogenation, ethylbenzene, styrene, improved catalyst

ABSTRACT: An Author Certificate has been issued for an improved catalyst for the
dehydrogenation of ethylbenzene to styrene. To increase the activity and mechanical
strength of iron, chromium, potassium and calcium oxide-based catalyst, the method
provides for the addition of 5—10% magnesium oxide to the composition. [B0]

SUB CODE: 07/ SUBM DATE: 17May65/ ATD PRESS: 5026

Card 1/1 ULR

UDC: 66.094.187.3

S/850/62/000/001/008/012
E079/E192

AUTHORS: Laskorin, B.N., Skorovarov, D.I., and Shatalov, V.V.

TITLE: Extraction of uranium with trioctylphosphin oxide

SOURCE: Ekstraktsiya; teoriya, primeneniye, apparatura.
Ed. by A.P. Zefirov and M.M. Senyavin.
Moscow, Gosatomizdat, 1962. 163-170

TEXT: The main extracting properties of trialkylphosphin oxides are illustrated on trioctylphosphin oxide (TOPO). Taking into consideration that the saturation of TOPO is attained already at an equilibrium concentration of uranium in aqueous phase (about 1 g/l) and that at low initial concentration of uranium TOPO retains a high capacity, coefficients of distribution of uranium on extraction with 0.1 M solution of TOPO in kerosene from nitrate solutions with a low uranium content (965-0.08 mg/l) were determined. With decreasing concentration of uranium in the aqueous solution, the coefficient of distribution increases and reaches 20,000. The influence of the concentration of nitric and hydrochloric acids on the extraction of uranium was also determined. The salting out action of nitric acid is evident to a concentration

Card 1/2

e
n
p.
h:
ni
The
Car

LASKORIN, B.N.; SKOROVAROV, D.I.; SHATALOV, V.V.

Extraction of uranium with trioctylphosphine oxide.
Ekstr.; teor., prim. ~~app.~~ no. 1:163-170 '62. (MIRA 15:11)
(Uranium compounds) (Phosphine oxide)

LASKORIN, B.N.; SKOROVAROV, D.I.; SHATALOV, V.V.

Extraction of uranyl nitrate from nitric acid desorption solutions
by tributyl phosphate and other organosporous compounds. Estr.;
teor., prim., app. no. 2: 174-178 '62. (MIRA 15:9)
(Uranyl nitrate) (Phosphorous organic compounds)

GORNISHTEIN, D.K.; GUDLOV, A.A.; KOSOLAPOV, A.I.; LEYPTSIG, A.V.;
MEL'NIKOV, V.F.; MOKSHANTSEV, K.B.; FRADKIN, G.S.; CHERSKIY,
E.V.; TROFIMUK, A.A., akademik, nauchn. red. vyp.; ROZHKOV,
I.S., glav. red.; KOBELYATSKIY, I.A., zam. glav. red.;
SHATALOV, Ye.G., zam. glav. red.; BONDARENKO, V.I., red.;
GRINBERG, G.A., red.; YELOVSKIKH, V.V., red.; RUSANOV, B.S.,
red.; SEMENOV, G.T., red.; TKACHENKO, B.V., red.; KALANTAROV,
A.P., red.izd-va; GUSEVA, A.P., tekhn. red.

[Basic stages of the geological development and prospects for
finding oil and gas in the Yakut A.S.S.R.] Osnovnye etapy geo-
logicheskogo razvitiia i perspektivy neftegazonosnosti IAKut-
skoi ASSR. [by] D.K.Gornshtein i dr. Moskva, Izd-vo AN SSSR
1963. 238 p. (MIRA 16:12)

(Yakutia--Petroleum geology)
(Yakutia--Gas, Natural--Geology)

FEDOROV, Ye.D.; SHATALOV, V.V.

Portable laboratory apparatus for sieve analyses of dry samples.
Zav. lab. 30 no.1:112-113 '64. (MIRA 17:9)

SHATALOV, Ye.T.; DYUKOV, A.I., redaktor; SERGEYEVA, N.A., redaktor;
MANINA, M.P., tekhnicheskii redaktor

[Aerial magnetic survey; instructions] Instruktsiia po aeromagnitnoi
s"emke. Moskva, Gos. izd-vo geologicheskoi lit-ry, 1952. 56 p.
[Microfilm] (MLRA 7:10)

1. Zamestitel' ministra geologii (for Shatalov) 2. Russia (1923-
U.S.S.R.) Glavnoye geofizicheskoye upravleniye.
(Geological surveys)

MUZYLEV, S.A.; PAFFENGOL'TS, K.N.; SHATALOV, Ya.T., glavnyy red.;
KRASHNIKOV, V.I., red.; MIRLIN, G.A., red.; MUZYLEV, S.A., red.;
RUSANOV, B.S., red.; BABINTSEV, N.I., red.; GUROVA, O.A., tekhn.red.

[Instructions for the compilation and preparation of geological maps of mineral resources with a scale of 1:200,000; compulsory for geological organizations of ministries and agencies of the U.S.S.R.] Instruktsiia po sostavleniiu i podgotovke k izdaniu geologicheskoi karty i karty poloznykh iskopaemykh, masshtaba 1:200,000; obiazatel'na dlia geologicheskikh organizatsii ministerstv i vedomstv SSSR. Instruktsiiu sost. S.A. Muzylev i K.N. Paffengol'ts. Red. kollegiia E.T. Shatalov i dr. Moskva, Gos. nauchno tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1955. 46 p.
(MIRA 12:1)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany nedr.
2. Vsesoyuznyy geologicheskiiy nauchno-issledovatel'nyy institut (for Paffengol'ts).
(Cartography) (Geology--Maps)

SHATALOV YE T

BOCH, S.G.; GRUSHEVOY, V.G.; DZEVANOVSKIY, Yu.K.; ZORICHEVA, A.I., IVANOV, A.A.; KUREK, N.N.; LIEROVICH, L.S.; MOROZENKO, N.K.; NEKHOROSHEV, V.P.; RUSANOV, B.S.; SPIZHARSKIY, T.N.; SHABAROV, N.V.; SHATALOV, Ye.T., redaktor; DZEVANOVSKIY, Yu.K.; redaktor; KRASNĬKOV, V.I., redaktor; MIRLIN, G.A., redaktor; RUSANOV, B.S., redaktor; SEMENOVA, M.V., redaktor; GUROVA, O.A., tekhnicheskii redaktor.

[Instruction for compiling and preparing for publication the state geological map of the U.S.S.R., and the map of the mineral resources of the U.S.S.R. Scale 1:1000000] Instruktsiia po sostavleniiu i podgotovke k izdaniiu gosudarstvennoi geologicheskoi karty SSSR i karty poleznykh iskopaemykh SSSR. Masshtaba 1:1000000. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geologii i okhrane neдр, 1955. 52 p., tables of symbols, maps [Microfilm] (MLRA 9:6)

1. Russia (1923= U.S.S.R.) Ministerstvo geologii i okhrany neдр.
(Geology--Maps)

SHATALOV, Ye. T.

