

BABAYAN, Kh.P.; BRYADZHIAN, N.G.; MAMIDZHANYAN, E.A.; GRIGOROV, N.L.;  
TRET'YAKOVA, Ch.A.; SHESTOPEROV, V.Ya.

Nuclear-active particles in young air showers. Zhur. eksper.  
i teor. fiz. 46 no.1:110-122 Ja'64. (MIRA 17:2)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo  
universiteta i Institut fiziki Gosudarstvennogo komiteta po  
ispol'zovaniyu atomnoy energii SSSR, Yerevan.

ACCESSION NR: AP4033062

10 cm in diameter. The fifth and sixth series were placed beneath a lead shield. It was found that the frequency of the young showers increased by a factor of 14-16 from sea level to the mountain top. This indicates that  $\mu$ -mesons play an insignificant role in the formation of young showers. The contribution of  $\mu$ -mesons in these events at a height of 3250 m does not exceed 1% of the total of the young shower. At sea level, the contribution may reach 15%. The attenuation length in the lower layers of the atmosphere of nucleons with energies of  $E > 2 \cdot 10^{12}$  ev is  $109 \pm 8$  g/cm<sup>2</sup>. When the interaction range of nucleons in the atmosphere is 80 g/cm<sup>2</sup>, an attenuation length of 109 g/cm<sup>2</sup> corresponds to an average inelasticity coefficient of the nucleons of  $\bar{K} = 0.5$ . When the interaction range is 90 g/cm<sup>2</sup>,  $\bar{K} = 0.6$ . Orig. art. has: 3 formulas.

ASSOCIATION: Institut fiziki GKAE (Yerevan) NIIYaF; MGU (Institute of Physics GKAE (Yerevan) NIIYaF, MGU); Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

SUBMITTED: 00

DATE ACQ: 07May64

ENCL: 00

SUB CODE: ES, GP

NO REF SOV: 003

OTHER: 000

Card 2/2

ACCESSION NR: APL033062

S/0252/64/038/002/0101/0104'

AUTHORS: Babayan, Kh. P.; Grigorov, N. L.; Mamidzhanyan, E. A.; Shestoporov, V. Ya.

TITLE: The height behavior of nucleons of high energy in the atmosphere (Presented by M. L. Ter-Mikayelyan, corresponding member of the AN Armyanskoy SSR on 25 September 1963)

SOURCE: AN ArmSSR. Doklady\*, v. 38, no. 2, 1964, 101-104

TOPIC TAGS: nucleon, atmosphere, attenuation length, mu meson, interaction range

ABSTRACT: When a nucleon of high energy interacts with a substance, the definite attenuation length of the nucleon in the substance has an intrinsic value. This paper is devoted to a determination of this value in the atmosphere. Computations show that deep in the atmosphere the attenuation length of nuclear-active components is determined only by the absorption of nucleon components. The authors have used the height behavior of young atmospheric showers for this purpose. Measurements were made at heights of 200 and 3250 m. The detecting apparatus had a working area of 10 m<sup>2</sup> and consisted of six series of ionization chambers, each 330 cm long and

Card 1/2

ACCESSION NR: AP4026380

their energy to primary nuclear-active particles. The investigation of nuclear-active components of NAS indicates that at  $E_0 \gg 1.7 \times 10^{12}$  ev nuclear-active particle energies there exists (with  $0.11 \leq w \leq 0.27$  probability) an almost fully inelastic ( $K \approx 1$ ) interaction with light-atomic weight nuclei 70%  $\pi^0$  - meson energy transfer (to "primary" particles) in a single event. These interactions introduce more than a 45% contribution to the energy loss in  $\pi^0$  - meson formation. Orig. art. has: 4 figures and 1 formula.

ASSOCIATION: Yerevanskiy institut fiziki GKAE (Yerevan Institute of Physics);  
NIIFYaF KZU; Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

SUBMITTED: 00

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: RM

NO REF SOV: 004

OTHER: 000

Card 2/2

ACCESSION NR: AP4026380

S/0252/64/038/001/0009/0015

AUTHORS: Babayan, Kh. P.; Grigorov, N. L.; Mamidzhanyan, E. A.; Shestoperov, V. Ya.

TITLE: Interaction of nuclear-active high-energy particles with light-atomic weight nuclei, characterized by high degree of inelasticity (Presented by corresponding-member G. M. Garibyan of the Academy of Science, Armenian SSR)

SOURCE: AN ArmSSR. Doklady\*, v. 38, no. 1, 1964, 9-15

TOPIC TAGS: electron-photon atmospheric shower, ionization chamber,  $\pi^0$ -mesons, nuclear-active particles, inelastic interaction

ABSTRACT: The so-called "new electron-photon atmospheric showers" (NAS) have been studied at a 3200-m altitude above sea level. The equipment was spread over an area of 10 m<sup>2</sup> and consisted of 6 ionization chambers, lead and graphite separation filters, and two upper series chambers for measuring the electron-photon component of NAS. It is assumed that "new showers" are generated during interactions where a certain number of  $\pi^0$ -mesons ( $\ll 4$ ) transmit the greater part of

Card 1/2

Investigation of the...

S/048/62/026/005/002/022  
B102/B104

(4) at sea level, the muon contribution is  $\sim 70\%$  ( $\sim 10^3$  particles) and  $\sim 50\%$  ( $\sim 2 \cdot 10^4$  particles). The burst spectrum was found to depend greatly on the area of the measuring arrangement. With  $2 \cdot 10^3 - 2 \cdot 10^5$  particles,  $\gamma$  goes over from  $1.37 \pm 0.02$  for  $(330 \text{ cm})^2$  to  $1.99 \pm 0.05$  for  $10 \cdot 330 \text{ cm}^2$ . The spectrum of bursts with a  $\pi^0$  energy transfer of  $3 \cdot 10^{11} - 10^{13}$  ev agrees with that of nuclear-active particles, and exhibits no "breaks". When particles with  $E > 10^{12}$  ev interact with light nuclei in about 10% of the events, the interaction is completely inelastic, and the  $\pi^0$  energy transfer amounts to 60 - 80% of the primary-particle energy. Such interactions obviously play a significant role in the formation of extensive air showers with at least  $10^4 - 10^5$  particles. There are 8 figures and 7 tables.

Card 3/4

Investigation of the...

S/048/62/026/005/002/022  
B102/B104

ionization bursts in the filter of the arrangement, for the altitude dependence of the burst frequency, and for the burst spectrum and its dependence on the size of the arrangement; the mechanism of local  $\pi^0$  generation by single nuclear-active particles was investigated. The bursts observed were grouped according to their intensity  $I$ , i.e., according to the number of relativistic particles involved; for each group, the numbers of ionization and "structuralized" bursts were determined for rows I-IV. The spectrum of ionization bursts can be described by  $N(>I) = AI^{-\gamma}$  for all chambers. The index of the integral spectrum for  $2 \cdot 10^3 \leq I \leq 2 \cdot 10^5$  equals  $1.37 \pm 0.02$ . With an area of  $\sim 0.6 \text{ m}^2$  it was found that  $\sim 20\%$  of the bursts were "structuralized" for  $1 \cdot 10^3 \leq I \leq 5 \cdot 10^3$ . At  $I > 1 \cdot 10^4$  and  $10 \text{ m}^2$  50% of the bursts (at sea level) and 75% (on the mountains) have a structure. An analysis of the course of the bursts with the altitude has shown that: (1) the integral spectrum of muon-induced bursts with  $3 \cdot 10^3 - 3 \cdot 10^4$  particles has an exponent of  $\gamma = 2.22 \pm 0.14$ ; (2) for a burst of equal intensity, induced by a single nuclear-active particle,  $\gamma = 1.98 \pm 0.09$ ; (3) at 3200 m, the muon contribution to single heavy bursts is small (15% of all bursts with  $\sim 10^3$  particles, and  $\sim 4\%$  of those with  $\sim 2 \cdot 10^4$  particles; Card 2/6 3

MAMIDZHANYAN, E.A.

3.2410 (2205, 2705, 2805)

37539  
S/048/62/026/005/002/022  
B102/B104

AUTHORS: Babayan, Kh. P., Babetski, Ya. S., Boyadzhyan, N. G.,  
~~Buya, Z. A.~~, Grigorov, N. L., Loskevich, Ye. S.,  
~~Manidzhanyan, E. A.~~, Massal'skiy, Ye. I., Oles', A. A.,  
~~Tret'yakova, Ch. A.~~, and Shestoporov, V. Ya.

