

SHCHEPETIL'NIKOVA, A. M.

PA 171T4

USSR/Biology - Plants, Nutrition Fertilizers Sep 50

"Properties of Granulated Fertilizers," Acad P. A. Baranov, A. M. Shchepetil'nikova, Cand Agr Sci

"Dok v-s Ak Selkhoz Nauk" No 9, pp 3-13

Granulated superphosphates 2 - 3 times superior to powder form in acid podsolc soils; large granules (5 - 7mm) superior to small granules. Contact of acidic superphosphates with seed before planting reduces % of germination and energy of sprouting, but neutralization surface of

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granules by dusting with chalk prevents this effect. Due to spreading of water-sol P_2O_5 into soil from granule, advises application of superphosphates at period when soil cultivation follows after it. Seven tables. Submitted 20 May 50.

171T4

EA

15

The properties of granular superphosphate P. A. Ivanov and A. M. Shlepchinskaya. *Doklady Akad. Nauk SSSR*, 1951, No. 34, K66. *Nauka on P. F. Tomsk 16*, No. 3, p. 11 (1951). Granular superphosphate mixed with manure retains the available P for a much longer period than the ordinary superphosphate. I. S. Ioffe.

1951

~~SHCHEPTEL'NIKOVA, O.G.~~

Radioindication method in the study of phosphorus metabolism of the liver in experimental tuberculosis [with summary in French].
Probl.tub. 36 no.6:97-100 '58 (MIRA 11:10)

1. Iz Moskovskogo gorodskogo nauchno-issledovatel'skogo tuberkuleznogo instituta (nauchnyy rukovoditel' - prof. V.L. Eynis).

(LIVER, metab.

phosphorus, in exper. tuberc. in guinea pigs (Rus))

(PHOSPHORUS, metab.

liver, in exper. tuberc. in guinea pigs (Rus))

(TUBERCULOSIS, exper.

phosphorus metab. in liver in guinea pigs (Rus))

SHCHEPETIL'NIKOVA, O.G.

Studies on phosphorus metabolism in the liver in experimental tuberculosis. Vop. med. khim. 7 no. 1:16-21 Ja-F '61.

(MIRA 14:4)

1. The Moscow Research Institute of Tuberculosis Ministry of Health of the R.S.F.S.R.

(LIVER) (PHOSPHORUS METABOLISM) (TUBERCULOSIS)

SHCHEPETIL'NIKOVA, O. G., kand. med. nauk

Study of the effect of saluzide on the metabolism of phosphorus compounds in the liver in experimental tuberculosis by means of radioactive phosphorus. Probl. tub. no.2:83-91 '62.
(MIRA 15:2)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - kandidat meditsinskikh nauk V. F. Chernyshev, zam. dir. po nauchnoy chasti - prof. D. D. Aseyev)

(PHOSPHORUS—METABOLISM) (LIVER—TUBERCULOSIS)
(SALUZIDE)

SHCHEPETIL'NIKOVA, V.A., kand.sel'skokhozyaystvennykh nauk

Biological features of *Symphorobius amicus* Nav. as a function of
meteorological conditions. Trudy VIZR no.1:90-101 '48. (MIRA 11:7)
(Lacewing flies)

SHCHFFFTIL'NIKOVA, V.A.

25802

Otsenka sistemy meropriyatiy po bor'be s cherepashchkoj (*eurygaster integriceps* Put).
V usloviyakh kazakhstana. Trudy Vsesoyuz. in-ta zashchity rasteniy, vyp. 2. 1949.
S. 90-103 - Bibliogr: 13 Nazv.

SO: Letopis' No. 34

CHIRIKOVA, V. A. (Leningrad)

"The results of many years of work in the field of biological methods of
various insects".

Theoretical and practical work carried out by Entomologists.
reported at All-Union Entomological Conference, Georgian Dept. A-U
Entomological Society, Tbilisi, 4-9 Oct 1957
Vestnik A.S.S.R. 1958, v. 28, No. 1, p. 129-30 (author Giljarov, I. S.)

Shchepetil'nikova, V. A.
USSR / General and Special Zoology. Insects. Insects P
and Arachnids. Biological Method of Controlling
Insects and Arachnids.

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95567.

Author : Shchepetil'nikova, V. A.

Inst : Not given.

Title : Conformities which Determine Effectiveness of
Entomophaga.

Orig Pub: Zh. obshch. biol, 1957, 10, No 5, 381-394.

Abstract: Multinuclear entomophaga, (E) which do not possess the power of adapting themselves to the life cycle of a definite pest and are in need of additional hosts, are not capable to inhibit its numbers (Trichogrammatidae, Telenomus, parasitizing on the Eurygaster integriceps). The con-

Card 1/3

30

USSR / General and Special Zoology. Insects. Insects P
and Arachnids. Biological Method of Controlling
Insects and Arachnids.

Abs Jour: Ref Zhur-Biol., No 21, 1958, 96567.

Abstract: formity of the relation of its life cycle to
that of its host increases with the growth of
the parasite's specialization. The ability to
inhibit the host is especially clearly expressed
in mononuclear (2). However, even specialized
parasites and predators (Aphelinus mali, Rod-
olia cardinalis) possess a much narrower eco-
logic flexibility than their hosts. As a con-
sequence the latter do not perish, insuring the
possibility of prolonged simultaneous existence
between plant-eating insects and their special-
ized entomophaga. When using the latter, it is
adequate, as a rule to populate with them new

Card 2/3

USSR / General and Special Zoology. Insects. Insects F
and Arachnids. Biological Method of Controlling
Insects and Arachnids.

Abs Jour: Ref Zhur-Biol., No 21, 1958, 96557.

Abstract: regions of the spread of the pest. On the con-
trary, in case of multinuclear entomophaga it is
necessary to resort to their seasonal coloniza-
tion. -- G. A. Viktorov.

Card 3/3

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SHCHEPETIL'NIKOVA, V.A., kand. sel'skokhozyaystvennykh nauk.

Effectiveness of parasites that eat eggs of the shield bug
Eurygaster integriceps Put. and facilitating factors. Trudy
VIZR no.9:213-284 '58. (MIRA 12:1)
(Eurygasters--Biological control)
(Parasites--Insects)

YEVLAKOVA, Ariadna Aleksandrovna; SHVETSOVA, Ol'ga Ivanovna; SHCHEPETIL'-
NIKOVA, Valentina Andreyevna; REUTSKAYA, O.Ye., red.; CHUNAYEVA,
Z.V., tekhn. red.; BARANOVA, L.G., tekhn. red.

[Biological control of injurious insects] Biologicheskie metody
bor'by s vrednymi nasekomymi. Leningrad, Gos. izd-vo sel'khoz.
lit-ry, 1961. 94 p. (MIRA 14:10)
(Insects, Injurious and beneficial)

SWANSON, M. C. (1964)

Biological Aspects of Plant Pathology. 2nd ed. 1964. 506 pp.
162-185. 167.

SHCHEPETIL'NIKOV, V.A., prof., doktor tekhn. nauk

Balancing of the crankgear. Trudy MIIT no.195:5-19 '64.
(MIRA 18:9)

EROSHCHENKOVA, V. A.

"Ways of enriching the agrobiocenose with beneficial organisms."

report submitted for 18th Intl Cong of Entomology, London, 1-16 Jul 61.

СИДОРЕНКО, В.А., проф., доктор техн. наук; КОМАРОВ, В.А.,
доктор техн. наук; МАКСИМОВ, П.А., инж.

Causes of the deterioration of the elastic elements of the
type RK-1A drive of generators mounted under passenger cars.
Trudy MIIT no.195:20-33 '64. (MIRA 18:9)

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SHCHEPETIL'NIKOVA, V.A.; CHUMAKOVA, B.M.

Current problems of the acclimatization of entomophagous
insects in the U.S.S.R. Trudy VIZR no. 21 pt. 1:5-13
'64. (MIRA 18:12)

SHCHUPETILOV, A.F.

Intricacy of shoe styles. Leg.prom. 14 no.2:4-6 P 854. (MLRA 7:5)

1. Zamestitel' nachal'nika Glavobuvi MPTShP. (Boots and shoes)

SHCHEPETILOV, A.F., inzhener.

At the "Paris Commune" factory. Leg.prom.16 no.2:44-45 P '56.
(MLRA 9:7)

1. Direktor fabriki "Parizhskaya Kommuna".
(Moscow--Shoe industry)

SHCHEFETILOV, A.F.

