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LYAKHOVICH, V.V., kandidat geologo-mineralogicheskikh nauk.

Changes in sedimentary rock produced by underground coal fires. Priroda 41 no.7:107-110 Jl '53. (MLRA 6:6)

1. Institut geologii Vostochno-Sibirskogo filiala Akademii nauk SSSR. (Rocks, Sedimentary)

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1. LYAKHOVICH, V.V.

2. USSR (600)

4. Angara Valley - Dikes (Geology)

7. Origin of sand dikes in tuffaceous strata of the Tungus series, Dokl. AN SSSR 90 no. 1 1953.

Observations in region of the middle course of the Angara River. Concludes that distribution of dikes in sections, especially of saturated bodies of trap rock, where seismic vibrations were probably strongest, allows one to consider these jerkings shocks to be the main force in the dike-forming process. Presented by Acad D. S. Belyankin 4 Mar 53

259T45

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

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Endomorphic changes in young granites in contact with limestone in the Baksan Valley. Trudy Inst.geol.nauk 148:70-91 '53. (MLRA 6:12)
(Baksan Valley--Granite) (Baksan Valley--Limestone)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

New data on the mineralogy of achtaragdite of the Vilyui formation. V. V. Lyakhovich. *Trudy Vostochno-Sibirsk. Filiala, Akad. Nauk S.S.S.R.*, Ser. Geol. 1, 85–110(1954); cf. *C.A.* 47, 8596g.—The deposits at the Vilyui River basin are studied by chem. and spectrographic analysis, x-ray diffraction, and differential thermal analysis. The formation is found to contain yellow clay, grossularite, limestone, serpentine, serpofite, achtaragdite, garnet, vilyuite, and diabase. The serpofite is shown by different thermal analysis to be analogous to the serpofite found in Transcaucasia (a small endothermic effect at 120° due to absorbed water, a min. at 680° and a max. at 790°). The grossularite is green and has several crystal modifications. It has a hardness of 7 and sp. gr. 3.6. It is mixed with andradite, pyrope as well as schorl. Spectrographic analysis revealed moderate amts. of Be in addn. to the trace elements. Vilyuite forms acicular crystals with hardness of 6.5 and sp. gr. 3.3. Different thermal analysis shows weak endothermic effects at 200° and 350° owing to loss of constitution water and a strong endothermic effect at 1040° owing to the fusion of vilyuite. The different thermal analysis of the grayish achtaragdite (hardness 2.5, sp. gr. 2.3) reveals an analogy with serpentine (two endothermic min. at 650° and 790° and an exothermic max. at 820°). X-ray diffraction shows that achtaragdite is a mixt. of grossularite and serpentine and chem. analysis indicates the presence of Be.

Paul Y. Feng

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Scoriaceous rocks of the Markha Valley. Trudy Vost.-Sib.fil.AN SSSR no.2:49-65 '55. (MLRA 9:5)
(Markha Valley--Rocks, Igneous)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Data on the petrography of traps of the southern part of the Tunguska Basin. V. V. Lyakhovich. (Trudy Vostoch.-Sibir. Filiala Akad. Nauk S.S.S.R., Ser. Geol. 1955, No. 2, 66-88.—A report of results of a petrographic study of traps of the Angara and Stony Tunguska rivers. Mineralogical compos. are given. Compn. diagrams are presented for gabbro-diabases and diabase-pegmatites. 15 references.

Gladys S. Macy

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

New varieties of wiluite. Min.sbor.no.9:128-144 '55. (MLRA 9:9)

1.Moskva. Laboratoriya mineralogii i geokhimii redkikh elementov AN SSSR. (Wiluite)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH V.V

USSR/ Geology - Rock formation

Card 1/1 Pub. 46 - 5/21

Authors : Zaytsev, N. S., and Lyakhovich, V. V.

Title : Ultrabasic veined rocks of the Chadobets highland

Periodical : Izv. AN SSSR. Ser. geol. 20/2, 58 - 66, Mar-Apr 1955

Abstract : A description is presented of the unique rock formation in the Chadobets region of the pre-Cambrian massif of the Siberian platform. The conditions of its stratification and petrification and data of spectral analysis are presented, and some comparisons are made with rocks of similar composition from other regions. Thirteen Soviet references (1910-1954). Illustration; table.

Institution : .....

Submitted : June 25, 1954

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

Lyakhovich, V. V.

USSR/ Minerals - Mineralogy

Card 1/1 Pub. 22 - 40/49

Authors : Lyakhovich, V. V.

Title : New discoveries of vesuvianites in Yakutia

Periodical : Dok. AN SSSR 101/3, 545-548, Mar 21, 1955

Abstract : A new discovery of the rare mineral vesuvianite in the Yakutsk country of the USSR is reported. The chemical properties of the mineral are tabulated. Six references: 5 Russian and USSR and 1 German (1793-1954). Tables; drawings.

Institution : Acad. of Sc., USSR, Laboratory for Mineralogy and Geochemistry of Rare Elements

Presented by : Academician D. I. Shcherbakov, December 3, 1954

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Ultrabasic rocks of the middle Vitim mountain Region. Trudy Inst. geol.nauk no.159:51-68 '55. (MLRA 9:5)
(Vitim plateau--Rocks, Igneous)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Contact phenomena associated with Siberian trap. Trudy Inst. geol. nauk no.159:118-165 '55. (MLRA 9:5)
(Rocks, Igneous)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V. V.

USSR/Cosmochemistry - Geochemistry. Hydrochemistry D.

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4154

Author : Lyakhovich, V. V.
Inst : Academy of Sciences USSR
Title : On Biotitic Porphyrite from Vilyuya River

Orig Pub : Izv. AN SSSR, Ser. geol., 1956, No 4, 102-109

Abstract : In the area of Ering pipe (RZhKhim, 1956, 12684, 71451) a study was made of small dykes of porphyrite with numerous biotite laminae. Average modal composition of rock (in % by volume): $SiO_2$ 45.70, $TiO_2$ 0.83, $Al_2O_3$ 18.88, $Fe_2O_3$ 6.68, FeO 6.58, MgO 3.48, CaO 10.48, $Na_2O$ 2.67, $K_2O$ 1.36, $H_2O^+$ 2.18, $H_2O^-$ 0.98, total 99.82.

Spectral analysis revealed in the mica Pb, Cu, Co, Ni, Mn, Cr, V and Ti. Considering the porphyrites as

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Concerning the article of P.E.Offman and A.S. Novikova "Ering's volcanic pipe." Izv.AN SSSR. Ser.geol. 21 no.9:110-114 S '56. (MLRA 9:11)

1. Laboratoriya mineralogii i geokhimii redkikh elementov Akademii nauk SSSR, Moskva.
(Eringa Valley--Volcanic ash, tuff, etc.)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V. V.

