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ACC NR: AT6034614

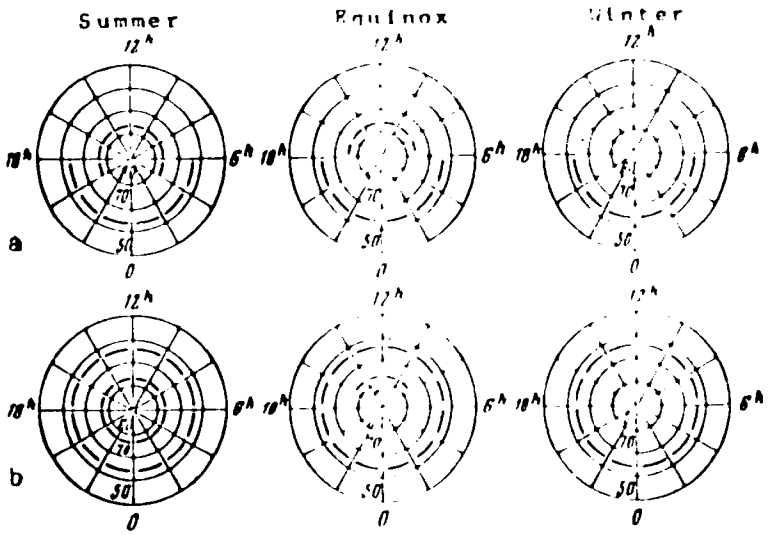

Fig. 1. Positions of latitude zones with maximum magnetic activity in 1954—1959.

a)- Quiet days; b)- disturbed days.

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ACC NR: AT6034614

equivalent amplitude can be computed using appropriate formulas. The maximum of the mean diurnal activity on disturbed days in summer occurs between the 63rd and 65th and near the 78th parallels. During winter and the equinoxes the maximum appears in the lower latitudes. No maximum appears at the 78th parallel. This distribution holds for the local-time component. The distribution of the maxima is shown in Fig. 1. On disturbed days the maximum activity in the first zone occurs at every hour of the day and night regardless of the season. In the second zone a sharp maximum appears in summer during daylight hours and a weak one in winter and the equinoxes. Both zones are divided by a wide zone of low activity. On quiet days in summer, the maximum activity is predominant in the second zone. Activity zones can be characterized in two ways: maxima distributed by latitude and by the diurnal rate of activity. The first results in annular zones and the second in spirals. Orig. art. has: 4 figures, 1 table, and 5 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 002

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

ACC NR: AT6034615 SOURCE CODE: UR/3148/66/000/008/0102/0104

AUTHOR: Mishin, V. M.

ORG: none

TITLE: On the distribution of geomagnetic disturbances in space and time

SOURCE: AN SSSR. Mezhduvedomstvennyy geofizicheskiy komitet. III razdel programmy MGG (Geomagnetizm i zemnyye toki). Sbornik statey, no. 8, 1966. Geomagnitnyye issledovaniya (Geomagnetic research), 102-104

TOPIC TAGS: magnetic activity, universal time, geomagnetic latitude, local time component, ~~magnetic equator auroral zone~~, ionospheric conductivity, geomagnetic disturbance

ABSTRACT: Magnetic activity R at a moment t in universal time is a function of two arguments: the geomagnetic latitude and the time. It can be expressed in the form $R = R(\vartheta, t)$. The partial derivative $\partial R/\partial t$ determines the distribution of maxima of the local time component of the diurnal rate of magnetic activity. Maxima of the first harmonic of this function represent geometric places of points arranged in spirals. The addition of the second, third, and higher harmonics

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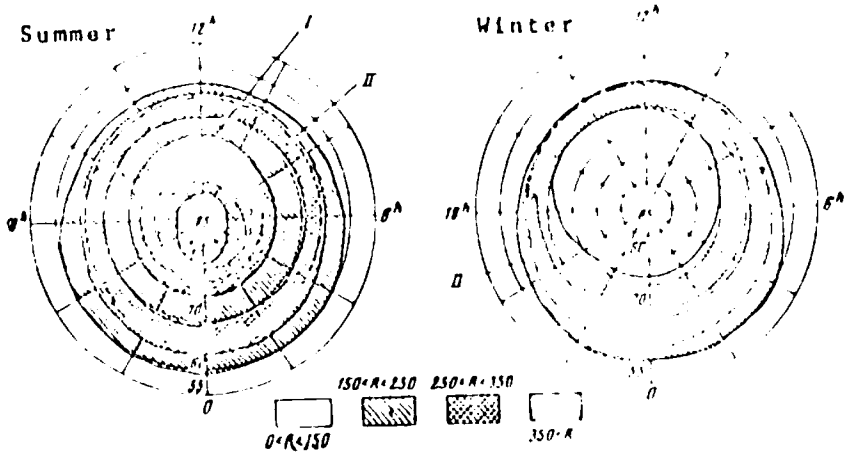

Fig. 1. Belts of equal magnetic disturbances.

yields a set of spirals. The partial derivative $\partial R/\partial \phi = 0$ determines the distribution of maxima of magnetic activity concerned with the geomagnetic latitude. Fig. 1 shows this distribution in belts depending upon the intensity of magnetic activity. There are three zones of magnetic activity. Zone I lies near the 78th parallel of geomagnetic latitude; zone II is near the 66th parallel; and zone III lies near

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the magnetic equator (not shown in Fig. 1.). In zones I and III the wave of diurnal variations with a noon maximum is predominant. There art two systems of disturbed magnetic currents with maxima in the auroral and equatorial zones which are near zones II and III. Zones of maximum conductivity in the ionosphere coincide with zones I and II. The maximum conductivity in zone II is on the midnight side and in zone I on the daytime side. Orig. art. has: 2 figures and 2 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 003

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

ACC NR: AT6034608 SOURCE CODE: UR/3148/66/000/008/0023/0030

AUTHOR: Mishin, V. M.; Bazarzhapov, A. D.

ORG: none

TITLE: Selection of a spectrum of Legendre polynomials approximating an observed S_q-field

SOURCE: AN SSSR. Mezhduvedomstvennyy geofizicheskiy komitet. III razdel programmy MGG (Geomagnetizm i zemnyye toki). Sbornik statey, no. 8, 1966. Geomagnitnyye issledovaniya (Geomagnetic research), 23-30

TOPIC TAGS: orthogonal function, conditional equation, function spectrum, approximate function, geomagnetic field, spheric harmonic, Legendre polynomial

ABSTRACT: A function valid for an interval of values [a, b] can be expressed by the formula

$$Y(x) = \sum_{k=1}^{\infty} d_k G_k(x),$$

where $G_k(x)$ is an orthogonal function of the form

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$$\int_a^b G_m(x) \cdot G_k(x)\, dx = 0$$

when $m \neq k$. This function is given as the result of measurements obtained in a station network consisting of irregularly spaced N stations. The problem of measured results can be solved by the method of least squares if the quadratic difference of the function given and the measured results have a minimum in the system of conditional equations. Coefficients d_k obtained solving the system of equations contain errors which depend upon the spectrum of $G_k(x)$ functions. When the $G_k(x)$ functions in the system are not orthogonal, they can be transformed into orthogonal by auxiliary functions in which the coefficients d_k are substituted for a_k. The accuracy of the coefficient a_k is analyzed for the whole station network and a part of the R stations. The optimal spectrum of approximate functions is obtained when the ratio $|\delta a_k/a_k| < 1$. This condition of approximate functions is applied for determining the approximate geomagnetic field during a quiet sun. Results of measurements of components of the geomagnetic field potential are expressed by sums of spherical harmonics completed with Legendre polynomials. The system of these equations is transformed into a system containing coefficients and

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other orthogonal functions. Analysis of the new system showed that the error of coefficients a_k increases with the increase of the number of stations, and the ratio $\Delta a_k/a_k$ becomes constant after k continues to grow. Orig. art. has: 1 table, 1 figure, and 36 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

ACC NR: AT6034611 SOURCE CODE: UR/3148/66/000/008/0063/0081

AUTHOR: Bazarzhapov, A. D.; Mishin, V. M.; Nemtsova, E. I.; Troshichev, O. A.

