

Temesgen Garoma, PhD, PE
Interim Associate Dean for Graduate Studies & Research
Professor
Blasker Chair in Environmental Engineering
Director of the Environmental Engineering Program
College of Engineering
San Diego State University
Phone: 619-594-0957
Email: tgaroma@sdsu.edu
Website: <http://garoma.sdsu.edu/>

Education

- 2004 PhD Engineering Mechanics (Environmental Engineering), University of California, San Diego and San Diego State University; Dissertation: *Degradation of MTBE and TBA in Aqueous Solution by Ozone/UV Process*; Advisors: Professors Mirat D Gurol and Paul F. Linden
- 2000 MS Geotechnical Engineering, University of Hannover; Thesis: *Compressive Creep Behavior of Polyamide and Polypropylene Drainage Geocomposites*; Advisor: Professor Dr.-Ing Werner Bluemel
- 1996 BS Civil Engineering, Addis Ababa University

Academic Appointments

- 07/19 – present Interim Associate Dean for Graduate Studies and Research, College of Engineering, San Diego State University
- 09/17 – present Director, Environmental Engineering Program, Department of Civil, Construction and Environmental Engineering, San Diego State University
- 09/17 – present Blasker Chair in Environmental Engineering, Department of Civil, Construction and Environmental Engineering, San Diego State University
- 08/16 – present Professor, Department of Civil, Construction and Environmental Engineering, San Diego State University
- 08/14 – 08/15 Interim Director, Environmental Engineering Program, Department of Civil, Construction and Environmental Engineering, San Diego State University
- 08/12 – 08/16 Associate Professor, Department of Civil, Construction and Environmental Engineering, San Diego State University
- 08/07 - 07/12 Assistant Professor, Department of Civil, Construction and Environmental Engineering, San Diego State University
- 08/00 - 06/04 Research Assistant, Department of Civil, Construction and Environmental Engineering, San Diego State University
- 09/98 - 06/00 Research Assistant, University of Hannover, Germany
- 09/97 - 09/98 Assist Lecturer, Department of Civil Engineering, Addis Ababa University, Ethiopia

09/96 - 09/97 Graduate Assistant, Department of Civil Engineering, Addis Ababa University, Ethiopia

Industrial/Consulting Experiences

Consultant, U.S. State Department and U.S. Water Partnership

- Led a five-day training workshop for water/wastewater experts selected from regional water bureaus, national water utilities, and Ministry of Water, Irrigation, and Electricity in Adama, Ethiopia, August 15-19, 2016.

Consultant, Parsons Water & Infrastructure, Pasadena, California, 2007-2012

- Project Engineer, Sand Island Deep Tunnel Hydraulic Modeling, City and County of Honolulu, Hawaii
- Project Engineer, LACSD Plant Hydraulics, Los Angeles County Sanitation District, Los Angeles, California
- Project Engineer, Evaluation of Sludge Disintegration Technologies, Pasadena, California

Senior Engineer, Parsons Water & Infrastructure, Pasadena, California, 2005-2007

- Project Manager, Inland Empire Utilities Agency (IEUA), Sewer Modeling Update, Chino, California
- Project Engineer, West Basin Municipal Water District, BP Hydrogen Plant Water Supply Feasibility Study, Carson, California
- Project Engineer, City of Bakersfield, Wastewater Facilities Master Plan, Bakersfield, California
- Project Team Engineer, City of Bakersfield, Wastewater Treatment Plant #3, Bakersfield, California
- Project Manager, Pasadena Water and Power (PWP), Water Pipeline Evaluation, Pasadena, California
- Project Team Engineer, Beaumont-Cherry Valley Water District, Distribution System Modeling Conversion, Beaumont, California

Senior Engineer, Innovyze Soft (formerly MWH Soft), Pasadena, California, 2004-2005

- Planned and conducted hands-on training on Innovyze's software packages (InfoWater, H2OMAP Water, H2ONET, InfoSewer, and H2OMAP Sewer)
- Conducted off-campus (client location) seminars to consulting and utility agencies on water distribution and sewer/storm collection system modeling
- Prepared and maintained users guide, helpfile and training manuals for water distribution and sewer/storm collection system software packages
- Provided technical support for various water distribution and sewer/storm collection modeling software packages
- Provided advice to several consulting and utility agencies in integrating their GIS data into their water distribution and sewer/storm collection system modeling:

- ✓ Tualatin Valley Water District, Oregon
- ✓ City of Idaho Falls, Idaho
- ✓ Las Vegas Water District, Nevada
- ✓ Jefferson Parish Department of Water, Louisiana
- ✓ Hill Air Force Base, Utah
- ✓ Eastern Municipal Water District, California
- ✓ City of Phoenix, Arizona
- ✓ City of Newberg, Oregon
- ✓ Forsyth County, Georgia
- ✓ City of Chino Hills, California
- ✓ PBSJ, San Diego, California
- ✓ CH2MHILL, Atlanta, Georgia

Senior Engineer, MH Engineering, Addis Ababa, Ethiopia, 1996-1998

- Performed detailed engineering analysis and design for a number of multi-story buildings, foundations, and earth retaining structures.

Professional Society Membership

- Association of Environmental Engineering Science Professors
- Environmental and Water Resources Institute of ASCE

Professional Registration

- California, C68650 (2004-present)
- Ethiopia (1996-1998)

Awards, Honors, and Recognitions

2017	World Water Forum, Metropolitan Water District of Southern California
2007-2012	Technical Advisory Committee, San Diego Coast Keeper
2007-2012	Technical Advisory Committee, San Diego Citizen Watershed Monitoring Consortium
2007	American Public Works Association, Central California Chapter
2000-2004	Graduate Fellowship, San Diego State University and University California, San Diego
1998-2000	DAAD (German Academic Exchange) Scholarship

Synergetic Activities

- Affiliate Member, Blue Gold (<http://bluegold.sdsu.edu/>) – Mitigating the Effects of Water Scarcity, SDSU (2015-present)
- Faculty mentor for MARC program – Maximizing Access to Research Careers for underrepresented groups
- Faculty mentor for McNair Scholarship Program, provides financial and academic support for low-income and first-generation college students

- Faculty Mentor SACNAS Travel Scholarship Program
- Participated in Project Lead the Way, the nation's leading provider of K-12 STEM programs

Past and Current Research Grants and Contracts

1. *Pending (preliminary proposal)*: Better Than Net-Zero Carbon Emission Power Generation, \$4,000,000, US Department Energy (Role: PI; subcontractors: Solar Turbines and T2 Energy)
2. *Pending (preliminary proposal)*: A Novel Process for Demulsification of Water-in-Oil Emulsions, \$100,000, US Department of Interior (Role: PI)
3. A Surge Center for Environmental Engineering ENV E 355, \$68,650, 08/01/2020-06/30/2021, SDSU Provost Office (Role: PI)
4. Solar Thermal Energy Concentrated with Fresnel Lens for Seawater Desalination, \$13,682, 11/2019-6/2020, Metropolitan Water District of Southern California (Role: PI)
5. A New Approach for Seawater Desalination, \$13,682, 6/2018-5/2019, Metropolitan Water District of Southern California (Role: PI)
6. A Novel Water and Energy Saving Strategy – the Use of Secondary Effluent for Algal Biomass Cultivation, \$13,636: 5/2016-6/2017, Metropolitan Water District of Southern California (Role: PI)
7. Energy-efficient and cost-effective microalgae disruption for extraction of lipids for biodiesel production, \$611,346: 10/2015-10/2018, California Energy Commission (Role: PI; Co-PIs: Drs. Beyene (SDSU) & Balsdon (SDSU))
8. Development of next-generation feedstock for biomethane production, \$150,000: 6/2015-11/2016, California Energy Commission (Role: PI)
9. Electroporation of algal biomass to enhance methane gas production, \$95,000: 3/2013-8/2014, California Energy Commission (Role: PI; Co-PI: Dr. Engin)
10. Evaluation of media for storm water treatment, \$37,090: 4/2013-6/2013, URS Corporation (Role: PI)
11. Environmental impact assessment tools, \$150,000: 8/2012-9/2014, California Energy Commission (Role: Co-PI; PI: Dr. Beyene)
12. Formation of halonitromethanes during ozonation of drinking water, \$12,500: 5/2012-6/2014, Metropolitan Water District of Southern California (Role: PI)
13. Compressible filters from flexible granular media, \$12,500: 5/2012-6/2014, Metropolitan Water District of Southern California (Role: PI; Co-PI: Dr. Valdes)
14. Enhanced anaerobic digestion: a sanitation and energy recovery technology, \$100,000: 11/2011-4/2014, Great Challenge Explorations, Bill and Melinda Gates Foundation (Role: PI)
15. Significance of sub-therapeutic levels of ciprofloxacin in the environment, \$17,674: 7/2010-12/2011, San Diego Foundation Science and Technology Blasker (Role: PI)
16. Disinfection of secondary effluent using surfactants immobilized on the surfaces of minerals, \$12,500: 7/2008-4/2010, Metropolitan Water District of Southern California (Role: PI)
17. The San Diego watershed ambient water quality monitoring by citizens project, \$473,523: 1/2005-8/2008, California State Water Resources Control Board (Role: Co-PI; PI: Dr. Badri)