Increase geological mapping in the search for mineral resources.
Sov. geol. no. 42:3-32 '55. (MLRA 8:6)
(Geology--Maps) (Mines and mineral resources)

VOZNESENSKIY, D.V.; AMELANDOV, A.S.; GEYSLER, A.N.; GOLUBYATNIKOV, V.D.;
[deceased]; DOMAREV, V.S.; DOMINIKOVSKIY, V.N.; DOVZHIKOV, A.Ye.;
ZAYTSEV, I.K.; IVANOV, A.A.; ITSIKSON, M.I.; IZOKH, E.P., KNYAZEV,
I.I.; KORZHENEVSKAYA, A.S.; MISHAREV, D.T.; SEMENOV, A.I.; MORO-
ZENKO, N.K.; NEFEDOV, Ye.I.; RADCHENKO, G.P.; SERGIYEVSKIY, V.M.;
SOLOV'YEV, A.T.; TALDYKIN, S.I.; UNKSOV, V.A.; KHABAKOV, A.V.;
TSEKHOMSKIY, A.M.; CHUPILIN, I.I.; SHATALOV, Ye.T.; glavnyy redak-
tor; KRASNIKOV, V.I., redaktor; MIRLIN, G.A., redaktor; RUSANOV, B.S.,
redaktor; POTAPOV, V.S., redaktor izdatel'stva; GUROVA, O.A., tekhnicheskii redaktor.

[Instructions for organization and execution of geological surveys
in scales of 1:50,000 and 1:25,000] Instruktsiia po organizatsii
i proizvodstvu geologo-s"emochnykh rabot masshtabov 1:50,000 i
1:25,000. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i
okhrane neдр. 1956. 373 p. (MIRA 10:6)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany neдр.
(Geological surveys)

SHATALOV, E.T.

3095. NEW GEOLOGICAL MAPS OF THE SOVIET UNION. Shatalov, E.T.
(Vestn. Akad. Nauk SSSR (J. Acad. Sci. U.S.S.R.), Oct. 1956, vol. 26, 28-34).
An account is given of the 1:2.5 million and 1:5 million geological maps of
the U.S.S.R., the 1:1.5 million geological map of the Siberian platform and
the 1:5 million tectonic map of the U.S.S.R., all of which were published in
1955 and 1956. 1:500,000 geological maps are now being produced, and
individual maps of the important mining areas.

life
mji

SHATALOV

15-1957-7-8914

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7,
p 4 (USSR)

AUTHOR: Bogdanov, A. A., Muzylev, S. A., Shatalov, E. T.

TITLE: On the Prague and Warsaw Geological Conferences for
the Western Nations of National Democracy and the USSR
(O Prazhskom i Varshavskom soveshchaniyakh geologov
stran narodnoy demokratii Zapada i SSSR)

PERIODICAL: Sov. geologiya, sb. 54, 1956, pp 3-19

ABSTRACT: The basic aim of the Prague conference, held in Octo-
ber 1955, was to work out the general principles, the
methodology, and the plan for constructing geological
maps to the scale of 1:200 000. It was pointed out
that a necessity existed for a unification of effort
on the part of the geologists from the participating
countries in solving such problems as working out the
geology of the Carpathian fold system, the geology of
the North German and North Polish plain, and the
structure of the plain's folded base. The partici-

Card 1/3

15-1957-7-8914

On the Prague and Warsaw Geological Conferences for the Western Nations of National Democracy and the USSR (Cont.)

also established a common system of stratigraphic indexes of subdivisions for the geological maps. It was decided to draw the maps of natural resources on the full (undivided) geological base and to compile simultaneously a tectonic map of Central and Eastern Europe and the Adjacent countries, to the scale of 1:2 500 000. The participants went on organized field trips from Warsaw to Cracow and into the Tatra Mountains, and also to Upper Silesia and to Velichka. Both conferences considered the question of re-establishing, within the framework of the International Geological Congress, the activities of the Carpathian Geological Association (and its subsequent expansion into the Alpien Association).

Card 3/3

G. I. Denisova

RODIONOV, G.G.; ROMENSON, B.M.; BRITAYEV, M.D.; KREYTER, V.M., glavnyy red.;
SHATALOV, Ye.T., zastitel' glavnogo red.; YEROFEYEV, B.N., red.;
ZENKOV, D.A., red.; KRASNIKOV, V.I., red.; NIFONTOV, B.V., red.;
SMIRNOV, V.I., red.; KHRUSHCHEV, N.A., red.; YAKZHIN, A.A., red.;
MARKOV, P.N., red.; OVCHINNIKOVA, S.V., red. izd-va; AVERKIYEVA,
T.A., tekhn. red.

[Prospecting for mica deposits] Razvedka mestorozhdenii sludy..
Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane neдр,
1957. 56 p. (Metodicheskie ukazaniia po proizvodstvu geologo-
razvedochnykh rabot, no.4). (MIRA 11:1)
(Mica ores) (Prospecting)

Shatalov Ye. T.
BASHARKEVICH, L.D.; ANTROPOV, A.N.; KUSOV, N.I.; DYUKOV, A.I.; SPERANSKIY,
M.A.; KREYTER, B.M., glavnyy red.; SHATALOV, Ye. T., zastitel'
glavnogo red.; YEROFEYEV, B.N., red.; ZENKOV, D.A., red.; KRASNIKOV,
V.I., red.; NIFONTOV, R.V., red.; SMIRNOV, V.I., red.; KHRUSHCHOV,
N.A., red.; YAKZHIN, A.A., red.; NEKIPELOV, V.Ye., red.; BEREZOVSKAYA,
L.I., red. izd-va; PENKOVA, S.A., tekhn. red.

[Prospecting for coal and oil shale deposits] Razvedka mestorozhede-
nii uglei i goriuchikh slantsev. Moskva, Gos. nauchn.-tekhn. izd-vo
lit-ry po geologii i okhrane neдр, 1957. 61 p. (Metodicheskie ukaza-
niia po proizvodstvu geologo-razvedochnykh rabot, no.9).
(Coal—Geology) (Oil shales) (MIRA 11:4)

GIMMEL'FARB, B.M.; KREYTER, B.M., glavnyy red.; SHATALOV, Ye.T., zamestitel' glavnogo red.; YEROP'YEV, B.N., red.; ZENKOV, D.A., red.; KRASNIKOV, V.I., red.; NIFONTOV, R.V., red.; SMIRNOV, V.I., red.; KHRUSHCHOV, V.I., red.; YAKZHIN, A.A., red.; MARKOV, P.N., red.; VERSTAK, G.V., red.; AVERKIYEVA, T.A., tekhn. red.

[Prospecting for phosphorite deposits] Razvedka mestorozhdenii fosforitov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane neдр. 1957. 65 p. (Metodicheskie ukazania po proizvodstvu geologo-razvedochnykh rabot, no.5). (MIRA 11:1)
(Phosphorites) (Prospecting)

BOUS, A.A.; BRITAYEV, M.D.; GRECHUKHIN, N.A.; KREYTER, V.M., glavnyy red.;
SHATALOV, Ye.T., red.; YEROFEYEV, B.N., red.; ZENKOV, D.A., red.;
KRASNIKOV, V.I., red.; NIFONTOV, R.V.; SMIRNOV, V.I., red.;
KHRUSHCHOV, N.A., red; YAKZHIN, A.A., red.; PROKOF'YEV, A.P., red;
NEMANOVA, G.F., red.izd-va; PEN'KOVA, S.L., tekhn.red.

[Prospecting for beryllium, tantalum, and niobium deposits] Razvedka
mestorozhdenii berillia, tantala i niobia. Moskva, gos. nauchn.-
tekhn. uzd-vo literatury po geologii i okhrane neдр. 1957 94 p.
(Moscow. Vsesoiuznyi nauchno-issledovates'skii institut mineral'nogo
syr'ia. Metodicheskie ukazaniia po proizvodstvu geologo-razvedochnykh
rabot, no.2). (MIRA 11:3)

(Ore deposits) (Prospecting)

CHERNYSHEV, G.B.; BRITAYEV, M.D.; TARKHOV, A.G.; SHCHERBAKOV, A.V.; KREYTER,
V.M., glavnyy red.; SHATALOV, Ye.T. zamestitel' glavnogo red.;
YEROFYEV, B.N., red.; ZENKOV, D.A., red.; KRASNIKOV, V.I., red.;
NIFONTOV, P.V., red.; SMIRNOV, V.I., red.; KHRUSHCHOV, N.A., red.;
YAKZHIN, A.A., red.; MUKHIN, S.S., red.; AVVERKIYEVA, T.A., tekhn.
red.