TITLE: Investigation of the interaction of high-energy particles  
with atomic nuclei on mountains

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26,  
no. 5, 1962, 558 - 571

TEXT: Ionization bursts caused by the electron-photon component of a  
shower of cosmic-ray particles were studied with an array of ionization  
chambers (Fig. 1) at the mountain station (3200 m) of the Akademiya nauk  
Armyanskoy SSR (Academy of Sciences Armyanskaya SSR). The array consisted  
of six rows of ionization chambers separated by layers of lead and  
graphite, and covered an area of 10 m<sup>2</sup>. Owing to this large area, heavy  
bursts with a total energy of locally generated  $\pi^0$  mesons amounting to  
 $\sim 10^{13}$  ev could be photographed. The data obtained were analyzed for

Card 1/4 3



MAMICHEVA, L.M., kand. ekonomicheskikh nauk

Norms of labor consumption for the determination of the cost  
of experimental work. Trudy MAI no.151:85-91 '62. (MIRA 15:12)  
(Airplanes--Cost of construction)

073-55

TC NR: AP6016736

4

maintenance of gliders and engines are discussed and periods of flights between repairs are indicated. New, revised regulations are also used for maintenance of Ya-12, Li-2, An-2 and Il-14 aircraft. The aircraft "Morava" is also covered by these regulations.

SUB CODE: 01/ SUBM DATE: None

Card: 2/2 6/5

0 29873-66 DE(A)/DA(1)/DA(2)/DA(3)/T-C T

ACC NR: AP6016736

(A)

SOURCE CODE: UR/0084/66/000/001/0022/0023

AUTHOR: Smirnov, N. (Candidate of technical sciences); Mamichev, S. (Engineer)

ORG: None

TITLE: New progress made in maintenance of aircraft

SOURCE: Grazhdanskaya aviatsiya, no. 1, 1966, 22-23

*AIRCRAFT MAINTENANCE*

TOPIC TAGS: civil aviation, transport aircraft / An-2 transport aircraft, An-10 transport aircraft, An-24 transport aircraft, Il-14 transport aircraft, Il-18 transport aircraft, Il-2 transport aircraft, Tu-104 transport aircraft, Tu-124 transport aircraft, Yak-12 transport aircraft, Morava transport aircraft

AESTRACT: New measures and regulations applied to repair and maintenance of various civil transport aircrafts are briefly reviewed including the regulations introduced in 1962 for servicing Tu-104, Il-18 and An-10 aircrafts. Additional investigations were conducted in 1964 and 1965 and new regulations for the above types of aircraft were adopted extending the flight periods from 25, 100 and 500 hours to 50, 200 and 1000 hours. A new period of 2500 to 3000 hours is also provided in the new regulations approximately lying in the middle of the overhaul period of 4000 to 5000 hours. It is mentioned that similar regulations are in preparation for Tu-124 and An-2 aircrafts. The new regulations define more accurately the duties and responsibilities of engineers and foremen supervising the maintenance work. Some other changes (unification and simplification of regulations, new control sheets, etc.) are also mentioned. New specifications regulating the

46  
42  
B

14, 11

MAMICHEV, S., inzh.

The stage method. Grazhd. av. 21 no. 12:21 D '64.  
(MIRA 18:12)

MAMICHEV, R. V., dotsent (Vladivostok, ul. 25 Oktyabrya, d. 61, kv. 24);  
SVIDOVSKAYA, R. P.

Subarachnoid hemorrhages in stenosis of the aortic isthmus. Vest.  
khir. no.4:96-98 '62. (MIRA 15:4)

1. Iz kliniki nervnykh bolezney (zav. - dots. R. V. Mamichev)  
Vladivostokskogo meditsinskogo instituta.

(AORTA--DISEASES) (BRAIN--HEMORRHAGE)

MAMICHEV, R.V., dotsent (Vladivostok, ul. 25 Oktyabrya, d.61, kv.24)

Tumors of the brain and associated morphological changes in ganglia of the solar plexus. Vest.khir. 86 no.23/1-47 '61.

(MIRA 14:2)

1. Iz kliniki nervnykh bolezney (zav. - dotsent R.V. Mamichev) Vladivostokskogo meditsinskogo instituta i otdela morfologii nervnoy sistemy (zav. - prof. N.G. Kolosov) Instituta fiziologii im. I.P. Pavlova.

(SOLAR PLEXUS)

(BRAIN--TUMORS)

MAMICHEV, R.V., kand.med.nauk (Stalingrad, ul. Mira, d. 13, kv. 166)

Brain tumor simulating disease of the abdominal cavity. Vest.  
khir. 81 no.12:70-75 D '58. (MIRA 12:2)

1. Iz kliniki nervnykh bolezney (zav. - prof. V.A. Yershov)  
Stalingradskogo meditsinskogo instituta i otdela morfologii  
nervnoy sistemy (zav. - prof. N.G. Kolosov) Instituta fiziologii  
imeni I.P. Pavlova AN SSSR.

(BRAIN NEOPLASMS, differ. diag.

acute abdom. sympt. caused by involvement of  
autonomic ganglia (Rus))

(ABDOMEN, ACUTE, differ. diag.

brain neoplasms, involvement of autonomic ganglia  
causing sympt. of acute abdom. (Rus))

MAMICHEV, R.V., kandidat meditsinskikh nauk (Stalingrad)

Infantile paralysis and its control. Fel'd, 1 akush. 22 no.2:8-10  
F '57 (MLRA 10:5)  
(POLIOMYELITIS)



MAMICHEV, R.V.

MAMICHEV, R.V.

Diagnostic significance of the cutanegalvanic potential and the psychogalvanic reflex in lumbosacral radiculitis and in radiculalgias. Zhur.nevr. i psikh.55 no.10:734-735 '55.

1. Kafedry nervnykh bolezney (zav.prof. V.A.Yershov)  
Stalingradskogo meditsinskogo instituta.

(NEURALGIA, diagnosis,

psycho-galvanic skin potentials & psycho-galvanic reflexes in radiculalgias)

(NERVES ENDINGS, diseases,

radiculitis & radiculalgias, diag. value of psychogalvanic skin potentials & of psychogalvanic reflexes)

(REFLEX, PSYCHOGALVANIC,

in radiculitis & radiculalgias, diag. value of psychogalvanic skin potentials & of psychogalvanic reflexes)

MAMICHEV, R.V. (Stalingrad)

Objective method of diagnosing sciatica. Klin. med. 32 no.7:47-51  
J. '54. (MLRA 7:8)

1. Iz kafedry normal'noy fiziologii (zav.-prof. V.F.Shirokiy i  
kafedry nervnykh bolezney (zav.-prof. V.A.Yershov) Stalingradkogo  
meditsinskogo instituta.  
(SCIATICA, diagnosis)

MAMICHEV, M.

Service is improving. Sov.torg. 35 no.7:35 J1 '62.

(MIRA 15:11)

1. Instruktor gorodskogo komitet Kommunisticheskoy partii Sovetskogo Soyuz, g. Shakhty.

(Shakhty--Retail trade)

MAMEYEV, V.P.; SANDAKHCHIYEV, L.S.

Synthesis of dihaloid-substituted  $\beta$ -tyrosines. *Izv.Sib:otd.*  
AN SSSR no.1:68-77 '62. (MIRA 15:3)

1. Institut organicheskoy khimii Sibirskogo otdeleniya  
AN SSSR, Novosibirsk.

(Tyrosine)

MAMEYEV, V.P.; SEDOVA, V.F.

Production of 3-(phthalimidomethyl)indole by Fischer's reaction.  
Izv. Sib. otd. AN SSSR no.10:142-144 '61. (MIRA 14:12)

1. Institut organicheskoy khimii Sibirskogo otdeleniya AN  
SSSR, Novosibirsk.  
(Fischer indole synthesis)

BROFMAN, A.V., dotsent; MAMETOV, N.D.

Hemorrhage from the aorta following poisoning with caustic soda.  
Zhur. ush., nos. i gorl. bol. 21 no.5:79-81 S-0 '61. (MIRA 15:1)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. O.M.Mukoseyeva)  
Karagandinskogo meditsinskogo instituta.  
(HEMORRHAGE) (SODIUM HYDROXIDE...TOXICOLOGY)

MAMET, Ovsey Plikhosovich; DYMSHITS, Ye.S., inzh., red.; SERGEYEV, V.M.,  
inzh., red. izd-va; SOKOLOVA, T.F., tekhn. red.

[Brief manual for machinery designers] Kratkii spravochnik konstruk-  
tora-stankostroitelia. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.  
lit-ry, 1961. 358 p. (MIRA 14:12)  
(Mechanical engineering) (Machinery---Design)

MAMET, I.S., inzh.-podpolkovnik

We too have our suggestions. Vest.Vozd.Fl. no.12:48-49 D '60.  
(MIRA 14:5)

(Airplanes--Maintenance and repair)



MAMET, I.S., inzh.-podpolkovnik

What was accomplished through planning. Vest.Vozd.Fl.  
no.6:71-74 Je '60. (MIRA 13:7)  
(Airplanes--Maintenance and repair)

MAMESHIN, Ye.