New productive capacity of the leather industry of the R.S.F.S.R.
Kozh.-obuv.prom. 3 no.9:9-11 S '61. (MIRA 14:11)
(Leather industry)

S/125/62/000/007/003/012
DC40/E113

Attaching cermet tips

1 kg/cm^2 pressure during welding produces joints with higher strength than 1.0 or 2.0 kg/cm^2 pressure; (4) joints with powder nickel and permalloy foil layers can attain strengths of 25 kg/cm^2 and $16.3 \pm 17.2 \text{ kg/cm}^2$ respectively; (5) the proper vacuum in the welding chamber is approximately 10^{-3} mm of mercury; (6) the surface of the steel shank must be milled, and that of the carbide tip ground, and both have to be degreased by acetone; (7) operational tests have shown that the durability of cutters, diffusion welded in a vacuum, is 2 - 2.5 times higher compared with broach cutting tools. There are 7 figures and 2 tables.

ASSOCIATION: Moskovskiy tekhnologicheskii institut myaso-molochnoy promyshlennosti
(Moscow Technological Institute of the Meat and Milk Industry)

SUBMITTED: February 1, 1962

Page 2/2

SHCHEPETINA, L.M., prepodavatel'; TSYPIN, Yu.Ya., otv.red.; AFANAS'YEV,
V.S., spets.red.

[Assignments and practical instructions for the course "Meteorology"
for students of agricultural schools] Uchebnoe zadanie i metodi-
cheskie ukazaniia po kursu "Meteorologiya" dlia uchashchikhsia
sel'skokhoziaistvennykh tekhnikumov. 1958 11 p. (MIRA 12:3)

1. Vsesoyuznyy zaachnyy sel'skokhozyaystvennyy tekhnikum.
(Meteorology)

BOHOSLOVSKIY, V.N.; SHCHEPETKIN, A.A. . .

X-ray determination of oxygen parameters in spinel structure
ferrates. Fiz.met.i metalloved. 10 no.1:24-28 J1 '60.
(MIRA 13:8)

1. Institut metallurgii Ural'skogo filiala AN SSSR.
(Ferrates--Testing) (X rays--Diffraction)

STAFEYEVA, N.M.; BOGOSLOVSKIY, V.N.; SICHEPETKIN, A.A.; ZHURAVLEVA, M.G.;
CHUFAROV, G.I.

Equilibrium conditions in the reduction of copper ferrite
 CuFe_2O_4 by hydrogen. Dokl. AN SSSR 146 no.4:874-876 0 '62.
(MIRA 15:11)

1. Institut metallurgii Ural'skogo filiala AN SSSR.
2. Chlen-korrespondent AN SSSR (for Chufarov).
(Copper ferrate)
(Hydrogen)

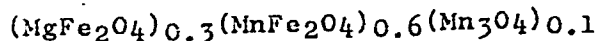
S/126/65/015/002/004/053
E039/E420

AUTHORS: Bogoslovskiy, V.N., Startseva, I.Ye., Zhuravleva, M.G.,
Shchepetkin, A.A., Chufarov, G.I., Shur, Ya.S.

TITLE: The effect of phase composition on the magnetic
properties of magnesium-manganese ferrite with a
rectangular hysteresis loop

PERIODICAL: Fizika metallov i metallovedeniye, v.15, no.2, 1963,
181-186

TEXT: A magnesium-manganese ferrite with a rectangular
hysteresis loop and with a sufficiently simple composition was
used to facilitate the interpretation of the results obtained.
Toroidal samples 12 mm outer dia, 8 mm inner dia and 3 mm high
were used. After a second annealing in air at 1200°C they were
cooled in a CO₂ atmosphere. The composition was Fe₂O₃ - 42.8 mol%,
MgO - 14.4%, MnO - 42.8% (as MnCO₃) which corresponds with the
formula



The dependence of the coercive force H_c , the residual
Card 1/2

S/126/63/015/002/004/033
E039/E420

The effect of phase ...

induction B_r , the maximum induction B_m , the induction in the field of 90 Oe B_{90} , and B_r/B_m on the pressure of oxygen when annealing at 600°C was investigated. B_r shows a steady decrease with increasing oxygen pressure up to 150 mm Hg, while for the other parameters there is little change for oxygen pressures above 50 mm. Maximum squareness of the hysteresis loop is obtained at 10 mm pressure of oxygen. A comparison of the results of physicochemical analysis, X-ray and magnetic investigation suggests that the spontaneous rectangularity of the hysteresis loop in this ferrite depends on the presence of the Mn^{3+} ion which leads to local distortions in the crystal lattice. There are 2 figures.

ASSOCIATIONS: Institut metallurgii UFAN SSSR
(Institute of Metallurgy UFAN USSR)
Institut fiziki metallov AN SSSR
(Institute of Physics of Metals AS USSR)

SUBMITTED: August 10, 1962

Card 2/2

L 12902-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD
ACCESSION NR: AP3003555 S/0020/63/151/002/0347/0349

58
57

AUTHORS: Stafeyeva, N. M.; Shchepetkin, A. A.; Bogoslovskiy, V.N.;
Zhuravleva, M.G.; Chufarov, G.I. (Corr. member, Academy of Sciences SSSR)

TITLE: Study of equilibrium condition during hydrogen reduction of ferrite Mg sub 0.5 Mn sub 0.5 Fe sub 2 O sub 4

27

SOURCE: AN SSSR. Doklady* v. 151, no. 2, 1963, 347-349

TOPIC TAGS: equilibrium conditions, hydrogen, hydrogen reduction, ferrite, magnesium ferrite, manganese ferrite, solid phase, lattice, S-ray analysis

ABSTRACT: Reduction⁶ of ferrite Mg sub .5Mn sub .5Fe₂O₄ was studied under equilibrium conditions at 800, 900 and 1000 degrees C. Partial pressure of oxygen during dissociation of the ferrite was calculated. Composition of solid phases existing during the various reduction stages was determined. Ferrite Mg sub .5Mn sub .5Fe₂O₄ is a solid solution of magnesium and manganese ferrites with a 1:1 molar ratio. The original sample was obtained by heating a mixture of the required

*Card 1/3

L 12902-63

ACCESSION NR: AP3003555

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amounts of MgO, MnO and Fe₂O₅ in CO₂ atmosphere at 1200 degrees for 30 hours. Reduction was carried out in a closed evacuated system through which a mixture of hydrogen and water vapor was circulated until equilibrium was reached. Water vapor was maintained at a pressure equal to that of saturated water vapor at 0 degrees C. Partial pressure of hydrogen in the gaseous equilibrium mixture was determined after freezing out the water vapor in a trap immersed in liquid nitrogen. Partial pressure of oxygen was determined from the values $K = \frac{P_{H_2O}}{P_{H_2}}$. Extent of reduction was determined from the hydrogen

consumption. A reduction of 100% was assumed for an oxide having the composition Mg sub .5Mn sub .50. Solid phases existing at equilibrium were subjected to X-ray analysis (Debye method and with a camera with a 57.3mm diameter). Photographs were taken under FeK illumination using a manganese filter. Relationships between partial pressure of oxygen at equilibrium and the extent of reduction of the ferrite Mg sub .5Mn sub .5Fe₂O₄ at 800, 900 and 1000 degrees C are presented. Relationships between the size of lattices

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L 12902-63

ACCESSION NR: AP3003555

in the three solid phases and the extent of reduction, as well as relationships between the concentration of the various phases and the extent of ferrite reduction are given. Orig. art. has: 3 figures.

ASSOCIATION: Institut metallurgii Ural'skogo filiala Akademii nauk SSSR, Sverdlovsk (Metallurgical Institute, Ural branch, Academy of Sciences, SSSR)

SUBMITTED: 01Apr63

DATE ACQ: 30Jul63

ENCL: 00

SUB CODE: CH

NO REF SOV: 004

OTHER: 006

Card 3/3

SHCHEPETKIN, A.A.; KHROMYKH, L.G.; BOGOSLOVSKIY, V.N.; ZHURAVLEVA, M.G.;
CHUFAROV, G.I.

Equilibrium conditions during the reduction of magnesium ferrite
by hydrogen. Dokl. AN SSSR 152 no.1:124-126 S '63. (MIRA 16:9)

1. Institut metallurgii Ural'skogo filiala AN SSSR. 2. Chlen-
korrespondent AN SSSR (for Chufarov).

(Magnesium ferrates) (Reduction, Chemical)

L 22897-65 EED-2/EWT(1)/EWT(m)/EWP(b)/EWP(t)
ACCESSION NR: AP5001240

IJP(c) JD
S/0126/64/018/005/0711/0716

AUTHOR: Bogoslovskiy, V.N.; Shchepetkin, A.A.; Startseva, I. Ye.; Antonov, V.K.;
Chufarov, G.I.; Shur, Ya. S.

