BABAYEV, A.G.

A new scientific institution; organizing the Institute of Deserts of the Academy of Sciences of the Turkmen S.S.R. Izv.AN Turk.SSR.Ser. biol.nauk no.3:96-98 '62. (MIRA 15:9)

1. Institut pustyn' AN Turkmenskoy SSR.
(TURKMENISTAN--DESERTS--RESEARCH)

BABAYEV, Agadzhan Gel'dyyevich; FEDOROVICH, B.A., doktor geogr. nauk, prof., red.; KUZ'MENKO, A.I., red.; IVONT'YEVA, G.A., tekhn. red.

[The Kara Kum Desert] Pustynia Kara-Kumy. Pod red. B.A. Fedorovicha. Ashkhabad, Izd-vo AN Turkm.SSR, 1963. 87 p. (MIRA 16:8)

(Kara Kum)

NECHAYEVA, N.T., red.; BABAYEV, A.G., red.; RABOCHIY, I.S., red.; PETROV, M.P., akademik, red.; KUNIN, V.N., red.; SMIRNOV, L.N., kand. geol.-miner. nauk, red.; TAGANOV, K., kand. tekhn. nauk; SOKOLOVA, L.I., kand. sel'khoz. nauk, red.; ARTYKOVA, T.V., red.izd-va; IVONT'YEVA, G.A., tekhn. red.

[Materials presented at the Interrepublic Scientific Session on the Reclaiming of the Desert Areas of Central Asia and Kazakhstan] Materialy dolozhennye na Mezhrespublikanskoi nauchnoi sessii po osvoeniiu pustynnykh territorii Srednei Azii i Kazakhstana. Ashkhabad, Izd-vo AN TSSR. Book 1. [Natural conditions, animal husbandry, and feed supply of the desert] Prirodnye uslovi ., zhivotnovodstvo i kormovaia baza pustyn'. 1963. 485 p. Book 2. [Land and water resources of the desert and their utilization] Zemel'no-vodnye resursy pustyn' i ikh ispol'zovanie. 1963. 178 p. (MIRA 16:11)

(Continued on next card)

NECHAYEVA, N.T.—— (continued). Card 2.

1. Mezhrespublikanskaya nauchnaya sessiya po osvoyeniyu pustynnykh territoriy Sredney Azii i Kazakhstana. Ashkhabad. 1962. 2. Akademiya nauk Turkmenskoy SSR (for Petrov, Nechayeva). 3. Institut pustyn' AN Turkmenskoy SSR (for Petrov). 4. Chlen-korrespondant AN Turkmenskoy SSR (for Kunin).
(Kazakhstan--Reclamation of land--Congresses)
(Soviet Central Asia--Reclamation of land--Congresses)
(Deserts--Congresses)

BABAYEV, A.G.

Prospects for the reclamation of deserts in Turkmenistan. Izv. AN Turk.SSR. Ser.biol.nauk no.2:4-10 '63. (MIRA 16:5)

1. Institut pustyn' AN Turkmenskoy SSR.
(TURKMENISTAN—RECLAMATION OF LAND)

BABAYEV, A.G.

Wind erosion of sands in the oases of Turkmenistan and its control. Izv. AN Turk. SSR. Ser. biol. nauk no.3:43-50 '63. (MIRA 17:1)

1. Institut pustyn' AN Turkmenskoy SSR.

BABAYEV, A.G.

Inter-republic session on the development of the desert territories of Central Asia and Kazakhstan. Izv.Vses.geog.ob-va 95 no.1:101-102 Ja-F '63. (MIRA 16:4)
(Soviet Central Asia--Deserts--Congresses)
(Kazakhstan--Deserts--Congresses)

BABAYEV, A.G.

Overall study and reclamation of deserts in Turkmenistan during the last 40 years. Izv. AN Turk. SSR. Ser. biol. nauk no.5:3-9 '64. (MIRA 18:2)

1. Institut pustyn' AN Turkmenskoy SSR.

PETROV, N.P.; CHISTYAKOV, P.A.; BABAYEV, A.G., doktor geol-miner. nauk, otv. red.; KANASH, O.A., red.

[Lithology of salt and red-bed sediments in the south-western spurs of the Gissar Range] Litologiia solevykh i krasnotsvetnykh otlozhenii iugo-zapadnykh otrogov Gissara. Tashkent, Izd-vo "Nauka," 1964. 220 p. (MIRA 17:5)

BABAYEV, Ashot Grigor'yevich; AKRAMKHODZHAYEV, Abid Muratovich; MAVLYANOV, G.A., akademik, otv. red.; CHERNYAVSKAYA, A.B., red.; GOR'KOVAYA, Z.P., tekhn. red.

[Paleogeography of oil- and gas-bearing Cretaceous sediments in Uzbekistan] Paleogeografiia neftegazonosnykh melovykh otlozhenii Uzbekistana. Tashkent, Izd-vo Akad. nauk Uzbekskoi SSR, 1960. 177 p. (MIRA 14:8)

1. Akademiya nauk Uzbekskoy SSR (for Mavlyanov).
(Uzbekistan—Petroleum geology) (Uzbekistan--Gas, Natural—Geology) (Paleogeography)

BABAYEV, Alaudin Ishanovich; KUCHINSKIY, V., red.; PONOMARENKO, A.A., red.; POLTORAK, I., tekhn.red.

[Cotton seed production] Semenovodstvo khlopchatnika. Stalinabad, Tadzhikskoe gos. izd-vo, 1958. 9 p. (MIRA 12:1)
(Cotton growing) (Seed production)

9,6150
21.5300(2816,1033,1144)

S/120/60/000/006/009/045
E032/E314

AUTHORS: Babayev, A.I. and Landsberg, L.G.

TITLE: A Gas-filled Cherenkov Counter

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 6, pp. 40 - 42

TEXT: The counter is illustrated schematically in Fig. 1 and is designed for a working pressure of 25 atm. The beam of particles is admitted through thin, spherical, stainless-steel end-windows. The working substance is freon-13 ($CClF_3$).

The optical part of the counter consists of two cylindrical mirrors 2, one plane mirror 3 and a perspex lens 4, which focuses the light on the photocathode of the photomultiplier 5. For gases ($n - 1 \ll 1$) the usual formulae describing Cherenkov radiation assume the following form (Ref. 1). The energy threshold of the counter is given by $\gamma_{threshold} \approx [2(n-1)]^{-1/2}$, where $\gamma = 1/\sqrt{1 - \beta^2}$ is the total energy of the particles in units of the rest mass, and n is the refractive index of the gas. The maximum angle at which

Card 1/6

A Gas-filled Cherenkov Counter

the radiation is emitted is given by:

$$\vartheta_{max} = \arccos(1/n) \approx \sqrt{2(n-1)} .$$

The number of quanta (in the region of sensitivity of the photocathode) emitted per unit length of the path of the beam of particles with $\beta = 1$ is given by:

$$dN/de = 872(n - 1) .$$

The Lorenz-Lorentz formula for perfect gases shows that dN/de is proportional to the pressure of the gas and ϑ_{max} is proportional to the square root of the pressure. The refractive index of freon-13 at a pressure of 760 mmHg and a temperature of 20 °C is $N = 1.000731$. The following table gives the values of dN/de and ϑ_{max} for different pressures of freon-13:

Card 2/6

86735

S/120/60/000/006/009/045
E032/E314

A Gas-filled Cherenkov Counter

P, atm	n - 1	ϑ_{max}	dN/de quanta/cm
1	0.000731	$2^{\circ}10'$	0.64
5	0.00366	$4^{\circ}50'$	3.2
10	0.00731	$6^{\circ}50'$	6.4
15	0.01095	$8^{\circ}20'$	9.6
20	0.01420	$9^{\circ}30'$	12.8

