GREBENSKAYA, N.I.

Regeneration of skeletal muscle tissue in mammals following novocaine block. Biul. eksp. biol. i med. 47 no.3:81-84 Mr '59. MIRA 12:7)

1. Iz kafedry obshchey biologii (zav. - prof. G.M. Litver) 1-go Leningradskogo meditsinskogo instituta (dir. - dotsent A. I. Ivanov). Predstavlena deystvitel'nym chlenom AMN SSSR V. N. Chernigovskim.

(PROCAINE, eff.
nerve block on musc. regen. in animals (Rus))
(ANESTHESIA, REGIONAL, effects,
procaine nerve block, on musc. regen. in animals (Rus))
(MUSCLE, physiol.
regen. eff. of procaine nerve block in animals (Rus))
(REGENERATION, physiol.
musc., eff. of procaine nerve block in animals (Rus))

GREBENSKAYA, N.I.

Structural characteristics of blood vessels and the bronchial tree in the lung of some mammals. Arkh. anat., gist. i embr. 47 no.9:84-91 S '64. (MIRA 18:11)

1. Kafedra biologii (zav. - dotsent V.S.Nikitin) Grodnenskogo meditsinskogo instituta. Submitted Jan. 3, 1962.

L 30012-65 FBD/EWT(1)/EWG(v)/EEC-4/EEC(t) Pe-5/Pq-4/Pae-2/Pi-4 GW/WS

ACCESSION NR: AP5005782 S/0043/65/000/001/0102/0109

AUTHOR: Abbasov, A. R.; Grebinskiy, A. S.; Durasova, M. S.; Ivanov, V. A.; Ignat'yeva, L. M.; Molchanov, A. P.; Myasnikov, V. L.; Pankratov, Ye. I.; Sukhanov, A. G.; Yudin, O. I.; Yasnov, L. V.

45
B

TITLE: Radioastronomic observations on the centimeter wave of the solar eclipse on 21 July 1963

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 1, 1965, 102-109

TOPIC TAGS: solar eclipse, solar atmosphere, residual radiation, terrestrial atmosphere, radio emission, sunspot

ABSTRACT: An expedition went to Simushir Island to observe the time of the second and third radio contacts of the solar eclipse of 21 July 1963 for detecting the height of rapid changes in the solar atmosphere during the period of weak solar activity and for measuring the residual radiation flux during the period of total cover of the Sun. The detection of local sources of radio emission from the Sun during the total eclipse and measurements of the Earth's own atmospheric radiation were also included in the expedition's task. The solar disk was covered with two groups of

Card 1/2

L 30012-65
ACCESSION NR: AP5005782

sunspots, of which one persisted only two days including the day of the eclipse. The refraction, absorption, and proper radiation of the Earth's atmosphere influenced observation data. The absorption and atmospheric radiation were specially measured before and after the eclipse. Strong fluctuations of the solar radio emission between the first and second contacts were recorded on 3.2- and 10-cm wavelengths. The amplitude of fluctuations diminished with the increase of solar height and did not depend on wavelength. A difference was observed between the optical and radio contact times. The residual radio emission corrected for absorption in the terrestrial atmosphere is given in a table in the original article. An emission of local sources has been recorded on 4-, 5-, and 10-cm waves. The local source was identified with the spot group which lasted only two days. The height of the local source was determined to be in a space span from 7000 to 20,000 km above the solar surface. Orig. art. has: 3 figures, 7 tables, and 4 formulas. [EG]

ASSOCIATION: none

SUBMITTED: 24Jan64 ENCL: 00 SUB CODE: AA, ES

NO REF SOV: 004 OTHER: 002 ATD PRESS: 3196

Card 2/2

S/048/61/025/004/020/048
B104/B201

26.2244

AUTHORS: Grebenskiy, B. S., Timofeyeva, T. V., Khormushko, S. P., and Tsvetkov, O. S.

TITLE: Increase of the efficiency of a scintillation detector for slow neutrons

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 4, 1961, 500-503

TEXT: The present paper has been read at the 9th Conference on Luminescence (Crystal Phosphors), Kiyev, June 20-25, 1960. The authors examined a dispersion detector for slow neutrons on the basis of ZnS-Ag and H_3BO_3, using both natural B and such enriched with B^{10}. The detectors were prepared by joint sintering of ZnS-Ag with H_3BO_3, and also, for a comparison, by a method described in the literature (Ref. 2: Sun K., Malmberg P., Pesjak F., Phys. Rev., 95, 600 (1954); Nucleonics, 14, No. 7, 46 (1956); Ref. 3: Vorisek M., Czechosl. J. Phys., 7, No. 6, 757 (1957)). In the first method, a sinter of B_2O_3 was ground with ZnS-Ag and sorted in frac-

Card 1/6

tions according to given grain sizes. The authors determined the dependence of efficiency ϑ_1 of the recording of slow neutrons on the grain size of the fraction and the thickness of the detector for different percentages of boron oxide concentrated with B^{10} to different degrees. They further constructed the differential curves of the pulse amplitude distributions of slow neutrons and gamma radiation. Results are collected in the table and the two diagrams (Figs. 1 and 2). The maximum of sensitivity ranges between 30 and 34 wt% H_3BO_3 (Table). There are 2 figures, 1 table, and 6 references: 5 Soviet-bloc and 1 non-Soviet-bloc.

Legend to Table 1: 1) grain size in μ; 2) detector I: 16 % H_3BO_3 with 19 % B^{10}; 3) detector II: the same with 85 % B^{10}; detector III: 34 % H_3BO_3 with 19 % B^{10}; detector IV: the same with 85 % B^{10}; detector V: 89 % H_3BO_3 with 19 % B^{10}. l_o optimum thickness of detector in mg/cm^2. I is the efficiency of the capture of thermal neutrons by the detector with formation of an alpha particle.

S/048/61/025/004/021/048
B104/B201

26.2244

AUTHORS: Gorshkov, G. V., Grebenskiy, B. S., Khormushko, S. P., and Tsvetkov, O. S.

TITLE: Dispersion detector for fast neutrons

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 4, 1961, 504-505

TEXT: The present paper has been read at the 9th Conference on Luminescence (Crystal Phosphors), Kiyev, June 20-25, 1960. The detector considered here is made of grains of a ZnS-Ag scintillator, which are uniformly distributed in a medium containing hydrogen. The scattering of neutrons in the detector leads to the formation of recoil protons which, when hitting a scintillator, result in a scintillation which is recorded by a photomultiplier. The detectors considered here were prepared by polymerization of styrene and methyl methacrylate with ZnS-Ag. The resulting detectors were up to 300 mm in diameter and had the shape of hollow spheres, cylinders, hemispheres, etc. The grain size of the scintillator was 12-25 μ, the afterglow had a duration of about 10^{-4} seconds, the intensity

Dispersion detector...

maximum of emission ranged between 4100 and 4500 A, which was in good agreement with the maximum of spectral sensitivity of the antimony cesium photocathode of the multiplier. The recording efficiency may be represented in the form $\varepsilon = \varepsilon_\sigma \varepsilon_p \varepsilon_\gamma$. Here, ε_σ denotes the scattering efficiency of neutrons of the detector, ε_p the hitting efficiency of protons (to hit a ZnS-Ag grain), and ε_γ is the efficiency of the recording of scintillations. ε as a function of the neutron energy E_n, of the grain size and of the concentration C_m of the scintillator, of thickness, etc., is discussed. Relation $\varepsilon_p = 1 - \exp(-k(r)C_V R_n)$ is derived, where C_V denotes the volume concentration of ZnS-Ag, R_n is the proton range for proton energy E_n, $k(r)$ is dependent upon the energy distribution of the recoil protons and of the grain size of the scintillator. It is also obvious that there is an optimum thickness l_o of the detector, that is dependent upon the optical properties of the detector, on E_n, and the discrimination threshold. For a detector with $C_m = 25\ \%$ the optimum thickness is equal to 10 mm, when recording the neutrons from a Po_α + Be source, and at a discrimination of gamma radiation with $3 \cdot 10^4$ quanta$\cdot$cm^{-2}sec^{-1}. There are 1 figure and 8 references: 4 Soviet-bloc and 4 non-Soviet-bloc.

Card 2/3

S/858/62/000/001/011/013
D296/D307

AUTHORS: Grebinskiy, S. O., Iovleva, N. D. and Popovich, I. V.

TITLE: The influence of x rays upon the transformation of storage substances, tissue respiration, and the activity of oxidative enzymes of sprouting plant seeds

SOURCE: L'vov. Universytet. Problemna lyaboratoriya radiobiolohiyi. Biolpgicheskoye deystviye radiatsii, no. 1, 1962, 84-89

TEXT: In an earlier paper, the authors have shown that high doses of radiation suppress the growth, the respiration rate and the water adsorption of plant seeds. In the present paper the authors tried to investigate the underlying changes in the metabolism of seeds. Maize seeds, peas, sunflower seeds and wheat grains were used for the experiment. The seeds were moistened and, when sprouting, were exposed to radiation at a rate of 15 r/min. After exposure, the seeds were grown in tap water at 25°C in the dark, The dehydrogenase activity and the respiration rate were estimated in

Card 1/2

a Warburg apparatus. The dehydrogenase activity was estimated in sections through the cotyledons of 1 μ thickness by the method of Markh and Fel'dman (Biokhimiya, v. 22, no. 6, 1957). The oxidase activity was measured by the method of Povolotskaya (Biokhimiya, v. 20, 1956) in buffered eluates. The results showed that small doses of radiation (500r) increased the respiration together with the activity of the glucodehydrogenase and also to a lesser extent the isocitric acid dehydrogenase. Larger doses (10,000r) suppressed primarily the activity of isocitric acid dehydrogenase and - to a lesser degree - of glucodehydrogenase. All doses between 500 and 25,000r suppressed the activity of polyphenoloxidases and particularly of ascorbin-oxidase, but the peroxidase activity remained unchanged. Large doses inhibit the hydrolysis of storage substances such as protein and starch. In sunflower seeds, however, the hydrolysis of fat became more intensive under these circumstances. There are 4 tables.

ASSOCIATION: Kafedra fiziologii rasteniy L'vovskogo universiteta
(Department of Plant Physiology, L'vov University)

S/858/62/000/001/012/013
D296/D307

AUTHORS: Grebinskiy, S. O., Gadzevich, L. I. and Bodnar, I. I.

TITLE: The influence of x rays upon the growth and yield of root crops

SOURCE: L'vov. Universytet. Problemna lyaboratoriya radiobiolohiyi. Biologicheskoye deystviye radiatsii, no. 1, 1962, 90 - 97

TEXT: Earlier studies (P. A. Vlasyuk, Rost rasteniy (The Growth of Plants), Izv. L'vovskogo un-ta, 1959, 363-370) had shown that treatment of sugar beets with radioactive isotopes stimulates the growth of the crop. The authors decided to study the effect of x rays. It was assumed that the expected influence would be more marked if sprouting seedlings were exposed rather than the inactive dry seeds. The seeds were moistened and when they had begun to sprout they were exposed to x rays from a distance of 2 m at a rate of 1000 r/min. The mature roots were weighed and compared with the weight of nonirradiated roots which served as the control.

Card 1/2

The influence of x rays ...