ORG: none

TITLE: Diurnal rate of magnetic activity during the IGY

SOURCE: AN SSSR. Mezhduvedomstvennyy geofizicheskiy komitet. III razdel programmy MGG (Geomagnetizm i zemnyye toki). Sbornik statey, no. 8, 1966. Geomagnitnyye issledovaniya (Geomagnetic research), 63-81

TOPIC TAGS: magnetic activity, geomagnetic index, current system, magnetic field, solar zenithal distance, universal time component, local time component, auroral zone, GEOMAGNETISM, geomagnetic disturbance

ABSTRACT: The diurnal rate of geomagnetic activity on perturbed days in 1957—1959 is studied using geomagnetic indices K of 92 observatories which followed the program of the IGY. The study is limited to the diurnal wave of geomagnetic variations and related to local time and universal time. Analysis of the diurnal wave of magnetic variations yielded the following results: 1) The first harmonic of the diurnal wave of equivalent amplitudes of magnetic activity on perturbed

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days is of the fundamental value. 2) Diurnal variations of magnetic activity can be related to both local and universal time. The component of universal time plays an important role in geomagnetic activity of perturbed days at all latitudes. 3) Variations of the component of local time by latitude and season can be represented as a superposition of two waves with maxima at noon and midnight. Phases of these waves do not change with latitude. These waves are analogous to the current system of a disturbed magnetic field. The error amplitude of the local time component attains a maximum at two geomagnetic zones: $\phi = 63°—67°$ and $\phi \approx 78°$. 4) The superposed waves are physically different. The level of disturbances is proportional to the square root of the cosine of the zenithal distance of the sun. The wave with a maximum at noon is predominant in equatorial and polar regions, and the wave with a maximum at midnight is predominant in the zone $\phi = 63°—67°$. 5) The component of the universal time of variations consists of two parts, the symmetric and asymmetric, which differ from each other physically. The asymmetric part of the universal time component changes in phase by π in the transition from winter to summer of all latitudes. The error amplitude of the asymmetric part changes with latitude. The amplitude is near zero at middle latitudes and increases toward the auroral zone, being maximum at $\phi = 78°$. The phase of the symmetric part of the universal time component is constant during the year, and the error

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amplitude of this part varies with the latitude like the change of the current system of the disturbed field. 6) The asymmetric part of the universal time component characterizes the magnetic activity during the rotation of the geomagnetic dipole and the distribution of the ionospheric conductivity. The symmetric part characterizes the dependence of the current system upon the eccentric rotation of the dipole. The authors thank V. S. Chesnokova for her help. Orig. art. has: 2 tables, 9 figures, and 32 formulas.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 024/ OTH REF: 009

Card 3/3

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

ACC NR: AT7002202 SOURCE CODE: UR/0203/66/006/006/1114/1116

AUTHOR: Korsunova, L. P.; Mishin, V. M.; Ivanov-Kholodnyy, G.S. Kazachevskaya, T.B.-Kazachevskaya, T.V.

ORG: Institute of Terrestrial Magnetism, Ionosphere, and Radio Wave Propagation, SO AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovaln SO AN SSSR). Applied Physico Institute, GUGMS (Institut prikladnoy fiziky GUGMS)

TITLE: Relationship between the electron concentration at altitudes of 100 and 110 km and disturbances in the Earth's magnetic field

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 6, 1966, 1114-1116

TOPIC TAGS: ionosphere, ionospheric electron density, earth magnetic field

ABSTRACT: The effect of magnetic activity on electron concentration n_e at altitudes of 100 and 110 km in the lower region of the E layer was investigated. Values of n_e were taken during 36 rocket-borne experiments conducted in the period 1947—1963 at middle latitudes. The degree of disturbance of the Earth's magnetic field was estimated from 3-hour values of K-indices. It was found that the electron concentration at midlatitudes increased as

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magnetic activity increased (i.e., for K = 3—5 the electron concentration increased not less than 1.5 times at 110 km, and not less than 2 times at 100 km. It is postulated that for K73 corpuscular streams have an appreciable effect on electron concentration in the lower regions of the ionospheric E layer at midlatitudes. [WA-03]

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ATD PRESS: 5113

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MISHIN, V.M.

Answer to M.S. Bobrov's objection to our remarks concerning his article "Overall planetary picture of magnetic disturbances of corpuscular origin." Geomag. i aer. 2 no.5:1012 S-O '62. (MIRA 15:10

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln Sibirskogo otdeleniya AN SSSR.
(Magnetic storms)

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MISHIN, V.N., gornyy inzh.

Mining 261 running meters of crosscuts monthly. Ugol' Ukr. 6 no.5:30 My '62. (MIRA 15:11)
(Donets Basin—Coal mines and mining—Labor productivity)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHIN, V. P.

Temperature coefficient of adsorption from solutions. I. V. P. Mishin and A. N. Karpov. *Colloid J.* (U. S. S. R.) 2, 305-15(1936). Adsorption isotherms are given for Ca glycerophosphate (I) at 0°, 26°, 50° and 75° and for Ca butyrate (II) at 0-50° and 75° on birch charcoal activated by boiling in dil. HCl for 5 days, and heating at 150°. I has a pos. and II a neg. temp. coeff. as shown by the table. For I the adsorption ratios are about 1:12:

	Ca glycerophosphate				Ca butyrate		
C	7.50	13.75	17.00	23.75	10.0	15.0	25.0
0°	2.49	3.10	3.32	3.67	12.1	16.1	21.0
26°	3.07	3.70	3.95	4.32			
50°	3.52	4.17	4.42	4.84	10.5	13.7	19.6
75°	4.00	4.75	5.05	5.46	9.2	12.5	18.0

1:35:1.5 and for II 1:0.0:9.0:8. II. V. P. Mishin and E. F. Polochanskaya. *Ibid.* 317-22. Dipropylmalonic ester was obtained by boiling 11.6 g. Na in alc. with 41.5 g. malonic ester and then with 113 g. PrI or 81.7 g. PrBr 2 hrs. was used for each. Alc. was boiled off and the aq. soln. extd. with ether, dried and distd. giving 21 g. of ether b. 248-50°. Dipropylmalonic acid was obtained by hydrolysis of 21 g. of the ester by 27 g. KOH in 340 g. alc. boiled for 3 hrs. The aq. soln. was acidified, extd. with ether and crystd. from $CHCl_3$. Dipropylacetic acid was obtained from the malonic acid by heating at 180-200°. The yield of Ca salt obtained was 9.5 g. The adsorption isotherms of Ca dipropylacetate were measured at 26.5°, 50° and 75° on birch charcoal by detn. of the salt left in soln. The ratios of the adsorptions for all concns. at these temps. are about 1:1.2:1.3:1.4. E. H. R.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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MISHIN, V.P.

2

The effect of anions on the coagulation of hydrosol of arsenious sulfide. I. V. P. Mishin and V. P. Faldyuh. *Colloid J.* (U. S. S. R.) 6, 711-15(1940).—The anions of fatty acids (formate, acetate, propionate and butyrate) stabilize As_2S_3 sol, increasingly with the length of the hydrocarbon chain of the anion, and with increase of anion concn. up to 20 millimol. per L.; further increase in concn. decreases the stabilizing effect. A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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MISHIN, V.P.

