Curriculum Vitae

NAME & SURNAME: Yousef Tamsilian

DATE OF BIRTH: 05/05/1986

ADDRESS, SUBURB, STATE, POSTAL CODE: Department of Chemical Engineering, Faculty of Engineering, Shahid Chamran University of Ahvaz, Golestan Ave., Ahvaz, Iran, Postal Code: 61357 83151

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PROFESSIONAL PROFILE:

Assistant Professor of Chemical Engineering & Director of SCU Laboratories Affairs, Shahid Chamran University (SCU) of Ahvaz

EDUCATION BACKGROUND:

Ph.D.: Chemical Engineering geology (2016), Sharif University of Technology, Tehran, Iran

Thesis Title:

Preparation of Thermoviscosifying Polymer Nanoparticles to Apply in Smart Enhanced Oil Recovery Process

M.Sc.: Chemical Engineering geology (2011), Sharif University of Technology, Tehran, Iran

Dissertation Title:

Preparation of Polyacrylamide Nanoparticle with Intelligent Nanoscale Coating to Control Polymer Solubility during Polymer Enhanced Oil Recovery Process

B.Sc.: Chemical Engineering geology (2008), Sharif University of Technology, Tehran, Iran

Dissertation Title:

Curriculum Vitae

Feasibility Study of ETBE Production Process Unit in Arak Petrochemical Complex

TEACHING AND TRAINING EXPERINCE:

Thermodynamics, Kinetics & Reactor Design, Refinery Processes, Plant Design and Economics, Mathematics, Rheology, Water & Wastewater Engineering

HONOURS AND AWARDS:

INTERESTS AND RESEARCH FIELDS:

Technology Commercialization (Lab to TOT): Smart Nanomaterials and Polymers for: CEOR, Oil & Grease Absorption, Self-Cleaning Coating, Drilling Fluid, Lubricant VII, Textile Coating

Project Development (FS to EPC Package): Wastewater Treatment, Refinery/Petrochemical Process Troubleshooting and Debottlenecking

RESEARCH ACTIVITIES:

PUBLICATIONS:

PATENT PUBLICATIONS:

Y. Tamsilian, A. Ramazani S.A., Smart Polymer Flooding Process, US Patent, US2015014826, 2015.

Y. Tamsilian, A. Ramazani S.A., Producing Nanostructure of Polymeric Core-Shell to Intelligent Control Solubility of Hydrophilic Polymer during Polymer Flooding Process, US Patent, US20140187451, 2014.

Y. Tamsilian, A. Ramazani S.A., Design of Intelligent Nanoscale Core-Shell Structure of Polyacrylamide-Polystyrene for Controlled Release of Polymer during Enhanced Oil Recovery Process, Iranian Patent, 74181, 2012.

Y. Tamsilian, A. Ramazani S.A., Preparation of Polyacrylamide Nanoparticle with Intelligent Nanoscale Coating to Control Solubility of Polymer during Polymer Flooding Process, Iranian Patent, 68076, 2011.

BOOK PUBLICATIONS:

Y. Tamsilian, S. Alvani, F. Abdolkhani, E. Khademi Moghadam, Tailored Behavior of Polymer Matrix Composite Materials, Chapter Book, Elsevier Publication, 2021.

M. Shirazi, Gh. Masoudi Rad, Y.Tamsilian, Polymer Nanocomposite Characterization and Applications, Chapter Book, Elsevier Publication, 2021.

Y. Tamsilian, M. Shirazi, Gh. Masoudi Rad, Nanomaterial-Incorporated Polymer Composites for Industrial Effluent: From Synthesis to Application, Chapter Book, Elsevier Publication, 2021.

Ramazani S.A., Y. Tamsilian, M. Shaban, Synthesis of Nanomaterials Book: Nanocomposite Materials: Synthesis, Properties and Applications of Nanomaterials, Chapter Book, Taylor & Francis Publication, 2016.

J. Shariaati, Y. Tamsilian, Solution Book of Molecular Thermodynamic for Fluid-Phase Equilibrium, Ava Publication, 2012.

Y. Tamsilian, A. Zolfaghari, Computational Fluid Dynamics with OpenFOAM Software, Noavar Publication, 2011.

INTERNATIONAL JOURNAL PUBLICATIONS:

Fadavifirooz, A. Hashemi, Gh. Zargar, Y. Tamsilian, Molecular Dynamic Modeling and Simulation of Silicon Dioxide-Low Salinity Water Nanofluid for Enhanced Oil Recovery, Journal of Molecular Liquids, Elsevier Publication, 2021.

