"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKEL, F. L.

Production of an experimental batch of sulfate-resistant argillaceous portland cement. Yu. T. Tashpulatov, F. L. Glekel, and I. Kh. Kolontarov. *Doklady Akad. Nauk Uzbek. S.S.R.* 1953, No. 3, 49-53; *Referat. Zhur., Khim.* 1953, No. 7364.—An exptl. batch (120 tons) of clay-portland cement was produced under plant conditions. As starting materials were used portland-cement clinker and kaolinitic clay calcined for 12 hrs. in a ring furnace at 700-800°. The clay was added to the clinker in a quantity of 35%, to this was added 3% of gypsum and the whole was ground. Addn. of clay did not lower the quality of the cement. For detn. of the salt resistance, as aggressive solns. were used a 5% Na_2SO_4 soln. and a soln. resembling in compn. subsurface water but having a concn. 10 times as great. Unlike pure portland cement the strength of which dropped rapidly in these solns., the argillaceous portland cement resisted the salts. The resistance of this cement is considerably greater than that of Tripoli-portland cement and its hardening in fresh water hardly differs from portland cement.

M. Hasch

2

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

Glekel, F. L.

M1

The setting of portland cement-clay mixtures in presence of lime in sulfate solutions. Yu. T. Tashpulatov and F. L. Glekel. *Trudy Inst. Khim., Akad. Nauk Uzbek. S.S.R.* 1955, No. 4, 34-40.—Cements contg. added CaO resistant to sulfate soln. were prepd. The materials used were clinker of high-aluminate content and local clay calcined at 800°. The clay content in the mixt. was 20, 30, and 40% plus 8.4 and 8% CaO. The cement samples were stored in 5% aq. Na_2SO_4 soln. The samples of pure cement were studied under the same conditions. The testing and analysis were made as described previously (cf. *C.A.* 48, 4197*d*). An increase of clay content increased the stability of cement. The pure portland-cement samples were destroyed after 28 days by sulfate soln.; cements with 30 and 40% clay were stable in such soln. Admixing of 8% CaO to a cement with 40% clay did not affect its stability and lowered it sharply in cements with 20 and 30% of clay. Admixing of the clay to the portland cement caused the formation of addnl. amt. of sulfoaluminate at setting in 5% Na_2SO_4 soln. compared to pure portland cement. The destruction of cement was not observed for cement-clay mixts. with high clay content, which suggests a different mechanism of sulfoaluminate formation. The setting of cement-clay mixts. in 5% Na_2SO_4 soln. was not followed by crystn. of a marked amt. of $CaSO_4$, in contrast to pure cement, as a result of low CaO concn. in the liquid phase.

A. Bhadan

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKEL, F.L.

The effect of hydrolytic additives on the kinetics of sulfate accumulation and corrosion processes occurring in cements. Yu. T. Tashpulatov and F. L. Glekel. *Zhur. Priklad. Khim.* 28, 822-30(1955); cf. *C.A.* 48, 4197*d*.—Portland cement without additives and with burned kaolin clay (I) and with tripoli were allowed to set in 5-10% Na_2SO_4 solns. In a series of expts. with similar mixts. the powders were shaken in stoppered flasks in H_2O for 14 days and then in 5% Na_2SO_4; during the first 6 hrs. the shaking was continuous, then once a day. In powders with I 20% more sulfate was formed than with the other 2 powders. This supports the postulate that "active" Al_2O_3 in I contributes toward the formation of addnl. sulfoaluminates. In setting expts. this addnl. reaction is slow because of the retarded diffusion processes and increasing d. on aging. A change in the concn. of Na_2SO_4 from 5 to 10% failed to affect the amt. of sulfoaluminates formed or the proportion of Al_2O_3 in I reacted. The principal difference between the cements with the 2 additives is the proportion of free and combined gypsum formed during setting in Na_2SO_4, with I crystn. of sulfoaluminates predominate, with tripoli and pure portland cement gypsum. The sulfoaluminate formed in mixts. with 40% I, crystg. in the liquid phase as a result of the reaction of $CaSO_4$ with aluminates, is a factor contributing to its strength when setting in Na_2SO_4. Deterioration of pure portland cement in such solns. is affected by sulfoaluminates and by large amts. of gypsum formed. Rapid formation of the former in the presence of an excess of free CaO without additives is the basis of its deterioration in Na_2SO_4 solns. I. Benenowitz

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

TASHPULATOV, Yu.T. [deceased]; GLEKEL', F.L.

Hardening process of pozzolan portland cements in air. Izv.AN Uz. SSR no.7:77-88 '56. (MIRA 14:5)
(Portland cement)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

TASHPULATOV, Yu.T. [deceased]; KOLCHTAROV, I.Kh.; GLEKEL', F.L.

Effect of the various active clayites on the mechanical strength of portland cements. Izv. AN Uz. SSR. Ser. khim. nauk no.4:103-108 '57. (MIRA 11:9)

(Portland cement--Testing)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

TASHPULATOV, Yu.T. [deceased]; GLEKEL', F.L.

Selection of "clayite" batching for sulfate-resistant "clayite"-portland cement. Dokl. AN Uz. SSR no.11:31-35 '57. (MIRA 11:5)

1.Institut khimii AN UzSSR. Predstavleno akad. AN UzSSR M.N. Nabiyevym.

(Portland cement)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

TASHPULATOV, Yu.T. [deceased]; GLEKEL', F.L.; KOLONTAROV, I.Kh.

Weather resistant "Clayite"-portland cement. Uzb. khim. zhur. no.2:73-85 '58. (MIRA 11:8)

1. Institut khimii AN UzSSR.
(Cement--Testing)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

TASHPULATOV, Yu.I. [deceased]; GLEKEL', F.L.; KOLONTAROV, I.Kh.

Hardening of clayite-portland cement under the alternating action of salt solutions. Uzb. khim. zhur. no.3:19-27 '58. (MIRA 11:9)

1. Institut khimii AN UzSSR.
(Cement--Testing)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKEL' F.L.; KANTSEPOL'SKIY, I.S.

Causes of the corrosion of concrete structures and measures for its prevention in the Golodnaya Steppe. Mat. po proizv. sil. Uzb. no.15:425-434 '60. (MIRA 14:8)

1. Institut khimii AN Uzbekskoy SSR.
(Golodnaya Steppe—Concrete—Corrosion)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

KANTSEPOL'SKIY, I.S.; GALKINA, G.V.; GIEKEL', F.L.

Effect of the duration of cement prehardening in water on its sulfate resistance. Kor.tsem.i mery bor'by s nei no.2:94-108 '62. (MIRA 15:11)

(Portland cement)
(Sulfates)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKEL', F.L.

Linear deformations in the sulfate corrosion of pozzuolana portland cements. Kor.tsem.i mery bor'by s nei no.2:146-157 '62. (MIRA 15:11)

(Pozzuolanas--Corrosion)
(Sulfates)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKEL', F.L.; KOLONTAROV, I.Kh.

Effect of the kinetics and conditions of the crystallization of sulfates on the sulfate resistance of glinite-portland cement. Kor.tsem.i mery bor'by s nei no.2:158-171 '62. (MIRA 15:11)

(Portland cement)
(Sulfates)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKEL', F.L., otv. red.; BAKLITSKAYA, A.V., red.; KISELEVA, V.N., red.; KARABAYEVA, Kh.U., tekhn. red.

[Problems of the chemical technology and physicochemical analysis of inorganic systems] Nekotorye voprosy khimicheskoi tekhnologii i fiziko-khimicheskogo analiza neorganicheskikh sistem. Tashkent, Izd-vo AN Uzb.SSR, 1963. 265 p. (MIRA 16:12)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Otdeleniye khimicheskikh nauk.

(Chemistry, Technical) (Chemistry, Analytical)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

KANTSEPOL'SKIY, I.S.; GLEKEL', F.L.; RAPOPORT, K.V.

Increasing the sulfate resistance of cement mortars by autoclave treatment. Uzb.khim.zhur. 8 no.4:26-37 '64. (MIRA 18:1)

1. Institut khimii AN UzSSR i Nauchno-issledovatel'skiy institut po stroitel'stvu akademii stroitel'stva i arkhitektury SSSR.

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKEL', F.L.; ARIPOV, E.A.; SAIBOVA, M.T.; AKHMEDOV, K.S.

Effect of the polymeric preparation PAA-1 on the phase transitions of tricalcium aluminate during hydration. Uzb. khim. zhur. 9 no.5:9-13 '65. (MIRA 18:12)

1. Institut khimii AN UzSSR. Submitted Jan. 19, 1965.

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

L 14034-66 EWT(m)

ACC NR: AR5020049 SOURCE CODE: UR/0081/65/000/012/M018/M018

AUTHOR: Glekel', F.L.; Akhmedov, K.S.

