"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

BUCKLEY, H.E.; KULAKOV, M.A. [translator]; ANSHELES, O.M., redaktor; FRANK-KAMENETSKIY, V.A., redaktor; SHUVALOV, L.A., redaktor; GERASIMOVA, Ye.S., tekhnicheskiy redaktor

[Crystal growth. Translated from the English by M.A.Kulakov] Rost kristallov. Perevod s angliiskogo M.A.Kulakova. Pod red. O.M. Anshelesa i V.A.Frank-Kamenetskogo. Moskva, Izd-vo inostrannoi lit-ry, 1954. 406 p. (MLRA 7:11)
(Crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

Founders of the real crystal theory. Vest.Len.un. 9 no.1:155-177 Ja '54. (MIRA 9:7)
(Crystallography) (Grofeev, Mikhail Vasil'evich, 1839-1889)
(Karnozhitskii, Aleksandr Nikolaevich, 1867-1906)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

In the Fedorov Scientific Crystallography Club within the Department of Crystallography of the Leningrad State University. Vest. Len. un. 9 no.4:207-208 Ap '54. (MIRA 8:6)
(Crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

Professor Dmitrii Borisovich Gogoberidze, 1906-1953; obituary.
Vest.Len.un.9 no.5:205-206 My '54. (MLRA 9:7)
(Gogoberidze, Dmitrii Borisovich, 1906-1953)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A., starshiy nauchnyy sotrudnik; NARDOV, V.V., assistent; KOMKOV, A.I., student.

Position of koivinite among minerals of the florencite group. Nauch. biul. Len. un. no.32:19-24 '54. (MLRA 10:4)

1. Kafedra kristallografii.
(Koivinite)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

USSR/Scientists - Biography

Card : 1/1 Pub. 118 - 5/15

Authors : Frank-Kamenetskiy, V. A. and Sakhov, V. B.

Title : In memory of Dimitiy Borisovich Gogoberidze

Periodical : Usp. fiz. nauk 53/1, 109 - 120, May 1954

Abstract : A short biographical sketch of Dimitriy Borisovich Gogoberidze, a famous Soviet scientist in the field of crystalo-physics and X-rays, is presented. List of Gogoberidze's published works and photograph are included.

Institution : ...

Submitted : ...

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A

Category : USSR/Solid State Physics - Structural Crystallography E-3

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3744

Author : Frank-Kanenetskiy, V.A., Komkov, A.I., Nardov, V.V.
Title : ~~Corrections to Article~~ "X-Ray Diffraction Data on Florencite and Kouvenire"

Orig Pub : Zap. Vses. mineraloy. o-va, 1954, 83, No 4, 432

Abstract : Concerns Ref. Zh. Fiz., 1956, 13351

Card : 1/1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

Regular grouping of goethite crystals in the [illegible] Devonian clays. [illegible] State Univ., Leningrad. *Doklady Akad. Nauk* [illegible] 94, 765-8(1954). The [illegible] Devonian sediments in the Onega basin [illegible] goethite besides hydromuscovite, as has been [illegible] diffraction diagrams. The Fe_2O_3 content of [illegible] 15 to 16% while other samples of the same [illegible] 4 to 7%. The [illegible] typical endothermal effect of goethite at [illegible] sides the strong endothermal and exothermal effects of hydromuscovite. Radial acicular aggregates of goethite crystals, often with characteristic star-shape [illegible] observed in the electron microscope, besides [illegible] crystals of the hydromica. The goethite crystals are elongated in [001], flattened in (010), of pseudohexagonal type, in agreement with the x-ray structure [illegible] to that of diaspore, and with Belov's theory [illegible] packings. The interesting [illegible]

[illegible]

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V. A.

USSR/Geology - Petrography

Card : 1/1

Authors : Bushinskiy, G. I., and Frank-Kamenetskiy, V. A.

Title : Hydraulic activity and roentgenometric characteristic of an opalescent substance of tripolite and diatomite earths

Periodical : Dokl. AN SSSR, 96, Ed. 4, 817 - 820, June 1954

Abstract : The hydraulic activity of tripolite and diatomite earths was determined by adding calcium oxide. The diatomites have a lower hydraulic activity, in spite of their high opal content. The chemical composition of the investigated tripolite and diatomite earths is given in table. Nine references. Tables.

Institution : ...

Presented by: Academician N. M. Strakhov, March 19, 1954

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

E.S.Fedorov's monograph on form and its significance in crystallography. Uch.zap.Len.un. no.178:8-22 '54. (MLRA 8:5)
(Fedorov, Evgraf Stepanovich, 1853-1919)
(Crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

USSR

Regular intergrowths of quartz and oligoclase in muscovite. V. A. Frank-Kamenetskii. *Uchenye Zapiski Leningrad. Gosudarst. Univ. im. A. A. Zhdanova* No. 176, *Ser. Geol. Nauk* No. 4, 137-61(1954).—The interesting epitaxy phenomena in mica are described from pegmatites of North Karelia. They are based on geometric-structural interrelations of quartz, plagioclase, and muscovite which are: The planes of intergrowths are in the mica (001); in quartz (10$\bar{1}$1); in oligoclase (010). The edges of the growth planes which are in common are for muscovite [100] and [110]; for quartz [1$\bar{2}$13] and [$\bar{2}$110]; for oligoclase [100] and [001]. The analogous parameters (in *kX* units) are in muscovite 3 × 5.18 = 15.54, and 3 × 5.21 = 15.63; in quartz 3 × 7.42 = 14.84, and 3 × 5.01 = 15.03; in oligoclase 2 × 8.16 = 16.32, and 2 × 7.26 = 14.52. The mechanism of such intergrowths is primarily given in the parallel orientation of quartz and oligoclase which are secondarily oriented in the muscovite. The structural analogy is analyzed in this complex process, namely by the parallelism of the chains of [SiO_4] tetrahedra in all 3 minerals, and more especially in the period of the multiple repetition of the edge lengths of the tetrahedra (with 2.5 *kX* as the unit) which they have in common. The consequences of this epitaxis for the phys. and optical properties, further for the Laue diagrams of the intergrowths, are illustrated as a theoretical basis of the graphic granite phenomenon in pegmatites, by stereographic projections and selected projections of the structural arrangements in the planes of intergrowth. The indicatrix axis *a* is identical for muscovite and oligoclase (cf. Grigor'ev and Shafranovskii, *Zapiski Vsesoyuz. Mineralog. Obshchestva* 75, 265-72(1946).

W. Eitel

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; SHAFRANOVSKIY, I.I.

