

63-17527-3

POLYMER SCIENCE USSR, 1962, VOL. 3, NO. 3,
P. 367-534. Jan 63, 1v.
Order from PP \$100.00/year

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 10, p. 1449-1455, 1475-1480, 1486-
1499, 1521-1535; no. 11, p. 1613-1634, 1645-1658,
1678-1687, 1722-1738, 1745; no. 12, p. 1811-1827,
1839-1844, 1860-1869. Abstracts are included of se-
lected articles from v. 4, no. 2.

DESCRIPTORS: *Polymers, Chemistry, Condensation
reactions, *Chlorides, *Pyrocatechol, *Acrylic resins,
*Styrenes, Degradation, *Molecular spectroscopy,
*Benzenes, Polymerization, Copolymerization, *Ethyl-
enes, *Propenes, Deformation, Mechanical properties,
*Butadienes, *Chemical bonds, *Glycols, *Catalysts,
Anisotropy, Pressure, *Amides, *Fibers (Synthetic),
*Vinyl radicals, *Ethyl ethers, *Sodium,
(Chemistry--Organic, TT, v. 10, no. 4) (over)

1. Pergamon Press, Inc.,
New York

Office of Technical Services

Azimov, S. A., Usmanov, Kh. U. and others.
γ-RAY-INDUCED GRAFTING OF SOME MONOMERS
TO NATURAL SILK AND CAPRON. [1961] 4p.
Order from ATS \$6.25 ATS-49N55R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1960, v. 2, no. 10, p. 1459-1462.

DESCRIPTORSE: *γ-rays, *Silk, Fibers, Chemical
reactions.

(Chemistry--Organic, TT, v. 6, no. 12)

01-25723

- I. Title: Capron
- I. Azimov, S. A.
- II. Usmanov, Kh. U.
- III. ATS-49N55R
- IV. Associated Technical
Services, Inc.,
East Orange, N. J.

Office of Technical Services

61-10980

Spasskiy, S. S. and Molchanova, T. V.
THE COPOLYMERIZATION OF POLYESTERS WITH
VINYL- AND ALLYL MONOMERS. XI. COPOLYMERI-
ZATION OF POLYDIETHYLENE GLYCOL FUMARATE
ADIPIATE AND LOW MOLECULAR POLYDIETHYL-
ENE GLYCOLS FUMARATE WITH STYRENE. [1961]
(8)p. 9 refs.
Order from OTS or SLA \$1.10

61-10980

Trans. of Vysokomolekulyarnyye Soyedineniya (USSR)
1960, v. 2 [no. 10] p. 1481-1485.

DESCRIPTORS: *Copolymerization, Polymers, *Esters,
*Vinyl radicals, *Allyl radicals, *Ethylenes, *Glycols,
Styrenes, Fumaric acids, Adipic acids.

I. Spasskiy, S. S.
II. Molchanova, T. V.
III. Title: Copolymerization...

105640

Office of Technical Services

(Chemistry--Organic, TT, v. 6, no. 2)

62-10596

Kargin, V. A., Markova, G. S., and Kovaleva, V. P.
INVESTIGATION OF THE STRUCTURE AND PROPERTIES OF ETHYLENE AND PROPYLENE COPOLYMERS. [1961] 7p. (2 figs. omitted) 3 refs.
Order from OTS or SLA \$1.10 62-10596

I. Kargin, V. A.
II. Markova, G. S.
III. Kovaleva, V. P.

Trans. of [Vysokomolekulyarnye Soedineniya] 1960, v. 2, no. 19, p. 1531-1534.

DESCRIPTORS: *Ethylenes, *Propenes, Mechanical properties, Molecular structure, *Polymers, Deformation, Crystals, Crystallization, Stresses.

Excs showed that with the increase of irregularity in the copolymer chains, the perfectness of crystalline regions is reduced. The diffraction picture of the crystalline regions is structurally similar to that of pol ethylene or polypropylene. There are no inter-axial distances or changes in the parameters that would suggest the arising of stresses in the crystals. (Chemistry Abstracts, TT, v. 7, no. 11) (over)

<p>Terent'yev, A. P., Rode, V. V., and Rukhadze, Ye. G. STUDIES OF CHELATE POLYMERS. I. SYNTHESIS OF CHELATE POLYMERS FROM 5,5'-METHYLENE-BIS-SALICYLALDEHYDE. [1960] 7p. Order from ATS \$13.40 ATS-63N48K</p> <p>Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1960, v. 2, no. 10, p. 1537-1563.</p> <p style="text-align: center;">151501</p> <p style="text-align: center;">12-11-60</p>	<p style="text-align: center;">61-12765</p> <ol style="list-style-type: none"> 1. Chelate compounds-- Synthesis 2. Polymers--Synthesis <ol style="list-style-type: none"> I. Terent'yev, A. P. II. Rode, V. V. III. Rukhadze, Ye. G. IV. Title: Synthesis... V. ATS-63N48K VI. Associated Technical Services, Inc., East Orange, N. J. <p style="text-align: center;">AT/AT 2000</p> <p style="text-align: center;">Office of Technical Services</p>
<p>(Chemistry--Organic, TT, v. 5, no. 8)</p>	

Kozlov, P. V., Iovleva, M. M. and others.
 THE SOLUBILITY OF SOME GRAFTED COPOLY-
 MERS. [1961] 10p. (3 figs. omitted) 9 refs.
 Order from LC or SLA mi\$1.50, ph\$1.80 61-10990

Trans. of Vysokomolekulyarnyye Soedineniya
 (USSR) 1960, v. 2 [no. 10] p. 1580-1585.

The state diagrams were studied of a series of grafted copolymers of diphalic type (starch-polystyrene, polyethylene terephthalate-polyacrylic acid) and grafted copolymers containing starting component having common solvents (polyisobutylene-polystyrene, polystyrene-polyvinyl acetate). In all cases the grafting causes lessening of the true solubility of the grafted copolymer as compared with the starting homopolymers. For the grafted copolymer from polystyrene and polyvinyl acetate the dissolution process is described by means of thermodynamical functions on the basis of data on integral mixing heat with benzene and hydrogenated monomers.

(Chemistry--Organic, TT, v. 5, no. 11) (over)

61-10990

1. Polymers--Solubility
2. Styrene polymers--Solubility
3. Starch--Solubility
4. Isobutene polymers--Solubility
5. Title: Graft copolymers
- I. Kozlov, P. V.
- II. Iovleva, M. M.

61-10990

Office of Technical Services

The Mechanics of the Transition From Forced Elastic
to Highly Elastic BB Rupture, by V. E. Gul',
E. M. Shcheglov.

RUSSIAN, per, Vysokomolokulyarnye Soed.,
HEXZ Vol II, No 11, 1960, pp 1613-1615.

NIL/RTS 1960

Sci - Chem

ATS

193,833

Apr 62

<p>Polyakov, A. L., Derevitakaya, V. A., and Rogovin, Z. A. INVESTIGATION OF THE POSSIBILITY OF PREPARING UNSATURATED COMPOUNDS OF CELLULOSE BY THE CHUGAEV REACTION I. Gavronskis, tr. 17 Jul 63, 5p 9refs Courtaulds Misc. Lit. 3655; [DSIR] NLL M. 5440. Order from OTS, SLA, or ETC \$1.10 TT-64-13225</p>	<p>TT-64-13225</p> <ol style="list-style-type: none">I. Polyakov, A. L.II. Derevitakaya, V. A.III. Rogovin, Z. A.IV. Courtaulds-NLL-3655V. DSIR-NLL-M.5440VI. Courtaulds Ltd., Manchester (England)
<p>Trans. of <u>Vysokomolekululyarnye Soedin[eniya]</u> (USSR) 1960, v. 2, no. 3, p. 386-389.</p>	
<p>(Chemistry-Organic, TT, v. 12, no. 2)</p>	<p>Office of Technical Services</p>

**Composition Equations of Three-Component Copolymers
Part I, by A. I. Tarasov,
RUSSIAN, par, Vysokomol Soedin, Vol 2, No 11,
1960, pp 1601-1607,
ATS RJ-5365**

Sci-Chem
June 70

63-17527-1

POLYMER SCIENCE USSR, 1962, VOL. 3, NO. 1,
P. 1-210. May 62, 1v.
Order from PP \$100.00/year

Trans. of *Vysokomolekulyarnye Soedineniya* (USSR)
1961, v. 3, no. 1, p. 10-13, 56-65, 81-83, 99-104,
134-143, 150-151, 161-163; no. 2, p. 184-204, 213-
214, 232-236, 290-309; no. 3, p. 363-367, 371-381,
408-413, 420-434, 470-474. Abstracts are included of
selected articles from v. 3, nos. 4-8.

