BEM, F.; HABAL... ...: RAMSAL, O.; ... ... J.; PRESPRUCH, V.

Measurement of angle distribution of proton polarization in the c^{12}
(pp) c^{12} reaction in ... .3V range energy. Chechos... di...
14 no.4... ...

1. Institute of Nuclear Re... n of the Czechoslovak Academy of S... es.
Rez.

BEM, P.; HABANEC, J.; KARBAN, O.; NEMEC. J.; PRESPERIN, V.

Polarization measurement of protons with 6,7 MeV energy
scattered on carbon. Chekhosl fiz zhurnal 14 no. 6:404-410
'64.

1. Institute of Nuclear Research, Czechoslovak Academy of
Sciences, Rez.

PRESPERIN, V.

Dissertation defended for the degree of <u>Candidate of Physicomathematical</u>
<u>Sciences</u> at the Technical Physics Institute imeni A. F. Ioffe in 1962:

"Investigatio⌐ of Neutrons With Energies Greater that 10 May in the Photo-
disintegration of Light Nuclie."

Vest. Akad. Nauk SSSR.   No. 4, Moscow, 1963, pages 119-145

8L4c:

S/056/60/0::/004/018/048
B004/B07U

24.6510

AUTHORS: Kul'chitskiy, L. A., Presperin, V.

TITLE: Fast Photoneutrons From Some Elements

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
              Vol. 39, No. 4(10), pp. 1001-1004

TEXT: This work is a continuation of the photoneutron investigations
begun earlier (Ref. 1). While the experimental apparatus remains
unaltered, an improvement is mainly to be found in the evaluation of
the experimental data. An estimate of the difference in the energy
distribution of the forward and backward emitted neutrons (with respect
to the gamma beam) was made. Fig. 1 shows the angular distribution of
the 10-Mev photoneutrons from a lithium target. A significant shift of
the maximum in the direction of small angles was observed; it is
observed also for 18-Mev neutrons (Fig. 2). A comparison with the angular
distribution of recoil protons (Figs. 3,4) confirms that the asymmetry
of the neutron angular distribution is not caused by the apparatus. It

Card 1/2

84400

Fast Photoneutrons From Some Elements   S/056/60/039/004/018/048
                                               B004/B070

was also observed for 10-Mev neutrons from iodine (Fig. 5). The
relative neutron yields from Li, Be, O, Al, Ca, Cu, I and Bi are given
in a Table. The first two have the largest yields. The authors mention
a paper of G. M. Shklyarevskiy (Ref. 7). There are 4 figures, 1 table,
and 7 references: 2 Soviet, 3 US, 1 Canadian, and 1 Italian.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut Akademii nauk
               SSSR (Leningrad Institute of Physics and Technology of the
               Academy of Sciences, USSR)

SUBMITTED: June 23, 1960

Card 2/2

KUL'CHITSKIY, L.A.; PRESPERIN, V.

Fast photoneutrons from Be^9, C^{12}, and Al^{27}. Zhur.eksp.i teor.fiz.
37 no.6:1524-1529 D '59.   (MIRA 14:10)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.
            (Neutrons)   (Bremsstrahlung)

KUTSER, M.Ya., inzh.; PRESS, A.Z., inzh.

Conveyerizing of assembly shops at the Minsk Radio Plant. Mekh.
i avtom. proizv. 16 no.6:26-28 Je '62.   (MIRA 15:6)
          (Minsk--Assembly line methods)
               (Minsk--Radio industry)

VIKSNE, Z.; PRESS, B.

Fiber formation in cicatrizing caseous pulmonary nidi. Izv.AN Latv.SSR no.1:81-84 '64.   (MIRA 17:4)

1. Institut organicheskogo sinteza AN LatvSSR.

PRESS, B.; GRIGALINOVICH, G.

Morphology of reparative processes observed in experimental tumors
treated with chemotherapeutic remedies. Izv.AN Latv.SSR no.12:
103-109 '63.   (MIRA 17:3)

1. Institut organicheskogo sinteza AN LatvSSR.

MELKS, E.; PRESS, B.

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

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

KOVALEVA, A.N.; PRESS, B.O. (Riga)

Case of primary sarcoma of the intima of the aorta.   Arkh.pat. 21
no.10:62-65 '59.   (MIRA 14:S)

1. Iz 1-go terapevticheskogo otdeleniya (zav. A.N.Kovaleva, nauchnyy
konsul'tant - prof. L.I.Vilenskiy) i patologoanatomicheskogo otdeleniya
(zav. - kandidat med.nauk B.O.Press) III Rizhskoy gorodskoy bol'nitsy
(glavnyy vrach A.G.Babayan).
                    (AORTA--CANCER)

PRESS, B.O. Cand Med Sci -- (diss) "Histological changes in
the lungs in post-operative pneumonia." Riga, 1957. 15 pp 22 cm.
(Acad Sci LaSSR. Inst of Experimental Medicine.) 200 copies.
(KL, 23-57, 117)

GILLER, S.A.[Gillers, S.], otv. red.; BLEYDELIS, Ya.Ya.
[Bleidelis, J.], red.; BLYUGER, A.F.[Blugers, A.]red.;
ZIDERMANE, A.A., red.; PRESS, B., red.; ERAMEERGA, V.,
red.; LIDAK. M.Yu.[Lidaks, M.], red.; KOVI, O., red.;
SHUL'TS, L

[Cyclophospiane] TSiklofosfan; sbornik statei. Riga, Izd-
vo "Znanie," 1965. 267 p.   (MIRA 18:6)

1. Latvijas Padomju Socialistiskas Republikas Zinatnu
Akademija. Organiskas sintezes instituts.

PRESS, E. E.

EXCERPTA MEDICA Sec.4 Vol.11/4 Med.Microb. etc. April58

1075. FLUCTUATION OF AGGLUTININ TITRES IN THE SERUM OF DONORS IN
    RELATION TO AGE AND SEASON (Russian text) - Press E. E. Regional
    Blood Transf. Station, Kursk. - PROBL. GEMATOL. PEREL. KROVI 1956,
    1/2 (60)
The stability of the titres of group agglutinins in the blood of 272 healthy donors
was investigated in relation to their age and the season of the year. As a rule the
titre of these donors did not vary or fluctuate only slightly; these fluctuations were

1025

not connected with the season. Sera with a high titre (1:64 and higher) were found more frequently in donors 20 to 30 yr. old, and sera with a low titre (1:4, 1:8) in donors older than 30.   Krymskii - Moscow (S)

PRESS

9(4)

PHASE I BOOK EXPLOITATION   SOV/1889

RSFSR. Moskovskiy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva

Poluprovodnikovyye diody i triody i ikh primeneniye; sbornik statey. (Semiconductor Diodes and Triodes and Their Uses; Collection of Articles) Moscow, Tsentr. byuro tekhn. inform., 1958. 102 p. (Series: Dostizheniya nauki i tekhniki) 1,700 copies printed.

Consulting Engineer: Ye.Z. Korobeynikova; Ed.: G.P. Gaus.

PURPOSE: This book may be useful to engineers in the field of semiconductor electronics.

COVERAGE: The articles in this collection discuss problems in the design, manufacture, and application of new types of semi-conductor devices. The double-base diode is described and results of the calculation of its characteristics are given. Fused-junction silicon and germanium triodes are discussed

Card 1/5

Semiconductor Diodes and Triodes (Cont.)   SOV/1889

and the characteristics of the type 314 fused-junction triode are presented. The effect of feedback in transistor amplifiers on nonlinear distortions is covered. Operation of low-frequency transistor amplifiers for individual units of multichannel communication systems is explained and a discussion of transistor units of the KPP 30/60 system is presented. Attention is given to the problems of cooling transistor devices. There is a review of Soviet and Western magazines and patents for 1956-1957 concerned with semiconductor devices and their applications. There are no references.

