



**Hamid Ilbeygi**

## Education

**2015-Present**, PhD Environmental Engineering, Future Industries Institute, University of South Australia, Australia

**2014- 2015**, PhD Chemical Engineering, Australian Institute for Bioengineering and Nanotechnology, The University of Queensland, Australia

**2011-2013**, M. SC. In Chemical Engineering, Advance Membrane Technology Centre, University of Technology Malaysia.

**2009**, B. Sc. in Chemical Engineering, Iran University of Science and Technology, Iran

## Biography

**Hamid Ilbeygi** completed his bachelor in chemical engineering in Iran university of Science and technology, and immediately after graduation, he started working in a chemical company in Iran as a QC expert and later production manager. After more than working for 1.5 year, he moved to University of Technology Malaysia to pursue his master in chemical engineering and he got a best graduate student award from there. Hamid joined to professor Vinu's group in AIBN, the University of Queensland to start his PhD and in Nov 2015 he moved to Future Industries Institute, University of South Australia together with professor Vinu to continue his PhD. Hamid is mainly working on designing and synthesis of mesoporous heteropoly acids and transition metal oxides as a proton conducting membrane for PEM fuel cell application.

## Researches Interests

- Synthesis of mesoporous Heteropoly acid (MSA) as a proton exchange membrane for polymer electrolyte membrane fuel cell.
- Developing enhanced FO membrane for desalination and waste water treatment using cellulose nanofibril.
- Development of modified SPEEK nanocomposite membrane (SP/TAP/CL) membrane for DMFC application.

## Awards

- **2016:** Travel Award, 5th international seminar for Green Energy Conversion Science and Technology, Japan
- **2014:** International Postgraduate Research Student (IPRS) scholarship to cover living expenses and tuition fee, Australia
- **2013:** Best Graduate student award, University of Technology Malaysia, Malaysia
- **2006:** Awarded for being top 10 undergraduate student, Iranian University of Science and Technology, Iran.
- **2005:** 3rd rank in the second National Chem-e-car (Chemical Engineering Car) competition, Iran.

## Activities

- **President and Co-founder**, FII student Association, University of South Australia, Adelaide, Australia 2016
- **Vice-president**, AIBN student Association, University of Queensland, Brisbane, Australia 2015 (1 year)
- **Student Member**, Membrane Society of Australia, Australia, 2014-present
- **Chairman of scientific association**, Iran University of Science and Technology, Department of Chemical Engineering, Iran. (2 years)
  
- **Executive Committee Member**, Iran Chemical Engineering Scientific Association (2 years)
- **Executive Director**, specialized journal of EXIR, Iran University of Science and Technology. (1 year)
- **Executive Chairman**, 1st National Conferences of Industry, Student and Sustainable Development.
- **Vice-president and Co-Founder**, society of petroleum engineering (SPE) Iran University of science and technology chapter, (1 year).

## Professional & Work Experience

- **February 2015- July 2015:** Teaching Assistant in University of Queensland (Thermodynamic for chemical engineers course)
- **Feb 2012- Jul 2012 :** Teaching Assistant in University of Technology Malaysia (Thermodynamic course)
- **Sep 2011-Dec 2011:** Teaching Assistant in University of Technology Malaysia (POLLUTION CONTROL PRACTICAL CLASS)
- **Sep2010- Jan 2011:** Expert in Institute of Standards & Industrial Research of Iran
- **2009- 2010:** Production Manager of Sepidan Chemical Complex.
- **2006-2007:** Internship student in ***Petroleum Refinery of Tehran CO.***

