MEL'KOV, N.I., inzh.

Provisional requirements of the T.S.F.S.R. River Fleet Register to pusher-tugs and vessles geing pushed. Sudostroenie 27 no.3:76 Mr '61. (MIRA 14:3)

(Towing)

L 08091-67 EWT(l)/EWT(m) FDN/WE

ACC NR: AP6029992 SOURCE CODE: UR/0413/66/000/015/0196/0196

INVENTOR: Zhukovskiy, A. I.; Orlovskiy, V. I.; Melkov, N. N.; Aleshin, V. A.; Kuteminskiy, Yu. A.; Valeyev, F. Sh.

ORG: none

TITLE: A device for introducing additives while fueling aircraft. Class 62, No. 184150

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 196

TOPIC TAGS: aircraft fuel system, fuel additive, aircraft fuel system equipment

ABSTRACT: An Author Certificate has been issued for a device for introducing additives while fueling an aircraft. It contains a tank for the additives with a measuring glass, receiving neck, and a drain tap connected with a pipe through a pump, a flow tap, and a sprayer with a fuel-supply line. For the automatic regulation of the fuel additive, its pump is connected to a vane pump, which is inside the fuel-supply line and is spun by the flow of fuel. [SA]

SUB CODE: 21, 01/ SUBM DATE: 14Mar64

Card 1/1 nlc UDC: 629.13.01/.06

MELKOVA, V.; SMUTNA, V.; OBERNAL, F.

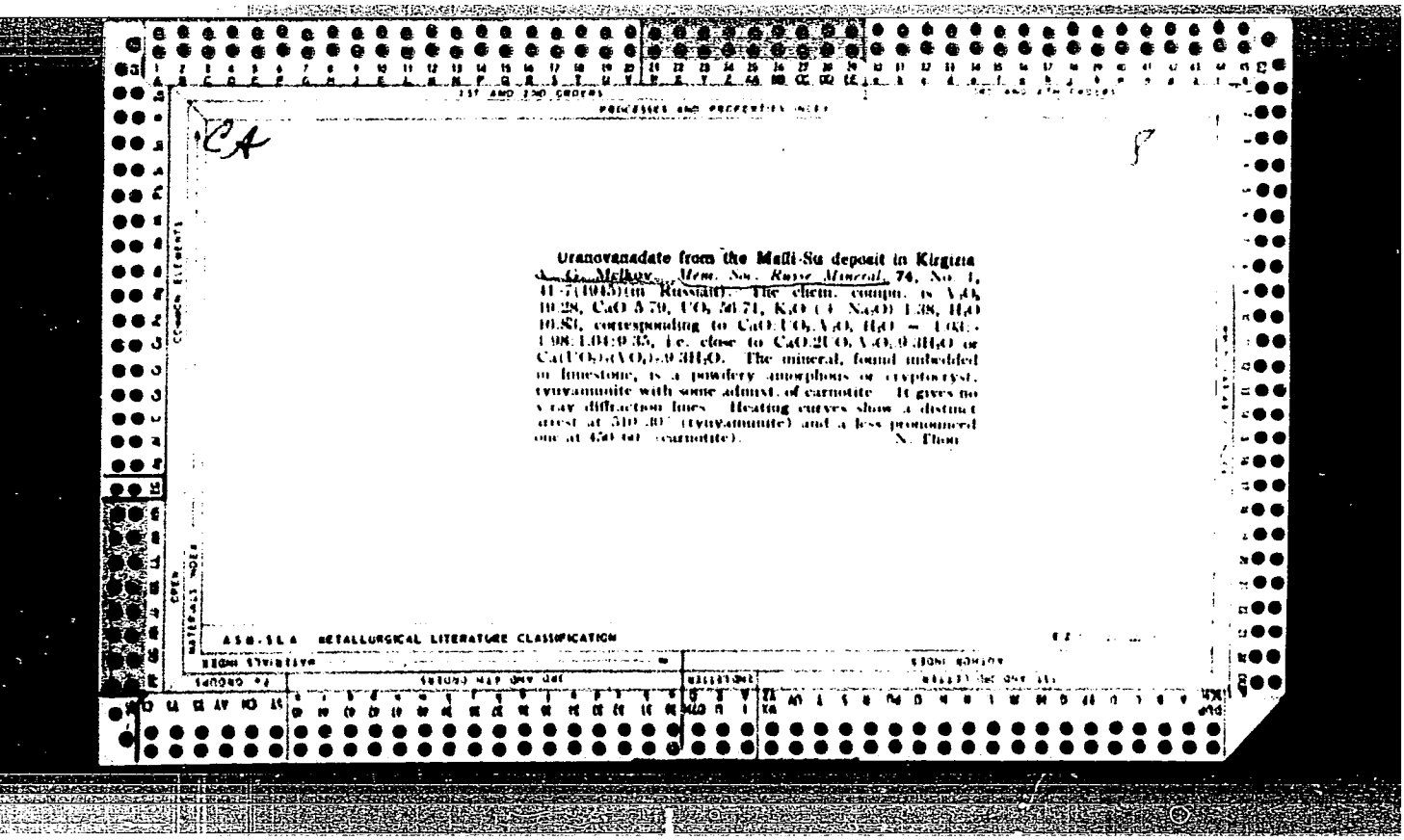
The effect of phosphate cement on dentin in the electron microscopic picture. Cesk. stomat. 65 no.5:325-330 S '65.

1. II. stomatologicka klinika lekarske fakulty University J.E. Purkyne v Brne (prednosta prof. dr. Jos. Svejda, DrSc.) a Vyzkumny ustav stavebnich hmot v Brne (prednosta inz. J. Zacek, CSc.).

Luminescence method for detecting uranium minerals and ores. U. G. Melkov and Z. M. Sverdlov (*Compt. rend. Acad. Sci. U.R.S.S.*, 1941, **32**, 361—362).—To obtain luminescent compounds from U-black, nasturan, and other ordinarily non-luminescent U ores, the minerals are sprayed with H_2SO_4, HNO_3, HCl, AcOH, or H_3PO_4. They then show luminescence when irradiated with short λ ultra-violet. The method can be used for detecting U minerals.

A. J. M.

Dokl. AN SSSR.



Uranovanadate from the Malli-Su deposit in Kirgizia

A. G. Melkov. *Mem. Soc. Russe Mineral.* **74**, No. 1, 41–7(1945)(in Russian). The chem. compn. is V_2O_5 10.28, CaO 3.70, UO_3 70.71, K_2O (+ Na_2O) 1.38, H_2O 10.81, corresponding to $CaO:UO_3:V_2O_5:H_2O$ = 1.01:1.98:1.04:9.35, i.e. close to $CaO·2UO_3·V_2O_5·9H_2O$ or $Ca(UO_2)_2(VO_4)_2·9H_2O$. The mineral, found imbedded in limestone, is a powdery amorphous or cryptocryst. tyuyamunite with some admixt. of carnotite. It gives no x-ray diffraction lines. Heating curves show a distinct arrest at 310–30° (tyuyamunite) and a less pronounced one at 450–60° (carnotite).

N. Thon

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1607
AUTHOR MELKOV, V.G.
TITLE Methods of Prospecting for Uranium Deposits.
PERIODICAL Atomnaja Energija, 1, fasc. 1, 83-90 (1956)
Issued: 3 / 1956

Uranium deposits occur in post-magmatic, sedimentary, and sedimentary-metamorphic rock. At the beginning of investigations one must distinguish between areas of equal geological structure and history, on which occasion postmagmatic strata and old basins with sediments are above all dealt with. There follow data concerning the geological and geohistorical formation of such developments as well as concerning the chemical disintegration of uranium.

Postmagmatic deposits of uranium are formed together with the latest products of magma-decomposition, enriched with silicon and volatile components. They do not occur in extensive fissures but in the accompanying sharp tectonic cracks. The strongest agglomerations are formed in crystalline rocks such as gneiss, quartzite, hornblende, etc. Uranium-containing rock is formed in several stages. If the uranium stages occur side by side during the process of mineralization, veins are formed which are characterized by complex uranium ores. Large deposits have few admixtures, small ones have many.

In the oxidation zones of sulphitic deposits horizontal strata are formed on top of the other, whereas in deposits without or with little sulphur these strata are less marked and less pronounced.

Atomnaja Energija, 1, fasc.1, 83-90 (1956) CARD 2 / 2 PA - 1607

In marine sediments a narrow uranium-containing stripe of some 100 m width occurs at a distance of some km from the coastline. In normal sedimentary rocks uranium is found in oxides, accompanied by organic substances, whereas in the case of a higher metamorphosis organic substances are transformed into anthracolites.