These data are based on the Lorenz-Lorentz formula assuming that the gas is perfect. They are therefore only approximate. The length of the Cherenkov counter employed by the present authors was 100 cm so that it follows that at a pressure of 1 atm the number of quanta emitted by a particle with $\beta = 1$, which is passed through the counter, is 64. At this pressure the emission angle is small and the light is reflected from the plane mirror only. If it is assumed that the light collection is 50% and the average quantum yield is 5%, then the number of electrons formed at the photocathode under these

Card 3/6

S/120/60/000/006/009/045
E032/E314

A Gas-filled Cherenkov Counter

conditions is 1.5. The light from the photomultiplier is fed to a wideband amplifier and then to a fast coincidence circuit (resolving time 3×10^{-8} sec). The efficiency of the counter at a pressure of 1 atm is about 0.8. As the pressure is increased the amount of light increases but the light collection deteriorates, since with increasing angle of emission the number of reflections at the cylindrical mirrors also increases. It is clear from these approximate calculations that the efficiency of the counter may be made to approach 100%. The Cherenkov counter designed on the basis of these calculations was tested on the 270 MeV synchrotron of FIAN (Physics Institute of the AS USSR). The experiment is illustrated schematically in Fig. 2. A beam of γ-rays produced electrons with an arbitrary momentum at the copper converter P . The electrons then traversed a lead collimator and were analysed by the magnetic analyser N . As a result, a beam of electrons was separated out with a momentum of about

86735
S/120/60/000/006/009/045
E032/E314

A Gas-filled Cherenkov Counter

200 MeV/c. The Cherenkov counter C was placed between two scintillation counters S_1 and S_2. These counters were so arranged that every particle passing through them also passed through the Cherenkov counter. The counter S_2 was followed by two further counters, S_3 and S_4. The efficiency of the Cherenkov counter was determined as the ratio of the quadruple coincidences $S_1CS_3S_4/S_1S_2S_3S_4$ (i.e. the efficiency of the scintillation counter S_2 was assumed as being 100%). Fig. 3 shows the efficiency of the gas Cherenkov counter as a function of pressure. The efficiency was found to be 100% between about 3 and 15 atm. Acknowledgments are expressed to S. Ya. Nikitin for interest and advice, Yu.M. Zaytsev, V.S. Tikhonov, Yu.V. Fadeyev for assistance and P.A. Cherenkov, A.N. Gorbunov, V.F. Grushin and Ye.M. Leykin for their collaboration during the actual tests on the synchrotron.

Card 5/6

86735

S/120/60/000/006/009/045
E032/E314

A Gas-filled Cherenkov Counter

There 3 figures, 1 table and 2 references: 1 Italian and 1 Soviet.

SUBMITTED: October 20, 1959

Card 6/6

BABAYEV, A.I., BALATS, M.Ya., KAFTANOV, V.S., LANDSBERG, L. G., LYUBIMOV, V.A., OBUKHOV, Yu. V.

"Search for $\mu \to 3e$ Decay"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Inst. of Theoretical and Experimental Physics, Moscow, USSR

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102810018-0"

ALIKHANOV, A.I., BARILOV, A.I., BALATS, M. Ya., KANTANOV, V.S., LAZAREVSKI, L.G., LYUBIMOV, V.A., OBUKHOV, Yu. V.

"Search for $\Lambda^0 \to e, \gamma$ Decays"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Institute of Theoretical and Experimental Physics, Moscow, USSR

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102810018-0"

S/056/62/042/002/048/055
B108/B138

AUTHORS: Alikhanov, A. I., Babayev, A. I., Balats, M. Ya., et al.

TITLE: Further investigation of $\mu \rightarrow e + \gamma$ decay

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 2, 1962, 630 - 631

TEXT: The upper limit of a $\mu \rightarrow e + \gamma$ process is $1.6 - 2.0 \cdot 10^{-6}$ of all muon decay events. This is probably the reason why such a process has not yet been observed. Searching for this process the authors devised a technique in which they operate with a spark chamber with high-speed operation electronics. A 70-Mev π^+ beam obtained from the 680-Mev proton synchrotron of the LYaP OIYaI is separated out by the coincidence monitors I, II, 0. The fast coincidences 0, 4, 5, 7, 8, $\overline{6}$, $\overline{9}$, $\overline{A}$ and 0, 1, 2, 10, 11, $\overline{3}$, $\overline{12}$, $\overline{A}$ with a time resolution of about 10^{-8} sec actuate a master signal which starts up the pulse generator for the chamber. The traces in the chamber were photographed from two sides. A third camera recorded the oscillograph, from which was measured the time between signals of the coincidences I, II, 0 and 0, 4, 5, 7, 8, $\overline{6}$, $\overline{9}$, $\overline{A}$ or 0, 1, 2, 10, 11, $\overline{3}$,

Card 1/2

Further investigation of ....

12, A. The six-layer cylindrical chamber B was to record the electrons and gamma quanta. The error in the determination of the collinearity of events was 4.8^0 across and 20^0 along the chamber. The efficiencies of 53-Mev electron and gamma recording, were 40 and 15 %, respectively. However, the general efficiency for $\mu \rightarrow e + \gamma$ events was only 0.8 %. The results of the authors' measurement showed that unlike earlier estimates the upper limit of $\mu \rightarrow e + \gamma$ decay processes is $5 \cdot 10^{-7}$. Measurements are being continued.. V. P. Dzhelepov, A. A. Tyapkin, A. S. Kronrod, Yu. A. Simonov, and M. V. Terent'yev are thanked for assistance. There are 1 figure and 3 references: 1 Soviet and 2 non-Soviet. The 2 references to English-language publications read as follows: D. Berley, J. Lee, M. Bardon, Phys. Rev. Lett., 2, 357, 1959; S. Frankel et al. Phys. Rev., 118, 589, 1960.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki
(Institute of Theoretical and Experimental Physics)

SUBMITTED: December 9, 1961

Card 2/2

S/056/62/042/006/046/047
B104/B112

AUTHORS: Babayev, A. I., Balats, M. Ya., Kaftanov, V. S., Landsberg, L. G., Lyubimov, V. A., Obukhov, Yu. V.

TITLE: Search for the $\mu^+ \longrightarrow e^+ + e^+ + e^-$ decay

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 6, 1962, 1685-1687

TEXT: An attempt to find the $\mu \longrightarrow 3e$ decay was made with the apparatus shown in Fig. 1. The current of 70-Mev π^+ mesons was separated by coincidences in counters I, II, and O. The number of π^+ mesons stopped in counter O was determined from the number of $\mu^+ \longrightarrow e^+ + \nu + \bar{\nu}$ decays recorded by counters O and $\overline{\text{III}}$ ($1, 2, \bar{3} + 4, 5, \bar{6} + 7, 8, \bar{9} + 10, 11, \overline{12}$). Fast coincidences of any pair of lateral counters with a central counter generate a control signal which is amplified and fed to the high-voltage electrodes of two spark chambers. The particle tracks in the chambers are photographed and the interval between the stoppage of a π^+ meson and the generation of the control signal is measured simultaneously. The amplitude of the pulses generated in counter O by decay π^+ mesons and decay

Card 1/8 2

S/056/62/043/005/058/058
B125/B104

AUTHORS: Babayev, A. I., Balats, M. Ya., Kaftanov, V. S., Landsberg, L. G., Lyubimov, V. A., Obukhov, Yu. V.