[Prospecting for ferrous metal deposits] Razvedka mestorozhdenii
chernykh metallov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po
geol. i okhrane neдр, 1957. 102 p. (Metodicheskie ukazania po
proizvodstvu geologo-razvedochnykh rabot, no.11). (MIRA 11:1)
(Iron ores) (Prospecting)

BOZINSKIY, A.P.; BRITAYEV, M.D.; KOMISSAROV, A.K.; KATKOVSKIY, G.S.; SEDOVA,
V.I.; SHCHERBAKOV, A.V.; KREYTER, V.M., glavnyy red.; SHATALOV,
Ye.T., zamestitel' glavnogo red.; YEROFEYEV, B.N., red.; ZENKOV,
D.A., red.; KRASNIKOV, V.I., red.; NIFONTOV, P.V., red.; SMIRNOV,
V.I., red.; KHRUSHCHOV, N.A., red.; YAKZHIN, A.A., red.; OVCHINNIKOVA,
S.V., red. izd-va; AVERKIYEVA, T.A., tekhn. red.

[Prospecting for gold ore deposits] Razvedka zolotorudnykh mestorozh-
denii. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane
nedr, 1957. 103 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii
institut mineral'nogo syria. Metodicheskie ukazania po proizvodstvu
geologo-razvedochnykh rabot, no.1). (MIRA 11:1)

(Gold ores) (Prospecting)

ROZHKOV, I.S.; RUSANOV, B.S.; KRBYTER, V.M., glavnyy red.; SHATALOV, Ya.T.,
zamestitel' glavnogo red.; YEROFEYEV, B.N., red.; ZENKOV, D.A., red.;
KRASNIKOV, V.I., red.; NIFONTOV, R.V., red.; SMIRNOV, V.I., red.;
KHRUSHCHOV, N.A., red.; YAKZHIN, A.A., red.; VLASOVA, S.M., red.;
AVERKIYEVA, T.A., tekhn. red.

[Prospecting for placer deposits of gold, platinum, tin, tungsten,
titanium, tantalum, and niobium] Razvedka rossypanykh mestorozhdenii
zolota, platiny, olova, vol'frama, titana, tantala i niobia. Moskva,
Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane neдр, 1957.
108 p. (Metodicheskiy ukazaniia po proizvodstvu geologo-razvedochnykh
rabot, no.12). (MIRA 11:1)

(Ore deposits)

ROZHKOV, I.S.; HUSANOV, B.S.; KREYTER, V.M., glavnyy red.; SHATALOV, Ye.T., red. vypuska; YEROFEYEV, B.N., red.; ZENKOV, D.A., red.; KRASNIKOV, V.I., red.; NIFONTOV, R.V., red.; SMIRNOV, V.I., red.; KHRUSHCHOV, N.A., red.; YAKZHIN, A.A., red.; VLASOVA, S.M., red. izd-va; AVERKIYEVA, T.A., tekhn. red.

[Methodological instructions on geological prospecting] Metodicheskie ukazaniia po proizvodstvu geologo-razvedochnykh rabot. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane neдр. No. 1 [Prospecting for alluvial gold, platinum, tin, tungsten, titanium, tantalum, and niobium] Razvedka rossypanykh mestorozhdenii zolota, platiny, olova, vol'frama, titana, tantala i niobiia. 1957. 108 p. (MIRA 12:5)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya.
(Prospecting)

KHRUSHCHOV, N.A.; KOSOV, B.M.; POLIKARPOCHKIN, V.V.; BRITAYEV, M.D.; TARKHOV,
A.G.; SHCHERBAKOV, A.V.; KREMYTER, V.M., glavnyy red.; SHATALOV, Ye.T.,
zamestital' glavnogo red.; YEROFYEV, B.N., red.; ZENKOV, D.A., red.;
KRASNIKOV, V.I., red.; NIFONTOV, R.V., red.; SMIRNOV, V.I., red.,
YAKZHIN, A.A., red.; VERSTAK, I.V., red. izd-va; AVERKIYEVA, T.A.,
tekhn. red.

[Prospecting for molybdenum, tungsten, tin, bismuth, antimony,
and mercury deposits] Razvedka mestorozhdenii molibdena, vol'frama,
olova, vismuta, sur'my i rtuti. Moskva, Gos. nauchno-tekhn. izd-vo
lit-ry po geol. i okhrane neдр, 1957. 130 p. (Metodicheskie ukazaniia
po proizvodstvu geologo-razvedochnykh rabot, no.6). (MIRA 11:1)
(Ore deposits) (Prospecting)

AMIRASLANOV, A.A.; BRITAYEV, M.D.; BYBOCHKIN, A.M.; ZENKOV, D.A.; TARKHOV,
A.G.; TSYGANKO, N.I.; SHCHERBAKOV, A.V.; KREYTER, V.M., glavnyy
red.; SHATALOV, Ya.T., zamestitel' glavnogo red.; YEROFEYEV, B.H.,
red.; ZENKOV, D.A., red.; KRASNIKOV, V.I., red.; NIFONTOV, R.V.,
red.; SMIRNOV, V.I., red.; KHRUSHCHOV, N.A., red.; YAKZHIN, A.A.,
red.; VERSTAK, G.V. red. izd-va; AVERKIYEVA, T.A., tekhn. red.

[Prospecting for copper, lead, and zinc deposits] Razvedka mesto-
rozhdenni medi, svintsa i tsinka. Moskva, Gos. nauchno-tekhn. izd-vo
lit-ry po geol. i okhrane nedr, 1957. 135 p. (Metodicheskie ukaza-
niia po proizvodstvu geologicheskikh razvedochnykh rabot, no.10).
(Ore deposits) (Prospecting) (MIRA 11:4)

SHATALOV, Ye.T.

Geological maps at the 22d session of the International Geological
Congress. Vest. Mosk. un. Ser. biol., pochv., geol., geog. 12 no.1:
39-46 '57. (MLRA 10:11)
(Mexico (City)--Geology--Congresses)
(Geology--Maps)

BOKIY, G.B.; SHATALOV, Ye.T.

Geological excursion to the silver and lead ore deposits of Mexico.
Vest. Mosk. un. Ser. biol., pochv., geol., geog. 12 no.1:47-55 '57.
(Mexico--Silver ores) (Mexico--Lead ores) (MLRA 10:11)

BOGDANOV, A.A.; GAMKRELIDZE, P.D.; GORSKIY, I.I.; ZARIDZE, G.M.;
KRASHENINNIKOV, G.F.; MURATOV, M.V.; RADKEVICH, Ye.A.;
SOBOLEV, V.S.; KHAIN, V.Ye.; SHATALOV, Ye.T.