TABLE OF CONTENTS:

Card 2/5

Semiconductor Diodes and Triodes (Cont.)   SOV/1889

Samokhvalov, M.M.   Type 314 Germanium High-frequency Triodes   12
     The author discusses the construction and applications
     of type 314 germanium triodes. He also explains the
     equivalent circuit of a fused-junction transistor and
     discusses limiting operating conditions of type 314 triodes.

Dobkin, A.S.   Double-base Germanium Diode   25
     The author discusses basic parameters and principles of
     operation of double-base diodes. He also explains the con-
     struction and characteristics of diodes and gives examples
     of their application.

Borisov, A.I.   Nonlinear Distortions in Feedback Transistor
Amplifiers
     The author discusses nonlinear distortions in transistor   37
     amplifiers with and without feedback and describes methods
     of using feedback to decrease the distortions. He also
     derives expressions for calculating performance of transistor

Card 3/5

Semiconductor Diodes and Triodes (Cont.)   SOV/1889

   amplifiers with various types of feedback.

Muradyan, A.G., and G.M. Mikirtichan. Transistor Amplifiers
for Individual Units of Multichannel Communication Systems   61
   The authors discuss the operation and characteristics
   of a low-frequency transistor amplifier used in a
   standard twelve-channel high-frequency system and derive
   formulas for calculating amplifier performance. A
   discussion of a transistor audio amplifier and a control-
   signal receiver is also presented.

Zaryanov, N.V. Cooling of Semiconductor Devices   74
   The author describes a transistor chassis absorbing
   heat from transistor circuits and derives expressions
   that may be used in the design of transistor cooling
   elements.

Fridolin, G.G. Review of Certificates of Inventorship,
Foreign Journals, and Patents for 1956 and 1957 Concerned With
Semiconductor Devices and Their Applications   81
   I. Transistor generators of sinusoidal oscillations   81
   II. Flip-flop circuits and pulse generators   97

Card 4/5

Semiconductor Diodes and Triodes (Cont.)   SOV/1889

   The author reviews Soviet and Western patents and magazines
   concerned with transistor circuits. He discusses the
   operation of various transistor oscillators, frequency
   dividers, modulators, and multivibrators.

AVAILABLE: Library of Congress   (TK7872.T73 P58)

                                        JP/jmr
                                        7-23-59

Card 5/5

ZELIKMAN, G.A.; MAZEL', Ye.Z.; PRESS, F.P.; FRONK, S.V.; DOBKIN,
     A.S., red.; SMUL'SKIY, A.S., red.

[Silicon diodes and triodes; their production technology]
Poluprovodnikovye kremnievye diody i triody; tekhnologiia
proizvodstva. Moskva, Energiia, 1964. 183 p.
                                        (MIRA 17:12)

PRESS, Frank, prof.

Seismic study of the earth's crust. Priroda 47 no.8:33-37 Ag '58.

(MIRA 11:9)

1.Direktor seysmoologicheskoy laboratorii Kaliforniyskogo tekhno-logicheskogo instituta, SShA.

(Geology)

MITEL'MAN, L.V.[translator]; GUZHOV, V.A.[translator]; PRESS, F.P.
    [translator]; IGLITSYN, M.I., kand. fiz.-mat. nauk, red.;
    BURAKOVA, O.N., red.; GARNUKHINA, L.A., tekhn. red.

[Methods for measuring the parameters of transistor devices]
Metody izmereniia parametrov poluprovodnikovykh priborov. Pod
red. M.I.Iglitsyna. Moskva, Oborongiz, 1961. 262 p.
Translated from "Transistor technology."   (MIRA 16:1)

1. Bell Telephone Laboratories, Inc.
                    (Transistors)

PRESS, Feliks Pavlovich; PEREPELITSKAYA, A.G., redaktor; TAIROVA, M.V.,
    tekhnicheskiy redaktor

[Semiconductors and their use] Poluprovodniki i ikh primenenie.
Moskva, Gos. izd-vo kul'turno-prosv. lit-ry, 1957. 30 p. (Biblio-
techka v pomoshch' lektoru, no. 2)   (MLRA 10:4)
                    (Semiconductors)

AUTHOR: Press, Frank, Professor

SOV-26-58-8-5/51

TITLE: Seismic Investigation of the Earth Crust (Seysmicheskoye issle-
dovaniye zemnoy kory)

PERIODICAL: Priroda, 1958, Nr 8, pp 33-37 (USSR)

ABSTRACT: Seismic investigation is used for determining the origin of
the earth crust, of the continents and oceans, of the mecha-
nism of mountain formation, etc. In seismological investiga-
tions explosions are made and the waves caused by the ex-
plosions are measured at various points for the compilation
of hodograms. On dry land, for one explosion, thousands of
kgs of explosives are needed, on oceans less, because the
waves are less impeded by water. A diagram of the structure
of the earth crust below continents and oceans is shown in
Figure 2.   The Mokhorovichich surface, dividing the silica
part of the crust from the ultrabasic shell of the earth is
located 35 km below continents and 10 km below oceans. This
distribution, together with a change of the gravitation force,
indicates that isostasy, i.e. the tendency of the masses in
the earth crust for gravitational equilibrium, is the prin-
cipal tectonical mechanism. Below the oceans a sedimentary
layer of 0 - 0.5 km thickness has been detected, below which

Card 1/3

Seismic Investigation of the Earth Crust

is basic rock in which the seismic waves attain a speed of
6.7 - 7 km/sec. In the shell of the earth the speed of longi-
tudinal waves is 8 - 8.2 km/sec, and that of transversal waves
4.6 - 4.8 km/sec. Seismic waves are used to study elasticity
in greater depths, as well as the transition from the conti-
nental crust to the crust below the oceans. Several methods
are used for this purpose. The correlation method of re-
fracted waves permits the separation of the waves received
according to the layers from which they were refracted. It
was used in oil prospecting and then also applied to seismic
sounding at great depths. It has been established, by this
method, that the crust below the Tien-Shan mountains attains
a depth of 53 km. The method of phase speed is used for
measuring the waves from distant earthquakes which proceed
slower in the earth crust than at deeper layers. Three seis-
mographs are used and the difference in the wave phases is
used for the calculation of the geological conditions. It
has been established that the phase speed is lower below
mountain areas and higher below lowlands. The difference is
clearly visible in Figure 4. The Lg-wave method makes use
of a wave with a short period which is caused by the curvature
of the earth (Figure 5). For all continents, the speed of

Card 2/3

Seismic Investigation of the Earth Crust

SOV-26-58-8-5/51

the Lg-waves is 3.50 - 3.55 km/sec. The Lg-waves cannot travel below an ocean, so that the presence of these waves is always an indication that no ocean is between the source and the receiver. They may be used in the Antarctic region in order to determine whether this continent consists of islands below the ice or a continuous continental mass. Translator's Note: There is no indication as to whether this is an original article or a translated article. There are 4 diagrams and 1 graph.

ASSOCIATION: Seismological Laboratory of the California Institute of Technologic (USA).

