

HG-2111

(card 2)

AUTHOR: Vinogradov, A. P., Academician 30-1-18/39

TITLE: The Conference Concerning the Utilization of Radioactive Isotopes in Scientific Research (Na konferentsii po ispol'zovaniyu radioizotopov v nauchnykh issledovaniyakh)

PERIODICAL: Vestnik AN SSSR, 1958, Vol. 28, Nr 1, pp. 71-78 (USSR)

ABSTRACT: This conference took place from September 9, to September 20, 1957 in Paris and had been convened by the UNESCO. It was attended by 1500 scientists from 50 countries. The head of the Soviet delegation was A. V. Topchiyev; the Soviet delegation submitted 46 reports, which are dealt with. All other reports were from Western countries. The conference program was divided into two sections: A physical and a biological section. In the physical section, to which also the author belonged, discussions were held on physics, chemistry, metallurgy, geophysics, etc. The greatest attention was paid at this conference to the reports concerning the obtaining of radioactive isotopes, the production of radioactive sources, measuring technique and methods. V. L. Karpov, on behalf of the collective of the scientific Physical-Chemical Research Institute imeni L.

Card 1/2

The Conference Concerning the Utilization of Radioactive
Isotopes in Scientific Research

30-1-12/39

Ya. Karpov (Kollektiv nauchno-issledovatel'skogo fiziko-khimicheskogo instituta imeni L. Ya. Karpova) reported on the establishment of a γ -ray source of high efficiency. K. K. Aglintsev discussed basic problems of measuring dosage. N. A. Perfilov and his collaborators reported on the production of a finelygrained emulsion for nuclear research. P. L. Cruzin, I. N. Frantsevich, A. A. Zhukhovitskiy, V. T. Borisov, S. Z. Bokshateyn and others submitted data concerning the diffusion and electric transmission of carbon in iron and its alloys. A. N. Murin reported on the diffusion kinetics with respect to the melts of salts, oxides, and sulphides. The method of autoradiography for the determination of non-metallic inclusions in iron alloys was dealt with by Z. Bojarskiy and for the purpose of investigating wear in connection with the structure of alloys, iron-, chromium-, and tungsten-carbides - L. S. Palatnik. V. I. Spitsyn gave information concerning the structure of heteropoly compounds, especially of phosphorus wolfrates, and pointed out the great mobility of oxygen- and hydrogen atoms in them. Ye. Ye. Finkel' reported on the original and very simple method

Card 2/8
2

AGLINTSEV, K.K.; KARAVAYEV, F.M.; KARAMYAN, A.S.; KONSTANTINOV, A.A.;
OSTROMUKHOVA, G.P.; KHOL'NOVA, Ye.A.; YUDIN, M.F.; YARITSYNA, I.A.

Achievements in the metrology of ionizing radiation and prospects
for its development. Trudy.VNIIM no.33:135-158 '58.
(MIRA 11:11)

1. Rukovoditel' otдела ioniziruyushchikh izlucheniye Vsesoyuznogo
nauchno-issledovatel'skogo instituta metrologii imeni D.I.Mendeleyeva
(for Aglintsev).

(Radiation--Standards)

AGLINTSEV, K.K.

322 Physical Principles of the Dosimetry of Beta-radiation
AGLINTSEV, K.K. Leningrad (Sovjetunion)
KASATKIN, W.P. KASATKIN, V.P. Leningrad (Sovjetunion)

An analysis of the present state of dosimetry of beta-radiation indicates that the lack of data on the spectral composition of the radiation at different parts of the field of a beta-radiator constitutes a serious impediment in the development of rational methods of dosimetry.

A system of dosimetry is developed of beta-radiation, based on investigations of effective electron spectra at different depths of the irradiated medium in fields of heterodimers, which differed in regard to radiochemical composition and the measurements of the number of rays. The examinations of the effective electron spectra in fields of ^{90}Sr , ^{90}Y , ^{132}I , ^{132}Te and ^{132}Xe radiation sources with a diameter of 1-40 cm were carried out with a scintillation spectrometer with ethene crystals in the form of a hemisphere 51 mm in diameter.

It was observed that the mean energy of the beta spectrum decreases in ratio to the increase of the diameter of the source of rays, and with the depth of the medium. An assessment was made as to the contribution of the electrons of different energies to the dose.

It was established that when the measurements of the source and the depth of the medium change widely, the numerical values of the ratio D/N (i.e. of the beta radiation dose to the beta particle flow) remain unchanged for any given isotope.

The dependence of the D/N ratio on the maximum energy of the beta spectrum is stated and the dose value D per beta particle found.

The distribution of the depth dose in the irradiated medium for different isotopes is stated and the criterion for the selection of the isotope and the measurements of the source of rays is established, guaranteeing optimum irradiation conditions of the medium at a given depth.

1. Energy distribution curves in the electron spectrum of ^{132}I at different depths of the medium.

2. Curves of the relative contribution of the electrons of varying energy to the dose in fields of ^{90}Sr , ^{132}I and ^{132}Te sources of rays.

3. Dependence of dose D per beta-particle on the maximum beta energy in the spectrum of the isotope.

4. Depth doses per beta-particle of punctiform sources ^{90}Sr , ^{90}Y , ^{132}I , ^{132}Te and ^{132}Xe .

5. Depth of tissue-equivalent media corresponding to identical radiation conditions of radiation sources such as ^{90}Sr , ^{90}Y , ^{132}I , ^{132}Te and ^{132}Xe .

Presented at the Ninth International Congress of Radiology, Munich, 23-30 July 1959.

AGLIN TSEV, K. K.

PHASE I BOOK ENLIGHTENING 501/3903

Akademiya Nauk SSSR. Radiyevyy Institut
Trudy, t. IX. (Transactions of the Radium Institute, Academy of Sciences USSR,
No. 9). Moscow, Izd-vo AN SSSR, 1959. 287 p. Errata slip inserted.
1,700 copies printed.

Ed.: N.A. Perfilov, Doctor of Physical and Mathematical Sciences; Ed. of Publishing
House: G.M. Aron; Tech. Ed.: A.Y. Gairnova.

PURPOSE: The volume is intended for physicists.

COVERAGE: The book represents volume 9 of the Transactions of the Radium Institute
and contains the results of studies conducted at the Institute chiefly from
1955 to 1970. There are a number of articles dealing with the study of nuclear
reactions occurring with particles of different energies ranging from several
eV to hundreds of MeV. Others treat different problems of the physics of
neutrons. Results of studies of various reaction sources, neutron absorp-
tion in a moderator (water), and other problems connected with the study of
neutron interaction with matter are presented. The majority of the articles
are concerned with problems of interest. The authors provide a complete de-
scription of the construction of equipment and of the results of tests performed
under laboratory conditions. No personalization are mentioned. References
are given.

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GORSHKOV, Georgiy Vasil'yevich; AGLINTSEV, K.K., prof., doktor tekhn.
nauk, red.; TRAVIN, N.V., red.izd-va; ZENDEL', M.Ye., tekhn.red.

[Gamma-radiation from radioactive substances and fundamental
calculations for protection against radiation] Gamma-izluchenie
radioaktivnykh tel i elementy rascheta zashchity ot izlucheniia.
Moskva, Izd-vo Akad.nauk SSSR, 1959. 292 p. (MIRA 12:12)
(Gamma rays) (Radiation protection)

A. G. LINISEV, K. K.

PLANS . BOOK EXPLOITATION 80W/2713

International Conference on the Peaceful Use of Atomic Energy. 2nd. Geneva, 1958

Бюллетень советских ученых; полонемный изотоп (Reports of Soviet Scientists: Production and Application of Isotopes) Moscow, Atomizdat, 1979. 588 p. (Series: Iti: Trudy, vol. 6) 6,000 copies printed.

Eds. (title page): G.Y. Kirilyanov, Academician, and I.I. Novikov. Corresponding Member, USSR Academy of Sciences; Ed. (inside book): Z.D. Andreyenko; Tech. Ed.: Z.D. Andreyenko.

PURPOSE: This book is intended for scientists, engineers, physicists, and biologists engaged in the production and application of atomic energy to peaceful purposes for professors and graduate students of higher technical schools whose nuclear science is taught; and for the general public interested in atomic science and technology.

CONTENTS: This is volume 6 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy held in Geneva from September 1 to 13, 1958. Volume 6 contains 32 reports on: 1) modern methods for the production of stable radioactive isotopes and their labeled compounds, 2) research results obtained with the aid of isotopes in the field of chemistry, metallurgy, medicine, biology, and agriculture, and 3) diversity of ionizing radiation. Volume 6 was edited by: S.V. Levinskiy, Candidate of Medical Sciences, V. Prusakov, Candidate of Chemical Sciences; and V.Y. Stepanov, Candidate of Medical Sciences. See 80W/2881 for titles of volumes of the set. Entries appear at the end of the volume.

- 16. Elbergal', A.Y., V.I. Karyev, and V.I. Slutskiy. Cobalt Sources of High Intensity for Radiative Action (Report No. 223x) 300
- 17. Gusev, N.S., Ye. Ye. Korolov, and V.I. Popov. Gamma Radiation Levels and Outside Extended Sources (Report No. 2088) 211
- 18. Adilutskiy, I.K., M.A. Jak, V.V. Kochanov, Ye.O. Orshera, E.Y. Yarbora, and L.A. Petrubak. System of Radiometric Measurement of Radioactive Isotopes (Report No. 2087) 27
- 19. Adilutskiy, I.K., V.F. Kaschin, V.Y. Mitrofanov, and V.Y. Stepanov. Application of Nuclear Spectroscopy Methods to Beta and Gamma-ray Dosimetry (Report No. 2303) 257
- 20. Marwot, P.S., V.I. Gol'danskiy, and V.S. Rogovoy. Instrument for Measuring Small Streams of High-energy Neutrons (Report No. 2053) 244
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SOV/115-59-2-29/38

21(8)

AUTHOR: Aglintsev, K.K., Ostromukhova, G.P., Khol'nova, Ye.A.