Whilst uranium prospecting from the air is the quickest method and facilitates the plotting of charts of γ -activity, prospecting with motor vehicles is carried out in areas of less probability according to the possibilities offered by existing traffic conditions.

Radiohydrometric methods offer the advantage that they disclose hidden ore deposits, and they are employed together with the other methods mentioned: Examination of emanation content, uranium content of the rock, luminescence tests carried out by night, and geobotanic methods.

INSTITUTION:

MELKOV, Vyacheslav Garrilovich. ; PUKHAL'SKIY, Leonid Cheslavich; YANISHEVSKIY, Ye.M. redaktor; SEMENOVA, M.V., redaktor izdatel'stva; POPOV, N.D., tekhnicheskiy redaktor.

[Uranium prospecting] Poiski mestorozhdenii urana. Pod red. E.M. IAnishevskogo. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geologii i okhrane nedr, 1957. 218 p. (MLRA 10:5)
(Uranium) (Prospecting)

AL'TGAUZEN, M.N.; GINZBURG, I.I.; DUBOVSKAYA, M.V.; YERSHOV, A.D.; MELKOV, V.G.; OS'KIN, N.I.; ROZHKOVA, Ye.V.; STRAKHOV, N.M.; KHRUSHCHOV, N.A.; SHMANENCHKOV, I.V.; SHCHERBAKOV, D.I.; YANSHIN, A.L.; AMIRASLANOV, A.A.; GOTMAN, Ya.D.; ZUBREV, I.N.; KOROVYAKOV, I.A.; ORLOVA, P.V.; PASOVA, F.G.; SAAKYAN, P.S.; TERENT'YEVA, K.F.; SHANOBSKIY, L.M.; CHERNOSVITOV, Yu.L.; SHCHERBINA, V.V.

IUrii Konstantinovich Goretskii; obituary. Sov.geol. 4 no.12: 153-155 D '61. (MIRA 15:2)
(Goretskii, Iurii Konstantinovich, 1912-1961)

FLOROVSKAYA, V.N.; MELKOV, V.G.

Bitumens in igneous rocks. Min.syr'e no.5:83-86 '62.
(MIRA 16:4)

(Bitumen--Geology)

MELKOV, V.G.; SERGEYEVA, A.M.

Some data on coffinite. Zap.Vses.min.ob-va 92 no.2:125-135 '62. (MIRA 15:6)

(Coffinite)

L 22837-66 EWT(m)/EWA(h)

ACC NR: AP6003828 SOURCE CODE: UR/0386/65/002/003/0120/0122

AUTHOR: Dolinov, V. K.; Melikov, Yu. V.; Tulinov, A. F. 44 B

ORG: Research Institute of Nuclear Physics of the Moscow State University im. M. V. Lomonosov (Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta)

TITLE: Angular distributions of α particles from the reactions $C^{12}(d, \alpha)B^{10}$ and $O^{16}(d, \alpha)N^{14}$ 19,44,55

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 3, 1965, 120-122

TOPIC TAGS: carbon, boron, oxygen, nitrogen, Alpha particle reaction, deuteron bombardment, angular distribution

ABSTRACT: As part of a study of nucleon clusters in light nuclei, the authors used deuterons accelerated to 12.4 Mev in a cyclotron to determine the angular distribution of the α particles from the reactions $C^{12}(d, \alpha)B^{10}$ and $O^{16}(d, \alpha)N^{14}$ at two values of the deuteron energy, 12.4 and 11.4 Mev. The target for the first reaction was a carbon film 130 $\mu g/cm^2$ thick, and for the second a lavsan film 890 $\mu g/cm^2$ thick. The particles were registered with silicon surface-barrier detectors. The

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L 22837-66

ACC NR: AP6003828 O

angle between detector and deuteron beam could be varied from 10 to 165°. Plots of the angular distributions of the particles from the reactions are presented. The characteristic peculiarities of the angular distributions and the relatively weak dependence of the distribution on the deuteron energy indicated that the direct interaction plays a predominant role. The data are presently the subject of a theoretical analysis from the point of view of various direct-reaction mechanisms. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 04Jun65

Card 2/2

GINDINA, M.M.; KOGANOVA, G.V.; LARICHEVA, G.M.; MELKOVA, A.Ye.; POLYAKOVA, M.G.; SKOBELKINA, I.F.; IKONNIKOV, V.V., prof. otvetstvennyy red. ROSHCHINA, L., red.izd-va; LEBEDEV, A., tekhn.red.

[State Bank of the U.S.S.R.; a brief account on the fortieth anniversary of the October Revolution] Gosudarstvennyi bank SSSR; kratkii ocherk k sorokaletiiu Oktiabria. Moskva, Gosfinizdat, 1957. 254 p. (MIRA 11:2)

1. Gosudarstvennyy bank, Moscow.
(Banks and banking)

MELKOVA, A.Ye.

BLAGOVA, Z.S., inzh.; MELKOVA, A.Ye., inzh.

Regenerating mineral suspensions in industrial and laboratory conditions. Sbor. inform. po obog. i brik. ugl. no.1:25-31 '57. (MIRA 11:4)
(Coal preparation--Equipment and supplies)

ACCESSION NR: AR5017565 UR/0058/65/000/006/H038/H038 33 B

SOURCE: Ref. zh. Fizika, Abs. 6Zh249

AUTHORS: Morozov, B. N.; Mel'kova, G. G.

TITLE: On the possible use of smooth slow-wave systems in waveguide cyclic accelerators 14

CITED SOURCE: Tr. Tomskogo in-ta radioelektron. i elektron. tekhn., v. 3, 1964, 119-125

TOPIC TAGS: cyclic accelerator, particle accelerator, waveguide, accelerator

TRANSLATION: The authors consider the characteristics of waves of different types propagating in a rectangular waveguide bent in the shape of a ring, from the point of view of using it in cyclic accelerators. Such a system has several advantages over periodic structures. A shortcoming of the system, however, is the presence of

Card 1/2

L 6285h-65

ACCESSION NR: AR5017565

higher modes, which possibly leads to difficulties when the system is used. I. Beluga

SUB CODE: NP, EC ENCL: 00

Card 2/2

ZAKHAROV, N.N.; LAKHMAN, E.I.; TAMARINA, Ye.S.; MELKOVA, L.M.

Degree of bacterial contamination of air in food preparation departments of public eating places. Gig.i san. no.1:34-38 Ja '54. (MLRA 6:12)

1. Iz sanitarno-epidemiologicheskoy stantsii Petrogradskogo rayona Leningrada.
(Restaurants, lunch rooms, etc.--Sanitation) (Air--Bacteriology)

KUSHTALOV, G.N.; MEL'KOVA, L.A.

Canned small fish and vegetables. Izv. vys. ucheb. zav.;pishch. tekh. no.3:74-78 '60. (MIRA 14:8)

1. Astrakhanskiy tekhnicheskiy institut rybnoy promyshelnnosti i khozyaystva, Kafedra tekhnologii rybnykh produktov.
(Fish, Canned) (Vegetables, Canned)

YARZHEMSKIY, Ya.Ya.; MELKOVA, N.V.; PROTOPOPOV, A.L.; BLAZKO, L.P.

Formation of gliding surfaces in some halogen rocks. Dokl. AN SSSR 148 no.5:1184-1185 F '63. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut galurgii, Leningrad. Predstavleno akademikom N.M.Strakhovym.
(Haloidite)

MELKOVA, T. S.

21

3

1/A method of determining sound velocity at the critical state. V. F. Nozdrev and T. S. Melkova. *Uchenye Zapiski Moskov. Oblast. Pedagog. Inst.* 33, 201–9(1956); *Referat. Zhur., Khim.* 1956, Abstr. No. 12316.—When the dependence of d. ρ on the temp. of a liquid and vapor in equil. is graphically illustrated, parabolic curves with a straight-line diam. are obtained, i.e. arithmetical means of the d. of the liquid and vapor are distributed on a straight line. Owing to considerable difficulties of direct detn. of sound velocity $C_{cr.}$ at the crit. point, it is preferred to apply the rule of the straight-line diam. and to det. $C_{cr.}$ by extrapolation of data pertaining to states close to the critical. By this method $C_{cr.}$ was detd. for hexane, heptane, MeOAc, EtOAc, PrOAc, iso-BuOH, and EtOH. "Sound inflexibilities" $r = \rho C$ behave similarly, a fact that can also be used for calcn. of sound velocity. The 2 methods give equally accurate results and the agreement with expt. data obtained by other methods is very satisfactory. Expt. values for sound velocity comply well with the law of conforming states; this permits the detn. of $C_{cr.}$ values for any chosen material on the basis of $C_{cr.}$ values known for a single other material. The accuracy of the detn. of $C_{cr.}$ by the method of straight-line diam. depends on the no. of experimentally obtained points located in the vicinity of the crit. point. J. Mioszewska

1/1

MELKOVA, Ye.P.