Visiting Czechoslovakian geologists. Vest.Mosk.un.Ser.biol.,
pochv., geol., geog. 12 no.2:3-27 '57. (MIRA 10:10)
(Czechoslovakia--Geology)

3(5) PHASE I BOOK EXPLOITATION SOV/1886
 'OO'yedinnennaya nauchnaya sessiya po metallogenicheskim i prognoznaya kartam, Alma-Ata, 1958
 Materialy nauchnoy sessii po metallogenicheskim i prognoznaya kartam i doklady. (Materials Presented at the Scientific Session on Metallogenetic and Postulated Ore Occurrence Maps; Reports) Alma-Ata, Izdatvo AN Kazakhskoy SSR, 1958. 318 p. Errata slip inserted. 3,850 copies printed.
 Ed.: A.S. Pogozhev; Tech. Ed.: P.F. Alferovs.
 Sponsoring Agencies: (1) Akademiya nauk SSSR, (2) Akademiya nauk Kazakhskoy SSR, Alma-Ata, (3) USSR, Ministerstvo geologii i obratnogo nedra, (4) Kazakh SSR, Ministerstvo geologii i obratnogo nedra.
 PURPOSE: This book is intended for exploration geologists, mining engineers, and cartographers.

Materials Presented (Cont.) SOV/1886
 COVERAGE: This collection of reports was presented at the United Scientific Session on Metallogeny and Postulated Ore Occurrence Maps convoked by the Academy of Sciences in Alma-Ata, December, 1958. The reports deal with various aspects of compiling metallogenetic and ore occurrence maps as well as the methodology and techniques of correlating geophysical exploration data. These reports deal only with non-ferrous metals. Three other reports delivered at the conference but not included in this work were read by Ye. Ye. Zakharov, M.S. Shatskiy, and Yu.K. Gorstadiy. References accompany each article.

TABLE OF CONTENTS:

Tatarinov, P.M. [Vsega]. Principles and Techniques of Compiling Metallogenetic Maps in the USSR	3
Satpayev, K.I. [AN Kaz. SSR]. Integrated Metallogenetic Postulated Occurrence Maps of Central Kazakhstan	12
Shatskiy, M.S., V.L. Masaytis, V.I. Dracunov, and M.S. Malich [Vsega]. Principles of Compiling Metallogenetic Platform Maps	27
Orlova, A.V., Ye.T. Shatalov. [IGEM]. Methodological Principles in Compiling Metallogenetic and Postulated Occurrence Maps for Mineral Regions	36
Fvalchrelidze, G.A. [IKMS]. Principles of Compiling the 1: 500,000 Metallogenetic Map of the Caucasus	43
Kashkay, M.A. [AN AzerbSSR]. Basic Metallogenetic Lineaments and the Metallogenetic Map of Azerbaijan	55
Karpov, Ye.D. Metallogenetic Maps of the Eastern Part of Central Asia (scale 1:1,000,000)	59
Matveyenko, V.Z. [VNI-1], Ye.T. Shatalov. [IGEM]. Metallogenetic Map of Northwest USSR	67
Semenko, M.P. [AN UkrSSR] Metallogenetic Eras and a Map of Postulated Occurrences of Ore Deposits in the UkrSSR	74

3(5)

PHASE I BOOK EXPLOITATION 307/1923

Akademiya nauk SSSR. Otdeleniye geologo-geograficheskikh nauk.
Komissiya po probleme "Zakonozmernosti razmeshcheniya poleznykh
iskopayemykh."

Zakonozmernosti razmeshcheniya poleznykh iskopayemykh (Regularities in
the Distribution of Mineral Deposits Vol 1. Moscow, Izd-vo AN SSSR,
1958. 532 p. Errata slip inserted. 2,500 copies printed.

Resp. Ed.: N.S. Zhatskiy, Academician; Editorial Board: N.S. Zhatskiy,
Academician, D.I. Shcherbakov, Academician, M.A. Balyayevskiy,
N.M. Dolgoplov, O.D. Levitskiy, Yu.N. Pushcharovskiy, G.A. Sokolev;
Ed. of Publishing House: O.I. Nosov; Tech. Ed.: I.M. Guseva

PURPOSE: This book is intended for geologists and petrographers,
particularly those interested in the worldwide distribution of
minerals and the reasons underlying their occurrence.

COVERAGE: On the basis of particular regional studies this book
attempts to establish the rules governing the distribution of
metallic and non-metallic ore deposits. The work includes articles
on the metallogeny of individual minerals, on broad methodological
problems, and on the possibility of predicting the occurrence of
a mineral in the USSR on the basis of its occurrence throughout
the world. Six maps depicting the distribution of a particular
mineral throughout the world are included with the work.
References accompany each article.

TABLE OF CONTENTS

Saiznov, V.I. Conditions of the Deposition of Regenerated Deposits	160
Matveyenko, V.T., and Ye.T. Shatalov. Disjunctive Dislocations, Magmatization, and Mineralization in Northeastern USSR	169
Radkevich, Ye.A. Efforts in the Study of the Metallogeny of Ore Regions as Exemplified by Primor'ye	241
Card 3/6	

MATVEYENKO, V.T.; SHATALOV, Ye.T.

Faults, igneous formations, and mineralization in the northeastern part of the U.S.S.R. *Zakonom. razm. polezn. iskop.* 1:169-240 '58.
(MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut -I, g. Magadan i Institut geologii rudnykh mestorezheniy, petrografii, mineralogii i geokhimii AN SSSR.

(Soviet Far East--Geology)

YEROFYEV, B.N.; BELYAYEVSKIY, N.A.; BOGDANOV, A.A.; SHATALOV, Ye.T.

Conference of the commission on a world geological map held in Paris, France, March-April 1958. Sov.geol. 1 no.7:153-160 J1 '58.
(MIRA 11:11)

1. Ministerstvo geologii i okhrany neдр SSSR, Moskovskiy gos. universitet im. M.V. Lomonosova i Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR.
(Paris--Geology--Congresses)

AUTHOR: Shatalov, Ye.T. SOV-11-58-0-3/14

TITLE: The Metallogeny of Ore Districts (O metallogenii rudnykh rayonov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1958, Nr 9, pp 37-51 (USSR)

ABSTRACT: The study of the regularity of distribution of mineral deposits is the object of a new branch of geology in the USSR - metallogeny. The basic theory and methods of metallogenic research were put forward by S.S. Smirnov and Yu.A. Bilibin. They defined three types of forecasts: 1) district forecasts - based on the study of metallogeny of whole provinces and belts with geological 1 : 500,000 maps; 2) regional forecasts and metallogenic studies of ore bearing regions to determine possible ore fields, using 1 : 50,000 or 1 : 25,000 geological survey maps; 3) large scale forecasts - determining the importance of recently found ore fields and deposits - using 1 : 10,000 maps and special studies of these deposits. The Vsesoyuznyy geologicheskiiy institut (The All-Union Geological Institute) - VSEGEI - established the general principles of metallogenic analyses and mapping methods on different scales. Detailed metallogenic research was undertaken by the Institut geologii

Card 1/3

The Metallurgy of Ore Districts

SOV-11-58-9-3/14

rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR (The Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry of the AS USSR - IGEM. Many other institutes in other republics and industrial groups organized by the Ministry of Geology and Conservation of Mineral Resources of the USSR are at present working on the mapping of various regions of the Union. The importance of this problem was first indicated by the famous Soviet scientists V.A. Obruchev and A.Ye. Fersman. The following scientists are now working on this: K.I. Satpayev (The Geological Institute of the AS, Kazakh SSR), Ye.A. Radkevich and Ye.T. Shatalov (IGEM), N.A. Pelyavskiy, A.G. Petekhtin, D.S. Korzhinskiy, G.D. Levitskiy, Kh.M. Abdullayev, G.D. Ifanas'yev, M.B. Borodayevskaya, V.S. Koptev-Dvornikov, I.G. Makag'yan, M.G. Rub, M.A. Favorskaya, F.K. Shipulin, F.I. Vol'fson, V.M. Kreyter, L.I. Lukin, A.V. Pek, A.V. Korolev, T.N. Shadlun, V.T. Matveyenko, A.V. Peyve, I.M. Tomson, and Ye.Ye. Zakharov. This report was read at the conference of the scientific council of IGEM on October 26, 1957. There are 28 Soviet references.