18. Effect of Environmental Conditions on the Development of Antibiotic Resistance in *E. coli* Exposed to Trace Levels of Ciprofloxacin, \$9,984: 1/2011-6/2012, SDSU
19. Investigation of the Removal of Bisphenol A from Water using Ozonation, \$9,900: 1/2010-6/2011, SDSU
20. Investigation of the Influence of Ethanol on the Adsorption of BTEX on Soil, \$5,040: 1/2009-6/2010, SDSU
21. Removal of Selected Pharmaceuticals from Aqueous Solution Using Advanced Oxidation Processes, \$5,000: 1/2008-6/2009, SDSU

Current Students

PhD

1. Ramin Yazdi
Research Area: *Novel algal biomass harvesting and dewatering*

MS Thesis

2. Cintia Chin
Research Area: *Anaerobic digestion of protein extracted algae*
3. Trevor Shackelford
Research Area: *Biomethane potential reactor design*
4. Mayram Fani
Research Area: *Solar Thermal Energy Concentrated with Fresnel Lens for Seawater Desalination*

Undergraduate

5. Marina Balcazar
Research Area: *The use low-grade waste heat for water desalination*
6. Tina Trinh
Research Area: *Algal biomass harvesting*

Former Students

PhD

1. Rory Klinger
Dissertation Title: *Microalgae rupture energy and ultrasound biomass processing*, Spring 2017

MS Thesis

2. Anurag Jain
Research Area: *Investigation of Algal Biomass Disruption With Copper Sulfate and Cutrine Plus*, Summer 2019

3. Ramin Yazdi
Thesis Title: *Anaerobic digestion of lipid extracted algae*, Fall 2016.
4. Silvia Gemignani
Thesis Title: *Coupled chemical-biological process for the conversion of glycerol to bioethanol*, Spring 2015
5. Danielle Janada
Thesis Title: *Evaluation of lipid extraction methods from microalgae Chlorella vulgaris*, Fall 2014
6. Blaine Stone
Thesis Title: *Coupled ozonation-anaerobic digestion of glycerol for biomethane production*, Fall 2014
7. Don Nguyen
Thesis Title: *Methane production from anaerobic co-digestion of wastewater sludge and Scenedesmus sp.*, Fall 2013
8. Carissa Williams
Thesis Title: *Methane production from anaerobic co-digestion of Chlorella vulgaris and wastewater sludge*, Fall 2012
9. Melissa Faber
Thesis Title: *Antibiotic activity of pre-oxidized ciprofloxacin*, Fall 2011
10. Rory Klinger
Thesis Title: *Investigation of resistance development from residual contamination of ciprofloxacin*, Fall 2011
11. Lalitha Thotakura
Thesis Title: *The influence of ethanol on adsorption capacity of heavy metals on soil*, Spring 2011
12. Lacy Skidmore
Thesis Title: *The influence of ethanol on adsorption capacity and desorption rate of BTEX compounds on soil*, Fall 2010
13. Monia Ben-Khaled
Thesis Title: *Comprehensive resource balance for ethanol produced from corn and sugarcane*, Summer 2010
14. Shyam Krishna
Thesis Title: *Degradation of sulfamethoxazole and sulfathiazole in aqueous solution by ozonation and advanced oxidation processes*, Summer 2010
15. Shinsyu Matsamoto
Thesis Title: *Removal of bisphenol A in aqueous solution by ozonation*, Spring 2010
16. Jonathan Kocher
Thesis Title: *Investigation of surfactant-modified activated carbon for recycled water disinfection*, Fall 2009.