The beginning of E.S.Fedorov's creative work. Kristallografiia no.3: 113-123 '55. (MLRA 10:2)
(Fedorov, Evgraf Stepanovich, 1853-1919)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

History of the creation of the theodolitic goniometer. Kristallografiia no.3:139-145 '55. (MLRA 10:2)
(Coniometers)(Theodolites)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

Crystalline structure of palygorskites. Min.sbor.ue.9:359-366 '55. (MLRA 9:9)

1.Leningrad. Gosudarstvennyy universitet imeni A.A.Zhdanova.
(Palygorskite)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

TATARSKIY, V.B.; FRANK-KAMENETSKIY, V.A.

Osip Markovich Ansheles; on the occasion of his 70th birthday. Vest.Len.un. 10 no.10:117-122 O '55. (MLRA 9:1)
(Ansheles, Osip Markovich, 1885-)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; KOMKOV, A.I.

Rotation chamber headpiece designed for X-ray goniometric investigation of crystals. Zav.lab. 21 no.6:738-739 '55. (MLRA 8:9)

1. Leningradskiy universitet im. A.A.Zhdanova.
(X rays--Apparatus and supplies) (Crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

Joint Crystallization of the Hexagonal Selenide of Cadmium with Zinc Selenide

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A., deystvitel'nyy chlen.

Review of Professor G.B.Bokii's book "Introduction to crystallochemistry." Zap.Vses.min.ob-va 84 no.1:127-130 '55. (MLRA 8:5)
(Bokii, G.B.) (Crystallochemistry)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

R.E.Grim's book "Clay Mineralogy". Reviewed by V.A.Frank-Kamenetskii. Zap.Vses.min.ob-va 84 no.4:500-501 '55. (Clay)(Grim, R.E.) (MIRA 9:2)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V. A.

X-ray investigation of the isomorphism of gallium and zinc compounds. N. A. Goryunova, V. A. Kutovich, and V. A. Frank-Kamenetskii (A. A. Zhdanov Leningrad State Univ.). *Doklady Akad. Nauk S.S.S.R.* 103, 589-92(1955).—The sphalerite structure type is also observed in ZnSe and ZnTe; in the structure of Ga_2Se_3 and Ga_2Te_3 the metallic positions of the sphalerite type are only $^2/_3$ occupied. The series Ga_2X_3-ZnX (X = Se or Te) are plotted in the ternary system Ga-Zn-X, and mixes were fused in systematically varied ratios of the constituents, in evacuated silica-glass containers. The x-ray data of the alloys are given for the pure compds. and 3 selected stoichiometric ratios. The series Ga_2Se_3 (with the parameter a_0 = 5.430 ± 0.005 kX)–ZnSe(a_0 = 5.653 ± 0.001 kX) is continuous, but the parameters are not strictly linear functions of the chem. compn. The series Ga_2Te_3(a_0 = 5.887 ± 0.003 kX) – ZnTe(a_0 = 6.087 ± 0.003 kX), however, shows a miscibility gap between Ga_2Te_3.3ZnTe(a_0 = 6.013 ± 0.003 kX) and near ZnTe (a_0 = 6.075 ± 0.003 kX). The binding mechanism may be more ionic in the series of the selenides and more covalent in the tellurides. Goldschmidt has assumed that the specific enrichment of Ga in sphalerite (up to 0.22%) is based on the isomorphism of ZnS and GaAs; the authors are of the opinion that the well-substantiated occurrence of Ga in sphalerite is based on the isomorphism of ZnS and Ga_2S_3.

W. Eitel

(2)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

LOGVINENKO, N.V.; FRANK-KAMENETSKIY, V.A.

On the so-called alushtite. Dokl.AN SSSR 105 no.3:554-557 N '55. (MLRA 9:3)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova i Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gor'kogo. Predstavleno akademikom N.V. Belovym.

(Kaolinite)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

GRIM, Ralph E.; ZVYAGIN, B.B. [translator]; MIKHEYEVA, I.V. [translator]; MIKHEYEV, V.I. [translator]; RAZHEGAYEVA, G.I. [translator]; FRANK-KAMENETSKAYA, T.A. [translator]; FRANK-KAMENETSKIY, V.A., redaktor; YAKOVENKO, M.Ye., redaktor; DUMBRE, I.Ya., tekhnicheskiy redaktor

[Clay mineralogy. Translated from the English] Mineralogiia glin. Perevod angliiskogo B.B.Zviagina i dr. Pod red. i s predisl. V.A. Frank-Kamenetskogo. Moskva, Izd-vo inostrannoi lit-ry, 1956. 454 p. (MLRA 9:10)

(Clay)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; RUMSH, M.A.; KOMKOV, A.I.

KRON-1 X-ray camera for examination of faceted and nonfaceted crystals. Kristallografiia 1 no.4:468-471 '56. (MLRA 10:1)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova.
(X-ray crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V. A.

Category: USSR / Physical Chemistry - Crystals B-5

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 29633

Author : Goryunova N. A., Frank-Kamenetskiy V. A.
Inst : not given
Title : Purport of the Notion of Isomorphism

Orig Pub: Sb. Kristallografiya. No 5. M., Metallurgizdat, 1956, 51-58

Abstract: The history of the concept of isomorphism is considered and a definition of isomorphism is given as being a similarity of structures, as concerns volumetric dimensions of definite structural elements in conjunction with related geometrical type of structure and nature of the bonding. This definition does not encompass those systems wherein disordered state cannot occur, nor mixed crystals with submicroscopic penetrations, anomalous mixed crystals (where only two-dimensional, or even one-dimensional, similitude is fulfilled), solid solutions of implantation, formed as a result of difference in geometrical dimensions of the particles.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

TATARSKIY, V.B.; FRANK-KAMENETSKIY, V.A.; BURAKOVA, T.N.; NARDOV, V.V.; PETROV, T.G.; KONDRAT'YEVA, V.V.; KAMENTSEV, I.Ye.; CHERNYSHEVA, V.F.; ALEKSEYEVA, N.P.; ARTSYBASHEVA, T.F.; BARANOVSKAYA, N.I.; BUSSEN, I.V.; VEREMETSKO, I.A.; GNEVUSHEV, M.A.; GOYKO, Ye.A.; KOMKOV, A.I.; KOTOVICH, V.A.; LITVINSKAYA, G.P.; MIKHEYEVA, I.V.; MOKIYEVSKIY, V.A.; PETROVA, L.V.; POPOV, G.M.; SAFRONOVA, G.P.; SOBOLEVA, V.V.; STULOV, N.N.; TUGARINOVA, V.G.; SHAFRANOVSKIY, I.I.; SHTERNBERG, A.A.; YANULOV, K.P.

