



UMaine Student Posters

Use of Cellulose Nanofibers with Water Based Barrier Coating to Obtain Novel Packaging Grades

Mohammed Algharrawi

Department of Chemical and Biomedical Engineering

Advisor: Dr. Douglas W. Bousfield

Using Nanocellulose in Particleboards

Ezatollah (Nima) Amini

School of Forest Resources

Advisor: Dr. Mehdi Tajvidi

Surface Hydrophobization of CNF Films with Organic Acids and Investigation of their Potential Use as a Food Package

SuriyaPrakaash Lakshmi Balasubramaniam

School of Food and Agriculture

Advisor: Dr. Balunkeswar Nayak

Nanocellulose Conduits for Enhanced Regeneration of Peripheral Nerve Injuries

Nicklaus Carter

Biomedical Science and Engineering

Advisor: Dr. David Neivandt

Ionic Treatment of Seaweed Composites

John Collette, Caitlin Young, Gustavo Chaparro

Department of Chemical and Biomedical Engineering

Advisor: Dr. G. Peter vanWalsum

Properties of Cellulose Nanocrystal Films Prepared Using Metal Ions

Cong Chen

School of Forest Resources

Advisor: Dr. Douglas J. Gardner, Dr. Jinwu Wang

Functionalized Bio-based Monomers for Synthesis of Renewable Polyester Thermoplastics

Atik Faysal

Department of Chemistry

Advisor: Dr. William Gramlich



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The Influence of Versatile Thiol-Norbornene Modifications to Cellulose Nanofibers on Rheology and Film Properties

Kendra Fein

Department of Chemical and Biomedical Engineering
Advisor: Dr. Douglas W. Bousfield, Dr. William Gramlich

Production of Textile Filaments from Cellulose Nanofibrils

Shokoofeh Ghasemi

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Advisor: Dr. Mehdi Tajvidi

Gypsum Board Substitute Based on Cellulose Nanofibrils (CNF) as a Binder

Islam Hafez

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Multiphoton Microscopy for the Characterization of Cellular Behavior in Naturally Derived Polysaccharide Tissue Constructs for the Development of Platform Biomaterials

Travis Haysley, Patrick Breeding, Michell Harling

Biomedical Science & Engineering, Department of Chemical & Biomedical Engineering
Advisor: Dr. Michael Mason, Dr. Karissa Tilbury

Elucidating the Mechanism of CNF Adhesion to Wood Based Substrates

Peter Kelly

Department of Chemistry
Advisor: Dr. William Gramlich, Dr. Douglas J. Gardner

Biocompatible Hydrogels Synthesized from Cellulose Derivatives

Tessali Morrison

Department of Chemistry
Advisor: Dr. William Gramlich

Encapsulation of Bioactive Phytochemicals from Seaweed Using Cellulose Nanocrystals

Avinash Singh Patel

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Development and Utilization of Silica-Cellulose Nano-Composites for Enhanced Performance of Cement Systems

K. Kaya Shirisha

Department of Civil and Environmental Engineering

Advisor: Dr. Eric N. Landis

Fully Bio-Based Hybrid Composites Made of Wood, Fungal Mycelium, and Cellulose Nanofibrils

Wenjing Sun

School of Forest Resources

Advisor: Dr. Mehdi Tajvidi

Fabrication of Hybrid Barrier Nanopaper from Cellulose Nanofibrils and Minerals for Packaging Applications

Ali H. Tayeb

School of Forest Resources

Advisor: Dr. Mehdi Tajvidi

Cellulose Nanomaterials: A Novel Adjuvant for Veterinary and Medical Applications

Sarah M. Turner

Aquaculture and Aquatic Resources

Advisor: Dr. Deborah Bouchard