Formation of Oligocene-Miocene underground waters in the Turgay Gates and their utilization in the water supply [with summary in English]. Sov. geol. 1 no.10:139-154 O '58. (MIRA 12:3)

1.Moskovskiy gorodskoy proyektno-izyskatel'nyy institut po transportu, Ministerstva transportnogo stroitel'stva SSSR.
(Turgay Gates--Water, Underground)

MELKOVA, Ye.P., Cand Geo-Mineral Sci - (diss) "Investigation of the conditions for the formation of the fresh subsurface waters in the northern region of the Turgay depression and their meaning for the solution of industrial water supply problems." Moscow, 1960, 21 pp (Moscow State Univ im M. V. Lomonosov) (KL, 34-60, 121)

MELKOVA, Ye.P., kand.geol.-mineral.nauk; ZAYTSEV, A.S., inzh.

Prospecting for ground water. Transp. stroi. 13 no.7:30-32 Jl '63.
(Water, Underground)

MELKOVSKIY, A. K.

Melkovskiy, A. K. "The milk supply of Saratov in the post-war five-year plan", Saratov, Issue 7, 1948, pp. 32-46.

SO: U-3261, 10 April 53 (Letop's 'Zhurnal 'nykh Statey No. 11, 1949)

MELKOZERNOVA, M.

Supply branches with practical payment and receiving plans. Den. i kred. 21 no.9:58-59 S '63. (MIRA 16:10)

1. Upravlyayushchiy Pashiyskim otdeleniyem Gosbanka.

ACC NR: AM6029767 Monograph UR/

Melkozerov, Petr Semenovich

Drives in automatic control systems; energy characteristics and selection of parameters (Privody v sistemakh avtomaticheskogo upravleniya; energeticheskiy raschet i vybor parametrov) Moscow, Izd-vo "Energiya", 1966. 383 p. illus., biblio. Errata slip inserted. 11,000 copies printed.

TOPIC TAGS: automatic control, automatic control system, automatic control design, linear automatic control, nonlinear automatic control, automatic control equipment, automatic control technology, automatic control theory, automatic control DRIVE

PURPOSE AND COVERAGE: This book is intended for engineers working in the design and construction of drives used in automatic control systems, and students studying the theory of automatic control. The author discusses various problems encountered in the design and construction of automatic-control drives. Emphasis is on the computation of energy characteristics which ensure the performance criteria prescribed for such automatic control systems, the selection of basic parameters, and the development of nonlinear structural block diagrams and electronic drive model taking into account the nonlinear characteristics. There are 92 references of which 84 are Soviet.

Card 1/2 UDC: 62-52

ACC NR: AM6029767

TABLE OF CONTENTS [abridged]:

SUB CODE: 09, 13/ SUBM DATE: 14Apr66/ ORIG REF: 086/ OTH REF: 006/

Card 2/2

GRINEVICH, Feodosiy Borisovich; KARANDEYEV, K.B., otv. red.; MELKOZEROVA, T.B., red.

[Automatic a.c. bridges] Avtomaticheskie mosty peremennogo toka. Novosibirsk, Red.izd.otdel Sibirskogo otd-niia AN SSSR, 1964. 213 p. (MIRA 17:8)

MELKS, E.; YANKOVSKIY, G. [Jankovskis, G.]; PRAULITE, G.

Electroencephalographic data of mechanoreceptor and baroreceptor stimulation of the wall of the uterus on the cerebral cortex of a pregnant woman. Vestis Latv ak no.2:109-115 '62.

1. Institut eksperimental'noy i klinicheskoy meditsiny AN Latviyskoy SSR.

*

MELKS, E.; PRESS, B.

Regeneration of the uterine mucosa following abortion by means of vacuum excochleation. Vestis Latv ak no.3:113-118 '62.

1. Institut eksperimental'noy i klinicheskoy meditsiny AN Latviyskoy SSR.

MEL'KULOV, L.G.

Mechanization and automation of surface operations of coal mines.
Biul.tekh.-ekon.inform. no.1:12-19 '61. (MIRA 14:2)
(Coal mines and mining--Automation)
(Coal mining machinery--Technological innovations)

MEL'KUMOV, A.

Join our ranks! Sov. profsoiuzy 19 no.1:28-29 Ja '63.
(MIRA 16:1)

1. Zaveduyushchiy otdelom po rabote s kinolyubitelyami TSentral'noy studii televideniya.

(Amateur motion pictures)

MEL'KUMOV, A.

Against deficiencies with a motion-picture camera. Sov. profsoiuzy 20 no.3:26-27 F '64. (MIRA 17:3)

PA40T14

MEL'KUMOV, A. M.

USSR/Electricity May 1947
Safety Devices
Electric Systems - Protection

"New Low Voltage Safety Devices with High Safety Factor," A. M. Mel'kumov, Candidate of Technical Sciences, Z. I. Zhironkina, Engr, All-Union Electrotechnical Institute, 6 pp

"Elektrichestvo" No 5

Due to widespread feeling that contemporary low voltage safety devices had many deficiencies, Soviet ingenuity produced a whole series of new safety devices. As a result of studies conducted on these devices, authors were able to decide on new safety devices, authors were able to decide on

World

ID

USSR/Electricity (Contd) May 1947

relative merits of each of the new types. They describe a safety device with a capacity of 550 V, filled with quartz sand. Discuss construction and operation of this safety device, the PR-1.

ID

World

MEL'KUMOV, A. M. IA 2415

USSR/Electricity Aug 1947
Switches, Electric
Electric Systems - Protection

"Accidents with Cutout Switches, Type MGG," A. M. Mel'kumov, Candidate in Technical Sciences, 3 pp

"Vestnik Elektro-Promyshlennosti" No 8

Accidents occur due to bad installation and careless operation. This is true even where cutout switches contain arc quenching contacts. Proper installation is of prime importance, however, in the case where the main contacts are in air (type MGG, MGF and others), and do not have spark arrestors. The author is associated with VEI.

2415

Investigations on the Use of Metallic Solvents in Fuse Elements. A. N. Melkunov (Elektrichestvo, 1949, (6), 9-13; Elect. Eng. Abs., 1950, 53,71).-(In Russian). Fuses so loaded as to blow only after a long time may become hot and thermal stresses in the porcelain tube excessive. The general temp. of the fuse can be reduced by nicking the elements or by applying to the wire a bead of some low-m.p. metal (tin was found suitable) which, when melted, dissolves the fuse wire and increases its resistance locally. If the fusing time is > 30 min. the solvent bead reduces the average temp. of the wire at the instant of fusing by 240°-430°C., and the temp. of the outer tube is then < 230°C., which is safe. With a fuse wire 0·6 mm. in dia., minimum fusing time is obtained with a bead 1-2mm. in dia., larger wires requiring larger beads. The bead must be applied quickly, and its effect depends somewhat on its position on the wire. The fuse characteristics remained unaltered by prolonged loading below the minimum fusing current, but short overloads reduced the latter.

KOSTROV, M.F.; BIRYUKOV, V.G.; SIROTINSKIY, L.I.; KISLOV, A.N.; KOZHUKHOV, V.K.; AKOPYAN, A.A.; MEL'KUMOV, A.M.; LARIONOV, V.P.

Professor G.V.Butkevich. Fiftieth anniversary of his birth. Elektrichestvo no.10:92 O '53. (MLRA 6:10)

(Butkevich, Georgii Vladimirovich, 1903-)

MEL'KUMOV, A.M., kand. tekhn. nauk

Small oil-filled switches. Elektrotekhnika 34 no.10:6-10 O '63. (MIRA 16:11)

MELKUMOV, G.A.

State of the cardiovascular system in aged patients with pulmonary tuberculosis during antibacterial treatment. Probl. tub. 42 no.3: 39-44 '64. (MIRA 18:1)

1. TSentral'nyy institut tuberkuleza (direktor - deystvitel'nyy chlen AMN SSSR prof. N.A.Shmelev) Ministerstva zdravookhraneniya SSSR, Moskva.