ORG: none

TITLE: Results of the reaction of compound PAA-1 and calcium oxide hydrate

SOURCE: Ref. zh. Khimiya, Abs. 12M163

REF SOURCE: Dokl. AN UzSSR, no. 12, 1964, 30-31

TOPIC TAGS: synthetic material, cement, hardness

TRANSLATION: The introduction of compound PAA-1, a polyacrillic amid compound in amounts of 0.01 to 0.10% (of cement weight) into Portland cement (PC), increases the primary mechanical strength of cement stone. This is due to the chemical reaction of the compound and the calcium minerals contained in PC, first occurring with the precipitated hydrate of calcium oxide during the hydration of calcium silicates, and forming calcium polyacrylates with a high lime-saturation which is not soluble in water. This has a hardening effect on PC, because the elimination of hydrolytic lime from the sphere of reaction contributes to a quicker hardening. Ye. Miropol'skaya.

SUB CODE: 07, 11

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APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

Glekin, G.V.

112-2-4809

TRANSLATION FROM: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 2, p. 334 (USSR)

AUTHORS: Sheyvekhman, B. Ye., Babkin, V.P., Glekin, G.V.

TITLE: Determining Average Threshold Magnitudes of Sound Intensities Perceptible to the Adult Human (Opredeleniye srednikh porogovykh velichin intensivnosti zvukov, vosprinimayemykh vzrosłym chelovekom)

PERIODICAL: Probl. fiziol. akustiki. Z. Moscow-Leningrad, Izd-vo AN SSSR, 1955, pp. 75-80

ABSTRACT: The experimental determinations of the average threshold magnitudes of sound intensity perceptible to the adult human are given. Two thousand people in the 18 to 25 year age group and not suffering from hearing defects were studied. Tones of 100, 200, 450, 1,000, 1,500, 2,000, 4,000, 6,000, and 7,000 cps were used. The distribution of values obtained for threshold sound intensity levels expressed in db conforms well to the normal law. Results of measurements at various frequencies were scattered, with various degrees of dispersion. At medium frequencies (1,000 to 2,000 cps), the steep slope of the distribution curves is a characteristic which testifies to the small deviation

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

Determining Average Threshold Magnitudes of Sound (Cont.) 112-2-4809

of the data from the average value. [The dispersion increases as the distance from the medium frequencies changes in either direction] For example, at 1,500 cps the standard deviation is 4 db, and at 200 cps, 9 db. An averaged audiogram was made from the arithmetic means for the tones of all the frequencies investigated. The frequencies in cps were plotted along the abscissas, and the intensity levels of sound in db along the ordinates. 98 per cent of the measured threshold magnitudes of sound intensity fell in the same zone as 98 per cent of the measurements made by the Bell Laboratory and the U.S. Department of Health.

N.Ya.K.

Card 2/2

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

SHEYVEKHMAN, B.Ye.; GLEKIN, G.V.; MEYZEROV, Ye.S.

Determining average values of the minimum intensity of sounds perceptible in silence to man. Trudy Inst.biol.fiz. no.1:238-246 '55. (MIRA 9:9)

(HEARING)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

VARSHAVSKIY, L.A.; GLEKIN, G.V.

Calibration characteristics for dynamic telephones observed by the natural ear and by the "artificial ear" instrument. Trudy Kon. po akust. 8:93-100 '55. (MLRA 8:8)

1. Institut biologicheskoy fiziki AN SSSR.
(Telephone) (Microphone)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

24(1) SOV/112-59-2-4056

Translation from: Referativnyy zhurnal. Elektrotekhnika. 1959, Nr 2. pp 266-267 (USSR)

AUTHOR: Povarkov, A. I., and Glekin, G. V.

TITLE: Relations Between Various Forms of Articulation of Russian Speech (Zavisimost' mezhdu razlichnymi vidami artikulyatsii russkoy rechi)

PERIODICAL: Sb. "Vospriyatiye zvukovykh signalov v razlichnykh akusticheskikh usloviyakh." M., AS USSR, 1956, pp 72-82

ABSTRACT: Relations between various forms of articulation are of considerable interest for engineering practice because, on the basis of one measured articulation form, they permit calculating data of other forms. In addition, these relations have an independent importance because they are characteristics of definite properties of the national language in question. Analytical expressions for interrelations between various types of articulation were developed by Wollard ? in 1929 (Collard J., Elect. Commun., 1930, VIII, Nr 3). They are:

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

Relations Between Various Forms of Articulation of Russian Speech

$$S = \sum_{m=1}^{m=n} a_m D^m , \qquad (1)$$

where S is the syllabic articulation, D is the sound articulation, a_m is the relative number of syllables in the table, each consisting of m sounds, n is the maximum number of sounds in the syllable

$$W = \sum_{m=1}^{m=n} p_m / 1 + k_m (1/D^m - 1) \qquad (2)$$

where W is the word articulation, D is the syllabic articulation, m is the number of sounds in the syllable, p_m is the relative number of words, each consisting of m sounds, k_m is the relative number of combinations of m

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

SOV/112-59-2-4056

Relations Between Various Forms of Articulation of Russian Speech

sounds that have word meaning, n is the maximum number of sounds in the syllable

$$I = 1/1 + h(1/W^g - 1) \quad (3)$$

where I is the articulation of sentences W is the word articulation g is the average number of words in the sentence, h is a relative number of groups of g words that have the meaning of the sentence. For the Russian language, the functions S = f(D) W = f(D), I = f(W) the relations following from them W = f(S) and I = f(S), and also numerical values of the factors a_m p_m k_m, g, and h were determined by the Chair of Telephony, Voyennaya Akademiya Svyazi (Military Academy of Communications) and Laboratoriya eksperimental'noy fonetiki (Experimental Phonetics Laboratory), LGU imeni Zhdanov in 1949-1950 In addition to analytical computation of the above functions, they were determined experimentally by articulation measurements. As a result, good agreement was obtained between analytical and experimental

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

SOV/112-59-2-4056

Relations Between Various Forms of Articulation of Russian Speech

data. Studies conducted in Institut Biofiziki (Biophysics Institute), AS USSR in which the noise level affecting the operators was brought up to 120 db and higher, showed that under high-noise conditions, only the spread of results of individual measurements around the average value increases; the average values of the functions W = f(S) and I = f(S) remain unchanged Bibliography: 4 items.

N B P.

Card 4/4

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

T

Country : USSR
Category : Human and Animal Physiology, Sensory Organs

Abs. Jour. : Ref Zhur Biol, No. 2, 1959, No. 8532

Author : Sheyvekhman E., Glekin G., Meyzerov E.
Institut. : --
Title : Individual Limits in the Ranges of Values of the Minimal Sound Intensities Perceived by the Human in Silence.
Orig. Pub. : V sb.: Vospriyatiye zvukovykh signalov v razlich akust. usloviyakh. M., AN SSR, 1956, 83--91

Abstract : A statistical work-up of 2000 audiograms showed that the spread ("range") of individual deviations from the mean value of thresholds is highest between 450--2000 cycles, which is the range of speech, and amounts to 25--34 decibels. In 75% of cases the deviation from the mean value did not exceed ±9.5 decibels, while in individual cases among the remaining 25% it amounted to 40--45 decibels.--A.D.Zh.

Card: 1/1

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

[illegible]

Determination of the Average Minimal Intensity of Sounds Perceptible to Humans in Stillness

Trudy Instituta Biologicheskoy Fiziki, [illegible] 1, 195[illegible]
S916, 5 Mar 195[illegible], [illegible] 49

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKIN, G.V.

Changes in the perception rate of syllabic articulation as influenced by repeated reception of articulation tables during exposure to noise and in silence [with summary in English]. Biofizika 2 no.4:452-460 '57. (MIRA 10:9)

1. Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva
(HEARING)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKIN, G.V.; ERDMAN, G.M.

Discrimination of the useful signal by the auditory analyzer. Biofizika 5 no. 4:412-419 '60. (MIRA 13:12)

1. Akusticheskiy institut AN SSSR, Moskva.
(HEARING) (ELECTROPHYSIOLOGY)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEKOV, S.F.; VODOP'YANOF, A.A.

Continuous horizontal broaching machine. Biul.tekh.-ekon.inform.-Gos.nauch.-issl.inst.nauch. i tekh.inform. no.4:41-43 '62. (MIRA 15:7)

(Broaching Machines)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

S/193/62/000/008/001/001
A004/A101

AUTHORS: Glekov, S. F., Vodop'yanov, A. D.

