

## Author Index Volumes 1-57

- Allegra, G. and Bassi, I. W.*: Isomorphism in Synthetic Macromolecular Systems. Vol. 6, pp. 549-574.
- Andrews, E. H.*: Molecular Fracture in Polymers. Vol. 27, pp. 1-66.
- Anufrieva, E. V. and Gotlib, Yu. Ya.*: Investigation of Polymers in Solution by Polarized Luminescence. Vol. 40, pp. 1-68.
- Argon, A. S., Cohen, R. E., Gebizlioglu, O. S. and Schwiier, C.*: Cracking in Block Copolymers and Blends. Vol. 52/53, pp. 275-334
- Arridge, R. C. and Barham, P. J.*: Polymer Elasticity. Discrete and Continuum Models. Vol. 46, pp. 67-117.
- Ayrey, G.*: The Use of Isotopes in Polymer Analysis. Vol. 6, pp. 128-148.
- Baldwin, R. L.*: Sedimentation of High Polymers. Vol. 1, pp. 451-511.
- Basedow, A. M. and Ebert, K.*: Ultrasonic Degradation of Polymers in Solution. Vol. 22, pp. 83-148.
- Batz, H.-G.*: Polymeric Drugs. Vol. 23, pp. 25-53.
- Bekturov, E. A. and Bimendina, L. A.*: Interpolymer Complexes. Vol. 41, pp. 99-147.
- Bergsma, F. and Kruissink, Ch. A.*: Ion-Exchange Membranes. Vol. 2, pp. 307-362.
- Berlin, Al. Al., Volfson, S. A., and Enikolopian, N. S.*: Kinetics of Polymerization Processes. Vol. 38, pp. 89-140.
- Berry, G. C. and Fox, T. G.*: The Viscosity of Polymers and Their Concentrated Solutions. Vol. 5, pp. 261-357.
- Bevington, J. C.*: Isotopic Methods in Polymer Chemistry. Vol. 2, pp. 1-17.
- Bhuiyan, A. L.*: Some Problems Encountered with Degradation Mechanisms of Addition Polymers. Vol. 47, pp. 1-65.
- Bird, R. B., Warner, Jr., H. R., and Evans, D. C.*: Kinetik Theory and Rheology of Dumbbell Suspensions with Brownian Motion. Vol. 8, pp. 1-90.
- Biswas, M. and Maity, C.*: Molecular Sieves as Polymerization Catalysts. Vol. 31, pp. 47-88.
- Block, H.*: The Nature and Application of Electrical Phenomena in Polymers. Vol. 33, pp. 93-167.
- Böhm, L. L., Chmelir, M., Löhr, G., Schmitt, B. J. and Schulz, G. V.*: Zustände und Reaktionen des Carbanions bei der anionischen Polymerisation des Styrols. Vol. 9, pp. 1-45.
- Bovey, F. A. and Tiers, G. V. D.*: The High Resolution Nuclear Magnetic Resonance Spectroscopy of Polymers. Vol. 3, pp. 139-195.
- Braun, J.-M. and Guillet, J. E.*: Study of Polymers by Inverse Gas Chromatography. Vol. 21, pp. 107-145.
- Breitenbach, J. W., Olaj, O. F. und Sommer, F.*: Polymerisationsanregung durch Elektrolyse. Vol. 9, pp. 47-227.
- Bresler, S. E. and Kazbekov, E. N.*: Macroradical Reactivity Studied by Electron Spin Resonance. Vol. 3, pp. 688-711.
- Bucknall, C. B.*: Fracture and Failure of Multiphase Polymers and Polymer Composites. Vol. 27, pp. 121-148.
- Burchard, W.*: Static and Dynamic Light Scattering from Branched Polymers and Biopolymers. Vol. 48, pp. 1-124.
- Bywater, S.*: Polymerization Initiated by Lithium and Its Compounds. Vol. 4, pp. 66-110.
- Bywater, S.*: Preparation and Properties of Star-branched Polymers. Vol. 30, pp. 89-116.