O.M. Ansheles; obituary. Vest. LGU 12 no.18:152-154 '57. (MIRA 11:3)
(Ansheles, Osip Markovich, 1885-1957)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

STULOV, N.N.; SHAFRANOVSKIY, I.I.; MOKIYEVSKIY, V.A.; POPOV, G.M.; BETEKHTIN, A.G.; NIKOLAYEV, V.A.; ANSHELES, O.M.; GRIGOR'YEV, D.P.; YEROFEYEV, B.F.; TATARSKIY, V.B.; SOLOV'YEV, S.P.; NIKITIN, V.D.; RUDENKO, S.A.; DUBININA, V.N.; ALYAVDIN, V.F.; VLADIMIROV, B.N.; KAZITSYN, Yu.V.; FRANK-KAMENETSKIY, V.A.; KALININ, A.I.; BALASHOVA, M.N.; SAL'DAU, E.P.; DOLIVO-DOBROVOL'SKAYA, G.M.; LAVRENT'YEV, M.F.

Viktor Ivanovich Mikheev. Zap. Vses. min. ob-va 86 no.2:317-320 '57. (MLRA 10:6)

(Mikheev, Viktor Ivanovich, 1912-1956)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

~~KRANK~~ KAMENETSKIY, V. A.

Geological Faculty, Leningrad-"Certain Peculairities of Epitaxial, Aggregates of Silicate Minerals" (Section 14-17) a paper submitted at the General Assembly and International Congress of Crystallography, 10-19 Jul 57, Montreal, Canada.

C-3,800,189

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

VIKULOVA, M.F.; ZVYAGIN, B.B.; MIKHAYLOV, B.M.; BERLIN. T.S.; ORESHNIKOVA, Ye.I.; SHAKHOVA, R.A.; IVANOVA, I.I.; TATARINOV, P.M., prof.; red.; GEYSLER, A.N., prof.red.; DOMINIKOVSKIY, V.N., kand.geologo-mineralogicheskikh nauk, red.; KNIPOVICH, Yu.N., kand. geologo-mineralogicheskikh nauk; SMUROV, A.A., kand. geologo-mineralogicheskikh nauk; FRANK-KAMENETSKIY, V.A., kand. geologo-mineralogicheskikh nauk; RABINTSEV, N.I., red.izd-va; KRYNOCHKINA, K.V., tekhn.red.

[A methods manual on the petrographic and mineralogical study of clays] Metodicheskoe rukovodstvo po petrografo-mineralogicheskomu izucheniiu glin; trudy Instituta. Sost. kollektivom avtorov pod rukovodstvom M.F. Vikulovoi. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1957. 447 p. (MIRA 11:2)

1. Leningrad. Vsesoyuznyy geologicheskiy institut. 2. Chlen-korrespondent AN SSSR (for Tatarinov)
(Clay)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

70-5-31/31

AUTHOR: Frank-Kamenetskiy, V.A.

TITLE: The Orientated Crystallization of $KMnO_4$ and $KClO_4$ on Barytes (Orientirovannaya kristallizatsiya $KMnO_4$ i $KClO_4$ na barite)

PERIODICAL: Kristallografiya, 1957, Vol.2, No.5, pp. 713-715 (USSR)

ABSTRACT: $KMnO_4$, $KClO_4$ and $BaSO_4$ are isostructural with space group Pnma. Earlier observations on the epitaxial growth of these compounds on barytes have been repeated quantitatively. Crystallisation of the permananganate and perchlorate on the 001 face of barytes was studied using polarising and binocular microscopes. More or less isometric crystals did not appear to have a preferred orientation but those crystals which were elongated showed several distinct orientations. Of 390 elongated $KMnO_4$ crystals, 72 were unoriented, 243 had their lengths parallel to [100], 33 parallel to [110] and 42 parallel to [110]. The corresponding figures for 334 crystals of $KClO_4$ were 11, 123, 99 and 101. (n.b. there is a mistake in the paper and the second and third axes mentioned may be interchanged. This, however, is immaterial) Because the

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

70-5-31/31

The Orientated Crystallization of $KMnO_4$ and $KClO_4$ on Barytes.

perchlorate shows a greater evenness of distribution between the three orientations it is concluded that this salt is more nearly isomorphous with the $BaSO_4$ than is the permanganate.

There are 3 figures and 2 references, 1 of which is Slavic.

ASSOCIATION: A.A. Zhdanov State University, Leningrad. (Leningradskiy Gosudarstvennyy Universitet im. A.A. Zhdanova)

SUBMITTED: February 17, 1957.

AVAILABLE: Library of Congress.

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

AUTHOR: Frank-Kamenetskiy, V.A. 70-6-1/12

TITLE: Osip Markovich Ansheles - Obituary

PERIODICAL: Kristallografiya, 1957, Vol.2, No.6, pp. 719 - 721 (USSR).

ABSTRACT: Obituary of Osip Markovich Ansheles, Professor, filling the Chair of Crystallography in the Leningrad State University. Born October 5 (17), 1885, died July 23, 1957 - pupil of Fedorov.

AVAILABLE: Library of Congress.

Card 1/1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

Organizing practical and independent work of students studying crystallographic disciplines [with summary in English]. Vest. LGU 12 no.24:97-103 '57. (MIRA 11:5)
(Crystallography--Study and teaching)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

Elementary cell and space group of curtisite (idrialite)

L. A. Bud'ko and V. A. Frank-Kamenetskii [illegible]

[illegible]

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

KOTOVICH, V.A.; FRANK-KAMENETSKIY, V.A.

Standard roentgenograms of some selenides, tellurides, arsenides, and sulfides of Cu, Ag, Zn, Cd, Ga, and In. Uch.zap.LGU no.215: 135-156 '57. (MIRA 12:5)

(X-ray crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

SOV/70-3-4-24/26

AUTHORS: Komkov, A.I. and Frank-Kamenetskiy, V.A.

TITLE: On the X-ray Goniometric Determination of the Orientation of Crystals (O rentgenometricheskom opredelenii orientirovki kristalla)

PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 4, pp 511-518 (USSR)

ABSTRACT: The method of projecting the planes and zone-axes of an arbitrarily oriented crystal from the data of one Laue photograph by the development of zones is discussed. Ways of determining the symmetry and the orientation of the crystal from the resulting projection are expounded. The method of the present authors, as first set out (Uch. Zap. LGU, Ser. Geol. Nauk, 1954, Vol 4, Nr 178, pp 255-62), has been seriously criticised but this is now asserted to be due to a misunderstanding and the method is explained afresh. It consists of representing the reflecting planes operative in a Laue photograph, recorded on a flat plate, in a stereogram, the construction of zones (great circles) through the points, and the recognition of symmetry from the characteristic angles (60°, 45°, 90°) between the zones. The crystal can be

Card 1/2

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SOV/70-3-4-24/26

On the X-ray Goniometric Determination of the Orientation of Crystals

re-set, if necessary, from one such photograph. The suggestion that a Laue photograph recorded on a cylindrical film which would contain many more reflections would be an improvement on the suggested method is rejected. There are 4 figures and 5 Soviet references.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova (Leningrad State University imeni A.A. Zhdanov)

SUBMITTED: July 27, 1957

Card 2/2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

SOV/70-3-5-23/24

AUTHORS: Shafranovskiy, I.I., Stulov, N.N., Tatarskiy, V.B. and Frank-Kamenetskiy, V.A.