Card 2/3

The Metallogeny of Ore Districts

SOV-11-58-9-7/14

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva (The Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry of the AS USSR, Moscow)

SUBMITTED: November 6, 1957

1. Minerals--USSR 2. Ores--USSR 3. Geology--USSR

Card 3/3

SHATALOV, Ye.T., doktor geologo-mineralogicheskikh nauk

Enlarged session of the Commission for the Geological World Map of
the International Geological Congress. Vest. AN SSSR 28 no. 7:102-
103 JI '58. (MIRA 11:7)

(Geology--Maps--Congresses)

AUTHOR: Shatalov, Ye. T., Doctor of Geological and Mineralogical Sciences SOV/30-56-9-3/51

TITLE: Metallogenetic Investigations of Ore Containing Regions (Metallogenicheskiye issledovaniya rudnykh rayonov)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, ⁴ Nr 9, pp. 16 - 21 (USSR)

ABSTRACT: These investigations mainly deal with the spatial distributions of ore on different sections of the earth crust and with the date of their formation which depends on geological conditions. At the occasion of investigating the distribution of tin-, tungsten-, and gold-deposits Yu.A.Bilibin founded the Soviet metallogenetic sciences. The common principles of the regional metallogenetic analysis and the method of how to compile metallogenetic maps on a scale not larger than 1 : 500 000 have been explained by a collective work made by assistants of the Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut Ministerstva geologii i okhrany nedr SSSR (All-Union Scientific Research Institute of Geology of the USSR Ministry of Geology and Protection of Natural Resources) (Ref 1). Detailed metallogenetic investigations whereby maps on a scale of 1 : 50 000 are compiled are at

Card 1/4

Metallogenetic Investigations of Ore Containing Regions SOV/30-58-9-3/51

present performed by different institutions. Such are the AS USSR, the Academies of Sciences of the Union-Republics, especially in Kazakhstan, and Uzbekistan, the Ministry for Geology and Protection of Natural Resources of the USSR, and the Geological Organizations of some Councils of National Economy, for instance the Magadanskiy nauchno-issledovatel'skiy institut (Magadan Scientific Research Institute). In the Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii Akademii nauk SSSR (Institute for Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry of the AS USSR) Ye.A. Radkevich, F.I. Vol'fson, I.I. Ginzburg, M.G. Rub, Ye.T. Shatalov and others deal with the methodology and description of typical mineralized areas. The principal aim of this paper is to emphasize the importance of metallogenetic investigations of mineralized areas and to sketch the methods one should apply. The author proposes to divide the investigations according to the scale of the maps which are to be compiled. Maps on a small scale (from 1:10 000 000 to 1:2 500 000) shall only give common informations, maps on a larger scale (from 1:200 000 to 1:500 000) more detailed

Card 2/4

Metallogenetic Investigations of Ore Containing Regions SOV/30-58-9-3/51

ones. The metallogenetic investigations should determine the places where one may suppose ore zones, ore nodes, and ore fields, sometimes even single finding places. The influence of the structural and lithologic factors upon the regularity of the distribution of ore content is commonly known. As the final results of the metallogenetic investigations of ore regions one may regard the compilation of metallogenetic and prognostic maps. The Institute for Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry at present works out, the main strains one may put on these maps. For the Geologic Institutes of the AS USSR Union-Republics, the branch institutions of the AS USSR, the universities as well as the geologic organizations of the Councils of National Economy and of the Ministry for Geology and Protection of Natural Resources of the USSR it must be the main task to carry out these works. The geologists should work together with petrographers, specialists for architectonic geology, for lithology, for the structure of ore fields, with geochemists, mineralogists, and geophysicists, and they should use the work of Yu.A. Bilibin, and S.S. Smirnov. There is 1 reference, which

Card 3/4

SHATSKIY, N.S., akademik, otv.red.; SHCHERBAKOV, D.I., akademik, red.;
BELYAYEVSKIY, N.A., red.; DOLGOPOLOV, N.N., red.; LEVITSKIY,
O.D., red.; PUSHCHAROVSKIY, Yu.M., red.; SOKOLOV, G.A., red.;
SHATALOV, Ye.T., red.; NOSOV, G.I., red.izd-va; NOVICHKOVA,
N.D., tekhn.red.

[Characteristics of the distribution of mineral resources] Zakonomernosti razmeshchenia poleznykh iskopaemykh. Moskva. Vol.2. 1959. 504 p. (MIRA 13:6)

1. Akademiya nauk SSSR. Komissiya po probleme "Zakonomernosti razmeshcheniya poleznykh iskopayemykh. 2. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR (for Sokolov, Shatalov).
(Mines and mineral resources)

SOV/152-59-1-17/18

AUTHORS: Vol'fson, F.I., Shatalov, Ye.T., and Yerofeyev, B.N.

TITLE: On the All-Union Conference for the Elaboration of Scientific Bases of Prospecting for Concealed Mineral Deposits (O vsesoyuznom soveshchanii po razrabotke nauchnykh osnov poiskov skrytogo orudneniya)

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 1, pp 59-62 (USSR)

ABSTRACT: The above mentioned conference was called by the Academy of Sciences of the USSR and the Ministerstvo geologii i okhrany nedr SSSR (Ministry of Geology and Conservation of Mineral Resources), and took place from 18 to 24 November, 1958. Five hundred geologists, representing 25 geological managements, seven sovnarkhozes, 25 scientific-research institutes and five branches of the AS's of the USSR and allied republics, took part in the conference. Opening the conference, Academician A.G. Betekhtin stressed the important task expected of geologists in the next seven years. He also indicated the general trends of the development of the scientific base of prospecting for concealed deposits. P.Ya. Antropov, Minister of Geology

Card 1/3

SOV/132-59-1-17/18

On the All-Union Conference for the Elaboration of Scientific Bases of
Prospecting for Concealed Mineral Deposits

and Conservation of Mineral Resources of the USSR, also spoke on that subject. The conference heard 28 reports on the importance of different criteria and factors in the prospecting for concealed deposits by: O.D. Levitskiy, V.I. Smirnov, F.I. Vol'fson, L.I. Lukin, M.B. Borodayevskaya, N.I. Borodayevskiy, N.V. Petrovskaya, I.I. Ginzburg, V.I. Krasnikov, A.A. Saukov, Academician D.S. Korzhinskiy, P.F. Rodionov, A.P. Solovov, V.Z. Fursov, A.G. Tarkhov, Ye.A. Radkevich, K.F. Kuznetsov, V.S. Kormilitsin, B.P. Sanin, G.F. Yakovlev, A.V. Korolev, P.A. Shekhtman, V.N. Vydrin, G.D. Azhgirey, Ye.F. Burshteyn, V.A. Nevskiy, M.N. Godlevskiy, V.N. Yegorov, P.I. Kasatkin, T.N. Sirotkin, Ya. P. Baklayev, V.P. Loginov, G.F. Chervyakovskiy, I.V. Lepnykh, M.F. Novikov, F.L. Smirnov, P.S. Bernshteyn, A.I. Khazagarov, N.A. Ozerova, V.E. Pavarkova, I.L. Nikol'skiy, V.P. Fedorchuk, L.I. Shabynin, V.S. Koptev-Dvornikov, N.A. Sirin.

Card 2/3

SOV/132-59-1-1/18

On the All-Union Conference for the Elaboration of Scientific Bases of
Prospecting for Concealed Mineral Deposits

Summing up the results of the conference, O.D. Levitskiy, Member-Correspondent of the AS of the USSR, said that the results achieved up to now are far from satisfactory. All concerned must work hard to elaborate new methods and means of prospecting for concealed mineral deposits.