Exposure of sprouting seedlings to doses between 500 and 1000 r was found to lead to a significant increase in the yield of sugar beets, carrots and marrows. Irradiation of dry seeds, conversely, decreased the yield and the average weight of the roots. After exposure to radiation, the roots had a somewhat higher proportion of parenchymatous tissue which led to a slight decrease in the sugar content. There are 6 tables.

ASSOCIATION: Kafedra fiziologii rasteniy L'vovskogo universiteta
(Department of Plant Physiology, L'vov University)

GREBENSKOV N. P.

LOLENKO, A.K., inzhener; SHATILOV, K.V., inzhener; NOSOV, V.A., inzhener; POLOZKOV, A.A., kandidat tekhnicheskikh nauk; GREBENSKOV, N.P., inzhener.

Determining forces acting upon parts of t he cutting apparatus in harvesting large-stemmed crops. Sel'khozmashina no.9:19-21 S '56. (MLRA 9:11)

1. Zavod Rostsel'mash.
(Harvesting machinery)

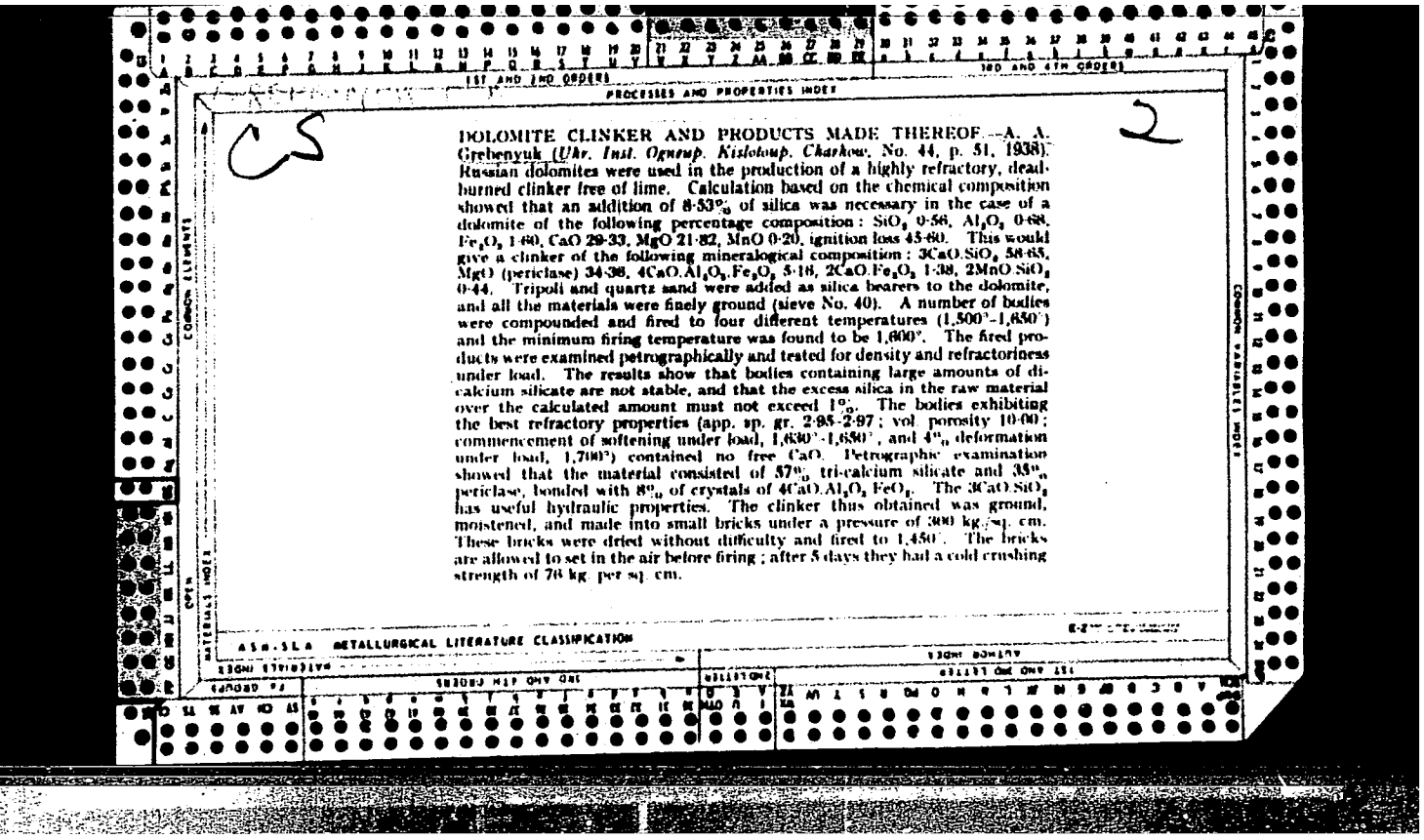
GRIBENKOVA, M. P.

GRIBENKOVA, M. P. -- "Problems of the Rationalization of Laboratory Control of the Central Water Supply at Populated Places." Rostov na Donu State Medical Inst. Rostov na Donu, 1955. (Dissertation for the Degree of Candidate in Medical Sciences)

SO: Knizhnaya Letopis', No 1, 1956

GREBENTSOV, F.F., fel'dsher (derevnya Polyany Oshmyanskogo rayona, Molodechnenskoy oblasti)

First aid centers in field tilling brigades. F$_e$l'd. i akush. 25 no.3:48 Mr '60. (MIRA 13:6)
(MOLODECHNO PROVINCE--AGRICULTURAL LABORERS--MEDICAL CARE)



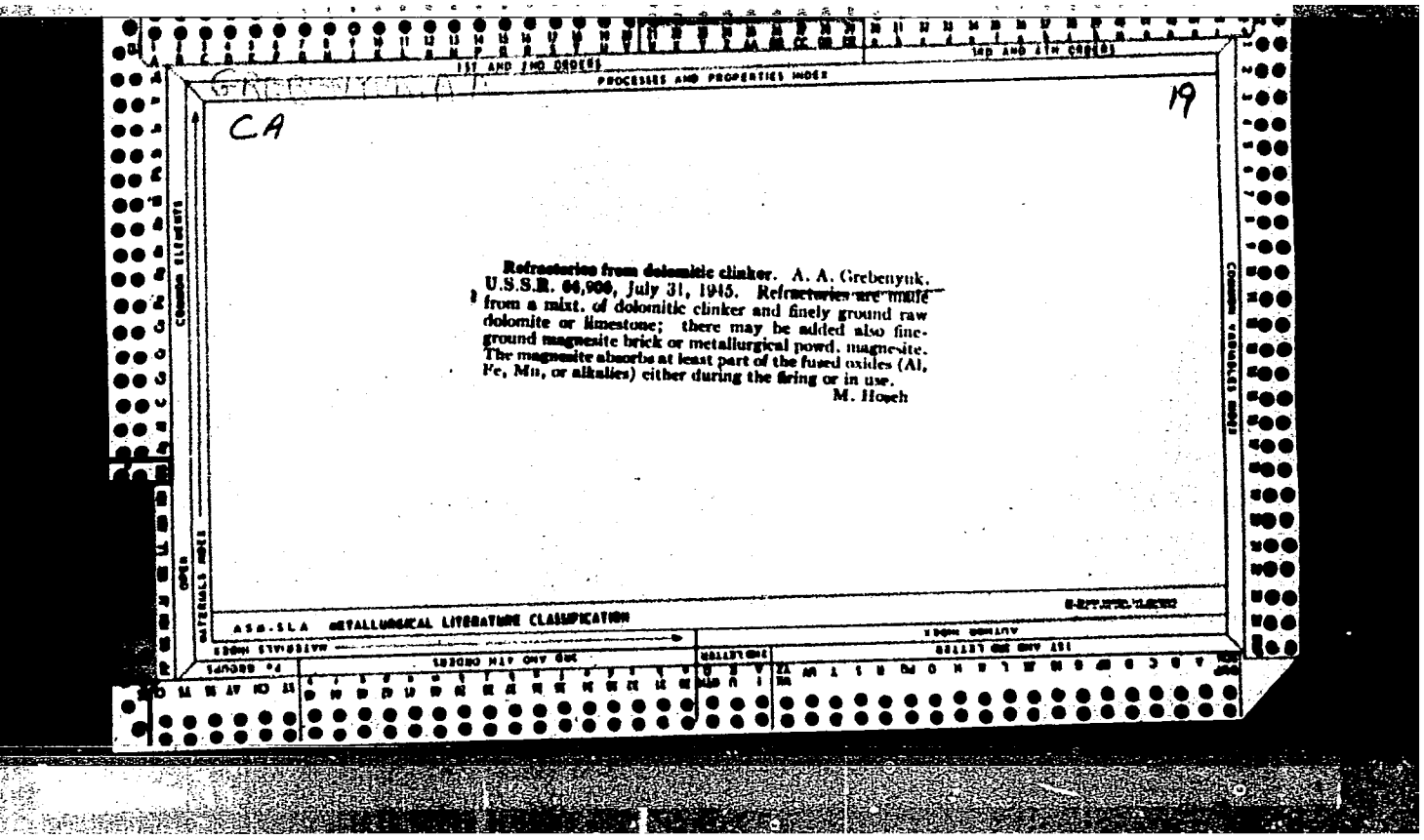
PROCESSES AND PROPERTIES INDEX

CS

2

DOLOMITE CLINKER AND PRODUCTS MADE THEREOF.—A. A. Grebenyuk (*Ukr. Inst. Ogneup. Kislotoup. Charkow*, No. 44, p. 51, 1938). Russian dolomites were used in the production of a highly refractory, dead-burned clinker free of lime. Calculation based on the chemical composition showed that an addition of 8·53% of silica was necessary in the case of a dolomite of the following percentage composition: SiO_2 0·56, Al_2O_3 0·68, Fe_2O_3 1·60, CaO 29·33, MgO 21·82, MnO 0·20, ignition loss 45·60. This would give a clinker of the following mineralogical composition: $3CaO.SiO_2$ 58·65, MgO (periclase) 34·38, $4CaO.Al_2O_3.Fe_2O_3$ 5·18, $2CaO.Fe_2O_3$ 1·38, $2MnO.SiO_2$ 0·44. Tripoli and quartz sand were added as silica bearers to the dolomite, and all the materials were finely ground (sieve No. 40). A number of bodies were compounded and fired to four different temperatures (1,500°–1,650°) and the minimum firing temperature was found to be 1,600°. The fired products were examined petrographically and tested for density and refractoriness under load. The results show that bodies containing large amounts of di-calcium silicate are not stable, and that the excess silica in the raw material over the calculated amount must not exceed 1%. The bodies exhibiting the best refractory properties (app. sp. gr. 2·95–2·97; vol. porosity 10·00; commencement of softening under load, 1,630°–1,650°, and 4% deformation under load, 1,700°) contained no free CaO. Petrographic examination showed that the material consisted of 57% tri-calcium silicate and 38% periclase, bonded with 8% of crystals of $4CaO.Al_2O_3.FeO_3$. The $3CaO.SiO_2$ has useful hydraulic properties. The clinker thus obtained was ground, moistened, and made into small bricks under a pressure of 300 kg./sq. cm. These bricks were dried without difficulty and fired to 1,450°. The bricks are allowed to set in the air before firing; after 5 days they had a cold crushing strength of 76 kg. per sq. cm.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Refractories from dolomitic clinker. A. A. Grebenyuk. U.S.S.R. 66,900, July 31, 1945. Refractories are made from a mixt. of dolomitic clinker and finely ground raw dolomite or limestone; there may be added also fine-ground magnesite brick or metallurgical powd. magnesite. The magnesite absorbs at least part of the fused oxides (Al, Fe, Mn, or alkalies) either during the firing or in use.