TITLE: Determining the Process of Air Ionization for Co⁶⁰ Gamma Radiation (Opredeleniye raboty ionizatsii v vozdukh dlya gamma-izlucheniya Co⁶⁰)

PERIODICAL: Izmeritel'naya tekhnika, 1959, 20, Nr 2, p 52 (USSR)

ABSTRACT: The author believes that there is a lack of information so far on the importance of ionization in the field of hard gamma radiation. Tests were made to determine the value of ionization in the air for Co⁶⁰ gamma radiation. This was found by measuring the same preparation Co⁶⁰ m with the help of a normal ionization chamber to ascertain the number of ion elements and of gamma calorimeters, which give the value of the absolute activity of this preparation. Tests with four different Co⁶⁰ preparations showed that the mean value of ionization equaled 33.7 ± 1.5 ev. There are 5 references, 3 of which are Soviet and 2 English.

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AGLINTSEV, K.K.; MITROFANOV, V.V.; SMIRNOV, V.V.

Active electron spectra in air-equivalent ionization chambers. Trudy
Radiy.inst.AN SSSR 9:253-257 '59. (MIRA 14:6)
(Ionization chambers) (Electrons—Spectra)

21(3)

AUTHORS:

~~Aglintsev, K. K.~~ Ostromukhova, G. P. SOV/89-6-1-8/33

TITLE:

Distribution of Ionization Along a γ -Beam and Reproduction of the Roentgen With Normal Ionization Chambers (Raspredeleniye ionizatsii vdol' puchka γ -izlucheniya i vosproizvedeniye rentgena normal'nyimi ionizatsionnymi kamerami)

PERIODICAL:

Atomnaya energiya, 1959, Vol 6, Nr 1, pp 63 - 66 (USSR)

ABSTRACT:

Measurement of the ionization effect of γ -radiation which corresponds to one roentgen unit is carried out in a pressure ionization chamber. Measurement of the roentgen unit is reduced to measurement of the ionization current and to determination of the measuring volume. The gauging method for reproduction of the roentgen requires knowledge of the point at which the measured ionization effect is produced. Hitherto it has been assumed that the measured ionization current is proportional to the radiation energy absorbed in the measuring volume. The value of dose output, on the other hand, refers to the center of the measuring electrode. Ionization in the chamber is brought about by the electrons which are produced not only in the measuring volume (above the measuring electrode), but also in such parts of the

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Distribution of Ionization Along a γ -Beam and
Reproduction of the Roentgen With Normal Ionization
Chambers

SOV/89-6-1-8/33

volume as are located before and behind the measuring electrode. The influence exercised by this additional ionization upon the ionization in the measuring volume is theoretically calculated and experimentally checked also for Co^{60} γ -radiation.

It follows from measurements and calculations that the measuring method generally used for determining the γ -dose by means of normal ionization chambers is systematically at fault, because the absorption of γ -radiation in the air is not properly taken into account. In order to avoid such errors, it is necessary to take the absorption of γ -rays in the part X_0 into account, which is located between the effective absorption point of the γ -quanta and the center of the measuring electrode. This is done by multiplying the measured ionization current by the coefficient k

$$k = e^{-\mu P x_0}$$

Card 2/3

where μ denotes the linear attenuation coefficient of the

Distribution of Ionization Along a γ -Beam and
Reproduction of the Roentgen With Normal Ionization
Chambers

SOV/89-6-1-8/33

radiation to be measured in air at $P = 1$ atm and $T = 20^{\circ}\text{C}$.
The value for k is 0.992 for Co^{60} and 0.996 for Cs^{137} . There
are 5 figures and 4 references, 1 of which is Soviet.

SUBMITTED: September 1, 1958

Card 3/3

21(8)

SOV/89-7-2-6/24

AUTHORS: Aglintsev, K. K., Kasatkin, V. P.

TITLE: A Method of β -Ray Dosimetry Based on Examining the Electron in the
Fields of β -radiators Spectra (Metod dozimetrii β -izlucheniya, osnovanny na issle-
dovaniyakh elektronnykh spektrov v polyakh β -izluchateley)

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 2, pp 138 - 143 (USSR)

ABSTRACT: The relation $D = N \left(\frac{dE}{dx} \right)$ was theoretically calculated and experimentally confirmed; N is number of β -particles which penetrate into a certain volume, $\left(\frac{dE}{dx} \right)$ (average) the ionization loss of one electron in the examined matter and D the dose caused by the β -radiator. It was established that the value $\left(\frac{dE}{dx} \right)$ is determined by the energy of the β -spectrum of the concerned isotope and that it is practically independent of the depth of the matter and the diameter of the source. The β -spectra were measured with a scintillation-spectrometer (Ref 3) using a flattened semi-spherical stilbene crystal of a 35 mm

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A Method of β -Ray Dosimetry Based on Examining the
Electron in the Fields of β -radiators Spectra

SOV/89-7-2-6/24

diameter. The β -preparations of S^{35} , W^{185} , Tl^{204} , Y^{91} ,
 $Sr^{90}+Y^{90}$, P^{32} , $Ce^{144}+Pr^{144}$ had a diameter of 1,8, 25 and
50 cm and were precipitated on transparent paper. As an
underlay a 10 mm thick plexiglass plate was used. The distance
between source and crystal was 2-6 cm. As equivalent for a
material similar to the skin for which the depth dose was
meant, filter paper was used. The β -spectra were examined at
the following depths:

S^{35} 3.3-13.2 mg/cm², Tl^{204} 15-150 g/cm² and $Sr^{90}+Y^{90}$
37.5-450 mg/cm². (Shown in a diagram). The depth-dose curve
enables us to determine the range for which the examined β -
radiators can be best used. The ranges are:
 S^{35} 0-8 mg/cm² W^{185} 8-20 mg/cm² Tl^{204} 20-30 mg/cm²
 Y^{91} 30-100 mg/cm² Pr^{144} > 100 mg/cm². There are 4
figures and 3 Soviet references.

SUBMITTED: January 29, 1959
Card 2/2

21 (7)

06208
SOV/115-59-11-31/36

AUTHORS: Aglintsev, K.K., Bochkarev, V.V.

TITLE: The International Symposium on Metrology of Radioactive Isotopes

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 11, pp 64-65

ABSTRACT: A symposium on metrology of radioactive isotopes was held in Vienna from October 14 to 16, 1959. It was organized by the International Atomic Energy Commission. About 100 scientists from 27 countries participated. A total of 37 reports was read, 7 of them were reviews of radioactive measurement methods adopted in different countries. The USSR delegation (K.K. Aglintsev, V.V. Bochkarev, V.N. Grablevskiy, F.M. Karavayev) reported on measuring radioactivity in the USSR. Another report (by V.V. Bochkarev and V.A. Bazhenov) dealt with the results obtained when measuring the radioactivity of volatile liquids by their vapors.

Card 1/1

BIBERGAL', Anatoliy Viktorovich; MARGULIS, Usher Yakovlevich; VOROB'YEV,
Yevgeniy Ivanovich; AGLINTSEV, K.K., prof., red.; ALEKSEYEV, D.M.,
red.; LYUDKOVSKAYA, N.I., tekhn. red.

[Protection against X-rays and gamma rays] Zashchita ot rentgenovskikh
i gamma-luchei. Pod red. K.K.Aglintseva. Izd.2., perer. 1 dop. Mo-
skva, Gos. izd-vo med. lit-ry Medgiz, 1960. 273 p. (MIRA 15:7)
(RADIATION PROTECTION)

FEOKTISTOV, Vissarion Ivanovich; AGLINTSEV, K.K., red.; RULEVA, M.S.,
tekhn.red.

[Principles of medical radiology; practical reference book]
Osnovy meditsinskoi radiologii; prakticheski spravochnik.
Leningrad, Gos.izd-vo med.lit-ry Medgiz, 1960. 163 p.
(MIRA 14:4)

(RADIOLOGY, MEDICAL)

AGLINTSEV, K. K.

"Dose Power and Time Factor."

report presented at the meeting on Radiation Dosimetry, Intl. Atomic Energy Agency,
Vienna, 7-11 June 1960.

PHASE I BOOK EXPIRATION SOV/863

Metody polucheniya i izmereniya radioaktivnykh preparatov i biomik
metody (Metodye) dlya proizvodstva i izmereniya radioaktivnykh
preparatov (Collection of Articles) Moscow, Atomizdat,
1960. 301 p. Errata slip inserted. 9,000 copies printed.

General Ed.: Valeriy Viktorovich Bockkarev; Ed.: M.A. Segurov;
Tech. Ed.: N.A. Ylasova.

PURPOSE: This collection of articles is intended for scientific and
technical personnel working in the production of radioactive iso-
topes.

COVERAGE: The collection contains original studies on methods of
obtaining and measuring radioactive preparations. According to
the format, the articles contain new data, and are of theoretical
or practical interest to the extent that they discuss methods or
of progress information. In addition to several survey articles
the collection contains discussions on the production of including
active isotopes and inorganic radioactive preparations, and other
a number of carrier-free isotopes and several methods for prepar-
therapeutic preparations. Also discussed are methods for prepar-
ing a number of tagged organic compounds, problems in the analy-
sis of tagged organic compounds, the absolute and relative measure-
ment of activity, and the radioelectric analysis of preparations.
New instruments and equipment are described and instructions con-
cerning measurement methods and technique are included. V.I. Levin,
Candidate of Chemical Sciences, V.P. Shlenkov, Candidate of Tech-
nical Sciences, I.M. Buzharov, Candidate of Biological Sciences,
and V.I. Shorokh, Candidate of Chemical Sciences, are mentioned
as having helped directly in the selection and preparation of the
material for publication. References accompany each article.