- Candau, S., Bastide, J. and Delsanti, M.*: Structural. Elastic and Dynamic Properties of Swollen Polymer Networks. Vol. 44, pp. 27-72.
- Carrick, W. L.*: The Mechanism of Olefin Polymerization by Ziegler-Natta Catalysts. Vol. 12, pp. 65-86.
- Casale, A. and Porter, R. S.*: Mechanical Synthesis of Block and Graft Copolymers. Vol. 17, pp. 1-71.
- Cerf, R.*: La dynamique des solutions de macromolecules dans un champ de vitesses. Vol. 1, pp. 382-450.
- Cesca, S., Priola, A. and Bruzzone, M.*: Synthesis and Modification of Polymers Containing a System of Conjugated Double Bonds. Vol. 32, pp. 1-67.
- Cicchetti, O.*: Mechanisms of Oxidative Photodegradation and of UV Stabilization of Polyolefins. Vol. 7, pp. 70-112.
- Clark, D. T.*: ESCA Applied to Polymers. Vol. 24, pp. 125-188.
- Coleman, Jr., L. E. and Meinhardt, N. A.*: Polymerization Reactions of Vinyl Ketones. Vol. 1, pp. 159-179.
- Comper, W. D. and Preston, B. N.*: Rapid Polymer Transport in Concentrated Solutions. Vol. 55, pp. 105-152.
- Crescenzi, V.*: Some Recent Studies of Polyelectrolyte Solutions. Vol. 5, pp. 358-386.
- Davydov, B. E. and Krentsel, B. A.*: Progress in the Chemistry of Polyconjugated Systems. Vol. 25, pp. 1-46.
- Dettenmaier, M.*: Intrinsic Crazes in Polycarbonate Phenomenology and Molecular Interpretation of a New Phenomenon. Vol. 52/53, pp. 57-104
- Döll, W.*: Optical Interference Measurements and Fracture Mechanics Analysis of Crack Tip Craze Zones. Vol. 52/53, pp. 105-168
- Dole, M.*: Calorimetric Studies of States and Transitions in Solid High Polymers. Vol. 2, pp. 221-274.
- Dreyfuss, P. and Dreyfuss, M. P.*: Polytetrahydrofuran. Vol. 4, pp. 528-590.
- Drobnik, J. and Rypáček, F.*: Soluble Synthetic Polymers in Biological Systems. Vol. 57, pp. 1-50.
- Dušek, K. and Prins, W.*: Structure and Elasticity of Non-Crystalline Polymer Networks. Vol. 6, pp. 1-102.
- Duncan, R. and Kopeček, J.*: Soluble Synthetic Polymers as Potential Drug Carriers. Vol. 57, pp. 51-101.
- Eastham, A. M.*: Some Aspects of the Polymerization of Cyclic Ethers. Vol. 2, pp. 18-50.
- Ehrlich, P. and Mortimer, G. A.*: Fundamentals of the Free-Radical Polymerization of Ethylene. Vol. 7, pp. 386-448.
- Eisenberg, A.*: Ionic Forces in Polymers. Vol. 5, pp. 59-112.
- Elias, H.-G., Bareiss, R. and Watterson, J. G.*: Mittelwerte des Molekulargewichts und anderer Eigenschaften. Vol. 11, pp. 111-204.
- Elyashevich, G. K.*: Thermodynamics and Kinetics of Orientational Crystallization of Flexible-Chain Polymers. Vol. 43, pp. 207-246.
- Fischer, H.*: Freie Radikale während der Polymerisation, nachgewiesen und identifiziert durch Elektronenspinresonanz. Vol. 5, pp. 463-530.
- Ford, W. T. and Tomoi, M.*: Polymer-Supported Phase Transfer Catalysts Reaction Mechanisms. Vol. 55, pp. 49-104.
- Fradet, A. and Maréchal, E.*: Kinetics and Mechanisms of Polyesterifications. I. Reactions of Diols with Diacids. Vol. 43, pp. 51-144.
- Friedrich, K.*: Crazes and Shear Bands in Semi-Crystalline Thermoplastics. Vol. 52/53, pp. 225-274
- Fujita, H.*: Diffusion in Polymer-Diluent Systems. Vol. 3, pp. 1-47.
- Funke, W.*: Über die Strukturklärung vernetzter Makromoleküle, insbesondere vernetzter Polyesterharze, mit chemischen Methoden. Vol. 4, pp. 157-235.
- Galbraikh, L. S. and Rogovin, Z. A.*: Chemical Transformations of Cellulose. Vol. 14, pp. 87-130.
- Gallot, B. R. M.*: Preparation and Study of Block Copolymers with Ordered Structures, Vol. 29, pp. 85-156.
- Gandini, A.*: The Behaviour of Furan Derivatives in Polymerization Reactions. Vol. 25, pp. 47-96.