17. Alison Mumper
Thesis Title: *Degradation of sulfadiazine and sulfamethizole in aqueous solution by ozonation and advanced oxidation processes*, Summer 2009
18. Sameer Shah
Thesis Title: *Removal of heavy metals from aqueous solution*, Spring 2008

MS Project

19. David Pappaterra
Project Title: *An investigation of ultrasound effect on digestate solubilization and methane yield*, Fall 2016
20. Aviv Kolakovsky
Project Title: *Copper sulfate as pretreatment in the production of biofuel from Chlorella vulgaris*, Spring 2016
21. Chantry Davis
Project Title: *Mechanisms of action of various disinfectants on bacteria*, Fall 2015
22. Woody Arnold
Project Title: *Chemostat Design Progress for Chlorella vulgaris*, Spring 2014
23. Prapti Joshi
Project Title: *The Influence of ethanol on adsorption BTEX compounds on soil*, Spring 2009
24. Olufisayo Osibodu
Project Title: *Treatment of groundwater contaminated with gasoline components*, Spring 2008
25. Jorge Talavera
Project Title: *Resource balance for ethanol produced from corn and sugarcane*, Spring 2008

Undergraduate

1. Ana Patricia Lopez, Spring 2015
2. Kensey Dally, Spring 2014
3. Karen Casteloes, Spring 2014
4. Trevor Shackelford, Spring 2013
5. Cintia Chin, Spring 2013
6. Ryan Thune, Fall 2010
7. Jonathan Kocher, Fall 2007
8. Jesus Torres, Fall 2007
9. Bridget Chase, Fall 2007

Exchanged Students Supervised

1. Ingrid Anders (Brazil), *Algae cells disruption with heat*. BS Project, Spring and Summer 2015

2. Elvis Teixeira (Brazil), *Algae cells disruption with electroporation*. BS Project, Summer 2015
3. Raphael Salles (Brazil), *Algae cells disruption with chlorine*. BS Project, Summer 2015
4. Angela Rutigliano (Italy), *Sonication of algae cells*, MS Thesis, Spring and Summer 2015
5. Gabriele Vita (Italy), *Microwave treatment of algae cells*, MS Thesis, Spring and Summer, 2015
6. João Kaled (Brazil), *Fermentation of algal biomass*, BS Project, Spring 2014.
7. Xiaowei Liu (China), *AOPs treatment of SMX*, PhD Dissertation, Fall 2011 and Spring 2012
8. Sihem Abdelmelek (Morocco), *AOPs treatment of BPA*, MS, Spring 2009
9. Abdulaziz Aldamri (UK), *Bioplastics from algal biomass*, PhD, Fall 2019
10. Dr. Katarzyna Nosek (Poland) Erasmus+, Fall 2019
11. Professor Janusz Golas (Poland) Erasmus+, Fall 2019

Courses Taught at SDSU

- ENVE 356 – Environmental Chemistry for Engineers (*New course development*)
- ENVE 363 – Environmental Engineering Laboratory (*Re-designed*)
- ENVE 441 – Water Treatment Engineering (*New course development*)
- ENVE 442 – Wastewater Treatment Engineering (*New course development*)
- ENVE 455 – Water and Wastewater Engineering
- ENVE 495 - Capstone Design Project
- ENVE 554 – Process Fundamentals of Environmental Systems (*Re-designed*)
- ENVE 645 – Aquatic Chemistry for Environmental Engineers (*Re-designed*)