Pisolitic tuffs from the Siberian platform. V. V. Lyakhovich. *Doklady Akad. Nauk S.S.S.R.* 110, 137-9(1956).—Especially in and near the Basin of the Tunguska, abundant volcanic tuffs occur, formed under highly complex and variable geol. conditions of deposition. The petrographic character of these typical explosion tuffs varies widely from psephitic to psammitic types, either vitroclastic, or crystallo-blastic, often rich in lapilli and ashes in all forms of agglomeration. A new and particular type is the pisolitic form of the tuffs in the Valley of Rivers Podkamennaya, Tunguska, and Nizhnyaya Tunguska, and Chone. The pisolites are easily loosened from the rock, with a smooth surface of sepn. Color is yellow-gray, bluish gray, or brick-red. The tuffs contain microscopic fragments of quartz, plagioclase, and pyroxene, and $Fe_2O_3$ hydrates, in a pale-green cement of chloritic-zeolitic material derived from the original glass. The pisolites have a concentric structure, mostly with quartz fragments in a chloritic matrix. The elongated or tabular minerals always are oriented in a tangential position on the pisolitic shells. The interposition of the pisolites in the vitrophyric volcanic material is rather similar to the "glass pisolites" observed by Kvasha (*C.A.* 49, 8754*h*) in lavas of volcano Arailer. The pisolites of the Siberian tuffs have been formed either by (1) rain drops falling on the loose tuffaceous ashes, or (2) by rain drops collecting ash material while flying through volcanic clouds and falling to the ground, or (3) by condensation of steam in the eruption clouds around ash particles (cf. Foye, *Bull. Geol. Soc. Amer.* 35, No. 2 (1924); Pratt, *C.A.* 10, 2670). Probably, a combination of the processes (1) and (2) is the origin of the pisolites here described.

W. Eitel

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Trace elements and accessory minerals in modern petrography. V. V. Lyakhovich. *Trudy, Inst. Mineral., Geokhim. i Kristallokhim. Redkikh Elementov. Voprosy Mineral., Geokhim. i Genezisa Mestorozhdeniy Redkikh Elementov* 1957, No. 1, 80-92.—The importance of quant. study of trace elements and accessory minerals in igneous and sedimentary rocks is pointed out. A unified method for quick determ. of accessory minerals is proposed. It consists in crushing a 10-kg. sample to 0.5-0.2 mm. size, double rinsing, electromagnetic sepn. of the heavy minerals into fractions, and estn. of percentages of the mineral in the rock. A. V.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Distribution of trace elements in Siberian traps. Trudy Inst. min., geokhim. i kristallokhim. red. elem. no.1:93-120 '57. (MIRA 11:6)
(Siberian Platform--Rocks, Igneous)
(Trace elements)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Mineralogy of palagonites. Min.sbor. no.11:193-222 '57.
(MIRA 13:2)

1. Laboratoriya mineralogii i geokhimii redkikh elementov AN SSSR, Moskva.
(Palagonite)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V

30-8-24/37

AUTHOR: Lyakhovich, V.V., Candidate of Geological and Mineralogical Sciences

TITLE: The Investigation of the Geology, Mineralogy, and Geochemistry of the Rare Elements (Issledovaniya geologii, mineralogii i geokhimii redkikh elementov)

PERIODICAL: Vestnik Akademii Nauk SSSR, 1957, Vol. 27, Nr 8, pp. 99-100 (USSR)

ABSTRACT: During recent years the interest in rare elements has been steadily rising. These elements are of ever increasing importance for the solution of numerous scientific problems. At the coordinating assembly of the representatives of AN USSR as well as of the Academies of the various republics of the Union it was agreed upon that a prepared and uniform plan in this case is not to the purpose, but that attention must be concentrated upon the following basic problems: The rare metal minerals, their paragenesis, the geochemistry of rare elements, crystallochemical work on dispersed and rare elements, and the investigation of the rules governing their distribution. It was pointed out that it would be useful to

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30-8-24/37

The Investigation of the Geology, Mineralogy, and Geochemistry of the Rare Elements

establish special cells within the institutes or in laboratories, which would deal solely with the aforementioned research work. It was decided to convene a union conference every year.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Palygorskite group minerals from Yakutia. Dokl. AN SSSR 112 no.2: 322-324 Ja '57. (MLRA 10:4)

1. Laboratoriya mineralogii i geokhimii redkikh elementov Akademii nauk SSSR. Predstavleno akademikom D. I. Sherbakovym.
(Yakutia--Palygorskite)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.; ZOLOTAREV, B.P.; RODIONOV, D.A.; SOBOLEV, S.F.

Accessory minerals in granitoids of the Gornyy Altai. Trudy Inst.min., geokhim.i kristalokhim.red.elem. no.2:144-163 '59. (MIRA 15:4)

(Altai Mountains--Trace elements)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Some data on the composition of accessory magnetite. Trudy Inst. min., geokhim. i kristallokhim. red. elem. no. 3:89-103 '59. (MIRA 14:5)

(Magnetite)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.; NONESHNIKOVA, V.I.; CHERVINSKAYA, A.D.

Some data on accessory minerals of granitoids. Trudy Inst. min., geokhim. i kristallokhim. red. elem. no. 3:104-126 '59. (MIRA 14:5)

(Minerals) (Granite)

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LYAKHOVICH, V.V.

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PHASE I BOOK EXPLOITATION SOV/5740

Akademiya nauk SSSR. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov

Voprosy mineralogii, geokhimii i genezisa mestorozhdeniy redkikh elementov (Problems in Mineralogy, Geochemistry, and Deposit Formation of Rare Elements) Moscow, Izd-vo AN SSSR, 1960. 255 p. (Series: Its: Trudy, vyp. 4) Errata printed on the inside of back cover. 2,200 copies printed.

Chief Ed.: K. A. Vlasov, Corresponding Member, Academy of Sciences USSR; Resp. Ed.: V. V. Lyakhovich; Ed. of Publishing House: L. S. Tarasov; Tech. Ed.: P. S. Kashina.

PURPOSE: This book is intended for geologists, mineralogists, and petrographers.

COVERAGE: This is a collection of 23 articles on the formation, geology, mineralogy, petrography, and geochemistry of deposits of rare elements in Siberia and [Soviet] Central Asia. The distribution and characteristics of rare elements found in these areas as well as some quantitative and qualitative methods of investigating the rocks and minerals in which they are found,

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or with which they are associated, are discussed. Two articles present an economic investigation of the possibilities of industrial extraction and utilization of selenium, tellurium, and hafnium. No personalities are mentioned. Each article is accompanied by references.