- Gandini, A. and Cheradame, H.*: Cationic Polymerization. Initiation with Alkenyl Monomers. Vol. 34/35, pp. 1-289.
- Geckeler, K., Pillai, V. N. R., and Mutter, M.*: Applications of Soluble Polymeric Supports. Vol. 39, pp. 65-94.
- Gerrens, H.*: Kinetik der Emulsionspolymerisation. Vol. 1, pp. 234-328.
- Ghiggino, K. P., Roberts, A. J. and Phillips, D.*: Time-Resolved Fluorescence Techniques in Polymer and Biopolymer Studies. Vol. 40, pp. 69-167.
- Goethals, E. J.*: The Formation of Cyclic Oligomers in the Cationic Polymerization of Heterocycles. Vol. 23, pp. 103-130.
- Graessley, W. W.*: The Entanglement Concept in Polymer Rheology. Vol. 16, pp. 1-179.
- Graessley, W. W.*: Entangled Linear, Branched and Network Polymer Systems. Molecular Theories. Vol. 47, pp. 67-117.
- Hagihara, N., Sonogashira, K. and Takahashi, S.*: Linear Polymers Containing Transition Metals in the Main Chain. Vol. 41, pp. 149-179.
- Hasegawa, M.*: Four-Center Photopolymerization in the Crystalline State. Vol. 42, pp. 1-49.
- Hay, A. S.*: Aromatic Polyethers. Vol. 4, pp. 496-527.
- Hayakawa, R. and Wada, Y.*: Piezoelectricity and Related Properties of Polymer Films. Vol. 11, pp. 1-55.
- Heidemann, E. and Roth, W.*: Synthesis and Investigation of Collagen Model Peptides. Vol. 43, pp. 145-205.
- Heitz, W.*: Polymeric Reagents. Polymer Design, Scope, and Limitations. Vol. 23, pp. 1-23.
- Helfferrich, F.*: Ionenaustausch. Vol. 1, pp. 329-381.
- Hendra, P. J.*: Laser-Raman Spectra of Polymers. Vol. 6, pp. 151-169.
- Henrici-Olivé, G. und Olivé, S.*: Kettenübertragung bei der radikalischen Polymerisation. Vol. 2, pp. 496-577.
- Henrici-Olivé, G. und Olivé, S.*: Koordinative Polymerisation an löslichen Übergangsmetall-Katalysatoren. Vol. 6, pp. 421-472.
- Henrici-Olivé, G. und Olivé, S.*: Oligomerization of Ethylene with Soluble Transition-Metal Catalysts. Vol. 15, pp. 1-30.
- Henrici-Olivé, G. und Olivé, S.*: Molecular Interactions and Macroscopic Properties of Polyacrylonitrile and Model Substances. Vol. 32, pp. 123-152.
- Henrici-Olivé, G. und Olivé, S.*: The Chemistry of Carbon Fiber Formation from Polyacrylonitrile. Vol. 51, pp. 1-60.
- Hermans, Jr., J., Lohr, D. and Ferro, D.*: Treatment of the Folding and Unfolding of Protein Molecules in Solution According to a Lattice Model. Vol. 9, pp. 229-283.
- Hoffman, A. S.*: Ionizing Radiation and Gas Plasma (or Glow) Discharge Treatments for Preparation of Novel Polymeric Biomaterials. Vol. 57, pp. 141-157.
- Holzmüller, W.*: Molecular Mobility, Deformation and Relaxation Processes in Polymers. Vol. 26, pp. 1-62.
- Hutchison, J. and Ledwith, A.*: Photoinitiation of Vinyl Polymerization by Aromatic Carbonyl Compounds. Vol. 14, pp. 49-86.
- Iizuka, E.*: Properties of Liquid Crystals of Polypeptides: with Stress on the Electromagnetic Orientation. Vol. 20, pp. 79-107.
- Ikada, Y.*: Characterization of Graft Copolymers. Vol. 29, pp. 47-84.
- Ikada, Y.*: Blood-Compatible Polymers. Vol. 57, pp. 103-140.
- Imanishi, Y.*: Synthese, Conformation, and Reactions of Cyclic Peptides. Vol. 20, pp. 1-77.
- Inagaki, H.*: Polymer Separation and Characterization by Thin-Layer Chromatography. Vol. 24, pp. 189-237.
- Inoue, S.*: Asymmetric Reactions of Synthetic Polypeptides. Vol. 21, pp. 77-106.
- Ise, N.*: Polymerizations under an Electric Field. Vol. 6, pp. 347-376.
- Ise, N.*: The Mean Activity Coefficient of Polyelectrolytes in Aqueous Solutions and Its Related Properties. Vol. 7, pp. 536-593.
- Ishihara, A.*: Intramolecular Statistics of a Flexible Chain Molecule. Vol. 7, pp. 449-476.
- Ishihara, A.*: Irreversible Processes in Solutions of Chain Polymers. Vol. 5, pp. 531-567.
- Ishihara, A. and Guth, E.*: Theory of Dilute Macromolecular Solutions. Vol. 5, pp. 233-260.