DESCRIPTORS: *Polymers, Chemistry, Scientific re-
search, Light, Scattering, *Chemical bonds, Photo-
chemistry, *Amides, Polymerization, *Ethylenes,
Radiation chemistry, *Acrylic acids, Phase studies,
*Phthalates, *Styrenes, Electron bombardment, Re-
action kinetics, *Esters, Morphology, *Vinyl radicals,
*Acetates, *Diffusion, *Nuclear magnetic resonance,
*Acrylic resins, Copolymerization, *Methanols,
(Chemistry--Organic, TT, v. 10, no. 4) (over)

1. Pergamon Press, Inc.,
New York

Office of Technical Services

61-25076

Rafikov, S. R. and Sorokina, R. A.
THERMAL-OXIDATIVE TRANSFORMATIONS OF
POLYAMIDES. Pt. 4 of Chemical Transformation of
Polymers. [1961] 10p.
Order from ATS \$15.75 ATS-40N53R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 1, p. 21-29.

DESCRIPTORS: *Amides, *Polymers, Oxidation,
Transformations, Thermochemistry.

I Rafikov, S. R.
II Sorokina, R. A.
III ATS-40N53R
IV. Title: Chemical...
V. Associated Technical
Services, Inc.,
East Orange, N. J.

*ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 12-29-96 BY 176736*

Office of Technical Services

(Chemistry--Organic, TT, v. 6, no. 6)

<p>Geller, B. E. CHANGES IN THE DENSITY OF MOLECULAR PACKING IN POLAR CARBON-CHAIN POLYMERS. [1961] 4p. Order from ATS \$8. 40 ATS-41N53R</p>	<p>61-25176 I. Geller, B. E. II. ATS-41N53R III. Associated Technical Services, Inc., East Orange, N. J.</p>
<p>Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 1, p. 33-36:</p>	<p>ATS-PI-3082</p>
<p>DESCRIPTORS: *Polymers, Molecular structure, Density.</p>	<p>121111</p>
<p>(Chemistry--Organic, TT, v. 6, no. 7)</p>	<p>Office of Technical Services</p>

63-16595

Uskov, I. A., Tarasenko, Yu. G., and Kuanttsyna,
T. A.

FILLED POLYMERS. IV. COMPOUNDING OF DIS-
SOLVED POLYMETHYLMETHACRYLATE WITH
FILLERS. [1963] [8]p. 9 refs.
Order from OTS or SLA \$1.10

63-16595

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 1, p. 37-40.

Other translations are available from ATS \$6.25 as
ATS-94P59R [1962] 4p.; from ICE in v. 1, no. 1,
\$15.00/year; an abstract trans. from OTS or SLA
\$1.10 as 61-19866, AID-61-44, 10 Apr 61, 2p.

DESCRIPTORS: *Acrylic resins, Polymers, *Fillers,
Methyl radicals, Bentonite.

Using modified bentonites and polymethylmethacrylate
as an example, a method was worked out for adding a
(Materials--Plastics, TT, v. 10, no. 7) (over)

- I. Title: Methyl methacrylate
- I. Uskov, I. A.
- II. Tarasenko, Yu. G.
- III. Kuanttsyna, T. A.
- IV. Title: Compounding ...

Office of Technical Services

TT-62-28722

Ispravnikova, A.G., Sletkina, L.S. and Rogovin, Z.A.
INFLUENCE SPÉCIFIQUE DES NITRATES DE CELLULOSE SUR LE PROCESSUS DE POLYMERISATION DE CERTAINS MONOMÈRES VINyliQUES CATALYSEE PAR DES RADICAUX LIBRES (Specific Effect of Cellulose Nitrates on the Process of Radical Polymerization of Some Vinyl Monomers). 14p. (foreign illegible text included) 4refs. CNRS-VI 704
Order from OTS, ETC or CNRS \$1.60 TT-62-28722

- I. Ispravnikova, A.G.
- II. Sletkina, L.S.
- III. Rogovin, Z.A.
- IV. CNRS-VI 704
- V. Centre National de la Recherche Scientifique, Paris

Trans. in French of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 1, p. 46-49.
Trans. in English is available from TTIS \$14.00 as TTIS-4003, 1961, 1250 words.

DESCRIPTORS: *Vinyl plastics, Polymerization, Nitrocellulose, Chemical reactions,

(Materials--Plastics, TT, v. 11, no. 9)

Office of Technical Services
European Translation Centre

61-25041

Korshak, V. V., Vinogradova, S. V. and others.
A STUDY OF SOME RELATIONSHIPS GOVERNING
POLYCONDENSATION OF DICARBOXYLIC ACID
CHLORIDES WITH DIHYDRIC PHENOLS IN HIGH-
BOILING SOLVENTS. Pt. 30 of Hetero-Chain
Polyesters. [1961] 6p.
Order from ATS \$12.00 ATS-42N53R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 1, p. 66-71.

DESCRIPTORS: *Carboxylic acids, *Chlorides,
*Phenols, Condensation reactions, Organic solvents,
*Esters, Polymerization.

(Chemistry--Organic, TT, v. 6, no. 6)

I. Korshak, V. V.
II. Vinogradova, S. V.
III. Title: Hetero-Chain...
IV. ATS-42N53R
V. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS/RJ-2994
176710

Office of Technical Services

<p>Korshak, V. V., Vinogradov, S. V. and others. HETEROCYCLIC POLYESTERS. LXXXI. A STUDY OF THE CHEMICAL PROPERTIES OF POLYARLATES. 1951 pp. Order from AIT \$14.00 AIT-41853R</p>	<p>61-25177</p>
<p>Tranz. of Vsesoyuznoye Nauchnoye Sotrudnichestvo (USSR) 1961, v. 3, no. 1, p. 72-80.</p>	<p>I. Title: Heterocyclic 2. Title: Polyarlates I. Korshak, V. V. II. Vinogradov, S. V. III. Title: Study ... IV. AIT-41853R V. Associated Technical Services, Inc., East Orange, N. J.</p>
<p>DESCRIPTORS: *Esters; *Polyesters; Chemical properties.</p>	<p><i>AIT/AT 2995</i> <i>1 2 1 3 1 3</i></p>
<p>(Chemistry--Organic, TT v. 6, no. 7)</p>	<p>Office of Technical Services</p>

Katibnikov, M. A. and Ermolenko, I. N.
ABSORPTION AND LUMINESCENCE SPECTRAL
STUDY OF DYE-POLYELECTROLYTE INTERACTION
IN SOLUTIONS. I. AQUEOUS SOLUTIONS OF
RHODAMINE 6G IN THE PRESENCE OF METH-
ACRYLIC ACID. [1961] 15p. (9 refs. 3 figs. omitted)
6 refs.
Order from OTS or SLA \$1.60 62-10663

Trans. of Vysokomolekulyarnye Soedin[enya] (USSR)
[1961] v. 3, no. 1, p. 105-112.

DESCRIPTORS: *Dyes, Organic compounds, Acrylic
acids, Polymers, Methanes, Electrolytes, Absorption
spectra, Luminescence, Polarization, Optics,
Pigments.

A study was made of the influence of the concentration
of poly(methacrylic acid) on absorption spectra, lumines-
cence spectra, intensity of luminescence, and also the
(Chemistry-Organic, T1, v. 7, no. 12) (over)

62-10663

I. Katibnikov, M. A.
II. Ermolenko, I. N.
III. Title: Aqueous...

Office of Technical Services

Isotactic Polyacrylic Acid and Its Salts, by
V. A. Kargin, et al.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol III, No 1, 1961, pp 134-138.

HLL M. 3371

SEP 26 - 1962
191, 907

Sci - Chem

Apr 62

Investigation of the Structure of Isotactic
Polyacrylic Acid and Its Salts, by V. A.
Kargin, et al.

RUSSIAN, per, *Vysokomolekulyarnyye Soyedineniya*,
Vol III, No 1, 139-143.
1961,

NLL M. 3376

SLA 62-191,908

Sci - Chem

Apr 62

Korolev, G. V., Makhonina, L. I., and Berlin, A. A.
KINETIC FEATURES OF THE POLYMERIZATION OF
SOME POLYACRYLATE ESTERS. Pt. 1 of Polymeri-
zation in Highly Viscous Media, and Three-Dimen-
sional Polymerization. [1961] 8p.
Order from ATS \$14.95 ATS-33N57R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 2, p. 198-204.

DESCRIPTORS: *Polymerization, Acrylic acids.
*Esters, *Reaction kinetics.

(Chemistry--Organic, TT, v. 7, no. 10)

62-12661

I. Korolev, G. V.
II. Makhonina, L. I.
III. Berlin, A. A.
IV. Title: Polymerization ...
V. ATS-33N57R
VI. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-RJ-3060

Office of Technical Services

Korshak, V. V., Frunze, T. M. and others.
HETEROCHAIN POLYAMIDES. XXVIII. THE SIGNIFI-
CANCE OF HYDROCHLORIC ACID ACCEPTORS IN
THE PREPARATION OF POLYAMIDES BY INTER-
FACIAL POLYCONDENSATION. [1961] 4p.
Order from ATS \$6.25 ATS-44N53R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 2, p. 205-207.

DESCRIPTORS: *Amides, Synthesis, Hydrochloric
acid, Condensation reactions, Polymerization,
Polymers.

(Chemistry--Organic, TT, v. 6, no. 8)

61-25347

I. Korshak, V. V.
II. Frunze, T. M.
III. Title: Significance...
IV. ATS-44N53R
V. Associated Technical
Services, inc.,
East Orange, N. J.