Building the cities of the Khabarovsk Territory. Zhil stroi.  
no.6:16-18 Je '61. (MIRA 14:7)

1. Glavnyy arkhitekto Khabarovskogo Kraja.  
(Khabarovsk Territory--Construction industry)

ACC NR: AP6032532

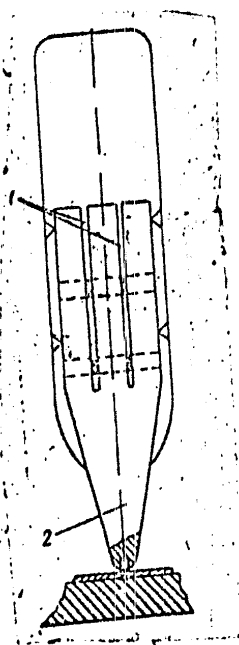


Fig. 1. Ultrasonic welding device

- 1 - Longitudinal slots;
- 2 - working tool.

SUB CODE: 13/ SUBM DATE: 1.1May65/  
Card 2/2

ACC NR: AP6032532

SOURCE CODE: UR/0413/66/000/017/0132/0132

INVENTOR: Stamov-Vitkovskiy, A. V.; Ginin, V. N.; Mamet, B. T.; Bondarenko, V. A.

ORG: none

TITLE: Device for ultrasonic welding. Class 49, No. 185673

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 132

TOPIC TAGS: ultrasonic welding, welding ~~device~~ EQUIPMENT

ABSTRACT: This Author Certificate introduces an ultrasonic welding device consisting of vibrators and a transverse oscillation transformer connected with the working tool. To increase the oscillation amplitude of the working tool, the transformer is provided with longitudinal slots and the working tool forms one piece with the transformer (see Fig. 1). Orig. art. has: 1 figure.

Card 1/2

UDC: 621.791.16.03

MAMET, A.F., doktor tekhn. nauk, prof.; ALEYNIKOV, G.I., kand. tekhn. nauk; TARATUTA, V.A., inzh.

Prestart cleaning of an 300Mw. power block. Teploenergetika  
12 no.7:26-33 J1 '65. (MIRA 18:7)

1. Moskovskoye otdeleniye Tsentral'nogo kotloturbinnogo instituta im. Polzunova.

AKOL'ZIN, P.A.; GERASIMOV, V.V.; KASPEROVICH, A.I.; MAMET, A.P.;  
MAN'KINA, N.N.; MARGULOVA, T.Kh.; MARTYNOVA, O.I.;  
MIROPOL'SKIY, Z.L.; Primali uchastiye: DYATLOVA, N.M.;  
BIKHMAN, B.I.; STYRINKOVICH, M.A., retsenzent; KOSTRIKIN,  
Yu.M., red.

[Water system of thermal electric power plants (ordinary  
and atomic)] Vodnyi rezhim teplovykh elektrostantsii  
(obychnykh i atomnykh). [By] P.A.Akol'zin i dr. Moskva,  
Energia, 1965. 382 p. (MIRA 18:3)

GURVICH, Semen Markovich; CHERNYAVSKIY, V.M., inzh., reitsenent;  
MAMET, A.P., prof., red.; SINEL'NIKOVA, L.N., red.

[Water-treatment plant technician] Apparatchik vodopod-  
gotovki. Moskva, Energiia, 1964. 279 p.

(MIRA 18:2)

MAMET, A.P., doktor tekhn. nauk; STASHKO, R.P., inzh.

New methods for removing nitrites and nitrates from boiler  
feedwater. Teploenergetika 11 no.7:55-60 J1 '64.

(MIRA 17:8)

1. Moskovskoye otdeleniye Tsentral'nogo kotloturbinnogo instituta.



MAMET, A.P., doktor tekhn.nauk; NOVI, Yu.O., kand.tekhn.nauk; TARATUTA,  
V.A., inzh.

Water cycle norms of once-through type boilers. Teploenergetika  
11 no. 1:91-92 Ja '64. (MIRA 17:5)

MAMET, A.P.

Chemical cleaning of boilers in foreign electric power plants.  
Vodopod., vod. rezh. i khimkont. na parosil. ust. no.1:51-55 '61.

Water treating equipment in foreign thermal electric power plants.  
Ibid.:109-112 (MIRA 18:2)

1. Moskovskoye otdeleniye Tsentral'nogo nauchno-issledovatel'skogo  
i proyektno-konstrukorskogo kotloturbinного instituta im. Polzunova.

MAMET, A.P.

Corrosion of the equipment of foreign thermal electric power plants. Vodopod., vod. rezh. i khimkont. na parosil. ust. no.1:41-42 '64. (MIRA 18:2)

1. Moskovskoye otdeleniye Tsentral'nogo nauchno-issledovatel'skogo i proyektno-konstruktorskogo kotloturbinnogo instituta imeni I.I. Polzunova.

BELAN, Fedor Ivanovich; MAMET, A.P., doktor tekhn. nauk, retsenzent;  
GURVICH, S.M., inzh., red.; BUL'DYAYEV, N.A., tekhn. red.

[Feed water purification] Vodopodgotovka. Izd.2., perer.  
Moskva, Gosenergoizdat, 1963. 319 p. (MIRA 16:11)  
(Feed water purification)

MAMET A.P., doktor tekhn.nauk; NOVI, Yu.O., kand.tekhn.nauk; TARATUTA,  
V.A., inzh.

Chemical purification of onpe-through type boilers using trilon B.  
Elek.sta. 34 no.2:12-16 F '63. (MIRA 16:4)  
(Boilers—Cleaning)

KONSTANTINOV, B.A., inzh.; EPFEL'BAUM, R.V.; MAMET, A.P., doktor tekhn.nauk

Problem concerning the automation of water treating systems.  
Teploenergetika 10 no.4:52-55 Ap '63. (MIRA 16:3)

1. Moskovskoye otdeleniye Tsentral'nogo kotloturbinnogo instituta.  
(Feed-water purification)

GURVICH, S. M., inzh.; MAMET, A. P., doktor tekhn. nauk

New water heating equipment for electric power plants. Teplo-  
energetika 10 no.3:87-92 Mr '63. (MIRA 16:4)

(Water heaters) (Electric power plants)

MAMET, A.P.

Prevention of the bearing-out of iron oxide from steel wool filled  
filters. Energetik 10 no.2:37 F '62. (MIRA 15:2)  
(Feed water purification) (Filters and filtration)



MAMET, A.P., doktor tekhn.nauk; VLASOVA, Ye.F., inzh.

Studying the dissolving of boiler incrustations by means of  
complex-forming reagents. Teploenergetika 9 no.11:69-74 N '62.  
(MIRA 15:10)

1. Moskovskoye otdeleniye Tsentral'nogo nauchno-issledovatel'skogo  
kotloturbinnogo instituta imeni I.I.Polzunova.  
(Boilers—Incrustations)

MAMET, A.P., doktor tekhn.nauk

Concerning the relative alkalinity of boiler water. Elek.sta. 32  
no.4:34-36 Ap '61. (MIRA 14:7)  
(Feed water) (Boilers--Corrosion)

MAMET, A.P.

Use of steel filings in the deoxidation of water. Energetik 9  
no.8:34-35 Ag '61. (MIRA 14:8)  
(Feed-water purification)

GURVICH, Semen Markovich; MAMET, A.P., doktor tekhn. nauk,  
retsenzent; KOMAROV, L.P., red.; VORONIN, K.P., tekhn.  
red.

[Water treatment] Vodopodgotovka. Moskva, Gos. emerg. izd-  
vo, 1961. 239 p. (MIRA 15:2)  
(Feed-water purification)

MAMET, A.P., doktor tekhn.nauk; SHKROB, M.S., doktor tekhn.nauk

Water norms for low-pressure boilers. Energetik 8 no. 12:25-  
28 D '60. (MIRA 13:12)

(Boilers)

(Feed water)

MAMET, A.P., doktor tekhn.nauk; GURVICH, S.M., inzh.

Selecting a water treatment system for small enterprises.  
Teploenergetika no.4:84-85 Ap '60. (MIRA 13:8)  
(Feed-water purification)

MAMET, A. P.

PHASE I BOOK EXPLOITATION SOV/3854

Akol'sin, P. A., P. M. Andreyev, I. E. Apelt'sin, G. M. Gurvich, A. A. Kuy, Yu. M. Kostrikin, I. I. Koshchev, A.P. Mamet, Yu. O. Novl, M. M. Bendik, I. Kh. Khaybullin

Spravochnik khimika-energetika. tom 1: Spravochnyye materialy obshchego naznacheniya (Handbook of Chemistry in Power Engineering. Vol 1: General Reference Material) Moscow, Gosenergoizdat, 1960. 327 p. 20,000 copies printed.