M. Hosch

SOV/137-59-4-7388

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 4, p 6 (USSR)

AUTHORS: Grebenyuk, A.A., Zhuravleva, Z.I.

TITLE: The Manufacture of Large-Capacity High-Alumina Crucibles and Their Testing in Operation

PERIODICAL: Sb. nauchn. tr. Vses. n.-i. in-ta ogneuporov, 1958, Nr 2, (49), pp 159 - 176

ABSTRACT: The authors investigated the effect of small admixtures of TiO_2 and ZrO_2 on alumina sintering and on properties of high-alumina crucibles. A technology was developed to obtain high-alumina crucibles cast of dross at relatively low roasting temperatures and to manufacture packings for the lining of vacuum induction furnaces up to 170 kg capacity. Cast high-alumina crucibles were made of alumina with addition of 1% TiO_2 or 2% ZrO_2 + 1% TiO_2; the dross humidity was 32.3 and 31.7%, specific weight 1.97 and 1.98 g/cm^3, pH 3.59 and 3.0 respectively. The high-alumina crucibles were dried down to 0.23 - 0.66% humidity, and were roasted at 1,600°C for eight hours. From the same material briquets were made for packings, which were crushed, until the following fractions were

Card 1/2

The Manufacture of Large-Capacity High-Alumina Crucibles and Their Testing in Operation

obtained: (in mm) 10% of 4 - 2 fraction, 35% of 2 - 1 fraction, 15% of 1 - 0.5 fraction and 40% of $<$ 0.5 fraction. High-alumina crucibles from dross of two compositions, tested in an induction furnace at a metal temperature of $\leq$ 1,600°C after 18 and 13 smelts respectively, did not exhibit cracks, shrinkage cavities and other changes in their appearance. Analogous conditions were stated in high alumina crucibles made of packing material, that were tested under similar conditions after 14 and 10 smelts.

Ya.G.

AUTHOR: Grebenyuk, A.A. 132-58-7-9/13

TITLE: Columnar Drilling Machine "DT 10 - 89" for Drilling Through Coal Layers (Kolonkovyy snaryad DT 10 - 89 dlya prokhodki ugol'nykh plastov)

PERIODICAL: Razvedka i Okhrana nedr, 1958, Nr 7, pp 50-53 (USSR)

ABSTRACT: To obtain high grade core samples of coal, many types of tubes were proposed. Each had some defect. The author describes a columnar drilling machine which he invented in 1952 and is called "DT 10 - 89". A detailed description of the apparatus is given. It has many advantages in comparison with other systems: it secures the flushing of the bore hole before drilling through the sample receiver, drills through the coal layers with a drilling fluid; protects the sample from destruction, etc. There is 1 diagram and 1 table

ASSOCIATION: Tomskiy politekhnicheskiy Institut (The Tomsk Politechnic Institute)

1. Coal--Sampling 2. Drilling machines--Equipment 3. Drilling machines--Performance 4. Drilling fluids--Applications

Card 1/1

15 (2)

AUTHORS: Grebenyuk, A. A., Zhuravleva, Z. I. SOV/131-59-7-7/14

TITLE: Production of Highly Refractory Materials on the Basis of Zirconium Dioxide (Polucheniye vysokoogneupornykh izdeliy na osnove dvuokisi tsirkoniya)

PERIODICAL: Ogneupory, 1959, Nr 7, pp 319-325 (USSR)

ABSTRACT: Among the many papers dedicated to the production of highly refractory materials on the basis of zirconium dioxide, the paper by Tsynkina is mentioned here. In the present article, the authors put forward the working results of the precision of the technology of zirconium products with sintered pieces. The production of zirconium materials directly from raw-material mixtures is described, the mixtures representing silts, the properties of which are indicated in table 1. The physical-ceramic properties of the burnt samples of raw-material mixtures are shown in table 2. The petrographic investigations were carried out by N. V. Gul'ko (Footnote 1). The production of zirconium materials from thermally treated mixtures is also described. The weight by volume and the porosity of the burnt briquette are indicated in table 3. The properties of the silts from briquetted and thermally treated mixtures on the basis of

Card 1/2

ZrO_2 are given in table 4. The physicochemical properties of burnt products from previously heat-treated briquetted mixtures on the basis of ZrO_2 are indicated in table 5. The principal manufacturing scheme of products on the basis of ZrO_2 is shown in the figure. Conclusions: The possibility of producing materials with dense pieces on the basis of zirconium dioxide is pointed out in three different ways. It is recommended to manufacture all three types of the products. There are 1 figure, 5 tables, and 8 references, 6 of which are Soviet.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractories)

GREBENYUK, A. A.

Cand Tech Sci - (diss) "Analysis of the effect of basic factors on the exiting of coal core with the purpose of establishing foundations for designing dual coring /kolonkobyy/ apparatus." Tomsk, 1961. 16 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Tomsk Order of Labor Red Banner Polytechnic Inst imeni S. M. Kirov, Chair of Prospecting Techniques); 150 copies; price not given; (KL, 6-61 sup, 216)

SULAKSHIN, S.S.; GREBENYUK, A.A.

Analysis of the factors affecting the core extracted by double coring tools in coal mining. Izv. vys. ucheb. zav.; geol. i razv. 4 no.3:115-125 Mr. '61. (MIRA 14:6)

1. Tomskiy politekhnicheskiy institut.
(Coal—Analysis) (Core drilling)

SUKAKSHIN, S.S.; GREBENYUK, A.A.; BABUROV, V.I.; POBEZHIMOV, N.F.; ROZHKOV, V.P.; KHRAMENKOV, V.G.

Development and introduction of the BKS-1-TPI double core drill. Razved. i okh. nedr 29 no.1:57-59 Ja '63. (MIRA 16:2)

1. Tomskiy politekhnicheskiy institut.
(Core drilling—Equipment and supplies)

ACC NR: AP7005313 (A) SOURCE CODE: UR/0131/67/000/001/0050/0055

AUTHOR: Karaulov, A. G.; Grebenyuk, A. A.; Rudyak, I. N.

ORG: Ukrainian Scientific Research Institute of Refractories (Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov)

TITLE: Effect of stabilizing additives on the thermal resistance of zirconia products

SOURCE: Ogneupory, no. 1, 1967, 50-55

TOPIC TAGS: zirconium compound, refractory product, calcium oxide, magnesium oxide, phase composition

ABSTRACT: The effect of such stabilizing agents as chalk containing 53.8% CaO (calcination loss 42.48%) and magnesium oxide containing 75.2% MgO (calcination loss [illegible]%) on the heat resistance and mechanical properties of zirconia products was investigated. Briquets of zirconia (97.15% ZrO_2 + HfO_2, with traces of SiO_2, Al_2O_3, TiO_2, Fe_2O_3, CaO, MgO) treated with these stabilizing agents were fired in a flame furnace at 1750°C, pulverized in a jaw crusher, subjected to magnetic separation to remove iron. The resulting powder was subjected to x-ray phase analysis and tests of refractoriness at ~2400-2600°C. Findings: zirconia

1/2 UDC: 666.76.004.12

ACC NR: AP7005313

products with satisfactory heat resistance can be obtained provided that the amount of the monoclinic phase in fired specimens prepared from granular compositions should be at least 15%. It is further established that as the CaO content increases from 7.0 to 20 mol.% the heat resistance of ZrO_2 products decreases. The addition of up to 20% of monoclinic ZrO_2 to the charge enhances heat resistance in inverse proportion to the amount of CaO present in the stabilized part of the material. This is due to the additional stabilization of zirconia by the CaO migrating from the stabilized grain to the monoclinic ZrO_2. Additional stabilization of monoclinic ZrO_2 is also observed on cyclic heating from 20 to 1600°C and back to 20°C. Specimens of CaO-stabilized zirconia display a higher heat resistance than specimens of MgO-stabilized zirconia, given an equal content of monoclinic phase. Orig. art. has: 3 figures, 4 tables.

SUB CODE: 11, 20, 13/ SUBM DATE: none/ ORIG REF: 022/ OTH REF: 010

CA

10

Condensation of allylcyanide with benzene. Synthesis of derivatives of 2-phenylbutyric acid. I. P. Tsukervanik and A. D. Grebenyuk. *Doklady Akad. Nauk S.S.S.R.* **76**, 223-5(1951); cf. U.S. 2,476,264; *C.A.* **43**, 7988.—Since nitriles form rather stable complexes with $AlCl_3$, alkylation of C_6H_6 with Friedel-Crafts conditions does not proceed satisfactorily, when molar proportions are used. However, addn. over 30 min. of 19.9 g. $AlCl_3$ to 16.8 g. $CH_2:CHCH_2CN$ and 100 ml. C_6H_6 ppts. at first a solid complex, which disappears slowly; heating 2.5 hrs. at 70° and usual hydrolytic treatment give 93% $PhCHMeCH_2CN$, b_5 99-101°, b_{10} 135°, b_{20} 140-2°, d_4^{20} 0.9832, n_D^{20} 1.5173. Boiling with 30% NaOH gave 98% of the corresponding *acid*, b_{10} 158-60°. Addn. of 31.3 ml. 30% H_2O_2 to 9.01 g. nitrile in 35 ml. EtOH followed by 2.7 ml. 24% NaOH led to active interaction; heating 1.5 hrs. on a water bath, neutralization, and evapn. yielded 96% $PhCHMeCH_2CONH_2$, m. 104-6° (from dil. EtOH), which with NaOH and Br gave 38% $PhCHMeCH_2NH_2$, b_{20} 97-105° (*picrate*, m. 179-81°; *benzoate*, m. 85-7°). Hydrogenation of the nitrile in EtOH over Raney Ni in the presence of NH_3 at 50 atm. H gave 80% $PhCHMeCH_2CH_2NH_2$, b_{20} 112-15°, d_4^{20} 0.9382, n_D^{20} 1.5100; *picrate*, m. 138-9° (from EtOH). G. M. K.

1951

GREBENYUK, A. D.

USSR/Chemistry - Alkylation Sep 52

"Cycloalkylation of Aromatic Compounds. V. Synthesis of Trans-1-methyl-4-phenylcyclohexane," N. G. Sidorov, A. D. Grebenyuk

"Zhur Obshch Khim" Vol 22, No 9, pp 1550-1552

Hydrogenation of 4-methyl-1-phenylcyclohexene at 180° in the presence of Raney Ni results in the formation of the trans isomer of 1-methyl-4-phenylcyclohexane. The acetoamino and benzamino derivs of trans-1-methyl-4- phenylcyclohexane were obtained.