1

Differential thermograms of silk fibroin. V. P. Mishin and A. I. Garbuzov (1st Moscow Med. Inst.). Biokhimiya 19, 565-9(1954).—The differential thermograms of silk fibroin and of natural silk exhibit two endothermic peaks one of which is of a lower temp., is reversible, and is assocd. with the loss of sorption H_2O by the fibers; the other is of a high temp., is not reversible, and results from the loss of the fibroin cryst. structure. The thermographic method can be applied in the identification of fibroins of the mulberry and oak silkworms. A lower temp. limit has been established for drying threads of fibroin or strands of silk in the detn. of hygroscopic moisture. B. S. Levine

— Chem Gen. Chem

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USSR/Physical Chemistry - Colloid Chemistry, Dispersion Systems. B-14

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 4048.

Author : V.P. Mishin, N.D. Verderevskaya.
Inst : —
Title : Temperature Influence on Magnitude and Speed of Agar Swelling.

Orig Pub: Kolloidn. zh., 1957, 19, No 4, 472-477.

Abstract: The dependence of the magnitude and speed of agar swelling (S) in water and solutions of salts of the lyotropic series on the temperature T was studied using an automatically recording instrument. If the S process was not complicated with dissolution, the magnitude of S rises with T; in the opposite case, the polytherm $\Delta V_{\infty} = f(T)$ passes through a maximum, which is shifting to the side of lower T at a transition to media, in which the temperature factor of solubility of the swelling substance increases progressively. The speed of S

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USSR/Physical Chemistry - Colloid Chemistry, Dispersion Systems. B-14

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 4048.

increases insignificantly with the T rise; the temperature factor of the S speed is close to one and does not depend on the nature of the liquid and the temperature range.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHIN, V.F.; VERDEREVSKIY, N.D.

Swelling of high molecular weight substances. Uch.zap. MOPI 84:169-180 '59. (MIRA 14:9)
(Macromolecular compounds)

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MISH V P

PHASE I BOOK EXPLOITATION SOV/2288

Garbuzov, Andrey Ignat'yevich, Vasiliy Porfir'yevich Mishin, and Vera Karlovna Tile

Kachestvennyy khimicheskiy polumikroanaliz (Chemical Qualitative Semimicroanalysis) Moscow, Medgiz, 1960. 230 p. 20,000 copies printed.

Ed.: M.N. Kuvshinskiy; Tech. Ed.: N.K. Zuyeva.

PURPOSE: This book is intended for students of chemical analysis at medical schools and institutes for stomatology.

COVERAGE: The textbook, which reflects the academic program in qualitative semimicroanalysis outlined by the General Chemistry Department of the First Moscow Order of Lenin Medical Institute imeni I.M. Sechenov, covers the theory of qualitative semimicro determination of the chemical elements or compounds constituting a substance or mixture of substances. Both chemical and physicochemical methods are discussed. The first is based on "analytical reactions" (characteristic reactions) of certain reagents while the second is based on the physical characteristics of the determined substance, e.g., absorption spectra, shape and color of crystals, the nature of luminescence under ultraviolet light, melting point, capacity for adsorption on various adsorbents, etc. The textbook also reviews chemical methods of analyzing inorganic substances. The authors thank Professor Ya.S. Przheborovskiy and N.D. Verderevskaya for assist-

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Chemical Qualitative Semimicroanalysis

anco. There are 39 figures and 4 tables. There are no references.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHIN, Vasiliy Porfir'yevich, dots.; PRZHEBOROVSKIY, Yaroslav Stepanovich, prof.; GUBAREV, I.D., red.; YAROSLAVTSEV, I.I., tekhn. red.

[Practical work in physical and colloid chemistry for the students of medical and stomatological institutes] Praktikum po fizicheskoi i kolloidnoi khimii; dlia studentov meditsinskikh i stomatologicheskikh institutov. Moskva, 1-i Mosk. med. in-t im. I.M.Sechenova, 1961. 52 p. (MIRA 15:1)
(CHEMISTRY, PHYSICAL AND THEORETICAL—LABORATORY MANUALS)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHIN, V.P.

"Quantitative chemical analysis for use in chemical and pharmaceutical laboratories" by W.Autenrieth; 10th edition by Keller. Reviewed by V.P. Mishin. Vop. med. khim. 7 no. 1:107 Ja-F '61. (MIRA 14:4)

(CHEMISTRY, ANALYTICAL—QUANTITATIVE)
(AUTENRIETH, W.) (KELLER)

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Appazov, Refat Fazilovich; Lavrov, Svyatoslav Sergeyevich; Mishin, Vasiliy Pavlovich

Ballistics of long-range guided rockets (Ballistika upravlyayemykh raket dal'nego deystviya) Moscow, Izd-vo "Nauka", 1966. 306 p. illus., biblio. 7000 copies printed.

TOPIC TAGS: ballistic missile, ballistics, ballistic trajectory

PURPOSE AND COVERAGE: This book serves as an introduction to the study of the ballistics of long-range missiles. It discusses flight theory and methods of calculating trajectories. The author expresses appreciation to P. P. Karsulov, S. S. Rozanov, and M. S. Florianskiy for their assistance in preparing various paragraphs of the book. There are 13 references, all Soviet.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

ACC NR: AM6021064

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SUB CODE: 16/ SUBM DATE: 21Feb66/ ORIG REF: 013/

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MEL'NIKOV, V.V.; MISHIN, V.S.

Method of measuring the velocity of blood flow in man. Fiziol. zhur. 46 no.10:1293-1295 O '60. (MIRA 13:1)

1. Kafedra fiziologii Meditsinskogo instituta, Khabarovsk.
(BLOOD—CIRCULATION)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHIN, V.V., inzh.

Breaking the longwall face by means of blast hole holes. [illegible]
5 no.7:22-24 Jl '61.

1. Dnepropetrovskiy gornyy institut.
(Blasting) (Coal mines and mining)

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MISHIN, V. V.

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PHASE I BOOK EXPLOITATION

Assonov, V. A., and L. A. Paporotskiy, Resp. Eds.

Novoye v sredstvakh i sposobakh vzryvaniya (New Developments in Blasting Means and Methods). Moscow, Gosgortekhizdat, 1962. 124 p. (Series: Vzryvnoye delo; Sbornik no. 48/5) Errata slip inserted. 3000 copies printed.

Sponsoring Agency: Nauchno-tekhnicheskoye gornoye obshchestvo.

Ed. of Publishing House: A. Ya. Koston'yan; Tech. Eds.: L. I. Minsker and G. M. Il'inskaya.

PURPOSE: The book is intended for mining engineers, workers in scientific research and planning organizations, and also for teachers and students of mining and technical schools.

COVERAGE: This collection of articles describes new blasting means and methods, means of protecting electric detonators from stray currents, and improved methods of short-delay detonation.

Card 1/6

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3

New Developments in Blasting Means (Cont.) SOV/6098

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MISHIN, V.V., inzh.

Blast effect on interchamber pillars and roofs. Izv.vys.ucheb.zav.; gor.zhur. 5 no.9:34-36 '62. (MIRA 15:11)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema. Rekomendovana kafedroy shakhtnogo stroitel'stva.
(Artemovsk region--Blasting)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHIN, V.V., gornyy inzh.

State of strain in pillars and blocks of untouched ore caused by the action of blasting. Gor. zhur. no.6:40-42 Je '62. (MIRA 15:11)

1. Dnepropetrovskiy gornyy institut.
(Blasting)
(Strains and stresses)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

GAYEK, Yu.V., inzh.; DRUKOVANYY, M.F., kand.tekhn.nauk; MASLEN, V.V., inzh.

