Sidorovich, A. V. and Kuvshinskii, E. V.
THERMOMECHANICAL PROPERTIES OF THE LINEAR AMORPHOUS POLYMERS POLYMETHYLMETHACRYLATE AND POLYSTYRENE, tr. by George N. Kasachkoff. 29 Nov 62 [15]p. 10 refs. [AMC] (Redstone) Trans-nr 41-62.
Order from OTS or SLA $1.60 63-13394

Trans. of [Vysokomolekulyarnye Soedineniya] (USSR) 1961, v. 3, no. 11, p. 1698-1704.

DESCRIPTORS: Polymers, *Plastic films, Mechanical properties, Temperature, *Acrylic resins, *Styrenes, Deformation, Elasticity.

A thermomechanical study of the amorphous linear polymers polymethylmethacrylate and polystyrene was carried out at low levels of tensile stress. The thermomechanical properties of these two polymers were found (Materials--Plastics, TT, v. 9, no. 3) (over)

63-13394

I. Sidorovich, A. V.
II. Kuvshinskii, E. V.
III. AMC (Redstone) Trans-41-62
IV. Army Missile Command, Redstone Arsenal, Ala.

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Effect of Annealing of Polymer Glasses on the Temperature Dependence of the Heat Capacity in the Softening Range, by M. V. Volkenshtein, Yu. SA. Sharonov, 14 pp.

RUSSIAN, per, Vysokomolekulyarnye Soedineniya, Vol III, No 11, 1961, pp 1739-1745. 9670069

DDC RSIC-47

344,096

Sci - Chem
Sep 63

Studies in the Field of Co-ordination Polymers. VIII. Polymers Based on Aromatic 0,0' -dicarboxyl Acids and Divalent Metals, by V. V. [illegible]ak.

RUSSIAN, per, Vysokomolekulyarnye Soyedineniya, Vol III, No 12, 1961, pp 1803-1815.

HKL M 10007

229,340

Sci - Khim Chem
May 63

Polymers With Conjugated Bonds and Hetero-Atoms in the Conjugated Bond Chain. Part 19. Some Properties of Aniline Black, by V. P. Parini.
RUSSIAN, per, Vysokomolekulyarnye Soedineniya, Vol 3, 1961, pp 1870-1873.
NTC-71-10200-070

Nov 71

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

On the Mechanism of Reaction Chain Termination in the Radical Polymerization of Vinyl Chloride by Means of C^{14}-Labeled Initiators, by G. A. Razuvaev,
RUSSIAN, per, Vysokomolekulyarnye Soedineniya,
Vol 3, 1961, pp 1949-1953.
NTC-71-11534-11I

Feb 72

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

POLY SCIENCE USSR, 1963, VOL. 4, NO. 1, P. 1-205.
June 63, 1v.
Order from PP $140.00/year

Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1962, v. 4, no. 1, p. 3-8, 25-29, 42-51, 64-65, 85-90, 98-104, 109-123; no. 2, p. 174-187, 201-206, 237-241, 250-255, 270-275, 304-311; no. 3, p. 351-356, 361-365, 371-375, 383-388, 393-404, 429-432, 463-470; no. 4, p. 481-491, 516-522, 533-539, 577-582. Abstracts are included of selected articles from v. 4, no. 9.

DESCRIPTORS: *Polymers, Chemistry, *Elastomers, *Acrylic resins, *Butadienes, Polymerization, Potassium compounds, *Amides, *Polyvinyl chloride, Radiation chemistry, *Plastics, *Platinum catalysts, *Styrene plastics, Peroxides, *Phenolic plastics, *Fibers (Chemistry--Organic, TT, v. 10, no. 9) (over)

63-22211-1

I. Pergamon Press, Inc., New York

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Kinetics of the Disappearance of Free Radical in Irradiated Polyvinyl Chloride, by Z. S. Egorova, et al.

RUSSIAN, per, Vysok Soedieneniya, Vol IV, No 1, 1962.

UKAEA-D/LIB-Tr-45

Sci - Nucl Sci

Jul 63

Chelate Polymer Research. Part 2. Physico-chemical Properties of Chelate Polymers from 5,5'-Methylenebis(Salicylaldehyde), by
V. V. Rode.
RUSSIAN, per, Vysokomolekul Soedin,
Vol 4, No 1, 1962, pp 13-19.
ATS-4880

Soi
Dec 68 368,748

Co-ordination Polymers. IX. Metal-Containing Polymers Based on Aliphatic Diearboxylic α,α'-dihydroxydicarboxylic and α,α'-dialkoxydicarboxylic Acids, by V. V. Korshak.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya, Vol IV, No 1, 1962, pp 20-24.

HLL Ref: 5828.4 1963 (10 107)
(Loan)

Sci - M/M

343406

Reikhsfel'd, V. O. and Ivanova, A. G.
SYNTHESIS OF LINEAR DIMETHYLMETHYLPOLYSILOXANES BY THE METHOD OF COPOLYMERIZATION OF CYCLOSILOXANES. [1963] 10p 14refs
Order from: OTS, SLA, or ETC $1.10 TT-64-13664

Trans. of Vysokomolekulyarnye Soedinenlya (USSR) 1962, v. 4, no. 1. p. 30-36. (Abstract available)

DESCRIPTORS: *Silicones, Synthesis (Chemistry), Copolymerization, Reaction kinetics, Silanes, Hydrolysis.

