CV SECTION 1: Employment History/Awards

NAME
Jason C. Quinn

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EDUCATION

2011	Doctor of Philosophy Mechanical Engineering, Colorado State University.
2004	Masters of Science Nuclear Engineering & Engineering Physics, University of Wisconsin.
2002	Bachelor of Science, Mechanical Engineering, Colorado State University.

ACADEMIC POSITIONS

2018-present	Associate Professor, Mechanical Engineering, Colorado State University
2017-2018	Assistant Professor, Mechanical Engineering, Colorado State University
2012-2016	Assistant Professor, Mechanical & Aerospace Engineering, Utah State University
2011-2012	Research Scientist, Mechanical Engineering, Colorado State University

SABBATICALS

none

OTHER POSITIONS

2019-present	Powerhouse User Group Chair

CURRENT JOB DESCRIPTION

40 % Teaching 50 % Research/Creative Activity 10 % Service/Outreach 0 % Admin

HONORS AND AWARDS

1. Walter Scott, Jr. College of Engineering Rockwell-Anderson Professorship, 2019-2022
2. Colorado State University Mechanical Engineering Energizer Bunny Award, 2019
3. George T. Abell Outstanding Mid-Career Faculty Award-Nominee, Mechanical Engineering, Colorado State University 2019
4. Researcher of the year, Mechanical & Aerospace Engineering, Utah State University, 2016
5. Researcher of the year, Mechanical & Aerospace Engineering, Utah State University, 2015
6. Teacher of the year, Mechanical & Aerospace Engineering, Utah State University, 2014

CV SECTION 2: Publications / Scholarly Record

EVIDENCE OF INCORPORATING DIVERSITY, EQUITY, INCLUSION, AND/OR SOCIAL JUSTICE (DEISJ) IN SCHOLARSHIP, RESEARCH, AND CREATIVE ARTISTRY

Research Projects incorporating DEISJ:

Charging of Electric Vehicles in Multi Unit Dwellings: Ubiquitous electric vehicle adoption can drastically reduce greenhouse gas emissions (GHG) but will require equitable home charging infrastructure for all residences. Unlike single-family homes, Multi-Unit Dwellings (MUD) currently lack market share and access to nearby charging infrastructure. This work evaluates the levelized cost of charging (LCOC) for Battery Electric Vehicles (BEVs) at MUD charging hubs through a techno-economic analysis (TEA) that leverages real-world charging data and costs. Three different MUD charging types are investigated for a baseline and optimistic scenario: 1.9-kW Level 1 (L1), 6.6-kW Level 2 (L2), and 50-kW Direct Current Fast Charging (DCFC) stations under three different ownership models: residents, a utility, or a private company. The results from this work demonstrate that under the baseline scenario in Illinois, New York, and California only L1 (0.14-0.36 $/kWh) and L2 (0.18-0.36 $/kWh) chargers are expected to be less expensive than the gasoline equivalent (0.35-0.47 $/kWh); however, under the optimistic scenario all charger types (0.12-0.35 $/kWh) are less expensive than the gasoline equivalent. Furthermore, the order of most cost-effective ownership models is resident (0.12-0.62 $/kWh), utility (0.16-0.68 $/kWh), and private company (0.16-1.02 $/kWh). This work also performs a cradle to grave (C2G) life cycle assessment (LCA) of an average passenger BEV and gasoline conventional vehicle (CV) using yearly (grid mix & vehicle parameters), hourly (grid mix), and state-level (grid mix) resolution. Results show a BEV to have lower GHG emissions (-86% to -10%) than a gasoline CV in the contiguous U.S. Next, the system boundary of the TEA is extended to the total cost of ownership (TCO) of a BEV. The TCO is then coupled with the C2G GHG emissions to calculate the cost of GHG emissions reduction. Ultimately, the cost of GHG emissions reduction from MUD BEVs relative to gasoline CVs is shown to be negative for every scenario except baseline DCFC, meaning MUD BEVs can reduce both costs and GHG emissions without subsidies.

Water Scarcity in the Desert Southwest: Water in desert southwest is a critical lifeblood in rural economies. Currently, The multiple counties in the desert southwest currently have the lowest income. A major issue in the agriculture sector in the desert southwest is the ability to accurately assess the water scarcity of the region as traditional methods do not enable transparent evaluation. The Available Water Remaining (AWARE) method is one approach that has gained significant traction in water scarcity footprint (WSF) applications. While an effective method for determining WSF, the methodology has limitations that constrain capabilities for determining freshwater environmental impact in arid regions. The primary limitation is the inability to compare regions when more water demand exists than what is available which typically occurs in arid regions. This limitation reduces resolution and therefore decision-making capabilities. This work proposes a novel method for determining WSF in arid regions by capturing and quantifying scarcity when water demand is greater than availability. The approach presented here, called the demand to availability (DTA) method, is intended to be used for small-scale, or subregion analyses in areas where truncation occurs using standard AWARE methods. With the regional specificity, unique characterization factors can be developed to enhance deterministic resolution and ultimately improve decision-making abilities. The DTA methods are presented universally, allowing for application and implementation to any region. A case study was developed to demonstrate the effectiveness of the DTA method by analyzing characterization factors (CFs) and alfalfa WSFs in the arid Southwestern United States. Using the standard AWARE methods, this region originally truncated 38% of counties resulting in zero resolution or decision-making abilities. Results of the case study that used the proposed DTA method show an improved resolution in 100% of these counties, both within CF and alfalfa WSF. Although the proposed method is an improvement for understanding WSFs in arid regions, limitations and constraints still exist and are discussed in this work.

Other Contributions to Diversity and Inclusion:

My commitment to fostering diversity and creating a culture of inclusion has been a career-long passion. My undergraduate studies

included various leadership trainings (Presidents Leadership Program, Resident Assistant Training, Multicultural Leadership Retreat) that focused on promoting diversity. During my tenure in academia, I have continued to seize various opportunities for personal growth. I served as the Chair of the Diversity and Inclusion committee in Mechanical Engineering at Colorado State University. I have also participated in the Faculty Institute for Inclusive Excellence. I infuse diversity and inclusion materials in my teaching and instill the importance of an inclusive culture in my lab group. Additionally, I incorporate DE&I into my research program.
Contributions in Mentoring: Through my work as a research mentor, I have developed and facilitated initiatives in diversity and inclusion in the research process. The topics have included unconscious bias, gender discrimination in STEM, racism, social justice, and use of inclusive language. Examples include:

- To introduce the issue of gender discrimination in STEM this semester, I sponsored the screening of "Picture a Scientist" and facilitated a discussion in my lab group and my thermodynamics class. Prior to screening the film, I worked with my female graduate students to ensure a safe environment for discussion after the film. All of the students that identify as female put together a list of their own experiences and one member presented all of the stories to the entire group. I plan to expand on gender discrimination in the future to include transgender and gender diverse individuals in STEM.
- In 2019, I attended the "SAFE Zone" training that CSU offers to educate staff and faculty to be advocates and allies to the LGBTQ+ community. I field many questions about fostering a "SAFE Zone" from my colleagues and have encouraged them to attend the training as well.
- I am participating in a year-long training through CSU in the Faculty Institute for Inclusive Excellence. This training is focused on helping faculty to create an equitable and inclusive environment in the classroom and to grow and reflect on key topics related to diversity and inclusion.

Contributions in Leadership: Serving as the Chair of the Diversity and Inclusion Committee has enabled me to take an active role in fostering diversity, equity, and inclusion in the mechanical engineering department. The committee and chair position were recently created to improve the experience of underrepresented groups in mechanical engineering and improve the culture of the department. As the chair, I am leading multiple efforts centered on these goals and they include:

1) Developing a 3- and 5-year plan of action for the department
2) Infusion of diversity and inclusion materials into the mechanical engineering curriculum
3) Leading faculty and staff trainings at bi-annual retreats
4) Evaluation of the current departmental climate from the perspective of current students, faculty, and staff
5) Developing annual review criteria for faculty and staff to encourage their commitment to diversity and inclusion efforts.

This leadership position is expansive, and the goals outlined are ambitious. As a result, I have recently made a request for the development of an Associate Department Head of Diversity and Inclusion position to underline the importance of these efforts and to facilitate the execution of resources and initiatives.

Graduate Student Recruitment: My research work resonates with women and minorities, and as a result my group has benefited. Currently, close to half of my research group identifies as being underrepresented in STEM. I have worked hard to foster a research environment that is conducive to inclusivity. I am dedicated to continuing to recruit a diverse work force through strategic and inclusive advertising.

Research Experience for Undergraduates: I have and continue to support REU programs focused on increasing diversity. Over the past few years I have hosted students from these programs in my lab. The programs target students from underrepresented groups. This past year, one of the student researchers after her experience over the summer agreed to continue working over the school year.

PUBLISHED WORKS

My H-index based on Google Scholar is 28 with a total of 2814 citations from 78 peer reviewed journal publications.

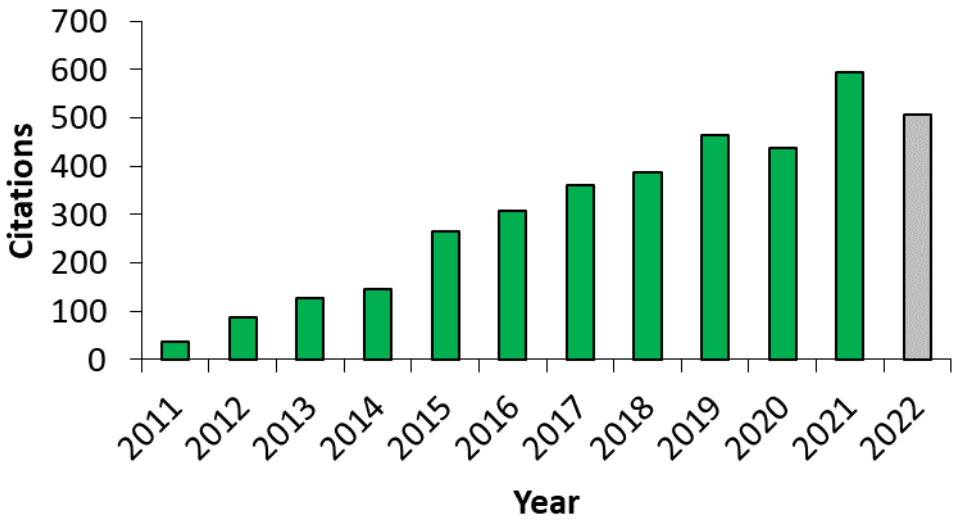

Figure 1. Annual citations based on google scholar, accessed 10/23/2022. Total Citations: 3814. The last year is in grey as it is in progress.

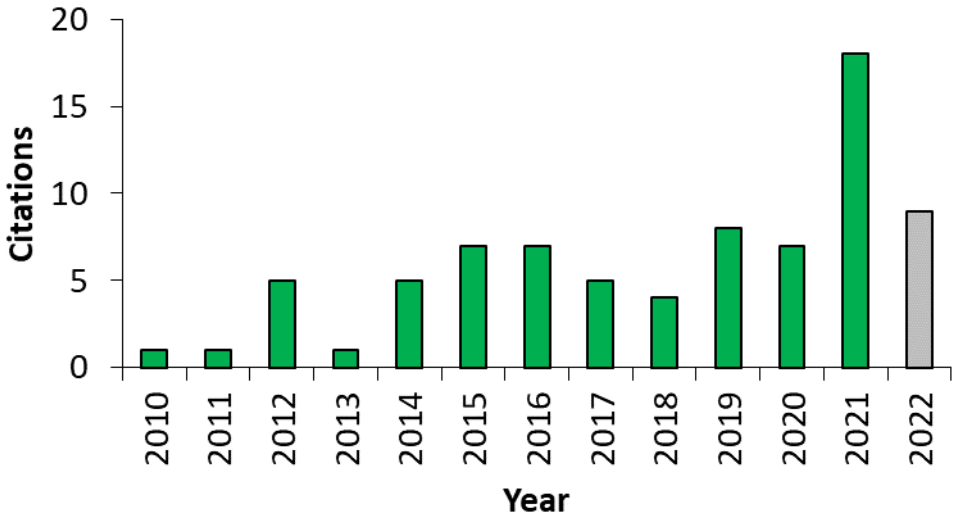

Figure 2. Publication count by year. The last year is in grey as the year is not complete.

