

VASIL'KOV, G.V.; SPIROV, G.A.; DZHANOV, A.; SENNIKOV, M.I.;
SELYUCHENKO, A.; DEKANOV, I.; RAKHMATULLIN, M.G.; EYSMONT, V.V.;
KOSOVER, S.I.; TSUVERKALOV, D.A.; LESHKOV, B.G.

Information and brief news. Veterinariia 38 no.9:90-96
S '61. (MIRA 16:8)

SELYUCHENKO, A.; DUDAREV, K.N.; BEDERIN, I.M.

Information and news. Veterinariia 38 no.3:93-96 Mr '61
(MIRA 18:1)

SELYUGIN, N. S.

~~SELYUGIN, N. S.~~

Sushka drva. Izd. 3., serer. P. S. Serovskim pri uc astii i pod
red. N. N. Ghulitskovo. Popushcheno v kachestve ucheb. posobiia dlia les-
otekhn. vuzov. Moskva, Gosleskhozizdat, 1949. 535 p., port., diagrs.

Includes Bibliographies.

Title tr.: Drying of wood.

TS837.837 1949

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

WASHINGTON, D. C.: (The release of certain results of investigation to a
number of members of the press by a just-labor group "S. 100." The
release to the press is a violation of the Order of Labor and Banter
and the order of the U.S. Justice Dept. and F.B.I. Department. Moscow
1951. (The release is for the benefit of the U.S. in the
S. 100.)

CC: Washington Post No. 11, 1951

SELYUGIN, V.S., kand.tekhn.nauk

Induction method of measuring radial clearances in turbines.
Energomashinostroenie 7 no.9:37-40 S '61. (MIRA 14:9)
(Turbines--Testing)

SELYUGINA, R.A., inzh.

Cables can be made to last twice as long. Put' i out. khoz.
no. 7:41 J1 '58. (MIRA 11:7)

(Cables)

SELYUGINA, R.A., inzh.

Using excavator buckets of a new design. Transp.stroi. 9
no.7:36-37 J1 '59. (MIRA 12:12)
(Excavating machinery)

KOGAN, D.I.; SELYUGINA, R.A.

Repairing excavators by replacing units. Transp.stroi. 9
no.12:22-24 D '59. (MIRA 13:5)

1. Nachal'nik Tsentral'noy mashinoproatnoy bazy (for Kogan).
2. Zamestitel' nachal'nika otдела ekspluatatsii mekhanizma
Glavstroyemkhanizatsii (for Selyugina).
(Excavating machinery--Maintenance and repair)

SELYUGINA, R., inzh.

Unit method for the maintenance of excavators and bulldozers.
Avt.dor. 22 no.11:21 N '59. (MIRA 13:2)
(Excavating machinery--Maintenance and repair)
(Bulldozers--Maintenance and repair)

BRATSKA, R.A., incl.

Using industrial methods in repairing machinery. Mekh. stroi.
18 no. 1:15-17 Jan '61. (ML 14:2)

1. Mashal'nik otzela eksploatatsii stroitel'nykh mashin
Glavstroymekhanizatsii Mintransstroya SSSR.
(Building machinery—Maintenance and repair)

ACC NR: AM700534

SOURCE CODE: UR/0131/66/003/012/3500/3505

AUTHOR: Selyuk, B. V.

ORG: Smolensk State Pedagogical Institute im. K. Marx (Smolenskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Charge localization in a ferroelectric capacitor

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3500-3505

TOPIC TAGS: ferroelectric crystal, space charge density, electric capacitor, electrode, barium titanate

ABSTRACT: In view of the fact that the space charge produced near the surface of a ferroelectric crystal is usually disregarded in the analysis of ferroelectric materials used in switching devices, and in view of the fact that the existence of a space charge in the transition layer between the crystal and the electrode in such a device is unavoidable, the author attempts to estimate the rate of penetration of charge through the transition layer and its influence on the behavior of the capacitor and on the rate of motion of the domain boundaries. The analysis, based on calculations for an infinite parallel-plate capacitor, shows that a considerable part of the charge in a ferroelectric capacitor is localized not on the electrode but in the transition region, and this localization remains in force up to fast switching frequencies. These switching cycles may reach 1 - 10 microseconds in duration. Consequently, in the case of ferroelectric materials such as $BaTiO_3$, the charge moves

Card 1/2

ACC NR: AP7005034

from the electrodes to the surface of the crystal so rapidly, that it becomes localized not only in the electrodes but also to a considerable degree on the surface of the crystal. This localization can be either of the surface type, in a layer on the order of the lattice constant, or of the volume type, in a much thicker layer. In the latter case, there exists a ferroelectric layer whose properties differ from the rest of the ferroelectric, having anomalous properties which can greatly influence the behavior of the ferroelectric capacitor. The author thanks L. P. Kholodenko for a discussion of the work. Orig. art. has: 3 figures and 16 formulas.

SUB CODE: 09, 20/SUBM DATE: 04Apr66/ ORIG REF: 004/ OTH REF: 010

Card 2/2

Selyuk, I.A.

FRIDMAN, S.Ye.; SELYUK, I.A.

Raw materials supply of the sugar industry on the fortieth anniversary of the Soviet regime. Sakh. prom. 31 no.10:10-13 0 '57.
(MIRA 11:1)

1. Gosplan RSFSR (for Fridman).
2. Gosplan SSSR (for Selyuk).
(Sugar beets)

FRIDMAN, Semen Yefimovich; LYSENKO, V.M.; SELYUK, I.A.

[Manual on the procurement, receiving, and storage of sugar
beets] Spravochnik po zagotovke, priemke i khraneniui sakharnoi
svekly. Moskva, Pishchepromizdat, 1959. 393 p.
(Sugar beets) (MIRA 13:8)

SELYUK, S.

26380 Na starom promysle. (O znatnom neftyanike A. G. Kafarove. Binagady.
Azerbaydzh. SSR. Ocherk. Smena 1949, No. 15, s. 8-9

SO: LETOFIS' NO. 35, 1949

AZIZYAN, A.K., otv. za vypusk; REUT, V.F., otv. za vypusk; ~~SELYUK, S.I.~~
otv. za vypusk; SMIRNOV, V.V., otv. za vypusk; NOVIKOVA, L.,
tekh.n.red.

[The first flight of man into space; materials published in
"Pravda."] Pervyi polet cheloveka v kosmos; materialy, opubliko-
vannye v "Pravde." Moskva, Izd-vo "Pravda," 1961, 343 p.
(MIRA 14:3)

(Astronautics)

CHERNENKO, M.B.; LUKIN, Yu.B.; GUSEV, K.M.; KUDREVATYKH, L.A.; MAKARENKO, Ya.I.; SATYUKOV, P.A., red.; STEPANOV, V.P., red.; SELYUK, S.I., red.; SUTOTSKIY, S.B., red.; ABALKIN, N.A., red.; KOZEV, N.A., red.; AVERCHENKO, B.Ye., red.; SOBOLEV, L.S., red.; SIMONOV, K.M., red.; POLEVOY, B.N., red.; GALIN, B.A., red.