The possibility of synthesizing high-molecular linear polysiloxanes with various contents of CH_3HSiO units by copolymerization of octamethylcyclotetrasiloxane (OMCTS) with tetramethylcyclotetrasiloxane (TMCTS) and pentamethylcyclopentasiloxane (PMCPS) was demonstrated. The copolymerization constants of the monomer pairs studied were calculated. It was established that
(Chemistry, TT, v. 11, no. 11) (over)

TT-64-13664

I. Reikhsfel'd, V. O.
II. Ivanova, A. G.
III. Naval Applied Science Lab., Brooklyn, N. Y.

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Phosphorus-Containing Polymers. Part 27. Hetero-Chain Polyesters of Vinylphosphoric Acid and Certain Glycols, by V. V. Korshak.
RUSSIAN, per, Vysokomolekulyarnye Soedineniya, Vol 4, No 1, 1962, pp 58-63
NTC 72-12379-11I

July 72

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Chelate Polymers. Part 3. Some Polymers of 5,5'-Methylenebis(Salicylaldehyde) With Metals, by A. P. Terent'ev.
RUSSIAN, per, Vysokomolekul Soedin,
Vol 4, No 1, 1962, pp 91-94.
ATS-4881

Sci
Dec 68

368,749

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Synthesis of Linear and Cyclolinear Organosilicon Compounds With Phenylenesiloxane Chains in the Molecules, by V. E. Nikitenkov, 7 pp.
RUSSIAN, per, Vysokomolekularnye Soyedinyeniya, Vol IV, No 1, 1962, pp 105-108. 9692455
DDC xRSIC1158

Sci - Chem
May 64

258,946

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Baramboim, N. K.
MECHANICAL DEGRADATION OF POLYSTYRENE AND POLY(METHYL METHACRYLATE) IN THE PRESENCE OF VARIOUS ACCEPTORS. [1962] 8p.
Order from ATS $11.60 ATS-37P60R

Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1962, v. 4, no. 1, p. 109-115.

DESCRIPTORS: *Polymers, *Styrenes, *Acrylic resins, *Methyl radicals, Mechanical properties, Deterioration, Chemical reactions.

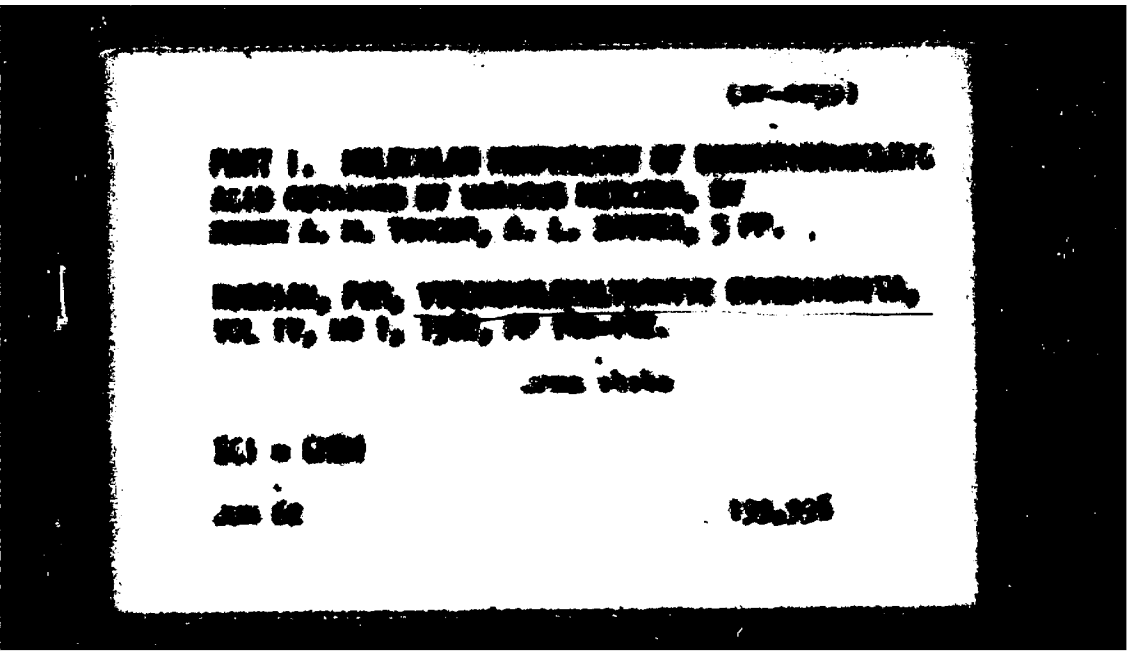
(Chemistry--Organic, TT, v. 8, no. 4)

62-17276

I. Baramboim, N. K.
II. ATS-37P60R
III. Associated Technical Services, Inc., East Orange, N. J.

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0



APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

S-294/62

Electron Microscope Study of DNA II. Changes in the Molecular Morphology of DNA Under the Effect of Ionizing Radiation, by A. M. Tongur, A. L. Zaydes, et al, (SF-2259)

RUSSIAN, per, Vysolomolekulyarnyye Soyedineniya, Vol IV, No 1, 1962, pp 143-144.

