

ACCESSION NR: AP4009629

trace the evolution of blocs limited by a system of global depth fractures extending in four directions for thousands of kilometers: meridional, submeridional, latitudinal, and sublatitudinal. The geophysical significance of these fractures (breaks) is discussed, and the most ancient systems are traced in detail. The author states that approximately 100-150 million years ago the Moon had to a large degree inherited its ancient structural plan; the central meridional zone of fractures of the southern hemisphere was the most mobile, while the far side was fairly stable. In succeeding periods a further differentiation of structural elements along the depth fault zones created the present enormous blocs. A demonstration of this hypothesis is given. The author cites the evidence of A. V. Peyve ("Struktura zemnoy kory i deformatsii gorn'nykh porod," Izd-vo AN SSSR, 1960, 67) and G. N. Katterfel'd (Izv. Vses. geogr. o-va, v. 91, no. 272, 1952) on the existence of a bloc structure on the Earth and Mars as reason for investigating the possibility of a general law operative in the development of a hard core in these bodies. "The author wishes to express his gratitude to Doctor of Physics and Mathematics A. G. Masevich for her help in conducting the studies." Original article has: 2 figures.

Card 2/57

KHODAK, Yu. A.

Principal structural elements of the moon and the geographical  
and geological methods of studying them. Izv. Kom. po fiz. plan.  
no. 4:10-23 Ag '63. (NIRA 18:5)

J. Laboratoriya osadochnykh poleznykh iskopayemykh Gosudarstvennogo  
geologicheskogo komiteta SSSR.

KHODAK, Yu.A.

Geological of the Lesser Khingan Mountains and its position in the structure of the Far East. Sov. geol. 6 no.6:20-31 Je '63.

(MIRA 16:7)

1. Laboratoriya osadochnykh poleznykh iskopayemykh AN SSSR.  
(Khingian Mountains—Geology, Structural)

KHODAK, Yu.A.

Main structural elements of the moon and the importance of geographical and geological methods in lunar explorations. Izv. AN SSSR. Ser. geol. 28 no.8:11-22 Ag '63. (MIRA 17:2)

KHODAK, Yu.A.; CHEBOTAREV, M.V.

Ancient formations in the Amur Valley. Sov. geol. 7 no.1:  
79-94 Ja '64. (MIRA 17:6)

1. Dal'nevostochnoye geologicheskoye upravleniye i Laboratoriya  
osadochnykh poleznykh iskopayemykh Gosudarstvennogo geologi-  
cheskogo komiteta SSSR.

KHODAK, Yu.A.

Structural and genetic characteristics of the iron-manganese  
mineralization of the Karashai type (central Kazakhstan). Trudy  
SNIIGGIMS no.35:218-227 '64. (MIRA 18:5)

YEROSHCHEV-SHAK, V.A.; KHODAK, Yu.A.; GRIBOV, Ye.M.; SYNGAYEVSKIY, Ye.D.

Association of clay minerals in the Upper Famennian rocks and ores  
of the Dzhal'ma trough. Dokl. AN SSSR 164 no.4:906-909 0 '65.  
(MIRA 18:10)

1. Laboratoriya osadochnykh poleznykh iskopayemykh AN SSSR. Sub-  
mitted May 12, 1965.

ACC NO: AR6035075 SOURCE CODE: UR/0169/66/000/008/G001/G001

AUTHOR: Khodak, Yu. A.

TITLE: Defining the main features of the structure and development of the Moon<sup>12</sup> and their significance in the elucidation of principles of geological phenomena

SOURCE: Ref. zh. Geofizika, Abs. 8G1

REF SOURCE: Sb. Materialy k Soveshchaniyu Obshchiye zakonomern. geol. yavleniy, 1966, Vyp. 1. L., 1965, 197-202

TOPIC TAGS: moon, geology, sclenography, earth, planet, map

ABSTRACT: In order to find the basic magnetic and block structure of the Earth, it is necessary to find the principles of the distribution of lunar ring structures and their connection with large and local blocks. The basic problem in the study of the structure of the Moon is the development of the stratigraphic scale of its formations. A structural-selenological map of the visible part of the Moon at a scale of 1:2,500,000 was compiled. Four structural strata are seen on the map. The areas of an emerging, mechanically eroded, ancient basement were noted. The

Card 1/2

UDC: 550.311



ACC NR: AR6035075

study of the structure of the planetary body of the moon will help to determine the general planetary structure of the Earth as a planet. [Translation of abstract]

SUB CODE: 03, 08/

Card 2/2

KHODAK, Yu.S.; SUN' SHU [Sun Shu]

Stratigraphy of Upper Paleozoic sediments in the northeastern part  
of China and adjacent territories of the southern part of the Soviet  
Far East. Biul. MOIP. Otd.geol. 38 no.2:56-73 Ja-F '63.

(MIRA 16:5)

(China--Geology, Stratigraphic)

(Soviet Far East--Geology, Stratigraphic)

KHODAKIN, N. I.

Soshnikova, M. N. and N. I. Khodakin "The Aetiological Agent of a Peculiar Form of "ncephalitis," Dok. AN, 47, No. 5, 1945. Mbr., Uzbek Inst. Microbiology & Epidemiology, Tashkent, -1944-049-.

KHODAKOV, A.

A transformerless rectifier. Radio no.2:35 F '63.

(Electric current rectifiers)

(MIRA 16:2)

S/196/63/000/001/006/035  
E193/E383

AUTHORS: Protsenko, P.I., Khodakov, A.A., Mirskaya, Ye.Z. and Venerovskaya, L.N.

TITLE: Physicochemical parameters of nitrites and nitrates of alkali and alkaline-earth metals with ferroelectric properties

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no. 1, 1963, 17, abstract 1 B55. (In collection: Segnetoelektriki (Ferroelectrics), Rostov-na-Donu, Rostovsk. un-t, 1961, 21-26)

TEXT: In connection with the possible application of ferroelectrics as nonlinear elements in conjunction with electroluminophors, it is desirable to have available ferroelectrics characterized by low  $\epsilon$ , this property being necessary to ensure their compatibility with electroluminophors. With this in view, a study was conducted of crystals of those nitrites and nitrates of alkali and alkaline-earth metals that possess ferroelectric properties; the experimental specimens were crystallized out of aqueous solutions or grown by the Bridgman method from their melts. Thermal Card 1/5

Physicochemical parameters ....

S/196/62/000/001/006/035  
E193/E383

analysis of a large number of nitrates and nitrites enabled the authors to obtain more accurate data on their melting points, to establish the existence of polymorphic transformations and to determine the transformation temperatures (these data being reported in the form of a table). It was shown that single crystals of sodium nitrite ( $\text{NaNO}_2$ ) in the direction of the  $\Theta$  axis constituted ferroelectrics with  $\Theta \sim 457^\circ\text{K}$ , i.e.  $164^\circ\text{C}$  (see Fig. 1), the magnitude of  $\epsilon$  at  $\Theta$  being more than 100 times higher than that at room temperature. The magnitude of spontaneous polarization, determined by pyroelectrical measurements, was found to be about  $7 \mu\text{k}/\text{cm}$ . Typical hysteresis loops were observed at  $413^\circ\text{K}$  ( $140^\circ\text{C}$ ) at 50 c.p.s. High values of coercive fields at room temperature were established. A study of the dependence of  $\epsilon$  of  $\text{NaNO}_2$  on temperature and the intensity of the DC field  $E$  showed that  $\epsilon$  decreased with increasing  $E$  at temperatures lower than  $\Theta$ , being independent of  $E$  at  $\Theta$ . Dilatometric measurements showed that the temperature coefficient of linear expansion  $\alpha$  of  $\text{NaNO}_2$  was of the order of  $10^{-4} - 4 \times 10^{-5} \text{ deg}^{-1}$ , and that the temperature-dependence of  $\alpha$  differed from that typical for ferroelectrics. A

Card 2/5

Physicochemical parameters ....

S/196/62/000/001/006/035  
E193/E383

domain structure was observed which disappeared at temperatures higher than  $\theta$  and was not restored on cooling below  $\theta$ . Single crystals of sodium, rubidium, caesium and thallium nitrates had phase-transformations in the temperature range between room temperature and the melting point. The transformation of sodium nitrate from the second phase (with an orthorhombic structure of aragonite) to the first phase (with the calcite structure) took place on heating above  $403^{\circ}\text{K}$  ( $130^{\circ}\text{C}$ ); on cooling below  $397^{\circ}\text{K}$  ( $124^{\circ}\text{C}$ ) the first phase changed into ferroelectric third phase, which remained stable down to  $383^{\circ}\text{K}$  ( $110^{\circ}\text{C}$ ) and then changed to the second phase. The transformation of sodium nitrate to its ferroelectric phase was accompanied by a decrease in  $\epsilon$ . Transformation from hexagonal to cubic modification took place at  $434^{\circ}\text{K}$  ( $161^{\circ}\text{C}$ ) in rubidium nitrate, a change from cubic to rhombic modification taking place at  $492^{\circ}\text{K}$  ( $219^{\circ}\text{C}$ ); a phase-transformation in this compound was observed also at  $564^{\circ}\text{K}$  ( $291^{\circ}\text{C}$ ). Rubidium nitrate had no ferroelectric properties in the temperature interval studied. A phase-transformation took place in caesium nitrate at  $427^{\circ}\text{K}$  ( $154^{\circ}\text{C}$ ) but no maxima were observed near the transformation temperature. Two phase-transformations were observed in thallium nitrate (see Card 3/5

Physicochemical parameters ....

S/196/62/000/001/006/035  
E193/E383

Fig. 2):  $\gamma \rightarrow \beta$  transformation at 348 °K (75 °C) and  $\beta \rightarrow \alpha$  transformation at 418 °K (145 °C). The increase in  $\epsilon$  observed on heating thallium nitrate was attributed to the increase in conductivity. No ferroelectric properties were observed in barium nitrate, a (Tl-Ba)NO<sub>2</sub> complex and certain other nitrates. There are 5 figures and 5 references.

[Abstracter's note: Complete translation.]