[Heroes of our times] Geroy nashikh dnei. Moskva, Izd. gazety
"Pravda," 1961. 619 p. (MIRA 14:11)
(Labor and laboring classes)

SELYUK, Ye. M.

231T88

USSR/Meteorology - Wind Wave Oct 52

"Information on Procedure for the Observations
of Height of Wind Waves," Ye. M. Selyuk, Lenin-
grad State Hydrol Inst

"Meteorol i Gidrol" No 10, pp 51, 52

Selyuk suggests that, in order to get the av-
erage height of wind waves on the surface of re-
claimed or natural lakes, 100 waves be proc-
essed, measuring their height and time of pas-
sage and then averaging.

231T88

SELYUK, YE. M.

PA 245T57

USSR/Geophysics - Hydrology

Nov 52

"Some Works Data on the Volga-Don Canal imeni Lenin and the Tsimlyansk Reservoir." K. P. Voskresenskiy, Cand Geog Sci, and Ye. M. Selyuk, Cand of Tech Sci, Leningrad State Inst of Hydrology

"Meteorol i Gidrol" No 11, pp 22-26

Presents an account of projects and contributions by individuals, groups, institutions, etc., which have aided in the "great" constructions of Communism.

245T57

SELYUK, Ye. M.

SOV/124-57-9-10384

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 9, p 71 (USSR)

AUTHORS: Andreyanov, V. G., Labzovskiy, N. A., Selyuk, Ye. M.

TITLE: On the Application of Probability Curves to the Study of Wind-created Surface Waves (O primenenii krivykh obespechennosti k izucheniyu vetrovogo volneniya)

PERIODICAL: Tr. Gos. gidrolog. in-ta, 1956, Nr 56 (110), pp 118-122

ABSTRACT: The paper consists of a criticism of the results obtained by B. Kh. Glukhovskiy and Ya. G. Vilinskiy (Meteorologiya i gidrologiya, 1953, Nr 9) during an investigation of the laws of the distribution of the elements of wind-created sea waves. The results of the analysis of 119 wave recordings are adduced, which contradict the conclusion by those authors regarding the existence of a single generalized dimensionless distribution function of the heights of wind-created waves.

Yu. M. Krylov

Card 1/1

SOV/124-58-8-8840

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 8, p 73 (USSR)

AUTHOR: Selyuk, Ye. M.

TITLE: Concerning the Methods Used to Analyze Wave-recorder Graphs
(Nekotoryye voprosy metodiki obrabotki volnogramm)

PERIODICAL: Tr. Gos. gidrolog. in-ta, 1957, Nr 66, pp 51-74

ABSTRACT: A description is given of the methods used to measure the height, length, and period of waves. It is pointed out that the lack of standard procedures in the analysis of wave-recorder graphs makes it difficult to obtain results on which valid comparisons can be based. It is proposed that the wave graphs be analyzed to find the component sine curves having different amplitudes and periods. Doing this makes it possible to accomplish the harmonic analysis in the first approximation. For the purpose of standardizing the analysis it is proposed that the main wave system in a wave graph be segregated and then be used to determine the mean period and height of the waves (correct to within 30-40%). The mean-period and mean-height values thus obtained can be taken as nominal values.

A. S. Ofitserov

Card 1/1

ROMANOV, A.V.; SELYUK, Ye.M.

Analytico-experimental method of calculating spatial percolation
to a drain. Vop.fil'tr.rasch.gidr.soor. no.3:155-176 '59.
(MIRA 13:5)

(Soil percolation) (Drainage)

ABRAMOV, S.K.; SELYUK, Ye.M.

Experimental methods for designing drainage structures. Trudy
Lab. iuzh. gidrogeol. VODGEO no. 3:142-163 '60. (MIRA 14:4)
(Drainage)

SELYUK, Yelena Mikhaylovna, kand. tekhn. nauk; KARAUSHEV, A.V., kand. tekhn. nauk; VEYNERT, V.A., inzh.; Primalni uchastiye: VESPE, V.Yu., mladshiy nauchnyy sotr.; GAVRILOVA, V.F., starshiy tekhn. nauk; PROSKURYAKOV, A.K., kand. tekhn. nauk, otv. red.; MIRONENKO, Z.I., red.; SOLOVEYCHIK, A.A., tekhn. red.

[Investigation, calculation, and prediction of wind waves in reservoirs; practical manual] Issledovaniia, raschety i prognozy vetrovogo volneniia na vodokhranilishchakh; prakticheskoe posobie. Leningrad, Gidrometeor. izd-vo 1961. 220 p. — Nomograms.

(Waves)

(Reservoirs)

(MIRA 14:9)

ABRAMOV, S.K., nauchnyy sotr.; NEDRIGA, V.P., nauchnyy sotr.;
ROMANOV, A.V., nauchnyy sotr.; SELYUK, Ye.M., nauchnyy
sotr. Prinsipialni uchastiy: ~~POPOV, L.N., nauchnyy sotr.;~~
SMIRNOV, D.N., nauch.sotr.; SHERSHUKOVA, M.A., red. izd-va; GOL'BERG,
T.M., tekhn.red.

[Protection of land against inundation and the rise of the
ground water level] Zashchita territorii ot zatopleniia i
podtopleniia [By] S.K.Abramov i dr. Moskva, Gos. izd-vo
lit-ry po stroit., arkh. i stroit. materialam, 1961. 423 p.
(MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut vodosnab-
zheniya kanalizatsii, gidrotekhnicheskikh sooruzheniy i in-
zhenernoy gidrogeologii (for all except Shershukova, Gol'berg).
(Hydraulic engineering)

SELYUK, Ye.M., kand. tekhn. nauk

Results of the scientific and methodological control of the study
of lakes and reservoirs exercised by the Hydrological Institute.
Trudy GGI no.85:17-36 '62. (MIRA 15:6)
(Hydrology--Research)

SELYUK, Ye.M.; KOSHCHEYEV, A.N.; VAYSBAND, V.B.; YAROSLAVTSEV, N.A.

Comparative evaluation of instrumental methods of observations
on waves of reservoirs and lakes. Trudy GGI no.113:5-35 '64.
(MIRA 17:11)

00000000, 1.00.

Supplementary information on the above mentioned
small-photograph of the...
... 1971-72 '61.

1. Bentgenovskoye otdeleniye... (revised))
"Sentral'noy politsii" i...
poryadka RSFSR, Moskva.

SEMASHKO, L.S., inzh.

Neglected possibility for improving the quality of lung films.
Vest.montg. i rad. 33 no.1:78 Ja-F '58. (MIRA 11:4)

1. Iz rentgenologicheskogo otdeleniya (nach. A.B. Malyarova)
TSentral'noy polikliniki Ministerstva zdravookhraneniya SSSR (nach.
M.D. Kormilitsyn).

(LUNGS, radiography
means of improvement of quality of films (Rus)

SEMASHKO, Lev Stanislavovich; VARNOVITSKIY, G.I., red.; KUZ'MINA, N.S.,
tekh.n.red.

