Kimberly L. Ogden
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EDUCATION

University of Pennsylvania	B.S., Chemical Engineering	May 1986
University of Colorado	M.S., Chemical Engineering	December 1988
University of Colorado	PhD., Chemical Engineering	May 1991
Los Alamos National Lab	Postdoc -Bioremediation	1991-1992

PROFESSIONAL EXPERIENCE

2020 – Pres	Department Chair, Dept. of Chemical and Environmental Engineering, University of Arizona
2018 – 2019	Interim Vice President for Research, University of Arizona
2016 – 2018	Director, Institute for Energy Solutions, University of Arizona
1992 – Pres	Assistant, Associate, and Full Professor of Chemical and Environmental Engineering (Agricultural and Biosystems Engineering) – University of Arizona
Fall 2009	Visiting Scholar – Australian Institute for Biotechnology and Nanotechnology, University of Queensland, Brisbane Australia
2005 - 2006	Interim Department Head – Dept of Chemical and Environmental Engineering, University of Arizona
2001 - 2002	Research Engineer, Texas Instruments, Tucson, AZ. Industrial sabbatical. Special projects included water and solvent usage minimization throughout the facility, aluminum corrosion studies, and thin film resistor stability optimization

SELECTED LEADERSHIP AND SERVICE ACTIVITIES

Department Chair (2020- present) As department chair, I focus on mentoring assistant faculty and promoting the education, research, and outreach activities of the faculty and students. I work with the College of Engineering to develop and implement a new research strategic plan, hire new faculty and chairs, and assist with philanthropic activities. After being the primary author of an environmental engineering program ABET self-study report, we received our initial accreditation last year. We completed our academic program review of the department and were complemented on how well our department is doing.

President AICHE (2019). I was the President of the American Institute of Chemical Engineers or AIChE, which is the premier institute for chemical engineers. We have approximately 30,000 professional members and 20,000 student members. The majority of the professional members are from industry. During my presidency, I lead strategies to:

- Evaluate and recommend actions related to membership models and membership value since millennials do not join organizations like baby boomers do;

- Combine the vision and mission statements into a modern aspirational statement for the institute
- Work with leaders from the Dow, Dupont, ExxonMobil, Avansix, Ecolabs, UOP Honeywell, Shell, and others to be world leaders in diversity and inclusion; and
- Understand and publish the value proposition of AIChE to various stakeholders (young professionals, students, faculty, industrial leaders, recent retirees, etc.)

The president also has fiduciary responsibilities and is responsible working with and guiding the Executive Director and CEO of the Institute. I continue to work on the Inclusion, Diversity, Equity, Antiracism and Learning (IDEAL) team and am part of the AIChE Foundation (currently leading fundraising efforts to endow ASEE summer school), the Public Affairs and Information Committee, and the Membership Committee.

Executive Committee of the Engineering Accreditation Committee (EAC) of ABET (2021-present) ABET is a nonprofit organization that accredits college and university programs in applied and natural science, computing, engineering, and engineering technology. I am part of the executive of ABET. This committee assures consistency amongst all the programs that are evaluated, reviews and provides guidance on criterion and curriculum updates, and works to continuously improve the accreditation processes. Currently ABET strives to include the principles of diversity, equity, and inclusion into the criteria.

Interim Vice President for Research (VPR), University of Arizona (2018 – 2019). I was asked to be the Interim VPR in May 2018. I accepted the challenge and served until a search was done and a Senior Vice President for Research and Innovation was hired. This new position combined the offices of the VPR with leadership of our technology parks and transfer offices. The VPR position was eliminated at that time. As interim VPR, I led for the research portion of the University strategic planning and implementation process. I am proud of enabling formation of the Arizona Space Institute to facilitate development of NASA proposals and maintain quality engineering staff. I also funded, oversaw proposal development of, and managed a red team review for the UArizona new NSF Engineering Research Center – Center for Quantum Networks.

Principal Investigator and Project Director of a NIFA USDA Coordinated Agricultural Project (2017- present). This research center known as Sustainable Bioeconomy for Arid Regions or SBAR is a collaborative project between the UA, Bridgestone Americas, Colorado School of Mines, Colorado State University, and New Mexico State University. The goal is to sustainably produce crops (guayule and guar) in the Southwest US. Guayule contains natural rubber in the stems of the plant that can be extracted to produce tires. There is also a resin fraction that we are evaluating for potential high value products, and the remaining 80% of the plan will be converted to biofuels. Guar is a legume that has a polysaccharide in the seed that can be used as a surfactant in oil and gas extraction processes as well as a food product. Both plants require low amounts of water and are ideal for our region. The project investigators study everything from agronomy to irrigation to economics and sustainability to biomass conversion. In addition to research, Coordinated Agricultural Projects such as SBAR require extensive education, outreach and extension programs. These include workforce development, teacher professional development, 4H, and grower engagement. This is a 5 year, $15M project involving ~250 people to date. The major outcome of this project is that we are changing the bioeconomy for Arizona by providing

an alternative low water use crop for the region, and new processing facilities to separate rubber, resin, and bagasse, as well as numerous ancillary jobs (transportation for example).

Director, Institute for Energy Solutions (IES), University of Arizona (2016-2018). The goal of IES is to work together across colleges and disciplines to address energy related research and development challenges. We collaborate with industry, government, utilities and other universities to accomplish our goals. The focus for the initial year of the institute was to obtain a research center and we successfully obtained a NIFA USDA CAP. In addition, junior faculty were mentored: 1) Karletta Chief obtained a National Research Traineeship: Indigenous Food, Energy, and Water Security and Sovereignty (FEWSS) and I am a co-PI of this $3M project and 2) William Holmgren obtained an $1M grant from DOE titled Open Source Evaluation Framework for Solar Forecasting. Indigi FEWSS will develop a diverse STEM workforce with intercultural awareness and multidisciplinary knowledge/skills for high priority research in sustainable food, energy, and water systems. Dr. Holmgren leads a collaborative effort with Sandia National Laboratories, Tucson Electric Power, and EPRI. In 2017-18, we developed a strategic plan. I left the position when I became Interim VPR.

Member of the Biomass Research and Development Technical Advisory Committee (2015-2017). This national advisory board is jointly appointed by the Secretary of Agriculture and the Secretary of Energy to provide advice regarding biomass, bioproducts, and biofuels research and development initiatives for the USDA and DOE. The board meets 4 times a year, obtains updates from DOE and USDA regarding large (>$5M) projects, provides oversite for the Biomass Research and Development Initiative (BRDI) funded by the Farm Bill, and writes reports that are sent to the relevant federal agencies and Congressional committees.

Education and Workforce Development leader, Rapid Advancement in Process Intensification Deployment (RAPID) Institute (2016-2018). This DOE funded manufacturing institute is focused on boosting energy productivity and energy efficiency through manufacturing processes in industries such oil and gas, pulp and paper and various domestic chemical manufacturers. It is a consortium of 75 members from universities, industry and government laboratories. The Education and Workforce Development component involves developing a body of knowledge for process intensification, organizing webinars, instituting an internship program, and monitoring and developing short courses for undergraduate and graduate students and well as professionals. I transitioned to the RAPID Board of Directors in 2020.

Principal Investigator and Project Lead for Regional Algal Feedstock Testbed (RAFT) team (2014 – 2018). This was an $8M project fund by the Department of Energy in which the UA served as the lead institution of a collaboration between the UA, Pacific Northwest Laboratories, New Mexico State University, and Texas A&M University. The goal was to obtain long term open pond cultivation data at multiple locations across the Southwest US and make the data available for the research community (https://raft.arizona.edu/cultivation-data). The team also developed a crop rotation strategy for cultivating algae year-round, molecular tools for understanding culture health, and an on-line sensor for continuous monitoring of algal biomass. The project resulted in 30 publications, 2 patents, and 37 presentations at professional meetings. The team consisted of 15 principal investigators, 27 technical staff, 3 post docs, 12 graduate students, 13 undergraduates and 2 high school interns.