TITLE: Effect of the phase composition on the magnetic properties of magnesium-
manganese-iron ferrite with a rectangular hysteresis loop

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 5, 1964, 711-716

TOPIC TAGS: ferrite magnetic property, magnesium ferrite, manganese ferrite, spinel
solid solution, hysteresis loop

ABSTRACT: The object of this work was to find out whether the rectangularity of the
hysteresis loop of Mg-Mn ferrites is related only to the presence of vacancies, or
whether trivalent manganese ions also play a major part in this phenomenon. An
Mg-Mn-Fe ferrite obtained from a mixture of 34 mol. % MgO, 8.5% MnO (in the form
of MnCO₃) and 57.5% Fe₂O₃ and having a relatively high rectangularity coefficient of the
hysteresis loop was investigated. X-ray diffraction was used to determine the concen-
tration of the components of the spinel solid solutions, the magnetic characteristics were
measured by the ballistic method, and changes in the composition of the solid solutions

Card 1/2

L 22897-65

ACCESSION NR: AP5001240

were induced by annealing the samples under various conditions. It was found that the increase or decrease in the rectangularity coefficient of the hysteresis loop is due primarily to the formation and disappearance of Mn^{3+} ions, although there is a simultaneous change in the concentration of vacancies in the spinel solid solution. Samples containing an appreciable quantity of vacancies but no Mn^{3+} ions have a rectangularity coefficient of less than 0.5. The authors conclude that the rectangular shape of the hysteresis loop of Mg-Mn-Fe ferrites obtained from a mixture containing over 50 mol. % Fe_2O_3 is due to the presence of Mn^{3+} ions which cause local distortions of the crystal structure of the spinel solid solution. Orig. art. has: 1 table, 1 figure, and 7 formulas.

ASSOCIATION: Institut metallurgii, Sverdlovsk (Metallurgical Institute); Institut fiziki metallov AN SSSR (Institute of the Physics of Metals, AN SSSR)

SUBMITTED: 02Nov63

ENCL: 00

SUB CODE: MM, EM

NO REF SOV: 007

OTHER: 010

Card 2/2

ACCESSION NO: AP4039618

S/0076/64/038/005/1135/1141

AUTHOR: Shchepetkin, A. A. (Sverdlovsk); Stafeyeva, N. M. (Sverdlovsk); Bogoslovskiy, V. N. (Sverdlovsk); Zhuravleva, M. G. (Sverdlovsk); Chufarov, G. I. (Sverdlovsk)

TITLE: Study of equilibrium conditions during the reduction of magnesium-manganese ferrites

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 5, 1964, 1135-1141

TOPIC TAGS: magnesium-magnetite ferrite, ferrite dissociation, ferrite reduction, equilibrium oxygen pressure, ferrite crystalline structure, spinel phase, magnetite, siloferrite, magnetite

ABSTRACT: The equilibrium oxygen pressure during the dissociation of magnesium-manganese ferrites (I) of the composition $Mg_cMn_{1-c}Fe_2O_4$ ($c = 0.1$ to 1.0) have been determined and some peculiarities of the crystalline structure of I of various compositions have been studied. This work was done because such data are helpful for the preparation of ferrites and the understanding of changes occurring in service. The equilibrium conditions in the reduction of I were determined in a closed vacuum apparatus with a circulating $H_2 + H_2O$ mixture. The equilibrium

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ACCESSION NR: AP4039618

oxygen pressure was calculated from the formula $p_{O_2}^{1/2} = K_p K_{H_2O}$, where K_p is the H_2O/H_2 pressure ratio in an equilibrium gas mixture and K_{H_2O} is the equilibrium constant of the water vapor dissociation. X-ray analysis of I and of their reduction products was carried out by the Debye method. It was shown that the oxygen pressure remains almost constant (10^{-13} atm) with an increase of the magnesioferrite content in the solid solution from 0 to 50 mol. %; the pressure increased sharply (to 10^{-11} atm) with an increase of the magnesioferrite content from 50 to 100 mol. %. The oxygen pressure dropped sharply in the course of the reduction of I by hydrogen. X-ray analysis of the solid phases formed during the reduction revealed a correlation between the oxygen pressure and the chemical characteristics of the crystals (magnesium ion fraction in the tetrahedral lattice nodes) of I. It was shown, in particular, that during the reduction the equilibrium oxygen pressure drops with a decrease in the magnesioferrite content and an increase in the magnetite content in the spinel phase and approaches, at 33% reduction, the dissociation pressure of magnetite. Orig. art. has 7 figures.

ASSOCIATION: Institut metallurgii Ural'skogo filiala AN SSSR (Institute of Metallurgy, Ural Branch, AN SSSR)

Card 2/3

ACCESSION NR: AP4039618

SUBMITTED: 03May63

DATE ACQ: 19Jun64

ENCL: 00

SUB CODE: GC, GP

NO REF SOV: 004

OTHER: 014

Card 3/3

91-4-5-16/30

AUTHOR: Shchepetkin, M. P.

TITLE: Aspherical Diffraction Grating with One Plane of Symmetry. I. Aberrations of an Aspherical Grating (Asfericheskaya difraktsionnaya reshetka s odnoy ploskost'yu simmetrii. I. Aberratsii asfericheskoy reshetki)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, No.3, pp 383-395 (USSR)

ABSTRACT: The paper deals theoretically with properties of a concave reflection grating ruled on an aspherical surface with a single plane of symmetry. It is shown that aberrations (astigmatism, coma, spherical aberration) may be corrected for any two conjugate points. Best results are obtained by placing the grating on the circumference of the Rowland circle and correction of aberration for points lying on this circumference. The formulae obtained are suitable for analysis of properties and for calculation of aberrations of a large group of diffraction gratings, such as plane, cylindrical, spherical, elliptical, parabolic, hyperbolic, toroid, aspherical with one or two planes of

Card 1/2

4-15-50
Aspherical Diffraction Grating with One Plane of Symmetry. I.
symmetry, and other gratings, as well as for mirrors
with the corresponding profiles. There are 7 figures,
6 references of which 4 are American, 1 English and
1 German.

ASSOCIATION: State Optics Institute named S.I. Vavilov.
(Gosudarstvennyy opticheskiy institut im. S.I. Vavilova.)

SUBMITTED: April 10, 1956.

1. Diffraction gratings--Properties--Theory

Card 2/2

AUTHOR: Shchepetkin, Yu.P.

Sov/51-4-4-13/24

TITLE: An Aspherical Diffraction Grating with One Plane of Symmetry (Asfericheskaya difraktsionnaya reshetka s odnoy ploskost'yu simmetrii) II Permissible Values of Aberrations. The Range of Application and Efficiency of an Aspherical Grating (II Dopustimyye znacheniya aberratsiy, Oblast' primeneniya i effektivnost' asfericheskoy reshetki)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 4, pp 513 - 520 (USSR).

ABSTRACT: In the preceding paper (Part I, Ref 1), the author discussed aberrations of an aspherical grating and correction of these aberrations. The present paper is a continuation of this work. It is found that the best results are obtained by placing the grating on the circumference of the Rowland's circle and correcting for aberrations at points lying on this circle. On departure from angles corresponding to the position of aberration-free points, the aberrations increase slowly. In this way, a range of angles is obtained in which practically aberration-free slit images are produced. These slit images are sharper at larger angles of incidence and diffraction for which a theoretical correction of aberrations was made. The greatest efficiency of the grating is expected to be in the ultra-

Card1/2

Sov/51-4-4-13/24

An Aspherical Diffraction Grating with One Plane of Symmetry

violet region, at glancing incidence and using narrow and short slits. Under these conditions, the resolving power of the apparatus is increased. The increase of the grating aperture compared with the spherical grating and correction for astigmatism makes it possible to increase the spectrum intensity by a factor of the order of 10-100. This work was carried out under the direction of Professor G.G. Slyusarev. There are 2 figures, 1 table (in an appendix) and 2 Soviet, 2 English refs.

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S.I. Vavilova
(State Optical Institute im. S.I. Vavilov)

SUBMITTED: April 10, 1956

Card 2/2 1. Diffraction gratings--Design

SOV/51-6-6-27/34

P404

AUTHOR: Shchepetkin, G.P.

TITLE: On Methods of Compensation of Distorting for the Vertical Astigmatism in Rowland's Circle Assemblies. A Vacuum Monochromator with a Concave Grating and a Toroid Mirror (O nekotorykh vozmozhnostyakh ispravleniya vertikal'nogo astigmatizma v ustanovkakh na okruzhnosti Rowlanda - vakuumnyy monokhromator s vognutyy reshetkoy i toricheskim zerkalom)

PERIODICAL: Optika i spektroskopiya, 1989, Vol. 6, Nr. 6, pp 820-824 (USSR)

ABSTRACT: The main disadvantage of a monochromator with a concave grating, mounted together with the exit and entry slits on the circumference of Rowland's circle, is its vertical astigmatism. The paper describes a method of compensating for this astigmatism by means of a toroid mirror T (see figure A on p. 823) placed in front of the entry slit S. A source of light L, the toroid mirror T and the monochromator entry slit S are all placed on the circumference of a circle with centre O_1 and radius R_T equal to one half of the radius of curvature R_{1T} of the meridional cross-section of the toroid mirror (O_T is the centre of curvature of the mirror). Under such conditions the toroid mirror T images the source L meridionally on the entry slit S with magnification equal to 1. A diffraction grating G then produces an image S' with

Card 1/2

SOX/51-6-8 27/34

On Certain Possibilities of Correcting for the Vertical Astigmatism in Rowland's Circle or Assemblies. A Vacuum Monochromator with a Concave Grating and a Toroid Mirror.

meridional magnification equal to 1. The system as a whole produces an image of the source free of astigmatism. If the angle of incidence on the grating is kept constant but the angle of diffraction is varied, it is still possible to compensate for astigmatism; all that is necessary is to adjust the positions of the source and the toroid mirror. A monochromator of the type described above is particularly effective with a light source of small dimensions in work in the vacuum ultraviolet (glancing incidence). Intensity of radiation reaching a small receiver placed behind the exit slit of a monochromator with a toroid mirror may be greater by a factor of ten or more than the intensity of radiation leaving an ordinary monochromator without such a mirror. The arrangement described may be used also to make a spectrometer. There are 1 figure and 3 references, 2 of which are Soviet and 1 English.