[Clinical radiography] Klinicheskaya rentgenografiya. Moskva,
Gos.izd-vo med.lit-ry, 1959. 190 p. (MIRA 13:6)
(RADIOLOGY, MEDICAL)

KUTSIDI, Aleksandra Veniaminovna; MIKHAYLOV, Nikolay Andreyevich;
~~SE'ASHKO, Lev Stanislavovich; AL'TSHULLER, L.I., red.;~~
~~BEL'CHIKOVA, Yu.S., tekhn. red.~~

[Handbook for the X-ray laboratory technician] Spravochnik
rentgenolaboranta. Moskva, Medgiz, 1962. 198 p.
(MIRA 15:3)

(RADIOLOGY, MEDICAL)

SEMASHKO, H.A.

DECEASED

See IIC

31-102

SEMASHKO, N. A.

Standardization in public health. Standartizatsiia 29
no.8:24-25 '65. (MIRA 18:10)

S. MASHIRO, H. S., BULGUSOV, A. S., PODOLVA, V. M., CHEREP, E. T., LAURE,
N. T., VENKLE, V. I., YAGUDINA, T. R.

Photoproduction of pions from complex nuclei (II/54)

CERN-Symposium on High Energy Accelerators and Pion
Physics.

Geneva 11-23 June 56
In Branch 75

SEMASHKO, N.G., BELOUSOV, A.S., POPOVA, V.M., SHITOV, E.V., TAMM, Ye.I.
VEKSLER, V.I., YAGUDINA, F.R.,

"Photoproduction of Pions Complex Nuclei," paper presented at
CERN Symposium, 1956, appearing in Nuclear Instruments, No. 1, pp. 21-30,
1957

21(7)

AUTHORS: Popova, V. M., Semashko, N. G., SOV/56-36-5-5/76
Yagudina, F. R.

TITLE: The Photoproduction of Charged π -Mesons of Low Energy on Composite Nuclei (Fotorozhdeniye zaryazhennykh π -mezonov maloy energii na slozhnykh yadrakh)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 5, pp 1357-1359 (USSR)

ABSTRACT: The authors investigated the yield of positive and negative photomesons with energies between 0 and 3 Mev at the angles $90^{\circ} \pm 20^{\circ}$ (laboratory system) to the direction of the photons. Work was carried out on the synchrotron of the FIAN with a maximum photon energy of 265 Mev. Collimation of the γ -beam was carried out by means of a lead block with a 3.21 mm^2 cleft; a magnetic field of 7000 oe eliminated the charged particles. The following foils were used as targets:
Be - 0.0659 g/cm^2 , C - 0.0446 g/cm^2 , Al - 0.0377 g/cm^2 ,
Cu - 0.141 g/cm^2 . In the case of simple Coulomb scattering

Card 1/4

The Photoproduction of Charged π -Mesons of Low Energy on Composite Nuclei

SOV/56-36-5-5/76

the average angle in these thin foils was not greater than 5° , the energy losses amounted to 0.1 Mev for 3 Mev mesons; the targets were fastened to fine caprone fibers (0.0015 mm thick), which were located outside the beam. Mesons were recorded by means of NIKFI-K plates with an emulsion layer of 400μ thickness. During irradiation the target and the plate were in a vacuum chamber which was surrounded by a lead- and graphite protective shield (cf. Fig 1). Evaluation of the plates with respect to pion stars (negative pions) and $\pi - \mu$ decays (positive pions) was effected with a degree of efficiency of 96 - 98 %. Energy measurements were carried out with an accuracy of ± 3 %. When calculating the meson production cross sections, charge exchange and inelastic meson nucleon scattering were not taken into account; for slow mesons these effects are, however, small. Results are shown by figure 2 in form of a diagram, which shows the pion yield in dependence of Z. Curve 1 corresponds to the meson production on the surface nucleons of the nucleus, and curve 2 corresponds

Card 2/4

The Photoproduction of Charged π -Mesons of Low
Energy on Composite Nuclei

SOV/56-36-5-5/76

SUBMITTED: November 21, 1958

Card 4/4

L 04102-67 EWT(1)/T IJP(c)

ACC NR: AT6031143

SOURCE CODE: UR/3136/66/000/078/0001/0060

54
50
371

AUTHOR: Balebanov, V. M.; Semashko, N. N.

ORG: none

TITLE: Lifetime of individual charged particles in a magnetic trap with mirrors

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-1078, 1966. Vremya zhizni ot del'nykh zaryazhennykh chastits v magnitnoy lovushke s probkami, 1-60

TOPIC TAGS: charged particle, magnetic trap, magnetic moment variation, particle lifetime, charged particle lifetime, magnetic field, stationary magnetic field, axially symmetric magnetic field, disturbed magnetic field

ABSTRACT: Measurements are presented of the lifetime of individual charged particles in a stationary axially-symmetric magnetic field with mirrors. The experiments described confirm theoretical findings on the relatively small exponential variation of the magnetic moment in relation to the adiabaticity of the motion of a particle near the point of reflection. Assuming random or resonance accumulation

Card 1/2

L 04102-67

ACC NR: AT6031143

4

processes, the authors obtain an exponential index and pre-exponential factor for an expression describing variation in the magnetic moment for a given magnetic field (Ogry-I fields). Measurements obtained on the lifetime of particles in an axially-symmetric disturbed magnetic field are in satisfactory agreement with expressions derived for variations in the magnetic moment. The anomalous increase in the lifetime of electrons in a trap was observed experimentally under conditions corresponding to the absolute retention of particles in a limited space ("Stormer region"). The authors thank A. A. Roslov for his preparation of the equipment and instruments and direct participation in this study, and I. N. Golovin, L. I. Artemenkov, and A. M. Dykne for their helpful discussion of the results obtained. [Authors' abstract] [SP]

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 024/ OTH REF: 013

kh

Card 2/2

SOV/120-72-2-2/37

AUTHORS: Babov, V. V. and Semashko, M. N.

TITLE: Stabilization of Magnetic Fields Using a Cathode Ray Tube
(Stabilizatsiya magnitnykh poloy s pomoshch'yu elektronnoluchevoy trubki)

PERIODICAL: Fizika i Tekhnika Eksperimenta, 1956, No 2, pp 41-44
(USSR)

ABSTRACT: A method has been developed for the stabilization of a magnetic field using a CRO tube. The method has been used over a number of years and has proved satisfactory. It consists of the following: A usual CRO tube (Fig.1) is placed in the leakage field of an electro-magnet which is accurately compensated by a constant field of opposite sign. Both fields are normal to the axes of the tube. Thus a smallest change in the magnetic field in the gap of the electro-magnet which, of course, also leads to a change in the leakage field deflects the electron beam to either side depending on the sign of the change. The electron beam is modulated in intensity and special plates are deposited on the inner surface of the screen of the tube. These plates are arranged symmetrically about the axis and signals from the plates depend on the position of the beam on them. When Card 1/2 the beam passes symmetrically, the amplitudes of the signals

SOV/120-53-2-3/37

Stabilization of Magnetic Fields Using a Cathode Ray Tube.

When the plates are equal, while with the smallest deflection a difference in the amplitudes appears and can be used as the stabilizing signal. A full description is given of the necessary circuitry and the method of producing the compensating constant magnetic field. A stability of $\sim 0.00\%$ has been achieved corresponding to mains voltage changes of 30%. A continuous regulation of the field up to 30% of maximum is possible. The following persons are thanked for help and interest: G. Ya. Shchepkin, S. P. Melnikov and Yu. D. Pizarov. There are 4 figures.

