

Bassem Hallac
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OBJECTIVE:

To seek an industrial position with managerial and leadership responsibilities in the research and development department.

CAREER SUMMARY

- Research in the field of Lignocellulosic Chemistry and Biofuels
- Course work is in Chemistry

EDUCATION

- **Ph.D. Candidate, Chemistry, (GPA: 3.60)**, Georgia Institute of Technology, GA, Expected Graduation Day – 5/2011
- **B. Sc., Chemistry and Computer Science (GPA: 4.00)**, Gardner-Webb University, NC, May 2006

HIGHLIGHTS OF ACADEMIC ACHIEVEMENTS INCLUDING HONORS AND AWARDS

- Dean's List all semesters at Gardner-Webb University
- Chemistry and Mathematics Freshman Awards in April 2003
- Freshman, Sophomore, Junior, and Senior Scholastic Awards
- Chemistry and Computer Science Senior Awards in May 2006
- Member of Alpha Chi Honor Society in November 2004
- Recipient of "Who's Who Among Students in American Universities and Colleges" award in April 2006
- Recipient of the William Henry Emerson Fellowship in Chemistry in April 2007
- Outstanding Performance as a Teaching Assistant Award in October 2007

GRADUATE-LEVEL COURSEWORK

- Chemistry Courses: Analytical Chemistry, Mass Spectrometry, Environmental Analytical Chemistry, Scanning Probe Microscopy, Analytical Spectroscopy, Biorenewable Polymers
- Chemical Engineering Courses: Pulp and Paper Manufacturing I, Pulp and Paper Manufacturing II

ANALYTICAL TECHNIQUES EXPERTISE

- Chromatographic Techniques: HPLC and GPC
- Spectroscopic Techniques: UV-Vis and NMR (Solution 1D, 2D and Solid State)
- Microscopic Techniques: Light Microscopy and Scanning Electron Microscopy

COMPUTER SKILLS

- Microsoft Office, Chem Office, Endnote, and LabVIEW
- Basic level in computer programming including: Java, C, C++, Python, JavaScript, HTML, Perl, and PHP

EXPERIENCE

*** Aug 2006 – Present**

- Graduate Teaching Assistant in the School of Chemistry & Biochemistry at Georgia Institute of Technology
- Research focus is on:
 - Biomass characterization and conversion of *Buddleja davidii* to bioethanol.
 - Understanding the pretreatment and enzymatic hydrolysis processes that are involved in converting lignocellulosic biomass to biofuels.

- Research Experience at **Imperial College London**, July 2007
 - Worked in the laboratories of Dr. Richard Murphy, focusing on investigating the cellular features of *Buddleja davidii* after pretreatment

* *Aug 2003 - May 2006*

- Teaching assistant for undergraduate chemistry labs at Gardner-Webb University

LEADERSHIP POSITIONS

- President of the International Student Club at Gardner-Webb University

LANGUAGES

- Bilingual in Arabic (Native Language) and English (Fluent)

PRESENTATIONS, AND POSTER SESSIONS

- **Bassem Hallac**, Poulomi Sannigrahi, Yunqiao Pu, Michael Ray, Richard Murphy, and Arthur Ragauskas. **Biomass Characterization of *Buddleja davidii*: A Potential Feedstock for Biofuel Production**. The 60th Southeastern Regional Meeting of the American Chemical Society, Nashville, TN, November 2008
- **Bassem Hallac**, Poulomi Sannigrahi, Yunqiao Pu, Michael Ray, Richard Murphy, and Arthur Ragauskas. **Biomass Characterization and Organosolv Pretreatment of *Buddleja davidii***. The 237th American Chemical Society National Meeting and Exposition, Salt Lake City, UT, March 2009
- **Bassem Hallac**, Poulomi Sannigrahi, Yunqiao Pu, Michael Ray, Richard Murphy, and Arthur Ragauskas. **Investigating the Effects of Ethanol Organosolv Pretreatment on *Buddleja davidii***. The American Institute of Chemical Engineers Annual Meeting, Nashville, TN, November 2009
- **Bassem Hallac**, Poulomi Sannigrahi, Yunqiao Pu, Michael Ray, Richard Murphy, and Arthur Ragauskas. **Towards An Improved Understanding of the Effects of Ethanol Organosolv Pretreatment on *Buddleja davidii***. The American Institute of Chemical Engineers Annual Meeting, Nashville, TN, November 2009

PUBLICATIONS

- **Bassem B. Hallac**, Poulomi Sannigrahi, Yunqiao Pu, Michael Ray, Richard J. Murphy, and Arthur J. Ragauskas. **“Biomass Characterization of *Buddleja davidii*: A Potential Feedstock for Biofuel Production”**. Journal of Agricultural and Food Chemistry, 57 (4), 1275-1281, 2009

REFERENCES

Dr. Arthur J. Ragauskas (*PhD advisor*)
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