Engineering Lead for National Alliance for Algal Biofuels and Bioproducts (NAABB) consortium (2009-2014). This consortium consisted of 5 government laboratories, 13 universities and 16 companies that joined together to investigate the feasibility of producing biofuels and bioproducts from algae through applied research in biology, cultivation, harvesting, extraction, production, and sustainability. The executive management team consisted of six individuals including the Engineering Lead. Outcomes from the three year, $49M project are a new journal – *Algal Research*; a new annual conference – *International Conference on Algal Biomass, Biofuels, and Bioproducts*; over 100 peer-reviewed publications, and 37 invention disclosures as of 2014, when the final report was completed. Major accomplishments included: screening over 2000 algal strains from nature; discovering a new high-performing strain, *Chlorella sorokiniana*; validating the use of lower-cost media and impaired water cultivation strategies; cultivating new strains in large outdoor raceway ponds and taking the biomass through the entire process to produce green diesel/jet fuel, biodiesel, and coproducts; demonstrating 3 innovative harvesting technologies at a larger scale; producing algal derived fuels that met standard specifications; and multiple scenario models for sustainable biofuel production. The University of Arizona received $2.3M for their contributions; seven UA faculty members were co-PIs.

Education Thrust Leader - NSF/SRC Center for Environmentally Benign Semiconductor Manufacturing -CEBSM (1997 – 2007). CEBSM has been and continues to be led by Farhang Shadman from the University of Arizona. The mission is to improve cost, performance and efficiency, while simultaneously lowering environmental, health and safety impacts of semiconductor manufacturing. As the education thrust leader, I was responsible for high school teacher and student outreach programs, and continuing education short courses, as well as coordinating undergraduate research experiences. Being part of CEBSM leadership was instrumental to me obtaining NSF sponsored Research Experience for Undergraduates (REU) and Research Experiences for Teachers (RET) grants. I was the lead on 2 supplemental REU proposals for CEBSM and then subsequently I was the PI on one REU site grant and two RET site grants. Total funding was $1.72M.

AWARDS

Undergraduate Senior Design Award, University of Pennsylvania, Philadelphia, PA 5/86
Phi Lambda Epsilon and Hexagon Senior Society
Third place award for paper presentation, Colorado Biochemical Engineering Symposium, Boulder, CO 10/87
First place award for Best Graduate Student Poster, Colorado Biotechnology Symposium, Fort Collins, CO 9/89
Predoctoral Biotechnology Training Fellowship from National Institutes of Health, 10/89-9/90
University of Colorado Graduate School Dean's Small Grant , 11/89
First place award for Best Poster, Frontiers in Bioprocessing Conference II, Boulder, CO 6/90
University of Colorado Graduate Research Award, 5/91
Tau Beta Pi Professor of the Year 1994-1995
Mortar Board Certificate of Achievement for Outstanding Faculty Service, 1995, 1998
Who's Who Among America's Teachers, 1996 Fourth Edition
Excellence in Student Interface, College of Engineering and Mines, 1996, 1997, 2007

University-Wide Teaching Award for Meritorous Departmental Achievement in Undergraduate Education - (Engineering 102 Faculty), 1997
American Society of Engineering Education Pacific-Southwest Region Engineering Teaching Award – 1998
Outstanding Faculty Award, U of A Honors Center – 2000
Gary Leach Award – American Institute of Chemical Engineers 2007, 2011
Fellow – American Institute of Chemical Engineers 2012
College of Engineering Faculty Fellow – 2013 – 2015
Da Vinci Fellowship - 2014

PROFESSIONAL ACTIVITIES (National/International)

American Institute of Chemical Engineers - Member 1982 - present
- National Activities
  - President 2019
  - President Elect 2018
  - Inclusion, Diversity, Equity, Antiracism and Learning (IDEAL) implementation team 2021 – present
  - Membership committee chair – 2020 - present
  - International Society for Water Solutions (ISWS), co Director 2016 – 2018
  - Secretary of Institute – 2010-2013
  - Board of Trustees, 2007 - present
  - Director, 2004-2007
  - Career and Education Operating Council, 2001-2004
  - Student Chapter Committee, 2nd Vice Chair ,1st Vice Chair, Chair 1997-2000
  - Director - Biochemical Division, 1999-2001
  - Session Chair, 1994, 1996, 1997, 1999, 2000, 2001, 2002 Annual Meetings
  - Host Chapter for 1997 National AIChE Meeting - Los Angeles
- Local Activities
  - Student Chapter Advisor at the University of Arizona, 1993 – 2001, 2002-2009
  - Host Regional Student Meeting – Spring 2003, Spring 2016

Society of Biological Engineers – Founding Board Member, 2004 – 2010
American Indian Science and Engineering Society – member, 2020 -present
National Research Council Committee on the Waste Isolation Pilot Plant 1998-2000
American Association for the Advancement of Science - Member 1991 – 2001
American Chemical Society - Member 1993 - 2008
Arizona Department of Education Science Standards Committee - 2003
Centennial Alumni Committee, Department of Chemical Engineering, University of Pennsylvania, 1992-1993
American Society of Engineering Education - Member 1997 – 2008
- Organizer of Chemical Engineering Summer School 2009-2011
- Sustainability in the Curriculum Lecturer for ASEE Summer School - 2007
- Participant in ASEE Chemical Engineering Summer School - Summer 1997
- Pacific Southwest Regional Program Coordinator – Spring 2000 meeting

Society of Women Engineers, Member 1996 - 2002
- Student Chapter Advisor 8/94 -2001

National Science Foundation (one to two panels annually)
USDA and EPA Panels
NSF Committee of Visitors Engineering Education and Centers Division – 2/10
NSF Committee of Visitor CBET 4/15
ABET Accreditor – 2008 – 2016, Commissioner 2016 – present
Biomass Research and Development Technical Advisory Committee (USDA and DOE) 2015 – 2017
Graduate Program Review – Department of Chemical Engineering Texas Tech, 2015
Program Review (chair) – Department of Chemical Engineering, Oregon State University 2014

DEPARTMENTAL COMMITTEES

AIChE Undergraduate Student Chapter Advisor 9/93 – 5/01 – Regional meeting advisor 5/02 – 5/03
Seminar 1993-1994, 1994-1995, 1995-1996, 1996-1997, 1997-1998
Chemical Engineering Undergraduate Studies Committee 8/94 – 5/01, 5/02 – 8/08, 8/17-5/18
    Chairman 8/96 – 5/01, 5/02 – 8/08, 8/17-5/18
    ABET team 1/97 – 5/99, 2015 - 16
    Laboratory review team chair 8/02 – 5/04
Chemical Engineering Graduate Studies Committee 8/11 – 8/15
Agricultural and Biosystems Engineering Undergraduate Studies Committee 8/02 – 8/09
Search Committee Chair, 5/15 – 5/16
Search Committee member 8/17 – 4/18

COLLEGE OF ENGINEERING AND MINES COMMITTEES

Senior Program Coordinator for MEP Program Search Committee 2/94 - 5/94
Society of Women Engineers Student Chapter Advisor 8/94- 5/01
College of Engineering Undergraduate Education Committee 11/96 – 5/01, 5/02-5/05
    Chairman 9/97 – 5/99
ABET Review Committee 2/97 – 5/00 8/02- 06
Millennium Project Team 8/02 – 5/03
New building team – fall 2012
Promotion and Tenure – 2015-2017

UNIVERSITY COMMITTEES

Agricultural and Biosystems Engineering Faculty Search Committee 10/93-5/94, 7/95-10/96, 8/03 – 5/04
High School Biology Research Review Committee 4/96, 2/04
Science Core Committee 10/94 - 3/95
Graduate College Representative 11/96 – 8/01
Outstanding Graduate Student Award Committee 12/98
Goldwater Scholarship Committee 1/00
Center for Disability Advisor Committee 3/00 – 12/02
Nuclear Reactor Safety Committee 10/00 – 12/14

Academic Program Review and CREES Review – Department of Agricultural and Biosystems Engineering – 4/02
General Education Review Committee – 9/04 – 5/05, 8/07-4/08
Honors College Deans Review Committee – 12/03-12/05
VPI Search Committee – 10/07-12/07
NSF Advance Team 8/07 – 7/09
Provost's Vision Team 8/08 – 5/09
Faculty Senate 11/08 – 5/12
Committee of 11
WEES Faculty Advisory Board 2010 – 2016
WEES Executive Board 2016 - 2018
Provost Advisory Search Committee – 6/12 – 12/12
Bio5 Director Search Committee – 2017
Chair of MSE Search Committee - 2021

INVITED AND PEER REVIEWED TECHNICAL ARTICLES

Ogden, K. L. and M. Bier, "Bioprocess Engineering", Molecular Biology and Biotechnology; A Comprehensive Desk Reference, R. A. Myers editor. VCH Publishers, Inc., New York 106-110 (1995).