36652
S/129/62/000/004/003/010
E073/E535

AUTHORS: Boyarinova, A.P., Mel'kumov, I.N., Brusilovskiy, B.S. and Kontsevaya, Ye.M., Engineers

TITLE: Causes of brittle fracture of the nickel-chromium-aluminium alloy ЭИ652 (EI652)

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no.4, 1962, 14-17 + 1 plate

TEXT: In the production of cold rolled 3 mm sheet from the alloy EI652 large cracks were frequently observed after intermediate hot rolling to 4.1 mm. In this paper the results are given of special investigations made for determining the causes of formation of such cracks and the method of eliminating them. In the investigations three experimental nickel-base heats of the following compositions were used:

Table 1

No.	Cr	Al	Si	Mn	S	P	Fe
1	26.80	3.00	0.25	0.06	0.007	0.006	0.46
2	28.08	3.35	0.23	0.07	0.009	0.006	0.44
3	27.00	3.14	0.22	0.07	0.007	0.005	0.60

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S/129/62/000/004/003/010
E073/E535

Causes of brittle fracture ...

All the three heats contained 0.05% C and 1.03% "Ze". It was found that the cause of brittle failure of the alloy in the hot rolled state is the slow cooling in the temperature range 700 to 600°C, during which the solid solution decomposes and an inter-metallide phase of the type Ni_3Al forms. The quantity of the rejected phase depends on the time during which the alloy is within the dangerous temperature range. Combined with the stresses caused by work-hardening and also the thermal stresses, the rejection of the intermetallide phase leads to the formation of cracks. To prevent cracking, the breakdowns should be cooled separately (to 200°C) before stacking. There are 3 figures and 3 tables.

[Abstracter's note: 1.03% Ze is obviously a printing error.]

ASSOCIATIONS: Zavody "Elektrostal'" ("Elektrostal'" Works) and "Serp i Molot"

Card 2/2

ACCESSION NR: AP4029125 S/0133/64/000/004/0320/0323

AUTHORS: Molikhov, P. I.; Boyarinova, A. P.; Grashchenkov, P. M.; Mel'kumov, I. N.

TITLE: Industrial development of smelting new stainless heat-resistant steel SN-2 (EI904)

SOURCE: Stal', no. 4, 1964, 320-323

TOPIC TAGS: steel, stainless steel, stainless heat-resisting steel, steel SN-2 (EI904), austenite-martensite steel, carbon admixture, nickel admixture, phase composition

ABSTRACT: Austenitic-martensitic steel SN-2 (EI904) is now being smelted in arc furnaces of industrial capacity. Small inclusions of carbon and nickel alter the phase composition of steel, thus giving it the desired properties. The chemical composition of the steel (in %) is:

C	Mn	Si	Cr
0,05—0,09	<0,7	<0,7	14,8—16,5

Ni	Al	S	P
7,0—9,4	0,9—1,4	<0,025	<0,025

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ACCESSION NR: AP4029125

In normalized condition SN-2 is austenitic, soft, and extremely malleable; it becomes martensitic and acquires higher strength in quenching. The addition of carbon is most effective in imparting austenitic structure. Since the martensitic structure is magnetic and austenitic is not, the state of this intermediate steel may best be determined by its magnetic properties. This is accomplished by placing a sample in a magnetizing coil of a device designed by G. D. Kuby*shkina. In the presence of magnetic phase the interaction of the primary and the secondary coils of this device motivate an indicator needle. Steel SN-2 is produced in 5- and 20-ton furnaces, either of fresh materials without oxidation or of carbon-bearing materials oxidized with iron ore and oxygen). Batches (with aluminum added were designed to contain a high amount of martensite, and carbon was introduced to produce the transitional austenitic-martensitic phase structure. The resulting material was classified as "soft" (magnetism.M = 3-11 mv) or as "hard" (M = 12-18 mv). After proper alloying and purification, the batches were blown through with argon and cast into ingots of 500, 1000, and 2100 kg. The ladle temperature of metal in 5-ton furnaces was 1540-1615C, in 20-ton furnaces 1530-1660C (measured with a submerged thermocouple). Small ingots were stripped and forged, while the 2100-kg ones were hot-pressed in the rough condition. All the samples showed acceptable properties, except that those with magnetization of

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ACCESSION NR: AP4029125

15.1 and 17.3 mv were low in toughness. This characteristic may be remedied, however, by lowering the aging temperature from 500 to 450C. Orig. art. has: 2 graphs and 4 tables.

ASSOCIATION: none

SUBMITTED: 00	DATE ACQ: 28Apr64	ENCL: 00
SUB CODE: ML	NO REF SOV: 001	OTHER: 001

Card 3/3

N L 11133-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) MJW/JD

ACC NR: AP6000611 SOURCE CODE: UR/0129/65/000/012/0043/0047

AUTHOR: Boyarinova, A. P.; Mel'kumov, L. N.

ORG: Elektrostal' Metallurgical Plant (Zavod "Elektrostal'")

TITLE: Structure and properties of Kh16N6 (EP288) stainless steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 12, 1965, 43-47

TOPIC TAGS: steel, stainless steel, austenitic steel, solid mechanical property, metal grain structure, EP288 steel, Kh 16N6 steel

ABSTRACT: The structure and mechanical properties of three heats of Kh16N6 (EP288) stainless steel have been studied. The heats had almost identical composition — 0.7—0.8% carbon, 0.41—0.57% silicon, 0.25—0.56% manganese, 15.85—16.27% chromium, and 6.20—6.75% nickel—but differed in the content of the magnetic phase [Determined by a magnetometer suggested by G. D. Kubyshkina (Stal' no. 4, 1964, 320-323) calibrated in millivolts]. After annealing at 1050—1075C and air cooling, the most magnetic (15.5 mv) heat 3 had a tensile strength of 127 kg/mm^2, a yield strength of 29 kg/mm^2, an elongation of 19%, and a reduction of area of 39% compared to 102 kg/mm^2, 20 kg/mm^2, 29%, and 42% for the least magnetic (3.6 mv) heat 1. Annealing followed by refrigeration at -70C and aging at 425C for 2 hr increased the tensile and yield strength of heat 3 to 133 and 115 kg/mm^2, respectively; elongation dropped to 18%, but reduction of area increased to 70%. Corresponding figures for heat 1 were 128 and

Card 1/3 UDC: 620.17:669.14.018.84

106 kg/mm^2 and 23% and 70%. All three heats had a high notch toughness of 14 to 16 mkg/cm^2. All three heats maintained high mechanical properties at temperatures up to 400—450C (see Fig. 1). Lower annealing temperature resulted in lower strength and notch toughness. The most effective refrigerating range is -50 to -70C. Higher refrigeration temperatures result in lower strength while temperatures below -70C have only an insignificant additional effect. All three heats in the annealed

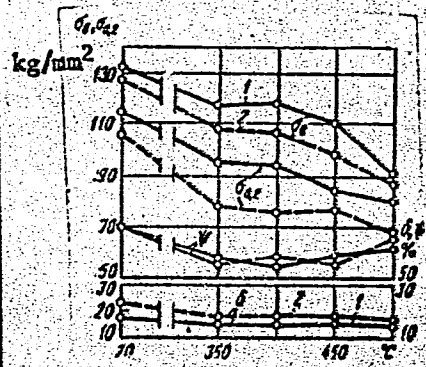

Fig. 1. Temperature dependence of tensile strength (σ_B), yield strength ($\sigma_{0,2}$), elongation (δ), and reduction of area (ψ) for heats with a high (1) and low (2) content of the magnetic phase

condition had the same structure: austenite with a small amount of martensite. According to x-ray diffraction analysis, the martensite content in all three heats was the same, about 40%. Refrigeration and aging increased the martensite content to about 90% in all three heats. However, isolated areas of residual austenite were observed in the least magnetic heat. Thus, the properties of Kh16N6 steel

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after annealing and strengthening treatment depend primarily on the initial content of the magnetic phase. The best properties are achieved in steels with a content of the magnetic phase corresponding to 15 mv. Orig. art. has: 4 figures and 2 tables.

[DV]

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001/ ATD PRESS: 4174

Card 3/3

MEL'KUMOV, Lev Georgiyevich; NAZAROV, Petr Petrovich; ORLOV, Yevgeniy Ivanovich; FILIMONOV, Nikolay Andreyevich; KOZIN, Yu.V., redaktor; KOROVENKOVA, Z.A., tekhnicheskiy redaktor; ALADOVA, Ye.I., tekhnicheskiy redaktor

[Mining machinery] Gornye mashiny. Moskva, Ugletekhizdat, 1955. 458 p. (MIRA 9:4)

(Mining machinery)

TERPIGOREVA, Vera Dmitriyevna; MATVEYEV, Sergey Dmitriyevich; MEL'KUMOV, L.G., otvetstvennyy redaktor; KHODNEVA, I.V., redaktor izdatel'stva; ALODOVA, Ye.I., tekhnicheskiy redaktor

Electricity. Moskva, Ugletekhizdat. [with English-Russian dictionary] No.3. 1956. 88 p. (MLRA 10:5)
(Electricity)

DREYER, Georg Iosifovich; MELIKUMOV, L.G., otvetstvennyy redaktor; ZAPREYEVA, K.A., redaktor izdatel'stva; ALADOVA, Ye.I., tekhnicheskiy redaktor

[Electric equipment of multibucket excavators] Elektrooborudovanie mnogocherpakovykh ekskavatorov. Moskva, Ugletekhizdat, 1956. 218 p. (Excavating machinery) (MIRA 10:3)

MEL'KUMOV, L.G.