Refereed Journal Articles:

1. Limb, B., Markey, E., Vercellino, R., Garland, S., Pisciotta, M., Psarras, P., Herber, D.R., Bandhauer, T., Quinn, J.C., 2022, Economic Viability of Thermal Energy Storage on Natural Gas Power Plants with Carbon Capture, Energy Storage, 55, 105836
2. Chen, P., Quinn, J.C., 2022, Application of fuzzy set theory for holistic sustainability assessment of algal biofuel pathways, Cleaner Engineering and Technology, 100571
3. Quiroz, D., Greene, J.M., Quinn, J.C., 2022, Regionalized life-cycle water impacts of microalgal based biofuels in the US, Environmental Science & Technology
4. Saarloos, B. A., Quinn, J.C., 2022, Achieving Optimal Value of Solar: A Municipal Utility Rate Analysis, Solar, 2, 99-119
5. Cole, G., Robbins, C.A., Grauberger, B., Garland, S., Tong, T. Bandhauer, T., Quinn, J.C., 2022, Optimization of mobile oil and gas produced water treatment unit development logistics to achieve economic feasibility, Resources, Conservation & Recycling, 181, 106249
6. Moreno, P.M., Sproul, E., Quinn, J.C., 2022, Economic and environmental sustainability assessment of guayule bagasse to fuel pathways, Industrial Crops & Products, 178, 114644

7. Quiroz-Arita, C., Shinde, S., Kim, S., Monroe, E., George, A., Quinn, J.C., Nagle, N., Knoshaug, E., Kruger, J.S., Dong, T., Pienkos, P., Laurnes, L., Davis, R.W., 2022, Bioproducts from high-protein algal biomass: An economic and environmental sustainability review and risk analysis, Sustainable Energy & Fuels, 10
8. Trinko, D., Horesh, N., Zane, R., Song, Z., Kamineni, A., Konstantinou, T., Gkritza, K., Quinn, C., Bradely, T.H., Quinn, J.C., 2022, Economic Feasibility of In-Motion Wireless Power Transfer In A High-Density Traffic Corridor, eTransportation, 11, 100154
9. Robbin, C, Du, X, Bradley, T., Quinn, J.C., Bandhauer, T., Conrad, S., Carlson, K., Tong, T., 2022, Beyond Treatment Technology: Understanding Motivations and Barriers for Wastewater Treatment and Reuse in Unconventional Energy Production, Resources, Conservation & Recycling, 177, 106011
10. Saarloos, B.A., Quinn, J.C., 2021, Net-Zero Energy Districts and the Grid: An Energy-Economic Feasibility Case-Study of the National Western Center in Denver, CO, USA, Buildings, 11(12), 638
11. Quiroz, D., Greene, J.M., McGowen, J., Quinn, J.C., 2021, Geographical assessment of open pond algal productivity and evaporation losses across the United States, Algal Research, 60, 102483
12. Summers, H.M., Quinn, J.C., 2021, Improving water scarcity footprint capabilities in arid regions through expansion of characterization factor methods, Science of the Total Environment, 801, 149586
13. Beattie, A., Vermaas, W., Darzins, A., Holland, S. C., Li, S., McGowen, J., Nielsen, D., Quinn, J.C., 2021, A probabilistic economic and environmental impact assessment of a cyanobacteria-based biorefinery, Algal Research 59, 102454
14. Somers, M.D., Chen, P., Clippinger, J., Cruce, J.R., Davis, R., Lammers, P.J., Quinn, J.C., 2021, Techno-economic and life-cycle assessment of fuel production from mixotrophic *Galdieria sulphuraria* microalgae on hydrolysate, Algal Research 59, 102419
15. Zuniga Vazquez, D.A., Teegerstrom, T., Seavert, C., Summers, H.M., Sproul, E., Quinn, J.C., Fam, N., 2021, Optimal Production Planning and Machinery Scheduling for Semi-Arid Farms, Computers and Electronics in Agriculture 187, 106288.
16. Antonanzas, J., Quinn, J.C., 2021, Net environmental impact of the PV industry from 2000-2025, Journal of Cleaner Production, 127791
17. Horesh, N., Quinn, C., Wang, H., Zane, R., Ferry, M., Tong, S., Quinn, J.C., 2021, Driving to the Future of Energy Storage: Techno-economic Analysis of a Novel Method to Recondition Second Life Electric Vehicle Batteries, Applied Energy, 295, 117007
18. Summers, H., Sproul, E., Quinn, J.C., 2021, The Greenhouse Gas Emissions of Indoor Cannabis Production in the United States, Nature Sustainability, 1-7
19. DeRose, K.K., Davis, R.W., Monroe, E.A., Quinn, J.C., 2021, Economic viability of proactive harmful algal bloom mitigation through attached algal growth, Great Lakes Research, 47 (4), 1021-1032
20. Summers, H.M., Sproul, E., Seavert, C., Angadi, S., Robbs, J., Khanal, S., Gutierrez, P., Teegerstrom, T., Zuniga Vazquez, Fan, N., Quinn, J.C., 2021, Economic and environmental analyses of incorporating guar into the American southwest, Agricultural Systems, 191
21. Dehghanizadeh, M., Moreno, P.M., Sproul, E., Bayat, E., Quinn, J.C., Brewer, C.E., 2021, Guayule (Parthenium argentatum) resin: A review of chemistry, extraction techniques, and applications, Industrial Crops & Products, 165, 113410
22. Chen, P., Quinn, J.C., 2021, Microalgae to biofuels through hydrothermal liquefaction: Open-source technoeconomic analysis and life cycle assessment, Applied Energy, 289, 116613
23. Aeriel D Belk, M.S.; Toni L Duarte; Casey Quinn; David A Coil; Keith E Belk; Jonathan A Eisen; Jason C Quinn; Jennifer N Martin; Xiang Yang; Jessica L Metcalf, 2021, Air versus water chilling of chicken: a pilot study of quality, shelf-life, microbial ecology, and economics, American Society for Microbiology, 6 (2) e00912-20
24. Greene, J., Quiroz, D., Compton, S., Lammers, P., Quinn, J.C., 2021, Bulk growth model of algal productivity in various outdoor cultivation platforms, Algal Research, 54, 102224
25. Cruce, J.R., Beattie, A., Chen, P., Quiroz, D., Somers, M., Compton, S., DeRose, K., Beckstrom, B., Quinn, J.C., 2021, Driving toward sustainable algal fuels: A harmonization of techno-economic and life cycle assessments, Algal Research, 54, 102169
26. Zuniga Vazquez, D.A., Sun, O., Fan, N., Sproul, E., Summers, H., Quinn, J.C., Khanal, S., Gutierrez, P., Mealing, V., Landis, A., Seavert, C., Teegerstrom, T., Evancho, B., 2021, Integrating Environmental and Social Impacts into Optimal Design of Guayule and Guar Supply Chains, Computers and Chemical Engineering, 146, 107223
27. Wilson, M. H., Shea, A., Groppo, J., Crofcheck, C., Quiroz, D., Quinn, J.C., Crocker M., 2021, Algae-Based Beneficial Re-use of Carbon Emissions Using a Novel Photobioreactor: a Techno-Economic and Life Cycle Analysis, BioEnergy Research 14(1): 292-302.

28. Sproul, E., Barlow, J., Quinn, J.C., 2020, Time-Resolved Cost Analysis of a Natural Gas Power Plant Conversion to Bioenergy with Carbon Capture and Storage to Support Net-Zero Emissions, Environmental Science & Technology, 54 (23), 15338-15346
29. Cui, Z., Greene, J.M., Cheng, F., Quinn, J.C., Jena, U., Brewer, C.B., 2020, Co-Hydrothermal Liquefaction of Wastewater-Grown Algae and Crude Glycerol: A Novel Strategy and Techno-Economic Analysis for Bio-crude Oil Recovery and Upgrading, Algal Research, 51, 102077
30. Baral, N.R., Asher, Z.D., Trinko, D., Sproul, E., Quiroz-Arita, C., Quinn, J.C., Bradley, T.H., 2021, Biomass Feedstock Transport Using Fuel Cell and Battery Electric Trucks Improves Lifecycle Metrics of Biofuel Sustainability and Economy, Journal of Cleaner Production, 279, 123593
31. Greene, J., Gulden, J., Wood, G., Huesemann, M., Quinn, J.C., 2020, Techno-Economic and Life Cycle Assessment of a Novel Offshore Macroalgae Biorefinery, Algal Research, 51, 102032
32. Sproul, E., Summers, H.M., Seavert, C., Robbs, J., Khanal, S., Mealing, V., Landis, A.E., Fan, N., Sun, O., Quinn, J.C., 2020, Integrated Techno-Economic and Environmental Analysis of Guayule Rubber Production, Journal of Cleaner Production, 273, 122811
33. Beckstrom, B., Wilson, M., Crocker, M., Quinn, J.C., 2020, Bioplastic production from microalgae with fuel co-products: A techno-economic and life-cycle assessment, Algal Research 46: 101769
34. Chen, P., Jimenez, J.V., Rowland, S., Quinn, J.C., Laurens, L., 2020, Algae Nutrient Recycle from Hydrothermal Liquefaction Aqueous Phase through a Novel Selective Remediation Approach, Algal Research 46: 101776
35. DeRose, K., Liu, F., Davis, R.W., Simmons, B.A., Quinn, J.C., 2019, Conversion of Distiller's Grains to Renewable Fuels and High Value Protein: Integrated Techno-Economic and Life Cycle Assessment, Environmental Science and Technology 53(17): 10525-10533
36. Antonanzas, J, Arbeloa-Ibero, M., Quinn, J.C., 2019, Comparative life cycle assessment of fixed and single axis tracking systems for photovoltaics, Journal of Cleaner Production 240: 118016
37. Sproul, E., Barlow, J., Quinn, J.C., 2019, Temporal Impacts of Greenhouse Gas Emissions in Life Cycle Assessment, Environmental Science and Technology 53, 6073-80
38. Jablonski, B.B.R., Carolan, M., Hale, J., Thilmany McFadden, D., Love, E., Christensen, L., Covey, T., Bellows, L., Cleary, R., David, O., Jablonski, K.E., Jones, A.S., Meiman, P., Quinn, J., Ryan, E.P., Schipanski, M., Summers, H., Uchanski, M., 2019, Connecting Urban Food Plans to the Countryside: Leveraging Denver's Food Vision to Explore Meaningful Rural–Urban Linkages. Sustainability, 11(7), 2022
39. Hess, D., Wendt, L.M., Wahlen, B.D., Aston, J.E., Hu, H., Quinn, J.C., 2019, Techno-economic Analysis of Ash Removal in Biomass Harvested from Algal Turf Scrubbers, Biomass and Bioenergy, 123, 149-158
40. Somers, M., Quinn, J.C., 2019, Sustainability of Carbon Delivery to an Algal Biorefinery: A Techno-economic and Life-cycle Assessment, Journal of CO2 Utilization, 30, 193-204
41. DeRose, K., DeMill, C., Davis, R.W., Quinn, J.C., 2019, Integrated Techno-economic and Life Cycle Assessment of the Conversion of High Productivity, Low Lipid Algae to Renewable Fuels, Algal Research, 38, 101412
42. Cruce, J., Quinn, J.C., 2019, Economic viability of multiple algal biorefining pathways and the impact of public policies, Applied Energy, 233-234, 735-746
43. Aligata, A. J., Tryner, J., Quinn, J. C., & Marchese, A. J. (2018). Effect of microalgae cell composition and size on responsiveness to ultrasonic harvesting. Journal of Applied Phycology, 31(3), 1637-1649
44. Limb, B. J., Asher, Z. D., Bradley, T. H., Sproul, E., Trinko, D. A., Crabb, B., Zane, R., Quinn, J.C., 2018, Economic Feasibility of Transportation Electrification Integrating Wireless Power Transfer, IEEE Transactions on Transportation Electrification, DOI:0.1109/TTE.2018.2876067
45. Hess, D., Quinn, J.C., 2018, Impact of Inorganic Contaminants on Microalgal Biofuel Production through Multiple Conversion Pathways, Biomass and Bioenergy, 119, 237-245
46. Edlund, A., Jones, J., Lewis, R., Quinn, J.C., 2018, Economic Feasibility and Environmental Impact of Synthetic Spider Silk Production from Escherichia coli, New Biotechnology, 42, 12-18
47. Hess, D., Napan, K., McNeil, B.T., Torres, E.M., Guy, T., McLean, J., Quinn, J.C., 2017, Quantification of the impact and end fate of inorganic contaminants from flue gas utilization on microalgae productivity, Algal Research, 25, 68-75.
48. Vegel, B., Quinn. J.C., 2017, Economic Evaluation of Small Modular Reactors and the Complications of Regulatory Fee Structures, Energy Policy, 104, 395-403.
49. Torres, E.M., Hess, D., McNeil, B.T., Guy, T., Quinn, J.C., 2017, Impact of inorganic contaminants on microalgae productivity and bioremediation potential, Ecotoxicology and Environmental Safety, 139, 367-376.
50. Hoffman, J., Pate, R.C., Drennen, T., Quinn, J.C., 2017, Techno-economic Assessment of Open Microalgae Production Systems, Algal Research, 23, 51-57.
51. Shurtz, B., Wood, B., Quinn, J.C., 2017, Resource Assessment Associated with Large-scale Microalgae to Biofuel

