



Education

- **Sharif University of Technology, Tehran, Iran** (2002)
Department of Chemical and Petroleum Engineering
M.Sc. Degree, Chemical Engineering-Biotechnology
Thesis: "Monte Carlo Simulation of Immobilized Cell Systems"

- **Sharif University of Technology, Tehran, Iran** (2000)
Department of Chemistry
B.Sc. Degree, Applied Chemistry
Thesis: "Synthesis of Phthalocyanine blue pigment"

Research Interests

- Process design and optimization
- Stochastic modeling of chemical and biochemical processes
- Biotechnology
- Microbial induced corrosion
- Electrochemistry
- Corrosion in heavy duty boilers and heat recovery steam generators
- Water and waste water treatment
- Regenerative and non-regenerative condensate polishing
- Dry colorimetry
- Instrumental chemical analysis
- Development of new cathode materials for lithium ion batteries
- Pinch technology
- Chemical control of boilers and cooling towers
- Rotary kiln ball mill reactor design

Work Experience

- **Automotive Partnership Canada** project for scale up of LFP melt synthesis as lithium ion batteries' cathode Polytechnique Montreal, Montreal, QC, Canada Research Associate 2014-

- **CI Analytics Inc.**, Chambly, QC, Canada Chemical applications chemist 2013-2014

- **Montazerghaem Power Generation Management Company**, Karaj, Alborz, Iran Chemistry and environment department head 2008-2012

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|--|---|-----------|
| • Montazerghaem Power Generation Management Company , Karaj, Alborz, Iran | Head of water laboratories and coating department | 2005-2008 |
| • Bidco (Biotechnology development company) , Tehran, Iran | Business plan developer | 2004-2005 |

Expertise

- Monte Carlo simulation
- Chemical and biochemical reactor design
- Design and operation of resin ion exchange demineralizers
- Design and optimization of regenerative and non-regenerative condensate polishing plants
- Chemical cleaning of boilers
- Instrumental chemical analysis
- Classical chemical analysis
- Extractive and in situ. Continuous emission monitoring
- Simulation with COMSOL

Research Background

- Production of viscous Ryon fibers for tire industry
- Synthesis of phthalocyanine blue pigment
- Synthesis of indigotin blue dye for textile industry
- Process design and pilot plant production of diphenyl methane
- Monte Carlo simulation of immobilized E-Coli bacteria in calcium alginate gells
- Assessment of microbial induced corrosion in Montazerghaem power plant
- Chemical control of cooling tower and boiler water
- Technical and economical assessment of transition from polyphosphate regime to phosphonate regime

Teaching Experience

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| • Industrial corrosion fundamentals
Neka Power plant, Neka, Mazandaran, Iran | Instructor | 2011 |
| • English courses for employees ,
Montazerghaem Power Generation Management Company, Karaj, Alborz, Iran | Instructor | 2007-2008 |

- **Biochemical engineering,** Teaching 2001, 2002
Sharif University of Technology, Tehran,Iran Assistant

Journal Publications

- Yari, B.; Khorasheh, F.; Kheirrolomoom A.; Chaouki, J.; “A Monte Carlo simulation of nutrient diffusion and reaction in immobilized cell systems”; Chemical Physics 01/2006; 321(1):34-40. DOI:10.1016/j.chemphys.2005.07.029 □1.65 Impact Factor
- Yari, B.; “Microbial induced corrosion, Recognition, Identification and Prevention”; Iranian corrosion journal, 2005

Conference Publications

- Yari B., Lorestani M., "Technical and economical assessment of chemical control transition in cooling towers of Montazerghaem power plant", 2nd Electric Power Generation Conference EPGC2, Tehran, Iran, 2010
- Yari B. “Microbial induced corrosion”; Iranian power plant chemistry seminar, Tabriz, East Azerbaijan, Iran, 2009