*JPRS

Sci - Phys
25 May 62

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Zhurkov, S. N., Sanfirova, T. P., Tomashevskii, E. E.
MECHANICAL PROPERTIES OF RUBBER AT HIGH STRETCH RATES. [1962] 5p.
Order from ATS $8.25 ATS-20P62R

Trans. of Vysokomolekul[yarnye] Soedin[eniya] (USSR) 1962, v. 4, no. 2, p. 196-200.

DESCRIPTORS: *Rubber, Mechanical properties, Elasticity.

(Materials--Rubber, TT, v. 8, no. 11)

62-34200

I. Zhurkov, S. N.
II. Sanfirova, T. P.
III. Tomashevskii, E. E.
IV. ATS-20P62R
V. Associated Technical Services, Inc., East Orange, N. J.

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

POLYTINORGANOSILOXANES, BY E. Z. ASNOVICH, K. A. ANDRIANOV, 7 PP.

RUSSIAN, PER, VYSOKOMOLEKULYEARNYYE SOYEDINENIYA, VOL IV, NO 2, 1962, PP 216-220.

JPRS 16345

SCI - NUCLEAR PHYS

DEC 62

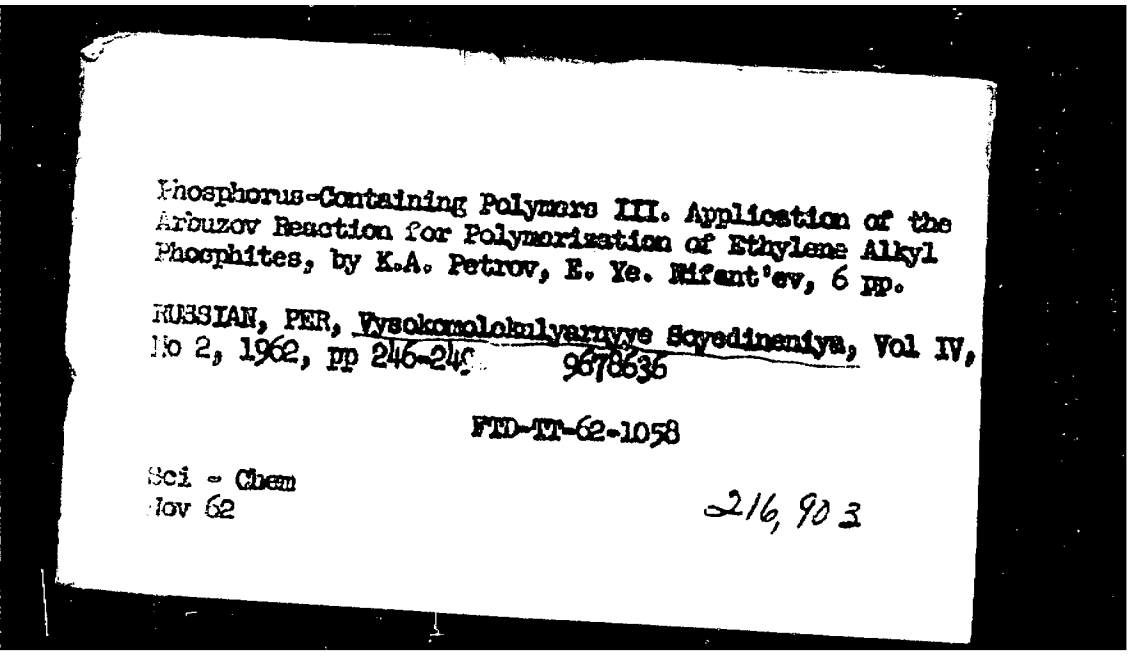
217,122

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Mechanism of the Formation of Secondary Amines by Catalytic Hydrogenation of Adiponitrile, by L.Kh. Freidlin, T.A. Sladkova.
RUSSIAN, per Vysokomolek. Soedin, 1962, pp 229-232
GB 39 Dyes LT 2451

Sci -
Aug 67 338-396

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0



Phosphorus-Containing Polymers III. Application of the Arbuzov Reaction for Polymerization of Ethylene Alkyl Phosphites, by K.A. Petrov, E. Ye. Mifant'ev, 6 pp.

RUSSIAN, PER, Vysokomolekulyarnyye Soyedineniya, Vol IV, No 2, 1962, pp 246-249 9678636

FTD-TT-62-1058

Sci - Chem
Nov 62

216,903

POLYORGANOTITANOSILOXANES II. THE COHYDROLYSIS REACTION OF BIS - (ACETYLACETONATE)DICHLORO-TITANIUM WITH ALKYL(ARYL)TRICHLOROSILANES, BY K. A. ANDRIANOV, SH. V. PICHKADZE, 7 PP.

RUSSIAN, PER, VYSOKOMOLEKULYARNYYE SOYEDINENIYA, VOL IV, NO 2, 1962, PP 256-260.

