Kiril D. Hristovski, Ph.D.

Associate Professor and Program Chair	
Environmental Resource Management (ERM)	Office: Peralta 330A
Director,	7171 E. Sonoran Arroyo Mall
ERM Professional Development Training Program	Mesa, AZ 85208
Co-Coordinator/Director,	Tel: +1 480 727 1291
Water Management Certificate Program	Email: Kiril.Hristovski@asu.edu
The Polytechnic School	
Ira A. Fulton Schools of Engineering	
Arizona State University – Polytechnic Campus	

ACADEMIC EMPLOYMENT

 Associate Professor and Program Chair Environmental and Resource Management Program, The Polytechnic School, Ira A. Fulton Schools of Engineering at Arizona State University (Environmental & Resource Management Programs); Director of Environmental and Resource Management Professional Development Program; 	July 2020 to Present (tenured)
co-Director for the Water Resources Management Certificate Program at ASU	
Associate Professor, The Polytechnic School, Ira A. Fulton Schools of Engineering at Arizona State University (Engineering and Environmental & Resource Management Programs)	July 2015 to Present (tenured)
Assistant Professor, The Polytechnic School, Ira A. Fulton Schools of Engineering at Arizona State University (From Aug 2009 to Oct 2012 part of the Environmental Technology Management Program in the Departments of Technology Management and then Applied Sciences and Mathematics; from Oct 2012 to June part Department of Engineering and Computing Systems at the College of Technology and Innovation)	Aug 2009 to July 2015 (tenure track)
Assistant Professor Research/Research Engineer, Arizona State University at the Tempe Campus; Ira A. Fulton Schools of Engineering; School of Sustainable Engineering and the Built Environment	Jan 2008 to Aug 2009 (non-tenure track)
Assistant Research Technologist, Arizona State University at the Polytechnic Campus; College of Technology and Innovation; Department of Technology Management	Apr 2006 to Jan 2008
Graduate Associate/Assistant , Arizona State University at the Polytechnic Campus; College of Technology and Innovation; Department of Technology Management	Aug 2001 to Apr 2006

AFFILIATIONS

Senior Global Futures Scientist, Arizona State University; Julie Ann	Dec 2009 to present	
Wrigley Global Futures Laboratory		
Environmental Engineering Graduate Faculty Member, Arizona State	Aug 2009 to present	
University at the Tempe Campus; Ira A. Fulton Schools of		
Engineering; School of Sustainable Engineering and the Built		
Environment.		
Global Resolve Faculty Member, Arizona State University,	2011 to 2019	
The Polytechnic School		
International Collaboration Liaison, Center for Excellence in Emergency	2014 to 2018	
Management and Homeland Security, College of Public Service and		
Community Solutions, Arizona State University.		
Honors Faculty Advisor, Environmental and Resource Management	2014 to present	
Program, Barrett Honors College, Arizona State University	_	
Affiliated Faculty, Center on the Future of War, Arizona State University	2015 to present	
Affiliated Faculty, School for the Future of Innovation in Society, Arizona		
State University	July 2015 to present	
Affiliated Faculty, AzCATI - Arizona Center for Algal Technology and	July 2017 to 2020	
Innovation, Arizona State University		
Graduate Faculty Member, School of Sustainability, Arizona State	Oct 2017 to present	
University		
Affiliated Faculty, Global Security Initiative, Arizona State University	Jan 2018 to present	
External Advisor to the President of the Republic of Macedonia, Dr.	June 2018 to May 2019	
Ivanov for Education, Science, and Environmental Protection		
Affiliated Faculty, Melikian Center for East European Studies, Arizona	August 2019 - present	
State University		
Executive Director Board Member, Agrobusiness and Water Council of	September 2021 -present	

EDUCATION

Arizona

- Ph.D. in Civil and Environmental Engineering awarded in December 2007 from Arizona State University. Dissertation Title "Applications of Nanotechnology in Environmental Engineering: Arsenic Removal." Advisor: P. Westerhoff
- MS in Technology awarded in December 2003 from Arizona State University. Thesis Title "Municipal Solid Waste Management in Macedonia: A Model of a Representative Municipality." Advisor: N. Hild
- **BS in Chemical Engineering** awarded December 1998 from University of "Sts. Cyril and Methody", Skopje, Republic of Macedonia. Undergraduate Thesis Title "*Reaction Index: Name Reactions in Organic Chemistry*." Advisor: Z. Zdravkovski.

HONORS and AWARDS

- 2021 Best Paper in ACS Environmental Science and Technology Engineering
- *Top 5% Teaching Award* for the Ira A. Fulton Schools of Engineering, 2020.
- Presidential Medal of Merit by the President of the Republic of Macedonia, 2016
- Person of the Year Award by the oldest Macedonian newspaper "Nova Makedonija", 2016
- 2015 Best Paper Award for the Journal of Environmental Quality, 2015
- *Faculty Excellence Award for Scholarly and Creative Activities*, College of Technology and Innovation, ASU, 2014.
- Fulbright Scholar, Fulbright Specialist Program, City of Panama, Panama, 2012
- *Outstanding Faculty Mentor Award*, College of Technology and Innovation, ASU, 2011-2012.
- Scholarship Award by the Association of Environmental Professionals of Arizona in 2006.
- Departmental Outstanding Graduate Student Award in 2003.
- Presidential Academic Award presented by the United States President, Mr. Bush, Sr., 1991.

Note: A second Fulbright Award in Montenegro for 2020 was awarded, but could not be completed

Industrial Experience

- Technical Manager at Environmental Engineering and Consulting Company EKOM Engineering, Skopje, Macedonia, from May 2000 to Aug 2001.
- Assistant to the Director at SAVAK Ltd., Skopje, Macedonia from Dec 1999 to May 2000.
- Junior Chemical/Plastics Engineer at MAKTRADE GmbH, Skopje, Macedonia, representative office of Bäerlocher GmbH from Feb 1999 to Aug 1999.

I. PUBLICATIONS, INTELLECTUAL PROPERTY, AND PRESENTATIONS

Google Scholar^{*} H-Index: 45; i10-Index: 82. Number of Citations^{*}: ~ 11,200

Scopus*: H-Index: 37 Number of Citations *: ~ 8120 *As of 10/11/2023

PUBLICATIONS AND INTELLECTUAL PROPERTY

<u>Legend</u>

- ➤ (*) Corresponding Author
- **Bold Font:** ASU Ph.D. Student for whom Dr. Hristovski is the primary advisor
- Bold Italic Font: ASU Ph.D. Student for whom Dr. Hristovski is a co-advisor or has significant mentoring responsibility.
 - o Bold Italic Font Black Color for co-advisor;
 - Bold Italic Font Gray Color for significant mentoring contribution demonstrated through joint publications and service as a PhD committee member
- Underline Font: ASU Master's Student for whom Dr. Hristovski is the primary advisor or a co-advisor
- ▶ (#) ASU Undergraduate Student for whom Dr. Hristovski is the mentor
- \succ (∞) Other/Visiting Undergraduate Student for whom Dr. Hristovski is the mentor
- ➤ (x) ASU Postdoctoral Researcher for whom Dr. Hristovski is the mentor.
- ➤ (+) Equal Contributions
- \blacktriangleright (~) Presenting author

Abstracts, Books, Book Chapters, and Thematic Journal Issues Editor

Abstracts published in conference proceedings

Abstracts published in conference proceedings (not invited): 77

- 77. Hristovski, K.D.*; Burge, S.R.~; Burge, R.G., Boscovic, D.; Taylor, E.D., Pejov, L. Real-time monitoring of aquatic pollution and carbon sequestration using microbial potentiometric sensors. American Chemical Society National Meeting Fall 2023, San Francisco, Ca, August 13-17, 2023.
- 76. Markovski, J._×; Saboe, D., Hristovski, K.*.~ Impacts of local climate change on water resources and human health in developing countries: The Republic of Serbia, American Chemical Society Spring 2022 Meeting and Conference, San Diego, CA, March 23, 2022
- Lanzarini-Lopes, N.~, Garcia-Segura, S., Hristovski, K., Westerhoff, P. Nano-enabling optical fibers increases light scattering in photo-assisted water treatment. 256 American Chemical Society National Meeting, Boston, MA, August, 19-22, 2018
- 74. Markovski, J.*, Veljovic, Dj., Hristovski, K.D.~ *Nano-enabled hydroxyapatite based media for removal of fluoride from water*, 256 American Chemical Society National Meeting, Boston, MA, August, 19-22, 2018
- von Reitzenstein Hoogesteijn, N. *, Apul, O., Hristovski, K., Westerhoff, P. *Electrospun polymeric nanocomposite fibers for water purification*, 255 American Chemical Society National Meeting, New Orleans, LA, March, 18-22, 2018
- 72. **Brown, F.C,** Bi, Y., Chopra, S. S., Schoepf, J., Hristovski, K.D. *., Westerhoff, P., Theis, T.L. *End-of-life heavy metal release from photovoltaic and quantum dot enabled panels*. Sixth Sustainable Nanotechnology Organization (SNO) conference, Los Angeles, CA, November 2-4, 2017
- Chopra, S. S. *.~, Bi, Y., Schoepf, J., Brown, F., Hristovski, K., Westerhoff, P., Theis, T.L. Life Cycle Assessment of competing Quantum Dots-enabled Products to Inform Sustainable design of Emerging Consumer Electronics. Sixth Sustainable Nanotechnology Organization (SNO) conference, Los Angeles, CA, November 2-4, 2017
- 70. Markovski, J.*, <u>Custudio, T.</u>, Hristovski, K.*, *Improving arsenic sorption capacity by doping metal* (hydr)oxide nano-enabled hybrid media with more electronegative transition metal, 254 American Chemical Society National Meeting, Washington DC, August, 22, 2017
- 69.. Bi., Y.*., Chopra, S., Shoepf, J., **Brown, F.,** Hristovski, K.D., Theis, T.L., Westerhoff, P.K., *Release of QDs from consumer electronics for sustainability evaluation of competing QD-enabled displays*, 254 American Chemical Society National Meeting, Washington DC, August, 22, 2017
- Markovski, J.*, Markovski, M.[∞], Hristovski, K.*,[~], Olson, L. *Impacts of infrastructure deficiencies on potable water quality in the Republic of Serbia*, 254 American Chemical Society National Meeting, Washington DC, August, 22, 2017
- Hadji-Janev, M.^{+,-}, Hristovski, K.⁺ Beyond The Fog: Autonomous Weapon Systems in context of The International Law of Armed Conflicts, 5th Annual Conference on Governance of Emerging Technologies: Law, Policy and Ethics, Phoenix, May 20, 2016
- 66. Mulchandani, A.*, Westerhoff, P., Herckes, P., Hristovski, K. *Recovery Opportunities for Metals and Energy from Sewage Sludges*, 2016 American Water Works Association Annual Conference, Chicago, IL, June, 2016
- Westerhoff, P. *., Stancl, H., Hristovski, K. Use of LED, Fiber Optics and TiO2 to Photochemically Oxidize and Reduce Pollutants in Water. 2016 IWA Nano & Water Specialist Conference, Houston TX, May 16-18, 2016
- 64. Markovski, J.*, Hristovski, K.D.*, *Westerhoff, P.K. Simultaneous removal of fluoride and nitrate by ion exchange media impregnated with alumina nanoparticles.* 252 American Chemical Society National Meeting, Philadelphia, August 21-25, 2016

- Stancl, H.*~, Ling., L., Kim., J., Westerhoff., P.K., Hristovski, K.D., Fiber Optics as a Fixed-Film Substrate for Photocatalysis via UV-LED Irradiation. 252 American Chemical Society National Meeting, Philadelphia, August 21-25, 2016
- 62. *Stancl, H.*, Hristovski, K *~., Westerhoff, P. *Emerging Technology for Small Systems Drinking Water Treatment: Nitrate Removal*, 89th AZ Water Conference, Glendale, AZ, May 11, 2016
- 61. Schoepf, J.^{-,*}, Herckes P., Hristovski, K., Westerhoff, P. *Rapid Exposure Assessment of Nanomaterials in Foods Using Laser Induced Breakdown Spectroscopy*, Sustainable Nanotechnology Organization, Portland, OR, November 8-10, 2015
- Mulchandani, A.^{¬,*}, Westerhoff, P., Herckes P., Hristovski, K., *Characterization, Valuation, and Recovery Opportunities of Metals in Municipal Sludges from U.S. Wastewater Treatment Plants.* Fourth Annual Conference, Sustainable Nanotechnology Organization, Portland, OR, November 8-10, 2015.
- 59. Fischer, N.^{**}, Westerhoff, P., Nowack, K., Hristovski K. In situ regeneration of granular activated carbon saturated with natural organic matter and micropollutants. Water Quality Technology Conference, November 18, 2015, Salt Lake City, UT
- 58. Burge, S.R. *~, Hristovski, K. D., Burge, R.G. *Groundwater monitoring system for microbial activity*, 250 American Chemical Society National Meeting, Boston, August 17, 2015
- 57. *Stancl, H.* *, Hristovski, K., Westerhoff, P. *Nano-Coated Fiber Optics for Photocatalytic Drinking Water Treatment*. Poster session presented at: ACE 2015. 2015 AWWA Annual Conference and Exhibition; 2015 Jun 9; Anaheim, CA
- 56. Gifford, M.*~, Westerhoff, P., Chester, M., Hristovski, K. Sustainability Impacts for Treatment Technology Selection: Using Life Cycle Assessment to Compare Hybrid Sorbents. 2015 AZ Water Conference. Proceedings of the 88th Annual AZ Water Conference; 2015 May 7; Glendale, AZ
- Stancl, H.*~, Hristovski, K., Westerhoff. P. Nano-Coated Fiber Optics for Photocatalytic Drinking Water Treatment. (Poster) 2015 AZ Water Conference. Proceedings of the 88th Annual AZ Water Conference; 2015 May 6; Glendale, AZ.
- Stancl, H. *~, Doudrick, K., Hristovski, K., Westerhoff. P. Light-Enabled Nitrate Removal to Nitrogen Gases. 2015 AZ Water Conference. Proceedings of the 88th Annual AZ Water Conference; 2015 May 5; Glendale, AZ
- 53. <u>Dale, S.</u>, Hristovski K*~. Evidence of facilitated surface diffusion of arsenate in nano-metal (hydr)oxide hybrid ion exchange media, 250 American Chemical Society National Meeting, Boston, August 17, 2015.
- Reed, R., Marco, M.[#], Zaikova, T., Hutchison, J., Ranville, J., Tanguay, T., Westerhoff, P., Hristovski K*~. *Evaluation of silver nanoparticle impregnated textiles across their life cycle*, 250 American Chemical Society National Meeting, Boston, August 20, 2015
- Stancl, H.~, Doudrick, K.*, <u>Robinson, J.</u>, Westerhoff, P., Hristovski K. Nano-Coated Fiber Optics for Photocatalytic Drinking Water Treatment, 250 American Chemical Society National Meeting, Boston, August 17, 2015
- Taleb, K., Markovski, J.*, Hristovski K.D.*~, Rajaković-Ognjanović, V.N., Aleksandar Marinković, A. Goethite nanoparticles impregnated cross-linked macroporous polymer for arsenic removal: fullscale system modeling, 250 American Chemical Society National Meeting, Boston, August 17, 2015
- 49. *Stancl, H.* *~, Westerhoff, P., Hristovski, K., *Light Mediated Processes for Drinking Water Contaminant Reduction Employing Nano-Catalysts*, Sustainable Nanotechnology Organization (SNO) conference, Boston, November 2-4, 2014
- 48. Reed, R.*., Simonich, M., Tanguay, R., Zaikova, T., Hutchison, J., Herckes, P., Hristovski, K., Westerhoff, P., *Evaluation of silver nanoparticle impregnated fabrics across their life cycle*, Sustainable Nanotechnology Organization (SNO) conference, Boston, November 2-4, 2014.

- Schoepf, J.*~, Reed, R., Yang, Y., Herckes, P., Hristovski, K., Westerhoff, P. Nano-prospecting in an Effluent Dominated Stream, Sustainable Nanotechnology Organization (SNO) conference, Boston, November 2-4, 2014
- Stancl, H. *~, Doudrick, K., Hristovski, K., Westerhoff. P. Scaling Up and Managing Removal Selectivities for Drinking Water Contaminants. 2014 AZ Water Conference. Proceedings of the 87th Annual AZ Water Conference; 2014 May 9; Glendale, AZ
- 45. Stancl, H. *~, Doudrick, K. Hristovski, K, Westerhoff. P. Photocatalytic Reduction: A Promising Technology for Removal of Drinking Water Contaminants (Poster). 2014 AZ Water Conference. Proceedings of the 87th Annual AZ Water Conference; 2014 May 7; Glendale, AZ
- 44. Westerhoff, P.*, Bi, X., Herckes, P., Ranville, J., Montano, M., Hristovski, K., Yang, Y. *Significance and Characterization of Chemical-Mechanical Planarization (CMP) Nanoparticles*, Sustainable Nanotechnology Organization (SNO) conference, Boston, November 2-4, 2014
- 43. Westerhoff, P. *~, Yang, Y., Nosaka, T., Doudrick, K., Yu, X., Herckes, P., Hristovski, K., *Interaction of carbon nanotubes and graphene nanoplatelets with wastewater biomass*, 248 American Chemical Society National Meeting, San Francisco, August 11, 2014
- 42. Hristovski K^{*}, Overcoming the water treatment challenges in small, rural, and impoverished communities in developing countries: realities and needs, 248 American Chemical Society National Meeting, San Francisco, August 11, 2014.
- Yang, Y.*, Hristovski, K., Westerhoff, P., Prospecting Nanomaterials in Water Environment by Cloud Point Extraction Coupled with TEM, 248 American Chemical Society National Meeting, San Francisco, August 13, 2014
- 40. *Stancl, H.* ~*, Doudrick, K., Hristovski, K., Westerhoff, P. *Scaling Up and Managing Removal Selectivities for Drinking Water Contaminants*. (Poster) 2013 SNO Conference. Proceedings of the 2013 Sustainable Nanotechnology Conference; 2013 Nov 3-5; Santa Barbara, CA
- 39. *Stancl, H.*^{*,~}, Bi, X. Doudrick, K., Hristovski, K., Westerhoff, P. *Cr(VI) Removal Using Photocatalytic Reactor*. 2013 World Congress IOA/IUVA Sep 22-26; Las Vegas, NV
- Stancl, H. *~, X. Bi, Doudrick, K., Hristovski, K., Westerhoff, P. Cr(VI) treatment using pilot-scale UV photcatalytic reactor with nTiO₂. 246 American Chemical Society National Meeting, Indianapolis, September 8, 2013.
- 37. Romaine, T., Hristovski, K. *,~, *Environmental Occurrence of Nonylphenols*, 246 American Chemical Society National Meeting, Indianapolis, September 10, 2013
- 36. Rodgers, B. *, Henderson, M., Hristovski, K., Takamura, J., Ruddell, B., Chetri, N. *A Systematic Methodology for the Development of Enterprise at the Base of the Economic Pyramid*, 2nd Annual ASEE International Forum, Atlanta, GA, June 22. 2013
- 35. Hristovski, K. *. *Towards Regulating Engineered Nanomaterials: A Framework as a Tool for Overcoming the Existing Limitations*, 1st Annual Conference on Governance of Emerging Technologies: Law, Policy and Ethics, Chandler AZ, May 20-21, 2013
- Doudrick K. *, Yang, T., Geiger, N.[#], Hristovski, K., Westerhoff, P. *Photocatalytic reduction of Nitrate*, 1st Conference of the Sustainable Nanotechnology Organization, Arlington, Virginia, November 5, 2012
- 33. Hristovski, K. *,~, Warner A.#, Teague, D.#, Ruddell, B., Stinson, M., McKenna, A., *Integrating water reuse systems in a self-sustaining outpost*, 244 American Chemical Society National Meeting, Philadelphia, August, 2012.
- 32. Hristovski, K. *, Wang, Y., <u>Buck, N.</u>, Westerhoff, P., McLane, J. *Environmental releases of engineered nanomaterial resulting from biosolids disposal to land and air*, 244 American Chemical Society National Meeting, Philadelphia, August, 2012

- Doudrick, K.^{~,*}, Yang, T., Hristovski, K., Westerhoff, P. "Photocatalysis: A new treatment option for nitrate." 16th International Conference on TiO₂: Fundamental and Applications, San Diego, CA, November 7th-10th, 2011.
- Hristovski, K.*, <u>Bridgers, K.</u>, Edwards, D. Surfactant modified granulated activated carbon for arsenic removal. 242 American Chemical Society National Meeting, Denver, Co, August 28 – September 1, 2011
- Hristovski, K., *~ <u>Elton, J.</u>, Westerhoff, P. Titanium dioxide based hybrid ion-exchange media for simultaneous removal of arsenic and nitrate. 242 American Chemical Society National Meeting, Denver, Co, August 28 – September 1, 2011.
- 28. Sylvester, P. Hristovski, K. *~, Bozon, J., *Multiple contaminant removal using Fe-GAC*. 242 American Chemical Society National Meeting, Denver, Co, August 28 September 1, 2011
- 27. Barry, M.C.[~], Westerhoff, P.*, Hristovski, K. *Development of a Catalytic Ozonation Fixed Bed Reactor* for Advanced Treatment of Wastewater Using Titanium Dioxide. AZWater Conference, 2011, Glendale, Arizona.
- 26. Barry, M.C., Westerhoff, P. ~*, Hristovski, K. Development of a Catalytic Ozonation Fixed Bed Reactor for Advanced Treatment of wastewater using Titanium Dioxide. American Water Works Association 2010 Annual Water Conference, Washington D.C., June 12-16, 2011
- 25. Doudrick, K., Hristovski, K., Westerhoff, P. *~ *Reduction of nitrate in groundwater utilizing commercial titanium dioxide photocatalysts*, 1st World Congress, International Ozone Association/International UV Association, May 23-27, 2011, Paris, France
- 24. Barry, M., Hristovski, K., Westerhoff, P. ^{**} Catalytic Ozonation of para-Chlorobenzoic acid (pCBA) in Municipal Wastewater Effluent using Nano-structured Titanium Dioxide in a Packed Bed Configuration, 1st World Congress, International Ozone Association/International UV Association, May 23-27, 2011 Paris, France
- <u>Sandoval, R.[~], Bridgers, K., Jain, A., Cooper A.M.</u>, Aymar, K.[#], Sanner, J.[#], Hristovski, K.*, Edwards, D., Westerhoff, P. Evaluation of inexpensive sorption technologies for arsenic removal from groundwater in the Arizona-Mexico border region. SCERP Annual Technical Conference, Tempe, AZ, January 24, 2011
- Doudrick, K.^{**}, Monzón, O., Mangonon, A.[#], K. Hristovski, P. Westerhoff. Selective Reduction of Nitrate to Dinitrogen in Groundwater Utilizing Commercial Titanium Dioxide Photocatalysts. The 15th International Conference on TiO₂ Photocatalysis: Fundamentals and Applications. San Diego, CA, November 15-18, 2010
- 21. <u>Bliss, M. ~,*</u>, Hristovski, K. *The status of CFATS compliance in Health Care*. Meeting of the Arizona Chapter of the American Society of Safety Engineers, Phoenix, October 12, 2010
- 20. Wang, Y.~, Westerhoff, P.*, Hristovski, K.D., Rittmann, B. Removal and effect of silver and titanium dioxide nanoparticles in heterotrophic bacteria enriched wastewater treatment reactors. WEFTEC 2010, New Orleans, Louisiana, October 2010
- Kiser, M.A. ~*, Westerhoff, P., Benn, T., Wang, Y., Ryu, H., Hristovski, K. Potential Removal and Release of Nanomaterials in Wastewater Treatment Plants." WEFTEC 2010, New Orleans, Louisiana, October 2010.
- Hristovski, K. *~, Mousset, E., Luege, H.[#], Westerhoff, K., Posner, J. Sorption of engineered nanomaterials to soils. 240th National Meeting of the American Chemical Society, Boston, MA, Aug, 2010.
- Hristovski K.*, <u>Cooper, A.M., Jain, A.</u>, Aymar, K.[#], <u>Sandoval, R.</u>, Westerhoff, P. Removal of arsenate and co-contaminants from adsorbents impregnated with metal oxide nanoparticles. American Water Works Association 2010 Annual Water Conference, Chicago, June 22-24, 2010