Eds.: V.A. Golubtsov, G.M. Gurvich, Yu. M. Kostrikin, and A.P. Mamet; Tech. Ed.: K. P. Voronin.

**PURPOSE:** This handbook is intended for chemists in the field of power engineering, personnel of laboratories, scientific research institutes, and planning and control organizations, as well as for students of universities and technicians.

**COVERAGE:** This is the first of a three-volume handbook of chemistry in power engineering. It includes data on the water system of boilers, causes of corrosion and methods for controlling it. It also contains general reference material on measures and units, chemical compounds, water and solutions, solubility of substances in water and water vapor at various temperatures, electrochemistry, gases, specifications and prices for certain reagents and materials. The book includes tables, charts, and diagrams. No personalities are mentioned. There are 52 references: 39 Soviet, 10 English, 2 German, and 1 Swedish.

Cont-412.

8 (6)

SOV/91-59-11-4/27

AUTHORS: Gurvich, S.M., Engineer, Kagan, D.Ya., Candidate of Technical Sciences, and Mamet, ~~A.P.~~, Doctor of Technical Sciences

TITLE: Causes of Boiler Corrosion

PERIODICAL: Energetik, 1959, Nr 11, pp 10-13 (USSR)

ABSTRACT: The authors explain the possible causes of a case of boiler corrosion at an unidentified plant. The corrosion was detected in a DKV-10-13 boiler. It was caused by an interaction of several factors: large amounts of ammonium sulfate were added to boiler water in the feed tanks; the regeneration of ammonium-sodium-cationite filters was not performed properly; no deaeration of the boiler water; improper washing of the boiler with diluted acids. They state that it is very difficult to estimate the degree of the influence of the one or the other factor because of the lack of sufficiently detailed data. In their conclusions the authors give some general instructions for processing boiler water.

Card 1/1



MAMET, A.P., doktor tekhn. nauk; STASHKO, R.P., inzh.

Chemical demineralization of the condensate. Teploenergetika 6  
no.12:71-77 D '59. (MIRA 13:3)

1. Moskovskoye otdeleniye Tsentral'nogo nauchno-issledovatel'skogo  
kotloturbinogo instituta.  
(Feed-water purification)

Experience in the preparation of magnesite sorbent and in the de-silication of feed-water for high-pressure boilers. SOV/96-58-10-10/25

note that this article and the next one by Kvyatkovskiy and Baulina are published as a useful basis for considering this method of treatment, although the editors disagree with a number of points in the article. There are 6 figures and 2 tables.

ASSOCIATION: Tsentroenergochermet

Card 4/4

Experience in the preparation of magnesite sorbent and in the SOV/96-58-10-10/25  
de-silication of feed-water for high-pressure boilers.

filtration on the effectiveness of purification. It will be seen from the graph in Fig.5. that as the rate is increased from 4 to 10.7 m/hr the silica content increases by 0.51 mg/litre. The results plotted in Fig.6. show that by reducing the hydrated alkalinity of the water delivered to the sorbent filters, their effectiveness is improved. However, tests could not be made at pH values below 8.5 because coagulation of the water by the iron sulphate was impaired. Thus the best condition for removing silica from water by magnesite sorbent is the carbonate condition of liming with which the pH value of the water is 8.5 - 9. In six months of operation the magnesite sorbent absorbed 572 kg of silica, a third of the theoretical capacity. The use of magnesite sorbent simplified the process of water treatment and reduced the silica content of the feed water from its former value of 0.8 - 1.3 mg/litre to 0.25 - 0.5 mg/litre. Boiler blow-down was correspondingly reduced. There is an editorial

Card 3/4

Experience in the preparation of magnesite sorbent and in the SOV/96-58-10-10/25  
de-silication of feed-water for high-pressure boilers.

available at the power station, is sketched in Fig.1., and the procedure used to manufacture the sorbent is described. The chemical analysis of the sorbent was: 35.5% MgO; 22% MgCl<sub>2</sub>; 1.2% CaCl<sub>2</sub>; 6.8% FeCl<sub>3</sub>, the remainder being mainly water. Each filter was loaded with 6.8 tons of sorbent, to the heights given in Fig.2. Before the filters were used, excess chloride was washed out of the sorbent; a graph of the washing process appears in Fig.3. Full-scale operation of the filters commenced in March, 1957 and the results of six months operation are plotted in Fig.4. which shows that the silica content of the treated water has gradually risen to about 1.4 mg/litre SiO<sub>2</sub>. The increase has probably resulted from contamination of the sorbent with organic substances and iron oxides. The chemical analysis of the sorbent after 2½ months operation is given in Table.2; although the chemical composition has altered, the mechanical strength is unchanged. There is a considerable increase in the silica and iron-oxide contents of the sorbent. The silica content of the water was somewhat higher than it should be, and attempts to improve matters by raising the treating temperature by 5°C to 42°C were ineffective. Tests were made of the influence of rate of

Card 2/4

**AUTHOR:** Mamet, A.P. (Dr. Tech. Sci.) SOV/98-58-10-10/25  
Nikolayev, A.V. (Engineer)

**TITLE:** Experience in the preparation of magnesite sorbent and in the de-silication of feed-water for high-pressure boilers. (Opyt prigotovleniya magnezitovogo sorbenta i obeskremlivaniya vody dlya pitaniya kotlov vysokogo davleniya)

**PERIODICAL:** Teploenergetika, 1958, No.10. pp. 42-46 (USSR)

**ABSTRACT:** In Soviet power stations extensive use is made of magnesia treatment for the de-silication of water. As various practical difficulties are encountered, the VODGEO Institute developed under laboratory conditions a method of de-silicating water by filtration through a layer of magnesite sorbent prepared from magnesium oxide and hydrochloric acid. A method of preparing the sorbent on a large scale was developed and tried in practice. The Heat and Electric Power Station of the Cherepovets Metallurgical Works used to de-silicate water by means of caustic magnesite. The method proved unsatisfactory for ten months in the year and it was periodically necessary to carry out lime treatment under carbonate-bicarbonate conditions. Even so, boiler blow-down was excessive. Thirteen tons of sorbent were then made by the VODGEO formula and charged into two mechanical filters of 3,000 mm diameter. The raw materials from which the sorbent was made were technical hydrochloric acid of specific gravity 1.19 and 80% caustic magnesite. The equipment, which was

Card 1/4

MAMET, A. P.

AUTHORS: Gurvich, S.M.; Mamet, A.P. SOV-91-58-9-28/29

TITLE: Ammonium-Sodium Cationizing (Ob ammonynatriy-kationirovani)

PERIODICAL: Energetik, 1958, Nr 9, pp 39-40 (USSR)

ABSTRACT: The authors deal with some problems of ammonium-sodium cationizing raised by a reader's query. There is 1 Soviet reference.

1. Ammonium--Applications 2. Sodium--Applications

Card 1/1

**AUTHOR:** Mumet, A.P. Dr. Tech. Sci. SOV/96-58-7-22/22

**TITLE:** About P.A. Akol'zin's book 'The Corrosion of Metal in Steam Boilers  
(O knige P.A. Akol'zina 'Korroziya metalla parovykh kotlov.)  
(Gosenergoizdat, 1957. 224 pages)

**PERIODICAL:** Teploenergetika, 1958. No. 7, pp. 94-96 (USSR)

**ABSTRACT:** This is an important monograph that will undoubtedly be useful to workers in research and design organisations and also to the operating staff of power stations and other boiler houses. A major achievement of the work is an analysis of corrosion processes based on numerous electro-chemical measurements made under actual working conditions. A number of defects of the book are described in detail, one of the comments being contradicted by the editor of the journal, but it is pointed out that the defects mentioned do not significantly detract from the value of the book as a whole.

1. Metals - Corrosion 2. Boilers - Corrosion

Card 1/1  
USCOMM-DC-55501

AUTHOR: Mamet, A.P. 91-58-5-31/35

TITLE: On the Application of the Ionization of Water by Ammonium-Sodium Cations and the Ammonium Corrosion of Brass (O primeneni ammoniy-natriykationirovaniya vody i ammiachnoy korrozii latuni)

PERIODICAL: Energetik, 1958, Nr 5, pp 36-37 (USSR)

ABSTRACT: Corrosion of brass and bronze parts in boilers working with ammonium-sodium cationization is possible only in the presence of oxygen. In water with oxygen content, the minimal ammonium content causing corrosion is at 20° C 200 - 300 mg/l, at 80° C 50 - 100 mg/l. Under normal conditions the cationization of water causes no corrosion of brass or bronze parts. The content of ammonium in the steam should not exceed 3 mg/kg, because at condensation dangerous values may be reached. In such cases it is also important that the boilers work with an excess of pressure to prevent condensation.

