

ACC NR: AP/000028

that oxygen has probably participated in the process. It is pointed out in particular, that earlier deductions that blue coloring of fluorite crystals may be produced by rare-earth ions (such as yttrium) may be in error, and that the oxygen may be the cause of the color centers. It is also proposed that, besides blocking the rare-earth ions and compensating their excess charge, the oxygen can also increase independently the number of defects in the crystal lattice and facilitate the formation of color centers. The authors thank M. A. Vasil'yeva and V. A. Pis'menny for supplying many of the investigated crystals, F. K. Volynets for interest in the work, and V. A. Arkhangel'skaya for a discussion of the results. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 15Jul65/ ORIG REF: 015/ OTH REF: 004

Card 2/2

S/081/62/000/004/051/087
B150/B138

AUTHORS: Medvedev, N. M., ~~Roytsov~~, V. M.

TITLE: Optical properties of fluoride glasses

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1962, 386,
abstract 4K275 (Tr. Leningr. tekhnol. in - ta
im. Lensoveta, no. 52, 1961, 39 - 48)

TEXT: An investigation is made of the functional dependence of the refractive index of fluoroberyllate glasses in the wave length range of visible light on their chemical composition. A method is worked out and formulae derived, for distinguishing the refraction of a chemical compound according to the ion-atomic particles composing it. A universal linear dependence is deduced, for the refraction of the fluorine ions in the glass as a function of the energy of the structural network, calculated on 1 g - equiv F in the glass. [Abstracter's note: Complete translation.]

Card 1/1

REYTLINGER, S. A., and M. N. SHTEDING.

Lakirovannaia obtiazhka karkasa zhestkogo dirizhablia. Moskva,
Glav. red. aviats. lit-ry, 1938. 44 p., illus.
Bibliography: p. 44.
Title tr.: Doped covering of the airframe of a rigid airship.

TI662.E6R4

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

ARKHANGEL'SKIY, V.N., REYTLINGER, S.A.

Automatic stratospheric balloons for studying the atmosphere. Meteor.
1 gidrol no.11:47-50 N '56. (MIRA 10:1)
(Balloons, Sounding)

ANDRIANOVA, N.V.; REYTLINGER, S.A.; SHCHERBINA, N.G.; YASMINOVA, L.I.

Joining of polyethyleneterephthalate films. Plast. massy no. 1:73
'64. (MIRA 17:6)

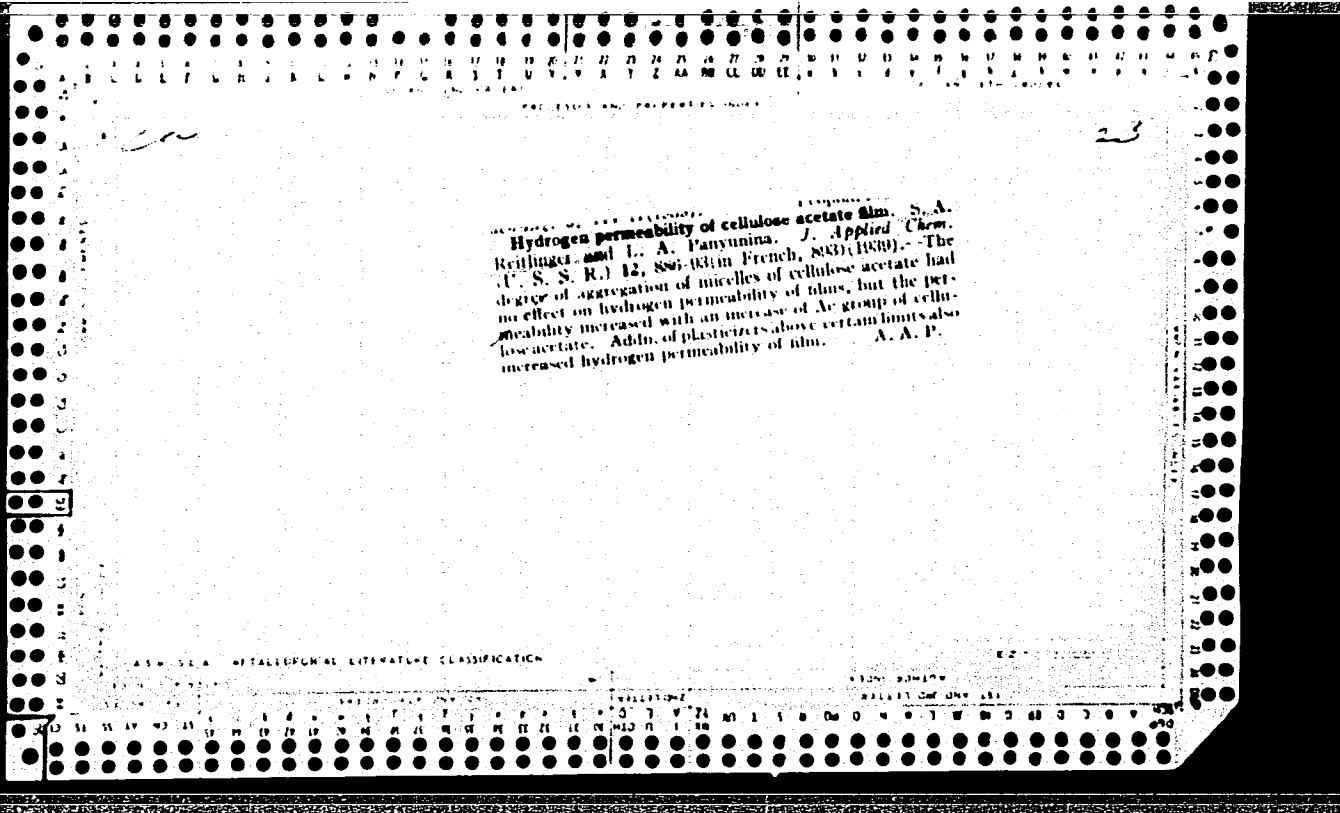
PROCESSES AND PROPERTIES INDEX

Use of treated castor oil in plasticizing nitrocellulose films. S. Rettlinger, *Org. Chem. Ind. (U. S. S. R.)* **1**, 541 (1936). Blowing CO₂ into castor oil at 150° and 200° for 72 hrs. produced no changes in the phys. and chem. const. of the oil. The effect of blowing air into castor oil at 100° and 150° was studied. The polymerized oil was used in plasticizing nitrocellulose lacquers. The results of studies generally agree with those of previous investigators (Kraus, *C. A.* **20**, 2202; Roy, *C. A.* **27**, 3034, 3830). Chas. Blam

ASAC 11A METALLOGRAPHICAL LITERATURE CLASSIFICATION

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<p><i>CA</i></p> <p>Action of ultraviolet rays on the colloidal properties of gelatin sols. R. A. Robinson and A. V. Igoshin. Doklady Akad. Nauk SSSR, 1954, 10, 10, 10, 10, 10, 10. The viscosity of gelatin sols decreases on irradiation to ultraviolet rays, either in the presence or absence of O₂. Gels previously heated no longer show the viscosity decrease.</p> <p style="text-align: right;">H. Cohen</p> <p style="text-align: right;"><i>2</i></p>																					
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31

31

Gas-permeability and microstructure of high polymeric compounds. B. A. Kozlovskii. *J. Gen. Chem. (U.S.S.R.)* 14, 420-7(1944) (English summary).—A study of crepe rubber, polybutadiene, gutta-percha, polychloroprene, butadiene-styrene copolymer, butadiene-acrylonitrile copolymer, polyethylene, polyisobutylene, polystyrene, polyvinyl acetate, polyvinyl chloride, and polyvinyl alcohol leads to the conclusion that permeability rises with increased curvature of the primary-valence chain and with the size of the side chains, it decreases with increased energy of intermol. bonding, and is independent of the length of the primary-valence chains. The main avenues of penetration for mols. like H₂ are along the interfaces of nonpolar groups or portions of the main macromolecular chains.

G. M. Kosolapoff

METALLURGICAL LITERATURE CLASSIFICATION

E-23272-65 EWT(m)/EPF(c)/EWP(v)/EPR/EWP(j)/T Pc-4/pr-4/ps-4 WW/RM

ACCESSION NR: AP4009841

S/0191/64/000/001/0073/0073

AUTHORS: Andrianova, N.V.; Reytlinger, S.A.; Shcherbina, N.G.;
Yasminova, L.I.

TITLE: Cementing polyethylene terephthalate film ¹⁵

32
29
B

SOURCE: Plasticheskiye massy*, no. 1, 1964, 73

TOPIC TAGS: polyethylene terephthalate, film, cementing welding
cementing techniques, polyester resin cement, polyethylene tere-
phthalate film, TF-60 polyester resin cement, TF-60

ABSTRACT: The literature on welding and cementing polyethylene
terephthalate film is discussed. The following cementing technique
is proposed using ethylene glycol polyesters of terephthalic or
sebacic acids as the adhesive. ¹⁵ A methylene chloride solution of
polyester TF-60 is brushed on the film to be cemented. For a film
12 microns thick the desired seam width is 5-10 mm.; for 25 micron
film, 10-15; and for 50 micron film, 15-20. The layer of resin
between the film should be 8-10 microns thick. The film is air
dried for 3-5 minutes to remove the solvent; the coated film is

Card 1/2

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ACCESSION NR: AP4009841

laid and rolled with rollers heated to 150-1700 at a rate of 1 m./min. at 1-1.5 kgs/cm² pressure. Instead of applying a resin solution, tapes of TF-60¹ resin on various backings may be inserted between the film and rolled as before. Orig. art. has: 1 table

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, MT

NR REF SOV: 004

OTHER: 013

Card

2/2

REYTLINGER, S. A.