Production: Multi-pathway Evaluation, Sustainable Energy Technologies and Assessments, 19, 51-58.
52. McNeil, B., Hess, D., Torres, E., Sims, R.C., Quinn, J.C., 2016, Integration of Produced Water from Oil and Gas with Microalgae Cultivation: Impact of Productivity, Utah Academy of Science Arts and Letters, 3, 55-75.
53. Beal, C.M., Davidson, F.T., Webber, M.E., Quinn. J.C., 2016, Flare Gas Recovery for Algal Protein Production, Algal Research, 20, 142-152.
54. Quiroz-Arita, C., Yilmaz, O., Barlack, S., Catton, K., Quinn, J.C., Bradley, T.H., 2016, A Geographical Assessment of Vegetation Carbon Stocks and Greenhouse Gas Emissions on Potential Microalgae-based Biofuel Facilities in the United States, Bioresource Technology, 221, 270-275.
55. Barlow, J., Sims, R.C., Quinn, J.C., 2016, Techno-Economic and Life-Cycle Assessment of an Attached Growth Algal Biorefinery, Bioresource Technology, 220, 360-368. (IF:6.102, C:7)
56. Napan, K., Kumarasamy, K., Quinn, J.C., Wood, B., 2016, Contamination levels in biomass and spent media from algal cultivation system contaminated with heavy metals, Algal Research, 19, 39-47.
57. Mason, G., Reeve, D., Schacht, A., Goodrich, A., Napan, K., Quinn, J.C., 2016, Low-Energy Input Continuous Flow Rapid Pre-Concentration of Microalgae through Electro-Coagulation-Flocculation, Chemical Engineering Journal, 297, 97-105.
58. Jones, M.A., Odehb, I., Haddadc, M., Hindb, A., Quinn, J.C., 2016, Economic Analysis of Direct-Coupled Photovoltaic (PV) Powered Water Pumping and Desalination for Agriculture, Desalinization, 387, 35-45.
59. Jena, U., McCurdy, A., Warren, A., Summers, H., Ledbetter, R., Hoekman, S.K., Seefeldt, L.C., Quinn, J.C., 2015, Oleaginous Yeast Platform for Producing Biofuels via Co-Solvent Hydrothermal Liquefaction, BioTechnology for Biofuels, 8.1, 167.
60. Summers, H., Ledbetter, R., McCurdy, A., Morgan, M., Seefeldt, L.C., Jena, U., Hoekman, S.K., Quinn, J.C., 2015, Techno-economic Feasibility and Life Cycle Assessment of Dairy Effluent to Renewable Diesel via Hydrothermal Liquefaction, Bioresource Technology, 196, 431-440.
61. Napan, K., Hess, D., McNeil, B., Quinn, J.C., 2015, Quantification of heavy metals and other inorganic contaminants on the productivity of microalgae, Journal of Visualized Experiments, e52936.
62. Napan, K., Christianson, T., Voie, K., Quinn, J.C., 2015, Quantitative assessment of microalgae biomass and lipid stability post cultivation, Frontiers in Energy Research, 3, 15.
63. Napan, K., Teng, L., Quinn, J.C., Wood, B., 2015, Impact of Heavy Metals from Flue Gas Integration with Microalgae Production, Algal Research, 8, 83-88.
64. Bennion, E.P., Ginosar, D.M., Moses, J., Agblevor, F., Quinn, J.C., 2015, Lifecycle Assessment of Microalgae to Biofuel: Thermochemical Processing Through Hydrothermal Liquefaction or Pyrolysis, Applied Energy, 154, 1062-1071.
65. Quinn, J.C., Davis, R., 2015, The Potentials and Challenges of Algae Based Biofuels: A Review of the Techno-economic, Life cycle, and Resource Assessment Modeling, Bioresoruce Technology, 184, 444-452.
66. McCurdy, A. T., Higham, A.J., Morgan, M.R., Quinn, J.C., Seefeldt, L.C., 2014, Two-step process for production of biodiesel blends from oleaginous yeast and microalgae, Fuel, 137, 269-276.
67. Quinn, J.C., Hanif, A., Sharvelle, S., Bradley, T.H., 2014, Microalgae to biofuels: Life cycle impacts of methane production of anaerobically digested lipid extracted algae, Bioresource Technology, 171, 37-43.
68. Willis, R. M., McCurdy, A. T., Ogborn, M. K., Wahlen, B. D., Quinn, J.C., Pease III, L. F., Seefeldt, L. C., 2014, Improving Energetics of Triacylglyceride Extraction from Wet Oleaginous Microbes¶. Bioresource Technology, 167, 416-424.
69. Moody, J.W., McGinty, C.M., Quinn, J.C., 2014, Global Evaluation of Biofuel Potential from Microalgae. Proceedings of the National Academy of Sciences of the United States of America, 111, 23.
70. Quinn, J.C., Smith, T.G., Downes, C.M., Quinn, C., 2014, Microalgae to Biofuels Lifecycle Assessment-Multiple Pathway Evaluation, Algal Research, 4, 116-122.
71. Batan, L., Quinn, J. C., Bradley, T., 2013, Analysis of Water Footprint of a Photobioreactor Microalgae Biofuel Production System from Blue, Green and Lifecycle Perspectives, Algal Research, 2, 196-203.
72. Quinn, J. C., Catton, K., Johnson, S., Bradley, T., 2012, Geographical Assessment of Microalgae Biofuels Potential incorporating Resource Availability, Bioenergy Research, 6, 591-600.
73. Quinn, J. C., Yates, T., Douglas, N., Weyer, K., Butler, J., Bradley, T. H., Lammers, P. J., 2012, Nannochloropsis Production Metrics in a Scalable Outdoor Photobioreactor for Commercial Applications. Bioresoure Technology, 117, 164-71.
74. Quinn, J., Catton, K., Wagner, N., Bradley, T., 2011, Current US Biofuel Potential from Microalgae Cultivated in Large-Scale Photobioreactors, Bioenergy Research, 5, 49-60.
75. Fagerstone, K, Quinn, J., Marchese, A., Bradley, T., 2011, Quantitative Measurement of Direct Nitrous Oxide Emissions from Microalgae Cultivation, Environmental Science & Technology, 45, 9449-9456.

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77. Quinn, J., de Winter, L., Bradley, T., 2011, Microalgae Bulk Growth Model with Application to Industrial Scale System, Bioresource Technology, 102, 5083-5092.
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Refereed Journal Articles in review/progress:

1. Greene, J.M., Hosanna, R., Willson, B., Quinn, J.C., Embodied Carbon and Net-Zero Carbon Potential for a Mid-Rise Office Building Constructed with Mass Timber, Sustainable Materials and Technologies, (in review)
2. Antonanzas, J., Quinn, J.C., Regional Greenhouse Gas Analysis of Compressor Drivers in Natural Gas Transmission Systems in Canada, Journal of Cleaner Production (in review)
3. Grauberger, B.M., Cole, G.M., Robbins, C.A., Quinn, J.C., Tong, T., Bandhauer, T.M., Viability of Waste Heat Capture, Storage, and Transportation for Decentralized Flowback and Produced Water Treatment, Applied Energy (in review)
4. Markey, E.J., Vercellino, R., Limb, B.J., Pisciotta, M., Huyett, J., Garland, S., Psarras, P., Herber, D.R., Quinn, J.C., Bandhauer, T., Economic Impact of Thermal Energy Storage on Natural Gas Power with Carbon Capture in Future Electricity Markets (in review)
5. Banks, A.B., Chen, P.H., Quiroz-Arita, C., Davis, R.W., Quinn, J.C., Geographically-resolved evaluation of the economic and environmental services from renewable diesel derived from attached algae flow-ways across the United States, (in review)
6. Asuega A., Quinn, J.C., Techno-Economic Analysis of Advanced Small Modular Nuclear Reactors, Applied Energy, (in review)

Refereed Proceedings/Transactions:

Refereed Invited Conference Presentations:

1. Quinn, J.C., 2022, Carbon: Make Good Choices, 2022 U.S. Asset Management Conference PGIM Real Estate, Nashville, TN
2. Ogden, K., Quinn, J.C., 2022, Sustainable Bioeconomy for Arid Regions (SBAR), Sustainable Agricultural Systems, USDA, Kansas City, MO
3. Horesh, N., Zhou, Y., Quinn, J.C., 2022, Evaluation of Economic and Environmental Benefits of Multi-Unit Dwelling Electric Vehicle Charging Infrastructure Using Real World Charging Data, ISSST, Pittsburg, PA
4. Quiroz, D., Greene, J.M., Quinn, J.C., 2022, A Comprehensive Water Life Cycle Assessment of Algal Fuels, ISSST, Pittsburg, PA
5. Horesh, N., Dallago, D., Quinn, J.C., 2022, Comparative Life Cycle Assessment of Electric Vehicle Charging Infrastructure, ISSST, Pittsburg, PA
6. Maynard, M.R., Stunners, J., Burkhardt, J., Quinn, J.C., 2022, A Comparative Life Cycle Assessment of Local Food Production Systems to Conventional Centralized Agriculture in the Contiguous United States, ISSST, Pittsburg, PA
7. Greene, J.M., Quiroz, D., Compton, S., Quinn, J.C., 2022, Modeling algae cultivation at scale: Productivity, pond reliability, and resource consumption across the United States, ISSST, Pittsburg, PA
8. Markey, E.J., Vercellino, R., Limb, B.J., Pisciotta, M., Huyett, J., Garland, S., Psarras, P., Herber, D.R., Quinn, J.C., Bandhauer, T., 2022 Economic Viability of Natural Gas Power Plants with Carbon Capture and Electrically Charged Thermal Energy Storage, ISSST, Pittsburg, PA
9. Limb, B.J., Markey, E., Vercellino, R., Garland, S., Pisciotta, M.D., Psarras, P., Herber, D.R., Bandhauer, T., Quinn J.C., 2022, The future of carbon capture: A story of the tortoise and the hare, ISSST, Pittsburg, PA
10. Limb, B.J., Smith, J., Beal, C., Putman, N., Sproul, E., Banta, K., Kern, J., Akdemir, E.A., Quinn J.C., 2022, Evaluation of Biofuel Pathways in the CONUS using an Integrated Agent-Based Modeling Framework, ISSST, Pittsburg, PA
11. Limb, B.J., Markey, E., Vercellino, R., Garland, S., Pisciotta, M.D., Psarras, P., Herber, D.R., Bandhauer, T., Quinn J.C., 2022, Economic Viability of Thermal Energy Storage to Support Flexible Operation of Natural Gas Power Plants with Carbon Capture, ASTFE 7th thermal and fluids engineering conference

