

L 11850-66 EWT(m)/EWP(e)/EWP(b)  
ACC NR: AT6000510

WH/GS

SOURCE CODE: UR/0000/65/000/000/0382/0386

AUTHOR: Alekseveva, O. S.; Bokin, P. Ya.; Govorova, R. A.; Korelova, A. I.;  
Nikandrova, G. A. 44.35 44.35 44.35 5.5

ORG: None

TITLE: Structural changes in lithia-silica and lithia-alumino silica glasses during crystallization and their effect on mechanical properties

SOURCE: Vsesoyuznoye soveshchaniya po stekloobraznomu sostoyaniyu, 4th, Leningrad, 1964. Stekloobraznoye sostoyaniye (Vitreous state); trudy soveshchaniya, Leningrad, Izd-vo Nauka, 1965, 382-386

TOPIC TAGS: lithium glass, silicate glass, aluminum silicate, glass property, catalyzed crystallization, *solid mechanical property, crystallization, electron microscopy, x ray analysis*  
ABSTRACT: Two lithia-silica glasses (34.4 and 23.4 mol % of Li<sub>2</sub>O) and one lithia-aluminosilica glass containing a small admixture of potassium oxide and silver and cerium dioxide catalyzers have been investigated. Polished glass samples (20 x 25 x 3 mm) were crystallized under single or repeated heating to 400-900C over periods of 4 to 24 hrs. The structure was investigated by standard (2375 X) and electron (8000 X) microscope, while the composition was checked  
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by x-ray phase analysis. Experimentally obtained data cover the crystalline phases, density, microhardness, surface strength, and Young's modulus. Comparative analysis of the results shows that the mechanical properties of the glasses are sensitive to the phase transitions within the glass samples. The electron microscope work was performed by A. D. Piskunova. Orig. art. has: 2 figures and 1 table. 9455

SUB CODE: 11, 20 / SUBM DATE: 22May65 / ORIG REF: 005 / OTH REF: 002

jw  
Card 2/2

L 07416-67 EWP(e)/EWT(m) WW/WH  
ACC NR: AP6030775 (A) SOURCE CODE: UR/0363/66/002/009/1636/1645

AUTHOR: Bokin, P. Ya.; Korelova, A. I.; Piskunova, A. D. 27  
B

ORG: Institute of Silicate Chemistry im. I. V. Grebenshchikov, Academy of Sciences,  
SSSR (Institut khimii silikatov Akademii nauk SSSR)

TITLE: Kinetics of phase transformations and change in microstructure and mechanical  
properties during the pyrocera<sup>15</sup>mization of lithium aluminosilicate glass 15

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 9, 1966, 1636-1645

TOPIC TAGS: glass property, silicate glass, catalyzed crystallization, *ALUMINUM  
SILICATE*

ABSTRACT: The purpose of the study was to determine the rate of formation and the stability limits of primary metastable phases during catalyzed crystallization of one of the compositions of lithium aluminosilicate glasses, to follow their transition to the state of equilibrium, and to identify the accompanying changes in the microstructure of crystallized glasses and their effect on the mechanical properties. Dilatometry, x-ray phase analysis, microscopy and electron microscopy were employed. It was found that the composition of the separating crystals is determined by the heat treatment conditions: a single heating of the glass causes the crystallization of metastable crystalline phases - lithium metasilicate and a  $\beta$ -cryptite solid solution, which are stable even when exposed to high temperatures for long periods of time. In a double heat treatment, heating in the temperature range below  $t_g$  and then at high

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UDC: 666.1:541.65:541.12.017

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temperatures causes the separation of metastable phases. In the case of primary heating at temperatures above  $t_g$ , conditions are created in the glass which promote a rapid transformation of the metastable phases into equilibrium ones. Depending upon the composition, form, size of the crystals and the degree to which they fill up the volume of the crystallized glass, a considerable change in its mechanical properties may take place. Orig. art. has: 8 figures and 1 table.

SUB CODE: 11/ SUBM DATE: 09Aug65/ ORIG REF: 007/ OTH REF: 004

Card 2/2 *plw*

Name: BOKINA, A. I.

Dissertation: Material on the hygienic basis of the permissible content  
of sulfate ion in household and drinking water

Degree: Cand Med Sci

*Defended at*  
~~Affiliation:~~ Acad Medical Sci USSR

*Publication*  
Defense Date, Place: 1956, Moscow

Source: Knizhnaya Letopis', No 45, 1956

BOKINA, A. I.

Material on physiological foundation for hygiene (tolerance of sulfate in drinking water. A. I. Bokina (Acad. Med. Sci., Moscow). *Gigiena i Sanit.* 1936, No. 2, 7-14. —Considerable exper. material with human and animal subjects indicates that a concn. of  $SO_4$  ion in drinking water up to 500 mg./l. is permissible. Concn. higher than this figure begin to alter the secretory gastric function; very high  $SO_4$  ion content tends to reduce water intake and to induce diarrhea. G. M. Kosolapoff

MD (1)

Bokina, A.T.

Comparison of the methods of Mett and Gross for assay-  
ing pepsin activity. A. T. Bokina (Inst. Gen. and Pulm. Hyg., Moscow). *Laboratory Days* II, No. 2, 30-1 (1958).  
Mett's method is simpler but erratic. Measuring the length  
of the digested eggwhite is subject to individual errors.  
Furthermore, due to slowing of diffusion currents the interior  
of the column is not entirely accessible to the pepsin action.  
In the Gross method there is less chance for error. De-  
creasing amounts of gastric juice are allowed to act upon a  
Na<sub>2</sub>CO<sub>3</sub> sol. of casein which are subsequently acidified and  
the limit of activity is indicated by the first tube showing  
turbidity due to undigested casein. The relation between  
the pepsin powers as determined according to Gross and  
Mett can be expressed through the coefficient 0.52.

Iz Fiziologicheskoy laboratorii Instituta obshchey  
gigiyeny (dir - deystvitel'nyy chlen A kademii meditsinskikh  
SSSR professor A.N. Sysin) A kademii meditsinskikh

kommunal'noy  
sinskikh nauk  
nauk SSSR, Moskva.

BOKINA, A.I.

KANDORR, I.S.; BOKINA, A.I.

Proof of physiological justification for the officially admissible salt level in drinking water. J. Hyg. Epidem., Praha 1 no.3:278-291 1957.

1. Physiologisches Laboratorium des Instituts für allgemeine und Kommunalhygiene der Akademie der medizinischen Wissenschaften der UdSSR, Moskau.

(WATER SUPPLY

admissible sodium sulfate content, eff. on gastrointestinal system in dogs)

(SULFATES, eff.

sodium sulfate on gastrointestinal system in dogs in determ. of admissible level in drinking water)

(GASTROINTESTINAL SYSTEM, eff. of drugs on

sodium sulfate in dogs in determ. of admissible level in drinking water)

(SODIUM, eff.

sodium sulfate on gastrointestinal system in dogs in determ. of admissible level in drinking water)



BEKINA, N. I.  
BLOMA, A.I.; KANDROR, I.S.

Character of diuresis and the elimination activity (clearance) of the kidneys with different concentration of chlorine and sulfate ions in the drinking water; materials on the physiological determination of hygienic norms of the salt content of drinking waters. Gig. i san. 25 no. 5:14-20 My '60. (MIRA 13:10)

1. Iz Instituta obshchey i kommunal'noy gigiyery imeni A.N. Sysina AMN SSSR.

(KIDNEYS) (WATER SUPPLY)

MALEVSKAYA, I.A.; BOKINA, A.I.

Change in some physiological indices on the water-salt metabolism in adolescents continuously drinking highly mineralized water. Biul. eksp. biol. i med. 53 no.1:17-21 Ja '62. (MIRA 15:3)

1. Iz fiziologicheskoy laboratorii (zav. - doktor biologicheskikh nauk I.S. Kandror) Instituta obshchey i kommunal'noy gigiyeny (dir. - prof. N.N. Litvinov) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Parinym.

(WATER METABOLISM)

(~~BATH REGION~~-MINERAL WATERS)

(SALT IN THE BODY)

KANDROR, I.S.; BOKINA, A.I.; MALEWSKAJA, I.A.

Evidence for the physiological basis of drinking water salt content standards. III. Data on the influence of different sodium chloride and sulfate concentrations in drinking water on diuresis, on the purifying function of the kidney and on intestinal function. J. hyg. epidem. 6 no.4:407-421 '62.

1. A.N. Sysin-Institut für allgemeine und Kommunalhygiene, physiologisches Laboratorium, Akademie der medizinischen Wissenschaften, Moskau.

(WATER SUPPLY)	(SODIUM CHLORIDE)	(SULFATES)
(KIDNEY)	(INTESTINES)	(DIURESIS)

KANDROR, I.S.; BOKINA, A.I.; MALEVSKAYA, I.A.; PETROV, Yu.L.;  
CHERKINSKIY, S.N., red.; SELESKERIDI, I.G., red.;  
GONCHAROVA, L.A., tekhn. red.

[Hygienic norms for salt content in drinking water] Gi-  
gienicheskoe normirovanie solevogo sostava pit'evoi vody.

[By] I.S.Kandrор i dr. Moskva, Medgiz, 1963. 157 p.  
(MIRA 17:3)

1. Chlen-korrespondent AMN SSSR (for Cherkinskiy).

\*

BOKINA, V.M.; ZARINSKIY, V.A.; SHTIFMAN, L.M.

High-frequency titration. Report No.11: Determination of perchloric acid in its mixture with nitric acid in a glacial acetic acid medium. Zhur. anal. khim. 19 no.5:635-637 '64.  
(MIRA 17.91)

Institut geokhimii i analiticheskoy khimii imeni Vernadskogo AN SSSR, Moskva.

TROJNACKI, Zdzislaw; KLONOWSKI, Henryk; BOKINIEC, Michal

Application of hydrocortisone into the uterine cavity as a therapeutic method in post-inflammatory obstruction of the fallopian tubes. Ginek. Pol. 33 no.1:137-140 '62.

1. Z I Kliniki Położnictwa i Chorob Kobietych AM w Lublinie Kierownik: prof. dr S. Liebhart.

(FALLOPIAN TUBES dis) (HYDROCORTISONE ther)

LIEBHART, Stanislaw; BOKINIEC, Michal

Selected clinical problems of male sterility. Pol. tyg. lek.  
19 no.28:1119-1122 13-20 J1'64

1. Z I Kliniki Poloznictwa i Chorob Kobiacych Akademii medyc-  
nej w Inblinie; kierownik: prof. dr. med. Stanislaw Liebbart).

FRĘBICKA-KWIATKOWSKA, Barbara; BOKINIĘC, Michał; BOROŃCZ, Cecylia

Infectious parotitis and female fertility. Ginek. Pol. 35 no.6:  
845-851 N-D '64

1. Z I Kliniki Polecznictwa i Chorob Kobięcych Akademii Medycznej  
w Lublinie (Kierownik: prof. dr.med. S. Liebhart) i z Wojewodzkiej  
Poradni Swiadomego Macierzynstwa w Lublinie (Dyrektor: dr. B.  
Włodarski).



ZYTKIEWICZ, Anna; BOKINIEC, Michal; CZARKOWSKA, Daniela; PAPIERKOWSKI, Andrzej

Statistical analysis of fetal malformations with special consideration on some causes. Pol. tyg. lek. 20 no.38:1420-1422 20 S '65.

1. Z I Kliniki Poloznictwa i Chorob Kobietych AM w Lublinie (Kierownik: prof. dr. med. Stanislaw Liebhart) i z Zakladu Anatomii Patologicznej AM w Lublinie (Kierownik: doc. dr. med. Maria Rozynek).

KRYZHANOVSKIY, O.M. [Kryzhanovs'kyi, O.M.] (Kiyev); ~~BOKITKO, I.I. (Kiyev);~~  
PUSHCHALOVSKIY, A.D. [Pushchalova'kyi, A.D.] (Kiyev)

Relay systems in automatic dosing-out and pouring of liquid metals.  
Avtomatyka 9 no.6:44-54 '64. (MIRA 18:1)

BOKIT'KO, M.V.

~~Device for the vertical pneumatic transport of dry materials.~~ Gor.khoz.Mosk.  
21 no.2:35 F '47. (MLRA 6:11)  
(Building materials) (Pneumatic tube transportation)

BOKIT'KO, M.V., inzhener; ALESHIN, N.I., inzhener.

Mechanization of finishing work. Mekh.trud.rab.8 no.1:30-34

Ja-F '54.

(MLRA 7:2)

(Building)

KIRILLOVA, Aleksandra Grigor'yevna; ROKIT'KO, M.V., nauchnyy red.;  
VLADIMIROVICH, A.G., red.; TOKER, A.M., tekhn.red.

[Modern painting methods] Sovremennye metody maliarnykh rabot.  
Moskva, Vses.uchebno-pedagog.izd-vo Trudrezervizdat, 1959.  
81 p. (MIRA 13:4)  
(Painting, Industrial)

ACC NR: AT601427L

SOURCE CODE: UF/0000/64/000/000/0007/0018

AUTHOR: Bokiya, B.