- Westerhoff, P. *~, *Tibaquira, J.*, Hristovski, K., Posner, J., *Use of Fuel Cells and Combustion Sources for Potable Water*. International Water Association Leading Edge Technologies Conference, Phoenix, AZ, June 2-4, 2010
- 15. Westerhoff, P. .-*, *Tibaquirá, J.E.*, Hristovski, K.D., Posner, J.D. *A New Water Source: Fuel Cells for Potable Water? Reclaiming Water from Energy Generation Technologies*, AWWA Sustainable Water Management Conference, April 11-13, Albuquerque, NM (2010)
- 14. He, C^{-,*}., Gross, M., Russell, J., Alexander, K., Reisinger, B., Westerhoff, P., Hristovski, K., Song, G., Wang, J., Ryu, H., Alum, A., Abbaszadegan, M., Nandan, R., Goddard, M., Kinshella, P., Lozier, J. *Characterization of Fouling on Post Intermediate Concentrate Stabilization Secondary RO Membrane*, 24th Annual WateReuse Symposium, Seattle, WA, September 13-16, 2009
- 13. Möller, T.^{*,~}, Hristovski, K., Sylvester, P., *The use of iron oxide modified granular activated carbon for arsenic removal.* 238th ACS National Meeting, Washington, DC, August 16-20, 2009
- 12. *Tibaquira, J.* *... Hristovski, K., Posner, J., Westerhoff, P. *Generating potable water from fuel cell technology*, Presented by Tibaquira, J. at the Second Forum on Energy & Water Sustainability, University of California at Santa Barbara, April 10, 2009.
- Westerhoff, P. ^{**}, Kiser, A., Hristovski, K., Benn, T., Wang, Y. Detection of titanium dioxide in wastewater treatment plants, Presented by Westerhoff, P. at the 237th ACS National meeting, Salt Lake City, Utah, March 22 – 26, 2009
- Hristovski, K., Westerhoff, P., Posner J. *,~, Partitioning of nanoparticles in octanol and water, Presented by Posner, J. at the 237th ACS National meeting, Salt Lake City, Utah, March 22 – 26, 2009
- 9. Westerhoff, P. *~, Hristovski, K., Benn, T., Herkes, P., *Detection of Nanomaterials in Water*, AWWA Research Symposium: Emerging Organic Contaminants, Austin, TX, February 12-13, 2009
- Benn, T. ~, Westerhoff, P.*, Kiser, A., Wang, Y., Hristovski, K., *Detection of nanoscale titanium dioxide in wastewater treatment systems*, 42nd American Chemical Society Western Regional Meeting, Las Vegas Nevada, September 26, 2008
- 7. Sylvester, P. *, Möller, T.~, Hristovski, K., Westerhoff, P., *Evaluation of iron oxide impregnated granular activated carbon (Fe-GAC) for the treatment of arsenic-bearing drinking water*, the Water Quality and Regulatory Conference, Ontario California, October 15 to 17, 2008
- 6. Westerhoff, P. *~, Dhanasekaran, B., *Tibaquira, J.,* Hristovski, K., Posner, J. *A New water source: Can fuel cells provide safe potable water?* American Water Works Association Water Quality Technology Conference, Cincinnati, Ohio, November 16-20, 2008
- Koeneman B.A.[~], Zhang,Y., Hristovski, K., Westerhoff, P., Chen, Y., Crittenden, J., Capco D.G.^{*}. Cytotoxicity of nanoparticles on human intestinal cells, Mol. Biol. Cell 18(suppl), 85(Sunday), The American Society for Cell Biology 47th Annual Meeting, Washington D.C., December 2, 2007
- Koeneman, B.A. ~, Zhang, Y., Hristovski, K., Westerhoff, P. Chen, Y., Crittenden, J.C., Capco, D.* *Effects from the exposure of nanoparticles on human intestinal cells*, Mol. Biol. Cell 17 (suppl), L067(Wednesday). The American Society for Cell Biology 46th Annual Meeting, San Diego, CA, December 13, 2006
- 3. Westerhoff, P.^{¬,*}, Hristovski, K., Benn, T., Shafiean, P., *Removal of Co-Occuring Anions (U, Sb, W, V, P, Si, ClO₄) During Arsenic Treatment*, Proceedings to WQTC Conference, American Water Works Association, November 2006
- Westerhoff, P. *~, Hristovski, K., Baumgardner, A., Badruzzaman, M., and Shroeder, J., Using Nanoscale Materials in Water treatment: Nanomaterials for Arsenic Removal, Proceedings to 124th AWWA Annual Conference and Exposition, Moscone Center, San Francisco, CA, June 12–16, 2005
- Westerhoff, P. *~, Hristovski, K., Adsorption of arsenic onto metal oxide and hydroxide nanoparticles, Proceedings to 229th American Chemical Society National Meeting, San Diego, CA, March 13-17, 2005

Abstracts published in conference proceedings (Invited): 7

- Kiril D. Hristovski, *, Scott R. Burge, Russell G. Burge, Dragan Boscovic, Evan Teylor, Ljupco Pejov, Olcay Unver, "Real-time monitoring of environmental pollution and carbon sequestration using microbial potentiometric sensors"11th "Global Conference on Global Warming (GCGW – 2023), İstanbul, Turkey, June 15, 2023
- 6. Hristovski, K. * *Scientific Challenges of Nanotechnology Risk Assessment*, Governance of Emerging Technologies & Science, Biltmore Resort Phoenix, March 21, 2011.
- Westerhoff, P. *~, Chen., Y., Rittman, B., Hristovski, K., Kiser, A., Wang, Y., Zhang, Y., Sources of nanomaterials into sewage and their removal during wastewater treatment, Invited keynote talk presented by Westerhoff, P., SETAC Europe 18th Annual Meeting, Warsaw, Poland, May 27, 2008.
- 4. Hristovski, K., Baumgardner, A., Zhang, Y., Chen., Y., Westerhoff, P., and Crittenden J. *.~, Application of Nanotechnology for Adsorption Processes, 4th IWA Leading-Edge Conference on Water and Wastewater Technologies, June 3-6, 2007, Singapore. (INVITED)
- Zhang, Y., Koeneman, B., Hristovski, K., Westerhoff, P., Chen, Y., Capco, D., Gerrity, D., Ryu, H., Abbaszadegan, M, and Crittenden, J.*,~, Nanoparticles in Water Environment: Characterization, Removal, Environmental Applications, Bio-Accumulation, and Cytotoxicity, Invited talk, presented by Crittenden, J., Proceedings to Environmental Sciences: Water, Gordon Conference, June 25-30, 2006, Plymouth, NH.
- Hristovski, K. ~, Zhang, Y., Koeneman, B., Chen, Y., Westerhoff, P., Capco., D and Crittenden, J., Nanomaterials in water environments: Potential applications, treatments, fate and potential biological consequences, Invited keynote talk presented by K. Hristovski, 230th American Chemical Society Environmental Nanotechnology Meeting, Washington, DC, Aug 28-Sept 1, 2005.
- Hristovski, K., Zhang, Y., Koeneman, B., Chen, Y., Westerhoff, P., Capco., D and Crittenden, J. *-, *Potential Roles on Nanotechnology in Sustainability*, Invited talk presented by Crittenden, J., Proceedings to NSF Summer Institute on Nano Mechanics and Materials, June 20-23, 2005, Northwestern University.

Abstracts in conference proceedings – not delivered (Invited): 2

- Markovski, J.^{-, ×}, <u>Custudio, T</u>., Hristovski, K.*, Increasing thermodynamic potential for arsenic adsorption by doping metal (hydr)oxide nano-enabled hybrid media with more electronegative transition metal, XXVI International Materials Research Congress, Cancun, Mexico, August, 23, 2017 (INVITED Abstract Prepared - Canceled due to time conflict)
- 1. Hristovski, K*. *Advances in Life Cycle of Nanomaterials: Impact of LCNano Research Network*, 46th World Chemistry Congress of the International Union of Pure and Applied Chemistry (IUPAC-2017), São Paulo, July 9-14, 2017. (INVITED Abstract Prepared Canceled due to time conflict)

Books Co-Edited (Total: 2)

- 1. Ahuja, S. Dionysiou, D., Hristovski, K. Loganathan, B., et al (Editors). *Water Challenges and Solutions on a Global Scale*, American Chemical Society Series, Washington DC, USA: 2015
- 2. Ahuja, S. and Hristovski, K. (Editors). *Novel Solutions to Water Pollution*, American Chemical Society Series, Washington DC, USA: 2014

Book Chapters Published

Non-Invited Book Chapters Published: 1

1. Gallion, T.[#], Harrison, T.[#], Hulverson, R.[#], Hristovski, K.* (2014) *Estimating water, energy, and carbon footprints of residential swimming pools*, in "Water Reclamation and Sustainability," Ahuja S. (Ed.). Elsevier, Netherlands, p. 343-359.

Invited Book Chapters Published: 3

- Hristovski, K. *, Leslie, G., Henderson, M., Mirumachi, N., <u>Markovski, J.</u>, Rosl, S.; Chadwick, M. (2019) Addressing the Arsenic Issue in the Lower Mekong Region the Challenges and the Systemic Approaches in Advances in Water Purification Techniques: Meeting the needs of developed and developing countries, Ahuja S. (Ed.), Elsevier, Netherlands, p. 259-270.
- Markovski, J.[×], Hristovski, K.D.*, Olson, L. (2017) Comparative analysis of existing water resources data in the Western Balkan States of Bosnia and Herzegovina, Macedonia, Montenegro and Serbia, in Chemistry and Water: The Science Behind Sustaining the World's Most Crucial Resource, Ahuja S. (Ed.), Elsevier, Netherlands, p. 301-327.
- 3. <u>Bridgers, K.</u>, Hristovski, K.* (2013) Chapter 11: Factors Affecting Surfactant-Modification of Solid Media for Removal of Oxo-ions, Green Materials for Sustainable Water Remediation and Treatment, Royal Society of Chemistry, London, UK, p. 229-241.

Co-Editor for Thematic Journal Issues

- 1. Cledon, M., Hristovski, K. Special issue of Science of the Total Environment Journal: *Environmental Applications and implications of Nano-Enabled Technologies*. 2017.
- 2. Cledon, M., Hristovski, K. Special issue of Science of the Total Environment Journal: *Nanomaterials and environment: trends and perspectives*. 2016.
- 3. Hristovski, K., Goldfarb, J., Meyer, B., Cledon, M. Special issue of Resource Efficient Technologies Journal: *Nano-Enabled Technologies for Environmental Applications*. 2016

Referred (including Invited Refereed) Conference Papers

Invited Conference Papers (Refereed): 4

- 1. Hristovski, K.* (2015). The Overcoming the water treatment challenges and barriers in small, rural, and impoverished communities in developing countries, *Water Challenges and Solutions on a Global Scale, American Chemical Society Series 1206*, 245-256 (INVITED).
- Mitev, T., <u>Custodio, T.</u>, Hristovski, K.*, Ulrich, J. (2015) The Effects of Climate Change on Water Resources of Small Developing Countries - A Case Study of the Republic of Macedonia, Water Challenges and Solutions on a Global Scale, American Chemical Society Series1206, 37-52. (INVITED)
- <u>Elton J.</u>, Hristovski K*, Westerhoff, P. (2012) Titanium Dioxide base hybrid ion-exchange media for simultaneous removal of arsenic and nitrate, *American Chemical Society Series 1123*, 223-236. (INVITED)
- Jain, A., Sanner, J.[#], Sandoval, R., Hristovski K* (2012) Hematite Nanoparticle Modified Granular Activated Carbon for Removal of Arsenic and Organic Co-Contaminants, American Chemical Society Series 1123, 206-222. (INVITED)

Refereed Conference Papers: 2*

- 1. Markovski, J.S.*, Hristovski, K.D., Rajaković-Ognjanović, V.N., Marinković, A.D. (2015). Building a Sustainable Water Management System in the Republic of Serbia: Challenges and Issues, *Water Challenges and Solutions on a Global Scale, American Chemical Society Series*. 1206, 257-283.
- 2. Rodgers, B.⁺, Hristovski, K.⁺, Chetri, N.⁺, Henderson, M., Takamura, J., Ruddell, B., (2013). A Systematic Methodology for the Development of Enterprise at the Base of the Economic Pyramid, *ASEE International Forum*, Paper #8627. (*Contribution: assisted in development of the methodology and co-wrote the manuscript with the first and third authors*).

*Note: These are in addition to the 4 Invited Conference Papers (Refereed), totaling 6 Refereed Conference papers

Technical Reports or other Papers

Technical Reports: 2

- 1. Hristovski, K. (2012). Observed Environmental/Sanitary Infrastructure Deficiencies and Irregularities in the Municipality of Panama City, *Fulbright Report prepared for the City Architect's Office of the Municipality of Panama City*.
- 2. Hristovski, K. (2012). Development of System Oriented Civil Infrastructure Planning and Management Platform in the Municipality of Panama City. *Strategic Action Plan Prepared for Municipality of Panama City*.

Other Papers/Books: 2

- 1. Westerhoff, P. Hristovski, K. (2014). *Fate of Engineered Nanomaterials in Wastewater Biosolids, Land Application, and Incineration,* Water Environment Research Foundation, Denver, CO, USA.
- 2. Westerhoff, P., Posner, J., Hristovski, K., Tibaquirá, J. E. (2011). *Water Recovery from Hydrogen Fuel Cells and Other Energy Production Systems*. Water Research Foundation, Denver, CO, USA.

Journal Publications

Scimago Journal Ranking Indicator: Q1 = Journal in the top 25%; Q4 = Journal in bottom 25%

Journal Publications

- 101. Burge, S.R; Hristovski, K.D.*; Burge, R.G.; Pejov, L, Boscovic, D.; Taylor, E., Hoffman, D., (2023) Exploiting the electrical nature of biofilms for long-term monitoring of quiescent aquatic environments via open-circuit microbial potentiometric sensors: Evidence of long-distance electrical signaling, *Nano Life*, 13(4), 2350014. <u>https://doi.org/10.1142/S1793984423500149</u>
- Farsad, A₁₂ Niimi, K., Ersan, M.S., Gonzalez-Rodriguez, JR., Hristovski, K.D., Westerhoff, P*, (2023) Mechanistic Study of Arsenate Adsorption onto Different Amorphous Grades of Titanium (Hydr)Oxides Impregnated into Point-of-Use Activated Carbon Block, *ES&T Engineering*, 3(7), 989– 1000. <u>https://doi.org/10.1021/acsestengg.3c00012</u> (Q1)
- 99. Hristiovski, K.D*., (2023) Conducting and Presenting Research: A Reviewer's Perspective, *Science of the Total Environment*, 879, 163152; <u>http://dx.doi.org/10.1016/j.scitotenv.2023.163152</u> (Although published as Letter to the Editor, the paper was peer-reviewed) (Q1)

- 98. Hristovski, K.D.*.; Burge, S.R.; Boscovic, D.; Burge, R.G.; Babanovska-Milenkovska, F., (2022) Realtime monitoring of kefir-facilitated milk fermentation using microbial potentiometric sensors, *Journal* of Environmental Chemical Engineering 10 (3), 107491. <u>https://doi.org/10.1016/j.jece.2022.107491</u> (Q1)
- 97. Hoogesteijn von Reitzenstein, N., Sonmez Baghirzade, B., Pruitt, E., Hristovski, K. Westerhoff, P. Opul., A.* (2022) Comparing the Morphologies and Adsorption Behavior of Electrospun Polystyrene Composite Fibers with 0D Fullerenes, 1D Multiwalled Carbon Nanotubes and 2D Graphene Oxide, *Chemical Engineering Journal Advances*, 9, 100199. <u>https://doi.org/10.1016/j.ceja.2021.100199</u>
- 96. Marcos-Hernández, M.; Arrieta, R.; Ventura, K.; Powell, C.; Atkinson, A.; Markovski, J^x; Hernandez-Viezcas, J.; Wong, M.; Hristovski, K.; Westerhoff, P.; Gardea-Torresdey, J.; Villagrán, D.* (2021) Superparamagnetic Nanoadsorbents for the Removal of Trace As(III) in Drinking Water, *Environmental Advances*, 4, 100046. https://doi.org/10.1016/j.envady.2021.100046
- 95. Luo, J., Yu, D., Hristovski, K.D., Fu, K., Shen, Y., Westerhoff, P., Crittenden, J.C.,* (2021).Critical Review of Advances in Engineering Nanomaterial Adsorbents for Metal Removal and Recovery from Water: Mechanism Identification and Engineering Design, *Environmental Science and Technology 55* (8), 4287-4304. <u>https://dx.doi.org/10.1021/acs.est.0c07936</u> (Q1)
- 94. Luo, J., Fu, K., Yu, D., Hristovski, K.D., Westerhoff, P., Crittenden, J.C.,* (2021) A Review of Advances in Engineering Nanomaterial Adsorbents for Metal Removal and Recovery from Water: Synthesis and Microstructure Impacts, *ES&T Engineering 1* (4), 623-661. <u>https://dx.doi.org/10.1021/acsestengg.0c00174 (Q1)</u>
- 93. Saboe, D., Hristovski, K.D.*, Burge, S.R., Burge, R.G., Taylor, E., Hoffman, D.A. (2021) Measurement of free chlorine levels in water using potentiometric responses of biofilms and applications for monitoring and managing the quality of potable water, *Science of the Total Environment 466*, 144424. <u>https://doi.org/10.1016/j.scitotenv.2020.144424</u> (Q1)
- Saboe, D., Ghasemi, H., <u>Gao, M.</u>, Samardzic, M., Hristovski, K.D.*, Boscovic, D., Burge, S.R., Burge, R.G., Hoffman, D.A. (2021). Real-Time Monitoring and Prediction of Water Quality Parameters and Algae Concentrations using Microbial Potentiometric Sensor Signals and Machine Learning Tools, *Science of the Total Environment*, 764, 142876. <u>https://doi.org/10.1016/j.scitotenv.2020.142876</u> (Q1)
- Burge, S.R., Hristovski, K.D.*, Burge R. G., Saboe, D., Hoffman, D.A., Koenigsberg, S. S. (2021) Microbial Potentiometric Sensor Array Measurements in Unsaturated Soils, *Science of the Total Environment*, 751, 142342. <u>https://doi.org/10.1016/j.scitotenv.2020.142342</u> (Q1)
- 90. Brown, F.C., Burge, S. R., Hristovski, K.D.*, Burge, R. G., Taylor, E., Hoffman, D. A. (2020) Microbial potentiometric sensor technology for real-time detecting and monitoring of toxic metals in aquatic matrices, *Macedonian Journal of Chemistry and Chemical Engineering 39*(2), 119-127. https://doi:10.20450/mjcce.2020.2088 (Q3-Q4)
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- 87. Lanzarini-Lopes, M., Garcia-Segura, S., Hristovski, K., Messerly, M., Simon, A.J., Westerhoff, P. * (2019). Particle-modified polymeric cladding on glass optical fibers enhances radial light scattering, *Journal of the Optical Society of America B, 36 (6),* 1623-1628. https://doi.org/10.1364/JOSAB.36.001623 (Q1-Q2)
- 85. Markovski, J.*, Hristovski, K.* (2019). An experimental approach for determining thermodynamic surface complexation descriptors of weak-acid oxyanions onto metal (hydr)oxides: Case study of

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- Bi, Y.*, Westerband, E., Alum, A., Brown, F., Hicks, A., Abbaszadegan, M., Hristovski, K. Westerhoff, P. (2018) Antimicrobial Efficacy and Life Cycle Impact of Silver-Containing Food Containers, ACS Sustainable Chemistry & Engineering 6 (10), 13086-13095. https://doi.org/10.1021/acs.est.5b06043 (Q1)
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- 74. *O'Neal Tugaoen, H.**, Garcia-Segura, S., Hristovski, K., Westerhoff, P. (2018) Compact light-emitting diode optical fiber immobilized TiO₂ reactor for photocatalytic water treatment. *Science of the Total Environment, 613-614*, 1331-1338. <u>https://doi.org/10.1016/j.scitotenv.2017.09.242</u> (Q1)
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- <u>Custodio, T., Garcia, J.</u>, Markovski, J.*, *Gifford, J.M.*, Hristovski, K.D.*, Olson, L.W., (2017) Ranking nano-enabled hybrid media for simultaneous removal of contaminants with different chemistries: pseudo-equilibrium sorption tests versus column tests. *Science of the Total Environment 605*, 166-171 https://doi.org/10.1016/j.scitotenv.2017.06.104 (Q1)
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- 14. Hristovski, K.*, Dhanasekaran, B., *Tibaquirá, J.*, Posner, J., Westerhoff, P. (2009) Evaluating the feasibility of generating potable water from fuel cells. *Journal of Water Supply: Research and Technology*-AQUA, 58(5), 327-335. <u>http://dx.doi.org/10.2166/aqua.2009.103</u> (Q2)
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 Hristovski, K*., Olson, L., Hild, N., Peterson, D., and Burge, S. (2007) The municipal solid waste system and solid waste characterization at the municipality of Veles, Macedonia, *Waste Management*, 27, 1680 – 1689. <u>https://doi.org/10.1016/j.wasman.2006.09.003</u> (Q1)