1. Geophysics   2. Earth---Structural analysis   3. Geology   4. Seismic waves---Applications

Card 3/3

PRESS, I.M., kand. tekhn. nauk

Advantages and disadvantages of various undercarriage types for mine loading machines. Gor. zhur. no.6:48-50 Je '65.   (MIRA 18:7)

1. Nauchno-issledovatel'skiy i proyektnyy institut "Gipronikel'", Leningrad.

PRESS, I.M.

Results of tests of self-propelled machines equipped with pneumatic tires.
Gor. zhur no.4:47-49 Ap '63.
(MIRA 16:4)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy nikelevoy
promyshlennosti, Leningrad.
(Mining machinery)   (Tires, Rubber--Testing)

RODIONOV, Georgiy Viktorovich, doktor tekhn.nauk; KAL'NITSKIY, Yakov Borisovich, kand.tekhn.nauk; GURKOV, Konstantin Stepanovich, kand. tekhn.nauk; KOSTYLEV, Aleksandr Dmitriyevich, kand. tekhn.nauk; MIKHIREV, Petr Aleksandrovich, kand. tekhn. nauk; PRESS, Igor' Mikhaylovich, nauchnyy sotr.; SOBOL', Arkadiy Vladimirovich, st. nauchnyy sotr.; SOROKO, Veniamin Vasil'yevich, kand. tekhn.nauk; BAZANOV, A.F., kand. tekhn. nauk, retsenzent; BULATOV, S.I., red. izd-va; SMIRNOVA, G.V., tekhn. red.

[Loading machines for loose and lump materials; design, teory, and calculation]Pogruzochnye mashiny dlia sypuchikh i kuskovykh materialov; konstruktsiia, teoriia i raschet. [By]K.S.Gurkov i dr. Moskva, Mashgiz, 1962.   286 p.
(MIRA 15:12)
(Loading and unloading--Equipment and supplies)

PRESS, I.M., gornyy inzh.

Determining the carrying capacity and the speed of self-propelled mine machinery on tire wheels. Gor.zhur. no.10:52-54 O '64.
(MIRA 18:1)

1. Nauchno-issledovatel'skiy i proyektnyy institut "Gipronikel'", Leningrad.

EXCERPTA MEDICA   Sec. 7 Vol. 9/10   Oct. 55

PRESS, J.

2236. PRESS J. Szpit. Zakaźnego im. W. Biegańskiego, Łódź. *Leczenie gruźlic-
zego zapalenia mózgu i opon mózgowo-rdzeniowych u dzieci. Treatment
of tuberculous encephalomeningitis in children GRUŹLICA
1954, 22/7 (489-495) Tables 1
178 children were treated; 63% belong to the age group from 2 to 6 yr. Miliary tb
of the lung was found in 24%; generalized tb in 53%. Total mortality amounted to
24%. In 10 cases a relapse occurred. Two clinical forms were recognized: me-
ningeal and cerebral. The prognosis in the latter is poor; death ensued because
of the involvement of the cortex, subcortical centres and vegetative centres.
Various regimens of treatment were applied according to the clinical course and
the seriousness of the disease; not infrequently the regimen was changed during
treatment. Streptomycin was given both intrathecally and i. m. Since July 1952,
isonicotinic acid hydrazide was administered together with streptomycin. The
results of this combined treatment were considerably better. Sanatorium cure
should follow the treatment in the hospital since the cases of tuberculous ence-
phalomeningitis require a long period of observation.
From author's summary (XX, 8, 7, 15)

PRESS, JANINA

MARGOLISOWA, Anna; PRESS, Janina; WILKOWA, Maria; WALEWSKA, Emilia;
    DEMBSKA, Krystyna

Neurological, characterial & psychic lesions in children after tuberculous
meningoencephalitis. Gruzlica 25 no.7:571-579 July 57.

1. Z Centralnej Wojewodzkiej Poradni Przeciwgruzliczej w Lodzi Kierownik:
prof. dr med. J. Szustrowa. Adres: Lodz, ul Moniuszki 7/9.
            (TUBERCULOSIS, MENINGEAL, in inf. & child
                characterial, neurol. & psychic seq. (Pol))
          (MENTAL DISORDERS, in inf. & child
                characterial, neurol. & psychic seq. of meningeal tuberc.
                (Pol))

PRESS, Janina

Treatment of tuberculous meningitis and encephalitis in children.
Gruzlica 22 no.7:489-495 July 54.

1. Ze Szpitala Zakaznego im. W.Bieganskiego w Lodzi. Kierownik
Oddzialu: dr J.Press.
        (TUBERCULOSIS,
            of brain, in child., ther.)
        (BRAIN, diseases,
            tuberc., in child., ther.)
        (TUBERCULOSIS, MENINGEAL, in infant and child,
            ther.)

NAYSHTUT, Grigoriy Mikhaylovich, st. nauchn. sotr.; PRESSMAN,
L.P., doktor med. nauk, red.

[Clinical instrumental examinations in cardiac insuf-
ficiency] Kliniko-instrumental'nye issledovaniia pri
serdechnoi nedostatochnosti. Moskva, Meditsina, 1965.
69 p.   (MIRA 18:6)

PRESS, N.Ye.

Cholelithiasis in congenital absence of the gallbladder. Khirurgiia
33 no.7:121-122 Jl '57.   (MIRA 10:11)

1. Iz kliniki fakul'tetskoy khirurgii (zav. - prof. G.G.Karavanov)
L'vovskogo gosudarstvennogo meditsinskogo instituta (dir. - prof.
L.N.Kuz'menko)
        (GALLBLADDER, abnorm.
           absence, cholelithiasis in)
        (CHOLELITHIASIS, case rep.
           in absence of gallbladder)

PRESS, N.Ye.

Acute left-sided appendicitis in the presence of a congenital
anomaly of the large intestine. Khirurgiia 35 no.3:109-110
Mr '59.   (MIRA 12:8)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof.
G.G.Karavanov) L'vovskogo gosudarstvennogo meditsinskogo
instituta (dir. - prof. L.N.Kuzmenko).
          (APPENDICITIS, case, reports
                left-sided, in patient with dystopia of
                large intestine (Rus))
          (INTESTINE, LARGE, abnorm.
                dystopia, with left-sided acute appendicitis
                (Rus))

ZNAMENSKIY, M.S.; PRESS, R.S., red.

[Tuberculosis of the bones and joints] Tuberkulez kostei
i sustavov. Frunze, Respublikanskii dom sanitarnogo
prosv. 1965. 23 p.   (MIRA 18:12)

PRESS, S. A., Prof.

"Electricoautomatics of Metal-Cutting Machine Tools," Stanki i Instrument 10, No. 6, 1939, Professor

Report U-1505, 4 Oct. 1951.

PRESS, S. A.

"On Systems of Control and Drive of Metal-Cutting Machine Tools", Stanki i Instrument
10, No. 8, 1939, Professor

Report U-1505, 4 Oct 1951

PRESS S. A.

Author: Press, S. A.

Title: The electrical equipment of the metal cutting machines.
(Elektricheskoe oborudovanie metallorezhushchikh stankov.)

City: Moscow

Publisher: State Scientific and Technical Publication of the
Machine Construction Literature

Date: 1946

Available: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 4, No. 1, p. 27

PRESS, S. A., Prof.

