

*Kukorekina, E. A.*

USSR/Forestry - Forest Culture.

J-4

Abs Jour : Referat Zhur - Biologiya, No 16, 25 Aug 1957, 69133

Author : Leontev, A.A., Stepanov, A.M., Naborak, A.N., Koksharova, N.E., Kukorekina, E.A.

Inst :

Title : Most Effective Methods of Bind and Afforesting Shifting Sands.

Orig Pub : Byul. nauchn.-tekhn. inform. Sreineaz. n.-i. In-ta lesn. kh-va, 1955, No 1, 6-16

Abstract : Based on experiments conducted on sands of Turkmen and Uzbek SSR, recommendations are suggested on rationalization of sand consolidation measures. Instead of mechanical protection with plantings of shoots and seedlings, especially in districts with comparatively light winds, the use of a lightened spread of mechanical protection is recommended: yantak, reed, mace and wormwood in conjunction with combined sowings and plantings. In furrowed

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USSR/Forestry - Forest Culture.

J-4

Abs Jour : Referat Zhur - Biologiya, No 16, 25 Aug 1957, 69133

grooves a mechanized sowing of haloxylon is suggested without mechanical protection. Data are given on protective construction, agrotechnique of cultivations and assortment of species.

Card 2/2

- 58 -

L 454 8-66

ACC NR: AT6033346

SOURCE CCDE: HU/2505/65/026/01-/0047/0051

AUTHOR: Adam, G.; Kukorelli, T.

21

B+

ORG: Institute of Physiology, Medical University of Budapest (Budapesti Orvostudományi Egyetem, Elettani Intézet)

TITLE: Conditioned evoked potential, a model experiment of learning [Paper presented at the symposium of the Hungarian Physiological Society held in Budapest from 2-3 July 1963]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, no. 1-2, 1965, 47-51

TOPIC TAGS: cat, neurophysiology, electrophysiology

ABSTRACT: As a response to a combination of various somatic and visceral stimuli, conditioned evoked potentials have been obtained in unanesthetized, curarized cats. Conclusions have been drawn as to certain elementary laws of the learning process from the character of the changes in the evoked responses. In the absence of reinforcement by a second stimulus, the conditioned evoked response showed a regular extinction curve; this inhibition could be suspended by the introduction of a new stimulus, i.e. a disinhibition has been brought about. The conditioned evoked response appeared in the cortical representation areas of both afferent nerves involved in the training. Orig. art. has: 3 figures. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBM DATE: none / OTH REF: 004

Card 1/1 fv

0920 1367

L 45468-66

ACC NR: AT6033355

SOURCE CODE: HU/2505/65/026/01-/0143/0148

AUTHOR: Meszaros, I.; Kukorelli, T.

19

ORG: Institute of Physiology, Medical University of Budapest (Budapesti Orvostudományi Egyetem, Elettani Intézet)

B4

TITLE: Reticular control of splanchnic afferentation [Paper presented at the symposium of the Hungarian Physiological Society held in Budapest from 2-3 July 1963]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, no. 1-2, 1965, 143-148

TOPIC TAGS: cerebral cortex, cat, neurophysiology

ABSTRACT: The effect of stimulation of the reticular formation for various lengths of time on the cerebral cortical evoked potentials of splanchnic and sciatic origin has been investigated on 37 unanesthetized cats paralyzed with gallamine triethiodide. On increasing the non-specific stimulation, the evoked potentials of splanchnic origin were found to be gradually blocked after an initial increase, whereas the sciatic nerve responses were increasingly facilitated. Orig. art. has: 4 figures. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 001 / SOV REF: 003  
OTH REF: 013

Card 1/1 fv

0920 1377

MFSZAROS, I.; KUKORHELLI, T.

Reticular control of splanchnic afferentation. Acta physiol.  
acad. sci. Hung. 26 no.1:143-148 '65

1. Institute of Physiology, University Medical School,  
Budapest.

~~L 15455-66~~

ACC NR: AT6007374

SOURCE CODE: HU/2505/65/026/00X/0008/0009

AUTHOR: Pasztor, E.; Kukorelli, T.

B+1 35

ORG: State Institute of Neurosurgery, Budapest (Allami Idegsebészeti Intézet);  
Institute of Physiology, Medical University of Budapest (Budapesti Orvostudományi  
Egyetem, Elettani Intézet)

TITLE: Changes in the evoked potentials due to superficial cooling of the brain  
[This paper was presented at the 29th Meeting of the Hungarian Physiological  
Society held in Szeged from 2 to 4 July 1964.]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement,  
1965, 8-9

TOPIC TAGS: neurophysiology, cerebral cortex, thermocouple, heat biologic effect

ABSTRACT: Evoked potentials were recorded from the primary and secondary sensory projection cortical areas in response to electrical stimulation of the sciatic or splanchnic nerve. The area from which the recordings were made was cooled superficially with a chilled fluid. Cerebral temperature to a depth of 2-3 mm was measured with a thermocouple. Reduction of the temperature in the deeper layers of the cortex by a few degrees caused a significant temporary increase in the amplitude of the evoked potentials. Following this excitation, the evoked potentials gradually  
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ACC NR: AT6007374

diminished then disappeared even without further reduction of the temperature, and often even when the temperature increased. They reappeared a few minutes later and the potentials could be evoked again with the original amplitude after 8-10 minutes. This indicates that even rapid cooling by a few degrees initiates a metabolic process which leads to a temporary disappearance of the evoked potentials without the need of induction of the lower temperatures reported in the literature. [JPRS]

SUB CODE: 06 / SUBM DATE: none

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Card 2/2

L 15519-66

ACC NR: AT6007376

SOURCE CODE: HU/2505/65/026/00X/0009/COLO

AUTHOR: Meszaros, I.; Kukorelli, T.

ORG: Institute of Physiology, Medical University of Budapest (Budapesti Orvostudományi Egyetem, Elettani Intézet)

31  
B+1

TITLE: New data relating to reticular control of cerebral cortical evoked potentials [This paper was presented at the 29th Meeting of the Hungarian Physiological Society held in Szeged from 2 to 4 July 1964.]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement, 1965, 9-10

TOPIC TAGS: brain, cat, cerebral cortex, drug effect, tranquilizer, neurophysiology, pharmacology

ABSTRACT:

It was previously shown in acute experiments on cats that stimulation of the brain stem reticular formation for varied lengths of time evoked different changes in the configuration of the cerebral cortical responses to the stimulation of the sciatic and splanchnic nerves. In the present study an attempt was made to determine how these changes in configuration would be modified by blocking the activity of the brain stem reticular formation with chlorpromazine. It was shown that, in response to

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ACC NR: AT6007376

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the i.v. administration of 5 mg/kg chlorpromazine, the amplitude of both phases of the cerebral cortical evoked potentials decreased. At the same time, the changes in amplitude in response to stimulation of the reticular formation for different lengths of time were the same in character and degree as without chlorpromazine. This confirms the assumption that the impulses to the reticular formation are eliminated by chlorpromazine while the diffuse system of the brain stem remains capable of functioning under the effect of the drug. The decrease in amplitude of the evoked potentials is presumably due to a diminution in reticular formation activity. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 2/3

ADAM, G.; KUKORELI, T.

Conditioned evoked potential, a model experiment of learning.  
Acta physiol. acad. sci. Hung. 26 no.1:47-51 '65

1. Institute of Physiology, University Medical School, Budapest.

BAKHAREVSKY, V.A., Inzh.; KUKOS, V.F., Inzh.

Mechanization of the chain feed in a rotary kiln. TSement 31 no.2:  
28 Mr-Apr '65. (MIRA 18:8)

1. Predpriyatiye "TSement" Moskovskogo soveta narodnogo khozyaystva.

BLOKHIN, V.N.; GRIGOR'YEV, M.G.; KOZHEVNIKOV, A.I.; KOROLEV, B.A.; MATYUSHIN,  
I.F.; PARIN, B.V.; TSIMKHES, I.L.; KALININA, G.V.; FEDOROV, A.M.;  
KOLOKOL'TSEV, M.V.; SOKOLOV, V.V.; PRILUCHNAYA, O.A.; SHUMILKINA,  
Ye.I.; ABRAMOV, Yu.G.; RYURIKOV, A.Kh.; IKONNIKOV, P.I.; VOZNESENSKIY,  
I.Ya.; TEPLOV, S.V.; MIZINOV, N.N.; KUKOSH, V.I.

