

# CURRICULUM VITAE

## Amin Salem

### PERSONAL INFORMATION

**Name:** Amin  
**Family Name:** Salem  
**Birth Date:** 16 July 1974  
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### DEGREES

**Ph.D.:** from Iran University of Science and Technology (IUST), Chemical Engineering, Processing of Inorganic Materials

**M.Sc.:** from Iran University of Science and Technology (IUST), Chemical Engineering, Processing of Inorganic Materials

**B.Sc.:** from Iran University of Science and Technology (IUST), Chemical Engineering

### POSITIONS HELD

**Associate Professor** in Chemical Engineering Department of Sahand University of Technology, Tabriz, Iran (2008-2022).

**Assistant Professor** in Chemical Engineering Department of Sahand University of Technology, Tabriz, Iran (2005-2008).

**Member of Center of Excellence for Color Science and Technology**, Tehran, Iran (2011-2020).

### AWARDS

Dominant graduated student in B.Sc., M.Sc. and Ph.D.

A research period in University of Bologna and Ceramic Center of Bologna, Italy evaluated by CCB (2002-2003)

### LANGUAGE EXPERIENCE

English: Excellent, International language

Persian: Full, National language

Turkish: Full, Mother language

Arabic: Fair

### TEACHING EXPERIENCE

1- Unit Operation II (Evaporation, Humidification, Drying, Adsorption, Filtration, Leaching and Crystallization)

2- Advance Transport Phenomena (Heat Transfer and Fluid Mechanics)

3- Advance Mathematical Engineering

4- Shaping Process

5- Powder Technology

6- Advance Rheology

7- Ceramic Processing Technology

### Book Chapters

[1] Sh. Salem, **A. Salem**, Mechanisms of momentum transport in viscous flow sintering in Sintering, InTech, USA, 2013.

[2] Sh. Salem, **A. Salem**, M. Sadevandi, E. Velayi, Structure, Synthesis and Environmental Applications of Nano-Sized Hydroxyapatite in High Value Processing Technologies, Nova, USA, 2016.

### Journal Papers

[1] M. Koohestani, **A. Salem**, S. Salem, Decolorization of corn syrup in a dynamic system by activated carbon bed: Microwave-assisted impregnation of H<sub>3</sub>PO<sub>4</sub> over cherry and date stones for efficient purification, *Sustain. Chem. Pharm.* 36 (2023) 101298.

[2] H. Hassanzadeh, **A. Salem**, S. Salem, Application of ultrasound-assisted technique for production of mesoporous magnesium oxide from solid waste of ductile iron: An alternative method for elimination of surfactants from precipitation process, *Mater. Today Commun.* 37 (2023) 107121.

[3] M. Koohestani, **A. Salem**, S. Salem, Dynamic adsorption of 4-nitrophenol over shaped activated carbon produced from agriculture stones through microwave-assisted technique, *Env. Sci. Poll. Res.* 30(47) (2023) 104767–104778.

[4] H. Hassanzadeh, **A. Salem**, S. Salem, Recovery of binary-component textile wastewater contaminated by reactive dyes through adsorption onto magnetic separable MgO nanoparticles produced from solid waste of ductile cast iron industry, process identifications, characterization and regeneration. *Process Saf. Environ. Prot.* 178 (2023) 46–55.

[5] H. Hassanzadeh, **A. Salem**, S. Salem, Fabrication of MgO powder through ultrasound-assisted precipitation for uptake of reactive dyes from wastewater: Change in