PA 51/49T106

USSR/Weapons
Artillery
Remote Control

Jul/Aug 49

"Letter to the Editor," Prof S. A. Press, Dr Tech Sci, Chair of Leningrad Ord of Red Banner Mil Mech Inst, Prof D. V. Vasil'yev, Dr Tech Sci, Chair of Leningrad Electrotech Inst imeni V. I. Ul'yanov, Docent B. I. Rubin, Cand Tech Sci, Chair of LKVVIA, and Prof M. I. Tsukkerman, Chair of Leningrad Inst of Precise Mech and Opt, 2 pp

"Avtomat i Telemekh" Vol X, No 4

Critical letter denounces M. A. Ayzerman and Ya.
51/49T105

USSR/Weapons   (Contd)   Jul/Aug 49

Z. Tsypkin's review ("Avtomatika i Telemekhanika," No 4, 1948) of V. A. Besekerskiy's book "Remote Control of Artillery Units."

51/49T106

PRESS, Sergey Aleksandrovich

Technology

General electrical engineering. Leningrad, Gos. energ. izd-vo, 1951.

PRESS, S.A., Prof.; KHASHECHINSKIY, V.A., Prof.

Bel'skiy, I.R.

"General course on electric engineering for non-electrotechnical higher technical
schools. General electric engineering." I.R. Bel'skiy, V.A. Besekerskiy, A.V. Don-
skoy, A.S. Press, Ye.K. Yurkovskiy. Reviewed by Profs. V.P. Khashechinskiy,
S.A. Press. Electrichestvo no. 8, 1952.

1. PRESS, S. A., CHERNIAVSKIY, F. I., BALUYEV, V. K., GRUSHEVSKIY, B. V. Docent

2. USSR (600)

4. Electric Engineering

7. Comments on the textbook "General electrical engineering," edited by S. A. Press, F. I. Cherniavskiy, Eng. V. K. Baluyev, Docent B. V. Grushevskiy. Elektrichestvo No. 2, 1953.

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

1. PRESS, S.A.

2. USSR (600)

4. Electric Engineering

7. "General electric engineering." S.A. Press, Reviewed by Docent A.A. Mezhlumov, Elektrichestvo no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, ___APRIL___ 1953, Uncl.

PRESS, S.A., professor [redaktor]; YUMATOV, A.A., inzhener (Kronshtadt); PALYAN, Kh.R., dotsent, kandidat tekhnicheskikh nauk; ROZANOV, S.P., professor (Moscow) [reviewers].

Discussing the book "General electrical engineering," edited by S.A.Press. Reviewed by A.A.IUmatov, Kh.R.Palian, S.P.Rozanov. Elektrichestvo no.11:81-84 N '53.

(MLRA 6:10)

1. Armyanskiy sel'skokhozyaystvennyy institut (for Palyan).

(Electric engineering)

PRESS, S.H.

SOKOLOV, T.N., laureat Stalinskoi premii; DRUZHINSKIY, I.A., laureat
    Stalinskoi premii; VOROSHILOV, M.S., kandidat tekhnicheskikh nauk,
    redaktor; PRESS, S.A., doktor tekhnicheskikh nauk, retsenzent.

[Automatic control of profiling processes on metal-cutting machines;
elements of profiling machines] Avtomaticheskoe upravlenie protsessami
kopirovaniia na metallorezhushchikh stankakh; elementy kopiroval'nykh
stankov. Leningrad, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudo-
stroit. lit-ry [Leningradskoe otd-nie] 1954. 328 p.   (MIRA 7:6)
        (Cutting machines)

PRESS, SERGEĬ ALEKSANDROVICH.

Elektricheskoe oborudovanie metallorezhushchikh stankov. Izd. 2. ispr. i perer. Dop. v kachestve uchebnika dlia vtuzov. Moskva, Mashgiz, 1946. 541 p. diagrs.

Electric equipment of metal-cutting machines.

<div align="right">DLC: TJ1230.P67   1946</div>

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

PRESS, Sergei Aleksandrovich.

Electrical equipment for metal-cutting machines Izd. 2., ispr. i perer.
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1946. 451 p.
(51-16191)

TJ1230. P67 1946

NIKITIN, V.D., inzh.; PRESS, S.S., inzh.; STEP, Kh.Ya., inzh.

The BR-1M air separation unit. Trudy VNIIKIMASH no.8:3-25 '64.
(MIRA 17:10)

L 24474-65   EWT(m)/EPF(c)/EPR   Pr-4/Ps-4/   RPL   WW/JW

ACCESSION NR: AT5000852   S/2800/64/000/008/0003/0025

AUTHOR: Nikitkin, V. D. (Engineer); Press, S. S. (Engineer); Step, Kh. Ya.
(Engineer)

TITLE: The BR-1M air fractionating assembly

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashinostroy-
eniya. Trudy, no. 8, 1964. Apparaty i mashiny kislorodnykh ustanovok (Apparatus
and machines of oxygen plants), 3-25

TOPIC TAGS: air fractionation, oxygen production, oxygen plant, nitrogen produc-
tion, noble gas

ABSTRACT: The BR-1M assembly, which can produce samples of commercially and tech-
nologically pure oxygen (99.5%), pure nitrogen (0.02% O_2) or krypton-xenon con-
centrate from dry, CO_2-free air, differs from earlier models in the outfitting of
the auxiliary tank. These and other differences are minutely described by tabular
data and scale drawings. The CO_2 crystals left are removed by 280 metallo-ceramic
filter-adsorbers. The machine and more critical inner portions have double-walled,
insulating housings of steel 3. Piping between various enclosed sections is of in-
sulated metal. Stress points are doubly reinforced. Controls are implemented by

Card 1/2

L 24474-65

ACCESSION NR: AT5000852   /

manometers, thermometers with an aggregate range from -200 to 300C, type MN5114
gas analysers with a 0-5% O_2 scale, and electrically operated machinery. Initial
air compression is effected by a K-1500-61-2 compressor. Turbine oil 30 (GOST 32-
53) was used as a lubricant. In view of the success of this model, two modifica-
tions are proposed by the authors: The BR-1K for the production of commercial
oxygen and technically pure oxygen for metallurgical use, and the BR-1A for the
production of commercial oxygen and nitrogen for the chemical industry. Orig. art.
has: 12 figures and 10 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashino-
stroyeniya (All-union oxygen machine building scientific research institute)

SUBMITTED: 00   ENCL: 00   SUB CODE: GC,IE

NO REF SOV: 002   OTHER: 000

Card 2/2

PRESS, Yo.A.

Peculiarities of plet_sr   the transition fro: the
waking state to sleep and   . ich. zap. ____. _oc.
ped. inst. no.11:61-70 '_ .   (__.A __._)

1. Kafedra biologii Kurs_   o pedagogiclis: .____.
                (Plet.   _y)

PRESS, Ye.G., inzh.

Using anchor chucks for securing equipment to foundations. Bet. i
zhel.-bet. no.2:76 F '58.   (MIRA 11:2)
                                    (Foundations)

PRESS, Ye.S.

Fluctuation of the agglutinin titer in the serum of donors depending
on their age and the time of the year. Uch.zap.Kursk.gos.ped.inst.
12:130-135 '61.   (MIRA 17:4)

1. Kafedra zoologii Kurskogo gosudarstvennogo pedagogicheskogo
instituta.

PRESS, Ye.S.

Variations in the agglutinin titer of the serum of donors, depending on their ages and the time of year. Probl. gemat. i perel. krovi 1 no.2:60 Mr-Ap '56.   (MLRA 10:1)

1. Iz Kurskoy oblastnoy stantsii perelivaniya krovi (dir. - L.S. Gol'dis)
            (AGGLUTININS)   (BLOOD—TRANSFUSION)

PRESS, Ye.S., kand.biologicheskikh nauk

Model for the demonstration of heart activity. Biol. v shkole
no.4:84-85 Jl-Ag '61.   (MIRA 14:7)

1. Kurskiy pedagogicheskiy institut.
          (Heart) (Physiological apparatus)

PRESS, Yu. S.   Cand. Tech. Sci.