SUBMITTED: July 1, 1957.

Form 3/2

1. Magnetic fields---Stabilization
2. Stability---Control
3. Cathode ray tubes--Applications

66593

~~21(7)~~ 21.1900

SOV/26-59-7-2/55

AUTHOR: Panov, D.A., and Semashko, N.N., Moscow

TITLE: Thermonuclear Magnetic Traps

PERIODICAL: Priroda, 1959, Nr 7, pp 13-18 (USSR)

ABSTRACT: The article describes how thermonuclear reactions are achieved and comments upon the principle of thermonuclear magnetic traps. In the USSR, the idea to use a thermonuclear magnetic trap in the shape of a straight cylinder with a longitudinal magnetic field with increased amplification toward its ends was first expressed by G.I. Budker in 1953. Recently the Institut atomnoy energii AN SSSR (Institute of Atomic Power of the AS USSR) has developed (under the guidance of I.N. Golovin) a large thermonuclear magnetic trap, the "Ogra" (diagram on p 17 and photo on p 18). It will serve for research into thermonuclear reactions. In the ionic supply chamber of the "Ogra's" injector, deuterium ions of as much as 200 kiloelec-

Card 1/2

4

66593

SOV/26-59-7-2/55

Thermonuclear Magnetic Traps

tron-volts are created. The trap's chamber made of non-magnetic steel is 1.4 m in diameter, and has several diffusion and sorption pumps. The "Ogra" is supposed to produce high-temperature plasma with a density of 10^{12} ions per cu cm. It will thus help to solve the problem of accumulation and holding back of the plasma in thermonuclear magnetic traps. There are 4 diagrams, 1 photo, 1 graph and 2 Soviet references.

Card 2/2

22292

S/O5/61/071/004/005/001
S125/3201

26.2.201
21.2.12
ATTORNEY

Colovin, I. N., Artemanov, L. I., Boshakov, J. P.,
Rudakov, A., Pustovitch, V. A., Semakova, S. K.

Work with the thermonuclear installation "Ogra"

PERIODICAL: Spekhki fizicheskikh nauk, v. 75, no. 4, 1957, 685-703

TEXT: The principal data concerning the installation "Ogra" were already published in 1958 by V. Kurchatov, "O kolebaniyakh plazmy i ustoychivosti ee pri SPS" in Zhurnal teoreticheskoy fiziki i matematicheskoy fiziki, no. 5, 1958. In 1959, the authors of the present paper (I. N. Colovin, I. P. Boshakov, J. P. Artemanov, V. A. Pustovitch, S. K. Semakova) published a paper in Zhurnal teoreticheskoy fiziki i matematicheskoy fiziki, no. 5, 1959, in which they proposed to be known, their current strength and conditions required for a dense plasma to accumulate in the "Ogra". In "Ogra" operation, the density of plasma is equal or larger than the density of hydrogen. The accumulation of hot plasma in the "Ogra" is actually independent upon the following three cross sections: (a) the dissociation cross section σ_d of a molecule H_2 in hydrogen;

(b) the cross section σ_p of the dissociation of a molecular ion H_2^+ by

Card 1/6

22292

S/O5/61/071/004/005/001
S125/3201

Work with the thermonuclear...

protons, (c) the cross section σ_{ex} of the charge exchange of protons in hydrogen, (d) the cross section σ_{ion} of hydrogen ionization by protons. The values of σ_d used by the authors in 1959 had been measured by N. V. Fedorenko at LPTI (Leningrad Institute of Physics and Technology) in 1957. For conditions in the "Ogra", the relations for the balance of ions and neutrons read:

$$\frac{d}{dt} (n_p + n_H) = n_p n_H \sigma_{ex} \quad (2.1)$$

$$\frac{d}{dt} n_p = n_p n_H \sigma_{ex} + \frac{d}{dt} n_H \quad (2.2)$$

The equation for the pinch current reads:

$$J_{pinch} = \frac{1}{2} \frac{d}{dt} \frac{Q}{v} \frac{v^2}{\sigma_{ex}} \left\{ 1 - \frac{\sigma_{ex}}{v} \frac{d}{dt} P \right\} \quad (2.3)$$

for the density of plasma or hydrogen at the pinch:

$$n_{pinch} = \frac{1}{2} \frac{d}{dt} \frac{Q}{v} \frac{v^2}{\sigma_{ex}} \left(1 - \frac{\sigma_{ex}}{v} \frac{d}{dt} P \right) \quad (2.4)$$

Card 2/6

22292

S/O5/61/071/004/005/001
S125/3201

Work with the thermonuclear...

and

$$n_{max} = \frac{1}{2} \frac{d}{dt} \frac{Q}{v} \frac{v^2}{\sigma_{ex}} \left(1 - \frac{\sigma_{ex}}{v} \frac{d}{dt} P \right) \quad (2.5)$$

respectively. The plasma-filled volume in the "Ogra" amounts to $\Omega = 8 \cdot 10^6$ cm³. Fig. 1 shows the principal cross sections characterizing the accumulation of a plasma in the "Ogra". Reference is made to seminars carried out by V. A. Simonov at the Kurchatov Institute, Leningrad, with the Institute of Vacuum Scientific Research Testimony, Leningrad, with the stability, the space charge, and the collision of ions by electrons. M. S. Ioffe and V. G. Tel'kovskiy have studied the adjusting instability (perestanovchaya neustoychivost'). According to O. S. Pustovitch, a strong asymmetry of the plasma may, in case of a positive azimuthal current, lead to an ordered flux of ions toward the chamber wall. Part 2 of the present paper was written, certain parts of the "Ogra" at the time while the present paper was written, certain parts of the "Ogra" were redesigned with a view to amplifying the induced flux of H^+ ions, and to improving

Card 3/6

SEMASHKO, N. N., GROSHEV, A. L., KUZNETSOV, V. V., MALAKHOV, N. P.,

"The Source of Hydrogen Ions for Mirror Machine Ogra,"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases,
Paris, France, 8-13 Jul 63

SEMASHKO, N. N., BALEBANOV, V. M., GLASKO, V. B., GROSHEV, A. L., KUZNETSOV, V. V.,
SVESHNIKOV, A. G.,

"Study of Individual Charged Particle Motion in "fluted" Magnetic Fields,"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases,
Paris, France, 8-13 Jul 63

SEMASHKO, N. N., BALEBANOV, V. M., VOLKOV, B. I., GLASKO, V. B., GROSHEV, A. L.,
KUZNETSOV, V. V., SVESHNIKOV, A. G.,

"Motion of Individual Charged Particles in Helical-Symmetry Magnetic Field,"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases,
Paris, France, 8-13 Jul 63

L 11130-63

EWT(l), EwL(k)/EWT(m) EDS/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/SSD
Pz-l/Fab-l/Pi-l/Po-l AT/IJP(C)

ACCESSION NR: AP3001173

S/0089/63/014/005/0446/0452

AUTHOR: Bezbatchenko, A. L.; Kuznetsov, V. V.; Malakhov, N. P.; Semashko, N. N.

