

SOV/3-59-5-18/34

The Courses in General Chemical Technology

"General Chemical Technology" combines the enumerated subjects with industrial production. It elucidates the basic directions, methods and means of development of chemical production. To make teaching of general chemical technology specific, the reading of lectures on this subject must go parallel with technological laboratory work, calculation exercises and industrial training. All these forms of instruction must be founded on a profound theoretical basis and with due regard to the technical economic aspects. It is equally important to disclose to the student the advantages offered by the socialist planned economy for solving technological problems on the basis of cooperation and combination of various industrial processes, complex reprocessing of raw-material and rational geographical distribution of industry, as well as for solving problems of intensification and automation of pro-

Card 2/3

SOV/3-59-5-18/34

The Courses in General Chemical Technology

duction, raising productivity of labor, etc. It is important to know all this since it is intended to establish during the current 7-Year Plan, large combined enterprises, particularly with the complex re-processing of gases in oil recovery, of natural gases, and of gases produced by oil-refining plants and of other kinds of mineral raw material. The author indulges in extensive comments on teaching general chemical technology, and on how the course should be built up under the new working conditions of the higher school. In a few cases the author points out the experiences of the Leningrad Technological Institute and Moscow University.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov (Vol'fkovich); Leningradskiy tekhnologicheskii institut imeni Lensoveta (Leningrad Technological Institute imeni Lensovet (Mukhlenov and Averbukh).

Card 3/3

MUKHLINOV, A. I.

"Osnovnye etapy istorii v'etnamskoy obshchiny."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,  
Moscow, 3-10 Aug 64.

RUSAKOV, G.K., kand. sel'khoz. nauk; MILYAVSKIY, I.O., kand. sel'khoz. nauk; SHILKO, V.P., kand. sel'khoz. nauk; MARTINENAS, A.N.; BELINSKIY, A.I., agr.-ekonom.; KARPUSHENKO, A.I., agr.-ekon. [deceased]; POSMITNYY, V.M., ekonom.; PANCHENKO, Ya.I., agr.-ekonom.; KVACHEV, V.M., agr.-ekonom.; SOBOLENKO, V.S.; KRAVTSOV, D.S., agronom.; LYSOV, V.F., ekonom.; SHLYAKHTIN, V.I., kand. ekon. nauk; TSYBUL'KO, F.Ye.; ORIKHOVSKIY, I.G., agr.-ekonom.; TATUREVICH, N.M., agr.-ekonom.; GARMASH, I.I.; NOSACHENKO, V.F., inzh.-ekonom.; MUKHLISULLIN, Sh.M., agr.-ekonom.; ROZENTSVAYG, A.L., agr.-ekonom.; BERLIN, M.Z., dots.; IVANOV, K.I., agr.-ekonom.; SILIN, A.G., ekonom.; LIKHOT, I.K.; CHANOV, G.I., kand. ekon. nauk; MIKHAYLOV, M.V., kand. ekon. nauk; GORELIK, L.Ya., red.

[Planning and economical operation on collective farms]  
Planirovanie i rezhim ekonomii v kolkhozakh. Moskva,  
Ekonomika, 1965. 258 p. (MIRA 18:5)

1. Zaveduyushchiy otdelom ekonomiki i organizatsii kol-  
khoznoy proizvodstva Nauchno-issledovatel'skogo insti-  
tuta ekonomiki sel'skogo khozyaystva Litovskoy SSR (for  
Martinenas). 2. Zaveduyushchiy otdelom Stavropol'skogo  
krayevogo komiteta KPSS (for Likhhot).

~~MURCHIKOVA~~, Aleksandr Vasil'yevich; LAVROV, V.V., kandidat geologo-mineralogicheskikh nauk, otvetstvennyy redaktor; FUM, A.I., redaktor; ALFEROVA, P.F., tekhnicheskii redaktor

[Principles of geology and mineralogy; for agronomy and forestry departments in agricultural colleges and agricultural workers]  
Osnovy geologii i mineralogii i mineralogii; dlia agronomicheskikh i lesokhoziaistvennykh fakul'tetov sel'skokhoziaistvennykh vuzov i rabotnikov sel'skogo khoziaistva. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1957. 205 p. (MLBA 10:4)  
(Geology)

KAGANSKIY, I.M.; MUKHLYA, G.S.; KHARLAMOVA, V.M.; NAUMOV, V.A.

Solubility in the system urea- phosphoric acid - water.  
Zhur.prikl. khim. 37 no. 5:1111-1116 My '64. (MIRA 17:7)

MUKHLYA, I. YA.

25(5)

1.8

PHASE I BOOK EXPLOITATION

SOV/2785

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti.  
Belorusskoye respublikanskoye pravleniye

Puti sovershenstvovaniya tekhnologicheskikh protsessov na Minskoy  
podshipnikovom zavode (Improving Technological Processes at the  
Minsk Bearing Plant) Minsk, Gos. izd-vo BSSR, 1958. 226 p.  
2,000 copies printed.

Eds.: M. Baranovskiy and F. Kashtanov; Tech. Ed.: N. Stepanova.

PURPOSE: This collection of articles is intended for industrial and  
mechanical engineers.

COVERAGE: The collection of articles reviews the attainments of the Minsk State  
Bearing Plant since its entry into production during the Fifth Five-Year  
Plan and a description is given of the methods adopted by the plant to raise the  
technological levels of production through introduction of new machinery and  
modern production processes and through the modernization of existing equipment.  
The role of Party work in the "struggle" for technological progress is also re-  
viewed. The introduction mentions the achievements of the following technical

Card 1/3

**Improving Technological Processes (Cont.)**

SOV/2785

personnel: P.A. Kovalenko, assistant director of the tooling shop; engineers V.A. Feygin, A.A. Malakhovskiy, and A.F. Segodnik; designer M.Ye. Makhanev; and technologists Ye.S. Artyukhovskaya and A.A. Desyatkovaya. There are no references.

**TABLE OF CONTENTS:**

Introduction	3
Yashcheritsyn, P.I. (Candidate of Technical Sciences, Director of the Plant), Basic Ways of Improving the Production Technology of Roller Bearings	6
Mukhlia I.Ya. (Secretary of the Party Bureau of the Minsk State Bearing Plant. The Plant Party Organization in the Struggle for Technical Progress	71
Karchan, Ya.S. (Chief Engineer). Improvement of Technological Processes	84
Yashcheritsyn, P.I. (Candidate of Technical Sciences), and Ya.S. Karchan. (Engineer). Automation and Mechanization of Technological Processes	112
Mel'nik, S.L. (Director of the the Labor and Wage Section), Some Problems	

Card 2/3



*Mukhlya, K. A.*

15-1957-7-9289

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7,  
pp 74-75 (USSR)

AUTHOR: Bok, I. I., Mukhlya, K. A.

TITLE: Amphibolites and Serpentinities in the Shalginskiy Region  
and Their Interrelation (Amfibolity i serpentinity Shal-  
ginskogo rayona i ikh vzaimootnosheniye)

PERIODICAL: Izv. AN KazSSR. Ser. geol., 1956, vol 24, pp 40-46

ABSTRACT: The paper describes the study of a massif of basic and ultrabasic rocks--consisting of olivine gabbro, amphibolite, serpentinite, and listwanite--which occurs in the southeastern part of the Bet-pak-Dala Desert and occupys an area of about ten square kilometers. The massif is composed predominantly of serpentinite and amphibolite; data from drill cores show a gradual transition of serpentinite into amphibolite at depths of 50-100 m. The amphibolite is composed of common hornblende 60%, andesite 30%, and also sphene, relicts of olivine and pyroxene, titanomagnetite, and apatite. The

Card 1/5

15-1957-7-9289

Amphibolites and Serpentinities in the Shalginskiy Region and Their Interrelation (Cont.)

secondary minerals are chlorite, actinolite, zoisite, epidote, sericite, and limonite. The serpentinite contains antigorite 80%, tremolite 10%, chrysotile 5%, and also titanomagnetite, leucoxene, hydrous iron oxides, opal, chalcedony, jarosite, and quartz. The chemical compositions of the various rocks are given (see Table). The author explains the gradual transition of serpentinite into amphibolite at depth by variations in composition of the original rocks. He suggests that the serpentinite was formed from olivine-rich gabbros or peridotites, whereas the amphibolite formed from olivine-poor or olivine-free gabbros. The olivine gabbros which are encountered in the massif, and which contain antigorite in addition to actinolite and tremolite, are considered intermediate varieties between the olivine-rich and olivine-poor extremes of the original rocks. Apparently all the original rocks formed a single differentiation series; all the associated varieties are transitional into each other.