Journal Editorials:

- 1. Cledon, M.; Hristovski, K.D.* (2018) The ongoing quest for understanding the novel environmental applications and implications of nanotechnology, *Science of the Total Environment 618*, 1088-1088. https://doi.org/10.1016/j.scitotenv.2017.09.122
- Hristovski K.* (2012) Regulatory Implications for Commercial Fabrics Containing Nanosilver: Hazardous Waste or Not? *Journal of Environmental Management Arizona*, 10(5), 4-5. <u>http://ehshomepage.com/issuepdfs/59JEMAOctNov2012.pdf</u>
- 3. Hristovski, K.*, (2009). Nanoscience and Nanotechnology Environmental and Health Impacts, *Journal of Environmental Quality*, 38(6), 2479-2479.
- 4. Hristovski, K*. (2008/2009) Much Ado about Small Materials: Nanotechnology and its Environmental Applications and Implications. *Journal of Environmental Management Arizona* 6(6), 6 14. http://ehshomepage.com/issuepdfs/36JEMAWebBook36DecJan20089.pdf

Manuscripts in Preparation to be submitted:

No. Tentative Title

- 6. Estimating Thermodynamics Parameters of Environmental Processes using Microbial Potentiometric Signals
- 5. Spatial and temporal distribution of microbial potentiometric signals in quiescent environments
- 4. Evidence of electrical network in aquatic biofilms
- 3. Optimizing kefir fermentation via AI analysis of microbial potentiometric signals
- 2. Estimating the capacitance of biofilms using microbial potentiometric sensors
- 1. Evidence of measuring photosynthetic activity in algae and plants

Patents Intellectual Property

Intellectual Property from ASU

Granted Full Patents: 7

- (2022) Cai., Z., Mollema, S.A., Atkinson, A.J., Hristovski, K.D., Markovski, J.*, Westerhoff, P.K. "Nano-enabled activated carbon blocks to enable removal of oxyanions from water." US Patent 11,396,004
- (2022) Markovski, J.*, Hristovski, K.D. "Fabrication of hydroxyapatite based hybrid sorbent/ionexchange media for simultaneous removal of fluoride with other contaminants" US Patent 11,273,427

- 3. (2021) Hristovski, K.D., Markovski, J.*, Westerhoff., P., Sinha, S. "Low Temperature Synthesis of Aluminum (Hydr)Oxide Inside Porous Media" US Patent 10,927,016.
- 4. (2020) Westerhoff, P.K., Hristovski, K.D., Shina, S. "Fiber-optic integrated membrane reactor" US Patent 10,793,449
- 5. (2019) Hristovski, K.D., Markovski, J.*, Westerhoff., P., Sinha, S. "Low Temperature Synthesis of Aluminum Oxide Inside Porous Media" US Patent 10,435,311.
- 6. (2018) Hristovski, K.D., Westerhoff, P. "Microwave Assisted Synthesis of Metal dioxide hybrid media" US Patent 9,878,320.
- 7. (2017) Doudrick, K., Hristovski, K. D., Westerhoff, P. K. "Photocatalytic reduction of oxo-anions" US Patent 9,751,785

Granted Provisional Patents: 3

- 8. (2018) Westerhoff, P.K., Hoogesteijn von Reitzenstein, N., Sinha, S., Hristovski, K.D., "Electrospun Polymeric Porous Fibers Containing Nanoparticles" US Patent 20180080148 A1
- 9. (2016) Westerhoff, P.K., Hristovski, K.D. "Cumulative oxo-anion systems and methods" US Patent US 2016/0334311 A1
- (2013) Hristovski, K.D. Westerhoff, P.K. "Titanium Dioxide based Hybrid Ion-exchange media" US 2013/0175220 A1

Patents Pending: 2

11. (2023) "Carbon Block Impregnated with Titanium (Hydr)Oxides" Filed M23-004P, Prov. US Patent App. 63/378,623

Filed Disclosures to ASU Patent Service and not-Granted US Patents (Total: 6)

- 12. (2007) "Synthesis of nanostructured ZrO_2 spheres". Filed M8-098P. Prov. US Patent App. 61/076,404.
- 13. (2008) "Synthesis of nanostructured TiO₂ spheres" Filed M9-050P. Prov. US Patent App. 61/144,890
- 14. (2012)"In-Situ Regeneration of Activated Carbon Using Nano Metals" Filed M13-080P.
- 15. (2012) "Anaerobic Digester for Minimization of Waste Generated in Pet Parks" Filed M12-239P. Prov. US Patent App. 61/696,686
- 16. (2016) "Slow Nutrient Release Soil Conditioner/Fertilizer" Filed M14-197P
- 17. (2017) "Concept of a System for Photocatalytic Reduction of Nitrate in Water". Filed M11-045P

PRESENTATIONS

<u>Legend</u>

(*) Corresponding Author
Bold Font: ASU Ph.D. Student for whom Dr. Hristovski is the primary advisor
Bold Italic Font: ASU Ph.D. Student for whom Dr. Hristovski is a co-advisor or has significant mentoring responsibility
<u>Underline Font</u>: ASU Master's Student for whom Dr. Hristovski is the primary advisor or a co-advisor
(#) ASU Undergraduate Student for whom Dr. Hristovski is the mentor
(∞) Other/Visiting Undergraduate Student for whom Dr. Hristovski is the mentor

- (\mathbf{x}) ASU Postdoctoral Researcher for whom Dr. Hristovski is the mentor.
- (+) Equal Contributions
- (~) Presenting author

Invited Presentations – External 22

- 12. Hristovski, K.*., US State Department, US Consulate Karachi "Waste to Energy A Techno-Economic Endeavor", November 8, 2021. (External/International)
- 11. Hristovski, K.*,~, University of Belgrade, Faculty of Technology and Metallurgy, Belgrade, Serbia, "Nanotechnology from a Life Cycle Perspective Environmental, Health, & Safety Implications" February 20, 2018. (External/International)
- 10. Hristovski, K^{*,~}, University of Arizona, Tucson, "Conducting and presenting research: A reviewers perspective" November 28, 2017 (External)
- Hristovski, K.*., University "Goce Delcev" Stip, "The Effects of Climate Change on Water Resources of Small Developing Countries – the Case Study of Macedonia" Stip, Macedonia, June 2, 2015. (External/International)
- Hristovski, K.*, University "Goce Delcev" Stip, "Small Materials, Big Promises, and Big Risks -Environmental Implications of Nanotechnology," Stip, Macedonia, May 21, 2014. (External/International)
- 7. Hristovski, K.*,~, Municipality of Panama City, Title: "Managing Municipal Environmental Service Systems in the US Cities", November 14, 2012. (External/International)
- 6. Hristovski, K.*, Municipality of Panama City, Title: "Towards a Sustainable Environmental Planning and Management in the City of Panama", November 13, 2012. (External/International)
- 5. Hristovski, K.*., College of Engineering, University of Arizona, Lecture Title: "Environmental Applications and Implications of Nanomaterials", October 8, 2012, Tucson, AZ. (External)
- 4. Hristovski, K.*., Center for Research and Policy Making and School of Public Policy "Mother Theresa" Skopje, Macedonia, Lecture Title "The Role of the NGO sector, Government and News Media in Protection of the Environment", May 18, 2012, Skopje, Macedonia. (External/International)
- 3. Hristovski, K.*, Institute of Chemistry, Faculty of Natural Sciences and Mathematics, University Sts Cyril and Methody, Skopje, Macedonia, Lecture Title "Environmental Applications and Implications of Nanomaterials", May 17, 2012, Skopje, Macedonia (External/International)
- 2. Hristovski, K.*,~, Tohono O'Odham Community College, Earth Day Meeting, "Relationships Between Water and Energy", April, 20, 2011, Sells, AZ. (External)

1. Hristovski, K. *~, Westerhoff, P., Benn, T., Wang, Y, Kiser, A., Cavanagh, B., Posner, J. *Understanding nano silver in natural waters*, US Army nano-silver workshop, Vicksburg, Mississippi, April 7-8, 2009 (Workshop).

Invited Presentations – ASU Internal: 4

- Hristovski, K.*., Sandra Day O'Connor College of Law, Nanotechnology Class, Lecture Title "Environmental Implications of Nanomaterials: Current Trends?" March 9, 2014, Tempe, AZ (ASU Internal)
- 3. Hristovski, K.*,~, Sandra Day O'Connor College of Law, Nanotechnology Presentation, "Nanomaterials: Where do they go?" September 19, 2012, Tempe, AZ (ASU Internal)
- 2. Hristovski, K.*., Sandra Day O'Connor College of Law, Nanotechnology Class, Lecture Title "Understanding Nanotechnology Challenges and Risks" February 8, 2012, Tempe, AZ (ASU Internal)
- 1. Sandra Day O'Connor College of Law, Nanotechnology Class, Lecture Title "Understanding Hristovski, K.*,", Nanotechnology Risks" February 14, 2011, Tempe, AZ. (ASU Internal)

Invited Conference Presentations: 10

- Kiril D. Hristovski, *,~, Scott R. Burge, Russell G. Burge, , Dragan Boscovic, Evan Teylor, Ljupco Pejov, Olcay Unver, "Real-time monitoring of environmental pollution and carbon sequestration using microbial potentiometric sensors" 11th "Global Conference on Global Warming (GCGW – 2023), İstanbul, Turkey, June 2023 (External/International/peer-reviewed conference, abstract)
- Hristovski, K*.~, Developing Nano-enabled Water Treatment Technologies: Challenges and Barriers, EU COST Action International Conference, Ohrid, Republic of N. Macedonia, October 2, 2018 (External/International/Conference).
- 8. Hristovski, K.*, ~, *EcoCAR 3 Advanced Vehicle Technology Competition*, Arizona Recycling Coalition 2014 Conference, Gilbert AZ, October 22, 2014 (Conference).
- Hristovski, K.*, Balkan Security Forum, Invited Panelist, Panel Topic "Regional Challenges after NATO Summit in Chicago: Western Balkans in the Next Decade and Macedonia and the Region in NATO – Realities and Alternatives", May 12, 2012, Ohrid, N. Macedonia. (External/International/Conference)
- 6. Hristovski, K. * *Scientific Challenges of Nanotechnology Risk Assessment*, The annual Conference of Jurimetrics: The Journal of Law, Science and Technology, Biltmore Resort Phoenix, March 21, 2011. (peer-reviewed conference, abstract).
- Westerhoff, P. *~, Chen., Y., Rittman, B., Hristovski, K., Kiser, A., Wang, Y., Zhang, Y., Sources of nanomaterials into sewage and their removal during wastewater treatment, Invited keynote talk presented by Westerhoff, P., SETAC Europe 18th Annual Meeting, Warsaw, Poland, May 27, 2008. (peer-reviewed conference, abstract)
- 4. Hristovski, K., Baumgardner, A., Zhang, Y., Chen., Y., Westerhoff, P., and Crittenden J. *~, Application of Nanotechnology for Adsorption Processes, 4th IWA Leading-Edge Conference on Water and Wastewater Technologies, June 3-6, 2007, Singapore. (peer-reviewed conference, abstract)
- Zhang, Y., Koeneman, B., Hristovski, K., Westerhoff, P., Chen, Y., Capco, D., Gerrity, D., Ryu, H., Abbaszadegan, M, and Crittenden, J.*,~, Nanoparticles in Water Environment: Characterization, Removal, Environmental Applications, Bio-Accumulation, and Cytotoxicity, Invited talk, presented by Crittenden, J., Proceedings to Environmental Sciences: Water, Gordon Conference, June 25-30, 2006, Plymouth, NH. (peer-reviewed conference, abstract)

- Hristovski, K. ~, Zhang, Y., Koeneman, B., Chen, Y., Westerhoff, P., Capco., D and Crittenden, J., Nanomaterials in water environments: Potential applications, treatments, fate and potential biological consequences, Invited keynote talk presented by K. Hristovski, 230th American Chemical Society Environmental Nanotechnology Meeting, Washington, DC, Aug 28-Sept 1, 2005. (peer-reviewed conference, abstract)
- Hristovski, K., Zhang, Y., Koeneman, B., Chen, Y., Westerhoff, P., Capco., D and Crittenden, J. *~, *Potential Roles on Nanotechnology in Sustainability*, Invited talk presented by Crittenden, J., Proceedings to NSF Summer Institute on Nano Mechanics and Materials, June 20-23, 2005, Northwestern University (peer-reviewed conference, abstract).

Peer-Reviewed Conference Presentations

- <u>Custodio, T.[~], Ingram, M., Garcia, J.</u>, Camren, C.[#], Gifford. J., Hristovski, K.^{*}, Olson, L. Development and Testing of Titanium Nanoparticle Enhanced Hybrid Media for Simultaneous Contaminant Removal and Nutrient Recovery, 2015 Tenth Annual Gatekeeper Conference, Scottsdale, AZ, February 2-3, 2015
- 13. Camren, C. ~, Hristovski, K.*, *Examining titanium dioxide hybrid media as a treatment solution for removal of fluoride from water*, 2015 Tenth Annual Gatekeeper Conference, Scottsdale, AZ, February 2-3, 2015.
- 12. **Brown, F.C.**, Brown, A., Hristovski, K.*, *Developing a wastewater treatment training program for the Mexican metal plating industry located at the Arizona-Mexico border*, 2015 Tenth Annual Gatekeeper Conference, Scottsdale, AZ, February 2-3, 2015
- Casiraro, N.[#], <u>Bridgers, K.</u>~, Benn, T. Hristovski, K.*, Westerhoff, P. Commercial Fabrics Containing Silver Nanoparticles: Hazardous Waste or Not? Sixth Annual Gatekeeper Conference, Phoenix, AZ, January, 2010
- 10. Luque, H.[#], <u>Bridgers, K.</u> ~, Hristovski, K.*, Westerhoff, P., Posner, J. Partitioning of Hematite nanoparticles in Sand and Soils. Sixth Annual Gatekeeper Conference, Phoenix, AZ, January, 2010
- <u>Garcia, J.~</u>, Markovski, J.*, Hristovski, K.*, Impacts of titanium dioxide content on removal of methyl orange in nanoparticle impregnated granular activated carbon, 2016 Eleventh Annual Gatekeeper Conference, Scottsdale, AZ, March 30, 2015
- Hennesy, B.^{-,#}, Yost, A., Mayas, A., Hristovski, K.*, *EcoCAR 3: Creating Innovative Automotive Solutions for Environmental Sustainability at Arizona State University*, 2015 Tenth Annual Gatekeeper Conference, Scottsdale, AZ, February 2-3, 2015
- 7. Chalk, S.[#], Sterk, N.[#], Rose, M., Hristovski K.* *Strategies for water footprint Reduction of Petsmart stores*. 2014 Tenth Annual Gatekeeper Conference, Scottsdale, AZ, Feb. 11, 2014
- Batkie, T.^{*,#}, Hristovski, K.*, *Examining the Causes of Hydrogen Sulfide Gas Formation in Restaurant Grease Interceptors in the City of Peoria*, AZ, 2013 Ninth Annual Gatekeeper Conference, Scottsdale, AZ, April 2-3, 2013
- 5. <u>Romaine, T.</u> ~,*, Hristovski, K., *Environmental Occurrence and Toxicity of Nonylphenols*, 2013 Ninth Annual Gatekeeper Conference, Scottsdale, AZ, April 2-3, 2013
- Hammond, D.*-, Ruddell, B., Hristovski, K., Microclimate Impacts of Yard Composition in the Power Ranch Subdivision of Gilbert, AZ, 2013 Ninth Annual Gatekeeper Conference, Scottsdale, AZ, April 2-3, 2013
- 3 Murphy, S. ^{#,-}, Hristovski, K.* Removal of Arsenic From Water by Nanostructured Titanium Dioxide Spheres, 2012 Annual Gatekeeper Regulatory Roundup and Conference, Scottsdale, AZ, April, 3-4, 2012

- <u>Beebe, S.</u> *-, Bateman, H., Hristovski, K. Burrowing Owl Habitat Selection in Urban Southeast Phoenix, AZ, 2012 Annual Gatekeeper Regulatory Roundup and Conference, Scottsdale, AZ, April, 3-4, 2012
- 1. <u>Sandoval, R.~, Jain, A., Bridgers, K.</u>, Aymar, K.[#], Sanner, J.[#], Hristovski, K. Comparison of arsenic removal performances of granulated activated carbon media modified with zirconium and iron (hydr)oxides. Seventh Annual Gatekeeper Conference, Scottsdale, AZ, February 15, 2011

Non-Refereed Conference Presentations

- Burge, S. *,+,~, Hristovski, K.~+ MiProbe Microbial Sensor for Monitoring and Optimization of Wastewater Treatment Operations, 36th Annual Tri-State Seminar & Exhibition, Las Vegas NV, August 10, 2021.
- Burge, S., *,+,~ Hristovski, K.~,+. MiProbe Microbial Happiness Meter, 35th Annual Tri-State Seminar & Exhibition, Las Vegas NV, August 7, 2019.
- Hristovski, K. *, <u>Cooper, A.M.</u> Westerhoff, P., Möller, T., Sylvester, P. Investigation of the impact of synthesis conditions on performance of bituminous and lignite based GAC for simultaneous arsenate and organic contaminant removal. National Science Foundation Arizona Water Quality Center Fall Meeting, Tucson, Arizona, December 7, 2009.
- Hristovski, K. ^{**}, <u>Cooper AM</u>, Westerhoff, P. Bituminous and Lignite Based Iron-GAC for Simultaneous Arsenate and Organic Contaminant removal – Phase I: Material Synthesis and Characterization. National Science Foundation Arizona Water Quality Center Fall Meeting, Tempe, Arizona, December 8, 2008.
- Westerhoff, P.*, Hristovski, K., Posner, J. Can fuel Cells Provide Safe and Cost-Effective Potable Water Sources? National Science Foundation Arizona Water Quality Center Fall Meeting, Tempe, Arizona, December 8, 2008.

II. PROFESSIONAL ACTIVITIES AND SERVICE

Editorial Service for Journals

Associate Editor:

- 1. Section (Associate) Editor: Macedonian Journal of Chemistry and Chemical Engineering; Society of Chemist and Technologist of Macedonia:, 2018-Present*
- 2. Associate Editor: Frontiers in Environmental Chemistry Journal, 2021 2023
- 3. Associate Editor: NanoLIFE Journal, 2023-Present

* Note: the journal is structured as such that the section editors comprise the editorial board.