TITLE: Certain Observations in Connection with the Article of Academician N.V. Belov "On a Course of Geometrical Crystallography for Physicists" (Neskol'ko zamechaniy po povodu stat'i Akad. N.V. Belova "O kurse geometricheskoy kristallografii dlya fizikov")

PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 5, pp 637-638 (USSR)

ABSTRACT: Complaints by Leningrad mineralogists against the excessive physical bias by Belov in his article. There are 4 references, 2 of which are Soviet and 2 German.

ASSOCIATION: Leningradskiy gornyy institut. Leningradskiy gosudarstvennyy universitet. (Leningrad Mining Institute and Leningrad State University)

SUBMITTED: May 23, 1958

Card 1/1

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

Manifold composition of clay minerals. Min.sbor. no.12:144-147 '58. (MIRA 13:2)

1. Gosuniversitet imeni A.A.Zhdanova, Leningrad.
(Clay)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

KOMKOV, A.I.; FRANK-KAMENETSKIY, V.A.

Determining xenomorphic crystal orientation by a Laue photograph [with summary in English]. Vest.LGU 13 no.12:25-38 '58. (MIRA 11:12)

(X-ray crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

"Mineral crystals" by I.I. Shafranovskii. Reviewed by V.A. Frank-Kamenetskii. Zap. Vses. min. ob-va 87 no.2:242-244 '58. (MIRA 11:9)

1. Deystvitel'nyy chlen Vsesoyuznogo mineralogicheskogo obshchestva.
(Crystallography)
(Shafranovskii, I.I.)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

ZVYAGIN, B.B.; FRANK-KAMENETSKIY, V.A.

Conference on X-ray examination of clay minerals held in Lvov, December 1957. Zap. ~~Vses.~~ min. ob-va 87 no.2:245 '58. (MIRA 11:9)

1. Deystvitel'nyy chlen Vsesoyuznogo mineralogicheskogo obshchestva (for Frank-Kamenetskiy).
(Clay--Analysis) (X rays--Industrial application)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

AUTHORS: Frank-Kamenetskiy, V. A. , Sosedko, T. A. 20-118-4-53/52

TITLE: On the Character of the Isomorphism in Alkaline Beryls (O kharaktere izomorfizma v shchelochnykh berillakh)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp. 815-817 (USSR)

ABSTRACT: The beryls which found in pegmatites containing rare earths have a varying chemical composition. The main differences concern the different proportions of Li, Na, and Cs. This problem was treated sufficiently in several publications (references 1, 2, 5, 7). Because the proportion of beryllium is decreased according to certain laws when the alcaline metals are increased a heterovalent isomorphism of the Be^{++} compared with $2(Na, Li, K, Cs)^{+}$ was supposed (reference 2). This is made possible by the presence of tubular channels in the beryl structure. In a previous paper (reference 5) the authors investigated three beryl samples with different proportions of alkali metals by means of X-ray diagrams. A sufficiently exact determination of the lattice parameters permitted to determine a modification of the parameter "c"

Card 1/4

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of the beryl lattice according to certain laws, whereas the value of the parameter "a" remained unchanged. When the alkali proportion is increased the parameter "c" is also increased (table 1). Such a modification of the size of the cells (razmery yacheyki) of the alkaline beryls of varying composition according to certain laws does not prove the presence of mechanical admixtures of foreign minerals in this case but proves isomorphic substitutions (confirmed by reference 2). It still has to be found out what kind of isomorphic substitutions take place here. For this purpose the authors tried to determine the dependence of the chemical compounds of the alkaline beryls on the size of the corresponding elementary cells (analogous to reference 3,4). According to the standard structure formula of the beryls ($Be_3Al_2Si_6O_{13}$) the number of atoms of the cations, which are apportioned adequately to 18 oxygen units, was computed. The computation results are given in table 2. They show that in all investigated samples the number of beryllium atoms decreases with an increase of the quantity of alkali metals quite corresponding to the laws. The other components are

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preserved in more or less permanent quantities. Moreover, table 2 shows that the variations in the composition of the alkali beryls are also connected with the replacement of aluminium by iron, magnesium and titanium. Figure 1 shows quite clearly that the increase of the parameter "c" of the alkali beryl lattice is connected with the increase of the average radius of the Al-Be layer in the beryl structure. In other words: here we see clearly that a small beryllium ion is replaced by large alkaline ions. The mechanism of such a replacement contrary to classical crystallo-chemical conceptions can be explained as follows: most certainly such a type of isomorphism occurs here which is combined with a substitution and a transposition (reference 6). It may be assumed that at the substitution of the beryllium by the alkali metals the geometry of the structural constitution of the beryl allows to place the alkali metals in the same Al-Be layer in the cavities which are limited from above and below by rings of silicic acid consisting of 6 links. There are 2 figures, 2 tables , and 7 references, 6 of which are Soviet.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

On the Character of the Isomorphism in Alkaline Beryls 20-118-4-5361

ASSOCIATION: State University imeni A. A. Zhdanov, Leningrad (Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova)

PRESENTED: September 2, 1957, by D.I. Shcherbakov, Member AS USSR

SUBMITTED: August 29, 1957

AVAILABLE: Library of Congress

Card 4/4

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V. A.

"Isomorphous Replacements and Mixed-Layer Intergrowths of Clay Minerals"

a report presented at Symposium of the International Union of Crystallography Leningrad, 21-27 May 1959

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

SOV/70-4-3-15/32

AUTHORS: Afanas'yeva, N.A., Kamentsev, I.Ye., Frank-Kamenetskiy, V.A.

TITLE: Oscillations in the Parameters of the Unit Cells of Specimens of Quartz of Various Origins

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 3, pp 382-385+ 1 plate (USSR)

ABSTRACT: The unit cell dimensions of 10 specimens of quartz from different localities were measured to ± 0.0002 Å with an RKE focusing back-reflexion X-ray camera. The a-parameters varied between 4.9121 and 4.9137 Å and the c-parameters between 5.4031 and 5.4051 Å. Parameters were found from 2 lines, $23\bar{3}4$ ($\theta_{CuK_{\alpha_1}}$ = 76.8°) and $21\bar{3}6$ ($\theta_{CuK_{\alpha_1}}$ = 78.6°).