TITLE: Further search for the $\mu^+ \rightarrow e^+ + e^+ + e^-$ decay

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 5(11), 1962, 1984

TEXT: The present study reports new results on the $\mu \rightarrow 3e$ decay, obtained with the aid of the experimental arrangement used by A. I. Babayev (Preprint ITEF, 1962; ZhETF, 42, 1685, 1962). $1.38 \cdot 10^9$ muon stops were recorded on the target. Through 150 hours not a single stopping process was found that had satisfied the kinematic and other criterions indicated in the above-mentioned previous work. Additional calibrating measurements and electronic computations gave the value $\varepsilon = 0.012$ for the total efficiency of the recording of $\mu \rightarrow 3e$ decays when the matrix element of the process $\mu \rightarrow 3e$ was assumed to be constant, and the value $\varepsilon = 0.014$ when the matrix element had the form $|M|^2 = \text{const } \varepsilon_3(1 - \varepsilon_3)$. For $\varepsilon = 0.012$ the upper limit ϱ of the number of $\mu \rightarrow 3e$ decays is found to be $\varrho < 1.45 \cdot 10^{-7}$,

Card 1/ 2

S/056/62/043/005/058/058
B125/B104

Further search for the...

whereas $q < 1.25 \cdot 10^{-7}$ holds for $\varepsilon = 0.014$.

SUBMITTED: September 24, 1962

Card 2/2

BABAYEV, A.I.; BALATS, M.Ya.; KAFTANOV, V.S.; LANDSBERG, L.G.; LYUBIMOV, V.A.; OBUKHOV, Yu.V.

Search for $\mu^+ \rightarrow e^+ + e^-$-decay. Zhur. eksp. i teor. fiz. 42 no.6:1685-1687 Je '62. (MIRA 15:9)

1. Institut teoreticheskoy i eksperimental'noy fiziki.
(Mesons—Decay)

BABAYEV, A.I.; BALATS, M.Ya.; KAFTANOV, V.S.; LANDSBERG, L.G.; LYUBIMOV, V.A.; OBUKHOV, Yu.V.

Further search of the $\mu^+ \rightarrow e^+ + e^-$ decay.
Zhur. eksp. i teor. fiz. 43 no.5:1984 N '62. (MIRA 15:12)
(Mesons—Decay)

L 16144-63 EWT(m)/BDS/ES(w)-2 AFFTC/ASD/SSD Pab-4 IJP(C)
ACCESSION NR: AP3004914 S/0120/63/000/004/0181/0182

61
60

AUTHOR: Babayev, A. I.; Kaftanov, V. S.

TITLE: Recording two particles in a spark chamber 19

SOURCE: Pribory*i tekhnika eksperimenta, no. 4, 1963, 181-182

TOPIC TAGS: particle recording, spark chamber

ABSTRACT: A 6-layer cylindrical spark chamber developed for investigating rare cases of nuclear disintegration has an outer diameter of 203 mm and duralumin electrodes with a 7-mm gap. It is filled with Ne to 1.1 atm. An exponential pulse of 11-kv amplitude taken from TGI-400/16-thyratron anode was applied to each high-voltage electrode via individual 5×10^{-7} -RC-circuits with a minimum delay of 0.5 microsec after the particle flight. The effect of the pulse delay, with various clearing fields, on the layer efficiency in recording two particles that traversed the chamber simultaneously was investigated (curves supplied).

Card 1/2

L 16144-63
ACCESSION NR: AP3004914

Also, layer efficiency was studied in recording an "old" particle that passed the chamber some time before the control-signal particles; low-energy π^+ mesons from the synchrocyclotron of the United Nuclear Research Institute were used. Orig. art. has: 3 figures.

ASSOCIATION: OIYaI (United Nuclear Research Institute)

SUBMITTED: 15Aug62 DATE ACQ: 28Aug63 ENCL: 00

SUB CODE: PH, NS NO REF SOV: 002 OTHER: 000

Card 2/2

L 01210-67 EWT(m)/T

ACC NR: AT6031145 SOURCE CODE: UR/3138/65/000/388/0003/0028

AUTHOR: Babayev, A. I.; Myasishcheva, G. G.; Obukhov, Yu. V.; Roganov, V. S.; Firsov, V. G.; Balats, M. Ya.

17
12
B+1

ORG: none

TITLE: Experimental investigation of the chemical reactions of muonium 19

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 388, 1965. Eksperimental'noye issledovaniye khimicheskikh reaktsiy myuoniya, 3-28

TOPIC TAGS: muonium, muon chemical interaction, muonium interaction, atomic muonium, assymetry coefficient, angular positron distribution, binary mixture, competing acceptor method

ABSTRACT: Measurements were made of assymetry coefficients in the angular distribution of escaping positrons $\mu^+ - e^+$ for several compounds and their binary mixtures. The results obtained were used to compute the constants of the rate of interaction between atomic muonium and substance. To augment the accuracy of the results and to clarify the mechanism of the process, a method of competing

Card 1/2

ACC NR: AT6031145 5

acceptors was used for reactions in parallel. The dependence of the coefficient of assymetry on the intensity of the magnetic field was determined for several compounds. The data are discussed from the point of view of the chemical interaction of muonium. The authors thank Academician A. I. Alikhanov and V. A. Lyubimov for their interest in this work, V. I. Volkov for his assistance in carrying out the measurements, and A. O. Vaysenberg and L. N. Kondrat'yev for their helpful evaluations and discussion of the work. Orig. art. has: 4 tables and 11 figures. [Based on authors' abstract] [SP]

SUB CODE: 07, 20/ SUBM DATE: 15Oct65/ ORIG REF: 006/ OTH REF: 012/

awm

L 22404-66 EWP(e)/EWT(m)/T WH
ACC NR: AP6006791 SOURCE CODE: UR/0386/66/003/001/0003/0004

AUTHOR: Babayev, A. I.; Balats, M. Ya.; Myasishcheva, G. G.; Obukhov, Yu. V.; Roganov, V. S.; Firsov, V. G.

ORG: Institute of Theoretical and Experimental Physics (Institut teoreticheskoy i eksperimental'noy fiziki)

TITLE: Observation of atomic muonium in crystalline quartz

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 1, 1966, 3-4

TOPIC TAGS: quartz, muon, positron, angular distribution, spin, magnetic moment, relaxation process

ABSTRACT: The asymmetry coefficient (c') in the angular distribution of the positrons from the decay of mesons stopped in crystalline quartz at room temperature was measured in the meson beam of the OIYaI synchrocyclotron with the aid of apparatus used to observe μ^+-meson spin precession in a magnetic field. Four cycles of the sinusoidal precession curve, with a frequency corresponding to the magnetic moment and spin of the μ^+ meson, were traced at a magnetic field intensity 50.0 ± 0.3 oe for ~6 μsec after the stopping of the μ^+ meson in the target. The asym-

Card 1/2

metry coefficient corrected for the energy spectrum of the emitted positrons, for the counter geometry, and for the beam polarization was equal to $c' = 0.065 \pm 0.006$ (the total number of μ^+ mesons stopped in the target was 4×10^6, and the product of the solid angle by the counter efficiency was ~1/30). At a magnetic field intensity 2.70 and 1.35 oe the obtained precession corresponded to the frequency of revolution of atomic muonium with exponentially damped amplitude and with relaxation time 0.3--0.4 μsec. The experimental asymmetry coefficient, extrapolated to zero time, was $c_0' = 0.09$--0.13 without correction for the beam polarization. A more detailes investigation of the precession of atomic muonium was hindered by the presence of intensity modulation, connected with the fine structure of the accelerator pulse. Work on the investigation of the phenomenon is being continued.

SUB CODE: 20/ SUBM DATE: 03Nov65

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102810018-0"

L 36381-66 EWT(m)/T WW

ACC NR: AP6014026 SOURCE CODE: UR/0056/66/050/004/0877/0889

AUTHOR: Babayev, A. I.; Balats, M. Ya.; Myasishcheva, G. G.; Obukhov, Yu. V.; Firsov, V. G.; Roganov, V. S.

