

PUBLICATIONS

1. **Chung, H.**; Kwiat, D.; Saadai, P.; Kwan, S. Y.; Harrison, M. R.; Grubbs, R. H. "In Vitro Studies of N-methacryloyl-3,4-dihydroxyl-Lphenylalanine Containing Terpolymer Sealant to Prevent Fetal Membrane Rupture" submitted to *Macromolecular Bioscience* **2013**
2. **Chung, H.**; Grubbs, R. H. "Rapidly Crosslinkable DOPA containing Terpolymer Adhesives and PEG-based Crosslinkers for Biomedical Applications" *Macromolecules* **2012** 45 9666-9673
3. Li, W.*; **Chung, H.***; Daeffler, C.; Johnson, J. A.; Grubbs, R. H. "Accurate Polymer Molecular Weight Determination Method in Diverse Living Polymerizations via DOSY" *Macromolecules* **2012** 45 9595-9603 (*Co-first authors)
4. Hilburg, S.; Elder, A.; **Chung, H.**; Ferebee, R.; Bockstaller M.; Washburn N. R. "A Universal Route towards Thermoplastic Lignin Composites with Improved Mechanical properties" *Polymer* Accepted **2014**
5. Pothen, J. M.; **Chung, H.***; Elder, A. N.; Menguc, Y.; Sitti, M.; and Washburn N. R.* "Rapid Loss of Adhesion in Dopamine Methacrylamide Copolymers" submitted to *Chemistry of Materials* **2013** (*Corresponding authors)
6. **Chung, H.**; Al-Khouja, A.; Washburn, N. R. "Lignin-based Graft Copolymers via ATRP and Click Chemistry" ACS Books "Green Polymer Chemistry: Biocatalysis and Biobased Materials" Accepted
7. **Chung, H.**; Washburn, N. R. "Chemistry of Lignin-based Materials" *Green Materials* **2012** 3 137-160
8. **Chung, H.**; and Washburn, N. R. "Improved Lignin Polyurethane Properties with Lewis Acid Treatment" *ACS Appl. Mater. Interfaces*, **2012** 4 2840-2846
9. **Chung, H.**; Glass, P.; Pothen J. M. ; Sitti, M.; Washburn, N. R. "Enhanced Adhesion of Dopamine Methacrylamide Elastomers via Viscoelasticity Tuning" *Biomacromolecules* **2011** 12 342-347
10. Glass, P.*; **Chung, H.***; Washburn, N. R.; Sitti, M. "Enhanced Wet Adhesion and Shear of Elastomeric Micro-Fiber Arrays with Mushroom Tip Geometry and a Photopolymerized p(DMA-co-MEA) Tip Coating" *Langmuir* **2010** 26 17357-17362 (* Co-first authors)
11. Glass, P.; **Chung, H.**; Washburn, N. R.; Sitti, M. "Enhanced Reversible Adhesion of Dopamine Methacrylamide-Coated Elastomer Microfibrillar Structures under Wet Conditions" *Langmuir* **2009** 25 6607-6612
12. Shin, J.; Chang, A. Y.; Brownell, L. V.; Racoma, I. O.; Ozawa, C. H.; **Chung, H.**; Peng, S.; Bae, C. "Hydrophilic graft modification of a commercial crystalline polyolefin" *J. Polym. Sci., Part A: Polym. Chem.* **2008** 46 3533-3545

13. Bae, C.; Hartwig, J. F.; **Chung, H.**; Harries, N. K.; Switek, K. A.; Hillmyer, M. A. "Regiospecific Side-Chain Functionalization of Linear Low-Density Polyethylene with Polar Groups" *Angew. Chem. Int. Ed.* **2005** *44* 6410-6413

MANUSCRIPTS IN PREPARATION

1. **Chung, H.**; Schwartz, D. M.; Grubbs, R. H. "Thermo Responsive Adhesive Gel for Removal of Foreign Particles from Wet Soft Tissues" in preparation
2. **Chung, H.**; Thomas, R. M.; Stoller, M. L.; Grubbs, R. H. "Selective Destruction of Kidney Stones via Targeting Microbubbles" in preparation
3. **Chung, H.**; Washburn, N. R. "Review: Bio-inspired Adhesives and its Applications in Bio-medical engineering" in preparation
4. **Chung, H.**; Washburn, N. R. "Evaluation of Crosslink Density of Dopamine Methacrylate Copolymer and Crosslinking Effect on Adhesion Property" in preparation
5. **Chung, H.**; Miyake, G. M.; Grubbs, R. H. "Organic/inorganic hybrid polymeric photonic crystals for precise control and extended reflectance range" in preparation

PATENTS AND PATENT APPLICATIONS

1. **Chung, H.**; Schwartz, D. M.; Grubbs, R. H. "Stimuli Responsive Adhesive Gel for Removal of Foreign Particles from Eyes" Provisional patent application CIT-6527-P filed April 18, 2013
2. Grubbs, R. H.; Stoller, M. L.; **Chung, H.**; Fitzgerald, A.; Kenny, T. W.; Thomas, R. M. "Targeting Microbubbles" United States Patent Application No. 13/593,747 filed August 24, 2012
3. **Chung, H.**; Grubbs, R. H. "Rapidly Crosslinkable Bio-inspired Adhesives for Biomedical Applications" United States Patent Application No. 61/615,068, filed March 23, 2012
4. **Chung, H.**; Glass, P.; Sitti, M.; Washburn, N. R. "Enhanced adhesion of micro-fiber arrays with tip coating" United States Patent Application No. 61/402,036 filed August 23, 2010
5. **Chung, H.**; Glass, P.; Sitti, M.; Washburn, N. R. "Micro-fiber Arrays with Tip Coating and Transfer Method for Preparing Same" Pub. No.: WO/2012/026973