Dissertation: "Activity of Nickel Powders used in the Electrdytic Refining of Nickel."

30 May 49

Moscow Inst. of Nonferrous Metals and Gold

                             imèni M.I. Kalinin

SO Vecheryaya Mcskva
Sum 71

BAROTITSKAYA, F.I.; PRESS, Yu.S.

Selecting an efficient method of purifying zinc electrolytes
from cobalt. TSvet. met. 34 no.2:38-43 F '61.   (MIRA 14:6)
        (Zinc—Electrometallurgy)   (Cobalt)

PRESSKIY, P.V., kandidat biologicheskikh nauk.

Raising bottle gourds for birds' nests. Biol. v shkole no.3:89
My-Je '57.   (MIRA 10:6)

1. Kirovskiy gosudarstvennyy pedagogicheskiy institut imeni V.I.
Lenina.
        (Gourds)   (Kirov Province--Birds, Protection of)

AUTHOR: Press, V. G., Engineer.   SOV/ 97/58/2/12/16

TITLE: The Use of Anchor "Cartridges" for Fixing Columns
            to Foundations. (Primeneniye ankernykh patronov dlya
            krepleniya oborudovaniya k fundamentam).

PERIODICAL: Beton i Zhelezobeton, 1958, Nr2, pp 76.

ABSTRACT: The anchor "cartridge" is a tube of 60mm diameter round
            which a 5-6mm reinforcing rod is wound (Figure 1). The
            "cartridge" has a hole through which the fixing bolt
            is placed. The idea of the spiral reinforcing is to
            provide better adhesion of the column to the foundation..
            The whole construction is finally concreted in using
            concrete Mark 200. The substitution of the anchor
            plates by anchor "cartridges" speeds up constructions.
            This anchoring construction was also used for securing
            beams to foundation slabs (see Figure 2). There are
            two figures.

            1 Beams--Stability   2. Reinforcing steel--Applications
            3. Structures--Design

Card 1/1

PRESS, Ye.S., kand.biologicheskikh nauk

Experiments on the dynamic and static work of muscles. Biol. v
shkole no.5:42-44 S-O '62.   (MIRA 16:2)

1. Kurskiy pedagogicheskiy institut.
                    (Muscles)
                (Physiology—Experiments)

MATVEYEVA, Z.I.; PRESS, Yu.S.

Using modified sorbents for the selective recovery of germanium.
TSvet. met. 36 no.8:69-71 Ag '63.   (MIRA 16:9)
        (Germanium--Metallurgy) (Hydrometallurgy)

L 18420-63   EWP(q)/EWT(m)/BDS   AFFTC   JD

ACCESSION NR: ' AP3005801   S/0136/63/000/008/0069/0071

AUTHORS: Matveyeva, Z. I.; Press, Yu. S.

TITLE: Application of modified sorbents for the selective
        extraction of germanium

SOURCE: Tsvetny*ye metally*, no. 8, 1963, 69-71

TOPIC TAGS: germanium, tannic acid eluent, hydrochloric acid, zinc
sulfate, Zn, Fe, Cu, Cd, As, sulfuric acid, silicon dioxide, Ge, zinc,
iron, copper, cadmium, arsenic

ABSTRACT: The method of extraction of germanium using sorbents
modified with tannic acid has been examined in solutions containing
Zn, Ge, Fe, Fe^{++}, Cu, Cd, SiO_2, As and H_2SO_4. Several types of sor-
bents were examined, they include: Vofatite E, AH-1, and activated
carbon of the cationic type. The results showed that the absorption
of germanium on the Ah-1 sorbent is almost quantitative from a solu-
tion of zinc sulfate. The capacity of sorbent for germanium absorp-
tion depends upon the nature of sorbent. Its capacity increases

Card 1/2

L 18420-63
ACCESSION NR: AP3005801   0

with an increase of germanium concentration. The desorption
(elution) is made with 10% HCl and the total elution capacity is
85 to 95% of the total germanium absorbed. During the elution of
germanium, the sorbent containing tannic acid is regenerated to
approximately 80% of its capacity. Orig. art. has: 1 table and
1 figure.

ASSOCIATION: none

SUBMITTED: 00   DATE ACQ: 06Sep63   ENCL: 00

SUB CODE: CH   NO REF SOV: 000   OTHER: 000

Card 2/2

BUROVOY, I.A.; PETROVA, L.Yu.; PRESS, Yu.S.

Automatic control of temperature and acidity during the
electrolysis of zin~ TSvet.met.   27 no.4:20-27 Jl-Ag '54.
(MIRA 10:10)

1.Gosudarstvennyy institut po tsvetnym metallam.
(Automatic control) (Zinc—Electrometallurgy)

AZOS, S.; AREF'YEV, A.; ARTAMONOV, I.; BABINA, I.; BEREGOVSKIY, V.; BLOZHKO,V.;
BRAVERMAN, A.; BYKHOVSKIY, Yu.; VINOGRADOVA, M.; GALANKINA, Ye.;
GIL'DENGERSH, F.; GLOBA, T.; GREYVER, N.; GORDON, G.; GUL'DIN, I.;
GULYAYEVA, Ye.; GUSHCHINA, I.; DAVYDOVSKAYA, Ye.; DAMSKAYA, G.;
DERKACHEV, D.; YEVDOKIMOVA, A.; YEGUNOV, V.; ZABELYSHINSKIY, I.;
ZAYDENBERG, B.; AZMOSHNIKOV, I.; ITKINA, S.; KARCHEVSKIY, V.;
KLUSHIN, D.; KUVINOV, Ye.; KUZNETSOVA, G.; KURSHAKOV, I.;
LAKERNIK, M.; LEYZEROVICH, G.; LISOVSKIY, D.; LOSKUTOV, F.;
MALEVSKIY, Yu.; MASLYANITSKIY, I.; MAYANTS, A.; MILLER, L.;
MITROFANOV, S.; MIKHAYLOV, A.; MYAKINENKOV, I.; NIKITINA, I.;
NOVIN, R.; OGNEV, D.; OL'KHOV, N.; OSIPOVA, T.; OSTRONOV, M.;
PAKHOMOVA, G.; PETKER, S.; PLAKSIN, I.; PLETENEVA, N.; POPOV, V.;
PRESS, Yu.; PROKOF'YEVA, Ye.; PUCHKOV, S.; REZKOVA, F.; RUMYANTSEV,M.;
SAKHAROV, I.; SOBOL', S.; SPIVAKOV, Ya.; STRIGIN, I.; SPIRIDONOVA,V.;
TIMKO, Ya.; TITOV, S.; TROITSKIY, A.; TOLOKONNIKOV, K.; TROFIMOVA, A.;
FEDOROV, V.; CHIZHIKOV, D.; SHEYN, Ya.; YUKHTANOV, D.

Roman Lazarevich Veller; an obituary. TSvet. met. 31 no.5:78-79
My '58.   (MIRA 11:6)
              (Veller, Roman Lazarevich, 1897-1958)

PRESS, YU. S.

"Activity of Nickel Powders Used in the Electrolytic Refining of Nickel." Thesis for degree of Cand. Technical Sci., Sub 30 May 49, Moscow Inst of Nonferrous Metals and Gold imeni M. I. Kalinin.

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

PRESS, Yu.S.; MATVEYEVA, Z.I.