Conference Organization

International/national Conference Committee: 5

- 1. *Organizing Committee*: 16th International Materials Research Congress 2017 International Symposium on Materials and the Environment, Cancun, Mexico, August 20-25, 2017.
- 2. *Scientific Advisory Board*: 9th Conference on Sustainable Development of Energy, Water, and Environment Systems, Venice, Italy and Istanbul, Turkey, September 20 September 27, 2014.
- 3. *Scientific Advisory Board*: 1st South East European Conference on Sustainable Development of Energy, Water, and Environment Systems, Ohrid, N. Macedonia June 29 July 3, 2014.
- 4. *Scientific Advisory Board*: 8th Conference on Sustainable Development of Energy, Water, and Environment Systems, Dubrovnik, Croatia, September 22 October 8, 2013.
- 5. *Scientific Advisory Board*: 7th Conference on Sustainable Development of Energy, Water, and Environment Systems, Ohrid, N. Macedonia, July 1 7, 2012

International/National conference sessions organized: 5

- 1. 2018 the 256th ACS National Meeting in Boston, August 19-23, Environmental Chemistry Division: "From Lab to Tap: Implications of Scaling Up NanoEnabled Environmental Technologies"
- 2. 2017 254th ACS National Meeting in Washington, DC, August 20-24, Environmental Chemistry Division "Nano-Enabled Water Treatment Technologies: Applications and Implications"
- 3. 2015 the 250nd ACS National Meeting in Boston, August 16-20, Environmental Chemistry Division, "Nano-enabled Environmental Technologies: Technologies for treatment of inorganic water contaminants"
- 4. 2015 the 250nd ACS National Meeting in Boston, August 16-20, Environmental Chemistry Division, "Environmental transformations of nanoparticles: processes, mechanisms, and ecological impacts: Biotransformations and Bioavailability"
- 5. 2015 the 250nd ACS National Meeting in Boston, August 16-20, Environmental Chemistry Division, "Environmental transformations of nanoparticles: processes, mechanisms, and ecological impacts: Physicochemical Transformations"

International/National conference sessions chaired: 6

- 1. 2016 the 252nd ACS National Meeting in Philadelphia, August 21-25, Environmental Chemistry Division "Nanotechnology for Environmental Solutions and Remediation"
- 2. 2015 the 250nd ACS National Meeting in Boston, August 16-20, Environmental Chemistry Division, "Nano-enabled Environmental Technologies: Technologies for treatment of microbial and carbon-based contaminants"
- 3. 2014 the 248nd American Chemical Society National Meeting, San-Francisco, Aug 10-14. Environmental Chemistry Division. "Water Challenges and Solutions on the Global Scale"

- 4. 2013 the 246th ACS National Meeting in Indianapolis, Environmental Chemistry Division, "Water Challenges and Solutions on Global Scale"
- 2012 the 244th ACS National Meeting in Philadelphia, August 19-23, Environmental Chemistry Division, "Innovative Technologies for Green, Grey, Brown and Black Water Reclamation and Reuse"
- 6. 2011 the 242nd ACS National Meeting in Denver, August 28 Sept 1, Environmental Chemistry Division, "Novel Solutions to Pollution"

Editorial Board and Reviewer Service for Journals

Editorial Board Member: 4

- 1. Elsevier Publishing: *Environmental Nanotechnology, Monitoring and Management*, 2014 present
- 2. Elsevier Publishing: Science of the Total Environment, 2017–2023
- 3. Elsevier Publishing: Heliyon Environment, 2019–2022 (Advisory Board)
- 4. Elsevier Publishing: Trends in Analytical Chemistry, 2020 present

Peer-Reviewer Journals: 64

- 1. ACS Applied Materials and Interfaces;
- 2. ACS ES&T Water;
- 3. ACS Nano;
- 4. ACS Omega;
- 5. ACS Sustainable Chemistry and Engineering;
- 6. Algae Research;
- 7. Applied Catalysis B Environmental;
- 8. Arabian Journal for Science and Engineering;
- 9. Biochemical Engineering Journal;
- 10. Chemical Engineering Journal Advances
- 11. Chemical Engineering Journal;
- 12. Chemical Engineering Science;
- 13. Chemical Research in Toxicology
- 14. Chemosphere;
- 15. Colloids and Surfaces A: Physicochemical and Engineering
- 16. Colloids and Surfaces B: Biointerfaces
- 17. Desalination and Water Treatment;
- 18. Desalination;
- 19. Environment International
- 20. Environmental Engineering and Management Journal;
- 21. Environmental Engineering Science;
- 22. Environmental Modeling and Assessment
- 23. Environmental Pollution
- 24. Environmental Science and Pollution Research
- 25. Environmental Science and Technology Letters
- 26. Environmental Science and Technology;
- 27. Environmental Science: Water Research and Technology
- 28. Environmental Technology;
- 29. Frontiers in Environmental Chemistry

- 30. Helyon Environment
- 31. Hemiska Industrija
- 32. Industrial and Engineering Chemistry Research;
- 33. International Journal of Heat and Mass Transfer;
- 34. International Journal of Hydrogen Energy;
- 35. Journal of American Water Works Association;
- 36. Journal of Electrochemical Society
- 37. Journal of Environmental Chemical Engineering;
- 38. Journal of Environmental Engineering
- 39. Journal of Environmental Management;
- 40. Journal of Environmental Monitoring and Assessment;
- 41. Journal of Environmental Quality
- 42. Journal of Hazardous Materials;
- 43. Journal of Homeland Security and Emergency Management
- 44. Journal of Industrial and Engineering Chemistry
- 45. Journal of Inorganic Biochemistry
- 46. Journal of Macromolecular Science PAC;
- 47. Journal of Nanoparticle Research
- 48. Journal of Taiwan Institute of Chemical Engineers
- 49. Journal of Water and Health;
- 50. Macedonian Journal of Chemistry and Chemical Engineering
- 51. Materials Science and Engineering B
- 52. Nanoimpact
- 53. Nanotechnology, Monitoring and Management
- 54. Nature Communications;
- 55. Nature;
- 56. Resources, Conservation & Recycling
- 57. Science of the Total Environment;
- 58. Separation and Purification Technology;
- 59. Separation Science and Technology;
- 60. Trends in Analytical Chemistry
- 61. Waste Management and Research.
- 62. Water Research;
- 63. Water Science and Technology;
- 64. Water South Africa

Proposal Reviewer for Funding Agencies

Proposal review service for US Funding Agencies: 17

- 1. NSF Review Panel for CBET Excellence in Research, (2022)
- 2. NSF Review Panel for ECO-CBET, (2021)
- 3. NSF Review Panel for CBET/Biological and Environmental Interactions of Nano, (2020)
- 4. NSF Review Panel for Graduate Research Fellowship, (2019)
- 5. NSF Review Panel for CBET/Biological and Environmental Interactions of Nano, (2019)
- 6. NSF Review Panel for CBET/Environmental Engineering, (2018)
- 7. NSF Review Panel for Graduate Research Fellowship, (2018)
- 8. NSF Review Panel for CBET/Enviro Health & Safety of Nano, (2017)
- 9. NSF Review Panel for CBET/Scalable Nanotechnology, (2017).

- 10. NSF Review Panel for CBET/ Environmental Engineering, (2016)
- 11. NSF Review Panel for CBET/Enviro Health & Safety of Nano, (2016)
- 12. NSF Review Panel for CBET/Scalable Nanotechnology, (2016).
- 13. NSF Review Panel for CBET/Environmental Engineering, (2015)
- 14. NSF Review Panel for Graduate Research Fellowship, (2014)
- 15. NSF Reviewer for CHE/Chemical Catalysis, (2010)
- 16. NSF Review Panel for CBET/Environmental Implications, (2010)
- 17. NASA Planetary Instrument Definition and Development Review Panel (2009)

Proposal review service for International Funding Agencies: 1

1. Judge-reviewer for King Fahd University of Petroleum and Minerals Research Grant Office, Saudi Arabia (2009).

University Service

ASU-level Committees: 12

- 1. Liaison between ASU and TOBB, Ankara for establishing Erasmus Faculty and Student Exchange (2023-Present)
- 2. Led a delegation to establish collaboration with five Turkish Universities and ASU (2023).
- 3. Led the signing of the MOU between the Macedonian Academy of Sciences and Arts and ASU (2018)
- 4. Led effort for renewal of the MOU for collaboration between the University of Sts. Cyril and Methody, Skopje, N. Macedonia and ASU (2017)
- 5. Member of the ASU's Chemical and Environmental Characterization Core Governance Board (Spring 2017 2019)
- 6. ASU Senate (Fall 2014- 2020). Senator Spotlight December 2015/January 2016.
- 7. Faculty Advisor for the International Student Fellowship Club (2013 2020)
- 8. Founding Faculty Advisor and Advisor for the Environmental and Resource Management Student Club (2010 2013) and (2023 present)
- 9. Acting Chair/Chair of the Faculty Science Advisory Committee for the Goldwater Environmental Laboratory within the College of Liberal Arts and Sciences at ASU. (2009-2013);
- 10. Member of the Faculty Science Advisory Committee for the Goldwater Environmental Laboratory within the College of Liberal Arts and Sciences at ASU (2014 2018)
- 11. Led the signing of the MOU between the Macedonian Academy of Sciences and Arts and ASU (2018)
- 12. Led the signing of the MOU between the University "Goce Delcev", Stip, N. Macedonia and ASU (2014)
- 13. Member of the University Advisory Council for the ASU North American Center for Transborder Studies (NACTS) (2009-2013)

Engineering School-level Committees: 8

- 1. Member of Ira A. Fulton School of Engineering ADR's Research Directors council (Fall 2014 Spring 2016)
- 2. Member of the new The Polytechnic School creation advisory board (2014)
- 3. Member of the College of Technology and Innovation Committee on Academic Standards (by Dean's Appointment) (2013- summer 2014)
- 4. College Convocation Name Reader (2011 2012)
- 5. College Marshal, Undergraduate Commencement, Fall 2012

- 6. Co-chair of the Waste and Water Management minor curriculum development group (2011-2012).
- 7. Member of Civil Engineering Faculty Search Committee for the Department of Engineering (2011-2012).
- 8. Member of the College Research Advisory Committee (by Dean's Appointment) (2010).

Unit-Level Committees: 16

- 1. Chair of the Promotion and Tenure Committee (2023-2024)
- 2. The Polytechnic School Promotion and Tenure Committee (2021-2024)
- 3. The Polytechnic School Curriculum Committee (2019-2020)
- 4. Member of the TPS Research Integration and Advancement Group (TRIAG) (2017-2019)
- 5. Ph.D. Systems Engineering Graduate Committee Member (2017-2022)
- 6. Member of the School Space Committee (Fall 2014-2015)
- 7. Barret Faculty Honors Advisor for students majoring in Environmental and Resources Management (Fall 2014 present)
- 8. Member of the Ph.D. in Systems Engineering degree development committee. (2014-2016)
- 9. Member of the FE Examination Review team for undergraduate engineering students. (2014)
- 10. Member of the faculty team developing the Humanitarian Engineering Concentration as part of the General Engineering Major (2013).
- 11. Lead faculty in developing the undergraduate Environmental Engineering focus as part of the General Engineering Major (2013 2015) in the College of Technology and Innovation.
- 12. Member of the Graduate Faculty Committee, Department of Engineering and Computing Systems, (2013).
- 13. Chair of the Department's Curriculum and Instruction Committee for Department of Applied Sciences and Mathematics (2010-2011).
- 14. Member of the committee on development of a Chemistry minor at ASU Poly (2011)
- 15. Member of the committee on development of a Physics Minor at ASU Poly (2011)
- 16. Member of the committee on development of ASU 101 class in the Applied Science and Mathematics department. (2011-2012).

Chair of Faculty Search Committees: 1

1. Chair of ERM Search Committee for Assistant Teaching Professor (2022-2023)

Member of Faculty Search Committees: 6

- 1. Member of ERM Algae/Water/Food Nexus Faculty Search committee (2018-2019)
- 2. Member of TPS EH&S Laboratory coordinator Search Committee (2018-2019)
- 3. Member of ERM Algae/Water/Food Nexus Faculty Search committee (2017-2018)
- 4. Member of ERM Algae/Water/Food Nexus Faculty Search committee (2016-2017)
- 5. Member of ERM Algae/Water/Food Nexus Faculty Search committee (2015-2016)
- 6. Member of ETM Faculty Search Committee (2011-2012)

Program Level Leadership: 18

- Program Chair: 7
 - 1. Program Chair of BS in Environmental and Resource Management (2020 Present)
 - 2. Program Chair of MS in Environmental and Resource Management (2020 Present)
 - 3. Program Chair of MS in ERM Water Management Concentration (2020 Present)
 - 4. Chair application review for the MS degrees (2020 Present)
 - 5. Chair MS ERM Portfolio Evaluation Process

- 6. Chair MS ERM Comprehensive Examination
- 7. Chairs the ERM class scheduling (2020 Present)
- Professional Development/Training Program (Learning Enterprise) Director: 2
 - 1. Director ERM Professional Development/Training Program (2020 Present)
 - 2. Co-Director/Co-Coordinator Water Management Certificate Program (2020 fall Present)
- PI of the Program Lab: 1
 - PI for the Environmental and Resource Management Teaching Laboratory

(sept. 2009 – Jan 2024)

- New program development: 4
 - Lead, Prepared and Submitted: New ASU OnLine BS ERM Degree (2022)
 - Lead, Prepared and Submitted: New ASU OnLine MS ERM Degree (2022)
 - Lead, Prepared and Submitted: New ASU OnLine MS ERM (Water Management Conc.) Degree (2022)
 - Lead, In preparation: New Doctorate in Engineering concentration in Environmental and Resource Management (OnLine Degree). (2023 present)
- New Program Evaluation plan development: 3
 - Lead, Prepared and Submitted New BS ERM Degree Evaluation Plan (2022)
 - Lead, Prepared and Submitted New MS ERM Degree Evaluation Plan (2022)
 - Lead, Prepared and Submitted New MS ERM (Water Management Conc) Degree Evaluation Plan (2022)
- Academic Report/HLE Commission University Accreditation: 1
 - Lead, Prepared and Submitted ERM Program 7-Year Academic Report (2021)

Professional Organizations Membership and Service Roles

Member of Professional Associations: 5

- 1. American Society for Engineering Education, since 2009
- 2. American Chemical Society, since 2009
- 3. Association of Environmental Engineering and Science Professors, since 2010
- 4. Sustainable Nanotechnology Organization, since 2012
- 5. Water Environment Federation, since 2015

Service Roles in Professional Organizations: 11

- 1. Member of the Membership Services Committee of the American Chemical Society Environmental Chemistry Division (2018 2019)
- 2. Member of the International Activities Subcommittee of the American Chemical Society Environmental Chemistry Division (2018 2019)
- Assistant Secretary of the American Chemical Society Environmental Chemistry Division (2017 2018)
- 4. Nominated for the Executive Council Member at Large of the American Chemical Society Environmental Chemistry Division (2016).
- 5. Nominated for the Executive Council Member at Large of the American Chemical Society Environmental Chemistry Division (2015).

- 6. Member of the Arizona Department of Environmental Quality Advisory Panel on Emerging Contaminants (2012-2013)
- 7. EPA/Border Environmental Commission, US-Mexico Border Environmental Program, Arizona-Sonora Task Forces on Solid Waste and Water (2011/2012)
- 8. EPA/NanoRelease Steering Committee Expert Workshop Meeting/Panel (2011)
- 9. Arizona Water Association Research Committee Member (2011)
- 10. EPA Expert reviewer for Technical Report "Nanomaterial Case Studies: Nanoscale Titanium Dioxide in Water Treatment and Topical Sunscreens" EPA/600/R-09/057 (2010)
- 11. NIST/OECD Recommendation Panel for Nano-Silver Reference Standard (2009)

III. PERSONNEL: STUDENT SUPERVISION/MENTORING, TEACHING, DISSERTATION COMMITTEES, RESEARCHERS, AND OUTREACH

MENTORING

Mentoring Graduate Students and Post-Doctoral Researchers:

Mentored Post-Doctoral Researchers: 1

- 1. Jasmina Markovski, Ph.D. October 1, 2015 February 1, 2019
 - co-authored 13 peer-reviewed articles with K. Hristovski
 - co-authored 7 conference presentations with K. Hristovski
 - co-authored 4 US Patents with K. Hristovski

Chaired/Co-Chaired Ph.D. Students Graduated: 3

NOTE: The ERM Program does not have a doctoral program. Students have to be mentored in other programs with different focus than the ERM program. It is expected that the development of the ERM concentration under the Doctorate in Engineering will alleviate this challenge.

- 1. Daniel Saboe, Ph.D. Systems Engineering; Chair; Graduated May 2022;
 - **Dissertation Title:** "Monitoring Key Water Quality Parameters in Water Resources Systems Using Bioactive Electrodes"
 - Co-authored 4 peer reviewed articles with K. Hristovski.
 - Co-authored 1 conference presentation with K. Hristovski
 - Received Dean's Fellowship
- 2. **Heather O'Neal Tugaoen (Stancl)**, Ph.D. Civil and Environmental Engineering; Co-Chair; Graduated July 2017; (Maden name: Stancl. Both Names used in publications)
 - **Dissertation Title** "Photocatalysis for Reductive Transformation of Nitrate and Chromate in Drinking Water"
 - o co-authored 6 peer-reviewed articles with K. Hristovski
 - o co-authored 13 conference presentations with K. Hristovski
- 3. James "Mac" Gifford, Ph.D. Civil and Environmental Engineering; Co-Chair; Graduated May 2016;
 - **Dissertation Title:** "Using Weak Base Anion Exchange Sorbents Embedded With Metal Oxide Nanoparticles to Simultaneously Remove Multiple Oxoanions"
 - o co-authored 5 peer-reviewed articles with K. Hristovski
 - o co-authored 2 conference presentations with K. Hristovski

Chaired Ph.D. Students Current: 1

1. Frank Christopher Brown, Ph.D. Systems Engineering; Chair;

Estimated Graduation: TBD; NOTE: Student only has to finish writing and defend his dissertation. All other Ph.D. program requirements are completed. Student requested leave of absence to family/work issues.

- Tentative **Dissertation Title**: "Detection of leached heavy metals using microbial potentiometric sensors"
- o co-authored 5 peer-reviewed articles with K. Hristovski
- o co-authored 13 conference presentations with K. Hristovski

• Received Dean's Fellowship

Ph.D. Students Committee Member Graduated: 11

NOTE: collaboration and contribution to mentorship beyond the committee member service is illustrated by the number of joint publications that K. Hristovski has with the student.

- 1. Thuy Thi Thu Nguyen, Ph.D. Civil and Environmental Engineering; Graduated December 2020;
 - **Disseration Title** "Predicting De Facto Reuse Impacts on Drinking Water Sources at Small Public Water Systems"
- 2. Heuidae Lee, Ph.D. Civil and Environmental Engineering; Graduated May 2018;
 - **Dissertation Title:** "Improving activated carbon performance in point of use and municipal processes
- 3. Natalia Hoogesteijn von Reitzenstein, Ph.D. Civil and Environmental Engineering; Graduated August 2018;
 - Dissertation Title: "Electrospun Polymeric Nanocomposites for Aqueous Inorganic & Organic Pollutant Removal"
 - co-authored 2 peer-reviewed journal articles with K. Hristovski
- 4. Natalia Fischer, Ph.D. Civil and Environmental Engineering; Graduated December 2017;
 - **Dissertation Title:** "Novel operation of granular activated carbon contactors for removal of disinfection by-product precursors."
 - co-authored 1 conference presentation with K. Hristovski
- 5. Jared Schoepf, Ph.D. Civil and Environmental Engineering; Graduated December 2017;
 - Dissertation Title: "Tiered Approach to Detect Nanomaterials in Food and Environmental Matrices"
 - co-authored 4 conference presentations with K. Hristovski
 - co-authored 6 peer-reviewed journal articles with K. Hristovski
- 6. Michelle Barry, Ph.D. Civil and Environmental Engineering; Graduated May 2014;
 - **Dissertation Title:** "Overcoming the Impacts of Extreme Weather and Dissolved Organic Matter on the Treatability of Water using Ozone"
 - co-authored 3 conference presentations with K. Hristovski
 - co-authored 2 peer-reviewed articles with K. Hristovski
- 7. Kyle Doudrick, Ph.D. Civil and Environmental Engineering; Graduated May 2013;
 - **Dissertation Title:** "Environmentally Responsible Use of Nanomaterials for the Photocatalytic Reduction of Nitrate in Water"
 - co-authored 4 peer-reviewed journal articles with K. Hristovski
 - co-authored 4 conference presentations with K. Hristovski
- 8. Chao-An Chiu, Ph.D. Civil and Environmental Engineering; Graduated May 2012;
 - Dissertation Title: "Organic Matter Occurrence in Arizona and Innovative Treatment by Granular Activated Carbon"
 - co-authored 2 peer-reviewed journal articles with K. Hristovski.

- 9. Mehlika Ayla Kiser, Ph.D. Civil and Environmental Engineering; Graduated Aug 2011;
 - Dissertation Title: "Fate of Engineered Nanomaterials in Wastewater Treatment Plants"
 - co-authored 4 peer-reviewed journal articles with K. Hristovski.
 - co-authored 7 conference presentations with K. Hristovski.
- 10. Eulalia Siu, Ph.D. Chemical Engineering; Graduated May 2011;
 - **Dissertation Title**: "Interaction between organophosphorus and oxide surface for air pollution control"
- 11. Juan Tibaquira, Ph.D. Mechanical Engineering; Graduated May 2010;
 - Dissertation Title: "Reclaiming water from energy generation technologies"
 - co-authored 3 peer-reviewed journal articles with K. Hristovski.
 - co-authored 1 conference presentation with K. Hristovski

Ph.D. Students Committee Members Current: 1

- 1. Alireza Farsad, Civil and Environmental Engineering; Committee Member; Estimated Graduation December 2024;
 - co-authored 1 patent with K. Hristovski
 - co-authored 2 peer-reviewed article with K. Hristovski

Chaired M.S. Thesis Students Graduated: 3

- 1. Anne Marie Cooper, MS Technology (Environmental Technology Management); Graduated Dec. 2010;
 - **Thesis Title** "Effect of Carbon Type on Arsenic and Trichloroethylene Removal Capacity of Iron (Hydr)oxide Nanoparticle Impregnated Granulated Activated Carbon"
 - co-authored 2 peer-reviewed journal articles with K. Hristovski;
 - co-authored 4 conference presentations with K. Hristovski;
 - received Dean's Excellence Award for Outstanding College Graduate Student in Fall 2010;
- 2. Arti Jain, MS Technology (Environmental Technology Management); Graduated May 2011;
 - Thesis Title "Fabrication and Evaluation of Hematite Modified Granular Activated Carbon (GAC) Media for Arsenic Removal from Groundwater"
 - co-authored 1 peer reviewed journal article with K. Hristovski;
 - co-authored 1 peer reviewed symposium series article with K. Hristovski.
 - co-authored 3 conference presentations with K. Hristovski;
- 3. Lucien Dieter, MS Environmental and Resource Management; May, 2022
 - Thesis Title: "Microbial Potentiometric Sensor Monitoring of Milk Fermentation"
 - Enrolled in PhD program at Yale University

M.S. Thesis Students Committee Member Graduated: 12

NOTE: collaboration and contribution to mentorship beyond the committee member service is illustrated by the number of joint publications that K. Hristovski has with the student.

- 1. Ricardo Gonzalez Rodriguez MS Civil and Environmental Engineering; Graduated May 2023;
 - **Thesis Title**: "Understanding influence of nanoparticles loading and pore structure on adsorption: A case of study of titanium dioxide nano-impregnated fibers for arsenate removal"
- 2. Stephanie Bone MS Civil and Environmental Engineering; Graduated May 2017;
 - Thesis Title "Immobilization of T4 on modified silica particles"
- 3. Natalia von Reitzenstein Hoogesteijn MS Civil and Environmental Engineering; Graduated May 2015;
 - Thesis Title "Metal Oxide Nanoparticles in Electrospun Polymers and Their Fate in Aqueous Waste Streams"
- 4. Shakira McCall, MS Engineering; Graduated May 2014;
 - Thesis Title "Using Anaerobic Digesters as Instructional Manipulatives to Teach Energy Concepts to High School Students"
- 5. Alexandra Bowen, MS Civil and Environmental Engineering; Committee Member; Collaborator and providing Mentoring Contributions (May 2014);
 - Thesis Title "Hexavalent Chromium Removal Using Ultraviolet Photocatalytic Reactor"
- 6. Heather Stancl, MS Civil and Environmental Engineering; Graduated December 2013;
 - Thesis Title "Hexavalent Chromium Removal Using Ultraviolet Photocatalytic Reactor"
 - Completed her Ph.D. with K. Hristovski (See Ph.D. Students Graduated)
- 7. **Yifei Wang**, MS Civil and Environmental Engineering; Graduated May 2012;
 - Thesis Title "Fate of the Engineered Nanomaterials during Simulated Wastewater Treatment Processes"
 - co- authored 8 conference presentation with K. Hristovski
 - co-authored 4 peer-reviewed journal articles with K. Hristovski;
- 8. **Mary Steffen-Deaton,** MS Technology (Environmental Technology Management); Graduated December, 2011
 - Thesis Title "Impact of Proposed Legislation Concerning Pharmaceutical and Personal Care Products Removal on Publicly Owned Treatment Work"
- 9. Jacelyn Rice, MS Civil, Environmental and Sustainable Engineering; Graduated August, 2011
 - Thesis Title "Optimization of Source Waters for Disinfection Byproduct Control"
- 10. Alex Weir, MS Civil, Environmental and Sustainable Engineering; Graduated August, 2011
 - Thesis Title "Detection and Quantification of Titanium Dioxide Nanoparticles in Organic Matrices"
 - Co-authored 1 peer-reviewed journal article with K. Hristovski;
- 11. Heloise Cook, MS Technology (Environmental Technology Management); Graduated May, 2011
 - Thesis Title "Monitor Exceedance Study of Maricopa County"
- 12. **Sabina Podversich**, MS Technology (Environmental Technology Management); Graduated August 2008;
 - Thesis Title "Effectiveness of Potential Remediation Products to Petroleum Spills at Crash Sites"

Chaired M.S. Applied Project Students Graduated: 29

NOTE: In the ERM program the expectations for MS Applied Project are almost the same as for MS Thesis with exception to number of credit hours, graduate college formatting and scheduling requirements, and number of committee members. In a number of cases, the MS Applied Project deliverables are beyond the requirements for MS Thesis (E.g. In addition to thesis-like document and defense, MS Students produce peer-reviewed publications as part of their applied project contract deliverables).