ORG: Institute of Theoretical and Experimental Physics (Institut teoreticheskoy i eksperimental'noy fiziki)

TITLE: Experimental investigation of chemical reactions of muonium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 4, 1966, 877-889

TOPIC TAGS: muonium, positron, angular distribution, magnetic field, chemical reaction, atomic muonium, positron distribution

ABSTRACT: The asymmetry coefficients in the angular distribution of positrons, emitted in μ-e-decays were measured for a number of compounds and their binary mixtures. The rate constant for interaction between the atomic muonium and matter were computed on the basis of the results obtained. The method of competing acceptors for parallel reactions was employed with the aim of raising the accuracy of measurements and elucidating the mechanism of the processes. The dependences of the asymmetry coefficients on the magnetic field strength were measured for a number of compounds. The data were discussed within the framework of the chemical reactions with muonium. The authors express their thanks to Academicians A. I. Alikhanov and

Card 1/2

L 36301-66
ACC NR: AP6014026

V. A. Lynbimov for their support and interest in this work, V. I. Volkov for assistance with measurements, and A. M. Brodskiy, A. O. Vaysenberg, V. I. Gol'danskiy and L. N. Kondrat'yev for valuable comments and useful discussions. Orig. art. has: 11 figures, 2 formulas, and 4 tables. [Based on authors' abstract.] [NT]

SUB CODE: 20, 11/ SUBM DATE: 01Nov65/ ORIG REF: 008/ OTH REF: 013

Card 2/2

ALIZADE, K.A., BABAYEV, A.Kh.

Akchagyl' sediments in the Samur-Kusarchay interfluve. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no.5:31-38 '64.
(MIRA 18:6)

BABAYEV, A. M.

"Some Questions on the Automatization of Electric Power Steering." Cand Tech Sci, Leningrad Higher Engineering Maritime School imeni Admiral S. O. Mararov, Min Maritime Fleet USSR, Leningrad, 1955. (KL, No 16, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

MEZIN, Yevgeniy Kalistratovich; BABAYEV, A.M., otvetstvennyy red.; KUZNETSOV, A.D., red. izd-va; KOTLYAKOVA, O.I., tekhn. red.

[Electromagnetic slip couplings for ships] Sudovye elektromagnitnye mufty skol'zheniia. Leningrad, Izd-vo "Morskoi transport," 1958. 45 p. (MIRA 11:10)

(Couplings) (Ship propulsion)

BABAYEV, A.M., kand.tekhn.nauk

Natural vibrations of servomechanisms used in steering systems. (MIRA 11:4)
Trudy TSNIIMF no.14:52-64 '58.
(Steering gear)
(Servomechanisms)

REYMAN, V.M.; MOROZOV, S.A.; BABAYEV, A.M.

Morphology and structural characteristics of the Dzhangou Range.
Trudy Inst.geol. AN Tadzh. SSR 4:113-125 '61. (MIRA 15:12)

1. Institut geologii AN Tadzhikskoy SSR.
(Dzhangou Range--Geology, Structural)

ASKEROV, A.G., red.; GUSEYNOV, A.G., red.; GUSEYNOV, M.M., red.; BABAYEV, A.M., red.; YEGIAZAROV, A.G., red.

[Study and utilization of mineral water resources in the Azerbaijan S.S.R.] Izuchenie i osvoenie gidrominerel'nykh resursov Azerbaidzhanskoi SSR; trudy. Baku, AN Azerb.SSR, 1962. 157 p. (MIRA 16:12)

1. Azerbaidzhanskaya respublikanskaya gidrologicheskaya nauchnaya sessiya, posvyashchennaya 40-i godovshchine Kompartii Azerbaidzhana i pobedy Sovetskoy vlasti v Azerbaidzhane. 1st 1960. 2. Nachal'nik Azerbaidzhanskogo Respublikanskogo kurortnogo upravleniya profsoyuzov (for Guseynov, M.M.). 3. Institut kurortologii i fizicheskikh metodov lecheniya im. S.M.Kirova (for Guseynov, A.G.).
(Azerbaijan--Mineral waters)

REYMAN, V.M.; ZAVALKO, Ye.V.; BABAYEV, A.M.

Some characteristics of recent tectonics of the mountainous part of the Vakhsh Valley. Trudy Inst.geol.AN Tadzh.SSR 5:97-105 '62. (MIRA 16:1)

(Vakhsh Valley--Geology, Structural)

137-1957-12 [illegible]

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 155 (USSR)

AUTHORS: Glikman, L. A., Babayev, A. N.

TITLE: Effective Application of the Zaks Method in Determining Residual Stresses in Solid and Hollow Cylinders (Ratsional'noye primeneniye sposoba Zaksa pri opredelenii ostatochnykh napryazheniy v sploshnykh i polykh tsilindrakh)

PERIODICAL: Tr. Tsentr. n.-i. in-ta morsk. flota, 1956, Nr 5, pp 17-24

ABSTRACT: The application of a modified Zaks method is described as it is employed in determining a complete characteristic diagram of the residual stresses (RS) in a cylinder (disc) by means of successive boring and turning; also described are the results of a comparison of magnitudes of deformation, measured by means of an optical gage and wire strain gages (SG). The procedure presented for the calculation of the RS, in the case of the successive employment of boring and turning operations, does not introduce any significant additional complications, as compared with the usual RS computations according to the Zaks method. It is shown theoretically that preliminary boring results in the removal, in the remaining part of the cylinder, of axial RS that are constant

Card 1/3

Rational Employment of the Zaks Method (cont.)

over the cross section and varying tangential and radial stresses. Experimental work was performed on discs (D) 105 mm in diameter and 15 mm thick, made of grade 3 steel taken from cylindrical blanks 600 mm long and 110 mm in diameter. RS were induced in the blanks by heating them to a temperature of 650° and keeping them at that temperature for five hours; this was followed by quenching in water in a vertical position. 8 D's were cut from the center portion of the blank and, for purposes of comparison, several of them were investigated by the usual Zaks method by determining deformation from a measurement of the outer diameter by means of a horizontal optical gage. It is shown experimentally that SG's are as accurate as the optical gage, and that they simplify considerably the process of measuring deformations and determining RS in large cylinders. It is pointed out that the Zaks method for the determination of a complete RS curve may be employed expeditiously on a single D by successively removing layers of material, first by boring and then by turning. In that instance, a complete RS curve is obtained by interpolating the stresses in the internal zone. Application of the modified Zaks method should be particularly considered in those cases when the RS curves in the outer layer of a cylinder (disc), or in both

137-1957-12-25438

Rational Employment of the Zaks Method (cont.)

the outer and inner layers of a solid cylinder, are characterized by a large RS gradient.

L. G

1. Cylinders-Stresses-Determination

Card 3/3

GLIKMAN, L.A.; BABAYEV, A.N.

Efficient use of Sachs' method in determining residual stresses in solid and hollow cylinders. Zav.lab.22 no.4:466-472 '56.(MLRA 9:7)
(Strains and stresses) (Cylinders)

MAYEV, A.N.

MAYEV, A.N. "Investigation of Some Problems of the Strength and Technology of the Welds of Ship Shafts." Leningrad Shipbuilding Inst. Leningrad, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 18, 1956,

137-58-3-5151

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 96 (USSR)

AUTHORS: Bel'chuk, G. A., Babayev, A. N.