CAPTION to Fig.1:

Temperature-dependence of  $\epsilon$  and  $\tan \delta$  of NaNO<sub>2</sub> at  $f = 1$  Mc/s

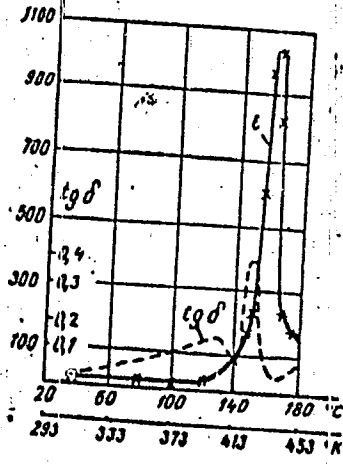


Fig. 1:

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E.S. (17) referred to Martin



S/019/61/000/024/031/088  
A156/A126

AUTHORS: Sholokhovich, M.L.; Khodakov, A.L.

TITLE: Seignettelectric monocrystals

PERIODICAL: Byulleten' izobreteniy, no. 24, 1961, 30

TEXT: Class 2lg, 1102. No. 143477 (688328/26 of December 3, 1960).  
Seignettelectric monocrystals based on barium titanate, the distinctive feature of which consists in that for the purpose of increasing the nonlinearity of their characteristics and raising the rectangularity of their hysteresis loop, 1 - 2% barium hafnate is added to the barium titanate.

Card 1/1

L 15629-65 EWT(1)/EPA(2)-7/EWT(m)/ECC(t)/EWP(t)/EEO(s)-2/EWP(b) Pt-10/Pt-4  
ASD-3/AEFTC/ESD-3/SSU/UP(c) JD/GG  
ACCESSION NR: AR3010273 S/0081/63/000/012/0071/0071

SOURCE: RZh. Khimiya, Abs. 12B466

AUTHOR: Kramarov, O. P.; Khodakov, A. L.; Sholokhovich, M. L.;  
Fesenko, Ye. G.

TITLE: Monocrystals of solid solutions of strontium and lead titanates

CITED SOURCE: Sb. Segnetoelektriki. Rostov-na-Donu, Rostovsk, un-t., 1961, 5-11

TOPIC TAGS: solid solution, strontium, lead, strontium titanate, lead titanate, monocrystalline structure

TRANSLATION: The fusion diagram for the system  $K_2F_2$ -- $PbTiO_3$ -- $SrTiO_3$  has been studied and the formation of a continuous series of solid solutions  $(Pb--Sr)TiO_3$  has been established. For determination of position of the Curie point in compounds with high electrical conductivity, a specially constructed dilatometer was used. Permitted measurement of elongation in samples of 1-2 mm.

Cont 1/2

L 15629-55

ACCESSION NR: AR3010278

0

transition temperature of 512° for monocrystals of  $PbTiO_3$  was determined by the same method. The Curie point for monocrystals of  $PbTiO_3$  solutions is close to the data known for polycrystalline  $PbTiO_3$ . The refractive index for monocrystals ( $n_{\parallel}$  and  $n_{\perp}$ ) varies nonmonotonically with the limits of  $n_{\parallel}$  and  $n_{\perp}$  for  $PbTiO_3$ .

SUB CODE: MM. SS

ENCL: 00

Card 2/2

ACCESSION NR: AR4042161

S/O196/64/000/005/B019/B019

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 5B83

AUTHOR: Lezgintseva, T. N.; Khodakov, A. L.

TITLE: Influence of slight impurities of iron on the dielectric properties of solid solutions of barium titanate and stannate

CITED SOURCE: Izv. Leningr. elektrotekh. in-ta, vy\*p. 51, 1963, 260-267

TOPIC TAGS: barium titanate, barium stannate, dielectric property solid solution

TRANSLATION: The dependence of  $\epsilon$  on the intensity of a variable electric field  $E$  (up to 10 kv/cm), reversible  $\epsilon$  ( $E$  varied up to 8 kv/cm) was studied at 300 kc, hysteresis loop and dependence on temperature of  $\epsilon$  and  $\tan \delta$  at 300 kc from 20 to 140°C for ceramic solid solutions of  $\text{BaTiO}_3 - \text{BaSnO}_3$  with 0; 3; 6; 9 and 12 mole %  $\text{BaSnO}_3$  and 0; 0.1; 0.2; 0.4; 0.7; 1 mole %  $\text{Fe}_2\text{O}_3$ . Introduction of additions of  $\text{Fe}_2\text{O}_3$  leads to a sharp lowering of the nonlinear properties of solid solutions; this is

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ACCESSION NR: AR4042161

especially noticeably for compositions containing 6 mole % BaSnO<sub>3</sub>. In solid solutions with additions of iron,  $\theta$  shifts in the direction of low temperatures, the more noticeably, the higher the concentration of Fe, while  $\epsilon$  is also lowered at  $\theta$ . These effects are more noticeable in solid solutions baked directly from a mixture of BaTiO<sub>3</sub>, BaSnO<sub>3</sub>, and Fe<sub>2</sub>O<sub>3</sub>. The influence of Fe impurities on  $\theta$  and  $\epsilon$  in pure samples of BaTiO<sub>3</sub> is noticeably less than in solid solutions alloyed with the same concentration of Fe. For the manufacture of ferroelectric-ceramics and single crystals with the sharpest expressed nonlinear properties, it is proposed, to avoid materials containing Fe. Three illustrations. Bibliography: 4 references. [Rostov-on-Don State University]

SUB CODE: IC, EM

ENCL: 00

Cerd  
2/2

KHODAKOV, ABRAM LAZAREVICH

DECEASED

C. '62

1964

CRYSTALS

FERROELECTRIC PROPERTIES

KHODAKOV, B.

KHODAKOV, B., student.

In the White Russian State University. Radio no.10:11 0 '57.  
(MIRA 10:10)

1. Khimicheskiy fakul'tet Belorusskogo gosudarstvennogo  
universiteta imeni V.I.Lenina.  
(White Russia--Radio clubs)

TSAYG, B.A.; KHODAKOV, D.Ye. (Kuybyshev-obl.)

Treatment of fractures of the patella. Kaz. med. zhur. no. 4:90-  
91 JI-Ag '60. (MIRA 13:8)

(PATELLA—FRACTURE)



KHODAKOV, G.S.; KUDRYAVTSEVA, N.L. (Moscow)

Characteristics of the adsorption of gases and vapors on aggregated dispersed materials during their comminution. Zhur.fiz.khim. 37 no.10: 2241-2248. O '69. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov Akademii stroitel'stva i arkhitektury SSSR.

Date	Description	Amount	Balance
1/1/68	✓ Determination of specific surface area of barite ground in sta-		
	tion of barite ground in station after 1000 hours of		
	operation of the mill.		
	The results of the test are as follows:		
	Specific surface area of barite ground in station		
	after 1000 hours of operation of the mill		
	is 100,000 sq. ft./ton.		
	The results of the test are as follows:		
	Specific surface area of barite ground in station		
	after 1000 hours of operation of the mill		
	is 100,000 sq. ft./ton.		

Determination of the specific surface area of finely  
sieved materials by the method of low temperature  
adsorption

4300. Determination of the specific surface area  
of finely powdered materials by the method of nitrogen  
temperature adsorption of nitrogen

1/11/68

5(4)

AUTHORS: Khodakov, G. S., Plutsis, E. R.

SOV/20-123-4-43/53

TITLE: On the Solubility of Finely Crushed Quartz in Water (O rastvorimosti tonkoizmel'chennogo kvartsa v vode)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 4, pp 725-728 (USSR)

ABSTRACT: The present paper deals with the solubility of quartz powder in distilled water. The degree of dispersion of the powder under investigation was estimated according to its specific surface. The quantity of quartz contained in the solution was photolorimetrically determined. Also the influence of the glass from which the vessel is made and of the silicon in the steel container was taken into account. The first diagram shows the curves of the kinetics of the dissolution of finely ground quartz sand in water. The course taken by these curves confirms the formation of a true (and not of a colloidal) solution. These curves are well described by the kinetic equation  $C = C_{\text{solubility}} (1 - e^{-k\tau})$ . Here  $C$  denotes the concentration of the  $\text{SiO}_2$  passing into the solution within the time  $\tau$ ,

Card 1/3

On the Solubility of Finely Crushed Quartz in Water SOV/20-123-4-43/53

$C_{\text{solubility}}$  - the solubility,  $k$  - the solution rate constant.

$C_{\text{solubility}}$  can be determined from the above diagram. The aforementioned equation may be written down as follows:

$$\ln \frac{C_{\text{solubility}}}{C_{\text{solubility}} - C} = kt ; \text{ it is confirmed by experimental}$$

data. The constant  $k$  does not depend on the duration of quartz crushing and amounted in the case of the experiments discussed here to  $0.056 \text{ days}^{-1}$ . A prolongation of the duration of the dry crushing of the quartz increases the values of  $C_{\text{solubility}}$ .

According to the data obtained, the investigated powders of finely ground quartz sand have practically the same surface. According to the authors' data, the solubility of the finely ground quartz in water at room temperature in some cases attains the value of  $120 \text{ mg/l}$ , which surpasses the solubility of coarse-crystalline quartz by 20 times its amount. This abnormally high solubility may be explained by a destruction of the crystal structure of quartz in the grinding mill. The here discussed data make it possible to explain the mechanism of the formation of the hydrosilicates of calcium and magnesium

Card 2/3

On the Solubility of Finely Crushed Quartz in Water SOV/20-123-4-43/53

in the interaction of their hydroxides with the finely ground sand in water at room temperature. Also the part played by sand filling medium of concrete with a low cement content, which was ground in a vibration mill, may be explained in a similar manner. The authors thank Academician P. A. Rebinder, D. S. Sominskiy, V. B. Ratinov and L. A. Feygin for discussing results and for their valuable advice, and they also thank N. I. Gludina for her assistance. There are 3 figures, 1 table, and 16 references, 12 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut tonkogo izmel'cheniya Akademii stroitel'stva i arkhitektury SSSR  
(All-Union Scientific Research Institute for Fine Grinding of the Academy of Building and Architecture, USSR)

PRESENTED: July 25, 1958, by P. A. Rebinder, Academician

SUBMITTED: July 23, 1958

Card 3/3

5(4)

AUTHORS:

Khodakov, G. S., Rebinder, P. A., Academician

SOV/20-127-5-38/58

TITLE:

The Investigation of the Fine Dispersion of Quartz and of the Influence of Added Liquids Upon This Process

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1070-1073 (USSR)

ABSTRACT:

The effect produced by acetone, ethyl alcohol, water, benzene, triethanolamine and oleic acid upon the dispersion of quartz sand was investigated. Crushing was carried out in a laboratory vibration mill, and determination of the degree of dispersion by measuring the specific surface by means of adsorption of nitrogen at low temperatures according to reference 14. Figures 1-4 and tables 1 and 2 show the experimental results. The addition of liquids causes a considerable increase of the specific surface in comparison to dry-grinding. The effect produced by the individual liquids is about equal. This result is explained by the fact that, in the case of dry grinding, relatively solid particle complexes are produced, the tight packing of which prevents nitrogen from penetrating, so that a large part of the free surface is eliminated. Additions of liquids cause a considerable extent of desaggregation. As

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The Investigation of the Fine Dispersion of Quartz and of the Influence of  
Added Liquids Upon This Process

SOV/20-127-5-38/58

shown by figure 3, desaggregation depends upon the quantity of the liquid added. In water, a minimum occurs at an addition of 2-30%, which is followed, as a result of further additions, by a rapid increase of desaggregation. As shown by experiments, the described phenomena are confined not only to quartz alone, but in a different degree characteristic also of other solid substances, such as corundum, and calcite. There are 4 figures, 2 tables, and 19 references, 14 of which are Soviet.