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paring Standard β -Emitters 293

AVAILABLE: Library of Congress (DD466.B47)

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77228
SOV/89-8 -1-22/29

AUTHORS: Aglintsev, ~~K. K.~~, Bochkarev, V. V.

TITLE: Scientific and Technical News. International Conference on Metrology of Radioactive Isotopes

PERIODICAL: Atomnaya energiya, 1960, Nr 1, pp 76-78 (USSR)

ABSTRACT: This is a report on the International Conference on Metrology of Radioactive Isotopes which was held in Vienna on October 14-16, 1959. The relative materials will be published by the International Atomic Energy Agency.

Card 1/1

AGLINTSEV, K.K.

Restorative functions in irradiated organisms. Biofizika 5
no. 6:740-744 '60. (MIRA 13:10)

1. Radiyevyy institut imeni V.G. Khlopina AN SSSR, Leningrad.
(RADIATION--PHYSIOLOGICAL EFFECT)

S/115/60/000/012/012/018
B021/B058

AUTHORS: Aglintsev, K. K., Ostromukhova, G. P., and Khol'nova, Ye.A.
TITLE: Measurement of the Gamma Constant of Radium
PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 12, pp. 40-42

TEXT: Methods and results of the determination of the gamma constant of radium which were obtained at the VNIIM (Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleev)), are given in this paper. The values of the γ -constant were determined by measuring the values of the dose rate and the activity of one and the same preparation,

i.e. $\Gamma(\text{Ra}) = \frac{P \cdot 3600}{A f}$, P being the dose rate in 1-cm distance from the preparation, in r/sec; A the activity of the preparation in millicurie, f the coefficient of correction. Radon preparations were used instead of radium, in order to exclude errors due to self-absorption of γ -radiation in the source. The linear attenuation factor of the γ -radiation of radium

Card 1/2

Measurement of the Gamma Constant of Radium

S/115/60/000/012/012/018
B021/B058

in air was determined experimentally. The measurement results are represented graphically. The probable errors of quantities involved in the calculation of the dose rate are listed. The activity of the radon preparations was determined by the calorimetric method. The greater part of the studies for determining the γ -constant of radium is based on measuring the dose rate by means of thimble chambers. Finally it is stated that all measurements made by means of thimble chambers up to the publication of the theories mentioned, require checking. The dependence of the data on the conditions of diaphragming is described as being the second error source in the measurement of the γ -radiation by means of thimble chambers. Moreover, no method for calculating the correction for scattered radiation in air is elaborated for thimble chambers. Measurement results of the γ -constants of radium during filtering by means of 0.5-mm platinum, obtained by various authors, are mentioned next. According to the authors' data, this quantity will be 8.04 r/h.mg.cm in the case of an open-air chamber, if the number of decays per mg radium is assumed as being $3.68 \cdot 10^7$. Other authors determined the γ -constant at 8.26, 8.16 and 8.4 r/h.mg.cm. There are 1 figure, 1 table, and 16 references: 4 Soviet, 8 US, 2 British, and 1 Canadian. ✓

Card 2/2

DOLGIREV, Yevgeniy Ivanovich; MALBYEV, Pavel Ivanovich; SIDORENKO, Vladimirovich; KOZLOVA, V.A., inzh., ratsenzent;
AGLINTSEVA, K.K., prof., red.; AZAROVA, I.G., red.; TSAL, R.K., tekhn. red.

[Nuclear radiation detectors] Detektory iadernykh izlucheni.
Pod red. K.K.Aglintseva; Leningrad, Gos. soizuznoe izd-vo
sudostroit. promyshl., 1961. 222 p. (MIRA 14:5)
(Nuclear counters) (Radiation--Measurement)

27844

S/115/61/000/009/003/006
E032/E114

21,6000

AUTHOR: Aglintsev, K.K.

TITLE: The ionisation chamber as a standard apparatus for measuring the activity of Beta-emitting specimens

PERIODICAL: Izmeritel'naya tekhnika, 1961, No.9, pp. 39-42

TEXT: In the activity range 10^{-11} to 10^{-7} curie, standardising β -activity measurements are carried out with the aid of 4π β -counters operated either as proportional counters or geiger counters. Scintillation counters with organic phosphors may be used to extend the upper limit of the activities to 10^{-5} curie. In the range above 0.01 curie, absolute activity measurements are carried out with calorimeters. There is therefore a gap between 10^{-5} and 10^{-2} curie. In order to fill this gap, the present author suggests the use of an ionisation chamber of the "extrapolating type". This type of chamber is illustrated in Fig.1, where u , β , n are the measuring, shielding and potential electrodes respectively. The effective area of the measuring electrode is $S = \pi \rho^2 / 4$ where ρ is equal to the sum of the diameter of the measuring electrode and one-half of the gap between it and the screening electrode. JK

Card 1/4

278E1

S/115/61/000/009/003/006
E032/E114

The ionisation chamber as a standard...

In all cases the diameter of the specimen is assumed to be equal to the diameter of the measuring electrode. When the electrode is displaced from position 1 to position 2, there is a change in the working volume ($V_1 - V_2$) and hence a corresponding change in the ionisation current ($I_1 - I_2$). In Fig.1 the change in the volume is shaded. The possibilities of this type of chamber are illustrated by the following example. Suppose that $S = 0.1 \text{ cm}^2$, $L_1 = 6 \text{ mm}$, $L_2 = 5 \text{ mm}$ (L is the distance between the electrodes) and hence $V_1 - V_2 = 0.01 \text{ cm}^3$. The specimens to be measured are the following isotopes: S^{35} (167 keV), W^{185} (430 keV), Tl^{204} (765 keV), Y^{91} (1560 keV), and P^{32} (1690 keV). The figures in brackets indicate the maximum energy of the β -spectrum. The activity of the specimens is assumed to be $q = 1 \text{ curie/g}$. The intensity of the source $\rho = 1 \text{ g/cm}^3$, and the thickness of the specimen 0.1 mg/cm^2 . The self-absorption can then be neglected. The volume $V_1 - V_2$ under these conditions will subtend a solid angle of approximately 0.024 at the source (K.A. Petrzhak, M.A. Bak, ZhTF, 1955, Vol.25, No.4, Ref.1), and consequently, this volume will be traversed by 9000 β -particles per second. The dose rate P due to these β -particles within the volume $V_1 - V_2$ may be found

Card 2/4

VH

The ionisation chamber as a standard...²⁷⁸⁴⁴ S/115/61/000/009/003/006
E032/E114

from the data reported in Ref.2 (K.K. Aglintsev, V.P. Kasatkin, Atomnaya energiya, 1959, V.7, No.2) and has the following values (in units of 10^{-3} rad/sec) for the above isotopes: 12, 7, 4, 3.3 and 3.2, respectively. In the case of S^{35} , the absorption of the β -particles in the air layer was allowed for; the correction amounts to 14%. The energy resolution may be improved and the current difference $I_1 - I_2$ may be increased by using larger thickness and area for the specimens. It is then shown how self-absorption in the β -source may be allowed for. Detailed consideration of various special cases involved shows that the source should be thick (100 mg/cm^2 , say) and should have an area of the order of 10 cm^2 . The optimum value of the specific activity of the specimen should lie between 10^{-4} and $10^{-2} \text{ } \mu\text{curie/mg}$. The current difference $I_1 - I_2$ will then be of the order of 10^{-11} to 10^{-10} amp. As in the case of calorimetric determinations, the specimens must be radiochemically pure since the presence of other isotopes distorts the results. There are 4 figures, 1 table and 4 Soviet references.

Card 3/4

3123

S/589/61/000/055/003/006
D051/D113

21.6000
AUTHORS: Aglintsev, K.K.; Ostromukhova, G.P.
TITLE: Roentgen reproduction within the range of γ -radiation with a quantum energy of 0.25-3 Mev
SOURCE: USSR. Komitet standartov, mer i izmeritel'nykh priborov. Trudy institutov Komiteta, no. 55 (115), Moscow, 1961. Issledovaniya v oblasti izmereniya ioniziruyushchikh izlucheniya, 55-65

TEXT: The results of an investigation of a standard device for roentgen reproduction within the range of γ -radiation with a quantum energy up to 3 Mev are given. A previously described VNIIM installation of this type was intended for γ -radiation of up to 1.5 Mev. In order to raise the upper energy limit, some modifications were made. The standard chamber was placed into a tank permitting the air pressure in the chamber to be increased to 20 atm. This amount of pressure combined with

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34283

S/589/61/000/055/003/006

D051/D113

Roentgen reproduction within the range...

chamber parameters of $d = 40$ cm and $r = 40$ cm proved to be suitable for measuring 3 Mev radiation in roentgens. Further details concerning parameters, component parts and arrangement of the device are given. Determining the saturation current, the authors had to take into account the error due to increased air pressure, which makes it practically impossible to measure this current in the chamber. Using the Jaffe-Zanstra method (Ref. 11: Zanstra H., Physika, No. 2, 1935, p 817; Ref. 12: Jaffe G., Ann.d.Phys., Bd 42(4), 1913, S.303; Le radium, t. 10, 1913, p 126) and experimentally verifying the derivations obtained by measuring β - radiations of S^{35} and γ -radiations of Co^{60} , it was found that at up to 20 atm the corresponding saturation currents can be calculated according to this method with potential differences on the electrodes from 6:3 to 18 kv. The constant C must equal $1.24 \cdot 10^{-4}$ in this case. The theoretical method of carrying out absolute measurements of the doses of γ - radiation using the standard device is described. The dose rate P of γ - radiation directed towards the plane of the diaphragm, narrowing the ray beam, is calculated according to the formula

$$P = K \frac{J_{sat} \cdot 3 \cdot 10^2}{V} \text{ r/sec} \quad (4)$$

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s/589/61/000/055/003/006
D051/D113

Roentgen reproduction within the range...