V.M.Durmashkin; obituary. Ortop., travm. i protez. 21 no.8:81 Ag  
'60. (MIRA 13:11)

(DURMASHKIN, VIKTOR MARKOVICH, d. 1960)

KUKOSH, V.I., dots.; DYNNIK, I.B., assistant

X-ray and bronchographic diagnosis of bronchopleural fistula after pneumonectomy for pulmonary suppurations. Khirurgiia 34 no.3:106-109 Mr '58. (MIRA 12:1)

1. Iz kliniki gosspital'noy khirurgii (sav. - prof. B.A. Korolev) Gor'kovskogo gosudarstvennogo meditsinskogo instituta im. S.M. Kirova (dir.-dots. N.N. Mizinov).

(PNEUMONECTOMY, in various dis.  
nonspecific lung suppurations, postop. bronchopleural  
fistula, x-ray diag. (Rus))

KUKOSH, V.I., dots.

Surgical treatment of extensive scalp avulsions. Khirurgia, Moskva  
34 no.11:128-130 N '53. (MIRA 12:1)

1. Iz gospi'tal'noy khiro'rgicheskoy kliniki (zav. - prof. B.A. Korolev)  
Gor'kovskogo meditsinskogo instituta imeni S.M. Kirova (dir. - dots.  
N. N. Mizinov).

(HEAD, wds. & inj.

scalp avulsion, extensive, surg. (Rus))

KUKOSH, V.I., DYNNIK, I.B. (Gor'kiy)

Role of angiopneumocardiography in studying sequelae of pneumonectomy.  
Eksper.khir. 3 no.4:60 JI-Ag '58 (MIRA 11:9)

(LUNGS—SURGERY)  
(ANGIOCARDIOGRAPHY)

KUKOSH, V.I., dotsent

Knife for intersection of the bronchus. Kaz.med.zhur. 40 no. 4:  
103-104 JI-Ag '59. (MIRA 13:2)

1. Iz kliniki gosspital'noy khirurgii (zaveduyushchiy - prof. B.A.  
Koroley) Gor'kovskogo meditsinskogo instituta im S.M. Kirova.  
(SURGICAL INSTRUMENTS AND APPARATUS)



KUKOSH, V.I. (Gor'kiy, ul. Kovalikhinskaya, d.4, kv.6)

Some problems affecting rehabilitation and expert evidence in  
the case of pneumonectomy for pulmonary suppuration. Grud.khir.  
2 no.2:76-79 Mr-Apr'60. (MIRA 16:7)

1. Iz kliniki gospital'noy khirurgii (zav.-prof. B.A.Korolev)  
Gor'kovskogo meditsinskogo instituta (dir.-dotsent N.N.Mizinov)  
(DISABLED—REHABILITATION, ETC.)  
(LUNGS—SURGERY)

KUKOSH, V. I., Doc Med Sci - "Pneumonectomy in the presence  
of chronic suppurat<sup>ive</sup> processes in the light of <sup>remote</sup> advanced  
results and work <sup>fitness</sup> capacity." Gor'kiy, 1961. (Acad Med Sci  
USSR) (KL, 8-61, 257)

- 414 -

KOROLOV, B.A.; KUKOSH, V.I.

Experience in using suturing apparatus in chest surgery. Trudy  
NIIKHAI no.5:19-22 '61. (MIRA 15:8)

1. Iz kliniki gospital'noy khirurgii Gor'kovskogo meditsinskogo  
institute im. S.M.Kirova.  
(CHEST--SURGERY) (SUTURES)

KUKOSH, Valentin Ivanovich, prof.; KOROLEV, B.A., prof., zasl. deyatel'  
nauki, nauchn. red.; GARANINA, L.F., red.

[Pneumectomy in chronic suppurative diseases of the lungs]  
Pnevmonektomiia pri khronicheskikh nagnoitel'nykh zaboieva-  
niakh legkikh. Gor'kii, Volgo-Viatskoe knizhnoe izd-vo,  
1964. 482 p. (MIRA 17:8)

1. Chlen-korrespondent AMN BSSR (for Korolev).

KUKOSH, V.I.; CHERNYAVSKIY, A.A.; MIKHAYLOVA, T.N.

Results of repeated surgery in gastric cancer. Vop onk. 10  
no.8:94-99 '64. (MIRA 18:3)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. V.I.Kukosh)  
Gor'kovskogo meditsinskogo instituta imeni Kirova (rektor - dotsent  
I.F.Matyushin). Adres avtorov: Gor'kiy, 6, ul. Kovalikhinskaya, d.4,  
kv.6.

KUKOSH, V.I., prof.; GIBBINKOVSKIY, A.A., docent; BASHKIN, V.M., khar.  
med. nauk

Cancer of the gastric stump following resection of the stomach  
for peptic ulcer and its surgical treatment. Khirurgiya 40 no.8:  
3-8 Ag '64. (MIRA 18:3)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. V.I. Kukosh)  
Gor'kovskogo meditsinskogo instituta imeni Kirova.

KUKOTA, A., inzhener-pilot

Landing approach with a turn for a given angle. Grazhd. av. 20  
no.3:8 Mr '63. (MIRA 16:4)

(Airplanes--Landing)

SLEPTSOV, V.M.; PRSHEDROMIRSKAYA, Ye.M.; KUKOTA, Yu.P.

Porous materials of transition metal carbides and borides.  
Porosh. met. 5 No.10:85-90 O '65. (MIRA 18:11)

1. Institut problem materialovedeniya AN UkrSSR.



ACC NR: AP7004393

(N)

SOURCE CODE: UR/0226/67/000/001/0027/0030

AUTHOR: Prshedromirskaya, Ye. M.; Sleptsov, V. M.; Vitryanyuk, V. K.; Kukota, Yu. P.

ORG: Institute of Problems of the Science of Materials, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)

TITLE: Investigation of the penetrability of porous materials from refractory compounds

SOURCE: Poroshkovaya metallurgiya, no. 1, 1967, 27-30

TOPIC TAGS: refractory compound, spheric METAL POWDER, POWDER METAL SINTERING,  
~~porous material, material penetrability, POROSITY, GAS ABSORPTION,~~  
TITANIUM CARBIDE, TUNGSTEN CARBIDE, ZIRCONIUM CARBIDE

ABSTRACT: The effect of the granulometric composition on the gas penetrability of porous TiC, WC, ZrC, TiB<sub>2</sub> and ZrB<sub>2</sub> parts sintered from spheroidized powders has been investigated in the range of air delivery and pressure drop, which ensured a linear filtration. The particle size was found to affect significantly the gas penetrability of sintered porous materials. For example, increasing particle size from 60 to 600  $\mu$  increased the penetrability of sintered parts with the same porosity by 5-10 times. In powders of comparable particle size, those with a higher porosity have a higher gas penetrability. The kind of material had a negligible effect on the gas penetrability of sintered parts. The dependence of the penetrability coefficient (K) on the porosity (P) and particle diameter (D) is approximated by the formula:

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UDC: none

ACC NR: AP7004393

$$K = \frac{D^2 + 0.06}{4.4 + 0.072P} \cdot 10^{-11}.$$

The formula is satisfactory for porous materials with a porosity of 25—55% sintered from spheroidized TiC, WC, Zr, TiB<sub>2</sub> and ZrB<sub>2</sub>. For processes associated with mass transfer, in addition to knowledge of the total porosity of a material, it is necessary to know the amount and distribution of open pores. The distribution of pores according to dimensions was investigated at a laboratory of the Institute of Electrochemistry under the direction of Dr. of Chemical Sciences R. Kh. Burshteyr. The radii of pores in the 100—7 μ range were measured using a vacuum unit at a pressure of 40—700 mm Hg, and in the 7—0.01 μ range at a pressure of 1—801 atu. The test specimens were prepared from spheroidized WC particles. The obtained results were practically identical with those obtained by hydrostatic weighing. The plotted integral and differential curves for the pores' distribution according to dimensions showed that the structure of porous materials from spheroidized powders of refractory metals is sufficiently homogeneous, and that the pore dimensions are determined mainly by the dimensions of the initial particles and the packing method. Orig. art. has: 4 figures and 1 table.