ORG: none

TITLE: General principles for the classification of all possible combinations of elements on the basis of the Periodic Table of the Elements and similarity of the crystal structure of compounds

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut neorganicheskoy khimii. Kristallicheskiye struktury arsenidov, sul'fidov, arsenosul'fidov i ikh analogov (Crystal structure of arsenides, sulfides, arsenosulfides and their analogs). Novosibirsk, Izd-vo AN SSSR, 1964, 7-18

TOPIC TAGS: arsenide, sulfide, arsenosulfide, chemical compound, crystal chemistry, physical chemistry theory, periodic system

ABSTRACT: General principles were outlined for the classification of all possible combinations of elements on the basis of the Periodic Table of the Elements and similarity of the crystal structure of compounds. The minerals and synthetic compounds were subdivided into orders, families, and genera analogous to biological categories. The proposed classification included the phases of variable composition (continuous solid solutions, daltonides, and berthollides). Physicochemical properties of the compounds not yet synthesized and of undiscovered minerals may be predicted on the basis of the proposed classification. Orig. art. has: 1 figure and 2 tables.

[FSB: v. 2, no. 10]

SUB CODE: 07

Card 1/1

BOKIY, B. V.

Bokiy, B. V. "The basic requirements for establishing a single classification method for underground systems of processing useful hard minerals", in the collection entitled: Voprosy gornogo dela, Moscow, 1948, p. 25-36.

SO: U-2888, 12 Feb. 53, (Letopis' Zhurnal 'nykh Statey, No. 2, 1949).

BOKII, B.V.

BOKII, B.V. Mining; for use as a textbook for the nonoperating departments of mining colleges Moskva, Ugletekhizdat, 1949. 518 p. (50-31153)

TN145.B58



BOKIY, B. V.

Technology

Osnovy gornogo dela (Principles of mining). Moskva, Ugletekhizdat, 1951. 240p.

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



BOKIY, B.V.

BOKIY, B.V.; TRPLITSKIY, G.A., redaktor; TRAKHMAN, A.I., redaktor;  
SEUSHKOVSKAIA, Ye.L., redaktor; SHPAK, Ye.G., tekhnicheskiy redaktor.

[Mining industry] Gornoe delo. Moskva, Ugletekhizdat, 1953. 743 p.  
(Mining engineering) (MLRA 7:7)

---BOKIY, B. V.-----

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Bokiy, B.V.	"Mining" (student manual)	Leningrad Mining Institute

SO: 4-30504, 7 July 1974

BOKIY, Boris Vyacheslavovich

Gornoye Delo. Izd. 2., Ispr. i Dop. Moskva, Ugletekhizdat, 1954.  
547 p. illus., diagrs., tables.  
Bibliographical footnotes

*Bokiy, B.V.*

ANDRMYEV, S. Ye.; BOKIY, B. V.; GORODETSKIY, P. I.; GRMYVER, N. S.; SHCHUKIN, A. A.  
OMRONT'YEV, V. I.; SKOCHINSKIY, A. A.; TERPIGOR'EV, A. M.; SHEVYAKOV, L. D.;  
SPIVAKOVSKIY, A. A.; VERKHOVSKIY, I. M.; VORONKOV, I. M.; YELANCHIK, G. M.;  
KASHIN, N. V.; SLOBODKIN, M. I.; GUZENKOV, P. G.; ZEMSKOV, V. D.; NOVIKOV, F. S.  
OSETSKIY, V. M.; SOSUNOV, G. I.; YASYUKOVICH, S. M.; KHAN, G. A.; POPOV, V. M.

In memory of Professor Levenson. Gor.zhur. no.9:60 S '55.  
(MIRA 8:8)

(Levenson, Lev Borisovich, 1878-1955)

BOKIY, Boris Vyacheslavovich; SHUSHKOVSKAYA, Ye.L., redaktor izdatel'stva;  
KLEDOVA, Ye.I., tekhnicheskiy redaktor

[Fundamentals of mining] Osnovy gornogo dela. Izd. 2-oe, ispr. 1  
dop. Moskva, Ugletekhizdat, 1956. 214 p. (MLRA 9:10)  
(Mining engineering)

BOKIY, Boris Vyacheslavovich; DZHALALBEKOVA, L.A., otv. red.; LEONT'YEVA,  
L.B., tekhn. red.

[Coal] Solnechnyi kamen'. Leningrad, Gos. izd-vo detskoi lit-ry,  
1957. 25 p. (MIRA 11:12)

(Coal)



*BOKIY, B.V.*  
 ANDROS, I.P., inzh.; ASSONOV, V.A., kand. tekhn. nauk.; BERNSHTEYN, S.A.,  
 inzh.; ~~BOKIY, B.V.~~, prof.; BROVMAN, Ya.V., inzh. BONDARENKO, A.P.,  
 inzh.; BUCHNEV, V.K., kand. tekhn. nauk; VEREJKUNOV, G.P., kand.  
 tekhn. nauk; VOLKOV, A.F., inzh.; GELMSKUL, M.N., kand. tekhn. nauk;  
 GORODNICHEV, V.M., inzh.; DEMENT'YEV, A.Ya., inzh.; DOKUCHAYEV, M.M.,  
 inzh.; DUBNOV, L.V., kand. tekhn. nauk; YEPIFANTSEV, Yu.K., kand.  
 tekhn. nauk.; YERASHKO, I.S., inzh.; ZHKEDANOV, S.A., kand. tekhn.  
 nauk; ZIL'BERBROD, A.F., inzh.; ZINCHENKO, E.F., inzh.; ZORI, A.S.,  
 inzh.; KAPLAN, L.B., inzh.; KATSAUROV, I.N., dots.; KITAYSKIY, E.F.,  
 inzh.; KRAVTSOV, Ye.P., inzh.; KRIVOROG, S.A., inzh.; KRINITSKIY,  
 L.M., kand. tekhn. nauk; LITVIN, A.Z., inzh.; MAL'VICH, N.A.,  
 kand. tekhn. nauk; MAN'KOVSKIY, G.I., doktor tekhn. nauk; MATKOVSKIY,  
 A.L., inzh.; MINDELI, E.O., kand. tekhn. nauk; NAZAROV, P.P., kand.  
 tekhn. nauk; NASONOV, I.D., kand. tekhn. nauk; NEYENBURG, V.Ye.,  
 kand. tekhn. nauk; POKROVSKIY, G.I., prof., doktor tekhn. nauk;  
 PROYAVKIN, E.T., kand. tekhn. nauk; ROZENBAUM, inzh.; ROSSI, B.D.,  
 kand. tekhn. nauk; SEMEVSKIY, V.N., doktor tekhn. nauk; SKIRGELLO,  
 O.B., inzh.; SUKHOT, A.A., inzh.; SUKHANOV, A.F., prof., doktor  
 tekhn. nauk; TARANOV, P.Ya., kand. tekhn. nauk; TOKAROVSKIY, D.I.,  
 inzh.; TRUPAK, N.G., prof., doktor tekhn. nauk; FEDOROV, S.A., prof.,  
 doktor tekhn. nauk; FEDYUKIN, V.A., inzh.; KHOZHLOVKIN, D.M., inzh.;  
 KHRABROV, N.I., kand. tekhn. nauk; CHEKAROV, V.A., inzh.; CHERNAVKIN,  
 N.N., inzh.; SHREYBER, B.P., kand. tekhn. nauk; EPOV, B.A., kand.  
 tekhn. nauk; YAKUSHIN, N.P., kand. tekhn. nauk; YANCHUR, A.M., inzh.;  
 YAKHONTOV, A.D., inzh.; POKROVSKIY, N.M., otvetstvennyy red.;  
 KAPLUN, Ya.G. [deceased], red.; MONIN, G.I., red.; SAVITSKIY, V.T.,  
 (Continued on next card)

ANDROS, I.P.---(continued) Card 2.

red.; SANOVICH, P.O., red.; VOLOVICH, M.Z., inzh., red.; GORITSKIY,  
A.V., inzh., red.; POLUYANOV, V.A., inzh., red.; FADEYEV, E.I.,  
inzh., red.; CHECHKOV, L.V., red. izd-va; PROKHOROVSKAYA, V.L.,  
tekh. red.; NADEINSKAYA, A.A., tekh. red.

[Mining; an encyclopaedic handbook] Gornoe delo; entsiklopedicheskiy  
spravochnik, Glav. red. A.M. Terpigorev. Moskva, Gos. nauchno-  
tekhnicheskoe izd-vo lit-ry po ugol'noi promyshl. Vol.4 [Mining  
and timbering] Provedenie i kreplenie gornykh vyrabotok. Red-  
kollegiya tona: N.M. Pokrovskii... 1958. 464 p. . . (MIRA 11:7)

(Mine timbering) (Mining engineering)

BAKINOV, G.P.; ~~BOKII, O.B.~~; BOKII, O.B.; BORISOV, A.A.; BORISOV, D.F.;  
VAYPOLIN, A.F.; GALAYEV, N.Z.; GOLOVIN, G.M.; GORODEFSKIY, P.I.;  
DUBRAVA, T.S.; ZOLOTAREV, N.D.; KAZAKOVSKIY, D.A.; KELL', L.H.;  
KOMAROV, V.B.; MAKHOV, Ye.Ya.; MISNIK, Yu.M.; MUSTEL', P.I.;  
PISKUNOV, I.N.; SEMENOVSKIY, V.N.; KHANUKAYEV, A.N.; SHABLYGIN, A.I.;  
POPOV, V.M.

Aleksandr Mikhailovich Aliamskii; an obituary. Gor. zhur. no.2:  
76-77 '58. (MIRA II:3)  
(Aliamskii, Aleksandr Mikhailovich, d. 1957)

BOKIY, Boris Vyacheslavovich, prof.. Prinizhala uchastiiye ZIMINA, Ye.A.,  
kand.tekhn.nauk. SHUSHKOVSKAYA, Ye.L., red.izd-va; VINOGRADOVA,  
G.V., red.isd-va; BERESLAVSKAYA, L.Sh., tekhn.red.

[Mining engineering] Gornoe delo. Izd.3., ispr. i dop. Moskva,  
Gos.nauchno-tekhn.isd-vo lit-ry po gornomu delu, 1959. 863 p.  
(MIRA 13:3)

(Mining engineering)

BOKIY, B.V.

Fiftieth anniversary of the "Zapiski" of the Mining Institute;  
historical data. Zap. LGI 40:3-7 '59. (MIRA 14:5)  
(Mines and mineral resources—Periodicals)

KILYACHKOV, Anatoliy Petrovich; BOKIY, B.V., prof.; SHUSHKOVSKAYA,  
Ye.L., otv.red.; VINOGRADOVA, G.V., red.isd-va; SABITOV, A.,  
tekhn.red.

[Opening and mining systems for coal deposits] Vskrytie i  
sistemy razrabotki ugol'nykh mestorozhdenii. Izd.2., perer.  
i dop. Moskva, Gos.nauchno-tekhn.isd-vo lit-ry po gornomu  
delu, 1960. 514 p. (MIRA 14:1)  
(Coal mines and mining)

MUSTEL', P.I.; DYAD'KIN, Yu.D.; BOKIY, B.V.; KELL', L.N.; KOMAROV, V.B.;  
SEMEVSKIY, V.N.; BORISOV, D.F.; GOLOVIN, G.M.; USEVICH, I.V.;  
DUBRAVA, T.S.; SHABLYGIN, A.I.; ZOLTOLAREV, N.D.; GALAYEV, N.Z.;  
SIGACHEV, A.Ye.; PANENKOV, Yu.I.; SENUK, D.P.; KOPYLOVA, Ye.V.

Pavel Ivanovich Gorodetskiy; an obituary. Gor zhur. no.5:77 My '60.  
(MIRA 14:3)

(Gorodetskiy, Pavel Ivanovich, 1902-1950)

BOKIY, Boris Vyacheslavovich, prof.; ZIMINA Yekaterina Aleksandrovna,  
dots.; SMIRNYAKOV, Vitaliy Vasil'yevich, dots.; TIMOFEYEV,  
Oleg Vladimirovich, dots.; FEDOROV, S.A., prof., retsenzent;  
SHMELEV, A.I., red.izd-va; LOMILINA, L.N., tekhn. red.

[Mining engineering and mine supports] Provedenie i kreplenie  
gornykh vyrabotok. [By] B.V.Bokii i dr. Mskva, Gosgortekh-  
izdat, 1963. 557 p. (MIRA 17:2)



TRUPAK, Nikolay Grigor'yevich; BOKIY, B.V., prof., retsenzent

[Special mining methods] Spetsial'nye sposoby provede-  
niia gornykh vyrabotok. Izd.2., perer. i dop. Mo-  
skva, Nedra, 1964. 496 p. (MIRA 17:12)

BOKIY, B.V., prof.; PAUKER, N.G., gidrogeolog; TOLSTIKHIN, N.I., prof.

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in difficult hydrogeological conditions." Shacht.stroi. 8  
no.1:32 Ja '64. (MIRA 17:4)

BOKIY, Boris Vyacheslavovich; SMIRENSKIY, M.M., ved. red.

[Principles of mining engineering] Osnovy tekhnologii gornogo dela. Moskva, Nedra, 1964. 291 p. (MIHA 18:4)

BOKII, D.N.