SUPRYAGA, Yakov Andreyevich; MEL'KUMOV, L.G., otvetstvennyy red.; KOLOMIYTSEV, A.D., red.izd-va; ALADOVA, Ye.I., tekhn.red.

[Belt conveyor stacker for open-pit mines] Lentochnye otvalo-obrazovateli na otkrytykh gornykh rabotakh. Moskva, Ugletekhizdat, 1957. 75 p. (MIRA 11:6)
(Conveying machinery) (Mining machinery)

Mel'kumov, L.G.

AL'TSHULER, Z.Ye., inzh.; BASTUNSKIY, M.A., inzh.; BERSTEL', V.M., inzh.; BIRENBERG, I.E., inzh.; BOGOPOLSKIY, B.Kh., inzh.; BUKHARIN, S.I., inzh.; GERSHTEYN, B.G., inzh.; GRINSHPUN, L.V., inzh.; DREYYER, G.I., inzh.; DINERSHTEYN, A.G., inzh.; ZLATOPOL'SKIY, D.S., inzh.; KLAMYUK, A.V., inzh.; KOZIN, Yu.V., inzh.; LEVITIN, I.P., inzh.; MEL'NIKOV, L.F., inzh.; MEL'KUMOV, L.G., inzh.; MADEL', M.B., inzh.; PAVLOV, N.A., inzh.; PASHEN, D.A., inzh.; PESIN, B.Ya., inzh.; PYATKOVSKIY, P.I., inzh.; RAZNOSCHIKOV, D.V., inzh.; ROZENOYER, G.Ya., inzh.; ROZENBERG, R.L., inzh.; ROYTENBERG, N.L., inzh.; RYABINSKIY, Ya.I., inzh.; SYPCHENKO, I.I., inzh.; TABACHNIKOV, L.D., inzh.; FEL'DMAN, M.S., inzh.; SHTRAKHMAN, G.Ya., inzh.; SHTERENGAS, M.S., inzh.; LEVITIN, I.P., otvetstvennyy red.; STEL'MAKH, A.M., red.izd-va; BEKKER, O.G., tekhn.red.

[Overall mechanization and automatization of production processes in the coal industry] Kompleksnaia mekhanizatsiia i avtomatizatsiia proizvodstvennykh protsessov v ugol'noi promyshlennosti. Pod red. IU.V.Kozina i dr. Moskva, Ugletekhizdat, 1957. 82 p. (MIRA 11:3)

1. Gosudarstvennyy proyektno-konstruktorskiy institut. 2. Institut Giprougleavtomatizatsiya i Tekhnicheskogo Upravleniya Ministerstva ugol'noy promyshlennosti (for all except: Levitin, Stel'makh, Bekker)

(Automatic control) (Coal mining machinery)

MEL'KUMOV, L.G.

BIRENBERG, I.E., inzhener; KOZIN, Yu.V.; MEL'KUMOV, L.G.

Spark-safe instruments and devices. Bezop.truda v prom. 1 no.6:17-20 Je '57. (MIRA 10:7)
(Electric instruments) (Electricity in mining)

MEL'KUMOV, L.G.

KOSMINSKIY, B.M., kand.ekon.nauk; MATVEYEV, S.D.; TERPIGOREVA, V.D.; VOROB'YEV, B.M., kand.tekhn.nauk, otv.red.; MEL'KUMOV, L.G., gorn.inzh., otv.red.; GADZHINSKAYA, M.A., red.-izd-va; ALADOVA, Ye.I., tekhn.red.

[English-Russian mining engineering dictionary] Anglo-russkii gornotekhnicheskii slovar'. Pod red. B.M.Vorob'eva i L.G.Mel'-kumova. Moskva, Ugletekhizdat, 1958. 478 p. (MIRA 11:12)
(Mining engineering--Dictionaries)
(English language--Dictionaries--Russian)

DOKUKIN, A.V., prof., doktor tekhn.nauk, red.; KOZIN, Yu.V., inzh., red.; LIVSHITS, I.I., kand.tekhn.nauk, red.; MEL'KUMOV, L.G., inzh., red.; SNAGOVSKIY, Ye.S., kand.tekhn.nauk, red.; GRINSHPUN, L.V., inzh., red.; MIRSKAYA, V.V., red.izd-va; ALADOVA, Ye.I., tekhn. red.; SHKLYAR, S.Ya., tekhn.red.

[Automation in coal mining]Avtomatizatsiia v ugol'noi promyshlennosti. Ugletekhizdat, 1959. 221 p. (MIRA 12:8)
(Automation) (Coal mines and mining)

14(5) SOV/118-59-2-2/26

AUTHOR: Mel'kumov, L.G., Chief Engineer

TITLE: The Automation of Underground Transportation and Hoisting Installations in Coal Mines (Ob avtomatizatsii podzemnogo transporta i pod"yëmnykh ustanovok na ugol'nykh shakhtakh)

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, 1959, Nr 2, pp 6-12 (USSR)

ABSTRACT: The All-Union, Donetskiy (Donets), Kuznetskiy (Kuznetsk), Karagandinskiy (Karaganda), Pechorskiy (Pechora) nauchno-issledovatel'skiy ugol'nyy institut (Scientific Research Institute of Coal Mining), the Dongiprouglemash, etc. have developed various systems of remote control of conveyer lines, which have been introduced already in many mines. The existing automatic remote control systems however have proved to have many serious deficiencies, such as multiwire control circuits, multi-relay and multicontact schemes, bulky and complicated speed relays

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and lack of automatic warning signals. At present "Giprougleavtomatizatsiya" Institute has worked out an improved system of automatic conveyer control with additional devices to increase the dependability of conveyer lines. The developed double-line systems are universal and may be used for branched, unbranched-stationary, semi-stationary and mobile conveyer lines. The system is based on the telemechanic principle of signal transmission and is operated without any servicing personnel. All types of speed relays (e.g. VIRS and RUK) may be used. Every conveyer needs an electromagnetic relay, working on transistor (germanium diodes) elements, which ensure the starting and operational control of the conveyer. The new system foresees automatic warning signals before the conveyer line starts moving; the successive automatic start of the conveyer motion in the direction of the goods traffic or inversely; the possibility of setting

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in motion any number of conveyers; the additional starting of the remaining conveyers without stopping those, which are operating; the possibility of stopping the conveyer from any point of the line; time control ensuring the correct starting of every conveyer; the disconnection of branch-lines without stopping the remaining conveyer lines; automatic emergency stopping in case of accidents; double-sided operational and emergency signalling; remote control of all conveyer lines from the control panel; and simple transition to manual control. An experimental model of the installation has been produced by the Konotopskiy zavod "Krasnyy metallist" (the Konotop Plant "Krasnyy metallist") and will be tested in the near future in mines. The task of future improvements should be solved by the scientific-research and project organizations, such as VUGI,

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"Giprougleavtomatizatsiya", Giprouglemash, and the local coal field institutes in cooperation with plants, e.g. the Konotop Plant "Krasnyy metallist", the Dnepropetrovskiy zavod selenovykh vypryamiteley (the Dnepropetrovsk Seletron Plant), the Krasnoluchskiy (Krasnyy Luch) mashzavod, etc. It is planned to automate all conveyer lines in coal mines within 5-6 years. The article also deals with the mechanization and automation of underground loading operations, e.g. a mobile automatic loading device and a vibropacker, both designed by the "Giprougleavtomatizatsiya" Institute. It is planned to automate cable haulage with winches or to replace it by modern equipment (conveyer and skip hoisting devices). The "Giprougleavtomatizatsiya" has developed an installation for automatically exchanging coal cars by remote control. The Stalingiproshakht, TsKB "Elektroprivod", Dongiprouglemash, Don UGI, Yuzhgiproshakht, Karagandagiproshakht,

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Giprougleavtomatizatsiya, the "Kuzbassugol'" Combine etc. have already introduced various automated hoisting devices in coal mines (in the Moscow area - 25, in the Donbass - 5, in Karaganda - 2, etc). In cooperation with the TsKB "Elektroprivod", the Giprougleavtomatizatsiya" has developed an asynchronous valve cascade for the driving gear of hoisting machines, the principle of which is to introduce into the rotor circuit of the asynchronous engine additional electromotive voltage (as power source a mercury regenerator may be used) for the regulation of the rotating speed. It is planned to automate within the next 3-5 years all lifting operations in mines; new automatic systems (using frequency control, valve cascades, fluid rheostats etc) will be worked out and tested; all loading and unloading operations will be either modernized or automatized. There are

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3 photographs and 3 diagrams.