JPRS 16345

SCI - NUCLEAR PHYS

DEC 62

217,121

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Tarutina, L. I. and Dunaevskaya, Ts. S.
SPECTROSCOPIC INVESTIGATION OF STRUCTURAL CHANGES ACCOMPANYING THE THERMAL AGING OF POLY(TRIFLUROCHLOROETHYLENE). [1962] 6p.
Order from ATS $9.75 ATS-44P65R

Trans. of Vysokomolekul[yarnye] Soedin[entya] (USSR) 1962, v. 4, no. 2, p. 276-281.

DESCRIPTORS: *Polyethylene plastics, Fluorides, Chlorides, Heat treatment, Aging, Molecular structure, Spectrographic analysis

(Materials--Plastics, TT, v. 9, no. 5)

63-12448

I. Tarutina, L. I.
II. Dunaevskaya, Ts. S.
III. ATS-44P65R
IV. Associated Technical Services, Inc., East Orange, N. J.

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Voyutskii, S. S., Gul', V. E. and others.
ADHESION OF VARIOUS ELASTOMERS. Pt. 1 of Adhesion of Polymers to Silicate Glass. [1962] [10]p. 27 refs.
Order from OTS or SLA $1.10 62-20432

Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1962, v. 4, no. 2, p. 285-293.

DESCRIPTORS: *Elastomers, *Adhesion, Polymers, Silicates, Glass.

For cases where interpenetration of adhesive and substrate molecules is without a doubt, it was shown that adhesion of elastomers to silicate glass depends on time and contact temperature in the same way as adhesion of elastomer to the polymeric substrate. It was determined that all the factors, which are favorable to diffusion increase, are also favorable to the elastomer (Materials--Adhesives, TT, v. 9, no. 7) (over)

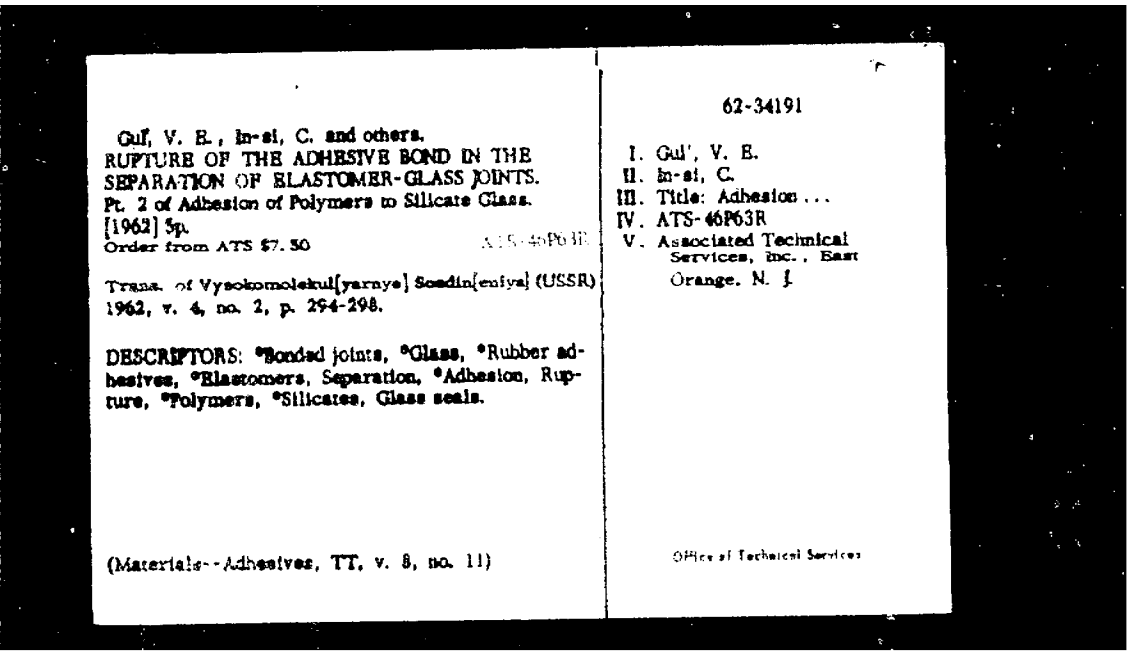
62-20432

I. Voyutskii, S. S.
II. Gul', V. E.
III. Title: Adhesion ...

OTS or SLA
$3.60
(36 pp.) 63-14068

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0



Gul, V. E., In-si, C. and others.
RUPTURE OF THE ADHESIVE BOND IN THE SEPARATION OF ELASTOMER-GLASS JOINTS.
Pt. 2 of Adhesion of Polymers to Silicate Glass.
[1962] 5p.
Order from ATS $7.50 ATS-46P63R

Trans. of Vysokomolekul[yarnye] Soedin[eniya] (USSR) 1962, v. 4, no. 2, p. 294-298.

DESCRIPTORS: *Bonded joints, *Glass, *Rubber adhesives, *Elastomers, Separation, *Adhesion, Rupture, *Polymers, *Silicates, Glass seals.

(Materials--Adhesives, TT, v. 8, no. 11)

62-34191

I. Gul', V. E.
II. In-si, C.
III. Title: Adhesion . . .
IV. ATS-46P63R
V. Associated Technical Services, Inc., East Orange, N. J.