TITLE: Model 7Б520 (7B520) horizontal broaching machine

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 8, 1962, 26 - 28

TEXT: The Minskiy stankostroitel'nyy zavod im. S. M. Kirov (Minsk Machine Tool Plant im. S. M. Kirov) has manufactured the 7B520 horizontal broaching machine designed by the Special Designing Bureau No. 12. The machine is intended for broaching precision holes of different geometrical shape and dimensions. By using special devices it is possible to machine keyways and external surfaces. Since the change-over of the machine requires only a short time, it can be expediently used also in small-batch and piece production. In large-scale production with an automatic cycle the machine has a capacity of 45 - 170 components per hour, depending on the kind and dimensions of the workpieces to be machined. The 7B520 machine is manufactured in two models, one with and the other without attached bed. The first model is intended for operations with light broaches in piece or small batch production as well as for work requiring special adjustment. The surface finish attained at high speeds is up to ▽7. The second model is mounted on a bed

Card 1/2

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

VODOP'YANOV, A.A., GLEKOV, S.F.

Inertive ball clutch. Mashinostroitel' no.9:28 S '62.
(MIRA 15:9)
(Clutches (Machinery))

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

S/193/62/000/004/008/008
A004/A101

AUTHORS: Glekov, S. V., Vodop'yanov, A. A.

TITLE: Continuous horizontal broaching machines

PERIODICAL: Byulleten'tekhniko-ekonomicheskoy informatsii, no. 4, 1962, 41-43

TEXT: The Special Designing Bureau of the Belorussian Sovnarkhoz has developed a range of continuous horizontal broaching machines. The machines, having a broaching force of 10, 5 and 2.5 tons respectively, were manufactured and tested by the Minskiy stankostroitel'nyy zavod (Minsk Machine Tool Plant) im. Kirov in 1961 and are intended for working outer surfaces of different shape and size by broaching. In contrast to the ordinary models, these continuous broaching machines have no idle reverse stroke, the carriage does not stop prior to and after machining of each component, and loading is effected during operation. The broaching machines here described have a capacity of 500 - 2,500 components per hour depending on the broaching speed. The authors present a brief description of the machine operation and give the following technical specifications:

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Continuous horizontal broaching machines

S/[illegible]/62/000/004/008/008
A004/A101

Parameters	Model		
	7581	7582	7583
Rated tractive force, tons	2.5	5	10
Maximum broaching length, mm	1,050	1,500	2,100
Length and width of carriage, mm	186 x 260	130 x 265	175 x 300
Number of carriages	19	23	25
Broaching speed (8 stages), m/min	2.5 : 12.5	2.3 : 11.5	2.4 : 12
Main driving motor power at 1500rpm, kW	4.5	10	20
Overall dimensions, mm:			
Length (without conveyer)	3,025	3,525	4,350
Width	1,040	1,160	1,240
Height	1,175	1,215	1,445
Weight, kg	3,230	4,390	5,880

There are 2 figures.
Card 2/2

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

WOJNEROWICZ, Czeslaw; GLEMA, Stefan

Periosteal osteoma. Chir.narz.ruchu ortop.polska 25 no.6:629-634 '60.

1. Z Oddzialu Chirurgicznego Wojewodzkiego Osrodka Onkologicznego w Poznaniu, Dyrektor Osrodka: dr S.Skowronski, Kierownik Oddzialu Chirurgicznego: dr C.Wojnerowicz.
(OSTEOMA case reports)
(FEMUR neopl)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMAN, A. T.

2494. LABORATORY FLAME FURNACES FOR FIRING CERAMIC BODIES AND MELTING GLASS. Ginzburg, D.B. and Gleman, A.T. (Steklo i Keram. (Glass and Ceram.), 1950, vol. 7, (8), 16). A laboratory furnace with a rotating hearth for temperature up to 1550°, a small furnace with a light weight lining and a single metal recuperator for the same temperature range, and a small furnace with a needle recuperator for temperatures up to 1750° are described. R. Ceram. R.A.

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

YERSHOV, G.; GLEMBOTSKAYA, G.

In the oil regions of our country. Neftianik 7 no.3:30-32 Mr '62. (MIRA 15:5)

(Petroleum industry)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

Model 7Б 520 (7B520) horizontal broaching machine

3/193/62/000/008/001/001
A004/A101

fitted with devices that make it possible to operate on an automatic cycle. The authors give a brief description of the main machine units and present the following technical specifications: Rated tractive force - 20 tons; length of stroke of the working carriage - 1,600 mm; length of stroke of the supporting roll - 600 mm (for the second model only); working stroke speed - from 1.5 - 11 m/min; maximum efficiency of the main drive hydraulic pump - 300 l/min; face plate hole diameter - 170 mm; main drive motor power - 20 kW; machine overall dimensions - 4,670 x 1,500 x 1,370 mm (the length of the second model is 6,835 mm); machine weight - 4,200 kg (that of the second model is 4,970 kg). The 7B520 broaching machine replaces the 7A520 model and, in comparison with the latter, possesses the following improvements: it is by 500 kg lighter and the surface area required has been reduced by 20%; its efficiency is by 15% higher, while servicing takes less time. In December 1961 the State Comission recommended the machine for the large-scale output. There is 1 figure.

Card 2/2

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKAYA, L. Sci Assoc,

USSR/Medicine - Organotherapeutic Preparations Oct/Nov 53

"The Production Reserves of Endocrine Preparations Plants," L. Glembotskaya, Sci Assoc, Central Sci-Res Lab or Organother Preps

Myas Ind, Vol 24, No 5, pp 26-29

On the basis of the production experience of endocrine preparations plants attached to the Moscow, Leningrad, Baku, and Ivanovo meat combines, discusses production procedures for pantocrin (an extract from the antlers of marals, i. e. Persian red deer), ovarin, mammin, kampolon (a liver

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preparation), and ovarin. Suggests improvements in procedures for alc extn and in the operation of extn presses.

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

(1) M D

✓ Relation of the yield of insulin to the structure of various parts of the pancreas. E. Turakimov and L. Glembotskaya. *Myasnaya Ind. S.S.S.R.* 26, No. 8, 31-2(1955).—There is a greater concn. of insulin in the rear part of the pancreas than in the fore part.

M. M. Piskor

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, A. I.

Standardization in the Non-Ferrous Metal Industry During the Past Year, and the Outlook for 1937. A. I. Glembotsky. *Vestnik Standartizacii (Messenger Standardization)*, 1937, (2), 8-14; (4), 19-26. In Russian. A review. N. A.

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, A-I

Standardization of Tin Alloy Substitutes. A. I. Glembotskiy and A. D. Serebrjakov (*Vestn. Standartizatsii* (*Standardization Herald*), 1937, (12), 23–31) [In Russian.] Tin bronze substitutes used in Germany, and mentioned in *Z. Metallkunde*, 1934, 26, 241; *Met. Abs.* 1936, 3, 181), and those produced in the U.S.S.R. are discussed. Standardization of these alloys is suggested.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

LAKERNIK, M.M.; GLEMBOTSKIY, A.I., redaktor; ARKHANGEL'SKAYA, M.S., redaktor; BEKKER, O.G., tekhnicheskiy redaktor.

[Lead metallurgy] Metallurgiia svintsa. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1953. 234 p. (MLRA 7:4)
(Lead--Metallurgy)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

1. [illegible], [illegible]

2. [illegible] ([illegible])

4. Medicine, Rural

7. [illegible], [illegible]

9. Monthly List of Russian Accessions, Library of Congress, [illegible] 1953, Uncl.

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, A.N., fel'dsher (selo Kirkayeshty).

The feldsher's work in seasonal day-nurseries. Fel'd. i akush. no.6:54 Je '53. (MLRA 6:7)

(Medicine--Practice) (Nursery schools)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, A.N., fel'dsher (sele Tarakliya, Moldavskaya SSR).

Sterilization of syringes. Fel'd. i akush. 22 no.4:40 Ap '57.
(SYRINGES) (STERILIZATION) (MIRA 10:6)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, B. K. PA 29759

USSR/Engineering
Furnaces, Electric
Resistance, Electrical

Apr 1947

"Innovations in Electric Resistance Furnaces," B. K. Glembotskiy, Ye. S. Zheleznov, Kuybyshev Bearing Factory, 3 pp

"Promyshlennaya Energetika" Vol IV, No 4

A well illustrated article describing a new type of electric resistance furnaces perfected at the Kuybyshev Bearing Factory which are supposed to be extremely economical in use of electric power and material for the heating elements.