ATS/RS-3014

100231

Office of Technical Services

KINETICS OF VINYL ACETATE POLYMERIZATION
IN METHANOL, BY L. ALEKSANDRU, M. OPRISH. 717.

RUSSIAN, PR, VYSOKOMOLEKULYARNYYE
SOEDINENIYA, VOL III, NO 2, 1961, PP 306-309. 0

NLL M.3481

SCI - CHEM

ETS 65-11114

JUN 62

199,104

(SF-1879)

The International Macromolecular Chemistry
Symposium in Moscow, by P. V. Kozlov, V. A.
Kabanov, N. A. Plate, 47 pp.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol III, No 2, 1961, pp 328-348.

JPRS 11387

Sci - Chem
Jan 22

177, 157

Thermal Degradation of Fluorinated Elastomers of
the Kel-Fand FKP/VF Types, by T. G. Degteva.

RUSSIAN, per, Vysok Soed, No 3, 1961, 5 pp.

RAE 967

182,626

Sci - Phys

Feb62

Investigation of Molecular Interactions in
Polymer Solutions by the Method of Converting the
into Colloidal Systems, by S. Glickman.
RUSSIAN, per, Vysokomolek Ulyarnye Soedineniya
Vol. 3, No. 3, 1961, pp 353-358
GB/39/PA PVM 131/A/344

Sci -
Aug 67

336-139

<p>Korsniak, V. V., Frieze, T. M. and others. HETEROCHAIN POLYAMIDES. [XXIX]. THE IMPORTANCE OF THE HYDROLYSIS OF DICARBOXYLIC ACID CHLORIDES IN INTERFACIAL POLYCONDENSATION. [1961] 5p. Order from ATS \$8.00 ATS-45N53R</p> <p>Trans. of Vysokomolekulyarnye Soedineniya, 1961, v. 3, no. 3, p. 571-575.</p> <p>DESCRIPTORS: *Amides, *Polymers, Condensation reactions, *Carboxylic acids, *Chlorides, Hydrolysis.</p> <p>(Chemistry--Organic, TT, v. 6, no. 7)</p>	<p>61-25178</p> <p>I. Title: Heterochain polymers I. Korsniak, V. V. II. Frieze, T. M. III. Title: Importance ... IV. ATS-45N53R V. Associated Technical Services, Inc., East Orange, N. J.</p> <p>43/AT-3015</p> <p>151321</p> <p>Office of Technical Services</p>
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Parini, V. P., Kazakova, Z. S. and others.
POLYMERS WITH A SYSTEM OF CONJUGATED
BONDS AND WITH HETERO ATOMS IN THE CON-
JUGATION CHAIN. Pt. 12 of Preparation and Proper-
ties of Some Poly(Aminoquinones). [1961] 7p.
Order from ATS \$9.00 ATS-51N53R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 3, p. 402-407.

DESCRIPTORS: *Polymers, *Chemical bonds, Molec-
ular structure, Quinones, Amines.

(Chemistry--Organic, TT, v. 7, no. 2)

61-25350

- I. Parini, V. P.
- II. Kazakova, Z. S.
- III. Title: Preparation ...
- IV. ATS-51N53R
- V. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-51N53R

Office of Technical Services

Time-Temperature Dependence of the Strength
of Polymer Fibres, by S. N. Zhurkov,
S. A. Abasov.

RUSSIAN, per, Vysokomol Soedin, Vol III, No 3,
1961, pp 441-449.

TLL/T 5259

181.296

Sci - Phys

Jan 62

The Role of Chemical and Intermolecular Bonds
in Polymer Rupture, by S. N. Zhurkov, S. A.
Abazov.

RUSSIAN, per, Vysokomoz Soedin, Vol III, No 3,
1961, pp 450-455.

TIL/T 5260

181,292

Sci - Chem

Jan 62

<p>Rodionova, Ye. F. and Kolesnikov, G. S. POLYMERIZATION AND COPOLYMERIZATION OF VINYL PHOSPHONIC DICHLORIDE, PT. 31, [1961] 5p. Order from ATS \$8.15 ATS-89N51R</p>	<p>61-22613</p>
<p>Trans. of Vysokomolekulyarnyye Soyedineniya (USSR) 1961, v. 3, no. 3, p. 459-463</p>	<p>I. Rodionova, Ye. F. II. Kolesnikov, G. S. III. ATS-89N51R IV. Associated Technical Services, Inc., East Orange, N. J.</p>
<p>DESCRIPTORS: *Copolymerization, *Polymerization, Vinyl radicals, Phosphonyl radicals, Chlorides, *Polymers.</p>	<p>ATS/RJ-3002</p>
<p>(Chemistry--Organic, TT, v. 6, no. 3)</p>	<p>170332</p>
	<p>Office of Technical Services</p>

OXIDATION OF HYDROCARBONS IN THE PRESENCE OF
INHIBITORS, BY D. RYSHAVY.

RUSSIAN, PER, VYSOKOMOL SOEDIN, VOL III, NO 3, 1961,
PP 464-469.

TIL T 5287

SCI - CHEM

210,227

SEP 62

63-18410

Ryshavy, D. and Balaban, L.
EFFECT OF POLYMERIZATION CATALYSTS ON
THE DESTRUCTION RATE OF ISOTACTIC
POLYPROPYLENE. [1963] 6p. 4 refs.
Order from OTS or SLA \$1.10 63-18410

I. Ryshavy, D.
II. Balaban, L.

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 3, p. 470-474.
Other translations are available from OTS or SLA
\$1.60 as 63-10811, 9 May 62 [11]p. and from PP in
Polymer Science USSR, v. 3, no. 1, \$100.00/year.

DESCRIPTORS: *Polyethylene plastics, *Propenes,
Polymers, Degradation, *Catalysts, *Ziegler
catalysts, Aluminum compounds, Zinc compounds,
Ethylenes, Titanium compounds, Chlorides,
*Antioxidants.

The influence of the catalysts used during polymeri-
(Materials--Plastics, TT, v. 10, no. 8) (over)

Office of Technical Services

63-17527-4

POLYMER SCIENCE USSR, 1962, VOL. 3, NO. 4,
P. 535-758. Feb 63, 1v.
Order from PP \$100.00/year

J. Pergamon Press, Inc.,
New York

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 4, p. 505-520, 530-535, 541-554,
562-569, 585-593, 637-641; no. 5, p. 657-661, 679-
698, 706-710, 716-723, 748-757, 787-793; no. 6,
p. 801-805, 820-832, 841-846, 861-864, 870-890,
898-900, 908-918, 931-935. Abstracts are included of
selected articles from v. 4, nos. 3-4.

DESCRIPTORS: *Polymers, Chemistry, Copolymeriza-
tion, *Radiation chemistry, *Ethylenes, *Phthalates,
*Benzoyl radicals, *Peroxides, *Ethyl radicals,
*Amines, *Serum-albumin, Polymerization, *Acrylic
resins, *Vinyl radicals, *Acetates, *Thio radicals,
*Valeric acids, Adhesion, *Propenes, *Titanium com-
pounds, *Chlorides, *Amides, *Styrenes, *Butenes,
(Chemistry--Organic, TT, v. 10, no. 4) (over)

Office of Technical Services

Spaekki, S. S. and Karas, L. Y.
ZUM PROBLEM DER INDIVIDUELLEN QUANTITATI-
VEN AKTIVITATSCHARAKTERISTIK UNGESATTIG-
TER VERBINDUNGEN BEI DEN KOPOLYMERISAT-
IONS-REAKTIONEN (The Individual and Quantitative
Characteristic of the Activity of Unsaturated Com-
pounds During Copolymerization Reactions). 22p.
Order from TIB \$3.35

Trans. in German of Vysokomolekulyarnye Soedineniya
(USSR) 1961, v. 3, no. 4 [p. 505-514].

DESCRIPTORS: *Copolymerization, Chemical reactions,
Organic compounds.

(Chemistry--Organic, TT, v. 9, no. 11)

62-27279

- I. Spaekki, S. S.
- II. Karas, L. Ya.
- III. Technische Informations-
bibliothek, Hannover
(West Germany)

Office of Technical Services

The Copolymerization of bis-(Alkylamino)
Alkyl- or Arylboron With Organic Diisocyanates,
by V. V. Korzhak, N. I. Bekasova, 8 pp.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
Vol III, No 4, 1961, pp 521-524. 9676329

FTD-TT-62-25

Sci - Chem

194, 130

4 May 62

The Copolymerization of B-Substituted
Brazoles With Hexamethylene Diisocyanate,
by V. V. Korshak, V. A. Zamyatina, 7 pp.

RUSSIAN, per, Vysokomolekulyarnyye
Soyedineniya, Vol III, No 4, 1961,
pp 525-529. 9676329

FTD-TT-62-25

Sci - Chem

4 May 62

194, 131

Distinctive Features of the Proton Magnetic
Resonance Spectra of a and b forms of Polypeptide
Chains, by D. Shigorin.

RUSSIAN, per, Журнал Высokомолекулярные
Соединениа, Vol III, No 4, 1961, pp 560-561.