[1] Co-authored

12. Quinn, J.C., Greene, J., Zelaya, A., 2022, Guiding Technology Development through Life Cycle Assessment and Techno-economic Modeling, ARPA-E Valorizing Algal Minerals Working Group, New Orleans, LA
13. Akdemir, E.A., Kern, J., Quinn, J.C., Smith, J., Field, J., 2022, Using Many-objective Optimization to Design Low Carbon and Weather Resilient Biofuel Supply Chains, AUG, Chicago, IL
14. Vercellino, R., Markey, E., Limb, B., Pisciotta, M., Huyett, J., Garland, S., Bandhauer, T., Quinn, J.C., Psarras, P., Herber, D., 2022, Control Co-Design Optimization of Natural Gas Power Plants With Carbon Capture and Thermal Storage, Proceedings of the ASME 2022 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, St. Louis, Missouri
15. Horesh N., Quinn C., Wang H., Zane R., Ferry M., Tong S., Quinn J.C., 2022, Market Potential for Grid Energy Services Using Reconditioned Second-Life Electric Vehicle Batteries. International Battery Seminar & Exhibit, Orlando, FL.
16. Quinn, J.C., Horesh, N., Trinko, D., Bradley, T.H., 2021, Economic and Environmental Benefits of Electrified Transportation, ITS World Congress, Charlotte, NC
17. Asuega, A, Quinn, J.C., 2021, Techno-Economic Analysis of Various Advanced Reactors, American Nuclear Society Winter Meeting and Technology Expo, Washington DC
18. Cole, G.M., Robbins, C.A., Bandhauer, T., Tong, T., Quinn, J.C., 2021, Multi-Objective Optimization of the Economic Feasibility for Mobile On-Site Oil and Gas Produced Water Desalination and Reuse, The North American Membrane Society, Estes Park, CO
19. Horesh, N., Quinn, C., Tong, A., Wang, H., Zane, R., Quinn, J.C., 2021, Economic viability of reconditioning 2nd life lithium ion batteries for grid services, TechConnect World Innovation Conference & Expo, Washington D.C.
20. Limb, B.J., Markey, E., Garland, S., Vercellino, R., Sundarraian, A.K., Pisciotta, M.D., Herber, D., Bandhauer, T., 2021, Economic Viability of Flexible Carbon Capture for Natural Gas Power Plants, TechConnect World Innovation Conference & Expo, Washington D.C.
21. Sproul, E., Summers, H.M., Seavert, C., Robbs, J., Khanal, S., Mealing, V., Landis, A.E., Fan, N., Sun, O., Quinn, J.C., 2021, Economic and Environmental Sustainability Analysis of Guayule Rubber, TechConnect World Innovation Conference & Expo, Washington D.C. (Virtual Presentation)
22. Quinn, J.C., Summers, H.M., Sproul, E., Seavert, C., Robbs, J., Khanal, S., Mealing V., Landis, A.E., Fan, N., Sun, O., 2021, Integrated Economic and Environmental Sustainability Analysis of Guar Gum, TechConnect World Innovation Conference & Expo, Washington D.C. (Virtual Presentation)
23. Summers, H., Quinn, J.C., 2021, Advancing Water Scarcity Footprint Methods for Arid Regions, ACLCA 2021, Virtual Event
24. Chen, P., Quinn, J.C., 2021, Holistic scoring methodology for assessing economic and environmental impacts of algal fuel conversion pathways, ACLCA 2021, Virtual Event
25. Sproul, E., Summers, H.M., Seavert, C., Fan, N., Zuniga Vazquez, D.A., Landis, A.E., Mealing, V., Quinn, J.C., Sustainability Assessment of Producing Guayule Rubber with Coproducts, Association for the Advancement of Industrial Crops, Virtual Event
26. Zuniga Vazqueza, D.A., Fan, N., Teegerstrom, T., Seavert, C., Summers, H.M., Sproul, E., Quinn, J.C., 2021, Optimal Design of Guayule and Guar Supply Chains for the American Southwest, Association for the Advancement of Industrial Crops, Virtual Event
27. Quinn, J.C., Beattie, A., Darzins, A., McGowen, J., Nielsen, D., Holland, S.C., Li, S., Vermaas, W., 2021, A Probabilistic Economic and Environmental Assessment of Biofuel and Oleochemical Products from Cyanobacteria, Algal Biomass Summit, Virtual Event
28. Greene, J.M., Quiroz, D., Corcoran, A., Nalley, J., Quinn, J.C., 2021, Integrating regionally and temporally resolved microalgae growth rate modeling with pond reliability metrics to accurately model the economic and environmental performance of algae cultivation at scale, Algal Biomass Summit, Virtual Event
29. Quiroz, D., McGowen, J., Quinn, J.C., 2021, Geographical water footprint analysis of algal systems compared to conventional biomass feedstocks, Algal Biomass Summit, Virtual Event
30. Chen, P, Quinn, J.C., 2021, Open-source model and update of algal hydrothermal liquefaction economics and life cycle assessment, Algal Biomass Summit, Virtual Event
31. Chen, P, Quinn, J.C., 2021, Holistic performance scoring methodology of algal fuel conversion pathways, Algal Biomass Summit, Virtual Event
32. Greene, J., Summers, H.M., Quinn, J.C., 2021, Life Cycle Assessment of Greenhouse Hemp Production in Southern Colorado, Cannabis Research Conference, Virtual Event
33. Summers H.M., Sproul, E., Quinn, J.C., 2021, The Greenhouse Gas Emissions of Growing Cannabis Indoors, Cannabis Research Conference, Virtual Event

34. Chen, P.H., Quinn, J.C., 2021, Fuzzy logic methodology for scoring and optimizing sustainability and performance of algae-to-fuel pathways. International Symposium on Sustainable Systems and Technology, Virtual Event
35. Moreno, P.M., Quinn, J.C., Sproul, E., 2021, Economic and environmental sustainability assessment of thermochemical conversion of guayule bagasse to biofuels, International Symposium on Sustainable Systems and Technology 2021, Virtual Event
36. Summers, H., Quinn, J.C., 2021, Advancing Water Scarcity Footprint Methods for Arid Regions, International Symposium on Sustainable Systems and Technology 2021, Virtual Event
37. Quiroz, D., McGowen, J., Quinn, J.C., 2021, A Geographical and Temporal Assessment of the Water Requirements for Large-Scale Cultivation of Microalgae, International Conference on Algal Biomass, Biofuels, & Bioproducts, Virtual Event
38. Chen, P., Quinn, J.C., 2021, Integrated TEA and LCA of an HTL Based Biorefinery, Algal Biomass, Biofuels & Bioproducts, Virtual Event
39. Cui, Z., Cheng, F., Greene, J.M., Quinn, J.C., Jena, U., Brewer, C.E., 2020, Crude Glycerol Improves Hydrothermal Liquefaction of Wastewater Algae: Yield, Separation, and Economics, Thermal Catalytic Sciences, Virtual Event
40. Summers, H.M., Sproul, E., Quinn, J.C., 2020, Green isn't Green: The Environmental Burden of Cannabis Cultivation, American Center for Life Cycle Assessment XX, Virtual Event
41. Sproul, E., Barlow, J., Quinn, J.C., 2020, Combined Techno-Economic and Life Cycle Analysis of Low Emissions Options for an Existing Natural Gas Power Plant, American Center for Life Cycle Assessment XX, Virtual Event
42. Chen, P.H., Quinn, J.C., 2020, Heat integration and optimization of hydrothermal liquefaction and Combined Algal Processing, Algal Biomass Summit, Virtual Event
43. Quinn, J.C., Beckstrom, B.D., Somers, M., Crocker, M., 2020, Economic and life-cycle potential of microalgae derived bioplastics with fuel co-products, Algal Biomass Summit, Virtual Event
44. Greene, J., Compton, S., Quinn, J.C., 2020, Utilizing dynamic growth modeling to add temporal and regional resolution to techno-economic and life-cycle models of microalgae biofuel systems, Algal Biomass Summit, Virtual Event
45. Beattie, A., Darzins, A., Vermaas, W., Nielsen, D., Quinn, J.C., 2020, Economic evaluation of multiple carbon delivery technologies for enhanced algal productivity, Algal Biomass Summit, Virtual Event
46. DeRose, K., Banks, A., Monroe, E., Davis, R.W., Quinn, J.C., 2020, Algae as a service: Economic viability of using attached algae growth systems to proactively prevent large harmful algal blooms, Algal Biomass Summit, Virtual Event
47. Greene, J.M., Cui, Z., Cheng, F., Jena, U., Brewer, C.E., Quinn, J.C., 2020, Driving Down the Cost of Renewable Fuel Production through Co-Hydrothermal Liquefaction of Microalgae and Crude Glycerol, Algal Biomass Summit, Virtual Event
48. Quinn, J.C., Horesh, N., Trinko, D., Limb, B., Quinn, C., Bradley, T.H., Zane, R., 2020, The future of transportation, Institute for Science & Policy, Denver Museum of Nature & Science, Virtual Event.
49. Zimmerle, D., Quinn, C., Quinn, J.C., Clark, M., Volckens, J., 2020, Can Modifications Make Electric Pressure Cookers 'Minigrid Friendly?', 2020 IEEE Global Humanitarian Technology Conference (GHTC) - Affordable & Clean Energy (SDG7).
50. Summers, H. Sproul, E. Quinn. J., 2020, Green isn't Green: The Environmental Burden of Indoor Cannabis Production, Institute of Cannabis Research Conference 2020, Pueblo, CO-Virtual Event
51. Chan, F.L., Lucas, S., Foust, T., Reardon, K.F., Labbe, N., McEnally, C., Quinn, J.C., Marchese, A., Pfefferle, L., Bartholet, D., Windom, B.C., 2020, Cation exchange resins catalyzed synthesis of dibutoxymethane and polyoxymethylene dibutyl ether: A diesel fuel addictive for soot reduction, American Chemical Society Fall 2020 meeting and Expo, Virtual Event.
52. Quinn, J.C., DeRose, K., Monroe, E., Davis, R.W., 2020, Mitigating harmful algae blooms: Translating pilot scale scientific discoveries into actionable solutions at market scale, American Chemical Society Fall 2020 meeting and Expo, Virtual Event.
53. Quinn, J.C., Sproul, E., Summers, H.M., Seavert, C., Gutierrez, P., Teegerstrom, T., Vazquez, D., Robbs, J., Shanal, S., Fan, N., Sun, O., Moreno, P.M., 2020, Integrated economic and environmental analysis of emerging industrial crops in arid regions of the southwest United States, American Chemical Society Fall 2020 meeting and Expo, Virtual Event.
54. Sproul, E., Quinn, J.C., 2020, Energy Systems Analysis Using Life Cycle Assessment, Techno-Economics, and Integrated Assessment Modeling, International Symposium on Sustainable Systems and Technologies, Virtual

Event.