PA 192T32

USSR/Chemistry - Elastomers,
Plastics

Mar/Apr 51

"Gas-Permeability of High-Molecular Compounds,"
S. A. Reytinger, Moscow

"Uspekhi Khim" Vol XX, No 2, pp 213-230

A survey of published material (some USSR, primarily non-USSR) relating to gas-permeability of plastics, rubber, and other elastomers. Examn of data on permeability, soly, and diffusion in gas-polymer system showed dependence of gas-permeability on microstructure of polymer. Magnitude of consts of permeability can be roughly detd from structure of polymer, and vice versa.

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REYTLINGER, S-A

✓ 4277. Diffusion and solubility of antioxidants and other compounding ingredients. A. S. Kuz'minski, S. A. Reytlinger and E. V. Shemastina.

"Starenie i Utomlenie . . .", 1953, p. 130-9. This appears to incorporate the material of the same authors' paper already abstracted (this journal, 1956, abs. 2892). On solution in rubber, compounding ingredients form a "supersaturated" solution capable of releasing several dissolved substances, whether on the change of thermodynamic conditions or on introduction of nuclei of crystallisation. The temperature dependences of the limiting concentrations of the metastable range of the supersaturated solutions is expressed by straight lines in the coordinates $\log L - \frac{1}{T}$; the degree of supersaturation of the solutions increases with the decrease of the solubility of the ingredient in the rubber. The degree of solubility and the heat of solution of the ingredient depend upon the chemical structure of the rubber molecules. Taking as an example the solubility of Neozone D, it is shown that the solubility and heat of solution in rubber increases with the polarisation of the rubber. The authors determined the coefficients of diffusion of sulphur, Neozone D, and certain antioxidants in SKB. Starting from the temperature dependence

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KUZ'MINSKII, A.S., REITLINGER, SA. ... 1

of the coefficient of diffusion, the activation energy of the diffusion of sulphur and of Neozone D in SKB is about 12400 cal/mole. It is shown that in polyisobutylene the rate of diffusion of Neozone D is significantly less than in SKB and in natural rubber. There are 8 references, and discussion of the paper is reported.

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2/2

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REYTLINGER, S. A.

2

Solubility of *N*-phenyl-2-naphthylamine in rubbers. S. A. Reytlinger and A. S. Kosolapoff. *Zhur. Priklad. Khim.*, 27, 214-17 (1954).—The soly. of 2-C₁₀H₇NHPh in various types of rubber was detd. in thin films by the formation of films from C₆H₆ solns. with increasing conc n. of the amine. The soly. was detd. by slow heating of the film to a temp. at which the crystals (microscopic) disappeared completely. The results, shown graphically, are extrapolated to 20°.

giving the following soly. in millimoles per 100 g.: polyisobutylene 0.32, smoked-sheet rubber 1.91, polybutadiene 2.92, butadiene-styrene copolymer 3.28, butadiene-acrylonitrile copolymer 3.51, polychloroprene 8.67. Plots of log of soly. against reciprocal of abs. temp. give good straight lines. The calcd. heats of soln. of the above rubbers are -11,450, -10,050, -9700, -8100, -8560, and -8420 cal/mole, resp.

G. M. Kosolapoff

11-9-54
red

REYTLINGER, S.A.

USSR/Chemistry - Physical chemistry

Card 1/1 : Pub. 22 - 27/49

Authors : Kuz'minskiy, A. S.; Reytlinger, S. A.; and Shemastina, E. V.

Title : Diffusion of antioxidants in rubber

Periodical : Dok. AN SSSR 98/4, 611-612, Oct. 1, 1954

Abstract : The diffusion of certain solid antioxidants (phenyl-beta-naphthylamine, dinaphthylamine, and dinaphthylphenylenediamine) dissolved in rubber was investigated. Rubber, as a diffusion medium, is distinguished from liquid and solid crystalline bodies by the presence of certain characteristics due to the specificity of the thermal motion of the macromolecules. Since the investigated substances form colorless solutions in the rubber the position of the antioxidant concentration boundary was determined by the luminescence intensity of the filtered ultraviolet light. Three references: 1-USSR; 1-USA and 1-German (1942-1951). Graphs.

Institution : Scientific Research Institute of the Rubber Industry

Presented by : Academician P. A. Rebinder, May 22, 1954

Reytinger, S.A.

2732. Gas permeability of crystallising polymers.
S. A. REYTINGER, and L. S. YANKIN. *Kolloid
Zhur.*, 1955, 17, 387-90; *Chem. Abs.*, 1956, 50, 2248.
Permeability of stretched gutta percha, polyethyl-
ene, and polyamide was smaller than that before

stretching; e.g. for hydrogen at 20°C the coefficient
K was, respectively, 10, 6, and 0.3 before, and 8, 3,
and 0.15 $\times 10^{-8}$ cc./sec. atm. after stretching.
Crystallisation of natural rubber at -25° lowered K
and raised the density of the rubber; identical effects
were produced by stretching a vulcanised rubber
film. The temperature coefficient of K was raised
by stretching polymer films. 352D24.3403

M. A. YOUTZ

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RM

REJTLINGER, S.A.

SUBJECT USSR / PHYSICS
AUTHOR REJTLINGER, S.A., MASLENNIKOVA, A.A., JARCHOW, I.S. CARD 1 / 2 PA - 1690
TITLE The Gas-Penetrability of Polyorganosiloxan Rubber.
PERIODICAL Zurn.techn.fis, fasc.11, 26, 2553-2557 (1956)
Issued: 12 / 1956

Here the dependence of this type of rubber on composition, on the vulcanizing method, and on temperature is studied.

Investigation method: Dimethyl polysiloxane (caoutchouc SKT) served as initial polymer. To 100 units of weight of this caoutchouc 3 units of benzoyl peroxide and 5 units of zinc oxide are added for the purpose of vulcanization. In some cases white soot or titanium dioxide was introduced as filling material. The device for the determination of gas penetrability consisted of 2 steel chambers between which the plate-shaped samples to be examined were pressed. Before measuring, both chambers were evacuated to 10^{-3} mm torr, after which the upper chamber was connected with the gas. The gas diffuses through the plate to be examined into the lower chamber which is connected with a mercury manometer.

Test results: The values found for the constant P of gas penetrability, for the diffusion constant D, and for the solubility constant σ are shown together in a table. Investigations extended to unfilled vulcanization products of dimethylpolysiloxane and natural caoutchouc. The rubbers examined have a very high degree of gas penetrability which by far exceeds that of other molecular compounds. The increase of the gas penetrability of dimethylpolysiloxane as against that of natural caoutchouc is a consequence of the considerable in-

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Zurn. techn. fis, 26, fasc. 11, 2553-2557 (1956) CARD 2 / 2

PA - 1690

crease of the diffusion velocity of gases. Vulcanization in an oven or a thermostat diminishes gas penetrability considerably, but vulcanization in a press entails no considerable modification of gas penetrability. The gas penetrability of dimethylpolysiloxanes can be somewhat reduced by the introduction of filling materials. Active filling materials (white soot) are more effective than inactive ones (titanium dioxide). With rising temperature the penetrability for H_2 , N_2 , O_2 increases somewhat, but it diminishes for CO_2 .

From the data obtained also the activation energy of the diffusin and the heat of solution of nitrogen in the polymer were computed.

Discussion of results: In some case the polyorganosiloxanes differ considerably from the caoutchoucs of the carbon type because of their particular molecular structure. The fact that specific weights are relatively low in spite of the presence of heavy Si-molecules is indicative of a loose packing of the molecules. They probably have a spiral structure. Penetration of gas occurs by a diffusionlike transfer of the molecularly dissolved gas but not by flows of the KNUDSEN or POISEVILLE type.

INSTITUTION:

REITLINGER S.A
Reitlinger, S. A.

Effect of the rubber structure on the diffusion of inhibitor.
 A. S. Kuz'minskii, S. A. Reitlinger, and E. V. Shemastina
 (Sci. Research Inst. Rubber Ind., Moscow). *Kolloid. Zhur.* 18, 707-10(1956); cf. *C.A.* 49, 9315b.—A plate of a synthetic vulcanizate contg. 2% 2-C₁₀H₇NHPh (I) was pressed in N atm. against another synthetic vulcanizate (contg. x% S in addn. to ZnO 2, stearic acid 2, (PhNH)₂C=NH 1%), and the amt. of I in the 2nd plate was detd. from time to time. The diffusion coeff. *D* of I, calcd. from these data, decreased from 2×10^{-8} to 2×10^{-9} sq. cm./sec. when *x* increased from 0 to 8% and the equil. modulus from 5 to 36 kg./sq. cm., all at 20°. At 80°, *D* was approx. 2×10^{-7} and depended little on *x*. Addn. of 50% chalk lowered *D*, and addn. of 60% gas black to rubber lowered *D* even more (e.g., by a factor of 2), but had no effect on the temp. coeff. of *D*. The energy of activation of diffusion increased with *x*.
 J. J. Bikerman

3

REYTLINGER, S. A.