Card 2/5

15-1957-7-9289

Amphibolites and Serpentinities in the Shalginskiy Region and Their  
Interrelation (Cont.)

Components	1	2	3	4	5	6	7	8
SiO <sub>2</sub>	44.46	43.9	51.88	43.32	74.5	75.86	72.80	85.30
TiO <sub>2</sub>	0.60	0.4	0.04	1.69	1.43	0.02	0.09	0.07
Al <sub>2</sub> O <sub>3</sub>	21.86	10.56	17.43	14.20	1.43	0.66	3.06	0.50
Cr <sub>2</sub> O <sub>3</sub>	0.04	0.1	0.08	0.06	0.2	0.17	0.15	0.44
Fe <sub>2</sub> O <sub>3</sub>	3.84	4.69	3.91	3.00	9.82	8.75	8.86	5.52
FeO	8.8	7.60	9.52	12.81	--	0.33	0.26	2.56
MnO	0.13	0.23	0.59	2.40	0.05	0.12	--	0.03
MgO	3.22	16.53	5.37	9.36	1.12	4.44	6.26	1.59

Card 3/5

Amphibolites and Serpentinities in the Shalginskiy Region and Their  
Interrelation (Cont.)

15-1957-7-9289

CaO	12.80	10.09	3.72	4.06	0.67	0.62	0.65	0.59
Na <sub>2</sub> O	1.33	0.44	0.83	0.68	0.68	0.2	0.15	0.18
K <sub>2</sub> O	0.27	2.03	2.90	2.33	--	--	--	0.16
P <sub>2</sub> O <sub>5</sub>	0.06	0.11	--	0.78	--	0.076	0.03	0.07
SO <sub>3</sub>	0.89	0.72	--	0.34	--	0.20	--	0.36
H <sub>2</sub> O	0.28	0.10	0.29	0.10	3.76	4.38	3.06	0.70
others	2.14	1.80	3.75	5.11	3.47	3.48	4.52	2.38
Total	100.72	99.29	100.31	100.24	97.23	99.30	99.89	100.46

Card 4/5

15-1957-7-9289

Amphibolites and Serpentinites in the Shalginskiy Region and Their Interrelation (Cont.)

1) dark-green medium-grained olivine gabbro, southeastern part of the massif; 2) dark-green coarsely crystalline amphibolite, drill-hole 13, depth 56 m; 3) dark fine-grained amphibolite, drill-hole 3, depth 70 m; 4) black fine-grained amphibolite, drill-hole 7, depth 106 m; 5) dark-green antigoritic opalized serpentinite, pit XI, depth 2 m; 6) dense greenish-brown tremolite-antigorite opalized rock, drill hole 12, depth 16 m; 7) gray-green antigoritic opalized serpentinite, drill-hole 15, depth 24 m; 8) dark-brown weathered listwanite, southeastern part of the massif.

Card 5/5

O. V. Bryzgalin

MUKHLYA, K.A.; GUKOVA, V.D.

Molybdenum-bearing secondary quartz in the Tulagay deposit. Izv.  
AN Kazakh.SSR.Ser.geol. no.4:38-53 '58. (MIRA 12:4)  
(Tulagay region--Molybdenum ores) (Tulagay region--Quartz)

MUKHLYA, A., kand. geologo-mineralogicheskikh nauk

Some characteristics of the greisenization of granite-porphyrines.  
Sbor. nauch. trud. KazGMI no. 18:144-150 '59. (MIRA 15:2)  
(Porphyry) (Greisen)

**KHAYBUTDINOV, K.Kh.; MUKHLYA, K.A.**

**Results of making practical use of metallogenic prognostic maps  
during geological prospecting in central Kazakhstan. Izv.AN  
Kazakh.SSR.Ser.geol. no.3:111-112 '60. (MIRA 13:11)  
(Kazakhstan--Prospecting)  
(Kazakhstan--Geology--Maps)**



MUKHLYA, K.A.

Typomorphic characteristics of some minerals in rare metal deposits  
of different genetic formation. Trudy Inst.geol.nauk AN  
Kazakh.SSR 6:146-169 '62. (MIRA 16:6)  
(Kazakhstan--Metals, Rare and minor)

TIKHOMIROV, I.G., prof., doktor tekhn. nauk; BUYANOV, V.A., ass.;  
VINNICHENKO, A.V., ass.; MUKHO, P.B., ass.; NEVZOROV, A.V.,  
dots.; TULUPOV, L.P., dots.; SHUL'ZHENKO, P.A., ass.;  
YARMOLENKO, V.Ye., ass.; Primal uchastiye PETROV, A.P.,  
prof.; VEREVKINA, N.M., red.; BELEN'KAYA, I.Ye., tekhn.  
red.

[Traffic organization in railroad transportation]Organiza-  
tsia dvizheniia na zheleznodorozhnom transporte; konspekt  
leksii. Pod obshchei red. I.G.Tikhomirova. Minsk, Izd-  
vo M-va vysshego, srednego spetsial'nogo i professional'-  
nogo obrazovaniia BSSR, 1961. 346 p. (MIRA 15:9)

1. Chlen-korrespondent Akademii nauk SSSR (for Petrov).  
(Railroads--Traffic)

MUKHO, P.B., starshiy prepodavatel'

Methodology for selecting the methods of breaking up and making  
up trains in hump yards. Trudy BIIZHT no.9:130-157 '61.  
(MIRA 16:9)

(Railroads—Hump yards) (Railroads—Management)

MUKHO, T. B.

MUKHO, T. B. "The effect of the centrifugal nerve on the heart during the contraction of the skeletal muscles caused by asphyxiation." Ivanov, <sup>STa</sup>Medical Inst. Yaroslavl', 1955.  
(Dissertation for the Degree of Candidate in Sciences)

Medical

So: Knizhnaya Letopis', No. 18, 1956

MOTAVKIN, P.A.; MUKHO, T.B.

Spiral sensory innervation of intraspinal blood vessels. Dokl. AN  
SSSR 135 no.6:1509-1511 D '60. (MIRA 13:12)

1. Vladivostokskiy meditsinskiy institut. Predstavleno akademikom  
N.E. Anichkovym.

(SPINAL CORD--BLOOD VESSELS)  
(BLOOD VESSELS--INNERVATION)

KULIKOV, I.V., inzh.; MUKHOLOV, B.M., inzh.

Using pneumatic sinker drills in boring blasting holes in stone  
quarries. Stroi. mat. 5 no.5:19-21 My '59. (MIRA 12:g)  
(Boring machinery)

MUKHOMEDIYAROV, F. B.

Mukhomedyarov, F. B. - "Sea-eel (*Coregonus sardinella baunti* subsp. nova) from the Tsipa-Tsipikan chain of lakes of the Vitim River basin," In the symposium: Doklady na Pervoy Nauch. Sessii Yakut. bazy AN SSSR, Yakutsk, 1948, p. 270-80

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

KARANTONIS, F.E.; KURILLOV, F.N.; MUKHOMEDIYAROV, F.B.