[MS]

SUB CODE: 11/ SUBM DATE: 26May66/ ORIG REF: 008/ ATD PRESS: 5116

Card 2/2

L 45664-66 EWT(G)/EWP(e)/EWT(m)/EWP(t)/I/EWP(t)/ETI/EWP(R)/EWP(h)/EWP(I)

ACC NR: AP6009573 (A)

SOURCE CODE: UR/0226/65/000/011/0032/0040

IJP(e) JB/WI/JG/AT/WB

AUTHOR: Kukota, Yu. P.; Prshedromirskaya, Ye. M.; Sleptsov, V. M.

80  
66  
B

ORG: Institute for the Study of Materials, AN UkrSSR (Institut problem materialovedeniya AN UkrSSR); Institute of Heat Physics Engineering, AN UkrSSR (Institut tekhnicheskoy teplofiziki AN UkrSSR)

TITLE: Gas permeability of porous materials made of refractory compounds

SOURCE: Poroshkovaya metallurgiya, no. 11, 1965, 32-40

TOPIC TAGS: stainless steel, reductor, gas permeability, permeability measurement, powder metallurgy, refractory compound, boride, carbide / Kh23N18 stainless steel, RS-250-58 reductor

ABSTRACT: In connection with the development of the porous cooling method, based on the blowing of gas through a porous wall to protect the wall against contact with the principal flow of hot gas and to reduce heat transfer and friction, and since the design and calculation of porous cooling systems require knowledge of hydraulic characteristics of the porous material, the authors describe an experimental investigation of the hydraulic characteristics of pressed spe-

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ACC NR: AP6009573

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specimens of the borides (Ti, Cr) B<sub>2</sub> and ZrB<sub>2</sub> and carbides WC, TiC, prepared from granulated powders (two mesh sizes: 50-75 and 75-100 μ), performed with the aid of the experimental setup shown in Fig. 1. The setup consists of a series of compressed-air cylinders 1, RS-250-58

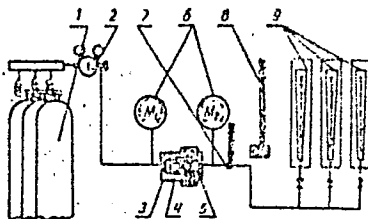


Fig. 1. Diagram of setup for investigating the permeability of porous materials:

- 1 - array of compressed-air cylinders; 2 - reducer; 3 - test specimen;
- 4 - rubber collar; 5 - cone-shaped steel yoke; 6 - standard MZM manometers;
- 7 - mercury thermometer; 8 - barometer; 9 - battery of RS-7, RS-5, RS-3 rotameters

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ACC NR: AP6009573

reductor 2, clamp 4, 5 for gripping the tested specimen 3, and measuring instruments 6-9. Compressed air is blown through the specimen and gas permeability of the specimen is measured as a function of the pressure gradient. It is found that TiC and ZrB<sub>2</sub> display a gas permeability that is inferior to that of WC and (Ti, Cr) B<sub>2</sub>. The best permeability was displayed by the specimens of specially prepared porous stainless steel Kh23N18 that were investigated for comparison. It is shown that the experimental findings are in good agreement with theoretical formulas. Further, these findings indicate the presence of deviations from Darcy's law of linear dependence; hence, hydraulic characteristics cannot be expressed by the permeability coefficient alone; allowance must be also made for the coefficients of viscosity and inertial resistance (as a function of porosity of the material). Orig. art. has: 16 formulas, 1 table, 7 figures.

SUB CODE: 11, 20, 13/ SUBM DATE: 06Jan65/ ORIG REF: 008/ OTH REF: 002

Card 3/3 esk

KUKOTA, Yu.P.; PRSHEDROMIRSKAYA, Ye.M.; SLEPTSOV, V.M.

Permeability to gas of porous materials made of high-melting  
compounds. Report No.3. Porosh.met. 5 no.11:32-40 N '65.  
(MIRA 18:12)

1. Institut problem materialovedeniya AN UkrSSR i Institut  
tekhnicheskoy teplofiziki AN UkrSSR. Submitted January 6, 1965.

L 24130-66 EWP(e)/EWT(m)/T/EWP(t) LJP(c) JD/JG/WH

ACC NR: AP6011350

SOURCE CODE: UR/0226/66/000/003/0084/0087

AUTHOR: Prshedromirskaya, Ye. M.; Kukota, Yu. P.; Sleptsov, V. M.

ORG: Institute for Problems of Materials Science, Academy of Sciences UkrSSR (Institut problem materialovedeniya AN USSR); Institute of Technical Thermophysics, Academy of Sciences UkrSSR (Institut tekhnicheskoy teplofiziki, AN USSR)

TITLE: Strength characteristics of porous materials made of refractory compounds

SOURCE: Poroshkovaya metallurgiya, no. 3, 1966, 84-87

TOPIC TAGS: titanium carbide, titanium boride, compressive strength, bending strength, sintering, porous material

ABSTRACT: The purpose of this work was to investigate the limits of compressive strength and bending of some porous refractory compounds. The samples for compression tests were prepared in the form of cylinders measuring 8 mm in diameter and 12 mm in height, while the samples for bend tests were parallelepipeds, measuring 7 x 7 x 7 mm. TiC, VC, Cr<sub>3</sub>C<sub>2</sub>, ZrC, TiB<sub>2</sub>, and ZrB<sub>2</sub> powders were used as initial materials. The compression and bend tests were conducted to rupture on a TsD-4 hydraulic press. The test data obtained show good correlation with the Ryshevich curve, which can be approximated by an

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L 24130-66

ACC NR: AP6011350

equation as  $\sigma = \sigma_0 e^{-BP}$ , where  $\sigma$  is the compression strength of a porous material,  $\sigma_0$  is the compression strength of a nonporous material,  $P$  is the porosity expressed in fractions,  $B$  is the numerical coefficient; usually  $B = 7$  for experimental data for the majority of porous materials (Ye. Ryshkevich. Compression strength of porous sintered alumina and zirconia, J. Amer. Ceram. Soc., 36, 65, 1953). The dependence of relative strength on porosity during compression for titanium, chromium, and tungsten carbides as well as titanium and zirconium borides of the 75 -- ~~80~~ fraction can be expressed by the formula  $\frac{\sigma}{\sigma_0} = e^{-7P}$ . There is no corresponding formula for bending tests. The relationship between the strength characteristics of the specimen and the granulometric composition of the initial powders has been established. It has been found that activated sintering of porous parts increases the strength of the parts while the porosity remains the same. Orig. art. has: 2 figures and 2 tables. [AM]

SUB CODE: 11/ SUBM DATE: 06Oct65/ ORIG REF: 005/ OTH REF: 002/

Card 2/2 /H



L 1304-66 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EWP(i)/EIC/EPF(d)-2/EKG(m)/EIP(v)/EWP(t)/  
EPA(w)-2/EWP(j)/I/EWP(k)/EWP(z)/EWP(b) IJP(c)  
ACCESSION NR: AP5022540 DS/JD/WH/JG/AT/RM/ UR/0226/65/000/009/0011/0018

89  
80  
B

AUTHOR: Sleptsov, V. M.; Frshedromirskaya, Ye. M.; Kukota, Yu. P.  
44,55 44,55 44,55

TITLE: Production and properties of the spheric powders of refractory compounds

SOURCE: Poroshkovaya metallurgiya, no. 9, 1965, 11-18

TOPIC TAGS: spheroidization, refractory compound, spheric metal powder, powder metal sintering, fuel cell, plasma jet  
44,53,14