Shortcomings of two pamphlets ("One hundred and fifty-eight eggs from a laying hen per year" and "Our work practices in raising ducklings" by K.A. Kitaitsev, E.P. Trukhina. Reviewed by D.N. Bekii). Ptitsevedstve 8 no.10:42 O '58. (MIRA 11:10)

1. Glavnyy zootekhnik sovkhosa "Mamine," Sverdlovskoy oblasti.  
(Poultry) (Kitaitsev, K.A.) (Trukhina, E.P.)

BOKIY, D.N., zootekhnik

Effect of laying conditions on egg yields of poultry. Ptitsevod-  
stvo 9 no.7:13-14 J1 '59. (MIRA 12:10)  
(Eggs--Production)

1ST AND 2ND CODES: PROCESSES AND PROPERTIES INDEX

Common ELEMENTS

Common VARIABLES INDEX

2

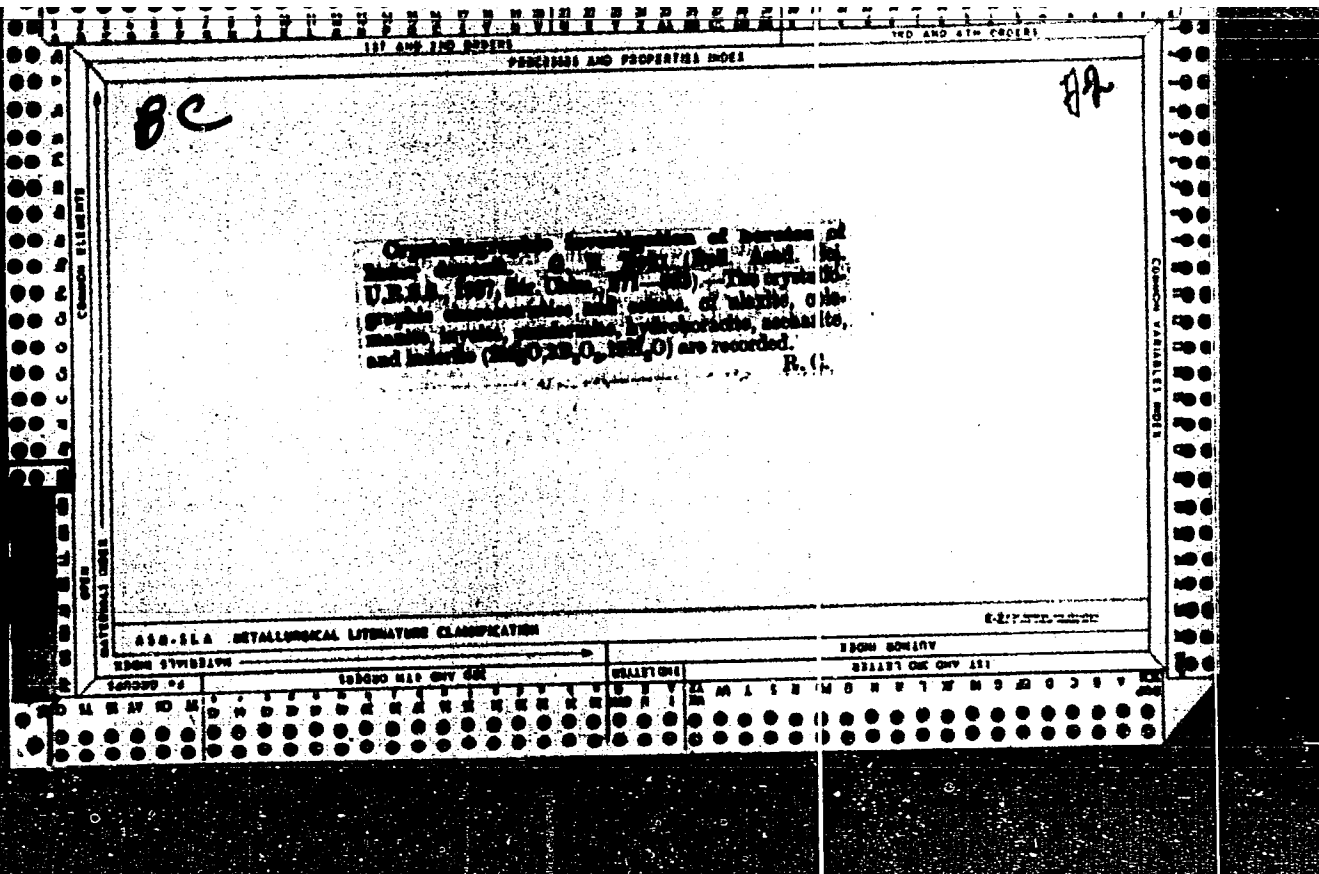
Importance of crystallochemical analysis. G. B. Boldy. *Ann. inst. chim. géol. (U. S. S. R.)* 8, 115-24(1936).—The application and advantages of crystallochem. analysis as developed by Fedorov, et al. (C. A. 18, 218) are discussed. For bibliography see Boldukrev, *Commentaries to the work Das Kristallreich* by E. S. Fedorov. Chas. Blanc

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

FROM SOURCE

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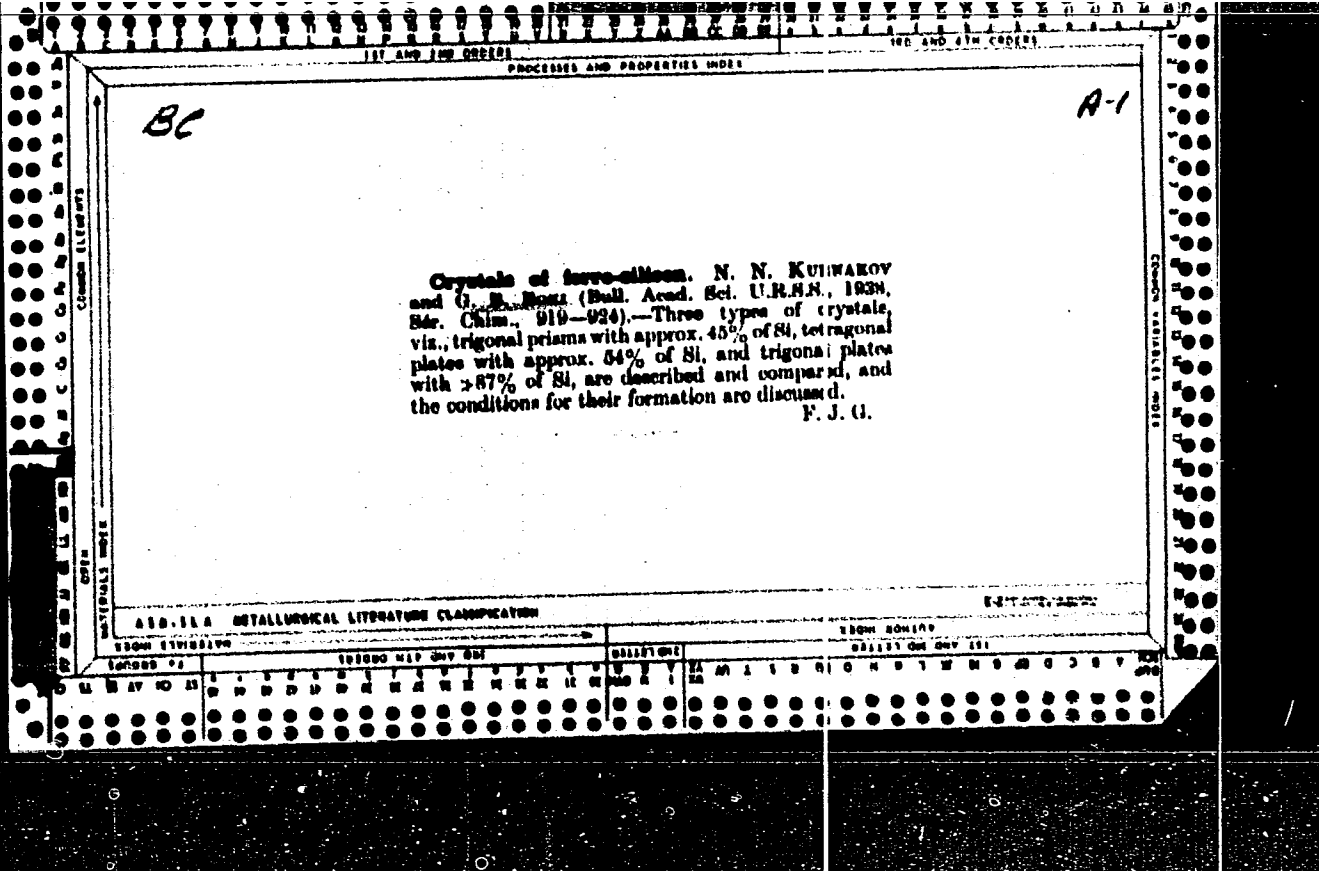
1ST AND 2ND POSSES PROCESSES AND PROPERTIES INDEX