TITLE: Injections of ion beam into the magnetic trap "Ogra" 19

SOURCE: Atomnaya energiya, v. 14, no. 5, 1963, 446-452

81

TOPIC TAGS: ion injection, plasma, magnetic trap

ABSTRACT: The paper describes experimental results on obtaining, focusing, and injection of a beam of molecular hydrogen ions of energy up to 180 kev into the magnetic field of the "Ogra." The ion current introduced into the trap was about 150 ma. The ions are introduced into the trap through a magnetic channel which consists of an iron screen with a compensating current winding for weakening the field inside the channel (see Enclosure). The distortion of the magnetic field of the trap caused by the iron injection channel is in the working part only a few percent. Details of the ion source, ion injector optics, and of the magnetic channel are given. Orig. art. has: 7 figures.

ASSOCIATION: none

Card 1/1

BALEBANOV, V.M.; GLASKO, V.B.; GROSHEV, A.L.; KUZNETSOV, V.V.;
SVESHNIKOV, A.G.; SEMASHKO, N.N.

Motion of single charged particles in undulating magnetic fields.
Atom. energ. 15 no.4:318-319 0 '63. (MIRA 16:10)

BALEBANOV, V.M.; VOLKOV, B.I.; GLASKO, V.B.; GROSHEV, A.L.; KUZNETSOV, V.V.;
SVESHNIKOV, A.G.; SEMASHKO, N.N.

Motion of isolated charged particles in a magnetic field with helical
symmetry. Atom. energ. 15 no.5:409-410 N '63. (MIRA 16:12)

L 3613-66 EWT(1)/ETC/EPF(n)=2/EWG(m)/EPA(w)=2 IJP(c) AT

ACCESSION NR: AP5024034

UR/0057/65/035/009/1590/1593

AUTHOR: Volkov, B. I.; Glasko, V. B.; Sveshnikov, A. G.; Semashko, N. N.

533.9

TITLE: On "intermingling" of particles in a composite magnetic field trap

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 9, 1965, 1590-1593

TOPIC TAGS: magnetic mirror, combined magnetic field, plasma injection, particle trajectory, plasma confinement, plasma instability, mathematic physics

ABSTRACT: Trajectories of charged particles in a magnetic mirror system with an auxiliary transverse magnetic field were calculated with the aid of a computer. The auxiliary field was that produced by six current-carrying rods parallel to the axis of the system and symmetrically disposed about it. The calculations were undertaken to determine whether the complex magnetic field would cause sufficient intermingling of particles with different velocities significantly to reduce the anisotropy of the ion velocity distribution of a plasma injected into the system. This question is important because the anisotropic velocity distribution of plasmas in magnetic mirror systems gives rise to cyclotron instability and greatly reduces the confinement time. The charged particles were assumed to be produced within the field by ionization of atoms of a monoenergetic beam moving in the median plane through the center of the system. The ions were accordingly injected at different

Card 1/2

mlr
Card 2/2

L 10673-66 EWT(1)/ETC/EWG(m) IJP(c) AT

ACC NR: AP5028325

SOURCE CODE: UR/0057/65/035/011/2083/2091

13
70
B

AUTHOR: ^{44.55} Glasko, V.B.; ^{44.55} Sveshnikov, A.G.; ^{44.55} Semashko, N.N.; ^{44.55} Timofeyev, A.V.

ORG: ^{44.55} Physics Department, Moscow State University im. M.V.Lomonosov (Moskovskiy gosudarstvennyy universitet, Fizicheskiy fakul'tet)

TITLE: ^{21 44 55} On the deceleration of ions in an arc discharge in a magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki v. 35, no. 11, 1965, 2083-2091

TOPIC TAGS: plasma injection, magnetic mirror machine, gas discharge plasma, plasma beam interaction, ion beam, ion energy, charge exchange ^{21, 44, 55}

ABSTRACT: The authors calculate the rate of deceleration of high energy ions owing to their passage through, and interaction with, an arc discharge plasma in a longitudinal magnetic field. The calculations were undertaken because of the practical use of an arc discharge to accelerate the dissociation of molecular ion beams employed for injecting plasma into adiabatic plasma-confining systems. The interaction of a high energy ion with the arc plasma is described by an equivalent viscosity, and the rate of energy loss is calculated for an ion whose Larmor orbit intersects the arc column. With the aid of this result and the one-dimensional Fokker-Planck equation, the energy distribution of the ions is calculated both for the steady state that is established during the injection pulse and for the nonsteady state between pulses. A numerical solution for ion energies between 15 and 62.5 keV is presented graphically.

Card 1/2

UDC 533.9

2

L 10673-66

ACC NR: AP5028325

3

For the conditions obtaining in the "Ogra" installation (Soviet thermonuclear mirror machine), the relaxation time for deceleration of the ions by their interaction with the arc plasma is 0.3 msec, and it is concluded that the density of high energy ions is determined mainly by this interaction and not by loss of high energy ions due to charge exchange collisions with neutral atoms. The authors thank L.I.Artemenkov for valuable discussions. Orig. art. has: 33 formulas and 4 figures. 44, 55

SUB CODE: 20

SUBM DATE: 12Mar65/

ORIG REF: 003 OTH REF: 002

Card

2/12

GORA, V.Ye., inzh.; SEMASHKO, P.V., inzh., nauchnyy red.; ROZOVSKIY,
R.S., inzh., red.; PONUSOV, N., tekhn. red.

[Bridge cranes] Krany mostovye. Moskva, Otdel tekhn. infor-
matsii, 1961. 138 p. (MIRA 15:11)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut
pod"emno-transportnogo mashinostroyeniya.
(Cranes, derricks, etc.)

SEMASHKO, S. A.

PETERSON, O. P., SEMASHKO, S. A., and SEMAKHTINA, R. H. "Increased sensitivity to the Kherst reaction and its practical significance for diagnosing epidemic grippe", *Voprosy med. virusologii*, Issue 1, 1948, p. 181-89.

SO: U-3042, 11 March 53, (*Letopis 'nykh Statey*, No. 10, 1949).

SEMASHKO, S. A.

Epshteyn, A. S., Levinson, S. A., Semashko, S. A. and others. "The clinical characteristics of grippe A", (Based on data gathered in 1943, 1944, 1946), Voprosy med. virusologii, Issue 1, 1948, p. 198-208, - Bibliog: 7 items.

SO: U-3042, 11 March 53, (letopis 'zhurnal 'nykh Statey, No. 10, 1949).

SEMASHKO, Z. A.

Epshteyn, F. G., Levinson, A. S., Semashko, Z. A., and others, "Material on the serotherapy of Grippe", Voprosy med. virusologii, Issue 2, 1949, p. 278-37,
- Bibliog: 15 items,

So: U-3042, 11 March 53, (Letopis 'zhurnal 'nykh Statey, No. 10. 1949).

SEMASHKO, S. A., EPSHTEYN, F. G., SEMASHKO, Z. Z., and BIBIKOVA, T. I.