AVAILABLE: Library of Congress

Card 1/1 1. Water Ionization



~~NAME~~ A.P. doktor .tekh.nauk

Problem of protecting boilers for high and super pressures and  
temperatures against fouling by oxides of iron and other metals.  
Energomashinostroenie 4 no.2:5-8 F '58. (MIRA 11:4)  
(Boilers--Incrustations)

MAMET, A.P., doktor tekhn. nauk.

"Metal corrosion in boilers" by P.A. Akol'zin. Reviewed by A.P.  
Mamet. Teploenergetika 5 no.7:94-96 JI '58. (MIRA 11:9)  
(Boilers) (Corrosion and anticorrosives)

ILLEGIBLE

SOV/91-58-2-9/31

On the Work of an Ammonium-Sodium-Cationite Installation

cationation, one obtains a comparatively higher exchange capacity of the sulpho-carbon (370 instead of 325 g-eq./cu m) and a somewhat lower specific consumption of the reagents (170 instead of 200 g/g-eq.). There is 1 table.

Card 3/3

SOV/91-58-2-9/31

On the Work of an Ammonium-Sodium-Cationite Installation

residue, mean hardness 6.2 mg-eq./l (caused almost exclusively by carbonates), 2.1 mg/l of chlorides and some traces of sulphates. The installation has 2 cationite filters, 700 mm in diameter each, a 0.6cu m container for regeneration solution, a centrifugal fan for blowing the solution towards the filters and a 600 mm diameter salt dissolver (needed in cases when sodium-cationation is necessary because of eventual lack of ammonium reagents). The experiments of the plants are described, and the results shown in form of a table. Experiments showed that by applying simultaneous ammonium-sodium

Card 2/3

SOV/91-58-2-9/31

AUTHORS: Mamet, A.P., Doctor of Technical Sciences,  
and Kabanova, A.I., and Semenova N.T.,  
Engineers

TITLE: On the Work of an Ammonium-Sodium-Cationite  
Installation (Rabota ammoniy-natriy-kationi-  
tovoy ustanovki)

PERIODICAL: Energetik, 1958, Nr 2, p 15 (USSR)

ABSTRACT: The plant mentioned in the article has a  
heating boiler room equipped with a water-  
softening carionite installation working  
along the system of simultaneous ammonium-  
sodium cationation. The system has lowered  
the alkali and salt contents of the processed  
water to such a degree that the blow-thru  
process could be dropped by 7 or 8%, even  
though condensed water is not recovered.

Card 1/3 The processed water had 322 mg/l mineral

PA - 2405

Water Regime of the Open-Hearth Furnace Evaporation Cooling System, adequate facilities for continuous blowing. In order to keep the quality of the steam on an equal level, steam separators must be provided for the equal distribution of the water-steam mixture, and particularly for the drawing off of steam over the entire length of the separator. It is necessary to introduce a chemical control which should be automatized to the greatest possible extent. It would be useful to set up saline-content-meters, in order to keep the quality of the steam and of the vaporizing water as well as that of the feed water under control. (2 illustrations and 2 tables).

(According to international usage, hardness is expressed in mval/liter = molar weight of a substance per liter.  
 1 mval/liter = 2,8 dH (German degrees of hardness). Russian has defined as a new unit according to GOST 6055-51  
 for pronounced hardness: mg equivalent/liter  
 for small hardness mkg equivalent/liter (micrograms)  
 The Russian mg equivalent corresponds to the mval/liter. (Reviewer's note).

ASSOCIATION: Tsentroenergochermet.  
 PRESENTED BY:  
 SUBMITTED:  
 AVAILABLE: Library of Congress.  
 Card 2/2

**AUTHOR:** MAMET, A.P. Dr. Tech. Sc., and NIKOLAYEV, A.V. and PA - 2405  
 KABANOVA, A.I., engineers. Tsentroenergochermet.

**TITLE:** Water Regime of the Open-Hearth Furnace Evaporation Cooling System.  
 (Vodnyy rezhim system isparitel'nogo okhlazhdeniya martenovskikh  
 pechey, Russian).

**PERIODICAL:** Stal'. 1957, Vol 17, Nr 2, pp 173 - 178 (U.S.S.R.)  
 Received: 5 / 1957 Reviewed: 5 / 1957

**ABSTRACT:** The investigation was carried out in two open-hearth furnaces of different plants. The technical requirements can be summarized as follows: With respect to feed water: Practically full transparency (not less than 150 cm crosswise), a hardness of not more than 0,1 mg/liter, an oxygen content not exceeding 0,1 mg/liter, an overall saline content of up to 10 %, and the absence of free carbon dioxide, if the water is heated above 25 - 30° C.

With respect to evaporating water: The water should comply with the operating regulations determined by pyrometric tests: (An alkaline content of not more than 20 - 25 and not less than 10 mval/liter, a saline content of 15 - 20 mg/liter presumably, not 15000 - 20000 as in the abstract in the paper).

With respect to the steam: Saline content corresponding to the specifications for feedwater in boiler systems. The content of carbon dioxide is not specified. The separators have to be equipped with

Card 1/2



MAMET, A.P.

AKOL'ZIN, P.A.; GURVICH, S.M.; KOTLYAR, R.V.; KOT, A.A.; MAMET, A.P.;  
MIKHAYLENKO, P.S.; PROKHOROV, F.G.; SOKOLOV, I.M.; CHERNOVA, L.A.;  
SHKROB, M.S.; YANKOVSKIY, K.A.; GUREVICH, L.S.; POLYAKOV, V.V.

To the editors of "Energetik." Energetik 5 no.3:11-12 Mr '57.  
(MIRA 10:3)

1. Vsesoyuznyy teplotekhnicheskyy institut im. Dzerzhinskogo (for Akol'zin, Kot, Yankovskiy) 2. Tsentral'nyy kotloturbinnyy institut (for Gurchich, Mamet,) 3. Teplo-elektro-proekt (for Gurevich). 4. Ministerstva elektrostantsiy (for Kotlyar, Prokhorov). 5. Teplovaya elektricheskaya tsentral'naya stantsiya No.9 (for Mikhaylenko, Polyakov) 6. Perev'yazochnyy etapnyy punkt (for Sokolov). 7. Moskovskoye rayonnoye upravleniye energokhozyaystva (for Chernova). 8. Energeticheskyy institut Akademii nauk SSSR (for Shkrob).

(Boilers)

MAMET, A.P.

GURVICH, S.M., inzhener; MAMET, A.P., doktor etkhnicheskikh nauk.

External treatment of water in low-capacity installations. *Energetik*  
5 no.2:24-26 F '57. (MLRA 10:3)  
(Feed-water purification)

*MAMET, A.P.*

GURVICH, S.M., inzhener; MAMET, A.P., doktor tekhnicheskikh nauk.

~~External treatment of water in low-capacity installations.~~  
Energetik 5 no.1:31-33 Ja '57. (MIRA 10:2)

(Feed-water purification)

*MAMET, A. P.*

MAMET, A.P., doktor tekhn. nauk; GURVICH, S.M., inzh.

Combined ammonium-sodium water cationing. Teploenergetika 4 no.12:  
47-52 D '57. (MIRA 10:11)

1. Moskovskoye otdeleniye Tsentral'nogo nauchno-issledovatel'skogo  
kotloturbinnogo instituta.  
(Feed-water purification)

ILLEGIBLE

SOV/123-59-15-59915

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 15, pp 144 (USSR)

AUTHOR: Mamet, A.P.

TITLE: Methods of Protecting Steam Boilers From Corrosion When not in Operation

PERIODICAL: V sb.: Vnutrikotlovyye fiz.-khim. protsessy, vodopodgotovka i vodn. rezhimy kotlov na elektrost. vysokikh i sverkhvysokikh parametrov. M., AN SSSR, 1957, pp 396 - 416

ABSTRACT: The article has not been reviewed.

Card 1/1

137-58-4-7907

Alkaline Chromate and Alkaline (cont.)

C forms on the surface of the metal. 40 g PF is added per ton of feed water. The alkalinity in this case is 20 mg/equiv-liter. As distinct from the chromates applicable to soft BW, PF may also be used for hard BW. Phenol C are of lower strength than the chromate variety and, therefore, any interruption in the application of the reagent induces boiler corrosion. In view of the volatility of the major components, PF undergoes little concentration in the BW; this results in an increased consumption of the reagent.

G.K.

1. Boilers--Corrosion prevention
2. Locomotives--Boilers--Corrosion prevention
3. Alkaline chromate--Applications
4. Alkaline phenol--Applications

Card 2/2

MAMET, A. P.

137-58-4-7907

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 221 (USSR)

AUTHORS: Mamet, A. P., Movshits, L. Ye., Grishakova, V. P.