- Janeschitz-Kriegl, H.*: Flow Birefringence of Elastico-Viscous Polymer Systems. Vol. 6, pp. 170-318.
- Jenkins, R. and Porter, R. S.*: Uptubed Dimensions of Stereoregular Polymers. Vol. 36, pp. 1-20.
- Jennings, B. R.*: Electro-Optic Methods for Characterizing Macromolecules in Dilute Solution. Vol. 22, pp. 61-81.
- Johnston, D. S.*: Macrozwitterion Polymerization. Vol. 42, pp. 51-106.
- Kamachi, M.*: Influence of Solvent on Free Radical Polymerization of Vinyl Compounds. Vol. 38, pp. 55-87.
- Kaneko, M. and Yamada, A.*: Solar Energy Conversion by Functional Polymers. Vol. 55, pp. 1-48.
- Kawabata, S. and Kawai, H.*: Strain Energy Density Functions of Rubber Vulcanizates from Biaxial Extension. Vol. 24, pp. 89-124.
- Kennedy, J. P. and Chou, T.*: Poly(isobutylene-co- $\beta$ -Pinene): A New Sulfur Vulcanizable, Ozone Resistant Elastomer by Cationic Isomerization Copolymerization. Vol. 21, pp. 1-39.
- Kennedy, J. P. and Delvaux, J. M.*: Synthesis, Characterization and Morphology of Poly(butadiene-g-Styrene). Vol. 38, pp. 141-163.
- Kennedy, J. P. and Gillham, J. K.*: Cationic Polymerization of Olefins with Alkylaluminium Initiators. Vol. 10, pp. 1-33.
- Kennedy, J. P. and Johnston, J. E.*: The Cationic Isomerization Polymerization of 3-Methyl-1-butene and 4-Methyl-1-pentene. Vol. 19, pp. 57-95.
- Kennedy, J. P. and Langer, Jr., A. W.*: Recent Advances in Cationic Polymerization. Vol. 3, pp. 508-580.
- Kennedy, J. P. and Otsu, T.*: Polymerization with Isomerization of Monomer Preceding Propagation. Vol. 7, pp. 369-385.
- Kennedy, J. P. and Rengachary, S.*: Correlation Between Cationic Model and Polymerization Reactions of Olefins. Vol. 14, pp. 1-48.
- Kennedy, J. P. and Trivedi, P. D.*: Cationic Olefin Polymerization Using Alkyl Halide — Alkylaluminium Initiator Systems. I. Reactivity Studies. II. Molecular Weight Studies. Vol. 28, pp. 83-151.
- Kennedy, J. P., Chang, V. S. C. and Guyot, A.*: Carbocationic Synthesis and Characterization of Polyolefins with Si-H and Si-Cl Head Groups. Vol. 43, pp. 1-50.
- Khoklov, A. R. and Grosberg, A. Yu.*: Statistical Theory of Polymeric Lyotropic Liquid Crystals. Vol. 41, pp. 53-97.
- Kissin, Yu. V.*: Structures of Copolymers of High Olefins. Vol. 15, pp. 91-155.
- Kitagawa, T. and Miyazawa, T.*: Neutron Scattering and Normal Vibrations of Polymers. Vol. 9, pp. 335-414.
- Kitamaru, R. and Horii, F.*: NMR Approach to the Phase Structure of Linear Polyethylene. Vol. 26, pp. 139-180.
- Knappe, W.*: Wärmeleitung in Polymeren. Vol. 7, pp. 477-535.
- Koenig, J. L.*: Fourier Transforms Infrared Spectroscopy of Polymers, Vol. 54, pp. 87-154.
- Kolařík, J.*: Secondary Relaxations in Glassy Polymers: Hydrophilic Polymethacrylates and Polyacrylates: Vol. 46, pp. 119-161.
- Koningsveld, R.*: Preparative and Analytical Aspects of Polymer Fractionation. Vol. 7.
- Kovacs, A. J.*: Transition vitreuse dans les polymères amorphes. Etude phénoménologique. Vol. 3, pp. 394-507.
- Krässig, H. A.*: Graft Co-Polymerization of Cellulose and Its Derivatives. Vol. 4, pp. 111-156.
- Kramer, E. J.*: Microscopic and Molecular Fundamentals of Crazing. Vol. 52/53, pp. 1-56
- Kraus, G.*: Reinforcement of Elastomers by Carbon Black. Vol. 8, pp. 155-237.
- Kreutz, W. and Welte, W.*: A General Theory for the Evaluation of X-Ray Diagrams of Biomembranes and Other Lamellar Systems. Vol. 30, pp. 161-225.
- Krimm, S.*: Infrared Spectra of High Polymers. Vol. 2, pp. 51-72.
- Kuhn, W., Ramel, A., Walters, D. H., Ebner, G. and Kuhn, H. J.*: The Production of Mechanical Energy from Different Forms of Chemical Energy with Homogeneous and Cross-Striated High Polymer Systems. Vol. 1, pp. 540-592.
- Kunitake, T. and Okahata, Y.*: Catalytic Hydrolysis by Synthetic Polymers. Vol. 20, pp. 159-221.
- Kurata, M. and Stockmayer, W. H.*: Intrinsic Viscosities and Unperturbed Dimensions of Long Chain Molecules. Vol. 3, pp. 196-312.