ABSTRACT: Porous cermet<sup>6</sup>s made of spheric powders are used in the fabrication of electrodes and diaphragms for chemical industry as well as catalysts and catalyst carriers. They have made it possible to develop effective models of devices for direct conversion of heat to electrical energy ("fuel cells") and recently studies of the use of porous tungsten<sup>7</sup> for the ionization of alkali metals in the ion engines of space rockets have appeared. In this connection the authors describe the techniques and means of obtaining spherical particles of certain refractory materials as well as the properties of the obtained powders. Spheric powders can be prepared by granulating fine-disperse powders with a binder (solution of polyvinyl alcohol or synthetic rubber in gasoline, in which the fine-

L 1304-66

ACCESSION NR: AP5022540

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disperse powder of refractory compounds is stirred until it acquires a creamy consistency). The granulation itself is performed by means of techniques used in the production of hard alloys (pelletization via a mesh), and it is followed by sintering of the granules. In some cases where fusion of particles of refractory metals and their compounds is required, sintering may be replaced with fusion in a plasma jet. The bulk weight and shake-down weight of the spheric particles of the carbides<sup>1)</sup> and borides<sup>2)</sup> of high-melting metals are low. Flowage of spheroidized carbide powders is much higher than in the analogous boride powders; the flowage of CrB is particularly low. The state of the surface (unit surface area) is roughly the same in both borides and carbides. A determination of the density of sintered spheric powders of refractory compounds showed that, following the sintering of the particles, their residual porosity is approximately 8-18%. The least porosity (2-3%) is displayed by granulated and sintered particles of Cr<sub>3</sub>C<sub>2</sub>. Orig. art. has: 6 figures, 5 tables.

ASSOCIATION: Institut problem materialovedeniya AN USSR (Institute for the Study of Materials AN UkrSSR)<sup>445</sup>; Institut tekhnicheskoy teplofiziki AN USSR (Institute of Technical Heat Physics AN UkrSSR)<sup>445</sup>

Card 2/3

L 1304-66

ACCESSION NR: AP5022540

SUBMITTED: 03Feb65

ENCL: 00

SUB CODE: MM

NO REF SOV: 011

OTHER: 002

Card

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3/3

L 7060-66 EWP(e)/EWT(m)/EPP(c)/EWP(i)/ETC/EMG(m)/EWP(t)/EWF(k)/EWP(z)/EWP(b)  
 ACC NR: AP5026277 IJP(c) JD/WH/JG/AT/WH SOURCE CODE: UR/0226/65/000/010/0385/0090

AUTHOR: Sleptsov, V. M.; Prshedromirskaya, Ye. M.; Kukota, Yu. P.  
 44,55 83  
 44,55 82

ORG: Institute of the Problems of the Science of Materials, AN Ukr-SSR (Institut  
 problem materialovedeniya AN UkrSSR) 44,55 23

TITLE: Porous materials from carbides and borides of transition metals

SOURCE: Poroshkovaya metallurgiya, no. 10, 1965, 85-90

TOPIC TAGS: refractory compound, refractory compound filter, filter, powder metal-  
 lurgy, refractory metal carbide, refractory metal boride, carbide powder, boride  
 powder, sintered metal porosity, sintered metal permeability 44,55

ABSTRACT: The methods of manufacturing porous materials from spherical powders of  
 refractory compounds  $\text{Cr}_3\text{C}_2$ ,  $(\text{TiCr})\text{B}_2$ ,  $\text{ZrB}_2$ , and  $\text{TiC}$  and some properties of sintered  
 materials are described. To obtain materials with a maximum porosity and permea-  
 bility, spherical powders activated in a solution of cobalt or nickel chloride were  
 loosely poured into graphite molds and sintered for 30-240 min at a temperature of  
 $0.7-0.95 T_{\text{mel}}$  of the respective compounds. The porosity and strength characteristics  
 of sintered materials depended substantially on the sintering temperature. Materials  
 and parts with a given porosity can be made expeditiously by compacting powders at a  
 pressure of  $25 \cdot 10^5 - 15 \cdot 10^7 \text{ n/m}^2$  and sintering at optimum temperatures. The final  
 porosity of sintered materials varied from 26.4 to 48.6% and more and strongly de-

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L 7060-66

ACC NR: AP5026277

pended on the compacting pressure, sintering temperature, powder grain size, and compounds used. The optimum temperature and duration of sintering parts with a maximum porosity and satisfactory strength were 1400C for 60 min for  $Cr_3C_2$  powder, 2000C for 30 min for  $(TiCr)_B_2$  and  $ZrB_2$  powders, and 2300C for 60 min for TiC powder. Permeability tests conducted with nitrogen at temperatures up to 1100C showed that the permeability of sintered materials decreased with increasing thickness of the specimens and, particularly, with increasing temperature. Orig. art. has: 6 figures and 1 table.

[MS]

SUB CODE: 11, 13/ SUBM DATE: 12Mar65/ ORIG REF: 006/ OTH REF: 001/ ATD PRESS:

4144

OC  
Card 2/2

KUKOTENKO, V.S., gornyy inzhener

Method of dismounting boring bars with a conic coupler. Gor.zhur. no.2:  
64 F'55. (Boring machinery) (MLRA 8:7)

KUKOV, A.; KOSEVA, N.

Improving the quality of cast porcelain and sanitary faience material. p. 24.  
LEKA PROMISHLENOST. Vol. 5, no. 7, 1957.  
Sofia, Bulgaria .

SOURCE: East European Accessions List, (EEAL) Library of  
Congress, Vol. 6, No. 1, January 1957

1. KUKOV, A. S.

2. USSR (600)

4. Flax

7. Work practice with the LK-7 flax combine. Dost. sel'khoz. no. 6, 1952.

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



KUKOV, S.

Research on kaolin from the Stakhanov (Bozhidarski) mine and  
gray clay from Pleven. p. 19 LEKA PROMISHLENOST. (Ministerstvo  
na lekata i khranitelnata promishlenost) Sofia. Vol. 5, No. 4,  
1956.

Source: EEAL LC Vol. 5, No. 11, Nov. 1956

STOJKOVIC, Ivo, prof., dipl. inz.; KUKOVEC, Helena, dipl. inz.

Concentrations of anionic surface-active substances in solutions. Tekstil Zagreb 13 no. 2: 69-78 F '64.

1. Head, Department of Textile Technology, Faculty of Natural Sciences and Technology, Univeristy of Ljubljana (for Stojkovic).



KUKOVEROV, A. V.

Kukoverov, A. V. - "The importance of the sternum in diagnostics of malaria,"  
Sbornik trudov (Voen.-med. akad. in. Kirova), Vol. XLIII, 1949, p. 112-18, - Bibliog:  
13 items.

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949.)

LOVRECEK, Ivan, prof., ing.; KUKOVICA, Mirjana, ing.

Drying of peat under pressure. Kem ind 10 no.11:391-399 N '61.

1. Zavod za anorgansku kemijsku tehnologiju, Kemijsko-tehnoloski  
odjel, Tehnoloski fakultet Sveucilista u Zagrebu.

BELASH, F.N., doktor tekhn. nauk, prof.; PUGINA, O.V., starshiy  
nauchnyy sotrudnik; Prinsipali uchastiye: YAKOVLEVA, V.F.,  
laborant; KUKOVITSKAYA, S.G., laborant

Flotation of magnetic separation tailings of ferruginous  
quartzites from the Krivoy Rog Southern Mining and Ore  
Dressing Combine. Sbor. nauch. trud. KGRI no.13:176-187 '62.  
(MIRA 16:8)

(Flotation) (Krivoy Rog Basin---Iron ores)

L 35426-05 ENT(m)/EPF(c)/EWG(m)/EWP(J)/T PC-4/PT-4 KKH/D.Y/RM  
ACCESSION NR: AP5006658 S/0065/65/000/003/0016/0019 7  
23B

AUTHOR: Kukovitskiy, M.M.; Isagulyants, V.I.