TITLE: Alkaline Chromate and Alkaline Phenol Processes for Corrosion Protection of Locomotive Boilers (Shchelochno-khromatnyy i shchelochno-fenol'nyy rezhimy kak sposoby zashchity parovoznykh kotlov ot korrozii)

PERIODICAL: Sb. statey po energetike. Moscow, Metallurgizdat, 1957, pp 230-245

ABSTRACT: There are two stages in the alkaline chromate process: creation of a protective iron-chromate coating (C) and continuation of the formation of the C. During the first stage, a chromate strength of 150-200 mg CrO<sub>3</sub> per liter is maintained in the boiler water (BW), while during the second it is 30 to 50 mg/liter. The alkalinity of the BW during either stage is 20 mg equivalents per liter. The use of chromates provides reliable corrosion protection if the alkalinity of the BW is simultaneously maintained, but this method is limited by the shortage of chromates. Of the other methods of treating BW, the most effective is that of the "phenol fraction" (PF). When PF is added to the boiler, a thin protective

Card 1/2



MAMET, A.P.

IVANOV, V.S.; FRIDMAN, S.M.; GOLUBTSOV, V.A., redaktor; GURVICH, S.M., redaktor; KOSTRIKIN, Yu.M., redaktor; MAMET, A.P., redaktor; FRIDKIN, A.M., tekhnicheskii redaktor

[Reference manual of chemical and power engineering; in three volumes] Spravochnik khimika-energetika; v trekh tomakh. Pod red. V.A.Golubtsova i dr. Moskva, Gos. energ. izd-vo. Vol.3. [Oils and greases] Masla i konsistentnye smazki. 1957. 248 p. (MLRA 10:6)

(Lubrication and lubricants)

*Mamet, A. P.*

AID P - 4379

Subject : USSR/Power Engineering  
Card 1/1 Pub. 110 a - 5/17  
Authors : Mamet, A. P., Dr. Tech. Sci., and R. P. Stashko, Eng.  
Central Power and Steel Institute  
Title : Research on ammonia ionization of feed water  
Periodical : Teploenergetika, 5, 25-30, My 1956  
Abstract : The results of experiments with ~~matruim~~-ammonia  
ionization of water are reported. The possibilities  
of a simultaneous ionization process are discussed with  
the aid of 12 tables.  
Institution : None  
Submitted : No date

MESHCHERSKIY, Nikita Alekseyevich; MAMET, A.P., redaktor; LARIONOV, G.Ye.,  
tekhnicheskii redaktor.

[Organization of the operation of water processing equipment in  
industrial steam power plants] Organizatsiia ekspluatatsii vodopod-  
gotovitel'nogo oborudovaniia promyshlennykh teplosilovykh stantsii.  
Moskva, Gos. energ. izd-vo, 1956. 366 p. (MLRA 9:6)  
(Steam power plants)

MAMET, A. P.

Subject : USSR/Electricity AID P - 3776  
Card 1/1 Pub. 26 - 18/29  
Authors : Kochneva, Ye. G., Eng., A. P. Mamet, Doc. Tech. Sci.,  
and Ye. I. Fayn, Eng.  
Title : Testing of a salt concentrator  
Periodical : Elek. sta., 10, 51-53, 0 1955  
Abstract : The authors describe the testing of a salt concentrator  
of the BPK type for testing the salt contents of high  
pressure saturated steam. They present results in  
three tables. Two drawings, 1 diagram.  
Institution : None  
Submitted : No date

MAMET, A.P.

AID P - 2335

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 16/17

Author Mamet, A. P., Dr. of Tech. Sci.

Title : On the book Feed Water Treatment at Electric Power Plants  
by I. F. Shapkin. Gosenergoizdat, 1954. (Book review)

Periodical : Teploenergetika, 5, 62-64, My 1955

Abstract : The author gives a detailed account of this book published  
in 1954 as a textbook for technikums. The contents of  
this book are severely criticized and many errors are  
listed. Thorough review and correction are recommended.

Institution : None

Submitted : No date

MAMET, A. P.

AID P - 1828

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 5/16

Authors : Mamet, A. P., Doc. of Tech. Sci. and Kabanova, A. I.  
~~Eng.~~

Title : Sodium-zeolite condensate treatment for the feeding  
of the once-through high-pressure boilers

Periodicál : Teploenergetika, 3, 21-23, Mr 1955

Abstract : The authors describe the results of sodium zeolite  
treatment of condensate which is used to feed an  
industrial once-through boiler with steam separator  
(Sulzer boiler, p = 100 atm, t = 500°C). It was  
found that the salt contents of the water and its  
alkalinity increased at the expense of the pressure  
in the condensate of ammonia and carbon dioxide.  
One table.

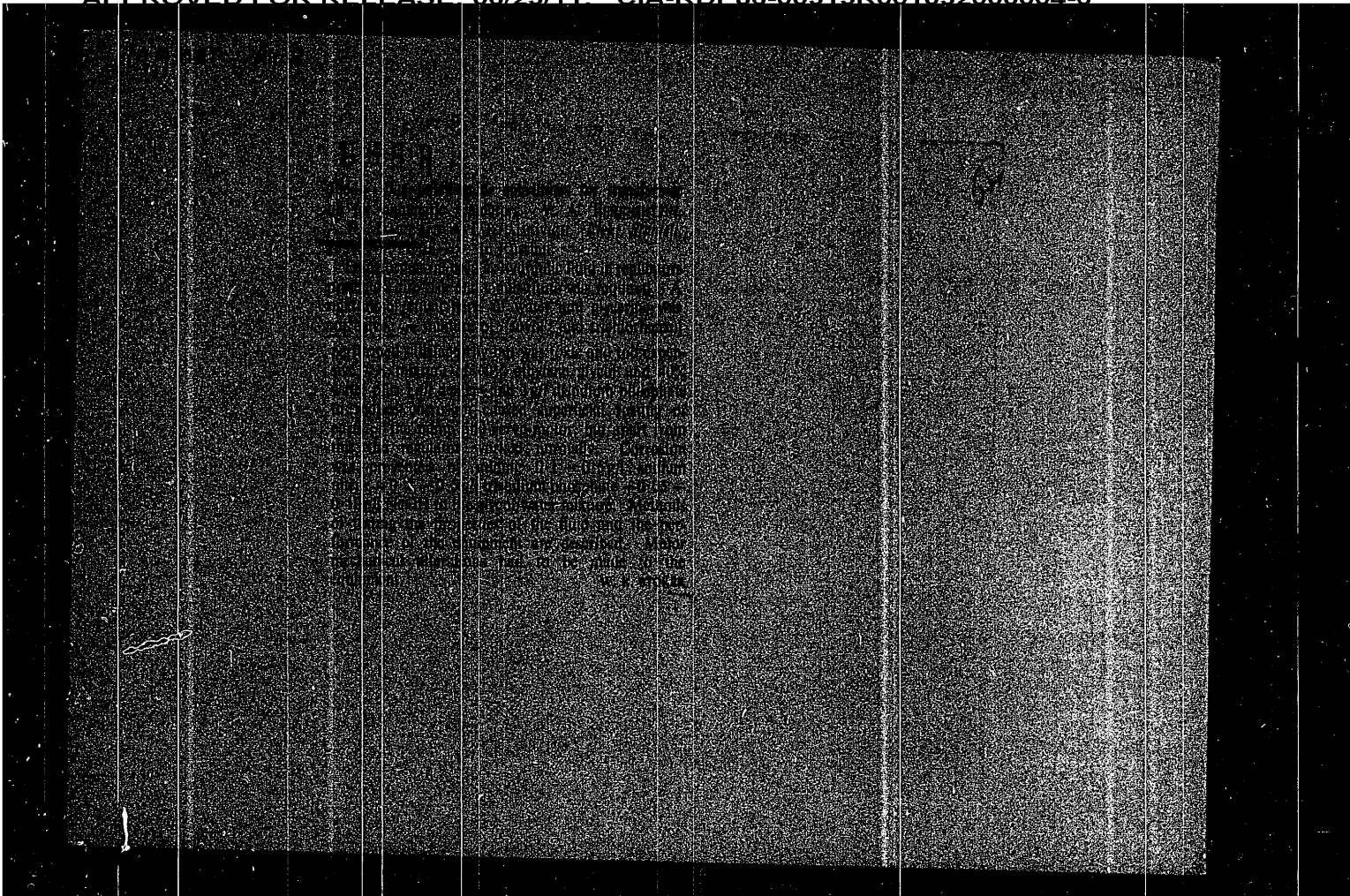
Institution: Tsentroenergometallurgprom

Submitted : No date

KRUSHEL', Georgiy Yevgen'yevich; MAMET, A.P., redaktor; SKVORTSOV, I.M.,  
tekhnicheskii redaktor

[Formation and prevention of deposits in water cooling systems]  
Obrazovanie i predotvrashchenie otlozhenii v sistemakh vodianogo  
okhlazhdeniia. Moskva, Gos. energ. izd-vo, 1955. 222 p. (MLRA 8:7)  
(Refrigeration and refrigerating machinery)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001032000004-6





Mamat, A.P.