Office of Technical Services

Rado, R., Shimunkova, D., and Malyak, L.
DEGRADATION AND CHAIN BUILDING OF POLYPROPYLENE UNDER THE INFLUENCE OF PEROXIDES. [1962] [20]p. 8 refs.
Order from OTS or SLA $1.60 63-10784

Trans. of Vysokomolek[ulyarnye] Soed[inenlya] (USSR) 1962, v. 4, no. 2, p. 304-311.

DESCRIPTORS: *Polyethylene plastics, *Propenes, Polymers, Degradation, Polymerization, Chain reactions, Reaction kinetics, *Peroxides, Chemical bonds, Molecular weight, Molecular isomerism.

Both in the case of polyethylene and polyisobutylene and in the case of polypropylene, monomolecular decomposition of peroxide is accompanied by a chain reaction with induced decomposition of the second order. From evaluation of the double bond content in the polymer, as well as from the kinetics of decomposition of the
(Materials--Plastics, TT, v. 10, no. 1) m(over)

63-10784

I. Rado, R.
II. Shimunkova, D.
III. Malyak, L.

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Structural Transformations in Fibriller Proteins, by Z. A. Kapralova.
RUSSIAN, per, Vysokomolekuyarnie Soedineniya, Vol 4, No 3, 1962, pp 321-326.
*NTIS TT 72-51148

Jan

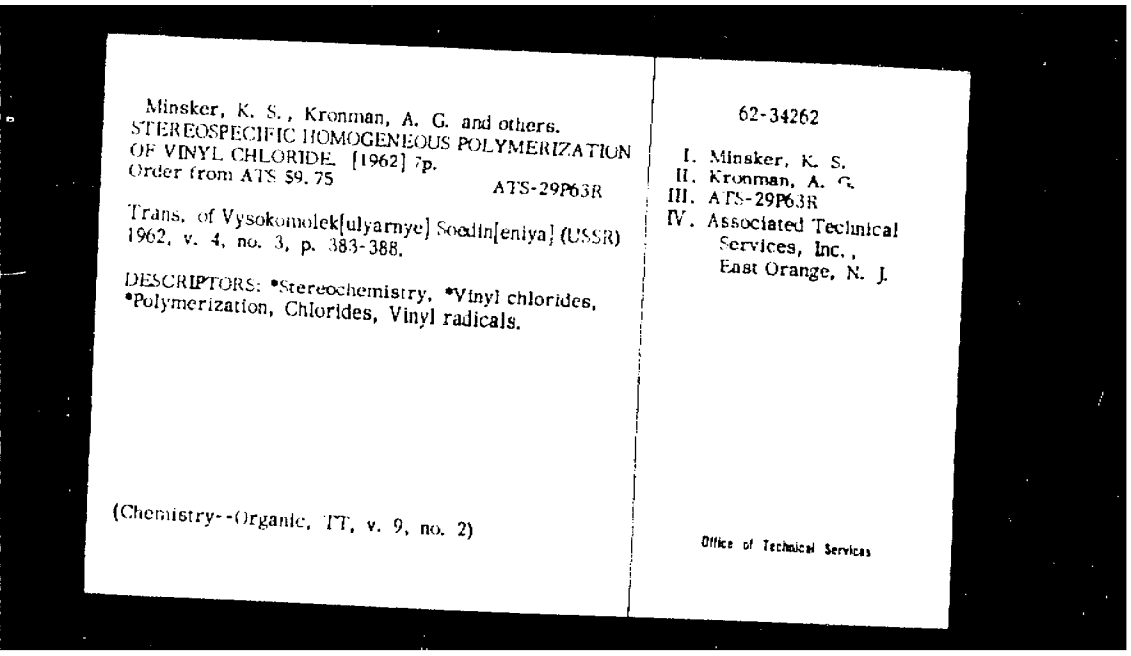
APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Polymers With a Conjugated Bond System and Heteroatoms in the Conjugation Chain. XX. Synthesis of Polymeric Phthalocyanines and Investigation of their Basic Physicochemical Properties, by A. A. Berlin, L. G. Cherkashina, E. I. Balabanov, 12 pp.
RUSSIAN, per, Vysok Soed, Vol IV, No 3, 1962, pp 376-382. 9223014
Amer Meteorol Soc
T-R;-431

Sci - Chem
Jul 64

263,858

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0



Minsker, K. S., Kronman, A. G. and others.
STEREOSPECIFIC HOMOGENEOUS POLYMERIZATION OF VINYL CHLORIDE. [1962] 7p.
Order from ATS $9.75 ATS-29P63R

Trans. of Vysokomolek[ulyarnye] Soedin[eniya] (USSR) 1962, v. 4, no. 3, p. 383-388.

DESCRIPTORS: *Stereochemistry, *Vinyl chlorides, *Polymerization, Chlorides, Vinyl radicals.