"Use of Sulfonamide for the Treatment of Acute Catarrh of the Respiratory Passages," Sov.Med., No.8, 1949

A group of 490 patients with acute catarrh of the respiratory passages was treated with sulfonamide preparations while a control group of 304 patients was treated with urotropine. Duration of febrile reactions, toxic and local catarrhal symptoms, and unfitness for work was approximately the same for both groups, but fewer complications occurred in the group receiving sulfonamide treatment. 152T60

SEMASHKO, S.A.

Virus influenza. Feldsher & akush. no.2:25-27 Feb 51. (CML 20:8)

1. Author has title of professor.

SEMASHKO, S. A., EPSHTEYN, F. G., FADEYEV, D. N. and others

"Clinical Data on Diagnosis and Therapy of Influenza Caused by the Virus
Type A-1," Moscow, 1952

Спидер, 10/15/57
EPSHTEYN, F.G.; SOROKINA, Ye.Yu.; SEMASHKO, S.A.; DUBNYAKOVA, A.M.

Course of influenza in vaccinated persons [with summary in English].
Vop.virus. 2 no.4:210-213 J1-Ag '57. (MIRA 10:12)

1. Klinika Instituta virusologii AMN SSSR, Moskva.
(INFLUENZA, immunology
course in vaccinated & non-vaccinated subjects (Rus))

EPSHTEYN, F.G., SOROKINA, Ye.Yu., TITOVA, G.V., LESHCHINSKAYA, Ye.V.,
KNYAZEVA, L.D., SEMASHKO, S.A., DUBNYAKOVA, A.M., ZHUZHIGINA, M.A.,
MARTYNOVA, G.D.

Clinical and laboratory data on influenza A, in adults according to
finding during the 1953-1954 epidemic. Zhur.mikrobiol. epid. i
immun. 29 no.9:29-33 S '58 (MIRA 11:10)

1. Iz Instituta virusologii imeni Ivanovskogo AMN SSSR.
(INFLUENZA, epidemiology,
A1, in Russia (Rus))

L 21106-65 EPA(s)-2/EWT(m)/EPF(c)/EWP(v)/EPR/EWP(j)/T Pc-4/Pr-4/Po-4/Pt-10
WE/RM

ACCESSION NR: AP4049432

S/0318/64/000/003/0091/0097

AUTHOR: Mamedaliyev, Yu. G. (Deceased); Ismallov, R. G.; Mamedaliyev, G. M.;
Aliyev, S. M.; Agayeva, M. A.; Semashko, V.

TITLE: Polymerization of the styrene fraction of gas pyrolysis tar with various initiators

SOURCE: Azerbaydzhanskiy khimicheskiy zhurnal, no. 3, 1964, 91-97

TOPIC TAGS: gas pyrolysis tar, styrene fraction, styrene polymerization, polymerization.
initiator

ABSTRACT: A styrene fraction, obtained in 6-7% yield by vacuum distillation of gas pyrolysis tar at 60 mm Hg and containing 50% styrene, 5% α -methylstyrene, approximately 30% ethylbenzene plus m-xylene, 10% o-mylene, and approximately 5% isopropylbenzene, was polymerized for 25-75 hrs. in sealed glass tubes at 73-80C to give 9-36% yield of polymer with a molecular weight of 9000-33,000, depending on reaction time and on the type and concentration (1-3%) of initiators used. The activity of the initiators decreased in the order: azoisobutyronitrile, diisopropylbenzene monohydroperoxide, isopropylbenzene hydroperoxide, and 1, 1-diphenylethane hydroperoxide. The radical chain mechanism of various initiators is discussed. Diisopropylbenzene monohydroperoxide gave the

Card 1/2

L 21106-65

ACCESSION NR: AP4049432

3

highest yield achieved at the maximum concentration and reaction time, whereas azio-
sobutyronitrile was particularly reactive as compared with the other tested initiators at
the minimal time and concentration. The polymers, precipitated with heptane and petro-
leum ether, had melting points of 90-113C, specific gravities of 1.08-1.11 and good di-
electric properties. The experimental resins were shown to be usable for the production
of veneers, lacquer, or glue. Orig. art. has: 5 tables and 6 chemical equations.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: OC

NO REF SOV: 008

OTHER: 000

Card 2/2

TRUTENKO, V.Ye., inzh.; SEMASHKO, V.A., master kabel'nykh rabot; KASHITSYN,
V.V., slesar' ~~SEMASHKO, V.A., master kabel'nykh rabot~~

Gas-fired muffle heater for warming up cable-impregnating
materials. Suggested by V. E. Trutenko, V.A. Semashkov, V.V. Kashitsyn.
Rats. i izobr. predl. v stroi. no. 16:56-57 '60. (MIRA 13:9)

1. Spetsializirovannoye upravleniye No. 56 tresta Moselektromontazh-2,
Moskva, Dayev per., d. 2.
(Cables) (Gas burners)

SEKASIKO, V. F.

SEKASIKO, V. F. -- "The Role and Significance of Teaching Institutes in the Preparation of Teachers for the Soviet Schools." Min Education USSR. Moscow Oblast Pedagogical Inst. Moscow, 1955. (Dissertation for the Degree of Candidate of Pedagogical Sciences.)

SO: Kniznaya letopis', No. 4, Moscow, 1956

ACCESSION NR: AR4032156

S/0058/64/000/002/A017/A017

SOURCE: Ref. zh. Fiz., Abs. 2A180

AUTHORS: Dorofeyev, V. A.; Zabayakin, G. I.; Zamriy, V. N.; Markomenko, V. I.; Semashko, V. I.; Tulayev, B. P.; Cherny*y, A. V.; Shibayev, V. D.

TITLE: Automatization of the reduction of measurement results

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. radioelektron. T. 4. M., Gosatomizdat, 1963, 7-14

TOPIC TAGS: measurement results, data reduction, computer data reduction, computer data insertion, computer memory, direct coupling data insertion, rigid coupling free coupling

TRANSLATION: Problems are discussed involved in the automatization of the reduction of the experimental data obtained in multichannel

Card 1/3

ACCESSION NR: AR4032156

analyzers, multicomputer systems (hodoscopes), and bubble chambers. It is concluded that it is most sensible to employ for this purpose the existing universal digital computers, capable of solving all mathematical problems. The most rational method of inserting the information is by direct coupling. An analysis based on estimates of the insertion of information into different units of a universal computer is shown that a system in which a large number of experimental data are inserted into the magnetic memory of the computer is among the most advantageous. Two possible coupling variants are considered: "rigid" coupling, when the information is inserted into the memory with the aid of the electronic units of the computer, and "free" coupling, when the information insertion does not depend on the state of the computer, but additional electronic apparatus is used for this purpose. The most promising and advantageous is the "free" coupling. The information is recorded on magnetic tape in this case in the form selected for the given type of computer. This makes it possible to accumulate the experimental data over a

Card 2/3

ACCESSION NR: AR4032156

long time without tying up the computer at the same time, and to process the experimental data without any insertion operations, by direct access to the magnetic memory. Specific features of automated insertion of experimental data into a computer are discussed. L. I.