Card 2/2

The RShch-1 high sensitivity(Cont.)

S/515/60/010/000/001/001
H000/H000

to insure coverage of the small rock outcrop area. Since the primary purpose of the instrument is the recording of reflection spectra of rock formations from the air, while the purpose of the terrain photograph is to check the clarity of the ground being photometered, the optical systems were arranged to give primacy to the spectral system. The latter consists of 3 "Yupiter-9" lenses (focal length, 9 mm; relative aperture, 1:2) functioning as condenser, collimator, and objective lenses. Since the slit length is constant, width of the terrain sector being photometered may be varied by changing the flight path altitude or by using a condenser lens with the same relative aperture and a different focal length. Length of the sector which may be photometered at one exposure depends on flight speed and exposure frequency. The terrain optical system consists of an "Industar-22" objective lens (focal length, 51.4 mm; relative aperture, 1:3.5), a collector lens (focal length, 40.4 mm) made of 2 plano-convex lenses having a 15 x 15 mm diaphragm and reticule mounted between them, and a turning system consisting of two lenses (focal length, 51.0 mm) and 2 mirrors. Due to its small (1:16 to 1:22) relative aperture, the terrain optical system has a greater depth of

Card 2/3

ACC NR: AP7001487

SOURCE CODE: UR/0436/66/000/006/0001/0007

AUTHOR: Omel'chenko, S. I.; Videnina, N. G.; Shchepetkina, N. I.; Chervetsova, I. N.

ORG: Institute of High-Molecular Compounds (Institut vysokomolekulyarnykh soyedineniy)

TITLE: Radiation polymerization of unsaturated polyester resins without monomers

SOURCE: Khimicheskaya promyshlennost' Ukrainy, no. 6, 1966, 167

TOPIC TAGS: radiation polymerization, resin, polyester plastic, polymer cross linking, thermal stability, hardness

ABSTRACT: The authors study the possibility of polymerizing unsaturated polyesters under the effect of high-energy radiation and compare their radiation and thermo-chemical cross-linking. Several structurally different polyesters were investigated: polyglycolmaleinate adipinate (PNAD), polyglycolmaleinate phthalate (PNP) and polyglycolmaleinates modified by cyclopentadiene (PNC) and anthracene (PNA-2). The specimens were poured into ampules at 90-100°C with evacuation to remove air bubbles, after which the ampules were sealed. The specimens were irradiated on a UKP-30,000 installation with a Co⁶⁰ radiation source. Exposure was done at a rate of 2020-2400 rad/sec with total doses ranging from 1 to 140 mrad at a temperature of 18-25°C. A ferrosulfate radiation monitor was used with an error of ±2%. As the radiation dosage is increased, the specimens are gradually converted from rubber-like pale yellow products to completely transparent uniformly hard brown blocks. The hardest cross-linked speci-

Card 1/2

UDC: 541.15

SHCHEPETKINA, N.I.

Strength of acetate motion-picture films at room and high
temperatures. Vop.por.met. i prochn.mat. no.5:167-173
'58. (MIRA 12:8)
(Photography--Films) (Cellulose acetates)

PHASE I BOOK EXPLOITATION

SOV/5303

Nauchno-tekhnicheskoye soveshchaniye po dempfirovaniyu kolebaniy.
Kiyev, 1958.

Trudy Nauchno-tekhnicheskogo soveshchaniya po dempfirovaniyu kolebaniy, 17 - 19 dekabrya 1958 g. (Transactions of the Scientific and Technical Conference on the Damping of Vibrations, Held 17 - 19 December, 1958) Kiyev, Izd-vo AN UkrSSR, 1960. 178 p. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Institut metallokeramiki i spetsial'nykh splavov.

Editorial Board: I. N. Frantsevich, G. S. Pisarenko (Resp. Ed.), G. V. Samsonov, V. V. Grigor'yeva, and A. P. Yakovlev; Ed. of Publishing House: I. V. Kisina; Tech. Ed.: A. A. Matveychuk.

PURPOSE: This book is intended for mechanical engineers, metallographers, physicists specializing in metals, designers, aspirants, and scientific workers.

Card 1/7

Transactions of the Scientific (Cont.)	SOV/5303	
Pisarenko, G. S. Longitudinal Vibrations of a Rod, Taking Into Account Hysteresis Losses		14
Pisarenko, G. S. Longitudinal Vibrations of Spiral Springs, Taking Into Account Energy Dissipation in Material		22
Pisarenko, G. S., and N. I. Shchepetkina [Candidate of Technical Sciences]. Transversal Vibrations of Stepped Rods, Taking Into Account Hysteresis Losses		34
Pisarenko, G. S., and N. I. Shchepetkina. On the Calculation of Hysteresis Losses in Vibrating Plates		46
Vasilenko, N. V., [Aspirant]. Bending-and-Torsional Vibrations of Rods, Taking Into Account Energy Dissipation in Material		58
Troshchenko, V. T., [Candidate of Technical Sciences]. Application of Methods of Mathematical Statistics to the Analysis of Energy Dissipation in Material		71
Card 3/7		

31001

S/124/61/000/009/032/058
D234/D303

On taking into account...

gree of a small parameter. The problem of free vibrations of a
plate supported along its outline is considered as an illustration.
[Abstracter's note: Complete translation]

X

45

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Card 2/2

4470-00

ACC NR: AT6005255

hours. The effect of aging¹⁵ on mechanical characteristics of TiO₂-polystyrene systems is also presented in tabular form. It was found that the greater the TiO₂ content in polystyrene, the smaller the sensitivity to aging. Orig. art. has: 5 figures, 2 tables.

SUB CODE: 11/

SUBM DATE: 06Oct65/

ORIG REF: 006/

OTH REF: 000

Card 2/2 *Hand*

SHCHEPETKOV, A.

OSHEV, A. and SHCHEPETKOV, A. "Removal of Ergot from Rye Seed," Selektsiia i
Semenovodstvo, vol. 19, no. 12, 1952, p. 71 61.9 Se5

SO: SIRA, SI 90-53, 15 December 1953

STREL'NIKOV, D.A., professor, doktor tekhnicheskikh nauk, zasluzhennyy
deyatel' nauki i tekhniki; SHCHEPETKOV, A.S.

Remarks on L.D. Sheviakov's book "Mining mineral deposits."
Ugol' 29 no.12:43-45 D '54. (MLBA 8:1)
(Mining engineering) (Sheviakov, L.D.)

SHCHEPETROV, A.S., gornyy inzhener (g. shakhty)

Experiment in using electric locomotives for personnel transportation
in slightly dipping workings. Ugol' 36 no.11:52 N 61. (MIRA 12:11)
(Mine railroads)

CHICHEPETKOV, I. V.

Otsenka effektivnosti samoleta. (Tekhnika vozdushnogo flota, 1945, no. 10, p. 19-20)

Title tr.: Evaluation of the efficiency of an airplane.

TL504.Th 1945

S0: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

KOZLOVSKIY, B.V., inzh.; GULIDA, E.N., inzh.; SHCHEPETKOV, V.V., inzh.

Methods for machining ball joints of locomotive parts and their economic efficiency. Mashinostroenie no.6:100-102 N=D '62.

(MIRA 16:2)

1. Luganskiy teplovozostroitel'nyy zavod im. Oktyabr'skoy revolyutsii.

(Lugansk--Locomotive works)

PRAVOTOROVA, G.A.; SHCHEPETKOVA, L.V.

Mapping land resources in Italy. Izv. AN SSSR. Ser. geog. no.1:
135-139 Ja-F '64. (MIRA 17:3)

85713

S/079/60/030/008/010/012/XX
B001/B066

2209, 1153, 1273

Razuvayev, G. A., Vyazankin, N. S. and Shchepetkova, O. A.