CSIRO/No 5867

Sci-Phys
May 63

DTIC 63-47700

229,863

INVESTIGATIONS IN THE FIELD OF CYCLIC
POLYMERIZATION AND COPOLYMERIZATION.
III. SYNTHESIS AND CYCLIC POLYMERIZATION
OF ALIPHATIC DIVINYL ACETALS, BY
S. G. MATSOYAN, ET AL.

RUSSIAN, PER, VYSOKOMOLEKUL SOEDINENIYA,
VOL III, 1961, PP 562-569.

NLL M. ~~1878~~ 3485

SCI - CHEM

199,106

Spectral Investigation of Products Formed During
Polymerization of Styrene With 9-Vinylanthracene
Additions, by A. S. Cherkasov, K. G. Voldaikina,
30 pp.

RUSSIAN, per, Vysokomolekulyarnye Soyedineniya,
Vol. XII, 1961, pp 570-.

ARC Tr-5065

Sci - Chem
Jul 62
List 70

204, 728

<p>Andrianov, K. A. and Pichkhadze, Sh. V. REACTIONS OF POLY-(ORGANOTITANOSILOXANE) FORMATION. [1961] 6p. Order from ATS \$9.00</p>	<p>61-25175</p> <ol style="list-style-type: none">I. Andrianov, K. A.II. Pichkhadze, Sh. V.III. ATS-05NS3RIV. Associated Technical Services, Inc., East Orange, N. J.
<p>Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 4, p. 577-581.</p>	<p>ATS/NT-2997</p>
<p>DESCRIPTORS: Metalorganic compounds, *Titanium compounds, *Silicones, Polymers, Synthesis, Chemical reactions.</p>	<p>INDEXED</p>
	<p>Office of Technical Services</p>

Tsvetkova, V. I., Pirogov, O. N. and others.
KINETICS AND MECHANISM OF OLEFINS POLYMERIZATION ON COMPLEX CATALYSTS. I. THE KINETIC EQUATIONS AND RATE CONSTANTS OF α -OLEFINS POLYMERIZATION ON THE SYSTEM $TiCl_3 - Al(C_2H_5)_3$ FOR DIFFERENT MANNERS OF ACCOMPLISHING THE PROCESS. [1962] 11p. 5 refs.
Order from OTS or SLA \$1.60 62-14819

Trans. of Vysokomolekulyarnye Soed[ineniya] (USSR) 1961, v. 3, no. 4, p. 585-593.

DESCRIPTORS: *Ethylenes, *Polymerization, Reaction kinetics, Titanium compounds, Chlorides, Aluminum, Ethyl radicals, Catalysts, Catalysts.

The kinetic equations are derived for various methods of investigating α -olefin polymerization on $TiCl_3-Al(C_2H_5)_3$ catalysts. On the basis of the equations a (Chemistry--Organic, TT, v. 8, no. 6) (over)

62-14819

I. Tsvetkova, V. I.
II. Pirogov, O. N.
III. Title: Kinetic ...

Office of Technical Services

Investigation of the Degradation of Condensation
Resins. Thermo-Oxidative Degradation of
Hardened Epoxy Resins, by M. B. Neiman.

RUSSIAN, per, Vysokomolekulyarnye Soedinyeniya,
Vol III, 1961, pp 602-606.

NLL RTS 2431
(loan copy)

Jul 64

Investigation of the Degradation of Polycondensa-
tion Resins. Part 3. Thermooxidative Degradation
of Hardened Epoxy Resins, by H. B. Meiman.
RUSSIAN, per, Vysokomolekul Soedin, Vol 3,
No 4, 1961, pp 602-606.
ATS-4896

Sci
Dec 68

368,764

61-25218

Shatokova, N. I., Russkova, E. F., and others.
STUDIES OF POLYCARBONATES. [III]. STUDIES OF
2,2-BIS(4-HYDROXYPHENYL)PROPANE POLYCARBON-
ATES IN A HOMOGENEOUS MEDIUM AND THEIR
PROPERTIES. [1961] 9p.
Order from ATS \$12.50

ATS-60N52R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 4, p. 642-649.

DESCRIPTORS: *Carbonates, Chemical properties,
Propanes, Hydroxides, Phenyl radicals.

- I. Shatokova, N. I.
- II. Russkova, E. F.
- III. Title: Studies of 2,2-Bis...
- IV. ATS-60N52R
- V. Associated Technical Services, Inc., East Orange, N. J.

ATS/AT-2001

1961

Office of Technical Services

(Chemistry--Organic, TT, v. 6, no. 7)

Polyakova, A. M., Korshak, V. V., and
Tambovtseva, E. S.
o-METHYLSTYRENES CONTAINING Sn, Pb and Ge.
Pt. 7 of the Polymerization of Ring-Substituted
 α -Methylstyrenes under Pressure. [1961] 4p.
Order from ATS \$4.60 ATS-92N53R

Trans. of Vysokomol kulyarnye Soedineniya (USSR)
1961, v. 3, no. 5, p. 662-664.

DESCRIPTORS: *Styrenes, *Methyl radicals, Tin,
Lead, Germanium, Polymerization, Pressure.

(Chemistry--Organic, TT, v. 7, no. 3)

62-12080

- I. Polyakova, A. M.
- II. Korshak, V. V.
- III. Tambovtseva, E. S.
- IV. Title: Polymerization ...
- V. ATS-92N53R
- VI. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS-RJ-3093

Office of Technical Services

Degteva, T. G.

THERMAL DEGRADATION OF FLUORINATED
ELASTOMERS OF THE KEL-F AND PFP/VF TYPES
(Termicheski Raspad Ptosoderzhashchikh Elastomerov Tipa Kel-F i PFP/VF) tr. by G. Kimer. Sep 61 [12p] Brefs RAE Library Trans. no. 967; AD-265 016. Order from OTS, SLA, or ETC \$1.60 TT-63-24371

Trans. of Vysokomolekuluyaraye Soedineniya (USSR) 1961, v. 3, no. 5, p. 671-678. (Abstract available)

DESCRIPTORS: *Elastomers, Pyrolysis, Heat resistant plastics, Polymers, Structural properties, Heat of activation, Reaction kinetics, Fluorides, Heat of reaction, Ethylenes, Chlorides, Propenes, Polyvinyl chloride.

The thermal degradation of Kel-F and PFP/VF elastomers was investigated over the temperature range (Materials--Elastomers, TT, v. 11, no. 5) (over)

TT-63-24371

- I. Degteva, T. G.
- II. RAE Trans-967
- III. AD-265 016
- IV. Royal Aircraft Establishment (Gt. Brit.)

Office of Technical Services

Korotkov, A. A. and Li, Tsung-Ch'ang.
EFFECTS OF PREPARATION CONDITIONS ON THE
SPECIFICITY FOR THE POLYMERIZATION OF
PROPYLENE FOR CATALYSTS BASED ON
 β -TiCl₃ + Al(C₂H₅)₃. Pt. 1 of Effects of the Struc-
ture of Titanium Trichloride on the Stereospecificity
of Catalysts. [1961] 8p. 8 refs.
Order from RIS \$14.00

RIS G-314a

Trans. of *Vysokomolekulyarnye Soedineniya* (USSR)
1961, v. 3, no. 5, p. 686-690.

DESCRIPTORS: *Propenes, Polymerization, *Titanium
compounds, *Chlorides, Aluminum compounds, Ethyl
radicals, *Catalysts, Catalysis, Preparation, Crystal
structure, Stereochemistry, Polymers.

(Chemistry--Physical, TT, v. 7, no. 5)

62-12434

- I. Korotkov, A. A.
- II. Li, Tsung-Ch'ang
- III. Title: Effects of the
Structure ...
- IV. RIS G-314a
- V. Research Information
Service, New York

Office of Technical Services

62-12435

Korotkov, A. A. and Li, Tsung-Ch'ang.
CHANGES IN THE STRUCTURE AND CATALYTIC
BEHAVIOR OF TITANIUM TRICHLORIDE AFTER
HEAT TREATMENT, Pt. 2 of Effects of the Structure
of Titanium Trichloride on the Stereospecificity of
Catalysts. [1961] 11p. 6 refs.
Order from RIS \$20.00

RIS G-314b

Trans. of Vysokomolekularnye Soedineniya (USSR)
1961, v. 3, no. 5, p. 691-698.

DESCRIPTORS: *Titanium compounds, *Chlorides,
*Catalysts, Catalysis, Heat treatment, Crystal
structure, Stereochemistry, X-ray diffraction analysis,
Electron microscopy, Chemical analysis.