TITLE: Development of a Calculation Method for the Selection of a Proper Welding and Bead Welding Procedure for Carbon Steels (Razrabotka raschetnogo sposoba vybora rezhima svarki i naplavki uglerodistykh staley)

PERIODICAL: Tr. Leningr. korablestroit. in-ta, 1956, Nr 19, pp 27-40

ABSTRACT: A mathematical-experimental method (M) is developed which permits the selection of a proper welding and bead welding procedure and which takes in account the continuity of the process of decomposition of austenite (DA), as well as the length of time during which a predetermined temperature (T) of metal is maintained in the zone adjacent to the seam or within the built-up area. The M is based on the following two relationships: 1) the mechanical characteristics of the built-up metal and of the area near the seam are functions of the T at which the DA begins, and of the length of time during which the predetermined T is maintained; 2) the T of the beginning of the DA and the length of time during which the predetermined T is main-

Card 1/2

Development of a Calculation Method for (cont.)

tained depend on the chemical composition of steel (the curve of isothermal DA), the technological conditions of welding, and the shape of the welded joint, in case of welding, or the shape of the component, in case of bead welding. The first relationship is established experimentally, while the second is established by means of calculations according to the theory of N. N. Rykalin and the method of S. S. Shteynberg. An example is examined in which the described M was employed in the selection of a proper procedure for automatic bead welding with flux of shafts made of 45 grade steel. It is pointed out that further research, based on the abovedeveloped M, will permit to establish ranges of optimal conditions for high-alloyed and special steels.

A.K.

Card 2/2

BARNEY, A M

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102810018-0"

SUBJECT: USSR/Welding 135-1-3/14

AUTHORS: Babayev, A.N., Candidate of Technical Sciences, and Bel'chuk, G.A., Candidate of Technical Sciences, University Lecturer.

TITLE: Selecting the regime for welding and surfacing carbon steel. (K voprosu o metodike vybora rezhima svarki i naplavki uglerodistykh staley).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, Nr. 1, pp 8 - 12 (USSR)

ABSTRACT: Critical survey of the existing methods in welding regimen selection. The calculation method by S.S. Steinberg (5), (6) is considered by the authors as the most precise method existing. The proposed welding regime selecting method consists of calculation based on austenite disintegration temperature as shown in the article diagrams (considering the time of maintaining the metal at the temperature above a certain point, and the continuity of austenite disintegration).

Like the existing methods, the proposed method requires preliminary calculations and experiments, on the results of which the final diagram has been plotted. This diagram serves as a

Card 1/2

TITLE: Selecting the regimen for welding and surfacing carbon steel. (K voprosu o metodike vybora rezhima svarki i naplavki uglerodistykh staley). 135-1-3/14

simple means for the choice of welding regime to obtain predetermined mechanical properties of weld and base metal adjacent to the weld.

Professor Glikman, L. A., Doctor of Techn. Sciences, was consulted during the experiments.

The article contains 7 diagrams, 1 photograph and 8 references, 7 of which Slavic.

INSTITUTION: The Leningrad Shipbuilding Institute (Leningradskiy korablestroitel'nyy Institut)

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress

Card 2/2

129-10-9/12

AUTHOR: Glikman, L.A., Doctor of Technical Sciences, Professor, and Babayev, A.N., Candidate of Technical Sciences.

TITLE: Cases of fatigue fractures of marine shafts. (Ustalostnaya prochnost' obraztsov, naplavlennykh avtomaticheskoy svarkoy pod flyusom)

PERIODICAL: "Metallovedeniye i Obrabotka Metallov" (Metallurgy and Metal Treatment), 1957, No.10, pp.37-43 (U.S.S.R.)

ABSTRACT: There were cases of fatigue fractures of marine shafts which, after wear and corrosion, were dimensionally restored by welding. Therefore, the authors decided to determine the fatigue strength of specimens with deposits produced by automatic welding under flux. Earlier, one of the authors (3) studied the technology and the method of selection of welding regimes, aimed at obtaining the necessary mechanical properties and absence of cracks in the thermally influenced zone and in the weld zone. Furthermore, the influence was studied of the temperature of preliminary heating and also of the geometry of the weld deposit on the magnitude and distribution of the residual stress. The experiments were made with specimens of 60 mm dia. since preliminary tests showed that this diameter permitted welding along the generatrix, along a spiral at an angle of 45° and along a ring. The specimens were made of steel 40, the compo-

Card 1/3

Cases of fatigue fractures of marine shafts. (Cont.)

sition of which was as follows: 0.4% C, 0.26% Si, 0.57% Mn, 0.033% S and 0.022% P; the mechanical properties after annealing at 840 C were σ_s = 28 kg/mm^2, σ_b = 58 kg/mm^2, δ_5 = 25% and ψ = 45%. The welding was effected with direct current of reverse polarity. The graph, Fig. 2, shows the results of fatigue tests of specimens in the original state, after restoration by welding along the generatrix , after restoration by welding along the spiral at 45°, after restoration by welding along the ring and also after restoration by welding followed by work-hardening by means of rolls and restoration by welding followed by tempering for two hours at 630 C. The various mechanical properties, after different regimes of restoration and treatment, are plotted in the graphs, Figs. 3 to 6. It was found that the fatigue limit of specimens with weld deposits amounted to only about 36% of the fatigue limit of the metal in the original state and was independent of the angle between the direction of feeding the weld deposit and the specimen axis. Tempering for 2 hours at 630 C improves the fatigue limit of the specimens with weld deposits to 10 kg/mm^2, whilst for specimens which were work-hardened by rolls with a pressure of 600 kg the fatigue limit increased to 14 kg/mm^2; these values represent 44% and 64% respectively of the fatigue

Cases of fatigue fractures of marine shafts. (Cont.)

limit of the metal in the original state. The most likely cause of the low fatigue limit of the specimens with weld deposits consists of the simultaneous action of residual tensile stresses and welding defects which play the rôle of stress concentrators; these defects are, in the given case, of fundamental importance.

There are 6 figures, 2 tables and 10 references, 9 of which are Slavic.

ASSOCIATION: Central Marine Scientific Research Institute (TsNII) and Leningrad Ship-building Institute (Leningradskiy Korablestroitelnyy Institut)

AVAILABLE: Library of Congress

Card 3/3

129-58-5-9/17

AUTHORS: Gliman, L. A., Doctor of Technical Sciences, Professor and Babayev, A.N., Candidate of Technical Sciences

TITLE: Investigation of the Residual Stresses Occurring During Facing By Means of Automatic Welding Under a Flux (Issledovaniye ostatochnykh napryazheniy, voznikayushchikh pri naplavke avtomaticheskoy svarkoy pod flyusom)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 5, pp 31-37 (USSR)

ABSTRACT: The residual stresses occurring in shafts during facing by welding were studied by F. F. Benua and A.M.Bodanov and also by H. Buhler (Ref.1). The stresses occurring in the outside layers were determined by extrapolation and Benua and Bogdanov did not exclude the influence of the end effect when measuring the residual stresses and, therefore, they determined the average values of the residual stresses. In the work of Buhler, the welding was accompanied by a considerable temperature rise of the specimens which brought about an appreciable reduction of the stresses. The technique used by the authors of this paper enabled determining the residual stresses in the

Card 1/4 outside layers (facing material) and excluded the influence

Investigation of the Residual Stresses Occurring During Facing by Means of Automatic Welding Under a Flux

of the end effect; the facing regime was maintained constant. The experiments were carried out on annealed "Steel 40" (0.35-0.45% C, 0.50-0.80% Mn, 0.17-0.37% Si, max 0.045% P, max 0.045% S, max 0.30% Cr, max 0.30% Ni). For the first series of experiments cylindrical specimens of 92 mm dia., 375 mm long were used, the surface of which was faced by welding under flux in accordance with two regimes, which are enumerated in Table 1, without preliminary heating. The sequence of deposition of the facing material (in pencil-like strips) is illustrated in Figure 1; for maintaining a constant regime, each subsequent pencil-like strip is deposited only after complete cooling of the specimen. The facing of all the specimens was effected using reverse polarity d.c. by means of a semi-automatic machine using an electrode wire of 2 mm dia. In the second series of tests the influence of the temperature of preliminary heating on the magnitude and distribution of the residual stresses was investigated and for this purpose 98 mm dia., 150 mm long cylindrical specimens were produced; in the middle part of these specimens a ring-shaped facing

 was applied over a length of 30 mm using the following

Investigation of the Residual Stresses Occurring During Facing by Means of Automatic Welding Under a Flux

regime: 200-210A, 29-30 V, facing 0.5 cm/sec, specific energy q/v = 2460 cal/cm. The specimens were heated preliminarily to 100, 200 and 300°C respectively. The obtained results, which are graphed in the figures contained in the paper, led to the following conclusions:

1. In the surface layers of the investigated specimens the axial and tangential stresses are tensile stresses, with a maximum value of 54-55 kg/mm² which approximately corresponds to the limit of the elastic resistance of the deposited metal and the thermally influenced zone. In the internal layers the stresses are compression stresses, the maximum value of the axial stresses is about 30 kg/mm² and of the tangential ones about 15 kg/mm². The radial residual stresses are compressive stresses along the entire cross section and equal zero at the surface.