5.3700

AUTHORS:

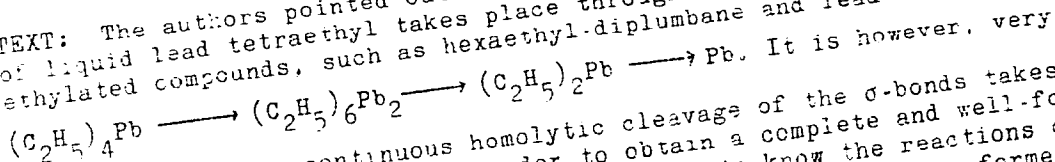
TITLE:

Thermal Decomposition of Lead Tetraethyl, Hexaethyl-
diplumbane, and Their Analogs. III. Reactions of the
Homolytic Decomposition of Hexaethyl-diplumbane and
Hexaethyl-distannane 7

PERIODICAL:

Zhurnal obshchey khimii, 1960, Vol. 30, No. 8, pp.2498-2506

TEXT: The authors pointed out in Refs. 1, 2 that the thermal decomposition of liquid lead tetraethyl takes place through the formation of less ethylated compounds, such as hexaethyl-diplumbane and lead diethyl:



doubtful whether a continuous homolytic cleavage of the σ -bonds takes place in this course of reaction. In order to obtain a complete and well-founded scheme of decomposition, it will be necessary to know the reactions of the homolytic cleavage of lead tetraethyl and of its intermediates formed

Card 1/3

85713

Thermal Decomposition of Lead Tetraethyl,
Hexaethyl-diplumbane, and Their Analogs.
III Reactions of the Homolytic Decomposi-
tion of Hexaethyl-diplumbane and Hexa-
ethyl-distannane

S/079/60/030/008/010/012/XX
B001/B066

during decomposition, as well as the role played by free radicals in these conversions. The investigation of the homolytic cleavage of hexaethyl-diplumbane and its organotin analog (hexaethyl-distannane) is, therefore, highly important. In the smooth reaction of hexaethyl-distannane with dibromo ethane giving rise to tin triethyl-bromide and ethylene (Ref. 3), the reactants had been assumed to form a cyclic transition complex which split in a homopolar way. To study the possible appearance of such ring complexes also in other reactions of hexaethyl-distannane, it was allowed to react with compounds in a benzene solution, which readily decompose into radicals. Hexaethyl-distannane and diplumbane were found to decompose homolytically at the metal-metal bond when treated with labile organic compounds in a benzene solution at a normal temperature. These labile compounds included benzoyl peroxide, acetyl-benzoyl peroxide, cyclohexyl percarbonate, azo-isobutyric acid dinitrile, nitroso-acetanilide, and lead tetraacetate. The reactions are assumed to proceed through the formation

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Thermal Decomposition of Lead Tetraethyl,
Hexaethyl-diplumbane, and Their Analogues
III. Reactions of the Homolytic Decomposi-
tion of Hexaethyl-diplumbane and Hexaethyl-
distannane

S/C79/50/030/008/010/012/XX
B001/B066

of homolytically decomposing ring complexes. The solvent participates in
the reaction of hexaethyl-stannane with the above compounds in CCl_4 ,
whereby, in addition to other reaction products, also tin triethyl⁴,
chloride results. The formation of the latter is initiated by the reaction
of CCl_4 with the labile compound. Nitroso-acetanilide reacts at a normal
temperature with CCl_4 , bromo-ethyl, benzyl chloride, and the methyl ester
of chloro-acetic acid to give phenyl diazonium chloride and bromide,
acetic acid, and trace amounts of diphenyl. There are 13 references:
7 Soviet, 4 US, and 2 British.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
gosudarstvennom universitete (Scientific Research Institute
of Chemistry at Gor'kiy State University)

SUBMITTED: July 21, 1959

Card 3/3

20952

15 8114 2209, 1372, 1107

S/C79/61/031/004/006/006
B118/B208

AUTHORS: Razuvayev, G.A., Shchepetkova, O.A., and Vyazankin, N.S.

TITLE: Structure of some organo-tin polymers

PERIODICAL: Zhurnal obshchey khimii, v. 31, no. 4, 1961, 1401

TEXT: It was previously found (Ref. 2: ZhOKh., 30, 2498 (1960)) that benzoyl peroxide cleft the Sn bond in hexaethyl distannane even under mild conditions:

$(C_6H_5COO)_2 + (C_2H_5)_3Sn-Sn(C_2H_5)_3 \longrightarrow 2(C_2H_5)_3SnOCOC_6H_5$. This reaction could be applied to the structural analysis of organo-tin compounds. This reaction takes place even at room temperature without separation of CO_2 and

gaseous hydrocarbons. This indicates the absence of side reactions, so that only the Sn-Sn bond in the polymer, and the O-O bond in the peroxide are cleft. The authors of the present paper isolated the benzoate of triethyl tin (I) and the dibenzoate of diethyl tin (II) (melting point $122-123^\circ C$) by reacting the peroxide with the polymer. Besides, metallic

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J

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B:18/B209

Structure of some organo-tin ...

tin and the tribenzoate of ethyl tin (III) (melting point 185-188°C under decomposition) were separated. If the polymer were of the linear type $(C_2H_5)_3Sn-[Sn(C_2H_5)_2]_n-In(C_2H_5)_3$, only the formation of compounds (I) (from primary tin atoms) and (II) (from secondary tin atoms) would have to be expected, provided that no disproportionation of compound (II) to (I) and (III) takes place. It was found from the quantitative ratio of the reaction products that 23.6 % of the tin atoms have primary, 19.9 % secondary, and 27.6 % tertiary character. 28.8 % of the metal atoms in the polymer mass were in the elementary state. It is possible that metallic tin is formed from quaternary atoms. The results obtained correspond to earlier concepts on the branching of chains in intermediates of disproportionations of hexaethyl distannane (Ref. 1: DAN SSSR, 132, 364 (1960)), and of hexaethyl diplumbane (Ref. 3: ZhOKh, 30, 1310 (1960)). There are 3 Soviet-bloc references.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete imeni N.I. Lobachevskogo
(Scientific Research Institute of Chemistry Gor'kiy State University imeni N.I. Lobachevskiy)

Card 2/3

10702

Structure of some organo-tin ...

S/079/61/031/004/006/00f
B118/B208

SUBMITTED: November 4, 1960

X

Card 3/3

VYAZANKIN, N.S.; SHEPETOVA, O.A.

Reactions of nitrosoacetanilide with certain acid chlorides. Zhur.
ob.khim. 30 no.10:3417-3421 0 '61. (MIFA 14:4)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
gosudarstvennom universitete.
(Acetanilide) (Chlorides)

RAZUVAYEV, G.A.; VYAZANKIN, N.S.; SHCHEPETKOVA, O.A.

Mechanism of the reaction of hexaethyldistannane disproportionation.
Zhur. ob. khim. 31 no. 11:3762-3768 N '61. (MIRA 14:11)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
gosudarstvennom universitete imeni N.I. Lobachevskogo.
(Tin compounds)

21570

S/020/61/137/003/022/050
B103/B208

5.3700

1209

AUTHORS: Razuvayev, G. A., Corresponding Member AS USSR,
D'yachkovskaya, O. S., Vyazankin, N. S., and Shchepetkova,
O. A.

TITLE: Reactions of acyl peroxides with organic derivatives of
lead, tin, and silicon

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 3, 1961, 618-621

TEXT: The authors discuss and compare the reactions of benzoyl peroxide (BP) and acetylbenzoyl peroxide (ABP) with organic derivatives of tin, lead, and silicon without solvent and under exclusion of atmospheric oxygen. They believe that the σ -bond may be ruptured at the same time according to two mechanisms in the case of the organotin compound: 1) via formation of an active complex, 2) via formation of kinetically independent particles. In this way, the number of end products increases. As the reactions discussed (Table 1) take place only at elevated temperatures, the authors assume that these reactions may be due to decomposition of peroxides: $C_6H_5COOOCOR \rightarrow C_6H_5COO\cdot + RCOO\cdot$ (1), where $R = C_6H_5$ or CH_3 ;

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B103/B208

Reactions of acyl peroxides ...

$C_6H_5COO\cdot \rightarrow C_6H_5\cdot + CO_2$ (2). The latter, however, is of minor importance.