(Chemistry--Physical, TT, v. 7, no. 5)

- I. Korotkov, A. A.
- II. Li, Tsung-Ch'ang
- III. Title: Effects ...
- IV. RIS G-314b
- V. Research Information
Service, New York

Office of Technical Services

<p>Rafikov, S. R., Zhubanov, B. A. and others. INVESTIGATIONS IN THE FIELD OF POLYMER SYNTHESIS I. SYNTHESIS OF POLYAMIDES BASED ON XYLYLENEDIAMINES. [1961] 8p. Order from ATS \$13. 45 ATS-28N55R</p> <p>Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 5, p. 699-705.</p> <p>DESCRIPTORS: *Amides, *Polym...s. Synthesis, Xylenes, Amines. Chemical reactions.</p> <p>(Chemistry--Organic, TT, v. 7, no. 3)</p>	<p>62-12093</p> <p>I. Rafikov, S. R. II. Zhubanov, B. A. III. Title: Synthesis ... IV. ATS-28N55R V. Associated Technical Services, Inc., East Orange, N. J.</p> <p><i>ATS-RI-3069</i></p> <p>Office of Technical Services</p>
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Sokolova, T. A. and Rudkovskaya, G. A.
CYCLIC POLYMERIZATION. I. N-METHYLDIMETHYL
ACYLAMIDE. [1961] 7p. 23 refs.
Order from OTS or SLA \$1.10 62-13909

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
[1961] v. 3, p. 706-710.

DESCRIPTORS: *Polmerization, *Amides, Polymers,
Peroxides, *Molecular structure, Methyl radicals.

N-methylmethacrylamide can be block polymerized
with peroxide initiators, yielding a soluble linear
polymer that contains rings in its chain. The cyclic
structure of polymethylmethacrylamide was estab-
lished by synthesis of a similar polymer via deamina-
tion of polymethylmethacrylamide.

(Chemistry -Organic, TT, v. 7, no. 11)

62-13909

I. Sokolova, T. A.
II. Rudkovskaya, G. A.
III. Translations, New York

Office of Technical Services

Neimark, I. E., Chuiko, A. A., and
Slinyakova, I. B.
LES SILICES OLEFINO-SUBSTITUÉES COMME
FILLERS ACTIFS DES POLYMERES (Olefin-
substituted Silicas as Active Fillers of Polymers). 12p.
15 refs. FR-2899 (text in French).
Order from OTS or ETC \$1.85 62-26151

Trans. in French of Vysokomolekulyarnye
Soedineniya (USSR) 1961, v. 3, no. 5, p. 711-715.

DESCRIPTORS: *Silicides, Polymers, Additives.

(Materials--Plastics, TT, v. 9, no. 8)

62-26151

- I. Neimark, I. E.
- II. Chuiko, A. A.
- III. Slinyakova, I. B.
- IV. FR-2899
- V. Centre National de la
Recherche Scientifique
(France)

Office of Technical Services

<p>Lyubetskii, S. G., Dolgoplosk, B. A., and Erusalimskii, B. L. KINETICS OF ETHYLENE POLYMERIZATION IN BENZENE AND HEPTANE SOLUTION. Pt. 1 of the Polymerization of Ethylene Under the Influence of Free Radicals. [1962] 7p. Order from ATS \$9.25 ATS-67N53R</p> <p>Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 3, p. 734-739.</p> <p>DESCRIPTORS: *Ethylene, *Polymerization, *Reaction kinetics, *Benzene, Free radicals, Solutions, Heptane.</p> <p>(Chemistry - Organic, TT, v. 7, no. 11)</p>	<p>62-12784</p> <p>I. Lyubetskii, S. G. II. Dolgoplosk, B. A. III. Erusalimskii, B. L. IV. Title: Polymerization of ... V. ATS-67N53R VI. Associated Technical Services, Inc., East Orange, N. J.</p> <p>ATS RJ-3826</p> <p>Office of Technical Services</p>
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Eizner, Yu. E.

THE RELATIONSHIP BETWEEN CONCENTRATION
AND THE DIMENSIONS OF MACROMOLECULES IN
SOLUTION. [1961] 11p.

Order from ATS \$17.00

ATS-20N54R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 5, p. 748-757.

DESCRIPTORS: *Molecules, *Solutions, Density

(Chemistry--Physical, TT, v. 7, no. 5)

62-12083

- I. Eizner, Yu. E.
- II. ATS-20N54R
- III. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS-RJ-3080

Office of Technical Services

Studies on the Electroconductivity of Polymers.
IV. Effect of Dipole Polarization (Polystyrene,
Poly-p-Chlorostyrene, ~~and~~ Styrene-Acrylonitrile
Copolymer, by B. I. Sazhin, M. P. Bidel'nant,
14 pp.

RUSSIAN, per, Vysokomolekulivarnye Soyedineniya,
Vol. III, No 5, 1961, pp 762-767. 9206074.

AEC/SCC Tr 451

Sci - Chem

220,908

May 68

Polymerization of Chloroprene by
Metal-Organic Compounds, by
B. L. Brusilimskii.
RUSSIAN, per, Vysokomolekulyarnye
Soedineniya, Vol 3, 1961, p 798.
BTC 72-11262

May 72

Yakovleva, M. K., Sheinker, A. P., and Abkin, A. D.
STUDY OF THE MECHANISM OF RADIATIVE POLY-
MERIZATION. II. MECHANISM OF CARBONIUM
POLYMERIZATION OF STYRENE AND METHYL
METHACRYLATE UNDER THE ACTION OF GAMMA
RAYS. [1961] 6p.

Order from ATS \$9.10

ATS-90N54R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 6, p. [828]-832.

DESCRIPTORS: *Polymerization, *Gamma rays,
Radiation effects, *Styrenes, Carbon, Ions, Polymers,
*Acrylic resins.

(Chemistry--Organic, TT, v. 7, no. 4)

62-12088

I. Yakovleva, M. K.
II. Sheinker, A. P.
III. Abkin, A. D.
IV. Title: Mechanism ...
V. ATS-90N54R
VI. Associated Technical
Services, Inc.,
East Orange, N. J.

Office of Technical Services

Nudel'man, Z. N., Sviridova, A. V., and Novikov,
A. S.

SYNTHESIS OF LINEAR ALUMINOSILOXANE POLY-
MERS BY THE SILANOL CONDENSATION METHOD.
[1961] 5p.

Order from ATS \$9.40

ATS-21N56R

Trans. of *Vysokomolekulyarnye Soedineniya* (USSR)
1961, v. 3, no. 6, p. 841-846.

DESCRIPTORS: *Aluminum compounds, *Silanes,
*Polymers, Synthesis, Condensation reactions

(Chemistry--Organic, TT, v. 7, no. 3)

62-12113

- I. Nudel'man, Z. N.
- II. Sviridova, A. V.
- III. Novikov, A. S.
- IV. ATS-21N56R
- V. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-RJ-3094

Office of Technical Services

Mikhailov, B. M. and Aronovich, P. M.
ORGANOBORON COMPOUNDS. LXXVII. POLYMER-
IZATION OF THE BUTYL ESTER OF VINYLBORIC
ACID. [1961] 5p.
Order from ATS \$8.00 ATS-89N54R

Trans. of Vysokomolekulyarnye Soedneniya (USSR)
1961, v. 3, no. 6, p. 861-864.

DESCRIPTORS: *Organic compounds, *Boron com-
pounds, *Vinyl radicals, *Boric acids, Esters, Poly-
merization, Acids.

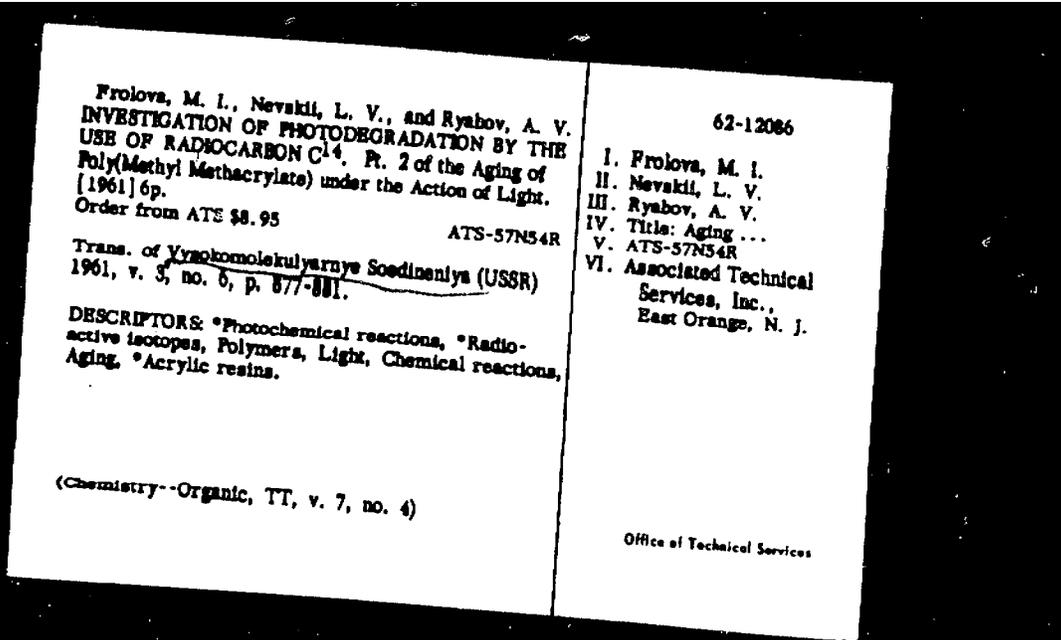
(Chemistry--Organic, TT, v. 7, no. 3)

62-12087

I. Mikhailov, B. M.
II. Aronovich, P. M.
III. Title: Polymerization ...
IV. ATS-89N54R
V. Associated Technical
Services, Incl. East
Orange, N. J.