ASSOCIATION: IGEM, Ministerstvo geologii i okhrany nedr SSSR (IGEM and USSR Ministry of Geology and Conservation of Mineral Resources)

Card 3/3

SHATALOV, Ye.T.

Joint session on metallogenic and prognostic maps. Geol. rud.
mestorozh. no.2:109-116 Mr-Apr '59. (MIRA 12:9)
(Ore deposits--Maps)

ORLOVA, A.V.; SHATALOV, Ye.T.

Methodological principles of compiling metallogenic and prognostic
maps of ore regions. Zakonom. razm. polezn. iskop. 2:461-494 '59.
(MIRA 15:4)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii AN SSSR.
(Ore deposits--Maps)

SHATALOV, Ye.T., doktor geol.-min. nauk

Distribution of metallogenetic provinces. Geol. rud. mestorozh.
no.3:3-33 My-Je '59. (MIRA 12:10)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii
i geokhimii AN SSSR, Moskva.
(Ore deposits)

VOL'FSON, F.I.; YEROFEYEV, B.N.; SHATALOV, Ye.T.

All-Union conference on the working out of scientific principles
of prospecting for hidden deposits. Razved. i okh.nedr 25
no.1:59-62 Ja '59. (MIRA 12:2)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii AN SSSR (for Vol'fson, Shatalov).
2. Ministerstvo geologii i okhrany neдр SSSR (for Yerofeyev).
(Prospecting)

AMIRASLANOV, A.A., red.; KOSOV, B.M., red.; PUSTOVALOV, L.V., red.;
SHATALOV, Ye.T., red.; VERSTAK, G.V., red.izd-va; BYKOVA,
V.V., tekhn.red.

[Applied geology; problems of metallogeny] Prikladnaia geologia;
voprosy metallogenii. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
geol. i okhrane neдр, 1960. 134 p. (Doklady sovetskikh geologov.
Problema 20). (MIRA 13:11)

1. International Geological Congress. 21st, Copenhagen, 1960.
(Ore deposits)

BETEKHTIN, A.G., KORZHINSKIY, D.S., SHATALOV, Ye.T., SHIPULIN, F.K.

Problems in geology. Geol. rud. mestorozh. no.2:94-110 Mr-Apr '60.
(MIRA 13:8)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR, Moskva.
(Geology, Economic)

SHATALOV, Ye.T.

First metallogenetic map of the U.S.S.R. Geol. rud. mestorozh.
no.2:115-120 Mr-Apr '60. (MIRA 13:8)
(Ore deposits--Maps)

BETEKHTIN, A.G.; LEVITSKIY, O.D.; PUSHCHAROVSKIY, Yu.M.; SOKOLOV, G.A.;
SHATALOV, Ye.T.; SHIPULIN, F.K.

Nikolai Sergeevich Shatskii; obituary. Geol. rud. mestorozh.
no.5:3-5 S-0 '60. (MIRA 13:10)
(Shatskii, Nikolai Sergeevich, 1895-1960)
(Geology)

SHATALOV, Ye.T.

Second joint session on the distribution of mineral resources and prognostic maps. Geol. rud. mestorozh. no.5:129-135 S-O '60.

(MIRA 13:10)

(Mines and mineral resources--Maps)

SHATALOV, Ye.T. _

Creating the genetic classification of ore-bearing areas.
Uzb.geol.zhur. no.5:65-79 '61. (MIRA 14:11)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii AN SSSR.
(Ore deposits)

SHATALOV, Ye.T.

Some suggestions on the principles of classification of ore-bearing areas. Uzt.geol.zhur. no.6:62-84 '61. (MIRA 14:12)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR.
(Ore deposits--Classification)

SHATALOV, Ye.T.

Concerning the work of the committee on a geological map of the world and the work of the section on the genetic problem of ores at the 21st session of the International Geological Congress.
Biul. MCIP. Otd. geol. 36 no.2:129-130 Mr-Ap '61. MIRA 14:7)
(Geology--Congresses)

NEKRASOV, Ivan Yakovlevich; SHATALOV, Ye.T., otv.red.; SMOLIN, P.P.,
red.izd-va; VOLKOVA, V.V., tekhn. red.

[Igneous activity and ore potential of the northwestern part of
the Verkhoyansk-Chukchi fold area] Magmatizm i rudonosnost'
severo-zapadnoi chasti Verkhoyano-Chukotskoi skladchatoi oblasti.
Moskva, Izd-vo Akad.nauk SSSR, 1962. 333 p. (Akademia nauk
SSSR. Iakutskii filial, Yakutsk. Trudy. Seria geologicheskaja,
no.12). (MIRA 15:7)

(Yakutia--Rocks, Igneous) (Yakutia--Ore deposits)

BASHENINA, Nina Viktorovna; LEONT'YEV, Oleg Konstantinovich;
PIOTROVSKIY, Mikhail Vladimirovich; SIMONOV, Yuriy
Gavrilovich; VYSKREBENTSEVA, V.S.; ZARUTSKAYA, I.P.;
Prinimali uchastiye ZORIN, L.V.; ORLOV, I.V.; ZVONKOVA,
T.V.; FEDOROVICH, B.A.; SHATALOV, Ye.T., retsenzent;
GLAZOVSKAYA, M.A., retsenzent; ARISTARKHOVA, L.B., re-
tsenzent; YERMAKOV, M.S., tekhn. red.

[Methodological guide to geomorphological mapping and
the carrying out of geomorphological surveys at scales of
1:50 000 - 1:25 000 (with legend)] Metodicheskoe ruko-
vodstvo po geomorfologicheskomu kartirovaniyu i proizvod-
stvu geomorfologicheskoi s"emki v masshtabe 1:50 000 -
1:25 000 (s legendoi). Pod red. N.V. Basheninoi. Moskva,
Izd-vo Mosk. univ., 1962. 202 p. ___ [Legend; supplements
VIII-[XI]] Legenda geomorfologicheskoi karty Sovetskogo
Soiuza masshtaba 1:50 000 - 1:25 000; prilozhenie VIII-
[XI] 1960. 25 p. (MIRA 15:7)

(Geomorphology--Maps)

BETEKHTIN, A.G.; VOL'FSON, F.I.; GENKIN, A.D.; DUBROVSKIY, V.N.; YEROFEYEV,
B.N.; KONSTANTINOV, R.M.; MATERIKOV, M.P.; SOKOLOV, G.A.; STRAKHOV,
N.M.; TATARINOV, P.M.; TOMSON, I.N.; SHADLUN, T.N.; SHATALOV, Ye.T.;
SHIPULIN, F.K.

Oleg Dmitrievich Levitskii; obituary. Geol. rud. mestorozh. no.2:
3-6 Mr-Ap '61. (MIRA 14:5)
(Levitskii, Oleg Dmitrievich, 1909-1961)

VASIL'YEV, V.V.; BRONSKIY, B.I.; YEROFEYEV, B.N.; KECHER, G.A.; KOSOV, B.M.;
TUPITSYN, N.V.; TSAREGRADSKIY, V.A.; SHATALOV, Ye.T.

Sergei Dmitrivich Rakovskii, obituary. Geol.rud.mestorozh.
no.3:133-134 My-Je '62. (MIRA 15:6)
(Rakovskii, Sergei Dmitrievich, 1899-1962)

ORLOVA, Anastasiya Viktorovna; SHATALOV, Yevgeniy Trofimovich;
NOSOV, G.I., red. izd-va; SHEVCHENKO, G.N., tekhn. red.
DOROKHINA, I.N., tekhn. red.