2. The axial residual stresses will have maximum values in the case of facing along a generatrix and minimum values in the case of facing along a ring; the tangential residual stresses on the other hand will be lowest for facing along the generatrix and highest in the case of facing along a ring.

Card 3/4

Investigation of the Residual Stresses Occurring During Facing by Means of Automatic Welding Under a Flux

3. Preliminary heating of the cylinder prior to welding to 200°C brings about only an insignificant reduction in the residual stresses. A considerable reduction was observed in the case of preheating to 300°C; in this case the epures of the residual stresses show an increase of the surface zone in which tensile stresses pertain. An increase of the fed-in specific energy leads to a reduction of the residual stresses.
There are 8 figures, 2 tables and 2 references, 1 of which is Soviet, 1 German.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota (Central Merchant Marine Scientific Research Institute)

AVAILABLE: Library of Congress.

Card 4/4 1. Welds-Stresses-Test results 2. Welds-Facing-Stress analysis

GLIKMAN, L.A., doktor tekhn.nauk, prof.; BABAYEV, A.N., kand.tekhn.nauk

Investigating residual stresses in steel cylinders caused by building up the surface by means of automatic welding with flux. Trudy LIEI no.23:18-26 '58. (MIRA 12:5)
(Strains and stresses) (Electric welding)

BABAYEV, A.N.

LKI-1 type device for measuring the ballast levels in floating dock sections. Trudy LKI no.29:15-19 '59. (MIRA 14:7)

1. Leningradskiy korablestroitel'nyy institut, kafedra svarki sudovykh konstruktsiy.

(Level indicators) (Work boats)

GLIKMAN, L.A., doktor tekhn.nauk; BABAYEV, A.N., kand.tekhn.nauk; KOSTROV, Ye.N., kand.tekhn.nauk; DAMASKINA, O.L., inzh.

Fatigue strength and residual stresses in steel specimens surfaced with 1Kh13 high-chromium stainless steal. Trudy LMZ no.9:138-151 '62. (MIRA 16:6)
(Steel--Fatigue) (Thermal stresses)

GLIKMAN, L.A.; BABAYEV, A.N.

Stability of residual stresses occurring during shot peening in conditions of cyclic loading. Trudy LKI no.38:43-54 '62. (MIRA 16:7)

1. Kafedra svarki sudovykh konstruktsiy Leningradskogo korablestroitel'nogo instituta.

(Shot peening) (Strains and stresses)

L 16766-63 EWP(r)/EWT(m)/BDS AFFTC

S/124/63/000/004/064/064

AUTHOR: Babayev, A. N.; Olifirenko, K. M. 56

TITLE: A tensometric installation for the measurement of static deformations

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 4, 1963, 75, abstract 4V621 (Tr. Leningr. korablesstroit. in-ta, vyp. 36, 1962, 5-10.)

TEXT: To measure residual stresses in machine parts, a tensometric installation along the lines of a direct current bridge has been built. It consists of a tensometric panel, a switch and a galvanometer. The panel of 30 half-bridges with a resistance of 120 ohms serves as a switch for the outside half-bridges from the active and compensatory pick-ups. There is a plug-in for disconnecting the inside half-bridges; this makes possible a measurement with the four active pick-ups. The initial tuning of the pick-ups is done with the help of alternating doubled resistances of "Omega" or "SP" type which shunt the outside half-bridge. The measurements are made by direct reading with the use of the falvanometer switched into the measuring diagonal through the resistance (band switch) serving to measure the divisions of the galvanometer. Bridge feed is achieved from a storage battery (NKN) through a voltage reducer. For reswitching the measuring diagonal and feed from one bridge to another, switches with plates and sliding contacts are used. Calibration curves for the galvanometer divisions as a function of the feed voltage are given for various ranges. L. S. Magaziner.

Card 1/1 [Abstractor's note: Complete translation.]

BABAYEV, A.N.; OLIFIRENKO, K.M.

Strain gauges for the measurement of static deformations. Trudy LKI no.36:5-10 '62. (MIRA 16:12)

1. Kafedra svarki sudovykh konstruktsiy Leningradskogo korablestroitel'nogo instituta.

ASKEROV, A.[illegible], MUSAYEVA, R.A.

Sinking wells of small and reduced diameter in the Dashgil' area. Stor. nauch.-tekh. inform. Azerb. inst. nauch.-tekh. inform. Ser. Neft. prom. no.4:3-11 '63. (MIRA 18:9)

BABAYEV, Aleksandr Petrovich; BELOSTOTSKIY, I.A., redaktor; OTOCHEVA, M.A., redaktor izdatel'stva; ZHOROV, D.M., tekhnicheskiy redaktor

[Axle bearings of cone pressed wood for streetcars; work practice of the S.M.Kirov trolley depot in Moscow] Motorno-osevye vagonnye podshipniki iz drevesnoi pressmassy; iz opyta raboty tramvainogo depo imeni S.M.Kirova g.Moskvy. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1956. 32 p. (MLRA 9:12)
(Bearings (Machinery)) (Wood, Compressed)

BABAYEV, A.R.; DMITRIYEV, L.N.

Use of spiral-welded pipe in building local gas pipelines. Gaz. prom. no.2:35-36 F '57. (MLRA 10:3)
(Gas pipes)

ACC NR: AP [illegible] SOURCE CODE: UR/[illegible]/66/009/004/0010/0013

AUTHOR: [illegible]bayev, A. S.

ORG: Physicotechnical Institute, AN Tadzhik SSR (Fiziko-tekhnicheskiy institut AN Tadzhikskoy SSR)

TITLE: Investigation of the influence of a second activator on the capture centers in zinc-sulfide crystal phosphors

SOURCE: AN TadzhSSR. Doklady, v. 9, no. 4, 1966, 10-13

TOPIC TAGS: zinc sulfide optic material, activated crystal, crystal phosphor, electroluminescence

ABSTRACT: In view of the lack of agreement in the literature concerning the nature of the electron-localization levels in activated phosphors, the authors studied the behavior of synthesized Zn + CuCl (1×10^{-3} g/g) and ZnS + CuCl, $GdCl_3$ (with different gadolinium concentrations). The phosphors were excited for 10 minutes with PRK-4 lamps with filters transmitting the mercury lines at 313 and 366 nm. The sample was kept constantly at -190C during the excitation. The thermoluminescence curves were automatically recorded with apparatus described by the authors earlier (Dokl. AN Tadzh SSR, v. 7, no. 8, 1964, 11). The results show that the thermoluminescence curve of ZnS + Cu without the gadolinium has essentially two peaks with maxima near -80C and -135C, with one subband at -150C, and with level depths 0.4, 0.27, and 0.24 ev. Addition of gadolinium increases the total intensity of the thermoluminescence curve and

Card 1/2

ACC NR: AT6026225

shifts the peaks slightly toward higher temperatures. The maximum intensity is observed at a gadolinium concentration of 1×10^{-4} g/g. This is taken to mean that at this concentration the number of localized electrons at the localization levels increases and the probability of nonradiative transitions increases. Further increase in concentration leads to a sharp decrease in the intensity of the peaks and a shift of the peaks toward lower temperatures. This is evidence of formation of shallow electron-localization levels with an increase in the number of localized electrons of these levels. This report was presented by Academician AN TadzhSSR A. A. Adkhamov 1 December 1965. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 01Dec65/ ORIG REF: 005/ OTH REF: 005

Card 2/2

ACC NR: AP6037094 (N) SOURCE CODE: UR/0125/66/000/011/0001/0006

AUTHOR: Trufyakov, V. I.; Sterenbogen, Yu. A.; Mikheyev, P. P.; Babayev, A. V.