- Ledwith, A. and Sherrington, D. C.*: Stable Organic Cation Salts: Ion Pair Equilibria and Use in Cationic Polymerization. Vol. 19, pp. 1-56.
- Lee, C.-D. S. and Daly, W. H.*: Mercaptan-Containing Polymers. Vol. 15, pp. 61-90.
- Lipatov, Y. S.*: Relaxation and Viscoelastic Properties of Heterogeneous Polymeric Compositions. Vol. 22, pp. 1-59.
- Lipatov, Y. S.*: The Iso-Free-Volume State and Glass Transitions in Amorphous Polymers: New Development of the Theory. Vol. 26, pp. 63-104.
- Lustoň, J. and Vašš, F.*: Anionic Copolymerization of Cyclic Ethers with Cyclic Anhydrides. Vol. 56, pp. 91-133.
- Mano, E. B. and Coutinho, F. M. B.*: Grafting on Polyamides. Vol. 19, pp. 97-116.
- Mark, J. E.*: The Use of Model Polymer Networks to Elucidate Molecular Aspects of Rubberlike Elasticity. Vol. 44, pp. 1-26.
- Meerwall v., E., D.*: Self-Diffusion in Polymer Systems, Measured with Field-Gradient Spin Echo NMR Methods, Vol. 54, pp. 1-29.
- Mengoli, G.*: Feasibility of Polymer Film Coating Through Electroinitiated Polymerization in Aqueous Medium. Vol. 33, pp. 1-31.
- Meyerhoff, G.*: Die viscosimetrische Molekulargewichtsbestimmung von Polymeren. Vol. 3, pp. 59-105.
- Millich, F.*: Rigid Rods and the Characterization of Polyisocyanides. Vol. 19, pp. 117-141.
- Morawetz, H.*: Specific Ion Binding by Polyelectrolytes. Vol. 1, pp. 1-34.
- Morin, B. P., Breusova, I. P. and Rogovin, Z. A.*: Structural and Chemical Modifications of Cellulose by Graft Copolymerization. Vol. 42, pp. 139-166.
- Mulvaney, J. E., Oversberger, C. C. and Schiller, A. M.*: Anionic Polymerization. Vol. 3, pp. 106-138.
- Neuse, E.*: Aromatic Polybenzimidazoles. Syntheses, Properties, and Applications. Vol. 47, pp. 1-42.
- Okubo, T. and Ise, N.*: Synthetic Polyelectrolytes as Models of Nucleic Acids and Esterases. Vol. 25, pp. 135-181.
- Osaki, K.*: Viscoelastic Properties of Dilute Polymer Solutions. Vol. 12, pp. 1-64.
- Oster, G. and Nishijima, Y.*: Fluorescence Methods in Polymer Science. Vol. 3, pp. 313-331.
- Overberger, C. G. and Moore, J. A.*: Ladder Polymers. Vol. 7, pp. 113-150.
- Patat, F., Killmann, E. und Schiebener, C.*: Die Absorption von Makromolekülen aus Lösung. Vol. 3, pp. 332-393.
- Patterson, G. D.*: Photon Correlation Spectroscopy of Bulk Polymers. Vol. 48, pp. 125-159.
- Penczek, S., Kubisa, P. and Matyjaszewski, K.*: Cationic Ring-Opening Polymerization of Heterocyclic Monomers. Vol. 37, pp. 1-149.
- Peticolas, W. L.*: Inelastic Laser Light Scattering from Biological and Synthetic Polymers. Vol. 9, pp. 285-333.
- Pino, P.*: Optically Active Addition Polymers. Vol. 4, pp. 393-456.
- Pitha, J.*: Physiological Activities of Synthetic Analogs of Polynucleotides. Vol. 50, pp. 1-16.
- Plate, N. A. and Noah, O. V.*: A Theoretical Consideration of the Kinetics and Statistics of Reactions of Functional Groups of Macromolecules. Vol. 31, pp. 133-173.
- Plesch, P. H.*: The Propagation Rate-Constants in Cationic Polymerisations. Vol. 8, pp. 137-154.
- Porod, G.*: Anwendung und Ergebnisse der Röntgenkleinwinkelstreuung in festen Hochpolymeren. Vol. 2, pp. 363-400.
- Pospíšil, J.*: Transformations of Phenolic Antioxidants and the Role of Their Products in the Long-Term Properties of Polyolefins. Vol. 36, pp. 69-133.
- Postelnek, W., Coleman, L. E., and Lovelace, A. M.*: Fluorine-Containing Polymers. I. Fluorinated Vinyl Polymers with Functional Groups, Condensation Polymers, and Styrene Polymers. Vol. 1, pp. 75-113.
- Rempp, P., Herz, J., and Borchard, W.*: Model Networks. Vol. 26, pp. 107-137.
- Rigbi, Z.*: Reinforcement of Rubber by Carbon Black. Vol. 36, pp. 21-68.
- Rogovin, Z. A. and Gabrielyan, G. A.*: Chemical Modifications of Fibre Forming Polymers and Copolymers of Acrylonitrile. Vol. 25, pp. 97-134.