Pilot-plant testing of various methods of purifying zinc
electrolytes from cobalt. TSvet. met. 34 no.11:29-34 N '61.
                                              (MIRA 14:11)
          (Nonferrous metals--Electrometallurgy)
                  (Cementation (Metallurgy))

PRESS, Yu.S.; MATVEYEVA, Z.I.

Using sorption processes in the hydrometallurgy of
nonferrous metals. Sbor. nauch. trud. Gintsvetmeta
no.23:263-268 '65.   (MIRA 18:12)

PRESSLER, Ervin (124 Ormond Rd., Melbourne, Australia)

Parking problems here and there. Auto motor 15 no.18:5
21 S '62.

PRESSLER, J. ; KOLOC, J.

"Interchangeability of dimensionally setup cutting tools of multispindle automatic lathes." p. 248.

STROJIRENSKA VYROBA. (MINISTERSTVO TEZKEHO STROJIRENSTVI, MINISTERSTVO PRESNEHO STROJIRENSTVI A MINISTERSTVO AUTOMOBILOVEHO PRUMYSLU A ZEMEDELSKYCH STROJU.) Praha, Czechoslovakia, Vol. 7, no. 6, June 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 9, September 1959. Uncl.

GARAZHA, N.N., aspirant; KRITSKIY, A.A., assistent; PRESSMAN, A.P., dotsent

Effect of chronic hypoxia on the state of the periodontrium.
Teor. i prak.stom. no.6:102-108 '63.   (MIRA 18:3)

1. Iz kafedry vnutrennikh bolezney (zav. - prof. D.F.Presnyakov),
kafedry terapevticheskoy stomatologii (zav. - prof. Ye.Ye.Platonov)
i kafedry rentgenologii i radiologii (zav. - prof. I.A.Shekhter)
Moskovskogo meditsinskogo stomatologicheskogo instituta.

PRESSMAN, A.P. (Moskva)

Mechanism of the formation of hypertension crises. Trudy
MONIKI no.5:207-214 '62.   (MIRA 16:4)
                        (HYPERTENSION)

PRESSMAN, A.P.

Significance of hemograms in controlling blood transfusion therapy of pulmonary suppurations. Terap. arkh. 27 no.6:50-56 '55. (MIRA 9:2)

1. Iz kliniki vnutrennikh bolezney (zav. prof. I.A. Chernogorov) Moskovskogo meditsinskogo stomatologicheskogo instituta.
        (BRONCHIECTASIS, therapy,
            blood transfusion, blood picture as control factor)
        (BLOOD TRANSFUSION, in various diseases,
            bronchiectasis, blood picture as control factor)
        (BLOOD,
            picture, in bronchiectasis in blood transfusion, control
            value)

PRESSMAN, A.P. (Moskva)

Rheumatism and the nervous system. Trudy MONIKI no.5:35-41
'62.
    (NERVOUS SYSTEM—DISEASES)   (MIRA 16:4)
                                  (RHEUMATIC FEVER)

PRESSMAN, A.P. (Moskva)

     Characteristics of vascular reactions in hypertensives. Trudy
MONIKI no.5:107-114 '62.
    (HYPERTENSION)   (NERVOUS SYSTEM, VASOMOTOR)   (MIRA 16:4)
                    (RESERPINE)

AUTHOR: Pressman, A.Ya.   SOV/1/0-59-3-11/20

TITLE: On the Diffusion in the Atmosphere of a Heavy Nonhomogeneous
               Admixture From an Instantaneous Point Source (O rasprostranenii
               v atmosfere tyazheloy neodnorodnoy primesi iz mgnovennogo
               tochechnogo istochnika)

ABSTRACT: The aim of this investigation was to study the effect of the
               parameters of an initial distribution of an admixture in the
               source with Stokes' velocities of falling on the subsequent
               propagation and settling of the heavy admixture component.
               It is assumed that the turbulent propagation of the admixture
               occurs in horizontal directions only, but in the vertical
               direction the motion of the particles is a mere falling with
               a constant Stokes speed. The initial distribution in the
               source point by velocities is taken in the form of a two-
               parameter function in which the parameters are n, the degree
               of uniformity (dispersion) of the given distribution, and
               w_m, the Stokes' velocity of particles prevailing in number.
               The spatial and temporal distribution of particles possessing
               some definite settling velocity w is described by the solu-
Card 1/3   tion of the two-dimensional (in the given case) diffusion

On the Diffusion in the Atmosphere of a Heavy Nonhomogeneous Admixture From an Instantaneous Point Source

differential equation

$$\frac{\partial \tilde{q}}{\partial t} - u(z) \frac{\partial \tilde{q}}{\partial x} + w \frac{\partial \tilde{q}}{\partial z} = K_x \frac{\partial^2 \tilde{q}}{\partial x^2} + K_y \frac{\partial^2 \tilde{q}}{\partial y^2} \quad (2)$$

where $\tilde{q}$ is volume concentration, $u(z)$ is the wind velocity along which the direction of the OX-axis is assumed, K_x and K_y are coefficients of admixture diffusion in the medium. The author solves this equation for two different cases of the values of these coefficients: 1. K_x and K_y are constant for all the fractions (by weight) of the admixture, and 2. they are proportional to the square of the wind velocity, average in a layer in which the falling of the particles takes place, and to the time during which the particles with the w-speed are settled. The author finds the expressions for volume and surface concentrations of particles as functions of the parameters n and w_m and for the location of points along the OX-axis in which the maximum concentration of particles occurs. The problem of propagation of a diffusing admixture throughout the surrounding medium was already treated by M.I. Yudin /Ref. 1_7 who proposed another approach to the problem, and the author indicates how both of these approaches can be reconciled. The author expresses his

Card 2/3

On the Diffusion in the Atmosphere of a Heavy Nonhomogeneous Admixture From an Instantaneous Point Source

SOV/170-59-3-11/20

gratitude to O.S. Berlyand and I.L. Karol' for their remarks in the process of writing the paper. There are 2 Soviet references.

ASSOCIATION: Institut prikladnoy geofiziki AN SSSR (Institute of Applied Geophysics of the AS USSR), Moscow

Card 3/3

10(2)

AUTHORS: Karol', I.L., Pressman, A.Ya.

TITLE: On Dispersion of Heavy Polydispersed Aerosol in Turbulent Atmosphere at
              a Long Distance From an Instantaneous Point Source

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 9, pp 83-91 (USSR)

ABSTRACT: The authors start from the equation of non-stationary dispersion of mono-
              disperse aerosol, Formula 1, the solution of which, Formula 5, was ana-
              lyzed by one of the authors in reference 2. In the present article, the
              authors derive formulae for the volume and surface concentrations of the
              polydisperse aerosol for two possible cases of its behavior: 1. The
              "weightless" component of aerosol is reflected from the earth's surface;
              and 2. There is a partial or complete absorption of the "weightless" com-
              ponent on the earth's surface. For the first case, the expression for the
              volume concentration is given by Formula 17 and for the surface concentra-
              tion by Formula 21, provided that the distance from the source is long.
              For the second case, i.e., an absorption on the earth's surface, the volume
              concentration is given by Formula 26 and surface concentration by Formula
Card 1/2   28. The results obtained are then analyzed qualitatively and the conclusion

06570

On Dispersion of Heavy Polydispersed Aerosol in Turbulent Atmosphere at a Long Distance
From an Instantaneous Point Source

SOV/170-59-9-11/18

is arrived at that turbulent diffusion along the wind direction does not
affect the distribution of surface concentration, but along the vertical,
the role of turbulent diffusion is essential for the deposition of aerosol
from the atmosphere at a long distance downwind of the source.
There are 6 Soviet references.