ORG: Institute of Electric Welding im. Ye. O. Paton AN UkrSSR (Institut elektrosvarki AN UkrSSR)

TITLE: Strength of welded joints made from low-alloy steels

SOURCE: Avtomaticheskaya svarka, no. 11, 1966, 1-6

TOPIC TAGS: weld evaluation, fatigue strength, low alloy steel

ABSTRACT: The following nine grades of steel were tested for fatigue strength at the Institute of Electric Welding im. Ye. O. Paton: 14G2, 19G, 15GS, 14KhGS, 10KhSND, 15KhSND, 09G2S, 10G2SD, 10G2S1 and 15KhG2SMFR. Grades 10G2S1 and 10G2SD were tested in the hot-rolled state and after thermal hardening (heating to 920°C, quenching in water and subsequent annealing at 650°C). Two types of specimens were tested: with butt joints and with welded strips to simulate reinforcing ribs. The joints were automatically welded using AN-348 flux and SV-08 GA wire except for specimens made from 10G2S1 steel which were welded with AN-22 flux and Sv-10NM wire, and 15KhG2SMFR which was welded with AN-22 flux and Sv-08KhMF wire. The strips were manually welded using UONI-13/55 electrodes. It was found that the strength of untreated joints made from low-alloy steels is practically independent of the automatic welding

Card 1/2 UDC: 621.791.052:669.15-194 621.791:620.192.3.001

ACC NR: AP6037094

conditions and selection of welding materials (grades of flux and electrode wire). In tests of a given type of joint, low-alloy steels of various grades differing in chemical composition and mechanical properties show identical resistance to cyclic loading. Joints made from thermally hardened steels as well as those made from purified steels have the same fatigue strength as ordinary hot-rolled steels. Low-alloy steels show somewhat of an increase in the strength of joints as compared with those made from low-carbon steels when the stresses are applied in a single direction. On the other hand, the fatigue strength of joints made from low-carbon and low-alloy steels is approximately identical in the case of symmetric loading cycles. Orig. art. has: 9 figures, 2 tables.

SUB CODE: 11/ SUBM DATE: 26Apr66/ ORIG REF: 008

Card 2/2

BABAYEV, A. Yu. Cand Med Sci -- (diss) "Data ~~on the description of~~ the epidemiology and microbiology of ~~the abdominal typhus~~ typhoid fever in the city of Baku." Baku, 1958. 14 pp (Azerbaydzhan State Med Ist im N. Narimanov), 200 copies (KL, 11-58, 120)

BABAYEV, A.YU, mladshiy nauchnyy sotrudnik, SEIDOV,R.G. vrach.

Epidemiology of water-borne typhoid fever in one of the cities of the Azerbijan S.S.R. Azerb.med.zhur. no.2:68-72 F '58 (MIRA 11:12)

1. Iz Instituta epidemiologii, mikrobiologii i gigiyeny Ministerstva zdravookhraneniya Azerbaydzhanskoy SSR (direktor-doktor med.nauk B.F. Medzhidov).
(AZERBAIJAN--TYPHOID FEVER)

BABAYEV, A.Z.

Circuit for automatically switching-in a reserve line using a direct-action relay in petroleum refineries. Energ. biul. no.8: 28-31 Ag '57. (MLRA 10:8)

(Electric networks)

AUTHOR: Babayev, A. Z. 90-58-7-6/8

TITLE: Improving the Scheme of the Main Switchboard for the Self-starter of the Electric Motors in Depth-Pumping Oil Wells (Usovershenstvovaniye skhemy shchita magistral'nogo samozapuska elektrodvigateley glubinnonasosnykh skvazhin)

PERIODICAL: Energeticheskiy Byulleten', 1958, Nr 7, pp 23-25 (USSR)

ABSTRACT: The author suggests improvements to be made in the control panel produced by the Bakinskiy elektromekhanicheskiy zavod (Baku Electromechanical Plant). The improvements consist of replacing the safety fuses with relays, preventing these from switching out inadvertently due to vibration when the contactors are switched on, and shifting the relays and measuring instruments to a free-standing panel. Seven technical alterations are listed and the assembly lay-out of the components and the operating principle described. The improvements would protect the various lines from short-circuiting, extend the working life of the panel, and make repair, checking and replacement of the apparatus easier by shifting the relay and measuring equipment to a free-standing panel. There are 2 circuit diagrams and 2 Soviet references.

Card 1/1

1. Motor starters—Control 2. Switchboards—Revision

BABAYEV, A.Z.

Using synchronous motors on oil fields; exchange of experience.
Energ.biul. no.11:26-31 N '58. (MIRA 11:11)
(Electric motors, Synchronous)

sjca

(2)

Some data on the nature and fate of naphthalenic petroleum derivatives formed in the organism. A. Z. Babiev (S. M. Kirov Azerbaidzhan Inst. of Health Resorts). *Biokhimiya* 19, 109-3(1954).—Naphthalenic petroleum is used for medical purposes in the form of baths, external application, and peroral administration. Peroral administration to rats of the tar-free substance results in the appearance in feces and urine of naphthenic acids and other products of tissue hydrocarbon oxidation. Naphthenic acid can be dehydrogenated to an extent by the dehydrogenases of higher fatty acids. B. S. Levine

BABAYEV, A.Z.

[illegible], the Cu content is [illegible] mg. %, and in the [illegible] [illegible] mg. % on the basis of fresh tissue. The [illegible]

1. Biokhimicheskaya laboratoriya Azerbaydzhanskogo [illegible]

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102810018-0"

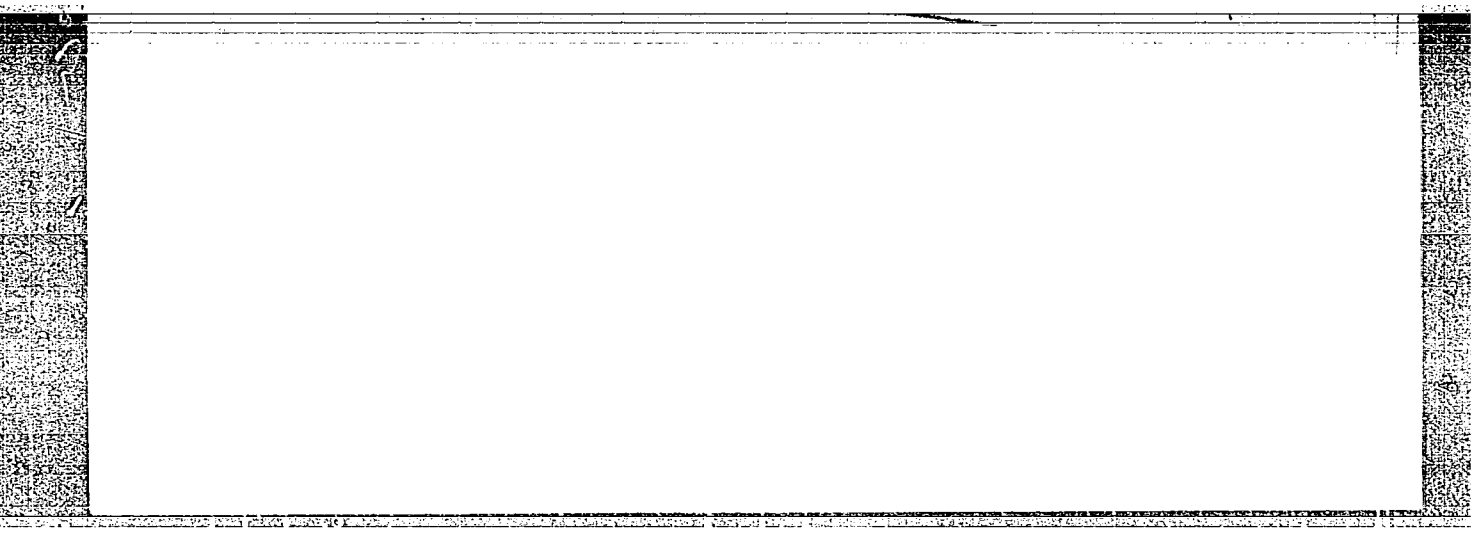
KARAYEV, A.I.; BARAYEV, A.A.

