



## Christopher W. Macosko Publications

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### Books and Book Chapters (by year)

9. Microscopy, Mariamne Dehonor, Carlos López-Barrón, and C. Macosko, Chapter 20 in *Handbook of Polymer Synthesis, Characterization, and Processing*, ed. Enrique Saldívar-Guerra and Eduardo Vivaldo-Lima, Pub. John Wiley & Sons, Inc **(2013)**. ISBN 9780470630327.
8. Graphene/Polymer Nanocomposites, H. Kim, A.A. Abdala, and C. Macosko, Chapter 17 in *Graphite, Graphene, and Their Polymer Nanocomposites*, P. Mukhopadhyay, ed. CRC Press **(2012)**. ISBN 9781439827796.
7. Foam Stability in Flexible Polyurethane Foam Systems, X.D. Zhang, R.A. Neff, and C.W. Macosko. Chapter 5 in *Polymeric Foams: Mechanisms and Materials*, S.T. Lee and N.S. Ramesh, eds. (Polymeric Foam Series), CRC Press, Boca Raton, Fl **(2004)**.
6. Block copolymers and compatibilization: reactively formed, C.W. Macosko, H.K. Jeon, and J.S. Schulze. *Encyclopedia of Materials: Science and Technology*, Elsevier **(2001)**, 683-688.
5. Fluid Mechanics Measurements in Non-Newtonian Fluids, C. W. Macosko. Chapter 9 in *Fluid Mechanics Measurements*, Second Edition, R.J. Goldstein, ed., Hemisphere, New York **(1996)**.
4. Polyurethane flexible foam formation, L. Artavia and C.W. Macosko. Chapter 2 in *Low Density Cellular Plastics, Physical Basis of Behavior*, N.C. Hilyard and A. Cunningham, eds., Chapman and Hall, London **(1994)**.
3. *Rheology: Principles, Measurements and Applications*, Wiley/VCH, Poughkeepsie, NY **(1994)**.
2. *RIM, Fundamentals of Reaction Injection Molding*, Hanser, New York **(1989)**.
1. Reaction injection molding, J.M. Castro and C.W. Macosko, in *Encyclopedia of Materials Science and Engineering*, M.B. Bever, ed., Pergamon Press, Oxford, p. 4085 **(1986)**.

### Patents (by year):

12. [Recovery of monomer from polyurethane materials by depolymerization](#), M.A. Hillmyer, T.R. Panthani, M.E. Vanderlaan, D.K. Schneiderman, A.M. Mannion, D.C. Batiste, C.W. Macosko, J.Z. Wang, F.S. Bates, PCT/US 9,815,808 B2 **(2017)**
11. [Taxane silicate prodrugs and nanoparticles](#), T. Hoye, A. Wohl, C. Macosko, J. Panyam, PCT/US2012/040247, US 9,375,484 B2 **(2016)**
10. [Non-Woven Fibers-in-Fibers From Melt-Blown Polymer Blends](#), S. Jeung, D. Tan, F. Zuo, F. Bates, C. Macosko, Z. Wang, PCT/US 9,211,688 B1, **(2015)**
9. [Nonlinear Rheology of Chewing Gum and Gum Base](#), L. Martinetti, C. W. Macosko, R. H. Ewoldt, L. D. Morgret. PCT/US2011/046819, WO/2012/019140 **(2012)**.



8. [Chewing Gum Compositions](#), L.D. Morgret, M.S. Haas, X. Xia, M. Hillmyer, M.T. Martello, C. Macosko, L. Martinetti, F. Bates, S. Lee, M.T. Bunczek, M.J. Greenberg, PCT/US2010/048508 WO 2011/032026 A2 (**2011**)
7. [Clay-Isocyanate Nanodispersions and Polyurethane Nanocomposite Produced Therewith](#), G. Harikrishnan, C. Macosko, C.I. Lindsay, and S.N. Singh, PCT/US2009/04293 (**2009**).
6. [Methods for producing nanoparticles](#), C.W. Macosko, T.R. Hoyer, J. L. Anacker, and R.K. Prud'homme, U.S. 2007/0122449 A1 (**2007**).
5. [Electrochemical process for the production of conducting polymer fibers](#), H.S. White, C.W. Macosko, and S. Li, U.S. Patent 5,423,956 (**1995**).
4. [Process of and apparatus for extruding a reactive polymer mixture](#), C.W. Macosko, T.G. Charbonneaux, and K.J. Mikkelsen, U.S. Patent No. 4,990,293 (**1991**).
3. [RIM mixhead with high pressure recycle](#), C.W. Macosko and D.B. McIntyre, U.S. Patent No. 4,473,531 (**1984**).
2. [Reaction injection molding machine](#), C.W. Macosko and L.J. Lee, U.S. Patent 4,189,070 (**1980**).
1. [Force measuring apparatus](#), C.W. Macosko and J.M. Starita, U.S. Patent 3,693,425 (**1972**).

#### Articles (by year)

526. [Role of Crystallization on Polyolefin Interfaces: An Improved Outlook for Polyolefin Blends](#), Jordan, A.M.; Kim, K.; Soetrisno, D.; Hannah, J.; Bates, F.S.; Jaffer, J.A.; Lhost, O.; Macosko, C.W.; *Macromolecules*, **2018**, DOI: 10.1021/acs.macromol.8b00206.
525. [Effects of Inorganic Fillers on Toughening of Vinyl Ester Resins by Modified Graphene Oxide](#), He, S.; Qian, Y.; Liu, K.; Macosko, C. W.; Stein, A.; *Ind. Eng. Chem. Res.*, **2018**, DOI: 10.1021/acs.iecr.8b00362.
524. [Influence of rheology on renewable pressure-sensitive adhesives from a triblock copolymer](#), Ewert, T.R.; Mannion, A.M.; Coughlin, M.L.; Macosko, C.W.; Bates, F.S., *Journal of Rheology*, **2017**, 62, 161; doi: 10.1122/1.5009194
523. [High electrical conductivity and oxygen barrier property of polymer-stabilized graphene thin films](#), Mun, S.C.; Park, J.J.; Park Y.T.; Kim, D.Y.; Lee, S.W.; Cobos, M.; Ye, S.J.; Macosko, C.W.; Park, O.O.; *Carbon*, **2017**, 125, 492-499, doi: 10.1016/j.carbon.2017.09.088
522. [Modified-Graphene-Oxide-Containing Styrene Masterbatches for Thermosets](#), He, I.; Qian, Y.; Liu, K.; Macosko, C.; Stein, A., *Ind. Eng. Chem. Res.*, **2017**, Article ASAP, doi: 10.1021/acs.iecr.7b02583
521. [Modeling the intrinsic viscosity of polydisperse disks](#), Ismail, I., Vandenberg, J., Abdala, A., and Macosko, C., *Journal of Rheology*, **2017**, 61(5), 997; <http://doi.org/10.1122/1.4996843>.



520. [Interfacial Activity of Graphene Oxide: Anisotropy, Loading Efficiency and pH-Tunability](#), Valtierrez-Gaytan, C.; Ismail, I.; Macosko, C. W.; and Stottrup, B. L.; *Colloids and Surface A: Physicochemical and Engineering Aspects*, **2017**, 529, 434-442. doi: 10.1016/j.colsurfa.2017.05.088.
519. [Star vs long chain branching of poly\(lactic acid\) with multifunctional aziridine](#), Gu, L.; Xu, Y.; Fahnhorst, G. W.; Macosko, C. W.; *J. Rheology*, **2017**, 61, 785-796, doi: 10.1122/1.4985344.
518. [Polymer Day: Outreach Experiments for High School Students](#), Ting, J. M.; Ricarte, R. G.; Schneiderman, D. K.; Saba, S. A.; Jiang, Y.; Hillmyer, M. A.; Bates, F. S.; Reineke, T. M.; Macosko, C. W.; and Lodge, T. P.; *J. Chem. Educ.*, **2017**; Article ASAP, DOI: 10.1021/acs.jchemed.6b00767
517. [Localizing graphene at the interface of cocontinuous polymer blends: Morphology, rheology, and conductivity of cocontinuous conductive polymer composites](#), Bai, L.; He, S.; Fruehwirth, J. W.; Stein, A.; Macosko, C. W.; and Cheng, X.; *J. Rheology*, **2017**; 61, 575, doi.org/10.1122/1.4982702
516. [Unsaturated polyester resin toughening with very low loadings of GO derivatives](#), He, S.; Petkovich, N. D.; Lui, K.; Qian, Y.; Macosko, C. W.; and Stein, A.; *Polymer*, **2017**, Volume 110, Pages 149–157, doi.org/10.1016/j.polymer.2016.12.057
515. [Reactive Compatibilization of Poly\(ethylene terephthalate\) and High- 2 Density Polyethylene Using Amino-Telechelic Polyethylene](#), Todd, A. D.; McEneaney, R. J.; Topolkaraev, V. A.; Macosko, C. W.; and Hillmyer, M. A.; *Macromolecules*, **2016**, DOI: 10.1021/acs.macromol.6b02080
514. [Graphene-polyethylene nanocomposites: Effect of graphene functionalization](#), Park, S.; He, S.; Wang, J.; Stein, A.; and Macosko, C. W.; *Elsevier-Polymer*, **2016**, doi.org/10.1016/j.polymer.2016.09.058
513. [Nanofibers from water-extractable melt-blown immiscible polymer blends](#), Wang, Z.; Liu, X.; Macosko, C. W.; and Bates, F. S.; *Elsevier-Polymer*, **2016**, doi.org/10.1016/j.polymer.2016.08.058
512. [Rouse-Bueche Theory and the Calculation of the Monomeric Friction Coefficient in a Filled System](#), Martinetti, L.; Macosko, C. W.; and Bates, F. S. *J of Polymer Science Polymer Physics*, **2016**, DOI: 10.1002/polb.24045
511. [Controlling the Morphology of Immiscible Cocontinuous Polymer Blends via Silica Nanoparticles Jammed at the Interface](#), Huang, S.; Bai, L.; Trifkovic, M.; Cheng, X.; and Macosko, C. W.; *Macromolecules*, **2016**, DOI: 10.1021/acs.macromol.6b00212
510. [Chemically Recyclable Biobased Polyurethanes](#), Schneiderman, D.K.; Vanderlann, M. E.; Mannion, A.M.; Panthani, T. R.; Batiste, D.C.; Wang, J. Z.; Bates, F.S.; Macosko, C. W.; and Hillmyer, M. A.; *ASC Macro Letters*, **2016**, DOI: 10.1021/acs.macromol.6b00792
509. [Synthesis and Rheology of Branched Multiblock Polymers Based on Polyactide](#), Mannion, A. M.; Bates, F.S.; and Macosko, C. W.; *Macromolecules*, **2016**, DOI: 10.1021/acs.macromol.6b00792



508. [Open-Pore Two-Dimensional MFI Zeolite Nanosheets for the Fabrication of Hydrocarbon-Isomer-Selective Membranes on Porous Polymer Supports](#), Zhang, H.; Xiao, Q.; Guo, X.; Li, N.; Kumar, P.; Rangnekar, N.; Young Jeon, M.; Al-Thabaiti, S.; Narasimharao, K.; Nasir Basahel, S.; Topuz, B.; Onorato, F. J.; Macosko, C. W.; Mkhoyan, K. A.; and Tsapatsis, M.; *Angewandte Communications Chemie*, **2016**, DOI: 10.1002/anie.201601135
507. [Lightweight micro-cellular plastics from polylactide/polyolefin hybrids](#), Xu, Y.; Delgado, P.; Todd, A. D.; J. Loi, J.; Saba, S. A.; McEneaney, R. J.; Tower, T.; Topolkaraev, V.; Macosko, C. W.; and Hillmyer, M. A.; *Polymer*, **2016**, Polymer 102 ,73e83, DOI. 10.1016/j.polymer.2016.08.102
506. [Water droplet spreading and imbibition on superhydrophilic poly\(butylene terephthalate\) melt-blown fiber mats](#), Wang, Z.; Espin, L.; Bates, F. S.; Kumar, S.; and Macosko, C. W.; *Chemical Engineering Science*, **2016**, 146: 104-114, DOI:10.1016/j.ces.2016.02.006
505. [Fluorine-Enriched Melt-Blown Fibers from Polymer Blends of Poly\(butylene terephthalate\) and a Fluorinated Multiblockpolyester](#), Wang, Z. ; Macosko, C. W.; and Bates, F. S.; *ACS Applied Materials & Interfaces*, **2016**, 8 (1), pp 754–761, DOI: 10.1021/acsami.5b09976
504. [Zeolite Membranes: Oriented MFI Membranes by Gel-Less Secondary Growth of Sub-100 nm MFI-Nanosheet Seed Layers](#), Agrawal, K.V.; Topuz, B.; Thanh Pham, T. C.; Nguyen, T.H.; Sauer, N.; Rangnekar, N.; Zhang, H.; Narasimharao, K.; Basahel, S.N.; Francis, L.F.; Macosko, C. W.; Al-Thabaiti, S.; Tsapatsis, M.; and Yoon, K. B.; *Advanced Materials*, **2015**, 27 (21), 3339, DOI: 10.1002/adma.201570146
503. [Sag in drying coatings: Prediction and real time measurement with particle tracking](#), Lade, R.K.; Song, J.O.; Musliner, A. D.; Williams, B.A.; Kumar, S. ; Macosko, C. W.; Francis, L. F.; *Progress in Organic Coatings*, **2015**, 86 pp 49-58, DOI:10.1016/j.porgcoat.2015.04.005
502. [Nanoparticles Containing High Loads of Paclitaxel-Silicate Prodrugs: Formulation, Drug Release, and Anticancer Efficacy](#), Han, J.; Michel, A.R.; Seung Lee, H. ; Kalscheuer, S.; Wohl, A.; Hoye, T. R.; McCormick, A.V.; Panyam, J.; and Macosko, C.W.; *Mol. Pharmaceutics*, **2015**, 12 (12), pp 4329–4335, DOI: 10.1021/acs.molpharmaceut.5b00530
501. [Interfacial Tension Measurement and Micellization in a Polymer Blend with Copolymer Surfactant: A False Critical Micelle Concentration](#), Chang, K.; Macosko, C.W.; and Morse, D. C.; *Macromolecules*, **2015**, DOI: 10.1021/acs.macromol.5b01268
500. [Effect of extensional viscosity on cocontinuity of immiscible polymer blends](#), Hedegaard, A.T.; Gu, L.; and Macosko, C.W.; *J. Rheol.* **2015**, 59(6), 1397-1417, DOI: 10.1122/1.4933321
499. [Evaluating sag resistance with a multinotched applicator: correlation with surface flow measurements and practical recommendations](#), Lade, R.K.; Musliner, A. D.; Macosko, C.W.; and Francis, L. F.; *J Coat Technol Res*, **2015**, 12:809-817 DOI 10.1007/s11998-015-9680-5
498. [Oriented MFI Membranes by Gel-Less Secondary Growth of Sub-100 nm MFI-Nanosheet Seed Layers](#), Agrawal, K. V.; Topuz, B.; Thanh Pham, T. C.; Nguyen, T. H.; Sauer, N.; Rangnekar, N.; Zhang, H.; Narasimharao, K.; Basahel, S. N.; Francis, L. F.; Macosko, C. W.; Al-Thabaiti, S.; Tsapatsis, M.; and Yoon, K.B.; *Advanced Materials*, **2015**, 27(21), 3243-3249, DOI: 10.1002/adma.20140589



97. [2D Zeolite Coatings: Langmuir-Schaefer Deposition of 3nm Thick MFI Zeolite Nanosheets](#). Rangekar, N.; Shete, M.; Agrawal, K.V.; Topuz, B.; Kumar, P.; Guo, Q.; Ismail, I.; Alyoubi, A.; Basahel, S.; Narasimharao, K.; Macosko, C.W.; Mkhoyan, K.A.; Al-Thabaiti, S.; Stottrup, B.; and Tspatsis, M.; *Angewandte Chemie-International Edition*, **2015**, 54(22) 6571-6575 DOI: 10.1002/anie.201411791
496. [Reactive Compatibilization of Polylactide/Polypropylene Blends](#). Xu, Y.; Loi, J.; Delgado, P.; Topolkaev, V.; McEneany, R.J.; Macosko, C.W.; and Hillmyer, M.A.; *Industrial & Engineering Chemistry Research*, **2015**, 54 (23), pp 6108-6114, DOI: 10.1021/acs.iecr.5b00882
495. [Dynamics and rheology of nonpolar bijels](#). Bai, L.; Fruehwirth, J.W.; Cheng, X.; and Macosko, C.W.; *Soft Matter*, **2015**, 11, 5282-5293, DOI: 10.1039/C5SM00994D
494. [Stabilization of PE/PEO Cocontinuous Blends by Interfacial Nanoclays](#). Trifkovic, M.; Hedegaard, A.T.; Sheikhzadeh, M.; Huang, S.; and Macosko, C.W.; *Macromolecules*, **2015**, 48 (13), pp 4631-4644, DOI: 10.1021/acs.macromol.5b0035
493. [Accelerating Reactive Compatibilization of PE/PLA Blends by an Interfacially Localized Catalyst](#). Thurber, C.M.; Xu, Y.; Myers, J.C.; Lodge, T.P.; and Macosko, C.W.; *ACS Macro Letters*, **2015**, 4(1), 30-33, DOI: 10.1021/mz500770y
492. [Epoxy Toughening with Low Graphene Loading](#). Park, Y.; Qian, Y.; Chan, C.; Suh, T.; Nejhad, M.G.; Macosko, C.W.; Stein, A., *Adv. Funct. Mater.* **2014**, 25, 575-585, DOI: 10.1002/adfm.201402553
491. [Does Graphene Change Tg of Nanocomposites?](#) Liao, K.; Aoyama, S.; Abdala, A.; Macosko, C.W., *Macromolecules*, **2014**, 47 (23), 8311-8319, DOI: 10.1021/ma501799z
490. [Influence of Functionalized Graphene Sheets on Modulus and Glass Transition of PMMA](#). Liao, K.; Kobayashi, S.; Kim, H.; Abdala, A.; and Macosko, C. W.; *Macromolecules*. **2014**, 47 (21), 7674-7676, DOI: 10.1021/ma501709g
489. [AFM Probing of Polymer/Nanofiller Interfacial Adhesion and Its Correlation with Bulk Mechanical Properties in a Poly\(ethylene terephthalate\) Nanocomposite](#). Aoyama, S.; Park, Y.T.; Macosko, C.W.; Ougizawa, T.; Haugstad, G., *Langmuir*, **2014**, 30 (43), 12950-12959, DOI: 10.1021/la502553q
488. [Rheology of compatibilized immiscible blends with droplet-matrix and cocontinuous morphologies during coarsening](#). Lopez-Barron, C.R.; Macosko, C.W., *J. Rheol.* **2014**, 58(6), 1935-1953, DOI: 10.1122/1.4897409
487. [Tuning Surface Properties of Poly\(butylene terephthalate\) Melt Blown Fibers by Alkaline Hydrolysis and Fluorination](#). Wang, Z.F.; Macosko, C.W.; Bates, F.S., *ACS Applied Materials & Interfaces*, **2014**, 6 (14), 11640-11648, [10.1021/am502398u](#)
486. [Formations of curcumin nanoparticles by flash nanoprecipitation from emulsions](#). Margulis, K.; Magdassi, S.; Lee, H.S.; Macosko, C.W., *J. Colloidal and Interface Science*, **2014**, 434, 65-70, DOI: 10.1016/j.jcis.2014.07.040
485. [A critical gel fluid with high extensibility: The rheology of chewing gum](#). Martinetti, L.; Mannion, A.M. Voje, Jr., W. E.; Xie, R.; Ewoldt, R.H.; Morgret, L.D.; Bates, F.S.; Macosko, C.W., *J. Rheol.* **2014**, 58 (821); DOI: 10.1122/1.4874322