232T21

GREBENYUK, A. D.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Organic Chemistry

(2) chem

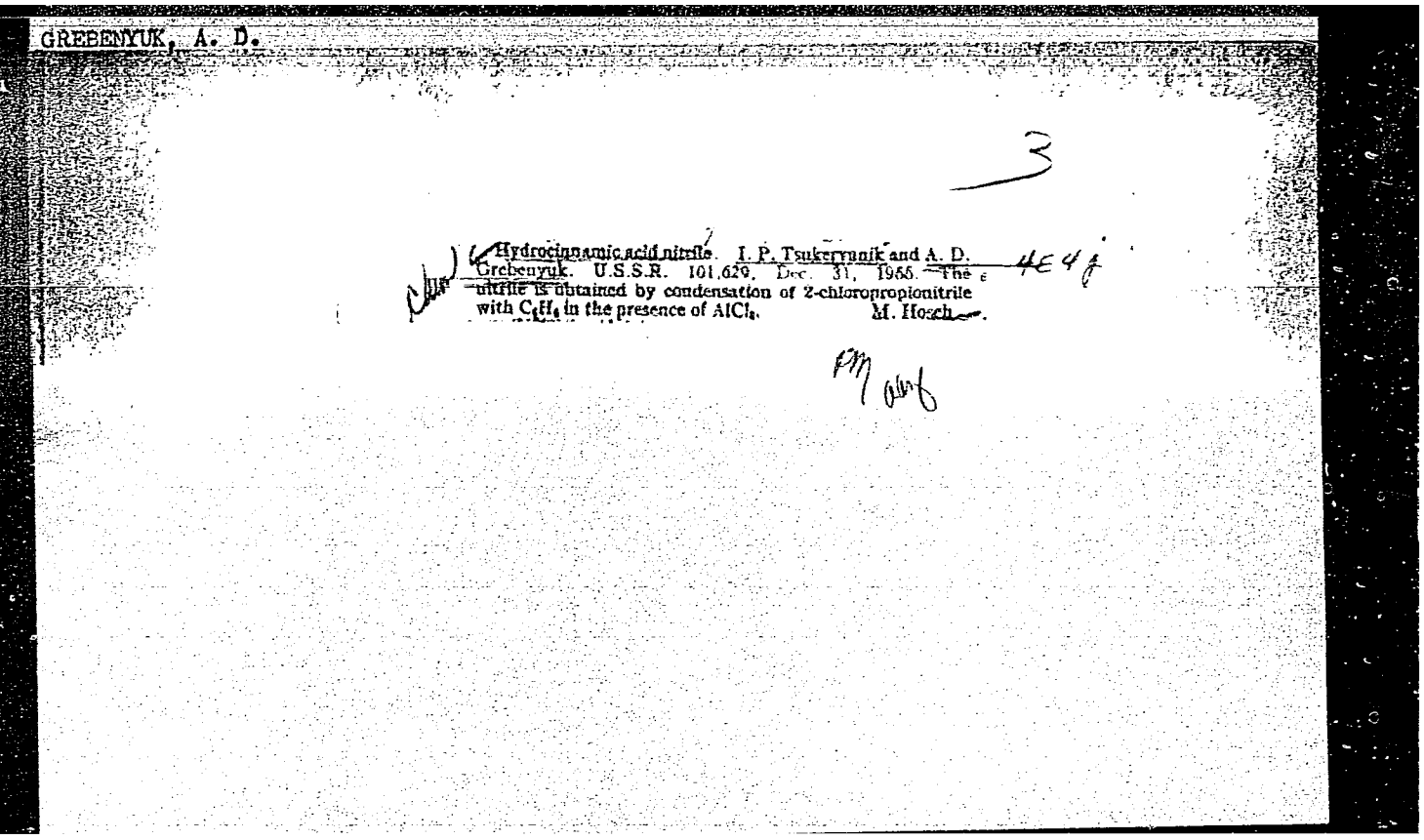
Cycloalkylation of aromatic compounds. V. Synthesis of *trans*-1-methyl-4-phenylcyclohexane. N. G. Sidorova and A. D. Grebenyuk. *J. Gen. Chem.* (U.S.S.R.) 22, 1591-3(1952).—See *C.A.* 47, 8025*d*. H. L. H.

11-11-54

GREBENYUK, A. L.

Dissertation: "Cyanoethylization of the Nucleus of Aromatic Compounds." Cand Chem Sci, Central Asia State U, Tashkent, 1954. (Referativnyy Zhurnal, Khimiya, Moscow, No. 16, Aug 54)

SO: SUM 393, 28 Feb 55



GREBENYUK, A. D.

3

Hydrocinnamic acid nitrile. I. P. Tsukervanik and A. D. Grebenyuk. U.S.S.R. 101,629, Dec. 31, 1956. The nitrile is obtained by condensation of 2-chloropropionitrile with C_6H_6 in the presence of $AlCl_3$. M. Hoach.

4E4j

GRIBENYUK, A.D.; TSUKERVANIK, I.P.

Cyanoethylation of the ring in aromatic compounds. Zhur.ob.khim. 25 no.2:286-293 F '55. (MLRA 8:6)

1. Sredneaziatskiy Gosudarstvennyy universitet.
(Cyanoethylation) (Aromatic compounds)

GREBENYUK, A.D.; TSUKERVANIK, I.P.

Condensation of nitrile of γγγ-trichlorocrotonic acid with benzene in the presence of aluminum chloride. Zhur.ob.khim. 28 no.9: 2380-2384 S '58. (MIRA 11:11)

1. Sredneaziatskiy gosudarstvennyy universitet.
(Crotonic acid) (Benzene)

GREBENYUK, A.D.; KHOLMATOV, M.; TSUKERVANIK, I.P.

Reactions of nitroolefins with aromatic compounds in the presence of acid catalysts. Part 1: Condensation of β-nitrostyrene with benzene in the presence of aluminum chloride. Zhur.ob.khim. 32 no.8:2654-2657 Ag '62. (MIRA 15:9)
(Styrene) (Benzene)

GREBENYUK, A.D.; LADANOVA, A.; TSUKERVANIK, I.P.

Reactions of nitroolefins with aromatic compounds in the presence of acid catalysts. Part 2: Condensation of 1,1,1-trichloro-3-nitro-2-propene with benzene in the presence of aluminum chloride. Zhur.ob.khim. 33 no.2:490-493 F '63. (MIRA 16:2)

(Propene) (Benzene) (Aluminum chloride)

GREBENYUK, A.D.; YAGUDAYEV, M.R.

Infrared spectra of the condensation products of 1,1,1 -trichlorocrotonic acid nitrile with benzene in the presence of aluminum chloride. Zhur.ob.khim. 33 no.10:3253-3257 O '63. (MIRA 16:11)

1. Tashkentskiy gosudarstvennyy universitet im. V.I.Lenina i Institut khimii rastitel'nykh veshchestv AN UzSSR.

GREBENYUK, A.D.; ZAYTSEVA, N.; LOGUNOVA, T.

Reactions of nitroolefins with aromatic compounds in the presence of acid catalysts. Part 3: Condensation of β-nitrostyrene with toluene in the presence of BF_3 and $BF_3 \cdot H_3PO_4$. Zhur. org. khim. 1 no.4:691-696 Ap '65. (MIRA 18:11)

1. Tashkentskiy gosudarstvennyy universitet.

BILOKON', S.M. [Bilokon', S.M.]; GREBENYUK, A.F. [Hrebeniuk, A.F.]; MURMILOV, A.V.; KONOMENKO, V.Ye. [Konomenko, V.IE.]

Effect of the heating time on the yield of the product in the semicoking of Donets gas coals with a solid heat exchanger. Zbir. prats' Inst. tepl. AN URSR no.25:16-24 '62. (MIRA 17:1)

GREBENYUK, A. I.

IL'YENKO, M.S.; GREBENYUK, A.I.; NIKOL'SKIY, D.N.; STANISLAVSKIY, N.A., inzhener, redaktor; BAYBAKOV, A.B., laureat Stalinskoy premii, inzhener, retsenzent.

[Calculation and design of gears, worm gears and reduction gears; a handbook] Raschet i proektirovanie zubchatykh i cherviachnykh peredach i reduktorov; spravochnoe rukovodstvo. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry. [Ukr. otd-nie] 1953. 589 p. (MLRA 7:7)

(Gearing--Handbooks, manuals, etc.)

GREBENYUK, A. Z.

GREBENYUK, A.Z.: "The combined fattening of young cattle with succulent fodder". Moscow, 1955. All-Union Sci Res Inst of Animal Husbandry. (Dissertation for the Degree of Candidate of AGRICULTRUAL Sciences)

SO: Knizhnaya Letopis' No. 51, 10 December 1955

Below is a list of D. G. Grobenyk's scientific publications.

LIST OF PROF. D. G. GRIGORYEV'S SCIENTIFIC WORKS

1935. 1. On whole algebraic numbers depending on the root of an irreducible 4th power equation, 1st report, AGU (Central Asia State University), No 11.

1936. 2. On whole algebraic numbers depending on the root of an irreducible 4th power equation, 2nd report, AGU bulletin No 12.

3. On the fundamental basis in the field of algebraic numbers depending on the root of an irreducible 4power equation. AGU bulletin No 13.

4. On a single class of polynoms least deviating from zero. AGU Bulletin No. 13

- 71 -

1937. 5. On the polynoms least deviating from zero whose coefficients are connected by two linear functions. AGU publications, 1st edition.

1938. 6. The history of the analysis of infinitesimals. Sotsialist Science and Technology, No 4.

1939. 7. On polynoms least deviating from zero whose coefficients conform to several linear functions. AGU publications, 1st edition.

1940. 8. A formula of the prim numbers in the series 1;2....n, Report of the Uzbek Affiliate of the AS USSR, No 10.

9. The application of the theory of polynoms, least deviating from zero, to the mechanical evaluation of integrals.

1946. 10. A new proof the infinity of primary number of the 2kp / 1 type. Reports of the Acad Sci Uzb SSR, No 3.

11. On the minimum margin of error in the best approximation of the continuous functions of several variables with the aid of polynomials. Reports of the Acad Sci Uzb SSR, No 6.

GREBENYUK, D.G.

Grebenyuk, D. G. - "On the existence of polynomials with the least deviation from zero along the segment (a, b) where L equals & ", Doklady Akad. nauk UzSSR, No. 9, 1948, p. 3-7

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

GREBENYUK, D.G., professor.

Construction of certain uniform approximations. Trudy Inst.mat.i mekh. AN Uz.SSR no.5:20-29 '49. (MLRA 6:12)
(Approximate computation) (Polynomials)

GREBENYUK, D., kandidat fiziko-matematicheskikh nauk.

Minimum of certain integrals. Trudy Inst.mat.i mekh. AN Uz.SSR no.5: 111-118 '49. (MLRA 6:12)
(Integrals)

GREBENYUK, D.G.

28188

O predstavlenii tselago chisla "P" v vide summy arefmeticheskoy progressii s polozhitel'nymi chlena mi i polozhitel'noy Raznost'yu. Doklady Akad nauk N3CCR, 1949, N6, s. 3-6. Rezyhme na uzbek yaz.

GREBE.YUK,D.G. About presentation of full calculus "Π" in the realty of sum of the arithmetical's progress with it, positive members and positive . differential. Report of the Academy of Science. UzSSR, 1949, #6 page 3-6. Resume made in uzbekovskey language.

SO. LETOPIS NO. 34

Below is a list of D. D. Grebnyk's scientific publications.