A colourless quartz crystal from Kozhim (N. Ural) was used as a standard with dimensions at 25.1° of a = 4.91265 ± 0.00007 Å and c = 5.40441 ± 0.00005 Å. The 622 line of germanium was used as a standard; the Cu wavelength used was λ = 1.537396 kX with a conversion

Card1/3

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

Oscillations in the Parameters of the Unit Cells of Specimens of Quartz of Various Origins SOV/70-4-3-15/32

factor of 1.00202. Results for the 10 specimens vary with $\Delta a = 0.0016$ and $\Delta c = 0.0020$ Å which can, to some extent, be correlated with the impurity content. $2Si^{+4}$ may be replaced by $2Al^{+3} + R^{+2}$ where R = Ca, Mg or Fe in one series of points or Si^{+4} may be replaced by $Al^{+3} + R^{+}$ where R = Na or Li in another series (of three) points. Acknowledgments are made to A.I. Zakharchenko, Ye.Ye. Kostyleva and A.F. Iyevenish. There are 2 figures, 2 tables and 12 references, of which 3 are Soviet, 9 English.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova (Leningrad State University imeni A.A. Zhdanov)

Card 2/3

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

"X-ray mineral determinator" by V.I.Mikheev. Reviewed by V.A.Frank-Kamenetskii. Zap.Vses.min.ob-va 88 no.2:214-222 '59. (MIRA 12:8)

1. Kafedra kristallografii Leningradskogo gosudarstvennogo universiteta.
(X-ray crystallography) (Mikheev, V.I.)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

MYAZ', N.I.; FRANK-KAMENETSKIY, V.A.; KAMENTSEV, I.Ye.

Twinning of quartz and pyrite. Zap.Vses.min.ob-va 88 no.4:460-464 '59. (MIRA 12:11)

1. Deystvitel'nyy chlen Vsesoyuznogo mineralogicheskogo obshchestva.
(Quartz) (Pyrites)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; MIKHEYEVA, I.V.; SAL'DAU, E.P.

First all-Union conference held in Kiev on X-ray study of raw minerals. Zap.Vses.min.ob-va 89 no.2:257-259 '60. (MIRA 13:7)

1. Deystviel'nyye chleny Vsesoyuznogo mineralogicheskogo obshchestva. (Mineralogy) (X rays--Industrial applications)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

On the manifestations of microismorphism in quartz. Kristallografiia 5 no.4:650-654 Jl-Ag '60. (MIRA 13:9)

1. Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova.
(Quartz crystals)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

ZVYAGIN, B.B.; FRANK-KAMENETSKIY, V.A.

Concerning E.N. Eliseev's article "Determination of the sizes of clay elementary cells by the X-ray powder pattern (debyeograms)." Min.sbor. no.14:399-402 '60. (MIRA 15:2)

1. Vsesoyuznyy geologicheskiy nauchno-issledovatel'skiy institut, Leningrad, i. 2. Gosudarstvennyy universitet imeni A.A. Zhdanova, Leningrad.

(Clay)
(X-ray crystallography)
(Eliseev, E.N.)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

V.I.Mikheev's studies on the X-ray investigation of the isomorphism of minerals. Zap. Vses. min. ob-va 89 no.3:321-327 '60. (MIRA 13:8)

1. Kafedra kristallografii Leningradskogo universiteta.
(Isomorphism) (X-ray crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; SHAFRANOVSKIY, I.I.

Concerning "cubic" quartzes. Zap. Vses. min. ob-va 89 no.4:448-453 '60. (MIRA 13:11)

(Quartz)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; SHAFRANOVSKIY, I.I.

"Course on mineralogy. Part 1: General mineralogy. Part 2: Description of minerals" by E.K.Lazarenko. Reviewed by V.A. Frank-Kamenetskii and I.I.Shafranovskii. Zap. Vses. min. ob-va 89 no.5:608-610 '60. (MIRA 13:10)

(Mineralogy)
(Lazarenko, E.K.)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

MISHCHENKO, K.P.; PONOMAREVA, A.M.; RAVDEL', A.A.; BARON, N.M.; YEGOROV, I.M.; KVYAT, E.I.; VOLOVA, Ye.D.; MARKOVICH, V.G.; SEMENOV, G.I.; MARGOLIS, V.N., SMORODINA, T.P.; YAVORSKIY, I.V. Prinimal uchastiye FRANK-KAMENETSKIY, V.A.; TOMARCHENKO, S.L., red.; LEVIN, S.S., tekhn. red.

[Practical work in physical chemistry] Prakticheskie raboty po fizicheskoi khimii. Izd.2., perer. Leningrad, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 374 p. (MIRA 15:2)
(Chemistry, Physical and theoretical--Laboratory manuals)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

RUKHIN, Lev Borisovich, prof.[deceased]; RUKHINA, Ye.V., kand.geol.-min.nauk. Prinimali uchastiye: SARANCHINA, G.M., dots.; FRANK-KAMENETSKIY, V.A., dots.; KALINKO, M.K., doktor geol.-miner. nauk; VASSOYEVICH, N.B., prof., red.; TOKAREVA, T.N., ved. red.; YASHCHURZHINSKAYA, B.Ya., tekhn. red.

[Fundamentals of lithology; theory of sedimentary rocks] Osnovy litologii; uchenie ob osadochnykh porodakh. Izd.2.,perer.i dop. E.V.Rukhinoi. Pod red. N.B.Vassoevicha. Leningrad, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 779 p. (MIRA 15:2)

1. Leningradskiy gosudarstvennyy universitet (for Saranchina, Frank-Kamenetskiy). 2. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut (for Kalinko).
(Rocks, Sedimentary)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; VESEL'SKIY, I.

X-ray study of isomorphism in perovskites. Geokhimiia no.5:379-389 '61. (MIRA 14:5)

1. Chair of Crystallography of the Leningrad University.
(Perovskite) (Isomorphism) (X-ray crystallography)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

ZVYAGIN, B.B.; FRANK-KAMENETSKIY, V.A.

Purpose and principles of the complication and estimation of different classifications of clay minerals; in connection with the discussion innitiated by the Clay Committee at the International Geological Congress. Zap.Vses.min.ob-va 90 no.6:750-754 '61. (MIRA 15:2)

(Clay--Congresses)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

LOGVINENKO, N.V.; FRANK-KAMENETSKIY, V.A.

Recent data on so-called alushtite. Dokl.AN SSSR 137 no.6:1441-1444 Ap '61. (MIRA 14:4)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo; Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova. Predstavleno akademikom N.V.Belovym.
(Alushtite)

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D029/D109

24,7100 (1160 only)
152110 3209 3009

AUTHOR: Frank-Kamenetskiy, V.A.