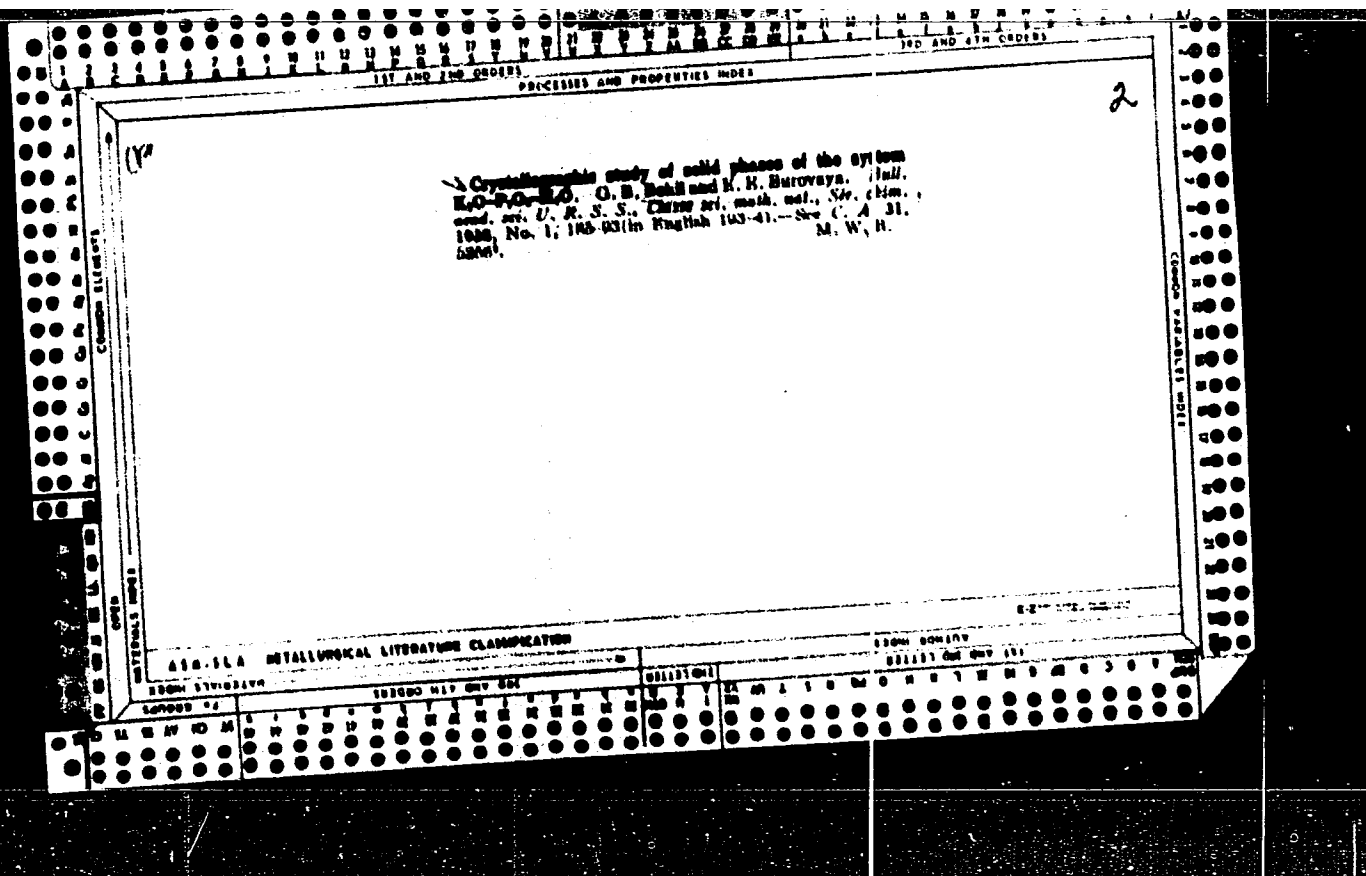
CA

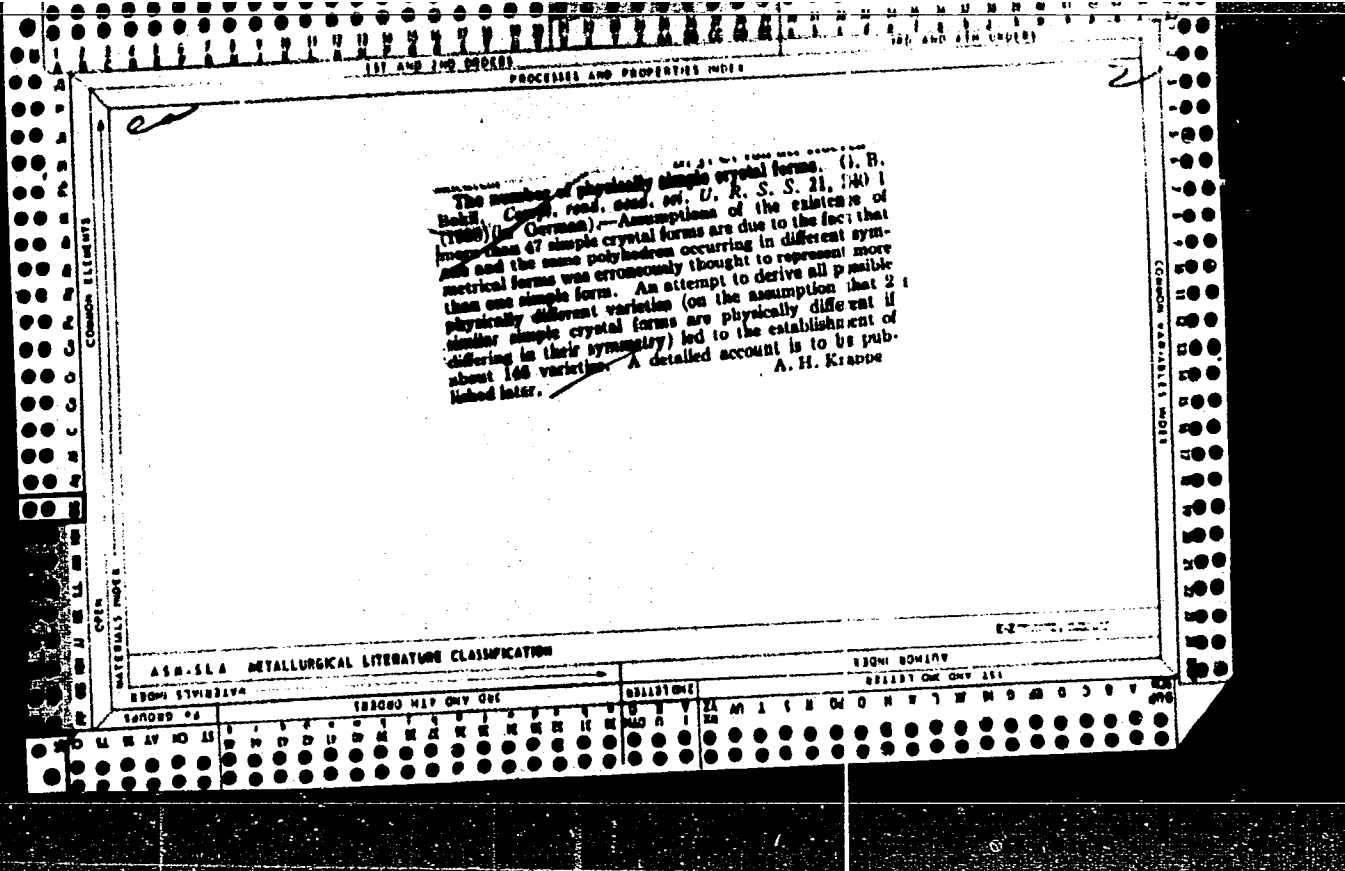
Crystals of the double salt, ammonium sulfate nitrate (1:1),  $(NH_4)_2SO_4 \cdot NH_4NO_3$ . G. H. Bokil and K. K. Ilurovaya. *Mém. Soc. Phys. Minéral.* 46, No. 1, 45-61 (1937); *Chem. Zvest.* 1938, I, 20.—The crystals of this double salt belong to the prismatic class of monoclinic symmetry;  $a:b:c = 1.0000:1:0.8443$ ;  $\beta = 92^\circ 42'$ . The following forms were observed:  $a(101)$ ,  $c(101)$ ,  $m(110)$ ,  $h(101)$ ,  $s(010)$ ,  $g(101)$ ,  $o(001)$ ,  $r(102)$ ,  $f(121)$  and  $n(100)$ . The crystals are colorless. Indices of refraction, as obtained by the immersion method, are:  $n_x = 1.552$ ;  $n_y = 1.488$ . The ellipsoid character and the angle of the optic axes were detd. on the Fedotov stage;  $2V = -50^\circ$ . M. G. M.

450-51A METALLURGICAL LITERATURE CLASSIFICATION

1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000







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1ST AND 2ND CODES

PROCESSES AND PROPERTIES INDEX

6

Ca

Double salts of mono- and di-potassium orthophosphate. L. G. Berg and G. D. Bokil. *Bull. acad. sci. U. R. S. S., Classe sci. chim.* 1940; 877-84 (in German, 884-5).—In the study of solubilities of a 3-component system ( $K_2O-P_2O_5-H_2O$ ) at 25° and 50°, the presence of 5 double salts was established. The five salts are: (1)  $5K_2HPO_4 \cdot KH_2PO_4 \cdot 2H_2O$  (rhombic), (2)  $3K_2HPO_4 \cdot KH_2PO_4 \cdot 2H_2O$  (monoclinic), (3)  $2K_2HPO_4 \cdot KH_2PO_4 \cdot H_2O$  (monoclinic), (4)  $K_2HPO_4 \cdot KH_2PO_4 \cdot 2H_2O$  (rhombic), and (5)  $K_2HPO_4 \cdot KH_2PO_4 \cdot 3H_2O$  (monoclinic). The results of chem., crystallographic and crystallooptical exams. of each salt are given. Boris L. Rodzanko

Inst Gen & Inorg. Chem., AS USSR

COMMON ELEMENTS

COMMON CATIONS INDEX

COMMON ANIONS INDEX

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

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ALPHABETICALLY

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PROCESSES AND PROPERTIES INDEX

117 AND 120 (CONT.)

U

CRYSTALS OF SILICO CHROMIUM. M. N. KURNAKOV AND G. B. BOKY (COMPT. REND. (DOKL) ACAD. SCI. U.R.S.S., 1940 (N.S.) 26 (4) 368-361)--(In English.)

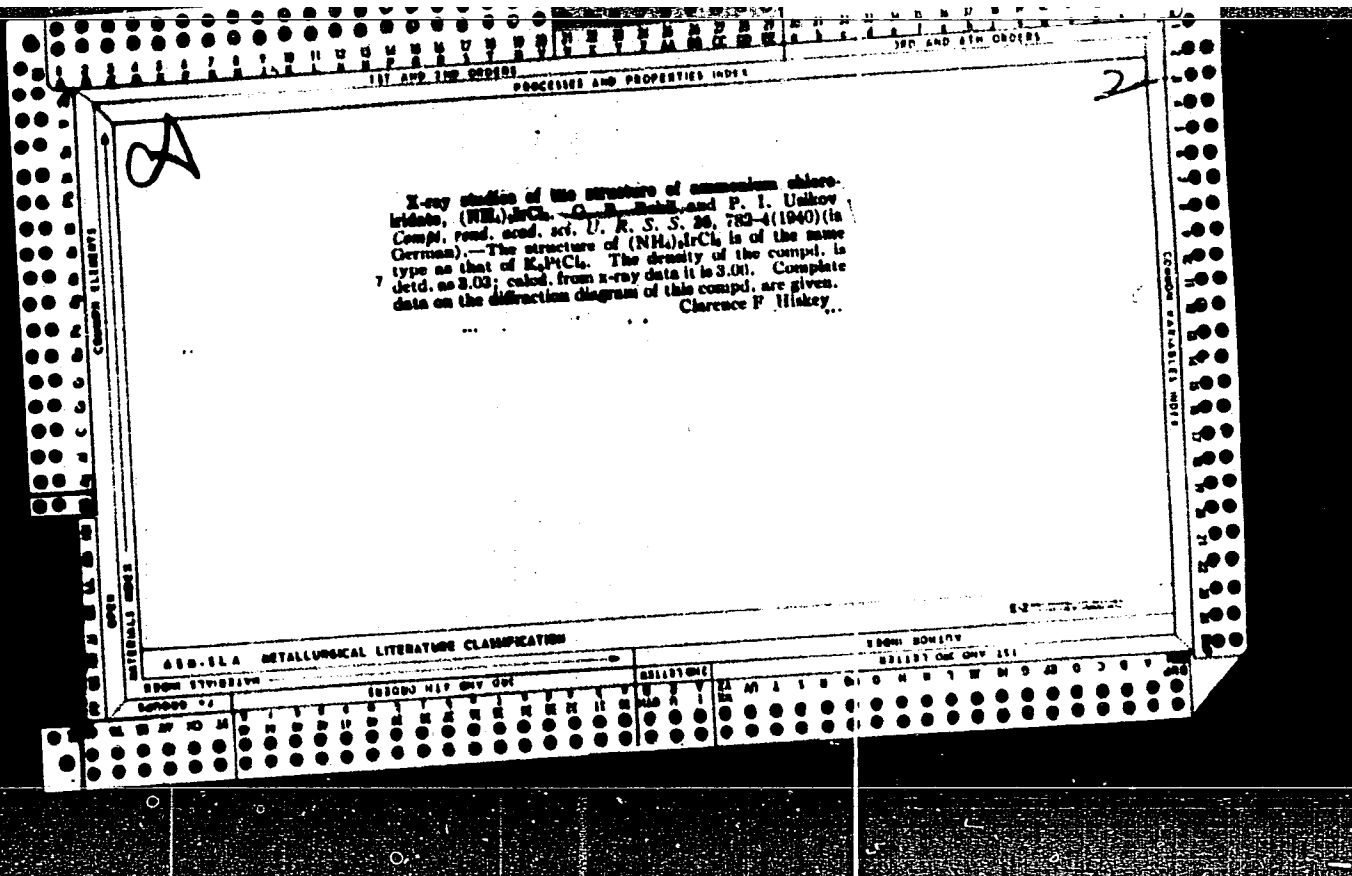
Some specimens of silico-chromium from the cheliabinsk Ferrp-Alloy Works, as well as some synthetic alloys of similar composition, were examined and hexagonal crystals were found in the range 33-39 wt.% silicon, with hexagonal crystals on either side. The silico-chromium analysed about silicon 33-36, chromium 39-46, iron 22%--NBV