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Problems in Mineralogy (Cont.) SOV/5740

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.; CHERVINSKAYA, A.D.

Effect of assimilation processes on the occurrence of accessory minerals in granitoids. Izv. AN SSSR. Ser. geol. 25 no.5:67-78 My'60. (MIRA 13:10)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AN SSSR, Moskva.
(Granite)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.; BARINSKIY, R.L.

Characteristics of rare earth composition in accessory minerals of granitoids [with summary in English]. Geokhimiia no.6:467-479 '61. (MIRA 14:6)

1. Institute of Mineralogy, Geochemistry and Crystal Chemistry of Rare Elements, Academy of Sciences U.S.S.R., Moscow.
(Rare earth metals)
(Rocks, Igneous)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

RODIONOV, D.A.; LYAKHOVICH, V.V.

Statistical study of spatial distribution of accessory mineral concentrations in granites of the El'zhurtu Massif. Dokl. AN SSSR 134 no.5:1177-1180 O '60. (MIRA 13:10)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov Akademii nauk SSSR. Predstavleno akademikom D.S. Korzhinskim.
(Baksan Valley--Granite)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

S/677/61/000/007/003/003
E193/E383

AUTHORS: Lyakhovich, V.V., and Chervinskaya, A.D.

TITLE: Accessory minerals in Tyrny-Auz granitoids and their petrogenetic significance

SOURCE: Akademiya nauk SSSR. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov. Trudy, no.7, 1961. Voprosy mineralogii i geokhimii redkikh elementov. 156-181

TEXT: The Tyrny-Auz deposit, one of the largest tungsten-molybdenum deposits of the scarn type, is situated in the Tyrny-Auz mobile region, characterized by the presence of numerous breaks which, to a great extent, have determined the localized concentration of various volcanic rocks, including leucocratic granitoids. One of the more important problems of the geology of Tyrny-Auz deposits is the relationship between the granitoids of leucocratic complex and the largest porphyritic granite massive in the El'dzhurtu region. Another equally important problem is posed by the relationship between

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Accessory minerals in Tyrny-Auz ... S/677/61/000/007/003/003
E193/E383

the tungsten-molybdenum deposits in the Tyrny-Auz mobile region and the El'dzhurtu or leucocratic granitoids. Elucidation of these problems would provide an answer to the question on the origin of the tungsten-molybdenum deposits; hence the present paper in which the quantitative mineralogical and chemical analyses of various modifications of El'dzhurtu and leucocratic granitoids are presented as well as quantitative data on the content of accessory minerals in El'dzhurtu and Tyrny-Auz granitoids. The latter data are summarized in Table 9. Comparative data are also presented on SrO and Mo contents in some accessory minerals of the Tyrny-Auz and other deposits. Detailed analysis of these data led the present authors to the following conclusions.

1) It is very likely that leucocratic granitoids represent formations younger than El'dzhurtu granite.

2) A large number of common geochemical characteristics of the El'dzhurtu granite and leucocratic granitoids indicate the comagnetic character of these formations.

Card 2/4

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3) An increased molybdenum content in El'dzhurtu granite and a similar concentration of molybdenum in ilmenite, sphene and biotite indicate that El'dzhurtu granite is the original source of molybdenum-bearing minerals.
There are 11 tables and 27 Soviet-bloc references.

Table 9: Chart showing the similarities and differences in the composition of accessory minerals (g/t) in Tyrny-Auz granitoids

| Minerals | Granite | | Aplite | Leuco-cratic Granite | Trondh-jemite | Paleo-granite |
|---|---|---|---|---|---|---|
| | El'dzhur-tu | From con-tact region | | | | |
| Apatite | 221.0 | 103.7 | 53.0 | 50.7 | 14.0 | 793.0 |
| Monazite | 20.0 | 1.3 | 0.3 | 9.0 | + | 40.0 |
| Zirconium | 176.0 | 71.7 | 40.7 | 6.4 | 5.0 | 43.0 |
| fluorite | 15.0 | 2.2 | 0.1 | 7.0 | + | + |
| granate | 1.0 | 4126.3 | 14.9 | 90.0 | 1.0 | + |



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Accessory minerals .... S/677/61/000/007/003/003
(Table 9 cont.) E193/E383

| | | | | | | |
|---|---|---|---|---|---|---|
| Magnetite | 58.0 | + | 1.6 | 0.4 | 2.0 | + |
| Ilmenite | 21.2 | 111.1 | 0.7 | 3.4 | 854.5 | + |
| Pyrite | 11.5 | 1.3 | 0.6 | 11.0 | 173.0 | + |
| Molybdenite | 0.7 | 0.4 | 0.1 | 114.0 | + | + |
| Sphene | 5.5 | 406.6 | 0.6 | 95.0 | + | + |
| Arsenopyrite | 1.8 | 2.3 | + | 0.5 | 30.0 | + |
| Chalcopyrite | 4.0 | 0.3 | + | 4.2 | + | - |
| Ortite | 99.0 | 135.0 | 15.0 | 73.0 | 3.0 | - |
| Torite | + | 1.7 | + | + | + | - |
| Sphalerite | 0.3 | 0.1 | + | 3.3 | 1.0 | - |
| Vesuvianite | - | 20.4 | 0.5 | 10.0 | + | - |
| Wollastonite | - | 58.8 | 0.1 | 0.5 | - | - |
| Tourmaline | + | + | + | - | - | - |
| Cassiterite | 0.3 | + | 0.1 | - | - | - |
| Moissanite | + | + | + | + | - | - |
| Bismuthine | + | + | 0.2 | 0.2 | - | - |
| Scheelite | 0.1 | 19.5 | + | 2.1 | - | - |
| Uraninite | 0.1 | 0.1 | + | + | - | - |
| Tantalo-niobate | + | 0.1 | 0.4 | 3.0 | - | - |
| Xenotime | 0.7 | 0.1 | 0.1 | + | - | + |
| Galenite | + | 0.1 | - | 0.2 | - | 0.6 |

Card 4/4

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V., kand.geol.-mineral.nauk

Fulgurites. Priroda 50 no.11:89-90 N '61. (MIRA 14:10)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AN SSSR (Moskva).
(Fulgurite)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Rare earth elements in accessory minerals of granitoids [with summary in English]. Geokhimiia no.1:37-52 '62. (MIRA 15:2)

1. Institute of Mineralogy, Geochemistry and Crystal Chemistry of Rare Elements, Moscow.
(Rare earth metals)(Trace elements)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.; SHEVALEYEVSKIY, I.D.

Zirconium hafnium ratio in the accessory zircon of granitoids. Geokhimiia no.5:440-452 '62. (MIRA 15:7)

1. Institute of Mineralogy, Geochemistry and Crystal Chemistry of Rare elements, Academy of Sciences, U.S.S.R., Moscow.
(Zirconium) (Hafnium)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.; RODIONOV, D.A.