(J_{sat} - saturation current in amperes, determined from Jaffe-Zanstra graphs; V - measurement volume equal to the product of the area of the aperture section of the narrowing diaphragm and the effective length of the measuring electrode; $K = K_1 K_2 K_3 K_4 K_5 K_6$ - product of correction factors for temperature, radiation attenuation, etc.) Special stress is laid on the calculation of K_5 (correction factor for the effect of scattered radiation). The following conclusions were drawn: (1) The Roentgen unit could be reproduced for radiations with a quantum energy of up to 3 Mev. Taking all corrections into consideration, the value of the Co^{60} - constant as established at VNIIM (13.0 r/h * mc * cm) coincided with an accuracy of 2.5% with the value (12.7 r/h * mc * cm) obtained at the NBS. There are 9 figures and 20 references: 8 Soviet and 12 non-Soviet-bloc. The four most recent English-language references are: H.O. Wyckoff, J. Research. NBS, v. 64C, No. 2, 1960; Report of the International Commission on Radiological Units and Measurements, 1956, NBS, Handbook 62, 1957; L.V. Spenser, Phys.Rev., v. 98, 1955, p 1609; F.H. Attix, L. de la Vergne, J. Research, NBS, v. 53, 1954, p 393.

Card 3/4

34283

Roentgen reproduction within the range... S/589/61/000/055/003/006
D051/D113

ASSOCIATION: VNIM

SUBMITTED: March 30, 1960.

✓

Card 4/4

26, 2541

S/186/61/003/002/017/018
E111/E452

AUTHOR: Aglintsev, K.K.

TITLE: Determination of the effective age of fission fragments

PERIODICAL: Radiokhimiya, 1961, Vol 3, No.2, pp.237-239

TEXT: A simple graphical method is described for determining the effective age of fission fragments and the duration of irradiation of uranium in a reactor. The method is based on the comparison of the isotopic composition of two different fragment elements. The ratio of the activities, f of two isotopes is related to t_0 (the duration of irradiation) and τ (the time elapsed from the end of irradiation) by

$$f = \frac{p_1 (1 - e^{-\lambda_1 t_0})}{p_2 (1 - e^{-\lambda_2 t_0})} e^{-(\lambda_1 - \lambda_2)\tau} \tag{4}$$

or

$$f = H(t_0) e^{-(\lambda_1 - \lambda_2)\tau} \tag{5}$$

where λ_1, λ_2 are the radioactive constants and p_1, p_2 the yields (in atoms per fission). To find f and τ the author
Card 1/2

Determination of the effective ...

S/186/61/003/²³⁰⁰⁵002/017/018
E111/E452

recommends use of measurements for Ce^{141}/Ce^{144} and Sr^{89}/Sr^{90} , the relevant information being available from the author's (Ref.2: Atomnaya energiya, 4, 5, 461 (1958)) and other (Ref.1: D.Strominger, T.Hollander, G.Seabord, Rev.Mod.Phys., 30, 2, 585 (1958)) work. The $f - \tau$ relation in a logarithm form is linear and is used by the author to construct the nomogram which gives t_0 and the time when irradiation ended. There are 1 figure and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English language publication reads as follows: D.Strominger, T.Hollander, G.Seabord, Rev.Mod.Phys., 30, 2, 585 (1958).

SUBMITTED: April 23, 1960

Card 2/2

AGLINTSEV, K.K.; OSTROMUKHOVA, G.P.; KHOL'NOVA, Ye.A.

Experimental determination of self-absorption along the axis in
Co⁶⁰ preparations of cylindrical shape. Atom. energ. 10 no.1:75-76
Ja '61. (MIRA 13:12)
(Cobalt--Isotopes) (Gamma rays)

S/081/62/000/003/031/090
B150/B101

AUTHOR: Aglintsev, K. K.

TITLE: Levels of ionizing radiations on the earth

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 130, abstract
3G117 (Tr. Konferentsii po radiats. gigiyenem, 1959, L.,
1960, 93 - 97)

TEXT: The earth's population is exposed to a systematic action of ionizing radiation. The irradiation dose by the natural background (cosmic rays, radioactivity of rocks) is 0.1 rem per annum, and from artificial sources (X-rays irradiation) it is 0.1 rem per annum. A particular danger is presented by long-lived radioactive substances which have arrived in the stratosphere as a result of atomic explosions. The rate of radioactive fall-out in 1958 was ~ 3 mCu/km² per annum, and the content of radioactive substances in the soil was ~ 10 mCu/km².

[Abstracter's note: Complete translation.]

Card 1/1

AGLINTSEV, K.K.

Using the ionization chamber as a standard unit for measuring
the activity of beta-emitting substances. Izv. tekh. no.9:39-
42 S '61. (MIRA 14:8)

(Ionization chambers)
(Beta rays--Measurement)

S/263/62/000/006/014/015
I008/I208

AUTHORS: Aglintsev, K.K. and Ostromukhova, G.P.

TITLE: A unit for producing 1 roentgen in the γ -radiation range of quantum energy of 0.25-3 Mev.

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 32. Izmeritel'naya tekhnika, no.6, 1962, 53, abstract 32.6.338. (Tr. in-tov Kom-ta standartov, mer 1 izmerit. priborov pri Sov. Min. SSSR, 1961, 255(115), 55-65)

TEXT: A standard unit of VNIIM for producing 1 roentgen in the X-radiation range of quantum energy of 0.25-3 MeV is described. The ionization chamber was installed in a tank, in which the air pressure could be increased up to 20 atm. This was sufficient to enable one to measure with an ionization chamber of $d = 40\text{cm}$. and $r = 40\text{cm}$ parameters radiations in a reactor of quantum energy up to 3 MeV. The anode voltage was 20 kV. The ionization currents were measured by the null method, using a d.c. amplifier of the ЭМУ-3 (EMU-3) type. In this method the nonlinearity of the am-

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S/263/62/000/006/014/015
I008/I208

A unit for producing 1 roentgen...

plier did not introduce an error in the measurements of the current strength. At the same time the error in the ionization current did not exceed $\pm 3\%$. Taking into account all the correction coefficients the value of the γ -constant of Co^{60} , measured by means of this standard unit, agreed with the values measured by the U.S.A. National Bureau of Standards within 2.5%. There are 9 figures, 1 table and 20 references. ✓

[Abstracter's note: Complete translation.]

Card 2/2

38039

S/263/62/000/005/007/010

1007/1207

7/6/80

Authors: Aglintsev, K. K., Maksimova, M. P., and Uryayev, I. E.

Title: A SPECTRAL METHOD FOR DETERMINING GAMMA-RAY DOSES

Periodical: Referativnyy zhurnal, Mashinostroyeniye, no. 5, 1962, 64 abstract 32.5.356 (*Trudy in-tov Kom-ita standartov, mer i izmerit priborov pri Sov. Min. SSSR*, no. 55(115), 1961, 90-98)

Text: Description is given of a method for determining radiation doses from flat β -sources, the method being based on the use of an active electron spectrum. Spectral research was carried out by means of a scintillation beta-spectrometer consisting of a I-C photomultiplier and a stilbene crystal 20 mm long and 25 mm in diameter. During the measurements the spectrometer and radiation source were enclosed in a nontranslucent (opaque) container. The efficiency of the measuring unit was determined by comparing the measurement results obtained by the same source and by a 4π counter. Comparison was made of the intensity values of the absorbed dose, by measuring both with the ionization (extrapolation) and the scintillation chambers. When using a Tl^{204} source with a working diameter of 38 mm, the intensity values of the dose measured by the above methods at a distance of 9 cm from the source, showed good agreement, with a deviation of only $\pm 2.5\%$. The distribution of the dose field was investigated for a series of beta radiators (S^{35} , Tl^{204} , Y^{90} and I^{131}) of varying working diameter, applied to different supports. In these experiments, the scintillation counter was

Card 1/2

X

AGLINTSEV, K.K.; MITROFANOV, V.V.; RIMSKIY-KORSAKOV, A.A.;
SMIRNOV, V.V.

Investigation of the angular distribution of photoelectrons
knocked out of Ag and Bi targets by gamma rays from Cs 137.
Izv. AN SSSR. Ser. fiz. 26 no.9:1141-1145 '61. (MIRA 14:8)

(Electrons--Spectra)

(Gamma rays)

AGLINTSEV, K.K.; MOSKVINA, Ye.P.; RUSINOVA, S.A.

Measuring the activity of beta emitters by means of an
ionization chamber. Trudy inst. Kom. stand., ser i izm. prib.
no.69:42-55 '62. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii
im. Mendeleyeva.

AGLINTSEV, K.K.

Use of Co^{60} gamma sources as standard measures in determining
the unit of exposure dose rates. Trudy inst. Kom. stand., ser
i izm. prib. no.69:70-74 '62. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii
im. Mendeleeva.

27.2400

24.6400

32006
S/089/62/012/001/009/019
B102/B138

AUTHORS: Aglintsev, K. K., Kasatkin, V. P.

TITLE: The shape of the beta spectra at various depths of an irradiated medium

PERIODICAL: Atomnaya energiya, v. 12, no. 1, 1962, 51 - 52

TEXT: Problems of beta dosimetry require knowledge of the spectral shape. This has been found to be only slightly dependent on the depth of the irradiated medium. This empirical fact was verified by investigations of the shape of transmission β -spectra for S^{35} ($E_{\max} = 0.167$ Mev), W^{185} ($E_{\max} = 0.43$ Mev) and Y^{91} ($E_{\max} = 1.55$ Mev). In all cases the peaks were of equal height, independent of depth and were somewhat broader for smaller thicknesses. On the $N(E/E_{\lim})$ -curves they shifted toward higher E/E_{\lim} values when thickness was raised. The dose D_1 was found to be constant in each case, which holds for filtrations in which 7 - 10% of the number of incident β -particles remain in the beam. With stricter

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The shape of the beta...

