

Camila Saez Cabezas

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EDUCATION

University of Texas at Austin, Cockrell School of Engineering Austin, TX
Doctor of Philosophy, Chemical Engineering In Progress

University of Maryland, A. James Clark School of Engineering, College Park, MD
Bachelor of Science, Chemical and Biomolecular Engineering (Cum Laude) May 2014

RESEARCH EXPERIENCE

University of Texas at Austin Department of Chemical Engineering Austin, TX
Graduate Student Researcher (Advisor: Dr. Delia Milliron) 2014-Present

- Studying the assembly of nanocrystal gel networks via depletion-attraction interactions for application in electrochromic windows.

University of Maryland Department of Chemical Engineering College Park, MD
Undergraduate Student Researcher (Advisor: Dr. Srinivasa Raghavan) 2013-2014

- Studied the stimulus-induced and biomimetic self-assembly of polymer microspheres.
- Independently produced, functionalized, and characterized polymer microspheres.
- Developed novel surface modifications for chitosan microspheres and wrote new experimental protocols.
- Manufactured, assembled, and tested PMMA microchips and co-flow microfluidic devices.

Laboratory of Scientific Image Analysis (SCI AN) Santiago, Chile
Research Intern-Digital Pathology Center/Internet Assisted Digital Spermogram Center (CEDAI) Jan. 2013
(Principal Investigator: Dr. Steffen Hartel)

- Assessed and compared technical specifications and software interface of virtual microscopy scanners.
- Collaborated with fellow intern on a 20-page preliminary scanner assessment report.
- Prepared and tested computer-based microscope equipment to operate spermogram software.
- Composed configuration manual for CEDAI computer equipment with fellow intern.

TEACHING EXPERIENCE

UNIVERSITY OF TEXAS AT AUSTIN

• *Teaching Assistant, Chemical Engineering Thermodynamics (CHE322), Prof. Thomas Edison* Spring 2016
Assisted the instructor with teaching the recitation section and exam grading. Held weekly office hours.

• *Graduate Assistant, Texas Research Experience (TREX) Seminar* Fall 2015-Spring 2016
Assisted the instructors with syllabus design, reading progress reports, reviewing student presentations, and other in-class activities.

UNIVERSITY OF MARYLAND

• *Teaching Fellow, Chemical Kinetics and Reactor Design (CHBE 440), Prof. Srinivasa Raghavan* Fall 2013
Assisted the instructor with homework and exam grading. Held weekly office hours.

JOHNS HOPKINS UNIVERSITY CENTER FOR TALENTED YOUTH

- *Program Assistant- "Numbers: Zero to Infinity."*

Summer 2012

Collaborated with instructor to manage classroom of 12 rising 5th and 6th graders. Designed handouts to reinforce challenging material (scientific notation, unit conversion, algebra problems).

LEADERSHIP EXPERIENCE

Milliron Group Laboratory Safety Coordinator at The University of Texas 2015-Present

- Enforce laboratory safe practices and protocols established by Environmental Health and Safety (EHS).
- Teach the Laboratory Safety Walk-Through course for new group members.
- Responsible for the safe and proper disposal of laboratory waste.

HONORS AND AWARDS

- Good Neighbor Scholarship (for international students at UT Austin) 2015-2016
- Cockrell School of Engineering Fellowship 2014-2015
- ASPIRE Research Scholarship, Maryland Technology Enterprise Institute (MTech) Fall 2013
- Lake Parcan Scholarship 2013-2014
- Donald T. Bonney and Knust Memorial Scholarships Fall 2012-Spring 2013
- A. James Clark School of Engineering Dean's List and Academic Honors 2010-2014

PUBLICATIONS AND PRESENTATIONS

Publications

- Arya, C., Saez, C., Huang, H. and Raghavan, S.R. "Microbead Clustering with an Associating Biopolymer."
(Manuscript in preparation 2014)

Presentations

- Arya, C., Saez C., Huang, H. and Raghavan S.R. "Clustering of Cyclodextrin Functionalized Microbeads Visualized in Real-Time." *88th ACS Colloids and Surface Science Summer Symposium*. University of Pennsylvania, Philadelphia, PA, **24 June 2014**.
- Arya, C., Saez C., Huang, H. and Raghavan S.R. "Bio-inspired Microbead Clustering with an Associating Polymer." *ResearchFest Poster Competition*. University of Maryland, College Park, MD, **30 April 2014**.

SKILLS

Laboratory Techniques: colloidal nanocrystal synthesis, Schlenk line, Glovebox

Computer Applications: Igor Pro, Mathematica, Matlab, ImageJ, Mathcad

Characterization Techniques: RAMAN/FTIR/UV-VIS Spectroscopy, Scanning Electron Microscopy (SEM/STEM), Small Angle X-Ray Scattering (SAXS), Dynamic Light Scattering (DLS), Brightfield Microscopy, Thermogravimetric Analyzer (TGA), Energy Dispersive X-ray Spectroscopy (EDX)

Languages: Spanish (Native), French (Fluent), Italian (Beginner)

EXTRACURRICULAR ACTIVITIES

Student Organizations at the University of Texas at Austin: Society of Women in Engineering (SWE), Chemical Engineering Women (CheW), Equal Opportunity in Engineering (EOE), Chemical Engineering Graduate Leadership Council (GLC)

Student Organizations at the University of Maryland: TAU BETA PI Engineering Honors Society, Successful Engineer Education Development Support (SEEDS), FLEXUS-Women in Engineering Living and Learning Community, Engineers Without Borders (EWB), American Institute of Chemical Engineers (AIChE)