USSR/Physics of High - Molecular Substances

D-9

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11547

Author : Reytlenger, S.A., Maslennikova, A.A., Yarkho, I.S.

Inst :

Title : Gas Permeability of Polyorganic Siloxane Rubber.

Orig Pub : Zh. tekhn. fiziki, 1956, 26, No 11, 2553-2557

Abstract : No abstract.

Card 1/1

Category : USSR/Atomic and Molecular Physics - Physics of high-molecular substance D-9

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 992

Author : Bartenev, G.M., Reytlinger, S.A., Rubinshteyn, B.Ye.,
Inst : Scientific-Research Institute of the Rubber Industry, Moscow
Title : Permeation to Gas and Vitrification of Polymers.

Orig Pub : Zh. fiz. khimii, 1956, 30, No 3, 532-536

Abstract : The authors indicate that the permeation to gas of a polymer P and the mobility of its molecular rings are determined uniquely by the diffusion properties. Therefore, the stronger the inter-molecular bonds, the lower P and the higher the vitrification temperature T_v . Starting with an equation for the temperature dependence of the diffusion constant D, and taking into account that the activation energy of the polymer diffusion is greater than T_v and proportional to it, the authors obtained the equation $\log D = A + (BT_v/T)$, where A and B are constants. Assuming $P = D\sigma$, where σ is the solubility of the gas in the polymer, assumed by the authors to be constant for a given gas in all polymers, and making many other assumptions, they obtained $\log P \approx A_1 + (E_1 T_v/T)$. The approximate linear relationships between $\log D$, $\log P$ and T_v actually holds in the region of high-elastic states as shown on the basis of data taken from the literature. Factors that contribute to an increase in T_v simultaneously cause a reduction in P.

Card : 1/1

REIFLINGER, S.A.

Distr: *4E43/4E2a(j)*

1038. Effect of plasticizing agents on the hydrogen permeability of polyvinyl chloride. S. I. SOKOLOV, S. A. REIFLINGER and R. I. FERDMAN. Koll. Zh., 1957, 19, 624-8. It was found that the plasticiser affects the permeability of polymer films differently depending upon the state of the polymer, namely whether vitreous or elastic. The greatest increase in permeability was observed for the high elastic state. In this state the logarithm of the permeability is a linear function of the molar fraction of the plasticiser. The permeability extrapolated to unit molar fraction of plasticiser increases approximately linearly with the number of carbon atoms in the alkyl groups of the phthalates used as plasticisers. There are 14 references.

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PM

Moscow Technol. Inst. Light Industry

—382H31.54288

837/20-120-2-33/63

AUTHORS: Reytlinger, S. A., Kuz'minskiy, A. S.,
Fel'dshcheyn, L. S.

TITLE: On the Nature of the Bindings and the Gas Penetrability of Space-
Structured Polybutadiene (O prirode svyazey i gazopronitsayemosti
prostranstvenno-strukturirovannogo polibutadiyena)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 2,
pp. 343 - 345 (USSR)

ABSTRACT: First the authors discuss various previous papers and give a
survey of the results obtained. The interest of the authors was
directed towards the clarification of the separate influence
of the bridge-like covalent bindings and of the intermolecular
bindings upon gas penetrability. Space-structured polybutadienes
differing as to the chemical nature of the transverse bonds were
investigated. The space lattice in polybutadiene was made visible
by the following means: Heating in a press at 220°, irradiation
by radiation from Co⁶⁰, heating with sulfur and diphenyl guanidine,
heating with sulfur and thiouram. The density of the lattices
was varied by several methods. The results of the investigations

Card 1/3

On the Nature of the Bindings and the Gas Penetrability of Space-Structured Polybutadiene

SOV/20-120-2-33/63

are illustrated in a diagram. The dissolved sulfur exercises almost no influence upon the penetrability of rubber to nitrogen. Even if sulfur is bound intramolecularly, only a small modification of the penetrability is found. The bridge-like sulfur bindings between the chain-like molecules of the polymer exercise a greater influence upon the reduction of the penetrability than the same amount of sulfur-containing groups which are bound intramolecularly. A diagram illustrates as an example the typical dependence of the equilibrium modulus and of the nitrogen penetrability upon the duration of heating (220°). The reduction of gas penetrability which is found at a space structuring is accompanied by an inversely proportional increase of the equilibrium modulus. There are 3 figures and 12 references, 6 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of Rubber Industry)

PRESENTED: January 13, 1958, by P.A.Rebinder, Member, Academy of Sciences, USSR

Card ~~273~~

S/629/60/000/003/010/011
D202/D305

AUTHOR: Reytlinger, S. A.

TITLE: Permeability of high-polymer compounds to gases

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo imeni D. I. Mendeleeva, Uspekhi khimii i tekhnologii polimerov, sb. 3, Moscow, Goskhimizdat, 1960, 184-200

TEXT: A review designed to acquaint the Soviet-bloc readers with the subject, which has been surveyed in the past in the Western hemisphere. Definitions are given of the permeability coefficient P , diffusion coefficient D and gas solubility σ and the dependence of these properties on the molecular weight, structure and mechanical properties of the polymers is discussed. The anomalous permeability to gases of amorphous linear polymers in the highly elastic and glassy stages is described, as well as the effects of crystallization and intermolecular bonding on the permeability. Discussing the first class of polymers, the author quotes examples taken mostly from Soviet literature concerning synthetic rubbers. In the

Card 1/2

S/629/60/000/003/010/011
D202/D305

Permeability of high-polymer ...

second class, the author discusses the permeability of polyvinyl chloride, polystyrene, polyvinyl acetate and polymethacrylates, and refers to gutta-percha and polyethylene to illustrate the effects of crystallization. Discussing the last factor, the author refers to the gas permeability of vulcanized rubber and the Western work of Frisch concerning the dependence of permeability on the amount of intermolecular bonds. In conclusion, it is stated that the permeability to gases decreases with the transition from the high-elastic to the glassy state, with crystallization and with the formation of macromolecular cross-linkages. There are 6 figures, 4 tables and 70 references: 26 Soviet-bloc and 44 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: K. Kammermeyer, Ind. Eng. Chem. 50, 4, 697, (1958); R. M. Barrer, J. A. Barrie and J. Slater, J. Polymer Sci., 27, 177, (1958); C. H. Klute and P. J. Franklin, J. Polymer Sci., 32, 161, (1958); Ja. Auerbach, W. Miller, W. Kuryla and S. Gekman, J. Polymer Sci., 28, 129, (1958).

Card 2/2

KUZ'MINSKIY, A.S., doktor khimicheskikh nauk; FEL'DSHTEYN, L.S.;
REYTLINGER, S.A., kand.tekhn.nauk

Surface crystallization of the ingredients of rubber mixtures.
Trudy NIIRP no. 6:84-91 '60. (MIRA 13:12)
(Rubber)

84633

S/135/60/000/011/007/016
A006/A001

15.8310 2209 1428 1581

AUTHORS: Matsyuk, L.N., Candidate of Technical Sciences, Reytlinger, S.A.,
Candidate of Chemical Sciences, Kolobkov, Yu.M., Engineer

TITLE: Welding of Polyethylene Films With Gas Heat Carriers

PERIODICAL: Svarochnoye proizvodstvo, 1960, No. 11, pp. 26-29

TEXT: Welding of polyethylene films with gas heat carriers excludes the necessity of using supports, thus presenting a considerable advantage over the heat resistance welding method. Optimum welding conditions were determined on an experimental laboratory machine, either fixed or portable, by one-sided heating by gas carriers of the material to be welded. One or several ГСМ-53 (GSM-53) burner nozzles were used. The experimental machine was used to design a model for welding large-size work under the supervision of N.N. Safronov (Figure 2). The investigation showed that when welding polyethylene films by heated gas, the quality of the joints and the welding speed depended on the distance between the nozzle tip and the material to be welded, the consumption and temperature of gas and on the pressure of the arresting strips on the material. When welding 60-micron thick films using air and oronozzle with a 1.5 mm diameter outlet aperture,

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A006/A001

Welding of Polyethylene Films With Gas Heat Carriers

best results were obtained when the distance between the nozzle and the work piece surface was 5 mm, the air temperature 290-320°C; air consumption - 3.5 to 4.5 l/min; pressure of the arresting strips - 0.5 to 1 kg/cm², and welding speed 0.5 to 1 m/min. The tearing strength of such joints was 85-95% of the base material strength and shear strength equalled that of the base material. The strength of overlap joints was also equal to that of the base material. Best strength properties were obtained using inert gases (nitrogen or argon) as heat carriers. The welding speed can be increased using three consecutively arranged nozzles and attains under the described conditions 3 m/min. It can be increased still more by using more nozzle. X

Card 2/3

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S/135/50/000/011/007/016
A006/A001

Welding of Polyethylene Films With Gas Heat Carriers

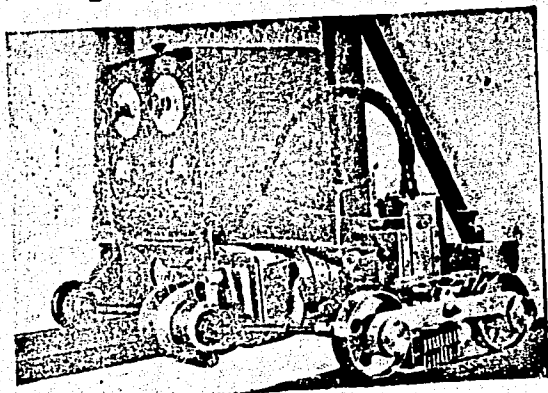


Figure 2. General view of a machine for welding large-size work by gas heat carriers.