**ASSOCIATION:** Vsesoyuznyy nauchno-issledovatel'skiy institut tonkogo izmel'-cheniya Akademii stroitel'stva i arkhitektury SSSR (All-Union Scientific Research Institute for Fine Grinding of the Academy of Building and Architecture, USSR). Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR)

**SUBMITTED:** May 22, 1959

Card 2/2

KHODAKOV, G. S., Cand Phys-Math Sci -- (diss) "Research into processes of quartz dispersion." Moscow, 1960. 18 pp; (Academy of Sciences USSR, Inst of Physical Chemistry); 150 copies; price not given; bibliography at end of text(11 entries); (KL, 26-60, 131)

15.2110

67896

~~5(4)~~  
AUTHORS:

Kiselev, V. F., Krasil'nikov, K. G.,  
Khodakov, G. S. S/020/60/130/06/026/059  
B004/B007

TITLE:

The Influence of the Aggregation of <sup>16</sup>Quartz Particles During Grinding Upon Its Adsorptive Properties

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 6, pp 1273 - 1276 (USSR)

ABSTRACT:

In reference 1 it was said that the specific surface of air-dried quartz decreases with an increase of the duration of grinding. This was explained by the aggregation of the quartz particles. The authors aimed at investigating this phenomenon more thoroughly and to find out whether its effects on the adsorption of nitrogen, and water differ. They maintain that this phenomenon is the cause of the considerable discrepancy in published data for adsorption values and adsorption energy of quartz. Two samples of highly dispersive quartz were investigated. Sample Kv-4 was obtained by grinding transparent crystalline quartz with an excess of water, sample Kv-4A by further grinding Kv-4 in air. On both samples, the adsorption of nitrogen and steam was measured (Table 1). As shown by

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67896

The Influence of the Aggregation of Quartz Particles S/020/60/130/06/026/059  
During Grinding Upon Its Adsorptive Properties B004/B007

figure 1, the adsorption isothermal line of nitrogen on Kv-4A is lower than in the case of Kv-4 because of particle aggregation, whereas the adsorption isothermal line of steam is higher. Also figure 2 shows that the different kind of grinding the same quartz affects the adsorption of nitrogen and steam differently. This phenomenon has not yet been explained. It is presumed that relatively dense aggregates are formed, the inner surfaces of which are inaccessible to the nitrogen, whereas the adsorption of water is not impaired by these aggregations because of its dispersive (peptizing) properties. Such phenomena of aggregation were observed also in the case of other substances (corundum, calcite, silica gel) in dry grinding. The authors thank Academician P. A. Rebinder for his interest in this paper, and G. I. Aleksandrova for assisting in measurements. There are 2 figures, 1 table, and 21 references, 13 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
Card 2/3 (Moscow State University imeni M. V. Lomonosov). Vsesoyuznyy  
nauchno-issledovatel'skiy institut novykh stroitel'nykh

KHODAKOV, G.S.; REBINDER, P.A.

Effect of the medium on the processes of dispersion of solids.  
Koll.shur. 22 no.3:365-375 My-Je '60. (MIRA 13:7)

1. Institut fizicheskoy khimii AN SSSR, Otdel dispersnykh sistem  
i Institut novykh stroitel'nykh materialov AN SSSR, Moskva.  
(Dispersion) (Quartz)

KHODAKOV, G.S.

Kinetics of the fine comminution of quartz. Dokl. AN SSSR 134 no.3:  
574-577 S '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh  
materialov Akademii stroitel'stva i arkhitektury SSSR. Predstavleno  
akad. P.A. Rebindrom.

(Quartz)

KHODAKOV, G.S.; REBINDER, P.A.

Mechanism of comminution of quartz in surface active  
media [with summary in English]. Koll.zhur. 23 no.4:482-490  
Jl-Ag '61. (MIRA 14:8)

1. Institut fizicheskoy khimii AN SSSR, Otdel dispersnykh  
sistem i Nauchno-issledovatel'skiy institut novykh stroitel'nykh  
materialov Akademii stroitel'stva i arkhitektury SSSR.  
(Quartz)

KAMAY, G.Kh.; KLABUNOVSKIY, Ye.I.; GATILOV, Yu.F.; KHODAKOV, G.S.

Separation of quaternary arsonium compounds into optical antipodes by asymmetric adsorption on natural dissymmetric adsorbents. Dokl. AN SSSR 139 no.5:1112-1113 Ag. '61.

(MIRA 14:8)

1. Institut organicheskoy khimii AN SSSR, g. Kazan', 1  
Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
Predstavleno akademikom B.A. Arbuzovym.  
(Arsonium compounds) (Adsorption)



S/069/62/024/002/008/008  
B:10/144

AUTHOR: Khodakov, G. S.  
TITLE: A case of mechanochemical quartz dispersion  
PERIODICAL: Kolloidny zhurnal, v. 24, no. 2, 1962, 236 - 237

TEXT: Mechanical and chemical effects were combined in an attempt to reach maximum silica dispersion. Deformation of the crystalline structure by grinding increased the reactivity of silica with calcium or magnesium oxides, in dependence on the duration of the process. Hydrosilicates formed at normal temperatures and pressures. Quartz powders ground to  $< 6\text{m}^2/\text{g}$  with an M-10(M-10) vibrating mill were studied. Small blocks were formed from aqueous pastes with 9 parts by weight of  $\text{SiO}_2$  and 1 part by weight of  $\text{MgO}$ , and then washed with hot aqueous acetic acid<sup>2</sup> to remove hydrosilicates.

Powders of  $> 200\text{ m}^2/\text{g}$  specific surface, approximately 30 times the initial value, were thus obtained. The particle nuclei remained crystalline whereas the amorphous shell passed over into the filtrate. This behavior may be applied to adsorption and catalysis. Electron microscopic studies showed the dispersion to take place in particles of several hundredths  $\mu$   
Card 1/2 ✓

S/020/63/148/003/021/031  
B108/R180

5.5650

AUTHOR: Khodakov, G. S.

TITLE: Determining the specific surface of highly disperse powders by rarefied gas filtration

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 3, 1963, 581-584

TEXT: Discrepancies appear in the results of specific surface determination of pressed powder samples even at high pressures. They are probably due to the fact that the structural features of the porous body are not adequately considered. Here, the specific surface is expressed on the assumption that the gas molecules passing through the pores undergo a greater number of collisions with the walls of the pores than with other molecules. The experimental work is then reduced to determining the capacities of the sample at two different gas pressures. The specific surface resulting from these data was found to be independent of the porosity of the sample. There are 3 figures. B

Card 1/2

KHODAKOV, G.S.

Effect of fine grinding on the physicochemical properties  
of solids. Usp. khim. 32 no.7:860-881 J1 '63.

(MIRA 16:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh  
stroitel'nykh materialov.

KUDRYAVTSEVA, N.L.; KHODAKOV, G.S.

Effect of the additions of surface-active substances on the  
diminution of clinker. Dokl. AN SSSR 156 no. 2:437-440 My  
'64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroi-  
tel'nykh materialov. Predstavleno akademikom P.A.Rebinderom.

**KHODAKOV, G.S.**

Mechanical and chemical dissociation of liquids on freshly  
formed surfaces of solids. Dokl. AN SSSR 156 no.6:1416-1419  
Je '64. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh  
stroitel'nykh materialov Akademii stroitel'stva i arkhitektury  
SSR. Predstavleno akademikom P.A. Rebinderom.

EDEL'MAN, L.I.; KHODAKOV, G.S.

Sedimentation analysis of disperse systems with continuous recording of the weight of accumulated deposit in the centrifugal field. Koll. zhur. 26 no.3:380-385 My-Je '64. (MIRA 17:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov, Moskva.

KHGDAKOV, G.S.; EDEL'MAN, I.I.

Float-type photoelectric recording device for analysis of variance  
in a centrifugal field. Zav. lab. 30 no.8:1024-1025 '64.

(MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'-  
nykh materialov.

KHODAKOV, G.S.

Mechanical and chemical dissociation of liquids on freshly formed surfaces of solids. Dokl. AN SSSR 156 no.6:1416-1419  
Je '64. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov Akademii stroitel'stva i arkhitektury SSR. Predstavleno akademikom P.A. Rebinderom.



KHODAKOV, G.S.

Laws governing gas flow through finely porous bodies. Dokl. AN  
SSSR 163 no.2:350-353 J1 '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh  
materialov. Submitted December 31, 1964.

ACC NR: AP6017959

SOURCE CODE: UR/0413/66/000/010/0027/0027

INVENTOR: Khodakov, G. S.

ORG: None

TITLE: A method for producing highly dispersed silica. Class 12, No. 181634 [announced by the All-Union Scientific Research Institute of New Structural Materials (Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 27

TOPIC TAGS: silica, quartz, magnesium oxide, calcium oxide

ABSTRACT: This Author's Certificate introduces a method for producing highly dispersed silica from pulverized quartz sand. The process is simplified by adding magnesium oxide or calcium oxide to the initial material and treating the mixture with water after grinding. The solution is then allowed to stand and mineral acid is used for removing hydrosilicates.