484. [Melt crystallization of poly \(ethylene terephthalate\): Comparing addition of graphene vs. carbon nanotubes](#). Aoyama, S.; Park, Y.T.; Ougizawa, T.; Macosko, C.W.; *Polymer*, **2014**, 8(10), 2077–2085, DOI: 10.1016/j.polymer.2014.02.055
483. [Poly \(methyl methacrylate\)-block-polyethylene-block-poly \(methyl methacrylate\) Triblock Copolymers as Compatibilizers for Polyethylene/Poly \(methyl methacrylate\) Blends](#). Xu, Y.; Thurber, C.M.; Macosko, C.W.; Lodge, T.P.; Hillmyer, M.A.; *Ind. Eng. Chem. Res.*, **2014**, 53 (12), 4718–4725, DOI: 10.1021/ie404319
482. [Poly\(methyl methacrylate\)/Graphene Oxide Nanocomposites by a Precipitation Polymerization Process and Their Dielectric and Rheological Characterization](#). Thomassin, J.M.; Trifovic, M.; Alkarmo, W.; Detrembleur, C.; Jerome, C.; Macosko, C.W.; *Macromolecules*, **2014**, 47 (6), 2149–2155, DOI: 10.1021/ma500164s
481. [Silicate Esters of Paclitaxel and Docetaxel: Synthesis, Hydrophobicity, Hydrolytic Stability, Cytotoxicity, and Prodrug Potential](#). Wohl, A.R.; Michel, A.R. Kalscheuer, S.; Macosko, C.W.; Panyam, J.; Hoyer, T.R.; *J. Med. Chem.*, **2014**, 57 (6), 2368–2379, DOI: 10.1021/jm401708f
480. [Thermoplastic polyurethane elastomers from bio-based poly\( \$\delta\$ -decalactone\) diols](#). Tang, D.; Macosko, C.W.; Hillmyer, M.A.; *Polymer Chemistry*, **2014**, 5, 3231–3237, DOI: 10.1039/C3PY01120H
479. [A simple route towards graphene oxide frameworks](#). Imperiali, L.; Clasen, C.; Fransaer, J.; Macosko, C.W.; Vermant, J.; *Mater. Horiz.*, **2014**, 1, 139–145, DOI: 10.1039/C3MH00047H
478. [Flash Nanoprecipitation: Particle Structure and Stability](#). Pustulka, K.M.; Wohl, A.R.; Lee, H.S.; Michel, A.R.; Han, J.; Hoyer, T.R.; McCormick, A.V.; Panyam, J.; Macosko, C.W.; *American Chemical Society*, **2013**, 10(11), 4367–4377, DOI: 10.1021/mp400337f
477. [Aqueous Reduced Graphene/Thermoplastic Polyurethane Nanocomposites](#). Liao, K.H.; Macosko, C.W.; *Polymer*, **2013**, 54 (17), 4555–4559, ISSN 0032-3861
476. [Polyol-Assisted Vermiculite Dispersion in Polyurethane Nanocomposites](#). Park, Y.T.; Qian, Y.Q.; Lindsay, C.I.; Nijs, C.; Camargo, R.E.; Stein, A.; Macosko, C.W.; *ACS Applied Materials & Interfaces*, **2013**, 5 (8), 3054–3062, DOI: 10.1021/am303244j
475. [Nanofibers from Melt Blown Fiber-in-Fiber Polymer Blends](#). F. Zuo, D.H. Tan, Z.F. Wang, S. Jeung, C.W. Macosko, F.S. Bates. *ACS MACRO LETTERS*, **2013**, 2 (4), 301–305, DOI: 10.1021/mz400053n
474. [Reactive coupling between immiscible polymer chains: Acceleration by compressive flow](#). J. Song, A.M. Baker, C.W. Macosko, R.H. Ewoldt. *AIChE Journal*, **2013**, 59(9), 3391–3402, DOI: 10.1002/aic.14092
473. [Functionalized linear low-density polyethylene by ring-opening metathesis polymerization](#). S. Kobayashi, H. Kim, C.W. Macosko, M.A. Hillmyer. *Polymer Chemistry*, **2013**, 4(4), 193–1198, DOI: 10.1039/c2py20883k
472. [Polyurethanes based on renewable polyols from bioderived lactones](#). S.A. Gurusamy-Thangavelu, S.J. Emond, A. Kulshrestha, M.A. Hillmyer, C.W. Macosko, W.B. Tolman, T.R. Hoyer. *Polymer Chemistry*, **2012**, 3(10), 2941–2948. 10.1039/c2py20454a



471. [Modification with tertiary amine catalysts improves vermiculite dispersion in polyurethane via in situ intercalative polymerization.](#) Y.Q. Qian, W.H. Liu, Y.T. Park, C.I. Lindsay, R. Camargo, A. Stein, C.W. Macosko. *Polymer*, **2012**, 53(22), 5060-5068. DOI: 10.1016/j.polymer.2012.09.008
470. [Porous Films via PE/P EO Cocontinuous Blends.](#) M. Trifkovic, A. Hedegaard, K. Huston, M. Sheikhzadeh, C.W. Macosko. *Macromolecules*, **2012**, 45(15), 6036-6044 DOI: 10.1021/ma300293v
469. [Effects of block copolymer properties on nanocarrier protection from in vivo clearance.](#) S.M. D'Addio, W. Saad, S.M. Ansell, D.H. Adamson, M. Herrera-Alonso, J. Squires, A.R. Wohl, T.R. Hoye, C.W. Macosko, L.D. Mayer, C. Vauthier, R.K. Prud'homme. *Journal of Controlled Release*, **2012**, 162(1), 208-217 DOI: 10.1016/j.jconrel.2012.06.20
468. [A simple confined impingement jets mixer for flash nanoprecipitation.](#) J. Han, Z. Zhu, H. Qian, A.R. Wohl, C.J. Beaman, T.R. Hoye, C.W. Macosko. *Journal of pharmaceutical sciences*, **2012**, 101(10), 4018-23 DOI: 10.1002/jps.23259
467. [Ultralow percolation graphene/polyurethane acrylate nanocomposites.](#) K.H. Liao, Y. Qian, C.W. Macosko. *Polymer*, **2012**, 53(17), 3756-3761 DOI: 10.1016/j.polymer.2012.06.020
466. [Adhesion between polyethylenes and different types of polypropylenes.](#) J. Song, A. Binguier, S. Kobayashi, A.M. Baker, C.W. Macosko. *Polymer J*, **2012**, 44, 939-945 doi:10.1038/pj.2012.25
465. [Rheological and morphological study of cocontinuous polymer blends during coarsening.](#) C. R. López-Barrón, C.W. Macosko. *J. Rheol.*, **2012**, 56(6), 1315-1334. dx.doi.org/10.1122/1.4739067
464. [Blends Of Polyolefin/ PMMA For Improved Scratch Resistance, Adhesion And Compatibility.](#) J. Song, C. M. Thurber, S. Kobayashi, A. M. Baker, C. W. Macosko, H. C. Silvis, *Polymer*, **2012**, 53(0), 3636-3641. DOI: 10.1016/j.polymer.2012.05.057
463. [Influence of Laval Nozzles on the Air Flow Field in Melt Blowing Apparatus.](#) D. H. Tan, P.K. Herman, A. Janakiraman, F. S. Bates, C. W. Macosko, *Chemical Engineering Science*, **2012**, 342-348. DOI: 10.1016/j.ces.2012.06.020
462. [Nonlinear Rheology of Chewing Gum and Gum Base,](#) L. Martinetti, C. W. Macosko, R. H. Ewoldt, L. D. Morgret. **2012** PCT/US2011/046819, WO/2012/019140 .
461. [Interfacial rheology and structure of tiled graphene oxide sheets.](#) L. Imperiali d'Afflitto, K-H. Liao, C. Clasen, J. Fransae, C. W. Macosko, J. Vermant, *Langmuir*, **2012**, 00, 1-11. advance online publication. DOI: 10.1021/la300597n
460. [An Aqueous Pathway to Polymeric Foaming with Nanoclay.](#) G. Harikrishnan, A. Sachchida, N. Singh, C.I. Lindsay, C.W. Macosko, *Green Chem*, **2012**, 14, 766. DOI: 10.1039/c2gc16313f
459. [Polyethylene/Polyurethane Blends for Improved Paint Adhesion.](#) J. Song, A. Batra, J. M. Rego, C.W. Macosko, *Prog Org Coatings*, **2011**, 72 , 492- 497. DOI:10.1016/j.porgcoat.2011.06.008
458. [PE/PEO Cocontinuous Polymer Blends with Application in Gas Separation Membranes.](#) A. Hedegaard, M. Trifkovic, C.W. Macosko, *Abst Papers ACS*, **2011**, 242(MA: 97-PMSE)



457. [Chewing Gum Compositions](#). L.D. Morgret, M.S. Haas, X. Xia, M. Hillmyer, M.T. Martello, C. Macosko, L. Martinetti, F. Bates, S. Lee, M.T. Bunczek, M.J. Greenberg, **2011**. PCT/US2010/048508, WO 2011/032026 A2
456. [Misting of Non-Newtonian Liquids in Forward Roll Coating](#). M.S. Owens, M. Vinjamur, L.E. Scriven, C.W. Macosko, *J Non-Newtonian Fluid Mech.*, **2011**, 166(19-20), 1123-1128. DOI: 10.1016/j.jnnfm.2011.06.008
455. [A Strategy for Control of "Random" Copolymerization of Lactide and Glycolide: Application to Synthesis of PEG-b-PLGA Block Polymers Having Narrow Dispersity](#). H.T. Qian, A.R. Wohl, J. T. Crow, C.W. Macosko, T.R. Hoyer, *Macromolecules*, **2011**, 44(18), 7132-7140. DOI: 10.1021/ma201169z
454. [Synthesis and Properties of Vermiculite-Reinforced Polyurethane Nanocomposites](#). Y. Qian, C.I. Lindsay, C.W. Macosko, A. Stein. *ACS Appl. Mater. Interfaces*, **2011**, 3(9), 3709-3717. DOI: 10.1021/am2008954
453. [Effect of Thermally Reduced Graphene Sheets on the Phase Behavior, Morphology, and Electrical Conductivity in Poly\[\(alpha-methyl styrene\)-co-\(acrylonitrile\)\]/poly\(methyl-methacrylate\) Blends](#). G. Vleminckx, S. Bose, J. Leys, J. Vermant, M. Wübbenhorst, A.A. Abdala, C.W. Macosko, P. Moldenaers, *ACS Appl. Mater. Interfaces*, **2011**, 3(8), 3172-3180. DOI: 10.1021/am200669w
452. [Cytotoxicity of Graphene Oxide and Graphene in Human Erythrocytes and Skin Fibroblasts](#). K.-H. Liao, Y.-S. Lin, C.W. Macosko, C.L. Haynes, *ACS Appl. Mater. Interfaces*, **2011**, 3 (7), 2607-2615. DOI: 10.1021/am200428v
451. [Rigid Polyurethane Foams from a Soybean Oil-Based Polyol](#) S. Tan, T. Abraham, D. Ference, C.W. Macosko, *Polymer*, **2011**, 52(13), 2840-2846. DOI: 10.1016/j.polymer.2011.04.040
450. [Measurement of Geometrical Parameters in Cocontinuous Polymer Blends: 3D versus 2D Image Analysis](#). C. R. Lopez-Barron, C.W. Macosko, *J Microscopy*, **2011**, 242(3), 242-249, DOI: 10.1111/j.1365-2818.2010.03462
449. [Flow Accelerates Adhesion Between Functional Polyethylene and Polyurethane](#). J. Song, R.H. Ewoldt, W. Hu, H.C. Silvis, C.W. Macosko, *AIChE J*, **2011**, 47(12), 3496-3506, advance online publication. DOI: 10.1002/aic.12551
448. [Graphene/Polyethylene Nanocomposites: Effect of Polyethylene Functionalization and Blending Methods](#). H. Kim, S. Kobayashi, M.A. AbdurRahim, M.J. Zhang, A. Khusainova, M.A. Hillmyer, A.A. Abdala, C.W. Macosko, *Polymer*, **2011**, 52(8), 1837-1846. DOI: 10.1016/j.polymer.2011.02.017
447. [Misting of Newtonian Liquids in Forward Roll Coating](#). M.S. Owens, M. Vinjamur, L.E. Scriven, C.W. Macosko, *Ind Eng Chem Res*, **2011**, 50(6), 3212-3219. dx.doi.org/10.1021/ie100747w
446. [Amino-Functionalized Polyethylene for Enhancing the Adhesion between Polyolefins and Polyurethanes](#). S. Kobayashi, J. Song, H.C. Silvis, C.W. Macosko, M.A. Hillmyer, *Ind Eng Chem Res*, **2011**, 50(6), 3274-3279. dx.doi.org/10.1021/ie102005q





445. [Mechanical Properties of Linear Low-density Polyethylene \(LLDPE\)/clay Nanocomposites: Estimation of Aspect Ratio and Interfacial Strength by Composite Models](#) A. Durmus, A. Kasgoz, C.W. Macosko, *J Macromolecular Sci Part B-Physics*, **2011**, (vol 47, pg 608, 2008), 50(3), 637-637. DOI:10.1080/00222348.2011.543026
444. [Aqueous Only Route toward Graphene from Graphite Oxide](#). K.H. Liao, A. Mittal, S. Bose, C. Leighton, K. A. Mkhoyan, C.W. Macosko, *ACS Nano*, **2011**, 5(2), 1253-1258. DOI: 10.1021/nn1028967
443. [Polymer-polymer interfacial slip by direct visualization and by stress reduction](#). H.E. Park, P.C. Lee, C.W. Macosko, *J Rheology*, **2010**, 54(6), 1207-1218, DOI: 10.1122/1.3479389424.
442. [Polyelectrolyte Stabilized Drug Nanoparticles via Flash Nanoprecipitation: A Model Study With beta-Carotene](#). Z.X. Zhu, K. Margulis-Goshen, S. Magdassi, Y. Talmon, C.W. Macosko, *J of Pharm Sci*, **2010**, 99(10), 4295-4306, DOI 10.1002/jps.22090423.
441. [Flow Accelerates Interfacial Coupling Reactions](#). J.B. Zhang, S.X. Ji, J. Song, T.P. Lodge, C.W. Macosko, *Macromolecules*, **2010**, 43(18), 7617-7624, DOI: 10.1021/ma100889p
440. [Direct Measurement of Interface Anisotropy of Bicontinuous Structures via 3D Image Analysis](#). C.R. Lopez-Barron, C.W., *Langmuir*, **2010**, 26 (17), 14284-14293, DOI: 10.1021/la102314r 421
439. [Model Linear Low Density Polyethylenes from the ROMP of 5-Hexylcyclooct-1-ene](#). S. Kobayashi, C.W. Macosko, M.A. Hillmyer, *Aust. J. Chem.*, 2010, 63, 1201-1209, DOI: 10.1071/CH10039
438. [Nanodispersions of carbon nanofiber for polyurethane foaming](#), G. Harikrishnan, S.N. Singh, E. Kiesel, C.W. Macosko, *Polymer*, **2010**, 51, 3349-3353, DOI: 10.1016/j.polymer.2010.05.017
437. [Meltblown fibers: Influence of viscosity and elasticity on diameter distribution](#), D.H. Tan, C. Zhou, C.J. Ellison, S. Kumar, C.W. Macosko, F.S. Bates, *J. Non-Newtonian Fluid Mech.*, **2010**, 165, 982-900 DOI: 10.1016/j.jnnfm.2010.04.012
436. [Annealing of Cocontinuous Polymer Blends: Effect of Block Copolymer Molecular Weight and Architecture](#), J.R. Bell, K. Chang, C.R. López-Barrón, C.W. Macosko, D.C. Morse, *Macromolecules*, **2010**, 43(11), 5024-5032, DOI: 10.1021/ma902805x.
435. [Graphene/Polymer Nanocomposites](#) H. Kim, A. Abdala, C.W. Macosko, *Macromolecules*, **2010**, 43(16), 6515-6530, DOI: 10.1021/ma100572e
434. [Graphene/Polyurethane Nanocomposites for Improved Gas Barrier and Electrical Conductivity](#), H. Kim, Y. Miura, C.W. Macosko, *Chemistry of Materials*, **2010**, 22 (11), 3441-3450, DOI:10.1021/cm100477v
433. [A new model for the coarsening of cocontinuous morphologies](#), C.R. Lopez-Barron, C.W. Macosko, *SoftMatter*, **2010**, 6(12), 2637-2647, DOI: 10.1021/cm100477v
432. [Comparison of methods to measure yield stress of soft solids](#), M. Castro, D.W. Giles, C.W. Macosko, T. Moaddel, *J.Rheol*, **2010**, 54(1), 81-94. DOI: 10.1122/1.3248001
431. [Probing Nanodispersions of Clays for Reactive Foaming](#), G. Harikrishnan, C.I. Lindsay, M.A. Arunagirinathan, C. W. Macosko, *ACS Appl. Mater. & Interfac.*, **2009**, 1(9), 1913-1918. DOI: 10.1021/am9003123