ASSOCIATION: Institut "Giprougleavtomatizatsiya" (the "Giprougleavtomatizatsiya" Institute)

Card 6/6

KOZIN, Yu.V., inzh.; GRINSHPUN, L.V., inzh.; MEL'KUMOV, L.G., inzh.

Automatization is the most important condition for the safety of miners. Bezop.truda v prom. 3 no.9:1-4 S '59. (MIRA 13:2)

1. Giprougleavtomatizatsiya.
(Coal mines and mining) (Automatization)

BUCHNEV, V.K., prof., doktor tekhn. nauk; KALININ, R.A., dotsent; KORABLEV, A.A., kand. tekhn. nauk; MONIN, G.I., inzh.; BELYAYEV, V.S., kand. tekhn. nauk; MERKULOV, V.Ye., inzh.; ALEKSEYENKO, V.D., inzh.; IL'SHTEYN, A.M., kand. tekhn.nauk; GELESKUL, M.N., kand. tekhn.nauk; KOBISHCHANOV, M.A., kand. tekhn.nauk; DOBROVOL'SKIY, V.V., kand. tekhn. nauk; MALYSHEV, A.G., inzh.; VOROPAYEV, A.F., prof., doktor tekhn. nauk; LIDIN, G.D., prof., doktor tekhn.nauk; TOPCHIYEV, A.V., prof.; VEDERNIKOV, V.I., kand. tekhn.nauk; KUZ'MICH, I.A., kand. tekhn. nauk; LEYTES, Z.M., inzh.; SYSOYEVA, V.A., kand. tekhn. nauk; MELAMED, Z.M., kand. tekhn.nauk; CHERNAVKIN, N.N., inzh.; KARPILOVICH, M.Sh., inzh.; MEL'KUMOV, L.G., inzh.; BOGOPOL'SKIY, B.Kh., inzh.; FROLOV, A.G., doktor tekhn.nauk; KHVOSTOV, F.K., inzh.; BAGASHEV, M.K., kand. tekhn. nauk; KAMINSKIY, I.N., inzh.; PETROVICH, T.I., inzh.; ZHUKOV, V.V., red. izd-va; LOMILINA, L.N., tekhn. red.; PROZOROVSKAYA, V.L., tekhn. red.

[Mining engineers' handbook]Spravochnik gornogo inzhenera. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1960. (MIRA 14:1)

(Mining engineering--Handbooks, manuals, etc.)

KOZIN, Yuriy Vladimirovich; MEL'KUMOV, Lev Georgiyevich; BOGOPOL'SKIY, Beko Khanmovich; GRINSHPUN, Lev Veniaminovich; FEL'DMAN, Yelizar Samoylovich; ABRAMOV, V.I., red.izd-va; BOLDYREVA, Z.A., tekhn.red.

[Automation of operations at the surface of coal mine shafts] Avtomatizatsiia protsessov na poverkhnosti ugol'nykh shakht. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 254 p. (MIRA 14:4)
(Automation) (Coal mines and mining)

MEL'KUMOV, L.G.

Automation improves safe working conditions. Bezop.truda v prom. 5 no.9:3-5 S '61. (MIRA 14:10)

1. Glavnyy inzh. instituta Giprougleavtomatizatsiya.
(Coal mines and mining--Safety measures) (Automation)

MEL'KUMOV, Lev Georgiyevich; ORLOV, Yevgeniy Ivanovich; FILIMONOV, Nikolay Andreyevich; LYUBIMOV, N.G., otv. red.; LOMILINA, L.N., tekhn. red.

[Mining machinery for strip mining]Gornye mashiny dlia otkrytykh rabot. Moskva, Gosgortekhizdat, 1962. 470 p. (MIRA 15:12)

(Mining machinery)

MEL'KUMOV, L.G.

Automation of mining machines and mechanisms and the outlook for its development. Biul. tekh.-ekon.inform.Gos.nauch.-issl.inst. nauch. i tekh. inform. 16 no.5:5-9'63. (MIRA 16:7)
(Mining machinery) (Automation)

MEL'KUMOV, Lev Georgiyevich; POCOPOL'SKIY, Boko Khaimovich; BERLOVSKIY, Vyacheslav Mikhaylovich; KOVALEV, Yuriy Sergeyevich; KOZIN, Yuriy Vladimirovich; NAYMAN, Artur Yefimovich; FEL'DMAN, Yelizar Samoylovich; SHUVAYEV, Anatoliy Andreyevich [deceased]; KORENDYAYEV, G.V., otv. red.; BELOV, V.S., red. izd-va; LOMILINA, L.N., tekhn. red.; IL'INSKAYA, G.M., tekhn. red.

[Automatic control of mine compressor stations] Avtomatizatsiia shakhtnykh kompressornykh stantsii. Moskva, Gosgortekhizdat, 1963. 151 p. (MIRA 16:8)
(Automatic control) (Air compressors)

KORABLEV, Anatoliy Aleksandrovich; TSENTNARSKIY, Igor' Aleksandrovich; KOVALEV, Yuriy Sergeyevich; AKUL'SHIN, A.F., inzh., retsenzent; MEL'KUMOV, L.G., inzh., retsenzent; BOGOPOL'SKIY, B.Kh., otv. red.; ABRAMOV, V.I., red.izd-va; ZHIVRINA, G.V., tekhn. red.; BOLDYREVA, Z.A., tekhn. red.

[Handbook for mine electricians servicing automatic control devices] Spravochnik elektroslesaria shakhty po obsluzhivaniiu avtomaticheskikh ustanovok. Moskva, Gosgortekhizdat, 1963. 192 p. (MIRA 17:3)

MEL'KUMOV, Lev Georgiyevich; BOGOPOL'SKIY, Beko Khaimovich; BAKKAL, Rober Aleksandrovich; VARTANYANTS, A.M., retsenzent; MIRSKAYA, V.V., red.izd-va; MAKSIMOVA, V.V., tekhn. red.

[Handbook on automatic control systems for mines] Spravochnik po avtomatizatsii shakht i rudnikov. Moskva, Izd-vo "Nedra," 1964. 488 p. (MIRA 17:2)

MEL'KUMOV, L.G., inzh.; GINZBURG, V.B., inzh.; ARONOVA, M.I., inzh.

Increasing the reliability of instruments for the automatic control of mine drainage. Gor. zhur. no.6:58-60 Je '64.
(MIRA 17:11)

1. Gosudarstvennyy institut po mekhanizatsii i avtomatizatsii shakht, ugleobogatitel'nykh fabrik i otkrytykh razrabotok ugol'noy promyshlennosti, Moskva.

MEL'KUMOV, L.G.; BOGOPOL'SKIY, B.Kh.

Sets of automatic electric drives for stationary mine installations. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.4:9-12 Ap '64. (MIRA 17:6)

GINZBURG, V.B., inzh.; MEL'KUMOV, L.G., inzh.; RABINOVICH, M.S., kand. tekhn. nauk

Reliability of the speed control relay. Mekh. i avtom. proizv. 18 no.1:39-40 Ja '64. (MIRA 17:8)

MEL'KUMOV, L. G.

Overall mechanization and automation in mines. Mekh. i avtom. proizv. 18 no. 5:1-8 My '64. (MIRA 17:5)

1. Glavnyy inzh. Gosudarstvennogo proyektno-konstruktorskogo instituta avtomatizatsii rabot v ugol'noy promyshlennosti.

MEL'KUMOV, L.G., GINZBURG, V.B.

Stands and devices for conducting reliability tests of automatic control equipment used in coal mining. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.3:15-18 '64. (MIRA 17:9)

MEL'KUMOV, L.G.

Present state and prospects for the automation of coal mines. Ugol' 40 no.6:30-37 Je '65. (MIRA 18:7)

1. Glavnyy inzh. Gosudarstvennogo proyektno-konstruktorskogo i nauchno-issledovatel'skogo instituta Giprougleavtomatizatsiya.

ALIYEV, Sh.N.; GADZHIYEV, N.A.; MELKUMOV, R.M.