TITLE: On the phenomenon of "Microisomorphy" in quartz

PERIODICAL: Silikat Technik, no. 7, 1961, 306-308

TEXT: The author compares the lattice constants of natural and artificial quartz. The lattice constants differ in the following: In the case of artificial crystals the value "a" is in the interval 4.9026 - 4.9038, the value "c" in the interval 5.3933 - 5.3945 kX; in the case of natural quartz the value "a" lies in the interval 4.9023 - 4.9039 and the value "c" in the interval 5.3923 - 5.3944 kX. The quantitative spectrum analysis indicates a presence of other elements, mostly Al, then Fe and Mg, but also Na, Ca, Cr, Ni, Li, Ge, Nb, Mn, Cu, Ag, Ti and others. The Na addition is mostly absent in the natural crystals. Artificial crystals grown in the presence of Germanium show an admixture of this element. The following points give the causes for the differences of lattice constants of quartz: 1) An increased content of additions determinable by spectrum analysis (mainly aluminum) increases the distances and the volume of the unit cell of quartz. This is shown clearly in the increase of "c". 2) Synthetic quartz crystals have

Card 1/4

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D029/D109

On the phenomenon of "Microisomorphy"...

usually higher lattice constants than natural quartz. 3) Quartzes with growth pyramids on the rhombohedron planes have higher lattice constants than those with growth pyramids on the pinacoid planes. 4) In the case of quartzes grown artificially in colored shapes (green and brown due to iron addition) the distance "a" increases considerably according to the intensity of the coloring, while the distance "c" remains almost unchanged. 5) Natural quartzes produced from various deposits show a certain relation between the lattice constants and conditions of crystal formation. Specimens taken from quartz-molybdenite and quartz-wolframite seams contain insignificant quantities of additions and have a minimum volume of the unit cell. Quartz with slightly increased cell volume is connected with pegmatitic and other types of seams where other minerals occur together with quartz, which are rich in alkalies and alkaline earths. 6) Synthetic quartzes obtained from solutions with additions of aluminum, alkalies, and alkaline earths, have increased lattice constants and increased volumina. 7) Synthetic quartzes obtained from solutions containing germanium additions show a certain decrease of the "c"-constant and an increase of the "a"-constant and of the volume of the unit cell. Comparison of the obtained structural characteristics of synthetic quartzes with data of quantitative spectrum analysis is of great interest. Lattice constants of the quartz have a clear tendency to increase if the per-

Card 2/4

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D029/D109

On the phenomenon of "Microisomorphy"...

centage of the additions determinable by spectrum analysis increases. Influence of germanium results in a smaller "c" value. The possible causes of the shown interrelationships are interpreted in the following way: some micro-quantities of additions can enter the quartz lattice forming thus microisomorphic mixtures. This conclusion is proven in the first line by the basic microisomorphic sequence $Si^{4+} \rightarrow Al^{3+} + R^{+}$, R^{+} being Na, K, Li. It must be assumed that Al penetrates into the Silicon-oxygen tetrahedrons, sodium compensating the lacking charges of the aluminum penetrating into the empty channels of the quartz structure, whose radius may amount e.g. at 1 Å. The second sequence, $2\,Si^{4+} \rightarrow 2Al^{3+} + R^{2+}$, R^{2+} being Mg, Fe, Ca, has much less importance. Less certain remains for the present the conclusion as regards the isomorphy silicon-germanium. Data obtained show that the "a" constant and the cell volume increase to a certain degree, but the "c" distance diminishes clearly. One cannot yet state the reason for this anomaly but probably it is not by chance. There are 4 figures and 13 references: 7 Soviet-bloc and 6 non-Soviet-bloc. The references to the four most recent English language publications read: Cohen, A.I., and Sumner, G., Amer. Mineral. 43

Card 3/4

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

23563

On the phenomenon of "Microisomorphy"... G/005/61/000/007/001/006
D029/D109

(1958), Nr. 1-2, S. 58; Keith, H.D., Amer. Mineralog. 40 (1955), Nr. 5-6, S. 530; Sabatier, G., C. r.Acad.Sci. 236 (1953), S. 720; Sabatier, G., and Wyart, I., C. r.Acad.Sci. 239 (1954), S. 1053.

ASSOCIATION: Crystallographic Department of Leningrad University

Card 4/4

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

GRIGOR'YEV, D.P.; BONSHTEDT-KUPLETSKAYA, E.M.; BORNEMAN-STARYNKEVICH, I.D.; GRITSAYENKO, G.S.; TATARSKIY, V.B.; FRANK-KAMENETSKIY, V.A.

To all mineralogists of the Soviet Union. Zap.Vses.min.ob-va 90 no.5:607-608 '61. (MIRA 14:10)

1. Predsedatel' Komissii po novym mineralam Vsesoyuznogo mineralogicheskogo obshchestva (for Grigor'yev). 2. Komissiya po novym mineralam Vsesoyuznogo mineralogicheskogo obshchestva (for all).
(Mineralogical societies)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; SHAFRANOVSKIY, I.I.

Law of crystallographic limits and the principle of close packing. Kristallografiia 6 no.6:892-900 N-D '61. (MIRA 14:12)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova. (Crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

Conference on the Mineralogy and Petrography of Clays held in Prague. Zap.Vses.min.ob-va 90 no.6:758-780 '61. (MIRA 15:2)
(Clay--Congresses)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

KUKHARENKO, A.A.; FRANK-KAMENETSKIY, V.A.; SHAFRANOVSKIY, I.I.

"Minerals," Vol.1. Reviewed by A.A. Kukharenko, V.A. Frank-Kamenetskii, I.I. Shafranovskii. Zap.Vses.min.ob-va 90 no.5: 608-615 '61. (MIRA 14:10)

(Mineralogy, Determinative)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

LOGVINENKO, N.V.; FRANK-KAMENETSKIY, V.A.

Studies in the field of clay mineralogy. Vest.LGU 16 no.24:42-56 '61. (MIRA 14:12)

(Clay)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FUTERGENDLER, S.I.; FRANK-KAMENETSKIY, V.A.

Orientated inclusions of olivine, garnet, and chrome-spinellids in diamonds. Zap. Vses. min.ob-va 90 no.2:230-236 '61. (MIRA 14:9)

1. Tsentral'naya ekspeditsiya Vsesoyuznogo nauchno-issledovatel'skogo geologicheskogo instituta i Leningradskiy gosudarstvennyy universitet.
(Ural Mountains--Diamonds) (Crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; KONDRAT'YEVA, V.V.; KOMKOV, A.I.

Sapphirine. Rent.min.syr. no.1:128-145 '62. (MIRA 16:3)

1. Leningradskiy gosudarstvennyy universitet.
(Sapphirine)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

NUDEL'MAN, S.L.; FRANK-KAMENETSKIY, V.A.