The resultant free benzoyloxy radicals react with organotin compounds, with substitution of benzoate radicals for the ethyl radicals in the latter: $C_6H_5COO\cdot + (C_2H_5)_3SnX \rightarrow (C_2H_5)_2SnX(OCOC_6H_5) + C_2H_5\cdot$ (3). Here and henceforward, X = C₂H₅, Cl, Br, C₆H₅COO. The results of experiments 1-4 indicate that the nature of X affects the course of (3) only little. In the case X = Cl and Br, the authors isolated only diethyl tin dibenzoate and diethyl tin dihalide, apparently owing to disproportionation: $2(C_2H_5)_2SnX(OCOC_6H_5) \rightarrow (C_2H_5)_2SnX_2 + (C_2H_5)Sn(OCOC_6H_5)_2$ (4). The free ethyl radicals resulting in (3) disproportionate and are slightly dimerized: $2C_2H_5\cdot \rightarrow C_2H_6 + C_2H_4$ (5); $2C_2H_5\cdot \rightarrow n-C_4H_{10}$ (6). The low total amount of gaseous hydrocarbons (less than 1 mole per mole of decomposed peroxide; experiments 1-4) suggests that the ethyl radicals initiate PB decomposition and give ethyl benzoate (experiment 4). In this way, the authors explain the formation of all products confirmed on the basis of a scheme of free-radical interaction. As, however,

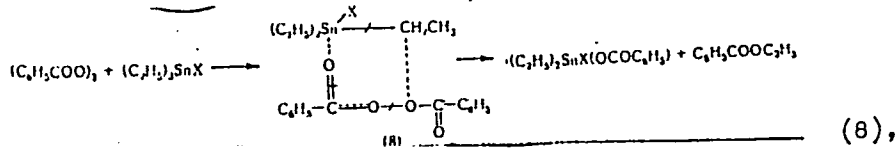
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21570

S/020/61/137/003/022/030
B103/B208

Reactions of acyl peroxides ...

ethylbenzoate may likewise be formed by a reaction with the active complex



the authors studied the interaction of ABP with tetraethyl tin and triethyl tin chloride (experiments 5 and 6). They conclude from the resultant reaction products that in this case the afore-mentioned modes (1 and 2) of homolytic rupture of the covalent bond occurred. The reaction of BP with tetraethyl lead (experiment 7) does not essentially differ from the one discussed above. Here, (2) is almost insignificant. The reaction of acyl peroxides with tetraethyl silane (experiments 6 and 9) proceeds quite differently; here, processes of the kind of (3) and (8) are missing, the Si-C bond being obviously stable to homolytic rupture. The initial stage of these reactions is assumed to be based upon decomposition of acyl peroxides according to (1), (2), and $\text{CH}_3\text{COO}\cdot \rightarrow \text{CH}_3\cdot + \text{CO}_2$ (9).

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Reactions of acyl peroxides ...

The resultant free radicals remove the hydrogen from the tetraethyl silane molecules to give benzoic acid, benzene, and methane. Complex organosilicon compounds with two or more silicon atoms in the molecule are formed by recombination of the secondary radicals. They will be later described. $C_{16}H_{38}Si_2$ is given as an example. The reactions of similar organotin and organosilicon compounds with peroxides being considerably different, the authors studied the interaction of BP with the organotin analog of trimethyl-phenyl silane (experiment 10). No gaseous hydrocarbons were formed in this case and CO_2 yield was low. The authors conclude from this that (2) is only a side reaction, and that no CH_3 radicals are displaced by benzoate radicals in this case. Trimethyl tin benzoate, on the other hand, is obtained in a high yield: $(CH_3)_3SnOH + C_6H_5COOH \rightarrow (CH_3)_3SnOCOC_6H_5 + H_2O$ (10). This indicates that the σ bond between the benzene ring and the metal atom in the trimethyl-phenyl tin molecule is most strongly subjected to homolytic cleavage. Since only 0.1 mole of diphenyl per mole of decomposed peroxide is formed, no analogy with the interactions between BP and trimethyl silane has been

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B103/B208

Reactions of acyl peroxides ...

established. In the reaction of BP with triethyl silane (experiment 11), mainly the Si-H bond is cleft, giving triethyl silicon benzoate as the most important silicon-containing product. In this case, apparently also processes take place which remind of (3), since small quantities of ethane, ethylene, and butane result. The authors continue their studies. There are 1 table and 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: Ref. 1, L. Jaffe, E. J. Prosen, M. Szwarc, J. Chem. Phys., 27, 416 (1957).

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N. I. Lobachevskogo (Scientific Research Institute of Chemistry, Gor'kiy State University imeni N. I. Lobachevskiy) ✓

SUBMITTED: November 9, 1960

Card 5/8

21570

S/020/61/137/003/022/030
B103/B208

X

Reactions of acyl peroxides ...

Legend to Table 1: 1) number of experiment, 2) used, moles (ПБ - benzoyl peroxide, ПАБ - acetyl benzoyl peroxide), 3) temperature, °C; 4) time, hr; 5) reaction products, moles per mole of peroxide; 6) other products; 7) trace amounts.

Card 6/8

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B103/B208

Reactions of acyl peroxides ...

Реакция перекиси бензола (ПБ) и ацетил-бензола (ПАБ) с органическими произ

Table 1

A № опыта	B Взято в реакцию, молей	C Т-ра. °C	D Про- долж.. час.	E Продукты				
				CO ₂	C ₁₁ H ₆	C ₁₁ H ₈	C ₁₁ H ₄	n-C ₁₁ H ₁₄
1	0,010 ПБ; 0,20 (C ₂ H ₅) ₂ Sn	95-97	16	0,20	—	0,26	0,55	0,02
2	0,015 ПБ; 0,15 (C ₂ H ₅) ₂ SnCl	95-97	16	0,14	—	0,45	0,37	0,01
3	0,015 ПБ; 0,16 (C ₂ H ₅) ₂ SnBr	95-97	16	0,15	—	0,44	0,24	0,01
4	0,010 ПБ; 0,044 (C ₂ H ₅) ₂ Sn OSO ₂ C ₂ H ₅	95-97	16	0,06	—	0,29	0,16	—
5	0,015 ПАБ; 0,23 (C ₂ H ₅) ₂ Sn	80-97	5,5	0,81	0,48	0,13	0,54	0,02
6	0,010 ПАБ; 0,16 (C ₂ H ₅) ₂ SnCl	80-97	4	0,58	0,42	0,38	0,40	0,02
7	0,005 ПБ; 0,10 (C ₂ H ₅) ₂ Pb	80	3,5	0,04	—	0,92	0,38	0,26
8	0,010 ПБ; 0,17 (C ₂ H ₅) ₂ Si	95-97	16	1,18	←	—	—	—
9	0,0125 ПАБ; 0,20 (C ₂ H ₅) ₂ Si	80-97	8	1,34	0,82	—	—	—
10	0,010 ПБ; 0,10 (CH ₃) ₂ SnC ₂ H ₅	95-97	16	0,12	—	—	—	—
11	0,015 ПБ; 0,20 (C ₂ H ₅) ₂ SiH	95-97	16	0,63	—	0,07	0,98	следа ②

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Reactions of acyl peroxides ...

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Таблица 1

водными Pb, Sn и Si в отсутствие кислорода воздуха

реакции (?), молей на 1 моль перекиси

Ⓢ другие продукты

Table 1 CONT.

0,66 (C₂H₅)₂Sn OCOC₂H₅; 0,37 (C₂H₅)₂Sn (OCOC₂H₅)₂;
0,76 (C₂H₅)₂Sn (OCOC₂H₅)₂; 0,63 (C₂H₅)₂(SnCl₂;
0,71 (C₂H₅)₂Sn (OCOC₂H₅)₂; 0,50 (C₂H₅)₂SnBr₂;
0,50 (C₂H₅)₂Sn (OCOC₂H₅)₂; 0,29 C₂H₅COOC₂H₅;
0,42 (C₂H₅)₂Sn OCOC₂H₅; 0,43 (C₂H₅)₂Sn OCCO₂H₅;
0,34 (C₂H₅)₂Sn (OCOC₂H₅)₂; 0,31(C₂H₅)₂SnCl₂;
0,60 (C₂H₅)₂PbOCOC₂H₅;
0,90 C₂H₅; 0,53 C₂H₅COOH; 0,33 C₁₀H₁₆Si₂;
0,78 C₂H₅; 0,23 C₂H₅COOH; 0,33 C₁₀H₁₆Si₂;
1,00 C₂H₅; 0,11 C₂H₅-C₂H₅; 1,30 (CH₃)₂SnOCOC₂H₅;
1,18 C₂H₅COOH; 0,60 (C₂H₅)₂SiOCOC₂H₅

Card 8/8

VYAZANKIN, N.S.; RAZUVAYEV, G.A.; D'YACHKOVSKAYA, O.S.; SHCHEPETKOVA, O.A.

Reaction of benzoyl peroxide with triethylalkoxytin compounds.
Dokl. AN SSSR 143 no.6:1348-1350 Ap '62. (MIRA 15:4)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom
gosudarstvennom universitete im. N.I.Lobachevskogo. 2. Chlen-
korrespondent AN SSSR (for Razuvayev).
(Benzoyl peroxide) (Tin organic compounds)

SHCHEPETNEV, P. Ye.

SHCHEPETNEV, P. Ye. -- "Agrobiological Evaluation of Types of Winter Wheat Depending on Their Nutrition." Min Higher Education USSR. Kishinev Agricultural Inst imeni M. V. Frunze. Kishinev, 1955. (Dissertation for the Degree of Candidate in Agricultural Sciences).

So.: Knizhnaya Letopis', No. 6, 1956.