Institute of General & Inorganic Chem., AS

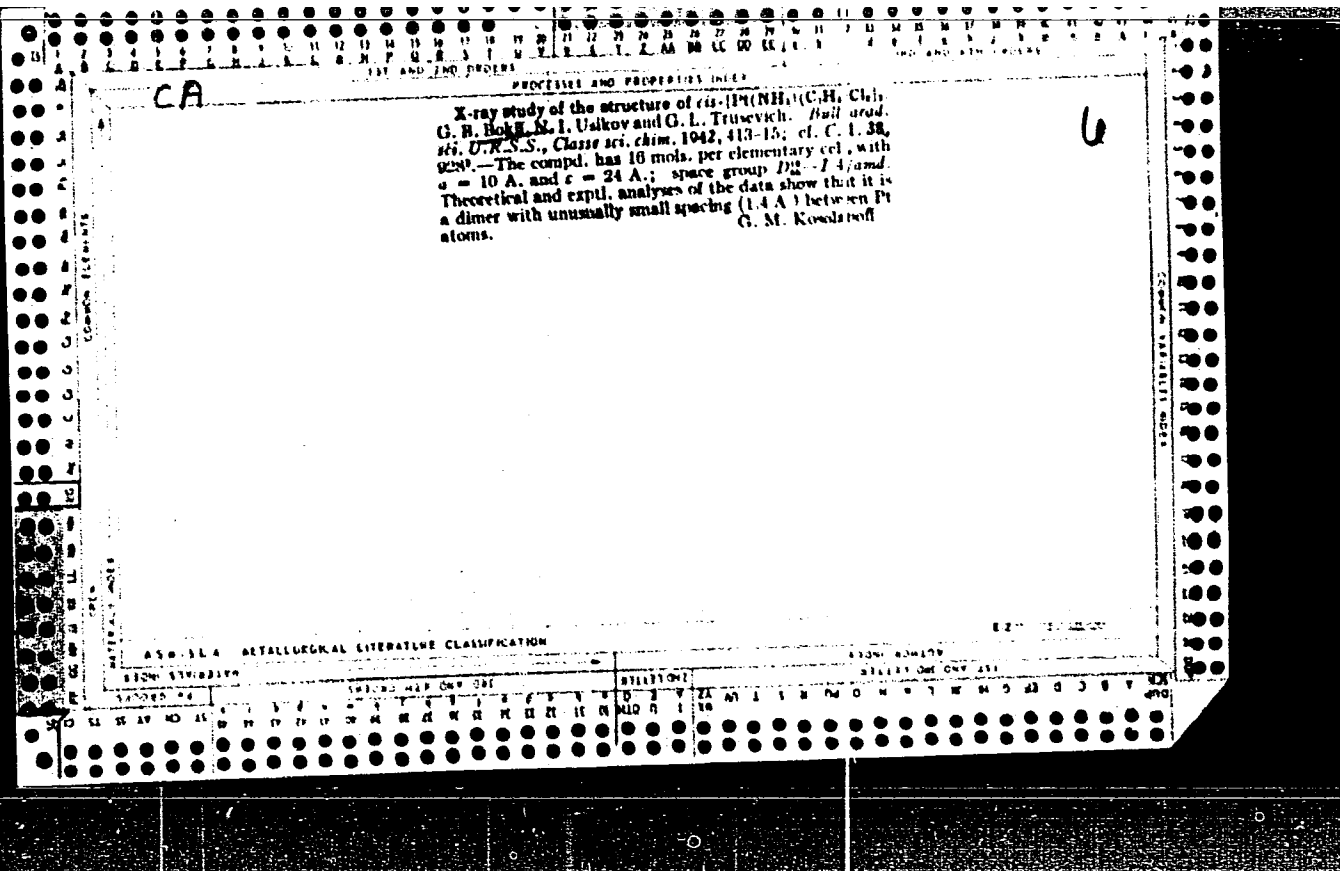
430-514 METALLURGICAL LITERATURE CLASSIFICATION

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Crystal chemistry of the Laves phases. G. H. Boki and E. E. Vainshtein (*Compt. rend. Acad. Sci. U.R.S.S.*, 1962, 60, 132-133, and *Dokl. Acad. Sci. U.R.S.S., Cl. Sci. Chem.*, 1963, 241-247). — The intermetallic compounds which do not fit into the scope of the classical ideas of valency (Laves phases) have the formula  $AB_2$  or  $A_2B_3$ . The structures of Laves phases are characterised by co-ordination nos. (12, 6), but each B atom has six B atoms as its closest neighbours; this accounts for the fact that similar structures are not observed in ionic compounds. These structures permit no variation in the ratio between the radii of the components; contact of univalent spheres occurs with  $R_A:R_B = 1.225$  and the A-B distance  $(a/b)\sqrt{11}$ . The experimental vals. for  $R_A:R_B$  lie between 1.11 and 1.33 (calc. vals. 1.09-1.34). Contrary to the views of Schulze, polarisation plays an important role, although mutual characters of the electronic structures of constituent atoms of the Laves phase. Elements participating in Laves phase formation are classed as (a) elements acting as A component only (Na, K, Ca, Ti, Ag, Pb, V, Cr, Mo, Re), (b) elements acting as B components only (Zn, Be, Cu, Ni, Al), and (c) those capable of acting as either A or B (Mn, Fe, Co, Au, Bi, Mg). Laves phases should not be regarded as an independent group of intermetallic compounds, and the term should be applied only to a definite type of crystal structure.

W. R. A.

PROCESSING AND PROPERTIES INDEX

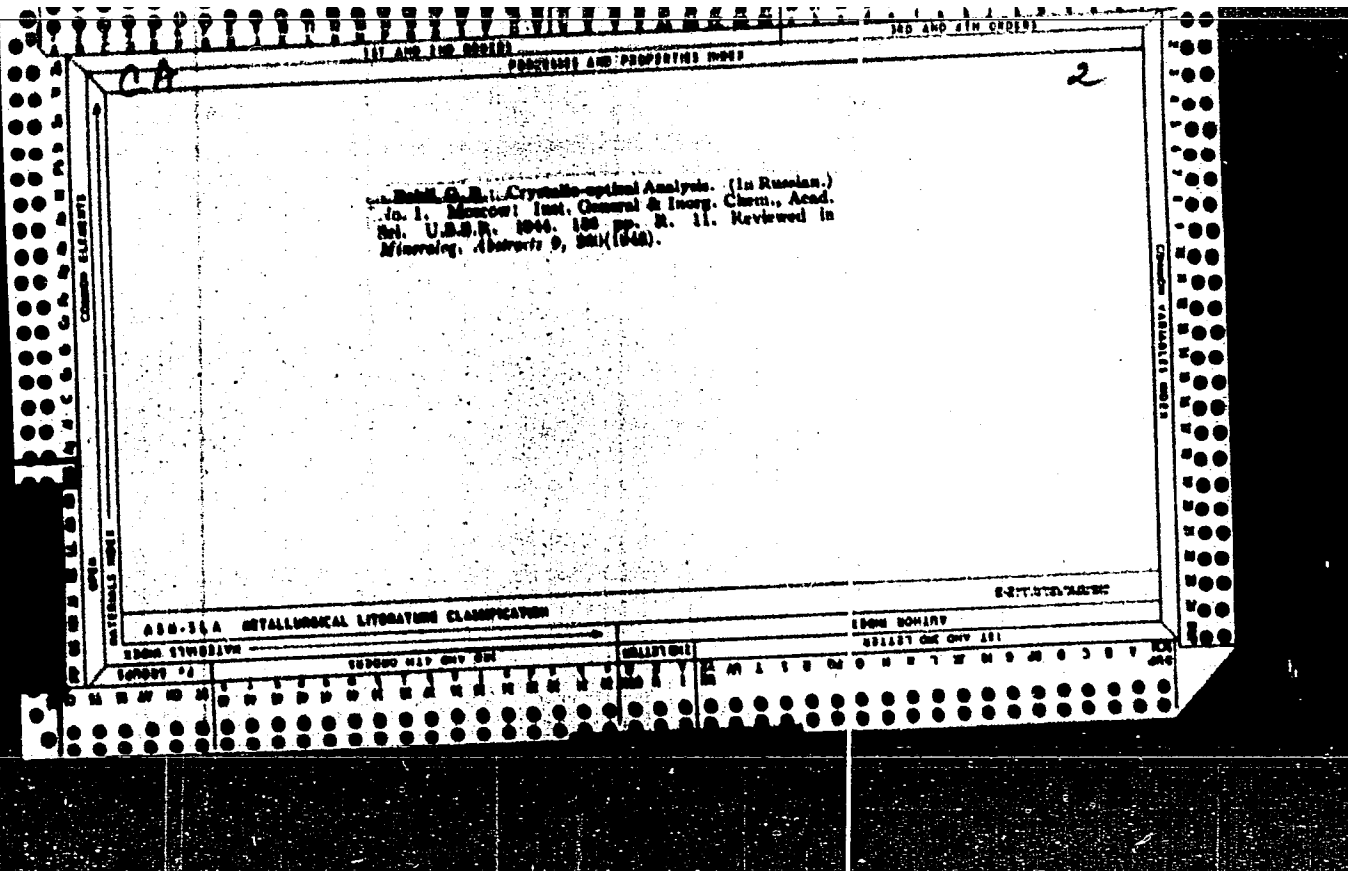
b

The nature of the chemical bond in some inorganic compounds. (I. H. Nobel and N. H. Valensky. *Compt. rend. acad. sci. U. R. S. S.* 30, 307-9(1943) (in English); cf. *C. A.* 37, 680P.—A structural picture is offered for the dimers,  $(AlCl_3)_2$  (I) and  $[Pt(NH_3)(C_6H_5)_2Cl_2]_2$  (II). A chem. bond, termed *intermetallic* or *dimetallic*, is postulated to exist between the metallic atoms of the dimer. Involved in this bond are the deeper-lying *sp* electrons of Al or *sd* electrons of Pt, since the exterior valency electrons are already used in the formation of the monomer. As substantiation, B. and V. show that their picture of the dimetallic bond is in accord with (1) the x-ray analysis of the dimers; (2) the stereochemical structure of the complex, and the symmetry of the wave functions of the electrons forming the bond; (3) the quantum-mechanical evaluation of the Al-Al and Pt-Pt bond distances; (4) a similar valence state of Si in aluminosilicates; (5) measurements of the dipole moment of I; and (6) the quadrivalent chem. behavior of Pt as observed for II. The short distance between the metallic atoms entirely eliminates any structural picture involving Cl atoms as intermediary links of the bond; the catalytic activity of  $AlCl_3$  may be related to the structure of the dimer.

G. Calvin Brous

METALLURGICAL LITERATURE CLASSIFICATION

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	



2. 76;

17 2 Molecular

**Classification of the structure of complex compounds.** G. B. Dohi (*Bull. Acad. Sci. U.R.S.S., Cl. Sci. Chem.*, 1966, 970-98).—  
A classification of binary complex (binary) compounds is proposed. The main distinction is into types having three-dimensional, planar and linear complexes. Subdivision is based on, amongst other factors, electronic structure and co-ordination nos. The proposed system, though not as widely applicable as that based on the principle of closest packing, is deemed to be simpler and more descriptive.  
V. B.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

11

*BC*

*X-Ray investigation of the structure of (NH<sub>4</sub>)<sub>2</sub>NaRh(NO<sub>3</sub>)<sub>6</sub>. G. H. Heki and L. A. Popova (Bull. Acad. Sci. U.S.S.R., Chem. Ser., 1963, 80-83).—The powder X-radiograms of (NH<sub>4</sub>)<sub>2</sub>NaRh(NO<sub>3</sub>)<sub>6</sub> (I) show that it has a face-centred cubic lattice, a 10.82 Å, space-group Fm $\bar{3}$ . The calc. and observed intensities of the lines for (I) and (NH<sub>4</sub>)<sub>2</sub>Co(NO<sub>3</sub>)<sub>6</sub> resemble each other. The distance of the NH<sub>4</sub><sup>+</sup> ion from O is 3.06 Å, (where the NH<sub>4</sub><sup>+</sup> is surrounded by 12 NO<sub>3</sub><sup>-</sup> groups) or 3.24 Å. (6 NO<sub>3</sub><sup>-</sup> groups). There are spaces between the complex ions in the crystal structure of two sizes; the small ones, equal in no. to the complex ions, are occupied by Na<sup>+</sup> (r = 0.99 Å) and the larger ones (twice as many) contain NH<sub>4</sub><sup>+</sup> (r = 1.45 Å).*

R. To

ASTM-SIA METALLURGICAL LITERATURE CLASSIFICATION

SECTION 679.02100

62

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CA

Crystallographic investigation of the salt 41a.O.P.  
 G. M. MOORE, G. B. BISHOP, *Trudy Inst. Krist.*  
*Akad. Nauk S.S.S.R.*, 1967, No. 3, 19-20; *Chem. Zvest.*  
 1967, H. 684. — The colorless crystals are readily attacked  
 in the air. Geometric measurements showed triclinic  
 symmetry and pleochroism;  $a:b:c = 1.112:1.000:1.000$ ;  
 $\alpha = 91^\circ 3'$ ;  $\beta = 94^\circ 13'$ ; and  $\gamma = 93^\circ 46'$ .  
 Optical properties:  $n_\gamma = 1.780$ ,  $n_\beta = 1.776$ ,  $n_\alpha = 1.766$ ,  
 and  $2V = +60^\circ$ . M. G. Moore

CA

Crystallographic investigation of complex compounds of metals of the platinum group. V. G. D. Bekil and M. N. Lyashenko. *Trudy Inst. Krist.* 1947, No. 3, 21-3; cf. C.A. 43, 4335i. — Optical and geometric data, useful for identification, are reported for the crystals of 12 compounds. *cis*-Diamminodinitroplatinum,  $[Pt(NH_2)_2(N_2O_2)]$ , forms thin, pale yellow needles  $8 \times 0.1$  mm.; monoclinic symmetry;  $a:b:c = 0.821:1:1.030$ ;  $\beta = 101^\circ 20'$ ; observed locus  $\{100\}$ ,  $\{101\}$ ,  $\{110\}$ . Twin formation is frequently observed in an immersed prep.  $n_D = 1.790$ ,  $n_g = 1.742$ ,  $n_a = 1.711$ ;  $2V = 80^\circ$ ;  $n_y \| b$ ;  $Z (n_a) = 42.5^\circ$ . *cis*-Ethylenediaminodichloroplatinum,  $[PtCl_2(NH_2)_2]$ , forms greenish yellow needles  $10 \times 0.5$  mm. showing tetragonal symmetry;  $a:c = 1:2.362$ ; observed forms  $\{100\}$ ,  $\{101\}$ ,  $\{100\}$ . Uniaxial, pos.;  $n_D > 1.785$ ,  $n_g = 1.722$ . *cis*-Ethylenediaminodibromoplatinum,  $[PtBr_2(NH_2)_2]$ , forms tetragonal crystals which show only the forms  $\{100\}$  and  $\{100\}$ . Uniaxial, pos.;  $n_D > 1.790$ ,  $n_g = 1.770$ . *Triamminocarbonylplatinum pyridine monohydrate*,  $C_5H_5N[PtCO(NH_3)_3] \cdot H_2O$ , forms orange crystals appear to be isomorphous with Pt triamminocarbonylpyridinium monohydrate. *trans*-Diamminodichloroplatinum,  $[PtCl_2(NH_2)_2]$ . Because of the oblique extinction, the poorly formed needles were assumed to be triclinic.  $n_D > n_g > 1.790$ ;  $n_a = 1.668$ ,  $2V = -45^\circ$ .