- porous structure for efficient adsorption, *Inorg. Chem. Commun.* 155 (2023) 111004.
- [6] H. Hassanzadeh, **A. Salem**, S. Salem, One-step fabrication of mesoporous maghemite nanoparticles by autoignition: Effect of fuel ratio on crystalline structure, magnetic characteristics and textural properties, *Chem. Phys. Lett.* 823 (2023) 140519.
- [7] A.H. Razm, **A. Salem**, S. Salem, Preparation of thermally recyclable  $\gamma$ -alumina nanoparticles from boehmite for adsorption of anionic dyes: Spectrophotometric study, structural characterization and industrial experience, *Korean J. Chem. Eng.* 40(4) (2023) 863–872
- [8] F. Amir Aslanzadeh Mamaghani, **A. Salem**, Sh. Salem, Identification of phase transformation during conversion of Ca-bentonite into a low silica-based zeolite structure through fusion and hydrothermal processes, *J. Solid State Chem.* 319 (2023) 123790.
- [9] S.Z. Hosseine Amirhandeh, **A. Salem**, Sh. Salem, Treatment of tannery wastewater by silica nanoparticles produced from rice husk ash via a green route, *Env. Sci. Poll. Res.* 30(5) (2023) 13039–13047.
- [10] S.Z. Hosseine Amirhandeh, **A. Salem**, Sh. Salem, Sono-chemical extraction of silica from rice husk for uptake of chromium species from tannery wastewater: Effect of aging time on porous structure, *Mater. Lett.* 327 (2022) 132933.
- [11] F. Amir Aslanzadeh Mamaghani, **A. Salem**, Sh. Salem, Management of solid waste after used motor oil recovery via production of zeolite A, *Env. Sci. Poll. Res.* 29(37) (2022) 55877–55889.
- [12] F. Amir Aslanzadeh Mamaghani, **A. Salem**, Sh. Salem, Role of aluminum resource in conversion of bentonite into low silica-based zeolites via fusion technology, *Mater. Lett.* 318 (2022) 132168.
- [13] A.H. Razm, **A. Salem**, Sh. Salem, Industrial performance, reusability and mechanical reliability of mesoporous gamma alumina packed bed fabricated through boehmite extrusion for removal of reactive dyes from textile wastewaters, *J. Hazard. Mater.* 429 (2022) 128259.
- [14] F. Amir Aslanzadeh Mamaghani, **A. Salem**, Sh. Salem, Pilot plant study for management of toxic solid waste collected in landfill of spent lubricant oil refinery by conversion into zeolite packed bed via continuous extrusion and fusion techniques, *Process Saf. Environ. Prot.* 159 (2022) 500–510.
- [15] F. Dastoorian, **A. Salem**, Sh. Salem, Role of amine-based fuel combination in conventional and microwave-assisted smoldering combustion for production of mesoporous hydroxyapatite with super adsorptive characteristics for separation of disperse dye, *Micropor. Mesopor. Mater.* 330 (2022) 111576.
- [16] F. Paziresh, **A. Salem**, Sh. Salem, Super effective recovery of industrial wastewater contaminated by multi-disperse dyes through hydroxyapatite produced from eggshell, *Sustain. Chem. Pharm.* 23 (2021) 100501.
- [17] M. Foroughi, **A. Salem**, Sh. Salem, Potential of fusion technique in production of mesoporous zeolite A powder from poor kaolin through modification by boehmite: Effect of clay mineralogy on particle morphology, *Adv. Powder Technol.* 32(7) (2021) 2423–2432.
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- [19] M. Alizadeh Arasi, **A. Salem**, Sh. Salem, Production of mesoporous and thermally stable silica powder from low grade kaolin based on eco-friendly template free route via acidification of appropriate zeolite compound for removal of cationic dye from wastewater, *Sustain. Chem. Pharm.* 19 (2021) 100366.
- [20] M. Alizadeh Arasi, **A. Salem**, Sh. Salem, Nano-porous hydrosodalite fabrication via hydrothermal modification of processed kaolin by boehmite: Aluminum source effect on physicochemical characteristics of product, *Adv. Powder Technol.* 31(6) (2020) 2379–2384.
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- nano-porous gamma alumina: adsorptive properties, characterization, *J. Chem. Technol. Biotechnol.* 2021, 96(5) (2021) 1187–1196.
- [23] M. Alizadeh Arasi, **A. Salem**, Sh. Salem, Extraction of nano-porous silica from hydrosodalite produced via modification of low-grade kaolin for removal of methylene blue from wastewater, *J. Chem. Technol. Biotechnol.* (2020) In Press.
- [24] S. Pourrahim, **A. Salem**, Sh. Salem, R. Tavangar, Application of solid waste of ductile cast iron industry for treatment of wastewater contaminated by reactive blue dye via appropriate nano-porous magnesium oxide, *Environ. Pollut.* 256 (2020) 113454.
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- [2] Y. Beygi Khosrowshahi, **A. Salem**, The effect of binder mixing on technical parameters of ceramic Raschig rings, XIVInternational Clay Conference, Castellaneta

Marina, Italy, 14-20 June, 2009.