32006
S/089/62/012/001/009/019
B102/B138

filtration the spectrum becomes softer. The β -spectrum of Y^{91} , filtered through 525 mg/cm^2 of a tissue-like substance, is similar to the non-filtered Tl^{204} spectrum ($E_{\text{max}} = 0.76 \text{ Mev}$). There are 2 figures and 2 Soviet references. ✓

SUBMITTED: September 22, 1961

Card 2/2

AGLINTSEV, K.K.; KASATKIN, V.P.

Physical principles of adopting a specific β -irradiation
technique. Med. rad. 5 no.1:52-58 Ja '60. (MIRA 15:3)

(RADIATION DOSAGE)

(BETA RAYS—THERAPEUTIC USE)

AGLINTSEV, K.K.; KODYUKOV, V.M.; LYZLOV, A.F.; SIVINTSEV, Yu.V.;
CHUGASOV, A.A., red.; MAZEL', Ye.I., tekhn. red.

[Applied dosimetry] Prikladnaia dozimetriia. Pod obshchei
red. K.K.Aglintseva. Moskva, Gosatomizdat, 1962. 246 p.
(MIRA 16:2)

(Radiation--Dosage)

PHASE I BOOK EXPLOITATION

SOV/6376

Aglintsev, K. K., V. M. Kodyukov, A. F. Lyzlov, and Yu. V. Sivintsev.

Prikladnaya dozimetriya (Applied Dosimetry). Moscow, Gosatomizdat, 1962.
246 p. 7800 copies printed.

Ed. (Title page): K. K. Aglintsev, Professor; Ed.: A. A. Chugasov;
Tech. Ed.: Ye. I. Mazel'.

PURPOSE: This book is intended for engineers and technicians working in the field of atomic energy. It can also be used by students specializing in ionizing-radiation dosimetry.

COVERAGE: The physical principles of dosimetry are described, and the organization of radiation control in laboratories and enterprises engaged in work with ionizing radiation is discussed. No personalities are mentioned. There are 30 Soviet references, 10 of which are translations.

Card 1/2

AGLINTSEV, K.K.; KUL'KOVA, L.P.; KHOL'NOVA, Ye.A.

Standard calorimetric unit UKG-1. Nov. nauch.-issl. rab. po metr.
VNIIM no.2:1-4 '64. (MIRA 13:4)

AGLINTSEV, K.K.

Calculation of the radiation spectrum of standard Co^{60} and
 Cs^{137} emitters. Nov. nauch.-issl. rab. po metr. VNIIM no.2;
24-27 '64. (MIRA 18:4)

AGLINTSEV, K.K.; KOCHINA, M.P.; URYAYEV, I.A.

Unit with extrapolation chambers for measuring the intensity of radiation doses from plane Beta-ray emitters. Nov. nauch.-issl. rab. po metr. VNIIM no. 2-35 '64.

UPK apparatus for studying the fields and intensities of β -rays from plane emitters. Ibid.:36-40 (MIRA 18:4)

AGLINTSEV, K.K.; URYAYEV, I.A.

Unit for spectral and dosimetric measurements of plane β -emitters.
Nov. nauch.-issl. rab. po metr. VNIIM no.2:40-43 '64. (MIRA 18:4)

L 15123-65 EWT(m) DIAAP/SSD/AFWL DM

ACCESSION NR: AP4045336

S 0089 64 017 003 0217/0219

AUTHOR: Aglintsev, K. K., Kasatkin, V. P.

TITLE: On the passage of beta-particles through matter

SOURCE: Atomnaya energiya, v. 17, no. 3, 1964, 217-219

TOPIC TAGS: beta particle, passage, beta particle scattering, maximal beta particle energy, beta particles absorption coefficient

ABSTRACT: The paper describes the experimental investigation of the passage of beta-particles through substances with $Z_{\text{eff}} \approx 7$. The spectra of scattered beta-particles were measured with a scintillation spectrometer. The angular distribution was measured of scattered β -particles emitted by Pm^{147} ($E_{\text{max}} = 0.22$ Mev), W^{185} ($E_{\text{max}} = 0.43$ Mev), Tl^{204} ($E_{\text{max}} = 0.765$ Mev), and P^{32} ($E_{\text{max}} = 1.7$ Mev) of 4 microcuric strength. The following relationship between the "absorption" coefficient and the maximal energy of β particles E_{max} was found $\mu = 0.0157 E_{\text{max}}^{1.57}$. Orig. art. has: 5 figures

Card 1/2

L 15123-65
ACCESSION NR: AP4045336

ASSOCIATION: None

SUBMITTED: 11Nov63

ENCL: 00

SUB CODE. NP

NO REF SOV: 001

OTHER: 005

Cord 2/2

AGLIULOV, N.Kh.; BORISOV, G.K.; RUNOVSKAYA, I.V.

Laboratory fractionating column for gas scrubbing. Zav. lab. 30
no.9:1152-1153 '64. (MIRA 19:3)

1. Nauchno-issledovatel'skiy institut khimii pri Ser'lovskom
gosudarstvennom universitete imeni Lobachevskogo.

L 62562-65 EWT(m) Feb DIAAP
ACCESSION NR: AT5018649

UR/2950/65/000/004/0017/0022

AUTHOR: Aglintsev, K. K. (Deceased)

TITLE: Measuring ionizing radiation

11
17
B+1

SOURCE: EIKA, Entsiklopediya izmereniy, kontrolya i avtomatizatsii (Encyclopedia of measurement, control, and automation), no. 4, Moscow, Izd-vo Energiya, 1965, 17-22

TOPIC TAGS: ionizing radiation, natural radioactivity, artificial radioactivity, radioactivity measurement, radioactive materials

ABSTRACT: The article is a review of methods of ionizing radiation measurement. Ionizing radiation includes: alpha and beta particles, gamma rays, X-rays, mesons and hyperons, gamma and bremsstrahlung rays, cosmic rays, and natural radioactivity. All things, among them man, because of ionizing radiation, are affected. The fields and sources of ionizing radiation are of vital importance. Ionizing radiation are classified into two categories, natural radiation and artificial radiation. Measurement processes concerned with ionizing radiation are separated into two groups of physical magnitudes. The magnitudes of the first group are concerned with determining the quantitative content of radioactive substances in preparations and media. The second group of magnitudes is concerned with the description of ionizing radiation

Card 1/3

L 62562-65

ACCESSION NR: AT5018649

fields and the effect of radiation on matter. Both groups are closely related. By using data from one group, a very close estimate can be made of the desired values in the other. Measurement of ionizing radiation is carried out in various fields. Likewise, there are a great many measurement methods. Accuracy of measurement serves as the main determinant of measurement accuracy. At the present time the following types of ionizing radiation detectors are in use: ionization chambers, gas discharge, semiconductor and crystal scintillation counters, calorimeters, phototubes, chemical indicators and materials of various types. The following types of detectors are distinguished: (a) according to the method of registration--single counters, (b) according to the method of coupling--single or groups of counters, (c) according to gas used--gas mixture type, noble gases, hydrogen-containing gases, boron trifluoride, halogens and of various kinds, (d) according to the method of registering--the number of pulses and counting rate of the detector. Besides single counters, there is wide use of groups of counters with detector circuits for coincidence and anticoincidence sampling of particles. The solution of the problems connected with recording of ionizing radiation is being actively

Card 2/3

L 62562-65

ACCESSION NR: AT5018649

only with the aid of the methodology of related disciplines, among them nuclear spectroscopy, nuclear electronics and radiochemistry. This art. has: 3 figures, 10 formulas.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleeva, Leningrad (All-Union Scientific Research Institute of Metrology)

SUBMITTED: 00

ENCL: 00

SUB CODE: NP, EC

NO REF SOV: 031

OTHER: 004

lsp
Card 3/3

ACC NR: AP5015739

SOURCE CODE: UR/0205/65/005/003/0459/0463

AUTHOR: Aglintsev, K. K.; Kasatkin, V. P.

ORG: Institute of Radiology im. V. G. Khlopin (Radievy institut)

TITLE: Energy spectra and linear energy loss in fields of beta emitters

SOURCE: Radiobiologiya, v. 5, no. 3, 1965, 459-463

TOPIC TAGS: beta radiation, beta spectrum, scintillation spectrometer

ABSTRACT: In order to obtain data on the relative biological effect of various beta emitters, the electronic spectra in the fields of these radiators were studied. The study made use of a scintillation spectrometer with stilbene crystal 20 mm thick and 20 mm in diameter. Preparations S^{35} , W^{185} , Tl^{204} , Y^{91} , P^{32} , $Sr^{90} + Y^{90}$ and $Ce^{144} + Pr^{144}$ served as beta-emitters. It was demonstrated that the absorbed dose for an isotope with a simple beta spectrum was determined by the values of the ionization loss averaged on the beta spectrum. Systematic investigation of the beta spectra showed that this dosage, despite changes in depth, depends only on maximum energy of a beta spectrum for a given isotope and not on the depth of the medium, diameter of the source,

Card 1/2

UDC: 621.039.55

L 15122-66

ACC NR: AP5015739

atomic number of the backlayer of the source or geometric conditions of the irradiation of the medium within the limits $\pm 10\%$. This is only true for isotopes with simple spectra--not for such complex systems as type $Sr^{90} + Y^{90}$ or $Ce^{144} + Pr^{144}$. For beta emitters the average loss of energy changes 24 times, and this circumstance must be taken into account when establishing relative biological effect for various beta spectra. Orig. art. has: 6 graphs, 1 formula.

SUB CODE: 06,18/ SUBM DATE: 28Jun63/ ORIG REF: 002/ OTH REF: 002

Card 2/2

HW

ACC NR: AR6017213

SOURCE CODE: UR/0058/65/000/012/A059/A059

AUTHOR: Aglintsev, K. K.