*trans*-Pyridinammine bischloroplatinum,  $[PtCl_2(NH)(N_2O)]$ , long, fine, white crystals which show direct extinction.  $n_D = 1.750$ ,  $n_g = 1.696$ ,  $n_a = 1.624$ ;  $2V = -78^\circ$ . *Ethylenediamine(methylammine)(nitrochloro)platinum chloride*,  $[PtCl_2(NH_2)(CH_3NH_2)(NO_2)(Cl)]$ . The fine, yellow platelets show no definite edges.  $n_D = 1.750$ ,  $n_g = 1.740$ ,  $n_a = 1.670$ ;  $2V = -40^\circ$  measured on the Fedorov stage. *cis*-Pyridinediethylenedichloroplatinum,  $[PtCl_2(C_5H_5)(C_2H_4)_2]$ ,  $n_D = 1.80$ ,  $n_g = 1.750$ ,  $n_a = 1.700$ ;  $2V = 78^\circ$ . *cis*-Pyridinethylenedichloroplatinum,  $[PtCl_2(NC_5H_4)(C_2H_4)]$ , forms grayish yellow, thin needles.  $n_D = 1.67$ ,  $n_g = 1.700$ ,  $n_a = 1.662$ ;  $2V = 29^\circ$ . The orthorhombic system is indicated because of the direct extinction. *trans*-Pyridineethylenedichloroplatinum,  $[PtCl_2(NC_5H_4)(C_2H_4)_2]$ , forms fine, light-yellow needles with direct extinction. *Di(monoethylenediamine)dichloroplatinum*,  $[PtCl_2(C_2H_4)_2(NH_2)_2]$ . Twin crystals are frequently found among the orthorhombic platelets, the twinning plane being at an angle of  $20^\circ$  to the extinction.  $n_D > 1.82$ ,  $n_g = 1.700$ ,  $n_a = 1.661$ . *trans*-Diamminodichloroplatinum,  $[PtCl_2(NH_2)_2]$ , forms a yellow powder in which fine rhombohedra or needles can be distinguished under the microscope. In the rhombohedra the extinction is symmetrical; in the needles it is oblique. They belong to the monoclinic system.  $n_D > 1.700$ ,  $n_g = 1.778$ ,  $n_a = 1.700$ ; the angle between  $n_g$  and the needle axis =  $19^\circ$ .  $n_a$  lies in the low diagonal of the rhombus. *trans*-Di-

*over*



BOKIY, G. E.

USSR/Chemistry - Gerhardt's Salt  
Chemistry - Analysis

May/June 1947

"Investigation of the Structure of Gerhardt's Salt by Harmonic Analysis,"  
N. V. Belov, G. E. Bokiĭ, L. A. Popova, 10 pp

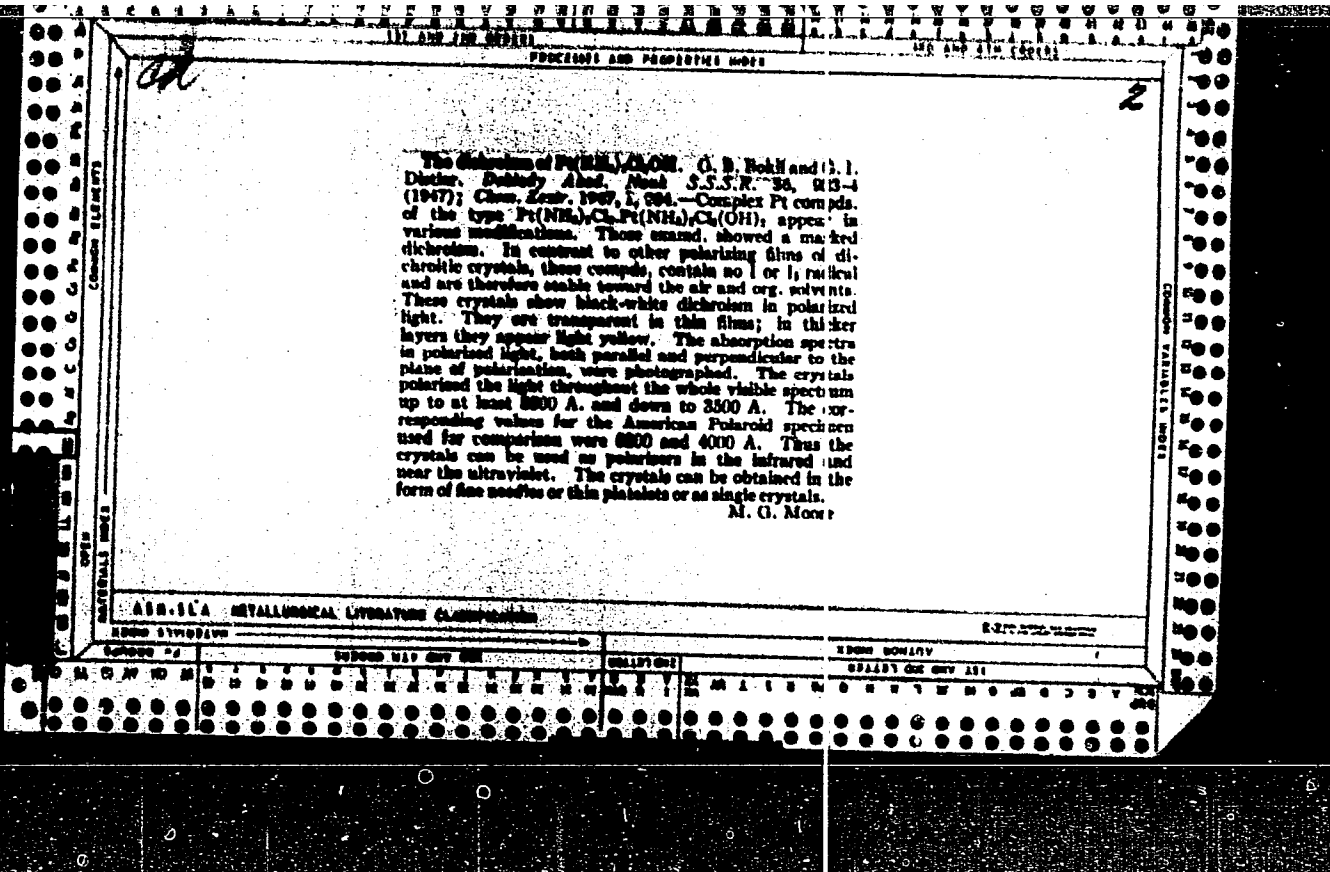
"Izv Ak Nauk Otd Khim Nauk" No 3

Determination of lattice constants, number of molecules in the unit cell,  
parameters of atoms, interatomic distances, and distances between the  
nearest atoms, for Gerhardt's salt ( $\text{Pt}(\text{NH}_3)_2\text{Cl}_4$ -trans).

PA 15T18

*THE N.S. KURNAKOV INST. OF GENERAL & INORGANIC CHEM., AS USSR*





BOKIY, G.B.

Bokiy, G.V. - "A crystallographic study of an isomorphic cluster of astrakanite",  
Vestnik Mosk. un-ta, 1948, No. 10, p. 175-80, - Bibliog: 5 items.

SO: U-3042, 11 March 1953, (letopis 'nykh Statey, No. 10, 1949).

BOKIY, G. B.

Bokiy, G. B. - "Electronic and atomic polarization of the complex compounds of a membrane," Vestniki Mosk, un-ta, 1948, No. 11, p. 155-64 ---  
Bibliog: 14 items

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

CA

*Crytochemistry of complex compounds. G. B.  
Boris. Inst. Sektora Fiziky i Drugikh Biolog.  
Vestn. Inst. Obshchey i Neorg. Khim., Akad. Nauk  
S.S.S.R. No. 81, 190-200 (1948).—General survey of the  
subject with particular reference to the work done by B.  
M. Hantz*

CA

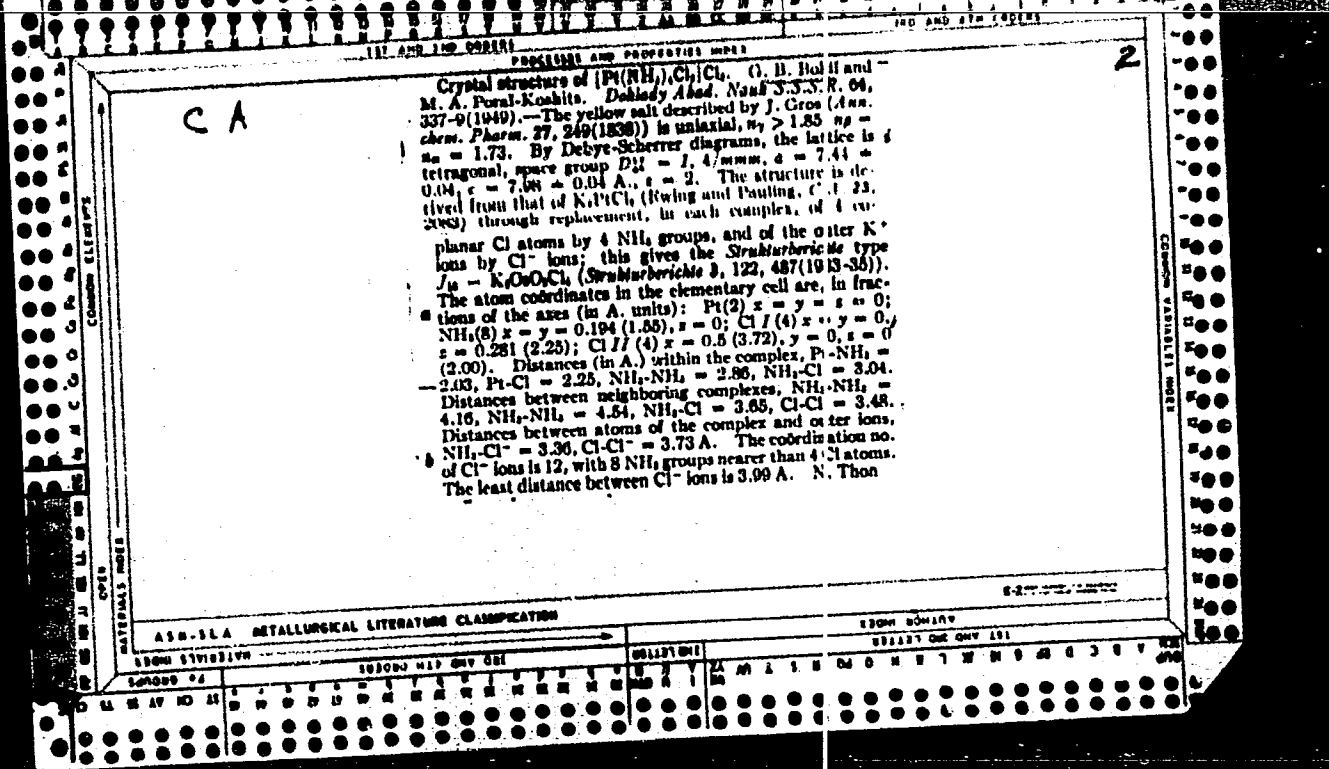
**A possible new form of isomerism in inorganic compounds.**  
(G. B. Bokil, *Izvest. Sibirsk. Platiny i Drugikh Elagorod.*  
*Melal. Tbil. Obshch. i Neorg. Khim., Akad. Nauk. S.S.S.R.*  
No. 23, 90-3(1949).—In the new form of isomerism, for  
which the name "orientational isomerism" is suggested, the  
isomers differ in the orientation of the additives with respect  
to each other as well as to the central atom. The little work  
done in this field is briefly reviewed. M. Hosh

CA

6

X-ray investigation of the structure of Gros salt.  $(\text{NH}_4)_2\text{Cl}_2\text{Cl}_2$ . G. B. Bokil and M. A. Poral-Koshis. *Izvest. Sibira Phisim. i Drugikh Biogeor. Metal. Ind. Obshch. i Neorg. Khim., Akad. Nauk SSSR* No 24, 52-59 (1949).—The crystal structure as detd. roentgenographically is tetragonal body centered. The lattice cons. are  $a$  7.44 Å, and  $c$  7.98 Å. There are 2 mols. of  $(\text{NH}_4)_2\text{Cl}_2\text{Cl}_2$  per unit cell. The space group  $I4_1/m$ . Parameters of atoms are, in fractions of axis  $a$  and  $c$ , resp.: Pt (2)  $x = y = z = 0$ ,  $x = y = z = 0$ ;  $\text{NH}_4$  (8)  $x = y = 0.194$ ,  $z = 0$ ,  $x = y = 1.44$ ,  $z = 0$ ;  $\text{Cl}_1$  (4)  $x = y = 0$ ,  $z = 0.281$ ,  $x = y = 0$ ,  $z = 2.85$ ;  $\text{Cl}_2$  (4)  $x = 0.5$ ,  $y = 0$ ,  $z = 0.23$ ,  $x = 3.72$ ,  $y = 0$ ,  $z = 2.09$ . Within the complex  $\text{Pt}(\text{NH}_4)_2\text{Cl}_2$  the distances between the atoms are  $\text{Pt}-\text{NH}_4 = 2.03$ ,  $\text{Pt}-\text{Cl} = 2.25$ ,  $\text{NH}_4-\text{NH}_4 = 2.89$ , and  $\text{NH}_4-\text{Cl} = 3.04$  Å. The distances between atoms of adjacent complexes are  $\text{NH}_4-\text{Cl} = 3.65$ ,  $\text{Cl}-\text{Cl} = 3.48$  Å. The distances between atoms in the complex and ions in the outer sphere are:  $\text{NH}_4-\text{Cl}^- = 3.30$ ,  $\text{Cl}-\text{Cl}^- = 3.73$  Å. The  $\text{Cl}^-$  have a coordination no. of 12; the 8  $\text{NH}_4$  are closer than the 4  $\text{Cl}$ . The smallest distance between  $\text{Cl}^-$  in the outer sphere is 3.99 Å. M. Hosh