430. [Models for Adhesion at Weak Polymer Interfaces](#), J.B. Zhang, T.P. Lodge, C. W. Macosko, *J. Polym. Sci, Part B-Polym Phys.*, **2009**, 47(23), 2313-2319. DOI: 10.1002/polb.21827
429. [Processing-property relationships of polycarbonate/graphene composites](#), H. Kim, C. W. Macosko, *Polymer*, **2009**, 50, 3797-3809. DOI: 10.1016/j.polymer.2009.05.038
428. [Polymer-polymer interfacial slip in multilayered films](#), P. C. Lee, H. E. Park, D. C. Morse, and C. W. Macosko, *J.Rheol*, **2009**, 53(4), 893-915. DOI: 10.1122/1.3114370
427. [Maleimide functionalized poly\(ε-caprolactone\)-block-poly\(ethylene glycol\) \(PCL-PEG-MAL\): Synthesis, nanoparticle formation, and thiol conjugation](#), S.Ji, Z. Zhu, T. R. Hoyer, and C. W. Macosko, *Macromolecular Chemistry and Physics*, **2009**, 210(10), 823-831. DOI: 10.1002/macp.200900025
426. [Characterizing interface shape evolution in immiscible polymer blends via 3D image analysis](#), C. Lopez-Barron, and C.W. Macosko, *Langmuir*, **2009**, 25(16), 9392-9404. DOI: 10.1021/la803450y
425. [A simple transient method for measurement of thermal conductivity of rigid polyurethane foams](#), G. Harikrishnan, C.W. Macosko, J. H. Choi, J. C. Bischof, and S. N. Singh, *J. of Cellular Plastics*, **2008**, 44; 481. DOI:10.1177/0021955X08096532
424. [Teaching rheology using product design](#), J. Vermant, K. U. Leuven, and C.W. Macosko, *Rheol. Bull.*, **2008**, 77 (2).
423. [Diamino telechelic polybutadienes for solventless styrene-butadiene-styrene \(SBS\) triblock copolymer formation](#), S. Ji, T. Hoyer, and C.W. Macosko, *Polymer*, **2008**, 49 (24) 5307-5313. DOI:10.1016/J.POLYMER.2008.09.026
422. [Mechanical properties of linear low-density polyethylene \(LLDPE\)/clay nanocomposites: estimation of aspect ratio and interfacial strength by composite models](#), A. Durmus, A. Kaşgöv, and C.W. Macosko, *J. of Macromolecular Science*, **2008**, Part B: *Physics*, 47 – 608-618. DOI: 10.1080/00222340801957780
421. [Morphology and properties of poly polyester/exfoliated graphite nanocomposites](#), H. Kim, and C.W. Macosko, *Macromolecules*, **2008**, 41, 3317-3327, DOI: 10.1021/ma702385h
420. [PMSE 86-Block copolymer surfactants in polymer blends: Equilibrium and kinetics](#), K. Chang, C.W. Macosko, D.C. Morse, *Abstracts of Papers of the American Chemical Society*, **2008**, 235(86-PMSE), WOS:000271775109185
419. [Dispersing organoclay in polystyrene melts: Roles of stress and diffusion](#), M.K. Dolgovskij, F. Lortie, C. W. Macosko, **2007**, *J. Cent. South Univ. Technol.*, s1-0196-06, DOI: 10.1007/s11771-007-0244-4
418. [Substituting soybean oil-based polyol into polyurethane flexible foams](#), L. Zhang, H.K. Jeon, J. Malsam, R. Herrington, and C.W. Macosko, *Polymer*, **2007**, 48 (22), DOI: 10:1016j.polymer.2007.09.016



417. [POLY 165-Precise tuning of thermoresponsive property of poly\(N-isopropylacrylamide\)s by combination of ATRP and "click" chemistry](#), R. Kakuchi, A. Toda, A. Narumi, R. Sakai, T. Satoh, K. Sugiyama, C.W. Macosko, A. Hirao, T. Kacuchi. *Abstracts of Papers of the American Chemical Society*, **2007**, 234(165-Poly), WOS:000207593908383
416. [Formation of block copolymer-protected nanoparticles via reactive impingement mixing](#), Z.X. Zhu, J.L. Anacker, S.X. Ji, T.R. Hoyer, C.W. Macosko, and R.K. Prud'homme, *Langmuir*, **2007**, 23(21), 10499-10504. DOI: 10.1021/la701420z
415. [Intercalated linear low density polyethylene \(LLDPE\)/clay nanocomposites prepared with oxidized polyethylene as a new type compatibilizer: Structural, mechanical and barrier properties](#), A. Durmus, M. Woo, A. Kasgoz, C.W. Macosko, and M. Tsapatsis, *European Polym. J.*, **2007**, 43(9), 3737-3749. DOI: 10.1016/j.eurpolymj.2007.06.019.
414. [Linear low density polyethylene \(LLDPE\)/clay nanocomposites. Part I: Structural characterization and quantifying clay dispersion by melt rheology](#), A. Durmus, A. Kasgoz, and C.W. Macosko, *Polymer*, **2007**, 48(15), 4492-4502. DOI: 10.1016/j.polymer.2007.05.074.
413. [Synthesis of lamellar isobutyl silicates and dispersion in polypropylene melts](#), T.T. Chastek, E.L. Que, P. Jarzombek, C.W. Macosko, and A. Stein, *J. Appl. Polym. Sci.*, **2007**, 105, 1456-1465. DOI: 10.1002/app.26315.
412. [Quantifying dispersion of layered nanocomposites via melt rheology](#), J. Vermant, S. Ceccia, M.K. Dolgovskij, P.L. Maffettone, and C.W. Macosko, *J. Rheol.*, **2007**, 51, 429-450. DOI: 10.1122/1.2516399.
411. [Melt Blown Nanofibers: Fiber diameter distributions and onset of fiber breakup](#), C.J. Ellison, A. Phatak, D.W. Giles, C.W. Macosko, and F.S. Bates, *Polymer*, **2007**, 48(3306-3316). DOI: 10.1016/j.polymer.2007.04.005.
410. [Polymeric nanoparticles for drug delivery by reactive impingement mixing](#), Z.X. Zhu, T.R. Hoyer, C.W. Macosko, R.K. Prud'homme. *Abstracts of Papers of the American Chemical Society*, **2007**, 223(375-COLL), WOS:000207722801288
409. [Characterizing dispersion of layered nanocomposites via melt rheology](#). H. Kim, C.W. Macosko, *Abstracts of Papers of the American Chemical Society*, **2007**, 233(21-Poly), WOS:000207723100454
408. [Ultra-low interfacial tensions of polymer/polymer interfaces with diblock copolymer surfactants](#), K. Chang, C.W. Macosko, and D.C. Morse, *Macromolecules*, **2007**, 40(10), 3819-3830. DOI: 10.1021/ma062277a.
407. [Polymer-polymer mutual diffusion via rheology of coextruded multilayers](#), R. Zhao, and C.W. Macosko, *AIChE J.*, **2007**, 53, 978-985. DOI: 10.1002/aic.11136.
406. [Synchrotron X-ray microtomography for 3D imaging of Polymer Blends](#), A. Pyun, J.R. Bell, K.H. Won, B.M. Weon, S.K. Seol, J.H. Je, and C.W. Macosko, *Macromolecules*, **2007**, 40, 2029-2035. DOI: 10.1021/ma062635+.



405. [How dilute are dilute solutions in extensional flows?](#), C. Clasen, J.P. Plog, W. M. Kulicke, M. Owens, C.W. Macosko, L.E. Scriven, M. Verani, and G.H. McKinley, *J. Rheol.*, **2006**, *50*, 849-881. DOI: 10.1122/1.2357595.
404. [Direct correlation between adhesion promotion and coupling reaction at immiscible polymer-polymer interfaces](#), J. Zhang, P.J. Cole, U. Nagpal, T.P. Lodge, and C.W. Macosko, *J. Adhesion*, **2006**, *82*, 887-902. DOI: 10.1080/00218460600875847.
403. [Rheology of highly concentrated anionic surfactants](#), P. Mongondry, C.W. Macosko, and T. Moaddel, *Rheol Acta*, **2006**, *45*, 891-898. DOI: 10.1007/s00397-006-0090-6.
402. [Rules for in situ reactive formation and assembly of block copolymer drug nanoparticles](#). J.L. Anacker, R.K. Prudhomme, C.W. Macosko, T.R. Hoye, W. Saad. *Abstracts of Papers of the American Chemical Society*, **2006**, 231(55-PMSE). WOS:000238125909054
401. [Interfacial slip reduces polymer-polymer adhesion during coextrusion](#), J. Zhang, T.P. Lodge, and C.W. Macosko, *J. Rheol.*, **2006**, *50*, 41-57. DOI: 10.1122/1.2135330.
400. [Nanoclay-modified rigid polyurethane foams](#), T. Widya and C.W. Macosko, *Int J Macromol Sci B* **2005**, *44*, 897-908. DOI: 10.1080/00222340500364809.
399. [Letter to the Editor: Comment on "Origin of concentric cylinder viscometry" \[J. Rheol. 49, 807-818 \(2005\)\]. The relevance of the early days of viscosity, slip at the wall, and stability in concentric cylinder viscometry - Authors' response](#). P. Dontula, C.W. Macosko, L.E. Scriven. *Journal of Rheology*, **2005**, 49(6), 1551-1551, DOI: 10.1122/1.2072107
398. [Premade vs. reactively formed compatibilizers for PMMA/PS melt blends](#), H.K. Jeon, J. Zhang, and C.W. Macosko, *Polymer*, **2005**, *46*, 12422-12429. DOI: 10.1016/j.polymer.2005.10.125.
397. [Rheological and mechanical behavior of blends of styrene-butadiene rubber with polypropylene](#), R.F. Cook, K.J. Koester, M. Ajbani, and C.W. Macosko, *Polym Engr Sci*, **2005**, *45*, 1487-1497. DOI: 10.1002/pen.20286.
396. [Coating kinetics of fluoropolymer processing aids for sharkskin elimination: The role of droplet size](#), D. Bigio, M. Meillon, S. Kharchenko, D. Morgan, H. Zhou, S. Oriani, C.W. Macosko, and K. Migler, *J. Non-Newtonian Fluid Mech.*, **2005**, *131*, 22-31. DOI: 10.1016/j.jnnfm.2005.04.008.
395. [Melt amination of polypropylenes](#), Q-W. Lu, C.W. Macosko, and J. Horrión, *J Polym Sci A*, **2005**, *43*, 4217-4232. DOI: 10.1002/pola.20899.
394. [Reactions at polymer-polymer interfaces for blend compatibilization](#), C.W. Macosko, H.K. Jeon, and T.R. Hoye, *Prog Polym Sci*, **2005**, *30*, 939-947. DOI:10.1016/j.progpolymsci.2005.06.003.
393. [Origins of concentric cylinders viscometry](#), P. Dontula, C.W. Macosko, and L.E. Scriven, *J. Rheol.* **2005**, *49*, 807-818. DOI: 10.1122/1.1940640.
392. [Interfacial morphology development during PS/PMMA reactive coupling](#), J. Zhang, T.P. Lodge, C.W. Macosko, *Macromolecules*, **2005**, *38*, 6586-6591. DOI: 10.1021/ma050530l.
391. [The effect of block copolymer architecture on the coalescence and interfacial elasticity in compatibilized polymer blends](#), P. Moldenaers, E. Van Hemelrijck, C.W. Macosko, P. Van Puyvelde, *J. Rheol.* **2005**, *49*, 783-798. DOI: 10.1122/1.1888625.





390. [Hexadecyl-functionalized lamellar mesostructured silicates and aluminosilicates designed for polymer-clay nanocomposites. Part II: Dispersion in organic solvents and in polystyrene](#), T.T. Chastek, A. Stein, and C.W. Macosko, *Polymer* **2005**, *46*, 4431-4439. DOI:10.1016/j.polymer.2005.02.062.
389. [Hexadecyl-functionalized lamellar mesostructured silicates and aluminosilicates designed for polymer-clay nanocomposites. Part I. Clay synthesis and structure](#), T.T. Chastek, E.L. Que, J.S. Shore, R.J. Lowy III, C.W. Macosko, and A. Stein, *Polymer* **2005**, *46*, 4421-4430. DOI:10.1016/j.polymer.2005.03.006.
388. [Primary amine \(-NH<sub>2</sub>\) quantification in polymers: functionality by <sup>19</sup>F NMR spectroscopy](#), T.R. Hoyer, S. Ji, and C.W. Macosko, *Macromolecules*, **2005**, *38*, 4679-4686. DOI: 10.1021/ma050178b.
387. [Development of discrete nanopores. II. comparison between layered films and blends of polyolefins](#), J. Lee, C.W. Macosko, and F.S. Bates, *J. Appl. Polym. Sci.* **2005**, *95*, 708-718. DOI 10.1002/app.21221.
386. [Polyurethane/clay nanocomposites foams: processing, structure and properties](#), X. Cao, L.J. Lee, T. Widya, C. Macosko, *Polymer* **2005**, *46*, 775-783. DOI:10.1016/j.polymer.2004.11.028.
385. [Extrusion of triblock and pentablock copolymers: Evolution of bulk and surface morphology](#), A. Phatak, C.W. Macosko, F.S. Bates, and S.F. Hahn, *J. Rheol.* **2005**, *49*, 197-214. DOI: 10.1122/1.1822928.
384. [Block copolymer compatibilization of cocontinuous polymer blends](#), J.A. Galloway, H.K. Jeon, J.R. Bell, and C.W. Macosko, *Polymer* **2005**, *46*, 183-191. DOI: 10.1016/j.polymer.2004.10.061.
383. [Strain hardening in polypropylenes and its role in extrusion foaming](#), P. Spitael and C.W. Macosko, *Polym Engr Sci* **2004**, *44*, 2090-2100. DOI: 10.1002/pen.20214.
382. [3D structure of real polymer foams](#), M.D. Montminy, A.R. Tannenbaum, C.W. Macosko, *J Coll. Int. Sci.* **2004**, *280*, 202-211. DOI: 10.1021/ma049712q
381. [Block copolymer micelles for nucleation of microcellular thermoplastic foams](#), P. Spitael, C.W. Macosko, and R.B. McClurg, *Macromolecules* **2004**, *37*, 6874-6882. DOI: 10.1021/ma049712q
380. [Structure and rheology of hydrogen-bond reinforced liquid crystals](#), S.M. Martin, J. Yonezawa, M.J. Horner, C.W. Macosko, and M.D. Ward, *Chem. Mater.* **2004**, *16*, 3045-3055. DOI: 10.1021/cm049594l
379. [Rheology and morphology of smectic liquid crystal/polymer blends](#), J. Yonezawa, S.M. Martin, C.W. Macosko, and M.D. Ward, *Macromolecules* **2004**, *37*, 6424-6432. See also *Polym. Mater. Sci. Engr.* **2003**, *89*, 96-97. DOI: 10.1021/ma0493729
378. [Controlled synthesis of high molecular weight telechelic polybutadienes by ring-opening metathesis polymerization](#), S. Ji, T.R. Hoyer, and C.W. Macosko, *Macromolecules* **2004**, *37*, 5485-5489. DOI: 10.1021/ma0493067
377. [Effects of stress on the exfoliation of polystyrene nanocomposites](#), M.K. Dolgovskij, F. Lortie, and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **2004**, 1336-1340.