Fishes of the middle Lena. Trudy Inst.biol.Lak.Fil.AN SSSR no.2:  
3-144 '56. (MLRA 9:12)  
(LENA RIVER--FISHES)



ALTUKHOV, Konstantin Alekseyevich; MIKHAYLOVSKAYA, Aleksandra Aleksandrovna;  
MUKHOMEDYAROV, Fetakh Bakirovich; NADZHEIN, Vasilii Mikhaylovich;  
NOVIKOV, Petr Ignat'yevich; PALENICHKO, Zinaida Georgiyevna;  
PANKRASHOV, A.P., red.; SHEVCHENKO, L.V., tekhn.red.

[Fishes of the White Sea] Ryby Belego meria. Petrosavodsk, Gos.  
isd-ve Karel'skoi ASSR, 1958. 161 p. (MIRA 12:2)  
(White Sea--Fishes)

MUKHOMEDIYAROV, F.B.

Ichthyofauna of the Chupa Inlet. Mat. po kompl. izuch. Bel. mor.  
no.2:90-99 '63.

Biology of and fishing for second-grade commercial fishes in  
the coastal waters of Karelia. Ibid.:131-143 (MIRA 17:7)

MUKHOMEDOV, F., podpolkovnik

The party committee and trade-union organization of a war plant.  
Komm.Voeruzh.Sil 2 no.1:64-69 Ja '62. (MIRA 14:12)  
(Munitions)

AID P - 5131

Subject : USSR/Aeronautics - education  
Card 1/1 Pub. 135 - 16/26  
Author : Oleynikov, M. V., Eng.-Col. and F. S. Mukhomedov, Maj.  
Title : Teacher of the theory of flight  
Periodical : Vest. vozd. flota, 10, 74-75, 0 1956  
Abstract : It is described briefly how the senior teacher of the theory of flight, Eng-Col. N. G. Ganevich, carries out his lectures in an outstanding manner in an Air Force unit.  
Institution : None  
Submitted : No date

MUKHOMEDOVA, Ye. A. --

"Pertaining to Coordination Relationships Which change the Effectiveness of Muscular Activity." Cand Biol Sci, State Central Inst of Physical Culture, Moscow, 1953. (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

MUKHOMOR, P.P.

Changes in the processing procedure of the beer rectification  
five-column apparatus used for the production of higher quality  
alcohol. Spirt. prom. 27 no.6:35-37 '61. (MIRA 14:9)  
(Distillation apparatus).

MALAKHOVSKIY, Ye.I., inzh.; MIKHOMOROV, Ye.A., inzh.

Transistorized overload protection system of transformers and  
generators. Energ. i elektrotekh. prom. no.1:17-18 Ja-Mr '65.

(MIRA 18:5)

MUKHOPAD, N. D., jt. au.

Organization of underground haulage in the producing shaft

Moskva, Ugletekhizdat, 1952. 99 p.

(54-188334)

TN336.C5



CHUMAK, S. A.; МУХОПАН, Н. Д. (Eng.)

Mine Haulage

Problems of traffic capacity at the loading point of combine stopes. Ugol' no. 6 (315) 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS. Library of Congress, August, 1952. UNCLASSIFIED.

**MUKHOPAD, V.A.; KUTOMANOVA, N.P.; POZDNYAK, A.T.**

**Serological and epidemiological data on the detection of patients with Q fever in Khmel'nitskiy, Chernigov and Kiev Provinces of the Ukrainian S.S.R. Zhur. mikrobiol., epid. i immun. 41 no.3:140 Mr '64.**

(MIRA 17:11)

**1. Kiyevskiy institut epidemiologii i mikrobiologii Chernigovskoy gorodskoy infektsionnoy bol'nitsy i Chernigovskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya.**

MUKHOPAD, V.A.

Possibility of obtaining nonspecific complement fixation reactions  
in low titers with an antigen from *Rickettsia burneti*. Lab. delo  
no.3:179-182 '65. (MIRA 18:3)

1. Kiyevskiy nauchno-issledovatel'skiy institut epidemiologii i  
mikrobiologii (nauchnyy rukovoditel' - deystvitel'nyy chlen AMN  
SSSR prof. L.V. Gromashevskiy).

L 3173-66 EWT(1)/EWA(1)/EWA(b)-2 JK

ACCESSION NR: AP5016905

UR/0240/64/000/008/0028/0032

AUTHOR: Mukhopad, V. A.

22  
19  
8

TITLE: Problem of Q-fever in certain enterprises of the Ukrainian SSR

SOURCE: Higiyena i sanitariya, no. 8, 1964, 28-32

TOPIC TAGS: Q fever, disease control, epidemiology

**ABSTRACT:** The complement fixation test was used to examine workers in several processing plants in Khmel'nitskaya, Chernigovskaya, and Kievskaya Oblasts of the Ukraine. Eight persons suspected of being infected with Q-fever were subjected to further epidemiological and serological tests. Evidence of Q-fever was discovered at the primary wool-processing plant at Chernigov, where measures should be undertaken to protect persons handling infected material; and in Khmel'nitskaya Oblast, where further investigations should be made.

Orig. art. has: 2 tables.

Card 1/2

D 3173-66

ACCESSION NR: AP5016905

3

ASSOCIATION: Kiyevskiy nauchno-issledovatel'skiy inatitut epidemiologii i  
mikrobiologii ( Kiev Scientific Research Institute of Epidemiology and  
Microbiology)

SUBMITTER: 29Jun63

ENCL: 00

SUB CODE: IS

NR REF SCV: 005

OTHER: 000

JPRS

Card 2/2 *nd*

MUKHOPAD, V.n. [Mukhopad, V.O.]

Possibility of obtaining nonspecific complement-fixation reactions  
in low titers with the antigen from *Rickettsia burnetii*. Mikrobiol.  
zhur. 27 no.1:53-59 '65. (MIRA 18:7)

1. Kiyevskiy nauchno-issledovatel'skiy institut epidemiologii  
i mikrobiologii.

L 31188-66 EWT(1)/T JK

ACC NR: AP6022597

SOURCE CODE: UR/0016/66/000/003/0143/0145

AUTHOR: Kukhordov, F. G.; Gladkov, V. I.; Musoldiranov, P. D.

ORG: Kemerov Medical Institut (Kemerovskiy meditsinskiy institut); City Infectious Disease Hospital (Gorodskaya infektsionnaya bol'nitsa)

TITLE: Treatment of anthrax

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 3, 1966, 143-145

TOPIC TAGS: serum, penicillin, antibiotic, anthrax, vitamin, cortisone, disease therapeutics, drug treatment

ABSTRACT: Twelve patients with anthrax of varying degrees of severity were successfully treated by the authors. Depending on the severity, the patients were injected intramuscularly with 50-100 ml of antianthrax serum, 300,00 units of penicillin, and 0.4 g of biomyacin four times a day. The antibiotics were continued for 10 days. The patients also received vitamins, applications of skin ointment, various drugs for symptomatic relief, and, in severe cases, cortisone. Improvement began within 24-28 hours. [JPRS]

SUB CODE: 06 / SUBM DATE: 26Jan65 / ORIG REF: 005

Card 1/1 CC

UDC: 616.981.51-08

0915

06 16

84-58-1-24/32

AUTHOR: Mikhordykh, Ye., Engineer

TITLE: How to Improve the Utilization of the Production Capacity of Aircraft Repair Establishments (Kak luchshe ispol'zovat' proizvodstvennyye moshchnosti aviaremontnykh predpriyatiy)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 1, pp 35-37 (USSR)