CA

2

Crystal structure of Chuganov's salt. (I. N. Ikhil and L. A. Buzova. *Doklady Akad. Nauk SSSR* 07, 73 (1960). Crystals of  $[Pt(NH_3)_2Cl_2]Cl \cdot H_2O$  are uniaxial, pos., with very small birefringence, both  $n_x$  lying between 1.718 and 1.722. The elementary cell is rhombohedral with  $a_0 = 12.07 \pm 0.03$  A.,  $\alpha = 116^\circ 12'$ , which, in the hexagonal system, corresponds to  $a = 20.51 \pm 0.13$ ,  $c = 6.04 \pm 0.13$  A. The no. of mols. in the elementary cell is 3 in the rhombohedral, and 9 for the primitive hexagonal cell. The space group is  $C_{3h}^{2/3} = R\bar{3}m$ . From Patterson projections on the  $xOy$  and  $zOy$  planes, the Pt atoms occupy the positions (in the hexagonal system)  $z\bar{2}0$ ,  $x\bar{2}z$ ,  $2z\bar{2}0 + (000)$ ,  $1/3$ ,  $1/3$ ,  $1/3$ ,  $2/3$ ,  $2/3$ ,  $2/3$ , where  $x = 0.120$ . The atom parameters (position in parentheses) in axis fractions [in A.] are: Pt(06),  $x = 2.630$ ,  $z = 0.10129$ , 01; Cl<sup>-</sup> outer (18c),  $x = 4.968$ ,  $z =$

$3.401$  [0.243, 0.013]; Cl<sup>-</sup> inner (06c),  $x = 5.390$ ,  $z = 3.243$  [0.28, 0.253, 0.188]; Cl<sup>-</sup> inner (06a),  $x = 1.010$ ,  $z = -1.170$  [0.070, -0.223]; (NH<sub>3</sub>)<sub>1</sub> (06),  $x = 1.805$ ,  $z = 1.532$  [0.092, 0.251]; (NH<sub>3</sub>)<sub>2</sub> (06),  $x = 3.530$ ,  $z = 1.290$  [0.172, 0.103]; (NH<sub>3</sub>)<sub>3</sub> (06),  $x = 3.390$ ,  $z = -1.532$  [0.165, 0.231]; (NH<sub>3</sub>)<sub>4</sub> (18c),  $x = 4.090$ ,  $y = 5.270$ ,  $z = 0$  [0.229, 0.257, 0]; H<sub>2</sub>O (06),  $x \sim 4.00$ ,  $z \sim 0.09$  [ $\sim 0.243$ ,  $\sim 0.012$ ]. Distances between atoms within the complex are: Pt - N = 2.00, Pt - Cl = 2.30, N - N = 2.82, N - Cl = 3.04 A. The outer Cl<sup>-</sup> (06) has the coordination no. 8; the distances between Cl<sup>-</sup> and the N atoms lie within 3.26-3.30 A. The outer Cl<sup>-</sup> (18c) has, with respect to NH<sub>3</sub> groups, the coordination no. 8; the distances Cl<sup>-</sup> - N lie within 3.24-3.42 A. If the coordination no. of the outer ions is calcd. with respect to all inner-sphere addends, it is = 9, the 9th place being occupied by the inner Cl. The distance Cl<sup>-</sup> - Cl = 3.18, i.e., is slightly less than Cl<sup>-</sup> - Cl<sup>-</sup> = 3.60 A. N. Thon.

ASB-11A METALLURGICAL LITERATURE CLASSIFICATION

RESEARCH CENTER

196000 04

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Bokiy, G. B., ed.

N/5  
613.85  
.B6

Novye issledovaniya po kristallo-grafii i kristallokhiimii (New studies on crystallography and crystalchemistry) Moskva, Izd-vo inostranney Lit-ry, 1950

V.

BOKIY, G. B. and POPOVA, L. A.

"X-Ray Examination of the Structure of Chugajev Salt," Iz. Sekts.  
plaz. i blag. met., No.25, 1950

BOKIY, G. B.

Science

Practical course in X-ray structure-analysis; Dopushcheno Ministerstvom  
vysshego obrazovaniia SSSR v kachestve uchebnogo posoblia dlia vysshikh  
uchebnykh zavedenii. Moskva, Izd-vo Moskovskogo Universiteta, 1951.

9. Monthly List of Russian Accessions, Library of Congress, May 1951<sup>2</sup> Unclassified.

CA

Precise determination of the atomic coordinates in the structure of Gerhardt's salt,  $\text{trans-(NH}_3\text{)}_2\text{Cl}_2\text{Pt}$ . *Dokl. Akad. Nauk S.S.S.R.*, *Otdel. Khim. Nauk* 1951, 481-0.—X-ray diffraction methods were used to study the structure of  $\text{(NH}_3\text{)}_2\text{Cl}_2\text{Pt}$ . The Pt-NH<sub>3</sub> distance is 2.00 Å; the Pt-Cl distance is 2.30 Å. Gladys S. Macy

CA

2

Electronographic study and crystal chemistry of  $K_2PbCl_4$ ,  $K_2PbBr_4$ ,  $K_2PbI_4$ ,  $C_2B_4O_{10}$ ,  $B_2O_3$ ,  $B_2O_5$ ,  $B_2O_6$ ,  $B_2O_7$ ,  $B_2O_8$ ,  $B_2O_9$ ,  $B_2O_{10}$ ,  $B_2O_{11}$ ,  $B_2O_{12}$ ,  $B_2O_{13}$ ,  $B_2O_{14}$ ,  $B_2O_{15}$ ,  $B_2O_{16}$ ,  $B_2O_{17}$ ,  $B_2O_{18}$ ,  $B_2O_{19}$ ,  $B_2O_{20}$ ,  $B_2O_{21}$ ,  $B_2O_{22}$ ,  $B_2O_{23}$ ,  $B_2O_{24}$ ,  $B_2O_{25}$ ,  $B_2O_{26}$ ,  $B_2O_{27}$ ,  $B_2O_{28}$ ,  $B_2O_{29}$ ,  $B_2O_{30}$ ,  $B_2O_{31}$ ,  $B_2O_{32}$ ,  $B_2O_{33}$ ,  $B_2O_{34}$ ,  $B_2O_{35}$ ,  $B_2O_{36}$ ,  $B_2O_{37}$ ,  $B_2O_{38}$ ,  $B_2O_{39}$ ,  $B_2O_{40}$ ,  $B_2O_{41}$ ,  $B_2O_{42}$ ,  $B_2O_{43}$ ,  $B_2O_{44}$ ,  $B_2O_{45}$ ,  $B_2O_{46}$ ,  $B_2O_{47}$ ,  $B_2O_{48}$ ,  $B_2O_{49}$ ,  $B_2O_{50}$ ,  $B_2O_{51}$ ,  $B_2O_{52}$ ,  $B_2O_{53}$ ,  $B_2O_{54}$ ,  $B_2O_{55}$ ,  $B_2O_{56}$ ,  $B_2O_{57}$ ,  $B_2O_{58}$ ,  $B_2O_{59}$ ,  $B_2O_{60}$ ,  $B_2O_{61}$ ,  $B_2O_{62}$ ,  $B_2O_{63}$ ,  $B_2O_{64}$ ,  $B_2O_{65}$ ,  $B_2O_{66}$ ,  $B_2O_{67}$ ,  $B_2O_{68}$ ,  $B_2O_{69}$ ,  $B_2O_{70}$ ,  $B_2O_{71}$ ,  $B_2O_{72}$ ,  $B_2O_{73}$ ,  $B_2O_{74}$ ,  $B_2O_{75}$ ,  $B_2O_{76}$ ,  $B_2O_{77}$ ,  $B_2O_{78}$ ,  $B_2O_{79}$ ,  $B_2O_{80}$ ,  $B_2O_{81}$ ,  $B_2O_{82}$ ,  $B_2O_{83}$ ,  $B_2O_{84}$ ,  $B_2O_{85}$ ,  $B_2O_{86}$ ,  $B_2O_{87}$ ,  $B_2O_{88}$ ,  $B_2O_{89}$ ,  $B_2O_{90}$ ,  $B_2O_{91}$ ,  $B_2O_{92}$ ,  $B_2O_{93}$ ,  $B_2O_{94}$ ,  $B_2O_{95}$ ,  $B_2O_{96}$ ,  $B_2O_{97}$ ,  $B_2O_{98}$ ,  $B_2O_{99}$ ,  $B_2O_{100}$ .

BOKIY, G. B.

USSR/Physics - Crystallography, X-ray Mar/Apr 51

PA 187189

"The Crystallochemistry of the Transitional Series of the Ammoniates of Quadrivalent Platinum," G. B. Bokiy, Inst of Gen and Inorg Chem, Acad Sci USSR  
"Iz Ak Nauk SSSR, Ser Fiz" Vol XV, No 2, pp 170-175

Gives pictures and tables of 10 complex chloroammoniates of quadrivalent platinum, as the result of crystallographic and structural investigations. Steric diagrams show positions of atoms (Cl, Pt, N, H, O. K). Bokiy's lecture was attended by G. S. Zhdanov, Moscow, and N. V. Belov, Moscow.

LC

187189

USSR/Physics - Crystallography, X-ray Mar/Apr 51  
(Contd)

Submitted at 3d All-Union Conference on Use of X-rays in Study of Materials held 19 - 24 Jun 50 in Leningrad.

LC

187189



BOKIY, G. B.

Science

Academician Ye. S. Fedorov, founder of contemporary crystallography Moskva,  
Znanie, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952, Unclassified.

BOKIY, G. B.

USSR/Geophysics - Crystallography

Sep 52

"New Method of Determining the Structure of Complex Compounds," G. B. Bokiya and S. S. Batsanov, Chair of Crystallography and Crystallochemistry

Vest Mos Univ, Ser Fizikomat i Yest Nauk, No 6, pp 89-94

Second in a series of articles. The first article (ibid No 2, 1952) was devoted to the crystallo-optic soln of the geometric configuration of complex compds. The author presents soln of inter-atomic distances from refractions of complex ions.

275T66

BOKIY, G. B.

PA 243T79

USSR/Geophysics - Crystallography, History Oct 52

"From the History of Russian Crystallography: Publicizing of Ye. S. Fedorov's Scientific Works," I. I. Shafranovskiy and G. B. Boki, Chair of Crystallography and Crystallochemistry

"Vest Moskov U, Ser Fiz-Mat i Yest Nauk" No 7, pp 129-147

Continuation of authors' works on history of Russian crystallography. Purpose of article is to publicize Ye. S. Fedorov's works in commemoration of the 100th anniversary of his birth.

243T79

BOKIY, B. G.

Chemical Abst.  
Vol. 48 No. 6  
Mar. 25, 1954  
Inorganic Chemistry

1/2

✓ New method for the determination of the structure of complex compounds. G. I. Bokil and S. S. ~~XXXXXXXXXX~~. *Vysokomol. Soedin.* 7, No. 2, Ser. Fiz. Mat. i Estroven. No. 1, 147-53 (1952); cf. *ibid.* 1948, No. 11.—A crystal-optic method is given for the distinction of cis and trans configurations in complex salts, e.g. Cleve's and Gerard's salts, and related compds. For  $\lambda = N_{ap}$  and  $\lambda = \infty$ , the ionic refractions in crystals are computed from the