Ogden, K. L. "Bioprocess Engineering", Encyclopedia of Molecular Biology and Molecular Medicine R. A. Myers ed. VCH Publishers, Inc., New York. 172-176 (1996).

Ogden, K. L. G. E. Ogden, N. N. Sauer, J. Brainard, and P. J. Unkefer "Treatment of Mixtures of Hazardous Organics and Toxic Metals". Invited Chapter in S. Sidkar, editor Bioremediation: Principles and Practice Volume II Biodegradation Technology. Technomic Publishing Company, Inc., Pennsylvania 249-282 (1998).

Ogden, K. L. "Bioprocess Engineering", Encyclopedia of Molecular Biology and Molecular Medicine R. A. Myers ed. VCH Publishers, Inc., New York. 2nd Edition. 35-50 (2004).

Ogden, K. L. "Fermentation Processes", Marcel Dekker Encyclopedia of Chemical Processing (ECHP) Marcel Dekker, New York (2005).

Ogden, K. and Blowers, B. "Integration of Sustainability and Industrial Mentors into Capstone Design" Proceedings of the ICEER Annual Meeting 12/07 – Queensland Australia.

Cheng, Kuan-Chen and Ogden, Kimberly L. "Current academic research on algal biofuels production". Chemical Engineering Progress March: 10-15 (2011).

Ogden, K. L. "Algae as a Bio-Feedstock" Chemical Engineering Progress November: 63-66 (2014).

PEER REVIEWED TECHNICAL ARTICLES

Henry, K. L., R. H. Davis, and A. L. Taylor, "Continuous Fermentations with Selective Cell Recycle", *Dev. Indus. Micro.*, **31**, 53-58 (1990).

Henry, K. L., C. S. Parnham, R. H. Davis, and A. L. Taylor, "Competitive Fermentations with Selective Recycle", *App. Biochem. Biotech.*, **24**, 651-652 (1990).

Henry, K. L., R. H. Davis, and A. L. Taylor, "Continuous Recombinant Bacterial Fermentation Utilizing Selective Flocculation and Recycle", *Biotech. Prog.*, **6**, 7-12 (1990).

Ogden, K. L. and A. L. Taylor, "Genetic Control of Flocculation in *Escherichia coli*", *J. Ind. Micro*., **7**, 279-286 (1991).

Ogden, K. L. and R. H. Davis, "Plasmid Maintenance and Protein Overproduction in Selective Recycle Bioreactors", *Biotech. Bioeng*., **37**, 325-333 (1991).

Ogden, K. L., R. H. Davis, and A. L. Taylor, "An Adjustable Expression System for Controlling Growth Rate, Plasmid Maintenance, and Culture Dynamics", *Biotech. Bioeng.*, **40**, 1027-1038 (1992).

Ogden, K. L., G. E. Ogden, J. L. Hanners, and P. J. Unkefer "Remediation of Mixed Waste: Cellulose and Plutonium" *J. Haz. Mat.*, **51**, 115-130 (1996).

Young, D. M., P. J. Unkefer, and K. L. Ogden. "The biotransformation of hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) by a prospective consortium and its most effective isolate *Serratia marcescens*". *Biotech. Bioeng.* **53**, 515-522 (1997).

Rampley, C. G., N. N. Sauer, and K. L. Ogden. "The selective chelation of lead in soil with a water soluble polymer". *Waste Management Conference, 96*.

Young, D. M., C. L. Kitts, P. J. Unkefer, and K. L. Ogden "Biological breakdown of RDX in slurry reactors proceeds with multiple kinetically distinguishable paths". *Biotech. Bioeng*. **56**, 258-267 (1997).

Rampley, C. G. and K. L. Ogden. “Preliminary studies for removal of Pb from surrogate and real soils using a water soluble chelator: adsorption and batch extraction” *Environmental Science and Technology*, **32**, 987-993 (1998).

Baygents, J. C. J.R. Glynn, O. Albinger, B. K. Biesemeyer, K. L. Ogden, and R. G. Arnold. “Variation of Surface Charge Density in Monoclonal Bacterial Populations: Implications for Transport Through Porous Media” *Environmental Science and Technology*, **32**, 1596-1603 (1998).

Glynn, J. R., B. M. Belongia, R. G. Arnold, K. L. Ogden, and J. C. Baygents. "Capillary Electrophoresis Measurements of Electrophoretic Mobility for Collodial Particles of Biological Interest" *Applied Environmental Microbiology*, **64**, 2572-2577 (1998).

Croissant, J., G.E. Ogden, and K. L. Ogden "Teamed Internships: Technicians and Engineering Students" *Journal of Engineering Education,* 111-114 April (2000).

Garrick, J. B., M. D. Abkowitz, A. W. Grella, M. P. Hardy, S. Kaplan, H. M. Kingston, W. J. Lee, M. Levenson, W. F. Lutze, K. L. Ogden, J. M. Sharp, P. Shewmon, J. Watson, and C. H. Yew. "Improving Operations and Long-Term Safety of the Waste Isolation Pilot Plant – Interim Report". National Academies Press, Washington DC (2000).

McAlister, M., L. A. Kulakov, M. J. Larkin, and K. L. Ogden. "Analysis of Bacterial Contamination in Different Sections of an Ultrapure Water System". *Ultrapure Water* **18**:18-26 (2001).

Ogden, K. L., A. Muscat, and L. C. Stanley. "Investigating the Use of Biosorption to Treat Copper CMP Wastewater" *Micro* **19 (7)** 81-96 (2001).

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Ogden, K. L., E. Castro, J. Barber. "Minimization of Water Usage for BOE Etch Processes" *Ultrapure Water*, **19(5)**: 16-21 (2002).

Kulakov, L. A., M. B. McAlister, K.L. Ogden, M. J. Larkin, and J. F. O'Hanlon. "Analysis of Bacteria Contaminating Ultrapure Water in Industrial Systems" *App. Env. Micro.* **68(4)**:1548-1555 (2002).

Ogden, K. L., J. Gadgill, and T. Akin. "Biological Denitrification of Hydrolysates from Octahydro-1,3,5,7 tetranitro-1,3,5,7-tertazocine (HMX)" *Wat. Env. Res.* **74(4)**:338-345 (2002).

M. B. McAlister, L. A. Kulakov, J. F. O'Hanlon, M. J. Larkin, and K.L. Ogden. "Survival and Behavior of Bacteria in Ultrapure Water" *J. Ind. Micro Biotech.* **29**:75-82 (2002).

Stanley, L. C. and K. L. Ogden "Biosorption of Copper from Chemical Mechanical Planarization Wastewaters" *J. Environmental Management.* **69(3)**: 289-292 (2003).

Young, D. L., K. Young, and K. L. Ogden "Prediction of Growth and Biotransformation Rates of Hexahydro-1,3,5-trinitro-1,3,5 triazine (RDX) in the Presence of Barium" *Applied Microbiology and Biotechnology* **68**: 376-383 (2005).

Ruiz, A. and Ogden, K. "Biotreatment for the Simultaneous Removal of Cu and organics from Cu-CMP wastes" *IEEE Transactions on Semiconductor Manufacturing* **17(4)**: 538-543 (2004).

Hollingsworth J., R. Sierra-Alvarez, M. Zhou, K. L. Ogden and J. A. Field. Anaerobic biodegradability and methanogenic toxicity of key constituents in copper chemical mechanical planarization effluents of the semiconductor industry. *Chemosphere* **59**: 1219-1228 (2005).

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Liu, Yi; Ogden Kimberly L. "Benefits of High Energy UV 185 nm Light to Inactivate Bacteria." *Water Science and Technology* 62(12): 2776-82 (2010).

Jones, L.A. and Ogden, K. "Silica and Titania Nanoparticles Impact on Water Quality: Experiments with Ralstonia picketti in Nutrient Rich and Poor Media". *Environ. Progress and Sustainable Energy* 32: 279-284 (2013) DOI: 10.1002/ep.11622.