There are 6 figures and 1 table.

Card 3/3

S/020/61/136/004/015/026
B016/B075

AUTHORS: Fel'dshteyn, L. S., Reytlinger, S. A., and Kus'minskiy, A. S.

TITLE: The Problem of Crystallizing Low-molecular Substances From Solutions Into High Polymers

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 4, pp. 843 - 845

TEXT: The authors attempted to find the reasons for an undesirable phenomenon, the so-called "efflorescence" (Ref.1), i.e., the formation of oversaturated solutions of low-molecular substances in high-polymer solvents. The former mostly crystallize on the interface polymer - gas. The system sulfur (2g) - polybutadiene (100 g) (CKE-30 (SKB-30)) served as test object. By using S^{35} (Ref.2), the relative quantity of sulfur crystallized on the polybutadiene surface was determined. Platelets, 2 mm thick and 26 mm in diameter, were obtained by pressing a mixture of the two components for 60 min at 100°C in a cellophane foil. Before measuring the activity by means of an end-window counter, the cellophane foil was removed from one side. Already 24 hours after removing the cellophane

Card 1/3

The Problem of Crystallizing Low-molecular
Substances From Solutions Into High Polymers

S/020/61/136/004/015/026
B016/B075

foil, a considerable increase in activity was observed (Fig.1). The authors explain this phenomenon by sulfur crystallization on the surface, since a concentration gradient had formed. The side covered by cellophane showed no increase in activity even after additional pressing. When storing the specimens wrapped in cellophane for a longer period efflorescence decreased until it completely vanished. On the strength of these data, the authors conclude that equilibrium was established due to crystallization inside the specimen. Crystallization sets in immediately after removing the cellophane foil. The time necessary for establishing equilibrium is determined by the diffusion rate of the sulfur from inside the specimen. When the cellophane was removed from none of the two surfaces even after 60 days equilibrium was not established. Therefrom the authors concluded that crystallization proceeds considerably slower inside the specimen than on its surface. The quick establishment of equilibrium in the case of strong oversaturation indicates that the formation of seed crystal is inhibited. By admixing pulverized metallic selenium, the authors succeeded in initiating the crystallization inside the specimen. Selenium is insoluble in rubber, but since it is isomorphous with sulfur it easily forms mixed crystals with the latter. The authors

Card 2/3

The Problem of Crystallizing Low-molecular
Substances From Solutions Into High Polymers

S/020/61/136/004/015/026
B016/B075

refer to the processes during crystal formation (Ref.4) and state that the difference between the diffusion coefficient of the dissolved substance and the self-diffusion coefficient of the polymer solvent inhibits the formation of crystallization centers inside the specimen. Plasticizers increase the mobility of polymer molecules and the probability of crystallization inside the specimen. Thus, sulfur does not effloresce in factices (Ref.2). There are 3 figures, 1 table, and 6 references: 4 Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut resinovoy promyshlennosti
(Scientific Research Institute of the Rubber Industry)

PRESENTED: July 8, 1960, by P. A. Rebinder, Academician

SUBMITTED: June 30, 1960

Card 3/3

L 45466-65 EPF(c)/EWG(j)/EWA(h)/EWP(j)/EWT(m)/T/EWA(1) Pc-4/Pr-4/Feb RM

S/0191/65/000/004/0036/0038

ACCESSION NR: AP5009318

AUTHORS: Melikhova, N. A.; Kosovova, Z. P.; Kotovshchikova, O. A.; Reytlinger, S.A.

TITLE: The effect of aging and surface treatment upon the weldability of polyethylene films

SOURCE: Plasticheskiye massy, no. 4, 1965, 36-38

TOPIC TAGS: polymer property, polymer film, polyethylene, weld, weld shear strength

ABSTRACT: The effects of oxidation processes occurring in polyethylene under solar radiation, raised temperature, gamma radiation, and with surface treatment by oxidizing substances were studied. The purpose of the investigations was to determine the effect of these factors upon the weldability of polyethylene films. The films were prepared by an extrusion process and welded using the NIAT device reported by Yu. M. Kolobkov, O. A. Kotovshchikova, and L. N. Matsyuk (Sb. "Primeneniye polymernykh materialov v mashinostroyeni", Mashgiz, 1962, 269). The effect of solar radiation upon the films is shown in Fig. 1 on the Enclosure. The authors recommend storing the films in a dark place prior to exposing them to solar radiation in order to prevent premature structural changes from incident radiation. The strength of welded seams exposed to gamma radiation, high temperatures, and

Card 1/1

L 45466-65

ACCESSION NR: AP5009318

oxidizing agents is shown in Figs. 2, 3, and 4 on the Enclosure. A Co⁶⁰ source was used to produce gamma rays. The heat-treated films were held at 100C for varying lengths of time. The oxidizing agents were chromic acid, chlorine, ozone, and nitric acid. A small electrical discharge was also used in the oxidation tests. It was noted that the formation of an oxidized polyethylene layer nearly always prohibits the formation of a weld. Orig. art. has: 4 figures.

ASSOCIATION: none

SUB CODE: ME

SUBMITTED: 00

ENCL: 02

NO REF SOV: 007

OTHER: 004

Card 2/4

CHEKHOVSKIY, Yu.V.; LEYRIKH, V.E.; REYTLINGER, S.A.

Decrease in gas permeability of cement stones when electrolytes are added. Dokl. AN SSSR 153 no.2:405-407 N '63. (MIRA 16:12)

1. Predstavleno akademikom P.A.Rebinderom.

REYTLINGER, S.A. (Moskva)

Gas permeability of the latex envelopes of sounding balloons.
Meteor. i gidrol. no. 4:44-46 Ap '63. (MIRA 16:5)
(Balloons, Sounding)

REYTLINGER, Sergey Aleksandrovich; CHEKHOVSKIY, Yuriy Vasil'yevich;
MOSKALEV, N.S., kand. tekhn.nauk, retsenzent; REBINDER, P.A.,
akademik, red.; VAYNER, M.S., red.; RAZUMOVSKAYA, T.Ya.,
red.; DEMIDOV, Ya.F., tekhn. red.

[Mechanisms of the transmission of gases and liquids through
concrete and methods of studying the structure of concrete
pores] Mekhanizmy perenosa gazov i zhidkosti cherez beton i
metody issledovaniia struktury por betona. Pod red. P.A.
Rebindera. Moskva, VNIIST Glavgaza SSSR. Red.-izdatel'skii
otdel, 1961. 63 p. (MIRA 15:11)
(Concrete--Testing)

*REYTLINGER, Ye. A.

Cand Geolog-Mineral Sci

Dissertation: "Stratigraphic and Phase Distribution of Small
Foraminifera in Carboniferous Formations of the Moscow Syncline."

3 June 49

Inst of Geological Sciences, Acad Sci USSR

SO Vecheryaya Moskva
Sum 71

REYTLINGER, YE. A.

PA 152T40

USSR/Geology - Paleontology
Carboniferous Deposits
Nov/Dec 49

"Minute Foraminifera of the Lower Part of the Middle Carboniferous in the Central Urals and the Frikam'ye Lands Around the Kama River),"
Ye. A. Reytlinger, 16 pp

"Iz Ak Nauk SSSR, Ser Geol" No 6

Study of minute foraminifera of lower part of Middle Carboniferous established progressive shifting of their groups. This progressive shifting confirms stratigraphic independence

152T40

USSR/Geology - Paleontology
(Contd) Nov/Dec 49

of Kayalskian epoch. Describes number of new species characteristic of these deposits.

152T40

REYTLINGER, Ye. A.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular science books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name:
 Raizer-Chernousova,
 D. M.
 Grozdilova, L. P.
 Reytinger, Ye. A.
 Vissarionova, A. Ya.
 Shanov, D. F.
 Lipina, O. A.