29759

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, E.B., inzh.; MAYLE, G.G., inzh.

Sliding of timber into the mine through boreholes in Vorkuta mines. Ugol' 36 no.9:31-32 S '61. (MIRA 14:9)

1. Vorkutinskaya proyektno-izyskatel'skaya kontora.
(Pechora Basin--Coal mining machinery)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, I.I.

Solution of simplified Fock equation in double configurational approximation for beryllium-type atoms. A. P. Yutsis, V. V. Kibartas, and I. I. Glembotskii (Physico-Tech. Inst., Acad. Sci. Lithuanian S.S.R., State Univ., Vilna). *Zhur. Eksptl. i Teoret. Fiz.* 27, 425-30(1944).—General survey and practical computations showed that solution of simplified Fock equation in double configurational approximation demands a slight supplementary computational work after obtaining solution of Fock equations in single configurational approximation for the configuration in question. Comparison of results with those obtained previously (*C.A.* 49, 5104g) shows that in the case of the Be atom the difference between the exact and simplified Fock equation is only 0.001 at. units of total energy. Presented are solutions of such simplified equations for lower configurations of B^+ and C^{++} ions. With the aid of solution of simplified Fock equations in double configurational approximation $1s^2 2s^2 - 1s^2 2p^2$ the values of total energy for Be, B^+, and C^{++} are detd. and compared with exptl. values.

V. N. Bednarskii

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APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

Glembotskiy, I.I.

Category : USSR/Atomic and Molecular Physics - Physics of the Atom D-1

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3361

Author : Vanagas, V.V., Glembotskiy, I.I., Yutsis, A.P.
Title : The Fok Self-Consistent Field for the Positive Ion of Carbon.

Orig Pub : Tr. AN Lit SSR, 1955, B3, 3-7

Abstract : Solutions are given for the Fok self-consistent field equations for the configuration (K) $1s^2 2s^2 2p$ C^+. The solution was brought to a degree of self-consistency η=0.0025 (Yutsis A.P., Yunaytis G.K., Zh. eksperim. i teor. fiziki, 1952, 23, 512). The corresponding radial single-electron functions were tabulated. The calculated value of the energy is -37.317 atomic units. The interaction between K $1s^2 2s^2 2p$ and $1s^2 2p^3$ was next calculated, leading to a reduction in energy by -0.041 atomic units. The total energy calculated in this manner for the C^+ ion is -37.358 atomic units and differs from the experimental value (-37.441 atomic units) by 0.2%. In the opinion of the author, an additional reduction in the calculated value of the energy of C^+ by 0.004 atomic units could be obtained by using for K $1s^2 2p^3$ the self-consisting single-electron functions corresponding to this K.

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

USSR/Nuclear Physics - Fok's Equations FD-3336

Card 1/1 Pub. 146 - 8/28

Author : Glembotskiy, I. I., Kibartas, V. V., and Yutsis, A. P.

Title : Self-consistent Fok's field in two configurative approximation to Bohr's atom

Periodical : Zhur. Eksp. i Teor. Fiz., 29, No 5, 617-621, 1955

Abstract : Solutions of usual Fok's equations of the basic configuration of a neutral Bohr atom are presented and solutions of Hartree equations, completed with a configurative term, for the function P(2p/'r) of the configuration $Is^2 2p^3$, computed for the two configurative approximation $Is^2 2s^2 2p$ - $Is^2 2p^2$; also the value of total energy determined in one configurative and two configurative approximation. Function of total potential and radial possibility distribution are tabulated. Eight references.

Institution : Physico-technical Institute of the Acad. Sci. Lithvian SSR, Vilno State University.

Submitted : July 12, 1954

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

USSR/Atomic and Molecular Physics - Physics of the Atom, D-1

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34268

Author: Glembotskiy, I. I., Strotskite, T. D., Iucis, A. P.

Institution: None

Title: The Fok Self-Consistent Field for the Double Ion of Nitrogen

Original Periodical: Lietuvos TSR mokslu akad. darbai, 1956, B2, 11-14; Lithuanian resumé

Abstract: Solutions of the equations of the self-consistent Fok field are given for the basic configuration of the doubly-ionized atom of N. With the aid of these solutions the total energy is determined both in the single-configuration as well as in the double-configuration approximation. The theoretical results are compared with the experimental data.

1 of 1

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

USSR/Atomic and Molecular Physics - Physics of the Atom, D-1

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34370

Author: Glembotskiy, I. I., Martishyus, I. T., Bolotin, A. A., Lucis, A. P.

Institution: None

Title: Theoretical Determination of the Fine Structure of Atoms of the Boron Type

Original Periodical: Lietuvos TSR Mokslu akad. darbai, 1956, B2, 15-19, Lithuanian resumé

Abstract: The doublet splitting of the terms of 4 atoms of the boron type is determined in the principal configurations both with the aid of the single-electron wave functions of the Fok self-consistent field, as well as with the aid of the analytic wave function. The theoretical results are compared with the experimental data.

1 of 1

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

USSR/Atomic and Molecular Physics - Atomic Physics D-1

Abs Jour : Ref Zhur - Fizika, No 4, 195., No 8926

Author : Strotskite, T.D., Glembotskiy, I.I., Yutsis, A.P.
Inst : Vil'nius University

Title : The Fock Self-Consistent Field for the Positive Ion of Nitrogen

Orig Pub : Tr. AN Lit. SSR, 1956, B3, 3-10

Abstract : The equations of the Fock self-consistent field are solved for a singly ionized atom of nitrogen. To construct the initial wave functions the authors employ the differences between the functions of the different states of neighboring atoms. The values of the total energy in the one and two configuration approximation are determined. The latter approximation improves the theoretical value of the energy by hundredths of atomic units.

Card : 1/1

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, I. I. Cand Phys-Math Sci -- (diss) "On the Problem of ~~Ways~~ of ~~Applying and Advancing~~ the Method of Fock's Self-Consistent Field." Vil'nyus, 1957. 6 pp w 20 cm. (Vil'nyus State Univ im V. Kapsukas), 100 copies (KL, 25-57, 108)

- 7 -

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

VANAGAS, V.V.; GLEMBOTSKIY, I.I.; USHPALIS, K.K. [Ušpalis, K.]; YUTSIS, A.P., red.; YAKOVKIN, M.V., red.; POPOVA, N.S., tekhn.red.

[Tables of radial integrals of the theory of atomic spectra] Tablitsy radial'nykh integralov teorii atomnykh spektrov. Pod red. A.P.IUtsisa. Moskva, Vychislitel'nyi tsentr Akad. nauk SSSR, 1960. 380 p. (MIRA 14:4)

(Atomic theory--Tables, etc.)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

VANAGAS, V.V. [Vanagas V.]; USHPALIS K.K. [Uspulis, K.]; GLEMBOTSKIY, I.I. [Glembockis,J.]

Computation of radiation itegrals found in the theory of atomic spectra. Liet ak darbai B no.1:31-40 '60. (EEAI 9:10)

1. Institut fiziki i matematiki AN Litovskoy SSR i Vil'nyusskiy gos. universitet im. V.Kapsukasa.
(Atomic spectra) (Radiation)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, I.I. [Glembockis, J.]; KUZMITSKITE, L.L. [Kuzmickyte,L.]

Approximate single-electricwave functions for the excitation levels of the positive ion of oxygen. Liet ak darbai B no.1:87-98 '60. (EEAI 9:10)

1. Institut fiziki i matematiki AN Litovskoy SSR.
(Oxygen) (Ions) (Eigenfunctions)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

S/081/61/000/020/002/089
B119/B147

AUTHORS: Chiplis, I. V., Glembotskiy, I. I.

TITLE: Approximate single-electron wave functions of Th^+, obtained on the basis of the statistical Thomas-Fermi model

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 8, abstract 20B52 (Tr. AN LitSSR, B, 1(24), 1961, 75 - 84)

TEXT: The single-electron wave functions of Th^+ optical electrons in the states, 5f, 6d, 6f, 7s, 7p, 7d, 8s, 8p, 9s, 9p were obtained with the aid of the Thomas-Fermi potential. It is assumed that the optical-electron states do not affect the potential which is taken to be equal for all optical electrons. The equation was solved by means of a computer with an accuracy corresponding to the approximation of the chosen potential. The single-electron states in Th^+ provide a satisfactory qualitative description of the wave functions obtained. [Abstracter's note: Complete translation.]