Methodology of studying accessory minerals in igneous rocks. Trudy Inst. min., geokhim. i kristallokhim. red. elem. no.6: 17-55 '61. (MIRA 15:3)

(Rocks, Igneous) (Mineralogy)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V. V.

On the distribution of rare elements in the vertical section of a granite massif. Dokl. AN SSSR 147 no.4:927-930 D '62.
(MIRA 16:1)

1. Institut mineralogii geokhimii i kristallokhimii redkikh elementov AN SSSR. Predstavleno akademikom D. S. Korzhinskim.

(Trace elements) (Granite)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Petrographic and mineralogic characteristics of amblygonite- and spodumene-bearing granites. Izv. AN SSSR. Ser.geol. 28 no.3:63-82 Mr '63. (MIRA 16:2)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov, Moskva.

(Granite--Analysis)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

KOPTEV-DVORNIKOV, V.S.; LYAKHOVICH, V.V.

Results of the First Meeting on the Methods for Studying Accessory Minerals in Igneous Rocks. Sov.geol. 6 no.8:134-137 Ag '63. (MIRA 16:9)

(Trace elements) (Rocks, Igneous)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Distribution of Li,Rb, and Sr in vein rocks associated with granitoids. Geokhimia no.7:652-657 Jl '63. (MIRA 16:9)

1. Institute of Mineralogy, Geochemistry and Crystal Chemistry of Rare Elements, Academy of Sciences, U.S.S.R., Moscow.
(Granite—Analysis) (Ore deposits)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Some characteristics of the cesium content in granitoids. Dokl. AN SSSR 153 no.6:1424-1427 D '63. (MIRA 17:1)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov. Predstavleno akademikom D.I. Shcherbakovym.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Losses occurring during the separation of accessory minerals from igneous rocks. Trudy IMGRE no.18:147-150 '63. (MIRA 16:12)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.; CHERVINSKAYA, A.D.

Accessory minerals in granitoids of the Tyrny-Auz deposit and their petrographic significance. Trudy IMGRE no.7:156-181 '61. (MIRA 16:11)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.; NONESHNIKOVA, V.I.

Accessory minerals in granite intrusions of western Tuva and vein rocks associated with them. Trudy IMGRE no.7:182-211 '61. (MIRA 16:11)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Accessory minerals and the absolute age of igneous rocks.
Trudy IMGRE no.7:212-225 '61. (MIRA 16:11)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

[Accessory minerals of granitoids; brief annotated bibliography] Aktsessornye mineraly granitoidov; kratkaia annotirovannaia bibliografiia. Moskva, In-t mineralogii, geokhimii i kristallokhimii redkikh elementov, 1964. 227 p. (MIRA 17:5)

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LYAKHOVICH, V.V.; NONESHNIKOVA, V.I.; CHERVINSKAYA, A.D.; ROZANOV, K.I.

Characteristics of the distribution of accessory minerals in altered granitoids. Krat. soob. IMGRE no.1:30-32 '60.

Accessory minerals in granitoids of the Ural Mountains. Ibid.:33-34 '60. (MIRA 17:3)

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LYAKHOVICH, V.V.; CHERVINSKAYA, A.P.; ROZANOV, K.I.

Accessory minerals in granitoids of the Tyrny-Auz deposit.
Krat. soob. IMGRE no.1:35-37 '60. (MIRA 17:3)

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LYAKHOVICH, V.V.

Accessory minerals and the efficient nomenclature of granitoids. Sov. geol. 6 no.9:30-50 S '63. (MIRA 17:10)

1. Institut mineralogii geokhimii i kristallokhimii redkikh elementov.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Some characteristics of accessory zircon in granitoids.
Trudy IMGRE no.15:136-151 '63. (MIRA 16:11)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Accessory minerals of effusive and subeffusive rocks.
Izv. AN SSSR. Ser. geol. 28 no.12:80-90 D'63. (MIRA 17:2)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov, Moskva.

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ILYAKHOVICH, V.V.

Chromic chlorite-kotschubeite from Eastern Siberia. Geol. i geofiz. no.11:144-146 '64. (MIRA 18:4)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov, Moskva.

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LYAKHOVICH, V.V.

One feature of ore-bearing granitoids. Geol. rud. mestorozh. 6 no.2:70-84 Mr-Ap '64. (MIRA 17:6)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AN SSSR, Moskva.

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LYAKHOVICH, V.V.; CHERVINSKAYA, A.D.

Accessory minerals in the ancient granitoids of platforms. Min.sbor. 18 no.2:145-156 '64. (MIRA 18:5)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov AN SSSR, Moskva, i Gosudarstvennyy geologicheskiy komitet SSSR, Moskva.

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LYAKHOVICH, V.V.

Characteristics of the content of rare elements in schlieren disaggregations of granites. Dokl. AN SSSR 159 no.2:351-354 N '64. (MIRA 17:12)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov. Predstavleno akademikom D.S. Korzhinskim.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Characteristics of the tin and boron content in granitoids. Geokhimiia no.1:25-31 Ja '65. (MIRA 18:4)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov, Moskva.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, V.V.

Dependence of the content of accessory minerals in granitoids on the composition of biotite. Geol. i geofiz. no.8:105-117 '65. (MIRA 18:9)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov, Moskva.

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SOBOLEV, Sergey Fedorovich; LEBEDEV, A.P., doktor geol.-miner. nauk, otv. red.; LYAKHOVICH, V.V., red. BARSUK, A.M., red.

[Gabbro-tonalite complex of the Polar Urals; materials on the study of accessory minerals and rare elements] Cabbro-tonalitovyi kompleks Poliarnogo Urala; po materialam izucheniia aktsessornykh mineralov i redkikh elementov. Moskva, Nauka, 1965. 161 p. (MIRA 18:9)

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SHLYK, A.A.; LYAKHNOVICH, Ya.P.; KALER, V.L.; LIPSKAYA, G.A.

Relation of chlorophyll replacement to photosynthesis. Biul. Inst.biol.AN BSSR no.3:106-110 '58. (MIRA 13:7)
(CHLOROPHYLL) (PHOTOSYNTHESIS)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

SHLYK, A.A.; LYAKHNOVICH, Ya.P.; KALER, V.L.; LIPSKAYA, G.A.

Discrimination of chlorophyll molecules during disintergration in an aging plant. Biul.Inst.biol.AN BSSR no.3:111-114 '58. (MIRA 13:7)

(CHLOROPHYLL)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

SHLYK, A.A.; ROTFARB, R.M.; LYAKHNOVICH, Ya.P.