DATE ACQ: 31Mar64

SUB CODE: CP, SD

ENCL: 00

Card 3/3

L 19601-65 EWT(d)/EEC(k)-2/EED-2/EWP(1) Pg-1/Pk-1/Pm-1/Po-1/Pq-1/ IJP(c)/
SSE/AEDC(a)/AFMDC/AFTC(p)/APGC(b)/HSD/AFWL/AFETR/ASD(a)-5/RAEM(a)/AFTC(b)/
AFMD(p)/RAEM(d)/ESD(c)/ESD(dp) GG/BB S/0120/64/000/004/0139/0143
ACCESSION NR: AP40-44685

AUTHOR: Zabiyakin, G. I.; Zamriy, V. N.; Semashko, V. I. B

TITLE: Automated system of information transmission from multichannel
analyzers to a computer

SOURCE: Pribory* i tekhnika eksperimenta, no. 4, 1964, 139-143

TOPIC TAGS: pulse height analyzer, multichannel analyzer, automatic control,
automatic control system, computer data processing 16C

ABSTRACT: An automatic system for transferring information from a multi-
channel analyzer (over 1,000 channels) to the external storage of a computer
located at a distance of 1.5 km is briefly described. The system (see Enclosure
1) takes experimental data channel-by-channel from the analyzer, sends it over
two coaxial cables, and records it on magnetic tape in one of the external
storages; the latter is controlled by the experimenter and operates independently

Card 1/3

L 19601-65

ACCESSION NR: AP4044685

of the computer. A 16-binary-digit code is used. Code pulses are sent every 4 microsec. Time of taking every two numbers is 300--400 microsec. Data extraction from the 1024-channel analyzer takes 1 sec (or, with automatic repeating, up to 10 sec). One cable is used for transmitting code pulses, another, for clock pulses. A third cable is used for control and service signaling. An automatic check feature incorporated into the system "practically eliminated" distortion and loss of signals as operating experience has shown. Orig. art. has: 3 figures.

ASSOCIATION: Ob'yedinenny*y institut yaderny*kh issledovaniy (Joint Nuclear Research Institute)

SUBMITTED: 20Jul63

SUB CODE: NP

NO REF SOV: 005

ENCL: 01

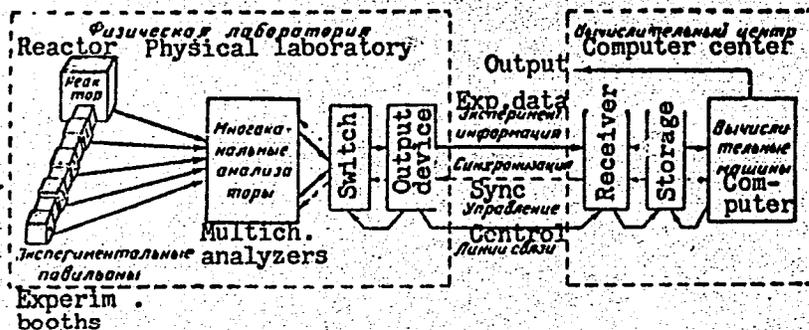
OTHER: 002

Card 2/3

L 19601-65

ACCESSION NR: AP4044685

ENCLOSURE: 01



An automatic system for transmitting experimental data from a multichannel analyzer to a computer

Card 3/3

RANNEV, A.V., kand.tekhn.nauk; PANKRASHKIN, P.V., inzh.; SEMASHKO, V.S., inzh.

All-purpose stand for testing building excavators. Stroi.i dor.
mashinostr. 5 no.7:32-34 Jl '60. (MIRA 13:7)
(Excavating machinery—Testing)

SEMASHKO, Ya.

COUNTRY : USSR

0

REPORT OF THE USSR, Diseases of Cultivated Plants.

1971

1971

1971

1971

1971

SEMASHKO, Ye. N.

Preventive vaccination against tuberculosis. Med. sestra
Moskva no. 10:3-8 Oct. 1951 (CMLL 21:3)

1. Of the Children's Pulmonary Division (Head -- M. P. Pokhitonova),
Institute for Tuberculosis of the Academy of Medical Sciences
USSR (Director -- Z. A. Lebedeva).

S/0149/64/000/002/0135/0139

ACCESSION NR: AP4029535

AUTHOR: Tkachenko, Ye.V.; Vlasov, V.G.; Semavin, Yu.N.

TITLE: The effect of a method of introducing K_2CO_3 additives on the kinetics of carbon thermal reduction of the higher oxides of uranium

SOURCE: IVUZ. Tsvetnaya metallurgiya, no.2, 1964, 135-139

TOPIC TAGS: uranium trioxide, uranium, octoxide, potassium carbonate, additive,

ABSTRACT: The authors state the potassium carbonate, on decomposing, activated reagents which caused an increase in the reduction speed; on the other hand, the reaction of potassium carbonate with uranium oxides led to the formation of uranates on the surface of the oxides reduced which in turn screened a portion of the surface and, thereby, lowered the reduction speed. Therefore, the total effect of the potassium carbonate additive on the carbon thermal reduction of uranium oxides was determined by the ratio of 2 of these factors which act in opposing directions. In the reduction of UO_3 (460°), the action of the potassium carbonate additives basically led to the inhibition of the reduction process due to the screening effect of potassium uranate that was formed. In the reduction of U_3O_8 (700°), along with the formation of uranates, dissociation of K_2CO_3 also occurred. It was established that

Card 1/2

ACCESSION NR: AP4029535

with all the variants of introducing the additives, an acceleration process of U_3O_8 was observed. The greater the degree of the process of acceleration the fewer the potassium uranates were formed. Therefore, the greatest velocity increase occurred with the introduction of a dry additive into the reducer. Orig. art. has: 3 figures.

ASSOCIATION: Ural'skiy politekhnicheskii institut (Ural Polytechnical Institute)

SUBMITTED: 03Jun63

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 017

OTHER: 000

Card 2/2

ACC NR: AP6036904

SOURCE CODE: UR/0226/66/000/011/0072/0076

AUTHOR: Bessonov, A. F.; Taksis, G. A.; Semavin, Yu. N.

ORG: Uralsk Polytechnic Institute im. S. M. Kirov (Ural'skiy politekhnicheskiy institut)

TITLE: Investigation of solid phase reactions with the aid of a micrometric dilatometer

SOURCE: Poroshkovaya metallurgiya, no. 11, 1966, 72-76

TOPIC TAGS: chemical reaction, solid phase reaction, dimension analysis, micrometric dilatometer, dilatometer, calcium carbonate, cuprous oxide, iron oxide, material deformation, aluminum oxide, zirconium oxide

ABSTRACT: A schematic diagram is presented for a high-temperature complex micrometric dilatometer. Use of this dilatometer, makes it possible to analyze in addition to changes in linear dimensions the sequence of processes which occur in samples of $MgO + FeO$, $MgO + Cu_2O$, $Al_2O_3 + Cu_2O$, and $ZrO_2 + CaCO_3$ on heating. The special characteristics of these processes are determined for temperature regions of existence of various phases, areas of pronounced shrinkage.