Effect of blasting operations on the stability of mine workings and the amount of excess broken rock in driving them. Shakht. stroi. 6 no.7:6-7 Jl '62. (MIRA 15:7)

1. Dnepropetrovskiy gornyy institut.
(Blasting)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

GAYEK, Yu.V.; DRUKOVANY, M.F.; MISHIN, V.V.

Mechanism of rock destruction and calculation of delay intervals in mining operations. Ugol' 37 no.7:22-25 Jl '62. (MIRA 15.7)

1. Dnepropetrovskiy gornyy institut.
(Blasting)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

GAYEK, Yu.V.; DRUKCVANNYY, M.F.; MISHIN, V.V.

Proximity coefficient of charges. Vzryv. delo no.48/5:113-122 '62. (MIRA 15:9)

1. Dnepropetrovskiy gornyy institut.
(Blasting)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

DRUKOVANYY, [illegible]F., kand.tekhn.nauk; MI[illegible], V.V., inzh.; [illegible], Yu.V., inzh.

Shattering of rocks in instantaneous and short-delay firing. Vzryv. delo no.50/7:31-44 '6[illegible]. (MIRA 15:[illegible])

1. Dn[illegible]propetrovskiy gornyy institut imeni Art[illegible]ma. (Blasting)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

DRUKOVANYY, M.F., kand.tekhn.nauk; GAYEK, Yu.V., inzh.; MIS[illegible], V.V.

Effect of fracturing on the nature of rock shattering by blasting. Vzryv. delo no.5[illegible] :98-1[illegible] [illegible]. (MIRA 15:[illegible])

1. Dnepropetrovskiy gornyy institut im. Artema.
(Blasting) (Rocks)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

BELAYENKO, F.A., prof., doktor tekhn. nauk[deceased]; GAYEK, Yu.V., kand. tekhn. nauk; MISHIN, V.V., kand. tekhn. nauk

Study of stress fields in breaking rocks with column charges. Vzryv. delo no.51/8:77-85 '63. (MIRA 16:6)

1. Dnepropetrovskiy gornyy institut.
(Blasting) (Strains and stresses)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

GAYEK, Yu.V., kand. tekhn. nauk; DRUKOVANYY, M.F., kand. tekhn. nauk; MISHIN, V.V., kand. tekhn. nauk

Speed of the development of fractures in rocks and solid bodies and methods of measuring it. Vzryv. delo no.51/8:85-96 '63.

1. Dnepropetrovskiy gornyy institut.
(Blasting)

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[illegible]AVIN [illegible]A. [illegible] [illegible], M[illegible] HIN, V [illegible], [illegible] [illegible].

[illegible]alculating blasting [illegible] in determining the parameters [illegible] the chamber system [illegible] mining. [illegible]

1. Dnepropetr vskiy [illegible] institut.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

AUTHORS: Shchukarev S.A., Yakimov M.A. Mishin, V.Ya. 78-3-7-34/44

TITLE: Investigation of the Solubility in the System $CsNO_3$-HNO_3-H_2O at 25° (Issledovaniye rastvorimosti v sisteme $CsNO_3$-HNO_3-H_2O pri 25°)

PERIODICAL: Zhurnal neorganicheskoy khimii. 1958. Vol 3. Nr 7. pp 1661-1664 (USSR)

ABSTRACT. Investigations of the solubility of cesium in a nitric acid solution by means of radiometric methods were carried out by the application of radioactive cesium Cs^{134}.
Determination of solubility was carried out at 25 ± 0.05° C in the course of 3.5-4 hours.
In a concentrated nitric acid solution (d_4^{15} - 1.43-1.50) the acid salt [illegible] with a composition of $CsNO_3.HNO_3$.
The stability of this acid salt is between 0 and 50° C. With an increase of temperature the quantity of this salt decreases. From a 96% nitric acid solution the compound $CsNO_3 \cdot HNO_3$ is formed at low temperatures. There are 2 figures, 3 tables and 7 references, 2 of which are Soviet.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

Investigation of the Solubility in the System $CaNO_3$-HNO_3-H_2O [illegible] 78-3-7-34/44

SUBMITTED: June 8 1957

1. Cesium- Solubility [illegible] Nitrate [illegible] Solvent [illegible] Cesium compounds--Analysis [illegible] and [illegible] --Applications

Card 2/2

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

21(8)

AUTHORS: Guldamashvili, A. I., Dmitriyev, P. P. SOV/89-5-6-[illegible]
Krasnov, N. N., Mishin, V. Ya.,
Khaprov, Ye. N.

TITLE: The Production of the Isotope As^{74} by Means of a Cyclotron (Polucheniye izotopa As^{74} na tsiklotrone

PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 6, pp 560 - 561 (USSR)

ABSTRACT: As^{74} was obtained by the irradiation of metallic germanium with the external 10.8 MeV deuteron beam of the cyclotron (Ref 5).
The characteristic feature of the target was the fact that the cooling water immediately reached the inner surface of the irradiated germanium plate. The germanium plate was cast in a vacuum and was then ground to the dimensions 170.40.4 mm. The deuteron beam (60-70 μA) is limited by a shutter so that only a surface of 150.25 mm^2 of the germanium was irradiated. The water consumption was 5 l/m.
Chemical separation was carried out as follows: After the irradiated sample had been boiled twice (for 15 to 20 minutes) in aqua regis, about 97-98 % of the activity had dissolved.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

The Production of the Isotope As^{74} by Means of a Cyclotron SOV/89-5-5-[illegible]

The solution was steamed-in and extracted with 11 n HCl (method according to reference 9). The arsenic carrier used weighed 50 μg. Concentration of the arsenic isotope was carried out by the Marsh method (arsenic hydride). The two preparations, which were enclosed in an ampoule of 0,6 cm^3, had an initial activity of 60 mC. The As^{74} activity was measured by comparison with a Co^{60} source by means of the micro roentgenometer of the type "Kaktus" 30 days after irradiation. The total yield obtained by the formation of As^{74} was: 25 μC/μA.h± 15 %. The half time was: $T_{1/2}$= 18,4±0,4 d.

Professor B. S. Dzhelepov, I. P. Selinov, and Ye. Ye. Baroni interested themselves in this work. M. Z. Maksimov calculated the yield curve. Yu. A. Bliodze and I. I. Zhivotovskiy assisted in carrying out experiments. There are 2 figures and 10 references, 3 of which are Soviet.

Card 2/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

The Production of the Isotope As^{74} by Means of a Cyclotron

SOV/[illegible]

SUBMITTED: September 13, 1958

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APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

AUTHORS: [illegible], Ye. P., Dzhelepov, B. S., [illegible], [illegible], Ya., Prikhodtseva, V. P., [illegible], [illegible], Ye.