55. Horesh, N., Quinn, C., Tong, A., Wang, H., Zane, R., Quinn, J.C., 2020, Economic and environmental impact of recondition 2nd life lithium ion batteries for grid services, International Symposium on Sustainable Systems and Technologies, Virtual Event.
56. Summer, H.M., Sproul, E., Quinn, J.C., 2020, Green isn't Green: The Environmental Burden of Cannabis Cultivation, International Symposium on Sustainable Systems and Technologies, Virtual Event.
57. Saarloos, B., Quinn, J.C., 2020, A Net-Zero Energy Campus Case-Study: Denver's National Western Center, International Symposium on Sustainable Systems and Technologies, Virtual Event.
58. Antonanzas, J., Quinn, J.C., 2020, The role of the photovoltaic industry in fighting climate change in the last two decades, International Symposium on Sustainable Systems and Technologies, Virtual Event.
59. DeRose, K., Davis, R.W., Banks, A., Quinn, J.C., Economic evaluation of the costs and benefits of proactive algae bloom prevention in Lake Erie, International Symposium on Sustainable Systems and Technologies, Virtual Event.
60. Quinn, J.C., Summers, H.M., Sproul, E., Seavert, C., Teegerstrom, T., Gutierrez, P., Robbs, J., Mealing, V., Landis, A.E., Fan, N., Sun, O., Vazquez, D., 2020, Integrated Economic and Environmental Analysis of Emerging Industrial Crops in Arid Regions of the Southwest United States, International Symposium on Sustainable Systems and Technologies, Virtual Event.
61. Greene, J.M., Hawthorne, C., Reardon, K., Dandy, D., Quinn, J.C., 2020, Evaluating the Economic Impacts of Using Enzymatic Membranes to Optimize Bicarbonate Production and Delivery to Open Raceway Ponds, Algal Biomass Biofuels and Bioproducts, Virtual Event
62. Greene, J.M., Cui, Z., Cheng, F., Brewer, C.E., Jena, U, Quinn, J.C., 2020, Reducing the Cost of Renewable Fuel Production using Co-Hydrothermal Liquefaction of Microalgae and Crude Glycerol, Algal Biomass Biofuels and Bioproducts, Virtual Event
63. Quiroz, D., Beckstrom, B., Crocker, M., Quinn, J.C., 2020, A Techno-Economic Analysis and Comparison of Microalgal Growth Architectures, Algal Biomass Biofuels and Bioproducts, Virtual Event
64. Quinn, J.C., 2020, The Economics of Electrifying America, CERV, Park City, UT.
65. Chen, P.H., Quinn, J.C., Venegas Jimenez, J.L., Rowland, S.M., Quinn, J.C., Laurens, L.M.L., 2019, Recycle and remediation of hydrothermal liquefaction aqueous phase as nutrients for algal growth, Algal Biomass Summit, Orland, FL.
66. Somers, M.D., Quinn, J.C., 2019, The economics of carbon delivery to an algal biorefinery, Algal Biomass Summit, Orland, FL.
67. Quinn, J.C., Cruce, J., Sommers, M., Beckstrom, B., Chen, P., DeRose, K., 2019, An economic and life cycle perspective on the future of algal biorefineries, Algal Biomass Summit, Orland, FL.
68. Greene, J., Huesemann, M., Gulden, J., Wood, G., Mumford, T, Quinn, J.C., 2019, Utilizing Techno-Economic Modeling to Identify Effective Methods to Reduce the Cost of Fuel Production from Macroalgae, Algal Biomass Summit, Orland, FL.
69. DeRose, K., Davis, R.W., Liu, F., Quinn, J.C., 2019, Production of alternative fuels from low-lipid, high productivity algae; a comparison of processing options as evaluated through economic viability and sustainability, Algal Biomass Summit, Orland, FL.
70. Crocker, M., Wilson, M.H., Groppo, J., Kesner, S., Mohler, D., Pace, R., Grubbs T., Quinn, J.C., Beckstrom, B., Quiroz, D., Zeller, A., Hunt, R., Durst, D., 2019, CO2 to Bioplastics Using Microalgae, Algal Biomass Summit, Orland, FL.
71. Beckstrom, B.D., Quiroz, D., Wilson, M.H., Crocker, M., Zeller, A., Quinn, J.C., 2019, Bioplastic production from microalgae: Economic and Life Cycle potential, Algal Biomass Summit, Orland, FL.
72. Chen, P., Quinn, J.C., 2019, Carbon sequestration through char production with hydrothermal liquefaction of algal biomass, American Center for Life Cycle Assessment XIX, Tucson, AZ.
73. Summers, H., Browning, D., Quinn, J.C., 2019, Life Cycle Impact Assessment of Cannabis Cultivation, American Center for Life Cycle Assessment XIX, Tucson, AZ.
74. Sproul, E.,Summers, H.M., Mealing, V., Landis, A., Gutierrez, P., Robbs, J., Teegerstrom, T., Seavant, C., Sun, O., Fan, N., Cheng, F., Quinn, J.C., 2019, Integrated Environmental and Economic Assessment of Guar and Guayule, American Center for Life Cycle Assessment XIX, Tucson, AZ.
75. Greene, J., Huesemann, M., Gulden, J., Wood, G., Mumford, T, Quinn, J.C., 2019, Macroalgae biorefining: Using a modular approach to quantify the impacts of emerging technology on system performance, American Center for Life Cycle Assessment XIX, Tucson, AZ.
76. Antonanzas, J, Quinn, J.C., 2019, A life cycle comparison of fixed versus single axis tracking photovoltaics systems, American Center for Life Cycle Assessment XIX, Tucson, AZ.

77. Summers, H., Browning, D., Quinn, J.C., 2019, Environmental Impacts of Colorado Cannabis Industry, International Symposium on Sustainable Systems and Technology, Portland, OR.
78. Sproul, E., Barlow, J., Quinn, J.C., 2019, Monetized Impacts of Time Resolved Greenhouse Gas Emissions, International Symposium on Sustainable Systems and Technology, Portland, OR.
79. Quinn, J.C., Sproul, E., DeRose, K., Greene, J., Summers, H., Cruce, J., 2019, The Power Of Sustainability Modeling and the Importance of Methodology, Biochar & Bioenergy 2019, Fort Collins, CO.
80. Mendel, H., Chen, P., Marchese, A., Quinn, J.C., 2019, Optimization of Continuous Flow, Scalable, Low Energy Ultrasonic Harvesting for Microalgae, Algal Biomass Summit, Orland, FL.
81. Quinn, J.C., Cruce, J., Sommers, M., Beckstrom, B., Chen, P., DeRose, K., 2019, Current state and future direction of algal based biorefineries: An economic and life cycle perspective, Algal Biomass, Biofuels, and Bioproducts, Boulder, CO.
82. Huesemann, M., Edmundson, S., Yang, Z., Wang, T., Whiting, J., Copping, A., Freeman, M., Gao, S., Quinn, J.C., Greene, J., Yim, S., Chen, M., Gulden, J., Wood, G., Mumford, T., 2019, Development of the Ocean NOMAD (Nautical Off-shore Macroalgal Autonomous Device) for Low-Cost Production of Biomass for Foods, Feeds, and Fuels, Algal Biomass, Biofuels, and Bioproducts, Boulder, CO.
83. Greene, J., Huesemann, M., Gulden, J., Mumford, T., Wood, G., Quinn, J.C., 2019, Utilizing Techno-Economic Modeling to Identify Effective Methods to Reduce the Cost of Fuel Production from Macroalgae, Algal Biomass, Biofuels, and Bioproducts, Boulder, CO.
84. Chen, P.H., Venegas Jimenez, J.L., Rowland, S., Panczak, B., Quinn, J.C., Laurens, L., 2019, Impact of remediation of hydrothermal liquefaction aqueous phase on algal growth, Algal Biomass, Biofuels, and Bioproducts, Boulder, CO.
85. Beckstrom, B.D., Wilson, M.H., Crocker, M., Zeller, A., Quinn, J.C., 2019, Economic and life-cycle potential of microalgae derived bioplastics with fuel co-products, Algal Biomass, Biofuels, and Bioproducts, Boulder, CO.
86. Greene, J., Huseman, M., Gulden, J., Wood, G., Mumford, T., Quinn, J.C., 2019, Evaluating the Economic Viability of Offshore Macroalgae Production and the Impacts of Emerging Technologies and Downstream Processing Into Bioproducts, World Aquaculture Society Triennial Meeting, New Orleans, LA.
87. Quinn, J.C., Beckstrom, B., Chen, P., Cruce, J., Somers, M., 2018, Sustainability of algal fuels: Harmonization of life cycle assessments, American Center for Life Cycle Assessment XVIII, Fort Collins, CO
88. Summers, H.M., Sproul, E., Meaing, V., Eranki, P., Landis, A.E., Quinn, J.C., 2018, Process Modeling and Life Cycle Assessment of Rubber and Co-products from Guayule, American Center for Life Cycle Assessment XVIII, Fort Collins, CO.
89. Quiroz-Arita, C.E., Reardon, K.F., Pengyu, C., Chen, P., Quinn, J.C., Bradley, T.H., 2018, Sustainability Implications of Mixing Energy for the Industrial Scale Design of Cyanobacterial Cultivation in Open Raceway Ponds and Flat-Panel Photobioreactors, American Center for Life Cycle Assessment XVIII, Fort Collins, CO.
90. Quinn, J.C., Somers, M.D., 2018, Life Cycle Assessment of Various Carbon Delivery Methods to an Algal Growth System, American Center for Life Cycle Assessment XVIII, Fort Collins, CO.
91. Sproul, E., Barlow, J., Quinn, J.C., 2018, The Present Value of Greenhouse Gas Emissions in Life Cycle Assessment, American Center for Life Cycle Assessment XVIII, Fort Collins, CO.
92. Beckstrom, B., Wilson, M.H., Crocker, M., Zeller, A., Quinn, J.C., 2018, The cost of carbon sequestration through algae: an innovative biological approach, Algal Biomass Summit, Huston, TX.
93. Quiroz-Arita, Reardon, K.F., Chen, P., Quinn, J.C., Bradley, T.H., Implications of Mixing Energy at Photo-inhibiting Light Intensities for the Industrial Scale Design and Sustainability of Cyanobacterial Cultivation in Open Raceway Ponds and Flat-Panel Photobioreactors, Algal Biomass Summit, Huston, TX.
94. DeRose, K., Davis, R.W., Liu, F., Quinn, J.C., 2018, Optimizing the economics of low value algae: Processing based on algal composition and dealing with ash, Algal Biomass Summit, Huston, TX.
95. Chen, P., Quinn, J.C., 2018, Techno-economic analysis of potentially cost-prohibitive factors in algal biomass and biofuel costs, Algal Biomass Summit, Huston, TX.
96. Wilson, M.H., Groppo, J., Mohler, D., Kesner, S., Crocker, M., Quinn, J.C., 2018, Algae-Based Beneficial Re-use of Industrial Carbon Emissions: A Comparison of Algae Production Systems, Algal Biomass Summit, Huston, TX.
97. Huesemann, M., Edmindson, S., Yang, Z., Wang, T., Copping, A., Quinn, J.C., Gulden, J., Wood, G., Mumford, M., 2018, Development of the Ocean NOMAD (Nautical Off-shore Macroalgal Autonomous Device) for Low-Cost Production of Biomass for Foods, Feeds, and Fuels, Algal Biomass Summit, Huston, TX.
98. Quinn, J.C., 2018, Techno-Economical Assessment and Life Cycle Analysis in Food Production Processes, 3rd Annual Innovator Summit, Davis, CA.
99. DeRose, K., Davis, R., Liu, F., Quinn, J.C., 2018, Environmental and Economic Impacts of Producing Alternative

Fuels from High Productivity, Low Lipid Algae, 9th International Congress on Environmental Modelling and Software, Fort Collins, CO.