(Chemistry--Organic, TT, v. 9, no. 2)

62-34262

I. Minsker, K. S.
II. Kronman, A. G.
III. ATS-29P63R
IV. Associated Technical Services, Inc., East Orange, N. J.

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

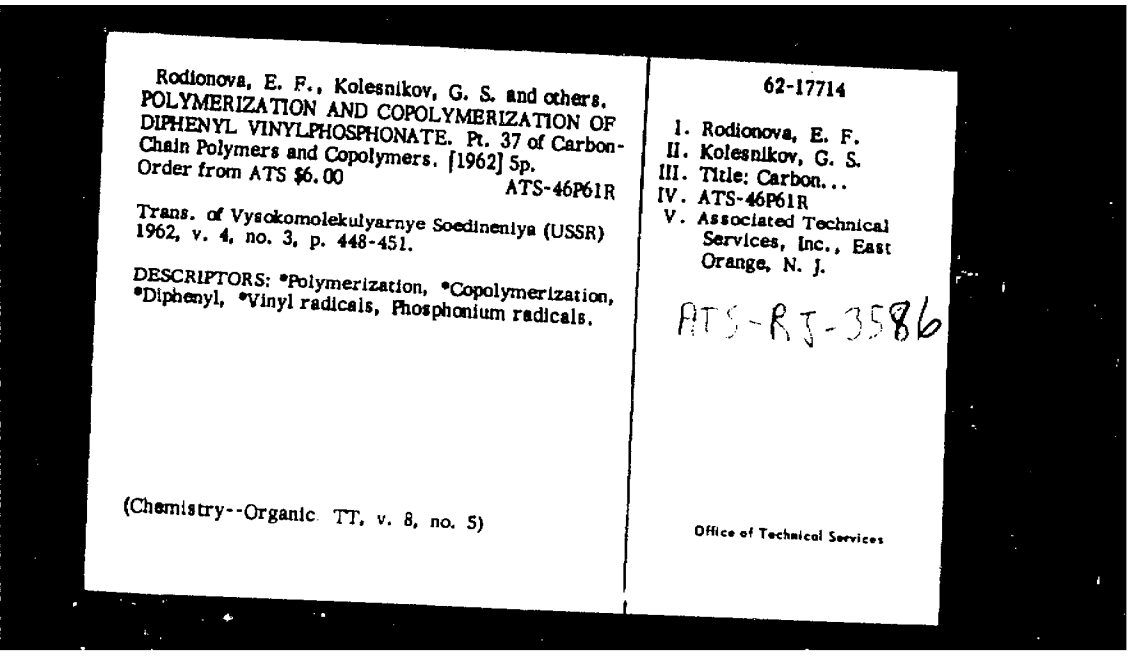
Studies in the Field of Polymer Synthesis.
IV. Synthesis of Copolyamides from Xylylene Diamines, Hexamethylene Diamine and Adipic Acid, by S. R. Rafikov, et al.

RUSSIAN, per, Vysokomolekulyarnye Soyedineniya, Vol IV, No 3, 1962, pp 414-418.

MLL M 10013

Soi - Khym Chem
May 63

229,341



Rodionova, E. F., Kolesnikov, G. S. and others. POLYMERIZATION AND COPOLYMERIZATION OF DIPHENYL VINYLPHOSPHONATE. Pt. 37 of Carbon-Chain Polymers and Copolymers. [1962] 5p. Order from ATS $6.00 ATS-46P61R

Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1962, v. 4, no. 3, p. 448-451.

DESCRIPTORS: *Polymerization, *Copolymerization, *Diphenyl, *Vinyl radicals, Phosphonium radicals.

(Chemistry--Organic TT, v. 8, no. 5)

62-17714

I. Rodionova, E. F.
II. Kolesnikov, G. S.
III. Title: Carbon...
IV. ATS-46P61R
V. Associated Technical Services, Inc., East Orange, N. J.

ATS-RJ-3586

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

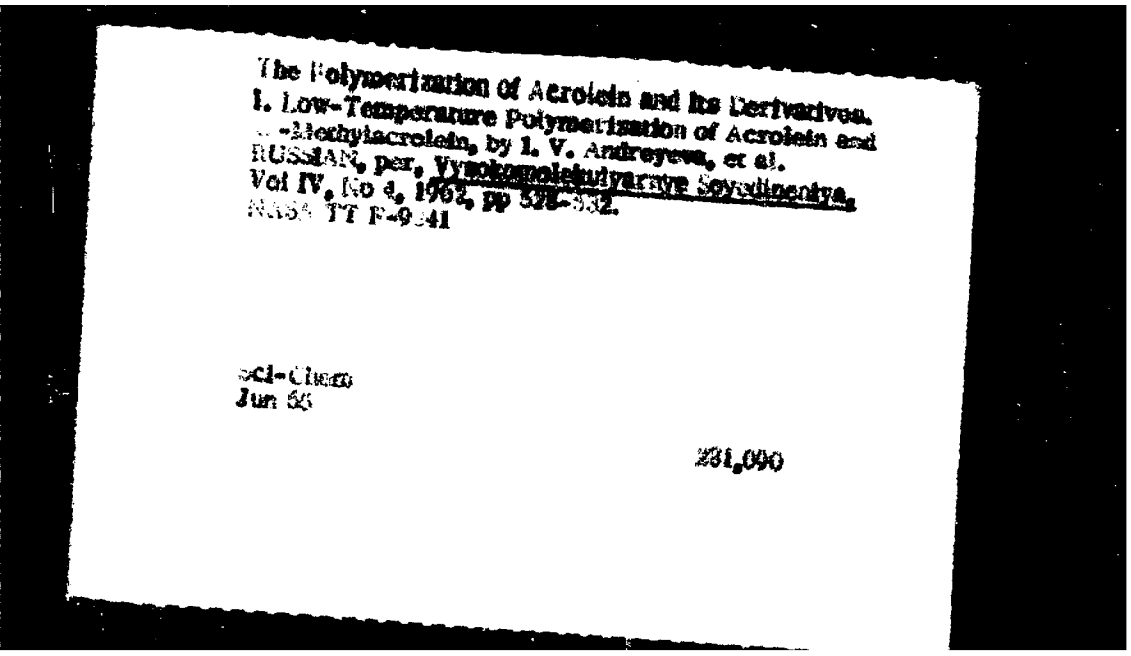
A Study of Conformational Changes in Macromolecules in Solutions. III. Conformational Changes in 2-Vinylpyridine-Methacrylic Acid Copolymer, by I. T. Slyusarov, S. S. Urazovskiy, 9 pp.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya, No 4, 1962, pp 481-485, 9680151