ABSTRACT: The author defines first the "production potential" of an establishment, shop, or work section as the output capacity of a given product under maximum utilization of capital investment. His basic formula for production potential is

$$N = \frac{F_{ef} \cdot q}{T_c}$$

where N is the production potential,  $F_{ef}$  - the maximum effective number of hours available at a given establishment, q - the number of aircraft simultaneously in the process of repair,  $T_c$  - the minimum duration of the repair procedure of one aircraft in work hours. <sup>c</sup> The quantity q includes only those planes which can be simultaneously handled within the premises excluding those which stay in the open for some operations. This is because over 60 percent of the

Card 1/3



84-58-1-24/32

**How to Improve the Utilization of the Production Capacity of Aircraft (Cont.)**

work is done inside the workshop hangar and this is the area which limits the output capacity.  $F_{of}$  is considered equal to 306 days in a year or 7,392 hours,

since air traffic is a round-the-clock operation. The  $T$  is calculated on the basis of two separate lines of work: on the plane itself<sup>c</sup> and on the removable parts. The first line takes more time and therefore determines the duration of the whole cycle. Within the first line the most time consuming operation is the assembly of the plane; thus the proper organization of the assembly determines the duration of the airframe repair work. The analysis of  $T$  yields the time necessary to work inside the hangar, and the output capacity can be computed according to the number of planes the premises can take. No other facilities in the open should cause a reduction of that capacity. The application of the same general principles of computation for different maintenance classes are further described. Reference is made to the so-called "progressive overhaul" which was applied in maintenance of the British Viscount aircraft and described in the periodical *Grashdanskaya Aviatsiya*, 1956, Nr 10. This method is recommended as a means for increasing efficiency of aircraft maintenance. In the case of progressive overhaul, the production capacity of an establishment equals the number of aircraft processed through

Card 2/3

84-58-1-24/32

How to Improve the Utilization of the Production Capacity of Aircraft (Cont.)

all stations on the premises during a calendar year. The author has applied the proposed method of computation to the establishment under Bessarabov. It showed that, given the introduction of the flow line, reduction of the repair duration to 12 shifts, and 2-shift schedule, the 3rd shift being reserved for painting jobs only, the overhaul time could be reduced to 6-7 work days, which means tripling the production capacity of the establishment. However, this requires additional floor space of 320 square meters or 11 percent. But the investment will be profitable, since the output capacity per 1000 rubles of capital investment would be 263 per cent greater. If the necessary increase of personnel is taken into account, the cost of overhaul would decrease by 17.4 percent and the yearly saving would amount to 4,110,000 rubles.

AVAILABLE: Library of Congress

1. Airplanes - Maintenance - Mathematical analysis

Card 3/3

MUKHORDYKH, Ye., kand.ekonomicheskikh nauk

Lost and saved rubles. Grazhd. av. 18 no.6:9 Je '61.  
(Airplanes—Maintenance and repair)

MUKHORINA, K.V. (Sverdlovsk)

Effect on the animal organism of maleic acid hydrazide, a potato growth-inhibiting agent. Vop.pit. 18 no.4:15-23 J1-Ag '59.  
(MIRA 12:10)

1. Iz kafedry gigiyeny pitaniya (zav. - prof.A.I.Shtenberg)  
Sverdlovskogo gosudarstvennogo meditsinskogo instituta.

(MALBATES, toxicity,

maleic acid hydrazide, used as potato growth inhibitor, animal exper. (Rus))

(POTATOES,

potato growth inhibitor maleic acid hydrazide, tox. in animals (Rus))

SHTENBERG, Abram Il'ich; PLOTNIKOVA, Yuliya Il'inichna; MUKHORINA, Klavdiya Vasil'yevna; Prinsipali uchastiye: GEYMBERG, V.G.; NEFED'YEVA, N.P.; NOVIKOV, Yu.V.; NATANSON, A.O., red.; BUL'DYAYEV, N.A., tekhn. red.

[Guide to practical work in nutritional hygiene] Rukovodstvo k prakticheskim zaniatiyam po gigiene pitaniia. Moskva, Medgiz, 1961. 358 p. (MIRA 15:7)

(NUTRITION)

GREBENSHCHIKOVA, M.P.; MUKHORINA, K.V.; BOGOMOLOV, S.G.

Absorption spectrum of extracts of potatoes prepared with the diethanolamino salt of malonic acid hydrazide. Vop.pit. 20 no.3: 60-63 My-Je '61. (MIRA 14:6)

1. Iz kafedry fiziki (zav. - dotsent S.G.Bogomolov) i kafedry gigiyeny pitaniya (zav. - prof. A.I.Shtenberg) Sverdlovskogo meditsinskogo instituta.  
(MALONATES) (POTATOES—SPECTRA)

*Sheep Head, H.A.*  
MUKHORINA, K. V.

105

PHASE I BOOK EXPLOITATION

SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960. Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR. Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

**PURPOSE:** The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

**COVERAGE:** The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

21

Materials of the Third Ural Conference (Cont.)	SOV/6181
Genkin, A. M., and S. G. Bogomolov. Explanation of the mechanism of interaction between proteins and glycogen by optical methods	183
Grebenshchikova, M. P., K. V. Mukhorina, and S. G. Bogomolov. Absorption spectra of potato juice treated with diethanolamine salt of hydrazide maleic acid	187
Trofimov, A. K. Spectral-luminescence method for investigating crystallochemical transformations in solid phases	190
Trofimov, A. K. Quantitative determination of gadolinium traces in fluorite, metallic thorium, and beryllium by luminescence spectra	192
Florinskaya, V. A., and R. S. Pechenkina. Application of infrared spectroscopy to the study of silicate structure	194

Card 14/15



MORKUNAS, A.M.; MUKHORINA, O.V.

[New studies and data of sewerage systems] *Novye issledovaniia i raschetnye dannye po kanalizatsionnym setiam. Leningrad. 197 1961. 71 p. (Leningrad. Inzhenerno-stroitel'nyi institut. Sbornik nauchnykh trudov, no.33).* (MIRA 16:3)

(Sewerage)

MUKHORLYANOV, Yu.

Visitors from Rumanian People's Republic. Neftianik 1 no.1:35 Ja  
'56. (MIRA 9:7)  
(Russia--Relations (General) with Rumania)(Rumania--Relations (Ge-  
neral) with Russia)

**MUKHOMTOV, A., zaslushennyy master sporta**

~~Under the parachute canopy.~~ **Under the parachute canopy. Kryl.red. 3 no.11:8-9 N '52. (MIRA 8:8)**  
**(Parachutists)**

~~MUKHOTOV~~, ~~St.~~, ~~raslushenny~~ master sports.

Training parachitists. Krylod.2 no.3:16-19 Nr '51. (MLRA 10:2)  
(Parachutists)

MUKHOTOV, I. D.

MUKHOTOV, I. D. "Colored stucco from local materials", Materialy po kommunal. khoz-vo, 1949, Collection 2, p. 11-14.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

AMMONIUM, I. D.

"Leningrad Lime and Its Effective Use for Decorative Plastering and Painting of Facades." Dr Tech Sci, Leningrad Higher Industrial Arts School, Leningrad, 1953. Dissertation (Referativnyy Zhurnal--Khimiya Moscow, No 2, Jan 54)

SO: JAN 1954, 19 Aug 1954

GORELIK, S.S.; SHPICHINETSKIY, Ye.S.; MUKHOMTOV, M.F.

Investigating softening and structural changes in deformed  
"cunico" alloys under the effect of heating. Izv.vys.ucheb.zav.; tevet.  
met. 2 no.1:113-120 '59. (MIRA 12:5)

1. Moskovskiy institut stali. Kafedra fiziki metallov i rentgenografii.  
(Copper-nickel-cobalt alloys--Testing)

MUKHOMTOV, V.