- 1. **Shane DePinto**, MS Environmental and Resource Management (Water Management); Graduated May 2023;
 - Applied Project Title: "Mitigation of a Localized Plume of Poor-Quality Water Due to a Historic Well's Degradation in Anytown, AZ"
- 2. Lutfullah Rasikh, (co-Chair) MS Environmental and Resource Management (Water Management); Graduated May 2023;
 - Applied Project Title: "Developing a self-assessment methodology for effective water governance"
- 3. Mitchell DePalma, MS Environmental and Resource Management; Graduated December, 2022
 - Applied Project Title: "Solid Waste Savings from Trash Compactor Conversion: A Case Study of Northop Grumman"
- 4. Ana Khan, (co-Chair) MS Environmental and Resource Management; Graduated May 2022;
 - Applied Project Title: Response of polar soil respiration to an increase in temperature and moisture concentration
- 5. Michael Breu, MS Environmental and Resource Management; Graduated December 2021;
 - Applied Project Title: "Establishing a Workable Occupational Exposure Limit for Desflurane in Hospital and Veterinary Clinic Workplaces"
- 6. Sarah Lorenzen, MS Environmental and Resource Management; Graduated December 2021;
 Applied Project Title: "Literature Review of Open Circuit Potential Methods"
- 7. Carissa Leith, MS Environmental and Resource Management; Graduated December 2021
 - Applied Project Title: "Procedural Development of an in field Aquaponic System"
- 8. Mingming Gao, MS Environmental and Resource Management; Graduated December 2018.
 - Applied Project Title: "Evaluating Performance of Microbial Sensor in Algal Ponds"
 - Co-authored 1 peer reviewed articles with K. Hristovski
- 9. Yat Hin Poon (Derek), MS Environmental and Resource Management; Graduated May 2017;
 - Applied Project Title "3D printing processes for water treatment applications"
- 10. Frank Christopher Brown, MS Environmental and Resource Management; Graduated May 2017;
 - Applied Project Title "Determining RCRA Hazardous Waste Characteristics of Decommissioned Photo Voltaic Panels"

- Continued with K. Hristovski into Ph.D. Systems Engineering program (see current PhD. Students)
 - Co-authored 5 conference presentation with K. Hristovski (13 with PhD)
- 11. **Thomas Custodio**, MS Technology (Environmental Technology Management); Graduated May 2017
 - Applied Project Title "Ranking nano-enabled hybrid media for simultaneous removal of contaminants with different chemistries: pseudo-equilibrium sorption tests versus column tests"
 - Co-authored 1 conference presentation with K. Hristovski
 - Co-authored 2 peer reviewed publications with K. Hristovski
- 12. Jose Garcia, MS Engineering; Graduated December 2016;
 - Applied Project Title "Impact of metal oxide nanomaterial impregnation on intraparticle mass transport of organic contaminants in hybrid granular activated carbon"
 - Co-authored 2 conference presentation with K. Hristovski
 - Co-authored 3 peer reviewed articles with K. Hristovski
- 13. Regina Leverette, MS Environmental and Resource Management; Graduated December 2016;
 - Applied Project Title "Use of Multiple Isotopes and Trace Parameters as a Layered Approach to Determine Septic System Impacts to Groundwater in a Rural Community in Scottsdale, Arizona"
- 14. Shaneen Beebe, MS Environmental and Resource Management, Graduated May 2016;
 - Applied Project Title "Heavy Metal Trends in Feathers of Burrowing Owls in New Mexico, US: Spatial, Temporal, and Gender Assessments"
 - Co-authored 1 conference presentation with K. Hristovski
 - Co-authored 1 peer reviewed paper with K. Hristovski
 - Nominated for Dean's Excellence Award for Outstanding College Graduate Student in Spring 2012.
 - Received Department's Outstanding Undergraduate Student Research Award for 2011/2012.
- 15. Jasper Robinson, MS Environmental and Resource Management; Graduated December 2015;
 - Applied Project Title "Development of a UV-LED reactor for photocatalytic reduction of nitrate"
 - Co-authored 1 conference paper with K. Hristovski
- 16. Patrick Carube, MS Environmental and Resource Management; Graduated May 2015;
 - Applied Project Title "Assessment of the Prevailing Dust Control Practices Used by Nail Salon Technicians in the Phoenix Metropolitan Area"
- 17. Arell Grey, MS Environmental and Resource Management; Graduated December 2014;
 - Applied Project Title "Developing Inexpensive, Low Maintenance, Hybrid Ion-Exchange Water Treatment Systems for the Dual Removal of Arsenic and Nitrate from Groundwater in the US/Mexico Border Region"
- 18. Grigoria Athanasaki, MS Environmental and Resource Management; Graduated December 2014;
 - Applied Project Title "The Pore Surface Diffusion Model as a Tool for Rapid Screening of Novel Nanomaterial-Enhanced Hybrid Ion-Exchange Media"

- co-authored 1 peer-reviewed journal article with K. Hristovski
- completed Ph.D. in Systems Engineering
- 19. Natalie Buck, MS Technology (Environmental Technology Management); Graduated May 2014;
 - Applied Project Title "Engineered Nanomaterials (ENMs) in the Environment after Undergoing Wastewater Treatment (WWTP) Processes: Fate and Transformation during Incineration of Biosolids"
 - co-authored 1 conference presentation with K. Hristovski
- 20. Laurie (Rosie) Sherrill, MS Technology (Environmental Technology Management); Graduated December 2013;
 - Applied Project Title "Can Laboratory Scale Short Bed Adsorber Tests Predict a Worse Case Performance of a Pilot System when Operated under More Stringent Conditions?"
 - co-authored 2 peer-reviewed journal articles with K. Hristovski
- 21. Sachi Dale, MS Technology (Environmental Technology Management); Graduated December 2013;
 - Applied Project Title "Pore Surface Diffusion Model Predicts Arsenic Breakthrough of Iron Hybrid Ion Exchange Media using real Groundwater Matrix"
 - co-authored 1 conference presentation with K. Hristovski
 - co-authored 1 peer-reviewed journal article with K.Hristovski
- 22. Alice Jung, MS Technology (Environmental Technology Management); Graduated Dece. 2013;
 - Applied Project Title "Understanding Comprehension Levels of Emergency Notifications by limited English Proficient Korean-Americans in New York City"
 - co-authored 1 peer-reviewed journal article with K.Hristovski
- 23. **Terrance Romaine**, MS Technology (Environmental Technology Management); Graduated December 2012;
 - Applied Project Title "Environmental occurrence and toxicity of nonylphenol"
 - co-authored 2 conference presentations with K. Hristovski.
- 24. **Morgan Bliss**, MS Technology (Environmental Technology Management); Graduated December 2012;
 - Applied Project Title "Compliance of Community Hospitals with the Chemical Facility Anti-Terrorism Standards (CFATS) in the Western United States"
 - co-authored 1 conference presentation with K. Hristovski
 - co-authored 1 peer reviewed article with K. Hristovski;
 - Her research work was cited in a US Congress report.
- 25. **Karika Bridgers**, MS Technology (Environmental Technology Management); Graduated December 2012;
 - Applied Project Title "Surfactant modified granulated activated carbon for arsenic removal"
 - co-authored 5 conference presentations with K. Hristovski
 - co-authored 1 peer-reviewed book chapter with K. Hristovski
 - co-authored 1 peer-reviewed article with K. Hristovski
 - Received Outstanding Departmental Graduate Student Award, Spring 2011.

- 26. **Richard Dockery,** MS Technology (Environmental Technology Management); Graduated August 2012;
 - Applied Project Title "Arizona Energy Assurance and Response Handbook"
 - 1 peer-reviewed journal article with K. Hristovski

27. Jennifer Elton, MS Technology (Environmental Technology Management); Graduated December 2012;

- Applied Project Title "Titanium Dioxide base hybrid ion-exchange media for simultaneous removal of arsenic and nitrate"
- co-authored 1 conference presentation with K. Hristovski.
- co-authored 1 peer reviewed symposium series article with K. Hristovski
- Received Dean's Excellence Award for Outstanding College Graduate Student in Fall 2012
- 28. Robert Sandoval, MS Technology (Environmental Technology Management);
 - Graduated December 2011;
 - Applied Project Title "Removal of arsenic from water by granulated activated carbon media impregnated with zirconium dioxide nanoparticles"
 - co-authored 4 peer reviewed articles with K. Hristovski;
 - co-authored 3 conference presentations with K. Hristovski.
 - Received Dean's Excellence Award for Outstanding College Graduate Student in Fall 2011.
- 29. Ali Forouhar, MS Technology (Environmental Technology Management); Graduated August 2011;
 - Applied Project Title "Solid Waste Management in (Post) Conflict Countries: A Case Study of Kabul, Afghanistan"
 - co-authored 1 peer reviewed journal article with K. Hristovski

Chaired MS. Thesis/Applied Project Students Current: 7

- 1. **Philip Ntheta** (co-Chair), MS Environmental and Resource Management; Estimated Graduation May 2024;
 - Tentative Thesis Title: Solid Waste Topic. To be Determined with the co-chair
- 2. Eliza Sorenson, MS Environmental and Resource Management (Water Management); Estimated Graduation May 2025;
 - *Tentative Project Title:* Water reduction by implementing Smart Irrigation Controller systems in Gilbert, AZ
- 3. Ashok Kumar, MS Environmental and Resource Management; Estimated Graduation December 2024;
 - *Tentative Project Title:* Detecting potentiometric signal patterns from plants
- 4. Mae Pontius (co-Chair), MS Environmental and Resource Management; Estimated Graduation December 2024;
 - Tentative Project Title: Implementation of Small Modular reactors in Rural Areas
- 5. Marry Cotrell (co-Chair), MS Environmental and Resource Management; Estimated Graduation December 2024;
 - *Tentative Project Title:* Lithium Ion Battery Guidance

- 6. Michelle Near (co-Chair), MS Environmental and Resource Management; Estimated Graduation May 2024;
 - Tentative Project Title: Hazardous Waste Minimization Plan for ASU
- 7. Nicholas Spain (co-Chair), MS Environmental and Resource Management; Estimated Graduation December 2024;
 - *Tentative Project Title:* Comparative analysis between a the Central Arizona Project and the Southeastern Anatolia Project in Turkey
- 8. Tessa Jung (co-Chair), MS Environmental and Resource Management; Estimated Graduation December 2024;
 - *Tentative Project Title:* Environmental Challenges for Black Solder Fly Production in Arizona

MS. Portfolio Chair: 24

- 1. **Sydney Crocket**, MS Environmental and Resource Management (Water Management); Graduated May 2024;
- 2. Jennessa Peterson, MS Environmental and Resource Management; Graduated December, 2023
- 3. Tyler Steele, MS Environmental and Resource Management; Graduated December, 2023
- 4. Devarshi Bharatkumar Patel, MS Environmental and Resource Management; Graduated December, 2023
- 5. Sydney Boogaard, MS Environmental and Resource Management; Graduated December, 2023
- 6. Cory Williams, MS Environmental and Resource Management; Graduated December, 2023
- 7. Sahaj Patel, MS Environmental and Resource Management; Graduated December, 2023
- 8. Isaiah Bing, MS Environmental and Resource Management (Water Management); Graduated August, 2023
- 9. Sushanth Karkala Rao, MS Environmental and Resource Management; Graduated May, 2023
- 10. Quinn Hill, MS Environmental and Resource Management; Graduated May, 2023
- 11. Traci Warholic, MS Environmental and Resource Management; Graduated May, 2023
- 12. Kelly L. M. Bergin, MS Environmental and Resource Management (Water Management); Graduated December, 2022
- 13. Mireya Gomez, MS Environmental and Resource Management; Graduated December, 2022
- 14. David A. Lawlor, MS Environmental and Resource Management; Graduated May, 2022
- 15. Phelan Stover, MS Environmental and Resource Management; Graduated May, 2022
- 16. Mandeep Singh, MS Environmental and Resource Management; Graduated May, 2022
- 17. William L. Garner, Jr., MS Environmental and Resource Management; Graduated May, 2022
- 18. Dominique Cupa, MS Environmental and Resource Management; Graduated December, 2021
- 19. Christina Rodriguez Heald, MS Environmental and Resource Management; Graduated December, 2021
- 20. Alonso Israel Haros Verdugo, MS Environmental and Resource Management (Water Management); Graduated December, 2021
- 21. Gengyang Li, MS Environmental and Resource Management; Graduated May, 2021
- 22. **Paul Cattelino,** MS Environmental and Resource Management (Water Management); Graduated May, 2021
- 23. Mitchell Rinker, MS Environmental and Resource Management; Graduated May, 2021
- 24. Christopher Holloman, MS Environmental and Resource Management; Graduated December, 2020
- 25. Simone Kjolsrud, MS Environmental and Resource Management; Graduated December, 2020

MS. Applied Project Committee Member: 6

- 26. Warren Morland, MS Technology (Environmental Technology Management); Graduated December, 2011
 - Applied Project Title "Isoconcentration Contour Maps: Guidelines for Better Results"
- 27. **Georgina Britsow,** MS Technology (Environmental Technology Management); Graduated December, 2011
 - **Applied Project Title** "PM10 Attainment in Maricopa County, Arizona: A Comparative Analysis and Recommendation for Implementation"
- 28. **Gregory Guimond,** MS Technology (Environmental Technology Management); Graduated December, 2010
 - Applied Project Title "From Grape to Wine: A Product Life Cycle Approach to Carbon Footprinting a Bottle of Wine"
- 29. Amanda Mann, MS Technology (Environmental Technology Management); Graduated December, 2010
 - Applied Project Title "Reduction of Industrial non-Hazardous Solid Waste to Landfill: A case Study"
- 30. Courtney Perrier-Bear, MS Technology (Emergency Management focus); Graduated December, 2010
 - Applied Project Title "Diesel Saddle Tank Response and Remediation by the Arizona Department of Transportation"
- 31. Justin Dutmers, MS Technology (Emergency Management Focus); Graduated December 2008.
 - Applied Project Title "Interrelation of Emergency and Environmental Management: A Study for Common Ground"

Mentored Undergraduate Students (Research):

Fulton Undergraduate Research Initiative (FURI) students: 6

- 1. Cody Camren, BS Engineering
 - *FURI Project Title* "Examining titanium dioxide hybrid media as a treatment solution for removal of fluoride from water" Fall 2014/Spring 2015
- 2. Frank Chris Brown, BS Environmental and Resource Management
 - *FURI Project Title* "Phosphate Remediation and Recovery Through the use of Titanium Dioxide Nanoparticles and Ion Exchange Media" –Spring 2015
- 3. Michelle Marco, BS Engineering
 - *FURI Project Title* "Examining the Release of Silver in Nano-Enabled Commercial Products and Materials to Determine Their Potential Hazardous Waste Character" –Spring 2015

- Co-authored 1 conference paper with K. Hristovski
- Co-authored 1 peer-reviewed journal article with K. Hristovski
- 4. George Kharlakian, BS Environmental and Resource Management
 - *FURI Project Title* "Assessing how zero-point surface charge affects removal of arsenic by titanium dioxide-hybrid media" Fall 2016/Spring 2017
- 5. Zhanelle Coleman, BS Engineering
 - *FURI Project Title* "Nanoparticle Enabled Water Treatment Using 3D Polymerization" Spring 2017
- 6. Nguyen Dang Xuan, BS Environmental and Resource Management
 - *FURI Project Title* "Potential effect of prolonged weathering on heavy metal leaching from pressure-treated-lumber" Spring 2018

Barrett Honors Students: 2

- 1. Zhihao Chen, BS Environmental and Resource Management
 - *Honor Thesis Title* "Developing Simplified Nanoparticle Partitioning Functional Assays" – Graduation Spring 2017
- 2. Bryan Einsen, BS Environmental and Resource Management
 - *Honor Thesis Title* "Determining The Difference in the Perception of Success Between Participants and Evaluators in the Emergency Management Setting" Spring 2017

Individual Undergraduate Senior Projects: 45

NOTE: The list below consists of individual undergraduate senior projects completed under mentorship of K. Hristovski and students' achievements. Additional mentorship for eProjects (also called iProjects – old reference), which focused on student teams rather than individual students, is provided under the Teaching section.

- 1. Erin Shriner, BS Environmental and Resource Management, Fall 2023
 - Senior Project Title "Generation of Cardboard Recyclables from a Coffee Shop"
- 2. Aden M. Burton, BS Environmental and Resource Management, Fall 2023
 - Senior Project Title "The Composition of Restaurant Generated Solid Waste in Tempe, Arizona"
- 3. Frank Christopher Brown, BS Environmental and Resource Management, Spring/Fall 2014
 - Senior Project Title "Developing a wastewater treatment training program for the Mexican metal plating industry located at the Arizona-Mexico border"
 - 1 conference presentation at the EPAZ 2015 Gatekeeper Conference Scottsdale, AZ
- 4. Shaneen Beebe, BS Environmental Technology Management. Fall 2011
 - *Senior Project Title* "Burrowing Owl Habitat Selection in Urban Southeast Phoenix, Arizona" (Co-mentor with H. Bateman)
 - Co-authored 1 conference presentation with K. Hristovski
 - Co-authored 1 peer reviewed paper with K. Hristovski

- Nominated for Dean's Excellence Award for Outstanding College Graduate Student in Spring 2012.
- Received Department's Outstanding Undergraduate Student Research Award for 2011/2012.
- 5. Robert Hulverson; BS Environmental Technology Management, Spring 2013
 - Senior Project Title "Estimating water, energy, and carbon footprints of residential swimming pools"
 - 1 peer-reviewed book chapter in *Water Reclamation and Sustainability*
- 6. Natalie Geiger, BS Environmental Technology Management, Spring 2013
 - Senior Project Title "Screening of different photocatalysts for reduction of nitrate in water"
- 7. Dallas Hammond, BS Environmental Technology Management, Fall 2012
 - *Senior Project Title* "Microclimate impacts of yard composition in the power ranch subdivision of Gilbert, Arizona" (Co-mentor with Benjamin Ruddell)
 - 1 conference presentation at the EPAZ 2013 Gatekeeper Conference Scottsdale, AZ;
- 8. Theodore Batkie, BS Environmental Technology Management, Fall 2012
 - *Senior Project Title* "Identifying the causes of the formation of hydrogen sulfide gas in restaurant grease interceptors"
 - 1 conference presentation at the EPAZ 2013 Gatekeeper Conference Scottsdale, AZ;
- 9. Scott Murphy, BS Environmental Technology Management, Fall 2011
 - *Senior Project Title* "Removal of Arsenic from Water by Nanostructured Titanium Dioxide Spheres"
 - 1 conference presentation at the EPAZ 2012 Gatekeeper Conference Scottsdale, AZ;
 - Scholarship Recipient Environmental Professionals of Arizona
- 10. Dennise Flannigan, BS Environmental Technology Management, Fall 2011
 - *Senior Project Title* "Use of Bolaform Amphiphile Modified GAC for Removal of Nitrate and Perchlorate from Drinking Water"
 - Co-authored 1 peer-reviewed paper with K. Hristovski
- 11. Rahil Abu-Saleh, BS Environmental Technology Management, Fall 2011
 - Senior Project Title "Relationship between the Iso-electric Point and Iron Content in Iron Hydroxide Impregnated Aluminosilicate based Geopolymers"
- 12. Jennifer Channel, BS Environmental Technology Management, Fall 2011
 - *Senior Project Title* "Association of high level PM10 concentration and emission sources dependent on wind direction at monitoring station"
- 13. Cameroon Poupard, BS Environmental Technology Management, Spring 2011
 - Senior Project Title "Airborne Chalk Dust Inside Gymnastic Training Centers"
- 14. Richard Dockery, BS Environmental Technology Management, Fall 2010
 - *Senior Project Title* "Controlled Synthesis of Hematite Nanoparticles: Hydrolysis Temperature and Time Effects on Nanoparticle Size"
 - 1 peer-reviewed journal article with K. Hristovski

- 15. James Roe, BS Environmental Technology Management, Spring 2010
 - *Senior Project Title* "Assessment of Asbestos Building Inspector Compliance During Bulk Sampling"
- 16. Kristen Davidson, BS Chemistry/BS Psychology, Spring 2010
 - *Senior Project Title* "Impact of the outputs of simple sustainable energy model on public's perception and comprehension of renewable solar energy"
- 17. George Schuler, BS Environmental Technology Management, Spring 2010
 - *Senior Project Title* "Determination of Surfactant Dose for Double Layer Formation onto Granulated Activated Carbon Surface"
- 18. Alvaro Tafolla, BS Environmental Technology Management, Spring 2010
 - *Senior Project Title* "Impact of Initial Concentration on Arsenic Adsorption Capacity of P90 Titanium Dioxide Nanoparticles"
- 19. Jeremy Sanner, BS Environmental Technology Management, Fall 2010
 - *Senior Project Title* "Methylene Blue Adsorption on Iron Modified Granular Activated Carbon"
 - Co-authored 1 peer-reviewed article with K. Hristovski.
 - Co-authored 2 Conference Presentations:
 - SCERP Annual Technical Conference, Tempe AZ, January 2010.
 - Seventh Annual Gatekeeper Conference, Scottsdale, AZ, February 15, 2011
- 20. Alexander Mangonon, BS Environmental Technology Management. Spring 2010
 - Senior Project Title "Nitrate Reduction using Photocatalysis with Nanomaterials"
 - Co-authored 1 peer-reviewed journal article with K. Hristovski.
- 21. Hugo Luque, BS Environmental Technology Management, Fall 2009
 - Senior Project Title "Partitioning of Hematite Nanoparticles on Soil and Sand"
 - Co-authored 2 Conference Presentations:
 - ✤ 2010 Gatekeeper Conference Phoenix, January 2010;
 - American Chemical Society Annual National Conference Boston, August, 2010.
- 22. Kathryn Aymar, BS Environmental Technology Management, Spring 2010
 - *Senior Project Title* "Adsorption of Methylene Blue onto Zirconium Dioxide Modified Granulated Activated Carbon"
 - Co-authored 1 peer-reviewed journal article with K. Hristovski
 - Co-authored 2 Conference Presentation:
 - American Water Works Association 2010 Annual Conference, Chicago, June 2010.
 - SCERP Annual Technical Conference, Tempe AZ, January 2010.
- 23. Nathan Casiraro, BS Environmental Technology Management, Fall 2009
 - *Senior Project Title* "Commercial Fabrics Containing Silver Nanoparticles: Hazardous Waste or Not?"
 - Co-authored Conference Presentation:
 - 2010 Environmental Professionals of Arizona Gatekeeper Conference Phoenix, January 2010
- 24. Ian Hobbs, BS Environmental Technology Management, Fall 2009