Criteria for the radiochemical purity of chlorophyll. Biul. Inst. biol. AN BSSR no.3:115-120 '58. (MIRA 13:7)
(CHLOROPHYLL)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

KHRENOV, Leonid Sergeyevich, prof.; Prinimal uchastiye ZAPRUDNOV, B.D., inzh.; KAMENEV, N.P., dots., ofitsial'nyy retsenzent; SHAROV, I.F., ofitsial'nyy retsenzent; BRUYEVICH, N.I., nauchnyy red.; LYAKHOVICH, Ye.A., red.; SHIBKOVA, R.Ye., tekhn. red.

[Geodesy] Geodeziia. Izd.2. Moskva, Goslesbumizdat, 1962. 476 p. (MIRA 16:6)

1. Vsesoyuznyy zaochnyy lesotekhnicheskiy institut (for Kamenev). 2. Khrenovskiy lesnoy tekhnikum (for Sharov). (Geodesy)

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GRUBE, Aleksandr Eduardovich, prof.; VARAKSIN, F.D., red.; LYAKHOVICH, Ye.A., red. izd-va; VDOVINA, V.M., tekhn. red.

[Woodcutting tools with hard alloy plates; design and operation] Derevorezhushchie instrumenty s plastinkami iz tverdykh splavov; konstruktsii i ekspluatatsiia. Moskva, Goslesbumizdat, 1963. 147 p. (MIRA 16:6)
(Woodworking machinery) (Alloys)

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MOISEYEV, Nikolay Aleksandrovich; SERGEYEV, P.A., red.; LYAKHOVICH, Ye.A., red. izd-va; KAZANSKAYA, L.I., tekhn. red.

[Calculation and organization of forest exploitation] Raschet i organizatsii pol'zovaniia lesom. Moskva, Goslesbumizdat, 1963. 152 p. (MIRA 17:3)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

KHAZANDZHI, Vladimir Mikhaylovich; KHRYAPOVA, O.K., nauchn. red.; LYAKHOVICH, Ye.A., red.

[Manufacture of phonograph records] Proizvodstvo grammofonnykh plastinok. Moskva, Vysshaia shkola, 1965. 175 p. (MIRA 18:2)

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, Ya. F

Dissertation: "Investigation of Electrode Processes in Stannic Acid Electrolytes Used for Electrolytic Tin-Plating." Cand Tech Sci, Moscow Institute of Nonferrous Metals and Gold, Moscow, 1953. (Referativnyy Zhurnal-Khimiya, No 9, Moscow, May 54)

SO: SUM 318, 23 Dec 1954

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, Ye.F.; YASHINA, N.I.

Combined chromium-plating of calculating machine parts. Priborostroenie no.7:27-28 Jl '56. (MLRA 9:8)
(Calculating machines) (Chromium plating)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, Ye.F.

Microbiological testing of materials and parts used in tropical conditions. Priborostroenie no.3:22-23 Mr '57. (MLRA 10:5)
(Tropics) (Microbiology) (Corrosion and anticorrosives)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, E.F.

Behavior of some materials and protective coverings under the conditions [illegible] E. F. Lyakhovich. [illegible] were shipped from Russia to Calcutta packed in soldered galvanized containers contg. silica gel to absorb moisture, and enclosed in wooden shipping boxes. The parts of the shipment that retained their hermetic seal unbroken during the trip showed no trace of rust or other defects except a white coating on silver-plated tungsten contacts, [illegible] cracking of the enamel on [illegible] machines. [illegible] their hermetic [illegible] of [illegible] tive grease layers [illegible] on [illegible] to passivation [illegible] plated [illegible] with a [illegible] form on [illegible] parts, to cover them with a [illegible] (after passivating), to plate [illegible] chromium [illegible]

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, Ye. F.

AUTHOR: Lyakhovich, Ye.F. 119-2-6/13

TITLE: The Production of Solid Nickel Layers From Oxalic Acid Electrolytes (Polucheniye tverdykh nikelevykh pokrytiy iz shchavelevokislykh elektrolitov).

PERIODICAL: Priborostroyeniye, 1958, Nr 2, pp. 19-21 (USSR)

ABSTRACT: In the production of movable parts of computers these parts are frequently provided with a galvanically produced metal coating. They are protected from corrosion and, besides, their durability is increased. Chroming is difficult, especially in the case of complicated details. As a very good coating, both as regards hardness and resistance against corrosion, nickel layers can be used. As a result of long investigations, and with conservation of the composition of the electrolyte and the given regime, a formation of layers, which is always reproducible, is warranted:

| | |
|---|---|
| Hydrochloride of nickel in g/l . . . . | 140 |
| Ammonium oxalate in g/l . . . . . | 300 |
| pH-value . . . . . | 7.5 to 8 |
| Current density in $A/dm^2$ . . . . . | 10 |
| Temperature in $^{o}C$ . . . . . | 75 to 80 |


Card 1/2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

The Production of Solid Nickel Layers From Oxalic Acid Electrolytes

119-2-6/13

At these conditions the settling velocity of nickel is 50-60 $\mu$/h. The hardness of the nickel layer is between 550 and 650 kg/mm$^2$. If it is intended to increase the hardness of the layer by further 200-250 kg/mm$^2$, the layers must be subjected to heating of 300° in a muffle furnace for ~ 60 min. There are 3 figures.

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Card 2/2 1. Electroplating 2. Nickel plating 3. Mathematical computers-Manufacture

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

AUTHOR: Lvakhovich, Ya. F., Candidate of Technical Sciences SOV/119-58-9-7/18

TITLE: Electroplating of Contacts (Gal'vanicheskiye pokrytiya kontaktov)

PERIODICAL: Priborostroyeniye, 1958, Nr 9, pp. 18-20 (USSR)

ABSTRACT: As contact coatings the noble metals silver, gold, platinum, palladium, and rhodium are used in electrodeposited form. Of all the electrodeposits mentioned, rhodium deposits seem to be most stable against chemical and mechanical modifications. The following thickness values are recommended for rhodium deposits:

| | |
|---|---|
| For protection of surface against oxidation, at low switching rates | 0,1 μ |
| For high-frequency circuits at low loads | 1,0 μ |
| For low-frequency circuits at low loads, with slight mechanical wear | 2,5 μ |
| For protection against corrosion under any atmospheric conditions | 5,0 μ |
| For high loads, with strong mechanical wear | 10 - 15 μ and more |

Card 1/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

Electroplating of Contacts SOV/119-58-9-7/18

Furthermore, electrolyte composition and bath operating data are given for silver, gold, platinum, palladium, and rhodium plating of contacts. Process data given for silver, palladium, and rhodium were tested with various contact shapes.
There are 2 tables.