- Roha, M.*: Ionic Factors in Steric Control. Vol. 4, pp. 353-392.  
*Roha, M.*: The Chemistry of Coordinate Polymerization of Dienes. Vol. 1, pp. 512-539.
- Safford, G. J. and Naumann, A. W.*: Low Frequency Motions in Polymers as Measured by Neutron Inelastic Scattering. Vol. 5, pp. 1-27.  
*Sauer, J. A. and Chen, C. C.*: Crazing and Fatigue Behavior in One and Two Phase Glassy Polymers. Vol. 52/53, pp. 169-224  
*Schuerch, C.*: The Chemical Synthesis and Properties of Polysaccharides of Biomedical Interest. Vol. 10, pp. 173-194.  
*Schulz, R. C. und Kaiser, E.*: Synthese und Eigenschaften von optisch aktiven Polymeren. Vol. 4, pp. 236-315.  
*Seanor, D. A.*: Charge Transfer in Polymers. Vol. 4, pp. 317-352.  
*Semerak, S. N. and Frank, C. W.*: Photophysics of Excimer Formation in Aryl Vinyl Polymers, Vol. 54, pp. 31-85.  
*Seidl, J., Malinský, J., Dušek, K. und Heitz, W.*: Makroporöse Styrol-Divinylbenzol-Copolymere und ihre Verwendung in der Chromatographie und zur Darstellung von Ionenaustauschern. Vol. 5, pp. 113-213.  
*Semjonow, V.*: Schmelzviskositäten hochpolymerer Stoffe. Vol. 5, pp. 387-450.  
*Semlyen, J. A.*: Ring-Chain Equilibria and the Conformations of Polymer Chains. Vol. 21, pp. 41-75.  
*Sharkey, W. H.*: Polymerizations Through the Carbon-Sulphur Double Bond. Vol. 17, pp. 73-103.  
*Shimidzu, T.*: Cooperative Actions in the Nucleophile-Containing Polymers. Vol. 23, pp. 55-102.  
*Shutov, F. A.*: Foamed Polymers Based on Reactive Oligomers, Vol. 39, pp. 1-64.  
*Shutov, F. A.*: Foamed Polymers. Cellular Structure and Properties. Vol. 51, pp. 155-218.  
*Silvestri, G., Gambino, S., and Filardo, G.*: Electrochemical Production of Initiators for Polymerization Processes. Vol. 38, pp. 27-54.  
*Slichter, W. P.*: The Study of High Polymers by Nuclear Magnetic Resonance. Vol. 1, pp. 35-74.  
*Small, P. A.*: Long-Chain Branching in Polymers. Vol. 18.  
*Smets, G.*: Block and Graft Copolymers. Vol. 2, pp. 173-220.  
*Smets, G.*: Photochromic Phenomena in the Solid Phase. Vol. 50, pp. 17-44.  
*Sohma, J. and Sakaguchi, M.*: ESR Studies on Polymer Radicals Produced by Mechanical Destruction and Their Reactivity. Vol. 20, pp. 109-158.  
*Sotobayashi, H. und Springer, J.*: Oligomere in verdünnten Lösungen. Vol. 6, pp. 473-548.  
*Sperati, C. A. and Starkweather, Jr., H. W.*: Fluorine-Containing Polymers. II. Polytetrafluoroethylene. Vol. 2, pp. 465-495.  
*Sprung, M. M.*: Recent Progress in Silicone Chemistry. I. Hydrolysis of Reactive Silane Intermediates, Vol. 2, pp. 442-464.  
*Stahl, E. and Brüderle, V.*: Polymer Analysis by Thermofractography. Vol. 30, pp. 1-88.  
*Stannett, V. T., Koros, W. J., Paul, D. R., Lonsdale, H. K., and Baker, R. W.*: Recent Advances in Membrane Science and Technology. Vol. 32, pp. 69-121.  
*Staverman, A. J.*: Properties of Phantom Networks and Real Networks. Vol. 44, pp. 73-102.  
*Stauffer, D., Coniglio, A. and Adam, M.*: Gelation and Critical Phenomena. Vol. 44, pp. 103-158.  
*Stille, J. K.*: Diels-Alder Polymerization. Vol. 3, pp. 48-58.  
*Stolka, M. and Pai, D.*: Polymers with Photoconductive Properties. Vol. 29, pp. 1-45.  
*Subramanian, R. V.*: Electroinitiated Polymerization on Electrodes. Vol. 33, pp. 35-58.  
*Sunitomo, H. and Okada, M.*: Ring-Opening Polymerization of Bicyclic Acetals, Oxalactone, and Oxalactam. Vol. 28, pp. 47-82.  
*Szegö, L.*: Modified Polyethylene Terephthalate Fibers. Vol. 31, pp. 89-131.  
*Szwarc, M.*: Termination of Anionic Polymerization. Vol. 2, pp. 275-306.  
*Szwarc, M.*: The Kinetics and Mechanism of N-carboxy- $\alpha$ -amino-acid Anhydride (NCA) Polymerization to Poly-amino Acids. Vol. 4, pp. 1-65.  
*Szwarc, M.*: Thermodynamics of Polymerization with Special Emphasis on Living Polymers. Vol. 4, pp. 457-495.  
*Szwarc, M.*: Living Polymers and Mechanisms of Anionic Polymerization. Vol. 49, pp. 1-175.
- Takahashi, A. and Kawaguchi, M.*: The Structure of Macromolecules Adsorbed on Interfaces. Vol. 46, pp. 1-65.

