POLYTECHNIQUE MONTRÉAL
LE GÉNIE EN PREMIÈRE CLASSE

Kazem Adavi, PhD

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Education

- **Polytechnique Montreal, Montreal, QC, Canada** (since Jan 2021)

  Ph.D. Student, Department of Chemical Engineering

- **Sharif University of Technology (SUT), Tehran, Iran** (2015-Jan 2018)

  M.Sc. Degree, Department of Chemical Engineering

- **Sahand University of Technology (SUT), Tabriz, Iran** (2011-2015)

  B.Sc. Degree, Department of Chemical Engineering

Research Interests

- Computational Fluid Dynamic.
- Nanomaterials Synthesis.
- Reactor Modeling & Catalyst Synthesis
- Fluidization

Work Experience

• Kharazmi Technology Development Co. (KHTD) , Iran	R&D specialist	(2018-Dec. 2020)
• Catalyst Test Laboratory, KHTD, Iran	Supervisor	(2018-Dec. 2020)
• Comsol Workshops Instructor, 21 Workshops	Instructor	(2016-2020)

Expertise

- Instrumental chemical analysis.
- COMSOL simulation.
- Catalyst test setups manufacturing and handling.
- Catalyst synthesis.
- Process engineering.
- HYSYS, Aspen Plus, and ANSYS Fluent.

Journal Publications

• **Kazem Adavi**, Asghar Molaei Dehkordi, "Synthesis and polymorph controlling of calcite and aragonite calcium carbonate nanoparticles in a confined impinging-jets reactor", Chemical Engineering and Processing- Process intensification, Volume 159, Science Direct, Elsevier, 2021.

Hanieh Nokhbatolfoghahaei, Mahboubeh Bohlouli, **Kazem Adavi**, "Computational modeling of media flow through perfusion-based bioreactors for bone tissue engineering, Proceeding of the institution of mechanical engineering, Volume 234, issue 12, SAGE, 2020.

Books

K. adavi, "Comsol Multiphysics Applications in Chemical & Petroleum Engineering" Publisher: Mosbat, 2nd Publication, The number of copies printed: 2000. Number of pages: 350. First published in 2017.

Conference Publications

• **K. Adavi**, AM. Dehkordi, "Synthesis of Nano-Sized Calcium Carbonate Particles Using an Impinging Jet Reactor: Influences of Tempreature, Retention Time, and Elutant", 10th International Chemical Engineering Congress & Exhibition (IChEC 2018).

• **K. Adavi**, S. H. Khorasani, R. Tangestani, and M. Rokhafrooz, "Modeling and Simulation of Electrode Geometry and Channel Fluid Flow on PEM Fuel Cell Performance" 4th National Conference on New Researches in Chemistry and Chemical Engineering (IRCCE) Tehran, Iran (Third among 300 papers).

• **K. Adavi**, A. Ahmadi, M. Mohammadi, MR. Rokhfrouz, "Simulation Fluidized Bed with Bubbling Regime, Contains Particles of Gladart A, Using the TFM model" Third National Conference on New Research in Chemistry, Chemical Engineering and Petroleum Engineering, November 2017, Tehran, Iran.

• **K. Adavi**, AM. Dehkordi, Y. Mehdizadeh, "Impinging Jet Reactor Hydrodynamics Modeling and Simulation by Using Computational Fluid Dynamics" The Fourth National Conference on New Research in Chemical Science and Engineering, September 2018.

• **K. Adavi**, Y. Mehdizadeh, M. Heydari, "Modeling and Simulation Effect of Thin Porous Layer on Heat and Mass Transfer in Falling Film" The Fourth National Conference on New Research in Chemical Science and Engineering, September 2018.

• **K. Adavi**, A. Mahzoon, A. Ahmadi, MR. Rokhfrouz, "Wen-Yu Model Evaluation in Bubbling Fluidized Bed Using Computational Fluid Dynamics" Third National Conference on New Research in Chemistry, Chemical Engineering and Petroleum Engineering, November 2017, Tehran, Iran.