Card 2/2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH, Ye.F., kand.tekhn.nauk

Electrolytic tinning of sheet steel in glycerin electrolytes.
Sbor. trud. TSNIICHM no.34:11-16 '63. (MIRA 17:4)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVICH-LEVINA, O. M.

DANILETSKIY, M.D. (g. L'vov); LYAKHOVICH-LEVINA, O.M. (g. L'vov)

The printing industry in the Ukrainian S.S.R. Poligr.proizv. no.3: 5-6 My-Je '54. (MLRA 7:8)
(Ukraine--Printing industry) (Printing industry--Ukraine)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

L 42170-66 EWT(1)

ACC NR: AR6013878 SOURCE CODE: UR/0274/65/000/011/B044/B044

36
B

AUTHORS: Lyakhovkin, A. A.; Mikhaylov, A. V.; Zubarev, Yu. I.

TITLE: Phase stability of harmonic oscillators

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 11B331

REF SOURCE: Tr. uchbn. in-tov svyazi. M-vo svyazi SSSR, vyp. 23, 1964, 18-29

TOPIC TAGS: harmonic oscillator, transistorized oscillator, phase analysis

ABSTRACT: Certain considerations were cited in reference to the factors determining the phase stability of harmonic oscillators. A brief evaluation of different methods for the generation of harmonics from the point of view of phase stability was given. Two circuits using semiconductor devices were proposed for oscillators of broad uniform and alternate harmonic spectrums with increased phase stability. The necessary calculation formulas were derived. V. P. [Translation of abstract]

SUB CODE: 09

Card 1/1 UDC: 621.373.072.6

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

L 26746-66 EWT(1)/EWT(m)/EEC(k)-2/EWP(t) IJP(c) JD

ACC NR: AP6011475 SOURCE CODE: UR/0070/66/011/002/0322/0323

84
B

AUTHOR: Nosov, V. N.; Lyakhovitskaya, V. A.

ORG: Institute of Crystallography, AN SSSR (Institut kristallografii AN SSSR)

TITLE: Observation of the electro-optical effects in SbSI when measuring photoconductivity spectra

27 27

SOURCE: Kristallografiya, v. 11, no. 2, 1966, 322-323

TOPIC TAGS: electrooptic effect, antimony compound, photoconductivity, forbidden band, pressure effect, absorption edge, Curie point, single crystal

ABSTRACT: This is a continuation of earlier work by one of the authors (Lyakhovitskaya, with K. Gulyamov et al., DAN SSSR v. 161, no. 5, 1060, 1965) dealing with the shift of the width of the forbidden band with pressure. In the present investigation the authors checked on the shift of the absorption edge with increasing field by investigating the photoconductivity of SdSI. The measurements were made with single crystals grown from the melt, with the field applied along the c axis. The maximum of the spectral distribution of the photocurrent coincided with the edge of the absorption band and was close to 650 nm at room temperature. The temperature was close to the Curie temperature 23.5 ± 0.1C. The result shows that the maximum of the photocurrent shifts by 7 ± 1 nm, corresponding to an energy shift per unit field of 1.1 x $10^{-5}$ ev/v. This is in satisfactory agreement with the results of J. Harbeke (J. Phys. Chem. Solids v. 24, 957, 1963). The authors thank V. M. Fridkin for a discussion of the results and help with the work. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 24May65/ ORIG REF: 002/ OTH REF: 005

Card 1/1 UDC: 548.0

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

BELYAYEV, L.M.; LYAKHOVITSKAYA, V.A.; NETESOV, G.B.; MOKHOSOYEV, M.V.; ALEYKINA, S.M.

Synthesis and crystallization of antimony sulfiodide Izv AN SSSR. Neorg. mat. 1 no.12:2178-2181 D '65. (MIRA 18:12)

1. Institut kristallografii AN SSSR. Submitted May 29, 1965.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

L 38892-66 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6018559 SOURCE CODE: UR/0181/66/008/006/1907/1909

AUTHOR: Fridkin, V. M.; Gulyamov, K.; Lyakhovitskaya, V. A.; Nosov, V. N.; Tikhomirova, N. A.

ORG: Institute of Crystallography, AN SSSR, Moscow (Institut kristallografii AN SSSR)

TITLE: Anomaly of optical properties of ferroelectric SbSI in the phase-transition region

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1907-1909

TOPIC TAGS: antimony compound, phase transition, Curie point, ferroelectric property, forbidden band, pressure effect, paraelectricity, electron interaction, phonon interaction, temperature dependence, absorption edge, optic property

ABSTRACT: This is a continuation of earlier work (DAN SSSR v. 161, 1060, 1965), where an anomalously large shift of the intrinsic-absorption edge was observed in SbSI single crystals with increasing pressure. The present study is devoted to a more detailed investigation of this shift, and discloses that the anomaly appears only in the vicinity of the phase transition. The authors measured the dependence of the width of the forbidden band $E_g$ on the hydrostatic pressure p and the temperature T in the phase-transition region. The crystals were grown from the gas phase, the width of the forbidden band was determined by measuring the shift of the maximum of the photocurrent, and the high pressure was produced with apparatus described elsewhere (FTT v. 7, 4, 1965). The pressure was measured with a resistance manometer and the temperature was

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L 38892-66

ACC NR: AP6018559

3

measured in a vacuum thermostat. The results show that in the vicinity of the Curie point the values of $dE_g/dT$ and $(\partial E_g/\partial p)_T$ became anomalously large. Away from the phase-transition point, the variation of $E_g$ is the same as determined by the direct electron-phonon interaction $dE_g/dE_T \simeq (\partial E_g/\partial T)_V$, whereas in the phase transition region $dE_g/dT$ is determined by the temperature expansion of the crystal and $dE_g/dT \gg (\partial E_g/\partial T)_V$. On going from the ferroelectric into the paraelectric region, the electron-phonon interaction terms decreases in absolute value by a factor of almost 2. The authors thank V. L. Bonch-Bruyevich, R. A. Suris, and A. P. Levanyuk for a discussion of certain results obtained in the present work. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 07Jul65/ ORIG REF: 002/ OTH REF: 003

Card 2/2 MLP

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

ZDANSKIY, A.B.; SOLOV'YEVA, Ye.F.; EZROKHI, L.L.; LYAKHOVSKAYA, Ye.I. Prinimali uchastiye: SHITIKOVA, V.S.; BEL'DY, M.P.; ROMANOVA, V.A.; PEL'SH, A.D., red.; KOTS, V.A., red.; LEVIN, S.S., tekhn. red.; ERLIKH, Ye.Ya., tekhn. red.