Braden Crowe, Said Attalah, Shweta Agrawal, Peter Waller, Randy Ryan, Kim Ogden, Jonathan Van Wagenen, Murat Kacira, John Kyndt, and Michael Huesemann, "A comparison of Nannochloropsis salina growth performance in two outdoor pond designs: conventional raceways versus the ARID raceway with superior temperature management". *The International Journal of Chemical Engineering.* Volume 2012 (2012). Article ID 920608.

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Jones, L.A. Jai, F. and Ogden, K. "Comparative Study of Biosorption of Copper (II) by Lipid Extracted and non-extracted *Chlorella sorokiniana." Clean Journal.* 41 (2013) DOI: 10.1002/clen.201300174.

Ren, M. and Ogden, K. “Cultivation of *Nannochloropsis gaditana* on mixtures of nitrogen sources" *Environ. Progress and Sustainable Energy*. 33:551-555 (2014) DOI: 10.1002/ep.11818.

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Dong, Bingfeng; Ho, Nam: Ogden, Kimberly; Arnold, Robert. “Cultivation of *Nannochloropsis salina* in municipal wastewater or digester centrate”. *Ecotoxicology and Environmental Safety* 103:45-53 (2014) doi:10.1016/j.ecoenv.2014.02.001.

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D. Morales-Sánchez, J. Kyndt, K. Ogden, A. Martinez. “Toward an understanding of lipid and starch accumulation in microalgae: A proteomic study of Neochloris oleoabundans cultivated under N-limited heterotrophic conditions.” *Algal Research* 20: 22-34 (2016). http://dx.doi.org/10.1016/j.algal.2016.09.006.

P.J. Lammers, M. Huesemann, W. Boeing, D. B. Anderson, R. G. Arnold, X. Bai, M. Bhole, Y. Brhanavan, L. Brown, J. Brown, J. K. Brown, S. Chisholmg, C. M. Downes, S. Fulbright, Y. Gef, J. E. Holladay, B. Ketheesan, A. Khopkar, A. Koushik, P. Laur, B.L. Marrone, J. B. Mott, N. Nirmalakhandan, K. L. Ogden, R. L. Parsons, J. Polle, R. D. Ryan, T. Samocha, R. T. Sayre, M. Seger, T. Selvaratnama, R. Sui, A. Thomasson, A. Unc, W. Van Voorhies, P.

Waller, Y. Yao, J. A. Olivares. "Review of the cultivation program within the National Alliance for Advanced Biofuels and Bioproducts." *Algal Research* 22: 166-186 (2017) http://dx.doi.org/10.1016/j.algal.2016.11.021.

B. L. Marrone, R. E. Lacey, D. B. Anderson, J. Bonner, J. Coons, T. Dale, C. M. Downes, S. Fernando, C. Fuller, B. Goodall, J. E. Holladay, K. Kadam, D. Kalb, W. Liu, J. B. Mott, Z. Nikolov, K. L. Ogden, R. T. Sayre, B. G. Trewyn, J. A. Olivares. "Review of the harvesting and extraction program within the National Alliance for Advanced Biofuels and Bioproducts." *Algal Research* (2018) https://doi.org/10.1016/j.algal.2017.07.015.

L. M. Wendt, B. D. Wahlen, C. Li, G. Kachurin, K. L Ogden, J. Murphy. "Evaluation of a high-moisture stabilization strategy for harvested microalgae blended with herbaceous biomass: Part I – storage performance." *Algal Research* 25: 567-575 (2017). https://doi.org/10.1016/j.algal.2017.05.016.

Ebrahimiaqda, E. and K. L. Ogden. "Simulation and cost analysis of distillation and purification steps in production of anhydrous ethanol from sweet sorghum." *ACS Sustainable Chemistry and Engineering* 5(8): 6854-6862 (2017). 10.1021/acssuschemeng.7b01082.

Zhang, B and K. L. Ogden. "Recycled wastewater from anaerobic digestion of lipid extracted algae as a source of nutrients." *Fuel* 210: 705-712 (2017). https://doi.org/10.1016/j.fuel.2017.09.026.

Qiu, R. S. Gao, P. Lopez, and K. L. Ogden. "Effects of pH on cell growth, lipid production, and CO2 addition of microalgae Chlorella sorokiniana." *Algal Research* 28: 192-199 (2017). https://doi.org/10.1016/j.algal.2017.11.004.

Li M, Shadman F, Ogden K.L, "Algae-based sorbents for removal of gallium from semiconductor manufacturing wastewater." *Clean Technologies and Environmental Policy, 20(4):* 899-907 (2018). https://doi: 10.1007/s10098-018-1497-3.

Ebrahimiaqda, E. & Ogden, K.L "Evaluation and Modeling of Bioethanol Yield Efficiency from Sweet Sorghum Juice." *Bioenerg. Res* 11: 449 (2018). https://doi.org/10.1007/s12155-018-9909-0.

Armstrong, N. R., C. Shallcross, K. Ogden, S. Snyder, A. Achilli, E. L. Armstrong "Challenges and Opportunities at the Nexus of Energy, Water and Food," *MRS Energy and Sustainability* 5, (April, 2018) DOI:10.1557/mre.2018.2.

Li M, Ogden K.L, Shadman F (2019). "Analysis and Design of Adsorption Systems for the Combined Removal of Arsenic and Gallium from Wastewater." International Journal of Research in Engineering and Science.

Zhang, B and K. L Ogden. "Nitrogen Balances and Impacts on the Algae Cultivation-Extraction-Digestion-Cultivation Process." *Algal Research* 39: (2019) https://doi.org/10.1016/j.algal.2019.101434.

Toscano, L.P., Ogden, K.L., Brown, J.K., Cervantes D, L., Steichen, S.A., Samaniego, B., and Gao, S. 2018. "Harvesting of *chlorella sorokiniana* by fungal-assisted palletization, and cellulase production: a case of study." J. Biobased Mater. Bioenergy 12, 493–505 (2018). https://doi.org/10.1166/jbmb.2018.1798.

Gao, S. P. Waller, G. Khawan, S. Attalah, M. Huesemann, K. Ogden. Incorporation of salinity stress, nitrogen stress, and shading into the HABG algae growth model. *Algal Research* 35: 462-470 (2018). https://doi.org/10.1016/j.algal.2018.09.021.

Park, S.H., Steichen, S.A., Li, X., Ogden, K., and Brown, J.K. "Association of *Vampirovibrio chlorellavorus* with decline and death of *Chlorella sorokoriana* in an outdoor cultivation system." J. Appl. Phycology (2018). https://doi.org/10.1007/s10811-018-1633-9.

Attalah, S., Waller, P., Steichen, S., Gao S.,Brown JK., and K. Ogden. "Deoxygenation-aeration cycling-driven management of a predatory bacterium *Vampirovibrio chlorellavorus"* in *Chlorella sorokiniana* algae culture. *Algal Research* 39: (2019). https://doi.org/10.1016/j.algal.2019.101427.

Khawam, G., Waller, P., Gao, S. Edmundson, S. Wigmosta. M. and Ogden, K. "Model of temperature, evaporation, and productivity in elevated experimental algae raceways and comparison with commercial raceways." Algal Research 39: (2019). https://doi.org/10.1016/j.algal.2019.101448.

Attalah, S., Waller, P., Steichen, S., Brown, C.C., Mehdipour, Y., Ogden, K and Brown JK. "Cost minimization of deoxygenation for control of Vampirovibrio chlorellavorus in Chlorella sorokiniana cultures." Algal Research 42: (2019) https://doi.org/10.1016/j.algal.2019.101615

Khawam, G., Waller, P., Gao, S. Edmundson, S. Huesemann, M., Attalah, S. and Ogden, K. "Simulation of shading and algal growth in experimental raceways" Algal Research 41: (2019). https://doi.org/10.1016/j.algal.2019.101575

NON-REVIEWED PUBLICATIONS AND REPORTS

Henry, K. L., "Novel System to Maintain Plasmid-Containing Cells", *Bioprocess Technology***, 11,** 2-3 (1989).

Davis, R. H., and K. L. Henry, "New Approaches to Maintaining High-Plasmid Organisms in Continuous Fermenters," *Genetic Technology News*, **9**, 14-15 (1989).

