

# CURRICULUM VITAE

## Personal data:

*Name:* Máté Nagy  
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## Languages:

English, Hungarian

## Education:

2004 – (2009): Ph. D. Candidate in Paper Science and Engineering  
Georgia Institute of Technology  
Department of Chemistry and Biochemistry  
Institute of Paper Science and Technology

2004 - 2006: M. Sc. in Chemistry (*cum laude*)  
Georgia Institute of Technology  
Department of Chemistry and Biochemistry

1998 – 2003: M. Sc. in Bioengineering  
Budapest University of Technology and Economics  
Department of Chemical Engineering

2001 – 2002: Environmental Economy and Management course  
Budapest University of Technology and Economics  
Department of Economy and Sociology

1994 – 1998: Petrik Lajos Chemical Secondary School  
Environmental Specialization

### **Awards/Scholarships:**

- Nominee for GaTech/IPST - Ph. D. student of the year. (2008-2009)
- Innovative Biomaterial Education and Research Award (2007)  
Department of Chemistry, University of Aveiro, PT.
- Strategic Energy Initiative CEO (Creating Energy Options) Award (2006)  
Department of Chemistry, Imperial College London, UK.
- Erasmus scholarship (2003)  
Department of Chemical Reaction Engineering, Lund University of Technology, SE.
- 2<sup>nd</sup> place at the VII. Hungarian National Scientific Student Conference Final (2002)  
Environmental technologies section
- 15<sup>th</sup> place at the Hungarian National Technical Competition (1998)  
Chemical engineering section

### **Current research interests:**

- Design of novel homogeneous and heterogeneous catalysts for the hydrogenation of ethanol organosolv lignin, and the optimization of the hydrogenolysis conditions to provide a novel route of converting lignin to value added chemicals.
- Development and optimization of a rapid quantitative analysis technique for biodiesel constituents. (*Phosphitylation of hydroxyl groups in biodiesel samples followed by <sup>31</sup>P-NMR analysis*).
- Characterizations of the structural changes and determine the lignin chemistry during the LignoBoost lignin extraction process from black liquor at different process conditions. Optimization of a subsequent pyrolysis on characterized LignoBoost samples for high yield bio-oil production.

### **Previous research experiences:**

- Novel fermentation control strategy for bioethanol fermentation from lignocellulosic hydrolyzate. (2003, Lund, Sweden)
- Pretreatment technologies for dilute-acid lignocellulosic hydrolyzate detoxification prior bioethanol fermentation. (2002, Karlstad, Sweden)
- Following the respirofermentative metabolic pathways of *Saccharomyces cerevisiae* by flux-analysis in a model media for lignocellulosic hydrolyzate during fed-batch bioethanol fermentation. (2001, Goteborg, Sweden)

## Scientific publications:

- Nagy, Máté; Kosa, Matyas; Theliander, Hans; Ragauskas, Arthur J. *A Green Prospect for Forest BioRefinery Lignin Rich Process Streams*, Green Chemistry (Accepted: September, 2009)
- Nagy, Máté; Foston, Marcus; Ragauskas, Arthur J. *A Rapid Quantitative Analytical Tool for Characterizing the Preparation of Biodiesel*, The Journal of Physical Chemistry A (DOI: 10.1021/jp906543g)
- Nagy, Máté; David, Kasi; Britovsek, George J. P.; Ragauskas, Arthur J. *Organosolv lignin hydrogenolysis to value added chemicals*, Holzforschung, (2009), 63, 513-520.
- Nagy, Máté; Kosa, Mátyás; Ragauskas, Arthur J.; Theliander, Hans. *New energy: Fuel resources from kraft pulping*, Abstracts of Papers, 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-26, (2009), CELL-191.
- Nagy, Máté; Kerr, Brian J.; Ziemer, Cherie J. and Ragauskas Arthur J. *Phosphitylation and quantitative <sup>31</sup>P-NMR analysis of partially substituted biodiesel glycerols*, Fuel, (2009), 88(9), 1793-1797.
- Nagy, Máté; Alleman, Teresa L.; Dyer, Thomas and Ragauskas, Arthur J. *Quantitative NMR analysis of partially substituted biodiesel glycerols*, Journal of Biobased Material and Bioenergy, (2009), 3(1), 108-111.
- Nagy, Máté; Britovsek, George J. P.; Ragauskas, Arthur J. *Unleashing organosolv lignin for biofuels*, Abstracts of Papers, 236th ACS National Meeting, Philadelphia, PA, United States, August 17-21, (2008), CATL-035.
- Ragauskas, Arthur J.; Nagy, Máté; Kim, Dong Ho; Eckert, Charles A.; Hallett, Jason P. and Liotta, Charles L. *From wood to fuels: Integrating biofuels and pulp production*, Industrial Biotechnology, (2006), 2(1), 55-65.

## References:

(Available upon request)

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Professor

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