Hail, glorious sea! Znan.sila 37 no.4:30-32 Ap '62.

(MIRA 15:4)

{Baikal, Lake--Fresh-water biology)  
{Baikal, Lake--Geology, Structural)



MUKHORTOV, Vladimir Il'ich, starshiy nauchnyy sotr.; ITKIN, Aron Mikhaylovich, starshiy zootekhnik; KANDYBIN, M., red.; IVANOV, N., tekhn. red.

[Landrace swine] Svin'i landras. Kaluga, Kalushskoe knishnoe izd-vo, 1960. 48 p. (MIRA 14:9)

1. Sovkhoz "Kudinovo", Maloyaroslavetskogo rayona (for Itkin).
2. Kalushskaya sel'skokhozyaystvennaya opyt'naya stantsiya (for Mukhortov).

(Swine breeds)

MUKHORTOV, V., mayor

The instructor came to the company. Komm. Voorush. Sil  
4 no.2:64-66 Ja'64. (MIRA 17:9)

1. Starshiy instruktor komsomol'skogo otdela Glavnogo  
politicheskogo upravleniya.

MUKHORTOV, V., mayor

To good deeds. Komm. Vooruzh. Sil 4 no.17:64-67 S '64.

(MIRA 17:12)

1. Staishiy instruktor otdela komsomol'skoy raboty Glavnogo  
politicheskogo upravleniya Sovetskoy Armii i Voenno-Morskogo Flota.

MUKHOMTOV, Ya. N., kandidat sel'skokhoyaystvennykh nauk; KHIZHENYAKOV, F.G.;  
CHIGIRINTSEVA, G.N.

Tillage of unfallowed fields. Zemledelie 4 no.6:45-48 Ja '56.  
(Tillage) (MLRA 9:8)

USSR/Cultivated Plants - Fodders.

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53674

Author : Kvasinkov, V.V., Mukhortov, Ya.N., Kushilkina, N.V.,  
Turbin, K.G.

Inst : Voronezh Institute of Agriculture

Title : The Effect of Sudan Grass on Soil Structure

Orig Pub : Vestn. s.-kh. nauki, 1957, No 4, 49-54

Abstract : Experiments conducted by the Voronezh Institute of  
Agriculture on leached out medium clayey chernozem in  
1955-1956, showed that toward the end of vegetation  
Sudan grass had accumulated, in the soil layer of 0-40  
cm, 37.9-44.1 centners/ha of air-dry roots, the mixture  
of Sudan grass with vetch, peas or vetchling accumulated  
42.2-53.7 centners/ha, the mixture of alfalfa and couch  
grass of the first year of use accumulated 35.8-41.5

Card 1/3

- 68 -

USSR/Cultivated Plants - Fodders.

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53674

centners/ha. Mixtures of Sudan grass with legume cultures produced 30% more of thin roots (diameter  $< 1$  mm) than the pure sowing of Sudan grass or the sowing of perennial grasses. Toward fall, 24% of the thin roots of the accumulated mixture of Sudan grass and vetchling underwent decomposition. With regard to the accumulation of water resistant soil aggregates, the total N content and the content of nitrates- the mixtures of Sudan grass with legume cultures were almost equal to the perennial grasses. The buckwheat yield on the mixture of Sudan grass and vetch comprised 13.6 centners/ha; on the Sudan grass the yield was 12.9 centners/ha; on the vetch-oat mixture 13.5 centners/ha and on the perennial grasses - 13.7 centners/ha. The hay yield of the mixture of Sudan grass with vetch comprised 43.4 centners/ha; the yield of Sudan grass was 40.4 centners/ha; the yield of vetch-oat mixture was 28.7 centners/ha and the yield of the

Card 2/3

USSR/Cultivated Plants - Fodders.

M

Abs Jour : Ref Zhur Biol., No 12, 1958, 53674

under cover sowing of alfalfa with couch grass of first  
year use - was 21.9 centners/ha. -- V.V. Koperzhinskiy

Card 3/3

- 69 -

COUNTRY : USSR J  
CATEGORY : Soil Science. Soil Biology.  
ABS. JOUR. : RZhBiol., No. 3, 1959, No. 10668  
AUTHOR : Gaponenko, T. K., Mukhortov, Ya. N., Stanislavskaya, T. K.  
INSTIT. : Voronezh Agricultural Institute  
TITLE : The Influence of Annual Plants on the Accumulation of  
Organic Matter and Structure of Soil.  
ORIG. PUB. : Zemledeliye, 1958, No. 1, 23-26  
ABSTRACT : As the result of three-year experiments at Voronezh  
Agricultural Institute, it is shown that mixtures of  
Sudan grass with peas accumulate more organic matter in  
the form of root mass (43.8-53.7 centners/ha of dry mass)  
than perennial grasses (35.8-41.5 centners/ha). The  
amount of water-stable aggregates in soils under perennial  
grasses (48.6-58.9% particles of more than 0.25 mm) is  
almost the same as their amount in soils under Sudan grass.

CARD: 1/2

19



MUKHOMTOV, Ya.N., kand.sel'skokhozyaystvennykh nauk

Role of annual plants in increasing the fertility of Chernozem  
soils. Zemledelie 7 no.3:49-52 Nr '59. (MIRA 12:4)

1. Voronezhskiy sel'skokhozyaystvennyy institut.  
(Chernozem soils) (Annals (Plants))

KVASNIKOV, V.V.; MUKHOTOV, Ya.N., kand.sel'skokhoz.nauk

Replacing colter-equipped plows with harrow plows in preparing soil for certain crops following initial deep plowing.  
Dokl.Akad.sel'khoz. 24 no.9:10-13 '59. (MIRA 13:1)

1. Voroneshskiy sel'skokhoyaystvennyy institut. 2. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhoz.nauk (for Kvasnikov).

(Plowing)

MUKHOTOV-AMURSKIY, I. G.

Electric Power Production

Untried means for reducing electric power losses, Energ, biul, no. 12, 1951.

Monthly List of Russian Accessions, Library of Congress, May 1952, UNCLASSIFIED

PASTUSHAK, N.O.; DOMBROVSKIY, A.V.; MUKHOVA, A.N.

Haloarylation of unsaturated compounds by aromatic diazo compounds. Part 23: Chloroarylation of  $\alpha,\beta$ -chloromethylacrylate and the production of  $\alpha,\beta$ -unsaturated acids and esters. Zhur.org.khim. 1 no.3:572-575 1955. (MIRA 18:4)

1. Chernovitskiy gosudarstvennyy universitet.

ИНВЕСТИЦИИ В Д.

DOBROKHOTOV, E. I., IVANOV, D. P., MIKHOVATOV, V. S., KIRILLOV, V. D.,  
PETROV, D. P., RAZUMOVA, K. A., STRELKOV, V. S., SHEPELEV, M. N. and YAVLINSKIY,  
N. A.

"Investigation of Plasma Heating in Toroidal Chambers."

paper to be presented at the 2nd UN Intl. Conf. on the Peaceful uses of Atomic  
Energy, Geneva, 1 - 13 Sep 58.



G. G.

"Investigation of a Toroidal Discharge in a Strong Magnetic Field."

paper presented at the Fourth International Conference on Ionization Phenomena  
in Gases, 17-21 Aug 59, Uppsala, Sweden.

GORBUNOV, Ye.P.; DOLGOV-SAVEL'YEV, G.G.; MUKHOVATOV, V.S.;  
STRELKOV, V.S.; YAVLINSKIY, N.A.