Henry, K. L., R. H. Davis, and A. L. Taylor, "A Novel Solution to the Problem of Plasmid Segregation in Continuous Bacterial Fermentations", *Proc. 19th Ann. Bioch. Eng. Symp.*, ed. R. Bajpai, 11-21 (1989).

Bedell, A. K., P. J. Unkefer, and K. L. Ogden, "Biodegradation of 2,4,6 Trinitrotoluene (TNT) in a Fluidized Bed Bioreactor", *Proceedings of the NOBCChE Conference*, **21**, 319-28 (1994).

Martin, T. A., Y. Sun, O. Albinger, B. E. Logan, K. L. Ogden, J. C. Baygents, and R. G. Arnold, "Factors Affecting Bacterial Transport through Aquifer Material for the Bioremediation of Hazardous Wastes" *Proceedings of the 1995 Pacific Basin Conference on Hazardous Waste.* May 17-20 (1995).

Ogden, K. L., T. W. Peterson, and J. L. Sinclair, "Chemical and Environmental Engineering: A Logical Combination" *Chemical Engineering Education*, **29**, 234-239 (1997).

Toscano- Palomar, L., Correa- Leyva, C., Amado- Moreno, M. G., Ogden, K. L., and Gomez-Puentes, F. **"**Producción y caracterización de celulasas Extracelulares a partir de cepa nativa de *Trichoderma harzianum* usando como fuente de Carbono paja de trigo del valle de Mexicali" Proceedings of XXXVII Encuentro Nacional de la Academia Mexicana de Investigación y Docencia en Ingeniería Química A.C. (AMIDIQ), May 3-6 (2016).

PATENTS

J. Fia, M. Kacira, G. Ogden, and K. Ogden Optical Device for In-Line and Real-Time Monitoring of Microorganisms PCT/US16/40147, UA15-095, NT Ref. No:UNIA 15.18 PCT.

J. Fia, M. Kacira, G. Ogden, and K. Ogden Optical Device for In-Line and Real-Time Monitoring of Microorganisms WO 2017/004236.

K. Ogden and S. Pradyawong Particleboards including modified guayule resins/soy protein resin blends and associated methods for forming same UA21-026/068725.0004

K. Ogden and S. Pradyawong Modified guayule resin/soy protein blends for bio-based adhesives, associated methods for forming same, and associated structures including such adhesives. UA21-025/068725.0003

RECENT INVITED TALKS (2013 – present)

"Status and challenges to making biofuels from algal biomass cost competitive." International Algal Conference, Taiwan October 2013.

"Benefits and Challenges of the Algal Biofuels Industry." Arizona Board of Regents, March 2014.

"Benefits and challenges of the algal biofuels industry." US/China Conference on Sustainable Manufacturing Wuhan China March 2014.

"Status and Update of RAFT Project." BIO PacRim conference. San Diego CA December 2014.

"RAFT Project." Biomass 2014, Washington DC August 2014.

"What is the Future of Making Biofuel from Algae?" UA Women's Group. Tucson, AZ March 2014.

"RAFT Overview" DOE Harmonization Meeting, Golden, CO October 2015.

"Carbon Sequestration: Can we Afford It?" Earth Transformed Lecture Series, College of Science, University of Arizona, February 2016.

"Crop rotation and monitoring strategy for year round production of microalgae" The 6th International Conference on Algal Biomass, Biofuels & Bioproducts, San Diego, USA June 2016. (Keynote Speaker).

"Introducing the New USDA NIFA CAP grant awardees- Developing Regional AJF supply chains: Sustainable Bioeconomy for Arid Regions." CAAFI- SOAP Jet Webinar October 2017.

"Sustainable Bioeconomy for Arid Regions" Biomass Research and Development Technical Advisory Board November 2017.

"Sustainable Bioeconomy for Arid Regions" Southwest Indian Agricultural Association, Laughlin, NV January 2018.

"Public Private Partnerships" (panel with Brewer, C.E. and White, R.) ABLC Conference Washington DC February 2018.

"Energy Overview: Supply and Alternative Fuels" Law College, University of Arizona, April 2018.

"Promise and Challenges of Cultivating Algae in Open Pond Systems" Department of Chemical Engineering, University of Pennsylvania, Philadelphia PA September 2018.

"Potential of the Bioproducts and Biofuels Economy" AIChE Annual Conference, Pittsburgh PA November 2018.

"Sustainability and Chemical Engineering Education", Asian Pacific Conference for Chemical Engineering, Sapporo Japan, September 2019.

"Diversity and Inclusion in Chemical Engineering" (Keynote speaker), Asian Pacific Conference for Chemical Engineering, Sapporo Japan, September 2019.

"Sustainable Bioeconomy for Arid Regions", Department of Chemical Engineering, Michigan Technological University, January 2020.

"Sustainable Bioeconomy for Arid Regions", Distinguished Lecture series, Department of Chemical Engineering, University of Utah, March 2020.

"Alternative Approaches to Chemicals and Pesticides Panel", Barriers to Scale: Algae Crop Protection Workshop, virtual, April 2021.

"Journey through AIChE" (Keynote speaker), 2021 AIChE Western Student Regional Conference, virtual, April 2021.

"Sustainable Bioeconomy for Arid Regions – How Kim Got Here", Session to Honor 2019 Warren K. Lewis Award for Robert Davis, AIChE meeting, November 2021.

"Guayule – Is This a Viable Crop for Domestic Rubber Production?", Department of Chemical Engineering, Iowa State University, December 2021.

COURSES TAUGHT

Chemical Engineering 201 Material and Energy Balances

Agricultural and Biosystems Engineering/Chemical Engineering 481A/581A Bioreactor Engineering

Agricultural and Biosystems Engineering/Chemical Engineering 481B/581B – Bioengineering Applications

Chemical Engineering 199/299/399 Independent Study

Chemical Engineering 316 Introduction to Thermodynamics

Engineering 196a - Honors Proseminar/ Survey of Engineering Professions

Engineering 196b - Honors Proseminar/Planning Engineering Design

Chemical Engineering 307 - Chemical Engineering Science Laboratory
Chemical Engineering 304 - Unit Operations Laboratory
Engineering 102 - Introduction to Engineering
Chemical Engineering 442 – Chemical Engineering Design Principles
Chemical Engineering 443 – Chemical Engineering Plant Design
Chemical Engineering 597A – Engineering GK12
Chemical Engineering 597B – Engineering Outreach Methodology

POST DOCTORAL FELLOWS MENTORED

McAlister, Morven – 1/99-8/01 (Pall Corporation)
Cheng, Kuan-Chen – 8/10 – 8/11 (National Taiwan University)
Ren, Ming – 1/13 – 1/14. (Monsanto Corporation)
Cameron, Stephan – 10/14 – 9/15 (EPA)
Toscano-Palomar, Lydia – 8/15 – 1/18 (Instituto Tecnologico de Mexicali)
Pradyawong, Sarocha - 9 /18 - present

GRADUATE STUDENTS MENTORED

Acedo, Margarita – MS Student – 8/11 – 12/13 – Ph D 8/14 – 8/19. (Synthetic Genomics)
Agrawal, Shweta – MS Student – 5/10 – 5/12. (Intel)
Akin, Tulin - MS Student - 11/95 - 8/97 (Ph.D. program, Univ. of Cinn., Intel)
Archuleta, Luis - MS Student (GEM Fellow) - 5/95 - 6/96 (Los Alamos National Laboratory)
Austin, David - MS Student - 11/96 - 12/97 (Motorola)
Bah, Abass – MS Student 8/21 - present
Chu, Yu-Hsien – MS Student – 8/12 – 5/14
Ebrahimiaqda, Elham – PhD student, 5/12 – 8/18
Gadgil, Jaideep - MS Student - 11/94 - 5/96 (Hydrogeotechnics, Maryland)
Glynn, John - Ph.D. Student (co.-advisor, Jim Baygents) - 11/92 - 6/98 (Postdoctoral Fellow, Princeton University)
Herrera-Rios, Victor Christian – MS Student 7/10 – 5/13. (Bio diesel company)
Hollingsworth, Jeremy – MS Student (co- advisor, Reyes Sierra) 8/02 – 9/04 (Brown and Caldwell)
Huang, Wanyu – MS Student 10/20 - present
Leo, Caitlyn – MS Student 8/18 – 8/20 (Sacramento Water)
Li, Mengling – PhD (co-advisor Farhang Shadman) 8/14 – 12/18
Li, Xuehui – MS Student 8/13 – 12/15 (University of Arizona Medical School)
Liu, Yi – Ph. D. Student 11/04 – 5/09 (Cal Poly San Luis Obispo)
Lohr, Patrick – MS Student 1/19 – 10/20 (PhD UArizona)
Lowman, Dawn – MS Student 11/98 – 8/00 (University of Utah Medical School)
Jones, Lisa – PhD. Student 8/08 – 11/13 (Bayer)
Maketon, Worawan – Ph.D Student 1/03 – 12/07 (Intel)
Marquez, Mario – MS Student 8/09 – 5/11 (Dupont)
Martinez-Cruz, Tania – MS Student 8/10 – 6/12
Ogbaudu, Efe-Oghene – MS Student 10/21 - present