FTD-TT-62-1572

Sci-Chem
Apr 63

226,485

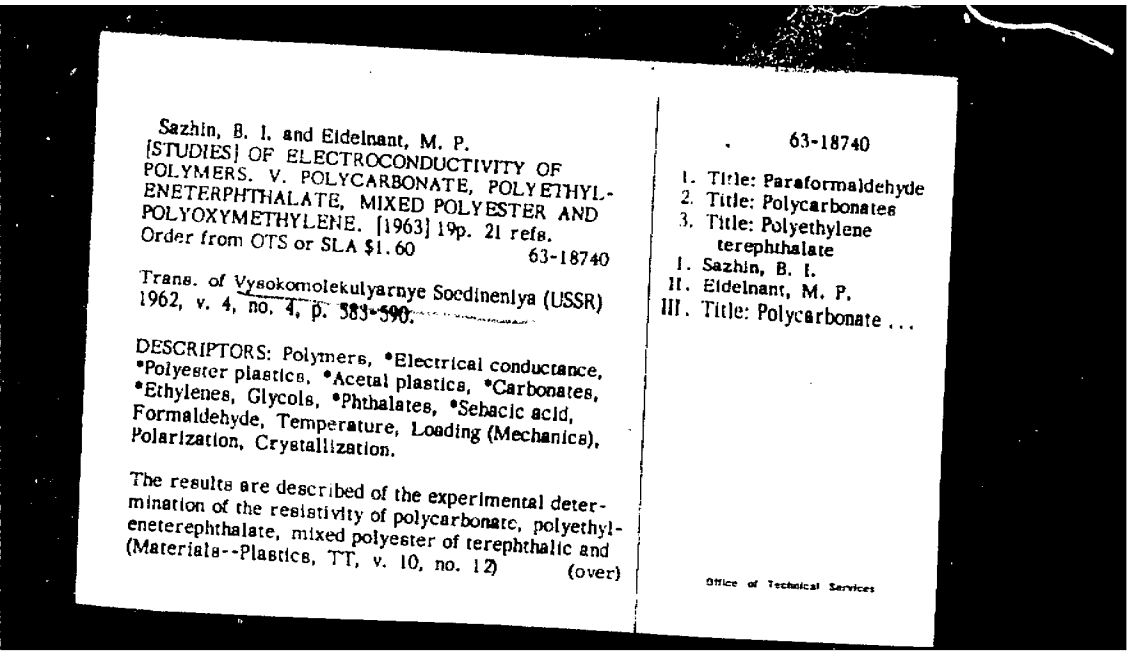


The Polymerization of Acrolein and Its Derivatives.
I. Low-Temperature Polymerization of Acrolein and
...-Methylacrolein, by I. V. Andreyeva, et al.
RUSSIAN, per, Vysokomolekulyarnye Soyedineniya,
Vol IV, No 4, 1962, pp 525-532.
NASA TT F-9041

Sci-Chem
Jun 65

231,000

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0



Sazhin, B. I. and Eidelnant, M. P.
[STUDIES] OF ELECTROCONDUCTIVITY OF POLYMERS. V. POLYCARBONATE, POLYETHYLENETERPHTHALATE, MIXED POLYESTER AND POLYOXYMETHYLENE. [1963] 19p. 21 refs.
Order from OTS or SLA $1.60 63-18740

Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1962, v. 4, no. 4, p. 583-590.

DESCRIPTORS: Polymers, *Electrical conductance, *Polyester plastics, *Acetal plastics, *Carbonates, *Ethylenes, Glycols, *Phthalates, *Sebacic acid, Formaldehyde, Temperature, Loading (Mechanics), Polarization, Crystallization.