[3] **A. Salem**, S.H. Jazayeri, E. Rastelli, G. Timellini, Influence of nepheline syenite on colorant behavior of porcelain stoneware body, 2<sup>nd</sup> International Congress on Ceramics, Verona, Italy, 29 June- 4 July, 2008.

[4] N. Rostami, **A. Salem**, S.H. Jazayeri, The effect of nepheline syenite on reliability of extruded ceramic Raschig rings, 2<sup>nd</sup> International Congress on Ceramics, Verona, Italy, 29 June- 4 July, 2008.

[5] S. Shirchi, **A. Salem**, S.H. Jazayeri, The effects of alumina and zirconium silicate on reliability of ceramic packings, 2<sup>nd</sup> International Congress on Ceramics, Verona, Italy, 29 June- 4 July, 2008.

[6] **A. Salem**, S.H. Jazayeri, E. Rastelli, G. Timellini, Study of porcelain stoneware body shrinkage by dilatometric method using modified kinetic model, 10<sup>th</sup> International Conference and Exhibition of the European Ceramic Society, Berlin, Germany, 17–21 June, 2007.

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[9] M. Salehi, **A. Salem**, Influence of sintering conditions on strength reliability of ceramic Raschig rings shaped by extrusion process, The 5<sup>th</sup> international conference on materials processing for properties and performance, Singapore, 11-15 December, 2006.

[10] **A. Salem**, Y. Tavakkoli Oskoui, Kinetic investigation of barite reduction in presence of Na<sub>2</sub>CO<sub>3</sub>, 54<sup>th</sup> Canadian Chemical Engineering Conference, Tronto, Ontario, Canada, 16-19 October, 2005.

[11] **A. Salem**, B. Ghaemi Dizaji, Forming and polishing of glass surface in the tin bath of float process, 54<sup>th</sup> Canadian Chemical Engineering Conference, Tronto, Ontario, Canada, 16-19 October, 2005.

[12] **A. Salem**, S.H. Jazayeri, Study of porosity for porcelain stoneware tile, 53<sup>rd</sup> Canadian Chemical Engineering Conference, Hamilton, Ontario, Canada, 26-29 October, 2003.

[13] S.H. Jazayeri, **A. Salem**, Optimizing rheological properties of ceramic slips, 6<sup>th</sup> World Congress of Chemical Engineering, Melbourne, Australia, 23-27 September, 2001.

## Patents

[1] R. Akbari Sene, **A. Salem**, M. Khatamian, Fabrication of zeolite-kaolin–bentonite based adsorbent for removal of lead, Iranian Patent No. 70035, May 23, 2011 (Confirmed).

[2] **A. Salem**, E. Velayi, Shaping of new adsorbent composition formulated by Iranian hydroxyapatite and cement kiln dust for sorption of lead from solution, Iranian Patent No. 65992, August 7, 2010 (Confirmed).

[3] **A. Salem**, S. Jamshidi, Application of extrusion in catalytic reduction of barite, Iranian Patent No. 64178, April 10, 2010 (Confirmed).

[4] **A. Salem**, M. Salehi, Design of single screw extruder with conical cross for extrusion of ceramic Raschig ring, Iranian Patent No. 46739, March 3, 2009 (Semi-industrial scale).

[5] Sh. Salem, **A. Salem**, H. Shabanzade, Bentonite activation by microwave technology for waste motor oil regeneration, Iranian Patent No. 98243, April 7, 2019.