[Handbook of experimental data on the solubility of salt systems] Spravochnik eksperimental'nykh dannykh po rastvorimosti solevykh sistem. Leningrad, Goskhimizdat. Vol.4.[Two-component systems; elements of the IInd group and their compounds] Dvukhkomponentnye sistemy; elementy II gruppy i ikh soedineniia. Sost. A.B.Zdanskii i dr. Pod red. A.D.Pel'sha, 1963. 2231-2878 p. (MIRA 17:2)

1. Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut galurgii. 2. Fiziko-khimicheskaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta galurgii (for Shitikova, Bel'dy, Romanova).

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVSKIY, V.M.; RYNDZYUNSKIY, P.G., dokter ist. nauk, nauchn. red.

[Construction of the Ryazan-Kozlov Railroad and its role in the development of the market, the 1860's and the 1870's; author's abstract of a dissertation for the degree of Candidate of Historical Sciences] Sooruzhenie Riazansko-Kozlovskoi zheleznoi dorogi, rol' dorogi v razvitii rynka, 1860-e i 1870-e gody; avtoreferat dissertatsii na soiskanie uchenoi stepeni kandidata istoricheskikh nauk. Moskva, Izd-vo Mosk. univ., 1964. 16 p. (MIRA 18:5)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

BASIN, A.M., doktor tekhn. nauk, prof.; LYAKHOVITSKIY, A.G., inzh.

Investigating the performance of partially submerged screw propellers. Trudy LIVT no.45:3-13 '63. (MIRA 17:6)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

L 58927-65 EWT(1)/EWT(m)/T/EWP(t)/EEC(b)-2/EWP(b)/EWA(c) Pi-4 IJP(c) JD/GG

ACCESSION NR: AP5011525 UR/0020/65/161/005/1060/1062

AUTHORS: Gulyamov, K.; Lyakhovitskaya, V. A.; Tikhomirova, N.A.; Fridkin, V. M.

TITLE: Anomalously large effect of pressure on the optical and ferroelectric properties of SbSI single crystals

SOURCE: AN SSSR. Doklady, v. 161, no. 5, 1965, 1060-1062

TOPIC TAGS: antimony compound, single crystal, ferroelectric property, pressure dependence, Curie point, electric field dependence

ABSTRACT: Earlier investigations of the optical and ferroelectric properties of SbSI single crystals and have lead to the conclusion that the coefficient $dE_g/dp$ ($E_g$ -- width of forbidden band, p -- pressure) has an anomalously large value. To check on this assumption, the authors have undertaken to determine $de_g/dp$ directly by measureing the shift of the edge of intrinsic absorption under the influence of hydrostatic pressure. The results, which are illustrated in Fig. 1 of the Enclosure, show that single crystals SbSI have

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

L 58927-65

ACCESSION NR: AP5011525

an anomalously large shift of the edge of intrinsic absorption and of the Curie point with increasing pressure. The experimental results are qualitatively in agreement with the theory, and the previously observed shift of the absorption edge under the influence of an electric field can actually be related to the anomalously strong dependence of the width of the forbidden band on the pressure. This report was presented by A. V. Shubnikov. Original article has: 2 figures

ASSOCIATION: Institut kristallografii AN SSSR (Institute of Crystallography AN SSSR)

SUBMITTED: 27JAN65 ENCL: 01 SUB CODE: SS

NR REF SOV: 003 OTHER: 008

Card 2/3

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

L 58927-65

ENCLOSURE: 01

ACCESSION NR: AP5011525

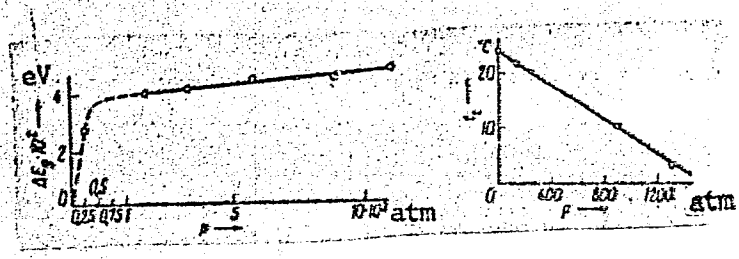


Fig. 1. Pressure variation of the width of the forbidden band (left) and of the Curie temperature (right) in single-crystal SbSI.

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

L 44815-66 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6032016 SOURCE CODE: UR/0336/66/004/006/0201/0205

AUTHOR: Fridkin, F. M.; Gerzanich, Ye. I.; Groshik, I. I.; Lyakhovitskaya, V. A.

ORG: Institute of Crystallography, Academy of Sciences SSSR (Institut kristallografii Akademii nauk SSSR)

TITLE: Absorption edge in the semiconducting ferroelectrics SbSBr, BiSBr, and SbSI

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 6, 1966, 201-205

TOPIC TAGS: ferroelectric material, semiconducting material, second order phase transition, phase transition, absorption edge, light absorption

ABSTRACT: To ascertain the behavior of the intrinsic absorption edge in a series of ferroelectrics of groups V, VI, and VII, which undergo low-temperature phase transitions, the authors investigated optical absorption in SbSBr, BiSBr, and SbSI in polarized light in the interval from +40 to -190C. The SbSBr, BiSBr, and SbSi single crystals were grown from the gas phase. The SbSBr and BiSBr crystals were in the form of thin needles (transverse dimension not larger than 0.1 mm, length 10 - 15 mm). The SbSI single crystals were larger (10 x 1 x 1 mm). All the investigated single crystals were rhombo-dipyramidal. The direction of the spontaneous polarization coincided with the twofold axis parallel to the needle axis. The measurements were made in a vacuum cryostat cooled with liquid nitrogen, with a temperature maintained accurate to 0.2C. The transmission spectra were investigated with a monochromator and

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L 04015-66

ACC NR: AP6032016

a photomultiplier. The relation $\alpha^{1/2} \sim h\nu$ ($\alpha$ - absorption coefficient, $h\nu$ - photon energy) was satisfied for all three crystals in the entire investigated temperature interval, thus pointing to the indirect character of the transitions. In addition, the $\alpha^{1/2}$ vs. $h\nu$ curve of SbSBr had two straight-line sections, connected apparently with the absorption and emission of a phonon. The phonon energy determined from the difference between the energies corresponding to the two sections turned out to be 0.03 ev and independent of the temperature. No change in the shape of the absorption edge during the phase transition was observed in any of the crystals. A jump in the width of the forbidden band takes place in the region of the phase transition of all the ferroelectrics. A striking fact is the jump in the temperature coefficient of the forbidden-band width observed in the case of SbSBr in the paraelectric region at a temperature -103C, apparently due to a second-order phase transition. The behavior of BiSBr and SbSI is qualitatively the same. The results not only confirm the existence of ferroelectric phase transitions in SbSBr, BiSBr, and SbSI at -180, -170, and +22C respectively, but indicate unambiguously their character (first-order transitions). In addition to these transitions, singularities in the temperature dependence of the width of the forbidden band are observed in the paraelectric region for SbSBr and BiSBr and in the ferroelectric region for SbSI. These are apparently evidence of the existence of second-order phase transitions in these crystals. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 09Jun66/ ORIG REF: 003/ OTH REF: 004

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APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

ACC NR: AP7001342 SOURCE CODE: UR/0386/66/004/011/0461/0464

AUTHOR: Fridkin, V. M.; Gorelov, I. M.; Grekov, A. A.; Lyakhovitskaya, V. A.; Rodin, A. I.

