

# Bilen Aküzüm

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## Education

Drexel University / Philadelphia, PA Expected 2018  
Doctorate of Philosophy, Materials Science and Engineering (Research Assistantship Grant)

Middle East Technical University / Ankara, Turkey Graduated Feb. 2014  
Bachelors, Metallurgical & Materials Engineering (Top Student with highest GPA: 3.65)

Harvard University / Cambridge, MA June 2013 – Aug. 2013  
Faculty of Arts and Sciences (Summer School / Full Scholarship awarded by Akbank Thought Club)

University of California at Berkeley / Berkeley, CA Aug. 2011 – May. 2012  
Bachelors, Materials Science and Engineering (3<sup>rd</sup> year / UC Education Abroad Program Scholarship)

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## Professional Experience

**Undergraduate Researcher** [Middle East Technical University – Battery Lab] Sep. 2012 – June 2013

- Worked on hydrothermal synthesis and characterization of LiMnPO<sub>4</sub> Cathode Materials for electric car applications
- Investigated the effects of various additives to the synthesized powder characteristics

**Undergraduate Researcher** [Harvard University – Aziz Lab] June 2013 – Aug. 2013

- Worked on the design of a quinone-based organic flow battery for grid scale applications
- Established electrochemical model of the quinone-based organic flow battery via COMSOL

**Process Development Intern** [Robert Bosch GmbH. Bursa Plant Turkey] June 2012 – Sep. 2012

- Worked on determining cleaning potential of low temperature parts cleaning chemicals
- Investigated the effects of low temperature parts cleaning chemicals on surface treatment proc.

**Research & Development Intern** [Novelis Goettingen GmbH. Germany] June 2010 – Sep. 2010

- Metallographic inspection of processing defects
- Contributed product development for elimination of environmentally hazardous coatings
- Worked with Dr. Bennett in a research project on controlled corrosion of aluminum plates

## Publications

- Akuzum, B. (2014) Hydrothermal Synthesis and Characterization of LiMnPO<sub>4</sub> Cathode Materials. Matter, 1(1), 1-5. (METU Undergraduate Journal)

## **Extracurricular Activities**

**Member of Akbank Dusunce Klubu (Akbank Thought Club)** Dec. 2012 – Present

- Member of a highly elite and respected club, which is a well known think tank of Turkey
- Core member of the institutional marketing department
- Winner of the 2013 Social Innovation Project Competition – Harvard Summer School Award

**Member of METU – Hy-Tech Racing Team** Sep. 2010 – June 2013

- Core member of the materials team responsible for the design and production of the hydrogen powered urban concept automobile.
- Experience on aluminium chassis cold working, vacuum infusion of glass fiber body shell, and hydrogen fuel cell testing

**Member of American Field Services (AFS) Turkey** Sep. 2009 – June 2011

- Active role in selection of next generation outgoing exchange students
  - Member of the hosting comity, helped incoming exchange students with their struggles
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## **Skills**

- Programming Languages: Matlab, C Programming
- Other Computer Skills: Microsoft Office Programs, COMSOL, KeyCreator, MSC Marc Mentat
- Experience with lab equipment: Scanning Electron Microscopy, Energy Dispersive Spectroscopy, Transmission Electron Microscopy, X-ray diffraction, Confocal Microscopy, Mass Spectroscopy, Electrochemical Impedance Spectroscopy, Cyclic Voltammetry, Metallographic Inspection, Hydrothermal Synthesis, Chronopotentiometry, Ball Milling, Ultrasonic Cleaning
- Proficient in written and conversational Turkish, English and German, Beginner Spanish

## **International Experience**

- USA Harvard Summer School 2013 with full scholarship from Akbank / Sabanci Group
- USA 2011/12 Exchange student with scholarship from UC Berkeley Education Abroad Program
- Spain Feb/2011 Language School for 1 Month in Barcelona
- Germany 2008/09 Exchange student with AFS exchange program
- Finland 2007 part of Comenius project on entrepreneurship funded by European Union
- Austria 2007 part of Comenius project on entrepreneurship funded by European Union
- Canada 2006 part of Summer exchange program at Vancouver Island University
- United Kingdom 2003/04/05 part of various summer youth camps

## **Honors**

- Research / Teaching Assistantship Grant awarded by Drexel University
- Top Student of METU – Metallurgical and Materials Engineering Department
- Akbank / Sabanci Group 2013 Project Winner / Harvard University Fellowship
- Young Leader of the year 2010 at RYLA meeting by District 2430. Rotary Club Turkey
- 2009 International Mathematical Olympiad Germany Regional Gold Medal