Courses Taught at Addis Ababa University

- CENG 201 – Engineering Mechanics
- CENG 204 – Strength of Materials
- CENG 308 – Soil Mechanics I
- CENG 403 – Soil Mechanics II
- CENG 404 – Foundation Engineering I
- CENG 505 – Foundation Engineering II

Water Distribution and Sewer/Stormwater Collection Software Taught at Innovyze Soft

- InfoWater – A GIS integrated water distribution modeling software application
- H2OMAP Water – A water distribution modeling software application
- H2ONET – An AutoCAD integrated water distribution modeling software application
- InfoSewer – A GIS integrated sanitary, storm and combined sewer collection systems modeling software application
- H2OMAP Sewer – A sanitary, storm and combined sewer collection systems modeling software application

Service at University-wide Committee at SDSU

- Member, College of Engineering Executive Committee (Fall 2019-present)

- Member, AR&P (Fall 2019-present)
- Member, ZIP Launchpad Advisory Board (Fall 2019-present)
- Member, Entrepreneurial Experiences Working Group (Fall 2019-present)
- Member, Environmental Health & Safety Committee (Fall 2019-present)
- Member, Strategic Planning Working Group (Fall 2019 and Spring 2020)
- Chair, Engineering JDP Steering Committee (Fall 2019-present)
- Chair, College Engineering Graduate Studies Committee (Fall 2019-present)
- Co-Chair, SDSU-UCSD JPD Steering Committee (Fall 2019-present)
- Member, University Grant Fellowship Review Panel (Spring 2017)
- Member, SDSU Strategic Planning - Research Working Group (Fall 2012)
- Member, SDSU's Faculty Hearing Panel (Fall 2008-Spring 2014)
- Member, College of Engineering Graduate Studies Committee (Spring 2012-Fall 2016)
- Member, Engineering JDP Steering Committee (Spring 2015-Spring 2019)
- Member, Associate Dean Search Committee (2015/16)
- Graduate adviser, Civil Engineering Graduate Program (Spring 2012-Fall 2016)
- Chair, Tenure and Promotion Committee for the Department of CCEE (2016/17, 2017/18, 2018/19)
- External Committee Member for over 20 thesis/Dissertations (2007- present)
- Chair, Search Committee for Environmental Engineering faculty position (2016/17, 2017/18)
- Member, Department of CCEE Curriculum Committee (2017/18, 2018/19)
- Member, Search Committee for Environmental Engineering faculty position (2008/09, 2009/10, 2010/11, 2013/14)
- Member, Search Committee for Water Resources faculty position (2013/14)
- Member, Website Committee for the Department of CCEE (2013/14, 2015/16)
- Member, Bylaw Committee for the Department of CCEE (2011/12, 2012/13, 2013/14, 2014/15, 2015/16)
- Member, Finance Committee for the Department of CCEE (2008/09-2015/16)
- Hosted Explore SDSU Event held at the College of Engineering (2008, 2010, 2011, 2015, 2018, 2019)
- Served as a judge for SDSU's (2009, 2010, 2011, 2015)

Service to the Profession and Community

- Scientific Committee Member, 3rd International Conference on the Sustainable Energy and Environmental Development, October 16 to 18 October 2018, Krakow Poland.
- Served as subject matter expert at a forum organized by the Bill and Melinda Gates Foundation, 2013
- Member, Water Pollution Engineering Technical Committee, Environmental and Water Resources Institute (EWRI) of the ASCE, 2012-present
- Co-organized the Pan-American Advanced Studies Institute Conference, May 23-28, 2010, San Diego, California and May 28-June 3, 2010, Ensenada, Mexico.
- Technical Advisory Committee, San Diego Coast Keeper (2007-2012)
- Member of San Diego Citizen Watershed Monitoring Consortium (2007-2012)

- Organized World Water Monitoring Events (2008, 2009, 2015, 2016)
- External Thesis Examiner (RMIT University, Australia, 2016)
- External Dissertation Examiner (Ethiopian Water Resource Institute, 2016)

Reviewer for Scholarly Journals

- Applied Energy
- Biomass and Bioenergy
- Bioresource Technology
- Chemosphere
- Environmental Engineering Science
- Environmental Science & Technology
- Journal of Environmental Engineering, ASCE
- Journal of Hazardous Materials
- Water Research
- Water Science and Technology