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2/2  
P. B  
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Lorentz-Lorentz equation. The ionic refractions in the gaseous state and in crystals show great differences. For a series of crystalline hydrates, the mol. refraction of the water of crystn. could also be computed, namely 3.28 while in liquid state H<sub>2</sub>O has for  $\lambda = \infty$  the mol. refraction 3.59, and in the vapor state 3.66. In the chemistry of complex Pt compds., the introduction of the refraction value for gaseous H<sub>2</sub>O brings about erroneous results, because crystal hydrates of this group are usually low in H<sub>2</sub>O. For the following complex salts of Pt<sup>IV</sup> the refractive indexes have been detd. for C, D, and F light in the visible range, and with Cauchy's equation extrapolation to  $\lambda = \infty$  was carried out to calc.  $R_{\infty}$ , and the ionic fractions of the complex anions: [Pt(NH<sub>3</sub>)<sub>4</sub>]Cl<sub>2</sub>·H<sub>2</sub>O; *trans*-[Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub>]Cl<sub>2</sub>; *trans*-[Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub>]Cl<sub>2</sub>·H<sub>2</sub>O; *cis*-Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub>; *trans*-Pt(NH<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub>; *trans*-K<sub>2</sub>Pt(NO<sub>2</sub>)<sub>2</sub>Cl<sub>2</sub>; *cis*-K<sub>2</sub>Pt(NO<sub>2</sub>)<sub>2</sub>Cl<sub>2</sub>; *trans*-Pt(NH<sub>3</sub>)<sub>2</sub>(NO<sub>2</sub>)<sub>2</sub>Cl<sub>2</sub>; [Pt(NH<sub>3</sub>)<sub>2</sub>(NO<sub>2</sub>)<sub>2</sub>Cl<sub>2</sub>]·H<sub>2</sub>O; (NH<sub>4</sub>)<sub>2</sub>PtCl<sub>6</sub>. The calcd. ionic refractions for the complex anions, and  $\lambda = \infty$  are: NH<sub>3</sub>-Pt<sup>IV</sup>-NH<sub>3</sub> (12.16); NH<sub>3</sub>-Pt<sup>IV</sup>-Cl (15.56); Cl-Pt<sup>IV</sup>-Cl (16.93); NO<sub>2</sub>-Pt<sup>IV</sup>-NO<sub>2</sub> (21.85); NO<sub>2</sub>-Pt<sup>IV</sup>-Cl (20.72); NO<sub>2</sub>-Pt<sup>IV</sup>-NH<sub>3</sub> (17.11). The previous calcns. of Yakobin (C.A. 44, 10474) of the same and other complex anion refractions (for  $\lambda = NaD$ ) are discussed and corrected. Geometrical isomers can be distinguished by the  $R_{\infty}$  and  $R_{NaD}$  values calcd., e.g., from crystalloptical measurements. For the detns. of the constitution of the complex salts of Pt<sup>IV</sup> it is only necessary to det. the refractive indexes for C, D, and F light, to extrapolate to ( $n_{\infty} = (a_1 n_c - a_2 n_D + a_3 n_F) / (a_1 - a_2 - a_3)$ ) and to calc. the mol. refraction. From this value, the Fajans-Joos-Pauling data of cationic refraction are used to det. the  $R$  values of the complex anion, and the values  $a = R_d/M$ ;  $n^2 = (1 + 2a)/(1 - a)$ , and the differences  $\Delta n_1$  and  $\Delta n_2$ . The latter values show for  $\lambda = \infty$  a much better agreement with the exper. detns. in a special case of isomers, than the same difference detd. for  $\lambda = NaD$ .

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BOKII, G. B.; SHAFRANOVSKII, I. I.

Scientists

Some forgotten articles of E.S. Fedorov. Zap. Vses. min. ob., 81, No. 3, 1952

Monthly List of Russian Accessions, Library of  
Congress, December 1952. Unclassified

BOKIY, G. B.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Bokiy, G. B. Shafranovskiy I. I.	Works on the Scientific achievements, life, and public activities of Ye. S. Fedorov	Moscow State University imeni M. V. Lomonosov

SO: W-30604, 7 July 1954

BOKIY, G. B.

Chemical Structure

Determination of the structure and structural formulas of organic compounds based on crystallo-chemical data. Izv. AN SSSR. Otd. khim. nauk No. 1, 1953.

Demonstrates that the employment of new exptl data, derived from the measurement of interatomic distances in mols of org compds, presents the possibility of characterizing and compd by means of single and unique structural fomula. Ascertained that the reciprocal effect of atoms can substantially change the interatomic distances in mols; consequently, in detg the structural formula, this effect has to be taken into account. Further shows that, to represent structural formulas which are in agreement with the symmetry of mols in aromatic compds (with condensed benzene nuclei), the existance not only of simple and double bonds but particularly of intermediate or sesqui-bonds must be considered. 258T2

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



BOKIY, G. B.

Chemical Abst.  
Vol. 48  
Apr. 10, 1954  
General and Physical Chemistry

②

No. 2

Structure of the complex ion  $(C_2(NO_2)(NH_3))^-$ . G. B. Bokii and E. A. Gilyinskaya. *Izv. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1953, 238-41; *J. Wells, C.A.* 51, 1670.  
 The cryst. salts  $Ag(C_2(NO_2)(NH_3))$ ,  $K(C_2(NO_2)(NH_3))$ , and  $NH_4(C_2(NO_2)(NH_3))$  were examd. by x-ray diffraction in order to det. the configuration of the anion. The interat. distances Co-N (ammine), Co-N (nitro), N-O, and O-O are  $1.95 \pm 0.03$ ,  $1.90 \pm 0.03$ ,  $1.25 \pm 0.03$ , and  $2.15 \pm 0.03$  A., resp. The anion has the trans configuration. J. W. Lowenberg, Jr.

Inst. Gen. + Inorganic Chem. im. Kurnakov - AS USSR

BOKIYA, PROF G. B.

USSR/Physics - Crystallography

Apr 53

"Review of 'New Investigations in Crystallography and Crystallochemistry,'" (V. A. Frank-Kamenetskiy, reviewer)

Usp Fiz Nauk, Vol 49, No 4, pp 628-630

Reviewed book presents abridged translations fo foreign articles processed by G. D. Vigdorovich, A. S. Anishkina, B. V. Nenart, T. L. Khotsyanova, V. M. Koshin, N. D. Katsenelenbaum, Yu. G. Zagalskiy, and N. A. Pobedimskaya, with preface by Prof. G. B. Bokiya the editor.

267192

DOKIY, G.B.

X-ray analysis of  $K_2[Pu(NO_2)_4Cl_2]$  and  $K_2[Pu(NO_2)_4Br_2]$  (NO<sub>2</sub>)<sub>4</sub>Br<sub>2</sub>;  
 G. B. Dokiy and E. A. Gilyakova, Doklady Akad. Nauk  
 S.S.S.R. 88, 975-978 (1983); cf. C.A. 39, 5140; 15, 29833.  
 $K_2[Pu(NO_2)_4Cl_2]$  (I) and  $K_2[Pu(NO_2)_4Br_2]$  (II) were prepared  
 by a method described earlier [Dufet, Z. Anorg. Chem. 23, 493  
 (1894)]. Both compounds belong to the monoclinic system  
 and for I  $a:b:c = 1.020:1:0.788$  and  $\beta = 111^\circ 41'$ ; for II  
 $a:b:c = 0.930:1:0.772$  and  $\beta = 120^\circ 25'$ . The P4<sub>2</sub> symmetry group is  $C_{2h}$ -P4<sub>2</sub>/a and the Pu atoms occupy  
 the positions (000,  $\frac{1}{2}, \frac{1}{2}, 0$ ) and are at the centers of inversion.  
 Therefore, the Cl (or Br) which belong to a single  
 complex are trans to each other. The interatomic distances  
 are given. The form of the complex is close to the "tetra-  
 normal" (B., loc. cit.) form.

С.В.Д.

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BOKIY, G.B.

USSR.

The determination of the structural type of  $KCo(NC_2O_4)_2(NH_3)_2$ . G. B. Bokiy and B. A. Glininskaya. *Doklady Akad. Nauk S.S.S.R.* 88, 461-4(1953); *Science Abstr.* 56A, 943(1953); cf. *C.A.* 48, 3730f. — The K, NH<sub>4</sub>, and Tl salts with the ion  $[Co(NC_2O_4)(NH_3)_2]^-$  (known previously to be isomorphous) were found to have the complex ion in the trans configuration. The K salt has the space group  $P_212_1$  with dimensions 11.27, 12.78, and 6.72 Å. (?) and the NH<sub>4</sub> salt has dimensions 11.43, 12.82, and 6.73 Å. (?) with the same space group. Comparison of observed and calcd. as indicated the trans configuration. From Patterson projections the parameters (x, y, z) of the heavy atoms were found to be Co (0.161, 0.187, 0.250) and K (0.604, 0.021, 0.250). The positions of the light atoms were found by packing considerations, refinement of projections and by comparison with the Ag salt, known to be trans but not isomorphous. R. D. H.

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BOKIY, G.B.

System of atomic radii of metals. Doklady Akad. Nauk S.S.S.R. 89, 459-62  
'53. (MLRA 6:3)

(CA 47 no.22:11825 '53)

(PA 56 no. 671:7845 '53)

(AERE-Trans- 11/3/5/417)

BOKIY, G. B.

USSR/Chemistry - Oxidants, Peroxidic  
Compounds

1 Aug 53

"Crystal-Chemical Investigation of the Compound  
 $Ag_7NO_{11}$ ," G. B. Boki, N. N. Smirnova, Inst of Gen  
and Inorg Chem in N. S. Kurnakov, Acad Sci USSR

DAN SSSR, Vol 91, No 4, pp 821-823.

On the basis of X-ray data, assumes that compd contains  
peroxide ions. Presented by Acad S. I. Vol'fkovich  
26 May 53.

27215

Chemical Abst.  
Vol. 48 No. 8  
A pr. 25, 1954  
General and Physical Chemistry

Refraction of the hydrogen bond. G. B. Bokii and S. I. Batsang, *Doklady Akad. Nauk S.S.S.R.* 62, 1170-71 (1953). Comparison of refractions of  $NH_4^+$  salts with corresponding K salts shows that the  $NH_4^+$  salts (such as  $NH_4Cl$ ,  $NH_4Br$ , and  $NH_4I$ ) show a constantly greater refraction; the difference is 1.07 for chloride, 0.06 for bromide, and 0.92 for iodide. The values of refraction at infinite wave length were extrapolated according to Whitt (C.A. 21, 4140). Similarly the nitrates, perchlorates, sulfates, and selenates of K and  $NH_4^+$  show a similar, though greater, difference: 1.52, 1.61, 1.78, and 1.81, resp. The increment is ascribed to H-bond formation. In the latter group the link  $NH_4^+-O = 1.68 - 0.98 = 0.70$  units. Division by the no. of H atoms shows that increment of refraction of H bond  $NH_4^+-O$  is 0.17 units. Cf. Palermi and Curran (C.A. 41, 604g). G. M. Kosolapoff

BOKIY, G. B.

Vvedeniye v kristalokhimiyu (Introduction to crystallochemistry) Moskva, Izd-vo Moskovskogo Universiteta, 1954. 489 p. illus., diags., tables.

SO: N/5  
614.113  
.B6



BOKIY, G. B.

USSR/Physics - Crystallography of Sulphides

FD-1251

Card 1/1 : Pub. 129-13/25

Author : Bokiy, G. B.; and Pobedinskaya, Ye. A.

Title : Crystallochemistry of Sulphides

Periodical : Vest. Mosk. un., Ser. fizikom. i yest. nauk, 9, No 1, 99-106, Feb 1954

Abstract : Describe the crystallography of the simple sulphides of monovalent elements (and their closest analogs); also that of the structure of the sulphides of alkali metals. Note the polymorphism of the sulphides of monovalent copper and silver. Depict the crystalline structures of cubic modifications of copper and silver sulphides (and their analogs). Discuss the crystalline structure of noncubic minerals and nonminerals (compounds of monovalent metals with sulfur, selenium and tellurium). Compute the solid solutions of the sulfides of monovalent copper, silver, gold and thallium (also the selenides). Thank N. L. Katsenelenbaum for the lattice constants.

Institution : Chair of Crystallography and Crystallochemistry

Submitted : July 10, 1953

USSR/Chemistry - Molecules, History

FD-675

Card 1/1 : Pub. 129 - 10/25

Author : Bokiy, G. B.; and Batsanov, S. S.

Title : ~~Problem of the concept of "molecule"~~  
Problem of the concept of "molecule"

Periodical : Vest. Mosk. un., Ser. fizikomat. i yestn. nauk, Vol. 9, No. 3,  
71-74, May 1954

Abstract : A historical outline concerning the concept of "molecule."  
Discuss the various terms "molecule," "particles," "corpuscles,"  
etc. and their definitions.

Institution : Chair of Crystallography and Crystallochemistry

Submitted : February 4, 1954

USSR, G. S.

USSR/Chemistry - Physical

FD-1147

Card 1/1      Pub. 129-11/23

Author      : Bokiy. G. ~~B.~~; Batsanov, S. S.

Title        : A new method for determining the structure of complex compounds (Third article)

Periodical   : Vest. Mosk. un., Ser. fizikomat. i yest. nauk, 9, No 7, 87-96, Oct 1954

Abstract     : Work deals with the refractometric determination of the geometric configuration of complex cobalt compounds. Six tables; graphs. Twenty-eight references (nine USSR)

Institution   : Chair of Crystallography and Crystal Chemistry

Submitted    : March 31, 1954

USSR/Chemistry - Inorganic

FD-1608

Card 1/1 : Pub. 129-11/23

Author : Boki, G. B.; Lyashenko, M. N.; Batsanov, S. S.

Title : A new method for determining the structure of complex compounds

Periodical : Vest. Mosk. un., Ser fizikomat. i yest. nauk, 9, No 8, 75-78, Dec 1954

Abstract : Determined the geometric configuration of the cis and trans isomers of  $Pt(NH_3)_2Cl_2$  and the trans isomer of  $Pt(NH_3)_2(NO_2)_2$  by comparing the molecular refraction as calculated by the Lorentz and Lorenz formula with the experimentally determined values. The refractive indices used were values obtained by extrapolating to infinite wavelength. Three tables. Seven references (six USSR).

Institution : Chair of Crystallography and Crystal Chemistry, Geology Faculty

Submitted : March 31, 1954