- *Senior Project Title* "Lipid producing micro-algae grown in wastewater and fed flue gas can produce a viable alternative biodiesel?"
- 25. Kyle Collins, BS Environmental Technology Management, Fall 2010
 - Senior Project Title "Determining the Feasibility of using Dry-Lot Dairy Manure for Biogas Production by Anaerobic Digestion"
- 26. Daniel L. Smith, BS Environmental Technology Management, Spring 2010
 - *Senior Project Title* "Incorporating new hires into small business by developing a training and reference manual"
- 27. Christine Vo, BS Environmental Technology Management, Fall 2010 (co-mentored with L. Ralston)
 - *Senior Project Title* "Designing a website for public emergency communications at Arizona State University"
- 28. Will C. Brainard, BS Environmental Technology Management, Spring 2010
 - Senior Project Title "Installation of an electric drive system on a vehicle trailer"
- 29. **Phillip Loftis**, BS Environmental Technology Management, Spring 2010 (co-mentored with John Dryer at USDA – John was the lead)
 - *Senior Project Title* "Transformation of *Lesquerella fendleri* with GFP tagged pmds43 and pmdc43 hydroxylase"
- 30. Frank H. Wodiuk, BS Environmental Technology Management, Spring 2010
 - Senior Project Title "How to build a wind turbine for the homeowner?"
- 31. Laura Fritsky, BS Environmental Technology Management, Spring 2011
 - *Senior Project Title* "Removal of trihalometanes dfrom drinking water: a case study on a City of Mesa reservoir"
- 32. Irina Alexandrova, BS Environmental Technology Management, Fall 2011
 - *Senior Project Title* "Determination of Carbon Dioxide Emission Resulting from Gas Flaring Activities in the Republic of Kazakhstan"
- 33. Brandy Gunderson, BS Environmental Technology Management, Fall 2013
 - *Senior Project Title* "Characterization of the Recyclables Stream at the Wild Horse Pass Hotel and Casino"
- 34. Tomas Custodio, BS Environmental Technology Management, Fall 2011
 - *Senior Project Title* "Arsenic removal from water using granular activated carbon loaded with titanium dioxide"
 - Continued for an MS degree with K. Hristovski and co-authored 2 peer-reviewed publications and 1 conference presentation with K. Hristovski
- 35. Erica Swain, BS Environmental Technology Management, Fall 2011
 - Senior Project Title "Phase I Environmental Site Assessment of an Industrial Property in Odessa, Texas"
- 36. Bryan Bowles, BS Environmental Technology Management, Fall 2011

- Senior Project Title "e.T.U.R.D. energy Transformation Using Reactive Digestion"
- 37. Tomas Sweich, BS Environmental Technology Management, Fall 2011
 - *Senior Project Title* "Occurrence and Characterization of Illegal Dump Sites Surrounding Lake Saguaro"
- 38. Brad Dunn, BS Environmental Technology Management, Fall 2012
 - *Senior Project Title* "Comparison of two Media through the use of Rapid Small Scale Column Tests"
- 39. Adriane Gora, BS Environmental Technology Management, Fall 2012
 - Senior Project Title "Public's opinion on sustainable improvements to local dog parks"
- 40. Kenyatta Samuel Mangar, BS Environmental Technology Management, Fall 2012
 - Senior Project Title "Biochar based simple and inexpensive water treatment for small communities in the developing countries"
- 41. Matthew Richardson, BS Environmental Technology Management, Fall 2012
 - *Senior Project Title* "Fabrication of Inexpensive Point-of-Use Packed Bed Adsorbent System for Arsenic Removal"
- 42. Melissa Rose, BS Environmental Technology Management, Fall 2012
 - *Senior Project Title* "Water Pollution Prevention: Development of an Educational Lesson Plan (Grades 7-8)"
- 43. Miguel Castellanos, BS Environmental Technology Management, Fall 2012
 - *Senior Project Title* "Assessing the Potential of Implementing a Plastic Bag Recycling Program at Target Stores"
- 44. Tawyna Petersen, BS Environmental Technology Management, Fall 2012
 - Senior Project Title "What Happens To pH as Temperature of Compost Increases?"
- 45. Tyler Stephens, BS Environmental Technology Management, Fall 2012
 - Senior Project Title "Creation of Water Filtration Device Using Available Materials"

Student Fellowships and Awards: 8

Student Fellowships: 2

- 1. Daniel Saboe, Ph.D. Systems Engineering; Deans Fellowship;
- 2. Frank C. Brown, Ph.D. Systems Engineering; Deans Fellowship;

Student Awards: 6

- 1. Ann Marie Cooper, MS. Technology (Environmental Technology Management),
 - Deans Excellence Award for Outstanding College Graduate Student. Fall 2010
- 2. Robert Sandoval, MS Technology (Environmental Technology Management),
 - Deans Excellence Award for Outstanding College Graduate Student. Fall 2011
- 3. Karika Bridgers, MS Technology (Environmental Technology Management),
 - Deans Excellence Award for Outstanding College Graduate Student. Spring 2012
- 4. Jennifer Elton, MS Technology (Environmental Technology Management),
 - Deans Excellence Award for Outstanding College Graduate Student. Fall 2012
- 5. **Shaneen Beebe,** MS Environmental and Resource Management; BS Environmental Technology Management
 - Received Department's Outstanding Undergraduate Student Research Award for 2011/2012.
 - Departmental nomination for Dean's Excellence Award for Outstanding College Graduate Student in Spring 2012.
- 6. Scott Murphy, BS Environmental Technology Management,
 - Received Scholarship Award from the Environmental Professionals of Arizona, 2011

TEACHING

Undergraduate Courses Taught: 47

Brief Reference List of Taught Courses (All courses are at ASU) * See Detailed Information Section for additional clarification

No.	Course Term and Description	Score
47.	2023 Fall ERM 494 Chemistry of Hazardous Materials	5.00
46.	2023 Fall ERM 480 Senior Project (3 Units)	4.94
45.	2023 Spring ERM 302 Water and Wastewater Treatment Technologies	5.00
44.	2022 Fall ERM 402 Unit Treatment Technologies (3 units)	4.74
43.	2022 Spring ERM 406 Environmental Chemistry (3 units)	4.85
42.	2022 Spring ERM 302 Water and Wastewater Treatment Technologies (3 units)	4.74
41.	2021 Fall ERM 402 Unit Treatment Technologies (3 units)	4.69
40.	2021 Spring ERM 406 Environmental Chemistry (3 units)	4.87
39.	2021 Spring ERM 302 Water and Wastewater Treatment Technologies (3 units)	4.81
38.	2020 Fall ERM 402 Unit Treatment Technologies (3 units)	4.00*
37.	2020 Spring ERM 302 Water and Wastewater Treatment Technologies (3 units)	4.98
36.	2019 Fall ERM 402 Unit Treatment Technologies (3 units)	4.85
35.	2019 Spring ERM 302 Water and Wastewater Treatment Technologies (3 units)	4.70
34.	2018 Fall ERM 402 Unit Treatment Technologies (3 units)	4.73
33.	2017 Fall ERM 402/EGR 425 Unit Treatment Technologies (3 units)	4.78
32.	2017 Spring ERM 302/EGR 325 Water and Wastewater Treatment Technologies (3 unts)	4.91
31.	2017 Spring ERM 401 Hazardous waste management (3 units)	4.56*
30.	2016 Fall ERM 432 Sustainable Solid Waste Management (3 units)	3.22*
29.	2016 Fall ERM 402/EGR425 Unit Treatment Technologies (3 units)	4.64
28.	2016 Spring ERM 401/EGR 427 Hazardous Waste Management (3 units)	4.81
27.	2016 Spring EGR 325/ERM 302 Water and Wastewater Treatment (3 units)	4.15*
26.	2015 Fall EGR 426/ERM 494 Integrated Solid Waste Systems (3 units)	4.93
25.	2015 EGR 425/ERM 402 Unit Treatment Technologies and Systems (3 units)	4.85
24.	2015 Spring ERM 494 ECOCar 3 (3 units)	5.00
23.	2015 Spring EGR 427/ERM 401 Hazardous Waste Management (3 units)	4.86
22.	2015 Spring EGR 325/ERM 302 Water and Wastewater Treatment (3 units)	4.83
21.	2014 Fall EGR 426/ERM 494 Integrated Solid Waste Systems (3 units)	4.95
20.	2014 Fall EGR 425/ERM 402 Unit Treatment Technologies and Systems (3 units)	4.84
19.	2014 Spring EGR 312 Environmental Systems Project II (3 units)	4.94
18.	2014 Spring ERM 302/EGR 394 Water and Wastewater Treatment (3 units)	4.86
17.	2014 Spring ERM 401/EGR 494 Hazardous Waste Management (3 units)	4.95
16.	2013 Fall ERM 494/EGR 494 Integrated Solid Waste Systems (3 units)	4.86
15.	2013 Fall ETM 402/EGR 494 Unit Treatment Technologies and Systems (3 units)	4.80
14.	2013 Spring ETM 302 Water and Wastewater Treatment (3 units)	4.64
13.	2013 Spring ETM 401 Hazardous Waste Management (3 units)	4.63
12.	2012 Fall ETM 480 Senior Project (3 units)	4.04*
11.	2012 Spring ETM 302 Water and Wastewater Treatment (3 units)	4.16*
10.	2011 Fall ETM 480 Senior Project (3 units)	4.21
9.	2011 Fall ETM 401 Hazardous Waste Management (3 units)	4.69
8.	Spring TMC 480 Senior Project: ETM Section (3 units)	4.00*

7.	2010 Fall TMC 480 Senior Project: ETM Section (3 units)	4.91
6.	2010 Fall ETM 302 Water and Wastewater Treatment (3 units)	4.65
5.	2010 Summer CEE 361 Intro to Environmental Engineering (4 units)	NA*
4.	2010 Spring ETM 494 Sustainable Solid Waste Management (3 units)	3.5*
3.	2010 Spring TMC 480 Senior Project: ETM Section (3 units)	4.76
2.	2009 Fall ETM 406 Environmental Chemistry (3 units)	4.22
1.	2009 Fall TMC 480 Senior Project: ETM Section (3 units)	5.00
	AVERAGE EVALUATION SCORE: 4.65 ± 0.40	

Detailed Information on Undergraduate Courses Taught (All courses are at ASU)

No. 47.	 Course 2023 Fall ERM 494 Chemistry of Hazardous Materials Students in Section: 1 (N = 1) Score: 5.00 Only one student in the course which was taught with ERM 506 	Score 5.00
46.	 2023 Fall ERM 480 Senior Project Students in Section: 4 (N = 2) Score: 4.94 	4.94
45.	 2023 Spring ERM 302 Water and Wastewater Treatment Technologies Students in Section: 4 (N = 4) Score: 5.0 	5.0
44.	 2022 Fall ERM 402 Unit Treatment Technologies (3 units) Students in Section: 12 (N = 11) Score: 4.74 	4.74
43.	 2022 Spring ERM 406 Environmental Chemistry (3 units) Students in undergraduate (2) sections: 11 (N = 6) Score 4.85 (Weighted average) The score is weighted average evaluation of the instructor's performance describing quality of different aspects of instruction based on the standardized set of questions (Part 2) Section 1: Evaluation: 4.81 (4/8) Section 2 Evaluation:4.94 (2/3) Multiple Course Lines (One iCourse, and One in-Person,) taught together and reported as weighted average 	4.85
42.	 2022 Spring ERM 302 Water and Wastewater Treatment Technologies (3 units) Students in Section: 15 (N = 14) Score: 4.74 	4.74
41.	 2021 Fall ERM 402 Unit Treatment Technologies (3 units) Students in Section: 5 (N = 5) 	4.69

• Score 4.69

40.	2021 Spring ERM 406 Environmental Chemistry (3 units)	4.87
	• Students in two sections: 14 (N = 7)	
	• Score 4.87 (Weighted average)	
	 The score is weighted average evaluation of the instructor's performance describing quality of different aspects of instruction based on the standardized set of questions (Part 2) Section 1: Evaluation: 4.70 (3/9) Section 2: Evaluation: 4.94 (4/5) 	
	 Multiple Course Lines (iCourse, in-Person, and ASUSync) taught together and reported as weighted average This is a New Course Preparation (Newly Redeveloped to meet iCourse requirements) 	
39.	 2021 Spring ERM 302 Water and Wastewater Treatment Technologies (3 units) Students in Section: 9 (N = 7) Score: 4.74 	4.81
38.	 2020 Fall ERM 402 Unit Treatment Technologies (3 units) Students in Section: 10 (N = 1) Score: 4.00 Only one student responded 	4.00*
37.	 2020 Spring ERM 302 Water and Wastewater Treatment Technologies (3 units) Students in Section: 10 (N = 5) Score: 4.98 	4.98
36.	 2019 Fall ERM 402 Unit Treatment Technologies (3 units) Students in Section: 20 (N = 13) Score: 4.85 	4.85
35.	 2019 Spring ERM 302 Water and Wastewater Treatment Technologies (3 units) Students in Section: 22 (N = 18) Score: 4.70 	4.70
34.	 2018 Fall ERM 402 Unit Treatment Technologies (3 units) Students in Section: 15 (N = 15) Score: 4.73 	4.73
33.	 2017 Fall ERM 402/EGR 425 Unit Treatment Technologies (3 units) Combined Students in 2 sections: 22 (N = 20) Score 4.78 (Weighted average) Section ERM: Evaluation: 4.77 (19/21) Section EGR: Evaluation: 5.00 (1/1) The courses were co-listed as separate, but taught as one class in Flipped Classroom /Web Based Mode; 	4.78
32.	2017 Spring ERM 302/EGR 325 Water and Wastewater Treatment Technologies	4.91

• Combined Students in Section: **17** (N = 13)

(3 units)

- Score 4.91 (Weighted average)
 - Section ERM: Evaluation: 4.90 (12/16)
 - Section EGR: Evaluation: 5.00 (1/1)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom /Web Based Mode;

31. 2017 Spring ERM 401 Hazardous waste management (3 units)

- Students in Section: **13** (N = 8)
- Score: 4.56
 - The course was taught class in Flipped Classroom Mode;
 - The course was co-taught with ERM 501, which required some modification on how the course was taught to undergraduate vs graduate students. This contributed for lower than usual score.

30. 2016 Fall ERM 432 Sustainable Solid Waste Management (3 units)

- Students in Section: 2 (N = 1)
- Score: 3.22
 - Only one student responded
 - The course was offered for the first time as an undergraduate ERM 432 course
 - The course was taught class in Flipped Classroom Mode;
 - The course was co-taught with two sections of ERM 532, which required some modification on how the course was taught to undergraduate vs graduate students.
 - This contributed for lower than usual score.
 - When combined with the graduate sections the weighted average was 4.44

29. 2016 Fall ERM 402/EGR425 Unit Treatment Technologies (3 units)

- Combined Students in 2 Section: **17** (N = 14)
- Score 4.64 (Weighted average)
 - Section ERM: Evaluation: 4.58 (12/15)
 - \circ Section EGR: Evaluation: 5.00 (2/2)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom /Web Based Mode;
 - The course was taught to Engineering and ERM students. Some topics were found more challenging for ERM students than Engineering, which contributed for lower than usual score.

28. 2016 Spring ERM 401/EGR 427 Hazardous Waste Management (3 units)

- Combined Students in 2 Section: 16 (N = 7)
- Score 4.64 (Weighted average)
 - Section ERM: Evaluation: 4.94 (4/10)
 - Section EGR: Evaluation: 4.63 (3/6)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom /Web Based Mode;

27. 2016 Spring EGR 325/ERM 302 Water and Wastewater Treatment (3 units) 4.15*

- Combined Students in 2 Sections: 25 (N = 9)
 - Score 4.15 (Weighted average)
 - Section ERM: Evaluation: 3.97 (7/18)

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4.56*

3.22*

4.64

- Section EGR: Evaluation: 4.78 (2/7)
- The course was taught to Engineering and ERM students. It was tailored more toward engineering students. Some topics were found more challenging for ERM students than Engineering, which contributed for lower than usual score.
- Low number of responses
- The courses were co-listed as separate, but taught as one class in Flipped Classroom /Web Based Mode;

26. 2015 Fall EGR 426/ERM 494 Integrated Solid Waste Systems (3 units)

- Combined Students in 2 section: **13** (N = 9)
- Score 4.93 (Weighted average)
 - Section ERM: Evaluation: 4.97 (4/6)
 - Section EGR: Evaluation: 4.89 (5/7)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom /Web Based Mode;

25. 2015 EGR 425/ERM 402 Unit Treatment Technologies and Systems (3 units) 4.85

- Combined Students in 2 sections: **21** (N = 12)
- Score 4.85 (Weighted average)
 - Section ERM: Evaluation: 4.85 (6/12)
 - Section EGR: Evaluation: 4.85 (6/9)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom /Web Based Mode;

24. 2015 Spring ERM 494 ECOCar 3 (3 units)

- Students in Section: 3 (N = 2)
- Score: 5.00
 - This course was part of the ECOCar 3 Competition Program.
 - Project based course
 - The ERM student team scored 100% on their performance, which has not been done in any category in the history of the competition.

0

23. 2015 Spring EGR 427/ERM 401 Hazardous Waste Management (3 units) 4.86

- Combined Students in 2 sections: **22** (N = 12)
- Score 4.86 (Weighted average)
 - Section ERM: Evaluation: 4.81 (9/18)
 - Section EGR: Evaluation: 5.00 (3/4)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom /Web Based Mode;

22. 2015 Spring EGR 325/ERM 302 Water and Wastewater Treatment (3 units) 4.83

- Combined Students in 2 sections: 36 (N = 17)
- Score 4.85 (Weighted average)
 - Section ERM: Evaluation: 4.81 (12/26)
 - Section EGR: Evaluation: 4.89 (5/10)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom

21. 2014 Fall EGR 426/ERM 494 Integrated Solid Waste Systems (3 units)

• Combined Students in 2 sections: **18** (N = 15)

4.95

5.00

• Score 4.85 (Weighted average)

- Section ERM: Evaluation: 4.94 (10/13)
- Section EGR: Evaluation: 4.96 (5/5)
- The courses were co-listed as separate, but taught as one class in Flipped Classroom

20. 2014 Fall EGR 425/ERM 402 Unit Treatment Technologies and Systems (3 units) 4.84

- Combined Students in 2 section: **15** (N = 10)
- Score 4.85 (Weighted average)
 - Section ERM: Evaluation: 4.76 (6/11)
 - Section EGR: Evaluation: 4.92 (4/4)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom

19. 2014 Spring EGR 312 Environmental Systems Project II (3 units)

- Students in Section: 3 (N = 1)
- Score: 5.00
 - Only one student evaluation
 - This is a Project Course; New Course Preparation

18. 2014 Spring ERM 302/EGR 394 Water and Wastewater Treatment (3 units) 4.86 Combined Students in 2 sections: 24 (N = 22)

- Score 4.86 (Weighted average)
 - Section ERM: Evaluation: 4.85 (16/17)
 - Section EGR: Evaluation: 4.87 (6/7)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom

17. 2014 Spring ERM 401/EGR 494 Hazardous Waste Management (3 units) 4.95

- Combined Students in 2 section: **22** (N = 15)
- Score 4.86 (Weighted average)
 - Section ERM: Evaluation: 4.91 (14/19)
 - Section EGR: Evaluation: 5.00(1/3)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom

16. 2013 Fall ERM 494/EGR 494 Integrated Solid Waste Systems (3 units)

- Combined number of students from both Sections: 7 (N = 5)
 - Score 4.86
 - Course was evaluated as one course line
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom

15. 2013 Fall ETM 402/EGR 494 Unit Treatment Technologies and Systems (3 units) 4.80

- Combined number of students from both Sections: 14 (N = 5)
- Score 4.80 (Weighted average)
 - Section ERM: Evaluation: 4.74 (4/11)
 - Section EGR: Evaluation: 5.00 (1/3)
 - The courses were co-listed as separate, but taught as one class in Flipped Classroom

4.86

14.	 2013 Spring ETM 302 Water and Wastewater Treatment (3 units) Students in Section: 23 (N = 14) Score: 4.64 	4.64
13.	 2013 Spring ETM 401 Hazardous Waste Management (3 units) Students in Section: 32 (N = 20) Score: 4.63 	4.63
12.	 2012 Fall ETM 480 Senior Project (3 units) Students in Section: 18 (N = 10) Score: 4.04 This was a project-based course the evaluation survey did not correspond or depict the activities in the course, so it does not realistically reflect the course performance Hybrid Course 	4.04*
11.	 2012 Spring ETM 302 Water and Wastewater Treatment (3 units) Students in Section: 27 (N = 13) Score: 4.16 Modifications were made to improve the course and help the students from the first time it was taught, but they did not work out well. It was a relatively new course and new experience in teaching. 	4.16
10.	 2011 Fall ETM 480 Senior Project (3 units) Students in Class: 11 (N = 6) Score: 4.21 The Score is an average of 9 questions evaluating the instructor New Course Development - Hybrid 	4.21
9.	 2011 Fall ETM 401 Hazardous Waste Management (3 units) Students in Section: 26 (N =12) Score: 4.69 New Course Development in Classroom Setting The Score is an average of 9 questions evaluating the instructor 	4.69
8.	 Spring TMC 480 Senior Project: ETM Section (3 units) Students in Section: 2 (N = 1) Score: 4.00 Only one student responded The course was taught as part of large TMC 480 cohort The Score is an average of the 9 questions evaluating the instructor 	4.00*
7.	 2010 Fall TMC 480 Senior Project: ETM Section (3 units) Students in Section: 6 (N = 4) Score: 4.00 Only one student responded The course was taught as part of large TMC 480 cohort The Score is an average of 9 questions evaluating the instructor 	4.91
6.	2010 Fall ETM 302 Water and Wastewater Treatment (3 units)	4.65