Y. Tamsilian, Z. Ansari, A. Maghsoudian, R. Kazemi, Molecular Dynamic Modeling and Simulation of Silicon Dioxide-Low Salinity Water Nanofluid for Enhanced Oil Recovery, Journal of Molecular Liquids, Elsevier Publication, 2021.

Y. Tamsilian, Tamsilian, Z. Ansari-Asl, A. Maghsoudian, A. Kazemi Abadshapoori, A.Agirre, R. Tomovska, Superhydrophobic Polyurethane/ZIF-8 ZIF8/PDMS-Coated Polyurethane Nanocomposite Sponge: Synthesis, Characterization and Evaluation of Organic Pollutants Continuous Separation, Journal of Taiwan Institute of Chemical Engineers, Elsevier Publication, 2021.

Maghsoudian, Sh. Kord, Y. Tamsilian, B. Soltani Sulgani, M. Shajirat, A. Esfandiarian, Styrene Intermolecular Associating Incorporated-Polyacrylamide Flooding of Crude Oil in Carbonated Coated Micromodel System at High Temperature, High Salinity Condition: Rheology, Wettability Alteration, Recovery Mechanisms, Journal of Molecular Liquids, Elsevier Publication, 2021.

Parsaie, Y. Tamsilian, M. Rahimi Pordanjani, A. Kazemi Abadshapoori, G. McKay, Novel Approach for Rapid Oil/Water Separation through Superhydrophobic/ Superoleophilic Zinc Stearate Coated Polyurethane Sponges, Colloids and Surfaces A: Physicochemical and Engineering Aspects, Elsevier Publication, 2021.

Esfandiarian, A. Maghsoudian, M. Shirazi, Y. Tamsilian, Sh. Kord, J. J. Sheng, Mechanistic Investigation of the Synergy of a Wide Range of Salinities and Ionic Liquids for Enhanced Oil Recovery: Fluid-Fluid Interactions, Energy & Fuels Journal, American Chemical Society Publication, 2021.

T. Ahsani, Y. Tamsilian, A. Rezaei, Molecular Dynamic Simulation and Experimental Study of Wettability Alteration by Hydrolyzed Polyacrylamide during Enhanced Oil Recovery Process, Petroleum Science and Engineering Journal, Elsevier Publication, 2021.

Y. Tamsilian, M. Shirazi, J. J. Sheng, A. Agirre, M. Fernandez, R. Tomovska, Advanced Oil Recovery by High Molar Mass Thermoassociating Graft Copolymers, Petroleum Science and Engineering Journal, Elsevier Publication, 2021.

Maghsoudian, A. Esfandiarian, S. Kord, Y. Tamsilian, B. Soltani Soulgani, Direct Insights into the Micro and Macro Scale Mechanisms of Symbiotic Effect of SO42-, Mg2+, and Ca2+ Ions

Concentration for Smart Waterflooding in the Carbonated Coated Micromodel System, Journal of Molecular Liquids, Elsevier Publication, 2020.

H. Salmanvandi, P. Rezaei, Y. Tamsilian, Photoreduction and Removal of Cadmium Ions over Bentonite Clay-Supported Zinc Oxide Microcubes in an Aqueous Solution, ACS Omega, ACS Publication, 2020.

Parsaie, M. Mohammadi Khanaposhtani, M. Riazi, Y. Tamsilian, Magnesium Stearate– Coated Superhydrophobic Sponge to Separate Organic Materials from Oil/Water System: Synthesis, Properties, Application, Separation and Purification Technology Journal, Elsevier Publication, 2020.

Y. Tamsilian, A. Agirre, M. Fernandez, J. J. Sheng, R. Tomovska, High-molar Mass Acrylamide-co-diacetoneacrylamide Graft Copolymers as Viscosity Enhancer for Polymer Flooding Oil Recovery, Polymer Testing Journal, Elsevier Publication, 2020.

M. Shirazi, Javad Farzaneh, Sh. Kord, Y. Tamsilian, Smart Water Spontaneous Imbibition into Oil-wet Carbonate Reservoir Cores: Symbiotic and Individual Behavior of Potential Determining Ions, Journal of Molecular Liquids, Elsevier Publication, 2020.