TITLE: Radiation From As^{74} (Izlucheniye As^{74})

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya [illegible] Vol. [illegible], Nr [illegible], pp. 831-838 (USSR)

ABSTRACT: In December [illegible] the authors obtained a radiochemical [illegible] preparation of As^{74} (~4 mCi) with a good specific activity. The characteristic features of this decay were examined and precisely determined. First the production of the preparation is described. This As^{74} was produced by a bombardment of germanium with deuterons with an energy of 10,8 MeV. The results of the investigation [illegible] and β^--spectra are [illegible]. It is proved that the ground state of As^{74} is of an 2^--type. After the "bypass" [illegible] spectra had been subtracted the [illegible] the [illegible] of both [illegible] to be [illegible]. In the back-ground [illegible] the β^--spectrum the K- and [illegible] conversion-lines of the transitions of [illegible] and [illegible] keV are clearly marked. The K-[illegible] line is, without [illegible]

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a transition of the type $2^+ \longrightarrow 0^+$. With the $h\nu$ = [illegible] keV transition, which [illegible] connected with the positron [illegible] ditions are more complicated, as the proportion of the K-[illegible] ture must be known in order to be able to determine a_K. Two methods for the determination of a_K are given. The spectrum of the γ-radiation of As^{74} was investigated by means of the recoil electrons. The relative intensity of three γ-lines was investigated with an equipment of a better resolution: The [illegible] line, at $h\nu$ = 586- and the 635 keV line. With the help of an equipment of a lower resolution, but of a [illegible] intensity amplified by the hundredfold, [illegible] attempted to find harder γ-lines in the radiation of As^{74}. The decay energy in the transmutation from $As^{74} \longrightarrow Ge^{74}$ gives rise to the assumption that the levels of Ge^{74} are excited up to those of 2500 keV. Actually in the spectral range of 1200 keV a pronounced superelevation of the counting rate above the [illegible] background connected with the softer lines was observed. The intensity of this line is smaller by a factor of 22[illegible] than that of the annihilation line. It is [illegible] that in Ge^{74} the second level of excitation probably has an energy of 1207 keV. If this is true, it should be [illegible] that a transition from the second level to the [illegible]

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about [illegible]00 keV exists and that this level forms a [illegible] the [illegible] keV line. The ramifications in the decay scheme of As^{74} are investigated. In the last chapter some remarks concerning the individual levels are given. As regards the [illegible] version of the transition at ΔE = [illegible]6,3 keV of Ge^{74} it is shown that in this transition the ratio is K/L = [illegible] In the investigation of the ratio K/β^+ in the As^{74} decay to the level at [illegible]6,3 keV of Ge^{74} it is shown that the ratio K/β^+ for this transition is normal. The level at [illegible]00 keV of Ge^{74} is probably a second vibration level with the characteristic 2^+. The second excited level of Ge^{74} is probably near 1300 keV and is of the type 2^+.

[illegible] M. Isayev, I. F. Selinov, Ye. Ye. Baroni, Ye. N. [illegible] and their team collaborated in the work. There are [illegible] figures, [illegible] tables, and 1[illegible] references, 8 of which are Soviet.

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TITLE

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ABSTRACT

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Conversion Electron Spectrum of As [illegible]

[illegible] of the [illegible] K, L and [illegible] permit [illegible] exclude all types except M2. The authors investigated the [illegible] offered in the selection of the [illegible] of the [illegible] The [illegible] the [illegible] The [illegible] Mayer which [illegible] with [illegible] A and [illegible] [illegible] keV [illegible] was [illegible] keV [illegible] for the [illegible] keV [illegible] The existence of 2 [illegible] As [illegible] and As [illegible] [illegible] relative

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

Conversion Electron Spectrum of As[illegible] [illegible]

amounts during measurement and to compute the ratio of their yields in the nuclear reaction. The authors expressed their gratitude to B.M.Isayev, I...Se[illegible]v, Ye.Ye. Baroni and Ye.N.Kha[illegible]v. There are [illegible] figures, [illegible] and [illegible] references, [illegible] which are Soviet.

ASSOCIATION: Na[illegible] [illegible] Leningrad[illegible] [illegible] (Scientific Research Institute [illegible] at the Leningrad State [illegible] A.A.Zh[illegible]

Card 3

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S/078/63/008/001/021/026
B189/B101

AUTHORS: Yakimov, M. A., Mishin, V. Ya.

TITLE: Solubility in the system $CsNO_3$ - HNO_3 - H_2O at temperatures of 0, 35, and 50°C

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 8, no. 1, 1963, 226 - 230

TEXT: Mixtures of $CsNO_3$ - HNO_3 - H_2O were prepared in different concentrations at 0, 35, and 50°C and analyzed according to Schreinemakers. Analogous studies were carried out at 25°C to define previous data more exactly. The results were used to plot the solubility isotherms (Fig. 1). In view of the cesium ion being able to reduce HNO_3 dissociation, and of HNO_3 tending towards polymerization, the formula $Cs[HNO_3 \cdot NO_3]$ is suggested for the solvate $CsNO_3 \cdot HNO_3$, and $Cs[(HNO_3)_2 \cdot NO_3]$ for $CsNO_3 \cdot 2HNO_3$. The formation of complexes having the form $M[HNO_3 \cdot NO_3]$ and $M[(HNO_3)_2 \cdot NO_3]$ is discussed. There are 2 figures and 1 table.

SUBMITTED: March 23, 1962

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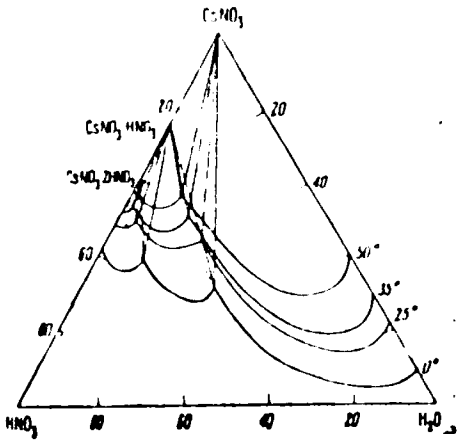
S/078/63/008/001/021/026
B189/B101

Solubility in the system...

Fig. 1. Solubility isotherms of the system $CsNO_3$-HNO_3-H_2O at 0, 25, 35, and 50°C. (The compositions of the solutions are expressed in % by weight).



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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

YAKIMOV, M.A.; MISHIN, V.Ya.; GOLOVA, L.F.

Solubility in the system $TlNO_4$ - HNO_3 - H_2O at 0 and 25°C.
Zhur. neorg. khim. 8 no.6:1470-1472 Je '63. (MIRA 16:6)

(Thallium nitrate) (Nitric acid)
(Solubility)

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ACCESSION NR: AP4043853 S/0186/64/006/004/0454/0459

4
B

AUTHOR: Yakimov, M. A.; Mishin, V. Ya.

TITLE: A study of heterogeneous equilibria in the ternary system uranyl nitrate - nitric acid - water. Part I. Solubility isotherms of the system uranyl nitrate - nitric acid - water at 25, 35 and 50C

SOURCE: Radiokhimiya, v. 6, no. 4, 1964, 454-459

TOPIC TAGS: heterogeneous equilibrium, solubility isotherm, uranyl nitrate, nitric acid solution, uranyl nitrate disolvate

ABSTRACT: The isothermal method was used to study the solubility of uranyl nitrate in nitric acid solutions at 25, 35 and 50C. In this study, uranyl nitrate was determined gravimetrically in the usual way (precipitation of ammonium diuranate which yields uranium oxides on heating), nitric acid was determined by titration with NaOH after binding the U with ammonium oxalate, and water was determined by difference. The solubility isotherms constructed for these 3 temperatures (see Fig. 1 of the Enclosure) consist of 4 branches, corresponding to the solubility of

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ACCESSION NR: AP4043853

uranyl nitrate hexahydrate, trihydrate, dihydrate and disolvate ($UO_2(NO_3)_2 \cdot 2HNO_3$) respectively. The latter compound, which has not previously been described in the literature, was isolated in pure form and its composition determined. "V. N. Mikhaylov took part in the experimental work." Orig. art. has: 3 tables, 1 figure and 1 formula.