TITLE: New method of producing synthetic oils, using KU-2 cation exchanger as the catalyst

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 3, 1965, 16-19

TOPIC TAGS: synthetic oil, carboxylic acid, monocarboxylic acid, divinyl benzene, sulfited styrene copolymer, benzene, acetone, ethyl ether, acidity, esterification, pentaerythritol/KU-2 cation exchanger, AV-17 anion exchanger

ABSTRACT: Considering that the current techniques for producing synthetic oils from complex esters of carboxylic acids in the USSR are extremely laborious and imperfect, the authors show how they can be improved. KU-2 cation-exchange resins of the type of sulfited copolymer of styrene and divinyl benzene are satisfactory catalysts, particularly where the esterification reaction is concerned. Therefore, the authors investigated experimentally the catalyzing effect of these cation exchangers on the esterification of pentaerythritol by monocarboxylic acids. A series of experiments, each lasting 2.5 hours, was performed

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L 35426-65

ACCESSION NR: AP5006658

using different amounts of catalyst. After each experiment the cation exchanger was rinsed, dried with a solvent (benzene, acetone, ethyl ether) and recharged into the flask. It was established that on using these solvents the cation exchanger may be used again and again (4-6 times without regeneration, 18-20 times with regeneration). Further it was found that on using the KU-2 it is possible to completely eliminate acidity from the obtained ester (synthetic oil) without having to leach it, by passing the ester through a column with a strongly basic AV-17 anion exchanger. Using the KU-2 as the catalyst of the reaction of esterification of pentaerythritol by monocarboxylic acids, and using an anion exchanger to eliminate traces of acids in the final product will make it possible, once this process is introduced into industry, to convert it to a continuous process, to simplify the flowsheet, to considerably reduce the cost and to improve the quality of the oils. - Orig. art. has 2 figures and 2 tables.

ASSOCIATION: MINKH | GP

SUBMITTED: 00

ENCL: 00

SUB CODE: GC, FP

NO REF SOV: 008

OTHER: 002

Card 2/2



L 179L-66 EWT(m)/EPF(c)/ENP(j)/T. DJ/RM

ACCESSION NR: AF5024196

UR/0318/65/000/009/0014/0019  
665.582.063.726.002.2

AUTHOR: Kukovitskiy, M. M.

TITLE: Industrial-scale production of synthetic oils from esters

SOURCE: Neftepererabotka i neftekhimiya, no. 9, 1965, 14-19

TOPIC TAGS: lubricating oil, plasticizer/TsNIL 36 1 oil, 36 1K oil, B 3V oil, LZ 5 plasticizer

ABSTRACT: An industrial-scale production process for synthetic lubricating oils based on esters, namely, the TsNIL-36/1, 36/1K, B-3V oils (as well as the LZ-5 plasticizer) has been reviewed. The plant for the production of synthetic oils based on esters of pentaerythritol and diethylene glycol and monocarboxylic synthetic fatty acids went on stream in 1961 at the Ufa refinery. The original design provided for the production of TsNIL-36/1 oil whose composition is: pentaerythritol ester, 65%; diethylene glycol ester, 34.5%; and p-hydroxydiphenylamine, 0.5%. The monocarboxylic acids used are C<sub>5</sub>-C<sub>6</sub> and C<sub>7</sub>-C<sub>9</sub> fractions produced at the same plant by oxidation of waxes from sulfur-containing crudes, and the alcohols are, of course, pentaerythritol and diethylene glycol. The esterification proceeds in the presence

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L 1794-66

ACCESSION NR: AP5024196

2

of zinc oxide catalyst at atmospheric pressure and 140—225C. The original article gives the flow sheet and detailed conditions for the process. Oil 36/1K is 36/1 oil with 1.8% mercaptobenzothiazole additive; B-3V oil is the pentaerythritol ester with 1.5% mercaptobenzothiazole and 0.5% p-hydroxydiphenylamine additives; and the LZ-5 plasticizer is diethylene glycol ester. Specifications for all the oils and the plasticizer are given in the original article. Orig. art. has: 1 formula, 2 figures, and 3 tables. [SM]

ASSOCIATION: Ufimskiy neftepererabatyvayushchiy zavod im. XXII s'yezda KPSS (Ufa Petroleum Refining Plant)

III, 44

SUBMITTED: 00

ENCL: 00

SUB CODE: FP, MT

NO REF SOV: 012

OTHER: 006

ATD.PRESS: 4112

mlb  
Card 2/2

S/878/62/000/001/003/003  
D204/D307

AUTHORS: Kulcovskiy, Ye.G. and Kononov, Yu.V.

TITLE: An X-ray investigation of the rutilization products of ilmenite

SOURCE: Ukraine. Glavnoye upravleniye geologii i okhrany nedr. Rentgenografiya mineral'nogo syr'ya. no. 1, Moscow, 1962. Trudy Pervogo Vsesoyuznogo soveshchaniya v Kieve 25-29 sentyabrya 1959 g. 120-127

TEXT: X-ray investigations of leucoxene, both in its natural state and after heating to predetermined temperatures (400, 700 and 1000°C) were carried out in order to clarify the nature of secondary products resulting from the alternation of ilmenite. Mo-K $\alpha$  radiation was used, with a ZrO<sub>2</sub> filter and a 2R 86 mm camera. Physical and optical characteristics of leucoxene are mentioned and chemical compositions (performed by S.A. Panchenko) are tabulated. Dehydration curves of rutile, leucoxene, TiO<sub>2</sub>·nH<sub>2</sub>O, Fe<sub>2</sub>O<sub>3</sub>·TiO<sub>2</sub>nH<sub>2</sub>O and ilmenite were also plotted for the ranges 0 - 1000°C. It is concluded  
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An X-ray investigation ...

S/878/62/000/001/003/003  
D204/D307

ded that ilmenite is fully converted to rutile by destruction of the crystal lattice. The first stage consists of the formation of an amorphous solid solution of  $n\text{Fe}_2\text{O}_3 \cdot m\text{TiO}_2 \cdot x\text{H}_2\text{O}$ ; in the second stage the solid solution decomposes with loss of  $\text{FeO}_3$  as  $\text{FeOOH}$  and the remaining amorphous titania is converted to rutile and possibly anatase or brookite. There are 3 figures and 3 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR (Institute of General and Inorganic Chemistry of the AS UkrSSR) (Ye.G. Kukovskiy); Institut geologicheskikh nauk AN USSR (Institute of Geological Sciences of the AS UkrSSR) (Yu.V. Kononov)

Card 2/2

KUKOVSKIY, YE. G.

KUKOVSKIY, YE. G.: "Thermal and roentgenographic investigations of the products of drilling amphibolites from the southern Ukrainian crystalline massif." Min Higher Education Ukrainian SSR. Kiev State U imeni T. G. Shevchenko. Kiev, 1956. (DISSERTATION For the Degree of Candidate in GEOLOGICOMINERALOGICAL SCIENCES.)

So: Knizhnaya letopis' No 24 1956

15-57-4-4474

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 4,  
p 66 (USSR)

AUTHOR: Kukovskiy, E. G.

TITLE: The Nature of the Pegmatites of the Sobolevka River  
in Eastern Siberia and the Strel'na River on the Kola  
Peninsula (K kharakteristike pegmatitov reki Sobolevki  
v Vostochnoy Sibiri i reki Strel'ny na Kol'skom poluo-  
strove)

PERIODICAL: Nauk. zap. Kiyivs'k. un-t, 1956, Vol 15, Nr 2, pp 137-  
141

ABSTRACT: Pegmatites are found in the two regions as veins and  
schlieren segregations in granites and aplites. The  
veins locally form pegmatite fields. The mineral  
compositions of the pegmatites in the two regions are  
different. The strel'na River pegmatites contain up to  
80 percent feldspar (albite and microcline), 10 percent  
quartz, five percent muscovite, up to three percent

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15-57-4-4474

The Nature of the Pegmatites of the Sobolevka River (Cont.)

biotite, up to 1 percent garnet, and grains of rutile, ores, and other minerals. Black tourmaline is absent in these pegmatites, whereas it is widespread in large crystals associated with biotite in the Sobolevka River region. Accessory minerals are much more abundant in the Sobolevka River pegmatites than in the Strel'na River pegmatites. The development of the pegmatites is clearly the result of crystallization of residual post-magmatic solutions in two stages: 1) crystallization of fine-grained pegmatites and graphic structure; and 2) modification of the pegmatites by the residual portions of the post-magmatic solutions. In the second stage the  $\text{SiO}_2$  concentration was increased, the feldspar crystals grew larger, and there occurred active sublimation of the volatile constituents in the higher levels, leading to the formation of rare-metal replacement pegmatites. This process gave rise to pegmatite "columns," the lower levels of which consist of residual silicates and small quantities of accessory minerals, and the upper levels of which contain accessory minerals of the rare-metal replacement pegmatite type, with small quantities of feldspars. The Strel'na River pegmatites represent formations of the lower horizons of the

Card 2/3

The Nature of the Pegmatites of the Sobolevka River (Cont.) 15-57-4-4474

pegmatite "column," and the Sobolevka River pegmatites represent the upper horizons.  
Card 3/3



КУКОВСКИЙ, Г. Г.