M. Shirazi, Sh. Kord, Y. Tamsilian, Novel Smart Water-based Titania Nanofluid for Enhanced Oil Recovery, Journal of Molecular Liquids, Elsevier Publication, 2019.

Z. Lalehgani, A. Ramazani S.A., Y. Tamsilian, M. Shrazi, Inverse Emulsion Polymerization of Triple Monomers of Acrylamide, Maleic Anhydride and Styrene to Achieve Highly Hydrophilic-Hydrophobic Modified Polyacrylamide, Journal of Applied Polymer Science, Wiley Online Library Publication, 2019.

M. Shaban, A. Ramazani S.A., M. M. Ahadian, Y. Tamsilian, A. P. Weber, Facile Synthesis of Cauliflower-like Hydrophobically Modified Polyacrylamide Nanospheres by Aerosol-photopolymerization, European Polymer Journal, Elsevier Publication, 2016.

Y. Tamsilian, A. Ramazani S.A., Sh. Ayatollahi, J. C. de la Cal, J. J. Sheng, R. Tomovska, Nanostructured Particles for Controlled Polymer Release in Enhanced Oil Recovery, Energy Technology Journal, Wiley-VCH Verlag GmbH & Co., 2016.

Y. Tamsilian, M. Shaban, A. Ramazani S.A., Sh. Ayatollahi, R. Tomovska, High Molecular Weight Polyacrylamide Nanoparticles Prepared by Inverse Emulsion Polymerization: Reaction Conditions-Properties Relationships, Colloids and Polymer Journal, Springer, 2015.

Y. Tamsilian, A. Ramazani S.A., Enhanced Oil Recovery Performance and Time-Dependent Role of Polymeric Core-Shell Nanoemulsion, Scientia Iranica F, Elsevier Publication, 2014.

Y. Tamsilian, A. Nejadebrahimi, A. Ramazani S.A., Formation and Economical Study on Hydrate Technology with NGH Pellets, Journal of Dispersion Science and Technology, Taylor & Francis Publication, 2013.

Y. Tamsilian, A. Nejadebrahimi, A. Ramazani S.A., H. Abdollahzadeh, Modelling and Sensitivity Analysis of Styrene Monomer Production Process and Investigation of Catalyst Behaviour, Computers & Chemical Engineering Journal, Elsevier Publication, 2012.

Y. Tamsilian, A. Ramazani S.A., N. Khosravi, Preparation and Rheological Investigation of Polymer and Hydrogel Modified Drilling Mud, Petroleum Science and Technology Journal, Taylor & Francis Publication, 2011.

CONFERENCE PRESENTATIONS:

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INTERNATIONAL CONFERENCE PRESENTATIONS:

Maghsoudian, M. Shirazi, A. Esfandiarian, Sh. Kord, Y. Tamsilian, Pore-level Investigation of the Synergistic Effect of a Novel Thermoassociated Copolymer and Smart Water in Micromodel, 82nd EAGE Conference & Exhibition 2020, Amsterdam, The Netherlands, 2020.

Esfandiarian, A. Maghsoudian, M. Shirazi, M. Mohammadi, Sh. Kord, Y. Tamsilian, Experimental Investigation of Using Ionic-Liquids as Alternatives of Surfactants in Enhanced-Oil-Recovery Processes for Harsh Carbonate Reservoirs, 82nd EAGE Conference & Exhibition 2020, Amsterdam, The Netherlands, 2020.

M. Shirazi, Sh. Kord, M. Jamialahmadi, Y. Tamsilian, Spontaneous Imbibition Study of Titania-Seawater Nanofluid, 7th International Congress on Nanoscience & Nanotechnology (7th ICNN), Tehran, Iran, 2018.

Kazemi Abadshapooria, M. Riazi, M. Malayeri, Y. Tamsilian, Enhanced Oil Recovery Process by Silica Nanoparticles and Hydrophilic Polymer: Simultaneous Wettability Alteration and Viscosity Increase Mechanism, 7th International Congress on Nanoscience & Nanotechnology (7th ICNN), Tehran, Iran, 2018.

Y. Tamsilian, A. Ramazani S.A., Sh. Ayatollahi, J. Carlos de la Cal, J. J. Sheng, R. Tomovska, Protected Polyacrylamide Nanostructure Used for Enhanced Oil Recovery: Stability Behaviours and Flooding Tests, 6th Global Experts Meeting on Nanomaterials and Nanotechnology, Spain, 2016.