Effect of the curvature of the hole on the capacity of a deep well pump. Mash. i neft. obor. no.12:7-9 '64.

(MIRA 18:1)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut po dobyche nefti.

MELKUMOV, S., inzhener.

Pit silos out of coquina. Sel'.stroi.11 no.3:18-19 Mr '56.
(Silos) (MLRA 9:7)

MELKUMOV, S.A., inzhener.

Speed up repairs of submarine foundations. Bezop.truda v prom. 1 no.6:38-39 Je '57. (MIRA 10:7)
(Azerbaijan--Oil well drilling, Submarine)
(Corrosion and anticorrosives)

MELKUMOV, S.A.

Correct defects of the URB-4P derrick. Bezop. truda v prom. 2 no.2: 37 F '58. (MIRA 11:2)

1. Uchastkovyy inzhener-inspektor morskoy rayonnoy gorno-tekhnicheskoy inspektsii Azerbaydzhanskogo okruga Gosgortekhnadzora SSSR.
(Oil fields--Equipment and supplies)

MELKUMOV, S.A., inzh.

Replace hand jacks by hydraulic jacks. Bezop.truda v prom. 2 no.3:37 Mr '58. (MIRA 11:3)

1. Uchastkovyy inspektor morskoy rayonnoy gornotekhnicheskoy inspektsii Azerbaydzhanskogo okruga Gosgortekhnadzora SSSR.
(Lifting jacks)

MEL'KUMOV, S.A.

Helmets for oil field workers. Bezop.truda v prom. 4 no.3:31 '60. (MIRA 13:6)

1. Uchastkovyy inzh.-inspektor Gosgortekhnadzora AzerSSR. (Clothing, Protective)

STEPCHUK, B.; BUKHARIN, G.Ya., inzh. po tekhnike bezopasnosti; MORDVINTSEV, V.; KOVALENKO, N.G., starshiy inzh. po tekhnike bezopasnosti; MELKUMOV, S.A.

Readers' letters. Bezop. truda v prom. 4 no. 5:30 My '60. (MIRA 14:5)

1. Uchastkovyy inspektor Kirovskoy rayonnoy gornotekhnicheskoy inspektsii Upravleniya Luganskogo okruga Gosgortekhnadzora USSR (for Stepchuk). 2. Trest Krasnodarnefterazvedka (for Bukharin). 3. Nachal'nik Selidovskoy rayonnoy gornotekhnicheskoy inspektsii Gosgortekhnadzora USSR (for Mordvintsev). 4. Trest Tatneftegazrazvedka (for Kovalenko). 5. Uchastkovyy inzh.-inspektor Gosgortekhnadzora Azerbaydzhanskoy SSR (for Melkumov).
(Industrial safety)

MELKUMOV, S.A.

Portable oxyacetylene cylinders are needed. Bezop.truda v prom. 4 no.11:36 N '60. (MIRA 13:11)

1. Uchastkovyy inzh.-inspektor Gosgortekhnadzora Azerb.SSR.
(Gas welding and cutting--Equipment and supplies)

MELKUMOV, S. M.

PA 28T46

USSR/Engineering Jun 1947
Soils, Frozen
Construction Industry

"Depth of Building Foundations with Relation to the Freezing of Soil," S. M. Melkumov, Candidate in Technical Sciences, 1½ pp

"Tekh Zheleznykh Dorog" No 6

This article is a continuation of an article which appeared in the 1946 No 10/11 issue of "Tekhnika Zheleznykh Dorog." The author consulted the works of Hazli of Switzerland on this subject and wrote his article to explain his contention that the depth of a foundation should be such that the force of suction

28T46

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of the moisture by the frozen soil from the surrounding soil and the water bearing horizons equal the pressure of the building and the weight of the soil itself.

28T46

MELKUMOV, S.M., kandidat tekhnicheskikh nauk

Development of the science of substructures and foundations during 30 years of Soviet power. Tekh.zhel.dor.7 no.7:19-20 Jl'48. (MLRA 8:11)
(Foundations)

1. MELKUMOV, S. S.: PIVOVAROV, G. M.
2. USSR (600)
4. Tobacco
7. M. D. Bagirov Collective Farm. Tabak 13 no. 6, 1952.

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

L 19484-65 EEO-2/EWG(j)/EWT(d)/FBD/FSF(h)/FSS-2/EWG(r)/EWT(l)/EWT(m)/FS(v)-3/
EWP(w)/EWG(k)-2/EWP(f)/EWG(v)/EWP(c)/EWA(d)/EWP(v)/T-2/EWG(a)/EWP(k)/EWG(c)/FS(b)/
EWA(h) Pa-5/Pf-4/Pi-4/Po-4/Pq-4/Pac-4/Pae-2/Peb AEDC(b)/SSD/AFWL/AFMDC/AFETR/
ACCESSION NR: AP5002195 AFTC(b)/AFTC(p)/ S/0017/64/000/012/0003/0003
APGC(f)/AFTC(a)/ESD(si) TT/EM/GW/DD

AUTHOR: Mel'kumov, T. (Major general, Doctor of technical sciences)

TITLE: Space flight of the "Voskhod"

SOURCE: Voyennyye znaniya, no. 12, 1964, 3

TOPIC TAGS: space vehicle, launching vehicle, booster rocket, multi-passenger spaceship

ABSTRACT: To launch the three-man spaceship "Voskhod" into orbit, a more powerful booster rocket was required. Such a rocket was built by Soviet scientists, engineers, and workers. However, a more powerful rocket does not mean that the thrust of its engines and the initial weight of the launching system must be increased in proportion to the weight of the satellite. Advances are being made in the packaging and designing of launch vehicles and their engines, and in the quality of fuels and oxidizers. Soviet achievements in space can be primarily attributed to the development of advanced booster rockets with very efficient and dependable engines. These booster rockets and their engines are an example of a basically new approach, which

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has permitted repeated successful launchings of various satellites. Another important factor in the success of space flight is the complex automatic guidance and control system of the engines and of the entire rocket. This dependable system was designed by Soviet scientists and engineers. The three specialists aboard the "Voskhod" collected a vast amount of valuable material for further improvement of spaceship design and equipment. It is particularly important for the preparation of the more complicated forthcoming space flights.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: SV, PR

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3159

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MEL'KUMOV, T., general-mayor inzhenerno-technicheskoy sluzhby, prof. doktor tekhn. nauk.

Power plants in space vehicles. Av. i Kosm. 47 no.1:71-76 Ja '65 (MIRA 18:1)

L 38965-65 EEO-2/EWG(j)/EWT(d)/FSF(h)/FSS-2/EWG(r)/EWT(l)/EEC(a)/EWP(m)/EWT(m)/FS(v)-3/EEC(j)/EPF(c)/EEC(k)-2/EEC(r)/EWP(f)/EPF(n)-2/EWG(v)/EWG(m)/EWA(d)/EPR/EPA(w)-2/FCS(f)/T/EWG(a)-2/EPA(bb)-2/EWG(c)/EWA(m)-2/EWA(c) Po-4/Pab-10/Pd-1/Pe-5/Pq-4/Pac-4 Pf-4/Pr-4/Pg-4/Pe-4/Pae-2/Pi-4/Pu-4 IJP(c)/RPL PT/WW/BW/JW/JWD/EWS/GW

ACCESSION NR: AP5008723 3/0209/65/000/003/0023/0029

AUTHOR: Mel'kumov, T. (Major general of engineering-technological service, Professor, Doctor of technical sciences)

TITLE: Power plants for space flight devices

SOURCE: Aviatsiya i kosmonavtika, no. 3, 1965, 23-29

TOPIC TAGS: propulsion system, earth orbit vehicle, liquid propellant, solid propellant, ion engine, nuclear reactor, plasma propulsion, solar sail

ABSTRACT: Various propulsion systems are reviewed for future space missions. These are classified as two types of power plants: rockets with large thrusts for a planetary surface take-off, and rockets of small thrusts for controlled flights from earth orbits to other planets. For large thrusts chemical and nuclear energy sources are considered. Thrust levels of 420 $\frac{kg\ sec}{kg}$ are feasible with liquid-propellant rockets and 900-1200 $\frac{kg\ sec}{kg}$ for nuclear reactors with 3000C active zone temperatures. This last value can be raised to 1800 $\frac{kg\ sec}{kg}$ if the working fluid temperature increases to 4000-5000C. To raise very heavy payloads, small,

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controlled nuclear explosions of 0.01 kiloton range may be feasible. These can impart very large accelerations in a very short time. Such nuclear explosions may be used within the vehicle to generate superheated steam which in turn can be used for acceleration to very high speeds with a net specific impulse of 1200 $\frac{kg\ sec}{kg}$. Small thrusts may be achieved with the solid propellants for orientation and vehicle midcourse adjustments. Plasma engines may reach 5000-10 000 $\frac{kg\ sec}{kg}$ thrust levels; ion engines, 8000-10 000 $\frac{kg\ sec}{kg}$ thrust levels using cesium contact ionization. Rocket motors using radioactive isotopes in laminated reactors or α - and β-particle sources, and solar or photon sails that utilize the solar pressure imparting 10^{-4} - 10^{-5} g forces to the vehicle are also discussed. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: SV, PR

NO REF SOV: 000 OTHER: 000

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MEL'KUMOV, T. M., A. E. ZAIKIN, and A. A. DOBRYNIN.