Title of Work
 "Middle Carboniferous
 Fusulinides of the
 Russian Platform and
 Adjacent Areas"

Nominated by
 Institute of Geological
 Sciences Academy of
 Sciences USSR

7 July 1954

NALIVKIN, D.V., akademik, redaktor; MENNER, V.V., redaktor; RAUZER-CHE-
NOUSOVA, D.M.; REYTLINGER, Ye.A.; BALASHOVA, N.N.; DALMATSKAYA,
I.I.; CHERNOVA, Ye.I.

[Regional stratigraphy of the U.S.S.R.] Regional'naya stratigra-
fiia SSSR. Vol. 2. [Stratigraphy of the middle carboniferous de-
posits in the central and eastern parts of the Russian Platform;
on the basis of foraminifera study] Stratigrafiia srednekamennougol'-
nykh otlozhenii tsentral'noi i vostochnoi chastei Russkoi platfor-
my; na osnove izucheniia foraminifer. Pt. 1. [The Moscow Basin]
Moskovskaia sinekliza. Glav. red. D.V.Nalivkin, V.V.Menner. Mo-
skva, Izd-vo Akademii nauk SSSR. 1954. 270 p. (MLR48:2)

1. Akademiya nauk SSSR. Institut geologicheskikh nauk.
(Moscow Basin--Geology. Stratigraphic)

REYTLINGER, Ye.A.

Devonian foraminifera of certain profiles of the eastern section
of the Russian Platform. Paleont.sbor. no.1:52-81 154.

(MLRA 8:10)
(Russian Platform--Foraminifera, Fossil)

REYTLINGER, Ye. A.

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5, 15-57-5-5769
p 9 (USSR)

AUTHORS: Reytlinger, Ye. A., Balashova, N. N.

TITLE: Stratigraphy of the Middle Carboniferous Strata in
Rzhev Volga District (Stratigrafiya srednekamennougol'-
nykh otlozheniy Rzhevskogo Povolzh'ya)

PERIODICAL: V sb: Regional'naya stratigrafiya SSSR, Vol 2, Moscow,
Izd-vo AN SSSR, 1954, pp 121-200.

ABSTRACT: Bibliographic entry

Card 1/1

REYTLINGER, E. A.

USSR/ Geology - Stratigraphy

Card 1/1 Pub. 46 - 4/19

Authors : Reytlinger, E. A.

Title : What has the study of the Donbas profile contributed to the stratigraphy of the Namyursk and Bashkir deposits of the Russian platform

Periodical : Izv. AN SSSR. Ser. geol. 3. 72 - 82. May - Jun 1954

Abstract : The contributions of Ukrainian paleontologists, who studied the flora and fauna layers of the Donets - River basin (Donbas) and the neighboring regions, to the establishment of the stratigraphy of the Namyur and Bashkir deposits of the Russian platform are revealed. Twenty-six references: 25 USSR and 1 German (1934 - 1953). Table.

Institution:

Submitted: February 4, 1954

REYTLINGER, Ye.A.

The new family, Lasiodiscidae. Vop.mikropaleont. no.1:69-78
'56. (MLRA 9:12)

1. Geologicheskij institut Akademii nauk SSSR.
(Foraminifera; Fossil)

REYTLINGER, Ye.A.

Microscopic organic (?) remains in the Serdob series. Dokl.
AN SSSR 111 no.5:1098-1100 D '56. (MLRA 10:2)

1. Predstavleno akademikom N.S. Shatskin.
(Pachelma--Algae, Fossil)
(Ryazan Province--Algae, Fossil)

BAUZER-CHERNOUSOVA, D.M.; REYTLINGER, Ye.A.

Development of Foraminifera in the Paleozoic and their stratigraphic
significance. *Izv. AN SSSR Ser. geol.* no.11:103-124 N '57.
(Foraminifera, Fossil) (MLRA 10:11)

REYTLINGER, Ye.A.

Spheres from Devonian deposits found in the Russian Platform. Dokl.
AN SSSR 115 no.4:774-776 Ag '57. (MIRA 10:12)

1. Geologicheskii institut AN SSSR. Predstavleno akademikom N.V.
Shatskim.

(Russian Platform--Geology, Stratigraphic)

REYTLINGER, Ye.A.

Systematics and phylogeny of the superfamily Endothyridae.
Vop.mikropaleont. no.2:53-73 '58. (MIRA 11:12)

1. Geologicheskii institut AN SSSR.
(Foraminifera, Fossil)

3(0)

AUTHORS:

Reytlinger, Ye. A., Yartseva, M. V.

SOV/20-123-6-42/50

TITLE:

New Charophytes of the Upper Famennian Deposits of the Russian Platform (Novyye kharofity verkhnefamenskikh otlozheniy Russkoy platformy)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 6, pp 1113-1116 (USSR)

ABSTRACT:

The fossil Charophytes are becoming more and more important for the stratigraphical classification of masses, which were deposited under abnormal marine conditions with reference to salt-content (in lagoons, deltas, lakes a.o.) (Refs 4,5). The Gyrogonites, described in this paper, originate from:
a) ~~Khovanskaya~~ strata of the Tula area, and b) the bore-holes of the Poles'ye of Pripyat' of the mass, which is covering the salt-bearing strata. Superficially these fossils look like the Gyrogonites of Sycidium and belong to a new genus called Chovanella. In the district of Tula Chovanella occurs together with numerous Kalcisphaeres and Ostracodes, of which the last were determined by R. B. Samoylova. In Poles'ye Gyrogonites were found in the specimen of B. S. Kovalev. Together with them rare

Card 1/ 3

New Charophytes of the Upper Famennian Deposits of the Russian Platform SOV/20-123-6-42/50

Foraminiferes, carbonized plant remains, spores and Ostracodes were found (determinations by G. I. Kedo (Ref 3) and by S. V. Gorak). Accordingly the age of these strata is determined as Dankovo-Lebedyanskiy. The spores are of Famennian age (Ref 3). The 450 m thick and grey mass in Poles'ye terminates the Devonian sedimentation cyclus (Ref 6). V. P. Maslov and R. B. Samoylova were helpful with the work on the specimen. Described for the first time were: genus *Chovanella* Reitlinger et Jarzeva gen. nov. with the species: *Ch. kovalovi* Reitlinger et Jarzeva sp. nov., *Ch. maslovi* Jarzeva sp. nov. (Figs 1: 1-3, 12, 13, 19, 20), *Ch. samoilovae* Reitlinger et Jarzeva sp. nov. (Figs 1: 4-6, 14, 15), *Ch. jarzevi* Jarzeva sp. nov. (Figs 1: 7-9, 16, 21-23) and *Ch. davidovkensis* Jarzeva sp. nov. There are 1 figure and 6 Soviet references.

ASSOCIATION: Geologicheskii institut Akademii nauk SSSR (Geological Institute of the Academy of Sciences, USSR)

Card 2/3

3(5)

AUTHOR:

Reytlinger, Ye. A.

SOV/20-127-3-52/71

TITLE:

The Foraminifera of the Border Strata of Devonian and Carboniferous in the Western Part of Central Kazakhstan

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 659 - 662 (USSR)

ABSTRACT:

The strata mentioned in the title were for the first time characterized with regard to foraminifera in 1938. The classification of the strata in the region mentioned, formerly called Etren' strata, is doubted at present (Refs 6-7). The most thorough investigation of foraminifera was made by the author at the section of the river Kara-Kingir. He discusses the distribution of these fossils in the section (according to the scheme of reference 6) (Fig 1). Sulcifer Strata, total thickness ~ 800 m. Foraminifera are rare here they occur almost only in the upper part. The great speed of sedimentation and the coarse sediments obviously disturbed the development of the foraminifera living on the ground. Most of the species classified here are widely spread in vertical direction. K a r a -

Card 1/3

The Foraminifera of the Border Strata of Devonian and Carboniferous in the Western Part of Central Kazakhstan SOV/20-127-3-52/71

kingirskiye Strata, thickness about 300 m. Most species of foraminifera survived in this strata. Ust'-kara gandskiye Strata, about 200 m thick. Species of the group Quasiendothyra communis occur at its base. The number of individuals and the degree of organization increase towards the top. Toguzkun'skiye Strata, about 150 m thick. The foraminifera complex is very typical here. Local subspecies and varieties prevail. In other regions they are either unknown or poorly developed. The group Quasiendothyra mirabilis Tchern. and Q. konensis (Leb) shows the highest degree of development. The peculiarities of the foraminifera complex occurring here is possibly related to the concentration of volcanic products, especially manganese ions (Ref 10), in primeval waters. The considerable importance of trace elements for the life of organisms has been recently found out (Refs 1,2). An excess of trace elements may lead to abrupt modifications of the organism and favor the formation of new subspecies, varieties and mutations. There are 1 figure and 11 references, 10 of which are Soviet.

Card 2/3

The Foraminifera of the Border Strata of Devonian and
Carboniferous in the Western Part of Central Kazakhstan

SOV/20-127-3-52/71

ASSOCIATION: Geologicheskii institut Akademii nauk SSSR (Geological Institute
of the Academy of Sciences, USSR)

PRESENTED: February 28, 1959, by N. S. Shatskiy, Academician

SUBMITTED: February 24, 1959

Card 3/3

REYTLINGER, Ya A.