35
B

TITLE: Measurement of ionizing radiation *W*

SOURCE: ¹⁹ Ref. zh. Fizika, Abs. 12A508

REF SOURCE: Tr. in-tov Gos. kom-ta standartov, mer i izmerit. priborov SSSR, vyp. 76 (136), 1965, 142-146

TOPIC TAGS: radiation measurement, ionizing radiation, physics research facility, metrology

ABSTRACT: The article considers (in chronological order) work on the measurements of ionizing radiation carried out since 1918 in the All-Union Scientific Research Institute of Metrology im. D. I. Mendeleev (Leningrad). These operations were carried out in the laboratories of the radiometric (organized in 1918), x ray measurement (1924) and neutron (1947) laboratories. The most significant metrological work in the region of measurement of ionizing radiations are noted, together with the persons performing the work, and the problems faced by this field of measurements are formulated. P. A. [Translation of abstract].

SUB CODE: 20

Card 1/1 *W*

ZHURAVSKIY, G.I.; AGLISH, I.V.

Effect of relative air humidity on citric acid formation in the fungus
Aspergillus niger. Mikrobiologiya 30 no.5:886-889 S-0 '61.

(MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut konditerskoy
promyshlennosti, Leningrad.

(ASPERGILLUS NIGER)

(HUMIDITY---PHYSIOLOGICAL EFFECT)

(CITRIC ACID)

ZHURAVSKIY, G.I.; TERENT'YEVA, O.F.; AGLISH, I.V.

Use of predeveloped mycelium in the depth method of citric acid
production. Trudy VKNII no.16:109-122 '62. (MIRA 16:5)
(Citric acid) (Mycelium)

SOLOV'YEV, V.; AGLITSKAYA, A.; KULIK, Ya.; BARER, T.

Meat fermentation as a means for improving its quality. Mias.
ind. SSSR 33 no.4:51-54 '62. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy
promyshlennosti (for Solov'yev, Aglitskaya).

SOLOV'YEV, V.I., kand.khim. nauk; ADUTSKEVICH, V.A., kand.veter. nauk;
KUZNETSOVA, G.N., starshiy nauchnyy sotrudnik; VOLKOVA, A.G.,
starshiy nauchnyy sotrudnik; SHCHEGOLEVA, O.P., inzhener-khimik;
AGAPOVA, Z.A., mladshiy nauchnyy sotrudnik; AGLITSKAYA, A.V.,
mladshiy nauchnyy sotrudnik; KRAKOVA, V.Z., mladshiy nauchnyy
sotrudnik

Investigations in the field of meat aging. Trudy VNIIMP no.14:
20-35 '62. (MIRA 16:8)

(Meat Analysis)

RADINA, L.B.; AGLITSKAYA, K.V.; CHERKASOVA, A.I.; PUSHKAREVA, Z.V.

Derivatives of acridine. Part 4: Synthesis of N^a
-9-(6-chloro-2methoxy)acridyl- α -amino acids. Zhur. ob. khim.
34 no. 5:1543-1545 My '64. (MIRA 17:7)

1. Sverdlovskiy nauchno-issledovatel'skiy institut virusnykh
infektsiy.

AGLITSKIY, S.

Portable self-hoisting metal scaffolding. Zhil.-kom. khoz. 12
no.3:15-16 Mr '62. (MIRA 15:10)

1. Nachal'nik Tekhnicheskogo otdela Upravleniya zhilishchnogo
khozyaystva Ministerstva kommunal'nogo khozyaystva RSFSR.

(Scaffolding)

AGLITSKII, S. S., MEYT, F.E.

Water - Pollution

Effect of sewers on the pollution of the sea and conditions of its self-purification.
Gig. i san. no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 1952 19~~52~~⁵³, Uncl.

AGLITSKIY, S. S.

AID P - 2464

Subject : USSR/Medicine

Card 1/2 Pub. 37 - 11/18

Authors : Aglitskiy, S. S., Prof., Stoyanovskiy, A. F., Prof.

Title : Water supply of populated rural localities of the Nikolayevsk Province from the Upper Ingul'ts Canal

Periodical : Gig. i san., 6, 52-53, Je 1955

Abstract : This paper was read at the All-Union Scientific Conference of the Institute of General and Municipal Hygiene, Acad. of Med. Sci., USSR, April 6-10, 1954. It deals with the problem of the purification of the Dnepr and Ingul'ts water polluted by the development of irrigation canals, including the Upper - Ingul'ts system, in connection with the construction of the Kakhovka Hydroelectric Power Station. According to the authors, the installation of slow filters and chlorinators and a centralized water-supply system would provide the population with pure drinking water and satisfy the needs of cattle breeding and

Gig. 1 san., 6, 52-53, 78 1955

AID P - 2464

Card 2/2 Pub. 37 - 11/18

agriculture.

Institution: Chair of Municipal and General Hygiene, Odessa Medical
Institute im. N. I. Pirogov.

Submitted : June 28, 1954

MARZHEYEV, A.N., prof.. Primarni uchastiye: AGLITSKIY, S.S., prof.;
VETOSHKIN, S.I., prof.; ZHABOTINSKIY, V.M., prof.;
SMELYANSKIY, Z.B., prof.; MAREY, A.N., kand.med.nauk;
SILIVANIK, K.Ye.. GORBOV, V.A., red.; SENCHILO, K.K.,
tekhn.red.; ZAKHAROVA, A.I., tekhn.red.

[Communal hygiene] Kommunal'naya gigiena. Pri uchastii
S.S.Aglitskogo i dr. Izd.2., dop. i ispr. Moskva, Gos.
izd-vo med.lit-ry, 1958. 554 s. (MIRA 13:1)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for
Marzeyev).

(PUBLIC HEALTH)

AGLITSKIY, V.A. 0-I-8

CONDITIONS OF PREPARATION OF COPPER SULPHATE FROM IMPURE ELECTROLYTE. V. A. Aglitski and A. K. Scharova (J. Chem. Ind. Russ., 1937, 18, 591-600).

Impure electrolyte at 80° is allowed to percolate, together with air, through a layer of granulated Cu, until the free (H₂SO₄) falls to 0.6 - 1%: when the initial (H₂SO₄) is high the electrolyte should be diluted, to give a final (Cu) of \neq 9%. The filtered solution is conc. at 95%, and allowed to cool rapidly to 60°, and then slowly during 7-8 days, when large crystals of pure CuSO₄ are obtained.
R.T.

ASB-SLA DETALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
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USSR

Interaction between zinciferous mat and slag and the distribution of zinc between the two phases. A. I. Okunev and V. A. Aglit'skil. *Doklady Akad. Nauk S.S.S.R.* 64, 113-16 (1954).—From lab. expts. on smelting zinciferous copper ores, and data from an industrial smelter, distribution of Zn between slag and mat in relation to compn. of slag and to the compn. of the mat is shown. The equil. const. from six expts. varied from 0.93 to 1.48, and the ratio of Zn in slag to Zn in mat varied from 1.17 to 0.70. Graphs show the equil. consts. and the distribution of zinc plotted against SiO₂ in the slag, and against Cu plus Fe in the mat, and the coeff. of activity of FeS plotted against the Fe in the mat. There is considerable divergence of molten Cu₂S-FeS mat from the laws of ideal solutions. V. H. Gertschuk

32

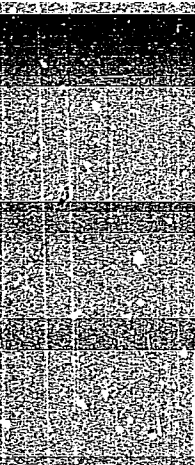
AGLITSKIY, V.A.

SMIRNOV, Vasilii Ivanovich, prof., dokt. tekhnicheskikh nauk ;
AGLITSKIY, V.A., redaktor; KOVALENKO, N.I. tekhnicheskii
redaktor.

[Shaft furnaces in the metallurgy of non-ferrous metals].
Shakhtnaya plavka v metallurgii tsvetnykh metallov. Sverdlovsk,
Gos. nauchno-tekhn. izd-vo lit-ry po chernoi ittsetnoi metallur-
gii, Sverdlovskoe otd-nie, 1955. 520 p. (MLBA 8:8)
(Smelting furnaces)

AGLITSKIY, Viktor Aleksandrovich; KOCHNEV, M.I., redaktor; KEL'NIK, V.P.,
redaktor izdatel'stva; KOVALENKO, N.I., tekhnicheskii redaktor

[The manufacture of copper wire bars; theory and practice]
Proizvodstvo mednykh valerbarsov; teoriia i praktika. Sverdlovsk,
Gos. nauchno-tekhn. izd-vo lit-ry po chernoii i tsvetnoi metallurgii,
Sverdlovskoe otd-nie, 1956. 287 p. (MLRA 9:10)
(Wire) (Copper--Metallurgy)



SECRET

Unpromed' - for ORINEV, AGLITSNIY

1. URAL'SKIY NAUCHNO-ISSLEDOVATELSKIY I PROYEKTNYYE TSENTRY

SOV/137-58-11-22222

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 55 (USSR)

AUTHORS: Babadzhan, A. A., Aglitskiy, V. A.

TITLE: A Combination Flowsheet for Complex Processing of Lean Copper and-Molybdenum Ores (Kombinirovannaya skhema kompleksnoy pererabotki bednykh medno-molibdenovykh rud)

PERIODICAL: Tr. i materialy. Ural'skiy nauchno-issledovatel'skiy i proyekt. in-t medn. prom-sti, 1957, Nr 2, pp 280-291

ABSTRACT: Analysis of various process procedures results in recommendation of a method combining oxidizing roasting of Cu-Mo concentrate with hydrometallurgical treatment of the cinders. Roasting is at 550-670°C. Leaching of the cinders is by NaOH solutions. The Mo is extracted from Na_2MoO_4 as CaMoO_4 by addition of Ca(OH)_2 or CaCl_2 . The residue, containing Cu, is reprocessed to obtain blister or electrolytic Cu.