376. [Comparison of methods for the detection of cocontinuity in polyethylene oxide/polystyrene blends](#), J.A. Galloway, C.W. Macosko, *Polym Engr Sci* **2004**, *44*, 714-727. See also *Soc. Plast. Eng. Tech. Pap. (ANTEC) 2003*, 2380-2384. DOI: 10.1002/pen.20064
375. [Synthesis and reactive blending of amine and anhydride end-functional polyolefins](#), T.D. Jones, C.W. Macosko, B. Moon, and T.R. Hoyer, *Polymer* **2004**, *45*, 4189-4201. DOI: 10.1016/j.polymer.2004.04.015
374. [Influence of block copolymers on silica-filled polyisoprene](#), D. Gurovich, C.W. Macosko and M. Tirrell, *Rubber Chem. Tech.* **2004**, *76*, 13-33. DOI: 10.5254/1.3547807
373. [Influence of filler-filler and filler-polymer interactions on the physical properties of silica-filled liquid polyisoprene](#), D. Gurovich, C.W. Macosko, and M. Tirrell, *Rubber Chem. Tech.* **2004**, *76*, 1-12. DOI: 10.5254/1.3547812
372. [Coupling reactions of end- vs. mid-functional polymers](#), H.K. Jeon, C.W. Macosko, B. Moon, and T.R. Hoyer, *Macromolecules* **2004**, *37*, 2563-2571. See also *Soc. Plast. Eng. Tech. Pap. (ANTEC) 2003*, 3784-3788. DOI: 10.1021/ma030581n
371. [Development of discrete nanopores I: Tension of polypropylene/ polyethylene copolymer blends](#), J. Lee, C.W. Macosko, and F.S. Bates, *J. Appl. Polym. Sci.* **2004**, *91*, 3642-3650. DOI: 10.1002/app.13602
370. [CFD evaluation of drop retraction methods for the measurement of interfacial tension of surfactant-laden drops](#), S. Velankar, H. Zhou, H.K. Jeon, and C.W. Macosko, *J. Coll. Int. Sci.* **2004**, *272*, 172-185. See also *Soc. Plast. Eng. Tech. Pap. (ANTEC) 2003*, 1597-1602. DOI: 10.1016/j.jcis.2003.09.030
369. [Comparing the compatibility of various functionalized polypropylenes with thermoplastic polyurethane \(TPU\)](#), Q.-W. Lu and C.W. Macosko, *Polymer* **2004**, *45*, 1981-1991. DOI: 10.1016/j.polymer.2003.12.077
368. [Reactively formed block and graft copolymers as compatibilizers for polyamide 66/PS blends](#), H.K. Jeon, B.J. Feist, S.B. Koh, K. Chang, C.W. Macosko, and R.P. Dion, *Polymer* **2004**, *45*, 197-206. DOI: 10.1016/j.polymer.2003.10.099
367. [Interfacial elasticity and coalescence suppression in compatibilized polymer blends](#), E. Van Hemelrijck, P. Van Puyvelde, S. Velankar, C.W. Macosko, P. Moldenaers, *J. Rheol.* **2004**, *48*, 143-158. DOI: 10.1122/1.1634987
366. [Effect of sample size on solvent extraction for detecting cocontinuity in polymer blends](#), J.A. Galloway, K.J. Koester, B.J. Paasch, and C.W. Macosko, *Polymer* **2004**, *45*, 423-428. DOI: 10.1016/j.polymer.2003.10.098
365. [Effect of thermodynamic interactions on reactions at polymer/polymer interfaces](#), T.D. Jones, J. Schulze, C.W. Macosko, B. Moon, T.P. Lodge, *Macromolecules* **2003**, *36*, 7212-7219. DOI: 10.1021/ma0344846
364. [Polymer organic crystal blends from smectic liquid crystal](#). J. Yonezawa, C.W. Macosko, S.M. Martin, M.D. Ward. *Abstract of Papers of the American Chemical Society*, **2003**, 226, U467-U467. WOS:000187062502400



363. [Compatibilized blends of thermoplastic polyurethane \(TPU\) and polypropylene](#), Q-W. Lu, C.W. Macosko, J. Horrión, *Macromol. Symp.*, **2003**, 198, 221-232. DOI: 10.1002/masy.200350819
362. [Visualization of block copolymer distribution on a sheared drop](#), H.K. Jeon and C. W. Macosko, *Polymer*, **2003**, 44, 5381-5386. DOI: 10.1016/S0032-3861(03)00474-9
361. [Promoting adhesion to thermoplastic polyurethane \(TPU\) by amine functional polypropylenes](#), Q-W. Lu, C.W. Macosko, *Polym. Mater. Sci. Engr.* **2003**, 89, 844-847
360. [Effects of stress on exfoliation of polypropylene nanocomposites](#), M.K. Dolgovskij, P.D. Fasulo, F. Lortie, C.W. Macosko, R.A. Ottaviani, and W.R. Rodgers, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **2003**, 2255-2259.
359. [Adhesion between immiscible polymers correlated with interfacial entanglements](#), P.J. Cole, R.F. Cook, and C.W. Macosko, *Macromolecules* **2003**, 36, 2808-2815. DOI: 10.1021/ma020789t
358. [Explaining the abnormally high flow activation energy of thermoplastic polyurethanes](#), Q-W. Lu, M.E. Hernandez-Hernandez, and C.W. Macosko, *Polymer* **2003**, 44, 3309-3318. DOI: 10.1016/S0032-3861(03)00223-4
357. [A numerical and experimental investigation of lamellar blend morphologies](#), V. Cristini, R.W. Hooper, C.W. Macosko, S. Guido, and M. Simeone, *Ind. Eng. Chem. Res.* **2002**, 41, 6305-6311. DOI: 10.1021/ie0200961
356. [Melt versus solvent coating: structure and properties of block-copolymer-based-pressure-sensitive adhesives](#), A. E. O'Connor and C.W. Macosko, *J. Appl. Polym. Sci.* **2002**, 3355-3367. DOI: 10.1002/app.11300
355. [Extensional rheology of polypropylene and its effect on foaming of thermoplastic elastomers](#), P. Spitael, C.W. Macosko, and A. Sahnoune, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **2002**, 1792-1796.
354. [Role of block copolymers on suppression of droplet coalescence](#), S. Lyu, T.D. Jones, F.S. Bates, and C.W. Macosko, *Macromolecules* **2002**, 35, 7845-7855. DOI: 10.1021/ma020754t
353. [Synthesis and application of fluorescently labeled phthalic anhydride \(PA\) functionalized polymers by ATRP](#), B. Moon, T.R. Hoyer, and C.W. Macosko, *Polymer* **2002**, 43, 5501-5509. DOI: 10.1016/S0032-3861(02)00406-8
352. [Image analysis for interfacial area and cocontinuity detection in polymer blends](#), J.A. Galloway, M.D. Montminy, and C.W. Macosko, *Polymer* **2002**, 43, 4715-4722. DOI: 10.1016/S0032-3861(02)00282-3
351. [Reactivity of common functional groups with urethanes: models for reactive compatibilization of thermoplastic polyurethane blends](#), Q. Lu, C.W. Macosko, and T.R. Hoyer, *J. Polym. Sci., Part A: Polym. Chem.* **2002**, 40, 2310-2328. DOI: 10.1002/pola.10310
350. [A note on transient stress calculation via numerical simulations](#), V. Cristini, C.W. Macosko, and T. Jansseune, *J. of Non-Newtonian Fluid Mech.* **2002**, 105, 177-187. DOI: 10.1016/S0377-0257(02)00060-5
349. [Slip at polymer-polymer interfaces: rheological measurements on coextruded multilayers](#), R. Zhao and C.W. Macosko, *J. Rheol.* **2002**, 46, 145-167. DOI: 10.1122/1.1427912



348. [Modeling of coalescence in polymer blends during shearing](#): S. Lyu, F.S. Bates, and C.W. Macosko, *AIChE J.* **2002**, *48*, 7-14. DOI: 10.1002/aic.690480103
347. [Compaction of fiber reinforcements](#), G.L. Batch, S. Cumiskey, and C.W. Macosko, *Polym. Compos.* **2002**, *23*, 307-318. DOI: 10.1002/pc.10433
346. [Block copolymer compatibilizers for poly\(styrene\)/poly\(dimethylsiloxane\) blends](#), M. Maric, and C.W. Macosko, *J. Poly. Sci., Part B: Poly. Phys.*, **2002**, *40*, 346-357. DOI: 10.1002/polb.10098
345. [Effect of molecular weight of the reactive precursors in melt reactive blending](#), Z. Yin, C. Koulic, H.K. Jeon, C. Pagnouille, C.W. Macosko, R. Jerome, *Macromolecules* **2002**, *35*, 8917-8919. DOI: 10.1021/ma0206366
344. [Interfacial crosslinking and diffusion via extensional rheometry](#), T. Saito and C.W. Macosko, *Polym. Eng. Sci.* **2002**, *42*, 1-9; portions also published in *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1998**, 967-971;. DOI: 10.1002/pen.10923
343. [Synthesis of End- and Mid-Phthalic anhydride functional polymers by atom transfer radical polymerization \(ATRP\)](#), B. Moon, T.R. Hoyer, and C.W. Macosko, *Macromolecules* **2001**, *34*, 7941-7951. DOI: 10.1021/ma010475q
342. [Dynamic mechanical analysis of aromatic polyamide/ethylene-propylene-diene terpolymer laminates](#), G. Severe, D. Harris, and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **2001**, 1910-1914.
341. [Homogeneous reactive coupling of terminally functional polymers](#), C.A. Orr, J. Cernohous, P. Guégan, A. Hirao, H.K. Jeon, and C. W. Macosko, *Polymer* **2001**, *42*, 8171-8178. DOI: 10.1016/S0032-3861(01)00329-9
340. [Modeling multiphase flows using a novel 3D adaptive remeshing algorithm](#), R. Hooper, V. Cristini, S. Shakya, J. Lowengrub, J.J. Derby, and C.W. Macosko, *Proceedings of the 1<sup>st</sup> International Conference on Computational Methods in Multiphase Flow*, H. Power and C.A. Brebbia, eds. Wessex Institute of Technology, United Kingdom, **2001**, 33-42.
339. [Swelling behavior of  \$\gamma\$  irradiation cross-linked elastomeric polypentapeptide-based hydrogels](#), J. Lee, C.W. Macosko, and D.W. Urry, *Macromolecules* **2001**, *34*, 4114-4123. DOI: 10.1021/ma0015673
338. [Elastomeric polypentapeptides cross-linked into matrices and fibers](#), J. Lee, C.W. Macosko, and D.W. Urry, *Biomacromolecules* **2001**, *2*, 170-179. DOI: 10.1021/bm0000900
337. [Phase transition and elasticity of protein-based hydrogels](#), J. Lee, C.W. Macosko, D.W. Urry, *J. of Biomater. Sci. Polym. Ed.* **2001**, *12*, 229-242. DOI: 10.1163/156856201750180942
336. [Mechanical properties of cross-linked synthetic elastomeric polypentapeptides](#): J. Lee, C.W. Macosko, and D.W. Urry, *Macromolecules* **2001**, *34*, 5968-5974. DOI: 10.1021/ma0017844
335. [Block copolymers in homopolymer blends: Interface vs micelles](#), A. Adedeji, S. Lyu, and C.W. Macosko, *Macromolecules* **2001**, *34*, 8663-8668. DOI: 10.1021/ma001944b





334. [New algorithms for 3D analysis of open-celled foams](#), M.D. Montminy, A.R. Tannenbaum, and C.W. Macosko *J. Cell. Plast.* **2001**, *37*, 501-515. DOI: 10.1106/LX3Y-DP4C-2B89-Y5Q3
333. [Reactive blending of poly\(dimethylsiloxane\) with nylon 6 and poly\(styrene\): Effect of reactivity on morphology](#), M. Maric, N. Ashurov, and C.W. Macosko, *Polym. Eng. Sci.* **2001**, *41*, 631-642. DOI: 10.1002/pen.10759
332. [A comparison of extensional viscosity measurements from various RME rheometers](#), J.S. Schulze, T.P. Lodge, C.W. Macosko, J. Hepperle, H. Munstedt, H. Bastian, D. Ferri, D.J. Groves, Y.H. Kim, M. Lyon, T. Schweizer, T. Virkler, E. Wassner, W. Zoetelief, *Rheol. Acta*, **2001**, *40*, 457-466. DOI: 10.1007/s003970100170
331. [A comparison of boundary element and finite element methods for modeling axisymmetric polymeric drop deformation](#), R. Hooper, M. Toose, C.W. Macosko, and J.J. Derby, *Int. J. Numer. Meth. Fluids* **2001**, *37*, 837-864. DOI: 10.1002/flid.190
330. [Improving polymer blend dispersions in mini-mixers](#), M. Maric and C.W. Macosko, *Polym. Eng. Sci.* **2001**, *41*, 118-130. DOI: 10.1002/pen.10714
329. [Transient polymeric drop extension and retraction in uniaxial extensional flows](#), R.W. Hooper, V.F. de Almeida, C.W. Macosko, and J.J. Derby, *J. of Non-Newtonian Fluid Mech.* **2001**, *98*, 141-168. DOI: 10.1016/S0377-0257(01)00112-4
328. [Adhesion enhancement via crystalline-embedded entanglements in melt-processed layered structures](#). P.J. Cole and C.W. Macosko, *MRS Symposium Proceedings* **2001**, *629*, FF8.6.1-FF8.6.6.
327. [Measuring copolymer formation from end-functionalized chains at a PS/PMMA interface using FRES and SEC](#), J.S. Schulze, B. Moon, T. Hoyer, T.P. Lodge, and C.W. Macosko, *Macromolecules* **2001**, *34*, 200-205. DOI: 10.1021/ma001207f
326. [Interfacial energy and adhesion between acrylic pressure sensitive adhesives and release coatings](#), L.-H. Li, C.W. Macosko, G.L. Korba, A.V. Pocius, and M. Tirrell, *J. Adhes.* **2001**, *77*, 95-123. DOI: 10.1080/00218460108030734
325. [Tensile deformation of metallocene polyolefin blend films](#), J. Lee, C.W. Macosko, and F.S. Bates, *Polym. Mater. Sci. Engr.* **2001**, *84*, 414-415.
324. [Dynamic Monte Carlo simulation of gelation with extensive cyclization](#), S.E. Rankin, L.J. Kasehagen, A.V. McCormick, and C.W. Macosko, *Macromolecules* **2000**, *33*, 7639-7648. DOI: 10.1021/ma000132c
323. [Assessing a flow-based finite element model for the sintering of viscoelastic particles](#), R. Hooper, C.W. Macosko, and J.J. Derby, *Chem. Eng. Sci.* **2000**, *55*, 5733-5746. DOI: 10.1016/S0009-2509(00)00224-4
322. [Anionic synthesis and detection of fluorescence-labeled polymers with a terminal anhydride group](#), B. Moon, T.R. Hoyer, and C.W. Macosko, *J. Polym. Sci., Part A: Polym. Chem.* **2000**, *38*, 2177-2185. DOI: 10.1002/(SICI)1099-0518(20000615)38:12<2177::AID-POLA60>3.0.CO;2-5
321. [Coalescence in polymer blends during shearing: Experimental studies](#), S. Lyu, F.S. Bates, and C.W. Macosko, *AIChE J* **2000**, *46*, 229-238. DOI: 10.1002/aic.690460203



320. [Reaction injection molding process of glass fiber reinforced polyurethane composites](#), D.S. Kim and C.W. Macosko. *Polymer Engineering and Science*, **2000**, 40(11), 2205-2216. DOI: 10.1002/pen.11352
319. [Block copolymer based pressure sensitive adhesives modified with oligomer resins for increased service temperatures](#), R.-M. Ho, D.W. Giles, C.W. Macosko, and F.S. Bates, *J. Adhes.* **2000**, 73, 65-85. DOI: 10.1080/00218460008029297
318. [Assessing a flow-based finite element model for the sintering of viscoelastic particles](#), R. Hooper, C.W. Macosko, and J.J. Derby, *Chem. Eng. Sci.* **2000**, 55, 5733-5746.
317. [Reaction kinetics of end-functionalized chains at a polystyrene/poly\(methyl methacrylate\) interface](#), J.S. Schulze, A. Hirao, J.J. Cernohous, T.P. Lodge, and C.W. Macosko, *Macromolecules* **2000**, 33, 1191-1198. DOI: 10.1021/ma9911344
316. [Creating block copolymers via melt coupling reactions](#), C.A. Orr, F.S. Bates, and C.W. Macosko, *Polym. Prepr.* **1999**, 40, 1008-1009.
315. [Phase transition in protein-based hydrogels](#). J.H. Lee, F. Prochazka, D.W. Urry, C.W. Macosko. *Abstracts of Papers of the American Chemical Society*, **1999**, 218(U415), WOS:000082034001200
314. [Competitive roles of block copolymer during polymer blending: Suppression of coalescence and reduction of interfacial tension](#). *Abstracts of Papers of the American Chemical Society*, **1999**, 218(U567-U568), WOS:000082034001734
313. [Fluorescence-labeled polymers to monitor polymer-polymer coupling reactions](#). B.J. Moon, T.R. Hoyer, C.W. Macosko. *Abstracts of Papers of the American Chemical Society*, **1999**, 218(U518), WOS:000082034001560
312. [Adhesion in melt-fabricated semicrystalline/amorphous polymeric layered structures](#). P.J. Cole, C.W. Macosko. *Abstracts of Papers of the American Chemical Society*, **1999**, 218(U644-U644), WOS:000082034001944
311. [Hydrogenated polystyrene-polybutadiene block copolymers as polyolefin rheology modifiers](#), T.D. Jones, F.S. Bates, and C.W. Macosko, *Polym. Prepr. ACS Div. Polym. Chem.* **1999**, 40, 1097-1098.
310. [Encapsulation in ternary elastomer blends](#), Y. Koseki, M.S. Lee, and C.W. Macosko, *Rubber Chem. & Tech.* **1999**, 72, 109-118. DOI: 10.5254/1.3538780
309. [Multilayer coextrusion reveals interfacial dynamics in polymer blending](#), R. Zhao and C.W. Macosko, *Proceedings of PPS-15, s'Hertogenbosch, Netherlands*, **1999**.
308. [Morphology development and control in immiscible polymer blends](#), C.W. Macosko, *Seikei Kako*, **1999**, 11, 357-364; *Macromol. Symp.* **2000**, 149, 171-184. DOI: 10.1002/1521-3900(200001)149:1<171::AID-MASY171>3.0.CO;2-8
307. [Aging phenomena in silica filled polydimethylsiloxane](#), J.V. DeGroot and C.W. Macosko, *J. Coll. Interface Sci.* **1999**, 217, 86-93. DOI: 10.1006/jcis.1999.6332
306. [Polymer-polymer adhesion in melt-processed layered structures](#), P.J. Cole and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1999**, 1849; and in *J Plast Film Sheet* **2000**, 16, 213-222. DOI: 10.1106/6N2B-V63L-32AW-4JYD