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PROCESSES AND PROPERTIES INDEX

Ca

The Salair concentrating plant. V. A. Glembotskii (*Gorno-Obogatitel. Zhur.* No. 4, 19-22(1937)). The raw ore consists chiefly of barite and quartz with ZnS, PbS, pyrite and chalcopyrite. The av. compn. is Zn 6.5-7%, Pb 0.8-1.5, Cu 0.5-0.8, $BaSO_4$ 50-55, SiO_2 25-30, Fe 2%, and Au and Ag. The plant handles 1,000-1,200 tons of ore per 24 hrs. Both Zn and Pb concentrates are obtained. The former contains 54.84% Zn and 5.60% Pb, while the latter has 37.10% Zn and 28.40% Pb. The extn. of barite was started in June, 1936. The barite concentrate had 90-92% barite; the extn. was 50%. The greater part of Au and Ag (80-85%) is extd. on sluices before flotation. The sands are treated on Deister tables, and the Au is then amalgamated. H. Z. Kanach

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

Flotation of barite at the Salair dressing plant A. A. Glembotskii. *Gorno-Obogatitel Zaur* No. 5, 15-18 1937, cf. C. A. 31, 5725. The plant handles tailing from the Zn flotation contg. 25-30% SiO_2 and 60-65% $BaSO_4$. Exptl. flotation was conducted with oleic and naphthenic acids. The former, when used up to 1 kg./ton, gives a richer concentrate but a lower extn., especially at a temp. of 4.5-5. This may be counteracted by using naphthenic acid up to 2 kg./ton. The mixt. should contain enough benzene to prevent thickening. At present, the plant uses 1-1.5 kg. of naphthenic acid and 0.3 kg. of liquid glass per ton. The barite is equally well floated in acid and basic media. The barite is whitened by agitating the mixt. (solid liquid = 1:2-1:3) for 1-1.5 hr. with 6-7% HNO_3 and then filtering. B. Z. Kanach.

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Methods of ore testing by magnetic separation. A. A. Glembotskii. *Tsvetnye Metal.* 1939, No. 8, 44-6. Gl. describes some results of magnetic sepn. tests of Sn-W concentrates obtained by the use of his own method. The concentrates contain wolframite (0.8-3.5-mm. grains), cassiterite (up to 0.5 mm.), and arsenopyrite. Expts. were made with field strength varying from 4300 to 17,000 gausses and amperage from 2 to 8. Seventy-eight% extn. of WO_3 was obtained with the highest field strength and amperage (8 amp.) and 17,000 gausses for the app. used. Actual field strength of the points of magnet is estd. to be 30,000-35,000 gausses. Tests were also made after preliminary heating at 600-700° to coagulate WO_3 into beads. After heating, sepn. on ordinary Wetherill separator gave excellent results. From 86 to 96% of WO_3 was extd. with 85-92% SnO_2 remaining in the tailings. Best results were obtained after heating 5 min. at 600°. Further expts. are in progress to study the effect of other factors: time in the magnetic field, moisture, fineness of material, etc. B. N. Damloff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

Anion depression. V. A. Glembotskii. *Tsvetnaya Metal.* 16, No. 10, 24-8(1941); *Chem. Zentr.* 1943, II, 1000. On the basis of tests on anion depression in the flotation of barytes, anglesite, celestite and fluorite with H_2SO_4, Na_2SO_4 or HF, NaF as the depressor it appears that the effectiveness of the depression decreases with increasing solubility of the mineral. On the other hand the nature of the electrolyte plays a part, H_2SO_4 being more effective than Na_2SO_4. A. P. Sachs

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

Barite and witherite V. A. Glembotskii, A. I. Lyubimov, K. I. Rabinovich, and V. V. Chernov. *Nemetalicheskie Iskopaemye S.S.S.R.*, *Acad. Sci.* 2, 54-128 (1943). A review on the mineralogical, phys., and chem. properties, genesis, and deposits of these minerals throughout the world. The process of mining, methods of enriching the ores, and the technology and use of these minerals are discussed. A bibliography. I. S. Jofle

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

CA

The floatability of quartz. V. A. Olembotskii (Irkutskii Gornometallurgicheskii Inst.). *Gornyi Zhur.* **120**, No 1/5, 21-24(1946).—Rock crystal from Madagascar and from the Karelo-Finnish S. S. R., smoky quartz from the Ukraine S. S. R., milky quartz from the Urals, and a quartz from the Tadzhik S. S. R. were crushed and ground out of contact with metal and were then washed with aqua regia, HCl, and H_2O until completely free of Fe and Cl. Quartz thus prepd. was not floated by oleic acid or by pine oil. Quartz previously conditioned by Cu ions was floated readily (90-100% recovery) by oleic acid 0.5-0.8 and pine oil 0.04-0.1 kg. per ton. Both ferrous and ferric ions activated quartz. A 90% recovery was obtained after conditioning the quartz for 1 hr. with 50 mg. per l. of the conditioner; with 1000 mg. per l. similar recovery was obtained after conditioning for only 20 min. Quartz reacted with Fe equally in a $FeSO_4$ as in a $FeCl_3$ soln. and with Cu in an acetate, nitrate, or sulfate soln. but not in a soln. of Cu NH_3 complex. Xanthate did not float quartz conditioned with Cu or Fe; hence in a sulfide flotation, addn. of Na silicate soln. to depress quartz is needless. Conditioned quartz lost its floatability under the influence of Na_2S or H_2S. Consequently, addn. of Na_2S in the flotation of oxides will prevent quartz from collecting in the froth. KCN and NH_4OH did not affect conditioned quartz. H_2SO_4, HCl, and particularly H_3PO_4 depressed Cu and Fe conditioned quartz. Hyposulfite had no effect on Cu-conditioned quartz. Conditioned quartz dried at room temp. retained its properties after 3 months. Igniting conditioned quartz for 10-20 min. on a gas burner completely deactivated it.

M. Hosch

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, V. A.

"Results and Projects in the Field of Ore Enrichment," Gor. zhur., 121, No.4, 1947

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

CA

1

Chemistry of flotation processes. V. A. Chmakovskii (A. A. Baikov Metall. Inst. Acad. Sci. U.S.S.R., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk* 1948, 385-90.—(1) Depression of the flotation of a mineral can be attained by reducing the concn. of the ions of the mineral in soln. through introduction of a common ion. Thus, SO_4^{--} was found to depress the floatability of sulfate minerals as illustrated by the following data of the degree of extn. (%) into the concentrate: oleic acid 0.5 kg./ton, stirring 4 min., flotation 5 min.; baryte $BaSO_4$, without H_2SO_4, 92%; with H_2SO_4 0.05 and 0.1 kg./ton, 42 and 0%, resp.; celestine $SrSO_4$, without and with H_2SO_4 0.1 and 0.2 kg./ton, 98, 90, and 0%; anglesite $PbSO_4$, without and with H_2SO_4 0.2 and 0.3 kg./ton, 92, 48, and 28% (oleic acid 1.0 kg./ton). Strong acids other than H_2SO_4 have no effect, nor has H_2SO_4 an effect on minerals other than sulfates. Na_2SO_4 and K_2SO_4 also depress $BaSO_4$ and $SrSO_4$ but to a lesser degree than H_2SO_4. That the depressing effect of H_2SO_4 is strongest for $BaSO_4$, weakest for anglesite, is in direct relation with the fact that, of the 3 minerals, $BaSO_4$ has the lowest, $PbSO_4$ the highest soly. (2) Pure quartz is not floatable with any anionic collector (oleic acid, Na oleate, peat resins, high-mol. xanthates, etc.). This is simply due to the fact that the only cations present on the surface of pure quartz are H^+ ions (formed from $SiO_2 + H_2O \rightarrow H_2SiO_3$) and these can form no insol. compds. with the anion of the reagent. However, quartz can be activated (with respect to flotation) by heavy metals, such as Cu or Fe; 1 ton of quartz of grain size 0.15-0.10 mm. can absorb up to 40 g. Cu. This exptl. amt. corresponds to that calcd. on the assumption of chem. binding of Cu at the surface of the quartz. Heating to 200-300° inactivates the Cu-activated quartz completely. Neither NH_4OH nor KCN will depress the high floatability of Cu-activated quartz. $FeSO_4$ or $FeCl_3$ at a concn. of 1 mg./l., brings about 81% passage of quartz into the froth, with 1 kg./ton oleic acid and 0.125 kg./ton pine oil. Strong acids depress the flotation of Cu- or Fe-activated quartz. Crushing in a steel grinder is sufficient to incorporate enough Fe to make the quartz floatable. Activation of the quartz is of interest in cases where its removal into the froth is desired, the valuable ore accumulating in the non-froth product. On the other hand, if the quartz has been activated accidentally, it can be effectively inactivated by Na_2S in amts. of the order of a few tenths of a kg./ton. Xanthates, even with 5 and 6 C atoms, do not float metal-activated quartz anyway. (3) Smithsonite, $ZnCO_3$, which is nonfloatable owing to its high soly., can be rendered floatable by the process of "two-stage activation" consisting in successive treatment with $BaCl_2$ and Na_2SO_4 and resulting in the formation of an insol. film of $BaSO_4$. The consumption of Ba salt is 0.1-0.2 kg./ton, of Na_2SO_4 0.5 kg./ton, of fatty acid not over 1 kg./ton; extn. into the froth attains 92%. N. Thon