Effect of stimulation of the interoceptors of the rectum and bladder on the peroxidase activity of the blood. Izv. AN Azerb. SSR no.4:49-54 Ap '55. (MIRA 8:6)
(Peroxidases) (Receptors (Neurology))

KARAYEV, A.I.; BABAYEV, A.Z.; KRAVETS, I.L.

Effect of irritation of receptors of the rectum on the activity of carbonic anhydrase of the blood. Izv.AN Azerb.SSR no.5:43-50 My '55. (MLRA 9:5)
(RECEPTORS (NEUROLOGY)) (CARBONIC ANHYDRASE) (BLOOD)

BABAYEV, A.Z.



APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102810018-0"

AUTHOR: Babayev, A.Z. SOV/90-58-11-5/6

TITLE: The Use of Synchronous Motors in the Oil Industry (Ekspluatatsiya sinkhronnykh dvigateley v neftepromyslovykh usloviyakh). Exchange of Experience (Obmen opytom).

PERIODICAL: Energeticheskiy byulleten', 1958, Nr 11, pp 26 - 31 (USSR)

ABSTRACT: The author discusses the use of synchronous motors in the oil industry. Such motors simultaneously accomplish 2 functions: 1) They serve as drives for different machines. 2) They are a source of reactive power. In order to raise the work stability of synchronous motors, the "normal" circuit scheme" of control stations was changed into a "simplified" one using a damped excitation switch. The practical work of synchronous motors at oil-well pumps has been tested at the drilling area of Kara-Chukur . Oscillographs recorded the following parameters of the driving motor: 1) Pressure at the bottom and at the top of the pump flow. 2) Voltage at the terminals both of the stator and exciter. 3) Current of one phase of the stator and of the rotor. 4) Revolution rate, with the help of a tachodynamo. 5) Motor torque. Tensometric pickups developed by the GrozNII, were used in the tests. The apparatus is made of 0.3 mm diameter constantan wire, and has almost 1,000 ohm resistance at working current J-5 to 20 mamp. The torquemeter was constructed by the elec-

Card 1/2

tro-laboratory AzINMASh. The measuring bridge consisted of 4 tensometers (203.7 ohm each) made of constantan wire. He concludes: 1) Synchronous motors are in wide use and are good drive sources for different machines. 2) Use of high-voltage synchronous motors at the Ordzhonikidzeneft' petroleum plants (NPU) resulted in a power factor increase ($\cos\varphi$) from 0.76 to 0.903 in 6 years. 3) Selfstarting of the electric motors is assured by the AVR and APV automatic reserve lead-ins. 4) Side by side with the AVR, automatic forcing of excitation is needed by the Soviet electric-motors' self-starting system. 5) To assure uninterrupted running of the technological process, it is expedient to resynchronize synchronous motors or their automatic repeating starting system. There are 5 oscillograms, 1 table and 5 Soviet references.

1. Petroleum industry---Equipment 2. Electric motors---Applications
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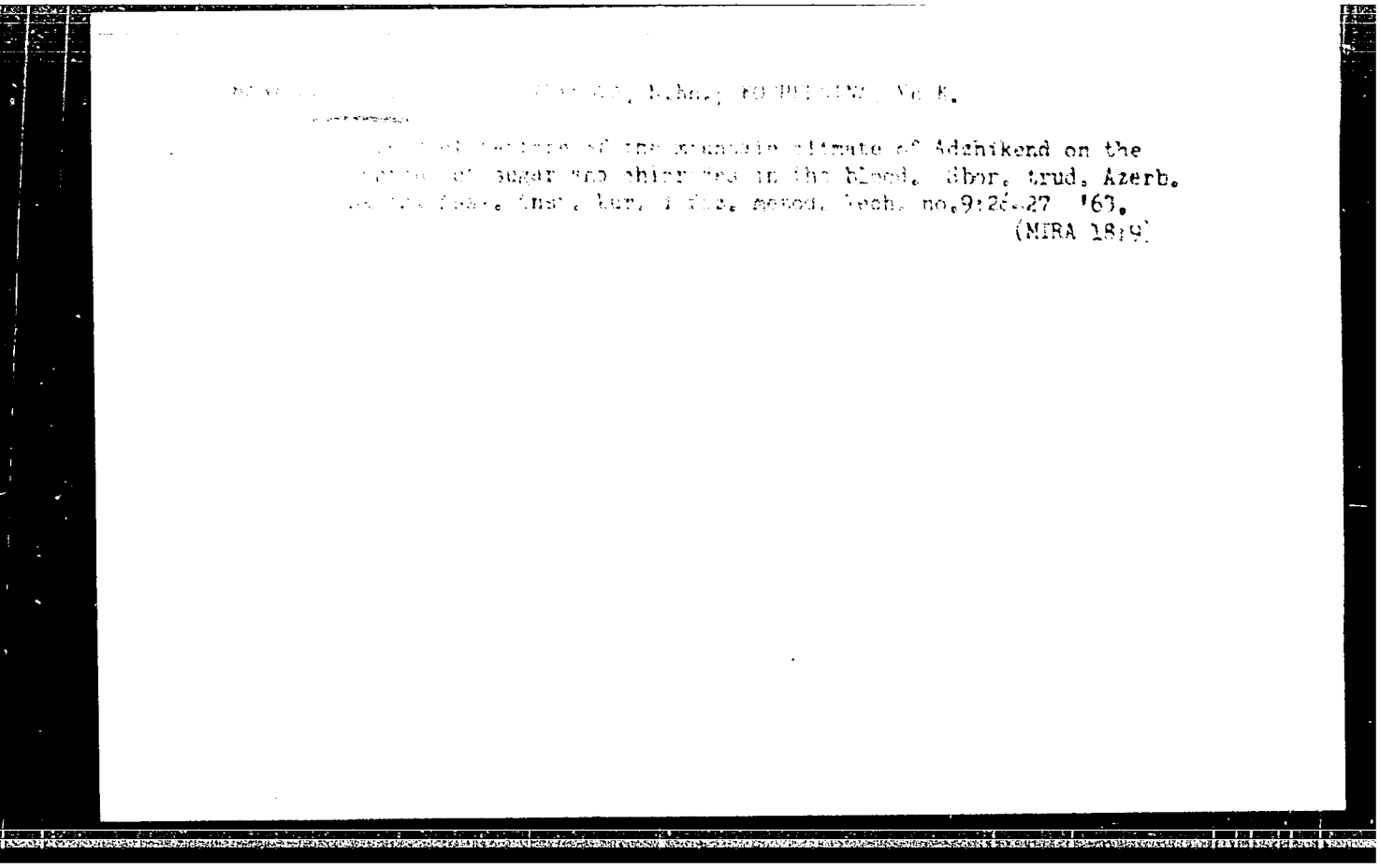

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