- Takemoto, K. and Inaki, Y.*: Synthetic Nucleic Acid Analogs. Preparation and Interactions. Vol. 41, pp. 1-51.
- Tani, H.*: Stereospecific Polymerization of Aldehydes and Epoxides. Vol. 11, pp. 57-110.
- Tate, B. E.*: Polymerization of Itaconic Acid and Derivatives. Vol. 5, pp. 214-232.
- Tazuke, S.*: Photosensitized Charge Transfer Polymerization. Vol. 6, pp. 321-346.
- Teramoto, A. and Fujita, H.*: Conformation-dependent Properties of Synthetic Polypeptides in the Helix-Coil Transition Region. Vol. 18, pp. 65-149.
- Thomas, W. M.*: Mechanismus of Acrylonitrile Polymerization. Vol. 2, pp. 401-441.
- Tobolsky, A. V. and DuPré, D. B.*: Macromolecular Relaxation in the Damped Torsional Oscillator and Statistical Segment Models. Vol. 6, pp. 103-127.
- Tosi, C. and Ciampelli, F.*: Applications of Infrared Spectroscopy to Ethylene-Propylene Copolymers. Vol. 12, pp. 87-130.
- Tosi, C.*: Sequence Distribution in Copolymers: Numerical Tables. Vol. 5, pp. 451-462.
- Tsuhida, E. and Nishide, H.*: Polymer-Metal Complexes and Their Catalytic Activity. Vol. 24, pp. 1-87.
- Tsuji, K.*: ESR Study of Photodegradation of Polymers. Vol. 12, pp. 131-190.
- Tsvetkov, V. and Andreeva, L.*: Flow and Electric Birefringence in Rigid-Chain Polymer Solutions. Vol. 39, pp. 95-207.
- Tuzar, Z., Kratochvíl, P., and Bohdanecký, M.*: Dilute Solution Properties of Aliphatic Polyamides. Vol. 30, pp. 117-159.
- Valvassori, A. and Sartori, G.*: Present Status of the Multicomponent Copolymerization Theory. Vol. 5, pp. 28-58.
- Voorn, M. J.*: Phase Separation in Polymer Solutions. Vol. 1, pp. 192-233.
- Werber, F. X.*: Polymerization of Olefins on Supported Catalysts. Vol. 1, pp. 180-191.
- Wichterle, O., Šebenda, J., and Králiček, J.*: The Anionic Polymerization of Caprolactam. Vol. 2, pp. 578-595.
- Wilkes, G. L.*: The Measurement of Molecular Orientation in Polymeric Solids. Vol. 8, pp. 91-136.
- Williams, G.*: Molecular Aspects of Multiple Dielectric Relaxation Processes in Solid Polymers. Vol. 33, pp. 59-92.
- Williams, J. G.*: Applications of Linear Fracture Mechanics. Vol. 27, pp. 67-120.
- Wöhrle, D.*: Polymere aus Nitrilen. Vol. 10, pp. 35-107.
- Wöhrle, D.*: Polymer Square Planar Metal Chelates for Science and Industry. Synthesis, Properties and Applications. Vol. 50, pp. 45-134.
- Wolf, B. A.*: Zur Thermodynamik der enthalpisch und der entropisch bedingten Entmischung von Polymerlösungen. Vol. 10, pp. 109-171.
- Woodward, A. E. and Sauer, J. A.*: The Dynamic Mechanical Properties of High Polymers at Low Temperatures. Vol. 1, pp. 114-158.
- Wunderlich, B. and Baur, H.*: Heat Capacities of Linear High Polymers. Vol. 7, pp. 151-368.
- Wunderlich, B.*: Crystallization During Polymerization. Vol. 5, pp. 568-619.
- Wrasidlo, W.*: Thermal Analysis of Polymers. Vol. 13, pp. 1-99.
- Yamashita, Y.*: Random and Block Copolymers by Ring-Opening Polymerization. Vol. 28, pp. 1-46.
- Yamazaki, N.*: Electrolytically Initiated Polymerization. Vol. 6, pp. 377-400.
- Yamazaki, N. and Higashi, F.*: New Condensation Polymerizations by Means of Phosphorus Compounds. Vol. 38, pp. 1-25.
- Yokoyama, Y. and Hall, H. K.*: Ring-Opening Polymerization of Atom-Bridged and Bond-Bridged Bicyclic Ethers, Acetals and Orthoesters. Vol. 42, pp. 107-138.
- Yoshida, H. and Hayashi, K.*: Initiation Process of Radiation-induced Ionic Polymerization as Studied by Electron Spin Resonance. Vol. 6, pp. 401-420.
- Young, R. N., Quirk, R. P. and Fetters, L. J.*: Anionic Polymerizations of Non-Polar Monomers Involving Lithium. Vol. 56, pp. 1-90.
- Yuki, H. and Hatada, K.*: Stereospecific Polymerization of Alpha-Substituted Acrylic Acid Esters. Vol. 31, pp. 1-45.

- Zachmann, H. G.*: Das Kristallisations- und Schmelzverhalten hochpolymerer Stoffe. Vol. 3, pp. 581-687.
- Zakharov, V. A., Bukatov, G. D., and Yermakov, Y. I.*: On the Mechanism of Olefin Polymerization by Ziegler-Natta Catalysts. Vol. 51, pp. 61-100.
- Zambelli, A. and Tosi, C.*: Stereochemistry of Propylene Polymerization. Vol. 15, pp. 31-60.
- Zucchini, U. and Cecchin, G.*: Control of Molecular-Weight Distribution in Polyolefins Synthesized with Ziegler-Natta Catalytic Systems. Vol. 51, pp. 101-154.



# Subject Index

- Acrylamide 119
- Acylation 29
- Adhesion 103, 107
- Albumin 92
  - polymers 94
- Alkylation 29
- Alprenol 64
- Anastomotic method 133
- Antibody 1, 51, 75, 92
- Antidiabetic drug 69
- Antitumor antibodies 93
- Arsenic-containing 65
  
- Biliary transport 1, 18
- Biocompatibility 51, 89
- Biodegradability 33, 51, 77
- Biolized surface 106
- Biological membrane 11
- Bis(2-chloroethyl) amino group 68
- Blood 90
  - compatibility 106
  - compatible polymers 103
  - compatible surface 106
- Body compartments 9
  
- Catalytic polymerization 103, 116
- Cells 51
- Cellulose 110
- Chemical modifications 2, 28
- Clot formation 131
- Coating 103
- Compartmental barriers 1
  - model 1
- Compartment model 1, 9
- Copolymers 61
  - of maleic anhydride and divinyl ether 2
- Coumarin 6
  
- Daunomycin 80
- Dextran 92
- Diffuse surface 113
- DIVEMA 82
- Divinyl ether-maleic anhydride 61
- Discharge 141
  
- Drug carriers 51, 57
- DNA 92
  
- Energy sources 141
- Endocytic uptake 54
- Enzymatic attack 60
- Erythrocyte ghosts 92
- Esterification 29
  