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

USSR/Minerals - Flotation Nov 49
Sorption, Chemical

"Chemical Sorption Activity of a Mineral in Regard to Its Flotation Properties," V.A. Glembotskiy, Inst of Metal imeni A. A. Baykov, Acad Sci USSR, 9 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 11

Reveals experimentally the relation between chemical sorption activity of mineral particles and their size. Explains considerable increase of flotation time by presence in any flotation pulp of certain low-active mineral particles

159T71

USSR/Minerals - Flotation (Contd) Nov 49

whose reaction with a collector is very slow. Suggests method for accelerating flotation of these low-floatable particles. Demonstrates possibility of using flotation experiment for characterizing catalyst activity in heterogenous catalysis. Makes all conclusions on basis of experiments with flotation of galenite in monomineral suspension. Submitted by Acad I. P. Bardin.

159T71

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C a
1951

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Mechanism and velocity of collecting in relation to the intensification of the flotation process. V. A. Glembotskii. *Izvest. Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk* 1950, 233-8.—Expts. for establishment of the character of the changes of speed of flotation showed that at the beginning of flotation it is possible to increase the speed, in spite of the continuing increase of mineral particles from the pulps tending to reduce the speed. It was established that the effect of increasing the speed of flotation without introduction of addtl. collector is perhaps explained as proceeding from chemo-sorption. Also it was found that consideration of velocity-time curves by comparing them with recovery-time curves permits one to evaluate directly the velocity of the collecting reaction and the distribution of mineral particles according to their chemo-sorption activity. It was learned that the collecting reaction is not instantaneous. G. S. M.

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

USSR/Engineering - Minerals, Dressing Mar 52

"Joint Application of Several Collecting Agents for Intensification of Pyrite Flotation," I. N. Plaksin, Corr Mem Acad Sci USSR, V. A. Glembotskiy, A. M. Okolovich

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 3, pp 405-415

Analyzes data obtained in flotation of pyrite with ethyl and amyl xanthates, diethyl dithiophosphate, and with mixtures of these collectors, establishing possibility of intensifying flotation process by joint use of two or more collectors. Highest

244T58

extraction, 91.4%, was attained in case of using mixture of diethyl dithiophosphate with amyl xanthate.

244T58

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, V. A.

USSR/Mining - Mineral Dressing 1 Jun 52

"Combined Action of Several Collectors in the Flotation Process," I. N. Plaksin, Corr Mem, Acad Sci USSR, V. A. Glembotskiy, Inst of Mining, Acad Sci USSR. "Dok Ak Nauk SSSR" Vol 82, No 1, pp 139-141

Discusses results of expts for using mixts of potassium ethyl and isoamyl xanthates as collecting agents in flotation of galenite. States that these mixts proved to be more efficient collectors than any xanthate used separately. Phenomenon is explained by difference in activity degrees of sep parts of surface toward various reagents. Therefore, article notes, decreased adsorptive capacity of mineral surface in respect to one collector may be combined with increased activity in respect to other agent. Also discusses effect of ore coarseness on floatability.

PA 230T48

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, V. A.

USSR.

Rate of adhesion of air-bubbles to mineral particles during flotation, and methods for its measurement. V. A. Glembotskii. *Izvest. Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk* 1953, 1624-31.—A high-sensitivity electronic app. is described for measuring the rate of air-bubble adsorption to flotable mineral particles, which is used as a measure of the hydrophilic or hydrophobic properties of the surfaces.

W. M. Sternberg

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, V.A.

Development of the study of the interaction of minerals and flotation reagents. Tsvet.met. 26 no.4:16-19 Jl-Ag '53. (MIRA 10:10)

1. Institut gornogo dela AN SSSR.
(Flotation)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, V. A.

USSR

Investigation of the possible intensification of the flotation process through utilizing combined collector reagents. I. N. Plaksin, V. A. Glembotskii, and A. M. Okolovich. *Trudy Inst. Gornogo Dela, Akad. Nauk S.S.S.R.* 1, 213-24 (1954).—Ethyl and amyl xanthates and diethyldithiophosphate in many cases are synergistic collector agents. Combinations of these materials often increase yields and speeds for the concn. of arsenopyrite and galena. J. A. K.

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, V.A.

USSR

The possible intensification of the flotation of galena utilizing combinations of xanthates with sodium oleate. V. A. Glembotskii and A. P. Fikera-Ordynskaya. *Trudy Inst. Gornogo Dela, Akad. Nauk S.S.S.R.* 1, 335-41(1954).—Flotation of galena, pyrite, and sphalerite can be intensified by adding sodium oleate to the usual agents; xanthates and butyldithiophosphate. The process often can be improved by preliminary aeration. John A. Krynitsky

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, V.A.

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GLEMBOTSKIY, V.A.

str: 4E2c(j)/4E4j/4E2c/ Ore flotation. V. A. Glembotskii, A. P. Fikke, Ordyn. 5

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

SOV/137-58-8-16273

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 6 (USSR)

AUTHOR: Glembotskiy, V.A.

TITLE: The Flotation Concentration of Minerals (Flotatsionnoye obogashchenye poleznykh iskopayemykh)

PERIODICAL: V sb. Sov. gorn. nauka, 1917-1957, Moscow, Ugletekhizdat, 1957, pp 543-580

ABSTRACT: A survey. The development of flotation in the USSR.

I.M.

1. Minerals--Flotation

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

24-10-24/26

AUTHORS: Glembotskiy, V.A. Kolchenenova, A. Ye., Plaksin, I. N. and Rozenberg, L. D. (Moscow)

TITLE: On the possibility of applying ultrasonics for liberating mineral particles from the adsorbed reagent coatings during flotation beneficiation of minerals. (O vozmozhnosti primeneniya ul'trazvuka dlya osvobozhdeniya chastits mineralov ot adsorbtsionnykh pokrytiy reagentov pri flotatsionnom obogashchenii poleznykh iskopayemykh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.10, pp. 111-112. (USSR)

ABSTRACT: The authors investigated the effects of ultrasonics on a number of sulphide minerals (Ga, chalcopyrite, sphalerite, pyrite) of various Soviet origins. The crushed sulphides were subjected to flotation using xanthogenate and a foam forming agent in quantities ensuring complete removal of the minerals into the foam product which, after filtration, was transferred into a vessel and subjected to the effect of ultrasonics generated by means of a magnetostriction radiator. After irradiation with ultrasonics, the mineral was transferred into the flotation machine and subjected to flotation using a foam forming agent. Parallel tests

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24-10-24/26

On the possibility of applying ultrasonics for liberating mineral particles from the adsorbed reagent coating during flotation beneficiation of minerals.

were made in which no ultrasonic irradiation was used. The ultrasonics were of 20 kc/sec with an intensity of about 2 W/cm^2; the results are given in the Table, p.1144. The experiments have shown that it is possible in principle to utilise ultrasonics for removing adsorbed coatings of flotation reagents from the surfaces of particles of various minerals for the purpose of separating them from the flotation product mixture. The experiments were carried out by means of a test set-up designed by M. G. Sirotyuk.

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

SUBMITTED: April [illegible], 1957.

ASSOCIATIONS: Institute of Mining (Institut Gornogo Dela) and Institute of Acoustics, Ac.Sc., U.S.S.R. (Akusticheskiy Institut AN SSSR)

AVAILABLE: Library of Congress.

Card 2/2

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

SOV/137-58-7-14037

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

AUTHORS: Glembotskiy, V. A., Dmitriyeva, G. M., Pikkat, Ordynskaya, A. P.