Y. Tamsilian, M. Shaban, A. Ramazani S.A., Sh. Ayatollahi, Polymer Waterflooding Design and Implementation Using Novel Core-Shell Nanostructure of Polyacrylamide/Polystyrene, 9th International Petroleum Technology Conference (IPTC), Doha, Qatar, 2015.

Y. Tamsilian, A. Ramazani S.A., Study of Wettability Effects on Microscopic and Macroscopic Sweep Efficiency of Polymer Flooding: An Experimental Approach, 5th International Conference on Nanostructures (ICNS5), Kish, Iran, 2014.

Y. Tamsilian, A. Ramazani S.A., Smart Polymer Flooding Process with Nanoscale Core-Shell Structure, International Conference on Nanotechnology: Fundamentals and Applications (ICNFA2013), Montreal, Canada, 2013.

Y. Tamsilian, A. Ahmadian, A. Ramazani S.A., Realistic Three-Dimensional Flow Simulation of Viscoelastic Fluids in Extruder Using Finite-Volume Method, Polymer Process Society (PPS-27), Morocco, Maghreb, 2011.

RESEARCH PROJECTS:

Lab Work & Pilot Plant, Smart Polymers and Nanomaterial for Enhanced Oil Recovery Process, Shahid Chamran University of Ahvaz, Iran, 2021.

BEDP & Process Package Scopes, Superhydrohpobic Sponge to Continuous Removal of Oil & Grease from Industrial Wastewater, Shahid Chamran University of Ahvaz, Iran, 2021.

Design Software Commercialization Scopes, Design, Modeling and Implementation of Sucker Rod Pump Process Control and Monitoring System, NISOC, Iran, 2021.

FS, Feasibility and Conceptual Studies to Solve the Problems of Forouzan Oilfield Industrial Wastewater Treatment System in Kharg District, IOOC, Iran, 2021.

FS & BEDP Scopes: Quantification & Documentation of Executive Procedure for Phased Array Ultrasonic Inspection to Detect Flaws of Polyethylene Pipes, NIGC, Iran, 2020.

FS Scope, Abadan Oil Refinery Upgrading Project, NIOEC, Iran, 20117.

FS Scope, Tabriz Oil Refinery Products Upgrading Project, TzORC, Iran, 2017.

FS & FEED Scopes, Process Optimization and Energy Saving Project in South/North Catalytic Reforming Units along with Replacing the Existing Shell & Tube Heat Exchanger with Packinox Plate Heat Exchanger and Installing Waste Heat Boiler in the Existing Furnaces, TORC, Iran, 2017.

MR Scope, Tabriz Oil Refinery Products Outlook Project, SK Engineering & Construction, South Korea, 2016.

MR Scope: Marketing Research & Developing Marketing Strategy in ABS Polymer and Derivatives, Ghaedbasir Petrochemical Complex, Iran, 2015.

MR Scope: Marketing Research & Developing Marketing Strategy for Using Chemicals in National Iranian Oil Companies, NIOC, Iran, 2015.

Marketing Research and Developing Marketing Strategy in Lubricant Oils for Sepahan Oil Company, Iran, 2015.

MR Scope: Marketing Research & Developing Marketing Strategy in Granule, Hunt, and Bentonite Sulphur for Shahid Hasheminejad Gas Refinery Company, Iran, 2013.

Pre-commissioning & Commissioning of Process Units: Gas Treating, SRU & Tail Gas Treatment, Condensate Stabilization, NGL Fractionation, Sour Water Stripper, Ethane/Propane/ Butane Treatment & Drying, TESCO, Phases 15 & 16, South Pars Gas Field Development, Assaluye, Iran, 2012.

Pre-commissioning & Commissioning of Utilities Units: Fuel Gas, Steam Generation & Distribution, Instrument & Services Air & Nitrogen, Sea Water Desalination, Fire Water, Cooling Water, Flare & Blow Down, TESCO, Phases 15 & 16, South Pars Gas Field Development, Assaluye, Iran, 2012.

Comprehensive Program Development of Energy Optimization in National Iranian Oil Company including IOOC, ICOFC, NISOC, Sharif Energy Research Institute (SERI), Tehran, Iran, 2011.

PROFESSIONAL MEMBERSHIPS:

LANGUAGES:

PERSIAN: Native

ENGLISH: Good