Aviatsionnye motory; posobie dlia tekhnicheskogo sostava VVS RKKA. Moskva, Gosvoenizdat, 1937+367 p., diagrs.
Bibliography: v. 1, p. 363.
Title tr.: Aircraft engines; a handbook for technical personnel of the Red Army Air Force.

TL701.Z3

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

MEL'KUMOV, T. M.

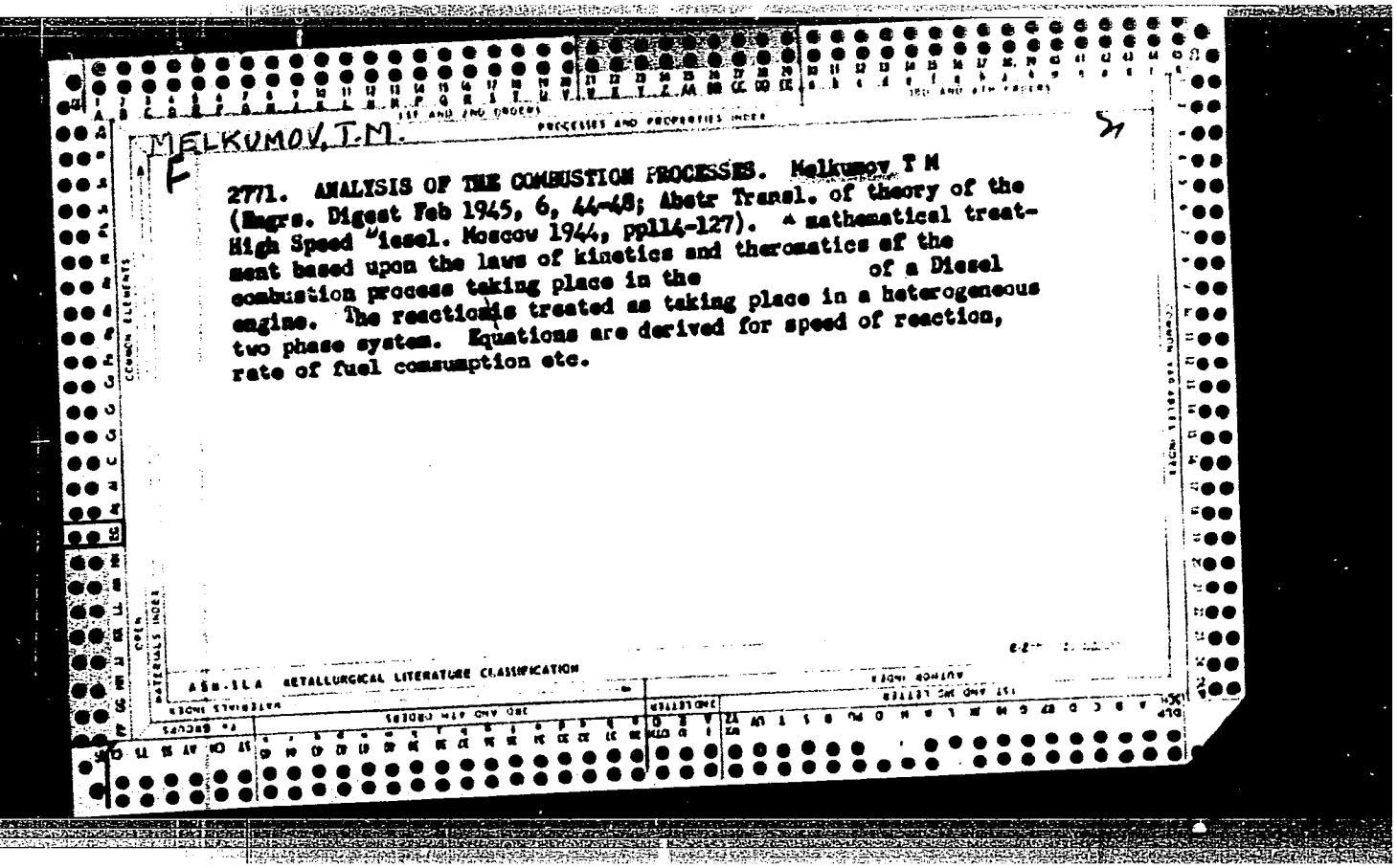
Teoriia bystrokhodnogo dizelia. Dop. v kachestve uchebnika dlia vyssh. aviatsionnykh uchebn. zavedenii. Moskva, Oborongiz, 1944. 416 p. illus.

Bibliography: p. 415-416

Theory of a high-speed Diesel engine.

DLC: TJ795.M43

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.



MELKUMOV, T.M.

F

2771. ANALYSIS OF THE COMBUSTION PROCESSES. Melkumov T M (Engrs. Digest Feb 1945, 6, 44-48; Abstr Transl. of theory of the High Speed Diesel. Moscow 1944, pp114-127). A mathematical treatment based upon the laws of kinetics and thermodynamics of the combustion process taking place in the of a Diesel engine. The reaction is treated as taking place in a heterogeneous two phase system. Equations are derived for speed of reaction, rate of fuel consumption etc.

NEMIROVSKIY, A.S.; MEL'KUMOV, T.M., otvetstvennyy red.

[Investigating globoid gearing] Issledovanie globoidnogo zatsepleniia. Izd-vo TSIAM, 1947. 8 p. (Moscow. TSentral'nyi nauchno-issledovatel - skii institut aviatsionnogo motorostroeniia. Trudy, no.134)
(Gearing) (MIRA 11:4)

MEL'KUMOV, T.M.

[Theory of high-speed spontaneous combustion engines] Teoriia bystrokhodnogo dvigatelia s samovosplamenieniem. Moskva, Gos. izd-vo ober. promyshl., 1953. 407 p. (MLRA 7:1)
(Diesel engines)

MEL'KUMOV, T.M.

ORLIN, Andrey Sergeyevich, prof.; VYRUBOV, Dmitriy Nikolayevich; KALISH, German Georgiyevich; KRUGLOV, Mikhail Georgiyevich; LEONOV, Oleg Borisovich; LEBEDEV, Sergey Yevgen'yevich; LIBROVICH, Bronislav Genrikhovich; CHURSIN, Mikhail Mikhaylovich; MEL'KUMOV, T.M., prof., retsenzent; YEGORKINA, L.I., inzh., red.; TIKHANOV, A.Ya., tekhn.red.

[Internal combustion engines] Dvigateli vnutrennego sgoraniia. Pod red.A.S.Orlina. Izd.2-oe, perer.i dop. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry. Vol.1. [The working principles of engines and their units] Rabochie protsessy v dvigateliakh i ikh agregatakh. 1957. 396 p. (MIRA 11:1)
(Gas and oil engines)

MEL'KUMOV, T.M.

86-2-43/45

AUTHOR: Mel'kumov, T.M., MajGen of Eng Tech Services, Honored Scientist and Technologist, Professor, Doctor of Technical Sciences

TITLE: Some Problems of Rocketry (Nekotoryye problemy raketnoy tekhniki)

PERIODICAL: Vestnik vozdushnogo flota, Nr 2, 1958, pp. 79-89 (USSR)

ABSTRACT: The author mentions that the first intercontinental ballistic missile was launched in August 1957 and that the two artificial satellites were launched on October 4 and November 3, 1957. He then praises the achievements of the USSR and gives the names of scientists who greatly contributed to these achievements: K.E. Tsiolkovskiy, Yu.V. Kondratyuk, F.A. Tsander, V.P. Glushko, S.P. Korolev, M.K. Tikhonravov, Yu.A. Pobedonostsev, V.P. Vetchinkin, L.S. Dushkin, A.G. Kostikov, A.M. Isayev, A.I. Polyarnyy. He points out that the angle of inclination in relation to the equator at which the satellites were launched was 65°, and explains the advantages of such a launching.

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