768

9/2/60

REYTLINGER, Ye. A., of the Inst. of Geology, Acad. Sci. USSR, presented a paper "The Criterion of Geographic Areola in Taxonomy of Foraminifera" at the A-U Conference of Paleontology held in Moscow 10-15 May 1959.

SO: Izvest. Akad. Nauk SSSR, Ser. Biol., No. 6, 59; JPRS: 7049, 23 Nov 60, Uncl.

REYTLINGER, Ye.A.

Characteristics of the Ozerki and Khovanian strata based on microscopic organic remains (central part of the Russian Platform). Trudy GIN no.14:136-177 '60. (MIRA 13:10)
(Russian Platform--Geology, Stratigraphic)
(Micropaleontology)

DAIMATSKAYA, I.I.; LATSKOVA, V.Ye.; ORLOVA, I.N.; RAUZER-CHERNOUSOVA, D.M.;
REYTLINGER, Ye.A.; SAFONOVA, T.P.; SEMIKHATOVA, Ye.N.; CHERNOVA, Ye.I.;
SHATSKIY, N.S., akademik, glav. red.; MENNER, V.V., zam glav. red.;
SEMIKHATOVA, S.V., prof., red. toma; KATLYAREVSKAYA, P.S., red. izd-
va; NOVICHKOVA, N.D., tekhn. red.

[Regional stratigraphy of the U.S.S.R.] Regional'naya stratigrafiya
SSSR. Glav. red. N.S.Shatskii. Moskva. Vol.5. [Stratigraphy of the
Middle Carboniferous sediments of the central and eastern parts of the
Russian platform based on the studies of Foraminifera] Stratigrafiya
srednekamennougol'nykh otlozhenii tsentral'noi i vostochnoi chasti Rus-
skoi platformy (na osnove izucheniia foraminifer). Pt.2. [Volga and Kama
Valleys] Povolzh'e i Prikam'e. 1961. 355 p. (MIRA 14:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy
institut (for Dalmatskaya). 2. Institut geologicheskikh nauk AN SSSR
(for Rauzer-Chernousova, Reytinger). 3. Tsentral'naya nauchno-
issledovatel'skaya laboratoriya Upravleniya neftyanoy promyshlennosti
Permskogo Sovnarkhoza (for Safonova). 4. Nizhnevolzhskiy filial Vse-
soyuznogo nauchno-issledovatel'skogo geologorazvedochnogo neftyanogo
instituta (for Latkova, Orlova, Chernova). 5. Rostovskiy gosudarstven-
nyy universitet (for Semikhatova, Ye.N.)
(Volga Valley—Paleontology, Stratigraphic)
(Kama Valley—Paleontology, Stratigraphic)

REYTLINGER, Ye.A.

Some problems in the systematics of Quasiendothya. Vop.
mikropaleont. no.5:31-68 '61. (MIRA 14:8)

1. Geologicheskii institut AN SSSR.
(Foraminifera, Fossil)

RAUZER-CHERNOUSOVA, D.M.; REYTLINGER, Ye.A.

Development of new forms in Foraminifera. Vop. mikropaleont.
no.6:3-30 '62. (MIRA 15:11)

1. Geologicheskii institut AN SSSR.
(Foraminifera, Fossil)
(Evolution)

VARSANOF'YEVA, V.A.; REYTLINGER, Ye.A.

Upper Devonian and Tournai sediments of the Malaya Pechora
Valley. Biul.MOIP.Otd.geol. 37 no.5:36-60 S-0 '62.

(MIRA 15:12)

(Pechora Valley--Paleontology, Stratigraphic)

REYER, I. 1963.

On one paleontological criterion for the determination of the boundaries of the Lower Carboniferous division based on the fauna of foraminifers. Vop. mikropaleont. no.7:22-56 1963. (MIRA 17:10)

I. Geologicheskly Institut AN SSSR.

REYTLINGER, Ye.A.

White stone of the buildings of ancient Russia. Priroda 53 no.4:79-82
'64.
(MIRA 17:4)

1. Geologicheskij Institut AN SSSR, Moskva.

REYTLINGER, Ye.A.

Present status of the studies of the order Endothyrida. Vop.
mikropaleont. no.8:30-52 '64. (MIRA 18:5)

1. Geologicheskii institut AN SSSR.

GOL'BEK, G.; BOL'SHAKOV, G.; REY TAROVSKIY, Ye.

The IuT-1 and IuT-2 radiometers. IUn.tekh. no.8:69-76 Ag '57.

(MLRA 10:8)

(Radiometer)

REYTLINGER, S.A.

15
Effect of rubber structure on the diffusion of inhibitor
A. S. Kuz'minski, S. A. Reitlinger, and B. V. Shemastina
Colloid J. (U.S.S.R.) 18, 705-7 (1956) (English translation)
-See C.A. 51, 6201f.
B. M. R.

4
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2 May

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REITLINGER, S. A.

15

The effect of plasticizer additions on the hydrogen permeability of poly(vinyl chloride). I. S. I. Sokolov, S. A. Reitzinger, and B. I. Peltman (Technol. Inst. Light Ind., Moscow) *Kolloid. Zhur.* 19, 824-8 (1957). The permeability P (sq. cm./sec. atm.) of poly(vinyl chloride) (I) films, about 0.5 mm. thick, for H increased little with the mole fraction N of plasticizer (calcd. for CH_2ClCHCl monomers) as long as I continued to be in the glass stage, then rose rapidly with N in the viscoelastic stage, and finally was almost independent of N when the film became viscoplastic. For $\text{C}_6\text{H}_5(\text{CO}_2\text{Me})$, the boundaries between these 3 regions were near $N = 0.03$ and 0.3 , resp. In the viscoelastic range, $P = P_1 - N P_2$, P_1 and P_2 being consts. characteristic for I and the plasticizer, resp. At 20° , $P_1 = (0.73 \text{ to } 0.79) \times 10^{-10}$, and P_2 was 0.0061, 0.58, 0.186, 1010, and 85,200 for di-Me, di-Et, di-Bu, di-Am, and dioctyl phthalate, resp.; thus $\log P_2$ was a linear function of the length of the alkyl group. The P of I (in the glassy state) was 1.06×10^{-10} , that is different from P_1 in the viscoelastic range. The soly. of H depended little on the N , as long as $N < 0.12$, in I + di-Bu phthalate, but the diffusion coeff. was raised about 8-fold when N increased from 0 to 0.12. J. J. Bikerman

7

4E-2c (4)

4EU

4E3d

4EU

2-MAY

NS-99 MB

AUTHOR: Rauzer-Chernousova, D.M. and Reytlinger, Ye.A. 11-11-8/9

TITLE: Development of Foraminifera During the Paleozoic Era and Their Stratigraphical Importance (Razvitiye foraminifer v paleozoyskoye vremya i ikh stratigraficheskoye znachenije)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1957, # 11, p 103-124 (USSR)

ABSTRACT: Approximately 300 genera and 3,000 species of Paleozoic foraminifera are known at the present time. The number of these fossils, which are of great stratigraphic importance for the Upper and Lower Paleozoic era, is steadily increasing. Intensive studies were conducted during the past 30 years, whereby the extensive material was submitted by a very limited number of scientists. The card catalog of the Laboratory for Micro-Fauna of the Geologic Institute of the AN USSR (Laboratoriya mikrofauny geologicheskogo instituta AN SSSR) contains 8,300 cards, and lists almost all published forms of these fossils. The author mentions the difficulties arising from the different methods applied in micropaleontologic research in different countries, rendering comparisons very difficult. The author gives a detailed review of the genetic development of foraminifera during the Paleozoic era (from the Cambrian to the

Card 1/3

11-11-8/9

Development of Foraminifera During the Paleozoic Era and Their Stratigraphical Importance

Triassic periods). Presently approximately 70 genera and 500 species of Lower Carboniferous foraminifera are known, which were found in England, Belgium, Germany, the USSR and USA. The author compares the fauna of foraminifera of the Kuzbass with the fauna discovered on the American continent. Beginning with the Middle Carboniferous period, the leading role of foraminifera is taken over by fusulinida, which reached 22 genera with 646 species during this period. These fossils were found on all continents, with the exception of Australia. The time of appearance and development of fusulinida in different countries does not wholly coincide. After a comparatively short period of evolution, this genus existed over a relatively short period. The author lists 22 different genera of fusulinides with their respective number of species of the Middle Carboniferous period found in different countries. The discovery of numerous genera and species of Paleozoic foraminifera within the European part of the USSR points to favorable conditions having prevailed at that time. From all phases of development, impressions of foraminifera are found

Card 2/3

11-11-8/9

Development of Foraminifera During the Paleozoic Era and Their Stratigraphical Importance

in Carboniferous deposits of shallow Paleozoic sea basins. This fact obliges the Soviet micropaleontologists to intensify their studies on Paleozoic foraminifera located within the European part of the USSR to solve problems of systematics, ecology and stratigraphic importance of foraminifera. There are 1 table, 3 figures and 45 references, of which 28 are Slavic.