ASSOCIATION: Institut prikladnoy geofiziki AN SSSR (Institute of Applied Geophysics of
the AS USSR), Moscow.

Card 2/2

PRESSMAN, A.Ya.

Role of vertical turbulent dispersion in the settling of nonhomo-
geneous aerosols from the atmosphere. Inzh.-fiz. zhur. no.11:
11-19 N '59
                                            (MIRA 13:3)

1. Institut prikladnoy geofiziki AN SSSR, Moskva.
        (Aerosols)

16(1)

AUTHORS: Pressman,A.Ya., and Berlyand,O.S.   SOV/20-126-3-13/69

TITLE: Asymptotic Expressions for a Certain Class of Functions

PERIODICAL: Doklady Akademii nauk SSSR,1959,Vol 126,Nr 3,pp 508-510 (USSR)

ABSTRACT: The function $\psi(\lambda,x)$ be given by

$$\psi(\lambda,x) = \int_a^b \varphi(x,t)\delta(\lambda,t)dt$$

where

$$\lim_{\lambda \to 0} \delta(\lambda,t) = \delta(t-c) \quad , \quad a < c < b .$$

Then there holds the asymptotic formula:

$$\psi(\lambda,x) = \int_a^b \varphi(x,t)\delta(\lambda,t)dt \sim \int_a^b \varphi(x,t)\delta(t-1)dt -$$

$$- \frac{1}{12\nu}\int_a^b \varphi(x,t)t^2(1+\ln t - t)\,\delta^{(4)}(t-1)dt =$$

Card 1/2

$$= \varphi(x,t)\Big|_{t=1} - \frac{1}{12\nu}\frac{d^{(4)}}{(dt)^4}\Big[\varphi(x,t)t^2(1+\ln t - t)\Big]_{t=1} \; ; \quad \nu = \frac{1}{\lambda} .$$

Asymptotic Expressions for a Certain Class of Functions SOV/20-126-3-13/19

With the aid of this relation the authors obtain asymptotic expressions for the function of the parabolic cylinder and a Whittacker-function.

There are 3 references, 1 of which is Soviet, and 2 American.

ASSOCIATION: Institut prikladnoy geofiziki Akademii nauk SSSR (Institute of Applied Geophysics, AS USSR)

PRESENTED: February 23, 1959, by A.A.Dorodnitsyn, Academician

SUBMITTED: February 23, 1959

Card 2/2

BERLYAND, O.S.; PRESSMAN, A.Ya.

Evaluation of the influence of the bottom layer on the precipitation of a heavy admixture from the higher levels of the atmosphere when the wind varies with the height. Dokl. AN SSSR 135 no.2: 301-304 N '60.

(MIRA 13:11)

1. Institut prikladnoy geofiziki AN SSSR. Predstavleno akademikom A.A.Dorodnitsynym.

(Atmosphere)

25329

S/020/61/138/006/005/019
B104/B214

26.1420

AUTHOR: Pressman, A. Ya.

TITLE: Escape of a rarefied gas from a point source into a vacuum

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 6, 1961, 1305-1308

TEXT: The author investigates the escape of the particles of a sufficiently rarefied gas into vacuum from a point source lying in the plane $z = 0$. For this use is made of the solution of the Einstein-Fokker equation with time-dependent "diffusion coefficients" for boundary conditions corresponding to different types of interactions of the gas particles with the plane $z = 0$. For Maxwellian distribution the particles leaving the point source are found to occupy after time t a spherical shell of radius $r = ut$ and

thickness $dr = tdu$ with the probability $p = \dfrac{4}{\sqrt{\pi}c^3 t^3} r^2 \exp(-r^2/c^2 t^2) dr$ (2)

Dividing (2) by the volume of the spherical shell $4\pi r^2 dr$ one obtains the probability of a particle being in unit volume at the point (x, y, z) when

Card 1/6

25329

Escape of a rarefied gas ...

a time t has elapsed after its appearance: $q_{1t} = \dfrac{1}{\pi\sqrt{\pi}c^3 t^3} \exp(-(x^2+y^2+z^2)/c^2 t^2)$ (3). However, this probability changes on account of the existence of the plane $z = 0$. If the particles are reflected completely elastically by the plane $z = 0$ this probability is: $q_{1t} = \dfrac{2}{\pi\sqrt{\pi}c^3 t^3}\exp(-(x^2+y^2+z^2)/c^2 t^2)$ (4). If N particles leave the point source at the point $t = 0$, all possessing a macroscopic velocity U which is constant and directed along the z - axis, one obtains: $q_t = \dfrac{2N}{\pi\sqrt{\pi}c^3 t^3}\exp(-(x^2+y^2+(z-Ut)^2)/c^2 t^2)$ (5). This expression is a solution of the Einstein-Fokker equation: $\dfrac{\partial}{\partial t}q_t + U\dfrac{\partial}{\partial z}q_t = D\Delta q_t$ (6) with the diffusion coefficient $D = c^2 t/2$ where the initial conditions are: $q_t|_{t=0} = N\delta(x)\delta(y)\delta(z)$ (7), and the boundary conditions $q_t \longrightarrow 0$ at

Card 2/6

25329

Escape of a rarefied gas ...

S/020/61/138/006/005/019
B104/B214

$r \longrightarrow \infty$ (8); $\left\{ D \frac{1}{z} q_t - U q_t \right\}_{z=0} = 0$ (9). Eq. (7) describes an instantaneous point source at the origin of the coordinates and (9) the elastic reflection of the particles by the plane $z = 0$. The probability distribution of the particles crossing a unit area in the plane $z = z*$ in unit time is given by

$$n_t |_{z=z^*} = \left[-D \frac{\partial q_t}{\partial z} + U q_t \right]_{z=z^*} = \frac{2Nz^*}{\pi \sqrt{\pi} c^3 t^4} \exp \left[-\frac{x^2 + y^2 + (z - Ut)^2}{c^2 t^2} \right]. \quad (10)$$

In the case of a continuous source at the origin giving N particles per unit time the steady distribution of the number of particles per unit volume and the particle flux passing through $z = z^*$ are given by:

$$q = \int_0^\infty q_t \, dt = \frac{N}{\pi c r^2} \exp \left[-\frac{U^2}{c^2} \left(1 - \frac{z^2}{r^2} \right) \right] t^2 \operatorname{erfc} \left(-\frac{Uz}{cr} \right); \quad (11)$$

and

$$n = \int_0^\infty n_t \, dt = \frac{2Nz^*}{\pi r^3} \exp \left[\frac{U^2}{c^2} \left(1 - \frac{z^{*2}}{r^{*2}} \right) \right] t^2 \operatorname{erfc} \left(-\frac{Uz}{cr} \right), \quad (12)$$

Card 3/6

Escape of a rarefied gas ...