SIL'HEP'NOV, R. V.

SOV/5215

PHASE I BOOK EXPLOITATION

Academiya nauk SSSR. Mezhdunarodnyy komitet po provedeniyu
Kozhdunarodnyy geograficheskogo fonda. III razdel progressivnykh
Zemnoy magnetizm i zemnyye toki.
Korotkoperiodicheskiye kolebaniya elektromagnitnogo polya v
Field) Moscow, Izd-vo AN SSSR, 1961. 114 p. 1,800 copies
printed (Series: Izv. Sbornik statey, No. 3)

Resp. Eds.: A. O. Kalashnikov, Doctor of Physics and Mathematics,
and V. A. Troitskaya, Candidate of Physics and Mathematics;
Ed.: Ye. P. Shechukina; Tech. Ed.: Ye. V. Pskunni.

PURPOSE: This publication is intended for geophysicists.
COVERAGE: This collection of articles, published by the Inter-
departmental IGY Committee of the USSR Academy of Sciences,
deals with problems of geomagnetism and telluric currents. In-
dividual articles deal with various (short-period, diurnal,
steady, etc.) oscillations of the terrestrial electromagnetic
field, particularly in the arctic region. No personal
are mentioned. Brief English abstracts accompany each article.
References follow individual articles.

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S/159/61/000/008/050/053

A006/A101

3,9410 (1482)

AUTHORS: Okhatsimskaya, M.V., Rastrusin, Yu.B., Rokityanskiy, I.I., Shep-
etnov, R.V.

TITLE: Regularities in the excitation of short-period oscillations in mid-
dle latitudes

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 8, 1961, 42, abstract 8G280 (V
sb. "Korotkoperiod. kolebaniya elektromagnitn. polya Zemli, no. 3",
Moscow, AN SSSR, 1961, 17 - 22, English summary)

TEXT: The study of short-period oscillations of telluric currents during
the IGY was carried out at stations of the Institut fiziki Zemli AN SSSR (In-
stitute of Physics of the Earth, AS USSR) (Borok, Alma-Ata, Petropavlovsk-Kam-
chatskiy, and Alushta). These investigations made it possible to detect a
number of common regularities of short-period oscillations in middle latitudes.
There are two basically different types of short-period oscillation: namely,
stable oscillations, pc, with $T \sim (15 \div 40)$ sec and train-type oscillations, pt,
with $T \sim (50 \div 90)$ sec. The maximum number of pc cases occurs at local midday,
and pt at local midnight, independent of the longitude of the station. The

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Regularities in the excitation ...

diurnal run of pc is asymmetric and has a broad maximum around midday. The increase of pc amplitudes occurs 1.5 times more quickly than their damping. A somewhat increased pc number was observed in summer as compared to the winter. The diurnal pt run has a sharp maximum around local midnight. Seasonal variability was not observed for pt. Amplitudes of short-period oscillations in middle latitudes are low, being fractions of a unity and a few mv/km for pc, and several mv/km for pt. There are indications of a tendency for increased short-period oscillation amplitudes at seaside stations. Previous concepts on the dependence of pc and pt on universal time were explained as follows: a comparison was made of the diurnal run of short-period oscillations on stations located close in the longitude; a comparison was made of unclear maxima obtained from a small number of cases. This did not permit the detection of the longitudinal effect of maximum shift even for substantially remote stations; moreover, there are oscillations, in both modes, correlated with universal time, which occur seldom but are very intensive. X

K. Zybin

[Abstracter's note: Complete translation]

Card 2/2

TROITSKAYA, V.A.; SHCHEPETIKOV, R.V.

Relationship between cycles of solar activity and the intensity and
frequency of inducing brief variations in the earth's electromagnetic
field. Prikl. geofiz. no.37:95-101 '63. (MIRA 16:10)

L 12001 66 ENT(1) GW
ACC NR: AP6003338

SOURCE CODE: UR/0387/66/000/001/0076/0079

AUTHOR: Troitskaya, V. A.; Shchepetnov, R. V.; Bol'shakova, O. V.; Matveyeva, E. T.

ORG: Institute of Physics of the Earth, AN SSSR (Institut fiziki Zemli AN SSSR)

TITLE: Characteristic properties of rapid variations of the Earth's electromagnetic field in the polar regions

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 1, 1966, 76-79

TOPIC TAGS: electromagnetic terrestrial field, electromagnetic field variation, solar activity, pearl shaped variation, stable variation, polar region, magnetic storm, irregular variation, aurora, magnetically coupled region, magnetic force line, proton, solar cycle

ABSTRACT: During the IGY short-period variation measurements of the electromagnetic field in the polar regions of the Soviet Union were carried out at five Arctic stations (Kheys Island, Barentsburg, Cape Chelyuskin, Tiksi Bay, and Lovozero) and in Antarctica (Mirnyy and Oazis). Analysis of data obtained showed that the properties of the polar regions are associated with the cycle of solar activity. Especially rapid irregular variations of type P11 and the frequency of excitation of pearl-shaped variations Pcl depend upon the solar cycle. The daily rate of these variations differs from those at middle latitudes. Soviet observatories noted giant pulsations of types

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Pg and Lpc in the polar regions. Simultaneous excitations of stable variations occur in the polar regions during equinoxes and very seldom during solstices.

Regular stable variations are typical of polar and other latitudes. Stable variations of type Lpc occur mostly in the polar regions. Their vibrations last 3—7 min. This type of variation takes place in middle latitudes only in magnetic storms, appearing mostly at noon. Rapid irregular variations of type Pil occur with high intensity in the auroral zone where their amplitude reaches hundreds of mv/km. The amplitude of Pil variations diminishes rapidly to the north and south of the auroral zone. This type of variation occurs before midnight and in the morning hours. The Pil-type variations are very much associated with auroras. The appearance of these variations testifies to the development of auroral processes in the upper atmosphere.

Special interest was aroused by the pearl-shaped variations. Figure 1 shows this type of variation which was obtained on 6 August 1964 at Tiksi Station. Long-term records at USSR observatories made it possible

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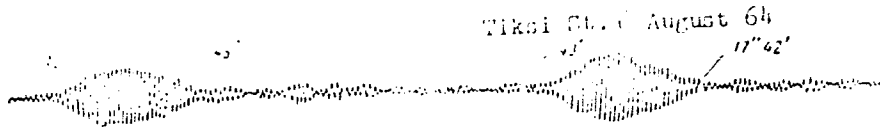


Fig. 1. Pearl-shaped magnetic vibrations

to conclude that the frequency of appearance of these variations increases with the decrease of the latitude of the observation point. This kind of variation occurs in magnetically coupled regions. The formation of pearl-shaped variations is hypothesized to be a movement of accumulated particles around a magnetic force line. Traveling from one hemisphere to the other along the force line between magnetically coupled points, the particle cluster increases the intensity of the magnetic field in the direction towards which the cluster moves while decreasing the magnetic field intensity behind it. The increased field causes intense vibrations which form the pearl. Another hypothesis explains this formation by magnetohydrodynamic waves which propagate from one hemisphere to the other.

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Experimental simultaneous observations were carried out in two magnetically coupled points, Sogra in the USSR and on the French island of Kergelen in the Indian Ocean. Processing of recorded data led to the following conclusions: 1) Maxima of individual pearls in opposite hemispheres are shifted by a half-period. Periods of envelopes over the pearls are preserved in both hemispheres. 2) No delay in phases was observed when the movement was from east to west. 3) Periods of pearl formation in coupled regions are equal. These data cannot be considered as a support of either the first or the second hypothesis.

Orig. art. has: 3 figures. [ATD PRESS: 4172-F]

