

Jalal Rastegary

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EDUCATION:

M.S. in Agriculture

California Polytechnic State University, San Luis Obispo, CA, June 1987

B.S. in Crop Science

California Polytechnic State University, San Luis Obispo, CA, June 1984

Professional Experience

2009 - Present	Research Scientist, New Mexico State University, Institute for Energy and the Environment, Las Cruces, NM.
2007 – 2008	Research Assistant Plant and Environmental Science, New Mexico State University, Las Cruces, NM
1990 – 2006	Research Scientist, Salinity Research Section, Agriculture and Medicine Research Center, Karaj, Iran
1987 – 1990	Lab Manager, Western Agricultural Laboratory, Hanford, CA

Primary Research Interests

Water reuse, concentrate management, algae biofuel research, use of saline water and saline soil to produce salt tolerant species, developing Biofuels from non- edible renewable energy crops like Neem and Pongamia

Profession Activities

Reviewer for the Food Science and Nutrition topic area of the USDA small Business Innovation Research (SBIR) program, , Reviewer for USDA biofuel program , Reviewer for African Journal of Environmental Science and Technology (AJEST), Reviewer for Basic Research Journal of Agricultural Science Review (BRJASR)

PI for the following funded projects:

Primary Evaluation of Algae Biofuel Production from Concentrate Stream. Funded by Bureau of Reclamation (BOR)

Investigating and Understanding the Selectivity of Conventional Ion-Exchange Membranes Used in Electrodialysis Process. Funded by Bureau of Reclamation (BOR)

Developing a Biotechnology with a Reactor to Grow Microalgae for Biodiesel Production from Reusing Waste Concentrate and Anaerobic Digested Sludge. Funded by Bureau of Reclamation (BOR)

Optimization of Electrode Design for Electrodialysis Reversal. Funded by Bureau of Reclamation (BOR)

Optimization of Algae Production Using Concentrate. Funded by Bureau of Reclamation (BOR)

Publications:

Jalal Rastegary, Saeid Aghahosseini Shirazi, Tracey Fernandez, Abbas Ghassemi. “Water Resources for Algae Biofuels.” Journal of Contemporary Water Research and Education. Issue 151 pages 117-122, August 2013.

Harvind K. Reddy, Tapaswy Muppaneni, **Jalal Rastegary**, Abbas Ghassemi, Shuguang Deng. “Hydrothermal extraction and characterization of bio-crude oils from wet chlorella sorokiniana and dunaliella tertiolecta.” Journal of Environmental Progress & Sustainable Energy, Volume 32, Issue 4, Pages 867–1295, December 2013.

Jalal Rastegary, Abbas Ghassemi, Jaquelyn Guerrero, Tracey Fernandez, Predicting Algae Pond Crash by Plateau of pH Level, 2014 International Biomass Conference & Expo, March 24-26 Orlando, Florida

Jalal Rastegary, Abbas Ghassemi, Saeid A. Shirazi, Tracey Fernandez, New Approach to Concentrate Management of Inland Desalination. 2014 EWRI World Environmental & Water Resources Congress, June 1-5 Portland, Oregon.

Jalal Rastegary, Abbas Ghassemi, Saeid A. Shirazi, Tracey Fernandez, Alternative Use of Saline Water to Grow Algae for Food, Feed and Biofuel, Third International Salinity Forum 2014 Riverside Convention Center, June 15-18 , Riverside, California.

Saeid Aghahosseini Shirazi, **Jalal Rastegary**, Abbas Ghassemi, Tracey Fernandez, Evaluation of Different Sources of Nutrient in Combination with Concentrate Stream of Desalination Unit for Growing Algae, EWRI Congress, Cincinnati, Ohio.

Jalal Rastegary, Abbas Ghassemi, Saeid Aghahosseini Shirazi, Tracey Fernandez, Using Concentrate from Desalination to Grow Microalgae for Biofuel, 2013 UCOWR/ NIWR Annual Conference, June 11-13 Lake Tahoe, California

Jalal Rastegary, Saeid Aghahosseini Shirazi, Abbas Ghassemi, Tracey Fernandez. Algae Biofuel Production and Concentrate Management in Inland Brackish Water Desalination. 2013 Algae Biomass Summit, September 30-October 3, Orlando, Florida

Saeid Aghahosseini Shirazi, Alireza Saraeian, **Jalal Rastegary** and Abbas Ghassemi, A Novel Method to Manage the Concentrate Disposal of Desalination Units, 2013 AIChE Annual Meeting, November 3-8 San Francisco, California

Waddah Hussein, **Jalal Rastegary**, Abbas Ghassemi, Using concentrate from desalination and reusing anaerobic digested sludge to grow algae. 2013 World Congress on Petrochemistry and Chemical Engineering, November 18-20, San Antonio, Texas

Jalal Rastegary, Tracey Fernandez, Abbas Ghassemi. "Assessment of Water Use for Microalgae in Open Pond in Southwest USA." 2013 Pacific Rim Summit on Industrial Biotechnology & Bioenergy, December 8-11, Westin San Diego, San Diego, California.