Reviewer for Agencies

- Department of Energy
- National Science Foundation
- California Energy Commission
- San Diego Foundation – Science and Technology

Refereed Journal Publications

1. Yazdi, R.; Garoma, T. Algal biomass harvesting using low-grade waste heat: Evaluation of overall heat transfer coefficient in heat exchanger. *Applied Thermal Engineering* (under review).
2. Garoma, T.; Yazdi, R., Chin, C., Jain, A. Chlorella vulgaris cell disruption using copper ethanolamine. *BMC Biotechnology*, under review.
3. Garoma, T.; Yazdi, R., Chin, C., Jain, A. **2019**. Chlorella vulgaris cell disruption using copper sulfate. *Biofuels*, <https://doi.org/10.1080/17597269.2019.1573604>.
4. Garoma, T.; Yazdi, R. **2019**. Investigation of the disruption of algal biomass with chlorine. *BMC Plant Biology*, <https://doi.org/10.1186/s12870-018-1614-9>.
5. Klinger, R.; Garoma, T. **2018**. Ultrasound processing of Chlorella vulgaris and a novel functional classification of power ultrasound test systems. *Biofuels*, <https://doi.org/10.1080/17597269.2018.1496386>.
6. Klinger, R.; Garoma, T. **2018**. Growth media selection: the relationship between growth medium used for microalgal cultivation and the susceptibility of cells to disruption by low frequency power ultrasound. *Journal of Energy Resources Technology* 140(12), 122004-5.
7. Garoma, T.; Pappaterra, D. **2018**. An investigation of ultrasound effect on digestate solubilization and methane yield. *Waste Management* 71, 728-733.

8. Garoma, T.; Janda, D. **2016**. Investigation of the effects of microalgal cell concentration and electroporation, microwave and ultrasonication on lipid extraction efficiency. *Renewable Energy* 86,117–123.
9. Garoma, T.; Nguyen, D. **2016**. Anaerobic Co-digestion of Microalgae *Scenedesmus sp.* and TWAS for Biomethane Production. *Water Environment Research* 88,13-20.
10. Garoma, T.; Shackelford, T. **2014**. Electroporation of *Chlorella vulgaris* to enhance biomethane production. *Bioresource Technology* 169, 778-783.
11. Garoma, T.; Williams, C. **2013**. Enhanced anaerobic digestion as a sanitation and energy recovery technology. *Journal of Water, Sanitation and Hygiene for Development* 4, 572-581.
12. Liu, X.; Garoma, T.; Chen, Z.; Wang, L.; Wu, Y. **2012**. SMX degradation by ozonation and UV radiation: A kinetic study. *Chemospher* 87, 1134-1140.
13. Garoma, T.; Skidmore, L. **2011**. Modeling the influence of ethanol on the adsorption and desorption of selected BTEX compounds on bentonite and kaolin. *J. Environ. Sci.* 23, 1865–1872.
14. Garoma, T.; Ben-Khaled, M.; Beyene, A. **2011**. Comparative Resource Analyses for Ethanol Produced from Corn and Sugarcane in Different Climatic Zones. *Int. J. Energy Res.* 36, 1065-1076.
15. Garoma, T.; Matsumoto, S.A.; Wu, Y; Klinger, R. **2010**. Removal of Bisphenol A and its Reaction-Intermediates from Aqueous Solution by Ozonation. *Ozone Sci. Eng.* 32, 338-343.
16. Garoma, T.; Kocher, J. **2010**. Investigation of Surfactant-Modified Activated Carbon for Recycled Water Disinfection. *Water Sci. Technol.* 62, 1755-1766.
17. Garoma, T.; Shah, S.; Badriyha, B., **2010**. Removal of Cadmium, Copper, and Zinc from Aqueous Solution by Activated Carbon Impregnated with 8-Hydroxyquinoline. *Journal of Environmental Science and Engineering* 30, 14-21.
18. Garoma, T.; Umamaheshwar, S.K.; Mumper, A., **2010**. Removal of Sulfadiazine, Sulfamethizole, Sulfamethoxazole, and Sulfathiazole from Aqueous Solution by Ozonation. *Chemosphere* 79, 814–820.
19. Christensen, A., Gurol, M.D, and Garoma, T., **2009**. Treatment of Persistent Organic Compounds by Integrated Advanced Oxidation Processes and Sequential Batch Reactor. *Water Res.* 43, 3910-3921.
20. Garoma, T., Matsumoto, S., **2009**. Ozonation of Aqueous Solution Containing Bisphenol A: Effect of Operational Parameters. *J. Hazard. Mater.* 167, 1185-1191.
21. Garoma, T., Gurol, M.D., Thotakura, L., Osibodu, O., **2008**. Degradation of tert-Butyl Formate and its Intermediates by an Ozone/UV process. *Chemosphere* 73, 1708-1715.
22. Garoma, T., Gurol, M.D., **2008**. Comprehensive kinetic model for the degradation of Methyl tert-Butyl Ether by an ozone/UV process. *Ind. Eng. Chem.* 47, 7654–7662.
23. Garoma, T., Gurol, M.D., Osibodu, O., Thotakura, L., **2008**. Treatment of groundwater contaminated with gasoline components by an ozone/UV process. *Chemosphere* 73, 825-831.
24. Garoma, T., Gurol, M.D., **2006**. Oxidation of methyl tert-Butyl ether in aqueous solution by an ozone/UV process. *J. Environ. Eng.-ASCE* 132, 1404-1412.
25. Garoma, T., Gurol, M.D., **2005**. Modeling aqueous ozone/UV process using oxalic acid as probe chemical. *Environ. Sci. Technol.* 39, 7964-7969.