LIST OF PROF. D. D. GREBNYK'S SCIENTIFIC WORKS

1950

18. On the L^p power polynome, least deviating from zero, whose coefficients are connected by a single linear function. The works of the Institute of Mathematics, Acad Sci Ukr SSR, 7th issue.

19. On the improvement of practical studies in higher mathematics at the higher technical schools. Bulletin of the Higher School, No 6.

1951 20. Certain characteristics of polynome, least deviating from zero, whose coefficients conform to several linear functions. The works of the Institute of Mathematics, Acad Sci Ukr SSR, 8th issue.

21. On the approximate calculation of multiple integrals, The works of the Institute of Mathematics, Acad Sci Ukr SSR, 8th issue.

22. On the minima of some multiple integrals. Reports of the Acad Sci Ukr SSR, No 5.

23. On the application of the theory of functions, least deviating from zero, to an approximate solution of ordinary differential equations. The works of the Institute of Mathematics, Acad Sci Ukr SSR, 9th issue.

GREBENYUK, D. G.

USSR/Mathematics - Interpolation 1952

"A Method of Interpolating," D. G. Grebenyuk

Tr Inst Mat i Mekh, Ak Nauk Uzbek SSR, No 9, pp 15-28

Illustrates a simple method for finding the interpolational polynomial phi $\phi(x) = C_1 + C_2 x + \ldots + C_n x^{n-1}$ that deviates the least from a function $f(x)$ given on an interval, which gives much better results than Lagrange interpolation; e.g. $(x+3)^{\frac{1}{2}} \approx 1.7196 + 0.2929x - 0.2889x^2 - 0.0250x^3$ (for n=2), or $1.7321 + 0.2680x - 0.0319xy$ in $0.0039x^3$ (n=4), on interval $[-1, 1]$. Also illustrates two-dimensional interpolation; e.g., $(x+y+3)^{\frac{1}{2}} \approx 1.7320 + 0.2680x + 0.2680y - 0.0319xy$ in unit rectangle in quadrant I with corner at origin. Cites Shnirel'man ("Certain Uniform Approximations" Iz Ak Nauk SSSR, Ser Matemat, No 2, 1939).

248T93

USSR/Mathematics - Approximations 1952

"Construction of Formulas for Approximately Computing Double Integrals in the Region (D) Representing the Circle $x^2+y^2=k^2$," D. G. Grebenyuk

Tr Inst Mat i Mekh, Ak Nauk Uzbek SSR, No 9, pp 29-59

Particularizes and illustrates general formulas developed in his previous work ("Approximate Computation of Integrals of Various Multiplicity by Polynomials Deviating the Least from Zero," ibid. No 6 (1950)); e.g. $\int_{(D)} f(x,y)dxdy \approx \pi k^2 f(0,0)$,

248T94

or better, $\frac{1}{8}\pi k^2\left[f(k,0)+f(-k,0)+f(0,k)+f(0,-k)+f\left(\frac{k}{\sqrt{2}},\frac{k}{\sqrt{2}}\right)+f\left(-\frac{k}{\sqrt{2}},\frac{k}{\sqrt{2}}\right)+f\left(-\frac{k}{\sqrt{2}},-\frac{k}{\sqrt{2}}\right)+f\left(\frac{k}{\sqrt{2}},-\frac{k}{\sqrt{2}}\right)\right]$, and better still $\pm k\left[f\left(\frac{3}{8}k,\frac{3}{8}k\right)+f\left(\frac{1}{2}k,-\frac{1}{2}k\right)+f\left(-\frac{1}{2}k,\frac{1}{2}k\right)+\right.$ $\left.f\left(-\frac{1}{2}k,-\frac{1}{2}k\right)\right]$. In this connection he obtains two other improved approximations, the last one containing 16 terms of the form $f\left(\pm k\sqrt{\frac{3}{8}\pm\sqrt{\frac{5}{8}}}\right)$.

PA 248T94

248T94

of integers in the form of a sum of a definite number of cubes. DoRI. Akad. Nauk Uzbek. SSR 1953, no. 2, 3–6. (Russian. Uzbek summary)

The author notes that if the numbers $d_1, \dots, d_m, \Delta_1, \dots, \Delta_m, d, \Delta$ satisfy the equations

$$\Delta_{i+1}-\Delta_i=d_{i+1}-d_i \quad (1\le i<m), \qquad \Delta_m-\Delta=d_m-d, \qquad \sum_{i=1}^{m} d_i\Delta_i$$

[illegible] fixed m, he attempts to solve the diophantine equation (5) $n=\sum A_i^3$ by putting (6) $n=dd$, $A_i^3=d_i\delta_i$. On eliminating d, δ from (1), (3), (6) we have

$$4n=(d_m+\delta_m)^3-(\delta_1-d_1)^3.$$

Also from (6) we have

$$\text{(8)} \qquad \begin{aligned} A_i &= l_i'''l_i^{IV}(\Delta_i)^2 e_i'e_i'' \\ \delta_i &= (l_i''')^2 l_i^{IV}(e_i')^3\Delta_i^2 \\ d_i &= l_i'''(l_i^{IV})^2(e_i'')^3\Delta_i^2 \end{aligned}$$

(in the author's notation) for integers l_i''', l_i^{IV}, e_i', e_i'', Δ_i. If these integers can be found such that (8) satisfies (2), then we have a representation (5) of the number n given by (7).

The only special case discussed is $l_{i+1}'''=l_i'''+a$ $(1\le i<m)$ $l_i^{IV}=a$, $e_i'=e_i''=\Delta_i=1$ which, effectively, gives the sum of the series

$$(l_1''')^3+(l_1'''+a)^3+\cdots+(l_1'''+(m-1)a)^3.$$

J. W. S. Cassels (Cambridge, England)

GREBENYUK, D.G.

Certain theorems concerning polynomials in several variables with the least deviation from a given function, whose coefficients are connected by several linear dependences. Trudy Inst. mat.i mekh. AN Uz.SSR no.10: 105-128 part 2 '53. (MLRA 8:4)
(Polynomials)

Grebenyuk, D. G. Construction of formulas of approximate computation of triple integrals in a region (D) representing a sphere. Akad. Nauk Uzbek. SSR. Trudy Inst. Mat. Meh. **13** (1954), 43–55. (Russian)

Grebenyuk, D. G. Construction of formulas of approximate computation of triple integrals on a region representing an ellipsoid. Akad. Nauk Uzbek. SSR. Trudy Inst. Mat. Meh. **13** (1954), 57–69. (Russian)

The author obtains formulas of the type

$$(1) \qquad \int_{(D)} f(x, y, z)\,dx\,dy\,dz = \sum_{k=1}^{n} A_k f(x_k, y_k, z_k) + R_n,$$

in which D is a region bounded either by a sphere or by an ellipsoid and (x_k, y_k, z_k), are properly chosen points within the region. The selection of these points is based on an earlier paper by the author in same Trudy 6 (1951).

W. E. Milne (Corvallis, Ore.).

Fredholm integral equations. Akad. Nauk Uzbek. SSR. Trudy Inst. Mat. Meh. 15 (1955), 107–110. (Russian)

The author considers the approximate solutions of Fredholm's integral equations,

$$\varphi(x)=\lambda\int_a^b K(x,s)\varphi(s)ds+f(x)\ (a\leqq(x,s)\leqq b),$$

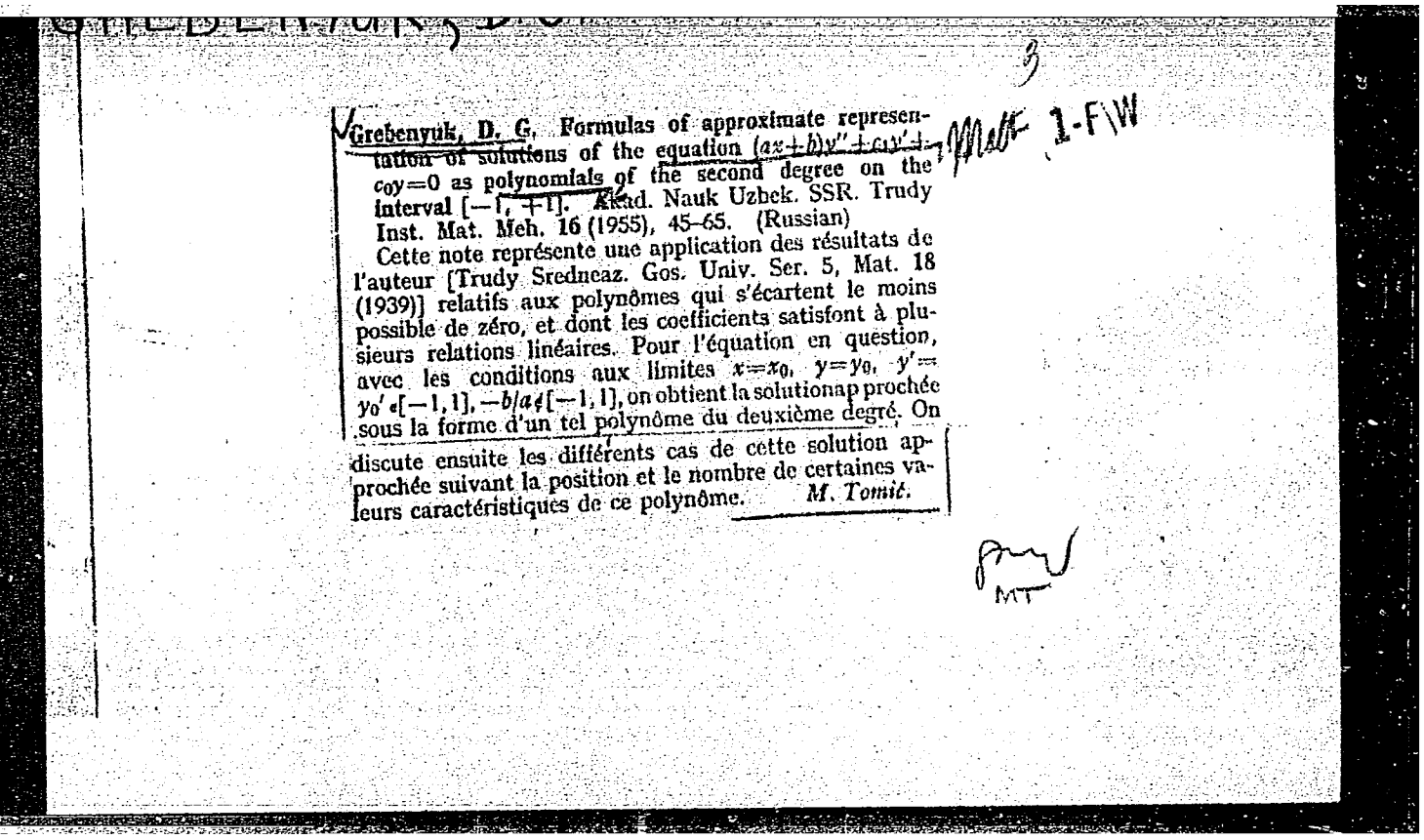
in the form of a generalized polynomial $P_n(x)=\sum_1^n p_i\varphi_i(x)$.

The polynomial $P_n(x)$ is constructed so that the difference $f(x)-\sum_1^n p_i b_i(x)$, where

$$b_i(x)=\varphi_i(x)-\lambda\int_a^b K(x,s)\varphi_i(x)\,dx,$$

has the least deviation from zero in the interval (a, b).