Students in Section: 22 (N = 15)

- Score: 4.65
 - New Course Preparation
 - The course was taught as part of large TMC 480 cohort
 - The Score is an average of 9 questions evaluating the instructor

5. 2010 Summer CEE 361 Intro to Environmental Engineering (4 units)

- Students in Class: 9
- Score: NA
 - o Summer evaluations were not conducted before Summer 2011
 - New Course Preparation

4. 2010 Spring ETM 494 Sustainable Solid Waste Management (3 units)

- Students in Section: 8 (N = 3)
- Score: 3.5
 - New Course Development
 - Second semester as an Assistant Professor
 - \circ Teaching 2 + 2 first year
 - The course was taught as combined section with an ERM 598 Section, which scored 3.92
 - The Score is an average of 10 questions evaluating the instructor

3. 2010 Spring TMC 480 Senior Project: ETM Section (3 units) Students in 2 sections: **10** (7 face to face and 3 hybrid) (N = 8)

- Students in 2 sections: 10 (/ face to face and 3 hy
 - Score: 4.76
 - New Course Development as Hybrid
 - Second semester as an Assistant Professor
 - \circ Teaching 2 + 2 first year
 - The course was taught as part of large TMC 480 cohort
 - The Score is an average of 10 questions evaluating the instructor

2. 2009 Fall ETM 406 Environmental Chemistry (3 units)

Students in Class: 26 (N = 13)

- Score: 4.22
 - New Course Development as web-based course
 - New Course Preparation
 - First semester as an Assistant Professor
 - \circ Teaching 2 + 2 first year
 - The Score is an average of 10 questions evaluating the instructor

1. 2009 Fall TMC 480 Senior Project: ETM Section (3 units)

Students in Section: 4 (N = 4)

- Score: 5.00
 - New Course Preparation
 - First semester as an Assistant Professor
 - \circ Teaching 2 + 2 first year
 - The course was taught as part of large TMC 480 cohort
 - The Score is an average of 10 questions evaluating the instructor

AVERAGE COURSE EVALUATION SCORE: 4.63 ± 0.40

NA*

3.5*

4.76

4.22

Graduate Course Taught 22

Brief Reference List of Taught Courses (All courses are at ASU) * See Detailed Information Section for additional clarification

No.	Course Term and Description	Score
22.	2023 Fall ERM 506 Chemistry of Hazardous Materials (3 units)	4.82
21.	2023 Fall/ERM 598 Water Resources Management (1 unit Fall + 2 units Spring)	4.97*
20.	2022 Fall ERM 506 Chemistry of Hazardous Materials (3 units)	4.93
19.	2022 Fall/2023 Spring ERM 598 Water Resources Management (1 unit Fall + 2 units	4.94*
	Spring)	
18.	2022 Spring ERM 598 Environmental Chemistry (3 units)	4.3
17.	2021 Fall/2022 Spring ERM 598 Water Resources Management (1 unit Fall + 2 units	3.33*
	Spring)	
16.	2021 Fall ERM 506 Chemistry of Hazardous Materials (3 units)	4.71
15.	2021 Spring ERM 598 Environmental Chemistry (3 units)	4.41*
14.	2020 Fall/2021 Spring ERM 598 Water Resources Management (1 unit Fall + 2 units	NA*
	Spring)	
13.	2020 Fall ERM 506 Chemistry of Hazardous Materials (3 units)	4.90
12.	2020 Fall ERM 533 Water and Wastewater Treatment Technologies (3 units)	4.70
11.	2019 Fall ERM 533 Water and Wastewater Treatment Technologies (3 units)	4.49
10.	2018 Fall ERM 533 Water and Wastewater Treatment Technologies (3 units)	3.85*
9.	2017 Spring ERM 501 Principles of Hazardous Materials and Waste	5.00*
	Management/Hazardous waste management (3 units)	
8.	2016 Fall ERM 532 Sustainable Solid Waste Management (3 units)	4.75
7.	2016 Spring ERM 501 Principles of Hazardous Materials and Waste	4.02*
	Management/Hazardous Waste Management (3 units)	
6.	2015 Fall EGR 598/ERM 598 Integrated Solid Waste Systems (3 units)	4.67
	Combined Students in Section: $11 (N = 3)$	
5.	2014 Fall ERM 598 Integrated Solid Waste Systems (3 units)	4.81
4.	2012 Fall ETM 598 Water and Wastewater Treatment Technologies (3 units)	4.43
3.	2011 Fall ETM 501 Principles of Hazardous Materials/Waste Management (3 units)	3.97*
2.	2011 Spring ETM 598 Water and Wastewater Treatment Technologies (3 Units)	4.19*
1.	2010 Spring ETM 598 Sustainable Solid Waste Management (3 units)	3.92*
	GRADUATE AVERAGE EVALUATION SCORE:	4.44

Detailed Information on Graduate Courses Taught (All courses are at ASU)

No. 22.	Course 2023 Fall ERM 506 Chemistry of Hazardous Materials (3 units)	Score 4.82
	• Students in 2 sections: $27 (N = 26)$	
	• Score: 4.82 (Weighted average)	
	• Evaluation: 4.82 (26/27)	

• *Hybrid and in-Person course lines, taught together, and reported as weighted average. The Hybrid Student did not respond.*

21. 2023 Fall ERM 598 Water Resources Management (1 unit Fall + 2 units Spring) 4.5*

- Students in section: 3 (N = 1)
- Score: 4.5
 - This is a seminar type course taught once a month for two-semesters on *Fridays/Saturdays*
 - Only one student responded
 - The evaluation survey does not really reflect the activities in the course

20. 2022 Fall ERM 506 Chemistry of Hazardous Materials (3 units)

- Students in 2 sections: 15 (N = 10)
- Score: 4.93 (Weighted average)
 - Section 1 (Hybrid): Evaluation: 4.92 (4/8)
 - Section 2: Evaluation: 4.94 (6/7)
 - *Hybrid and in-Person course lines, taught together, and reported as weighted average*

19. 2022 Fall ERM 598 Water Resources Management (1 unit Fall + 2 units Spring) 4.97*

- Students in section: 2 (N = 2)
- Score: 4.97 (4.94 & 5.0)
 - This is a seminar type course taught once a month for two-semesters on *Fridays/Saturdays*
 - Only one student responded
 - The evaluation survey does not really reflect the activities in the course

18. 2022 Spring ERM 598 Environmental Chemistry (3 units)

- Students in 2 Sections: 16 (N = 10)
- Score 4.73 (Weighted average)
 - Section 1 (iCourse): Evaluation: 4.81 (7/11)
 - Section 2: Evaluation: 4.61 (4/5)
 - The course was taught in 2 sections: in person and iCourse
- 17. 2021 Fall/2022 Spring ERM 598 Water Resources Management (1 unit Fall + 2 3.33* units Spring)
 - Students in section: 3 (N = 1)
 - Score: 3.33
 - New Course Preparation
 - This is a seminar type course taught once a month for two-semesters on *Fridays/Saturdays*
 - Only one student responded
 - The evaluation survey does not really reflect the activities in the course

16. 2021 Fall ERM 506 Chemistry of Hazardous Materials (3 units)

4.71

- Students in 2 sections: 18 (N = 10)
- Score 4.71 (Weighted average)
 - Section 1 (iCourse): Evaluation: 4.52 (3/9)
 - Section 2: Evaluation: 4.79 (7/9)
 - The course was taught in 2 sections: in person and iCourse

4.3

15.	2021 Spring ERM 598 Environmental Chemistry (3 units)	4.41*
	• Students in 2 section: $9 (N = 3)$	
	• Section 1 (iCourse): Evaluation: 4.11 (2/6)	
	• Section 2: Evaluation: $5.0 (1/3)$	
	• The course was taught in 2 sections: in person and iCourse	
	 New Course Development for iCourse 	
	• New Course Preparation for in person	
14.	2020 Fall/2021 Spring ERM 598 Water Resources Management (1 unit Fall + 2	NA*
	units Spring)	
	• Students in section: 1 (N = 0)	
	• Score: NA	
	 New Course Preparation using ASUSync – COVID Period 	
	• This is a seminar type course taught once a month for two-semesters on	
	Fridays/Saturdays	
	0 No students	
	• The evaluation survey does not really reflect the activities in the course	
13.	2020 Fall ERM 506 Chemistry of Hazardous Materials (3 units)	4.90
	• Students in 2 section: 21 (N = 11)	
	• Score 4.90 (Weighted average)	
	• Section 1 (iCourse): Evaluation: 4.92 (7/14)	
	• Section 2: Evaluation: $4.86 (4/7)$	
	• The course was taught in 2 sections: ASU Sync and iCourse	
	 New Course Development 	
	• COVID Period	
12.	2020 Fall ERM 533 Water and Wastewater Treatment Technologies (3 units)	4.70
	• Students in section: 11 (N = 6)	
	• Score: 4.70	
	• This was an iCourse	
	o Covid Period	
11.	2019 Fall ERM 533 Water and Wastewater Treatment Technologies (3 units)	4.49
	• Students in Section: $7 (N = 5)$	
	• Score: 4 49	
	• This was an iCourse	
10	2018 Fall FDM 533 Water and Wastewater Treatment Technologies (3 units)	2 95*
10.	2010 Fail EKM 555 Water and Wastewater Treatment Technologies (5 units) • Students in Section: $14 (N = 6)$	3.05
	• Students in Section. 14 $(N - 0)$	
	• Score: 4.49	
	 Ints was an iCourse New Course Development 	
	o New Course Development	
9.	2017 Spring ERM 501 Principles of Hazardous Materials and Waste	5.00*
	Management/Hazardous waste management (3 units)	
	• Students in Section: $1 (N = 1)$	
	• Score 5.0	
	• Only one student in course	
	• The course was taught together with ERM 401 – Combined Score: 4.61	

8.	 2016 Fall ERM 532 Sustainable Solid Waste Management (3 units) Combined Students in Section: 9 (N = 5) Score 4.75 (Weighted average) Section 1 (iCourse): Evaluation: 5.00 (2/5) Section 2: Evaluation: 4.50 (2/2) The course was taught in 2 sections: in person and iCourse 	4.75
7.	 2016 Spring ERM 501 Principles of Hazardous Materials and Waste Management/Hazardous Waste Management (3 units) Combined Students in Section: 15 (N = 7) Score 4.02 (Weighted average) Section 1 (iCourse): Evaluation: 3.8 (5/10) Section 2: Evaluation: 4.56 (2/5) The course was taught in 2 sections: in person and iCourse New Course Development for iCourse 	4.02*
6.	 2015 Fall EGR 598/ERM 598 Integrated Solid Waste Systems (3 units) Combined Students in Section: 11 (N = 3) Score 4.67 (Weighted average) Section EGR: Evaluation: 4.67 (1/4) Section ERM: Evaluation: 4.67 (1/4) The course was taught as iCourse The course was taught co-listed with two different sections: EGR and ERM 	4.67
5.	 2014 Fall ERM 598 Integrated Solid Waste Systems (3 units) Combined Students in 2 section: 5 (N = 4) Score 4.02 (Weighted average) Section 1 (iCourse): Evaluation: 5.0 (1/2) Section 2: Evaluation: 4.74 (3/3) The course was taught in 2 sections: in person and iCourse New Course Development for iCourse 	4.81
4.	 2012 Fall ETM 598 Water and Wastewater Treatment Technologies (3 units) Students in Section: 11 (N = 8) Score: 4.43 This was Web Based Course (before iCourses) New Course Development 	4.43
3.	 2011 Fall ETM 501 Principles of Hazardous Materials/Waste Management (3 units) Students in 3 sections: 27 (N = 13) Score: 3.97 Section 1 (Web): Evaluation: 3.52 (7/15) Section 2 (Web): Evaluation: 4.17 (3/8) Section 3: Evaluation: 4.82 (3/4) The course was taught in 3 sections: 1 in person and 2 Web sections New Course Development for Web (before iCourses) 	3.97*

• New course Development in Person

2. 2011 Spring ETM 598 Water and Wastewater Treatment Technologies (3 Units) 4.19*

- Students in Class: 18 (N = 10)
- Score: 4.19
 - New Course Development for Web (before iCourses)

1. 2010 Spring ETM 598 Sustainable Solid Waste Management (3 units)

3.92*

- Student in section: 21 (N = 15)
- Score: 3.92
 - New Course Development
 - Co-taught with ERM 494 Undergraduate Section
 - Second semester as an assistant professor
 - \circ Teaching load (2+2)

GRADUATE AVERAGE EVALUATION SCORE: 4.44 ± 0.46

Undergraduate eProject (iProject) Courses Taught (mentoring teams of students): 12

These courses are listed as: MET 461, EGR 401/402, EST 471

Each of these projects was externally funded at \$25,000 (not counted in Prof. Hristovski's research awards)

* indicates the Faculty Mentor developed the and wrote proposal based on the partner's need

No. eProject Title (iProject Title)

- 12. Developing and Constructing Dog Park Anaerobic Digester Gilbert Dog Park
 - Students on the project: 5
 - Project Duration: 2 semesters (Fall 2011-Spring 2012)
 - Total Project Income for ASU: \$25,000
 - Faculty Mentor: Kiril Hristovski*
 - Co-Instructor: Micah Lande

11. Assessing viable solutions for algae minimization and pH control in Tempe Town Lake

- Students on the project: **3**
- Project Duration: 2 semesters (Fall 2011-Spring 2012)
- Total Project Income for ASU: \$25,000
- Faculty Mentor: Kiril Hristovski*
- Co-Instructor: NA

10. Self-Contained Combat Outpost

- Students on the project: 14
- Project Duration: 2 semesters (Fall 2011-Spring 2012)
- Total Project Income for ASU: \$25,000
- Faculty Mentor: Benjamin Ruddell
- Co-Instructors: Ann McKenna, Kiril Hristovski, L. Munukulta

9. Healthy Pool Water

- Students on the project: 8
- Project Duration: 2 semesters (Fall 2012-Spring 2013)
- Total Project Income for ASU: \$25,000
- Faculty Mentor: Kiril Hristovski*
- Co-Instructors: NA

8. Water Remediation in Retail Stores - PetSmart

- Students on the project: 2
- Project Duration: 2 semesters (Fall 2013-Spring 2014)
- Total Project Income for ASU: \$25,000
- Faculty Mentor: Kiril Hristovski*
- Co-Instructors: NA

7. EasyFlow – Mike Anthony

- Students on the project: 6
- Total Project Income for ASU: \$25,000
- Faculty Mentor: Kiril Hristovski*
- Co-Instructors: NA

6. Micro-cavitation Fuel Reactor – New Technology Group

- Students on the project: 4
- Overall Evaluation of the Instructor (AVG \pm StDev): NA
- Total Project Income for ASU: \$25,000*
- Faculty Mentor: Kiril Hristovski
- Co-Instructors: NA

5. Hydrodynamic Vortex Water Purifier – New Technologies Group

- Students on the project: 4
- Project Duration: 2 semesters (Spring 2015-Fall 2015)
- Total Project Income for ASU: \$25,000
- Faculty Mentor: Kiril Hristovski
- Co-Instructors: Changho Nam

4. Crude Oil Emulsification Reactor – New Technologies Group

- Students on the project: 4
- Project Duration: 2 semesters (Spring 2015-Fall 2015)
- Total Project Income for ASU: \$25,000
- Faculty Mentor: Kiril Hristovski
- Co-Instructors: Bradley Rodgers
- 3. Algal Bioreactor AzCATI
 - Students on the project: 4
 - Project Duration: 2 semesters (Fall 2015-Spring 2016)
 - Internally Funded
 - Faculty Mentor: Kiril Hristovski*
 - Co-Instructors: NA

2. Millennium Synth Fuels

- Students on the project: 4
- Internally Funded
- Project Duration: 2 semesters (Spring 2016-Fall 2016)
- Faculty Mentor: Kiril Hristovski
- Co-Instructors: NA

1. Photovoltaic Bimini Top with Lake Water Misting System for Runabouts Phase 1

- Students on the project: 4
- Project Duration: 2 semesters (Fall 2017-Spring 2018)
- Faculty Mentor: Kiril Hristovski*
- Co-Instructors: NA

III. RESEARCH

Prof. Hristovski's (PI/Director of the program) additional revenue from the ERM professional development program at ASU as of 4/17/2023 (Total Amount): \$436,469.70[#]

#As of April 17, 2023. *This revenue is reported as part of Expenditures in the Faculty Activity Report.*

TOTAL FUNDED RESEARCH SUPPORT & REVENUE (Hristovski's Share): \$4,675,949.70

• With expected obligations: \$5,105,797.70?

Prof. Hristovski TOTAL EXPENDITURES: **\$ 4,848,931.00**? *as per ASU FAR of 4/17/2023* (*Direct Cost \$4,143,128*)

Declined Proposals at ASU

- Total amount of all declined proposals in which Prof Hristovski is the PI/co-PI: \$48,894,631
- Prof. Hristovski's share (recognition) of the total declined proposal amount as PI/Co-PI: \$7,127,395

AWARDS

Awarded Grants: 66 (considering multiple revisions as separate grants)

Faculty Activity Report Count: 41 (not considering multiple revisions as separate grants)

Data is taken from the ASU's Faculty Activity Report (FAR) of 4/17/2023.

* Indicates that there is an inconsistency with PI coding in the FAR: Hristovski is an internal PI not co-PI (see clarification from TPS Research Advancement Team at the end of this section)

** Indicates that there is an error in the FAR: the Unit/Program is incorrectly coded (see clarification from TPS Research Advancement Team at the end of this section)

⁺ Indicates multi-year grant funded annually with resubmissions/revisions every year

No.	Cal. Year	Award	Agency	Hristovski's role	Total Amount	Hristovski's Share
66.	2023	Hazardous Material Worker Health and Safety Training - Revision - 1	HHS NIH	PI* (99%)	\$212,139	\$210,018
65.	2023	NSF Nanosystems Engineering Research Center for Off-Grid Nanotechnology	NSF	Co-PI (4%)	\$631,006	\$25,240

64.	2023	Enabled Water Treatment (NEWT)-Yrs 6-10 2023 ⁺ Improved Understanding of Thermal Destruction Technologies For Materials Laden With Per- And Polyfluoroalkyl Substances	US DOD	Co-PI (15%)	\$28,987	\$4,347
63.	2022	2022 ⁺ Hazardous Material Worker Health and Safety - Rev- 1	HHS NIH	PI* (99%) - Internal	\$272,230	\$269,508
62.	2022	Region IX Study to Evaluate Six Sister City Joint Contingency Plans	US EPA	PI* (100%) - Internal Started as Co-PI	\$63,224	\$63,224
61.	2021	2021 ⁺ Hazardous Material Worker Health and Safety - Rev – 1	HHS NIH	PI* (99%) – Internal	\$212,139	\$210,018
60.	2021	2021 ⁺ Hazardous Material Worker Health and Safety - Rev - 2	HHS NIH	PI* (99%) – Internal	\$35,000	\$33,250
59.	2021	2021 ⁺ Improved Understanding of Thermal Destruction Technologies For Materials Laden With Per- And Polyfluoroalkyl Substances	US DOD	Co-PI (15%)	\$251,584	\$37,738
58.	2020	2020 ⁺ U45 Hazardous Materials Worker Health-Safety Training	NIEHS	Co-PI (95%)	\$36,013	\$34,212
57.	2020	2020 Blended Emergency Response Exercises for Maquiladora Clusters	US EPA	Co-PI (69%)	\$60,000	\$41,400
56.	2020	SBIR Phase I - 3D-biomaging of charge transfer within biofilms	US DOE/OS	PI (100%)	\$10,000	\$10,000
55.	2020	Microbial Potentiometric Sensors for determination of Algal Biomass and the Impacts of Nutrient Loading	US DOE	PI (100%)	\$25,002	\$25,002
54.	2020	2020 ⁺ Hazardous Material Worker Health and Safety - Rev – 1	HHS NIH	PI* (99%) – Internal	\$212,139	\$210,018

53.	2019	2019 ⁺ NSF Nanosystems Engineering Research Center for Off-Grid Nanotechnology Enabled Water Treatment (NEWT)	NSF	Co-PI** (2%)	\$629,223	\$12,584
52.	2019	2019 ⁺ U45 Hazardous Materials Worker Health-Safety Training	NIEHS	Co-PI** (95%)	\$228,358	\$216,940
51.	2019	DOE SBIR: Automated Monitoring of the Rhizosphere using a Microbial Sensor – Phase II	US DOE	PI** (95%)	\$120,000	\$108,000
50.	2018	2018 ⁺ Advance Vehicle Technology Competition AVTC EcoCAR3	DOE ANL	Co-PI** (5%)	\$31,097	\$1,555
49.	2018	NSF Nanosystems Engineering Research Center for Off-Grid Nanotechnology Enabled Water Treatment (NEWT)	NSF	Co-PI** (8%)	\$1,016,209	\$81,297
48.	2018	2018 ⁺ U45 Hazardous Materials Worker Health-Safety Training	NIEHS	Co-PI** (95%)	\$461,716	\$438,630
47.	2018	SEED - NEWT Funding Project: 3D printed nano- enabled modules for water treatment: Integration of top- down and bottom-up fabrication to enhance functions	Rice University NSF	PI (100%)	\$10,000	\$10,000
46.	2018	Building Joint Advanced Emergency Response Capacity through Enhanced Tabletop Exercise: Arizona-Sonora Border	US EPA	Co-PI** (30%)	\$84,374	\$25,312
45.	2018	Fabrication of hybrid sorbents for removing Oil Dri Contaminants of Interest	Oil-Dri Corporation of America	PI (100%)	\$5,000	\$5,000
44.	2018	CREC (SRP): Autonomous long-term and real-time monitoring of water quality changes	SRP	PI** (100%)	\$60,940	\$60,940
43.	2018	Phase II: Automated Monitoring of Subsurface Microbial	US DOE	PI** (100%)	\$150,004	\$150,004

