

Ehsan Rezabeigi

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EDUCATION

- 2010 – 2015 **Ph.D.:** Mechanical Engineering, Concordia University
 Thesis title: Development of Highly Porous Polylactic Acid-based Monoliths Containing Sol-gel-derived 45S5 Bioglass®; **Evaluated as outstanding.**
 Supervisors: Dr. Robin Drew and Dr. Paula Wood-Adams
- 2001 – 2008 **M.Sc.** and **B.Sc.** Materials Science and Engineering, University of Tehran

AWARDS

- Aug. 2015 Nominated for the valedictorian prize for **the most outstanding research** (Concordia University)
- June 2014 Centre de recherche sur les systèmes polymères (CREPEC) (2nd poster prize)
- May 2014 Concordia Accelerator Award – School of graduate studies
- 2013 & 2014 Conference and Exposition Award – School of graduate studies
- Apr. 2013 PhD Seminar Award (1st prize)
- Feb. 2013 American Society of Materials (ASM) – Montreal chapter (1st poster prize)
- Apr. 2013 American Society of Materials (ASM) – Montreal chapter (2nd poster prize)
- 2010 – 2012 Tuition Fee Remission – Concordia University

RESEARCH INTERESTS

- **Biomaterials** (biodegradable, bioactive and bioinert)
- **Polymer-based composite materials** (biocomposites and nanocomposites)
- **Materials science** (development, characterization and processing of materials)
- **Porous (lightweight) structures** (biocompatible and biodegradable polymers and composites)
- **Joining of (bio)materials** (surface and interface of biomaterials)

PUBLIC ENGAGEMENT

- 2015 Interviewed by the **Montreal Gazette** about my PhD work (bone scaffolds).
- 2015 Interviewed and featured in Concordia's **Graduate Programs Viewbook 2016 – 2017.**
- 2014 Featured in a **short movie** about my PhD work, to promote Concordia University.
- 2014 Interviewed and featured in **Concordia Engineering News** for my PhD work.
- 2013 **Invited speaker** for the **high GPA recruitment** event – School of graduate studies – Concordia University
- 2013 **Scientific reporter** for "2013 Annual Meeting of the Canadian Academy of Engineering (CAE)".

PROFESSIONAL EXPERIENCE AND SERVICE

- 2015 (Current) **Postdoctoral Fellow** – Mechanical and Industrial Engineering – Concordia University (Fabrication of PLA membranes and for microfiltration); **and:**
- 2015 **Collaboration** with the Department of Civil Engineering – Concordia University
 - 2015 **Collaboration** with Universidad Michoacana de San Nicolás de Hidalgo – Mexico (*In vitro* tests)
 - 2015 **Collaboration** with École Polytechnique de Montréal (Acoustic properties of PLA foams)
- 2015&2014 **Workshop Instructor**, "Posters and Presentations" – Concordia University
- 2015 **Guest Lecturer**, "PhD seminar course" (28 third-year PhD student)
- 2014&2015 **Guest Lecturer**, MECH 221 "Materials Science" – 3 lectures (120 undergraduate students)
- 2014 **Teaching Assistant** and **Marker**, MECH 221 "Materials Science"
- 2013-2015 **Lab Instructor** and **Marker**, MECH 421 "Mechanical shaping of metals and plastics"
- 2013-2015 **Supervisor/ Invigilator** for 42 final exams – Examination office – Concordia University

Supervision of undergraduate and graduate research projects:

- 2015 • *Nora Lúa* –masters student– (*In vitro* evaluation of PLA/45S5 Bioglass® scaffolds)
 2014 • *Johnny A. P. Seminario* –undergraduate– (Crystallization in PLA/Bioglass® nanocomposites)

PUBLICATIONS**Peer-reviewed articles**

1. E. Rezabeigi, P.M. Wood-Adams and R.A.L. Drew, "The incorporation of surface modified sol-gel-derived 45S5 Bioglass® in highly porous polylactic acid monoliths", *under review at Composites Part A: Applied Science and Manufacturing*, 2015.
2. E. Rezabeigi, P.M. Wood-Adams and R.A.L. Drew, "Production of porous polylactic acid monoliths via nonsolvent induced phase separation", *Polymer*, 55, 6743 – 6753, 2014.
3. E. Rezabeigi, P.M. Wood-Adams and R.A.L. Drew, "Isothermal ternary phase diagram of the polylactic acid-dichloromethane-hexane system", *Polymer*, 55, 3100 – 3106, 2014.
4. E. Rezabeigi, P.M. Wood-Adams and R.A.L. Drew, "Synthesis of 45S5 Bioglass® via a straightforward organic, nitrate-free sol-gel process", *Materials Science and Engineering: C*, 40, 248 – 252, 2014.
5. E. Rezabeigi, P.M. Wood-Adams and R.A.L. Drew, "Surface Modification of Sol-Gel-Derived 45S5 Bioglass® for Incorporation in Polylactic Acid (PLA)", *Advances in Bioceramics and Porous Ceramics VI*, John Wiley & Sons, Inc., Hoboken, NJ, USA, vol. 34, no. 6, pp. 107 – 112, 2013.

Papers in conference proceedings *(presenter)

1. **E. Rezabeigi**, P.M. Proa-Flores, R.A.L. Drew and P.M. Wood-Adams, "A novel nitrate-free sol-gel process for production of 45S5 Bioglass®", In: Proceedings of the American Society for Composites, 1, pp. 34 – 42, Sep. 26 – 28, 2011, Montreal, QC, Canada.
2. **E. Rezabeigi**, A.M. Hadian and A. Hadian, "Investigation on Effective Factors in Brazing of B₄C Using Ag-based Filler Metals", In: Proceedings of the 13th European Conference on Composite Materials (ECCM-13), June 2 – 5, 2008, Stockholm, Sweden.

Other conference presentations

1. **E. Rezabeigi** et al., "Production of polylactic acid/45S5 Bioglass® scaffolds for bone regeneration purposes", 27th Canadian Materials Science Conference, June 2015, Halifax, Canada (*Oral presentation*).
2. **E. Rezabeigi** et al., "Development of Polylactic Acid Foams via Nonsolvent-induced Phase Separation", 30th International Conference of the Polymer Processing Society, June 2014, Cleveland, USA (*Oral presentation*).

LANGUAGES

- **English** (Full professional proficiency)
- **French** (Limited working proficiency)

TECHNICAL SKILLS

- **Expert** in *Word*, *Excel*, *PowerPoint* and *PS* (Photoshop)
- **Familiar** with *AutoCAD*, *Origin*, *CES* (Cambridge Engineering Selector), *SolidWorks* and *Matlab*.

PROFESSIONAL TRAINING

- 2015 **Project Leadership Essentials** – Gradproskills – Concordia University
 2015 **Basic Concepts of Project Management** – Gradproskills – Concordia University
 2015 **Intensive graduate seminar in University Teaching** – Gradproskills – Concordia University
 2015 **Project Management Essentials** – Gradproskills – Concordia University
 2013 **Generating Creativity** (4 sessions) – Gradproskills – Concordia University
 2013 **How to conduct productive meetings** – Gradproskills – Concordia University