[Principles of compilation and conventional signs of metallogenic and prognostic maps of ore regions] Osnovnye printsipy sostavleniia i uslovnye oboznacheniiia metallogenicheskikh i prognoznykh kart rudnykh raionov. Moskva, Izd-vo Akad. nauk SSSR, 1963. 46 p. — Supplements. 77 p. 4 maps.
(MIRA 16:5)

(Ore deposits--Maps)

SHATALOV, Ye.T., otv. red.; KLINTSOVA, I.A., red.izd-va; NOVICHKOVA,
N.D., tekhn. red.

[Review of geological concepts and terms used in metallogeny]
Obzor geologicheskikh ponlatii i terminov v primenenii k me-
tallogenii. Moskva, Izd-vo Akad. nauk SSSR, 1963. 181 p.
(MIRA 16:3)

1. Akademiya nauk SSSR. Institut geologii rudnykh mestorczhdeniy,
petrografii, mineralogii i geokhimii.
(Geology--Terminology)

BILIBIN, Yu.A.; SHATALOV, Ye.T., otv. red.; GODOVIKOVA, L.A., red.
izd-vo ~~AN SSSR~~, tekhn. red.

[Selected works] Izbrannye trudy. Moskva, Izd-vo AN SSSR.
Vol.4. 1963. 492 p. (MIRA 16:9)
(Geology)

ORLOVA, Anastasiya Viktorovna; SHATALOV, Yevgeniy Trofimovich;
NCSOV, G.I., red. izd-va; SHCEVCHENKO, G.N., tekhn. red.;
DCROKHINA, I.N., tekhn. red.

[Metallogenic and prognostic maps of ore-bearing regions]
Metallogenicheskie i prognoznye karty rudnykh raionov. Mo-
skva, Izd-vo AN SSSR, 1963. 77 tables. — [Basic principles for
the compilation and conventional symbols of metallogenic and
prognostic maps of ore-bearing regions] Osnovnye printsipy so-
stavleniia i uslovnye oboznacheniiia metallogenicheskikh i prog-
noznykh kart rudnykh raionov. 46 p. (MIRA 16:8)
(Ore deposits--Maps)

MATVEYENKO, V.T.; SHATALOV, Ye.T.

Basic characteristics of the distribution of tin mineralization in the northeastern area. Geol. rud. mestorozh. 5 no.2: 46-61 Mr-Apr '63. (MIRA 16:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut, Leningrad, i Institut geologii rudnykh mestorozhdeniy, mineralogii, petrografii i geokhimii AN SSSR, Moskva. (Soviet Far East—Tin ores)

GORSKIY, I.I., otv. red.; BELYAYEVSKIY, N.A., doktor geol.-
min. nauk, zam. otv. red.; AFANAS'YEV, G.D., red.;
EGGDANOV, A.A., doktor geol.-min. nauk, red.; VEROBYEVA, O.A.,
doktor geol.-min. nauk, red.; KATUSHENOK, I.I., kand. geol.-
min. nauk, red.; MENNER, V.V., doktor geol.-min. nauk, red.;
MENYAYLOV, A.A., doktor geol.-min. nauk, red.; SMIRNOV, V.I.,
akademik, red.; SHATALOV, Ye.T., doktor geol.-min. nauk, red.;
CHEPIKOVA, I.M., red. izd-va; TIKHOMIROVA, S.G., tekhn. red.

[Problems of geology at the 21st session of the International
Geological Congress] Problemy geologii na XXI sessii Mezhdunarodnogo
geologicheskogo kongressa Moskva. Izd-vo AN SSSR (MIRA 16:11)
1963 426 p.

1. Akademiya nauk SSSR. Natsional'nyy komitet geologov. 2 Chlen-
korrespondent AN SSSR (for Afanas'yev, Gorskiy).
(Geology--Congresses)

SHATALOV, Ye. T.; ORLOVA, A. V.; YABLOKOV, K. V.; DYUKOV, A. I.;
TOMSON, V. N.

[Basic principles of the plotting, content, and conditional designations of the metallogenic and forecasting maps of ore regions] Osnovnye printsipy sostavleniia, sodержanie i uslovnye oboznacheniiia metallogenicheskikh i prognoznykh kart rudnykh raionov; osnovnye printsipy metallogenicheskikh issledovaniĭ i sostavleniia metallogenicheskikh i prognoznykh kart rudnykh raionov. [By] E. T. Shatalov i dr. Moskva, Nedra, 1964. 193 p. [Supplement] Prilozhenie. (MIRA 18:5)

ORLOVA, A.V.; TOMSON, I.N.; ...; LUKIN, M.I.;
SEATALOV, Ye.P., red.

[Lithological and structural factors in the distribution of mineralization in ore regions; basic principles of metallogenetic research and the compilation of metallogenetic and forecasting maps of ore regions] Litologicheskie i strukturnye faktory razreshchenia orudnenia v rudnykh raionakh; osnovnye printsipy metallogenicheskikh issledovaniy i sostavleniia metallogenicheskikh i prognoznnykh kart rudnykh raionov. Moskva, Nedra, 1964. 212 p.

(MIRA 17:12)

GRUSHINVOY, V.G., DOMAREV, V.S.; ITSIKSON, M.I.; KOF MILITSYN, V.S.;
MAKOVSKIY, A.P.; MOROZENKO, N.K.; NEKHOROSHEV, V.P.;
PADALKA, G.L.; SEMENOV, A.I.; SERPUKHOV, V.I.; TATARINOV, P.M.;
SHATALOV, Ye.T.

Grigori Sergeevich Labazin, 1898-1963; obituary. Geol..
rud. mestorozh. ó no.2:125-126 Mr-Ap '64. (MIRA 17:6)

SHATALOV, Ye.S.

Preparing the compilation of the International Metallogenic
Map of Europe. Sov. geol. 7 no.8:170-180 Ag '64.

(MIRA 17:10)

SHATALOV, Ye.T., otv. red.; BOBROV, V.A., red.; KOTLYAR, V.N.,
red.; TVALCHRELIDZE, G.A., red.; SHCHEGLOV, A.D., red.

[Problems of metallogeny] Voprosy metallogeni. Moskva,
Nedra, 1965. 257 p. (Mezhdunarodnyi geologicheskii
kongress. Doklady sovetskikh geologov. Problema 16)
(MIRA 18:5)

1. Natsional'nyy komitet geologov Sovetskogo Soyuza.

SHATALOV, Ye.T.; KOPTEV-DVORNIKOV, V.S.; RUB, M.G.; RODIONOV, D.A.;
SHIPULIN, F.K.; FAVORSKAYA, M.A

[Criteria of the relationship between mineralization and igneous activity as applied to the study of ore regions; basic principles of metallogenetic studies and the plotting of metallogenetic and forecasting maps of ore deposits] Kriterii svyazi orudneniia s magmatizmom primenitel'no k izucheniiu rudnykh raionov; osnovnye printsipy metallogenicheskikh issledovani i sostavleniia metallogenicheskikh i prognoznykh kart rudnykh raionov. Moskva, Nedra, 1965.
292 p. (MIRA 18:4)

KONSTANTINOV, R.M.; ZHARIKOV, V.A.; OMEL'YANENKO, B.I.;
PETROVSKAYA, N.V.; SHATALOV, Ye.T.;

[Study of the characteristics of the distribution of mineralization in metallogenetic research on ore regions; basic principles of metallogenetic research and the compilation of metallogenetic and prognostic maps of ore deposits] Izuchenie zakonomernostei razmeshcheniia mineralizatsii pri metallogenicheskikh issledovaniakh rudnykh raionov; osnovnye printsipy metallogenicheskikh issledovaniia i sostavleniia metallogenicheskikh i prognosnykh kart rudnykh raionov. Moskva, Nedra, 1965. 302 p.
(MIRA 18:7)

L 06424-67

EWT(d)/EWP(1) IJP(c) BB/GG

ACC NR: AT6024282

SOURCE CODE: UR/2976/66/000/005/0088/0102

AUTHOR: Shan'gin, V. F.; Shatalov, Yu. A.