## Book, Journal & Conference Proceedings

- Ghasemi, M., Wan Daud, W.R., Alam, J., Jafari, Y., Sedighi, M., Aljlil, S.A., **Ilbeygi, H.** "Sulfonated poly ether ether ketone with different degree of sulphonation in microbial fuel cell: Application study and economical analysis", **International Journal of Hydrogen Energy**, 2016, 41, 4862-4871.
- Ghasemi, M., Wan Daud, W.R.a, Alam, J., **Ilbeygi,H.**, Sedighi, M., Ismail, A.F., Yazdi, M.H., Aljlil, S.A. "Treatment of two different water resources in desalination and microbial fuel cell processes by poly sulfone/Sulfonated poly ether ether ketone hybrid membrane", **Energy**, 2016, 96, 303-313.
- Emadzadeh, D., Lau, W.J., Rahbari-Sisakht, M., **Ilbeygi, H.**, Rana, D., Matsuura, T., Ismail, A.F. "Synthesis, modification and optimization of titanate nanotubes-polyamide thin film nanocomposite (TFN) membrane for forward osmosis (FO) application", **Chemical Engineering Journal**, 2015, 281, 243-25
- Mayahi, A., **Ilbeygi, H.**, Ismail, A.F., Jaafar, J., Daud, W.R.W., Emadzadeh, D., Shamsaei, E., Martin, D., Rahbari-Sisakht, M., Ghasemi, M., Zaidi, J. "SPEEK/cSMM membrane for simultaneous electricity generation and wastewater treatment in microbial fuel cell", **Journal of Chemical Technology and Biotechnology**, 2015, 90, 641-647
- **Hamid Ilbeygi**, Mostafa Ghasemi, D. Emadzadeh, Ahmad Fauzi Ismail, S.M.J. Zaidi, Saad A. Aljlil, Juhana Jaafar, Darren Martin, Samaneh Keshani. "Power generation and wastewater treatment using a novel SPEEK nanocomposite membrane in a dual chamber microbial fuel cell", **International Journal of Hydrogen Energy**, 2015, 40, 477-487.
- **H. Ilbeygi**, A. Mayahi, A.F. Ismail, M.M. Nasef, J. Jaafar, M. Ghasemi, T. Matsuura, S.M.J. Zaidi. "Transport properties of SPEEK nanocomposite proton conducting membranes: Optimization of additives content by response surface methodology", **Journal of the Taiwan Institute of Chemical Engineers**, 2014, 45, 2265-2279.
- Chakavak Esmaeili, Mostafa Ghasemi, Lee Yook Heng, Sedky H.A. Hassan, Mahnaz M. Abdi, Wan Ramli Wan Daud, **Hamid Ilbeygi**, Ahmad Fauzi Ismail. "Synthesis and application of polypyrrole/carrageenan nano-bio composite as a cathode catalyst in microbial fuel cells" **Carbohydrate Polymers**, 2014, 114, 253-259.
- Hazlina Junoh, Juhana Jaafar, Muhammad Noorul Anam Mohd Norddin, Ahmad Fauzi Ismail, Mohd Hafiz Dzarfan Othman, Mukhlis A. Rahman, Norhaniza Yusof, Wan Norhayati Wan Salleh, **Hamid Ilbeygi** "A Review on the Fabrication of Electrospun Polymer Electrolyte Membrane for Direct Methanol Fuel Cell", **Journal of Nanomaterials**, 2014, In press.
- **H. Ilbeygi**, A.F. Ismail, A. Mayahi, M.M. Nasef, J. Jaafar, E. Jalalvandi "Transport properties and direct methanol fuel cell performance of sulfonated poly(ether ether ketone)/Cloisite/triaminopyrimidin nanocomposite polymer electrolyte membrane at moderate temperatures". **Separation and Purification Technology**, 2013, 118, 567-575.
- A. Mayahi, A.F. Ismail, **H. Ilbeygi**, M. Anam, T. Matsuura "Effect of operating temperature on the behavior of promising SPEEK/cSMM electrolyte membrane for DMFCs" **separation and purification technology**, 2013, 106, 72-81.
- **H. Ilbeygi**, A.F. Ismail, M.M. Nasef, J. Jaafar, E. Jalalvandi "Electrochemical study of SPPEK/Cloisite 15A®/TAP membrane at moderate temperature for DMFC application". **Advances in Applied Materials and Electronics Engineering II**, 2013, 80-85.
- **H. Ilbeygi**, A.F. Ismail, M.M. Nasef, J. Jaafar "Prediction and optimization of proton conductivity for nanocomposite membrane using response surface methodology" 11<sup>th</sup> International Conference on Membrane Science and Technology 2013.