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100520010-2

137-58-6-11964

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 111 (USSR)

AUTHORS: Aglitskiy, V.A., Babadzhan, A.A.

TITLE: Relationship of Blister Copper Quality to Degree to Which Blow is Carried (Kachestvo chernovoy medi v zavisimosti ot stepeni yeye produvki)

PERIODICAL: Tr. i materialy. Ural'skiy n.-i. i proyekt. in-t medn. prom-sti, 1957, Nr 2, pp 292-306

ABSTRACT: An experimental study was conducted to determine the effect of the degree of Cu blow on its quality under the conditions obtaining at the Kirovograd and Krasnoural'sk copper smelters. The Cu contents of the blister Cu rises with continuing blow, attaining a maximum at 0.25-0.30% O. Further increase in O contents results in some reduction in Cu contents. As the O contents of the blister copper rise to 0.40%, there is a sharp reduction in S contents. There is virtually no change in the Ni, Zn, Bi, Pb, Sb, and Fe contents as O concentration rises to 0.7%. To obtain a satisfactory ingot surface it is necessary to continue to blow the Cu until it contains $\geq 0.4\%$ O. G.S.
1. Copper ores--Processing
2. Copper--Production 3. Copper--Quality control 4. Oxygen--Effectiveness

Card 1/1

137-58-6-11955

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 110 (USSR)

AUTHOR: Okunev, A.I., Aglitskiy, V.A.

TITLE: Electrical Smelting of Ore in Copper Metallurgy (O rudnoy elektroplovke v metallurgii medi)

PERIODICAL: Tr. i materialy. Ural'skiy n.-i. i proyektn. in-t medn. prom-sti, 1957, Nr 2, pp 307-315

ABSTRACT: A list of the advantages and disadvantages of the electric smelting of ores is presented. It is noted that electrical smelting yields best results only when roasted or dried material is smelted.

G.S.

1. Copper ores--Processing 2. Electric furnaces--Effectiveness

Card 1/1

SOV/137-58-7-16169

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 321 (USSR)

AUTHORS: Aglitskiy, V. A., Yudytskiy, A. P., Fedotova, Ye. I.

TITLE: On the Method of Noble-metals Assay of Blister Copper (O metodike oprobovaniya chernovoy medi na sodержaniye blagorodnykh metallov)

PERIODICAL: Tr. i materialy. Ural'skiy n. -i. i proyekt. in-t medn. prom-sti, 1957, Nr 2, pp 355-360

ABSTRACT: The method of assaying (MA) blister Cu by means of sampling the liquid metal with a special mold-ladle without pouring the metal into a test mold. Several MA of crude CU for noble metal contents are given: Pattern drilling, taking of a liquid test sample from the converter or the ladle of the casting machine, and granulation of liquid metal. The comparative character of the results obtained with different MA is given. It is shown that in taking the test by means of drilling the solid metal, difficulties are encountered owing to the dirt present on the surface of the ingot; the uneven distribution of noble metals in the different sections of the ingot, and the different degrees of brittleness of the separate structural components of the ingot, resulting

Card 1/2

SOV/137-58-7-16169

On the Method of Noble-metals Assay of Blister Copper

in a different composition of the fine and the coarse fractions of the chips. The latter complicates the preparation of the test sample of chips for the analysis. It is determined that in the sampling of liquid crude Cu a great influence on the validity of the taking of the sample is exerted by the phenomena of liquation. The presence of liquation phenomena during the solidification of blister Cu has a telling effect on the noble-metal content in relation to the spot from which the sample was taken during the casting of Cu, whereas in the granulation of Cu its effect depends on whether the granulated metal is drawn directly from the stream of the metal tested or is granulated from the ladle.

A. M.

1. Copper--Analysis
 2. Copper (Liquid)--Sampling
 3. Copper
- Test methods

Card 2/2

137-58-6-12023

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 119 (USSR)

AUTHOR: Okunev, A.I., Vostryakov, A.A., Aglitskiy, V.A.,
Travnikova, L.B.

TITLE: Fundamental Factors Influencing the Selection of Optimal
Composition of Matte and Slag During Processing of Copper-
zinc Cinders in Reverberatory Furnaces (Osnovnyye faktory,
opredelyayushchiye vybor optimal'nogo sostava
shteyna i shlaka pri pererabotke medno-tsinkovykh ogarkov v
otrazhatel'nykh pechakh)

PERIODICAL: Tr. i materialy. Ural'skiy n.-i. i proyektn. in-t medn. prom-
sti, 1957, Nr 2, pp 365-372

ABSTRACT: A brief examination of the fundamental factors that influence
the selection of matte (M) and slag composition during process-
ing of Cu-Zn concentrates in accordance with the following pro-
cedure: deep-penetration roasting-smelting-fumigation. The
selection of an optimum M composition in smelting of roasted
Cu-Zn concentrates is dictated by the following basic factors:
1) Variation in distribution of Zn between the slag and the M de-
pending on the composition of the latter; 2) variation in specific

Card 1/2

137-58-6-12023

Fundamental Factors Influencing the Selection of Optimal Composition (cont.)

gravity of the M depending on its composition; 3) a change in the melting point of the M; 4) a change in the fluidity of the M. It is noted that the distribution of Zn is favorably affected by an increase in the Cu content of the M and that it is most desirable that the Cu content be maintained at the highest possible value (up to 60-80%). The specific gravity of liquid M increases continuously with increasing Cu content. M's containing maximum possible amounts of Cu are best suited for efficient separation of M and slag, whereas M's containing 40-45% of Cu are most desirable from the point of view of fusibility of the M. These same M's also exhibit the best fluidity. Taking all factors presented into consideration one may state that the optimal value of Cu content in M's constitutes 45%. In reverberatory-furnace smelting of Cu-Zn concentrates the slags must contain 32-34% (or less) of SiO₂ depending on the Zn content.

G.S.

1. Copper ores--Processing
2. Zinc ores--Processing
3. Slags--Composition
4. Slags--Properties

Card 2/2

AGLITSKIY, V. A.

136-12-15/18

AUTHOR: Aglitskiy V.A. et alii.

TITLE: Nikolay Pavlovich Diyev - Obituary

PERIODICAL: Tsvetnyye Metally, 1957, No.12, pp. 75 - 76 (USSR).

ABSTRACT: N.P. Diyev was born in May 1898 and died in October 1957.

He graduated in 1925 at the Urals Polytechnical Institute (Uralskiy politekhnicheskii institut) in the subject of non-ferrous metals. From 1937 onwards, he was the head of the non-ferrous metals laboratory of the Urals branch of the Ac.Sc. USSR. In 1938, he became Candidate of Technical Sciences, in 1944 - Doctor of Technical Sciences, and from 1946 onwards he became Professor. Diyev was one of the initiators of introducing the process of electrolysis of zinc in the Soviet Union and also of introducing oxygen in the manufacture of non-ferrous metals. Of great importance was his work on analysis of the melt in the refining furnaces of copper-smelting works. Under his direction, a number of investigations were carried out on the metallurgy of cobalt and oxidation of sulphides, which formed the basis of improving production technology. He published over 160 papers and a monograph on flame-refining of copper. For 23 years, he was a lecturer and chairman of the State Examination Commission in the Sverdlovsk Mining Metallurgical Technicum imeni I.I. Polzunov. He was awarded the Red Star, the Red Labour Banner and a medal for Card1/1 outstanding services during the Second World War.

AVAILABLE: Library of Congress.

AGLITSKIY, V. A.

137-58-5-8757

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 5 (USSR)

AUTHORS: Okunev, A. I., Aglitskiy, V. A.

TITLE: The Distribution of Certain Rare and Dispersed Elements During the Process of Concentration of Copper-zinc Ores of the Ural Region (Raspredeleniye nekotorykh redkikh i rasseyannykh elementov v protsesse obogashcheniya ural'skikh medno-tsinkovykh rud)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 15, pp 14-15

ABSTRACT: In order to establish how the rare and dispersed elements are distributed in the products of concentration, mean monthly samples, taken from plants of the Ural region, were investigated at the Uniipromed' Institute. In the process of concentration, the greater part of the elements S, Fe, Ge, Tl, Se, Te, and others remains in the pyrite concentrates (tailings). Considerable amounts of Cu, Zn, Cd, and other elements are extracted into the same concentrates. For this reason it is essential that pyrite concentrates be subjected to exhaustive processing methods.

A. Sh.

Card 1/1 1. Rare earth elements--Determination 2. Copper-zinc ores--Processing

SMIRNOV, Vasilii Ivanovich; TIKHONOV, Anatoliy Ivanovich; AGLITSKIY, V.A.,
red.; LUCHKO, Yu.V., red. izd-va; ZEP, Ye.M., tekhn. red.

[Roasting of copper ores and concentrates; theory and practice]
Obzhig mednykh rud i kontsentratorov; teoriia i praktika. Sverdlovsk,
Gos. nauchno-tekhn. izd-vo lit-ry po cherno i tsvetnoi metallurgii,
Sverdlovskoe otd-nie, 1958. 284 p. (MIRA 11:9)
(Copper ores)

136-1-6/20

AUTHORS: Babadshan, A.A., Aglitskiy, V.A., Drobchenko, A.T.,
Garenskikh, A.D., Bulatov, V.D., Kondrashov, D.P.,
Medvedev, V.K. and Milyayev, V.L.

TITLE: Treatment of Polymetallic Sulphide Concentrates in a
Converter by Pyrometallurgical Selection (Pererabotka
polimetallicheskih sul'fidnykh kontsentratov v
konvertere metodom pirometallurgicheskoy selektsii)

PERIODICAL: Tsvetnyye Metally, 1958, No.1, pp. 24 - 30 (USSR).