[Studying a toroidal discharge in a strong magnetic field]  
Issledovanie toroidal'nogo razriada v sil'nom magnitnom  
pole. Moskva, In-t atomnoi energii im. I.V.Kurchatova, 1960  
23 p. (MIRA 16:12)  
(Electric discharges through gases)  
(Magnetic fields)



84722

S/057/60/030/010/001/019  
B013/B063

26.1300  
24.2120

AUTHORS:

Vasil'yevskiy, V. S., Mukhovatov, V. S., Strelkov, V. S.,  
Yavlinskiy, N. A.

TITLE:

"TOKAMAK-2" (Tokamak-2) - a Toroidal Apparatus With a  
Strong Magnetic Field 28 24

PERIODICAL:

Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 10,  
pp. 1137-1144

TEXT: As deuterium impurities and the heavy atoms struck out of the chamber walls by plasma lead to considerable energy losses of a deuterium plasma and, thus, prevent an increase of temperature, studies on plasma of the highest possible degree of purity are of particular significance. For this purpose, a special toroidal pulsed high-vacuum chamber was developed, which is described in the present paper. The experimental apparatus "Tokamak-2" was designed for investigating the Joulean heating of plasma in a strong, longitudinal magnetic field. The following factors were taken into account by the designers: 1) The areas of the discharge chamber facing the plasma must be subjected to a careful heat treatment.

Card 1/3

84722

"TOKAMAK -2" (Tokamak-2) - a Toroidal Apparatus With a Strong Magnetic Field

S/057/60/030/010/001/019  
E013/B063

2) The vacuum pump and the design of the chamber must guarantee a vacuum of up to  $10^{-8}$  -  $10^{-9}$  mm Hg. 3) The dimensions of the apparatus must correspond to those of "Tokamak-1". The apparatus is schematically represented in Fig. 1. Fig. 2 is a general view of the internal chamber. The basic circuit diagram of the apparatus is reproduced in Fig. 3. Two units of the type BAO5-2 (VAO5-2) are used for producing a high vacuum in the internal chamber. The highest maximum attained after degassing by heating to  $450^{\circ}\text{C}$  amounted to  $5 \cdot 10^{-10}$  mm Hg. The entire vacuum system of the internal chamber is connected by metal seals, so that it may be degassed by heating up to  $400-450^{\circ}\text{C}$ . Two types of seals are used (see Fig. 4). Fig. 5 shows the sealing and insulation of the joints of the external chamber. The tubes of the water-cooling installation were laid on the outer side of the copper chamber (Fig. 1). The internal chamber is electrically insulated from the external chamber and separated from it by a vacuum (Fig. 6). Fig. 7 illustrates the pressure change prevailing inside the internal chamber during heat treatment. The plasma properties were studied with the above-described apparatus under two different conditions: In one case, the entire system was cooled after a continuous heat treatment - "cold chamber"; in the second case, the internal chamber was kept

Card 2/3

84722

"TOKAMAK -2"(Tokamak-2) - a Toroidal Apparatus S/057/60/030/010/001/019  
With a Strong Magnetic Field B013/B063

at a temperature of 400-450°C, whereas the vacuum unit and the traps remained cold. -- "hot chamber". Data ascertained under equal conditions are given in Ref. 3. The introduction of observation windows and of the measuring apparatus is described (see Figs. 8 and 9). Since the apparatus serves a double purpose in that it should produce the highest vacuum possible and purify the walls of the discharge chamber, its design is rather complicated. As was shown by measurements, this is fully justified, since otherwise the discharge would be considerably affected by impurities. The character of the process is considerably changed by a long heat treatment (Ref. 3). Nonetheless, it is not possible to produce a perfectly pure deuterium plasma. There are 9 figures and 3 Soviet references. ✓

SUBMITTED: April 23, 1960

Card 3/3

10.8600 only 2307, 2407

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S/057/60/030/010/003/019

B013/B063

26.2311

AUTHORS:

Gorbunov, Ye. P., Dolgov-Savel'yev, G. G., Mukhovatov, V. S.,  
Strelkov, V. S., Yavlinskiy, N. A.

TITLE:

Investigation of a Toroidal Discharge in a Strong Magnetic  
Field 21

PERIODICAL:

Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 10,  
pp. 1152-1164

TEXT: The authors describe investigations on the heating and stability of a plasma column in a strong, longitudinal magnetic field (Figs. 1-11). The experiments were carried out on the toroidal apparatus "Tokamak-2" (for details see Ref. 2) under different conditions of the chamber walls: 1) cold, not degassed walls - "contaminated" chamber; 2) cold walls, which, prior to the experiment, had been heated at 400-450°C for several hours - "pure" chamber; 3) hot walls at temperatures from 400° to 450°C - "pure" chamber. The pressure of the residual gases was  $1 \cdot 10^{-6}$  mm Hg in the first and the third case, and  $1 \cdot 10^{-7}$  mm Hg in the second case. It was found that the character of the process was changed by the degassing of

✓

Card 1/3

84724

Investigation of a Toroidal Discharge in  
a Strong Magnetic Field

S/057/60/030/010/003/019  
B013/B063

the walls: a) The conductivity of the plasma increases; b) oscillations occur in the heated plasma; c) the current attains a second maximum at zero voltage, the conductivity of the plasma reaching considerable values. Pictures taken with a time-lapse camera show that at high values of  $k$  (coefficient of stability), the discharge column is bounded by the diaphragm slits. Thus, hydromagnetic stability may be observed under these conditions. The presence of accelerated electrons having energies of 1-2 Mev is indicative of a good particle retaining. The extinction of X-radiation is probably due to the occurrence of oscillations. The successive appearance of spectral lines of different excitation energies can be explained by the rise of the electron temperature. An increase of the magnetic field strength increases the conductivity of the plasma at the first current maximum, and improves the conditions of retaining. Table 1 gives data on the instant of time at which ionization in discharges with different electric field strengths is perfect. These data are specified for three values of the initial deuterium pressure. The electron concentration is assumed to increase in the course of time. Table 2 gives data on the electron temperature for two values of the magnetic field. The authors thank L. A. Artsimovich and M. A. Leontovich for their interest in

Card 2/3

Investigation of a Toroidal Discharge in  
a Strong Magnetic Field

84724  
S/057/60/030/010/003/019  
B013/B063

the work, as well as N. V. Krasnov, G. A. Yegorenkov, Yu. A. Gusev,  
A. V. Glukhov, and G. N. Ploskirev for their assistance. There are  
11 figures, 2 tables, and 6 references: 5 Soviet.

SUBMITTED: April 23, 1960

X

Card 3/3

DOLGOV-SAVEL'YEV, G.G.; MUKHOVATOV, V.S.; STRELKOV, V.S.; SHEPELEV, M.N.;  
YAVLINSKIY, N.A.

Investigating a toroidal discharge in a strong magnetic field. Zhur.  
eksp.i teor.fiz. 38 no.2:394-403 F '60. (MIRA 14:5)  
(Plasma (Ionized gases)) (Magnetic fields)

VASIL'YEVSKIY, V.S.; KRASNOV, N.V.; MUKHOVATOV, V.S.

Drum-type camera for vacuum ultraviolet. Prib. i tekhn. eksp. 6  
no.2:138-139 Mr-Ap '61. (MIRA 14:9)  
(Photography, High-speed--Equipment and supplies)



L 15764-65 EWT(1)/EPA(w)-2/ZEC(t)/EWA(m)-2 Pab-10 ESD(t)/ESD(gs)/SSD(b)/  
 ACCESSION NR: AP4045328 ASD(p)-3 DM S/0089/62/017/003/0177/0184

AUTHOR: Grigorovich, B. M.; Mukhovatov, V. S.