SUB CODE: 11/ SUBM DATE: 26Nov63

Card 1/1

UDC: 661.718,5

TEST AND THE COVER: PROPERTIES AND PROPERTIES INDEX

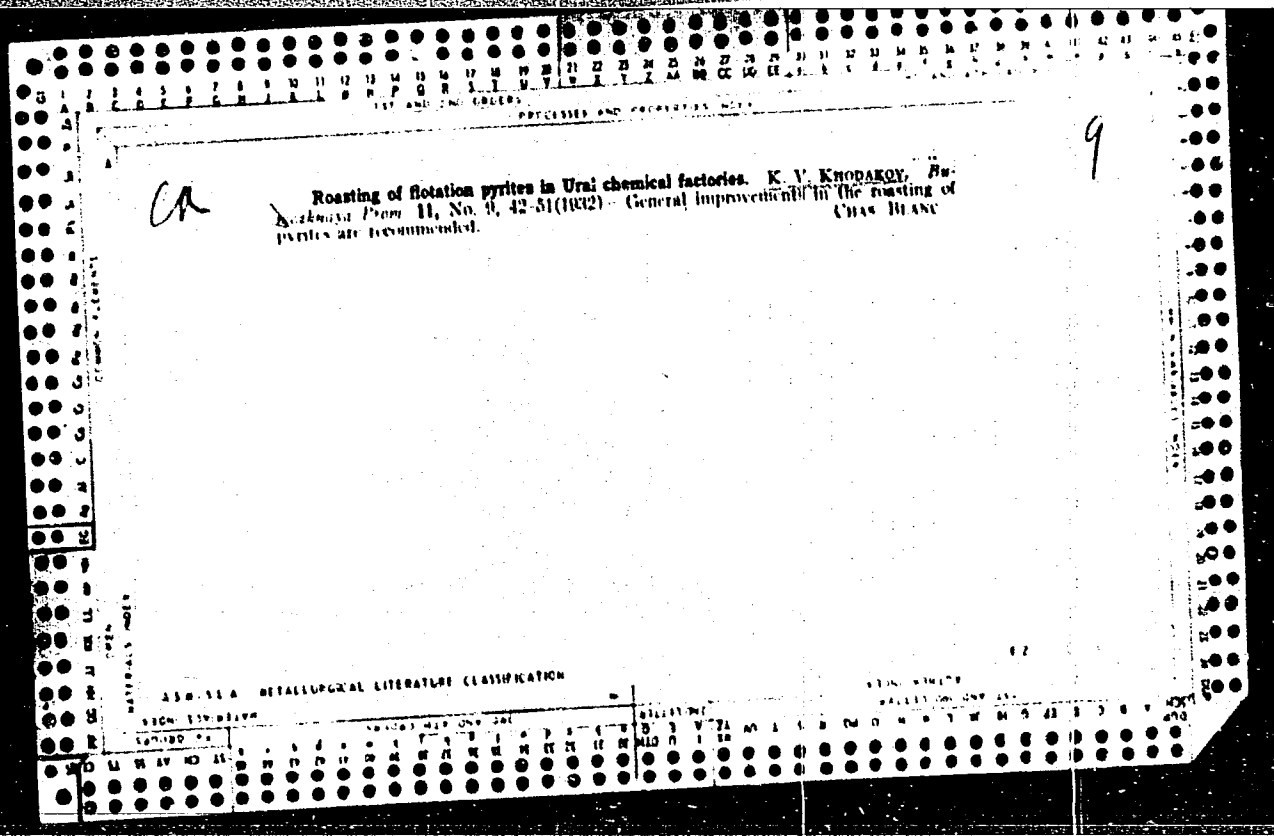
73

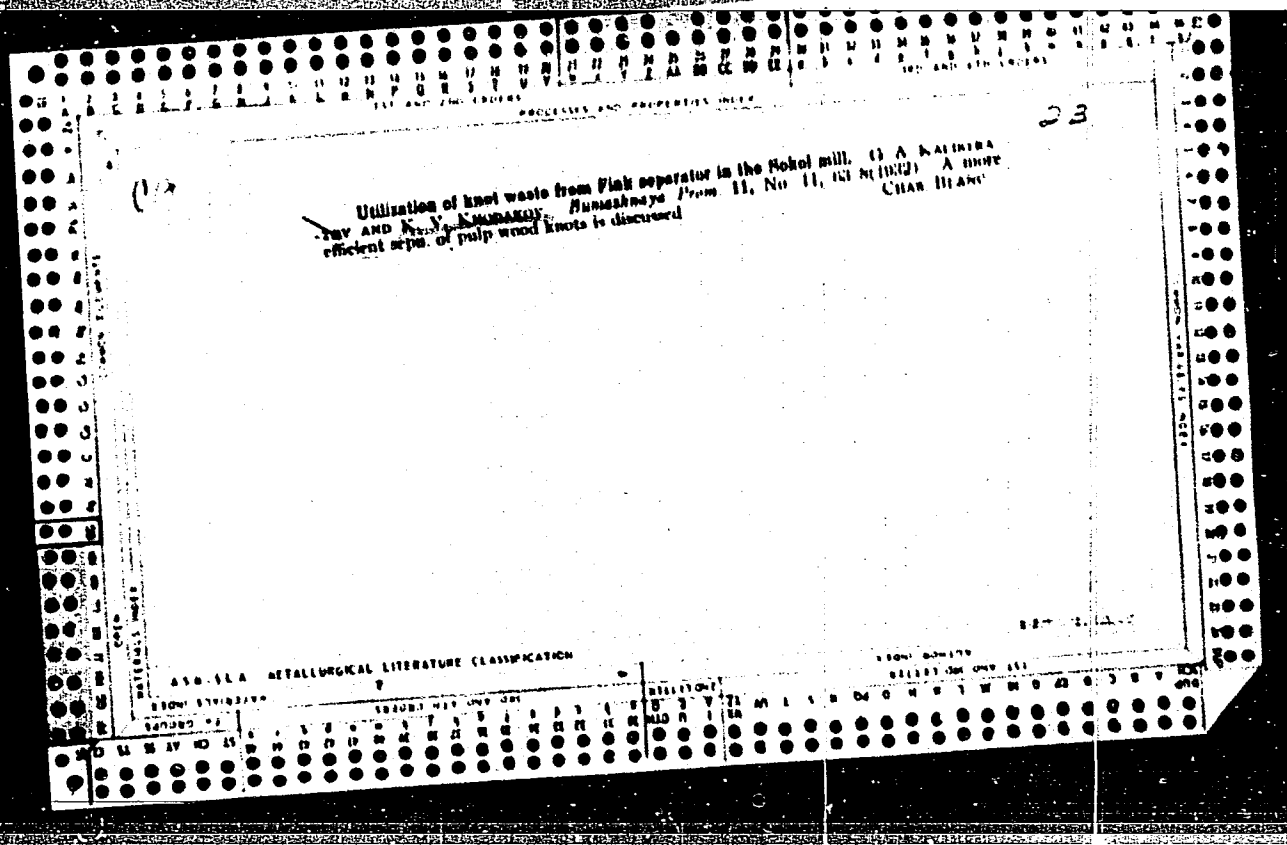
*CA*

✓ Physicochemical properties of powdery pyrite. K. KUROKAWA, Sameshaya  
 From: J. No. 3, 23-6(1962).—Dust-like pyrites obtained from eroded varieties and  
 flotation works, and used for the prepn. of pulp cooking acid were investigated.