Padilla, Yierra – Ph. D. Student 8/04 –5/10 (co-advisor, Moses Bogere)
Padona, Adonis – MS Student 11/99 – 11/01 (Aspen Technology in Cyprus)
Paul, Rachel - ME Student - 9/97 – 5/01
Pinto, Cresilla – MS Student 8/16 – 5/18 (Eurofins Lancaster laboratories)
Qiu, Renhe – PhD Student – 8/12 – 5/19 (Humanwell Pharmaceutical US, Inc.)
Rampley, Colby - MS Student - 7/95 - 6/97 (Motorola)
Ren, Ming – Ph.D. Student 8/07 – 12/12 (Monsanto)
Ruiz - Yeomans, Arturo - Ph. D. Student - 5/97 – 12/03 (AMD)
Smith, Andrew – MS Student 10/19 - present
Stanley, Leah – MS. Student 11/98 – 12/00 (Intel)
Silvestry-Rodriquez, Nadia – MS Student 2/01 – 8/02 (Ph. D program, U of A)
Tan, Maggie – MS Student 4/21 - present
Thombre, Amaranth - MS Student - 8/95 - 12/97 (Started small company)
Udeozor, Onyeka – MS Student 8/15 – 12/17 (Dupont)
Van Overmeiren, Nicole – MS Student 8/21 - present
Young, Douglas - Ph.D. Student - 11/93 - 1/97 (EPA, Cincinnati Ohio)
Zhang, Bincong – PhD Student 8/12 – 8/18

GRADUATE STUDENTS MS PROJECT MENTORED

Ashley, Nicholas – 8/17 – 5/18 (Northrup Grumman)
Chong, Leanne – 5/12-12/13 (TEP)
Gregory, Jason – 5/13 – 5/14 (U Mich)
Gonzalez, Jesse – 5/13 – 5/14
Hattle, James – 8/18 – 5/19 (Burns and McDonnell)
Laughlin, Amanda – 8/15 – 12/15 (Liquorama Fine Wines and Spirits)
Nakazato, Paul – 7/15 – 5/16 (McKinsey and Company)

UNDERGRADUATE, COMMUNITY COLLEGE, AND HIGH SCHOOL STUDENTS MENTORED

Abrahamaian, Jennifer – Northwestern University - 5/01-8/01
Adragna, Adrianne – University of Toledo – 5/01-8/01
Almasir, Mohammad – 8/13 – 9/15
Ashby, Matthew - 5/96 - 5/97, 8/97 - 5/98
Bah, Abbass – 6/19 – 5/21
Barkarich, Carter 9/16 – 5/17, 8/17-5/18
Bedell, Alan - 8/92 - 5/94, 8/94 - 2/95
Beenken, Liese – 5/03 – 5/06 (UBRP and TRIF fellowship)
Begay, Lucinda - 6/97 - 5/98 – NASA Space Grant
Bennelly, Chelsea - 5/98 – 5/99
Bennett, Natalie - Undergraduate Flinn Scholar 8/92 - 5/97
Betencourt, Diana – University of Puerto Rico 5/03-8/03
Boghert, Eline- Rose Hullman 5/05 – 8/05
Bova, Erin - Dana College - 5/98 - 8/98
Brauser, Eric – Pacific Lutheran University – 5/08-8/08

Burke, Kale – 1/20 - present
Canez, Tommy - 1/94 - 5/94, 8/94 - 5/95
Chang, Jae - 8/94 - 12/94
Chen, Jing 1/11-5/12
Cheng-Guajardo, Cesar 8/96 - 5/97, 8/97 - 5/98
Coker, Tim 8/99 – 12/99
Cureton, David - 9/10 – 12/11
Darmetizel, Andrew – Flowing Wells High School – 6/02 – 12/03
Denke, Drew – Ironwood Ridge High School – 10/16 – 12/17
Dischinger, Sarah – 1/10 – 5/13
Dzienis, Terri – 8/99 – 5/00, 10/00 – 12/00
England, Summer - 1/97 - 5/97, 9/97 – 5/98
Elias, Solomon- 5/15-8/15
Fox, Erin - High School Professional Internship Program -1/93 - 5/93
Frank, Tamara - 5/97 – 12/98
Galhotra, Rosemary – 1/04 –5/04
Galvaz, Cassandra – Tucson High Student 8/12- 5/13 Undergraduate 9/13 – 5/18
Glenn, Lisa 5/06-7/06, 5/07-7/07
Goerga, David 5/05-8/05
Gonzalez, Michelle - University of Puerto Rico 5/05 – 8/05
Grantz, Amanda – Rose-Hullman 5/07-8/07
Grasso, Cara – Science Education Student – 1/03 – 6/03
Haley, Jessica - University High School - 6/98 – 8/98, 6/99-8/99
Holle, Laucretia - 9/97 – 5/98
Hosley, Jennifer - 5/98 - 8/98
Jensen, Laline – Science Education Student – 1/03 – 12/03
Jimenez, Esteban – Space Grant – 8/15 – 5/17, 8/17 – 5/18
Johnston, Colin 9/01 – 2/02
Kahn, David - 1/97 - 5/97
Kaplan, Leah – 8/17 – 5/18
Kaystons, Jayson - 9/94 - 12/94
Kiehlbaugh, Kasi - 9/95 - 5/96
King, Deanna – High School Professional Internship Program – 8/99 – 2/00
Klienscamp, Linnette – 8/04-12/03
Klump, Freda - 1/95 - 5/95
Kortsen, Celest - 1/94 - 5/94
Kramkowski, Karen - 5/94 - 5/96
Kryger, Kyle – 12/06-5/07 – 7/07 – 5/08
Kuehn, Tracy - New Mexico State University - 5/93 - 8/93, 5/94-8/94
LaFountain, Lara 6/07 – 11/07
Larson, Laura - 5/96 - 5/97, 8/97 - 5/98
Lawerence, Benjamin - 5/98 – 10/98
Lopez, Carlos 8/00 – 12/00
Lopez, Paola 5/13 – 5/16
Ly, Cindy – University of Pennsylvania - 5/00-8/00
Maketon, Chan - 8/05 – 5/06