TITLE: Effect of a transverse magnetic field on <sup>2)</sup>toroidal discharge  
 in a strong longitudinal magnetic field

SOURCE: Atomnaya energiya, v. 17, no. 3, 1964, 177-184

TOPIC TAGS: toroidal discharge, plasma pinch displacement, plasma  
 conductivity, plasma pinch equilibrium, toroidal discharge charac-  
 teristics, Tokamak 5

ABSTRACT: The effect of a transverse magnetic field on toroidal dis-  
 charge in a strong longitudinal magnetic field was investigated in  
 the "Tokamak-5" machine. It was found that at a definite displace-  
 ment of the pinch, caused by a force of  $\frac{1}{c} [I, B]$ , the oscillations  
 of electrical discharge characteristics have a minimum amplitude, and  
 the average plasma conductivity reaches a maximum. The optimum value  
 of pinch displacement  $\Delta B$  coincides, within the limits of experimental  
 accuracy, with the calculated value for a similar current. The

Card 1/2

L 15764-65

ACCESSION NR: AP4045328

attenuation of current in plasma at large negative values of  $\Delta_B$  does not result directly from equilibrium conditions. However, with some assumptions as to the character of interaction of the pinch and the diaphragm, it is possible to show that at  $|\Delta_B|$  ( $\Delta_B < 0$ ) higher than some critical value, the pinch equilibrium becomes unstable. Orig. art. has: 10 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 04Dec63

ENCL: 00

SUB CODE: EM, ME

NO REF SOV: 007

OTHER: 003

Card 2/2

L 58336-65 EWT(1)/EPF(n)-2/ENG(m)/EPA(w)-2 Pz-6/Po-4/Pab-10/Pi-4 IJP(c)  
WW/AT

ACCESSION NR: AT5010443

UR/3136/64/000/684/0001/0054

AUTHOR: Artsimovich, L. A.; Gorbunov, Ye. P.; Mirnov, S. V.; Mukhovatov, V. S.;  
Razumova, K. A.; Strelkov, V. S. 66  
61  
61

TITLE: Investigation of ohmic heating of a plasma in toroidal Tokamak installations

SOURCE: Moscow. Institut atomnoy energii. Doklady, no. 684, 1964. Issledovaniye  
omicheskogo nagrevaniya plazmy v toroidal'nykh ustanovkakh Tokamak, 1-54

TOPIC TAGS: plasma heating, plasma equilibrium, plasma pinch, plasma stability,  
plasma diagnostics, plasma containment/ Tokamak

ABSTRACT: The authors report the results of a theoretical analysis of the plasma heating process and of the conditions for the equilibrium instability of a plasma loop in toroidal installations of the Tokamak type. The construction of the installations is described and the diagnostic methods are explained. The measurement results show that the macroscopic characteristics of the discharge depend essentially on the controlling transverse magnetic field and on the magnitude of the longitudinal magnetic field. Under optimal discharge conditions, they obtained a magneto-hydrodynamically stable plasma pinch with electric conductivity reaching  $2 \times 10^{16}$

Card 1/2

L 58336-65

ACCESSION NR: AT5010443

5

ngs esu (electron temperature ~ 150 eV). The experimentally obtained lifetime of the charge particles is compared with the value expected in the presence of Bohm or classical diffusion. The prospects of using the ohmic method of plasma heating in Tokamak equipment are discussed. "The authors thank G. G. Dolgov-Savel'yev and V. D. Shafranov for a discussion of the experimental results and procedures, L. L. Gorelik and V. V. Sinitsin for participating with the experiments on the plasma energy balance, E. I. Kuznetsov for help with the optical measurements, and the Tokamak crew." Orig. art. has: 19 figures, 18 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: ME

HR REF SOV: 009

OTHER: 005

AR  
Card 2/2

INTEZAROVA, Ye.I.; KONDRAT'YEV, V.N.; MUKHOYAN, M.Z.

Chemical relaxation in burnt gas. Kin. i kat. 5 no.4:585-591  
Jl-Ag '64. (MTRA 17:11)

1. Institut khimicheskoy fiziki AN SSSR.

VELIKORETSKIY, D.A.; LORIYE, K.M.; FINKEL', I.I.; GRIGORCHUK, Yu.F.;  
BERGER, L.Kh.; UTROBINA, V.V.; KHARCHENKO, V.E.; MESHCHERYKOV, A.V.,  
student V kursa; OBEREMCHENKO, Ya.V., kand.med.nauk; NIKITIN, A.V.;  
MIKHROYEDOVA, S.N.; KUSMARTSEVA, L.V., assistent; KUZNETSOV, V.A.,  
dotsent; KUKHTINOVA, R.A., assistent; BONDARENKO, Ya.D. (g. Fastov);  
KURTASOVA, L.V. (g. Fastov); PEVCHIKH, V.V.; CHURAKOVA, A.Ye.;  
BABICH, M.M.; KUZ'MIN, K.P.; PAVLOV, S.S.; SHEVLYAKOV, L.V., kand.  
med.nauk; IGNAT'YEVA, O.M.; ZEYGERMAKHER, G.A.; GUTKIN, A.A.;  
POLYKOVSKIY, T.S.

Resumes. Sov.med. 25 no.11:147-152 N '61.

(MIRA 15:5)

1. Iz Instituta grudnoy khirurgii AMN SSSR (for Velikoretskiy, Loriye, Finkel').
2. Iz bol'nitsy No.3 Gorlovki Stalinskoy oblasti (for Grigorchuk).
3. Iz Tyumenskoy oblastnoy bol'nitsy (for Berger, Utrobina).
4. Iz Karatasskoy rayonnoy bol'nitsy Yuzhno-Kazakhstanskoy oblasti (for Kharchenko).
5. Iz Gospital'noy khirurgicheskoy kliniki I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova (for Meshcheryakov).
6. Iz kliniki propedevticheskoy terapii Stalinskogo meditsinskogo instituta na baze oblastnoy klinicheskoy bol'nitsy imeni Kalinina (for Oberemchenko).
7. Iz kliniki gospital'noy terapii Voronezhskogo meditsinskogo instituta (for Nikitin, Mikhoyedova).
8. Iz kafedry obshchey khirurgii Kishinvoskogo meditsinskogo instituta (for Kusmartseva).

(Continued on next card)

SHURYGIN, V.P., kand. tekhn. nauk; IVANTSOV, M.G., inzh.; KLEYMAN,  
V.M., inzh.; MATSNEV, N.F., inzh.; EINTUSHAL', F.V., inzh.;  
MUKHRANOV, M.A., inzh.; NIKOLAYEV, N.P., inzh.; ANOSHKIN,  
A.I., inzh.; PILIPENKO, M.P., mekhanizator SMP-205; SAVIN,  
V.D., mekhanizator SMP-205

"Over-all mechanization of construction in railroad electri-  
fication" by A.P. Alekseev. Reviewed by V.P. Shurygin and  
others. Transp. stroi. ll no.8:59-60 Ag '61. (MIRA 14:9)  
(Railroads--Electrification)  
(Alekseev, A.P.)

MUKHRANOV, M.A.

Experience in electrifying the K.vkazskaya-Armavir section of  
the railroad line. Transp. stroi. 13 no.1:33-34 Ja '63  
(MIRA 18:2)

1. Glavnyy inzh. tresta Ordzhonikidzetransstroy.



MUKHSIN-ZADE, N.Kh.

Wild leafy plants as a source of vitamin C in food rations of  
collective farmers in southern Tajikistan. Vop. pit. 20 no.4:  
Jl-Ag '61. (MIRA 14:7)

1. In Instituta krayevoy meditsiny Akademii nauk Tadshikskoy SSR,  
Stalinabad.

(ASCORBIC ACID) (TAJIKISTAN--DIET)  
(TAJIKISTAN--VEGETABLES)

KUZNETSOVA, N.V.; MORDOKHOVICH, L.G.; MUKHSIN-ZADE, N.Kh.