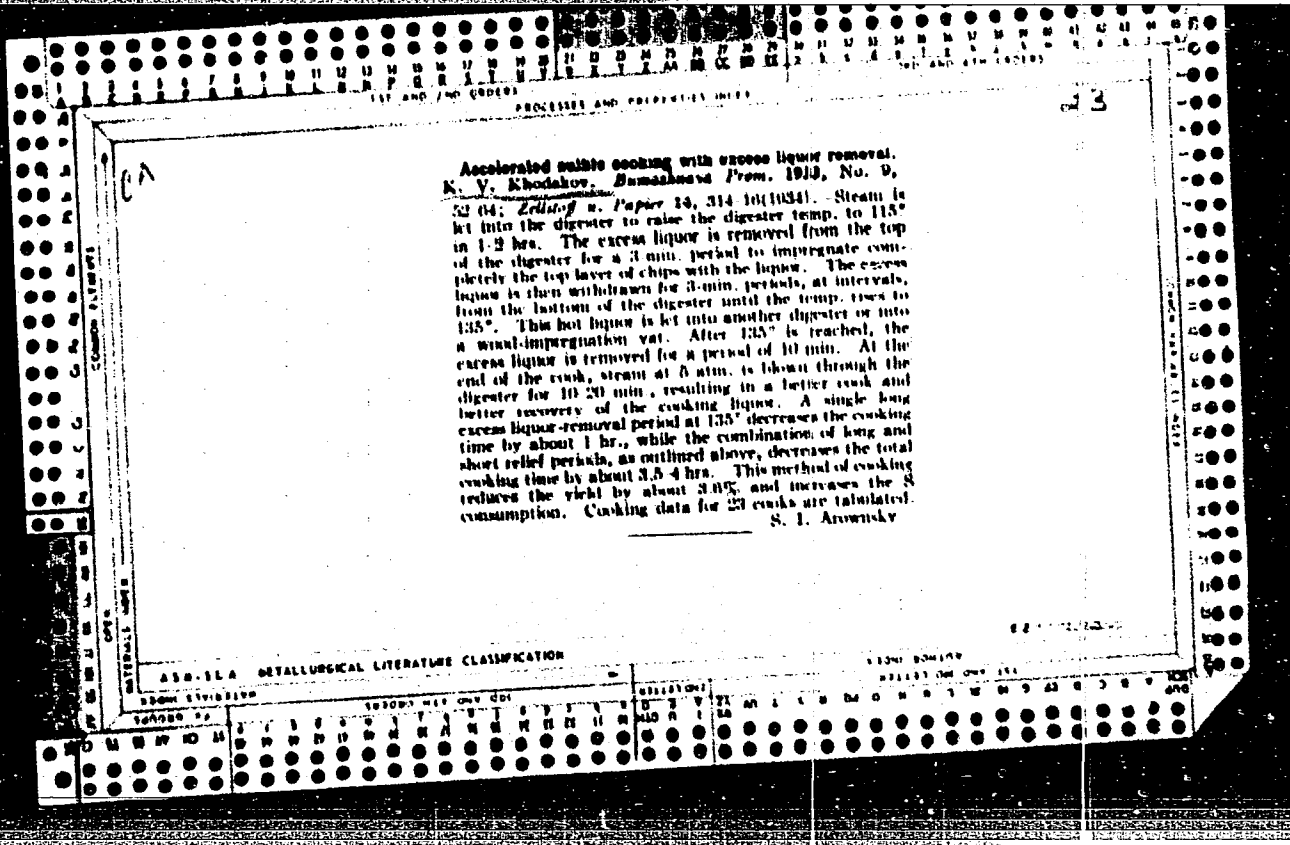
A B C D E METALLURGICAL LITERATURE CLASSIFICATION

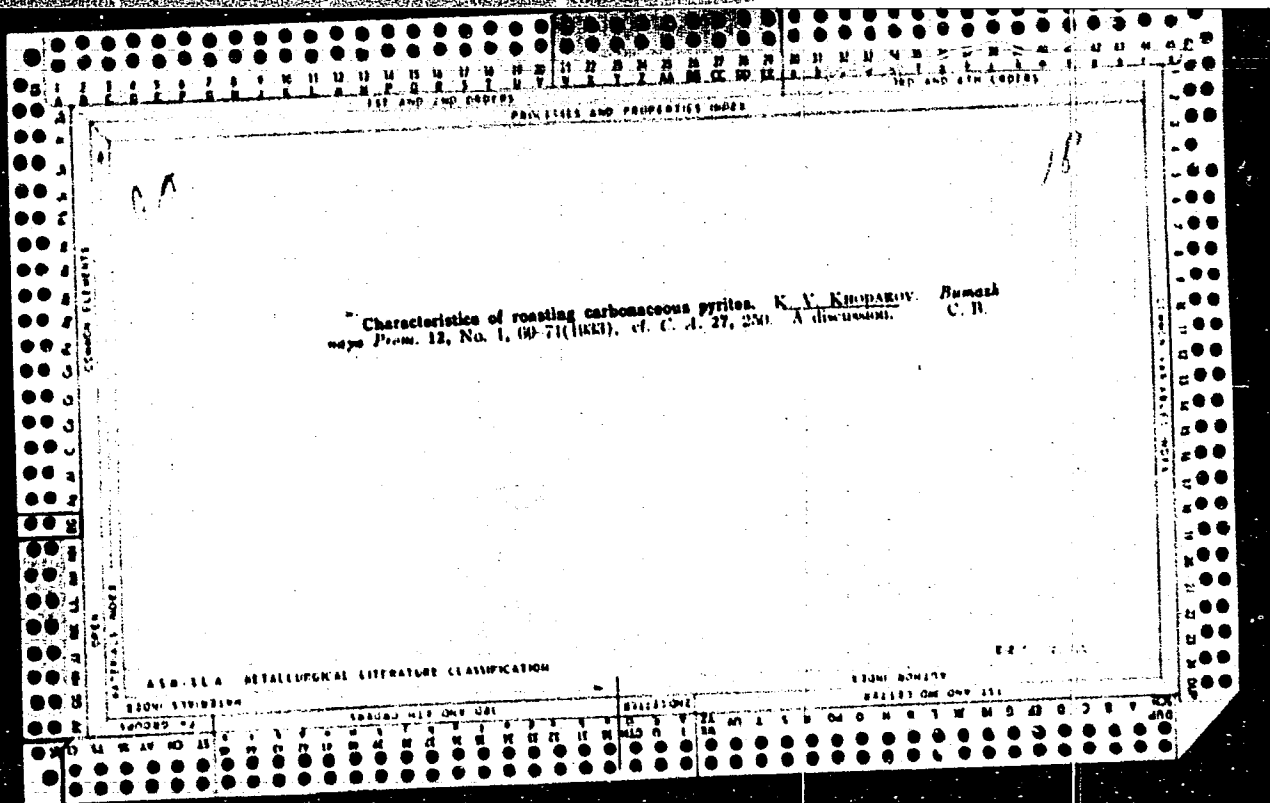
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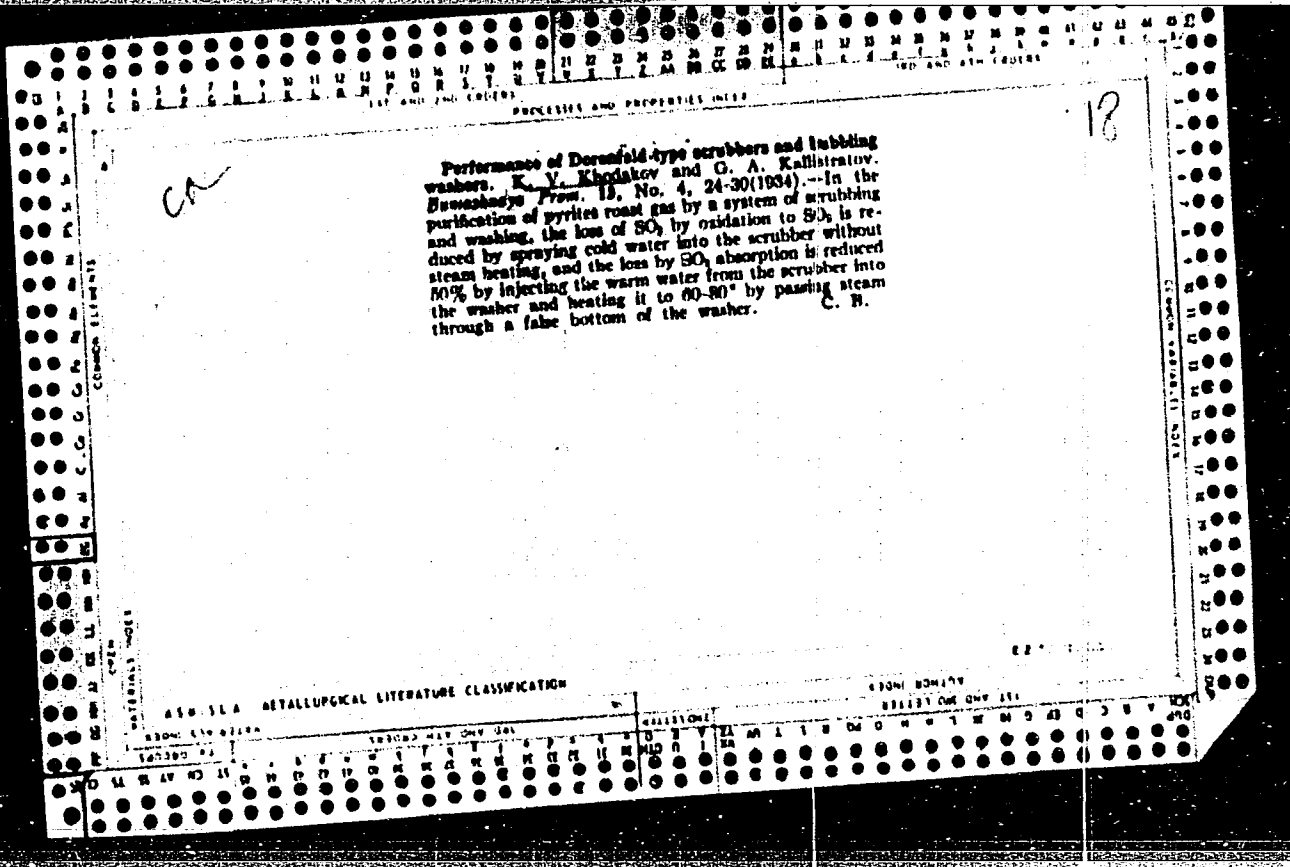
















137 AND 138 (2001)

PROCESSED AND PROPERTIES INDEX

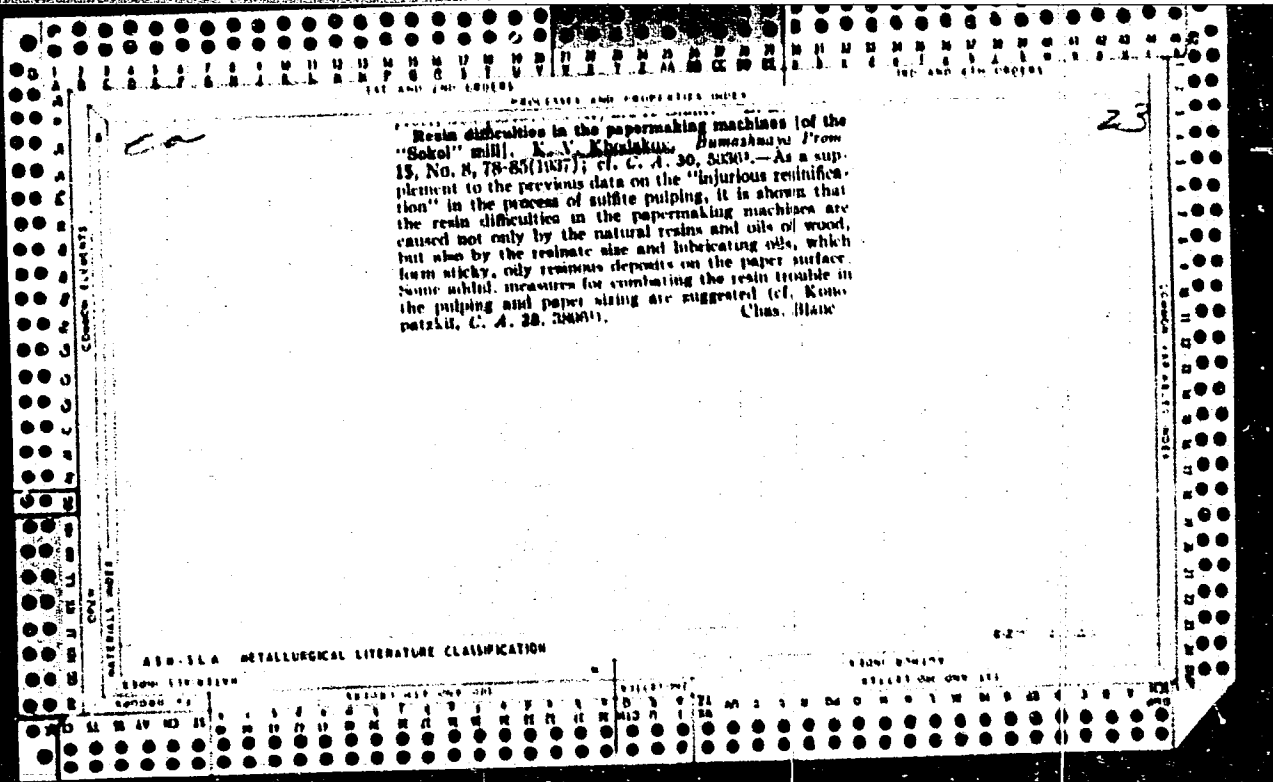
CA

1

New method for determining the sulfur dioxide content of gases from pyrites burner. K. V. Kholakov. *Russkaya Prom. IS. No. 4, 30 (1937): "Zashita & in-dustria 39, 740.* The sample is taken by means of a bottle that is evacuated. The SO<sub>2</sub> is absorbed in water and treated with CaCl<sub>2</sub> in the presence of starch and KI. A. Patinon-Couture