520. NEW METHODS OF REMOVING HIGH ALKALINITY IN POTTER WATER.  
Mamat, A.P. and Gurvitsch, S.M. (Toploosergoika (Heat Engin. Moscow),  
Nov, 1958, 22-24; Energetichesk, Dec, 1958, vol. 5, 551-553). The methods  
are based on the anionion cation exchange of the alkaline water and the addition  
of ammonia salt to the (soft) water. They are cheaper as compared with the  
lime cation exchange method and avoid certain operating problems, though giving  
equally successful results. (L).

2

C.S.A.

MAMET, A. P.

Dissertation: --"Corrosion and Protection of the Metal of Equipment Exposed to Intense Heat." Cand Tech Sci, Moscow Inst of Power Engineering, Moscow 1953.

SO: Referativnyy Zhurnal, No. 5, Dec. 1953, Moscow, AN USSR (W-30928  
~~NY 30928~~)

MAMET, A. P.

Subject : USSR/Engineering AID - P-80  
Card : 1/1  
Author : Mamet, A. P., Kand. of Eng. Sci.  
Title : Significance of Oxidizers in Feed Water (Advice to  
Industrial Laboratories)  
Periodical : Izv. V.T.I., v. 21, #3, 24-25, Mr 1952  
Abstract : The corrosion effect is explained by the presence of  
oxygen in feed water and also by the depolarization of  
corrosive micro-and macroelements. The author proposes  
further study of the corrosion effect on the basis of  
periodical analysis of feed water reported by many  
power plants.  
Institution : Feed Water Laboratory of the All-Union Heat Engineering  
Inst. im. F. E. Dzerzhinskiy.  
Submitted : January 11, 1952

MAMET, A. P.

Korroziia teplosilovogo oborudovaniia elektrostantsii [Corrosion of the thermal power equipment of electric stations]. Moskva, Gosenergizdat, 1952. 296 p.

SO: Monthly List of Russian Accessions, Vol 6 No 4, July 1953

MANET, A. P., GLUSHENKO, V. V.

Technology

(Deoxygenation of water with steel shavings). Moskva Gosenergoizdat, 1951.

Monthly List of Russian Accessions, Library of Congress, November 1952. U UNCLASSIFIED.

ILLEGIBLE

1ST AND 2ND ORDERS  
3RD AND 4TH ORDERS  
PROCESSING AND PROPERTIES INDEX

20

5

PROTECTION OF BOILER PLANT FROM STANDING CORROSION. A. P. Mamot. (Elektricheskie Stantsii, 1949, No. 5, pp. 27-29; Electrical Engineering Abstracts, 1949, vol. 52, Feb., p. 31). The effects of oxygen dissolved in water, of water vapour in empty and partially empty boilers, and of leakage of superheated steam are discussed. Distinction is drawn between the effects of shut-down periods of a few hours and those of several days. Recommendations are given for partial heating in the former case and specific details for preservation by wet and dry methods in the latter.

Common Elements  
Materials Index  
Open  
Variables Index

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

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

B 6<sup>2</sup><sub>a</sub>

SA

271. Protection of boiler plant from standing corrosion. MANN, A. F. *Elect. St.* (No. 5) 27-9 (1948) In Russian.—The effects of oxygen dissolved in water, of water vapour in empty and partially empty boilers, and of leakage of superheated steam are discussed. Distinction is drawn between the effects of shut-down periods of a few hours and those of several days. Recommendations are given for partial heating in the former case and specific details for preservation by wet and dry methods in the latter.  
H. G. M. R.

ASST. DIR. METALLURGICAL LITERATURE CLASSIFICATION



CA

The corrosion of brass under the influence of ammonia.  
 A. P. Mamedov. *Izv. Vsesoyuz. Tekhnich. Inst. im. P. L. Kapitsa*  
*Doklady* 16, No. 10, 26-32 (1947); *Chem. Zentr.*  
 (Russian Zone Ed.) 1948, 1, 927. Expts. are reported on  
 the corrosion of brass by  $\text{NH}_3$  in aq. soln. and in mixts. of  
 water vapor,  $\text{CO}_2$ , O, etc. In the complete absence of O  
 there was practically no corrosion except at high concns.  
 Corrosion in the presence of O depended on a reciprocal  
 action, since O caused only very slight corrosion (0.03-0.09  
 g./cu. in./hr.) in the absence of  $\text{NH}_3$ . At very low  $\text{NH}_3$   
 concns. the rate of corrosion was very slight, even in the  
 presence of O. The max. attainable rate of corrosion de-  
 pended exclusively on the rate of diffusion of the O onto  
 the metal surface. This max. rate was reached at about 60°. At  
 a sufficiently high concn. the  $\text{NH}_3$  attacked the brass  
 more rapidly from the vapor mixt. than in aq. soln. Cooled  
 brass surfaces were corroded by considerably lower  $\text{NH}_3$   
 concns. than uncooled surfaces. This was due to the  
 higher O and  $\text{NH}_3$  concns. in the liquid film on the surface.  
 Uncooled surfaces were practically unaffected by concns.  
 of 50-100 mg.  $\text{NH}_3$ /kg. of water vapor even in the presence  
 of O. Cooled surfaces were corroded at concns. as low as  
 3 mg./kg. M. G. Mooney

*Cond. Tech. Sci. Water Laboratory*

14

CA

PROBLEMS AND PROPERTIES INDEX

**Acidproof coatings for water conditioning installations.**  
A. P. Mamet. *Izvest. VII (Vsesoyuz. Teplokh. Inst. im. F. Dzerzhinskogo)* 15, No. 3, 24-7 (1946). Of various coatings of acidproofing materials tested on parts of a water-treating installation perchlorovinyl varnish was very effective; rubber chloride was still more effective, but the supply is limited. Polychlorovinyl and its products were used successfully on surfaces which were not sharply curved. Where elasticity was not required a mixt. of divinylacetylene polymers and Rubrax performed well. Rubrax alone was unsatisfactory. Ordinary enamel and automobile lacquer failed. M. Hosh

ASM-51A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND LETTERS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

14

**Inhibitors for acid washes [to remove boiler scale].**  
 A. P. Mamet. *Tekstil. Prom.* 4, No. 7, 25-7(1944); cf. C. A. 38, 3765. --More than 40 substances were tested for their efficiency in protecting metal parts when boilers and similar installations are acid-treated to remove scale. The inhibiting effect ( $r$ ) is measured by the percentage by which the inhibitor decreases the loss in wt. of metal treated in a given acid in g. per sq. m. per hr. A high  $r$  is due to the presence of certain polar groups. Of these the most effective are N- and S-contg. heterocycles, and the CHO group; NH<sub>2</sub> and azo groups are less effective; OH, CO<sub>2</sub>H and SO<sub>3</sub>H, still less so,  $r$  increases with an increase in the mol. wt. of the compd. and the number of polar groups. For the most effective inhibitors tested, added in quantities of 2-10 g. per l. to 10% HCl (cold),  $r$  was 85-99%. In decreasing order of their effectiveness they were urotropine (I), formalin (II), Unicol (a vegetable ext.) (III), quinoline (IV), fural and joiners glue (V). The inhibiting action is specific and depends on the acid and temp. I and II were most effective in cold 10% HCl ( $r = 94\%$ ). In cold 5% H<sub>2</sub>SO<sub>4</sub> IV ( $r = 98\%$ ) and NH<sub>2</sub>CNS were most effective. In cold 10% H<sub>3</sub>PO<sub>4</sub> NH<sub>2</sub>CNS ( $r = 98\%$ ) and V ( $r = 98\%$ ) were most effective.

