



## CURRICULUM VITAE

### DR. MOHAMAD REZI ABDUL HAMID

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#### Education

- PhD. Chemical Engineering, 2019, Texas A&M University, College Station, TX, USA
- B. E. Chemical Engineering, 2012, Stevens Institute of Technology, Hoboken, NJ, USA

#### Research Interest

- Materials engineering
- Porous materials e.g., metal-organic frameworks, zeolitic-imidazolate frameworks, zeolites
- Separation technologies, membranes, gas separation
- Process simulation
- Energy

#### Professional Membership

- American Institute of Chemical Engineers (AIChE)
- North American Membrane Society (NAMS)
- Board of Engineers Malaysia (BEM)

#### Appointments

- Senior Lecturer, Department of Chemical and Environmental Engineering, UPM June 2020 – to date
- Teaching Assistant, Department of Chemical and Environmental Engineering, UPM July 2014 – Dec 2015
- Operation Executive, AG Resources Sdn. Bhd. Blackhem Holdings June 2013 – June 2014

#### Publications

- S Berens, F Hillman, **MRA Hamid**, HK Jeong, S Vasenkov. Influence of 2-ethylimidazole linker-doping in ZIF-8 crystals on intracrystalline self-diffusion of gas molecules by high field diffusion NMR. Microporous and Mesoporous Materials. 2021. (IF 4.551)
- **MRA Hamid**, HK Jeong. Flow synthesis of polycrystalline ZIF-8 membranes on polyvinylidene fluoride hollow fibers for recovery of hydrogen and propylene. Journal of Industrial and Engineering Chemistry. 2020. 319 (IF 5.278)
- AB Makama, A Salmiaton, TSY Choong, **MRA Hamid**, N Abdullah, E Saion. Influence of parameters and radical scavengers on the visible-light-induced degradation of ciprofloxacin in

ZnO/SnS<sub>2</sub> nanocomposite suspension: identification of transformation products. Chemosphere, 2020. 126689 (IF 5.778)

- **MRA Hamid**, S Park, JS Kim, YM Lee, HK Jeong. In-situ formation of zeolitic-imidazolate framework thin films & composites using modified polymer substrates. Journal of Materials Chemistry A. 2019. 9680 (IF 11.301)
- **MRA Hamid**, S Park, JS Kim, YM Lee, HK Jeong. Synthesis of ultrathin zeolitic-Imidazolate framework ZIF-8 membranes on polymer hollow fibers using a polymer modification strategy for propylene/propane separation. Industrial Engineering Chemistry Research. 2019. 14947 (IF 3.573)
- S Park, **MRA Hamid**, HK Jeong. Highly propylene-selective mixed-matrix membranes by in-situ metal-organic framework formation using a polymer-modification strategy. ACS Applied Materials & Interfaces, 2019, 25949. (IF 8.758)
- MJ Lee, **MRA Hamid**, J Lee, JS Kim, YM Lee, HK Jeong. Ultrathin zeolitic-imidazolate framework ZIF-8 membranes on polymeric hollow fibers for propylene/propane separation. Journal of Membrane Science. 2018. 28 (IF 7.183)
- **MRA Hamid**, HK Jeong. Recent advances on mixed-matrix membranes for gas separation: opportunities & engineering challenges. Korean Journal of Chemical Engineering. 2018. 1 (IF 2.690)
- F Hillman, JM Zimmerman, SM Paek, **MRA Hamid**, WT Lim, HK Jeong. Rapid microwave-assisted synthesis of hybrid zeolitic-imidazolate frameworks with mixed metals & mixed linkers. Journal of Materials Chemistry A. 2017. 6090 (IF 11.301)
- ZZ Abidin, FM Yassin, MR Harun, MY Harun, HS Zainuddin, **MRA Hamid**, MAM Salleh. Video as e-learning approach for enhancing laboratory teaching in biochemical engineering - a Malaysia case study. 7th World Eng. Edu. Forum, 2017, 222

#### Conference Proceedings

- F Hillman, **MRA Hamid**, HK Jeong. Linker doping strategy for hybrid ZIFs and membranes for tunable gas separations. AIChE Annual Conference 2019. Orlando. Florida. USA
- **MRA Hamid**, HK Jeong. A scalable method to synthesize zeolitic-imidazolate framework ZIF-8 membranes on polymer hollow fibers for propylene/propane separation. AIChE Annual Conference 2018. Pittsburgh. Pennsylvania. USA
- **MRA Hamid**, MJ Lee, JM Lee, JS Kim, YM Lee, HK Jeong. Ultrathin zeolitic-imidazolate framework ZIF-8 membranes on polymer hollow fibers for propylene/propane separation. North American Membrane Society 2018 Conference. Lexington. Kentucky. USA
- MJ Lee, **MRA Hamid**, JM Lee, JS Kim, YM Lee, HK Jeong. Preparation of ZIF-8 membranes supported on polymer hollow fibers using microwave-assisted seeding and secondary growth. AIChE Annual Conference 2017. Minneapolis. Minnesota. USA

#### Patents

- HK Jeong, **MRA Hamid**. In-situ fabrication of metal-organic framework films and mixed-matrix membranes. *PCT International Application*. 2019. WO2019210159

#### Research Grants

- Vapor phase synthesis of molecular sieve hybrid zeolitic imidazolate framework (ZIF) membranes for H<sub>2</sub> purification and light hydrocarbon separations  
Project leader      GP-IPM      2020 – 2023      RM 49,882

#### Professional Services

- Design and optimization of solid waste incinerator using Aspen Plus, Hijau Kitar Semula Sdn Bhd      2020      RM 5,000

- Palm oil mill modeling and simulation. Sime Darby 2020 RM79,275
- Journal reviewer for Korean Journal of Chemical Engineering 2020
- Journal reviewer for Korean Journal of Chemical Engineering 2021

### References

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