TITLE: Improving the Flotation Indices of Polymetallic Ores by Use of Various Collectors and Combinations of Collectors (Ob uluchshenii pokazateley flotatsii polimetallicheskikh rud putem primeneniya razlichnykh sobirateley i ochetaniy sobirateley)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 22, pp 10-[illegible]

ABSTRACT: A study is made of the action of various collector reactants and combinations thereof on the ore of the Yekaterino-Blagodat deposit. It is found that under the present ore dressing flow sheet, butyl xanthate, because of its low selectivity, is by no means the best collector. Various collectors are recommended for use at various points in the procedure as means of raising flotation indices. Isopropyl xanthate should be used in the primary lead-flotation operation, while control flotation should be run with more powerful collectors or mixtures of isopropyl and amyl xanthates and caustic dithiophosphate, while ethyl or isopropyl xanthate should be used in the primary zinc flotation. Tests of DS reactant gave reason to [illegible] the question of substituting DS reactant for phenol containing frothers. A. Sh.

Card 1/1

1. Ores--Flotation

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

GLEMBOTSKIY, V. A.

LEONIDOV, N K

85(5) PHASE I BOOK EXPLOITATION SOV/1497

Akademiya nauk SSSR. Institut mashinovedeniya i tekhnicheskoy informatsii

Metallurgiya SSSR, 1917-1957, t. 1 (Metallurgy of the USSR, 1917 - 1957, Vol. 1) Moscow, Metallurgizdat, 1958. 745 p. 3,000 copies printed.

Ed. (Title page): I. P. Bardin, Academician; Ed. (Inside book): G. V. Popova; Tech. Ed.: O. S. Bakher.

PURPOSE: The book is intended for scientific workers and engineers in metallurgical plants and in the machine-building industry It may also be used by students in advanced courses in metallurgical vuzes.

COVERAGE: This collection of articles covers extensively practical and theoretical developments in Soviet metallurgy during the last 40 years. The material deals with the discovery and development of the major ore deposits and the growth of the metal industry in various parts of European and Asiatic USSR Research institutes, laboratories, their location, and the names of the scientists and engineers involved are listed. Many papers contain so many references and names of various personalities that it was considered beyond the scope of the coverage of each article to list them. The authors claim that the processes, methods and theories described in this book reflect the most recent developments in Soviet metallurgy.

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Metallurgy of the USSR (Cont.) SOV/1497

listed include ferrochromium, ferromanganese, ferrotitanium, ferrovanadium and ferromolybdenum with only 90 percent molybdenum. As a source of titanium the Soviets use perovskite and to obtain concentrates of 40-51 percent titanium oxide. The source of vanadium are various titaniferous magnetites. In conclusion it is stated that more experiments and better methods are needed to improve the production of ferroalloys. There are 40 references, 37 Soviet and 3 English.

Ferrushin, S.A. Nonferrous Metallurgy Under the Soviet Regime 399

The author gives a historical review of the development of the nonferrous industry since the October Revolution. Production figures and targets of the five year plans are quoted. The locations of new nonferrous metal deposits are listed. There are 11 Soviet references.

Glembotskiy, V.A. Concentration of Nonferrous Ores and Ores of Rare Metals 415

Following a brief historical review the author discusses methods of ore concentration such as flotation, gravity separation, magnetic separation, etc. It is claimed that Soviet scientists have done a great deal of work on the theory of flotation based on the latest achievements in physical

Metallurgy of the USSR (Cont.) SOV/1497

chemistry, ~~[illegible]~~, organic chemistry, crystallography and solid state physics. Flow sheets with detailed descriptions are given for the flotation of a number of sulphides. Special methods aimed at the recovery of various accessory minerals of economic importance are presented. It is claimed that the problem of cassiterite flotation has been satisfactorily solved by Soviet metallurgists. There are 5 Soviet references.

Chizhikov, D.M. Nonferrous Metallurgy 446

The article contains a historical review of the nonferrous metallurgy in industry in USSR followed by a list of the more important of research and metallurgical institutes. A description is given of the methods of treating copper, lead, zinc, aluminum, nickel, and tin. Electrothermal methods and the use of oxygen-enriched air are regarded as the important new developments in the metallurgical industry.

Frenta, G.S. Roasting Sulphide Concentrates of Heavy Nonferrous Metals 496

This paper deals with the various aspects of roasting sulphide concentrates. The mechanism of the oxidation of sulphides has been the object of intensive studies. Sintering of sulphides is mentioned A

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

ANFIMOVA, G.A.; GLEMBOTSKIY, V.A., prof., doktor; PLAKSIN, I.N.; SHCHEVELEVA, A.S.

Stability of securing surface layers of reagents on oxidized minerals during the flotation process with varying pulp basicity. Biul. TSIIN tsvet. met. no.1:10-16 '58. (MIRA 11:4)

1. Chlen-korrespondent AN SSSR (for Plaksin).
(Flotation)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

AUTHOR: Glembotskiy, V.A. Doctor of technical sciences 136-58-3-1/[illegible]

TITLE: International Congress on Ore Beneficiation in Stockholm (Mezhdunarodnyy kongress po obogashcheniya rud v Stokgol me)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 3, pp. 81-84 (USSR)

ABSTRACT: The author outlines proceedings at the International Congress on Ore Beneficiation held in Stockholm in September 1957.

AVAILABLE: Library of Congress.

1. Ores-Processing 2. Conferences-Ore beneficiation-Sweden

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

SOV/24-58-4-3/39

AUTHORS: Anfimova, Ye.A., Glembotskiy, V.A., Plaksin, I.N. and Shcheveleva, A.S. (Moscow)

TITLE: On the Flotation Properties of Lead Minerals Difficult to Flotate, in Relation to Their Structural and Crystal Chemical Peculiarities (O flotatsionnykh svoystvakh trudnoflotiruyemykh svintsovykh mineralov v svyazi s ikh strukturnymi i kristallokhimicheskimi osobennostyami)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 4, pp 16 - 22 (USSR)

ABSTRACT: The lead minerals investigated were cerussite, anglesite, wulfenite, vanadinite, pyromorphite, mimetite, beudannite $PbFe_3(AsO_4)(SO_4)$ and plumbojarosite $PbFe_6(SO_4)(OH)_{12}$. These are given in this order in Table 1 and are divided into three groups. Group 1 contains the first three which possess similar crystal lattice energies and easy cleavage. Group 2 contains the next three minerals. These possess greater lattice energies, stronger bonds and very weak cleavage. Group 3 contains beudantite and plumbojarosite, the lattice energies being 9-9.5 times and 16-18 times that of the first group, respectively.
The flotation properties were found by measuring the

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SOV/24-58-4-3/39

On the Flotation Properties of Lead Minerals Difficult to Flotate, in Relation to Their Structural and Crystal Chemical Peculiarities

electrokinetic potentials of the surfaces, the stability of the films of reagents on the surfaces and the time taken for the mineral to adhere to the bubble of air under various conditions of alkalinity and with various collectors. This was measured by the electronic device used by Glembotskiy (Ref 4).
Results show that the presence of bonds in parallel directions and the absence of volume configurations of ions create favourable conditions for the introduction into the crystal lattice of flotation reagents. Deterioration in flotation properties corresponds to a marked increase in lattice energy. The surfaces of cerussite, anglesite, wulfenite and pyromorphite have a natural hydrophobic character. The surfaces of the other minerals have not. The efficiency of the action of sodium sulphide and xanthogenate decreases in the following order: cerussite, anglesite, wulfenite, vanadinite, pyromorphite, mimetite, beudantite. Preliminary sulphidisation by application of sodium sulphide and xanthogenate as

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

SOV/24-58-4-3/39

On the Flotation Properties of Lead Minerals Difficult to Flotate, in Relation to Their Structural and Crystal Chemical Peculiarities

collectors must be carried out with strict control of the pH value. "Phosphotene" and "Vetluga" oil (vetluzhskoye maslo), a product of chemical treatment of wood consisting of fatty acids and high-molecular phenols, were found useful as collectors of plumbojarosite, which is not affected by sulphidisation. There are 2 figures, 3 tables and 6 references, 5 of which are Soviet and 1 English.

SUBMITTED: June 20, 1957

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APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

AUTHOR: Glembotskiy, V. A. SOV/149-58-4-25/26

TITLE: Ore Beneficiation at Advanced School of Technology in Sweden (Obogashcheniye poleznykh iskopayemykh v shvedskoy vysshey tekhnicheskoy shkole)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Tsvetnaya Metallurgiya, 1958, Nr 4, pp 181-182 (USSR)

ABSTRACT: In September, 1957 an International Congress on ore beneficiation was held with the participation of 500 delegates from 34 countries. During three days over thirty papers were read. A report on the conference was published in Tsvetnyye Metally, 1958, Nr 3. In this brief report work carried out in Sweden is dealt with.

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"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

ANFIMOVA, Ye.A.; GLEMBOTSKIY, V.A.; SHCHEVELEVA, A.S.