305. [Yield stress in Orbitz](#), R. Dontula and C.W. Macosko, *Rheol. Bull.* **1999**, *168*, 5-6.
304. [Shearing of polymer drops with interface modification](#), L. Levitt and C.W. Macosko, *Macromolecules* **1999**, *32*, 6270-6277. DOI: 10.1021/ma9814999
303. [Does viscosity of glycerin fall at high shear rates?](#), P. Dontula, C.W. Macosko, and L.E. Scriven, *Ind. Eng. Chem. Res.* **1999**, *38*, 1729-1735. DOI: 10.1021/ie9805685
302. [Role of silicone surfactant in flexible polyurethane foam](#), X.D. Zhang, C.W. Macosko, H.T. Davis, A.D. Nikolov and D.T. Wasan, *J. Coll. Interface Sci.* **1999**, *215*, 270-279. DOI: 10.1006/jcis.1999.6233
301. [Coalescence in blends of thermoplastic polyurethane with polyolefins](#), K. Wallheinke, P. Potschke, C.W. Macosko, and H. Stutz, *Polym. Eng. Sci.* **1999**, *39*, 1022-1033. DOI: 10.1002/pen.11491
300. [A new cell opening mechanism in flexible polyurethane foam](#), X.D. Zhang, H.T. Davis and C.W. Macosko, *J. Cell. Plast.* **1998**, *35*, 459-476.
299. [Importance of cyclization during the condensation of hydrolyzed alkoxysilanes](#), S.E. Rankin, C.W. Macosko, and A.V. McCormick, *Chem. Mater.* **1998**, *10*, 2037-2040. DOI: 10.1021/cm980256s
298. [Interfacial reaction induced roughening in polymer blends](#), S. Lyu, J.J. Cernohous, F.S. Bates, and C.W. Macosko, *Macromolecules* **1998**, *32*, 106-110. DOI: 10.1021/ma9810767
297. [Engineering the composition of co-polyesters synthesized by \*Alcaligenes eutrophus\*](#), A.S. Kelley, D.E. Jackson, C.W. Macosko, and F. Sreenc, *Polymer Degradation and Stability* **1998**, *59*, 187-190. DOI: 10.1016/S0141-3910(97)00177-8
296. [Magnetic resonance imaging and micro-X-ray CT based three dimensional analysis of polyurethane foams](#), B.J. Pangerle, B.E. Hammer, N.P. Bidault, M.L. Listemann, R.E. Stevens, X.D. Zhang, and C.W. Macosko, *Proceedings of Society of Plastics Industry Polyurethanes*, Dallas, Sept. **1998**, 247-253.
295. [Effect of amine additives on flexible molded foam properties](#), X.D. Zhang, L. Bertsch, C.W. Macosko, D.W. House, R.V. Scott, R.B. Turner, *Cell. Polym.* **1998**, *17*, 327-349.
294. [Measurement of foam modulus via a vane rheometer](#), X.D. Zhang, D.W. Giles, V.H. Barocas, K. Yasunaga, and C.W. Macosko, *J. Rheol.* **1998**, *42*, 871-889. DOI: 10.1122/1.550906
293. [Amine-terminal polystyrenes: a new strategy for synthesis and new methods for determination of functionality](#), J.J. Cernohous, C.W. Macosko, and T.R. Hoyer, *Macromolecules* **1998**, *31*, 3759-3763. DOI: 10.1021/ma971142p
292. [Non-linear shear and extensional rheology of long-chain randomly branched polybutadiene](#), L.J. Kasehagen and C.W. Macosko, *J. Rheol.* **1998**, *42*, 1303-1327. DOI: 10.1122/1.550892
291. [Model elastic liquids with water-soluble polymers](#), P. Dontula, C.W. Macosko, and L.E. Scriven, *AIChE J.* **1998**, *44*, 1247-1255. DOI: 10.1002/aic.690440603
290. [Visualization of viscoelastic droplet deformation and retraction under steady shear flow](#), C. Ishii, R. Hooper, and C. W. Macosko, *PPS 14th Proceedings*, Yokohama, June **1998**, 483-484.
289. [A study of interfacial effects in polymer blends under shear and extensional flow](#), T. Saito and C.W. Macosko, *PPS 14th Proceedings*, Yokohama, June **1998**, 261-262.



288. [Blend encapsulation by random copolymers: C/B/A-r-B and C/D/A-r-B systems](#), M.S. Lee, T.P. Lodge, and C.W. Macosko, *Macromol Chem. Phys.* **1998**, *199*, 1555-1559. DOI: 10.1002/macp.1998.021990813
287. [Using mold pressure rise data to obtain viscosity of fast polymerizing systems](#), D.S. Kim, M.A. Garcia, and C.W. Macosko, *Int. Polym. Process.* **1998**, *13*, 162-171.
286. [Urea hard segment morphology in flexible polyurethane foam](#), R. Neff, A. Adedeji, C.W. Macosko, A.J. Ryan, *J. Polym. Sci., Part B: Polym. Physics* **1998**, *36*, 573-581. DOI: 10.1002/(SICI)1099-0488(199803)36:4<573::AID-POLB4>3.0.CO;2-Q
285. [Compounding fumed silicas into polydimethylsiloxane: bound rubber and final aggregate size](#), M. Aranguren, E. Mora, and C.W. Macosko, *J. Coll. Interface Sci.* **1997**, *195*, 329-337. DOI: 10.1006/jcis.1997.5143
284. [Sol-gel polycondensation kinetic modeling: methylethoxysilanes](#), S. E. Rankin, C. W. Macosko, and A. V. McCormick, *AIChE J.* **1997**, *44*, 1141-1156. DOI: 10.1002/aic.690440512
283. [Imaging open cell foam via confocal microscopy](#), R. Hamza, X.-D. Zhang, C.W. Macosko, R. Stevens, M. Listemann in *Polymeric Foams: Science and Technology*, K.C. Khemani, ed., ACS Symposium Series 669, Washington, D.C., **1997**, 165-177.
282. [Microstructure of triblock copolymers in asphalt oligomers](#), R.-M. Ho, A. Adedeji, D.W. Giles, D.A. Hajduk, C.W. Macosko, and F.S. Bates, *J. Polym. Sci., Part B: Polym. Physics* **1997**, *35*, 2857-2877. DOI: 10.1002/(SICI)1099-0488(199712)35:17<2857::AID-POLB10>3.0.CO;2-6
281. [Can random copolymers serve as effective polymeric compatibilizers?](#), M.S. Lee, T.P. Lodge, and C. W. Macosko, *J. Polym. Sci., Part B: Polym. Physics* **1997**, *35*, 2835-2842. DOI: 10.1002/(SICI)1099-0488(199712)35:17<2835::AID-POLB8>3.3.CO;2-C
280. [Structure development in cyanate ester polymerization](#), L. J. Kasehagen and C. W. Macosko, *Polym. Int.* **1997**, *44*, 237-247. DOI: 10.1002/(SICI)1097-0126(199711)44:3<237::AID-PI868>3.3.CO;2-C
279. [Anionic synthesis of polymers functionalized with a terminal anhydride group](#), J. J. Cernohous, C. W. Macosko, and T. R. Hoyer, *Macromolecules* **1997**, *30*, 5213-5219. DOI: 10.1021/ma9702096
278. [Modeling of first shell substitution effects and preferred cyclization in sol-gel polymerization](#), L. J. Kasehagen, S.E. Rankin, A.V. McCormick, and C.W. Macosko, *Macromolecules* **1997**, *30*, 3921-3929. DOI: 10.1021/ma9619142
277. [Flow-induced reactive self-assembly](#), C. Orr, A. Adedeji, A. Hirao, F. Bates, and C.W. Macosko, *Macromolecules* **1997**, *30*, 1243-1246. DOI: 10.1021/ma961574k
276. [Extensional viscosity from entrance pressure drop measurements](#), M. Padmanabhan and C.W. Macosko, *Rheol. Acta* **1997**, *36*, 144-151. DOI: 10.1007/BF00366820
275. [Copolymerization kinetics of a model siloxane system](#), S.E. Rankin, C.W. Macosko, and A.V. McCormick, *J. Polym. Sci., Part A: Polym. Chem.* **1997**, *35*, 1293-1302. DOI: 10.1002/(SICI)1099-0518(199705)35:7<1293::AID-POLA15>3.0.CO;2-3





274. [Can extensional viscosity be measured with opposed nozzle devices?](#), P. Dontula, M. Pasquali, L.E. Scriven, and C.W. Macosko, *Rheol. Acta* **1997**, *36*, 429-448. DOI: 10.1007/BF00396329
273. [Skin development in free rise, flexible polyurethane foam](#), K. Yasunaga, X.D. Zhang, and C.W. Macosko, *J. Cell. Plast.* **1997**, *33*, 528-544.
272. [Extensional rheometry of polymer multilayers: a sensitive probe of interfaces](#), L. Levitt, C.W. Macosko, T. Schweizer, and J. Meisner, *J. Rheol.* **1997**, *41*, 671-685. DOI: 10.1122/1.550829
271. [Effect of silicone surfactant on air flow of flexible polyurethane foams](#), X.D. Zhang, C.W. Macosko, and H.T. Davis in *Polymeric Foams: Science and Technology*, K.C. Khemani, ed., ACS Symposium Series 669, Washington, D.C., **1997**, 130-142.
270. [A kinetic Monte Carlo model with extensive cyclization for inorganic/organic copolymerization](#), S.E. Rankin, L.J. Kasehagen, C.W. Macosko, A.V. McCormick, and G.M. Wieber, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1997**, 1821-1825.
269. [Compatibilizers for melt blending: pre-made block copolymers](#), C.W. Macosko, P. Guegan, A. Khandpur, A. Nakayama, P. Marechal, and T. Inoue, *Macromolecules* **1996**, *29*, 5590-5598. DOI: 10.1021/ma9602482
268. [Kinetics and rheology characterization during curing of dicyanates](#), Y.T. Chen and C.W. Macosko, *J. Appl. Polym. Sci.* **1996**, *62*, 567-576. DOI: 10.1002/(SICI)1097-4628(19961017)62:3<567::AID-APP14>3.0.CO;2-W
267. [Reaction kinetics and chemorheology of a highly reactive PU system](#), D.S. Kim and C.W. Macosko, *Korea Polym. J.* **1996**, *4*, 54-60.
266. [Capillary impregnation of aligned fibrous beds](#), Y.T. Chen, G.L. Batch, and C.W. Macosko, *J. Reinf. Plast. Compos.* **1996**, *15*, 1027-1051.
265. [The hydrolysis and blistering of cyanate ester networks](#), L.J. Kasehagen, I. Haury, C.W. Macosko, and D. Shimp, *J. Appl. Polym. Sci.* **1996**, *64*, 107-113.
264. [Study of cell opening in flexible polyurethane foam](#), K. Yasunaga, R. Neff, X.D. Zhang, and C.W. Macosko, *J. Cell. Plast.* **1996**, *32*, 427-448.
263. [Transient extensional viscosity from a rotational shear rheometer using fiber-windup technique](#), M. Padmanabhan, Leo Kasehagen, and C.W. Macosko, *J. Rheol.* **1996**, *40*, 473-481. DOI: 10.1122/1.550792
262. [Anionic synthesis, modification, and characterization of ABC triblock copolymers](#), P. Guégan, J. Cernohous, A. Khandpur, C.W. Macosko, and T.R. Hoye, *Macromolecules* **1996**, *29*, 4605-4612. DOI: 10.1021/ma951193r
261. [Constitutive modeling of entangled polymer solutions in fast flows](#), M. Pasquali, P. Dontula, C.W. Macosko, and L.E. Scriven in *Proceedings of 12th International Congress on Rheology*, D. De Kee, ed., Quebec City, **1996**.
260. [Viscoelastic effects in forward-roll coating flows](#), P. Dontula, M. Pasquali, C.W. Macosko, and L.E. Scriven in *Proceedings of 12th International Congress on Rheology*, D. De Kee, ed., Quebec City, **1996**.



259. [Compatibilization of blends: effect of reaction rate](#), A. Nakayama, T. Inoue, A. Hirao, P. Guegan, A. Khandpur, and C. W. Macosko, *PPS Proceedings*, Sorrento, May **1996**, 179.
258. [On the inlet stress condition and admissibility of solution of fiber-spinning](#), T. Papanastasiou, V.D. Dimitriadis, L.E. Scriven, C.W. Macosko, and R.L. Sani, *Adv. Polym. Technol.* **1996**, *15*, 237-244. DOI: 10.1002/(SICI)1098-2329(199623)15:3<237::AID-ADV5>3.0.CO;2-V
257. [Rheology of long-chain randomly branched polybutadiene](#), L.J. Kasehagen and C.W. Macosko, *J. Rheol.* **1996**, *40*, 689-709. DOI: 10.1122/1.550732
256. [The rheology and morphology of layered polymer melts in shear](#), M.B. DeBrule, L. Levitt, and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1996**, 84.
255. Reactive blending in polystyrene/polyolefin systems: Effect of reaction rate. C.A. Orr, A. Adedeji, A. Hirao, C. W. Macosko, F.S. Bates. *Abstracts of Papers of the American Chemical Society*, **1996**, 212, 37-PMSE. WOS:A1996VB00901316
254. [Modeling of non-idealities in sol-gel polymerization](#). L.J. Kasehagen, S.E. Rankin, A.V. McCormick, C.W. Macosko. *Abstracts of Papers of the American Chemical Society*, **1996**, 212, 231-PMSE. WOS:A1996VB00901509
253. Thermodynamics and kinetics of interfacial segregation of diblock copolymer in melt-processed compatibilized blends. A. Adedeji, C.W. Macosko, F.S. Bates. *Abstracts of Papers of the American Chemical Society*, **1996**, 212, 257-PMSE. WOS:A1996VB00901535
252. [Effect of silicone surfactant on porosity of flexible polyurethane foams](#). X.D. Zhang, C.W. Macosko, H.T. Davis. *Abstracts of Papers of the American Chemical Society*, **1996**, 212, 381-Poly WOS:A1996VB00901230
251. [Application of end-functionalized polymers to end-coupling at melt interfaces during reactive processing](#). A. Hirao, S. Nakahama, C.W. Macosko. *Abstracts of Papers of the American Chemical Society*, **1996**, 212, 424-Poly. WOS:A1996VB00901273
250. [Simultaneous measurement of viscoelastic changes and cell opening during processing of flexible polyurethane foam](#), R. Neff and C.W. Macosko, *Rheol. Acta* **1996**, *35*, 656-666. DOI: 10.1007/BF00396514
249. [Asphalt modified by sbs triblock copolymer: Structures and properties](#), A. Adedeji, T. Grünfelder, F.S. Bates, C.W. Macosko, M. Stroup-Gardiner, and D.E. Newcomb, *Polym. Eng. Sci.* **1996**, *36*, 1707-1723. DOI: 10.1002/pen.10567
248. [Influence of normal stress difference on polymer drop deformation](#), L. Levitt, C.W. Macosko, and S.D. Pearson, *Polym. Eng. Sci.* **1996**, *36*, 1647-1655. DOI: 10.1002/pen.10561
247. [Rheology and structure of flocculated iron oxide suspensions](#), R.C. Navarrete, C.W. Macosko, and L.E. Scriven, *J. Coll. Interface Sci.* **1996**, *180*, 200-211. DOI: 10.1006/jcis.1996.0290
246. [Evidence for inversion of phase continuity during morphology development in polymer blending](#), U. Sundararaj, C.W. Macosko, and C.K. Shih, *Polym. Eng. Sci.* **1996**, *36*, 1769-1781. DOI: 10.1002/pen.10572



245. Compatibilizers for A/B blends: A-C-B triblock versus A-B diblock copolymers, A.K. Khandpur, P. Guégan, F.S. Bates, and C.W. Macosko, presented at *Polyblends '95*, Montreal, **1995**.
244. [Tandem GC/MS: a useful tool for studying end-capping reactions of oligo\(styryl\)lithium anions](#), T.R. Hoyer, D. M. Brestensky, and C.W. Macosko, *J. Polym. Sci., Part A: Polym. Chem.* **1995**, *33*, 1957-1967. DOI: 10.1002/pola.1995.080331202
243. [Monte Carlo simulation of cyclization during stepwise polymerization](#), R. Hendrickson, A. Gupta, and C.W. Macosko, *Comput. Polym. Sci.* **1995**, *5*, 135-142.
242. [Formation of cage-like intermediates from nonrandom cyclization during acid-catalyzed sol-gel polymerization of tetraethyl orthosilicate](#), L.V. Ng, P. Thompson, J. Sanchez, C.W. Macosko, and A.V. McCormick, *Macromolecules* **1995**, *28*, 6471-6476. DOI: 10.1021/ma00123a012
241. [ABC triblocks as compatibilizers for mechanically mixed immiscible polymer blends](#), P. Guégan, A.K. Khandpur, and C.W. Macosko, *Polym. Prepr.* **1995**, *36*, 188.
240. [A model for modulus development in flexible polyurethane foam](#), R. Neff and C.W. Macosko, *Proceedings of SPI Polyurethanes Annual Technical/Marketing Conference* **1995**, 344-352.
239. [Processing and morphology of polystyrene/ethylene-propylene rubber reactive and nonreactive blends](#), C.E. Scott and C.W. Macosko, *Polym. Eng. Sci.* **1995**, *35*, 1938-1948. DOI: 10.1002/pen.760352405
238. [Sheet formation in immiscible polymer blends: model experiments on initial blend morphology](#), U. Sundararaj, Y. Dori, and C.W. Macosko, *Polymer* **1995**, *36*, 1957-1968. DOI: 10.1016/0032-3861(95)91438-D
237. [Sol-gel polymerization: Monte Carlo simulation of substitution effects](#), R. Hendrickson, C.W. Macosko, and A.M. Gupta, *Comput. Polym. Sci.* **1995**, *4*, 53-65.
236. [Reaction injection pultrusion of thermoplastic and thermoset composites](#), M.G. Dubé, G.L. Batch, J.H. Vogel and C.W. Macosko, *Polymer Composites* **1995**, *16*, 378-385. DOI: 10.1002/pc.750160506
235. [Morphology development during the initial stages of polymer-polymer blending](#), C.E. Scott and C.W. Macosko, *Polymer* **1995**, *36*, 461-470. DOI: 10.1016/0032-3861(95)91554-K
234. [Compounding and morphology of nylon/ethylene-propylene rubber reactive and non-reactive blends](#), C.E. Scott and C.W. Macosko, *Int. Polym. Process* **1995**, *1*, 36-45.
233. [Drop breakup and coalescence in polymer blends: the effects of concentration and compatibilization](#), U. Sundararaj and C.W. Macosko, *Macromolecules* **1995**, *28*, 2647-2657. DOI: 10.1021/ma00112a009
232. [Milligrams to kilograms: an evaluation of mixers for reactive polymer blending](#), U. Sundararaj, C.W. Macosko, A. Nakayama, and T. Inoue, *Polym. Eng. Sci.* **1995**, *35*, 100-114. DOI: 10.1002/pen.760350113
231. [Wetting of fiber mats for composites manufacturing Part II: Air entrapment model](#), Y.T. Chen, H.T. Davis, and C.W. Macosko, *AIChE J.* **1995**, *41*, 2274-2281. DOI: 10.1002/aic.690411010