100. Beckstrom, B., Quinn, J.C., 2018, Sustainability of Algal Biorefining: Potential of Integrating Bioplastic Production, 9th International Congress on Environmental Modelling and Software, Fort Collins, CO.
101. Chen, P., Quinn, J.C., 2018, Sensitivity analysis of techno-economic factors in algal biofuel production, 9th International Congress on Environmental Modelling and Software, Fort Collins, CO.
102. Summers, H., Sproul, E., Johnson, J., Quinn, J.C., 2018, Economic viability and environmental impact of processing arid crops in the American Southwest, 9th International Congress on Environmental Modelling and Software, Fort Collins, CO.
103. Aligata, A., Gómez, E.H., Tryner, J., Marchese, A., Quinn, J.C., 2018, Acoustic harvesting: implications of algal composition on performance, Algal Biomass, Biofuels, and Bioproducts, Seattle, WA.
104. DeRose, K., Davis, R., Liu, F., Quinn, J.C., 2018, Production of high valued products and biofuel through protein-targeted fermentation and HTL: Economic Viability, Environmental Impact and Process Optimization, Algal Biomass, Biofuels, and Bioproducts, Seattle, WA.
105. Davis, R.W., Monroe, E., Wu, B.C., Zivojnovich, M., Siccardi, A., Quinn, J.C., Lundguist, T., Benemann, J., 2018, Comparative assessment of suspended and attached microalgae cultivation for coupling water treatment and production of biobased commodities, Algal Biomass, Biofuels, and Bioproducts, Seattle, WA.
106. Vegel, B., Quinn, J.C., 2018, Techno-economic Feasibility of Small Modular Nuclear Reactors, American Society of Thermal and Fluids Engineers, Fort Lauderdale, FL.
107. Quinn, J.C., Trinko, D., Sproul, E., Asher, Z., Limb, B., Bradley, T.H., 2018, Economic Feasibility of Roadway Electrification, CERV, Park City, UT.
108. Sproul, E., Trinko, D., Asher, Z.D., Limb, B., Bradley, T.H., Quinn, J.C., 2018, Electrification of class 8 trucking: Economic analysis of in-motion wireless power transfer compared to long-range batteries, IEEE Transportation Electrification Conference and Expo, Long Beach, CA.
109. Sproul, E., Barlow, J., Quinn, J.C., 2017, Characterizing and Accounting for Temporal Impacts of Carbon Emissions, Environmental and Energy Resource Management Summit, Reston, VA.
110. Vegel, B., Quinn, J.C., 2017, Bottom-Up Capital Cost Estimation for Generation IV Small Modular Reactors, American Nuclear Society National Meeting, Washington D.C.
111. Compton, S., Cruce, J., Somers, M., Csakan, N., Lammers, P, Quinn, J.C., 2017, Development, Validation, and Application of an ORP and PBR Growth Model for Geographically Resolved Reactor Optimization, Resource Assessment, and Reliability Modeling, Algal Biomass Summit, Salt Lake City, UT.
112. Quinn, J.C., Huesemann, M., 2017, Economic Viability of Long Line Open Ocean Macroalgae Cultivation, Algal Biomass Summit, Salt Lake City, UT.
113. DeRose, K., DeMill, C., Davis, R.W., Quinn, J.C., 2017, Production of High Valued Products and Biofuel through Fermentation and HTL: Process Optimization for Seasonal Variability and Composition, Algal Biomass Summit, Salt Lake City, UT.
114. Aligata, A., Gómez, E.H., Tryner, J., Marchese, A., Quinn, J.C., 2017, Understanding acoustic harvesting: determination of microalgal acoustic properties, Algal Biomass Summit, Salt Lake City, UT.
115. Sproul, E., Barlow, J., Quinn, J.C., 2017, Development of Methods to Account for the Temporal Impacts of Greenhouse Gas Emissions, American Center for Life Cycle Assessment LCA XVII, Portsmouth, NH.
116. Quiroz-Arita, C.E., Bark, D., Dasi, L.P., Chen, P., Quinn, J.C., Bradley, T.H., 2017, Optimization of turbulent mixing and the motion of photoautotrophic cells in photobioreactors at high light intensity: implications for the net energy ratios of industrial cultivation systems, Algal Biomass, Biofuels, and Bioproducts, Miami, FL.
117. Davis, R.W., Siccardi, A., Zivojnovich, M., Quinn, J.C., Pate, R.C., Wu, B.C., Woertz, I., Lundquist, T., Benemann, J., 2017, Comparative Assessment of Suspended and Benthic Microalgae Cultivation Systems for Wastewater Treatment and Production of Biobased Commoditeis, Algal Biomass, Biofuels, and Bioproducts, Miami, FL.
118. Compton, S., Lammers, P., Quinn, J.C., 2017, A validated model of temperature and algal growth in outdoor algal growth systems for multiple species, Algal Biomass, Biofuels, and Bioproducts, Miami, FL, June 2017
119. Somers, M., Lammers, P., Quinn, J.C., Sustainability of CO2 supplementation in microalgae cultivation, Algal Biomass, Biofuels, and Bioproducts, Miami, FL.
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138. Vegel, B., Quinn, J.C., 2016, Techno-Economic Assessment of the Factory Production of Small Modular Reactors, ANS Annual Meeting, New Orleans, LA.
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Wastewater: Water Footprint and Resource Requirements, 2013 International Biomass Conference & Expo, Minneapolis, MN.

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169. Batan, L., Quinn, J.C., Bradley, T., 2011, A Current Evaluation of Life Cycle Greenhouse Gas Emissions, Land Use and Environmental Impact from Large Scale Production of Biofuels from Microalgae, World Congress on Industrial Biotechnology and Bioprocessing, Toronto, Canada.
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173. Quinn, J., Bradley, T., 2010, Microalgae Biomass Production Potential in the US, ECI: CO2 Summit: Technology and Opportunity, Vail, CO.
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Refereed Conference Publications:

1. Cole, G., Windom, B., Quinn, J.C., 2022, Concurrent techno-economic and life cycle assessment of bio-derived dibutoxymethane, 39th International Symposium on Combustion, Vancouver, Canada
2. Vercellino, R., Markey, E., Limb, B., Pisciotta, M., Huyett, J., Garland, S., Bandhauer, T., Quinn, J.C., Psarras, P., Herber, D., 2022 Economic Viability of Natural Gas Power Plants with Carbon Capture and Electrically Charged Thermal Energy Storage, ISSST, Pittsburg, PA
3. Silagy, B., Dehghanizadeh, M., Brewer, C., Ogden, K., Smith, A., Quinn, J.C., 2022, Driving Technology Forward: Using Techno-economics to Evaluate Co-product Revenue Potential in a Natural Rubber Biorefinery, ISSST, Pittsburg, PA
4. Asuega, A., Quinn, J.C., 2022, Techno-Economic Analysis of Advanced Small Modular Nuclear Reactors, ISSST, Pittsburg, PA
5. Alvarado, N., Greene, J., Quinn, J.C., 2021, Life Cycle Assessment of Protein Extraction in a Microalgae Biofuel Biorefining Concept, Algal Biomass Summit, Virtual Event
6. Khanal, S., Seavert, C., Gutierrez, P., Teegerstrom, T., Quinn, J.C., Summers, H.M., Sproul, E., Mealing, V., Landis, A., Blayney, D., Apar, G.C., 2020, Economic Impacts of Alternative Crops Porcution: Guar and Guayule in the Southwest, Agricultural and Applied Economic Association, Virtual event.
7. Quiroz, D., McGowen, J., Weiss, T., Seger, M., Lammers, P., Quinn, J.C., 2020, Economics of Including Seed Train Systems and Optimization of System Operation, Algal Biomass Biofuels and Bioproducts, Virtual Event
8. Beattie, A., Darzins, A., Vermass, W., Nielsen, D., Quinn, J.C., 2020, Criticality of techno-economic assessment: a trade-off assessment of carbon dioxide delivery systems, Algal Biomass Biofuels and Bioproducts, Virtual Event
9. Quinn, J.C., DeRose, K., Banks, A., Monroe, E., Davis, R.W., 2020, Mitigating the damages from eutrophication of rivers with attached algae: an economic evaluation, Algal Biomass Biofuels and Bioproducts, Virtual Event
10. Chen, P., Davis, R., Laurens, L.M., Quinn, J.C., 2020, Energy optimization of hydrothermal liquefaction through heat pinch analysis and alternative property estimation methods, Algal Biomass Biofuels and Bioproducts, Virtual Event
11. Quiroz, D., Beckstrom, B.D., Wilson, M.H., Crocker, M., Zeller, A., Quinn, J.C., 2019, Microalgal Proteins to Bioplastics: Techno-Economic Analysis and Life Cycle Assessment, Bioenergy Sustainability Conference, Nashville, TN.
12. DeRose, K., Davis, R.W., Quinn, J.C., 2019, Integrated techno-economic and life cycle assessment of the conversion of distiller's grains to renewable fuels and higher value protein products, International Symposium on Sustainable Systems and Technology, Portland, OR.
13. Sproul, E., Summers, H., Quinn, J.C., 2019, Techno-Economic and Environmental Impact Analysis of Guayule and Guar, International Symposium on Sustainable Systems and Technology, Portland, OR.
14. Mendel, H., Chen, P., Marchese, A., Quinn, J.C., 2019, Optimization of Continuous Flow, Scalable, Low Energy Ultrasonic Harvesting for Microalgae, Algal Biomass, Biofuels, and Bioproducts, Boulder, CO.
15. DeRose, K., Davis, R.W., Liu, F., Quinn, J.C., 2019, Evaluating fuel production opportunities for low lipid algae through integrated growth and production models, Algal Biomass, Biofuels, and Bioproducts, Boulder, CO.