Size of the unit cell of cooperite. Rent. min. syr. no.2: 105-107 '62. (MIRA 16:11)

1. Leningradskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

Unified system for indexing crystal elements as structures showing their diffraction and growth. Min. sbor. no.16: 384-387 '62. (MIRA 16:10)

1. Gosudarstvennyy universitet imeni A.A. Zhdanova, Leningrad. (Crystallography)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

MURATOV, V.N.; FRANK-KAMENETSKIY, V.A.

Refinement of the concept of hardness as a structural state of a substance and its consistency. Zhur.strukt.khim. 3 no.1:106-107 Ja-F '62. (MIRA 15:3)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova. (Hardness)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

LOGVINENKO, N.V.; FRANK-KAMENETSKIY, V.A.

Dickite. Dokl. AN SSSR 143 no.5:1186-1189 Ap '62. (MIRA 15:4)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M.Gor'kogo i Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova. Predstavleno akademikom N.V.Belovym.
(Dickite)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.

X-ray examination of clay minerals. Rent.min.syr. no.1:7-15 '62. (MIRA 16:3)

1. Leningradskiy gosudarstvennyy universitet.
(X-ray crystallography) (Clay--Analysis)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V. A.; LOGVINENKO, N. V.; DRITS, V. A.

"Tosudite - a new mineral formed of mixed-layered phase in alushtite."

Report submitted for the International Clay Conference, Stockholm, Sweden, 12-16 Aug 63.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

GREBENSHCHIKOV, R.G.; FRANK-KAMENETSKIY, V.A.

Slot collimator for the VRS-3 X-ray camera for recording diffraction reflection at small angles. Rent.min.syr. no.3:159-162 '63. (MIRA 17:4)

1. Institut khimii silikatov AN SSSR.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

GREBENSHCHIKOV, R.G.; FRANK-KAMENETSKIY, V.A.

Narrow-slit collimator for the X-ray diffraction examination of a powder under small angles. Zav.lab. 29 no.12:1508 '63. (MIRA 17:1)

1. Institut khimii silikatov AN SSSR i Leningradskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

KARYAKIN, L.I.; KANSKIY, N.Ye.; FRANK-KAMENETSKIY, V.A.

Mikhail Nikolaevich Shkabara; obituary. Zap.Vses.min.ob-va 92 no.4: 496-498 '63. (MIRA 17:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (for Karyakin). 2. Ukrainskiy zaochnyy politekhnicheskiy institut (for Kanskiy). 3. Leningradskiy universitet (for Frank-Kamenetskiy).

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANK-KAMENETSKIY, V.A.; GOGVINENKO, N.V.; DRITS, V.A.

"Tosudit," a dioctahedral mixed-layer clay mineral. Zap. Vses. min. ob-va 92 no.5:560-565 '63. (MIRA 17:1)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

MAKAROCHKIN, B.A.; FRANK-KAMENETSKIY, V.A.; [illegible]

Microlite. Geol. i geofiz. no.7:126-131 '64.

(MIRA 18:8)

1. Gorno-Altayskiy pedagogicheskiy institut i Leningradskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

KUROCHKIN, G.D., kand. geol.-mineral. nauk (Moskva); DEMENT'YEV, G.P., doktor biolog. nauk (Moskva); PETROV, Yu.A., kand. filosof. nauk; FEDOROV, A.S. (Moskva); IL'IN, Ye.I. (Moskva); GALYUK, V.A. (Moskva); NOVIK, I.B. (Moskva); SLUTSKIY, M.S. (Moskva); SHAFRANOVSKIY, I.I., prof.; FRANK-KAMENETSKIY, V.A., prof.

Book reviews. Priroda 54 no.9:60, 103, 111-116 S '65. (MIRA 18:9)

1. Moskovskiy gosudarstvennyy universitet (for Petrov).
2. Leningradskiy gornyy institut im. Plekhanova (for Shafranovskiy).
3. Leningradskiy gosudarstvennyy universitet (for Frank-Kamenetskiy).

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANKE, A.K.

USSR/ Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 15/26

Authors : Izmaylov, N. A., and Franke, A. K.

Title : Mutual solubility in ternary liquid systems. Part 1. The water-isopropyl alcohol-dichloroethane system

Periodical : Zhur. fiz. khim. 29/1, 120-127, Jan 1955

Abstract : The mutual solubility in the water - isopropyl alcohol-dichloroethane system was investigated at 25°C and a binodal curve was plotted which separates the zone of heterogeneous solutions from homogeneous. Refractive indices were determined for many solutions the figurative points of which are represented on the solubility curve at 25°C. The composition of various conjugated bond solutions were determined by their refraction indices. Eleven references: 4 USSR; 2 English; 2 German and 3 USA (1885-1950). Tables; graphs

Institution : Scientific Research Chemical Pharmaceutical Institute, Kharkov

Submitted : May 21, 1954

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium. B-8
Physicochemical analysis. Phase transitions

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11198

Author : Izmaylov N.A., Franke A.K.
Title : Mutual Solubility in Liquid Ternary Systems. II. System Water-Isopropyl Alcohol - Chloroform and Water - Isopropyl Alcohol - Carbon Tetrachloride

Orig Pub : Zh. fiz. khimii, 1955, 29, No 2, 263-271

Abstract : Determination of solubility in liquid ternary systems water (I) - isopropyl alcohol (II) - chloroform (III) and I - II - carbon tetrachloride (IV) was made by the method of isothermic titration at 25°. Composition of conjugated phases was determined from their refraction index. For determination of critical point of miscibility use was made of a somewhat modified method of V.F. Alekseyev. Detailed description of investigation procedure is given by the authors in Communication I (RZhKhim, 1956, 46364). Derived were binodal curves with critical miscibility point at 47.8% by weight of I, 39.8% by weight II and 12.4% by weight III, in the system I - II - III and at 39.6% by weight of I, 43.2% by weight II and 17.2% by weight IV, in the system I - II - IV. Both systems are solutropic; phase selectivity

Card 1/2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium. Physicochemical analysis. Phase transitions B-8

Abs Jour : Referat Zhur- Khimiya, No 4, 1957, 11198

conversion, in relation to the alcohol, takes place at 14.5% by weight of II in the system I - II - III and at 29.5% by weight of II in the system I - II - IV.

Card 2/2

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANKE, A.K.

USSR/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria, Physical-Chemical Analysis, Phase Transitions. B-8

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7174.

Author : N.A. Izmaylov, A.K. Franke.
Inst :
Title : Physical-Chemical Analysis in Solutions and Computation of Interchange Reaction Yield. 3. Interaction of Carboxylic Acids with Butyl Alcohol (according to Cryoscopical Data).