✓ Kaolinite from the weathering crust of the southern  
 Ukrainian crystalline massive. V. F. Anan'ev and E. G.  
Kukovskii. Zapiski Vsesoyuzn. Mineralog. Obshchestva 85  
436-8 (1953).—The red-brown or grayish red weathering  
 products of the Ukrainian cryst. (amphibolite) massive  
 show microscopic "worms" of autochthonic kaolinite in  
 aggregates up to 0.2 mm. in diam., and a scaly type. The  
 as are:  $\gamma$  1.566  $\pm$  0.002;  $\alpha$  1.560  $\pm$  0.002; optically neg.  
 d. (pycnometer) 2.59. Accessorial hydromica in amts. of  
 5-10% shows  $n_x$  between 1.567 and 1.570; quartz and Fe  
 ores also occur with the kaolinite. The methylene blue  
 staining reaction is pos. for kaolinite; the x-ray diagrams  
 and dehydration curves are those of kaolinite, too. The  
 origin of the kaolinite is detd. by the weathering of the  
 primary amphibolites into hydromicas (hydromuscovite),  
 followed by kaolinite + Fe hydroxides as pigments.

2

W. Eitel

Handwritten initials and scribbles.

KUKOVSKIY, YE. G.

Category: USSR

D

Abs Jour: RZh--Kh, No 3, 1957, 7831

Author : Kukovskiy, Ye. G., and Sedletskiy, I. D.

Inst :

Title : Hydrochlorite from the Weathering Zone in the Amphibolite in the Southern Ukrainian Crystalline Massif

Orig Pub: Dokl. AN SSSR, 1956, Vol 108, No 4, 719-722

Abstract: Chemical, thermal, x-ray, microscopic, and electron microscopic methods were used in the investigation of a sample from the manganese hydrochlorite layer which attains a thickness of up to 2 m. At the bottom the layer gradually grades into the amphibolite bedrock; at the top the hydrochlorite grades into kaolinite through montmorillonite. Chemical analysis give the following composition (in percent): SiO<sub>2</sub> 49.91; TiO<sub>2</sub> 1.15; Al<sub>2</sub>O<sub>3</sub> 18.04; Fe<sub>2</sub>O<sub>3</sub> 4.72; FeO 0.53; MnO 0.02; CaO 1.65; MgO 3.31; K<sub>2</sub>O traces; Na<sub>2</sub>O traces, H<sub>2</sub>O 7.71; H<sub>2</sub>O<sup>-</sup> 13.18; total 99.72. Illite is present in the hydrochlorite as an impurity.

Card : 1/1

-15-

KUKOVSKIY, Ye.,G. [Kukovs'kiy, I.E.H.], kand.geol.-mineral.nauk

Dependable helper of geologists. Nauka i zhyttia 8 no.10:23-26  
'58. (MIRA 13:4)

(X-ray crystallography)

KUKOVSKIY, Ye.G.

Hornblendes from the weathering crust of amphiboles. Min.sbor.  
no.12:448-451 '58. (MIRA 13:2)

1. Ukrainskoye geologicheskoye upravleniye, Kiyev.  
(Dnepropetrovsk--Hornblende)

KUKOVSKIY, Ye.G. [Kukovs'kiy, I.E.H.]

Harmonic analysis in X-raying clay minerals. Geol.zhur. 18 no.3:78-84  
'58. (MIRA 11:11)

(X-rays--Industrial application) (Clay) (Harmonic analysis)

KUKOVSKIY, Ye.G. [Kukovs'kyi, I.B.H.]

Sixth Scientific and Technical Conference on the Use of X Rays  
in the Investigation of Materials. Geol.zhur. 18 no.5:106  
'58. (MIRA 12:1)  
(X rays--Industrial applications) (Materials--Testing)

KUKOVSKIY, Ye.G. [Kukovs'kiy, YE.H.]; LAZARENKO, Ye.K.

Wehrlite from Transcarpathia. Geol. zhur. 19 no.4:91-92 '59.  
(MIRA 13:1)

(Transcarpathia--Wehrlites)

KUKOVSKIY, Ye.G.

Palygorskite clays in the Ukraine. Sov. geol. 3 no.7:116-119  
Jl '60. (MIRA 13:8)

1. Rentgenlaboratoriya tresta "Kiyevgeologiya."  
(Ukraine--Fuller's earth)



KUKOVSKIY, Ye.G.

Two generations of "hydroargillites" in the weathering surface  
of chlorite shales in the Ukraine. Min.sbor. no.14:338-341 '60.  
(MIRA 15:2)

1. Trest "Kiyevgeologiya", Kiyev.  
(Nikopol' District--Argillite)

KUKOVSKIY, Ye.G.

Beidellite mineral. Min.sbor. no.14:394-396 '60. (MIRA 15:2)

1. Trest "Kiyevgeologiya", Kiyev.  
(Beidellite)

KUKOVSKIY, Ye.G. [Kukovs'kiy, YE.H.]

First All-Union Conference on the X-Ray Analysis of Minerals.  
Geol. zhur. 20 no. 1:107 '60. (MIRA 14:5)  
(Minerals) (X rays—Industrial applications)

KUKOVSKIY, Ye. G., Kiev and OVCHARENKO, F. D., Head, Colloid Chemistry Laboratory of Dispersed Minerals, Institute of General and Inorganic Chemistry, Academy of Sciences Ukrainian SSR

"Physical-chemical methods of clay mineral research"  
(Section III)

report to be submitted for the Second Conference on Clay Mineralogy and Petrography, Prague, Czech., 10-17 May 1961.

KUKOVSKIY, Ye.G.

Regularly interstratified hydromica-chlorite. Min. sbor.  
no.15:349-354 '61. (MIRA 15:6)

1. Trest "Kiyevgeologiya", Kiyev.  
(Dnepropetrovsk Province--Hydromica)  
(Dnepropetrovsk Province--Chlorites)

KUKOVSKIY, Ye.G.[Kukovs'kyi, YE.H.]; KONONOV, Yu.V.

Conversion of ilmenite into rutile in supergene processes.  
Geol.zhur. 21 no.6:97-102 '61. (MIRA 15:2)

1. Institut geologicheskikh nauk AN USSR.  
(Ilmenite)(Rutile)

PIONTKOVSKAYA, M.A.; NEYMARK, I.Ye.; ZHUGAYLO, Ya.V. [Zhuhailo, IA.V.];  
KUKOVSKIY, Ye.G. [Kukovskyi, E.H.]

Change in the structure of titanium gel catalysts in ethyl  
alcohol dehydration. Ukr. khim. zhur. 27 no.4:447-454 '61.  
(MIRA 14:7)

1. Institut fizicheskoy khimii im. L.V.Pisarzhevskogo AN USSR.  
(Titanium) (Catalysts) (Ethyl alcohol)

KUKOVSKIY, Ye.G.; OSTROVSKAYA, A.B.