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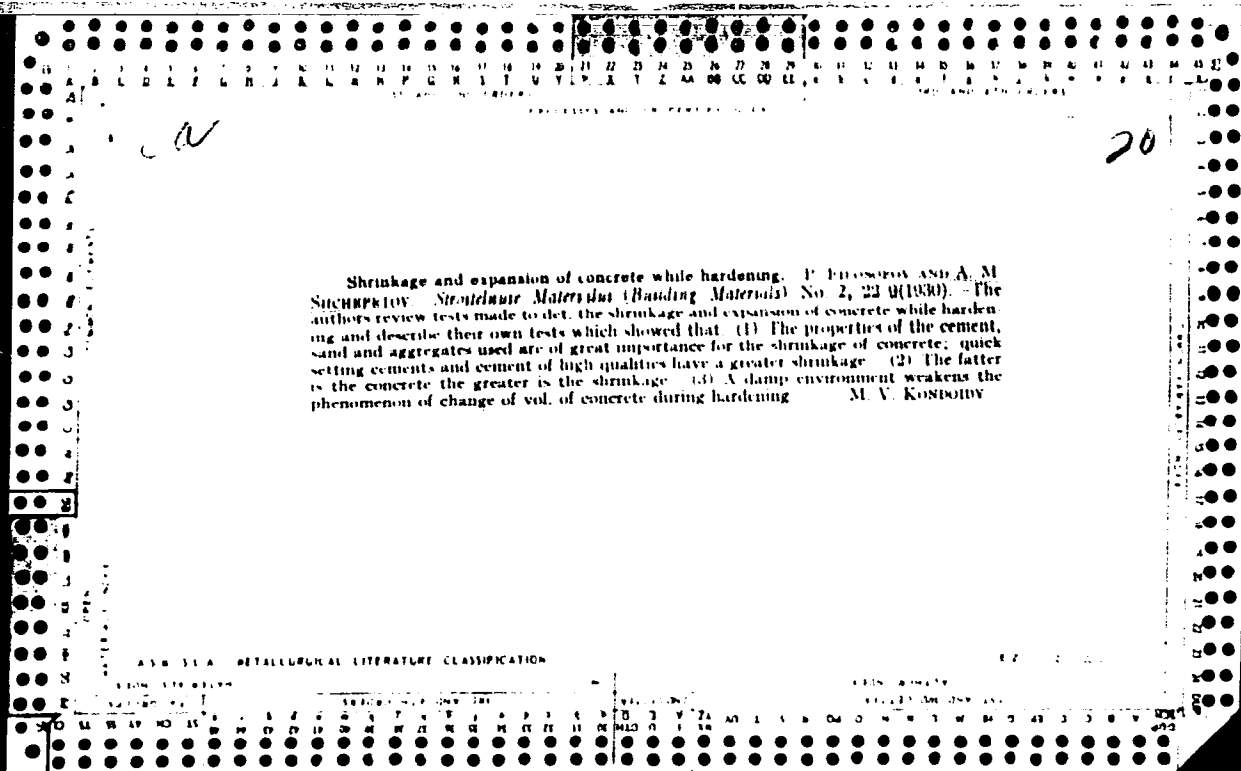
Card 4/4 of

VOSPOLIT, Oleg Aleksandrovich; DENISENKO, Oleg Aleksandrovich;
SHCHEPET'N, A., red.; SAMOLETOVA, A., tekhn. red.

[Organizing a wage system and establishing work norms in the
coal mining industry] Organizatsiia zarabotnoi platy i normi-
rovania truda v ugol'noi promyshlennosti. Stalino, Stalin-
skoe obl. izd-vo, 1958. 49 p. (MIRA 15:3)

(Wages--Coal miners)

(Coal mines and mining--Production standards)



12

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Determination of the setting times of pozzuolanic port-
land cements. A. M. Shchepetov. *Ispeiment 5, No. 7,*
27 (1958).--Since pozzuolanic portland cement paste
showed at early setting periods a much lower resistance to
the penetration of the Vicat needle, the weight of the
needle was diminished by 50 g.; this resulted in more-
nearly correct data at the beginning and the end of setting.
E. E. Stefanovsky

METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES

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CA

The increased use of pozzuolanic portland cements in the usual concrete and a comparison of methods of estimating the quality of the cement. A. M. Stchepetov. *Tsement* 1938, No. 8-9, 47-53; *Chem. Zvesti*: 1939, I, 1627; cf. C. A. 33, 4755. —A comparison of concretes and ferroconcretes made from pozzuolanic portland cement

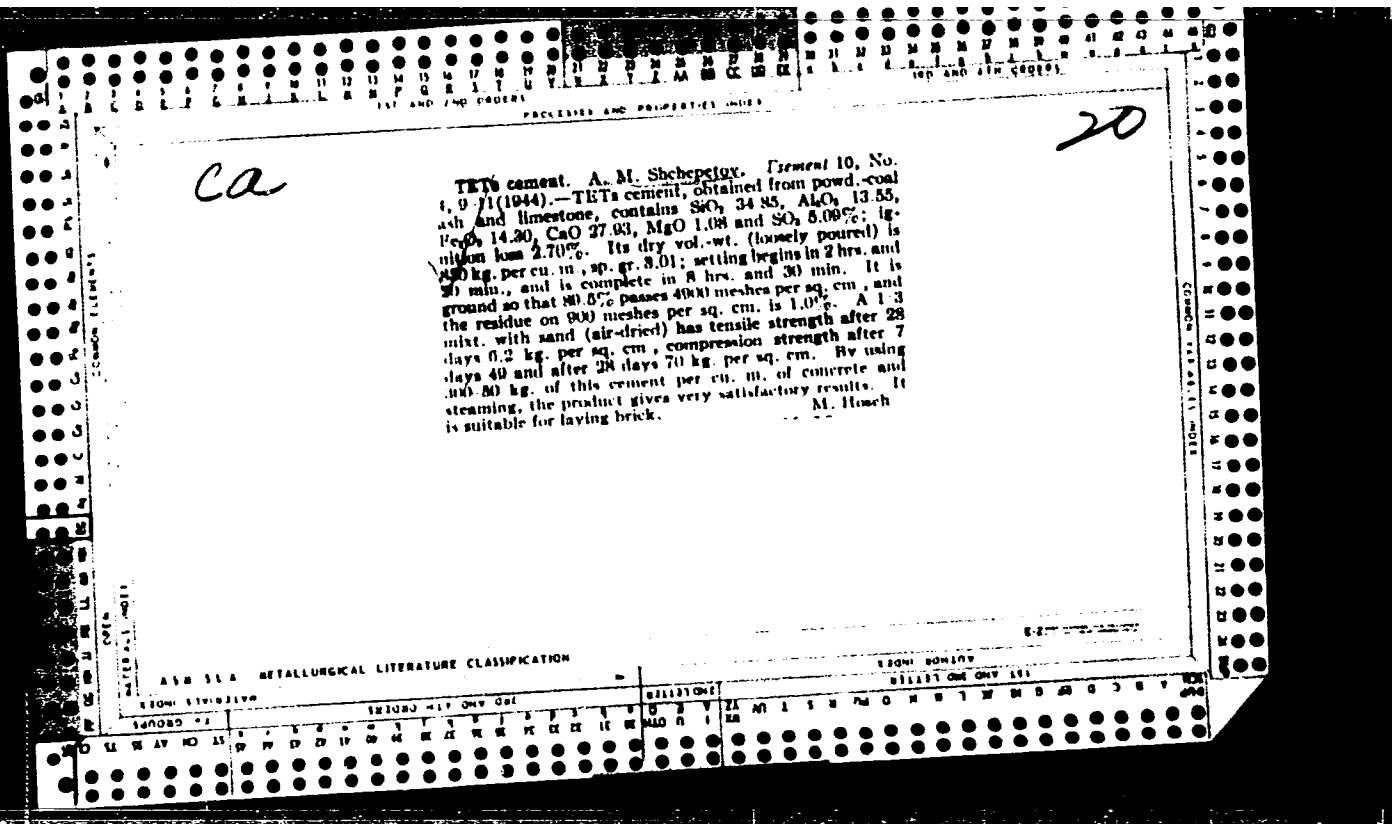
with those made from ordinary portland cement showed that in certain cases the former are economically to be preferred, even with an increased consumption of cement of 20%. Of importance in this connection is the increase in vol. of the cement slurry so produced, which, with a corresponding increase in the grain size of the filling material,

increases the plasticity of the concrete, so that even in very rich concretes the increased consumption of pozzuolanic cement is slight. M. G. Moore

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

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GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50			
CLASSIFICATION																																																					



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SO: Letopis' Zhurnal'nykh Statey Vol. 34, Moskva 1949

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kandidat tekhnicheskikh nauk, redaktor; VORONIN, K.P., tekhnicheskii
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frames] Stroitel'stvo zdaniy so sbornym zhelezobetonnyim karkasom.
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(Precast concrete construction)

ROGAL'SKIY, Boris Izrailevich; SHCHEPETOV, A.M., kandidat tekhnicheskikh nauk, nauchnyy redaktor; BEGAK, B.A., redaktor izdatel'stva; GUSEVA, S.S., tekhnicheskiiy redaktor

[Use of ground, unslaked lime in construction] Primenenie molotoi negashenoii izvesti v stroitel'stve. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956. 147 p. (MLRA 9:12)
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Valentin Iosifovich, kandidat tekhnicheskikh nauk, dotsent;
SHELKOVSKIY, Vol'f Moiseyevich, inzhener; SHCHERBETOV, A.N., vedushchiy
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iz sbornykh zhelezobetonnykh konstruktsii. Kiev, Gos. izd-vo tekhn.
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KOLOKOL'NIKOV, V.S., dotsent, kandidat tekhnicheskikh nauk; IVANOV,
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Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956. 284 p.
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VOROB'YEV, Vasilii Aleksandrovich, prof. doktor tekhn.nauk; KOLOKOL'NIKOV,
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nauchnyy red.; GURIN, A.V., red.; RAKOV, S.I., tekhn.red.

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perer. i dop. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1959. 327 p.
(MIRA 12:12)

(Lightweight concretes)

(Building blocks)