Orig Pub: Ukr. khim. zh., 1956, 22, No 5, 557-566.

Abstract: The interaction of formic (I), acetic (II), monchloracetic (III), trichloracetic (IV) and benzoic (V) acids with butyl alcohol (VI) in benzene was studied by the cryoscopical method. The formation of compounds was established according to the character of the curves composition - change of particles number in the system. The yield of the interaction reaction (concentration of the produced compound) was computed. The maxi-

-48-

Card : 1/2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

IZMAYLOV, N.A.; FRANKE, A.K.; SIMON, I.S.

Use of paper chromatography in obtaining thebaic alkaloids. Report No.1. Med.prom. 13 no.11:36-41 N '59. (MIRA 13:3)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.
(ALKALOIDS) (CHROMATOGRAPHIC ANALYSIS)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANKE, Hans, dr.

Radiation shielding substances. Term tud kozl 7 no.2:63-66 F '63.

1. Korelettani Intezet, Jena.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANKE, V.A.

The danger of high-frequency electromagnetic radiation and the methods of protection. Munkavedelem 6 no.10/12:7-10 '60.

1. Leningradi Munkavedelmi Kutato Intezet tudomanyos munkatarsa.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

88463

S/056/60/039/006/055/063
B006/B063

24.4500

AUTHOR: Franke, V. A.

TITLE: Application of Mandelstam's Method to the Calculation of Scattering Amplitudes With Anomalous Singularities

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 6(12), pp. 1818-1828

TEXT: When using Mandelstam's method for the calculation of scattering amplitudes, two difficulties are encountered if the amplitude has anomalous singularities. The first difficulty is due to the fact that Mandelstam's representation requires a generalization for scattering amplitudes, while the second one is due to the circumstance that discontinuities of the scattering amplitudes cannot be determined by unitarity conditions. The first difficulty can be easily overcome if the simplest anomalous singularities are considered. This difficulty is now studied by the example of two interacting scalar fields. Several possibilities of eliminating the second difficulty have been discussed in Refs. 2,3. The two interacting scalar fields describe particles of the

Card 1/2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

88463

Application of Mandelstam's Method to the Calculation of Scattering Amplitudes With Anomalous Singularities

S/056/60/039/006/055/063
B006/B063

masses M and m, which satisfy the condition $m\sqrt{3} > M > m\sqrt{2}$. In this case, the scattering amplitudes have anomalous singularities. For simplification it is assumed that $2m \sin 50^\circ > M$. Using a method by Cutkosky (Ref. 3), expressions are now derived in perturbation-theoretical approximation for the amplitude jumps at the sections through the anomalous singularities. As a result, integral equations are obtained, whose solutions via expansion in power series of the coupling constant are equivalent to summations of a certain class of Feynman graphs. This class encompasses all the graphs covered by the Mandelstam method in the absence of anomalous singularities. Finally, the conditions are examined, under which the results obtained can be extended to more general cases. K. A. Ter-Martirosyan and L. D. Landau are mentioned. There are 6 figures and 7 references: 2 Soviet and 5 US.

ASSOCIATION: Leningradskiy institut okhrany truda (Leningrad Institute of Industrial Hygiene)

SUBMITTED: July 29, 1960

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

S/054/63/004/001/002/022
B102/B186

AUTHORS: Kuni, F. M., Franke, V. A.

TITLE: One possibility for taking into account the jumps in transition amplitude above the production threshold of more than two particles

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 1, 1963, 15-19

TEXT: A method is developed for calculating the inelastic components of the absorptive part of the partial amplitudes on the physical cut. The initial assumptions made are the same as are usually applied in calculations based on the two-particle Mandelstam method. As a discussion of the conditions

$$\langle 2'|A|2\rangle_{\text{упр}} = \int d\Omega_{2''} \langle 2'|T|2''\rangle^* \langle 2''|T|2\rangle, \quad (4)$$

$$\langle 2'|\widetilde{A}|2\rangle_{\text{упр}} = \int d\Omega_{2''} \langle 2'|T|2''\rangle \langle 2''|T|2\rangle^*. \quad (4a)$$

holding for the elastic components of the absorptive part of the amplitudes shows, the condition

Card 1/2

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$$\frac{\operatorname{Im}\int d\Omega_{2''}\langle 2'|T|2''\rangle^{*}\langle 2''|T|2\rangle}{\left|\int d\Omega_{2''}\langle 2'|T|2''\rangle^{*}\langle 2''|T|2\rangle\right|}=0 \qquad (5)$$

will be valid also above the production threshold of more than two particles. Eq.(5) ensures validity of all calculations based on the two-particle Mandelstam method. With the $N\bar{N}\to 2\pi$ reaction as an example it is shown that this condition yields equations for the partial amplitudes when both elastic and inelastic components of the absorptive part are taken into account. This method can also be generalized for other reactions.

SUBMITTED: September 15, 1962

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

L 14028-65 EWT(m)/T/EWA(m)-2 AS(mp)-2/ASD(a)-5/AFWL/ESD(t)
ACCESSION NR: AP4043641 S/0056/64/047/002/0632/0643

AUTHOR: Kuni, F. M.; Franke, V. A.

TITLE: On the formulation of a theory of low-energy scattering of elementary particles based on spectral and unitary conditions

SOURCE: Zh. eksper. i teor. fiz., v. 47, no. 8, 1964, 632-643

TOPIC TAGS: elementary particle, particle scattering, wave function, dispersion relation

ABSTRACT: This work describes a modification of an approach, described by K. A. Ter-Martirosyan (ZhETF, v. 39, 827, 1960), for the construction of a closed and internally consistent system of equations for low-energy scattering. This modification makes it possible to deal with partial waves, instead of the complete amplitude, so that one can use the unitary condition in its simplest form for partial waves. The work is also similar to the "strip approximation" of Chew. Although the authors emphasize their need to use only integer ℓ, they use the complex ℓ plane in discussing the properties of certain nonphysical partial waves that enter into their equations.

Card 1/2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

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ACCESSION NR: AP4043641

These are waves for odd integer values of ℓ, which are not physically meaningful for a system of two identical bosons. "The authors express their gratitude to Prof. Yu. V. Novozhilov for discussion of the work." Orig. art. has: 2 figures and 45 formulas.

ASSOCIATION: Leningradskiy gosudarstvenny*y universitet (Leningrad State University)

SUBMITTED: 23Feb63 ENCL: 00

SUB CODE: NP NO REF SOV: 005 OTHER: 007

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1

FRANKE-LESZCZYŃSKA, H.

"Budowa i obsługa sutoklawów" (Construction and handling of autoclaves), by H. Franke-Leszczyńska. Reported in New Books (Nowe Ksiazki), No. 14, July 15, 1955

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413610005-1"