ATS-RJ-3092

Office of Technical Services



Frolova, M. I., Nevskii, L. V., and Ryabov, A. V.
INVESTIGATION OF PHOTODEGRADATION BY THE
USE OF RADIOCARBON C¹⁴. Pt. 2 of the Aging of
Poly(Methyl Methacrylate) under the Action of Light.
[1961] 6p.
Order from ATE \$8.95

ATS-57N54R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 6, p. 877-881.

DESCRIPTORS: *Photochemical reactions, *Radio-
active isotopes, Polymers, Light, Chemical reactions,
Aging, *Acrylic resins.

(Chemistry-Organic, TT, v. 7, no. 4)

62-12066

- I. Frolova, M. I.
- II. Nevskii, L. V.
- III. Ryabov, A. V.
- IV. Title: Aging ...
- V. ATS-57N54R
- VI. Associated Technical
Services, Inc.,
East Orange, N. J.

Office of Technical Services

62-12085

Krylov, O. V. and Sinyak, Yu. E.
NEW CATALYST FOR THE POLYMERIZATION
OF ETHYLENE OXIDE. [1961] 5p.
Order from ATS \$5.50 5p ATS-56N54R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 6, p. 898-900.

DESCRIPTORS: *Ethylene oxide, *Polymerization,
*Catalysts.

(Chemistry, 1961, IT, v. 7, no. 4)

I. Krylov, O. V.
II. Sinyak, Yu. E.
III. ATS-56N54R
IV. Associated Technical Services, Inc., East Orange,
N. J.

ATS-RJ-3054
05062-13832

Office of Technical Services

62-12089

Pshezhetskii, V. S., Kargin, V. A., and Bafn, N. A.
X-RAY INDUCED POLYMERIZATION OF ACETAL-
DEHYDE IN THE CONDENSED PHASE. [1961] 6p.
Order from ATS \$9.75 ATS-91N54R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 6, p. 925-930.

DESCRIPTORS: *Acetaldehydes, *Polymerization.

- I. Pshezhetskii, V. S.
- II. Kargin, V. A.
- III. Bafn, N. A.
- IV. ATS-91N54R
- V. Associated Technical Society
 Inc., 100 East Orange
 St. E.

(Chemistry - Organic, Polymers - 4)

Office of Technical Services

Investigations of Diffusion Processes in Polymers,
Part III. Irreversible Changes Caused in the
Diffusion of Gases Through Polymers by Irradia-
tion of the Latter With the Gamma Rays of a
Co⁶⁰ Source, by N.S. Tlkouirova, Yu. M. Malinskiy.
RUSSIAN, per, Vysokomolekulyarnyye Soedineniya,
Vol 2, No 9, 1960, pp 1335-1348. 9233241
AEC UCRL-tr-10026

Sci/Nuclear Sci
Aug 66

Ozonization (Ozonation) of Atactic Polymethylene,
by M. Lazar, I. Pavlinets, et al. 9 pp.

RUSSIAN, per: Vysokomolekulyarne Soedineniya,
Vol III, No 6, 1961, pp 943-947. 9207535

AEC-SCL-Tr-469

157-61-1-4110

Sci - Phys
5 Jun 63

231,862

Nov 01

(CP-1873)

Sergey Sergeyevich Medvedev, 4 pp.

RUSSIAN, per, Vysokomolekulyarnyye Soyedineniya,
No 6, 1961, pp 948-950.

JPRS 10277

USSR

174,094

Biog

61-20877

Orlova, A. V. and Nagdasava.
CHANGES IN THE MICROSCOPIC STRUCTURE OF
POLYETHYLENE TEREPHTHALATE FIBERS DURING
HEATING. [1961] 6p. (7 diagr. 3 tables omitted)
3 refs.
Order from OTS or SLA \$1.10

I. Orlova, A. V.
II. Nagdasava

61-20877

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 7 [p. 953-955].

DESCRIPTORS: *Microstructure, *Ethylene, *Poly-
mers, *Phthalates, Crystallization, Heating, Elas-
ticity, Temperature, Surfaces, Films, Fibers, *Tires,
*Synthetic fibers, *Cordage.

201457

A structural heterogeneity of polyethylene terephtha-
late fibers is discovered where the basic stem and the
surface film react differently towards an elevation of
temperature. The rapid crystallization in the isotropic
(Materials--Textiles, TT, v. 7, no. 8) (over)

Office of Technical Services

63-17527-5

POLYMER SCIENCE USSR, 1962, VOL. 3, NO. 5,
P. 759-986, Mar 63, 1v.
Order from PP \$100.00/year

1. Pergamon Press, Inc.,
New York

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 7, p. 960-970, 980-983, 991-1014,
1031-1040, 1044-1061, 1072-1083, 1091-1099, 1110-
1115; no. 8, p. 1135-1149, 1170-1175, 1203-1216,
1220-1223, 1238-1246; no. 9, p. 1311-1320, 1332-1346,
1352-1357, 1377-1388, 1415-1420. Abstracts are in-
cluded of selected articles from v. 4, nos. 5-6.

DESCRIPTOR: *Polymers, Chemistry, *Radiation
chemistry, *Styrenes, *Alcohols, *Cyanates, *Cellu-
lose, *Nitriles, *Propenes, Surface tension, Chlorina-
tion, Sulfonation, *Benzenes, Polymerization, *Ethyl-
enes, *Metalorganic compounds, *Vinyl radicals,
*Acetals, *Acrylic resins, *Photolates, *Chlorides,
*Glycols, *Methyl radicals, *Silicones, *Rubber,
(Chemistry--Organic, TT, v. 10, no. 4) (over)

Office of Technical Services

<p>Il'ina, D. E., Krentsel', B. A., and Topchiev, A. V. SULFOCHLORINATION OF POLYPROPYLENE. [1961] Order from ATS \$9.50 ATS-20N57R</p> <p>Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 7, p. 995-999.</p> <p>DESCRIPTORS: *Sulfonation, *Chlorination, Polymers, *Propenes.</p>	<p>62-12541</p> <p>I. Il'ina, D. E. II. Krentsel', B. A. III. Topchiev, A. V. IV. ATS-20N57R V. Associated Technical Services, Inc., East Orange, N. J.</p> <p><i>ATS-RJ-3055</i></p>
<p>(Chemistry--Organic, TI, v. 7, no. 10)</p>	<p>Office of Technical Services</p>

Polyakov, A. I., Derevitskaya, V. A., and Rogovin, Z. A.

NEW CELLULOSE AND OTHER POLYSACCHARIDE DERIVATIVES. XIV. SYNTHESIS OF ESTERS OF CELLULOSE WITH α -AMINO ACIDS. 1961, 8p. 5 refs.

Order from OTS or SLA \$1. 10

62-14285

Trans. of Vysokomol[ekulyarnye] Soed[ineniya] (USSR) 1961, v. 3, no. 7, p. 1027-1030.

DESCRIPTORS: *Polysaccharides, *Cellulose esters, Synthesis, *Amino acids, Glycine, Alanine, Alcohols, Methanols, Phenols, Formamides, Carbohydrates.

A method has been developed for synthesizing cellulose esters with α -amino acids by substituting the sulfonic acid groups in the corresponding cellulose ethers. The effect of the nature of the solvent on the direction of the substitution reaction has been established. In dimethyl- (Chemistry--Organic, TT, v. 9, no. 4) (over)

62-14285

I. Polyakov, A. I.
II. Derevitskaya, V. A.
III. Rogovin, Z. A.
IV. Title: Synthesis ...

Office of Technical Services

Adrova, N. A., Koton, M. M., and Klages, V. A.
PREPARATION OF NEW ORGANOTIN POLYMERS.
[1961] 4p.
Order from ATS \$4.50 ATS-26N56R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 7, p. 1041-1043.

DESCRIPTORS: *Polymers, *Metalorganic compounds,
*Tin compounds.

(Chemistry--Organic, TT, v. 7, no. 4)

62-12114

I. Adrova, N. A.
II. Koton, M. M.
III. Klages, V. A.
IV. ATS-26N56R
V. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-RJ-3091

Office of Technical Services

<p>Gurvich, L. G. DEPENDENCE OF THE TENSILE STRENGTH OF POLYMER FIBERS ON THE CHARACTER OF THE MOLECULAR WEIGHT. [1961] 4p. Order from ATS \$5.50 ATS-52N50R</p> <p>Trans. of Vysokomolekulyarnye Soedineniya (USSR) 1961, v. 3, no. 7, p. 1062-1064</p> <p>DESCRIPTORS: Polymers; Fibers; Tensile prop- erties; Molecular weight.</p> <p><i>1062-1064</i></p>	<p>62-12115</p> <p>I. Gurvich, L. G. II. ATS-52N50R III. Associated Technical Ser- vices, Inc., East Orange, N. J.</p> <p>ATS-RJ-3083</p> <p>Office of Technical Services</p>
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O. B. Ptitsyn

Theory of Polyelectrolyte Solutions. Part I.
Dimensions of Polyelectrolyte Molecules at
Small Degrees of Ionization.
RUSSIAN, per, Vysokomolekulyarnye Soedineniya,
Vol 3, 1961, pp 1084-1090
NTC 72-13229-07D

sept 72

Manyasek, Z.
THE FORMATION AND DECOMPOSITION OF HYDRO-
PEROXIDES OF ATACTIC POLYPROPYLENE. 10p.
5 refs. MTWL: 1103.
Order from OTS or ETC \$1.55 62-26041

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 7, p. 1104-1108.