16. Beckstrom, B.D., Wilson, M.H., Crocker, M., Zeller, A., Quinn, J.C., 2018, Carbon Sequestration in an Algae Biorefinery Through Bio-Plastic Production, American Center for Life Cycle Assessment XVIII, Fort Collins, CO.
17. Greene, J., Huesemann, M.H., Gulden, J., Mumford, T., Wood, G., Quinn, J.C., 2018, Environmental Impact of a Macroalgae Biorefinery, American Center for Life Cycle Assessment XVIII, Fort Collins, CO.
18. Mealing, V., Summers, H.M., Eranki, P., Sproul, E., Landis, A.E., Quinn, J.C., 2018, Life Cycle Assessment of Cultivating Guar in the American Southwest, American Center for Life Cycle Assessment XVIII, Fort Collins, CO.
19. Sproul, E., Trinko, D., Asher, Z.D., Zane, R., Bradley, T.H., Quinn, J.C., 2018, Operational Emissions and Energy of Long-Haul Trucks Using In-Motion Wireless Power Transfer, American Center for Life Cycle Assessment XVIII, Fort Collins, CO.
20. Quinn, J.C., Markham, J., Somers, M.D., Cruce, J.R., Davis, R., Lammers, P.J., 2018, TEA and LCA of corn stover-derived cellulosic sugars as feedstock for mixotrophic microalgae cultivation, Algal Biomass Summit, Huston, TX.
21. Cruce, J.R., Quinn, J.C., 2018, Economic viability of multiple algal biorefining pathways and the impact of public policies, Algal Biomass Summit, Huston, TX.
22. Greene, J., Huessemann, M., Mumford, T., Gulden, J., Quinn, J.C., 2018, Environmental Impacts of Producing BioFuels from Long-Line Cultivated Macroalgae, Algal Biomass Summit, Huston, TX.
23. Aligata, A., Mendel, H., Tryner, J., Quinn, J.C., Marchese, A., 2018, Acoustic harvesting: implications of algal composition on performance, Algal Biomass Summit, Huston, TX.
24. Wendt, L.M., Aston, J.E., Wahlen, B.D., Walton, M., Hess, D., Quinn, J.C., 2018, Management of ash in benthic microalgae, Algal Biomass Summit, Huston, TX.
25. Quiros-Arita, C., Reardon, K.F., Chen, P., Quinn, J.C., Bradley, T.H., 2018, Implications of Mixing Energy at Photo-inhibiting Light Intensities for the Industrial Scale Design and Sustainability of Cyanobacterial Cultivation in Open Raceway Ponds and Flat-Panel Photobioreactors, Algal Biomass Summit, Huston, TX.
26. Quinn, J.C., Summers, H., Vaughn, T., Marchese, A.J. 2018, Particulate and Gaseous Emissions from the Combustion of Methyl Ester Biodiesel Derived from Microbial Sources, 37th International Symposium on Combustion, Dublin, Ireland.
27. Huesemann, M., Edmundson, S., Yang, Z., Wang, T., Copping, A., Quinn, J.C., Gulden, J., Wood, G., Mumford, T., 2018, Development of the Ocean NOMAD (Nautical Off-shore Macroalgal Autonomous Device) for Low-Cost Production of Biomass for Foods, Feeds, and Fuels, Algal Biomass, Biofuels, and Bioproducts, Seattle, WA
28. Beckstrom, B., Wilson, M.H., Crocker, M., Zeller, A., Quinn, J.C., 2018, Sustainability of Algal Biorefining: Potential of Integrating Bioplastic Production, Algal Biomass, Biofuels and Bioproducts, Seattle, WA
29. Chen, P., Davis, R., Laurens, L., Quinn, J.C., 2018, Defining operational requirements for the economic viability of biomass production for algal biorefining, Algal Biomass, Biofuels and Bioproducts, Seattle, WA
30. Compton, S., Lammer, P., Quinn, J.C., 2018, A dynamic model of mixotrophic and autotrophic algal cultivation systems: validation and capabilities, Algal Biomass, Biofuels and Bioproducts, Seattle, WA
31. Cruce, J., Somers, M.D., Beckstrom, B., Chen, P., Quinn, J.C., 2018, A review and harmonization of techno-economic and lifecycle assessments of algal biofuel production, Algal Biomass, Biofuels and Bioproducts, Seattle, WA
32. Cruce, J., DeRose, K., Markham., J., Davis, R., Quinn, J.C., 2018, Optimizing the processing path for sustainable algae biorefining: Techno-economic assessment and Life cycle assessment of multiple pathways, Algal Biomass, Biofuels and Bioproducts, Seattle, WA
33. Hess, D., Wendt, L.M., Wahlen, B.D., Aston, J.E., Hu, H., Quinn, J.C., 2018, A Technoeconomic Analysis: The Impact of Ash Content and Ash Removal on Microalgae Biofuel Production and Cost, Algal Biomass, Biofuels and Bioproducts, Seattle, WA
34. Cruce, J.R., Markham, J., Davis, R., Lammers, P., Quinn, J.C., 2107, Real-world Performance Scenarios and Economics for Hydrothermal Liquefaction of Algae, 2017, Algal Biomass Summit, Salt Lake City, UT.
35. Compton, S., Lammers, P., Quinn, J.C., 2017, A Validated model of Mixotrophic Algal Growth in Photobioreactors, Algal Biomass Summit, Salt Lake City, UT.
36. Bush, M., Aligata, A., Quinn, J.C., 2017, Potential for Remediation of Agricultural Runoff with Microalgae, Algal Biomass Summit, Salt Lake City, UT.
37. Hess, D., Torres, E., Napan, K., McNeil, B., Quinn, J.C., 2017, Impact of Heavy Metals on Microalgae Growth and Conversion into Biofuel and Biogas Production: Bioremediation and Fuel Gas Integration Potential, Algal Biomass Summit, Salt Lake City, UT.
38. Beckstrom, B.D., Cruce, J.R., Somers, M.D., Chen, P.H., quinn, J.C., 2017, Life-cycle and Techno-Economic

Harmonization of Reported Algal Biofuel Process Results, Algal Biomass Summit, Salt Lake City, UT.

39. Compton, S., Cruce, J., Somers, M., Csakan, N., Lammers, P., Quinn, J.C., 2017, Microalgae as a Solution to Carbon Mitigation and Remediation of Contaminated Waters, NAE Global Grand Challenges, Washington D.C.
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41. Aligata, A., Tryner, J., Marchese, A., Quinn, J.C., 2017, Providing Access to Clean Water Through Low Cost Accoustic Processing, NAE Global Grand Challenges, Washington D.C.
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50. Torres, E., Hess, D., McNeil, B., Quinn, J.C., 2016, Sorption of Heavy Metals into Microalgae and their Effects on Growth and Lipid Accumulation, Algal Biomass, Biofuels, and Bioproducts. San Diego, CA.
51. DeMill, C., Hoffman, J., Davis, R., Pate, R., Quinn, J.C., 2016, Techno-Economic and Life Cycle Assessment of the Conversion, 107th AOCS Annual Meeting & Expo, Salt Lake City, Utah.
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53. Torres, E., McNeil, B., Hess, D., Quinn, J.C., 2016, Effects of Heavy Metals and Produced Water on Microalgae Productivity, 107th AOCS Annual Meeting & Expo, Salt Lake City, Utah.
54. Edlund, A., Jones, J., Zhang, X., Hugie, M., Lewis, R., Quinn, J.C., 2016, Synthetic Spider Silk Production: Techno-Economics & Life Cycle Analysis, 2016 Spring Materials Research Society Meeting & Expo, Tucson, AZ.
55. Quinn, J.C., Davis, R., 2015, Environmental Impact Assessment of the Fractionation of Microalgae for the Production of Fuels and Products, Algal Biomass Summit, Washington D.C.
56. Barlow, J., Quinn, J.C., Sims, R.C., 2015, Rotating algal biofilm reactor generates algal biomass in dairy wastewater, Algal Biomass Summit, Washington D.C.
57. Quinn, J.C., Hanif, S., Sharvelle, S., Bradley, T.H., 2015, Experimental Evaluation of Methane Yield from Lipid Extracted Algae: Life Cycle Impacts, Algal Biomass Summit, Washington D.C.
58. Quinn, J.C., 2015, Current status of Techno-economic, Life Cycle, and Resource Assessment of Microalgae Biofuels, Algal Biomass Summit, Washington D.C.
59. Quinn, J.C., Davis, R., 2015, Life cycle assessment of algal biomass fractionation to lipid and carbohydrate-derived fuel and products, Algal Biomass, Biofuels, and Bioprodcuts, San Diego, CA.
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63. Nelson, J.A., Edlund, A., Quinn, J.C., Bugbee, B., 2015, Post-harvest degradation of high-value algal lipids and proteins, Algal Biomass, Biofuels, and Bioprodcuts, San Diego, CA.
64. Edlund, A., Lewis, R., Quinn, J.C., 2015, Spider silk Based Products: Economic Feasibility and Process

Optimization, Rocky Mountain Bioengineering Symposium, Salt Lake City, UT.

65. McNeil, B., Napan, K., Hess, D., Quinn, J.C., 2015, Environmental impacts of flue gas integration with microalgae cultivation: end fate of heavy metals, National Conference on Undergraduate Research, Cheney, WA.
66. Jena, U., McCurdy, A., Warren, A., Summers, H., Ledbetter, R., Hoekman, S., Quinn, J.C., Seefeldt, L., 2015, Oleaginous yeast platform for producing biofuels via co-solvent hydrothermal liquefaction, NBB National Biodiesel Conference, Fort Worth, TX.
67. Quinn, J.C., Morgan, M., Vaughn, T., McCurdy, A., Seefeldt, L., Bugbee, B., Marchese, A., 2015, Compression ignition engine particulate and gaseous emissions from the combustion of biodiesel derived from microbes, NBB National Biodiesel Conference, Fort Worth, TX.
68. Summers, H., Ledbetter, R., McCurdy, A., Seefeldt, L., Jena, U., Hoekman, K., Quinn. J.C., 2015, Techno-economic and life cycle analysis: waste lactose to biofuel, NBB National Biodiesel Conference, Fort Worth, TX.
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70. Bennion, E.P., Ginosar, D., Agblevor, F., Quinn J.C., 2014, Lifecycle assessment of microalgae to biofuel: Direct comparison of hydrothermal liquefaction and pyrolysis, Algal Biomass Summit, San Diego, CA.
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73. Napan, K, Blakely, C., Hunt, J., Quinn, J.C., Wood, B., 2014, Optimizing vertical mixing in algal raceway using delta wings, Algal Biomass Summit, San Diego, CA.
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75. Quinn, J.C., Morgan, M., Vaughn, T., McCurdy, A., Seefeldt, L., Bugbee, B., Marchese, A., 2014, Characterization of gaseous and particulate emissions from the combustion of biodiesel from microalgae in a compression ignition engine, Algal Biomass, Biofuels, and Bioproducts, Santa Fe, NM.
76. Moody, J., Satish, A., Smith, T., Sims, R., Quinn, J.C., 2014, Analysis of microalgae to biofuel incorporating a rotating algal biofilm reactor: Life cycle assessment and techno-economic assessment, Algal Biomass, Biofuels, and Bioprodcuts, Santa Fe, NM.
77. Bennion, E.P., Ginosar, D., Agblevor, F., Quinn J.C., 2014, Microalgae to renewable diesel: Lifecycle assessment of thermochemical conversion technologies, Algal Biomass, Biofuels, and Bioprodcuts, Santa Fe, NM.
78. Jena, U., McCurdy, A., Hoekman, S.K., Quinn, J.C., Seefeldt, L., 2014, Hydrothermal liquefaction of oleaginous microbial biomass in binary solvents, Algal Biomass, Biofuels, and Bioprodcuts, Santa Fe, NM.
79. Moody, J.W., McGinty, C.M., Quinn, J.C., 2014, Global Evaluation of Biofuel Potential from Microalgae, World Congress on Industrial Biotechnology, Philadelphia, PA.
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82. Shurtz, B., Batan, L., Bradley, T., Wood, B., Quinn, J.C., 2013, Potential Effects of the Integration of Microalgae with Wastewater: Water Footprint and Resource Requirements, Solar 2013, Baltimore, MD.
83. Moody, J., Wood, B., Quinn, J.C., 2013, Global Evaluation of Biofuel Potential from Microalgae Cultivated in Photobioreactors, 2013 International Biomass Conference & Expo, Minneapolis, MN.
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85. Quinn, J.C., Willis, R., McCurdy, A., Wood, B., Seefeldt, L., 2013, New Strategies For Converting Waste Lactose From Cheese Production To High Value Bioproducts: Scalability And Sustainability, SBI Science & Technology Review Winter Meeting, Logan, UT.
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87. Catton, K., Quinn, J.C., Bradley, T., 2012, An Assessment of Productivity Potential of Microalgae Biofuel including Resource Demand for Commercial Scale-up, 2nd International Conference on Algal Biomass, Biofuels & Bioproducts, San Diego, CA.

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90. Fagerstone, K., Quinn, J.C., Bradley, T., Marchese, A., 2011, Measurement of Direct Nitrous Oxide (N2O) Emissions from Microalgae Cultivation, 1st International Conference on Algal Biomass, Biofuels & Bioproducts, St. Louis, MO.
91. Quinn, J.C., Catton, K., de Winter, L., Wagner, N., Bradley, T., 2011, Current Productivity Potential in the US Based on Microalgae Bulk Growth Modeling, 1st International Conference on Algal Biomass, Biofuels & Bioproducts, St. Louis, MO.
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93. Quinn, J.C., Wagner, N., Bradley, T., 2010, Microalgae Bulk Growth Model, Biotechnology Industry Organization, 2010 Pacific Rim Summit, Waikiki, HI.