230. [Wetting of fiber mats for composites manufacturing Part I: Visualization experiments](#), Y.T. Chen, H.T. Davis, and C.W. Macosko, *AIChE J.* **1995**, *1*, 10, 2261-2273. DOI: 10.1002/aic.690411009
229. [Inelastic constitutive equations for steady complex flows](#), P.R. Souza Mendes, M. Padmanabhan, L.E. Scriven, and C.W. Macosko, *Rheol. Acta* **1995**, *34*, 209-214.
228. [Kinetics of amine-cyclic anhydride reactions for reactive processing](#), A.R. Padwa, K.A. Wolske, Y. Sasaki, and C.W. Macosko, *J. Polym. Sci., Part A: Polym. Chem.* **1995**, *33*, 2165-2174. DOI: 10.1002/pola.1995.080331310
227. [Rheology of reactive polystyrene/ethylene-propylene rubber blends](#), C.E. Scott and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1995**, *41*, 1135-1137.
226. [Transmission electron microscopy of saturated hydrocarbon block copolymers](#), A.K. Khandpur, C.W. Macosko, and F.S. Bates, *J. Polym. Sci., Part B: Polym. Physics* **1994**, *33*, 247-252. DOI: 10.1002/polb.1995.090330209
225. [Rheological and mechanical properties of filled rubber: Silica-silicone](#), M.I. Aranguren, E. Mora, C.W. Macosko, and J. Saam, *Rubber Chem. & Tech.* **1994**, 820-833. DOI: 10.5254/1.3538713
224. [Morphology development during reactive and non-reactive blending of an ethylene-propylene rubber with two thermoplastic matrices](#), C.E. Scott and C.W. Macosko, *Polymer* **1994**, *35*, 5422-5433. DOI: 10.1016/S0032-3861(05)80005-9
223. [Flow-induced anisotropic SALS in silica filled PDMS liquids](#), J.V. DeGroot, Jr, C.W. Macosko, T. Kume, and T. Hashimoto, *J. Coll. Interface Sci.* **1994**, *166*, 404-413. DOI: 10.1006/jcis.1994.1311
222. [Interfacial mixing of urethane foam chemicals](#), S.L. Hager, T.A. Craig, M.W. Jorgenson, L.D. Artavia, and C.W. Macosko, *J. Cell. Plast.* **1994**, *30*, 529-534. DOI: 10.1177/0021955X9403000103
221. [Single-point correction for parallel disks rheometry](#), M. Padmanabhan, M. Carvalho, and C.W. Macosko, *J. Rheol.* **1994**, *38*, 1925-1936. DOI: 10.1122/1.550532
220. [Kinetics of chain coupling at melt interfaces](#), P. Guegan, C.W. Macosko, T. Ishizone, A. Hirao, and S. Nakahama, *Macromolecules* **1994**, *27*, 4993-4997. DOI: 10.1021/ma00096a022
219. [Modelling of laminar tube flow of thermosetting polymers: Application of a finite element method with moving grid](#), T.G. Charbonneau and C.W. Macosko, *Polym. React. Eng.* **1994**, *2*, 347-387.
218. [Thermal stability of polyurethanes: applications to thermoset recycling](#), M.E. Hernandez and C.W. Macosko, *Proc. SPI Polyurethane Ann. Tech. Conf.* **1994**, 669-674.
217. [Visualization of morphology development in polymer blends](#), U. Sundararaj, Y. Dori, and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1994**, *40*, 2448-2451.
216. [Model experiments for the interfacial reaction between polymers during reactive polymer blending](#), C. Scott and C.W. Macosko, *J. Polym. Sci., Part B: Polym. Physics* **1994**, *32*, 205-213. DOI: 10.1002/polb.1994.090320201





215. Visualization of slide coating of a viscoelastic liquid, J.J. Cai, W.T. Lau, T.J. Anderson, W. Suszynski, C.W. Macosko, and L.E. Scriven, IS&T 46th Annual Conference Proceedings, **1993**, 313-315.
214. [Compatibilizers for melt blending: premade vs. reactively formed block copolymers](#), A. Nakayama, T. Inoue, P. Guegan, and C. W. Macosko *Polym. Prepr.* **1993** 34, 840-841.
213. [Electrochemical processing of electrically conductive polymer fibers](#), S. Li, C.W. Macosko, and H.S. White, *Adv. Mater.* **1993**, 5, 575-576. DOI: 10.1002/adma.19930050714
212. [Characterization and modeling of rigid branched polycyanates](#), A.M. Gupta and C.W. Macosko, *Macromolecules* **1993**, 26, 2455-2463. DOI: 10.1021/ma00062a010
211. [Kinetics of amine-anhydride reactions for reactive processing](#). A.R. Padwa, C.W. Macosko, K.A. Wolske, Y. Sasaki. *Abstracts of Papers of the American Chemical Society*, **1993**, 206, 8-Macr, WOS:A1993LP32201766
210. [Heat transfer and cure in pultrusion: Model and experimental verification](#), G.L. Batch and C.W. Macosko, *AIChEJ.* **1993**, 39, 1228-1242. DOI: 10.1002/aic.690390713
209. [Electrochemical process for the production of conducting polymer fibers](#), S. Li, C. W. Macosko, and H. S. White, *Science* **1993**, 259, 957-960.
208. [Remarks on two available extensional viscosity measurement techniques](#), P.R. Souza Mendes, M. Padmanabhan, C.W. Macosko, and L.E. Scriven, in *Experimental Heat Transfer, Fluid Mechanics and Thermodynamics*, M.D. Kelleher et al., eds. Elsevier, New York, **1993**, 880-887.
207. Morphology stabilization during polymer blending, U. Sundararaj, C.E. Scott, and C.W. Macosko, *Seikei-Kakou* **1993**, 5, 571. (in Japanese)
206. [Settling behaviors of iron oxide suspensions](#), G.G. Glasrud, R.C. Navarrete, L.E. Scriven, and C.W. Macosko, *AIChEJ.* **1993**, 39, 560-565. DOI: 10.1002/aic.690390404
205. Quantitative evaluation of internal mold release agents for polyurea RIM by the measurement of the releases forces, W.R. Willkomm, R.M. Jennings, and C.W. Macosko, *Plast. Rubber Compos. Process Appl.* **1993**, 19, 69-76.
204. [The recirculating screw mixer: A new small-volume mixer for the polymer laboratory](#), C.E. Scott and C.W. Macosko, *Polym. Eng. Sci.* **1993**, 32, 1065-1078. DOI: 10.1002/pen.760331609
203. [Kinetic model for crosslinking free radical polymerization including diffusion limitations](#), G.L. Batch and C.W. Macosko, *J. Apply. Polym. Sci.* **1992**, 44, 1711-1729. DOI: 10.1002/app.1992.070441004
202. Rheology of RIM polyurea systems, M.A. Garcia and C.W. Macosko, Polymer Processing Society Meeting, Knoxville, TN, Oct. **1992**.
201. [A comparison of extensional rheometers](#), J.J. Cai, P.R. Souza Mendes, C.W. Macosko, L.E. Scriven, and R.B. Secor, *Theoretical & Applied Rheology*, P. Moldenaers and R. Keunings, eds. Elsevier, New York, **1992**, 1012.



200. [Cyclization during crosslinking free-radical polymerizations](#), N.A. Dotson, C.W. Macosko, and M. Tirrell, in *Synthesis, Characterization, and Theory of Polymeric Networks and Gels*, S.M. Aharoni, ed. Plenum Press, New York, **1992**, 319-336.
199. [Thermotropic polyurethanes](#), D.J. Gerbi, W. Mormann, S. Benadda, and C.W. Macosko, *Polym. Prepr.* **1992**, *33*, 1109.
198. Anhydride terminal polystyrene for reactive blending, Y. Sasaki, U. Vaidya, K. Wolske, M. Tirrell, and C.W. Macosko, *Polym. Prepr.* **1992**, *33*, 944-945.
197. [Morphology development in polymer blends](#), U. Sundararaj, R.J. Rolando, H.T. Chan, and C.W. Macosko, *Polym. Eng. Sci.* **1992**, *32*, 1814-1823. DOI: 10.1002/pen.760322404
196. [Order-disorder transition in a block copolyurethane](#), A.J. Ryan, W. Bras, and C.W. Macosko, *Macromolecules* **1992**, *25*, 6277-6283. DOI: 10.1021/ma00049a026
195. [Effect of reinforcing fillers on the rheology of polymer melts](#), M.I. Aranguren, E. Mora, J.V. DeGroot, and C.W. Macosko, *J. Rheol.* **1992**, *36*, 1165-1182. DOI: 10.1122/1.550306
194. [Nonidealities exhibited by cross-linking copolymerization of methyl methacrylate and ethylene glycol dimethacrylate](#), N.A. Dotson, T. Diekmann, C.W. Macosko, and M. Tirrell, *Macromolecules* **1992**, *25*, 4490-4500. DOI: 10.1021/ma00044a006
193. [Volume rise during flexible urethane foaming](#), L.D. Artavia, C.W. Macosko, R.D. Priester, Jr., A.K. Schrock, and R.B. Turner, *Polym. React. Eng.* **1992**, *1*, 203-227.
192. [Fragile networks and rheology of concentrated suspensions](#), H. Kanai, R.C. Navarrete, C.W. Macosko, and L.E. Scriven, *Rheol. Acta* **1992**, *31*, 333-344. DOI: 10.1007/BF00418330
191. Adiabatic cure characterization of heat activated reactions, G.L. Batch and C.W. Macosko, *Proceedings of the 20th North American Thermal Analysis Society Conference*, Minneapolis, Minnesota, September **1991**, 346-351.
190. Temperature control in rheometry, E. Mora and C.W. Macosko, *Proceedings of the 20th North American Thermal Analysis Society Conference*, Minneapolis, Minnesota, September **1991**, 506.
189. Finite difference schemes for convection dominated flows, with emphasis on the injection mold filling problem, M.A. Garcia and C.W. Macosko, presented at Polymer Processing Society, Hamilton, Ont. April **1991**.
188. [DSC sample temperature control while measuring reaction kinetics](#), G. L. Batch and C. W. Macosko, *Thermochim. Acta* **1991**, *188*, 1-15. DOI: 10.1016/0040-6031(91)80199-S
187. [Thermal, mechanical, and fracture properties of copolyureas formed by reaction injection molding: effects of hard segment structure](#), A.J. Ryan, T.B. Bergstrom, W.R. Willkomm, and C.W. Macosko, *J. Appl. Polym. Sci.* **1991**, *42*, 1023-1039. DOI: 10.1002/app.1991.070420416
186. [Reaction kinetics and injection molding of liquid silicone rubber](#), G.L. Batch, D.N. Kemp, and C.W. Macosko, *Rubber Chem. & Tech.* **1991**, 218-233. DOI: 10.5254/1.3538554



185. [Synthesis and characterization of polymers based on the cyanate functional group](#), A.M. Gupta and C.W. Macosko, *Makromol. Chem., Macromol. Symp.* **1991**, *45*, 105-115. DOI: 10.1002/masy.19910450114
184. [Monte Carlo description of Af homopolymerization: Diffusional effects](#), A.M. Gupta, R.C. Hendrickson, and C.W. Macosko, *J. Chem. Phys.* **1991**, *95*, 2097-2108. DOI: 10.1063/1.461009
183. [Nonhomogeneties in couette flow of ferrite suspensions](#), M.L. Toy, L.E. Scriven, and C.W. Macosko, *J. Rheol.* **1991**, 887-899. DOI: 10.1122/1.550161
182. [Modeling of reactive filling in complex cavities](#), M.A. Garcia, C.W. Macosko, S. Subbiah, and S.I. Güçeri, *Int. Polym. Process* **1991**, *6*, 73-82.
181. [Calculation of average molecular properties during nonlinear, living copolymerization](#), C. W. Macosko and D. R. Miller, *Makromol. Chem.* **1991**, *192*, 377-404.
180. [Dynamics of \(micro\) phase separation during fast, bulk copolymerization: some synchrotron SAXS experiments](#), A.J. Ryan, W.R. Willkomm, T.B. Bergstrom, C.W. Macosko, J.T. Koberstein, C.C. Yu, and R.P. Russell, *Macromolecules* **1991**, *24*, 2883-2889. DOI: 10.1021/ma00010a038
179. [Glass transition temperature as a function of conversion in thermosetting polymers](#), A. Hale, C.W. Macosko, and H.E. Bair, *Macromolecules* **1991**, *24*, 2610-2621. DOI: 10.1021/ma00009a072
178. [Model experiments concerning morphology development during the initial stages of polymer blending](#), C.E. Scott and C.W. Macosko, *Polym. Bull. (Berlin)* **1991**, *26*, 341-348. DOI: 10.1007/BF00587979
177. [Mass-transfer correlation for flow over cylindrical microelectrodes](#), D.J. Earl, H.J. Kragt, C.W. Macosko, and H.S. White, *Ind. Eng. Chem. Res.* **1991**, *29*, 264-267. DOI: 10.1021/ie00049a041
176. [Urethane polymerization in a counter-rotating twin-screw extruder](#), A. Bouilloux, C.W. Macosko, and T. Kotnour, *Ind. Eng. Chem. Res.* **1991**, *30*, 2431-2436. DOI: 10.1021/ie00059a011
175. [Spin coating of a PMMA/chlorobenzene solution](#), D.E. Bornside, C.W. Macosko, and L.E. Scriven, *J. Electrochem Soc.* **1991**, *138*, 317-320. DOI: 10.1149/1.2085563
174. [Modulus development during reactive urethane foaming](#), E. Mora, L.D. Artavia, and C.W. Macosko, *J. Rheol.* **1991**, *35*, 921-940. DOI: 10.1122/1.550163
173. [Analysis of pressure, pulling force, and sloughing in pultrusion](#), G.L. Batch and C.W. Macosko, *HTD (Am. Soc. Mech. Eng.)* **1990**, *132* (Transp. Phenom. Mater. Process.), 109-12.
172. RIM mold filling studies: Comparison of theory and experiments, M.A. Garcia, C.W. Macosko, N.P. Vespoli, and C.C. Marken, The 6<sup>th</sup> Annual Meeting, PPS, Nice, France, April **1990**.
171. [Rheology for better sol-gel fiber and film formation](#), C.W. Macosko, M.L. Mecartney, and L.E. Scriven, *Mater. Res. Soc. Symp. Proc.* **1990**, *180*, 555-568.
170. [A simple model of reverse roll coating](#), D.J. Coyle, C.W. Macosko, and L.E. Scriven, *Ind. Eng. Chem. Res.* **1990**, *529*, 1416-1419. DOI: 10.1021/ie00103a046



169. [Modeling strategy for systems with both stepwise and chainwise chemistry: amine-epoxy networks with etherification](#), A. M. Gupta and C.W. Macosko, *J. Polym. Sci., Part B: Polym. Physics* **1990**, *28*, 2585-2606. DOI: 10.1002/polb.1990.090281309
168. [Foam kinetics](#), L.D. Artavia and C.W. Macosko, *J. Cell. Plast.* **1990**, *26*, 490-511.
167. [Synthesis of polystyrene with cyclic anhydride end-group](#), K.A. Wolske, C.W. Macosko, and M. Tirrell, *Polym. Prepr.* **1990**, *31*, 502.
166. [Networks by fast epoxy polymerization](#), A.J. Ryan, U.R. Vaidya, W. Mormann, and C.W. Macosko, *Polym. Bull. (Berlin)* **1990**, *24*, 521-527. DOI: 10.1007/BF00395574
165. [Modeling the gelation of silicon alkoxides](#), J.K. Bailey, C.W. Macosko, and M.L. Mecartney, *J. Non-Cryst. Solids* **1990**, *125*, 208-223. DOI: 10.1016/0022-3093(90)90851-C Published: NOV 1990
164. [Process parameters estimation for structural reaction injection molding and resin transfer molding](#), V.M. González-Romero and C.W. Macosko, *Polym. Eng. Sci.* **1990**, *30*, 142-146. DOI: 10.1002/pen.760300303
163. [The fluid dynamics of reverse roll coating](#), D.J. Coyle, C.W. Macosko, and L.E. Scriven, *AIChE J.* **1990**, *36*, 161-174. DOI: 10.1002/aic.690360202
162. [Reverse roll coating of non-Newtonian liquids](#), D.J. Coyle, C.W. Macosko, and L.E. Scriven, *J. Rheol.* **1990**, *34*, 615-636. DOI: 10.1122/1.550145
161. [Chemorheology relations for epoxy-amine crosslinking](#), S.A. Bidstrup and C.W. Macosko, *J. Polym. Sci., Part B: Polym. Physics* **1990**, *28*, 691-709. DOI: 10.1002/polb.1990.090280508
160. [Oxygen inhibition in differential scanning calorimetry of free radical polymerization](#), G. L. Batch and C. W. Macosko, *Thermochim. Acta* **1990**, *166*, 185-198. DOI: 10.1016/0040-6031(90)80180-7
159. [Dynamic mechanical measurements: Comparison between bending and torsion methods on a graphite reinforced and a rubber modified epoxy](#), J.F. Gerard, S.J. Andrews, and C.W. Macosko, *Polym. Compos.* **1990**, *11*, 90-98. DOI: 10.1002/pc.750110204
158. [Stability of symmetric film-splitting between counterrotating cylinders](#), D.J. Coyle, C.W. Macosko, and L.E. Scriven, *J. Fluid Mech.* **1990**, *216*, 437-458. DOI: 10.1017/S0022112090000490
157. [DSC and <sup>13</sup>C-NMR studies of the imidazole-accelerated reaction between epoxides and phenols](#), A Hale, C. W. Macosko, and H. E. Bair, *J. Appl. Polym. Sci.* **1989**, *38*, 1253-1269. DOI: 10.1002/app.1989.070380706
156. [Spin coating: One-dimensional model](#), D.E. Bornside, C.W. Macosko, and L.E. Scriven, *J. Appl. Phys.* **1989**, *66*, 5185-5193. DOI: 10.1063/1.343754
155. [Spiral-flow modelling of a filled epoxy-novolac molding compound](#), A. Hale, M. García, C.W. Macosko, and L.T. Manzione, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1989**, *35*, 796-799.
154. Dynamic mechanical spectroscopy testing of foams, L.D. Artavia and C.W. Macosko. 18th NATAS Conf. San Diego, CA, Sept. **1989**, 270.