ORG: none

TITLE: Displacement-to-number converter^{16c} using coarse optical gratings

SOURCE: Moscow. Vyssheye tekhnicheskoye uchilishche. Vychislitel'naya tekhnika, no. 5, 1966, 88-102

TOPIC TAGS: optic grating, diffraction grating, spectrometer

ABSTRACT: Principles and methods of precision incremental measurement of linear distances or displacements, using coarse optical gratings to generate moire fringes are described. Moire fringes are usually produced by superimposing two transparent, relatively coarse gratings, such that the line pattern on one forms a small angle with respect to the line pattern on the other. If one grating is stationary and the other one is moved, the moire fringes will appear to move in the direction normal to the movement of the grating. The distance between the centers of two adjacent moire fringes is given by

$$W = \frac{w_1 w_2}{C \sqrt{w_1^2 + w_2^2 - 2w_1 w_2 \cos \theta}}$$

Card 1/3

18
B+1

ACC NR: 116024282

where w_1 and w_2 are the distances between the adjacent lines (pitch) of the first and second gratings, respectively, and θ is the angle formed by these lines by superimposing the gratings. For the usual case when $w_1 = w_2$ and the angle θ is small

$$W = \frac{w}{\theta}$$

The coefficient of displacement magnification is defined as the ratio of actual mechanical displacement to the apparent displacement of the fringe pattern

$$K = \frac{W}{w} = \frac{1}{\theta}$$

The optical density of the moire fringe pattern varies sinusoidally in the direction perpendicular to the fringes. This characteristic is advantageously used to sense the direction of the motion while counting whole fringes and their fractions. Four photocells are located under the stationary grating such that they are in a straight line and spaced in increments corresponding to $\frac{1}{4}$ of one full fringe period, optical slits are placed between each cell and the gratings to define the small area to be monitored by each. In this arrangement, the motion of the vernier grating generates sinusoidal voltage outputs from each of the photocells, phaseshifted by 90° with respect to each other. Thus the position of the fringe can be resolved within a fraction of the fringe width, and therefore the mechanical displacement can be also measured to a small fraction of the distance between two adjacent lines on the grating. An electronic system was designed to accept the inputs from the four photocells, to combine the sig-

Card 2/3

ACC NR: AT6024282

nals representing the instantaneous fringe position and the direction of the motion, and to generate pulses on one of the two output terminals for every increment of displacement. Each of the two output terminals corresponds to one direction of the motion. The pulses are fed into a bidirectional counter where their algebraic sum, representing the instantaneous value of the displacement, is displayed. An experimental model was evaluated and found to be capable of resolving distances to $\frac{1}{128}$ of the pitch. Diagrams of optical patterns, phase relations of the electrical signals, and block diagrams of the electronics are included. Orig. art. has: 10 figures, 22 formulas.

SUB CODE: 20,^{09/}_{15/} SUBM DATE: none/ ORIG REF: 001/ OTH REF: 001

Card 3/3

POVORINSKIY, Yu.A.; SHATALOVA, A.A.; DNEPROVSKAYA, S.V.; ZIMUKOVA, L.I.;
KOLESOVA, A.A.

Increase and acceleration of the action of insulin in the combined treatment of schizophrenia by means of a change in the reactivity of the body. Trudy Gos. nauch.-issl. psikhonevr. inst. no. 20:191-204 '59. (MIRA 141)

1. Gosudarstvennyy nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni V.M. Bekhtereva, Leningrad.
(SCHIZOPHRENIA) (INSULIN)
(NERVOUS SYSTEM, AUTONOMIC)

ABRAMOVICH, G.B.; ADAMOVICH, V.A.; VOROB'YEV, S.P.; GOSHEV, A.I.; DEMIDENKO, T.D.; ZAYCHIKOVA, N.A. [deceased]; RUBINOVA, R.S.; TERPUGOV, Ye.A.; SHATALOVA, A.A.; YAKOVLEVA-SHIRMAN, I.V.

Some investigations of the clinical aspects, pathogenesis, and treatment of epilepsy. Trudy Gos. nauch.-issl. psikhonevr. inst. no.20:343-354 '59. (MIRA 14:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni V.M. Bekhtereva, Leningrad. (EPILEPSY)

SHATALOVA, A.A.; MEYEROV, G.I.; SAVINSKIY, Ya.R.

Possibility of quantitative determination of chromoproteins by
the radiometric method. Biokhimiia 25 no.4:577-583 U-Ag '60.
(MIRA 13:11)

1. V.M.Bekhterev Research Psychoneurologic Institute, Leningrad.
(BLOOD—ANALYSIS AND CHEMISTRY)
(HEMOGLOBIN) (CARBON—ISOTOPES)

SHATALOVA, A.A.; MEYEROV, G.I.

Radiometric determination of chlorides in the plasma and blood.
Biokhimiia 25 no.5:769-772 S-0 '60. (MIRA 14:1)

1. Biochemical Laboratory, Research Psychoneurological Institute,
Leningrad.

(CHLORIDES) (BLOOD---ANALYSIS AND CHEMISTRY)
(SILVER---ISOTOPES)

SHATALOVA, A.A.; MYAGER, V.K.

Adrenalin and noradrenalin content of the blood and its dynamic
significance in neuroses. Zhur. nevr.i psikh. 60 no.10:1338-1341
'60. (MIRA 14:1)

1. Nauchno-issledovatel'skiy psikhonevrologicheskiy institut imeni
V.M. Bekhtereva (dir. - prof. V.N. Myasishchev), Leningrad.
(ADRENALINE) (ARTERENOL) (NEUROSES)

SHVACHKA, V. G., and SHVACH, Ye. K., (USSR)

"Content of Adrenaline and Noradrenaline in Adrenal and
Brain Tissues and in the Blood of Rabbits in Convulsive
States."

Report presented at the 1st Int'l Biochemistry Congress,
Moscow, 12-16 Aug 1961.

SHATALOVA, A.A.; MEYEROV, G.I.

Radiometric methods in biochemistry and their use in medicine. Trudy Gos. nauch.-issl. psikhonevr. inst. no.24:247-262 '61. (MIRA 15:5)

1. Biokhimicheskaya laboratoriya Gosudarstvennogo nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni Bekhtereva.
(RADIOLOGY, MEDICAL)

SHATALOVA, A.A.; ANTONOVA, Ye.K.

Modification of Lund's method for determining adrenaline and noradrenalin in blood plasma. Trudy Gos. nauch.-issl. psikhonevr. inst. no.24:263-268 '61. (MIRA 15:5)

1. Biokhimicheskaya laboratoriya Gosudarstvennogo nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni Bekhtereva.
(ADRENALINE) (BLOOD PLASMA)

SHATALOVA, A.A.; MEYEROV, G.I.

Radiometric method for quantitative determination of hippuric acid in urine. Biokhimiia 26 no.3:444-447 My-Je '61.

(MIRA 14:6)

1. Nauchno-issledovatel'skiy psikhonevrologicheskii Institut imeni V.M.Bekhtereva, Leningrad.

(HIPPURIC ACID)

(CARBON—ISOTOPES)