ASSOCIATION: None

SUBMITTED: 17Dec63 ENCL: 01 SUB CODE: IC

NO REF SOV: 004 OTHER: 006

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ACCESSION NR: AP4043853

ENCLOSURE: 01

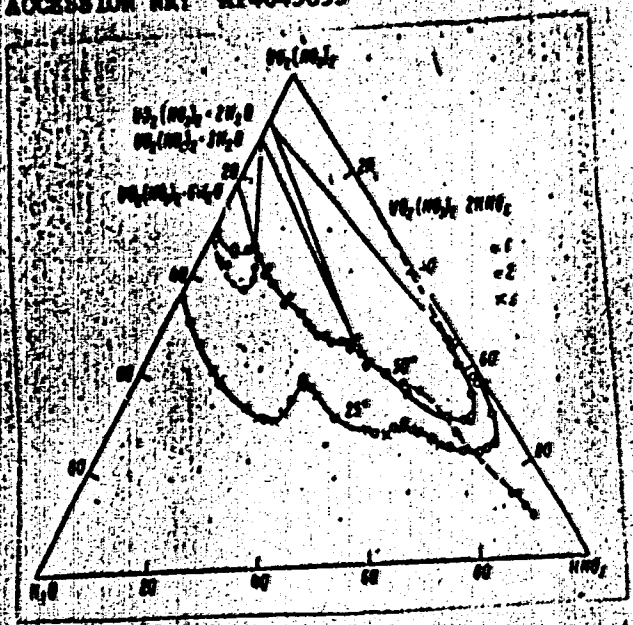

Figure 1. Solubility isotherms of the system $UO_2(NO_3)_2$ - HNO_3 - H_2O at 25 and 50C (compositions expressed in wt.%). 1 - authors' data; 2 - data of Gaunt et al. (Canad. J. Chem., 41 2, 527, 1963); 3 - data of Colani (Bull. Soc. Chim. France, 39, 4, 1243, 1926).

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

[illegible] V. M.A., MISHIN, V.Ya.

Heterogeneous equilibria in the ternary system [illegible]
Part 2: Solution [illegible] of the binary system
$HNO_3 - H_2O$ at 25.05 and [illegible] Rad [illegible]

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

[illegible]IMOV, M.A., [illegible], V.Ya.; [illegible], V.K.

Heterogeneous equilibria in the ternary system $UO_2(NO_3)_2$ - HNO_3 - H_2O. Part 3: Solution - [illegible] binary system $UO_2(NO_3)_2$ - H_2O at 25 and 50°C. Radiokhimiya [illegible] 5,8-55. '64.

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[illegible]

[illegible]

Part 4. Solution-vapor equilibr[illegible]
nitric acid-water at 25 and 50°C [illegible]

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

YAKIMOV, M.A.; MISHIN, V.Ya.

Heterogeneous equilibria in the ternary system $UO_2(NO_3)_2$ - HNO_3 - H_2O. Part 1: Solubility isotherms of the system $UO_2(NO_3)_2$ - HNO_3 - H_2O at 25, 35, and 50°C. Radiokhimiia 6 no.4:454-459 '64. (MIRA 18:4)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

ACC NR: AP7006252 (A) SOURCE CODE: UR/0079/67/037/001/0280/0280

AUTHOR: Kirin, I. S.; Moskalev, P. N.; Mishin, V. Ya.

ORG: Physicotechnical Institute imeni A. F. Ioffe, Academy of Sciences, SSSR (Fiziko-tekhnicheskiy institut Akademii nauk SSSR)

TITLE: Synthesis of phthalocyanines of certain heavy metals

SOURCE: Zhurnal obshchey khimii, v. 37, no. 1, 1967, 280

TOPIC TAGS: uranium compound, thorium compound, hafnium compound, antimony compound, bismuth compound, phthalocyanine

ABSTRACT: Phthalocyanines of uranium, thorium, hafnium, antimony and bismuth were synthesized from o-phthalonitrile and acetates of UO_2^{2+}, Th^{4+}, Hf^{4+}, Sb^{3+} and Bi^{3+} at 250-300°. The absorption spectra of the products of the synthesis reaction showed several bands at 640-799 mμ, which indicate the formation of various forms of phthalocyanines. For instance, three absorption bands with peaks at 644, 659 and 694 mμ were found in a benzene solution of the product of the synthesis of uranium phthalocyanine. Chromatography on Al_2O_3 was used to separate a form of uranium phthalocyanine characterized by a single strong absorption band in benzene at 644 mμ. From a benzene solution of the raw reaction product resulting from the reaction of synthesis of uranium phthalocyanine, ethyl ether "salted out" a compound having a band with a peak at 693 mμ. In the remaining solution, a single absorption band with

Card 1/2 UDC: 547.584

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ACC NR: AP7006252

a peak at 643 mμ was observed. The absorption peaks for the reaction products of phthalocyanines are as follows: 646 and 695 mμ for thorium, 632, 665 and 698 mμ for hafnium, 642, 659 and 706 mμ for bismuth, and 670 and 690 mμ for antimony. The spectra of thorium and hafnium were taken in benzene, and those of antimony and bismuth in dimethylformamide. The observed variety of the forms of heavy metal phthalocyanines is apparently due to the formation of complexes with more or less intricate structures, as well as to the variable valence of the complex-forming reactants.

SUB CODE: 07/ SUBM DATE: 22Jul66

Card 2/2

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

TSYURUPA, I.I., inzh.; MISHE, Ye.M., inzh.

Calculation of pile foundations for deep-sea moorings. Transp. stroi. 14 no.9:48-[illegible] S '[illegible] ([illegible])

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

S/123/59/000/010/[illegible]
A004/A006

Translation from: Referativnyy zhurnal, Mashinostroyeniye, [illegible]
116, # 38073

AUTHORS: Mishin, Ye.V., Pridantsev, S.A.

TITLE: Heat Treatment of Upsetting Tools Made of /12D (Kh12P) Grade [illegible]

PERIODICAL: Tr. Kazansk. aviats. in-ta, 1958, Vols. 33-34, pp. 375-382

TEXT: The authors developed heat-treatment conditions for the Kh12P steel of the following composition (in %): C=1.5, Cr=11, V=0.71, Mn=0.33, Si=0.28, and P=0.02, ensuring a higher resilience. Hardening was effected at temperatures between 950 and 1,050°C with air and oil-cooling, single and triple tempering at 500°C for one hour, as well as isothermal hardening at 1,050°C with cooling in salpeter at 300°C and subsequent cooling in the furnace. The results of heat treatment were rated by the magnitude of absorbed work (A) and the torsion angle (φ) during impact torsion. The following values were obtained for the specimens after hardening at 950-970° with cooling in the air and tempering at 500°C: A = 12.94 kgm and φ = 41.25°. The highest values of absorbed work during impact

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

S/123/59/000/[illegible]
A004/A001

Heat Treatment of Upsetting Tools Made of X 12 Ф (Kh12F) Grade Steel

torsion are obtained with oil hardening at 1,150°C and triple tempering at 500°C, i.e. A = 26.9 kgm and Ψ = 190°. The authors recommend the following heat-treatment conditions for impact tools made of Kh12F steel: hardening heating up to 1,150° during 1.5-2 hours (depending on the tool size); cooling in oil and triple tempering for one hour per operation at 500°C. Such a treatment ensures a hardeness of R_C 54-59 on the operating surface on the impact tool. There are 6 figures and 2 references.

P.S.M.

Translator's note: This is the full translation of the original Russian abstract.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

S/123/59/000/006/ ...
A005/A001

1 2100

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 19..., N...
20212

AUTHORS: Mishin, Ye. V., Pridantsev, S. A.

TITLE: Comparative Investigations of Steels for Bolts of Hot Connections in Aircraft

PERIODICAL: Tr. Kazansk. aviats. in-ta, 1958, Vol. 41, pp. 55-60

TEXT: Physicomechanical comparative investigations were carried out of three brands of steel 30ХГСА (30KhGSA), Х18Н11Б (Kh18N11B) and 18ХНВА (18KhNVA). The effect of repeated heating was determined at 500°C on a_K, as well as the effect of the test temperature (20-650°C) on σ_b, δ, ψ, a_K, the linear expansion coefficient, and the strength of the bolts at expansion with skewing. It is recommended, on the basis of the data obtained, to use steel 18KhNVA for bolts operating at high temperatures.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

DRALYUK, Boris Naumovich; SINAYSKIY, German Vladimirovich. Prinimali uchastiye: MISHIN, Yu.A., inzh.; VINOGRADOV, L.G., inzh.; VINOGRADOVA, S.I., inzh.; VOROB'YEV, S.A., retsenzent; SYRCHINA, M.M., red.izd-va; TURKINA, Ye.D., tekhn.red.