DESCRIPTORS: *Propenes, Polymers, Oxidation,
*Peroxides.

62-26041

I. Manyasek, Z.
II. MTWL-1103
III. Stichting Moeilijk
Toegankelijke Wetenschap-
pelijke Literatuur

Office of Technical Services

Ryshavy, D., Balaban, L. and others.
OXIDATION OF ISOTACTIC POLYPROPYLENE
(Oksidatsiia Izomakmicheskogo Polipropilena). [1961]
[12]p. 5 refs.
Order from OTS or SLA \$1.60

62-14283

Trans. of Vysokomol[ekulyarnye] Soed[ineniya] (USSR
1961, v. 3, no. 7, p. 1110-1115.

DESCRIPTORS: *Propenes, Polymers, *Oxidation,
Stability, Molecular weight, Chemical reactions,
Processing, Production, Chemical industry.

Experimental results on the oxidation of polypropylene
between 120 and 150°C are given. A polypropylene
with a molecular weight of 400,000 and an ash content
of 0.5% was investigated. The degradation products
decrease the rate of oxidation. The overall activation
energy of oxidation between 120° and 150°C was
E = 29 kcal, the activation energy of acetaldehyde
(Engineering--Chemical, TT, v. 8, no. 2) (over)

62-14283

I. Ryshavy, D.
II. Balaban, L.

Office of Technical Services

Tsetlin, B. L., Medved, T. Ya. and others.
RADIATION POLYMERIZATION OF OXIDES OF
TERTIARY MONOVINYLPHOSPHINES. 15 Sep 61
[3]p. 3 refs.
Order from OTS or SLA \$1.10 62-10226

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, p. 1117-1118.

DESCRIPTORS: *Vinyl radicals, *Phosphine oxides,
*X-rays, *Polymerization, Thermal stresses, Sta-
bility, Plastics.

The polymerization of oxides of diethylvinylphosphine
(I) and diphenylvinylphosphine (II) was initiated by
the radiation method. The samples were irradiated
in the fused state in vacuum. For irradiation of I,
the dose strength was 4.5×10^{16} ev/ml sec, length of
(Materials--Plastics, TT, v. 7, no. 10) (over)

62-10226

I. Tsetlin, B. L.
II. Medved, T. Ya.

Office of Technical Services

62-12662

Shostakovskii, M. F., Kotrelev, V. N. and others.
SYNTHESIS AND REACTIONS OF TIN-CONTAINING
ESTERS OF ACRYLIC AND CINNAMIC ACIDS. Pt. 4
of Organotin Monomers and Polymers. [1961] 3p.
Order from ATS \$3.50 ATS-03N57R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 8, p. 1128-1130.

DESCRIPTORS: *Synthesis, *Chemical reactions,
*Esters, Acrylic acids, Styrenes, *Tin compounds,
*Cinnamic acids.

(Chemistry--Organic, TT, v. 7, no. 10)

- I. Shostakovskii, M. F.
- II. Kotrelev, V. N.
- III. Title: Organotin ...
- IV. ATS-03N57R
- V. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-RJ-3089

Office of Technical Services

62-12119

Shostakovskii, M. F., Kotrelev, V. N. and others.
STUDY OF THE FORMATION OF ORGANOTIN POLY-
MERS AS A FUNCTION OF THE POLYMERIZA-
TION CONDITIONS AND SOME PHYSICOCHEMICAL
PROPERTIES OF ORGANOTIN COPOLYMERS. Pt. 5
of the Synthesis and Transformation of Organotin
Monomers and Polymers. [1961] 4p.
Order from ATS \$6.00 ATS-88N56R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 8, p. 1131-1134.

DESCRIPTORS: *Tin, *Polymers, Metalorganic com-
pounds, Synthesis, Physical chemistry, Polymeriza-
tion, Copolymerization.

(Chemistry--Organic, TT, v. 7, no. 3)

- I. Shostakovskii, M. F.
- II. Kotrelev, V. N.
- III. Title: Synthesis ...
- IV. ATS-88N56R
- V. Associated Technical
Services, Inc., East
Orange, N. J.

ATS-RJ-3090

Office of Technical Services

62-18382

Firsov, A. P., Tsvetkov, V. I., and Chirkov, N. M.
KINETICS AND MECHANISM OF α -OLEFINS POLY-
MERIZATION BY COMPLEX CATALYSIS. II. POLY-
MERIZATION OF PROPYLENE IN THE PRESENCE
OF TITANIUM TRICHLORIDE WITH VARIOUS
ALKYLALUMINUM COMPOUNDS. [1962] 11p. 9 refs.
Order from OLS or SLA \$1.60 62-18382

- I. Firsov, A. P.
- II. Tsvetkov, V. I.
- III. Chirkov, N. M.
- IV. Title Polymerization ...

Trans. of Vysokomolekulyarnye Soed[ineniya] (USSR)
1961, v. 3 [no. 5] p. 1161-1169.

DESCRIPTORS: *Propenes, Polymerization, Reaction
Equilibrium, Catalysis, Complex Compounds, Chlorides, *Metalorganic compounds,
*Aluminum compounds.

The polymerization of propylene under the influence
of α -TiCl₃ and various AlR₃ compounds was investi-
gated. The aluminum compounds were Al(C₂H₅)₃.
(Chemistry-Physical, IT, v. 9, no. 5) (over)

Office of Technical Services

Kinetics and Mechanism of the Initial Stage
of Condensation Between Terephthalyl Chloride
and Ethylene Glycol. Part II. Temperature
Dependence of the Reaction Rate, by

S. G. Entelis.

RUSSIAN, per, Vysokomolekulyarnye Soedineniya,
Vol 3, No 8, 1961, pp 1170-1175.

NTC-70-13072-111

Feb 72

Studies in the Field of Co-ordination Chain
Polymers. V. Synthesis of Metal-Containing
Bis-(β -Ketones), by V. V. Korshak.

RUSSIAN, per, Vysokomolekulyarnyye
Soyedineniya, Vol III, No 8, 1961, pp 1203-1209.

NLL Ref: 5828.4 1962 (10092)
(Loan)

Sci -
Jul 63

238,378

Journal of Polymer Science: Polymer Chemistry Edition
NOBEL PRIZE POLYMER LETTERS AND
POLYMER LETTERS 1196-1197, 1217-1218, and 1219
1973
POLYMER LETTERS, LA 81, 1973 62-14422

62-14422

L. H. Tung
E. G. G. G. G. G.
H. M. G. G. G.

Journal of Polymer Science: Polymer Chemistry Edition
1196-1197, 1217-1218, and 1219

Descriptive: *Polymers, *Structure, *Phenols,
*Reaction, *Materials, *Initiation, *Properties,
*Formulation.

The diffusion coefficient of 2,6-di-tert-butyl-4-methyl
phenol (DBP) in polypropylene and polyformaldehyde
for various temperatures were determined. Within a
temperature range of 100-140°C the diffusion coefficient
of DBP in polypropylene is equal to $10^{-16} \text{ cm}^2/\text{sec}$,
and the activation energy of diffusion in polyformaldehyde
(at 80°C) is equal to $10 \pm 2 \text{ kcal./mole}$.
(Author)

Chemical Abstracts, 67,
1968, 100, 11
Office of Technical Services

Thermochemical Criteria of Plasticized
Drawing, by E. Z. Fainberg, N. V. Mikhailov. 6p
RUSSIAN, per, Vysokomolekulyarnye Soedineniya,
Vol 3, No 8, 1961, pp 1234-1237.
SIA TT-66-10657.

Sci-M&M
Jul 66

306,109

X-Ray Examination of Polyethylene Single Crystals
at Various Temperatures, by Li-Shan.

RUSSIAN, per, Vyskomolekulyarnye Soedineniya,
Vol III, No 8, 1961, pp 1238-1242

NLL M 8847

Sci - Chem
Mar 63

223,696

Levin, P. I., Lukovnikov, A. P. and others.
MANIFESTATION OF SYNERGISM IN MIXTURES OF
MERCAPTOBENZIMIDAZOLE WITH SOME INHIB-
ITORS. Pt. I of Mutual Intensification (Synergism) of
Antioxidant Activity. [1961] 5p.
Order from ATS \$7.50 ATS-71N57R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 8, p. 1243-1246.

DESCRIPTORS: *Thiols, *Benzimidazoles, Inhibition,
Pharmacology, *Antioxidants.

(Biological Sciences--Pharmacology, TT, v. 7, no. 10)

62-12660

- I. Title: Synergistic action
- I. Levin, P. I.
- II. Lukovnikov, A. P.
- III. Title: Mutual ...
- IV. ATS-71N57R
- V. Associated Technical
Services, Inc., East
Orange, N. J.