ABSTRACT: The method described for the treatment of copper-zinc
and copper-lead beneficiation products depends on the blowing
of these in a converter with a carbon-air mixture after
preliminary oxidation. The method was adopted at the Kirov-
grad Works after tests in which the following participated:
L.N. Leonov, K.L. Demyak, L.M. Kabanov, Sh.G. Bolgozhin,
P.I. Dochello, G.I. Chermnykh, F.P. Kulenko, N.P. Savchenko,
K.Ya. Shreyber and M.D. Galimov at the Kirovgrad Works and
P.S. Vlasov, M.S. Khamylov, I.S. Reunov and others at the
Karabashskiy Copper Smelting Works (Karabashskiy medenlav-
il'nyy zavod). After briefly mentioning preliminary experi-
ments in 16- and 40-ton converters, the article goes on to
describe the characteristics of the materials used. These
consisted of a wide variety of polymetallic materials with a

Card 1/3

136-1-6/20

Treatment of Polymetallic Sulphide Concentrates in a Converter by Pyrometallurgical Selection

copper and zinc content of 5 - 25% and a sulphur content of over 30%. Difficulties with coal injection were encountered in tests and care had to be exercised in balancing concentrate feed rate with the blowing rate. During the first (melting) stage, the gas is rich in sulphur trioxide, which is neutralised in the second (oxidation) stage by the zinc dust evolved; for the third (reducing) stage, a bath temperature of 1 350 - 1 450 °C is recommended. The article discusses the characteristics of the stages and shows contents of sulphur and zinc against time (Figs. 1, 2 and 3). From a joint study of the full-scale process by the Unipromed' Institute and the Kirovgrad Works, the following were among the main conclusions drawn: the method is practicable for the treatment of copper-zinc and copper-lead-zinc sulphide concentrates to give a dust containing zinc, lead and rare metals; the ratio of previously charged liquid matte to concentrate is 1:2.5-3.0; coal consumption in the reducing period does not exceed 20% of the concentrate weight; melt temperatures should be 1 150 - 1 250 °C in Stage I, 1 200 - 1 400 in II and 1 350 - 1 450 °C in III; complete oxidation is neither practicable nor desirable; the

Card2/3

136-1-6/20

Treatment of Polymetallic Sulphide Concentrates in a Converter by
Pyrometallurgical Selection

air/coal ratio should be such as to give 40% CO₂ and 60% CO in the gas phase; copper contents in the ferruginous slag are 1.5-3%, hence the slag is treated further; 80% of the zinc is trapped in the dust; 80% of the copper is in the crude copper (98.0-98.5% Cu, 0.07% Ni, 0.004-0.02% Sb, 0.002-0.004% Bi; crude dust yield is 11% of the concentrate weight. The present form of the plant layout is shown (Fig.4) and the economic advantages of the process for Kirovgrad-region ores are said to have been confirmed by calculations by the Giprotsvetmet and Unipromed organisations. There are 4 figures and 7 references, of which 6 are Russian and 1 English.

ASSOCIATIONS: Unipromed' and Kirovgrad Coppr Smelting Works
(Kirovgradskiy medeplavil'nyy zavod)

AVAILABLE: Library of Congress
Card 3/3

AGLITSKIY, V.A.

136-58-3-7/ 21

AUTHORS: Babadzhan, A.A., Aglitskiy, V.A., Shreyber, K.Ya., Galimov, M.D. and Shirinkin, N.A.

TITLE: System for feeding coal dust into a converter used for pyroselection (Sistema podachi ugol'noy pyli v konverter dlya protsessa piroseleksi)

PERIODICAL: Tsvetnyye Metally, 1958, Nr.3., pp. 38 - 46 (USSR)

ABSTRACT: The authors describe preliminary investigations at the Kirovgradskiy copper-smelting works before the adoption of its pyroselection method which involves the injection into the converter of coal dust at a fixed rate in relation to the air flow (pressure 0.7 - 1.0 atm. gauge) The initial system involved pressurization of the bunker, but later an atmospheric pressure design, as tested at the Krasnoural'sk copper-smelting works was adopted and incorporated in the full-scale installation commissioned in August 1955. The installation (fig.1.) consists of the following parts, each of which is described and discussed. The pneumatic screw pump has an adjustable speed of revolution and a pump (fig.2.), the latter being based on one made by the Pavshinskiy mechanical works; a KSE-6 compressor supplies compressed air. The air/dust mixture (5-10 kg coal dust per kg air) moves to the converter at 12-15 m/sec. A critical part of the installation is the air and gas distribution system near and in the converter: here a blind-pass collector (fig.4) proposed by N.A. Shirinkin, M.D. Galimov and A.A. Babadzhan, and designed with the

Card 1/2

System for feeding coal dust into a converter used for pyroselection. 136-58-3-7/21

participation of M.D. Galimov, Ye.A. Verkhoturova and B.P. Smorodyakov was found to give even feed to all the tuyeres. An ejector type of tuyere with individual air and air/coal feeds, proposed and designed by M.D. Galimov, A.A. Babadzhan, B.P. Smorodyakov, S.Ya. Musikhin and A.A. Verkholetov was chosen (fig.7). To avoid air losses during tuyere clearing a ring seal designed by S.M. Popov, Engineer, is used. The authors recommend the system described for other processes requiring the injection of coal dusts into a fused mass. There are 7 figures.

AVAILABLE: Library of Congress.

1. Coal dust-Applications
2. Fuels-Control systems

Card 2/2

SOV/136-59-4-6/24

AUTHORS: Aglitskiy, V.A. and Kroneberg, D.A.

TITLE: Organisation of Anode Production from Liquid Blister Copper at Copper Smelting Works in the Sverdlovsk Economic Region (Organizatsiya proizvodstva anodov iz zhidkoy chernovoy medi na medeplavil'nykh zavodakh Sverdlovskogo ekonomicheskogo rayona)

PERIODICAL: Tsvetnyye metally, 1959, Nr 4, pp 26-29 (USSR)

ABSTRACT: At present blister copper produced in the Sverdlovsk economic region goes for refining at the Pyshminskiy med'elektrolitnyy zavod (Pyshma Copper Electrolytic Works) in the form of ingots, where it is remelted, refined and cast into anodes for electrolysis. Although abroad anodes are often produced at the copper smelters, proposals to do so in the USSR (Ref 2,3) have been opposed because of fears that anode quality would deteriorate with decentralised production. The authors point out that, in view of rising copper production, the Sverdlovsk economic region must consider the adoption of decentralised anode production and point out the comparative economic and technical disadvantages of the existing system. For example, they show that a

Card 1/2

SOV/136-59-4-6/24

Organisation of Anode Production from Liquid Blister Copper at
Copper Smelting Works in the Sverdlovsk Economic Region

refining furnace working a cold charge has a fuel consumption of about 108 kg/tonne, while the figure for one using molten copper is 39 kg/tonne. The authors suggest that anode production should be organised first at the Krasnoural'skiy medeplavil'nyy zavod (Krasnoural'sk copper smelting works) where no difficulties are anticipated. The Sredneural'skiy (Sredneural'sk) works are also suitable but for the Kirovgradskiy (Kirovgrad) works where space is short and impurities difficult to remove are present in the copper, further planning investigation is necessary. There are 4 references, 3 of which are Soviet and 1 English.

Card 2/2

AUTHOR: Aglitskiy, V. et al.

SOV/136-59-6-17/24

TITLE: Veniamin Alekseyevich Ustalov (1906 - 1959)

PERIODICAL: Tsvetnyye metally, 1959, Nr 6, pp 86 - 87 (USSR)

ABSTRACT: On March 19, 1959, after a short serious illness, V.A. Ustalov passed away. He was born in 1906 in Cherdyn'. In 1930, on completion of the Ural Polytechnical Institute, he played an active part in industry. He was chief engineer of the project for the erection of one of the largest copper works in the Soviet Union, the Sredneural'skiy medeplavil'nyy kombinat (Sredneural'sk Copper-smelting Combine). From 1942 to 1957, he worked as chief engineer of the experimental institute, Unipromed'. After reorganisation in 1957, he headed the experimental organisation of the Sverdlovsk Sovnarkhoz. He possessed great creative energy, was a hard-working engineer and a

Card 1/2

Veniamin Alekseyevich Ustalov (1906 - 1959)

SOV/136-59-6-17/24

modest man. He worked ceaselessly for non-ferrous
metallurgy in the Urals.
There is 1 figure.

Card 2/2

5(4),10(4)
AUTHORS:

Devvatykh, G. G., Agliulov, B. Kh.,
Prolov, I. A.

SOV/76-33-1-27/15

TITLE:

The Influence of the Velocity of the Distillate Withdrawal on the Separating Efficiency of Rectification Columns (Vliyaniye skorosti otbora destillyata na razdelitel'nyu sposobnost' rektifikatsionnykh kolonn)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 1, pp 161-164 (USSR)

ABSTRACT:

In this investigation Cohen's theory (Koen)(Ref 1) is tested experimentally. The function between the withdrawal quantity and the concentration of the component under consideration in the withdrawal was investigated, starting from the assumption that the velocity of the substance exchange of the phases depends on the difference of the equilibrium concentration and the current concentration of the component under consideration. The conditions of a rectification column without withdrawal (Fig 1) were explained by using Cohen's material balance equation; likewise, the conditions of a column with withdrawal were explained. The equations deduced were verified at a distillation with various withdrawals of a

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The Influence of the Velocity of the Distillate SOV/76-33-1-27/45
Withdrawal on the Separating Efficiency of Rectification Columns

benzene-diethane chloride mixture on two rectification columns with the effect of 35 theoretic plates. A description of the column and dimension data are given. The analyses were carried out by means of an Abbé-refractometer. Six series of tests were carried out (Figs 2, 3). The experimental data obtained correspond to those obtained from the equation deduced. Cohen's equation, however, shows lower values of the allowed withdrawal velocity. There are 3 figures and 2 references.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet
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FRIDOV, I.A.; AGLUBOV, N.A.; LEVYATIKH, G.G.

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Determination of the liquid - vapor equilibrium in the binary systems
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