[Strip thickness regulator on a continuous cold rolling mill] Reguliator tolshchiny polosy na nepreryvnom stane kholodnoi prokatki. Sverdlovsk, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1961. 76 p. (MIRA 14:6)

(Automatic control) (Rolling (Metalwork))

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

FAYZULLIN, V.Kh.inzh.; KASHINTSEV, V.V., inzh.; Prinimali uchastiye: MISHIN, Yu.A.; VINOGRADOV, L.G.; VINOGRADOVA, S.I.

Method of reducing thickness variations in cold-rolled strip. Stal' 22 no.3:249-252 Mr '62. (MIRA 15:3)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Rolling (Metalwork)) (Automatic control)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHIN, Yu.L.

Design of buffer amplifiers using electron tubes. Izv. vys. ucheb. zav.; radiotekh. 5 no.3:396-399 My-Je '62. (MIRA 15:9)

1. Rekomendovano kafedroy rascheta i konstruirovaniya radioapparatury Ryazanskogo radiotekhnicheskogo instituta.
(Amplifiers, Electron-tube)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

[illegible]

Translation from: [illegible]

AUTHORS: [illegible]

TITLE: [illegible] New Micro[illegible] [illegible] Copper I[illegible] [illegible] reaktsiya na ion [illegible]

PERIODICAL: Tr. [illegible]

ABSTRACT: A new micro[illegible] [illegible] for Cu^{+} [illegible] in H_2SO_4 solution was studied. I combines with Cu^{+} [illegible] When a H_2O_2 solution of I in [illegible] H_2SO_4 [illegible] containing $\leq 10^{-}$ [illegible] Cu/[illegible], a blue tint is [illegible] at [illegible] concentration is greater (10^{-} [illegible] g/[illegible]), a dark blue, fine, [illegible] tate comes down at once. The coming down of precipitates [illegible] utions may be promoted by addition of solid, fine-ground K[illegible] Pb, Ag, and Hg act as inhibitors. Centrifugal and [illegible] for Cu in ores, minerals, and [illegible] and non[illegible] determine Cu in steels, the Fe [illegible] to be bound by [illegible]. The [illegible] that can be detected [illegible] 10^{-} [illegible] g/[illegible]. 10 min are required to [illegible]

1. Copper ions - Detection [illegible] Copper ions - [illegible]
3. Copper - Determination

Card 1/[illegible]

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHINA, A.K.

Work of the Production and Technical Council of the Yenakiyevo Bread Combine of the Stalino Bakery Trust. Khleb.i kond.prom. 1 no.7:37-39 Jl '57. (MLRA 10:7)

1. Yenakiyevskiy khlebokombinat Stalinskogo tresta khlebopecheniya. (Yenakiyevo--Bakers and bakeries)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

VLADIMIROV, V.I.; SHABADASH, A.N.; KANDZAS, P.P.; MISHINA, A.N.

Method for speeding up the polymerization of styrene in the manufacture of optical lenses. Plast.massy no.3:71-73 '60. (MIRA 13:6)

(Styrene) (Lenses)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHINA, A.P.

Mishina, A. P. On complete direct sums of Abelian groups of the first rank without torsion. Ukrain. Mat. Zurnal 2, no. 4, 64–70 (1950). (Russian)

A group with the decomposition described in the title is completely decomposable (that is, representable as an ordinary direct sum of groups of the first rank) if and only if the number of summands (of the complete direct sum) which are distinct from the additive group of all rational numbers is finite. *R. A. Good* (College Park, Md.).

Source: Mathematical Reviews, Vol 13 No 10

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

3

Mišina, A. P. Some conditions for splitting of mixed Abelian groups. Ukrain. Mat. Žurnal 3, 218–232 (1951). (Russian)

[For reference, see Baer, Ann. of Math. (2) 37, 766–781 (1936).] Let A be a mixed abelian (additive) group with maximal periodic subgroup F; let $\mathfrak{J}^* = A/F$; let F_2 be the primary component of F for the prime 2. The problem is to investigate what conditions will insure the converse of the result: if A splits (that is, if $A = F + \mathfrak{J}$, where $\mathfrak{J} \cong \mathfrak{J}^*$), then every pair of automorphisms, one of F and the other of $\mathfrak{J}^*$, is induced by a suitable automorphism of A. Denote by ψ_0 the automorphism of F which maps each element into its negative. The group A splits if and only if A has an automorphism ϕ which induces ψ_0 in F, which induces the identity map in $\mathfrak{J}^*$, and which furthermore satisfies the condition that for each $a \in A$, there exists $f \in F$ such that $\phi(a) = a + 2f$. The author studies various restrictions imposed on either F or $\mathfrak{J}^*$ which yield assertion (E): if the pair of automorphisms, ψ_0 of F and the identity map of $\mathfrak{J}^*$, is induced by an automorphism of A, then A splits. For example, if $\mathfrak{J}^* = 2\mathfrak{J}^*$, then A satisfies assertion (E). If F_2 is zero, then A satisfies (E). Indeed, the general problem may be reduced to the case $F = F_2$. If $\mathfrak{J}^*$ has finite rank and if $F = F_2$, then A satisfies (E). If $D(\mathfrak{J}^*)$ exists [cf. Baer's Definition 3; 2] and if $F = F_2$, then A satisfies (E). Other sufficient restrictions are also presented. *R. A. Good*

Mathematical Reviews
Vol. 15 No. 3
March 1954
Algebra

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

USSR/Mathematics - Modern Algebra, Isomorphism Jul/Aug 52

"Isomorphism of Full Direct Sums of Abelian Groups Without Torsion of Rank 1," A.P. Mishina, Moscow

"Matemat Sbor" Vol XXXI (73), No 1, pp 118-127

Demonstrates that the assertion actually holds true in the following problem posed by A.G. Kurosh: It is correct to assert that for each type s the isomorphism of groups G and G_1 (direct sums of Abelian groups without torsion of rank 1) implies the isomorphism of their subgroups, which are the full direct sum of all those components R_a of group whose type equals s? Cites R. Baer, "Abelian Groups Without Elements of Finite Order," Duke Math Jour, 3, 1937, 68-122. Submitted 8 Feb 52.

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APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHINA, A.P.; PROSKURYAKOV, I.V.; LYUSTERNIK, L.A., red.; YANPOL'SKIY, A.R., red.; RASHEVSKIY, P.K., red.; LATYSHEV, V.N., red.; FLAKSHE, L.Y., tekhn. red.

[Higher algebra; linear algebra, polynomials, universal algebra]Vysshaia algebra; lineinaia algebra, mnogochleny, obshchaia algebra. Pod red. P.K.Rashevskogo. Moskva, Fizmatgiz, 1962. 299 p. (MIRA 15:9)
(Algebra)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

[illegible] A.I.; [illegible]
I.A., [illegible]; [illegible]

[illegible]

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHINA, A.P.

Direct summands of total direct sums of torsion-free Abelian groups of rank 1. Sib.mat.zhur. 3 no.2:244-249 Mr-Ap '62. (MIRA 15:4)

(Abelian groups) (Groups, Theory of)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHINA, A.P.