26. Garoma, T., Gurol, M.D., **2004**. Degradation of tert-Butyl alcohol in dilute aqueous solution by an O₃/UV process. *Environ. Sci. Technol.* 38, 5246-5252.

Papers in Conference Proceedings

27. Garoma, T., Yazdi, R., Chin, C., **2016**. Microalgae disruption with elemental copper for extraction of lipids for biodiesel production, 6th International Symposium on Energy from Biomass and Waste, Venice, Italy, November 14-18, 2016.
28. Garoma, T., Pappaterra, D., **2016**. An investigation of ultrasound effect on digestate solubilization and methane yield, 6th International Symposium on Energy from Biomass and Waste, Venice, Italy, November 14-18, 2016.
29. Garoma, T., Yazdi, R., Chin, C., **2016**. Anaerobic digestion of lipid extracted algae, 6th International Symposium on Energy from Biomass and Waste, Venice, Italy, November 14-18, 2016.
30. Garoma, T., Chin, C., Yazdi, R., **2016**. Residual LEA and PEA - The Next-Generation Feedstock for Biomethane Production, 6th International Conference on Algal Biomass, Biofuels and Bioproducts, San Diego, California, USA, June 26-29, 2016.
31. Garoma, T., Janda, D., **2015**. Evaluation of lipid extraction methods from microalgae *chlorella vulgaris*, TechConnect World Innovation Conference & Expo, Washington DC, USA, June 14-17, 2015.
32. Garoma, T., Janda, D., **2015**. The effects of electroporation, microwave and ultrasonication on lipid extraction efficiency, 5th International Conference on Algal Biomass, Biofuels and Bioproducts, San Diego, California, USA, June 7-10, 2015.
33. Garoma, T., Janda, D., **2015**. Investigation of the effects of microalgal cell concentration on lipid extraction efficiency, 5th International Conference on Algal Biomass, Biofuels and Bioproducts, San Diego, California, USA, June 7-10, 2015.
34. Garoma, T., Janda, D., **2014**. Evaluation of pre-treatment and solvent extraction methods for producing lipids from *Chlorella vulgaris* sp, 4th International Conference on Algal Biomass, Biofuels and Bioproducts, Santa Fe, New Mexico, USA, June 15 to 18, 2014.
35. Garoma, T., Shackelford, T., **2014**. Biomethane production from *chlorella vulgaris* pre-treated with electroporation, 4th International Conference on Algal Biomass, Biofuels and Bioproducts, Santa Fe, New Mexico, USA, June 15 to 18, 2014.
36. Garoma, T., **2013**. The ModAD Process - Resource Recovery Oriented Sanitation Technology, SABS Conference, Nairobi, Kenya, October 10 to 12, 2013.
37. Garoma, T. and Williams, C., **2012**. Enhanced Anaerobic Digestion as a Sanitation and Energy Recovery Technology, Second International Faecal Sludge Management Conference, Durban, South Africa, October 29 to 31, 2012.
38. Nyugen, D.; Williams, C.; Garoma, T., **2012**. Anaerobic Digestion of Wastewater Sludge with the Addition of Algae. 2nd International Conference on Algal Biomass, Biofuels, & Bioproducts, San Diego, California, June 10-13, 2012.
39. Williams, C.; Nyugen, D.; Garoma, T., **2012**. Anaerobic Co-digestion of Wastewater Sludge and Microalgae in Wastewater Treatment Plants. 2012 World Environmental & Water Resources Congress, Albuquerque, New Mexico, May 20-24, 2012.
40. Beyene, A.; Garoma, T.; MacPhee, D., **2011**. Integrated Design of Solar and Algae Plant. 10th International Conference on Sustainable Energy Technologies, September 4-7, 2011, Istanbul, Turkey.