25329
S/020/61/138/006/005/019
B104/B214

If the reflection of the particles at the plane $z = 0$ is not completely elastic and there occurs also an absorption of particles at this plane the Eq. (9) is replaced by: $q_t|_{z=0} = 0$ (16). If the macroscopic velocity U vanishes a solution of (6) is found by the superposition of an instantaneous source and a particle flux of the same intensity N in the form of a point dipole:

$$q_t = \frac{2N'z}{\sqrt{\pi}\, c^5 t^5} \exp(-(x^2+y^2+z^2)/c^2 t^2)$$ (17), where $N' = \lim_{\substack{N \to \infty \\ l \to 0}} Nl$ and

l the vanishingly small distance between the sources. For $U \neq 0$ the required distribution is found in the form of the series:

$$q_t = \frac{2N'z}{\pi \sqrt{\pi}\, c^5 t^5} \exp\left[-\frac{x^2+y^2+(z-Ut)^2}{c^2 t^2}\left\{1 + \sum_{k=1}^{\infty}(-1)^k b_k\left(\frac{z}{ct}\right)^k\right\}\right],$$ (18)

where

$$b_1 = \frac{U}{c}; \quad b_2 = \frac{2}{3}\left(\frac{U}{c}\right)^2;$$

$$b_{k+1} = \frac{2(k-1)}{(k+1)(k+2)} b_{k-1} + \frac{2}{k+2}\frac{U}{c} b_k.$$ (19)

Card 4/6

Escape of a rarefied gas ...

Also with the analogous meaning as above one has:

$$n_t = \left[-D \frac{\partial}{\partial z} q_t + U q_t \right]_{z=z^*} =$$

$$= \frac{2N'}{\pi \sqrt{\pi} c^2 l^4} \exp\left[-\frac{x^2 + y^2 + (z^* - Ut)^2}{c^2 l^2} \right] \left\{ \left(\frac{z^*}{cl} \right)^2 - \frac{1}{2} + \right.$$

$$\left. + \sum_{k=1}^{\infty} (-1)^k b_k \left[\left(\frac{z^*}{cl} \right)^{k+2} - \frac{k+1}{2} \left(\frac{z^*}{cl} \right)^k \right] \right\} . \qquad (20)$$

For a stationary dipole the corresponding expressions for n and q are obtained by the integration of n_t, and q_t over t between the limits 0 and ∞. The author thanks O.S. Berlyand for comments and discussions. There are 3 Soviet-bloc references.

Card 5/6

Escape of a rarefied gas ...

S/020/51/138/006/005/019
B104/B214

ASSOCIATION: Institut prikladnoy geofiziki Akademii nauk SSSR
(Institute of Applied Geophysics of the Academy of Sciences USSR)

PRESENTED: July 8, 1960, by A.A. Dorodnitsyn, Academician

SUBMITTED: July 8, 1960

Card 6/6

BERLYAND, O.S.; PRESSMAN, A.Ya.

Asymptotic representations and some estimates for integral functions
of errors of arbitrary order. Dokl. AN SSSR 140 no.1:12-14 S-0
'61.

(Functions, Entire)   (MIRA 14:9)

PRESSMAN, A.Ya.

Propagation in an aqueous medium of an impurity emanating from a
source situated above the surface of a reservoir. Inzh.-fiz. zhur.
5 no.2:90-96 F '62.   (MIRA 15:1)

1. Institut prikladnoy geofiziki AN SSSR, Moskva.
                          (Hydrodynamics)

$K\ C_{100}$

S/020/62/147/005/002/032
B172/B112

AUTHORS: Berlyand, O. S., Nazarov, I. M., Pressman, A. Ya.

TITLE: An i^nerfc – or complex Gauss – Poisson distribution

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 147, no. 5, 1962, 1005-1007

TEXT: n events are considered obeying a Poisson law the parameter of
which is a random quantity which corresponds to a standard division
N(x,a,o) the intersection point of which has an abscissa equal to zero:

$$P(n) = \frac{2}{1+\mathrm{erf}\ \frac{a}{\sigma\sqrt{2}}}\ \frac{1}{\sqrt{2\pi}\ \sigma\ n!}\ \int_0^\infty x^n\ e^{-x-(a-x)^2/2\sigma^2}\,dx$$

$$= \frac{e^{y^2/4-a}}{1+\mathrm{erf}\ \frac{a}{y}}\ \frac{1}{\sqrt{2\pi}\ \sigma\ n!}\ \int_0^\infty x^n\ e^{-x-(a-x)^2/2\sigma^2}\,dx \qquad (y = \sigma\sqrt{2}).$$

Card 1/2

An i^nerfc - or complex Gauss - ...

S/020/62/147/005/002/032
B172/B112

The probability distribution for such events is called an i^nerfc distribution. The mathematical expectation and the dispersion of such distributions are calculated.

ASSOCIATION: Institut prikladnoy geofiziki, Akademii nauk SSSR (Institute of Applied Geophysics of the Academy of Sciences USSR)

PRESENTED: June 25, 1962, by N. N. Bogolyubov, Academician

SUBMITTED: June 20, 1962

Card 2/2

PRESSMAN, A.Ya.; YATSENKO, S.P.

Possibility of measuring the temperature of upper atmospheric
layers by the use of a narrow tube. Geomag. i aer. 1 no.1:49-53
Ja-F '61.
(MIRA 14:7)

1. Institut prikladnoy geofiziki AN SSSR.
(Atmospheric temperature)

S/020/61/140/001/002/024
C111/C222

AUTHORS: Berlyand, O.S., and Pressman, A.Ya.

TITLE: Asymptotic representations and certain evaluations for integral functions of errors of arbitrary order

PERIODICAL: Akademiya nauk SSSR. Doklady, v.140, no. 1, 1961, 12-14

TEXT: The authors consider properties of the function i^{μ} erfc z (or briefly $i_{\mu}(z)$) for real values of the index and the argument. 1. $\mu = \nu > -1$; $z = x \geqslant 0$. If x and ν increase simultaneously, where $\nu / x \sqrt{2} \leq 1$ then it holds :

$$i_{\nu}(x) \sim \frac{2e^{-x^2 - \nu^2/4x^2}}{\sqrt{\pi}(2x)^{\nu + 1}} \left[1 + \frac{1}{6\nu} \left(1 - 11 \frac{\nu^2}{2x^2} + 3 \frac{\nu^4}{4x^4} \right) \right] \qquad (5)$$

For $(2x)^2 \geqslant (\nu + 1)(\nu + 3)$ and $\nu \geqslant -1$ it holds :

$$i_{\nu}^{2}(x) \geqslant i_{\nu -1}(x) i_{\nu +1}(x) . \qquad (8)$$

Card 1/3

2. $\mu = \nu > -1$; $z = -x \le 0$. Then for large x it holds :

$$i_{+\nu}(-x) = \frac{2}{\Gamma(1+\nu)} x^{\nu} \left\{ \sum_{k=0}^{N-1} \frac{\Gamma(1+\nu)}{k! \, \Gamma(1+\nu-2k)} (2x)^{-2k} + O\left[(2x)^{-2N}\right] + R_{\nu} \right\}, \tag{11}$$

where $R_{\nu} < \sqrt{\frac{\pi}{2}} (2/x)^{\nu} \text{erfc}(x/\sqrt{2})$. For $(2x)^2 \ge 2\nu^2$ it holds :

$$i_{\nu}^2(-x) \ge i_{\nu-1}(-x) i_{\nu+1}(-x) \tag{12}$$

(12) holds also for $\nu \ge -1$ as (8).

3. $\mu = -\nu \le -1$; $z = x \ge 0$. The formulas are obtained by using the analytic continuation of $\Gamma(1+\mu)$ into the region $\text{Re}\,\mu \le -1$ and replacing $+\nu$ by $-\nu$ in the developments of the points 1. and 2. For $2x > \nu + 1$ it holds :

$$i_{-\nu}^2(x) \ge i_{-\nu-1}(x) \, i_{-\nu+1}(x) \qquad \text{for } -\nu \le -1 \tag{16}$$

Card 2/3