- Fluorescein 6
- Fluorescence 81
- Fluorescent labels 1, 6
  
- Gas plasma 141
- Gelatin 59
- Glomerular filtration 1
- Glow 141
- Graft copolymer coating 146
  - copolymerization 103, 115
  - coupling 103, 114
- Glomerular filtration 14
  
- Hapten 34
- Human body 1
- Hydrogel 105
- Hydrolytic reactions 2, 29
- Hydroxyethylstarch 2
  
- Immobilization of biomolecules 150
- Immunological tolerance 1
- Immune reactions 2, 31
- Interfacial energy 108
- Intestinal transport 1, 17
- Intralysosomal digestion 22
- In vivo* targeting of Polymers 86
- Iodine radioisotopes 5
- Ionizing radiation 141
  
- Liposomes 92
- Low-temperature isotropic (LTI) carbon 106
- Lymphatic system 1, 14
- Lysosomes 77

- Methacrylate 150  
 Methothrexate 2, 79  
 Microautoradiography 8  
 Microfluorography 8  
  
 Natural tissues 106  
 N-(2-hydroxypropyl) methacrylamide 63, 78, 81  
 Nucleic acids 61  
 Nylon 110  
  
 Oxidation 2  
 Oxidative processes 29  
  
 Paraffin 110  
 Phagocytosis 37, 54, 108  
 Pharmacokinetics 24  
 Pharmacological activity 51, 90  
 Pinocytic capture 51, 81  
 Pinocytosis 54  
 Plasma discharge 146  
 Plateled adhesion 107  
 Poly(acrylic acid) 61  
 Poly(amino acids) 61  
 Poly- $\alpha$ , $\beta$ [N-(2-hydroxyethyl)-D,L-aspartamide] 2  
 Poly[ $\alpha$ , $\beta$ -2-hydroxyethyl-DL-aspartamide] 82  
 Poly[ $\alpha$ , $\beta$ -(N-hydroxyethyl)-DL-aspartamide] 62  
 Polycarbonate 150  
 Poly(3,4-dihydroxyphenylalanine) 64  
 Poly(D-lysine) 82  
 Polyelectrolytes 26  
 Polyetherurethanes 105  
 Polyethylene 110  
 Poly(ethylene oxide) 61  
 Poly(ethylene terephthylate) 110, 150  
 Polyglutamic acid 79  
 Poly(2-hydroxyethyl) 150  
 Poly(2-hydroxyethyl methacrylate) 105  
 Poly(L-lysine) 79, 82, 90  
 Poly(L-ornithine) 82  
 Polymeranalogous drug binding 51, 69  
 Polymer-drug linkages 51  
 Polymeric biomaterial 141  
 — drug cleavability 67  
 Polymer *in vivo* 51  
 Polymerizable drug derivatives 51, 68  
 Polymers 65  
 Polymer storage in Cells 1  
 Poly(methacrylic acid) 61  
 Poly(methyl acrylate) 150  
 Poly(methyl methacrylate) 110, 150  
 Poly[2-(methylsulfinyl)ethyl acrylate] 62  
 Poly[N-(2-hydroxypropyl)methacrylamide] 2, 82, 87  
 Polyorganophosphazene 80  
 Polyoxirane[poly(ethylene glycol)] 2  
 Polyphosphazenes 61  
  
 Polypropylene 110, 150  
 Polystyrene 110  
 Polysulfone (PS) 150  
 Polytetrafluoroethylene 105, 110, 150  
 Polytrifluoroethylene 110  
 Polyurethane 150  
 Polyurethane-E 110  
 Poly(9-vinyladenine) 62, 82  
 Poly(vinyl alcohol) 2, 110  
 Polyvinylchloride 150  
 Poly(vinyl chloride) 110  
 Poly(vinyl fluoride) 110  
 Poly(vinylidene chloride) 110  
 Poly(vinylpyridine N-oxide) 2  
 Poly(vinylpyrrolidone) 2, 60, 81, 82, 87  
 Poly(vinylpyrrolidone) and poly[N-(2-hydroxypropyl)methacrylamide] 90  
 Poly[vinylpyrrolidone-vinylamine] copolymers 82  
 Poly(1-vinyluracil) 62  
 Protein adsorption 103, 107  
  
 Radiation polymerization 103, 118  
 Radioisotopes as tracers 1, 4  
 Respiratory tract 1, 22  
 Reticuloendothelial system 21  
 Rhodamine 6  
  
 Silastic 150  
 Silicone 105  
 Soluble polymers 1  
 — synthetic polymers 1  
 Spin-labeled compound 116  
 Starch 59  
 Storage in cells 19  
 Streptomycin sulfate 68  
 Sugar residues 51, 74  
 Superhydrophilic diffuse surface 103, 113  
 Surface analysis 103  
 — grafting 146  
 Synthetic microcapsules 92  
  
 Therapeutic or diagnostic applications 1  
 Transendothelial passage 1, 12  
 Tubular secretion 1, 17  
  
 U.V. radiation 145  
  
 Vesicles 21, 92  
  
 Work of adhesion 103, 109  
 Water-soluble polymers 60  
  
 XPS (ESCA) 103, 107  
 X-ray photoelectron spectroscopy 103, 107  
  
 Zeta-potential 103