

## Carter W. Reeb, Ph.D.

### Patent Agent

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Carter Reeb is a registered patent agent with experience drafting, filing, and prosecuting patent applications before the U.S. Patent and Trademark Office. He has prepared and prosecuted hundreds of patent applications related to electronic devices and consumer products, software and computer science applications, telecommunications, analytical chemistry methods and equipment, powder metallurgy, firearms and penetrators, batteries and fuel cells, medical devices, packaging engineering solutions, food processing, and personal care products. Carter has advised clients on patent valuations and strategy during acquisitions and mergers. Before joining Alston & Bird, Carter worked as a patent agent in Boston and as a senior consultant at an international environmental services company providing industrial engineering and conservational sustainability solutions to Fortune 500 companies.

Carter received his Ph.D. in forest biomaterials science and engineering and his undergraduate degree in environmental technology with a biogeochemistry focus from North Carolina State University. Carter is a member of the American Chemical Society, Boston Patent Law Association, and American Bar Association.

### **Publications & Presentations**

#### **Publications**

- “Techno-economic Analysis of Various Biochemical Conversion Platforms for Biosugar Production: Trade-Offs of Co-Producing Biopower Versus Pellets for Either a Greenfield, Repurpose, or Co-Location Siting Context,” *Biofuels, Bioproducts & Biorefining*, Vol. 12, No. 3, February 19, 2018.
- “Environmental LCA and Financial Analysis to Evaluate the Feasibility of Bio-based Sugar Feedstock Biomass Supply Globally: Part 2. Application of Multi-Criteria Decision-Making Analysis as a Method for Biomass Feedstock Comparisons,” *BioResources*, Vol. 11, No. 3, 2016.
- “Environmental LCA and Financial Analysis to Evaluate the Feasibility of Bio-based Sugar Feedstock Biomass Supply Globally: Part 1. Supply Chain Analysis,” *BioResources*, Vol. 10, No. 4, 2015.
- “Environmental Life Cycle Impacts of Cellulosic Ethanol in the Southern U.S. Produced from Loblolly Pine, Eucalyptus, Unmanaged Hardwoods, Forest Residues, and Switchgrass Using a Thermochemical Conversion Pathway,” *Fuel Processing Technology*, Volume 138, October 2015.
- “Environmental Impacts of Bioethanol Using the NREL Biochemical Conversion Route: Multivariate Analysis and Single Score Results,” *Biofuels, Bioproducts & Biorefining*, Vol. 9, No. 5, May 1, 2015.
- “The NREL Biochemical and Thermochemical Ethanol Conversion Process: Financial and Environmental Analysis Comparison,” *BioResources*, Vol. 10, No. 3, 2015.
- “Supply Chain Analysis, Delivered Cost, and Life Cycle Assessment of Oil Palm Empty Fruit Bunch Biomass for Green Chemical Production in Malaysia,” *BioResources*, Vol. 9, No. 3, 2014.

- “Economics, Environmental Impacts, and Supply Chain Analysis of Cellulosic Biomass for Biofuels in the Southern US: Pine, Eucalyptus, Unmanaged Hardwoods, Forest Residues, Switchgrass, and Sweet Sorghum,” *BioResources*, Vol. 9, No. 1, 2014.
- “Impacts of Feedstock Composition on Alcohol Yields and Greenhouse Gas Emissions from the NREL Thermochemical Ethanol Conversion Process,” *BioResources*, Vol. 8, No. 4, 2013.
- “Novel Screening Technique: Integrated Combinatorial Green Chemistry & Life Cycle Analysis (CGC-LCA),” *BioResources*, Vol. 8, No. 2, 2013.
- “Life-Cycle Assessment of Bioethanol from Pine Residues via Indirect Biomass Gasification to Mixed Alcohols,” *Forest Products Journal*, Vol. 62, No. 4, 2012.

## ***Education***

- North Carolina State University (Ph.D., 2015)
- North Carolina State University (B.S., 2009)

## ***Admitted to Practice***

- U.S. Patent and Trademark Office

## ***Related Services***

Intellectual Property | Patent Litigation | Patent Prosecution, Counseling & Review