153. [Experimental uncertainties in extensional rheometry of liquids by fiber drawing](#), R.B. Secor, P.R. Schunk, T.B. Hunter, T.F. Stitt, C.W. Macosko, and L.E. Scriven, *J. Rheol.* **1989**, *33*, 1329-1358. DOI: 10.1122/1.550009
152. [Characterization of laboratory scale RIM machines](#), K.J. Mikkelsen and C.W. Macosko, *J. Elast. Plast.* **1989**, *21*, 29-48. DOI: 10.1177/009524438902100104during fast (RIM) polyurethane polymerization, W.P. Yang and C.W. Macosko, *Makromol. Chem., Macromol Symp.* **1989**, *25*, 23-44. DOI: 10.1002/masy.19890250104
151. [Newtonian Flow in Opposed Nozzle Configurations](#), P.R. Schunk, J.M. de Santos, C.W. Macosko, and L.E. Scriven, presented at Xth International Congress on Rheology, Sydney, **1988**, *2*, 254-256.
150. [Structural development during nonlinear free-radical polymerizations](#), N.A. Dotson, R. Galván, and C.W. Macosko, *Macromolecules* **1988**, *21*, 2560-2568. DOI: 10.1021/ma00186a041
149. [Viscosity Modeling in novolac-cured epoxies](#). A. Hale, C.W. Macosko. *Abstracts of Papers of the American Chemical Society*, **1988**, 196, 254-PMSE, WOS:A1988P814203869
148. [Microdispersive interfacial mixing phenomena in fast polymerization](#), S.C. Machuga, H.L. Midje, J. S. Peanasky, C.W. Macosko, and W.E. Ranz, *AIChE J.* **1988**, *34*, 1057-1064. DOI: 10.1002/aic.690340702
147. [Characterization of reactive blending kinetics](#). C.E. Scott, C.W. Macosko. *Abstracts of Papers of the American Chemical Society*, **1988**, 195, 3-MACR, WOS:A1988P936202038
146. Opposed jets: an extensional rheometer for low viscosity liquids, K.J. Mikkelsen, C.W. Macosko, and G.G. Fuller, presented at Xth International Congress on Rheology, Sydney, **1988**, *2*, 125-127.
145. [Polyurea synthesis and properties as a function of hard-segment content](#), Z.S. Chen, W.P. Yang, and C.W. Macosko, *Rubber Chem. & Tech.* **1988**, *61*, 86-99. DOI: 10.5254/1.3536179
144. [Properties and phase separation of reaction injection molding and solution polymerized polyureas as a function of hard block content](#), W.R. Willkomm, Z.S. Chen, C.W. Macosko, D. Gobran, and E.L. Thomas, *Polym. Eng. Sci.* **1988**, *28*, 888-900. DOI: 10.1002/pen.760281403
143. Crosslinking free radical kinetics with changing initiator concentration, G.L. Batch and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1988**, *34*, 1039-1041.
142. [Network parameters for crosslinking of chains with length and site distribution](#), D.R. Miller and C.W. Macosko, *J. Polym. Sci., Part B Polym. Physics* **1988**, *26*, 1-54.
141. [Cyclization and reduced reactivity of pendant vinyls during the copolymerization of methyl methacrylate and ethylene glycol dimethacrylate](#), D.T. Landin and C.W. Macosko, *Macromolecules* **1988**, *21*, 846-851. DOI: 10.1021/ma00181a048
140. [Moldability diagrams for the reaction injection molding of a polyurethane crosslinking system](#), I. Manas-Zloczower and C.W. Macosko, *Polym. Eng. Sci.* **1988**, *19*, 1219-1226. DOI: 10.1002/pen.760281903
139. [Reaction kinetics of a polyurea RIM system](#), M. Pannone and C.W. Macosko, *Polym. Eng. Sci.* **1988**, *28*, 660-669. DOI: 10.1002/pen.760281005



138. [Modulus of polybutadiene networks made by hydrosilation crosslinking](#), M.I. Aranguren and C.W. Macosko, *Macromolecules* **1988**, *21*, 2483-2491. DOI: 10.1021/ma00186a030
137. [Small scale mixing phenomena during reaction injection moulding](#), P.D. Wickert, W.E. Ranz, and C.W. Macosko, *Polymer* **1987**, *28*, 1105-1110. DOI: 10.1016/0032-3861(87)90250-3
136. [On the modeling of spin coating](#), D.E. Bornside, C.W. Macosko, and L.E. Scriven, *J. Imaging Technol.* **1987**, *13*, 122-130.
135. [The kinematics of fountain flow in mold-filling](#), D.J. Coyle, J.W. Blake, and C.W. Macosko, *AIChE J.* **1987**, *33*, 1168-1177. DOI: 10.1002/aic.690330711
134. [Fiber spinning of viscoelastic liquid](#), A.C. Papanastasiou, C.W. Macosko, L.E. Scriven, and Z. Chen, *AIChE J.* **1987**, *33*, 834-842. DOI: 10.1002/aic.690330516
133. [A finite element method for liquid with memory](#), A.C. Papanastasiou, L.E. Scriven, and C.W. Macosko, *J. of Non-Newtonian Fluid Mech.* **1987**, *22*, 271-288. DOI: 10.1016/0377-0257(87)85020-6
132. [Structural and rheological changes during epoxy-amine crosslinking](#), S.A. Bidstrup and C.W. Macosko, in *Crosslinked Epoxies*, B. Sedlacek and J. Kahovec, eds., Walter de Gruyter & Co., Berlin, **1987**, 253-268.
131. [Creep measurements on magnetic suspensions](#), T. Amari, K. Watanabe, C. W. Macosko, and L. E. Scriven, *IEEE Trans. Magn* No. 5, **1987**, *23*, 3239-3241. DOI: 10.1109/TMAG.1987.1065461
130. [Kinetics of crosslinking free radical polymerization with diffusion-limited propagation](#), G.L. Batch and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1987**, *33*, 974-976.
129. [Kinetics of isocyanate amine reactions](#), M. Pannone and C.W. Macosko, *J. Appl. Polym. Sci.* **1987**, *34*, 2409-2432. DOI: 10.1002/app.1987.070340707
128. [Calculation of average network parameters using combined kinetic and Markovian analysis](#), D.R. Miller and C.W. Macosko, in *Biological and Synthetic Polymer Networks*, O. Kramer, ed., Elsevier Applied Science, London, **1987**, 219-231.
127. [Adiabatic reactive viscometry for polyurethane reaction injection molding](#), J.W. Blake, W.P. Yang, R.D. Anderson, and C.W. Macosko, *Polym. Eng. Sci.* **1987**, *27*, 1236-1242. DOI: 10.1002/pen.760271606
126. [The hydrosilylation cure of polyisobutene](#), C.W. Macosko and J.C. Saam, in *Advances in Elastomers and Rubber Elasticity*, J.E. Mark, ed., ACS Symposium Series, Plenum Press, 48-49 (**1986**); *Polymer Bulletin* **1987**, *18*, 463-471.
125. [Molecular weight relations for crosslinking of chains with length and site distribution](#), D.R. Miller and C.W. Macosko, *J. Polym. Sci., Part B Polym. Physics* **1987**, *25*, 2441-2469.
124. [Ring formation in linear stepwise polymerization](#), R.J. Rolando and C.W. Macosko, *Macromolecules* **1987**, *20*, 2707-2713. DOI: 10.1021/ma00177a013
123. [Analysis of lubricated planar stagnation die flow](#), R.B. Secor, C.W. Macosko, and L.E. Scriven, *J. of Non-Newtonian Fluid Mech.* **1987**, *23*, 355-381. DOI: 10.1016/0377-0257(87)80027-7



122. [Film-splitting flows of shear-thinning liquids in forward roll coating](#), D.J. Coyle, C.W. Macosko, and L.E. Scriven; *AIChE J.* **1987**, *33*, 741-746. DOI: 10.1002/aic.690330506
121. [Space-time distribution in filling a mold](#), I. Manas-Zloczower, J.W. Blake and C.W. Macosko, *Polym. Eng. Sci.* **1987**, *27*, 1229-1232. DOI: 10.1002/pen.760271605
120. [Thermal degradation of urethanes based on 4,4' diphenylmethane diisocyanate and 1,4 butanediol \(MDI/BDO\)](#), W.P. Yang, C.W. Macosko, and S.T. Wellinghoff, *Polymer* **1986**, *27*, 1235-1240. DOI: 10.1016/0032-3861(86)90012-1
119. [Analysis of lubricated squeezing flow](#), A.C. Papanastasiou, C.W. Macosko, and L.E. Scriven, *Intern. J. Numer. Methods Fluids* **1986**, *6*, 819-839. DOI: 10.1002/flid.1650061105
118. [Impingement mixing and its effect on the microstructure of RIM polyurethanes](#), P. Kolodziej, W.P. Yang, C.W. Macosko, and S.T. Wellinghoff, *J. Polym. Sci., Part B Polym. Physics* **1986**, *24*, 2359-2377. DOI: 10.1002/polb.1986.090241017
117. [Film-splitting flows in forward roll coating](#), D.J. Coyle, C.W. Macosko, and L.E. Scriven, *J. Fluid Mech.* **1986**, *171*, 183-207. DOI: 10.1017/S0022112086001416
116. [Moldability diagrams for reaction injection molding](#), I. Manas-Zloczower and C.W. Macosko, *Polym. Process Eng.* **1986**, *4*, 173-184.
115. [Some rheological measurements on magnetic iron oxide in silicone oil](#), M.-C. Yang, L.E. Scriven, and C.W. Macosko, *J. Rheol.* **1986**, *30*, 1015-1029. DOI: 10.1122/1.549892
114. [On Bryce Maxwell's contribution to polymer science and engineering](#), C.W. Macosko, *Polym. Eng. Sci.* **1986**, *26*, 1362-1370. DOI: 10.1002/pen.760262006
113. [Elastohydrodynamics in coating flows](#). F.R. Pranckh, L.E. Scriven, C.W. Macosko. *Abstracts of Papers of the American Chemical Society*, **1986**, 191, 13-PMSE, WOS:A1986A474103294
112. [Thermal-degradation of MDI BDO based urethanes](#). W.P. Yang, C.W. Macosko, S.T. Wellinghoff. *Abstracts of Papers of the American Chemical Society*, **1985**, 190, 120-POY, WOS:A1985APH0303183
111. [Laminar flow of a thermosetting polymer through a coat hanger die](#), H.G. Debry, T.G. Charbonneaux, and C.W. Macosko, *Polym. Process Eng.* **1986**, *4*, 151-171.
110. [Viscosity changes during urethane polymerization with phase separation](#), J.M. Castro, C.W. Macosko, and S.J. Perry, *Polym. Commun.* **1984**, *25*, 82-87; correction: *Polym. Commun.* **1985**, *26*, 158.
109. [Polymerization of dicyclopentadiene: a new reaction injection molding system](#), L. Matejka, C. Houtman, and C.W. Macosko, *J. Appl. Polym. Sci.* **1985**, *30*, 2787-2803. DOI: 10.1002/app.1985.070300707
108. [Heat transfer and property development in liquid silicone rubber molding](#), C.W. Macosko and L.J. Lee, *Rubber Chem. & Tech.* **1985**, *58*, 436-448. DOI: 10.5254/1.3536076
107. [Viscosity rise during free radical crosslinking polymerization with inhibition](#), V.M. Gonzalez-Romero and C.W. Macosko, *J. Rheol.* **1985**, *29*, 259-272.



106. [Phase separation studies in RIM polyurethanes: catalyst and hard segment crystallinity effects](#), R.E. Camargo, C.W. Macosko, M. Tirrell, and S.T. Wellingshoff, *Polymer* **1985**, 26, 1145-1154; in *Reaction Injection Molding*, J.E. Kresta, ed., reprinted in *ACS Symposium Series 270*, **1985**, 27-36. DOI: 10.1016/0032-3861(85)90243-5
105. [Rheological changes during crosslinking](#), C.W. Macosko, *Br. Polym. J.* **1985**, 17, 239-245. DOI: 10.1002/pi.4980170228
104. [Visualization technique for studying impingement mixing at representative Reynolds numbers](#), D. Sandell, C.W. Macosko, and W.E. Ranz, *Polymer Process Eng.* **1985**, 3, 57-70.
103. [Synthesis and characterization of model urethane compounds](#), Z.Y. Qin, C.W. Macosko, and S.T. Wellingshoff, *Macromolecules* **1985**, 18, 553-557. DOI: 10.1021/ma00145a040
102. [Adiabatic filling through packed beds in composite reaction injection molding](#), V.M. Gonzalez-Romero and C.W. Macosko, *Polym. Process Eng.* **1985**, 3, 173.
101. [Effect of processing conditions on premature gelling, knit line strength, and physical properties for the RIM process](#), J.M. Castro, C.W. Macosko, and F.E. Critchfield, *J. Appl. Polym. Sci.* **1984**, 29, 1959-1969. DOI: 10.1002/app.1984.070290605
100. Reaction of injection-molding of amine type systems. R.E. Camargo, C.W. Macosko, J.S. Andrews, *Abstracts of Papers of the American Chemical Society*, **1984**, 188(AUG), 147-POLY, WOS:A1984ABA4002837
99. Kinetic-studies of Nylon 6 Systems Suitable for reaction injection-molding, RIM. R.E. Camargo, C.W. Macosko, D.J. Lin, J.M. Ottino, E.L. Thomas. *Abstracts of Papers of the American Chemical Society*, **1984**, 188(AUG), 164-POLY, WOS:A1984ABA4002854
98. [Coating Flows and coating rheology](#). L.E. Scriven, C.W. Macosko, *Journal of Rheology*, **1984**, 28(4), 459, WOS:A1984TB88300011
97. Importance of frequency-dependence in dynamic mechanical testing. R.D. Orwoll, P. Hevh, C.W. Macosko, *Journal of Rheology*, **1984**, 28(4), 472-473, WOS:A1984TB88300043
96. [Reaction injection molding of amine based systems](#), R.E. Camargo, J.S. Andrews, C.W. Macosko, and S.T. Wellingshoff, *Polym. Prepr.* **1984**, 25, 294-295.
95. [Streamlined finite elements and transit times](#), A.C. Papanastasiou, C.W. Macosko, and L.E. Scriven in *Finite Elements in Fluids*, Vol. 6, R.H. Gallagher, ed., Wiley, New York, **1984**, 263-273.
94. [Bubble growth and collapse in viscoelastic liquids analyzed](#), A.C. Papanastasiou, L.E. Scriven, and C.W. Macosko, *J. Non-Newtonian Fluid Mech.* **1984**, 16, 53-75. DOI: 10.1016/0377-0257(84)85005-3
93. [Lubricated squeezing flow: Computer simulation and asymptotic analysis](#), A.C. Papanastasiou, L.E. Scriven, and C.W. Macosko, in *Interrelations between Processing, Structure, and Properties of Polymeric Materials*, J.C. Seferis and P.S. Theocaris, eds., Elsevier, New York, **1984**, 209-218.
92. [Rheological changes during the copolymerization of vinyl and divinyl monomers](#), D.T. Landin and C.W. Macosko, in *Characterization of Highly Crosslinked Polymers*, S.S. Labana and R.A. Dickie, eds. ACS Symposium Series 243, ACS, Washington, D.C., **1984**, 33-46.





91. [Structural and rheological changes during epoxy crosslinking](#), S.A. Bidstrup and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1984**, 30, 278-281.
90. [Small-strain modulus of model trifunctional polydimethylsiloxane networks](#), E.M. Valles, E.J. Rost, and C.W. Macosko, *Rubber Chem. & Tech.* **1984**, 57, 55-62.
89. [Hydrogen bonding in segmented polyurethanes: band assignment for the carbonyl region](#) R.E. Camargo, C.W. Macosko, M. Tirrell, and S.T. Wellinghoff, *Polym. Commun.* **1983**, 24, 314-315.
88. [An integral constitutive equation for mixed flows: Viscoelastic characterization](#), A.C. Papanastasiou, L.E. Scriven, and C.W. Macosko, *J. Rheol.* **1983**, 27, 387-410. DOI: 10.1122/1.549712
87. [Properties of mat reinforced reaction injection molded materials](#), V.M. Gonzalez and C.W. Macosko, *Polym. Compos.* **1983**, 4, 190-195. DOI: 10.1002/pc.750040311
86. [Insights into molding RIM materials](#), C.W. Macosko, *Plast. Eng.* **1983**, 39, 21-25.
85. [Designing nylon-6 polymerization systems for RIM](#), P.W. Sibal, R.E. Camargo, and C.W. Macosko, *Polym. Process Eng.* **1983**, 1, 147-169.
84. [Bulk polymerization kinetics by the adiabatic reactor method](#), R.E. Camargo, V.M. Gonzalez, C.W. Macosko, and M. Tirrell, *Rubber Chem. & Tech.* **1983**, 56, 774-783. DOI: 10.5254/1.3538154
83. [Filling of reaction injection molds packed with fiberglass mats](#), V.M. Gonzalez and C.W. Macosko, *ACS Org. Coat. & Appl. Polym. Sci. Preprints* **1983**, 48, 934-939.
82. [Large strain behavior of model silicone networks](#), G. S. Benjamin, M. Gottlieb, and Christopher W. Macosko, *IUPAC Macromol. Symp.* **1983**, 28, 561.
81. Mixing and thermally activated reaction injection molding (RIM) type chemical systems; process behavior differences, V.M. Gonzalez, J.M. Castro, and C.W. Macosko, *Lat. Am. J. Chem. Eng. Appl. Chem.* **1983**, 13, 21-33; *Proceedings of the 2nd International World Congress of Chemical Engineers*, vol. 5, Montreal, **1981**, 519.
80. [On-line viscoelastic measurements for polymer melt processes](#), G.R. Zeichner and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1982**, 28, 79.
79. [Experimental studies of phase separation in reaction injection molded \(RIM\) polyurethanes](#), R.E. Camargo, C.W. Macosko, M. Tirrell, and S.T. Wellinghoff, *Polym. Eng. Sci.* **1982**, 22, 719-727, reprinted in *Reaction Injection Molding and Fast Polymerization Reactions*, J. Kresta, ed., Polymer Science & Tech., Vol. 18, Plenum Press, New York, **1982**, 95-118. DOI: 10.1002/pen.760221111
78. [Viscosity and conductivity of microemulsion](#), K.E. Bennett, J.C. Hatfield, H.T. Davis, C.W. Macosko, and L.E. Scriven in *Microemulsions*, I.D. Robb, ed., Plenum Press, London, **1982**, 65-85.
77. [On the suppression-of-junction-fluctuations parameter in Flory's network theory](#), M. Gottlieb and C.W. Macosko, *Macromolecules* **1982**, 15, 535-537. DOI: 10.1021/ma00230a062
76. [Studies of mold filling and curing in the reaction injection molding process](#), J.M. Castro and C.W. Macosko, *AIChE J.* **1982**, 28, 250-260. DOI: 10.1002/aic.690280213