Jalal Rastegary, Abbas Ghassemi, Saeid A. Shirazi, Tracey Fernandez. "Concentrate Stream to Green Energy" 2013 Industrial Water Reuse Specialty Conference, December 9 - 10, Westin Long Beach Hotel Long Beach, California.

Jalal Rastegary, Saeid Shirazi, Abbas Ghassemi. "Interaction of Light, Geothermal Water and Nutrients on Biomass Production of *Chlorella sorokiniana* Microalgae (CS-101)" 2012 CleanTech Conference June 18-21, Santa Clara, CA.

Stephanie Franco, **Jalal Rastegary**, Tracey Fernandez, Abbas Ghassemi. "Using Electrodialysis Reversal Concentrate as Medium for Algal Biomass Production" 2012 WRI conference 07-31- Las Cruces, New Mexico

Saeid Aghahosseini Shirazi, **Jalal Rastegary**, Abbas Ghassemi, Tracey Fernandez. "Concentrate Stream as a New Potential Media for Growing Algae" 2012 WRI conference 07-31, Las Cruces, New Mexico

Saeid Shirazi, **Jalal Rastegary**, Tracey Fernandez, Abbas Ghassemi. "Using Concentrate Stream of Electrodialysis Reversal Pilot Plant for Growing *Nannochloropsis oculata*" 2012 6th Algae Biomass Summit. Sep. 24-27, Denver CO.

Saeid Aghahosseini Shirazi, **Jalal Rastegary**, Abbas Ghassemi, Tracey Fernandez. "Cultivation of *Dunaliella tertiolecta* (UTEX LB999) on Concentrate Stream of Reverse Osmosis." 2012 Binational Border Water Resources Summit 27-28 September Juarez, CHIHUAHUA and El Paso, TX

Saeid Shirazi, **Jalal Rastegary**, Tracey Fernandez, Abbas Ghassemi. “An innovative approach for using concentrate stream of desalination.” October 2012 University Research Conference, Las Cruces, NM

Jalal Rastegary, S. Mortazavi. M. Rahimi, 2009, Mutation Breeding of Saffron and Chemical Investigation of Mutants, International symposium on Saffron: an herbal medicine of 3rd millennium. Mashhad, Iran

Jalal Rastegary and M. Farhangisabet, 2006, Reclamation of Salt Affected Soils by Growing Salt Tolerant Plants and Using Nuclear Techniques Management. 18 world soil science congress. Philadelphia, Pennsylvania. USA

Jalal Rastegary and F. Khorsandi, 2006 Management, Conservation and Utilization of Saline Soil and Saline Water Using Nuclear Techniques, ISCO. Marrakesh, Morocco

Jalal Rastegary and M. Farhangi-Sabet, 2005, Management of Highly Saline Soil and Water in Yazd for Production of Pistachio Using Nuclear Techniques, 4th International Symposium on Pistachios and Almonds, Tehran

Jalal Rastegary H. Abbasalian and F. Khorsandi, 2004, Nuclear techniques aided studies for sustainable biomass production in salt-affected soils using *Haloculture* method, 4th International Iran and Russian Conferences, Agriculture and Natural Resources, Shahrekord

Jalal Rastegary, 2003, using saline soil and water resources for the production of salt tolerant plants, 7th International Conference on Development of Dry Land, ICARDA, Tehran

Jalal Rastegary, 2003, Improvement of Plant Salt Tolerance for Sustainable Food and Feed Production in Saline Environment, Land Development Department, IAEA, Atom for Peace, Bangkok, Thailand

Jalal Rastegary and F. Khorsandi, 2002, Use of Nuclear Techniques for Utilization of Saline Groundwater and Wastelands for Plant Production, Understanding Future Dry land Environment Changes from Plant Dynamic, Yazd

Jalal Rastegary, H. Abbasalian, T. Mostatabi, A. Mousavi-Shalmani, R. Okhovatian, S. Saadat, F. Dehghani, R. Vakil, M. S. Hobi and F. Khorsandi, 2002, Sustainable Utilization of Salt-affected Wastelands and Saline Groundwater for Plant Production, Amman, Jordan