ASSOCIATION: Laboratory for Micro-Fauna of the Geologic Institute, AN SSSR
(Laboratoriya mikrofauny geologicheskogo instituta AN SSSR)

AVAILABLE: Library of Congress

Card 3/3

Reytlinger, Ye. A.

AUTHOR

Reytlinger, Ye. A.

20-4-40/60

TITLE

Spheres of Devonian Deposits of the Russian Plateau.
(Sfery devonskikh otlozheniy Russkoy platformy.)

PERIODICAL

Doklady Akademii Nauk SSSR 1957, Vol. 115, Nr 4,
pp. 774-776 (USSR)

ABSTRACT

The author gives a historical survey of the discovery of Calciphaera who on the one hand have the structure of foraminifera, but on the other hand in their exterior recall radiolaria (Williamson). Derville, however, thinks that these formations are rather plant fossils of the type of sporangia or spores. The stratigraphic importance of these spheres was first emphasized by Rakhmanova in 1956. The author also determined the stratigraphic distribution of many of these spheric formations, especially in the Famen stage. He further characterizes what he understands by spheres and combines the species known from the central trans-Vola Devonian field to 8 types. 4 species of these are new and described here. The nature of the spheres remains vague. Small spheres are widely spread in the lagoon type shoal water facies of the above-mentioned Devonian field. Here they are especially numerous in

CARD 1/3

20-4-40/60

Spheres of Devonian Deposits of the Russian Plateau.

layers with traces of a root system and occur together with the fossils of Chara algae, ostrakods and Serpula. Most probably they are of plant origin. Other types developed under conditions of the open sea but with a somewhat increased salt content. Their mass development precedes the appearance of numerous foraminifera in the cross section. According to Maslov these spheres may represent fossils of calcareous algae of the family Dasyoladaceae. Certain species of Calcisphaera, Radiosphaera and Polyderma are key fossils for the Khovan layers of the central part of the Russian plateau. Beyond the Volga the mass development of several species of spheres makes possible the elimination of masking layers with "sphere algae" in the lower part of the upper half of the Danokov-Lebedyansk stratum. The Archisphaera are farthest developed: from the Cambrian to the Upper Devonian (largest development) and the Lower Carboniferous. Individual Radiosphaera are even known from the upper part of the Fran stage. They reach their greatest development in the Upper Famen, but also occur in several facies of the Lower

CARD 2/3

Spheres of Devonian Deposits of the Russian Plateau.

20-4-40/60

Carboniferous and in the Baschkiri stage of the Middle Carboniferous. There are 1 figure (table, 13 microphotographs) and 3 Slavic references.

ASSOCIATION: Geological Institute AN USSR.
(Geologicheskii institut Akademii nauk SSSR)
PRESENTED: By N.V. Shatskiy, Academician, Feb. 27, 1957
SUBMITTED: February 23, 1957.
AVAILABLE: Library of Congress.

CARD 3/3

REYTLINGER, Yekaterina Aleksandrovna; MENNER, V.V., otv.red.; IL'INA, N.S.,
red.izd-va; POLENOVA, T.P., tekhn.red.

[Atlas of microscopic organic remains and problematic structures
in old formations of Siberia] Atlas mikroskopicheskikh organiche-
skikh ostatkov i problematiki drevnikh tolshch Sibiri. Moskva,
Izd-vo Akad. nauk SSSR, 1959. 61 p. (Akademiia nauk SSSR, Geologi-
cheskii institut. Trudy, no.25) (MIRA 12:9)
(Siberia--Paleontology)

REYTLINGER, Ye.A.

Ozerki-Khovanian beds in the central part of the Russian Platform.
Trudy VNIGNI no.14:51-73 '59. (MIRA 12:10)

1. Geologicheskii institut AN SSSR.
(Russian Platform--Geology, Stratigraphic)

REYIMAN, G.M.

Calculating a strip resting on an elastoplastic foundation.
Osn., fund. i mekh. gran. 7 no. 1:9-10 '65.

(MIRA 18:4)

REYTMAN, G.M. [Reitman, H.M.] (Moskva)

Efficient shape of shallow shells. Prikl. mekh. 9 no.4:
436-438 '63. (MIRA 16:8)

1. Moskovskiy inzhenerno-stroitel'nyy institut.

22(1)

SOV/27-59-4-21/28

AUTHOR: Reytman, I., Engineer on the Technical Training of Personnel

TITLE: Methodological Assistance is Needed

PERIODICAL: Professional'no-tehnicheskoye obrazovaniye, 1959, Nr 4,
p 30 (USSR)

ABSTRACT: At present there are several basic forms of technical training at enterprises. The one most commonly used is individual and brigade schooling. But it contains a number of shortcomings which should be eliminated as soon as possible. One of the principal deficiencies is the lack of training-methodological work. The author claims that persons belonging to the methodological councils are good specialists but have a poor knowledge of the methods of industrial training. It should be their duty to study and supervise individual and brigade training at enterprises. The Administration of Labor Reserves should also assume the methodological guidance and training of workmen at enterprises. The Glavnoye upravleniye trudovykh rezervov (Main Administration of Labor Reserves) should arrange the issue of a sufficient number

Card 1/2

STEPANOVA, Ye.V.; BADAMYAN, A.A.; MORSHCHAKOV, Yu., REYTMAN, I.M., redaktor;
SVYATITSKAYA, K.P., redaktor; POLOSINA, A.S., tekhnicheskii redaktor.

[Catalog of spare parts for oil well drilling equipment] Katalog:
Zapasnye chasti k neftianomu oborudovaniyu. Moskva, Gos.nauchno-
tekhnicheskoe izd-vo neftianoi i gornotoplivnoi lit-ry. Pt.2.
[Equipment for oil well drilling] Oborudovanie dlia burenia skva-
shin. Section 3. [Rotors of the closed type] Rotory sakrytogo tipa.
No.3. "Bakinets" R560-Sh8. 1956. 15 p. Section 12. [Screw preventers]
Preventery plashchnye. No.1.FPM-8. 1956. 15 p.; No.2.FPM-12. 1956.
16 p.; No.3. FPM-16. 1956. 16 p. (MIRA 9:5)

1.Soyusnefteburnashremont, Gosudarstvennyy soyusnyy trest.
(Oil well drilling) (Boring machinery)

VASSERMAN, M.A.; GET'YE, V.A.; KONSTANTINOV, S.V.; REYTMAN, I.M., redaktor;
PERSHINA, Ye.G., redaktor; TROFIMOV, A.V., **tehnicheskii** redaktor.

[Catalog of spare parts for petroleum equipment] Katalog: zapasnye
chasti k neftiannomu oborudovaniyu. Moskva, Gos. nauchno-tekhn. izd-vo
neftianoi i gorno-toplivnoi lit-ry. Pt. 1 [Equipment for geological
prospecting] Geologo-razvedochnoe oborudovanie. Section 3 [Engines
for boring in geological prospecting] Dvigateli dlia geologo-razve-
dochnogo bureniia. No. 1 [Petroleum engine, model ND40] Neftianoi
dvigatel' ND40. 1956. 38 p. (MLRA 9:5)

1. Soyuznefteburashremont, Gosudarstvennyy soyuznyy trust.
(Petroleum industry--Equipment and supplies) (Prospecting)

REYTMAN, I.G.

Automatic control of industrial processes. Sakh. prom. 31 no.6:31
Je '57. (MIRA 10:6)

1. Zhitomirskiy sakhsveklotrest.
(Sugar industry) (Automatic control)

VASSERMAN, M.A.; GET'YE, V.A.; KONSTANTINOV, S.V.; REYTMAN, I.M., redaktor;
PERSHINA, Ye.G., vedushchiy redaktor; TROPIMOV, A.V., tekhnicheskii
redaktor

[Catalog: Spare parts for petroleum apparatus] Katalog: Zapasnye
chasti k neftianomu oborudovaniyu. Moskva, Gos. nauchno-tekhn. izd-vo
neftianoi i gorno-toplivnoi lit-ry. Pt.1. [Geological and prospecting
apparatus] Geologo-razvedochnoe oborudovanie. Sec.3. [Engines for
geological and prospecting drilling] Dvigateli dlia geologo-razve-
dochnogo bureniia. No.1. [ND22 oil engine] Neftianoi dvigatel'
ND22. 1956. 31 p. [IND22 oil engine] Neftianoi dvigatel' IND22.
1956. 38 p. (MLRA 9:7)

1. Soyuznefteburmashremont, Gosudarstvennyy soyuznyy trest.
(Gas and oil engines)

PISAKOVA, A.P.; BADAMYAN, A.A.; REYTMAN, I.M., redaktor; PERSHINA, Ye.G.,
vedushchiy redaktor; POLOSINA, A.S., tekhnicheskiy redaktor

[Catalog: Spare parts for petroleum equipment] Katalog: Zapasnye
chasti k neftianomu oborudovaniyu. Moskva, Gos. nauchno-tekhn.
izd-vo neftianoi i gorno-toplivnoi lit-ry. Pt.2. [Equipment for
boring wells] Oborudovanie dlia bureniia skvazhin. Section 6.
[Swivels] Vertliugi. No.3.[ShV14-160 swivel] Vertliug ShV14-160.
1955. 7 p. No.4. [ShV5-75 swivel] Vertliug ShV5-75. 1955. 7 p.
(MLRA 9:11)