Automorphisms and endomorphisms of Abelian groups. Vest. Mosk. un. Ser. 1: Mat.,mekh. 17 no.4:39-43 Jl-Ag '62. (MIRA 15:7)

1. Kafedra vysshey algebry Moskovskogo universiteta.
(Abelian groups)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MOSHINA, A.P. (Moskva)

Separability of complete direct sums of torsionless Abelian groups of rank 1. Mat.sbor. 57 no.3:375-383 Jl '62. (MIRA 15:8)

(Abelian groups)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHINA, A.P.

Separability of complete direct sums of Abelian groups of the first rank without torsion. Dokl. AN SSSR 143 no.2:275-276 Mr '62. (MIRA 15:3)

1. Predstavleno akademikom P.S.Aleksandrovym.
(Abelian groups)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

BOGACHEV, A.I., kand. tekhn. nauk; KOVALEVSKIY, M.F., inzh.; MISHINA, A.S., inzh. (g. Tuapse).

Organizing uninterrupted crossing at stations built according to a parallel system. Zhel. dor. transp. 40 no.2:71-73 F '58.
(Railrods—Traffic) (MIRA 11:3)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

ACCESSION NR: AT4048192 S/0000/64/000/000/0109/0115

AUTHOR: Baranova, V. G., Pankov, A. G., Khripin, E. G., Glazy*rina, R. V., [illegible]eva, V. D., Oboshchalova, N. V., Dolgova, N. A., Kn.azeva, M. F., Mishina, A. V., Ivoylova, M. A.

TITLE: The use of gas chromatography in the production of monomers for synthetic rubber

SOURCE: Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po gazovoy khromato- [illegible] 2d, Moscow, 1962. Gazovaya khromatografiya (Gas chromatography), trudy* [illegible] rentsii. Moscow, Izd-vo Nauka, 1964, 109-115

TOPIC TAGS: gas chromatography, monomer production, two-stage chromatography, integral volume detector, katharometer, hexene domethylation, synthetic rubber, isopentane dehydration, flame ionization detector, isoprene polymerization

ABSTRACT: This is a survey of applied and applicable methods for chromatographic analysis. For example, two-stage chromatography for contact separation of the following components is described: H_2, $N_2 + O_2$, CH_4, C_2H_6, C_3H_8, C_4H_{10}, C_4H_8 and C_4H_6. Integral volume detectors with autorecorders are applicable where no very low concentrations are involved (e.g. the mixture from the catalytic dehydration of isopentane).

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

L 11,958-65

ACCESSION NR: AT4048192

Chromatographic equipment with a katharometer is indicated for substances with a boiling point above 40-45C, those which dissolve easily in alcohol or where low concentrations (less than 1%) have to be determined. This equipment is described and illustrated (chromatographic separation of complex mixtures from hexene demethylation, or of piperylene in isoprene concentrate). The sensitivity threshold may be increased by using a thermo-chemical monitor (from the Kh-2M apparatus). Standard calibration with an artificial mixture is required for this equipment. The calibration coefficients were found to be constant for considerable variations of concentration and some modification of test conditions. This set-up was also used to determine admixtures of butylenes and methyl-ethyl ether in divinyl of high purity and those of n-butylene in isobutylene. The sensitivity of gas chromatography may be increased by concentration of impurities to a degree where they can be detected, or by increasing the sensitivity of the detector. A flame-ionization detector has been used at the NIIMSK. This considerably facilitates control of product purity and makes possible determination of the basic polymerization centers; thus, e.g., cyclopentadiene was determined as one of the centers of catalytic isoprene polymerization, appearing as early as the dehydration stage. Orig. art. has: 2 tables and 4 figures.

ASSOCIATION: None

Card 2/3

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHINA, A.V.

Internal linear uplifts in the Alpine basins of the central Tien Shan. Sov. geol. 7 no. 8 [illegible] Ag '64.

1. Moskovskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

MISHINA, A.V.

Types of Alpine structural forms in the troughs of central Tien Shan. Vest.Mosk.un.Ser.4: Geol. 19 no.5:17-23 S-O '64. (MIRA 17:12)

Kafedra dinamicheskoy geologii Moskovskogo universiteta.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

ZAKHAROVA, G.B.; MISHINA, D.B.; VEL'MOZHNYY, E.Ya.

Niobium and its alloys [from data in foreign journals]. TSvet. met. 35 no.4:88-92 Ap '62. (MIRA 15:4)
(Niobium)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

5(2)

AUTHOR: Mishina, G. P. SOV/32-25-2-18/72

TITLE: A Variant of the Penfield Method for the Micro-determination of Water in Minerals (Variant metoda Penfil'da dlya mikro-opredeleniya vody v mineralakh)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 2, p 162 (USSR)

ABSTRACT: The Penfield determination method was varied a little as to render it applicable for microanalyses. Since a fast separation of bound water can only be achieved at high temperatures, glowing heat is produced by a gas-oxygen flame and quartz tubes in which a temperature of 1600° can be obtained within 2 or 3 minutes. The enlarged part of the Penfil d tube is cooled by solid carbonic acid in order to achieve a complete water condensation. In the presence of fluorides or iron oxide minium is added to the weighed portion, thus freeing only 0.2% of 1.8 - 3.3% fluorine and water in the glowing of phlogopite. By this method water was determined in mica, amphiboles, zeolites, and water containing glasses; here, a microanalytical scales VM-20 was used. The results obtained correspond closely to Penfield and Hecht-Alimarin results

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

A Variant of the Penfield Method for the Micro- [illegible]
determination of Water in Minerals

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii Akademii nauk SSSR (Institute of the Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry of the Academy of Sciences, USSR)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

3 (8)

AUTHORS: Ostrovskiy, I. A., Mishina, G. P., Povilaytis, V. M. SOV/20-126-3-52/69

TITLE: The PT-projection of the Alumina-water System (PT-proyektsiya sistemy kremnezem-voda)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 645-646 (USSR)

ABSTRACT: The system mentioned in the title is a limiting system for many silicate systems with volatile components which are of importance in petrology and mineralogy. At least 5 phases exist in this binary system at high temperatures: cristobalite, tridymite, quartz, liquid and vapor. It is (according to Ref 1) a multiple system with one degree of freedom. In general, such system must have 5 invariant points and 10 monovariant lines. The problem is simplified by the circumstance that all crystalline phases are of the same chemical composition, and only the monovariant reactions (1)-(6) are possible between the phases. In the reactions (4)-(6) the liquid and gaseous phases do not take part, so that the equilibriums are degenerated. This simplifies very much the building-up of a basic scheme for the system mentioned in

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

the title (Fig 1). All 3-phase monovariant equilibriums are stable in this scheme. This is in agreement with the experiment. In the present case, the degenerated equilibriums are stable on both sides of the invariant points. The corresponding curves pass over into one another without changing their directions. The variant, in which the equilibrium tridymite + + gas = melt is unstable, is excluded from consideration. An experiment, however, makes it easily clear that tridymite can coexist with the melt. As the experimental PT-diagram of the mentioned system (Ref 2) is incomplete, and does not agree with the theoretical scheme (Fig 1), the authors achieved some precision and completion by their experiments. The resulting experimental PT-diagram corresponds to the theoretical scheme (Fig 1). Figure 2 shows this experimental diagram (Refs 3, 4). A comparison of this diagram with the material found by other investigators shows differences in the position of various points and lines. There are 2 figures and 4 references, 1 of which is Soviet.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620017-6

The PT-projection of the Alumina-water System 30V/20-126-3-52/69

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii (Institute for the Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry)

PRESENTED: March 30, 1959, by D. S. Korzhinskiy, Academician

SUBMITTED: March 28, 1959

Card 3/3

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MISHINA, I., slesar'

Cradle for hanging gutters. Na stroi.Mosk. 2 no.6:26 Je '59.
(MIRA 12:8)

1. Stroitel'nyy uchastok No.99 Mosstroya No.8.
(Gutters)

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