S. Kulik (Columbia, S.C.).



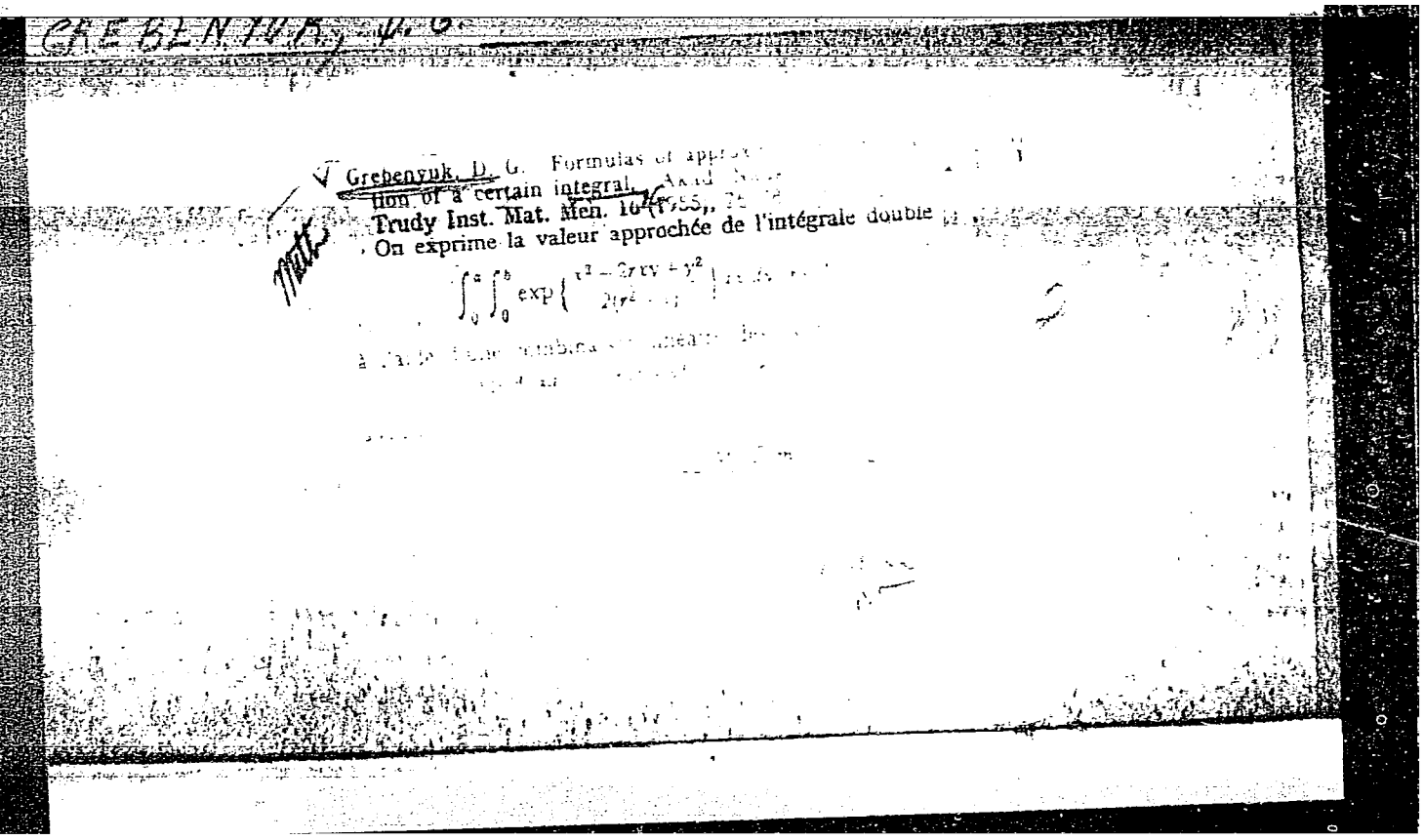
3

Grebenyuk, D. G. Formulas of approximate representation of solutions of the equation $(ax+b)y''+cy'+c_0y=0$ as polynomials of the second degree on the interval $[-1, +1]$. Akad. Nauk Uzbek. SSR. Trudy Inst. Mat. Meh. 16 (1955), 45–65. (Russian)

Cette note représente une application des résultats de l'auteur [Trudy Sredneaz. Gos. Univ. Ser. 5, Mat. 18 (1939)] relatifs aux polynômes qui s'écartent le moins possible de zéro, et dont les coefficients satisfont à plusieurs relations linéaires. Pour l'équation en question, avec les conditions aux limites $x=x_0$, $y=y_0$, $y'=y_0' \in [-1, 1]$, $-b/a \notin [-1, 1]$, on obtient la solution approchée sous la forme d'un tel polynôme du deuxième degré. On discute ensuite les différents cas de cette solution approchée suivant la position et le nombre de certaines valeurs caractéristiques de ce polynôme. *M. Tomić.*

Math 1-FW

MT



Grebenyuk, D. G. Formulas of appro[illegible]
tion of a certain integral. [illegible]
Trudy Inst. Mat. Mekh. 16 (1955), [illegible]
On exprime la valeur approchée de l'intégrale double [illegible]

$$\int_0^a \int_0^b \exp\left(\frac{x^2 - 2rxy + y^2}{2\sigma^2} \right) [illegible]$$

GREBENYUK, D.G.

Polynomials, deviating least from a given function and coefficients of which are connected by m-linear dependencies. Trudy Inst. mat. i mekh. AN Uz. SSR no.17:127-148 '56. (MLRA 10:4)
(Polynomials)

GREBENYUK, D.G

Formulas for approximating the value of an integral with two infinite limits. Dokl. AN Uz. SSR no.9:5-11 '57. (MIRA 11:5)

1.Institut matematiki i mekhaniki im. V.I. Romanovskogo AN UzSSR. Predstavleno akademikom AN UzSSR T.N. Kary-Niyazovym.
(Integral equations)

GREBENYUK, D.G.

Errors in certain quadrature formulas with two infinite limits..
Dokl. AN Uz. SSR no.12:5-7 '57. (MIRA 11:5)

1.Institut matematiki i mekhaniki im. V.I. Romanovskogo AN UzSSR.
Predstavleno akad. AN UzSSR T.N. Kary-Niyazovym.
(Polynomials) (Integrals)

GREHENYUK, D.G.

Theory of whole algebraic numbers depending on the root of an irreducible fourth-power equation. Izv. AN Uz. SSR. Ser.fiz.-mat.nauk no.6:27-47 '58. (MIRA 12:2)

1. Institut matematiki i mekhaniki AN UzSSR.
(Numbers, Theory of)

GREBENYUK, D.G.

Generalizing Gauss' quadratic formula for the case of m variables.
Izv. AN Uz.SSR. Ser. fiz.-mat. nauk no.2:69-76 '58. (MIRA 11:10)

1. Institut matematiki i mekhaniki imeni V.I. Romanovskogo.
(Integrals) (Polynomials)

16(1)
AUTHOR: Grebenyuk, D.G.

SOV/166-59-1-7/11

TITLE: On the Approximate Solution of Fredholm Integral Equations (K priblizhennomu resheniyu integral'nykh uravneniy Fredgol'ma)

PERIODICAL: Izvestiya Akademii nauk Uzbekskoy SSR, Seriya fiziko-matematicheskikh nauk, 1959, Nr 1, pp 63-68 (USSR)

ABSTRACT: For the solution of the equation

$$\varphi(x) = \lambda \int_a^b K(x,s)\,\varphi(s)ds + f(x),$$

where the kernel is continuous in $a \leq x \leq b$, $a \leq s \leq b$ and $f(x)$ is continuous on $[a,b]$ it is put

$$\varphi x = p_1 \psi_1(x) + p_2 \psi_2(x) + \ldots + p_n \psi_n(x),$$

where $\psi_k(x)$ are given functions continuous in $[a,b]$. According to L.G.Shnirel'man [Ref 2] the problem leads to an approximation problem for $f(x)$ on $[a,b]$. For the determination of the parameters p_i there serves a certain system of equations. In

Card 1/2

On the Approximate Solution of Fredholm Integral Equations SOV/166-59-1-7/11

this manner the author calculates explicitly the example

$$\varphi(x) = \lambda \int_0^1 xt\,\varphi(t)dt + e^x$$

with $\varphi(x) = p_1 + p_2 x$ and with $\varphi(x) = p_1 + p_2 x + p_3 e^x$.

There are 2 Soviet references.

ASSOCIATION: Institut matematiki i mekhaniki AN Uz SSR (Institute of Mathematics and Mechanics AS Uz SSR)

SUBMITTED: July 12, 1958

Card 2/2

16(1);16(2) 06379

AUTHOR: Grebenyuk, D.G. SOV/166-59-5-6/9

TITLE: On Some Weighted Polynomials Deviating Least From Zero in the Interval $[0,+\infty]$

PERIODICAL: Izvestiya Akademii nauk Uzbekskoy SSR, Seriya fiziko-matematicheskikh nauk, 1959, Nr 5, pp 49-63 (USSR)

ABSTRACT: Let

(1) $$f(x) = e^{-\frac{x}{2}} p(x),$$

where $p(x) = p_0 + p_1 x + \ldots + p_n x^n$ satisfies the condition

(2) $$\omega(p) = \alpha_0 p_0 + \alpha_1 p_1 + \ldots + \alpha_n p_n = 1,$$

where the α_i are given real numbers. Let $L_f = \max_{x\in(0,\infty]} |f(x)|$. Let $L = \min_f L_f$. Functions $f(x)$ for which $L_f = L$ are denoted as weighted polynomials deviating least from zero in $[0,\infty]$. Principal theorem: In order that $f(x)$ deviates least from zero in $[0,\infty]$ it is necessary and sufficient that there exists no weighted polynomial $g(x) = e^{-\frac{x}{2}} q(x)$, $q(x)=q_0+q_1x+\ldots+q_nx^n$ for which the numbers $\tau(x_1), \tau(x_2), \ldots, \tau(x_\mu)$ are different

Card 1/2

06379

On Some Weighted Polynomials Deviating Least From Zero the Interval $[0,+\infty]$ SOV/166-59-5-6/9

from zero and of the same sign. Here it holds

(5) $\tau(x_i) = \omega(q)L_f^2 - f(x_i)g(x_i), \quad i=1,2,\ldots,\mu;$

the x_i are points where $|f(x)| = L_f$.

The proof is the same as for polynomials $e^{-\frac{x^2}{2}} p(x)$ in [Ref 2]. Two further theorems and a series of conclusions are given. The results serve for the approximate calculation of $\int_0^\infty e^{-x} f(x)dx$.

The author mentions Ya.V.Uspenskiy.
There are 2 Soviet references.

ASSOCIATION: Institut matematiki imeni V.I.Romanovskogo AN Uz SSR
(Institute of Mathematics imeni V.I.Romanovskiy AS Uz SSR)

SUBMITTED: March 6, 1959

Card 2/2

29841
S/044/61/000/007/010/055
C111/C222

16.4100

AUTHOR: Grebenyuk, D.G.