1. Soyuznefteburmashremont, Gosudarstvennyy soyuznyi trest.
(Oil well drilling--Equipment and supplies)

TVOROGOVA; BADAMYAN; KURNOSOV, M.A.; ZAGATIN, M.F.; REYTMAN, I.M., redaktor;
PETROVA, Ye.A., redaktor; TRUFIMOV, A.V., tekhnicheskiy redaktor

[Catalog of spare parts for petroleum equipment] Katalog zapasnye k neftianomu oborudovaniyu. Moskva, Gos.nauchno-tekhn.isd-vo neftianoi i gorno-toplivnoi lit-ry. Pt.2. [Equipment for drilling wells. Section 1. Drill winches. No.2. Four-speed drill winch, model L1-4M2] Oborudovanie dlia burenna skvashin. Section 1. Lebedki burovye. No.2. Lebedka chetyrekhskorostnaia L1-4M2. 1955. 33 p. Pt.3. [Equipment for operating wells. Section 2. Deep well non-insert (pipe) pumps. No.4. NGN2-56. Section 3. Deep well insert pumps. No.5. NGN3-56 3"-1800 (NGB1-56)] Oborudovanie dlia ekspluatatsii skvashin. Section 2. Nasosy glubinnye nevstavye (trubnye). No.4. NGN2-56. 1955. 15 p. Section 3 Nasosy glubinnye vstavye. No.5. NGN3-56 "3-1800 (NGV1-56). 1955. 10 p.
(MIRA 9:3)

1. Soyuznefteburmashremont, Gosudarvennyy soyusnyy trest.
(Oil well pumps) (Petroleum industry--Equipment and supplies)

REYTMAN, L.

Terms demanding reconsideration. Fin. SSSR 23 no.9:56-57 S '62.
(Insurance, Life) (MIRA 15:9)

REYTMAN, L.; REMIZOV, N.

For the aid of the insurance worker ("Work organization in personal insurance" by I. Drozdov. Reviewed by L. Reytman, N. Remizov). Fin. SSSR. 22 no. 2:89-90 F '61. (MIRA 14:2)

Starshiy ekonomist Glavnogo upravleniya gosudarstvennogo strakhovaniya RSFSR (for Reytman). 2. Starshiy inspektor inspektzii po Leningradskomu rayonu Moskvy (for Remizov).
(Insurance)

REYTMAN, M.I. (Rostov-na-Donu)

Calculating momentless plastic shells for dynamic loads. Stroit.
m-kh. i rasch.scor. 6 no.3:31-33 '64.

(MIRA 18:1)

REYTMAN, M. I. (Moscow)

Method for solving problems in the dynamics of solid bodies
and its application to nonelastic shells. Izv. AN SSSR Mekh.
i mashinost. no.6:124-127 N-D '64.

(MIRA 12:2)

REYTMAN, N.I. (Aprilevka)

General variation principle in the mechanics of continuum and its application. Stroi.mekh. i rasch.soor. 7 no.5:9-12 '65.

(MIRA 18:10)

L 19738-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/EWP(k)/EWA(h) Pf-l/Peb AFTC(D)
EM/MLK

ACCESSION NR: AT5001804

S/0000/64/000/000/0270/0276

AUTHOR: Reytman, M. I.

TITLE: Optimum design of anisotropic rigid-plastic shells

B+1

SOURCE: ASIA SSSR. Institut stroitel'nykh konstruksiy. Raschet tonkostennykh
Fosstranstvennykh konstruksiy (Calculation of thin-walled spatial structures).
Moscow, Stroyizdat, 1964, 270-276

TOPIC TAGS: minimum weight shell, rigid plastic shell, thin walled shell, membrane
shell, optimum shell design, anisotropic shell

ABSTRACT: The optimum heterogeneity and optimum anisotropy of a rigid-plastic,
thin-walled minimum-weight, arbitrarily shaped shell subjected to general external
loading (forces and moments) are discussed. The Hill yield condition for anisotropic
materials, the Drucker and Shield relationships for the rate of strain, and the
equations of equilibrium and of strain-rate continuity of the general theory of
shells are used to determine the stresses in the shell and the heterogeneity (often
replaced by thickness) function. Two basic trends in minimizing the weight of the
shell by changes in the strength of the material used in the shell (heat treatment,
chemical composition), and by changes in the construction (the stiffening system)

Card 1/2

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ACCESSION NR: AT5001804

are discussed in cases when the optimum heterogeneity function is sought for a given anisotropy function (relationship between stresses along the different anisotropy axes), and vice versa. A sample application of the derived formulas to determining the optimum homogeneity and anisotropy functions, and the rates of strain for membrane shells, circular and elliptic domes, and a spherical shell is given. Orig. art. has: 26 formulas.

ASSOCIATION: none

SUBMITTED: 08May64

ENCL: 00

SUB CODE: AS

NO REF SOV: 005

OTHER: 003

ATD PRESS: 3159

Card 2/2

REYTSHEYN, T.A. (Leningrad).

Optical instruments for demonstration. *Vis. v shkole* 7 no.4:65-67 '53.

(MLRA 6:11)

(Optical instruments)

TSYBANEV, Ye.G.; REYTMAN, Ya.M.

Useful book. Metallurg 9 no.3:37 Mr '64.

(MIRA 17:3)

1. Sortoprokatnyy tsakh No.1 Krivoprozhskogo metallurgicheskogo zavoda.

REYTSAKAS A.Yu.

AUTHORS: Gornyy, N.B., Reytsakas, A.Yu. 56-3-3/59

TITLE: Investigation of Characteristic Electron Energy Losses and Secondary Electron Emission from GeO_2 (Issledovaniye kharakteristicheskoykh poter' energii elektronov i vtorichnoy elektronnoy emissii GeO_2)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol. 33, Nr 3, pp. 571-575 (USSR)

ABSTRACT: The characteristic energy loss of electrons reflected by 2 germanium plates of the n- and p-type covered with GeO_2 was measured by means of the electric differentiation in the spherical capacitor. The corresponding characteristic energy loss spectra are for both plate types well agreeing. The energy loss spectra for GeO_2 and MoO_2 which have an equal crystal lattice are similar to each other. The differences in the spectra are due only to the different lattice spacing. The secondary electron emission factor of GeO_2 is almost double as great than that of pure germanium. There² are 3 figures, 1 table and 7 Slavic references.

SUBMITTED: March 1, 1957.

AVAILABLE: Library of Congress

Card 1/1

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A005/A001

Translation from: Referativnyy zhurnal, Fizika, 1960, No. 8, p. 269, # 20699

AUTHORS: Gornyy, N.B., Reytsakas, A.Yu.

TITLE: Pulse Compensating Circuit for Investigation of Secondary Electron Emission From Semiconductors and Dielectrics

PERIODICAL: Tr. Leningr. elektrotekhn. in-ta svyazi, 1959, No. 1 (38), pp. 73-83

TEXT: To lower the error in the determination of the coefficient δ of the secondary electron emission from dielectrics a pulse compensating circuit is developed, which allows the simultaneous measurement of the primary and secondary electron currents. The circuit presented makes it possible to measure at $\delta > 1$ and $\delta < 1$. The measurement results are presented (the yield of secondary electrons and the delay curves) obtained with the given circuit for the three compounds: MoO₂, BeO, MgO. The sensitivity of the circuit and the error in the measurements are estimated. ✓

Author's summary

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

Card 1/1

L 06395-67 EWP(d)/EWP(1) T'P/c) BB/GG

ACC NR: AP6025286

SOURCE CODE: UR/0119/66/000/007/0020/0021

AUTHOR: Orgusaar, M. M. (Engineer); Reytsakas, A. Yu. (Engineer)

36
B

ORG: none

TITLE: International M-2 code decoder for "Minsk-2" digital computer

166

SOURCE: Priborostroyeniye, no. 7, 1966, 20-21

TOPIC TAGS: digital computer, digital decoder

ABSTRACT: Normally, the "Minsk-2" digital computer has an M-2-code information inputs; this is suitable for text-type information but inconvenient for taking information from typewriter-exchange service. Hence, a new decoder has been developed which transforms information from the M-2 code into the "Minsk-2" machine code (table supplied). Technicalities of the new decoder operation and connection to the "Minsk-2" computer are given. Orig. art. has: 2 figures and 1 table.

166

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 001

Card 1/1 *[Signature]*

UDC: 681.188

PETERSEN, I.; REYTSAKAS, A. [Reitsakas, A.]

Conference on problems concerning the M-3 computer. Eesti tead.
akad.tehn.füüs. no.1376 '62.

KALASHNIKOV, Karp Yakovlevich; REYTSKAYA, O.Ye., red.; BARANOVA,
L.G., tekhn. red. _____

[Disinfection of farm crop seeds] Protravlivanie semian sel'-
skokhoziaistvennykh kul'tur. Leningrad, Sel'khozizdat, 1961.
81 p. (MIRA 15:10)

(Seeds--Disinfection)