ALU.S.S.A. METALLURGICAL LITERATURE CLASSIFICATION

SECTION	SECTION NO.	SECTION NAME	SECTION NO.	SECTION NAME
1	1	1	1	1
2	2	2	2	2
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23

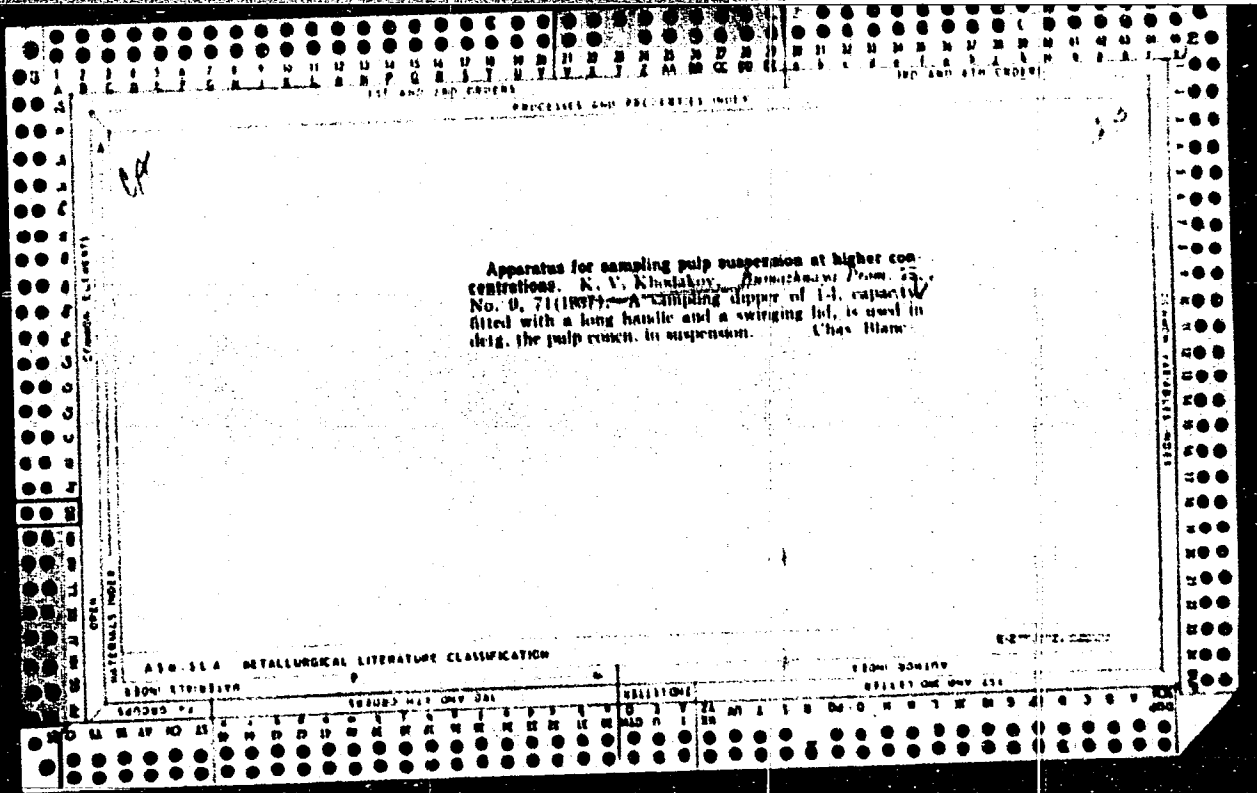
*Ca*

The solubility of sulfur dioxide in calcium bisulfite. K. V. Khudobayev. *Doklady Akad. Nauk Kazakh. SSR* (1967); cf. *Tribunal. Nach. - Issledovaniya. Inst. Khimichesk. Prom. Materialy* 1964. — The satn. of equiv. quantities of CaO, MgO and dolomite with SO<sub>2</sub> under equal conditions gives cooking acids of equal strength. Data are given on the increasing strength of the acid liquor with increasing concn. of bases and on the direct proportion between the partial pressure and bisulfite concn. A soly. nonogram for SO<sub>2</sub> under various conditions is given and its use in the control of the prepn. of acid, pulping and recovery of spent liquor is described. A procedure is discussed for storing cooking acid under a layer of cymene to prevent pptn. Cf. Conrad and Bruschlein (*C. A.* 31, 8110<sup>4</sup>). Chas. Blanc

ASB-11A METALLURGICAL LITERATURE CLASSIFICATION

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APR 1968



KHODAKOV, N. D., and ANICHKOV, N.N.

Ueber die Vitalfärbung der oberen Luftwege und des Gehörorgans bei Kaninchen.  
Zeitschr. für Hals-, Nasen--und Ohrenheilkunde. 37, 4, 284-291, 1935.



NARAVTSEVICH, Zinoviy Abramovich; KHODAKOV, Naum Moiseyevich;  
NEYMAN, M.I., red.

[For the participant of a tourist trip] Uchastniku turist-  
ristskogo pokhoda. Moskva, Meditsina, 1964. 39 p.  
(MIRA 17:5)

ZAKHAROV, Ye.D.; GUR'YEV, I.I.; SOLOV'YEVA, V.V.; DRONOVA, N.P.;  
GIL'DENGORN, I.S.; KHODAKOV, P.Ye.; BONDAREV, B.I.

Nonuniformity in continuously cast ingots and its effect  
on the quality of semifinished products. Alum. splavy  
no.3:371-382 '64. (MIRA 17:6)

KHODAKOV, V.

On the road toward the improvement of farming (from the Regional  
Agricultural Conference in Rostov-on-Don). Zemledelie 23 no.10:  
85-88 0 '61. (MIRA 14:9)  
(Rostov Province--Agriculture)

KHODAKOV, V., kand.tekhn.nauk

Improve the operation of water works for fire fighting. Pozh.delo  
7 no.12:17-18 D '61. (MIRA 14:11)

(Fire extinction--Water supply)

KHODAKOV, V. A.

Integrals

Dissertation: "An Intergral With a Small Range." Cand Phys-Math Sci, Mechanics-Mathematics Faculty, Moscow Order of Lenin State U imeni M. V. Lomonosov, 26 Mar 54. (Vechernyaya Moskva -- Moscow, 16 Mar 54).

SO: SUM 213, 20 Sep 1954

21c

L 18316-65 EWD(j)/EWT(1)/EWP(e)/EWG(k)/EWT(m)/EPP(c)/EPP(n)-2/EPR/EEC(b)-2/EWP(b)  
Pr-6/Pr-4/Ps-4/Pu-4 IJP(c)/APWL/SSD WW/AT/WH  
ACCESSION NR: AP4049532 S/0089/64/017/005/0329/0335

AUTHOR: Millionshchikov, M. D.; Gverdtsiteli, I. G.; Abramov, A. S.; Gorlov, L. V.; Gubanov, Yu. D.; Yefremov, A. A.; Zhukov, V. F.; Ivanov, V. Ye.; Kovy\*rzin, V. K.; Koptelov, Ye. A.; Kosovskiy, V. G.; Kukharkin, N. Ye.; Kucherov, R. Y.; Laly\*kin, S. P.; Merkin, V. I.; Nechayev, Yu. A.; Pozdnyakov, B. S.; Ponomarev-Stepnov, N. N.; Samarin, Ye. N.; Serov, V. Ya.; Usov, V. A.; Fedin, V. G.; Yakovlev, V. V.; Yakutovich, M. V.; Khodakov, V. A.; Kompaniyets, G. V.

TITLE: The "Romashka" high-temperature reactor-converter / 9

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 329-335

TOPIC TAGS: nuclear power reactor, reactor feasibility study, re-search reactor, thermoelectric converter/Romashka

ABSTRACT: The authors briefly describe the construction, parameters, test results, and operating experience of the "Romashka" reactor-

Card 1/8

L 18316-65  
ACCESSION NR: AP4049532

converter unit, which has been in operation at the Kurchatov Atomic Energy Institute since August 1964. The fuel used is uranium dioxide enriched to 90%  $U^{235}$ . Graphite and beryllium are used as reflectors. Electricity is generated by silicon-germanium semiconductor thermocouples distributed on the outer surface of the reflector and connected in four groups which can be connected in series or in parallel. The temperatures of the active zone and outer surface are 1770 and 1000C, respectively. The power ratings are 0.50-0.80 kW electric and 40 kW thermal, the maximum current (parallel connection) is 88 A, the neutron flux is  $10^{13}$  neut/cm<sup>2</sup> sec in the center of the active zone and  $7 \times 10^{12}$  on its boundary. The reactor has a negative temperature reactivity coefficient. The equipment has high inherent stability and requires no external regulator, and little change was observed in the thermocouple properties after 2500 hours of operation. Tests on the equipment parameters are continuing, and the results are being analyzed for use in future designs. Orig. art. has: 8 figures and 1 formula.

Card 2/3

MILLIONSHCHIKOV, M.D.; GVERDTSITELI, I.G.; ABRAMOV, A.S.; GORLOV, L.V.;  
GUBANOV, Yu.D.; YEFREMOV, A.A.; ZHUKOV, V.F.; IVANOV, V.Ye.;  
KOVYRZIN, V.K.; KOPELOV, Ye.A.; KOSOVSKIY, V.G.; KUKHARKIN,  
N.Ye.; KUCHEROV, R.Ya.; LALYKIN, S.P.; MERKIN, V.I.; NECHAYEV,  
Yu.A.; POZDNYAKOV, B.S.; PONOMAREV-STEPNOY, N.N.; SAMARIN, Ye.N.;  
SEROV, V.Ya.; USOV, V.A.; FEDIN, V.G.; YAKOVLEV, V.V.; YAKUTOVICH,  
M.V.; KHODAKOV, V.A.; KOMPANIYETS, G.V.

High-temperature reactor-converter "Romashka." Atom. energ.  
17 no.5:329-335 N '64. (MIRA 17:12)



~~KHLOPKIN, N. S.~~

"Temperature-Field of Reactor Fuel Elements at Non-Uniform Heat Removal",

by V. A. Khodakov and N. S. Khlopkin.