Mayer, Mika - 5/97 - 5/98, 9/98 – 5/99 – UBRP Program
Mazakis, Monique - 11/95 - 8/96
Mehlau, Mikala – 10/08 – 5/12
Miller, Jennifer – University of Rochester 5/09-8/09
Mohan, Ritika - 8/06 – 12/06
Montoya, Anthony – 8/08 – 5/11
Morgan, Catherine - 1/95 - 5/95 – CIMD Grant
Munoz, Nanette 8/99 – 5/00 NASA Space Grant
Murphy, Angela - Pima Community College - 1/97 - 5/97
Murphy, Courtney – 8/02 – 5/03
Noonan, Jacob 5/12 – 8/12 (Sal Point High School)
Oleson, Marcus - Pima Community College - 1/97 - 5/97
Olsen, Shari - 5/93 - 5/95
Palma, Ben - 8/05-5/06
Panagos, Melissa – 8/04 – 5/05 -NASA space Grant
Peebles, Jessica – NASA space grant - 12/16 - present
Raghavan, Shyam 5/04-8/04 - MIT
Ramin, Jennifer 8/12 - present
Rampley, Colby - 8/93 - 5/94, 8/94 - 5/95
Robles, Rosio – 8/00 – 6/01 – SRC Student Fellowship
Rodregues Cecilia – 8/00 – 4/01
Royball, Bryce – 11/16 – 5/17, 8/17 – 5/18
Rusnak, Maria – 5/10 - 5/11
Sakai, Daniel - 9/95 - 5/96
Sandoval, Juan UBRP Scholarship 8/11 – 5/17
Sandoval, Rolanda - Northern Arizona University - 6/97 - 8/97
Sheng, Rebecca 10/16 – 5/17
Sheridan, Blaise - Swathmore 5/07-7/07
Smith, Kelly 5/09-8/09
Stanley, Jennifer 8/04-8/06
Stefaniak, Lindsey – Science Education Student – 1/03 – 5/03
Steichen, Seth – 7/10- 5/11
Strauss, Leanne – 8/10 – 5/12
Stredronsky, Vanessa 8/01 – 12/01
Svendlenka, Jean – Cal Poly San Luis Obispo - 5/99 – 8/99
Swanson, Elizabeth – 5/00 – 5/04 – SRC Student Fellowship
Thompson, Erin - University High School - 9/97 - 12/98
Thompson, Kelly – 7/07 – 9/08
Toffol, Emily 8/12 – 12/12
Tomala-Joffee, Cameron – 9/09 – 5/13
Trujillo, Joven – 9/01 – 5/02, 8/02 –3/03
Tuomin, Rachel - 5/95 - 12/95
Tutle, Hillary - 9/96 - 7/97
Vasic, Ivana – 5/14 - 5/17
Vasquez, Manuel UBRP Fellowship 5/12 – 5/15
Whipple, Devin 8/05 – 8/06

Wolkon, Gavin – 3/21 - present
Woolley, Raphael 8/13 – 5/15
Yingling, Jessica - 1/95 - 3/97
Zapatka, Peter - 8/92 - 5/94
Zenner, Chase 8/06 – 5/08
Zhou, Michael – 12/02 – 8/04
(67 female students; 26 ethnic minority students)

THESIS COMMITTEES

Attalah, Said – Biosystems Engineering PhD 2018
Bliven, Adam - Environmental Engineering MS 1996
Blue, Karen - Environmental Engineering MS 1994
Canter, Christina – Chemical Engineering PhD 2013
Castro, Elizabeth – Chemical Engineering, Ph.D. 2006
Chawhuaymak, Jeerawan – Agricultural and Biosystems Engineering, MS 2009
Chen, Gui – Chemical Engineering Ph. D. 2000
Chen, Guoqing - Chemical Engineering Ph. D. 1996
Cheng, Long – Chemical Engineering Ph. D. 2017
Confer, David - Environmental Engineering Ph.D. 1997
Diaz, Daniel – Chemical Engineering Ph.D. candidate
Diaz, Raul - Nuclear Engineering Ph. D. 2004
Du, Xiaoyang - Chemical Engineering Ph.D. 1996
Eftekharzadeh, Noushin - Chemical Engineering MS 1994
Eljerdi, Houssam - Chemical Engineering MS 1995
Gao, Song – Biosystems Engineering PhD 2017
Garcia, Javier - Chemical Engineering Ph. D. 1999
Garcia-Sot, Mariano – Chemical Engineering, 2014
Gonzalez, Marisa – Chemical Engineering, Ph.D. candidate
Han, Rouchen – Chemical Engineering Ph. D. 2017
Jarjour, Elias – Chemical Engineering, MS 2011
Jiang, Feng – Chemical Engineering, PhD 2019
Johnson, William - Chemical Engineering MS 1995
Khawam, George – Biosystems Engineering PhD 2018
Kin, Kon-Tsu - Chemical Engineering Ph. D. 1996
Li, Qun - Environmental Engineering MS 1996
Liao, Xiaoyan – Chemical Engineering Ph.D. 2013
Machimale, Bhat - Material Science and Engineering Ph.D. 1995
Martin, Michael - Environmental Engineering MS 1995
Martin, Todd - Environmental Engineering MS 1995
May, Elizabeth - Chemical Engineering MS 1995
Montano, Gerado – Chemical Engineeirng, Ph. D. 2006
Moorse, Robert – Chemical Engineering Ph. D. Candidate
Mu, Yan – Chemical Engineering Ph.D. 2016
Olsen, Shari - Environmental Engineering MS 1997
Patnik, Rabi - Environmental Engineering MS 1995

Rogers, Brock - Environmental Engineering MS 1997
Romero, Karla – Chemical Engineering MS 2000
Rosales, Daniel - Chemical Engineering, Ph.D. 2007
Schank, Hubert - Chemical Engineering Ph.D. 1994
Schomtezer, Mike – Chemical Engineering, Ph.D. Candidate
Shan, Jilei Chemical Engineering, Ph.D. 2008
Stone, Jennifer - Chemical Engineering MS 1997
Stuffle, Calliandra – Chemical Engineering MS 2018, PhD Candidate
Sun, Ting – Chemical Engineering, Ph.D candidate
Sun, Yuxia - Environmental Engineering MS 1997
Tellez, Carlos - Chemical Engineering Ph. D.1997
Verdugo, Brenda – Chemical Engineering Ph.D. 2011
Wibowo, Johannes - Chemical Engineering MS 1995
Wong, Dong - Chemical Engineering, MS 1995
Wu, Baochun - Chemical Engineering Ph. D. 2014
Wu, Yu Ling – Chemical Engineering, MS 2000
Yan, Jun - Chemical Engineering, Ph.D. 2007
Yao, Junpin – Chemical Engineering, Ph.D. 2008
Yazzie, Christopher – Environmental Engineering, Ph.D candidate
Zhang, Tianqi – Chemical Engineering, Ph.D.2016

RESEARCH TECHNICAL STAFF

Attalah, Said 1/14 – 5/16
Bertelsen, Owen 5/16 – 8/17
Brown, Caitlin 1/14 – 12/17
Kielbaugh, Kasi – 8/18 – 5/19
Liang, Irene 4/16 – 12/17
Leichtenberg, Eleanore 4/16 – 12/17
Lepley, Kai 8/14 – 1/16
Steichen, Seth 9/13 – 8/14

ADMINISTRATIVE STAFF FOR SBAR and IES

Anderson, Torran – Community Engagement Coordinator
Bruhn, Jacqueline - Program Coordinator
Rogstad, Alix – Program Director
Shoppe, Cara – Program Coordinator
Sikora, Stephanie – Program Coordinator

GRANTS RECEIVED (Does not include any internal UA grants - TRIF, WEES, or ABOR funded projects)

"The effect of minerals on the population dynamics and migration of microorganisms in soils", received from the Mining and Mineral Resources Institute, U.S. Bureau of Mines - $10,000 - co PI with James C. Baygents - 1/1/93 - 12/31/93, BOM # G1134204.

"Bioremediation of TNT" received from the Coalition to Increase Minority Degrees - $1,338 1/1/93 - 5/30/93, Project #S93UR007.

"Isolation of marine bacteria capable of degrading explosives" Small Dean's Grant received from the University of Arizona Foundation and the Office of the Vice President of Research - $4,000 1/1/93 - 12/31/93.

AWU-DOE EMCORE Faculty Fellowship and three Undergraduate Student Scholarships for Alan Bedell, Natalie Bennett, and Colleen Byrnes received from the EMCORE program of Associated Western Universities - $25,169 5/20/93 - 8/15/93.

"Mutational Instability" received from the University of Arizona Honors Center by Dana Demumbrum - $800 8/93 - 2/94.

"Transport of Bacteria Through Soil", received from the University of Arizona Honors Center by Colby Rampley - $800 8/93 - 2/94.

AWU-DOE EMCORE Undergraduate Student Scholarships for Alan Bedell and Colleen Byrnes received from the EMCORE program of Associated Western Universities - $15,026 9/93 - 5/94, Contract # CK28953.

AWU-DOE Faculty Fellowship $12,000 Associated Western Universities 5/94-8/94.

"Biochemical Treatment of Mixed Wastes" received from Los Alamos National Laboratory $80,000 8/1/94-7/31/95, Contract # 147AF0014-3Z.

"Biodegradation of TNT" received from the University of Arizona Honors Center by Alan Bedell - $600 8/94 - 2/95.

"Biodegradation of RDX", received from the University of Arizona Honors Center by Colleen Byrnes - $700 8/94 - 2/95.