42.	2018	Metabolism with Graphite Electrodes Automated Monitoring of the Rhizosphere using a Microbial Sensor	US DOE OS	PI** (100%)	\$10,000	\$10,000
41.	2017	2017 ⁺ Advance Vehicle Technology Competition AVTC EcoCAR3	DOE ANL	Co-PI** (5%)	\$4,696	\$235
40.	2017	2017 ⁺ NSF Nanosystems Engineering Research Center for Off-Grid Nanotechnology Enabled Water Treatment (NEWT)	NSF	Co-PI** (8%)	\$488,449	\$39,076
39.	2016	2016 ⁺ Advance Vehicle Technology Competition AVTC EcoCAR3	DOE ANL	Co-PI** (5%)	\$9,099	\$455
38.	2016	2016 ⁺ Design of Risk-reducing Innovative-Implementable Small-System Knowledge (DeRISK) Center	US EPA Region 9	PI** (50%)	\$83,833	\$41,917
37.	2016	2016 ⁺ NSF Nanosystems Engineering Research Center for Off-Grid Nanotechnology Enabled Water Treatment (NEWT)	NSF	Co-PI** (8%)	\$704,166	\$56,333
36.	2016	2016 ⁺ U45 Hazardous Materials Worker Health-Safety Training	NIEHS	Co-PI** (95%)	\$228,358	\$216,940
35.	2016	Automated Monitoring of Subsurface Microbial Metabolism with Graphite Electrodes	DOE	PI** (100%)	\$111,425	\$111,425
34.	2016	Bayer Project Support Proposal	Arcadis	Co-PI** (25%)	\$5,000	\$5,000
33.	2016	JRP (SRP): Determining RCRA Hazardous Waste Characteristics of Decommissioned Photo-Voltaic Panels	SRP	PI** (100%)	\$51,840	\$51,840
32.	2015	2015 ⁺ Advance Vehicle Technology Competition AVTC EcoCAR3	DOE ANL	Co-PI** (5%)	\$23,800	\$1,190

31.	2015	2015 ⁺ NSF Nanosystems Engineering Research Center for Off-Grid Nanotechnology Enabled Water Treatment (NEWT)	NSF	Co-PI** (8%)	\$620,085	\$49,607
30.	2015	2015 ⁺ U45 Hazardous Materials Worker Health-Safety Training	NIEHS	Co-PI** (30%)	\$228,358	\$68,507
29.	2015	HAZMAT Emergency Response Training Institute Pilot Program	US EPA	Co-PI** (45%)	\$82,558	\$37,151
28.	2014	2014 ⁺ Hazardous Material Worker Health and Safety Training (U450) Cooperative Agreement	US DHHS	Co-PI (50%)	221,083	\$110,542
27.	2014	NCCLCs: Material Life Cycle of Nanomaterials (LCNano)	US EPA	Co-PI** (5%)	\$5,000,000	\$250,000
26.	2014	Training on Handling of Wastewater Containing Metals and Cyanide	US EPA BECC	PI** (90%)	\$38,950	\$35,055
25.	2014	2014 ⁺ Advance Vehicle Technology Competition AVTC EcoCAR3	DOE ANL	Co-PI** (5%)	\$249,951	\$12,498
24.	2014	Oxy Lathrop Regeneration Study	Arcadis	Co-PI** (25%)	\$7,500	\$1,875
23.	2014	Mohawk Valley Regeneration Study	Arcadis	Co-PI** (25%)	\$5,000	\$1,250
22.	2014	Design of Risk-reducing Innovative-Implementable Small-System Knowledge (DeRISK) Center	US EPA Region 9	PI (50%)	\$166,167	\$83,084
21.	2013	2013 ⁺ Emergency Planning for Arizona's Energy Infrastructure	US DOE	Co-PI** (16%)	\$34,073	\$5,452
20.	2013	2013 ⁺ Hazardous Material Worker Health and Safety Training (U450) Cooperative Agreement	US DHHS	Co-PI (50%)	\$214,644	\$107,322
19.	2013	Co-Creating Water Sanitation Courses and Providing Immersive Collaborative E-	VentureWell: National Collegiate Inventors &	Co-PI** (20%)	\$7,408	\$37,040

		Team Learning Opportunities for ASU and IIT Delhi students	Innovators Alliance			
18.	2013	Nanoprospecting: An Approach Towards Environmental Monitoring of Engineered Nanomaterials	NSF	Co-PI** (20%)	\$306,000	\$61,200
17.	2013	CTI iProject - Water Remediation in Retail Stores	Petsmart Inc	PI* (100%)	\$6,000	\$6,000
16.	2012	2012 ⁺ Emergency Planning for Arizona's Energy Infrastructure	US DOE	Co-PI** (16%)	\$120,850	\$19,336
15.	2012	2012 ⁺ Hazardous Material Worker Health and Safety Training (U450) Cooperative Agreement	US DHHS	Co-PI (50%)	\$223,588	\$111,794
14.	2012	Sustainable Sorbent-Monitoring Techs-Ground H2O	US EPA	Co-PI** (40%)	\$500,000	\$200,000
13.	2012	Development of Nanoporous Geopolymer Composites as Adsorbent for Arsenic Removal	NSF	PI (50%)**	\$150,000	\$75,000
12.	2012	Fisher Tropsch Fuels from Biosolids	SoJet LLC	PI (50%)	\$13,750	\$6,875
11.	2011	2011 ⁺ Emergency Planning for Arizona's Energy Infrastructure	US DOE	Co-PI** (16%)	\$16,853	\$2,696
10.	2011	2011 Development of Nanoporous Geopolymer Composites as Absorbent for Arsenic Removal	NSF	Co-PI** (50%)	\$50,000	\$25,000
9.	2011	Fate of Engineered Nanomaterials in Wastewater Biosolids Land Application and Incineration	WERF	Co-PI** (30%)	\$150,000	\$45,000
8.	2011	Photocatalytic reduction of nitrate from water	NSF	Co-PI** (30%)	\$297,975	\$119,190
7.	2010	Detection of engineered nanomaterials in drinking water, food, commercial products and biological samples	DHHS NIH	Co-PI** (6%)	\$642,405	\$38,544
6.	2010	Small and inexpensive point-of- use treatment systems for	US EPA BECC	PI** (80%)	\$50,331	\$40,265

simultaneous removal of arsenic and nitrate from groundwater

5.	2010	2010 ⁺ Emergency Planning for Arizona's Energy Infrastructure	US DOE	Co-PI** (16%)	\$254,334	\$40,253
4.	2009	Investigation of the impact of synthesis conditions on performance of bitumenous based GAC for simultaneous arsenate and organic contaminant removal	WQC-Water Quality Center Consortium Solmetex Inc.	PI (10%)	\$8,300	\$830
3.	2009	SCERP FY08: Evaluation of Inexpensive Sorption Technologies for Arsenic Removal from Groundwater in the Arizona-Mexico Border Region	US EPA Region 9	PI** (40%)	\$38,398	\$22,375
2.	2009	Detection of engineered nanomaterials in drinking water, food, commercial products and biological samples	DHHS NIH	Co-PI** (6%)	\$675,528	\$40,532
1.	2008	Investigation of the impact of synthesis conditions on performance of bitumenous based GAC for simultaneous arsenate and organic contaminant removal BEFORE TENURE TRACK	WQC-Water Quality Center Consortium	PI (10%)	\$18,166	\$1,817

FULBRIGHT AWARDS

No.	Year Awarded	Appointment Year	Proposal Title	Notes
1.	2019	2020	2019-20 Fulbright U.S. Scholar Program: Improving the national water resources management system in Montenegro	Awarded but not completed due to COVID
2.	2012	2012	Fulbright Specialist Program: Strategic action plan to create an Integrated Urban Hydrology and Watershed Management System– Panama City, Panama	Completed

PENDING PROPOSALS AND EXPECTED AWARD OBLIGATIONS

Pending:

1.	2023	NSF Nanosystems Engineering Research Center for Off-Grid Nanotechnology Enabled Water Treatment (NEWT) - Years 9 & 10	NSF	Co-PI (4%)	Total Amount \$217,754	Hristovski's Share \$8,710
Ex	pected	Award Obligations:				
1.	NA	Hazardous Material Worker Health and Safety Training - Revision - 1	US DHHS NIH	PI* (99%)	\$212,139	\$210,018

Revenue in Year	Hazardous materials and waste management training	Water management certificate training	Annual Total
2020	\$56,922.94	\$0.00	\$56,922.94
2021	\$166,701.90	\$14,000.00	\$180,701.90
2022	\$135,975.00	\$14,000.00	\$149,975.00
2023	\$138,919.67	\$14,500.00	\$153,419.67
TOTAL	\$498,519.54	\$42,500	\$541,019.54

REVENUE FROM THE ERM PROFESSIONAL DEVELOPMENT PROGRAM (ERM Learning Enterprise; PI: K. Hristovski)

As of Feb 15, 2024.

EXPENDITURES As per Faculty Activity Report of 2/14/2024 for Prof. Hristovski.

Calendar Year	Total Cost	Direct Cost
2023	\$466,825.00	\$413,082
2022	\$425,484.00	\$425,484
2021	\$421,509.00	\$374,449
2020	\$359,502.00	\$303,796
2019	\$564,733.00	\$500,541
2018	\$528,353.00	\$458,523
2017	\$556,248.00	\$473,785
2016	\$418,439.00	\$355,626
2015	\$347,153.00	\$294,369
2014	\$329,995.00	\$283,853
2013	\$372,004.00	\$309,614
2012	\$246,793.00	\$195,698
2011	\$107,336.00	\$76,646
2010	\$76,647.00	\$56,226
2009	\$23,804.00	\$17,185
2008*	\$846.00	\$846
TOTAL:	\$ 5,245,671.00	\$ 4,539,723

* Tenure Track Started in 2009

DECLINED PROPOSALS: Total \$48,894,631; Hristovski's Share: \$7,127,395?

No.	Cal. Year	Award	Agency	Hristovski's role	Total Amount	Hristovski's Share
64.	2023	PFAS Destruction in Fab	Semiconductor	Co-PI (40%)	\$315,002	\$126,000
		Crystallized Salts via Hydrothermal Liguefaction	Corporation (SRC)			
63.	2023	SmartHAB: Sensign Microbial Activities Related To Harfulm Algae Blooms	EU: Éuropean Comission	Co-PI (25%)	\$49,813	\$9,250
62.	2022	The Risk is in Your Water! - Water Quality Risk Implications of Climate Change	Society of Actuaries	Co-PI (50%)	\$19,724	\$9,862
61.	2020	A field-ready microbial potentiometric sensor system to monitor soil microbial activity and the rate of carbon sequestration in farming systems of semi-arid environments	DOE ARPA-E	PI (55%)	\$839,804	\$461,892
60.	2020	Thermal treatment of PFAS in waste streams from semiconductor processes	SRCCO Inc	Co-PI (25%)	\$15,000	\$3,500
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59.	2019	MRI: Acquisition of an Inductively Coupled Plasma- Time of Flight Mass Spectrometer with Laser Ablation	NSF	Co-PI** (2%)	\$698,605	\$13,972
58.	2019	Reducing Heavy Metal and other Contamination through Autonomous Real Time Monitoring	US EPA	PI** (80%)	\$95,599	\$76,799
57.	2018	ERC Supplement: Integrating Prize-Challenges and Crowd Sourcing into Engineering Research Centers	NSF	Co-PI** (4%)	\$200,000	\$8,000
56.	2018	MRI: Acquisition of an Inductively Coupled Plasma- Time of Flight Mass Spectrometer with Laser Ablation	NSF	Co-PI** (2%)	\$697,595	\$13,952
55.	2017	Empowering Roma through Inter-Ethnic Water Cooperation (ERIWC)	DOS: Bureau of Democracy, Human Rights and Labor (DRL)	Co-PI** (25%)	\$411,196	\$102,799
54.	2017	Response to hazardous materials emergencies in an age of hybrid warfare	NATO	PI** (55%)	\$74,204	\$40,812
53.	2017	Collaborative Research: Dynamic LCA Framework for Emerging Nano-enabled Products- the Case of Sustainable Development of Quantum Dot Displays	NSF	PI** (50%)	\$89,991	\$44,996
52.	2017	Developing a real-time microbial sensor-based process- monitoring platform for concurrent wastewater treatment process management and optimizations	NSF	PI** (100%)	\$60,001	\$60,001

51.	2016	Developing a HAZMAT crisis response capacity in Macedonia and Montenegro	NATO	PI** (50%)	\$451,718	\$225,859
50.	2016	Realization of Algae Potential (REAP)	DOE	Co-PI** (10%)	\$4,999,993	\$499,999
49.	2016	Multi-State Collaboration to Demonstrate Safer Low-VOC, Low Toxicity Alternatives in Multiple Industrial Cleaning Applications in EPA Region IX	US EPA	Co-PI** (50%)	\$205,000	\$102,500
48.	2016	A Sustainable Water Resource Management Plan for Kosovo	DOS: Bureau of Oceans and International Environmental and Scientific Affairs (OES)	Co-PI** (40%)	\$599,465	\$239,786
47.	2016	The Sustainable Manufacturing and Recycle/Reuse/Remanufacture Technology (smaRt) Institute	DOE	Co-PI** (1%)	\$8,000,000	\$80,000
46.	2016	Collaborative Research: Life Cycle-driven Development of Emerging Quantum Dot- enabled Displays (QDispLCA)	NSF	Co-PI** (40%)	\$99,276	\$39,710
45.	2016	Occupational Safety and Health Training (OSH)	HHS-CDC: ERA	Co-PI** (3%)	\$449,998	\$13,500
44.	2016	Development of inexpensive microbial sensor for long-term monitoring of anaerobic subsurface environments	NSF	PI** (99%)	\$329,768	\$326,470
43.	2016	Emergency household water filter challenge: call for a field testing partner	ELRHA: The Humanitarian Innovation Fund (HIF)	Co-PI** (20%)	\$243,996	\$48,799
42.	2016	Advancing Transitional Justice by Promoting Kosovo Ethnic Minorities' Access to Clean Water	DOS: Bureau of Democracy, Human Rights and Labor (DRL)	Co-PI** (25%)	\$360,634	\$90,159

41.	2015	Transforming Municipal Biosolid Treatment: Towards Total Recovery of Energy & Metals While Destroying Organic Pollutants & Microbes	Environmental Research and Education Foundation (EREF)	Co-PI (25%)	\$175,000	\$43,750
40.	2015	Developing Exposure and Toxicity Data for Priority Trace Organics in Biosolids	WERF	PI (100%)	\$15,000	\$15,000
39.	2015	Building Wastewater Pre- treatment Monitoring Capacity for Metal Plating Maquiladora Facilities	US EPA	PI (40%)	\$73,135	\$29,254
38.	2015	Raising Arizona/Sonora Community Awareness of Hazardous Substance Releases	US EPA	Co-PI (30%)	\$49,931	\$14,979
37.	2015	Profitable Agriculture through Recovered Energy, Nutrients, and Solids	USDA: NIFA	Co-PI (10%)	\$19,64,661	\$196,466
36.	2014	NSF/DOE Solar Hydrogen Fuel: Heat-Assisted Photoelectrochemical Water Splitting Using Nanostructured Plasmonic Heterojunction Materials	NSF	Co-PI** (20%)	\$465,815	\$93,163
35.	2014	Persulfate and iron nanocatalysts facilitated in-situ regeneration of activated carbon	NSF	PI** (60%)	\$349,999	\$209,999
34.	2014	Global Leadership Training - Panama	Michigan State University	PI** (90%)	\$25,424	\$22,882
33.	2014	Assessing the arsenic removal performance of packed bed absorbers	Water Works Engineers	PI** (100%)	\$17,000	\$17,000
32.	2014	SBA Testing - Los Molinos Community Services District	CA: Department of Public Health (CDPH)	PI** (100%)	\$25,000	\$25,000
31.	2014	Nitrate Sponge for Treating Tile Drain and Other Agricultural Return Waters	DOI: USBR	Co-PI** (40%)	\$146,285	\$58,514

30.	2014	NSF Engineering Research Center for Resilient Nutrients Energy and Environment (ReNEE)	NSF	Co- PI**(5%)	\$18,554,496	\$927,725
29.	2014	Yr 5: Hazardous Material Workers Health and Safety Training, Cooperative Agreement	USD HHS: NIH	Co-PI (40%)	\$221,082	\$88,433
28.	2014	CAREER: Development of complexation dynamics based practical descriptors for improved weak oxyanion sorption	NSF	PI (100%)	\$721,444	\$721,444
27.	2014	SBA Testing - New Orchard Mobile Home Park, LLC	CA: Department of Public Health (CDPH)	PI** (100%)	\$25,000	\$25,000
26.	2013	In-Situ Regeneration of Activated Carbon Using Nanocatalysts For Control of Disinfection By-Product Precursors	NSF	Co-PI** (40%)	\$335,560	\$134,224
25.	2013	NUE: Integrating nanotechnology education into a project-based undergraduate engineering curriculum	NSF	PI** (30%)	\$199,585	\$59,876
24.	2013	CAREER: Development of complexation dynamics based practical descriptors for improved weak oxyanion sorption	NSF	PI** (100%)	\$541,958	\$541,958
23.	2013	Globally Harmonized System of Classification and Labelling Chemicals Training	US EPA Region 9	Co-PI** (45%)	\$55,175	\$24,829
22.	2012	Utilizing STEM to Elucidate the Environmental and Emergency Management Nexus as a Tool for Addressing Present and Future Threats to Homeland Security	US DHS	PI** (40%)	\$495,289	\$198,116
21.	2012	Developing and testing of an inexpensive water filter system	Gates Foundation	PI** (80%)	\$100,000	\$80,000

20.	2012	Building a Social Entrepreneurship Toolkit and Applying it in Pedagogy, Policy and Practice	US-India Educational Foundation	Co-PI** (16%)	\$250,000	\$40,000
19.	2011	Collaborative proposal: Detection and Occurrence of Engineered Nanomaterials in Environmental Samples	NSF	Co-PI** (25%)	\$262,831	\$65,708
18.	2011	Enhanced Emergency Communications for Community, Commerce and Infrastructure Resilience	USDHS	Co-PI** (15%)	\$480,075	\$72,011
17.	2011	Detection of Engineered Nanomaterials in Drinking Water, Food, Commercial Products and Biological Samples	USDHHS: NIH	Co-PI** (6%)	\$97,324	\$5,839
16.	2010	Fate of Engineered Nanomaterials in Wastewater Biosolids During Land Application and Incineration	US EPA Region 9	Co-PI** (20%)	\$600,000	\$120,000
15.	2010	Enhanced Emergency Communications for Community, Commerce and Infrastructure Resilience	USDHS	Co-PI** (15%)	\$484,613	\$72,692
14.	2010	Enhanced Emergency Management Planning for Arizona State University	US DOEd	Co-PI** (8%)	\$749,570	\$59,966
13.	2010	Development of Nanoporous Geopolymer Composites as Adsorbent for Arsenic Removal	US EPA	Co- PI**(50%)	\$26,666	\$13,333
12.	2010	NEET2010	US EPA	Co- PI**(10%)	\$299,994	\$29,999
11.	2010	Photocatalytic Reduction of Nitrate from Water	NSF	Co- PI**(30%)	\$338,224	\$101,467
10.	2010	Bridging Engineering with Social Entrepreneurship for Public Health: Model Approach for Sustainable Wastewater Treatment Solutions in Public Health Department	Gates Foundation	PI**(80%)	\$99,271	\$79,417

9.	2009	Introductory Nanotechnology Training for Arizona High School Science Teachers	US EPA	Co-PI (80%)	\$42,937	\$34,378
8.	2009	Protection of Workers Exposed to Nanomaterials	US DHHS NIEHS	Co-PI (70%)	\$113,247	\$79,237
7.	2009	Metal Isotopes: A New Geochemical Tool for Monitoring Contaminant Migration and Assessing Remediation	US DOE	Co-PI (10%)	\$508,350	\$50,835
6.	2009	Modeling Exposure and Uptake of Nanomaterials in Aquatic and Soil Environments	US EPA Region 9	Co-PI (7%)	\$2,000,000	\$140,000
5.	2009	Investigation of indigenous material for the simultaneous removal of Arsenic and microbial contaminants from drinking water in rural Pakistan	National Academy of Sciences	Co-PI (15%)	\$237,175	\$35,576
4.	2008	Emergency Management Capacity Building at Arizona State University (BEFORE TENURE TRACK)	US DOEd	Co-PI (5%)	\$546,753	\$27,338
3.	2007	Evaluation of insxpensive sorption technologies for arsenic removal from groundwater in the Arizona-Mexico border region (BEFORE TENURE TRACK) (As a Graduate Student)	US EPA Region 9	PI** (33%)	\$74,448	\$24,568
2.	2007	Sources, Fate, Transport and Mapping of Chlorinated Solvents in Groundwater Along the US-Mexico Border (BEFORE TENURE TRACK) (As a Graduate Student)	US EPA Region 9	Co-PI** (25%)	\$74,960	\$18,740
1.	2006	Evaluation of insxpensive sorption technologies for arsenic removal from groundwater in the Arizona-Mexico border region (BEFORE TENURE TRACK) (As a Graduate Student)	US EPA Region 9	PI** (34%)	\$74,448	\$25,312

Non-Co-PI Team Member of Research Projects at ASU before tenure track start in 2009

- 1. Arizona Water Institute funded project AWI-ASU-07-101: Water Quality and Yield from Fuel Cells.
- 2. American Water Works Association Research Foundation funded project # 4139: A New Water Source: Can Fuel Cells Provide Safe and Cost-Effective Potable Water?
- 3. US EPA STAR Funded project: The Fate, Transport, Transformation and Toxicity of Manufactured Nanomaterials in Drinking Water, RD831713
- 4. American Water Works Association Research Foundation and the US Department of Energy Grant No. funded project DE-FG02-03ER63619: Metal (Fe, Ti) Impregnated Granulated Activated Carbon for Removing Arsenic and Co-Occurring Contaminants (Phase II).
- 5. US EPA funded project: Naco Brownfields, Naco, AZ
- 6. Arizona Department of Transportation funded project: Bioremediation of Gasoline and Diesel fuel spills in native Arizona soils;