

## Ananda S. Amarasekara

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### ACADEMIC BACKGROUND

Ph.D. (Organic Chemistry) – City University of New York, NY, U.S.A, 1985  
Thesis title: “Studies directed towards the total synthesis of anti-cancer drug Taxol”  
Adviser: Professor William F. Berkowitz  
Postdoctoral Research Fellow - Dept. of Chemistry, Bar-Ilan University, Israel.  
1985 - 1987, Adviser: Professor Alfred Hassner  
B.Sc. (Chemistry Major) – University of Colombo, Sri Lanka, 1979

### PROFESSIONAL BACKGROUND

9/2013 – present - Professor, Dept. of Chemistry,  
Prairie View A&M University, Prairie View, Texas  
8/2009 – 8/2013 - Associate Professor, Dept. of Chemistry,  
Prairie View A&M University, Prairie View, Texas  
8/2003 – 7/2009 - Assistant Professor, Dept. of Chemistry, Prairie View A&M  
University, Prairie View, Texas

### PROFESSIONAL ACTIVITIES

- Chair- Faculty Search Committee - 2011
- Committee member- Faculty Search Committee - 2007
- Chair - Curriculum Committee, Since 2009
- Graduate Advisor, Since 2009
- Judge- PVAMU Annual Research Symposium. 2010, 2011, 2012

**Editorial Activities** - Editorial Board member of following journals

- Journal of Biomass to Biofuel
- Open Catalysis Journal
- Current Catalysis

### Reviewing Services for Journals

Reviewer for following journals

- Journal of Organic Chemistry
- Tetrahedron Letters
- Organic Letters
- Green Chemistry
- Industrial and Engineering Chemistry Research
- Carbohydrate Research
- Carbohydrate Polymers

- Catalysis Communications
- Open Catalysis Journal
- Applied Catalysis – General
- Biomass and Bio energy
- Bio resources Technology
- Journal of Wood Chemistry and Technology
- Journal of Inorganic and Organometallic Polymers and Materials
- Polymer Chemistry
- European Polymer Journal
- Thermochemica Acta
- Journal of Thermal Analysis and Calorimetry
- Molecules

### Reviewing Research Grant Proposals

Grant Proposal Reviewer for following funding agencies

- National Science Foundation
- United States Department of Agriculture
- United States Department of Energy
- American Chemical Society- Petroleum Research Fund

### GRANTS AND CONTRACTS (*partial list*) As Principal Investigator:

1. ACS-PRF grant- **Project Title:** Room temperature Friedel-Crafts alkylation using magnetic nanoparticle catalysts in oscillating magnetic fields. 2016-2019, \$ 70,000
2. NSF- CBET grant- **Project Title:** Acidic ionic liquid catalyzed single-reactor conversion of biomass to bio-crude oil. 2013-2016, \$ 333,575
3. USDA-NIFA grant- **Project Title:** Artificial cellulase type catalysts for cellulosic-ethanol process. 2011-2015, \$ 300,000
4. NSF- CBET grant- **Project Title:** Hydrolysis of cellulose and biomass into fermentable sugars using acidic ionic liquids. 2010-2015, \$ 150,325
5. ACS -PRF grant- **Project Title:** Cellulose dissolution and hydrolysis in acidic ionic liquids, 2010-2014, \$ 65,000
6. CEBC, University of Kansas - Industry partnership grant- **Project Title:** Acidic Ionic liquid catalysts, 2008-2009, \$ 30,000
7. American Chemical Society SEED program grant, **Project Title:** Summer Research Experience for high school students, Summer-2005, \$ 7,100
8. American Chemical Society SEED program grant, **Project Title:** Summer Research Experience for high school students, Sumeer-2006, \$ 10,400

### As a Co-Principal Investigator:

9. NSF- MRI grant- **Project Title:** Acquisition of a 400MHz NMR, 2004,\$ 247,743
10. NSF – CREST- grant- **Project Title:** Center for Energy and Environmental Sustainability, 2010-2015, \$ 4,999,997

## HONORS AND AWARDS

- Recipient of the Texas A&M University System Chancellors Award for Teaching Excellence- Spring 2010 and Spring 2011
- Marvin D. and June Samuel Brailsford College of Arts and Sciences, Outstanding Teaching Award. 2011-2012 Academic Year
- Visiting Scientist Fellowship Award, Center for Molecular Architecture, Central Queensland University, Rockhampton, Australia (7/1995-7/1997)
- Marquis Who's Who in America- Since 2009
- Renewable Energy Global Innovations -2011, Key Scientific Article "Synthesis of levulinic acid-glycerol ester oligomers"