"Transport of Subsurface Bacteria in Porous Media" received from the Department of Energy - co. PI with R. Arnold and J. C. Baygents, $297,000 8/1/94 - 7/31/97, Contract # DE-FG03-94ER61887.

"Remediation of Mixed Waste" received from the Coalition to Increase Minority Degrees - $2,760 1/95 - 5/95, Project # S95UR047.

Other Funding from Los Alamos National Laboratory

Undergraduate Student Employment for Peter Zapatka - Summer 1993 and academic year 1993-1994, $7,500

Undergraduate Student Employment for Shari Olsen - Summer 1993, academic year 1993-1994, and summer 1994 $7,500

Graduate Research Assistantship for John Glynn - Summer 1994, $6,000.

Graduate Research Assistantship for Douglas Young - Summer, Fall 1994 Spr, Su 1996 $33,000
Undergraduate Student Employment for Deanna Emerson - Summer 1994, $5,000
Undergraduate Student Employment for Karen Kramkowski - Summer 1994, Summer 1995 $9,000
Undergraduate Student Employment for Dana Demumbrum - Summer 1995, $5,500
Graduate Research Assistantship for Luis Archuleta - Spr. 1996 $6,500

"Remediation of Mixed Wastes" Waste Management Research co. PI with R. Arnold and J. C. Baygents 1/95-6/96 $49,104.

AWU-DOE Faculty Fellowship $12,000 Associated Western Universities 5/95-8/95.

"Teamed Internships: Innovative Education Program for Environmental Technicians and Engineers" co. PI with G. Ogden and J. Croissant. National Science Foundation, $330,00 10/96-9/99.

"An Integrated Laboratory Introduction to Inter-Media Environmental Problems" co. PI J. Sinclair and T. Peterson. National Science Foundation, $50,952 7/96-6/97.

AWU-DOE Faculty Fellowship Associated Western Universities $4,500 7/96.

"EPA Training Grant- Summer Intern Program" co. PI T. Peterson. Environmental Protection Agency. $40,000 4/96-4/97. Contract #T90267701.

"Renovation of Environmental Engineering Bioprocessing Lab" co. PI B. Logan, R. Arnold, R. Guzman, and R. Miller. National Science Foundation. $100,000 12/96 - 2/98. Contract # STI-9602552.

"Remediation of Complex Wastes: Heavy Metals and Nonvolatile Organics" Waste Management Research $65,608. 1/97 - 12/99.

"Bioremediation of Point of Source Semi-conductor Waste" Western Alliance to Expand Student Opportunities $2,756. 6/97 - 12/97. Contract # V97UR015.

"EPA Summer and Academic Year Internship Program" EPA 6/97 – 4/01 $230,000. Contract # T825601010

Ogden, K. L. (100%) "Proposal for Planning Distance Learning Program in Semiconductor Manufacturing". Tri-University Acad. $29,980 1/01-12/01.

Ogden, KL (100%) "NSF/SRC Engineering Research Center for Environmentally Benign Semiconductor Manufacturing" NSF/SRC #EEC-9528813, 1/98 – 6/06 $150,000 research support for 1 student for 5 years and $65,000 salary support as Education Thrust Leader.

Ogden, KL (20% administration, 8% student mentor) and 9 other ERC PI's "NSF-REU Program for ERC Center" NSF, 4/98-10/00 Contract # EEC-9840734 $165,000

Ogden, KL (100%) "Simultaneous Removal of Cu and Organics from CMP Waste" NSF 1/99-3/01 Contract # EEC-9528813#4 $50,000.

Ogden, KL (95%) and F Shadman (5%)"Monitoring biofilm formation in ultrapure water systems" NSF Contract #EEC-9810181 8/98-7/01 $300,000.

Ogden, KL (50%) and G Ogden (50%)"Environmental Technology Curriculum Enrichment" NSF 10/00 – 9/03, $320,000.

Ogden, KL (50%) and G Ogden (50%) Tucson Electric Power/Raytheon/City of Tucson – Matching Funds for NSF-ATE Grant (Environmental Technology Curriculum Enrichment) 10/00 – 9/03 $120,000.

Ogden, KL (100%) **"**EPA Summer Internship Program" EPA T-82898501-1, 4/01-4/03 $80,000.

Ogden, KL (20% administration, 8% student mentor) and 9 other ERC PI's "NSF-REU Program for ERC Center" NSF Contract # EEC-0120147, 5/01-12/03 $150,000.

Ogden, K (56%), M Reyes (10%) and 2 other ERC PI's (34%) "RET Program" NSF EEC-9528813#11 5/01-12/03 $150,000.

Ogden, K (100%) "SRC Education Alliance Undergraduate Research Assistants Program" SRC Contract #CK0000007 and CK0000045 10/00-6/03 $53,000.

Ogden, K (50%), M Reyes(25%) and 2 other ERC PI's (25%) "Partnerships in Education " NSF $150,000 4/01-3/04 Contract #EEC-9528813#12.

Ogden, K (100%) Sabbatical Support, Texas Instruments 8/01-8/02, $40,000.

Ogden, K (80%), M. Reyes (10%) and 3 other ChEE faculty (10%) "RET Site: Discovering the Link Between University and Industrial Environmental Research", $450,000 Contract #EEC-0402090. 4/04-3/08.

Ogden, K (100%) City of Tucson Matching for EEC-0402090, $101,720 4/04-3/08.

Ogden, K. (100%) Tucson Electric Power Co. Matching for EEC – 040390, $16,722 5/04-3/08.

Ogden, K. (100%) Raytheon Matching for EEC-040390, $72,972 5/04-3/08.

Ogden, K. (100%) "EPA Internship Program for the University of Arizona Engineering". $250,000. T83165602 4/04 – 3/09.

Ogden, K (45%), A. Muscat (45%) and F. Shadman (10%) “A New Partnership between the ERC and the University of Puerto Rico”. EEC-9528813 #24 $206,796.

Ogden, K (70%), Raghavan, S., Pegembrium N. and Shadman, F. “Research Experiences for the Navajo Nation Students” EEC-9528813 #23 $84,000.

Ogden, K (100%) REU Site: Systems Approach to Sustainability: Manufacturing, Water and Energy NSF # 0649202 $420,000 2007 – 2009.

Ogden, K (100%) RET Site: Sustainable Energy, Water, and Manufacturing. NSF# 0808096 $450,000 2008-2010.

Ogden, K (30%), Riley, M., Ray, D. Ottman, M. Arid Land Development of Sweet Sorghum as a Renewable Feedstock. USDA Sun Grant # 09W-T020, $200,000 2009-2011.

Ogden, K (40%), Riley, M, Molnar, I, Brown, J., Cuello, J., Waller, P., Blowers, P., Arnold, R., Fitzsimmons, K., NAABB- An Algal Biofuels Consortium $49M (UA $2.4M). DOE 2009-2012.

Ogden, K (40%), Arnold, R., Saez, E., Li, P. Riley, M. Bayraksan, G., Frankziskonis, G., Momayez, M. GK12 Water and Energy Systems: The Key to the Future of Arid and Semi-Arid Regions NSF# 0947836 2010-2015 $2.66M.

Ogden, K (40%), Riley, M., Ray, D. Slack, D. Assessment of Practices for Transportation of Sweet Sorghum. Western Regional Sun Grant. $200,000 8/11 – 7/13.

Ogden, K (70%), Brown, J., Karcia, M., Ryan, R., Waller, P. Regional Algal Feedstock Testbed 2013-2017. $8M. $2.8M UA portion. DE-EE 0006269.

Chief, K, Arnold, R., Ratcliff, E. Kacira, M. Colombi, B., Shirley, V., Simmons-Potter, K. Ogden, K. (12 %). NRT-INFEWS: Indigenous Food, Energy, and Water Security and Sovereignty $ 3M NSF 2017-2022.

Ogden, K. (100%) Raytheon Internship Program $70K- 150K annually 2010 – present.

Ogden, K (70%), Ray, D, Waller, P, Molnar, I, Maier, R, Rock, C, Teegerstorm, T., Guantilaka, L., Mccloskey, W., Lopez, G. Chavarria, S. Sustainable Bioeconomy for Arid Regions. NIFA USDA CAP Center. $15M. 2017 -2022.