TITLE: On some weighted polynomials of degree $\leq n$ deviating least from zero on the interval $(-\infty, +\infty)$, and the coefficients of which are connected by some linear relations

PERIODICAL: Referativnyy zhurnal.Matematika, no. 7, 1961, 10, abstract 7 B 39. ("Issled. po matem. analizu i mekhanike v Uzbekistane". Tashkent, AN Uz SSR, 1960, 30-69)

TEXT: The author considers the set of functions

$$f(x) = e^{-\frac{x^2}{2}} p_n(x) ,$$

where $p_n(x) = \sum_{k=0}^{n} p_k x^k$ is a polynomial of at most n-th degree the real coefficients of which are connected by the linear relations

29841
S/044/61/000/007/010/055
C111/C222

On some weighted polynomials ...

$$\omega_1(p) = \sum_{k=o}^{n} \alpha_k p_k = \varepsilon_1 \ , \ \omega_2(p) = \sum_{k=o}^{n} \beta_k p_k = \varepsilon_2 \ .$$

Here $\{\alpha_k\}$, $\{\beta_k\}$ are given real numbers, ε_1 and ε_2 are equal to 0 or 1 and $\varepsilon_1^2 + \varepsilon_2^2 > 0$. The author gives certain relations being necessary and sufficient in order that the function $f(x)$ deviates least from zero on the whole real axis, i.e. in order that the maximum of the weighted deviation of the polynomial $p_n(x)$ from zero is minimal. The author considers the example : $n = 2$, $\omega_1(p) = p_o - p_1 + p_2 = 1$, $\omega_2(p) = - p_o - 2p_1 + 2p_2 = 1$; the polynomial $p_2^*(x) = \frac{1}{3}(1 - x + x^2)$ is extremal. Conditions found by the author in the case of two relations of coefficients are extended to the case of $m < n$ relations.

[Abstracter's note: Complete translation.]

Card 2/2

29842
S/044/61/000/007/011/055
C111/C222

16.4100

AUTHOR: Grebenyuk, D.G.

TITLE: On polynomials of several variables the coefficients of which are connected by some linear relations and which deviate least from a given function in a region (D).

PERIODICAL: Referativnyy zhurnal, Matematika, no. 7, 1961, 10, abstract 7 B 40. ("Issled. po matem. analizu i mekhanike v Uzbekistane", Tashkent, AN Uz SSR, 1960, 70-83)

TEXT: The author considers polynomials of two variables

$$p(x,y) = \sum p_{r_1 r_2} x^{r_1} y^{r_2} \qquad (r_1 + r_2 = 0,1,\ldots, n)$$

with real coefficients which are connected by two linear relations

$$\omega_1(p) = \sum \alpha_{r_1 r_2} p_{r_1 r_2} = \varepsilon_1 , \quad \omega_2(p) = \sum \beta_{r_1 r_2} p_{r_1 r_2} = \varepsilon_2 , \quad (1)$$

Card 1/2

29842
S/044/61/000/007/011/055
C111/C222

On polynomials of several variables ...

where $\left\{ \alpha_{r_1 r_2} \right\}$, $\left\{ \beta_{r_1 r_2} \right\}$ are two given systems of real numbers, ε_1 and ε_2 are equal to 0 or 1. The author gives conditions that a polynomial of this type deviates least from a given function $\varphi(x,y)$ in a region (D), i.e. in this region it yields the best approximation of this function among all polynomials of the given degree which satisfy (1). As an example he considers the function $\varphi = \sqrt{x^2 + y^2}$ in the region D: $-1 \leq x,y \leq 1$; for $n = 3$ the author determines the polynomial of the best approximation.

[Abstracter's note : Complete translation.]

Card 2/2

29843
S/044/61/000/007/012/055
C111/C222

16.2600

AUTHOR: Grebenyuk, D.G.

TITLE: On the minimum of some integrals with infinite boundaries

PERIODICAL: Referativnyy zhurnal. Matematika, no. 7, 1961, 10, abstract 7 B 41 ("Issled. po matem. analizu i mekhanike v Uzbekistane". Tashkent, AN Uz SSR, 1960, 84-85)

TEXT: The author considers the problem : The value of the integrals

$$\int_{-\infty}^{\infty} e^{-x^2} r(x) x^k dx = \alpha_k \qquad (k = 0, 1, \ldots, n)$$

is known, where $r(x)$ is an unknown function ; determine the minimum of the integral

$$I = \int_{-\infty}^{\infty} |r(x)| dx$$

Card 1/2

29843
S/044/61/000/007/012/055
C111/C222

On the minimum of some integrals ...

under the condition $\sum_{k=0}^{n} \alpha_k^2 > 0$; the author shows that the minimum

does not exist.

Reviewer's remark : 1) In the formulation of the problem it should be said in which class of functions the solution is sought ; 2) it should be spoken about inf I and not about the minimum ; 3) the author does not prove the absence of the minimum for I but for the weighted integral

$$I' = \int_{-\infty}^{+\infty} e^{-\frac{x^2}{2}} |r(x)| dx .$$

[Abstracter's note : Complete translation.]

Card 2/2

GRABENYUK, D.G.; ARZHANYKH, I.S., otv.red.; YAKOVENKO, Ye.P., red.izd-va; GOR'KOVAYA, Z.P., tekhn.red.

[Polynomials of optimum approximation whose coefficients are bound up by linear relationships] Polinomy nailuchshego priblizheniia, koeffitsienty kotorykh sviazany lineinymi zavisimostiami. Tashkent, Izd-vo Akad.nauk Uzbekskoi SSR, 1960. 235 p. (MIRA 14:4)

1. Chlen-korrespondent AN UzSSR (for Arzhanykh).
(Polynomials)

GREBENYUK, D.G.

PHASE I BOOK EXPLOITATION SOV/4796

Akademiya nauk Uzbekskoy SSR, Tashkent. Institut matematiki i mekhaniki

Issledovaniya po matematicheskomu analizu i mekhanike v Uzbekistane (Research in Mathematical Analysis and Mechanics in Uzbekistan) Tashkent, Izd-vo AN Uzbekskoy SSR, 1960. 259 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR. Institut matematiki i mechaniki imeni V.I. Romanovskogo.

Resp. Ed.: I.S. Arzhanykh, Corresponding Member, Academy of Sciences UzSSR; Ed.: I.G. Gaysinskaya; Tech. Ed.: Z.P. Gor'kovaya.

PURPOSE: This collection of articles is intended for mathematicians, mechanics, aspirants, and students taking advanced courses in divisions of physics and mathematics at universities and pedagogical schools of higher education.

COVERAGE: The collection contains 17 articles dealing with the results of investigations on the theory of integrating differential equations im mathematical physics and mechanics, the theory of numbers, and the problem of the best approximation of functions. Individual articles discuss elasticity, flow close to a

Card 1/4

S/166/61/000/002/006/006
B112/B202

AUTHOR: Grebenyuk, D. G.

TITLE: On certain polynomials connected with weight functions in m variables of a degree $<n$, which deviate minimally from zero and whose coefficients are connected by a linear dependence

PERIODICAL: Izvestiya Akademii nauk UzSSR. Seriya fiziko-matematicheskikh nauk, no. 2, 1961, 59-75

TEXT: The author considers the following functions:

$$f(x,y,\ldots,t) = e^{-(1/2)(x^2+y^2+\ldots+t^2)}p(x,y,\ldots,t)$$

with the polynomials p of a degree $\leq n$ for which the linear dependence

$$\omega(p)= \sum_{k_1+\ldots+k_m=0,\ldots,n} \alpha_{k_1\ldots k_m} p_{k_1\ldots k_m} = 1$$

Card 1/3

S/166/61/000/002/006/006
B112/B202

On certain polynomials...

exists. The author designates the domain of definition - $\infty < x,y,\ldots,t < +\infty$ of the "polynomials" (1) by (D), the maximum of $|f|$ in (D) by L_f and the lower bound of the numbers L_f by L. The "polynomials" f which actually attain the amount L at the points $(x_i,y_i,\ldots,t_i)$ are called "of type (B)" and points $(x_i,y_i,\ldots t_i)$ are called points of deviation. He proves the following criterion for minimum deviation from zero: In order that a "polynomial" of type (B) deviates minimally from zero on (D) it is necessary and sufficient that no "polynomial":

$$g(x,y,\ldots,g) = e^{-(1/2)(x^2+y^2+\ldots+t^2)}q(x,y,\ldots,t)$$

exists for which the values:
$\sigma(x_i,\ldots,t_i) = \omega(q)L_f^2 - f(x_i,\ldots,t_i)g(x_i,\ldots,t_i)$ differ from zero at the points of deviation $(x_i,\ldots,t_i)$ and that all have the same sign. From this

Card 2/3

theorem, the author derives a series of conclusions and modifications, especially estimations of the bound L. There is 1 Soviet-bloc reference.

ASSOCIATION: Institut matematiki im. V. I. Romanovskogo AN UzSSR (Institute of Mathematics imeni V. I. Romanovskiy of the Academy of Sciences Uzbekskaya SSR)

SUBMITTED: March 18, 1960

L 0554
S/166/62/000/004/001/010
B112/B186

AUTHOR: Grebenyuk, D. G.

TITLE: Approximate solution of Fredholm's integral equation with two variables

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 4, 1962, 12 - 16

TEXT: The integral equation

$$\varphi(x,y) = \lambda \int_{aa}^{bb} K(x,y,s,t)\varphi(s,t)dsdt + f(x,y) \qquad (1)$$

is approximately solved by generalized polynomials $Q_n(x,y) = p_1\varphi_1(x,y) + p_2\varphi_2(x,y) + \ldots + p_n\varphi_n(x,y)$, where $\varphi_m(x,y) = \psi_m(x,y) = \lambda \int_{aa}^{bb} K(x,y,s,t)\psi_m(s,t)dsdt$. The functions ψ_m are given. According to L. G. Shnirel'man ("Izv. AN SSSR", seriya matem. nauk, 1938, No. 1), the parameters p_1, p_2, ..., p_n are determined by the system

Card 1/3

S/166/62/000/004/001/010
B112/B186

Approximate solution of...

$$p_1\varphi_1(x_i,y_i) + p_2\varphi_2(x_i,y_i) + \ldots + p_n\varphi_n(x_i,y_i) + (-1)^i h \operatorname{sign}\Delta_i = f(x_i,y_i),$$

$(i = 1, \ldots, n+1)$, (5)

$$h = \sum_{i=1}^{n+1}(-1)^i \Delta_i f(x_i,y_i) \Big/ \sum_{i=1}^{n+1}|\Delta_i| \qquad (3)$$

and

$$\Delta_i = \begin{vmatrix} \varphi_1(x_1, y_1), \varphi_2(x_1, y_1), \ldots, \varphi_n(x_1, y_1) \\ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \\ \varphi_1(x_{i-1}, y_{i-1}), \varphi_2(x_{i-1}, y_{i-1}), \ldots, \varphi_n(x_{i-1}, y_{i-1}) \\ \varphi_1(x_{i+1}, y_{i+1}), \varphi_2(x_{i+1}, y_{i+1}), \ldots, \varphi_n(x_{i+1}, y_{i+1}) \\ \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \\ \varphi_1(x_{n+1}, y_{n+1}), \varphi_2(x_{n+1}, y_{n+1}), \ldots, \varphi_n(x_{n+1}, y_{n+1}) \end{vmatrix}. \qquad (4)$$

Card 2/3

S/166/62/000/004/001/010
B112/B186

Approximate solution of...