Report Presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

KHODAKOV, V. F., Engr

USSR/Metals - Cutting

Aug 50

"Semiautomatic Machine for Cutting Circular Flanges," Engineers S. A. Gol'denberg,  
V. F. Khodakov

"Avtogen Delo" No 8, pp 20-22

Describes semiautomatic gas cutting machine for mass production of pipes in ship-  
building industry. Machine is designed to cut flanges of 50-600 mm diameter from  
steel 10 - 30 mm thick. One advantage is possibility of cutting flanges at very edge  
of metal sheet, bringing waste to minimum. Productivity is 25 pieces for 8 hours.  
Operation of four machines for 1½ years demonstrated dependability.

FDD

PA 167T71

KHODAKOV, V. F.

Moscow Inst of Water Economy Engineers imeni V. R. Vil'yams. Chair of  
Hydraulics. Moscow, 1956.

KHODAKOV, V. F.- "On the union of a turbulent stream with a calm one in expanding streams."  
Moscow Inst of Water Economy Engineers imeni V. R. Vil'yams. Chair of Hydraulics.  
Moscow, 1956.  
(Dissertation for the Degree of Candidate in Technical Sciences.)

SO: Knizhnaya Letopis' No. 13, 1956.

KHODAKOV, V.F., kand. tekhn. nauk

Union of turbulent and streams in suddenly enlarging channels.  
Nauch.zap. MIIVKH 20:198-214 '58. (MIRA 13:6)  
(Hydraulics)

KHODAKOV, V., kand.tekhn.nauk; SHUVALOV, M., inzh.

Useful textbook ("Practical hydraulics in fire prevention"  
by N.A.Tarasov-Agalakov. Reviewed by V.Khodakov,  
M.Shuvalov). Posh.delo 6 no.8:32 Ag '60.

(MIRA 13:8)

(Fire prevention) (Hydraulics)  
(Tarasov-Agalakov, N.A.)

KHODAKOV, V.G.; AVSYUK, G.A., otv. red.; OGANOVSKIY, P.N., red.

[The Arctic Ural] Poliarnyi Ural. Moskva. (Its Materialy  
gliatsiologicheskikh issledovani). [Snow cover] Snezhenyi  
pokrov. 1962. 129 p. (MIRA 16:2)

1. Akademiya nauk SSSR. Institut geografii.  
(Ural Mountains--Runoff)

KHODAKOV, V.G.; AVSYUK, G.A., *otv.-red.*; OGANOVSKIY, P.N., *red.*

[The Arctic Ural] Poliarnyi Ural. Moskva. (Its Materialy glaciologicheskikh issledovaniy). [Ablation. Runoff] Abliatsiia. Stok. 1962. 140 p. (MIRA 16:2)

1. Akademiya nauk SSSR. Institut geografii,  
(Ural Mountains--Glaciology)  
(Ural Mountains--Runoff)

KHODAKOV, V.G.

Possible error in the measurement of precipitation. Meteor. i  
gidrol. no.6:51-52 Je '64 (MIRA 17:8)



KHODAKOV, V.G.

Dependence of the total ablation of the surface of glaciers  
on the air temperature. Meteor. i gidrol. no.7:48-50 J1 '65.  
(MIRA 18:6)

1. Institut geografii AN SSSR.

1 45786-66 JT/JXT(BF)

ACC NR: AR6016024

SOURCE CODE: UR/0271/66/000/001/B030/B030

AUTHOR: Khodakov, V. Ye.

39  
B

TITLE: Use of an APM-1 typewriter in computer output devices

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 1B214

REF SOURCE: Avtomatika i priborostr. Inform. nauchno-tekhn. sb., no. 2(22), 1965, 31-33

TOPIC TAGS: digital computer, printer, automatic printer/APM-1 printer

ABSTRACT: The automatic APM-1 printer developed at the Scientific Research Institute of Control Computers (NII upravlyayushchikh VM) is described. Since its parameter printing is done line by line, data concerning each parameter are arranged in columns making it possible to rapidly analyze the course of the process. The printer operates according to the principle of "quick printing" (the type carrying wheel rotates at a constant speed). During printing, an electromagnet actuates the hammer when the selected sign passes underneath it. At the moment of printing, the paper tape stops and then advances on step. Because the typewriter contains 24 characters, a 5-digit binary code is required.

Card 1/2

UDC: 681.142.623

L 45786-66

ACC NR: AR6016024

The typewriter and digital computer are coupled by a circuit using ferrite-diode elements and transistorized amplifiers. The control circuit uses RMUG-type relays and telephone-type keys. The functional diagram of printing control and the electromechanical diagram of the control device are described. State tests of the experimental model of the typewriter and two years of test operation have demonstrated its high reliability. Orig. art. has: 2 illustrations. [Translation of abstract] [DW]

SUB CODE: 09/

Card 2/2 pb

I. 62253-65 EWT(d)/EED-2/EWP(1) IJP(c) BB/00

ACCESSION NR: AP5016087

UR/0302/65/000/002/0031/0033  
681.142.623

AUTHOR: Khodakov, V. Ye. <sup>44</sup>

TITLE: Using an APM-1 printer at the computer output <sup>1601 44</sup>

26  
B

SOURCE: Avtomatika i priborostroyeniye, no. 2, 1965, 31-33

TOPIC TAGS: computer printer, on the fly printer / APM-1 printer

ABSTRACT: The development and test results of the first Soviet on-the-fly printer APM-1 are reported. The high-speed line printer uses a continuously rotating print wheel carrying 24 characters; they are selected by a 5-digit binary code. Fast-acting hammers print the characters. The printer is connected to the computer via a control unit which comprises ferrite-diode logical elements and semiconductor amplifiers. Functional and principal circuits of the printer are presented and their operation is briefly explained. During the two-year operation of an APM-1 on-the-fly printer prototype, no failure of a major component occurred. Orig. art. has: 2 figures.

Card 1/2

L 62253-65

ACCESSION NR: AP5016087

ASSOCIATION: nons

SUBMITTED: 00

ENCL: 00

SUB CODE: DP, II

NO REF SOV: 000

OTHER: 000

*dm*  
Card 2/2

KSHEMINSKIY, E.I.; KHODAKOV, V.Ye.

Transducer for indicating angular positions of a shaft in  
automatic printing machines. Avtom. i prib. no.1:58-60

Ja-Mr '65.

(MIRA 18:8)

CHURANOV, S., prepedavatel'; KHODAKOV, Yu., prof.; CHERTKOV, I.,  
prepedavatel' khimii

Problems and experiments in chemistry. Nauka i zhizn' 30 no.4:  
98 Ap '63. (MIRA 16:7)

1. Moskovskiy gosudarstvennyy universitet (for Churanov).
2. Kafedra khimii Moskovskogo aviatsionnogo ordena Lenina instituta im. Serge Ordshonikidse (for Khodakov).
3. Nauchno-issledovatel'skiy institut obshchege i politekhnicheskogo obrazovaniya Akademii pedagogicheskikh nauk RSFSR (for Chertkov).  
(Chemistry—Problems, exercises, etc.)

MINACHEV, Kh.M.; KHODAKOV, Yu.S.

Kinetics of hydrogenation of the vinyl ether of  $\beta$ -(diethylamino) ethanol and vinyl phenyl ether on 1% Pd/Al O. Izv. AN SSSR Otd. khim. nauk no. 4: 722-724. Ap '61. (MIRA 14:4)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Ether) (Hydrogenation)



MINACHEV, Kh.M.; MARKOV, M.A.; KHODAKOV, Yu.S.

Effect of gamma rays on the catalytic activity of platinized  
aluminosilicate. Izv. AN SSSR. Otd.khim.nauk no.7:1227-1230  
Jl '61. (MIRA 14:7)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Aluminosilicates) (Catalysis) (Gamma rays)

MINACHEV, Kh.M.; KHODAKOV, Yu.S.

Effect of gamma rays on the activity of platinum-containing  
catalysts. Izv. AN SSSR. Otd.khim.nauk no.8:1430-1432 Ag  
'61. (MIRA 14:8)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
(Gamma rays) (Catalysis) (Platinum)

KHODAKOV, Yu.S.; MINACHEV, Kh.M.

Kinetic relations of hydrogen peroxide decomposition of  
γ-irradiated and nonirradiated lanthanum hydroxide. Zhur.  
fiz. khim. 37 no.11:2445-2450 N'63. (MIRA 17:2)

1. Institut organicheskoy khimii imeni Zelinskogo, AN SSSR.

I 49591-65  
CD/JS/RM

SWP(-)/DOP(-)/XWD(+)/EWP(+)/EWP(b) P0-II/Pr-4 TJP(c)

ACCESSION NR: AP5006775

S/0195/65/006/001/0084

AUTHOR: Minachev, Kh. M.; Khodakov, Yu. S.

TITLE: Study of the catalytic properties of the rare earth elements in the reaction of the transformation of normal butane 21

SOURCE: Kinetika i kataliz, v. 6, no. 1, 1965, 89-94

TOPIC TAGS: rare earth element, butane, transformation, lanthanum, cerium, praseodymium, neodymium, samarium, homium, erbium, dysprosium, ytterbium, terbium

ABSTRACT: Circulation-flow and static methods were used to investigate the catalytic properties of the oxides of lanthanum, cerium, praseodymium, neodymium, samarium, europium, dysprosium, ytterbium, thulium, and terbium in the transformation of normal butane at 400-500°. The catalytic properties of these oxides were also studied in the transformation of propylene, ethane, and ethylene. Prepared catalysts were heated in a muffle furnace at 650° for 3 hours. The tests were conducted both with a flow-circulation unit and a static unit (see figs. 1 and 2 of the Enclosure). The kinetics of the reaction in all cases were described by

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ACCESSION NR: AP5005775

an equation of the first order. Specific rates, preexponential factors, and energies of activation were determined for all the oxides studied. The effect of the concentration of oxygen on the catalytic properties of the earth oxide series. The authors express their gratitude to A. A. ... participating in the experimental work." Orig. art. has: 6 figures, 3 tables, 1 equation.

ASSOCIATION: Institut organicheskoy khimii imeni N. D. Zelinskogo AN SSSR  
(Institute of Organic Chemistry, AN SSSR)

SUBMITTED: 26Jul63

ENCL: 02

SUB CODE: II, OC

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OTHER: 005

Card 2/4

KHODAKOV, Yu.S.; MINACHEV, Kh.M.; STERLIGOV, O.D.