Flotation of difficult to separate oxide ores of lead. Biul. TSIIN tsvet. met. no. 6:10-15 '58. (MIRA 11:7)
(Flotation)
(Lead ores)

APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9"

"APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000500030004-9

SOV/24-58-7-11/36

AUTHORS Glembotskiy V. A., Kolchenanova A. Ye. (Moscow)

TITLE: Flotation in the Presence of Ions of Heavy Metals and the Reaction of Galenite with the Collector (Vzaimodeystviye galenita s sobiratelem i yego flotatsiya v prisutstvii ionov tyazhelykh metallov)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye tekhnicheskikh nauk, 1958, Nr 7, pp 76-81 (USSR)

ABSTRACT: The reaction of a mineral with reagents of the collector in the presence of flotation becomes complicated due to formation of the surplus ions in the flotation pulp. This phenomenon should be considered in the cases such as the flotation of sulphuric minerals when the pulp becomes enriched with ions of heavy metals which take an active part with the reagents of the collector and with the surface of minerals. The experiments were carried out by the author where the effect of ions of the heavy metals (copper, lead, silver and bismuth introduced into the pulp as water-soluble salts) on the flotation of the galenite with xanthogenate was investigated. Also the effect of flotation of the galenite with the xanthogenates

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SOV/24-58-7-11/36

Flotation in the Presence of Ions of Heavy Metals and the Reaction of Galenite with the Collector

of heavy metals was compared with the usual method of water-soluble xanthogenates. The results are shown in the table on p 76 and in Figs 1 and 2. The columns in the table represent (from left to right) 1 - type of salt, 2 - foam extracted during ε_1 - 1 min, ε_4 - 4 min, ε_5 - total of 5 min in per cent, 3 - flotation with ethyl-xanthogenate of potash only, 4 - flotation with preliminary introduction of salts, 5 - flotation of introduction of salts at the same time as the feeding of the collector. The stoichiometric ratio of salt to ethyl-xanthogenate was 1:1 (but 3.6 to 3 for bismuth). Fig 1 illustrates the effect of the introduction of salts of lead (1), silver (2) and bismuth (3) into the pulp for flotation of the Sadon galenite. The input of the ethyl-xanthogenate of potash was 60 g/m. Fig 2 illustrates the above effect with the salt of zinc (1) and copper (2). The analysis of the results shows a decrease of both the foam extraction and the rate of flotation when the ions of salts were introduced to the collector. The decrease was more pronounced for salts of silver and bismuth as is shown in Fig 4 where the flotation of [illegible] with the ions of lead (1)

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Flotation in the Presence of Ions of Heavy Metals and the Reaction of Galenite with the Collector

copper (2) silver (3) and bismuth (4) is illustrated (input of the xanthogenate - 30 g/m. duration 5 min). When the metals are tabulated according to their effect on the flotation, the sequence zinc-lead-copper silver bismuth is obtained, which is identical to a similar sequence constructed by I. A. Kakovskiy in the order of their reduced solubility due to the presence of xanthogenates (p 30). It can be assumed that the non-soluble xanthogenate when applied in flotation acts as a typical source of ions. Thus the appearance of the ions in the presence of the xanthogenate of heavy metals can be shown as follows the non-soluble MeX_2 becomes $MeX_2 \rightleftharpoons Me^+ + X^-$ when introduced into the solution. Further investigations were carried out in order to verify this theory. The xanthogenates of the above metals were obtained by means of mixing the solutions of the respective electrolytes with the

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solution of the ethyl-xanthogenate. The drops of the mixture were studied under an electric microscope, giving 10 500 magnification. A photograph of a so-magnified drop taken after 20 minutes of mixing the ethyl-xanthogenate (0.004 g/ℓ) with the nitrate of lead (0.017 g/ℓ) is illustrated in Fig 3. The particles of the ethyl-xanthogenate of lead, seen in the photograph, have a diameter of 0.0001-0.0002 mm. These additional investigations showed that the ions of heavy metals affect both the surface of minerals and the composition of the pulp made of the non-soluble xanthogenates of a metal, thus causing a change in the conditions of reaction at the surface of minerals with the reagent, which in effect brings a decrease in the rate of foam extraction. There are 4 figures and 4 Soviet references.

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AUTHORS: Bekhtle, G.A. and Gilishchenskaya N.V. Candidates of Technical Sciences, Glembotskiy, V.A., Professor, Plaksin, I.N., Member-Correspondent of the AS USSR, Yefimov, V.I. and Buryantseva, N.M., Engineers, and Korolev, V.A., Research Worker

SOV/127-59-11-7/16

TITLE: The Flotation of Iron Minerals from Magnetic Separation Tailings of the Concentration Plant of the KMAruda Kombinat (Flotatsiya zheleznykh mineralov iz khvostov magnitnoy separatsii obogatitel'noy fabriki kombinata KMAruda)

PERIODICAL: Gornyy zhurnal, 1959, Nr 11, pp 28 - 31 (USSR)

ABSTRACT: About 800,000 tons of iron are lost each year in tailings in the Krivorozhskiy yuzhnyy gorno-obogatitel'nyy kombinat (Krivoy Rog Southern Concentration Plant) alone when the concentration of iron ore is done by magnetic separation. To reduce these losses, the Mekhanobr Institute long ago proposed the flotation method to extract the iron from the tailings. But the lack of an effective and inexpensive flotation reagent prevented the introduction of this method. Lately, the branch of the Institute of Mining of the AS USSR at the Kursk Magnetic Anomaly, in collaboration with the Tsentral'nyy nauchno-issledovatel'nyy institut (Central Scientific Research Institute) of the Lesokhimicheskaya promyshlennost'

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The Flotation of Iron Minerals from Magnetic Separation Tailings of the Concentration Plant of the KMAruda Kombinat

(Chemical Wood Pulp Industry)(TsNIILMPI) tested a new flotation reagent. This reagent is the heavy fraction of the distillation of the gas-generating resin obtained in the process of wood gasification. A similar product, called Vetluga Oil, is being prepared at the Vetluzhskiy lesokhimicheskiy kombinat (Vetluga Chemical Wood Pulp Kombinat). Vetluga oil has the following characteristics: acid number - 26.9, the fraction output at temperatures up to 240°C including water - 13% of volume. It contains about 40% of high molecular phenols and their derivatives. Laboratory tests made with the tailings of ores from the KMAruda Kombinat showed that with the use of water glass as depressor and Vetluga oil as a flotation reagent, a concentrate containing 44-49% of iron was obtained. As a result of these tests, a scheme of tailing flotation was developed (Figure 5) and industrially tested in the flotation mill in Gubkin, which reprocesses the tailing of the magnetic separation. The 3 months of tests showed the possibility to obtain on an industrial scale a flotation concentrate containing 48-52% of iron. Vetluga oil was used as a collector-frother in a proportion of 600 gr/ton and the mixture of water glass and aluminum sulfate

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in a proportion of 6 : 1 was used a depressor. The equipment scheme of the mill consisted of: 3 hydrocyclones IGD-300, 1 spiral classificator and 2 flotation machines M-5 with 10 compartments each. There are 2 tables, 4 graphs, 1 flow-chart and 2 Soviet references.

Card 3/3 1. Iron--Recovery

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GLEMBOTSKIY, V.A., doktor tekhn. nauk.

Combined action of collector reagents during flotation. Tsvet. met. 31 no.4:6-14 Ap '58. (MIRA 11:5)

1. Institut gornogo dela AN SSSR.
(Flotation)

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20-119-5-33/59

AUTHORS: Anfimova, Ye. A., Glembotskiy, V. A., Plaksin, I. N., Corresponding Member, AS USSR, Shcherbakova, A.S.

TITLE: The Influence of Structural Features and Surface Properties on the Froth Flotation Extraction of Poorly Floatable Lead Minerals (Vliyaniye strukturnykh osobennostey i poverkhnostnykh svoystv na izvlecheniye pennoy flotatsiyey trudnoflotiruyemykh svintsovykh mineralov)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 5, pp. 961 - 963 (USSR)

ABSTRACT: The present practice of the concentration of useful minerals does not dispose of any methods for a somehow satisfactory production of complicated lead minerals, like pyromorphite $Pb_5(PO_4)_3Cl$, mimetesite $Pb_5(AsO_4)_3Cl$, bedantite $PbFe_3(AsO_4)(SO_4)(OH)_6$ and plumbobojarosite $PbFe_6(SO_4)_4(OH)_{12}$. The continuous incomplete production of lead minerals brings about important lead losses. The complicated chemical structure and

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