Office of Technical Services

Theory of Polyelectrolyte Solutions. Part II.
Macromolecules of Polyelectrolytes in Salt
Solutions, by O. B. Ptitsyn
RUSSIAN, per, Vysokomolekulyarnye Soedineniya,
Vol 3, 1961, pp 1251-1259
NTC 71-16824-07D

Feb 72

62-17154

Bykov, A. N.
SYNTHESIS AND INVESTIGATION OF SOME COL-
ORED POLYAMIDES. [1962] 4p.
Order from ATS \$7.10

ATS-13P59R

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 9, p. 1307-1310.

DESCRIPTORS: *Amides. Polymers, Synthesis, Colors

- I. Bykov, A. N.
- II. ATS-13P59R
- III. Associated Technical Services, Inc., East Orange, N. J.

ATS-RS-3606

Nov. 11 1964

(Chemistry--Organic, TT, v. 8, no. 2)

Office of Technical Services

62-17155

Bogdanov, M. N., Kudryavtsev, G. I. and others.
SYNTHESIS OF SOME POLYAMIDES DERIVED FROM
 ω -AMINOCARBOXYLIC ACIDS CONTAINING BEN-
ZENE AND CYCLOHEXANE RINGS IN THE METH-
YLENE CHAINS. [1962] 8p.
Order from ATS \$13.25 ATS-14P59R

I. Bogdanov, M. N.
II. Kudryavtsev, G. I.
III. ATS-14P59R
IV. Associated Technical
Services, Inc., East
Orange, N. J.

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 9, p. 1326-1331.

DESCRIPTORS: *Amides, Polymers, Synthesis,
*Amino acids, *Carboxylic acids, *Benzenes, *Cyclo-
hexanes, *Methanes, Chemical reactions.

(Chemistry--Organic, TT, v. 8, no. 1)

Office of Technical Services

Polymerization of Methylmethacrylate in a
Strong Direct Electric Field, by M. M.
Khaletskiy, B. I. Sukhorukov.

RUSSIAN, per, Vysokomolekuliarnye Soedineniya,
Vol III, 1961, pp 1347-1351. 9205022

ARC-UCHI-Tr-906(L)

Sci - Phys

227,043

Apr 63

62-12962

Moiseev, V. D. and Neiman, M. B.
MOLECULAR WEIGHT, NUMBER OF DOUBLE
BONDS AND THE MECHANISM OF THERMAL DEGRADATION OF VINYL POLYMERS. [1962] 9p.

3 refs.

Order from CTS(Chem) \$9.00 CTS(Chem)-261
subsequent copies \$1.50

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 9, p. 1384-1388.

DESCRIPTORS: *Polymers, *Vinyl radicals, Molecular weight, Chemical bonds, Deterioration, Temperature, Molecules, Atoms, Molecular isomerism

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

- I. Moiseev, V. D.
- II. Neiman, M. B.
- III. CTS(Chem)-261
- IV. Chemical Translation Service, Palo Alto, Calif.

ATL-1011
ATS-95-3597

Office of Technical Services

Theory of Polyelectrolyte Solutions.
Part III. Effect of Non-Uniform Dis-
tribution of Charges Along the Chain
on the Dimensions and Form of Macro-
molecules, by O. B. Ptitsyn.

RUSSIAN, per, Vysokomolekulyarnye
Soedineniya, Vol 3, No 9, 1961,
pp 1401-1405. 4pp.

NTC 72-10811-07D

CONFIDENTIAL

Apr 72

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Meklakov, A. L., Pimenov, G. G., and
Sagitov, R. Ya.

INVESTIGATION OF POLYMERS SUBJECTED TO
UNIAXIAL STRETCHING AT HIGH DEFORMATION
RATES, [1962] 6p.

Order from ATS \$9.25

ATS-73P62R

Trans. of Vysokomolekul[yarnye] Soedineniya (USSR)
1961, v. 3, no. 9, p. 1410-1414.

DESCRIPTORS: *Polymers, Tensile properties,
*Deformation, Plastic flow, Viscosity.

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

62-34270

- I. Meklakov, A. L.
- II. Pimenov, G. G.
- III. Sagitov, R. Ya.
- IV. ATS-73P62R
- V. Associated Technical
Services, Inc.,
East Orange, N. J.

ATS-73-3594

Office of Technical Services

<p>Kitagorodskii, A. I., Tsvankin, D. Ya., and Petrov, Yu. M. LONG PERIODS IN ENANT FIBERS. [Russian] Order from ATS \$2.50 ATS-16P59R</p> <p>• Trans. of Vysokomolekulyarnye Soednemya (USSR) 1961, v. 3, no. 9, p. 1426.</p> <p>DESCRIPTORS: *Synthetic fibers, *Amines, *Enanthic acid, Polymers, Preparation, Condensation reactions.</p> <p><i>Acid...</i></p> <p>(Materials--Textiles, II, v. 3, no. 10)</p>	<p>62-17157</p> <p>I. Title: Enanth fibers II. Kitagorodskii, A. I. III. Tsvankin, D. Ya. IV. Petrov, Yu. M. V. ATS-16P59R VI. Associated Technical Services, Inc. East Orange, N. J.</p> <p>Office of Technical Services</p>
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63-17527-6

POLYMER SCIENCE USSR, 1962, VOL. 3, NO. 6,
P. 987-1166. May 63, 17
Order from PP \$100.00/year

I. Pergamon Press, Inc.,
New York

Trans. of Vysokomolekulyarnye Soedineniya (USSR)
1961, v. 3, no. 10, p. 1446-1448, 1482-1494,
1511-1523, 1549-1560, 1591-1606; no. 11,
p. 1655-1660, 1669-1683, 1692-1697, 1716-1738,
1746-1754; no. 12, p. 1769-1773, 1794-1799,
1816-1822, 1857-1862, 1874-1875. Abstracts are in-
cluded of selected articles from v. 4, nos. 7-8.
Another trans. of p. 1482-1490 is available from OTS
or SLA \$1.10 as 63-18414 [1963] 10p.

DESCRIPTORS: *Polymers, Chemistry, *Plastics,
*Polyethylene plastics, *Ziegler catalysts, *Isoprene,
*Styrene plastics, *Triazines, *Halocarbon plastics,
*Fluorocarbons, Catalysts, *Polyvinyl chloride,
*Silicones, *Metalorganic compounds, Aluminum com-
(Chemistry--Organic, TT, v. 10, no. 10) (Over)

Office of Technical Services

63-18414

Korotkov, A. A. and Rakova, G. V.
COPOLYMERIZATION OF ISOPRENE WITH STYRENE
THROUGH BUTYLLITHIUM. [1963] 10p. 11 refs.
Order from OTS or SLA \$1.10 63-18414

I. Title: Butyllithium
I. Korotkov, A. A.
II. Rakova, G. V.

Trans. of Vysokomolekulyarnye Soed[ineniya] (USSR)
1961, v. 3 [no. 10] p. 1452-1490.

DESCRIPTORS: *Isoprene, *Styrenes, *Butyl radicals,
*Lithium compounds, Copolymerization, Reaction
kinetics, Catalysts.

The copolymerization of isoprene and styrene under
the influence of butyllithium in benzene at 30 C was
investigated (catalyst concentration 0.004 Mole/l,
over-all monomer concentration 2 Mole/l). The com-
position of the copolymer as function of the initial
monomer mixture obeys Wall's equation: $\lg A/A_0 =$
 $\Delta \lg B/B_0$. The monomer reactivity constants are $\alpha =$
(Materials--Plastics, TT, v. 10, no. 8) (over)

Office of Technical Services

Aromatic Polyzazines, by A. A. Berlin, B. I.
Izdogon'kiy, et al.

RUSSIAN, per, Vysokomolekul'arnye Soedineniya,
Vol III, No 10, 1961, pp 1491-1494. 9204995

ARC-SCL-Tr-454

Sci - Chem

226,852

Apr 63

Polymerization Kinetics of Hydrocarbons With
Conjugated Bonds, II. Polymerization of
Phenylacetylene and the Paramagnetic Proper-
ties of the Polymers, by P. S. Shantarovich,
I. A. Shlaputkova, 11 pp.

RUSSIAN, par, Vysokomolekulyarnye Soedeniya
Vol III, No 10, 1961, pp 1495-1499.
~~9061960~~ 9061960

AEC SCL-T-435

Sci - Phys
Oct 62

212, 686

Studies in the Field of Coordination Chain Polymers
VII. Coordination Polymers Based on Quinizarin and

4,4'-Bis-(Acetoacetyl)-Diphenyl Ether, by
V. V. Korshak, S. V. Vinogradova, et al, 12 pp.
RUSSIAN, per, Vysokoye Soyedin, Vol III, No 10,
1961, pp 1500-1508. 9692616
RSIC-168

Sci-Chem
June 64

260,665

Reactions of Granular Copolymers of Vinyltoluene
with Divinylbenzene and Other Cross-linking
Agents, by A. B. Davankov, O. A. Vital.
RUSSIAN, per, Vysok Soed, Vol 3, 1961,
pp 1566-1571.
NTC-69-16362-111

Sci-Materials
Feb 70

402,940