The following two examples are considered:

$$\varphi(x,y) = \lambda\int_0^1\int_0^1 xyts\varphi(t,s)dsdt + 3xy \qquad (6)$$

and

$$\varphi(x,y) = \lambda\int_0^1\int_0^1 xyts\varphi(t,s)dsdt + x^2y^2. \qquad (11).$$

ASSOCIATION: Institut matematiki im. V. I. Romanovskogo AN UzSSR
(Institute of Mathematics imeni V. I. Romanovskiy AS UzSSR)

SUBMITTED: December 30, 1960

Card 3/3

L 58437-65 EWT(d) IJP(c)

ACCESSION NR: AR5013631 UR/0044/65/000/004/B131/B131
518:517.948

SOURCE: Ref. zh. Matematika, Abs. 4B644

AUTHOR: Grebenyuk, D. G.

TITLE: Concerning one method of approximate solution of integral equations of the Volterra type

CITED SOURCE: Sb. nauchno-issled. rabot. Tshkentsk. tekstil'n. in-t. Ser. matem., vyp. 19, 1964, 67-73

TOPIC TAGS: Volterra equation, integral equation, approximate solution

TRANSLATION: The author considers the Volterra equation

$$\varphi(x)-\lambda\int_a^x K(x, y)\varphi(y)\,dy=f(x) \qquad (1)$$

with a kernel that is continuous on [a, b], and with a right-hand-side term. An approximate solution of the equation is sought in the following fashion. Putting

$$\varphi(x)\approx\rho_1\psi_1(x)+\rho_2\psi_2(x)+\ldots+\rho_n\psi_n(x), \qquad (2)$$

Card 1/2

L 58437-65

ACCESSION NR: AR5013631

where $\psi_1(x)$, $\psi_2(x)$, ..., $\psi_n(x)$ are specified continuous functions and p_1, p_2, ..., p_n are unknown coefficients, and substituting (2) in (1), the author obtains an expression

$$Q_n(x) - \sum_{i=1}^{n} p_i \left(\psi_i - \lambda \int_a^x K(x, y)\, \psi_i(y)\, dy\right).$$

which contains the coefficients p_1, p_2, ..., p_n. He obtains these coefficients from the condition for the best approximation of $Q_n(x)$ by $f(x)$ on [a, b]. The methods of Bernshteyn and Shnirel'man are considered for this purpose. An example is given. Ya. Alikhashkin.

SUB CODE: MA ENCL: 00

Card 2/2

CHERNOPYATOV, V.S.; OREBNYUK, D.S.

Device for placing bottles in annealing furnaces. Stek. i ker. 17 no. 11:40-41 N '60. (MIRA 13:12)
(Bottles)

GREBENYUK, D.S.

Over-all mechanization for the processing of broken glass. Stek. i ker. 19 no.3:39-40 Mr '62. (MIRA 15:3)
(Glass manufacture) (Industrial wastes)

L 11153-66 EWT(m)/EWA(d)/T/EWP(t)/EWP(b) JD/WB

ACC NR: AP6000339 SOURCE CODE: UR/0286/65/000/021/0036/0036

AUTHORS: Volkov, Yu. M.; Grebenyuk, E. A.

ORG: none

TITLE: A method for obtaining a surface-active agent "sulfopone." Class 23, No. 176030 [announced by All-Union Scientific Research and Design Institute of Synthetic Fat Substitutes (Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut sinteticheskikh zhirozameniteley)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 36

TOPIC TAGS: surface active agent, albumen / sulfopone

ABSTRACT: This Author Certificate presents a method for obtaining a surface-active agent based on albumen hydrolizate and chloranhydrides of acids. To broaden the source of raw materials, alkylsulfochlorides are used as chloranhydrides, and the process is conducted at the temperature of 70C and pH of 7.5—8.5.

SUB CODE: 11/ SUBM DATE: 26Oct64

Card 1/1 UDC: 661.185.22

34565
S/044/62/000/001/010/061
C111/C444

11.4100

AUTHOR: Grebenyuk, G.D.

TITLE: On some weightened polynomials of m variables of degree $\leq n$, the least differing from zero, the coefficients of which are connected by a linear relation

PERIODICAL: Referativnyy zhurnal. Matematika, no. 1, 1962, 16, abstract 1 B 92. (Izv. AN Uz SSR, Ser. fiz.-matem. n., 1961, no. 2, 59-75)

TEXT: Considered is the set of the functions of m variables $x, y, \ldots, t$

$$f(x,y,\ldots,t) = \exp\left\{-\frac{1}{2}(x^2 + y^2 + \ldots + t^2)\right\} p(x,y,\ldots,t)$$

where

$$p(x,y,\ldots,t) = \sum_{k_1+\ldots+k_m \leq n} p_{k_1 k_2 \ldots k_m} x^{k_1} y^{k_2} \ldots t^{k_m}$$

is a polynomial of degree $\leq n$ with real coefficient which are connected by the linear relation

Card 1/3

4

On some weightened polynomials of m ...

$(r_1, r_2, \ldots, r_m = 0,1,\ldots,n)$, the number of which is

$$N = \frac{(m+1)(m+2)\ldots(m+n)}{n!}$$

$\{x_i, y_i, \ldots, t_i\}$ are certain points of D. The searched minimum of this sum is $1/2$ and is obtained, if the points $\{x_i, y_i, \ldots, t_i\}$ are the points of greatest deviation from zero of the extremal function of the first problem.

[Abstracter's note : Complete translation.]

Card 3/3

methods and utilized for this purpose five input wells and six idle wells. As a result of his effort, three depleted wells were again put into production. An important factor in oil recovery is the extension of the operating cycle of oil wells. While in 1956 the average operating cycle i.e., the period of time between each oil well overhaul, was 21.1 days, in 1958 it had been extended to 55.9 days. It follows, therefore, that in 1958 the number of oil well overhauling operations dropped considerably. The oil well maintenance crew of the No 3 oilfield has initiated the use of a suspended pneumatic wrench to fasten and unfasten pump pressure tubes. This pneumatic wrench has been developed by engineers of the Groznyy Central Machine-Repair Shop, and proved to be very useful. The introduction of advanced methods and new techniques helped the personnel engaged in oil production to successfully fulfill their assignments and discharge the obligations undertaken by them towards the country as participators in the socialist competition contest.

ASSOCIATION: Promysel No 3 Starogrozneft' (The No 3 Oilfield of the Starogrozneft' Petroleum Production Administration)

BASIK, V.S., inzh.; GREBENYUK, G.S., inzh.

Preliminary forging of ingots for large forgings. Mashinostroenie no.1:65-66 Ja-F '65. (MIRA 18:4)

GREBENYUK, G.S., inzh.; RODIN, V.I., inzh.; BASIK, V.S., inzh.

Units for tensile tests and for the determination of plasticity by the torsion method at high temperatures. Mashinostroenie no.1:87-89 Ja-F '65. (MIRA 18:4)

GREBENYUK, G.Ya.

Result of the treatment of non-specific tonsillitis pulverized sulfidine. Vest. otorinolar. 13 no.3:35-37 May-June 1951. (CLML 20:11)

1. Of the Division of Ear, Throat, and Nose (Scientific Director Prof. L.A. Kukovskiy), Dnepropetrovsk Central Railroad Polyclinic (Head--F.M. Akimov) and the Children's Polyclinic (Head--M.A. Yakovenko) of Stalin Railroad.

GREBENYUK. G. YA.

Nasopharynx - Tumors

Nasopharyngeal papilloma in a 7-week-old infant. Vest. oto-rin. 15, No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

AID P - 3121

Subject : USSR/Aeronautics

Card 1/1 Pub. 58 - 7/24

Author : Grebenyuk, I.

Title : First jumps

Periodical : Kryl. rod., 10, 10, 0 1955

Abstract : Short note about the activity of parachutists in a DOSAAF primary unit in the city of Chimkent. Several names are mentioned.

Institution : 1) Primary DOSAAF Chimkent Unit, 2) High School No. 8 im. Lenin in Chimkent.

Submitted : No date

KIR'YAN, G.V.; GREBENYUK, I.F.

Introducing automatic control of low and medium capacity mine pumps. Sbor.nauch.rab.stud. LGI no.2:135-141 '57. (MIRA 13:4)

1. Leningradskiy ordenov Lenina i Trudovogo Krasnogo Znameni gornyy institut im. G.V.Plekhanova. Predstavleno prof. S.A. Alatartsevym.
(Mine pumps) (Automatic control)

YEL'KINA, Ye.L.; GREBENYUK, I.N.

Increasing the germination of corn seeds in the field by treating them with preparations NIUIF-2 (granosan) and TMTD (tetramethyl-thiuram-disulfide). Trudy TSSBS no.4:139-144 '60. (MIRA 15:4)
(Corn (Maize)) (Fungicides)

GRIBENYUK, I.N.

Microscopic fungi of the gray forest and Chestnut soils of Western Siberia. Trudy TSSBS no.8:161-164 '64. (MIRA 18:7)

GREBENYUK, I.N., aspirant; VERNER, A.R., doktor biol. nauk, rukovoditel' raboty.

Mycologic characteristics of soils of the Ubinskoye Experimental and Land Improvement Station. Trudy TSSBS no.10:124-128 '65. (MIRA 18:10)

GREBENYUK, K.K.

Development of technological processes is our concern also. Mashinostroitel' no.8:33 Ag '59. (MIRA 12:11)

1. Brigadir pressovshchikov Uralmashzavoda.
(Sverdlovsk--Efficiency, Industrial)

GREBENYUK, M.

Excavator operator M. Grebeniuk. Stroitel' no.12:10 D '57.
(MIRA 11:2)

1. Starshiy mashinist ekskavatora CM-202, Kremenchugskaya gosudarstvennaya elektricheskaya stantsiya.
(Excavating machinery)

GREBENYUK, M.A., inzhener.

The MG-4 cast iron boiler. Rats.i izobr.predl.v stroi. no.73:10-12 '54.
(MLRA 7:6)

(Boilers)

GREBENYUK, M.I.

PAVLOV, I.P.; EMCHENKO, A.I., professor, redaktor; DANILYUK, O.T., [translator]; GREBENYUK, M.I., redaktor; POLITYENKO, S.R., tekhnichniy redaktor.

[Twenty year's experience in an objective study of the higher nervous activity (behavior) of animals. Translated from the Russian] Dvadtsiatyrichnyi dosvid ob'iektyvnoho vyvchennia vyshchoi nervovoi diial'nosti (povedinky) tvaryn. Kyiv, Derzhavne uchbovo-pedagogichne vyd-vo "Radians'ka shkola," 1953. 614 p. (MIRA 8:2)
(Psychology, Physiological)

GREBENYUK, M.I.

Effectiveness of contraceptives on a polyethylene oxide base. Akush.i gin. 35 no.6:22-23 N-D '59. (MIRA 13:4)

1. Iz Khar'kovskogo nauchno-issledovatel'skogo instituta okhrany materinstva i detstva imeni N.K. Krupskoy (direktor - kand.med.nauk A.I. Kornilova) i Khar'kovskogo khimiko-farmatsevticheskogo nauchno-issledovatel'skogo instituta (direktor - kand.med.nauk M.A. Angarskaya).

(POLYETHYLENES pharmacol.)
(CONTRACEPTIVES)