First deposit of attapulgus clays in the U.S.S.R. Zap.Vses.  
min.ob-va 90 no.5:598-601 '61. (MIRA 14:10)

1. Rentgenlaboratoriya Tsentral'noy nauchno-issledovatel'skoy  
laboratorii tresta "Kiyevgeologiya".  
(Gniloy Tikich Valley--Fuller's earth)



KUKOVSKIY, Ye.G.

Specific features of mineral formation in the erosion surface of  
basic and ultrabasic rocks of the Ukrainian crystalline massif.  
Dokl. AN SSSR 139 no.1:173-176 J1 '61. (MIRA 14:7)

1. Predstavleno akademikom N.M. Strakhovym.  
(Ukraine--Mineralogy)

S/021/62/000/011/011/013  
D202/D307

AUTHORS: Kal'onov, Ye. M., Hudovych, N. V. and Kukovs'ky, Ye.H.

TITLE: The effect of long-chain quaternary ammonium salts on the porosity of bentonite clays

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 11, 1962, 1479-1481

TEXT: The authors studied the possibility of improving the swelling characteristics of bentonite clays on firing, to obtain the desired porous light-weight product used as a filler in concrete and ferroconcrete. Only few natural bentonites develop the required porosity in the absence of any additives. Using Kurtsevo, Cherkassy and Gorbsk bentonites, it was found that swelling may be induced during firing, by replacing the natural inorganic exchange complexes of montmorillonite with tetraalkylammonium cations (the alkyl groups being large). The beneficial action of this treatment is ascribed to the fact that the quaternary ammonium cations adsorbed on montmorillonite are only partially removed on heating to

Card 1/2

The effect of ...

S/021/62/000/011/011/013  
D202/D307

400 - 500°C, leaving a layer of C which is then oxidized to CO<sub>2</sub> as the temperature rises above 800°C. Owing to the low softening temperature of montmorillonite the CO<sub>2</sub> may then exert a bloating action, giving rise to products of density as low as 0.22 g/cm<sup>3</sup>. The required effect may be controlled by selecting the length and structure of the alkyl groups in the organic cation. ✓

ASSOCIATION: Instytut zahalnoyi ta neorhanichnoyi khimiyi AN URSSR  
(Institute of General and Inorganic Chemistry of the AS UkrSSR)

PRESENTED: by F. D. Ovcharenko, Academician

SUBMITTED: January 31, 1962

Card 2/2

KUKOVSKIY, Ye.G.; OSTROVSKAYA, A.B.; ZLOTAREVA, A.I.

New raw material for drilling fluids. (kazved. i okh. nedr 28  
no.2:51-52 F '62. (MIRA 15:3)

1. Trest "Kiyevgeologiya" (for Kukovskiy, Ostrovskaya).
2. Ukrainskiy nauchno-issledovatel'skiy geologorazvedochnyy institut (for Zolotareva).  
(Oil well drilling fluids) (Clay)

KUKOVSKIY, Ye.G.

Conversion of minerals in the weathering surface of biotite  
granite in the southern part of the Ukrainian Crystalline  
Shield. Zap. Ukr. otd. Min. ob-va [no.1]:54-59 '62.

(MIRA 16:8)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR,  
rentgenostrukturnaya laboratoriya, Kiyev.

GUDOVICH, N.V.; KUKOVSKIY, Ye.G.; OSTROVSKAYA, A.B.

X-ray study of montmorillonite containing substitution  
cations. Rent. min. syr. no.2:36-40 '62. (MIRA 16:11)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

ЗУКОВИЦА, Я.С. [Kukovits'ya, Ya.S.]

Effect of certain acids on the structure of palygorskite. Rep.  
AN USSR no.8:1076-1079 '62. (MIRA 18:2)

I. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

KUKOVSKIY, Ye.G.; OSTROVSKAYA, A.B.

Crystallochemistry of cation-substituted clay minerals  
montmorillonite and palygorskite. Rent.min.syr. no.3:124-137 '63.  
(MIRA 17:4)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.



KUKOVSKIY, Ye.G.

Some remarks on the crystallochemical characteristics of  
weathering minerals. Kora vyvotr. no.6:67-70 '63. (MIRA 17:9)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

SAMCHENKO, Z.A. [Samchenko, Z.O.]; KUKOVSKIY, Ye.G. [Kukovs'kiy, I.E.H.];  
NEKRYACH, Ye.F. [Nekriach, I.E.F.]

X-ray diffraction study of the structure of polyundecanamide.  
Dop. AN URSR no.2:229-231 '65. (MIRA 18:2)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

KUKOVSKIY, Ye.G.; OSTROVSKAYA, A.B.

X-ray study of bentonites in the Dashukovskii section of the  
Cherkassy deposit in the Ukrainian S.S.R. Rent.min.syr. no.1:  
67-74 '62. (MIRA 16:3)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.  
(Cherkassy Province--Bentonite--Analysis) (X-ray crystallography)

KUKOVSKIY, Ye.G.; KONONOV, Yu.V.

X-ray study rutilated ilmenite products. Rent.min.syr. no.1:  
120-127 '62. (MIRA 16:3)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR (for  
Kukovskiy). 2. Institut geologicheskikh nauk AN UkrSSR (for  
Kononov).

(X-ray/crystallography) (Rutile) (Ilmenite)

KUKOVSKIY, Ye. G.; OVCHARENKO, F. D.

"Relationship between the colloid chemistry and crystal chemistry  
of clay minerals."

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

OVCHARENKO, Fedor Danilovich, akademik; KUKOVSKIY, Yevgeniy Georgiyevich;  
NICHIPORENKO, Sergey Petrovich, ~~akademik, Sergey Petrovich,~~  
VDOVENKO, Nadezhda Vasil'yevna; TRETINNIK, Vikentiy Yur'yevich;  
KRUGLITSKIY, Nikolay Nikolayevich; PANASEVICH, Aleksandr  
Aleksandrovich; POKROVSKAYA, Z.S., red. izd-va; MONZHERAN, P.F.,  
tekhn. red.

[Colloid chemistry of palygorskite] Kolloidnaya khimiya paly-  
gorskita. Pod obshchei red. F.D.Ovcharenko. Kiev, Izd-vo AN  
Ukr.SSR, 1963. 119 p. (MIRA 16:7)

1. AN Ukr.SSR (for Ovcharenko).  
(Palygorskite) (Colloids)

KUKOVSKIY, Ye.G.

Mineralogical conversions of crystalline rocks in the weathering surface in the southern part of the Ukrainian Crystalline Shield. Kora vyvetr. no.5:35-48 '63. (MIRA 16:7)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.  
(Dnieper Valley--Rocks, Crystalline and metamorphic)

BYSTRITSKIY, A.A.; KUKOVYAKIN, A.A.

Using geophysical methods in prospecting for limestone deposits.  
Izv. vys. ucheb. zav.; geol. i razv. 1 no.7:112-117 JI '58.  
(MIRA 12:8)

1. Irkutskiy gornometallurgicheskiy institut.  
(Londokovo region (Maritime Territory)---Limestone))  
(Prospecting---Geophysical methods)





KUKOZ, F. I.

"The Effect of Ultrasound on Electrochemical Processes."

report presented at the 6th Sci. Conference on the Application of Ultrasound  
in the investigation of Matter, 3-7 Feb 1958, organized by Min. Education  
RSFSR and Moscow Oblast Pedagogic Inst. im N. K. Krupskaya.

5(4)

AUTHORS: Kukoz, F. I., Antropov, L. I.