75. [Solvation effects of dilatancy in concentrated PVC plastisols](#), S.J. Willey and C.W. Macosko, *J. Rheol.* **1982**, 26, 557-564. DOI: 10.1122/1.549677
74. [The influence of impingement mixing on striation thickness distribution and properties in fast polyurethane polymerization](#), P. Kolodziej, C.W. Macosko, and W.E. Ranz, *Polym. Eng. Sci.* **1982**, 22, 388-392. DOI: 10.1002/pen.760220611
73. [The effect of instrument compliance on dynamic rheological measurements, M. Gottlieb and C.W. Macosko](#), *Rheol. Acta* **1982**, 21, 90-94. DOI: 10.1007/BF01520709
72. [Computer simulation of nip flow in roll coating](#), D.J. Coyle, C.W. Macosko, and L.E. Scriven in *Computer Applications in Applied Polymer Science*, T. Provder, ed. ACS Symposium Series 197, Washington, D.C., **1982**, 251-264.
71. [Laminar tube flow with a thermosetting polymerization](#), J.M. Castro, S.D. Lipshitz, and C.W. Macosko, *AIChEJ.* **1982**, 28, 973. DOI: 10.1002/aic.690280612
70. [A preliminary study of composite reaction injection molding](#), V.M. Gonzalez, J.M. Castro, and C.W. Macosko in *The Role of the Polymeric Matrix in the Processing and Structural Properties of Composite Materials (Proc. Jt. U.S.-Italy Symp. Compos. Mater.)*, Capri, **1981**, 189-205.
69. [Rheology of randomly branched polydimethyl siloxanes](#), W.J. Hickey and C.W. Macosko, *Polym. Prepr.* **1981**, 22, 379-380.
68. [Microemulsion rheology: Newtonian and non-Newtonian regimes](#), K.E. Bennett, H.T. Davis, C.W. Macosko, and L.E. Scriven, *Soc. Pet. Eng.*, San Antonio, TX, October **1981**, Paper No. 10061.
67. [A viscometer for fast polymerizing systems](#), S.J. Perry, J.M. Castro, and C.W. Macosko, *J. Rheol.* **1985**, 29, 19-35; portions presented at AIChE Annual Meeting **1981**, Detroit.
66. [Stress relaxation and dynamic viscoelastic properties of end-linked poly\(dimethylsiloxane\) networks containing unattached poly\(dimethylsiloxane\)](#), S. Granick, S. Pedersen, G.W. Nelb, J.D. Ferry, and C.W. Macosko, *J. Polym. Sci. Polym. Phys. Ed.* **1981**, 19, 1745-1757. DOI: 10.1002/pol.1981.180191107
65. [A framework for description of mechanical mixing of fluids](#), J.M. Ottino, W.E. Ranz, and C.W. Macosko, *AIChEJ.* **1981**, 27, 565-577. DOI: 10.1002/aic.690270406
64. [Lubricated squeezing flow: a new biaxial extensional rheometer](#), Sh. Chatraei, C.W. Macosko, and H.H. Winter, *J. Rheol.* **1981**, 25, 433-443. DOI: 10.1122/1.549648
63. [Stress-strain behavior of randomly crosslinked polydimethylsiloxane networks](#), M. Gottlieb, C.W. Macosko, and T.C. Lepsch, *Rubber Chem. Tech.* **1981**, 19, 1603-1617. DOI: 10.5254/1.3535917
62. [Modulus of three and four functional poly\(dimethylsiloxane\) networks](#), C.W. Macosko and G.S. Benjamin, *Pure Appl. Chem.* **1981**, 53, 1505-1518. DOI: 10.1351/pac198153081505
61. [Equilibrium modulus of model poly\(dimethylsiloxane\) networks](#), M. Gottlieb, C.W. Macosko, G.S. Benjamin, K.A. Meyers, and E.W. Merrill, *Macromolecules* **1981**, 14, 1039-1046. DOI: 10.1021/ma50005a028



60. [Extensional flow of linear and star-branched hydrogenated polybutadiene with narrow molecular weight distribution](#), V.S. Au-Yeung, C.W. Macosko, and V.R. Raju, *J. Rheol.* **1981**, 25, 445-452. DOI: 10.1122/1.549649
59. [Extensional rheometry of several blow molding polyethylenes](#), V.S. Au-Yeung and C.W. Macosko, *Proc. VIII Int. Congress Rheol.* G.Astarita, G.Marrucci, and L.Nicolais, eds. Plenum Press, New York, **1980**, 3, 717-722; *Modern Plast.* **1981**, 58, No. 4, 84.
58. [Onset of phase separation in segmented urethane polymerization](#), J.M. Castro, F. Lopez-Serrano, R.E. Camargo, C.W. Macosko, and M. Tirrell, *J. Appl. Polym. Sci.* **1981**, 26, 2067-2076. DOI: 10.1002/app.1981.070260628
57. [Premature gelling in RIM](#), J.M. Castro, C.W. Macosko, L.P. Tackett, E.C. Steinle, and F.E. Critchfield, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1980**, 26, 423-427.
56. [Kinetics and rheology of typical polyurethane reaction injection molding systems](#), J.M. Castro and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1980**, 26, 434-438.
55. [Morphological characterization of reaction injection moulded \(RIM\) polyester-based polyurethanes](#), I.D. Fridman, E.L. Thomas, L.J. Lee, and C.W. Macosko, *Polymer* **1980**, 21, 393-402. DOI: 10.1016/0032-3861(80)90008-7
54. [Kinetics and conversion monitoring in a RIM thermoplastic polyurethane system](#), E.C. Steinle, F.E. Critchfield, J.M. Castro, and C.W. Macosko, *J. Appl. Polym. Sci.* **1980**, 25, 2317-2329. DOI: 10.1002/app.1980.070251018
53. [Steady planar extension with lubricated dies](#), C.W. Macosko, M.A. Ocansey, and H.H. Winter, *J. Non-Newtonian Fluid Mech.* **1982**, 11, 301-315; *Proc. VIII Internatl. Congress Rheol.*, G.Astarita, G.Marrucci, and L.Nicolais, eds. Plenum Press, New York, **1980**. DOI: 10.1016/0377-0257(82)80037-2
52. [An efficiency parameter for batch mixing of viscous fluids](#), J.M. Ottino and C.W. Macosko, *Chem. Eng. Sci.* **1980**, 35, 1454-1459. DOI: 10.1016/0009-2509(80)85142-6
51. [Recursive approach to copolymerization statistics](#), F. Lopez-Serrano, J.M. Castro, C.W. Macosko and M.V. Tirrell, *Polymer* **1980**, 21, 263-273. DOI: 10.1016/0032-3861(80)90267-0
50. [Substitution effects in property relations for stepwise polyfunctional polymerization](#), D.R. Miller and C.W. Macosko, *Macromolecules* **1980**, 13, 1063-1069. DOI: 10.1021/ma60077a008
49. [Viscosity changes during isothermal and adiabatic urethane network polymerization](#), E.B. Richter and C.W. Macosko, *Polym. Eng. Sci.* **1980**, 20, 921-924. DOI: 10.1002/pen.760201402
48. [Reaction injection molding: filling of a rectangular mold](#), J.M. Castro, C.W. Macosko, F.E. Critchfield, E.C. Steinle, and L.P. Tackett, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1979**, 25, 444; *J. Elast. Plast.* **1980**, 12, 3-17. DOI: 10.1177/009524438001200101
47. [Impingement mixing in reaction injection molding](#), L.J. Lee, J.M. Ottino, W.E. Ranz, and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1979**, 25, 439; *Polym. Eng. Sci.* **1980**, 20, 868-874. DOI: 10.1002/pen.760201306



46. [Conversion and composition profiles in polyurethane reaction molding](#), M. Tirrell, L.J. Lee, and C.W. Macosko, *Polymerization Reactors and Processes*, ACS Symposium Series, 104, J.N. Henderson and T.C. Bouton, eds., American Chemical Society, Washington, D.C., **1979**, 150-179.
45. [Orthogonal stagnation flow, a framework for steady extensional flow experiments](#), H.H. Winter, C.W. Macosko, and K.E. Bennett, *Rheol. Acta* **1979**, 18, 323-334. DOI: 10.1007/BF01515825
44. [Properties of networks formed by end linking of poly\(dimethylsiloxane\)](#), E.M. Valles and C.W. Macosko, *Macromolecules* **1979**, 12, 673-679. DOI: 10.1021/ma60070a025
43. [Structure and viscosity of poly\(dimethylsiloxanes\) with random branches](#), E.M. Valles and C.W. Macosko, *Macromolecules*, 1979, 12 (3), pp 521-526, DOI: 10.1021/ma60069a036
42. [Calculation of molecular parameters for stepwise polyfunctional polymerization](#), D.R. Miller, E.M. Valles, and C.W. Macosko, *Polym. Sci. Eng.* **1979**, 19, 272-283. DOI: 10.1002/pen.760190409
41. [A lamellar model for analysis of liquid-liquid mixing](#), J.M. Ottino, W.E. Ranz, and C.W. Macosko, *Chem. Eng. Sci.* **1979**, 34, 877-889. DOI: 10.1016/0009-2509(79)85145-3
40. [Automated dynamic mechanical spectra](#), C.W. Macosko, R.G. Garritano, and J.M. Starita, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1978**, 24, 2-4.
39. [Design and characterization of a small reaction injection molding machine](#), L.J. Lee and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1978**, 24, 151-154.
38. [Heat transfer in polymer reaction molding](#), L.J. Lee and C.W. Macosko, *Int. J. Heat Mass Transfer*, **1980**, 23, 1479-1492; *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1978** 24, 155. DOI: 10.1016/0017-9310(80)90152-0
37. [Tear strength of elastomeric impression materials](#), T.W. Herfort, W.W. Gerberich, C.W. Macosko, and R.J. Goodkind, *J. Prosthet. Dent.* **1978**, 39, 59-62. DOI: 10.1016/S0022-3913(78)80048-1
36. [Kinetics of fast \(RIM\) urethane polymerization](#), E.B. Richter and C.W. Macosko, *Polym. Eng. Sci.*, **1978**, 18, 1012-1018. DOI: 10.1002/pen.760181308
35. [Curing and heat transfer in polyurethane reaction molding](#), E. Broyer, C.W. Macosko, F.E. Critchfield, and L.F. Lawler, *Polym. Eng. Sci.* **1978**, 18, 382-387. DOI: 10.1002/pen.760180509
34. [Steady shear rheological behavior of PVC plastisols](#), S.J. Willey and C.W. Macosko, *J. Rheol.*, **1978**, 22, 525-545.
33. [Average property relations for nonlinear polymerization with unequal reactivity](#), D.R. Miller and C.W. Macosko, *Macromolecules* **1978**, 11, 656-662; portions in *Proceedings of VII Int. Congress on Rheol.*, **1976**, C. Klason and J. Kubat, eds., Gothenburg, 568-662. DOI: 10.1021/ma60064a008
32. [Nonlinear dynamic mechanical moduli for polycarbonate and PMMA](#), W.M. Davis and C.W. Macosko, *J. Rheol.* **1978**, 22, 53-71. DOI: 10.1122/1.549500
31. [Rheology of xanthan gum](#), P.J. Whitcomb and C.W. Macosko, *J. Rheol.* **1978**, 22, 493-504. DOI: 10.1122/1.549485





30. [Rheology of xanthan gum solutions](#), P.J. Whitcomb, C.W. Macosko, and B.J. Ek, in *Extracellular Microbial Polysaccharides*, P.A. Sandford and A. Laskin, eds., American Chemical Society, Washington, D.C., **1977**, 160-173.
29. [Adhesives rheology](#), C.W. Macosko, *Adhes. Age* **1977**, *20*, 35-37.
28. [Viscosity of elastomeric impression materials](#), T.W. Herfort, W.W. Gerberich, C.W. Macosko, and R.J. Goodkind, *J. Prosthet. Dent.* **1977**, *38*, 396-404. DOI: 10.1016/0022-3913(77)90093-2
27. [The effect of network structure in the equation of rubber elasticity. II. Further results](#), E.M. Valles and C.W. Macosko, in *Chemistry and Properties of Crosslinked Networks*, S.S. Labana, ed., Academic Press **1977**, 401-410.
26. [A forced torsional oscillator for dynamic mechanical measurements](#), W.M. Davis and C.W. Macosko, *Polym. Eng. Sci.* **1977**, *17*, 32-38. DOI: 10.1002/pen.760170106
25. [Kinetics and energetics of a fast polyurethane cure](#), S.D. Lipshitz and C.W. Macosko, *J. Appl. Polym. Sci.* **1977**, *21*, 2029-2039. DOI: 10.1002/app.1977.070210803
24. [Rheological changes during a urethane network polymerization](#), S.D. Lipshitz and C.W. Macosko, *Polym. Eng. Sci.* **1976**, *16*, 803-809. DOI: 10.1002/pen.760161205
23. Transient shear testing with the mechanical spectrometer, C.W. Macosko and D.J. Morse, **1976**, *Proceedings of VII Int. Congress on Rheol.*, C. Klason and J. Kubat, eds., Gothenburg, 376.
22. [Heat transfer and curing in polymer reaction molding](#), E. Broyer and C.W. Macosko, *AIChE J.*, **1976**, *22*, 268-276. DOI: 10.1002/aic.690220208
21. [A new derivation of post gel properties of network polymers](#), D.R. Miller and C.W. Macosko, *Macromolecules* **1976**, *9*, 206-211; reprinted in *Rubber Chem. & Tech.* **1976**, *49*, 12. DOI: 10.1021/ma60050a004
20. [A new derivation of average molecular weights of nonlinear polymers](#), C.W. Macosko and D.R. Miller, *Macromolecules* **1976**, *9*, 199-206; portions in *ACS Organic Coatings and Plastic Preprints* **35**, **1975**, No. 2, 38. DOI: 10.1021/ma60050a003
19. [The effect of network structure in the equation of rubber elasticity](#), E.M. Valles and C.W. Macosko, *Rubber Chem. & Tech.* **1976**, *49*, 1232-1237; portions in *ACS Organic Coatings and Plastics Preprints* **1975**, *35*, No. 2, 44.
18. [Characterization of polymer melts, rubber and thermosets by mechanical spectroscopy](#), C.W. Macosko and J.M. Starita, *Coatings and Plastic Preprints* **1975**, *35*, 377-381.
17. [Comparison of cone and plate, bicone and parallel plates geometries for melt rheological measurements](#), E. Broyer and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1975**, *21*, 343-345.
16. [Kinetic and viscosity relations for urethane network polymerizations](#), S.D. Lipshitz, F.G. Mussatti and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1975**, *21*, 239-241.
15. [Time-dependent response in the flow between eccentric rotating disks](#), S.J. Willey, W.M. Davis, C.W. Macosko and C. Goldstein, *Trans. Soc. Rheol.* **1974**, *18*, 515-526.



14. [The effect of shear heating on capillary flow](#), H.W. Cox and C.W. Macosko, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1974**, *20*, 27-32.
13. [Viscous dissipation in die flows](#), H.W. Cox and C.W. Macosko, *AIChE J.* **1974**, *20*, 785-795.
12. [Application of the rheometrics mechanical spectrometer to rubber testing](#), C.W. Macosko and F.C. Weissert, in *Rubber and Related Products: New Methods for Testing and Analyzing*, ASTM STP 553, American Society for Testing Materials, Philadelphia, **1974**, 127-141.
11. [Dynamic mechanical measurements with the eccentric rotating disks flow](#), C.W. Macosko and W.M. Davis, *Rheol. Acta* **1974**, *13*, 814-829.
10. [Mechanical equilibrium for eccentric rotating disks](#), W.M. Davis and C.W. Macosko, *AIChE J.* **1974**, *20*, 600-602.
9. [Analysis of the normal stress extruder](#), P.A. Good, A.J. Schwartz and C.W. Macosko, *AIChE J.* **1974**, *20*, 67-74.
8. [The rheology of two-blow molding polyethylenes](#), C.W. Macosko and J.M. Lorntson, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1973**, *19*, 461-467.
7. [Flow caused by an air-lubricated edge moving over viscoelastic liquid](#), R.L. Cerro, C.W. Macosko and L.E. Scriven, *Nature: Phys. Sci.* **1973**, *241*, 146-147.
6. Applications of rheology to rubber crosslinking, C.W. Macosko and F.G. Mussatti, *Polym. Prepr.* **1973**, *14*, 103-108.
5. [Rheology of network forming systems](#), C.W. Macosko and F.G. Mussatti, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1972**, *18*, 73; *Polym. Eng. Sci.* **1973**, *13*, 236-240; *Rheol. Acta* **1973**, *12*, 189.
4. [Tensile yield energy in glassy polymers](#), C.W. Macosko and G.J. Brand, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1972**, *18*, 424; and *Polym. Eng. Sci.* **1972**, *12*, 444-449.
3. [New rheometer is put to the test](#), C.W. Macosko and J.M. Starita, *Soc. Plast. Eng. Tech. Pap. (ANTEC)* **1971**, *17*, 595; and *Soc. Plast. Eng. Journ.* **1971**, *27*, 38-42.
2. [Kinetic constants from molecular weight distributions](#), C.W. Macosko and K.E. Weale, *Polym. Prepr.* **1969**, *10*, 562-568.
1. [Latex particle size analysis](#). I. Flow ultramicroscopy, J.A. Davidson, C.W. Macosko and E.A. Collins, *J. Coll. Interface Sci.* **1967**, *25*, 381-388.