Card 1/2

ACC NR: AP6036904

of material, and temperatures of development of swelling, sintering, etc. Orig.
art. has: 5 figures. [Based on authors' abstract] [NT]

SUB CODE: 11/SUBM DATE: 25Feb66/ORIG REF: 006/OTH REF: 004/

Card 2/2

L 63052-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EWP(t)/EWP(b) Pr-4/Ps-4/Pu-4

IJP(c) ES/JD/WW/JG
ACCESSION NR.: AP5017773

UR/0080/65/038/007/1447/1451
66.094.2+546.791

31
0

AUTHOR: Tkachenko, Ye. V.; Vlasov, V. G.; Semavin, Yu. N.

TITLE: Carbothermic reduction of higher uranium oxides in the presence of alkali metal carbonates

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 7, 1965, 1447-1451

TOPIC TAGS: uranium oxide, carbothermic reduction, alkali metal carbonate

ABSTRACT: The effect of lithium, sodium, and potassium carbonates on the vacuum carbothermic reduction of amorphous uranium trioxide at 460C and uranous-uranic oxide at 700C by acetylene black was studied. In the case of the latter oxide, the addition of alkali metal carbonates was found to have an accelerating effect which increases in the series $K_2CO_3 - Na_2CO_3 - Li_2CO_3$. During the initial stages of the process, the carbonates accelerate the reduction of uranium trioxide; later, potassium carbonate slows it down, lithium carbonate accelerates it, and sodium carbonate has practically no effect on its rate. The mechanism by which alkali metal carbonates act involves two processes: dissociation of the

Card 1/2

L 63052-65

ACCESSION NR: AP5017773

carbonates into the metal oxide and carbon dioxide, and reaction of the carbonates with the uranium oxides to form the corresponding uranates. Orig. art. has: 1 table and 4 formulas.

ASSOCIATION: None

SUBMITTED: 31Dec64

ENCL: 00

SUB CODE: IC

NO REF SOV: 018

OTHER: 003

Card

bat
2/2

SEMAVINA, K. P.; BRON, V. A.; and BOGORODSKIY, A. L.;

"Wear Characteristics and Experience Gained in Improving the Life of an Open-Hearth Furnace Bottom," Proizvodstvo Stali (Steel Production) Moscow, Mashgiz, 1958. 154 p.

PURPOSE: This book published on the 25th anniversary of the Ural mashzavod (Ural Heavy Machine-building Plant imeni S. Ordzhonikidze) is intended for engineers, technicians and scientific workers concerned with the production of steel.

BRON, V.A.; BOGORODSKIY, A.L.; SEMAVINA, K.P.

Characteristics of wear and the stability of basic open-hearth
furnace hearths. Sbor.st.UZTM no.3:128-138 '58. (MIRA 11:12)
(Open-hearth furnaces--Maintenance and repair)

BRON, V.A.; ZAMOTAYEV, S.P.; MEDYAKOVA, M.V.; SEMAVINA, K.P.; KHORSHAVIN,
L.B.

Production and plant testing of magnesite-chromite concrete. Ogneupory
26 no.3:115-123 '61. (MIRA 14:4)
(Refractory concrete)

BRON. V. A.; DIYESPEROVA, M. I.; SANOK, N. A.; Prinimali uchastiye:
SEMAVINA, K. P.; BARMIN, A. N.

Interaction of refractories with manganese steel. Trudy Vost.
inst. ogneup. no.2:83-100 '60. (MIRA 16:1)

(Refractory materials) (Manganese steel)

BRON, V.A.; SEMAVINA, K.F.

Chrome-alumina concrete and block products. **Ogneupory** 28
no.9:385-388 '63. (MIRA 16:10)

1. Vostochnyy institut ogneuporov (for Bron). 2. Ural'skiy zavod
tyazhelogo mashinostroyeniya imeni Sergo Ordzhonikidze (for Semavina).

SEMAYAKIN, I.K.

Early cholecystectomy in cholecystitis in the light of late
results. Khirurgiia 39 no.10:44-47 O '63. (MIRA 17:9)

1. Iz kafedry gospital'noy khirurgii (zav.-prof. A.V. Gulyayev)
pediatricheskogo fakul'teta II Moskovskogo gosudarstvennogo
meditsinskogo instituta imeni Pirogova.

RAFIKOV, S.R.; SEMBAYEV, D.Kh.; SUVOROV, B.V.

Oxidation of organic compounds. Part 28: Oxidative ammonolysis
of acrolein. Zhur.ob.khim. 32 no.3:839-841 Mr '62.
(MIRA 15:3)

1. Institut khimicheskikh nauk AN Kazakhskoy SSR.
(Acrolein) (Acrylonitrile)

SEMBAYEV, D. Kh.; SUVOROV, B.V.; RAFIKOV, S.R., akademik

Oxidizing ammonolysis of methyl vinyl ketone. Dokl. AN SSSR 155
no. 4:868-871 Ap '64. (MIRA 17:5)

1. Institut khimicheskikh nauk AN Kazakhskoy SSSR. 2. AN Kazakhskoy
SSSR (for Rafikov).

ZUBKOVA, R.D.; SEMBAYEVA, M.Z.; FOKINA, M.V.

Use of yeasts, selected by continuously improving selection
method, in the industry. Izv. AN Kazakh. SSR, Ser. biol. nauk 3 :
no.5:31-38 S-0 '65. (MIRA 18:11)

ZUBKOVA, R.D.; SEMBAYEVA, M.G.; FOKINA, M.V.

Selecting yeast for primary stages of wine making by the method of continuously improving the selection. Trudy Inst. mikrobiol. i virus. AM Kazakh. SSR 7:60-65 '63. (MIRA 16:12)

BOHM, Otomar; SEMBERA, Bohumil

Possibility of reducing total cost and increasing labor productivity in the sugar industry. Listy cukrovar 80 no. 6: 146-150 Je '64.

SEMBERA, D.

Experiences with beer transportation in tanks. p. 148.

(Kvasny Prumysl. Vol. 3, no. 7, July 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

SEMBERA, F.

323. WIND TOWER IN CZECHOSLOVAKIA. Sembera, F. (Elektrotechnicky
Obzor, Sept. 1949, vol. 38, 477-484).

Meteorological data for Czechoslovakia are considered together with
technical and economical factors, providing the conclusion that
stations for these conditions should have a maximum output of 500 k.W.
and an annual output of 700,000 k.W.h., 1,000 such stations replacing
the power plant at Ervenice. Costs per k.W.h. are estimated.

AS 3-31.4 METALLURGICAL LITERATURE CLASSIFICATION

SEMBERA, F.

Hydroelectric plants and their latest development in Czechoslovakia. p. 3.
(Czechoslovak Heavy Industry, No. 12, 1956. Prague, Czechoslovakia)

SO: Monthly List of East European Accessions. (KEAL) LC. Vol. 6, No. 6,
June 1957. Uncl.

SEMBERA, F.

SEMBERA, F. New hydroelectric power plants in Czechoslovakia. p. 33.

Vol. 12, no. 1, Jan. 1957

ELEKTROTECHNIK

TECHNOLOGY

Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

SEMBERA, L.; FOJTIK, J.

Experiences with pallets for paperboard." P. 63.

PAPIR A CELULOSA. (Ministerstvo lesu a drevarskeho prumyslu). Praha.
Czechoslovakia, Vol. 14, No. 4, Apr. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 6, No. 8,
August 1959.
Uncla.