SOV/76-32-10-11/39

TITLE: The Effect of Ultra-Sound on Electro-Reduction and Electro-Oxidation Processes (Vliyaniye ul'trazvuka na protsessy elektro-  
vosstanovleniya i elektrokisleniya) I. The Electro-Reduction  
of Nitro-Benzene on a Smooth Platinum Cathode (I. Elektro-  
vosstanovleniye nitrobenzola na gladkom platinovom katode)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 10, pp 2294-2300  
(USSR)

ABSTRACT: The effect of ultra-sound on redox reactions taking place on  
electrodes have been little investigated. Among the other ef-  
fects of ultra-sound (Refs 17-21) a change in the mobility  
and the transfer number of ions which also must have an effect  
on the electrode reaction can take place. The reduction of  
nitro-benzene was carried out in an electrolyzer, and the dia-  
gram of this is given. A platelet of barium titanate (diameter  
39 mm) served as source of the ultrasonic waves which was  
brought to the basic frequency (1,4 megs) by a 550-Watt radio  
generator. On the basis of earlier experiments a method of  
producing the Pt - W electrode was devised. The results of the

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The Effect of Ultra-Sound on Electro-Reduction and Electro-Oxidation Processes  
I. The Electro-Reduction of Nitro-Benzene on a Smooth Platinum Cathode

polarization measurements are given in the coordinates  $\xi$ ,  $\lg j$ . It was found that in 0,1 N  $H_2SO_4$ -solutions the potential of the Pt cathode varies linearly with the  $\lg j$  and that the straight line has an inclination of 0,075. The ultra-sound causes a change in the course of the curve by increasing its inclination to 0,08, and even more so at higher current densities. An addition of nitro-benzene effects a displacement of the potential into a more positive range. This effect becomes even stronger when ultra-sound is used. The depolarization without ultra-sound, for instance, amounts to 140 mV and with it to -175 mV. At certain current densities the potential changes abruptly to the negative side. The limiting current density of the process of electro-reduction of nitro-benzene is increased to the 10-15-fold by the ultra-sound. In contrast to another paper (Ref 5) no depolarizing effect on the hydrogen separation was observed. An increase of the constant a (from -0,470 to -0,510 and b (from 0,075 to 0,080) in the equation according to Tafel' was found. The modification of the potential by the ultra-sound near the zero charge of platinum is explained by a

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The Effect of Ultra-Sound on Electro-Reduction and Electro-Oxidation Processes  
I. The Electro-Reduction of Nitro-Benzene on a Smooth Platinum Cathode

pre-orientation of the polar nitro-benzene molecule in the double layer. The ultra-sound causes the orientation of the dipoles of the nitro-benzene in the boundary layer metal-solution. There are 3 figures, 2 tables, and 26 references, 11 of which are Soviet.

ASSOCIATION: Novocherkasskiy politekhnicheskiy institut im. S. Ordzhonikidze  
Novocherkassk Polytechnical Institute imeni S. Ordzhonikidze)

SUBMITTED: April 29, 1957

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KUKOZ, F. I., Cand Tech Sci (diss) -- "The effect of ultrasound on certain electrode processes". Novocherkassk, 1959. 22 pp (Min Higher and Inter Spec Educ RSFSR, Novocherkassk Order of Labor Red Banner Polytech Inst in S. Ordzhonikidze, Chair of Tech of Electrochem Production), 150 copies (KL, No 10, 1960, 131)

S/081/61/000/002/007/023  
A005/A105

Translation from: Referativnyy zhurnal, Khimiya, 1961, No. 2, p. 322, # 2K114

AUTHOR: Kukoz, F.I.

TITLE: The Forming of Smooth Plates of Lead Storage Batteries in a Super-sonic Field

PERIODICAL: "Tr. Novocherk. politekhn. in-ta", 1959, No. 73, Raboty Kafedry fiz. pp. 101 - 119

TEXT: The effect of ultrasound on the formation process of electrodes was investigated in way of conducting 6-11 continuous cycles of charging and discharging at constant current density 1 and taking the charge-discharge curves hereat. Ultrasound was only applied during charging. The discharge curves were taken in 8 hours after the ending of charging. The electrodes were smooth plates of lead of the Co-make; they were preliminarily cleaned in mechanical way, washed with distilled water, and degreased as cathode in the forming electrolyte. The magnitude of  $i$  was held constant by an electron current stabilizer with an accuracy up to  $10^{-4}\%$ . The vat was irradiated by ultrasound with a frequency of 1.0-1.4 Mc and

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A005/A105



The Forming of Smooth Plates of Lead Storage Batteries in a Supersonic Field

intensity of 1.5-4.5 w/cm<sup>2</sup>. It is shown that the irradiation affects the structure and the composition of the anode oxidation products, and also accelerates the formation process with small currents by 5-11 times. Hereat, spraying of the active mass is observed, which increases with increasing ultrasound intensity. Especially intense spraying proceeds in an electrolyte with an addition of KClO<sub>4</sub>. By mixed cycling (cycling with and without irradiation) the spraying decreases. The current efficiency is > 100% by cycling with irradiation, but it decreases down to 1% with the increase of the charging current up to 25 ma/cm<sup>2</sup>. In the ultrasonic field, the overvoltage ( $\eta$ ) of O<sub>2</sub>-separation, and  $\eta$  of PbO<sub>2</sub>-formation decrease.

I. Kiseleva

Translator's note: This is the full translation of the original Russian abstract.

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27128  
S/081/61/000/003/004/019  
A166/A129

5.1310 1087 1273 1160

AUTHOR: Kukoz, F. I.

TITLE: A study of the effects of ultrasonics on the electro-oxidation of chrome sulfate

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 3, 1961, 91, abstract 31691.  
(Tr. Novocherk. politekh. in-ta, 1959, no. 73. Raboty Kafedry fiz., 131 - 136)

TEXT: A study was made of the effect of ultrasonics at a frequency of 1 Mc and an intensity of 4 - 5 w/cm<sup>2</sup> on the electrochemical behavior of a Pb anode in solutions of H<sub>2</sub>SO<sub>4</sub> (1 - 8 N) containing Cr(3+) ions and in pure H<sub>2</sub>SO<sub>4</sub>. With anode polarization of Pb in a solution of 8 N H<sub>2</sub>SO<sub>4</sub> + 20 g/liter Cr(3+) visible traces of PbO<sub>2</sub> are absent when ultrasonics is applied, whereas in the absence of ultrasonics the anode becomes covered with PbO<sub>2</sub>. With irradiated Pb electrodes the current yield of Cr(4+) with anode oxidation of Cr(3+) is lower than in non-irradiated electrodes. The PbO<sub>2</sub> layer obtained by anode polarization of Pb in H<sub>2</sub>SO<sub>4</sub> had a higher degree of dispersity when exposed to ultrasonics. A study of PbO<sub>2</sub> electrodes to determine the Cr(3+) oxidation reactions shows that the current maximum increa-

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27128

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A166/A129

A study of the effects of ultrasonics on the...  
ses by 40 - 50 times when ultrasonics is applied.

Summary by G. Tedoradze

[Abstracter's note: Complete translation]

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S/081/61/000/002/008/023  
A005/A105

Translation from: Referativnyy zhurnal, Khimiya, 1961, No. 2, p. 322, # 2K115

AUTHORS: Kukoz, F.I., Skalozubov, M.F.

TITLE: The Ultrasound Effect on the Lead Passivation With Anode Polarization in a Sulfuric Acid Solution

PERIODICAL: "Tr. Novocherk. politekhn. in-ta"; 1959, Vol. 73, Raboty kafedry fiz., pp. 137 - 149

TEXT: The authors studied the effect of ultrasound on the passivation of lead with anode polarization in a sulfuric acid solution; they analyzed the charging curves taken from smooth electrodes having preliminarily cycled. The curve section corresponding to the rapid variation of the anode potential were oscillographically taken. The ultrasound affects all quantitative characteristics of the charging curve. Ultrasound of 1.4 Mc in frequency of low intensity ( $1 \text{ w/cm}^2$ ) accelerates the passivation, higher intensity decelerates, as one may assume, in consequence of cavitation phenomena. Oscillographic measurements showed that some

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A005/A105

The Ultrasound Effect on the Lead Passivation With Anode Polarization in a Sul-  
furic Acid Solution

intermediate processes take place between two main passivation stages ( $Pb \rightarrow Pb^{2+}$   
and  $Pb^{2+} \rightarrow Pb^{4+}$ ). The maximum of the charging curve in the second passivation  
stage decreases with the application of ultrasound. It is assumed that the forma-  
tion of  $PbO_2$  begins under the action of ultrasound at less positive values.

I. Kiseleva

Translator's note: This is the full translation of the original Russian abstract.

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