ORG: Institute of Crystallography, Academy of Sciences SSSR (Institut kristallografii Akademii nauk SSSR)

TITLE: Phase boundary in ferroelectric SbSI as the analog of an electric domain in a semiconductor

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 11, 1966, 461-464

TOPIC TAGS: semiconductor single crystal, antimony compound, ferroelectricity, domain boundary, phase boundary

ABSTRACT: This is a continuation of earlier work (Dokl. AN SSSR v. 169, no. 4, 810, 1966) where a new optic method of observing the phase transition in single-crystal SbSI was reported. The method was used in the present work to trace the motion of the phase boundaries in SbSI crystals grown from the gas phase in the form of needles (1 x 0.1 x 7 mm). The needle axis was the c axis of the crystal. The observation was made in transmitted light through parallel pincacoid (100) faces in a direction perpendicular to the c axis. The tests showed that a constant electric field applied to the crystal causes the interphase boundary to move toward the cathode at a rate $10^{-3}$ cm/sec. Under certain experimental conditions (in the presence of a temperature gra-

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ACC NR: AP7001342

dient in the absence of an external field), undamped oscillations of the interphase boundary were observed, accompanied by electric oscillations in the external circuit of the crystal. It is shown that the observed displacements are connected with motion of ferroelectric regions in the crystal, analogous to the motion of electric domains in a semiconductor. While this analogy does not fully determine the concrete mechanism or the direction of motion of the interphase boundary, it does provide an explanation for both the motion itself and its oscillations. It is also shown that the period of the oscillations agrees with the value that would follow from the Maxwell time constant for SbSI. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 09Sep66/ ORIG REF: 004/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

L 15734-63 EPA(b)/EWT(1)/BDS AEDC/AFFTC/ASD/AFMDC/APGC Pd-4
ACCESSION NR: AR3002674 S/0124/63/000/005/B061/B061

SOURCE: Rzh. Mekhanika, Abs. 5B341

62
61

AUTHOR: Lyakhovitskiy, A.G.

TITLE: Effect of the free surface on the lifting force profile of a wing of finite thickness

CITED SOURCE: Tr. Leningr. in-ta vodn. transp., vyp. 33, 1962, 58-68

TOPIC TAGS: streamline flow, plane plate, infinite plate, buoyant force transformation, parametric plane, lifting force, lift, buoyancy, wing

TRANSLATION: In the work of N.E. Kochina (On the Wave Resistance and the Buoyancy of a Body Submerged in Liquid Tr. Conference on the theory of wave resistance. Ts. AGI, 1937, 65-134) as an example, the streamline flow around an infinite plane plate is considered. Here, the representation of the plane of flow z on the external circle of the parametric plane, u is realized by the transformation $z = u - ih + r^2 e^{2i\alpha}/u$. In this case, the integration is carried out to

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ACCESSION NR: AR3002674

the end and for the force, a formula in closed form is obtained. In the article referred to, the author, with the help of the transformation

$$z = u + c_1 e^{i\alpha} - ih + \frac{r^2 e^{2i\alpha}}{u + c_1 e^{i\alpha}}$$

also finds, in finite form, the formulas for the force acting on the symmetric profile of N.E. Zhukovskiy, and in the same way determines the effect of the relative thickness of the profile on its buoyant force during the motion near the free surface of the heavy liquid. The results of the calculation are compared with the experimental data of M.G. Kulayev.

Footnote: In the article it is shown that the three first points of the result were first obtained by M.G. Kulayev. G.M. Kryukov

DATE ACQ: 14Jun63 SUB CODE: AI ENCL: 00

Card 2/2

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"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVITSKIY, F.M.

Use of stratic speeds for plotting geological cross sections.
Izv.AN SSSR.Ser.geofiz. no.8:1055-1059 Ag '57. (MLRA 10:8)

1.Gidroproyekt.
(Seismic waves) (Geology, Stratigraphic)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

S/169/62/000/007/036/149
D228/D307

AUTHOR: Lyakhovitskiy, F. M.

TITLE: Application of the correlation refraction method in engineering geology surveys

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 23, abstract 7A153 (V sb. Sostoyaniye i perspektivy razvitiya geofiz. metodov poiskov i razvedki polezn. iskopayemykh, M., Gostoptekhizdat, 1961, 202-206)

TEXT: The author considers various aspects of the application of seismic surveying by the correlation refraction method for solving engineering geology problems. The procedure and the equipment for investigating the geologic structure of the upper 100 - 200 meters of profiles are briefly described. A series of examples illustrates the possibility of applying the correlation refraction method in hydro-construction projects in different areas of the Soviet Union. /Abstracter's note: Complete translation./

Card 1/1

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

LYAKHOVITSKIY, F.M.

Value of Poisson coefficient for rocks. Izv. AN SSSR. Ser. geofiz. no.9:1363-1366 S '61. (MIRA 14:9)

1. Vsesoyuznyy proyektno-izyskatel'skiy i nauchno-issledovatel'skiy institut "Gidroproyekt" im. S.Ya.Zhuk.
(Rocks) (Elasticity)

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9"

"APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031020005-9

S/169/62/000/006/004/093
D228/D304

AUTHORS: Lyakhovitskiy, F. M. and Sorokhtin, O. G.

TITLE: Determining the elastic constants of ground by the seismic method

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 7, abstract 6A 31 (Byul. nauchno-tekhn. inform. Vses. proyektno-izyskat. i n.-i. in-t "Gidroproyekt", no. 13, 1961, 64-70)

TEXT: Observations were made in Bashkiriya on the flood plain of the R. Belaya, near the village of Kazantsevo. The oscillations were stimulated by means of a horizontal blow with a 10-kg hammer on a log, buried in the ground, in a direction perpendicular to the profile. Explosions were also made by the usual method. The seismic vibrations were recorded by means of the standard station СС-26-51-Д (SS-26-51-D) and electrodynamic seismographs СПЭД-52 (SPED-52). Two seismographs were established at each point of the profile. One was fixed vertically, to record the longitudinal

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