Characteristics of the composition of milk and national sour milk products prepared in Tajikistan (dzhurgot, dukh, chakka, kurut).  
Zdrav.Tadzh. 9 no.3:44-47 My-Je '62. (MIRA 15:8)

1. Iz Instituta krayevoy meditsiny AN Tadzhikskoy SSR, kafedry gigiyeny Tadzhikskogo meditsinskogo instituta imeni Abuali ibni Sino i peshchevoy laboratorii Dushanbinskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.

(TAJIKISTAN--DAIRY PRODUCTS--ANALYSIS AND EXAMINATION)

SAPARGALIYEV, G.S., kand. jurid.nauk; PAL'GOV, N.N., akad.; BOGATYREV, A.S.;  
 AFANAS'YEV, A.V., prof.; BYKOV, B.A.; SHAKHMATOV, V.F., kand. istor.  
 nauk; POKROVSKIY, S.N., akad.; SAVOS'KO, V.K., kand. istor. nauk;  
 NUSUPBEKOV, A.N., kand. istor. nauk; BAISHEV, S.B., akad.; GOROKH-  
 VODATSKIY, I.S., kand. istor. nauk; AKHMETOV, A., kand. istor. nauk;  
 RAKHIMOV, A., kand. istor. nauk; PIVEN', N.F.; CHULANOV, G.Ch., doktor  
 ekonom. nauk; BOROVSKIY, V.A., kand. ekonom. nauk; SYDYKOV, A.S., kand.  
 pedagog. nauk; ZHANGEL'DIN, T., kand. filos. nauk; KARASAYEV, L.K.;  
 KANAPIN, A.K., kand. istor. nauk; BELENOV, M.D., kand. ekonom. nauk;  
 KARYNBAYEV, S.R., kand. med. nauk; AKHMETOV, K.A.; SMIRNOVA, N.S.,  
 doktor filolog.nauk; SIL'CHENKO, M.S., doktor filolog. nauk; YERZA-  
 KOVICH, B.G., kand. iskusstvovedcheskikh nauk; RYBAKOVA, N.; MUKHTA-  
 ROV, A.I.; BOGATENKOVA, L.I.; KUNBAKBAYEV, B.; SIRANOV, K.S.; SHVYD-  
 KO, Z.A., red.; MAMTSOVA, L.B., red.; ZLOBIN, M.V., tekhn. red.

[The Soviet Kazakh Socialist Republic] Kazakhskaya Sovetskaya So-  
 tsialisticheskaya Respublika. Alma-Ata, Kazakhskoe gos. izd-vo,  
 1960. 477 p. (MIRA 14:6)

1. Akademiya nauk Kaz.SSR (for Pal'gov, Pokrovskiy, Baishev)
2. Chlen-korrespondent Akademii nauk KazSSR (for Bykov, Smirnova,  
 Sil'chenko)

(Kazakhstan)

MUKHTAROV, A. I.

42029 SOKOLOV, A. A. , MUKHTAROV A. I. - K teorii annigilyatsii elektronov i pozitronov. Vestnik mosk. Un-ta, 1948, No. 8, s. 63-76.- Bibliogr: 8 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948

MUKHTAROV, A. I.

Cand. Physicomath Sci.

Dissertation: "Influence of the Spin State of the Two-Particle System on  
Disintegration of a Positron Atom."

7/6/50

Moscow Order of Lenin State U. Imeni

M. V. Lomonosov.

SO Vecheryaya Moskva  
Sum 71

Sci.Res. Inst. of Physica, MGU

---

IOVNOVICH, M.; MUKHTAROV, A.

Double  $\beta\beta$  decay. Uch.zap.agn no.6:13-19 '55.  
(Beta rays)

(MLBA 9:11)

MUKHTAROV, A. I.

USSR/Nuclear Physics - Elementary Particles.

C-3

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8627

Author : Mukhtarov, A.I.

Inst :

Title : Scattering of  $\gamma$ -Rays by Nucleons with Allowance for the Influence of the Charged Meson Field Around the Nucleons and of the Spin State of the Nucleons and Photons.

Orig Pub : Elmi eserler. Azerb. univ., Uch. zap. Azert. un-ta, 1956, No 8, 13-25.

Abstract : Using the weak-coupling theory, the author considers the scattering of a photon, with an energy close to 150 Mev by a nonrelativistic nucleon surrounded by a meson field. The curves obtained by the author for the dependence of the effective scattering cross section on the energy display resonant maxima.

Card 1/1

MUKHTAROV, A.I.; CHERNOGOROVA, V.A.

Photoproduction of neutral mesons taking into consideration spin states of nucleons. Dokl.AN Azerb.SSR 12 no.2:77-80 '56.(MLBA 9:8)

1. Azges universitet imeni S.M. Kirova, Kafedra teoreticheskoy fiziki.  
Predstavleno akademikom AN Azerbaydzhanskoy SSR Kh.I. Amirkhanovym.  
(Mesons)



MUKHETAROV, A.I.; PEROV, Yu.S.

Scattering of longitudinally polarized electrons and positrons  
by polarized electrons. Izv. vys. ucheb. zav.; fis. no.3:  
48-55 '58. (MIRA 11:2)

1. Azerbaydshanskiy gosuniversitet imeni S.M. Kirova i Moskovskiy  
ordena Lenina gosuniversitet imeni M.V. Lomonosova.  
(Electrons--Scattering) (Positrons--Scattering)

MUKHTAROV, A.I.

Scattering of radially polarised gamma rays by oriented electrons.  
Izv. vys. ucheb. zav.; fiz. no.3:56-61 '58. (MIRA 11:9)

1. Azerbaydshanskiy gosuniversitet imeni S.M. Kirova.  
(Gamma rays--Scattering) (Electrons)

AUTHORS: Mukhtarov, A. I., Perov, Yu. S.

SOV/48-22-7-25/26

TITLE: Scattering of Longitudinally Polarized Electrons and Positrons on Polarized Electrons (Rasseyaniye prodol'no-polyarizovannykh elektronov i pozitronov na polyarizovannykh elektronakh)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1958, Vol. 22, Nr 7, pp. 883 - 885 (USSR)

ABSTRACT: Formulae, which are of a somewhat more general character than those obtained in references 1-3 for the effective cross-sections are found. They include the initial spin characteristics of both particles and the final value of the spin. The investigation is limited to longitudinally polarized particles. The matrix-elements with consideration of the spin are computed according to the method given in reference 4. Formula (1) for the effective cross-section of the electron-electron scattering is written down in first non-vanishing approximation. From (1) the degree of longitudinal polarization of the particle after the collision can be deduced: Formula (2). If the electron energy is small and if their spins previous to the collision are parallel, the polarization of the scattered electron versus the scattering

Card 1/4

Scattering of Longitudinally Polarized Electrons and  
Positrons on Polarized Electrons

SOV/48-22-7-25/26

angle is a simple function:  $P \approx s_1 \cos \theta$  where  $s_1$  and  $s_2$  denote the spin projections on the directions of the momentum of the electrons previous to the collision.  $\theta$  denotes the scattering angle. If the spins are initially antiparallel,  $P \approx s_1$ , that is to say the electrons, remain completely longitudinally polarized. Formulae (1) and (2) are also applicable if one or both of the impinging electrons are not polarized. In this case the spin must be set equal to zero. The positron electron scattering is investigated next. The effective cross-section is considered to be a function of the scattering angle of the positron and of the spin of the positron after collision. In order to obtain the corresponding formulae for the electron it is sufficient to exchange all quantities pertaining to the positron by those pertaining to the electron and vice versa. Formula (3) for the effective cross-section is derived. Further deduction gives formula (4) for the longitudinal polarization of the positron after collision. From (4) can be seen, that at small energies the polarization of the positron is independent

Card 2/4