41. Garoma, T.; Allen, M., **2011**. Antibiotic Activity of Pre-Ozonated Ciprofloxacin and Sulfamethoxazole. International Ozone Association 20th World Congress, May 23-27, 2011, Paris, France.
42. Klinger, R.; Garoma, T, **2011**. Effect of Environmental Conditions on the Development of Antibiotic Resistance in *E. coli* Exposed to Trace Levels of Ciprofloxacin. 2011 World Environmental & Water Resources Congress, Palm Springs, California, May 22-26, 2011.
43. Williams, C.; Garoma, T, **2011**. Enhancement of the Production of Methane during Anaerobic Digestion of Wastewater Sludge with the Addition of *Chlorella Vulgaris*. 2011 World Environmental & Water Resources Congress, Palm Springs, California, May 22-26, 2011.
44. Garoma, T; Klinger, R.; Allen, M., **2010**, Application of Ozonation for Oxidation of Micropollutants from Aqueous Solutions. The 16th International Conference on Advanced Oxidation Technologies for Treatment of Water, Air and Soil, November 15-18, 2010, San Diego, California.
45. Garoma, T.; Kocher, J., **2010**. Disinfection of Tertiary Effluent Using Surfactant-Loaded Granular Activated Carbon. 83rd Annual Water Environment Federation Technical Exhibition and Conference, October 2-6, 2010, New Orleans, Louisiana.
46. Garoma, T.; Umamaheshwar, S.K.; Mumper, A., **2010**. Degradation of Sulfonamides from Aqueous Solution by Ozonation. The International Ozone Association Pan American Group (IOA PAG) 2010 Annual Conference, September 19-22, 2010, Seattle, Washington.
47. Garoma, T.; Ben-Khalid, **2010**. Comprehensive Resource Balance for Ethanol Produced from Different Sources. The Pan-American Advanced Studies Institute Conference, May 23-28, 2010, San Diego, California
48. Garoma, T.; Kocher, J., **2010**. Disinfection of Tertiary Effluent Using Surfactant Loaded Minerals, Ozone, and UV. The 2010 WaterReuse California Annual Conference, March 7-9, 2010, San Diego, California
49. Garoma, T., Matsumoto, S., **2009**. Removal of Bisphenol A from Aqueous Solution by Ozonation. International Ozone Association 19th World Congress, August 31-September 3, 2009, Tokyo, Japan
50. Garoma, T., Kocher, J., **2009**. Investigation of the Effectiveness of Surfactant-Loaded Minerals in Tertiary Effluent Disinfection. The 24th Annual WaterReuse Symposium's technical program, September 13-16, 2009, Seattle, Washington
51. Mumper, A., Garoma T., **2009**. Removal of Sulfadiazine and Sulfamethizole from Aqueous Solution by Ozonation and Ozone/H₂O₂ Process. 2009 Annual Conference & Exposition, AWWA, June 14-18, 2009, San Diego, California
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