For HCl + HF I and II gave best results. In HCl (concn. 2-10%)  $r$  diminishes with increase in concn. of the acid; in H<sub>2</sub>SO<sub>4</sub> it increases; while in H<sub>3</sub>PO<sub>4</sub> (concn. 0.5-5%) it is not affected significantly. An increase in temp. generally lowers  $r$ . When added in sufficient quantities the  $r$  of V remained const. for rising temps. up to 100° in all acids except H<sub>3</sub>PO<sub>4</sub>. For III  $r$  declines sharply at temps. above 60-70°. In HCl and HCl + HF I and II remain almost unaffected by temp. Furfural is strongly affected by temp. Generally at elevated temps. H<sub>3</sub>PO<sub>4</sub> is hardest to inhibit while HF and HCl + HF are easiest. The effect of most inhibitors on the soly. of CaCO<sub>3</sub> in acids is not significant; the soly. of CaCO<sub>3</sub> in cold HCl is decreased noticeably by V and that in warm H<sub>3</sub>PO<sub>4</sub> by I. Thus boiler scale can be safely dissolved at any temp. up to boiling provided the proper inhibitor is added to the acid soln. At boiling temps. H<sub>3</sub>PO<sub>4</sub> is better avoided.  
 M. Hosh

2-2

METALLURGICAL LITERATURE CLASSIFICATION

A 58-51 A

MATERIALS INDEX

INDEX AND CROSS REFERENCE SHEET

CA 14

Substitutes for HCl for chemical removal of boiler scale.  
A. E. Mauck. *Tekstil. Prom.* 4, No. 1, 27 (1944).  
H<sub>2</sub>SO<sub>4</sub> and H<sub>3</sub>PO<sub>4</sub> are most effective against carbonate  
scale; least against silicate scale. Sulfate scale is most con-  
veniently removed with phosphates. Na<sub>2</sub>PO<sub>3</sub> is con-  
veniently made from superphosphate and lye. Si scale is  
best removed with a mixt. of HCl and NaF. For best re-  
sults a preliminary test should be made in each case.  
M. Hosen

ASSOCIATED METALLOGICAL LITERATURE CLASSIFICATION

CHALAPSINA, E. V. and MAMET, A. P., and MOVSHITS, L. E.

"Automatic Determination of Alkalinity and Hardness of Condensates,"  
Zavcd Lab., 1938, 7, 784-90.

Hardness is determined by photoelectric measurement of the turbidity given with Leimann's reagent. Alkalinity is similarly determined photo-colorimetrically with alizarin-red.

117 AND 118 GROUPS  
119 AND 120 GROUPS

BC

B-I-1

Volkmanskotte as a hydrogen neolite. F. E. Procr-  
onov and A. P. MANN (Invest. Teplotech. Inst., 1935,  
No. 1, 40-44).—The mineral (Or Mg silicate with 30%  
Cr<sub>2</sub>O<sub>3</sub>) disintegrates when dried at 100-150° and serves  
as a neolite for boiler-fed H<sub>2</sub>O. It is regenerated by  
approx. 10 times the calc. amount of NaCl.  
Cu. Abs. (p)

COMMON ELEMENTS  
COMMON VARIABLES INDEX

OPEN MATERIALS INDEX  
MATERIALS INDEX

ASME-514 METALLURGICAL LITERATURE CLASSIFICATION

117 AND 118 GROUPS  
119 AND 120 GROUPS

121 AND 122 GROUPS  
123 AND 124 GROUPS

125 AND 126 GROUPS  
127 AND 128 GROUPS

129 AND 130 GROUPS  
131 AND 132 GROUPS

133 AND 134 GROUPS  
135 AND 136 GROUPS

137 AND 138 GROUPS  
139 AND 140 GROUPS

141 AND 142 GROUPS  
143 AND 144 GROUPS

145 AND 146 GROUPS  
147 AND 148 GROUPS

149 AND 150 GROUPS  
151 AND 152 GROUPS

153 AND 154 GROUPS  
155 AND 156 GROUPS

157 AND 158 GROUPS  
159 AND 160 GROUPS

161 AND 162 GROUPS  
163 AND 164 GROUPS

165 AND 166 GROUPS  
167 AND 168 GROUPS

169 AND 170 GROUPS  
171 AND 172 GROUPS

173 AND 174 GROUPS  
175 AND 176 GROUPS

177 AND 178 GROUPS  
179 AND 180 GROUPS

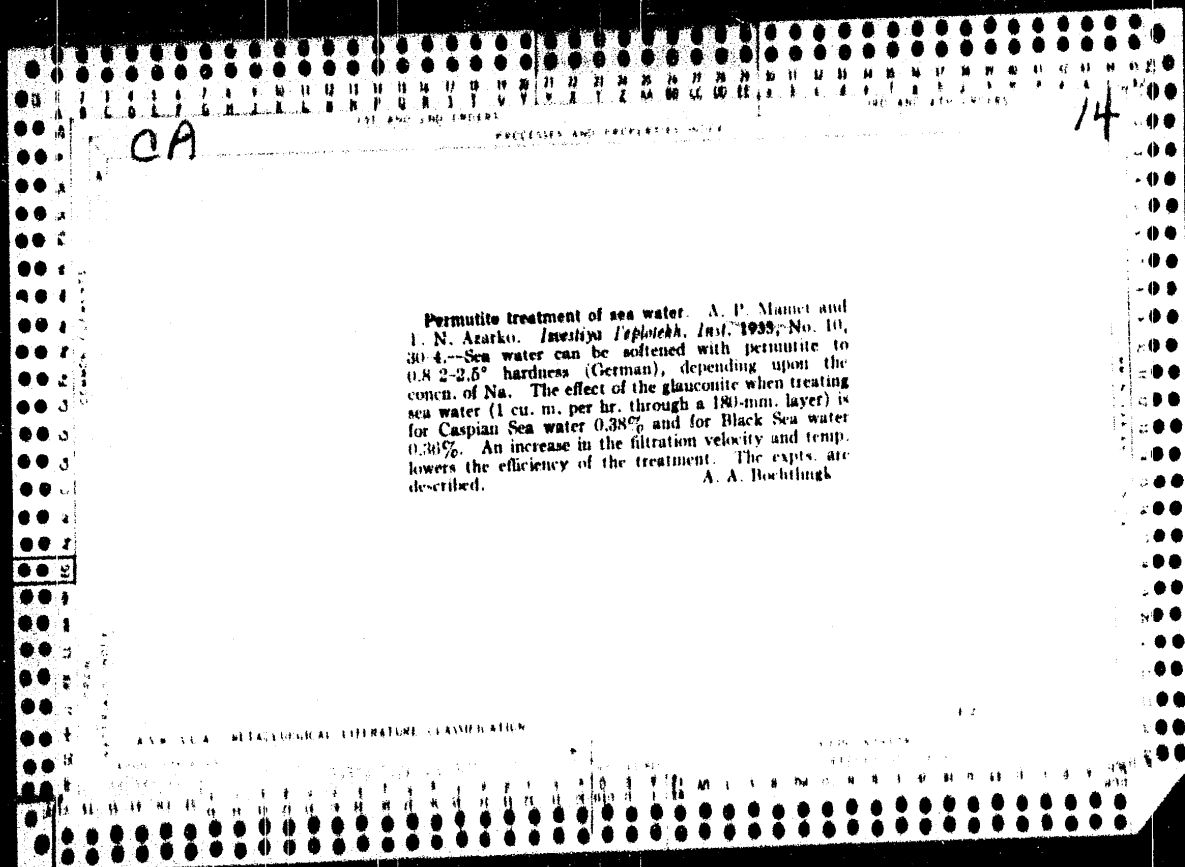
181 AND 182 GROUPS  
183 AND 184 GROUPS

185 AND 186 GROUPS  
187 AND 188 GROUPS

189 AND 190 GROUPS  
191 AND 192 GROUPS

193 AND 194 GROUPS  
195 AND 196 GROUPS

197 AND 198 GROUPS  
199 AND 200 GROUPS



CA

14

**Permutite treatment of sea water.** A. P. Mamet and I. N. Azarko. *Izvestiya Vuzovskikh Inst.* 1933, No. 10, 30-4.--Sea water can be softened with permutite to 0.8-2.5° hardness (German), depending upon the concn. of Na. The effect of the glauconite when treating sea water (1 cu. m. per hr. through a 180-mm. layer) is for Caspian Sea water 0.38% and for Black Sea water 0.36%. An increase in the filtration velocity and temp. lowers the efficiency of the treatment. The expts. are described. A. A. Buchting

ANNUAL BIBLIOGRAPHICAL LITERATURE CLASSIFICATION

MAMESTVALOVA, A.I.; SPIRIN, A., red.

[Protecting a petroleum-distillation pressure pipe-  
still from corrosion] Zashchita neftepererabotnoi at-  
mosferno-trubchatoi ustanovki ot korrozii. Baku,  
Azernesht, 1964. 97 p. (SIRA 1843)



POPOVA, N.M.; SOKOL'SKIY, D.V.; BABENKOVA, L.V.; MAMESHEV, R.

Hydrogenation of cottonseed oil on nickel-kieselguhr and nickel-chromium catalysts over coal in absolute ethyl alcohol. Izv. AN Kazakh. SSR. Ser. khim. nauk 15 no.2:59-64 Ap-Je '65 (MIRA 18:9)

KAUFMAN, Stefan (Katowice); MAMES, Jakub (Katowice)

Ultimate strength of prestressed concrete continuous beams.  
Archiw inz lad 6 no.4:397-452 '60.

MAMES, J.

The computation of bends in beams made of cable concrete. p. 151

Vol. 12, no. 5, May 1955  
INZYNIERIA I BUDOWNICTWO  
Warszawa

Source: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 2  
Feb. 1956