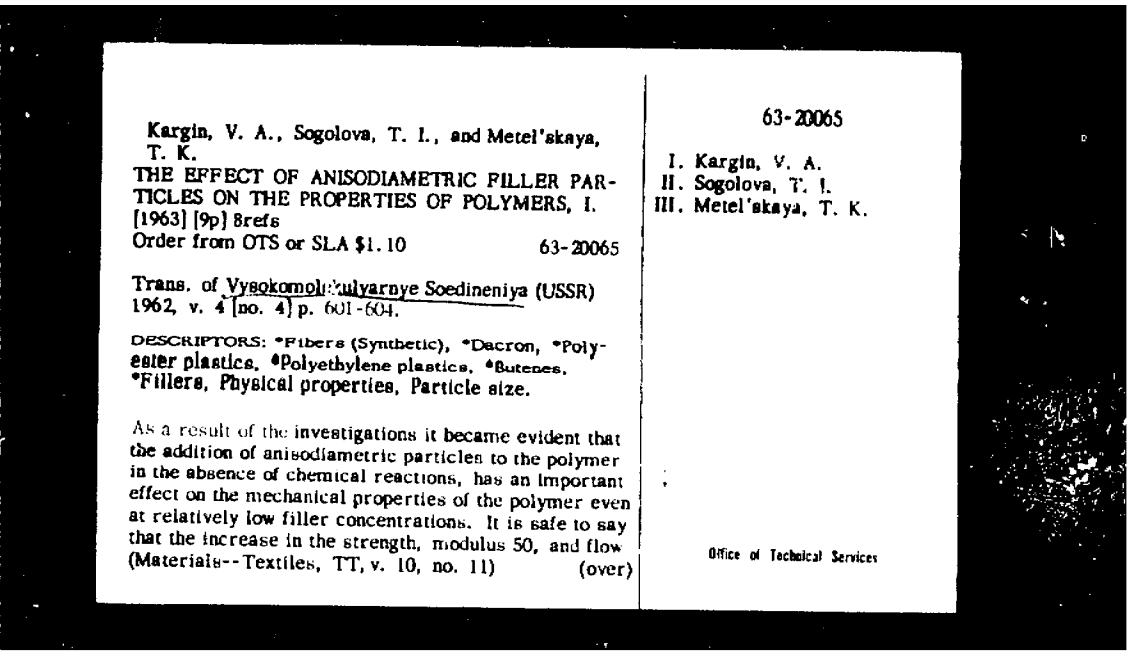
The results are described of the experimental determination of the resistivity of polycarbonate, polyethyleneterephthalate, mixed polyester of terephthalic and
(Materials--Plastics, TT, v. 10, no. 12) (over)

63-18740

1. Title: Paraformaldehyde
2. Title: Polycarbonates
3. Title: Polyethylene terephthalate
I. Sazhin, B. I.
II. Eidelnant, M. P.
III. Title: Polycarbonate ...

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0



Kargin, V. A., Sogolova, T. I., and Metel'skaya, T. K.
THE EFFECT OF ANISODIAMETRIC FILLER PARTICLES ON THE PROPERTIES OF POLYMERS, I.
[1963] [9p] 8refs
Order from OTS or SLA $1.10 63-20065

Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1962, v. 4 [no. 4] p. 601-604.

DESCRIPTORS: *Fibers (Synthetic), *Dacron, *Polyester plastics, *Polyethylene plastics, *Butenes, *Fillers, Physical properties, Particle size.

As a result of the investigations it became evident that the addition of anisodiametric particles to the polymer in the absence of chemical reactions, has an important effect on the mechanical properties of the polymer even at relatively low filler concentrations. It is safe to say that the increase in the strength, modulus 50, and flow
(Materials--Textiles, TT, v. 10, no. 11) (over)

63-20065

I. Kargin, V. A.
II. Sogolova, T. I.
III. Metel'skaya, T. K.

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

Theory of Helix-Coil Transitions in Biopolymers, The Helix-Coil Transitions in Polypeptide Chains Under Load, by T. Birshtein.
RUSSIAN, per, Vysokomolekulyarnye Soedineniya, Vol 4, No 4, 1962, pp 592-605 - 672
CSIRO/No C09

Sci -
Jul 67 335,001

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0

POLYMER SCIENCE USSR, 1963, VOL. 4, NO. 2, P. 207-396. July 63, 1v
Order from PP $140.00/year

Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1962, v. 4, no. 5, p. 642-654, 662-669, ##678-682, 704-707, 769-782; no. 6, p. 843-847, 860-868, ##885-888, 907-916, 944-947; no. 7, p. 972-981, 1000-1004, 1027-1032, ##1060-1063, 1098-1102, 1124; no. 8, p. 1137-1144, 1151-1154, ##1155-1162, 1163-1171, ##1178-1185, 1197-1203, 1223-1234. Abstracts are included of selected articles from v. 4, no. 10.
##Other translations are available elsewhere.

DESCRIPTORS: *Polymers, Chemistry, *Plastics, *Fillers, *Carbon black, *Metalorganic compounds, Iron compounds, *Silicones, *Polyvinyl alcohol, *Acetal plastics, *Polyester plastics, *Styrene (Chemistry--Organic, TT, v. 10, no. 10) (over)

63-22211-2

I. Pergamon Press, Inc., New York

Office of Technical Services

APPROVED FOR RELEASE: Monday, June 30, 2003 CIA-RDP91-00929R000201100080-0