Kinetics of the catalytic dehydrogenation of butane to  
butylenes. Dokl. AN SSSR 165 no.2:344-346 N '65.

(MIRA 18:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.  
Submitted April 12, 1965.

KHODAKOV, Yu.V.; ZHURAVLEVA, T.M.; MIL'CHENKO, V.V.

Determination of chromate and dichromate simultaneously. Zav.lab.  
29 no.8:929 '63. (MIRA 16:9)

1. Moskovskiy aviatsionnyy institut imeni S.Ordzhonikidze.  
(Chromates) (Dichromates)

PROCESSES AND PROPERTIES INDEX

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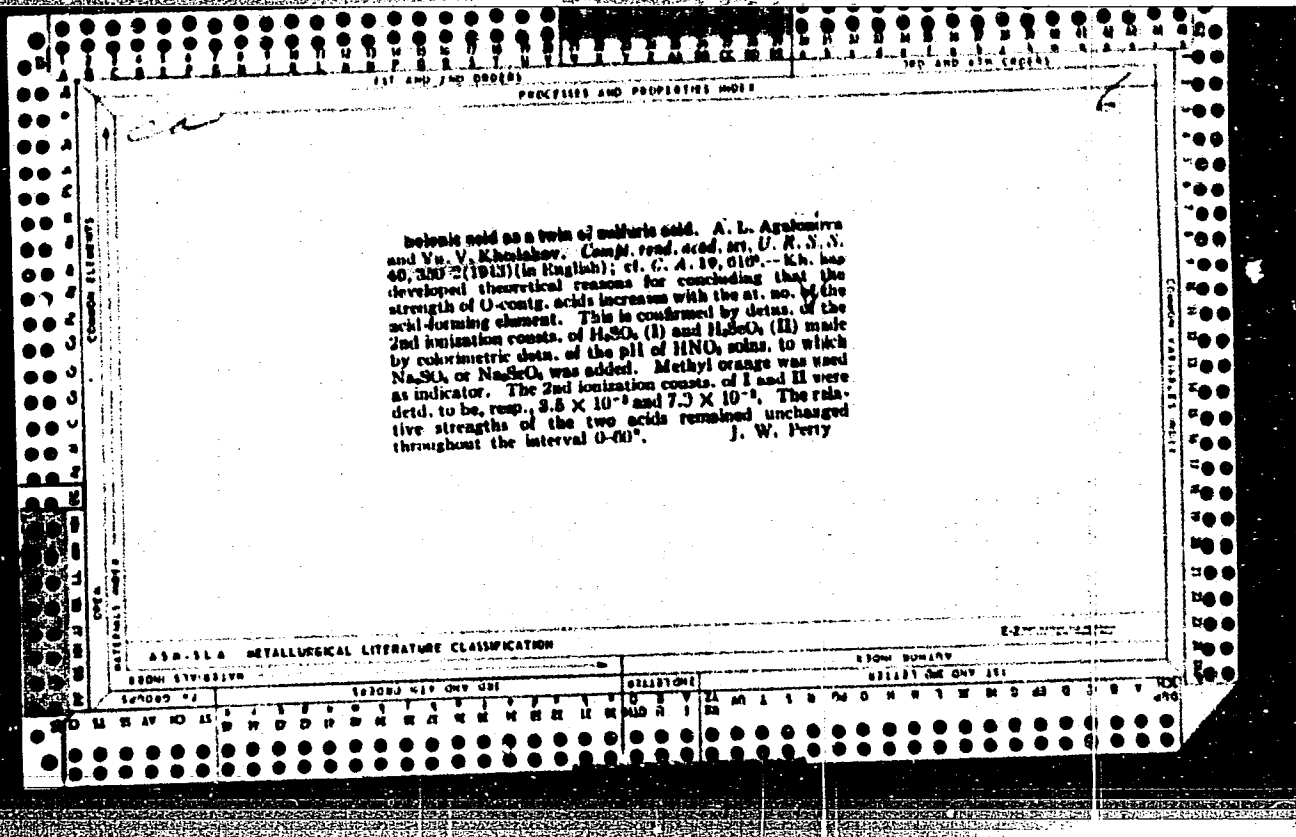
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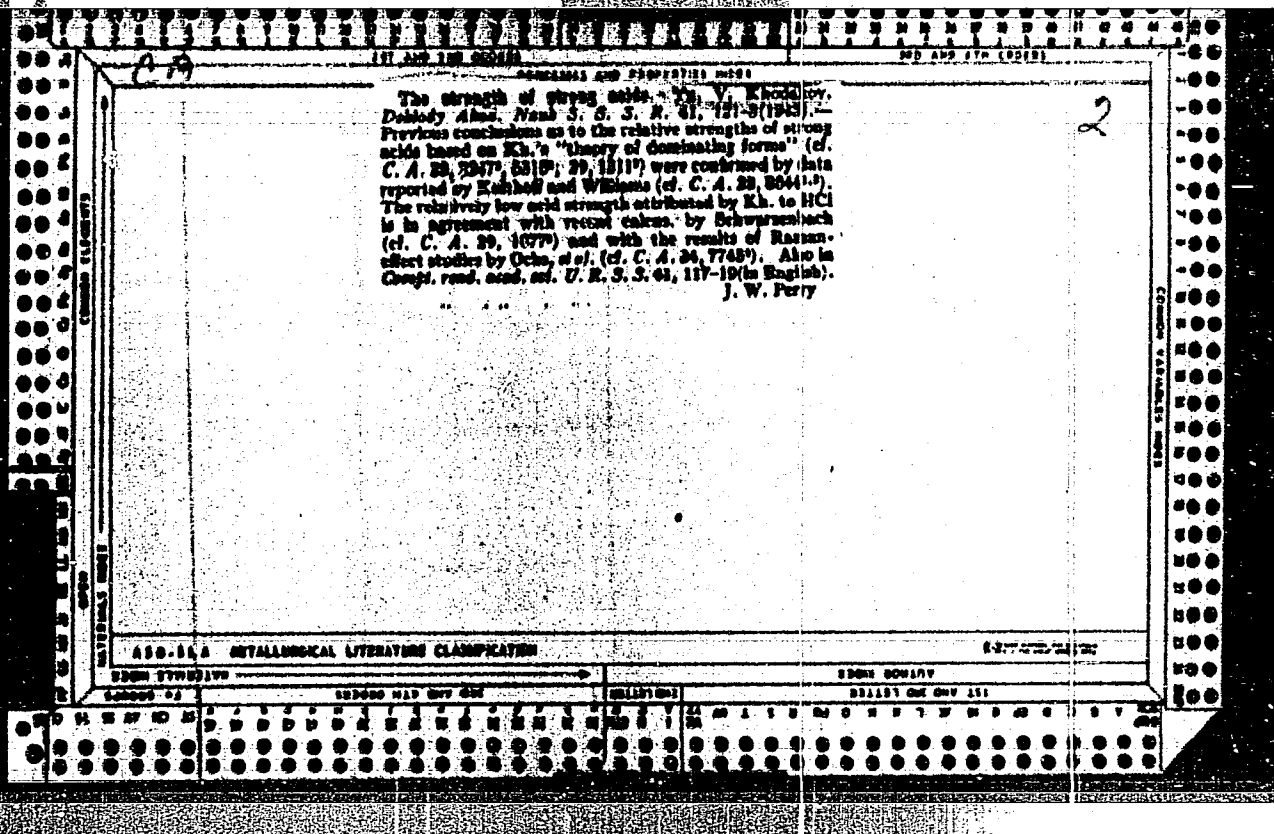
Theory of dominating forms. I. Chemical equilibria as electrostatic phenomena. Yu. V. Kholakov. J. Gen. Chem. (U. S. S. R.) 4, 329-AN(DK11). II. Theory of hydrides. 194. 350-71. H. C. A.

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PROCESSES AND PROPERTIES INDEX

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*Stereochemistry of anhydrides. Yu. V. Kholakov. Doklady Akad. Nauk S.S.S.R. 43, 212-15; Comp. Rend. Acad. Sci. U.R.S.S. 43, 203-8(1944)(in English).—The chem. properties of acid anhydrides can be correlated with their stereochem. structure, provided the latter is in accord with the 2 following principles: (1) Every high-valency atom with 4 coordination tends to form around itself a tetrahedron composed of O atoms. (2) These tetrahedrons avoid having faces or edges in common. In anhydrides, X<sub>2</sub>O<sub>4</sub> (X = Cl, S, P, Si), these conditions are fulfilled when all (SiO<sub>2</sub>) or part (3 with P<sub>2</sub>O<sub>5</sub>, 2 in SO<sub>2</sub>, and 1 in Cl<sub>2</sub>O<sub>7</sub>) of the 4 O atoms grouped around any one X atom also enter into the formation of tetrahedrons surrounding other X atoms. In the case of Cl<sub>2</sub>O<sub>7</sub>, only one type of simple, nonpolymeric mol., viz. O<sub>2</sub>ClOClO<sub>2</sub>, is possible. With SO<sub>2</sub>, polymers may form either rings (easily fusible, volatile α-SO<sub>2</sub>) or long, thread-like mol. (asbestos-like β-SO<sub>2</sub>). In the latter case, very small units of H<sub>2</sub>O probably sat. the valencies at the ends of the chains. This is in harmony with the catalytic action of traces of H<sub>2</sub>O in converting α-SO<sub>2</sub> into β-SO<sub>2</sub>. The most probable structure for P<sub>2</sub>O<sub>5</sub> is a dimer mol., P<sub>2</sub>O<sub>5</sub>, in the form of a tetrahedron built up by joining 4 tetrahedrons (each consisting of 1 P and 4 O atoms) at the vertices so that each tetrahedron is joined at 3 vertices with one vertex of each of the other 3 tetrahedrons. This formula explains the ease with which P<sub>2</sub>O<sub>5</sub> is oxidized to P<sub>2</sub>O<sub>6</sub> (cf. C.A. 38, 6231<sup>1</sup>) and the obscure complexities involved in the stepwise reaction of P<sub>2</sub>O<sub>5</sub> with H<sub>2</sub>O. J. W. Perry*

METALLURGICAL LITERATURE CLASSIFICATION

FROM SYMBOL

FROM SYMBOL	GROUPS MAY ONLY USE	EXISTENCE	REACTS OR ONLY ALL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100