## PUBLICATIONS

*Peer Reviewed Journal Articles (partial list out of ~ 95 journal publications)*

1. Chemocatalytic Hydrolysis of Cellulose at 37 °C, 1 Atm. Ananda S. Amarasekara and Bernard Wiredu, *Catalysis Science and Technology*, **2015**, DOI: 10.1039/C5CY01677K
2. The effect of Zeolites on acidic ionic liquid catalyzed one-pot conversion of cellulose to ethyl levulinate and levulinic acid in aqueous ethanol. Ananda S. Amarasekara, Julie N. Dominguez, Bernard Wiredu. submitted *Current Catalysis*, **2015**: 4(2), 143-151. DOI: 10.2174/2211544704666150727215943
3. The effect of metal ions as co-catalysts on 1-(1-propylsulfonic)-3-methylimidazolium chloride acidic ionic liquid catalyzed hydrolysis of cellulose in water. Bernard Wiredu and Ananda S. Amarasekara. *Catalysis Communications*, **2015**, 70, 82-85.
4. The effect of metal ions as co-catalysts on acidic ionic liquid catalyzed single-step saccharification of corn stover in water. Bernard Wiredu and Ananda S. Amarasekara, *Bioresource Technology*, **2015**, 189, 405-408
5. Synthesis and pyrolysis of selected metal levulinates. Ananda S. Amarasekara, Dominique T. Sterling-Wells. *BioEnergy Research*, **2015**, 8(4), 1956-1961. DOI: 10.1007/s12155-015-9616-z
6. Crystal structure of a polymeric calcium levulinate dihydrate:catena -poly[[diaquacalcium]-bis( $\mu$ 2-4-oxobutanoato)]. Ananda S. Amarasekara, Dominique T. Sterling-Wells, Carlos Ordonez, Marie-Josiane Ohoueu and Marina S. Fonaric. *Acta Crystallographica Section E*, **2015**, E7, 494-497
7. Acidic ionic liquid catalyzed liquefaction of cellulose in ethylene glycol; identification of a new cellulose derived cyclopentenone derivative. Ananda S. Amarasekara and Bernard Wiredu. *Industrial & Engineering Chemistry Research*; **2015**, 54, 824-831. DOI: 10.1021/ie504544s

8.  $\gamma$ -Valerolactone from pyrolysis of calcium salts of levulinic-formic acid mixtures derived from cellulose. Ananda S. Amarasekara, Bernard Wiredu, Dre'Langala N. Edwards. *Biomass and Bioenergy*, **2015**, 72, 39-44.
9. Pd/C catalyzed conversion of levulinic acid to  $\gamma$ -valerolactone using alcohol as a hydrogen donor under microwave conditions. Ananda S. Amarasekara, Muhammad A. Hasan. *Catalysis Communications*, **2015**, 60, 5-7.
10. NaOH catalyzed condensation reactions between levulinic acid and biomass derived furan-aldehydes in water. Ananda S. Amarasekara, Timila B. Singh, Eve Larkin, Muhammad A. Hasan and Hau-Jun Fan. *Industrial Crops and Products*, **2015**, 65, 546–549.  
DOI: 10.1016/j.indcrop.2014.10.005
11. 1-(1-Alkylsulfonic)-3-methylimidazolium chloride Brönsted acidic ionic liquid catalyzed Skraup synthesis of quinolines under microwave heating. Ananda S. Amarasekara, Muhammad A. Hasan. *Tetrahedron Letters*, **2014**, 55, 3319–3321  
DOI: <http://dx.doi.org/10.1016/j.tetlet.2014.04.047>
12. Brönsted acidic ionic liquid catalyzed one-pot conversion of cellulose to ethyl levulinate and levulinic acid in ethanol-water solvent system. Ananda S. Amarasekara, Bernard Wiredu. *BioEnergy Research*, **2014**, 7(4), 1237-1243. DOI: 10.1007/s12155-014-9459-z
13. Brönsted acidic ionic liquid catalyzed hydrolysis of cellulose in water: structure activity relationships. Ananda S. Amarasekara, Bernard Wiredu. *Sustainable Energy*, **2014**, 2(3), 102-107. DOI:10.12691/rse-2-3-4
14. Synthesis of a silica immobilized Brönsted acidic ionic liquid catalyst and hydrolysis of cellulose in water under mild conditions. Ananda S. Amarasekara, Bernard Wiredu. *Catalysis Communications*, **2014**, 48, 41-44.
15. Sol–gel synthesis, characterization and water vapor adsorption properties of 1,1'-(1,6-hexanediyl)-bis(imidazolium)dichloride silica hybrid material. Ananda S. Amarasekara, Ashfaque Razaq, Robert Caballero, Bernard Wiredu. *Journal of Sol-gel Science and Technology*, **2014**, 69, 345-350.
16. Single reactor conversion of lignocellulosic biomass to furanic biocrude oils using sulfonic acid functionalized Brönsted acidic ionic liquid catalysts. Ananda S. Amarasekara, Bernard Wiredu. *Biomass Conversion and Biorefinery*, **2014**, 4, 149-155.  
DOI: 10.1007/s13399-013-0098-y
17. Mechanism of 1-(1-propylsulfonic)-3-methylimidazolium chloride catalyzed transformation of D-glucose to 5-hydroxymethylfurfural in DMSO: an NMR study. Ananda S. Amarasekara, Ashfaque Razaq. *Carbohydrate Research*, **2014**, 386, 86-91.