Non-Refereed Journal Articles/Chapters/Proceedings/Transactions:

1. Dallago, D., Horesh, N., Quinn, J.C., 2022, Life Cycle and Techno-Economic Comparison of EV Charging Systems, CURC symposium, Fort Collins, CO
2. Stubbers, J., Maynard, M., Burkhardt, J., Quinn, J.C., 2022A Comparative Life Cycle Assessment of Conventional and Local Outdoor Lettuce Production Systems, CURC symposium, Fort Collins, CO
3. Horesh, N., Zhou, Y., Quinn, J.C., 2022, Techno-economic and life cycle assessment of mullti0dwelling electric vehicle charging hubs, Argonne National Laboratory SAC Lunch, Virtual
4. Cole, G., Schideman, L., Quinn, J.C., 2022, Addressing outstanding obstacles to the adoption of anaerobic membrane bioreactors through techno-economic analysis and life cycle assessment, Powerhouse Energy Campus Energy and Environment Seminar Series, Fort Collins, CO
5. Horesh, N., Quinn, C., Wang, H., Zane, R., Ferry, M., Tong, S., Quinn, J.C., 2021, Driving to the future of energy storage: Techno-economic analysis of a novel method to recondition second life electric vehicle batteries, Powerhouse Energy Campus Energy and Environment Seminar Series, Fort Collins, CO
6. Quinn, J.C., 2021, State of the Art in Algae TEA and LCA, Department of Energy Bioenergy Technology Office Program Officer meeting, Virtual Event
7. Asuega, A., Quinn, J.C., 2021, Techno-Economic Analysis of Small Modular Nuclear Reactors, Colorado State University Grad Showcase, Virtual Event
8. Soliman, A., Quinn, J.C., 2021, TEA and LCA Of Biofuel Production from Enhanced AD, Colorado State University Grad Showcase, Virtual Event
9. Horesh, N., Limb, B., Quinn, J.C., Comparison of Electric Vehicle Emissions with Different Grid Mixes, Colorado State University Grad Showcase, Virtual Event
10. Banks, A., Monroe, E., Davis, R.W., Quinn,J.C., Applications of biomimicry: deployment of algae biofuels to clean our watersheds, Colorado State University Grad Showcase, Virtual Event
11. Alvarado, N., Greene, J., Quinn, J.C., 2021, Sustainability Assessment of Protein Extraction in a Microalgae Biofuel Biorefining Concept, CU Denver Diversity in Academic Research Expo, Denver, CO
12. Quinn, J.C., Economic Viability of 2nd Life Electric Vehicle Batteries Used for Grid Energy Storage, ASPIRE Brown Bag, Virtual Event
13. Alvarado, N., Greene, J., Quinn, J.C., 2021, Life Cycle Assessment of Protein Extraction for Microalgae Biofuel, 2021 UMBC McNair Scholar Research Conference, Virtual Event
14. Quinn, J.C., 2021, Fuels Future in a Low-Carbon World, Virtual Event
15. Alvarado, N., Greene, J., Quinn, J.C., 2021, Life Cycle Assessment of Microalgae Protein Extraction, CSU IGNITE, Fort Collins, CO
16. Dallago, D., Horesh, N., Quinn, J.C., 2021, Life Cycle Assessment of Charging Systems for Electrified Transportation, CSU IGNITE, Fort Collins, CO
17. Quinn, J.C., 2021, Carbon accounting Biofuels and the issues with LCA, Colorado Energy Research Collaboratory, Virtual Event
18. Quinn, J.C., 2020, The Future of Transportation, Denver Museum of Nature & Science, Virtual Event

19. Quinn, J.C., 2020, Sustainability assessments for Cal Poly Zero Waste Club, Cal Poly San Louis Obispo, Virtual Event
20. Chen, P., Schambach, J., Barry, A., Starkenburg, S., Quinn, J.C., 2020, Assessment of Plant Waste as a Mixotrophic Algae Substrate, Colorado State University Graduate Showcase, Virtual Event
21. Cole, G.M., Robbins, C., Bandhaur, T., Tong, T., Quinn, J.C., 2020, Multi-Objective Optimization of Produced Water Recovery through Various Treatment Methods, Colorado State University Graduate Showcase, Virtual Event
22. Beattie, A., Darzin, A.,Vermaas, W., Nielsen, D., Quinn, J.C., 2020, A probabilistic economic and environmental evaluation of biofuel from Cyanobacteria, Colorado State University Graduate Showcase, Virtual Event.
23. Horesh, N., Quinn, C., Zane, R., Wang, H., Muralidharan, M., Ferry, M., Tong, S., Quinn, J.C., 2020, Economic Feasibility of Reusing Electric Vehicle Batteries for Grid Storage, Colorado State University Graduate Showcase, Virtual Event.
24. Quiroz, D., Greene, J.M., ComptonS., Lammers, P., Quinn, J.C., 2020, A Dynamic Thermal and Growth Model as A Tool to Assess the Sustainability of Algae Biofuels, Colorado State University Graduate Showcase, Virtual Event
25. Summers, H., Sproul, E., Quinn, J.C., 2020, Green isn't Green: The Environmental Burden of Indoor Cannabis Production, Colorado State University Graduate Showcase, Virtual Event
26. Quinn, J.C., 2020, The future of sustainability, Zero Waste ClubCal Poly, San Louis Obispo, CA (Virtual Event)
27. DeRose, K., Davis, R.W., Banks, A., Monroe, E., Quinn, J.C., 2020, Costs and benefits of nutrient reduction technologies for pro-active harmful algae bloom mitigation for Lake Erie, Hydrology Days, Walter Scot Jr. College of Engineering, Virtual Event
28. Beattie, A., Vermaas, W., Darzins, A., Quinn, J.C., 2020, Leveraging Sustainability Modeling for Sub-Process Technology Development, 2020 Women in Science Symposium, Fort Collins, CO.
29. Summers, H.M, Sproul, S. Quinn, J.C., 2020, The Environmental Burden of Commercial Cannabis Production, 2020 Women in Science Symposium, Fort Collins, CO.
30. Horesh, N., Quinn, C., Tong, A., Zane, R., Wang, H., Quinn, J.C., 2019, Electric Vehicle Battery 2nd Life Economic and Life Cycle Assessment, 4th SELECT Annual Meeting and Technology Showcase, Logan, UT.
31. Hailey Summers, Clark Seavert, Trent Teegerstrom, Paul Gutierrez, Joram Robbs, Amy Landis, VeeAnder Mealing, Neng Fan, Ou Sun, Evan Sproul, Jason Quinn. 2019, Integrated Economic and Environmental Analyses of Guar Gum Production. USDA-NIFA SBAR Retreat, Tucson, AZ.
32. Chen, P.H., Mendel, H., Quinn, J.C., 2019, Alkaliphilic algae and cyanobacteria as a carbon capture method, 21st Century Energy Transition Symposium, Devner, CO.
33. Summers, H.M., Sproul, E., Johnson, J., Quinn, J.C., 2019, Economic and Environmental Impact Assessments of Drought-Tolerant Crops in the American, 21st Century Energy Transition Symposium, Devner, CO.
34. Guo, T., Donadio, D., Quinn, J.C., 2019, Zeolite regeneration for commercial crop/food drying, Innovative Institute for Food and Health, Davis, CA.
35. Chen, P., Quinn, J.C., 2018, Techno-Economic Limitations of Algal Biofuel Cultivation and Conversion, 2018 Graduate Student Showcase, Fort Collins, CO.
36. Beckstrom, B.D., Wilson, M.H., Crocker, M., Zeller, A., Quinn, J.C., 2019, The cost of microalgae-based carbon capture and recycle, 2018 Graduate Student Showcase, Fort Collins, CO.
37. Summers, M., Sproul, E., Quinn, J.C., 2018, Life Cycle Assessment and Techno-Economic Analysis of Guar Processing. USDA-NIFA SBAR Retreat, Tucson, AZ.
38. Quinn, J.C., 2018, Sustainability Analysis of Wireless Power Transfer for In-motion Charging, SELECT, West Lafayette, IN.
39. Quinn, J.C., 2018, The future of electrified transportation, Electric Vehicle Roadshow, Fort Collins, CO.
40. Johnson, J., Summers, H.M., Sproul, E., Quinn, J.C., 2018, Economic Viability and Environmental Impact of Biofuels and Bioproducts from Drought Tolerant Crops, Guar and Guayule, Celebrate undergraduate Research and Creativity, Fort Collins, CO.
41. Summers, H., Sproul, E., Johnson, J., Quinn, J.C., 2017, Sustainability Assessment of Bioproducts from Southwest Arid Crops. 21st Century Energy Transition Symposium, Colorado State University, CO, October.
42. Hess, D., Torres, E., Napan, K., Quinn, J.C., 2017, Impact of Flue Gas Integration on Advanced Microalgae Biofuel Production, 2017 Graduate Student Showcase, Fort Collins, CO.
43. Summers, H.M., Sproul, E., Johnson, J., Quinn, J.C., 2017, Sustainability Assessment of Bioproducts from Southwest Arid Crops, 2017 Graduate Student Showcase, Fort Collins, CO.
44. DeRose, K., Davis, R.W., Quinn, J.C., 2017, Production of Biofuels from Low Lipid Algae: Process Solutions for Optimization, 2017 Graduate Student Showcase, Fort Collins, CO.

45. Beckstrom, B., Cruce, J.R., Somers, M.D., Chen, P.H., Quinn, J.C., 2017, Harmonization of Reported Life-Cycle and Techno-Economic Algal Biofuel Process Results, 2017 Graduate Student Showcase, Fort Collins, CO.
46. Aligata, A., Gómez, E.H., Tryner, J., Marchese, A., Quinn, J.C., 2017, Effect of Cellular Composition on Acoustic Harvesting of Microalgae, 2017 Graduate Student Showcase, Fort Collins, CO.
47. Sproul, E., Johnson, J., Mendel, H., Willson, B., Quinn, J.C., 2017, Viability of a Net-Zero-Energy Campus at Denver's National Western Center, 2017 Graduate Student Showcase, Fort Collins, CO.
48. Somers, M.D., Lammers, P., Quinn, J.C., 2017, Sustainability of Microalgae Cultivation as a CO2 Mitigation Strategy, 2017 Graduate Student Showcase, Fort Collins, CO.
49. Sproul, E., Limb, B., Zane, R., Bradley, T., Quinn, J.C., 2017, Feasibility of Roadway Electrification Using Wireless Power Transfer, Colorado Electrochemical Energy Storage Workshop, Golden, CO.
50. Hess, D., Napan, K., McNeil, B., Quinn, J.C., 2016, Utilizing Power Plant Exhaust in Microalgae Biofuel and Biogas Production, 2016 Graduate Student Showcase, Fort Collins, CO.
51. Compton, S., Cruce, J., Somers, M., Csakan, N., Lammers, P., Quinn, J.C., 2016, Thermal Modeling of Mixotrophic Algal Photobioreactors, 2016 Graduate Student Showcase, Fort Collins, CO.
52. Hess, D., Quinn, J.C., 2016, Impact and Scalability Integrating Coal Fire Power Plant Flue Gas Microalgae Biofuel and Biogas Production, Sixth Annual 21st Century Energy Transition Symposium, Fort Collins, CO.
53. Barlow, J., Quinn, J.C., 2016, LCA and TEA methodology to reflect the time value of greenhouse gas emissions, Sixth Annual 21st Century Energy Transition Symposium, Fort Collins, CO.
54. Quiroz Arita, C.E., Bark, D., Dasi, L.P., Quinn, J.C., Bradley, T.H., Reardon, K.F., 2016, Scalability of Photobioreactors: Incorporating Langrangian Fluid Mechanics in Growth Models, 12th Workshop on Cyanobacteria, Tempe, AZ.
55. Limb, B.J., Quinn. J.C., 2016, Electrification of Transportation Integrating Wireless Power Transfer: Economic Feasibly, Environmental Assessment, and Infrastructure Optimization, 2016 Governor's Energy Development Summit, Salt Lake City, UT.
56. Peterson, B., Barlow, J., Quinn, J.C., Sims, R.C. 2016, Sustainable bioenergy from produced water, Governor's Utah Energy Development Summit, Salt Lake City, UT.
57. Limb, B.J., Zane, R., Bradley, T.H., Quinn. J.C., 2015, Economic Feasibility, Vehicle Optimization, and Vehicle-to-Grid Assessment of Roadway Electrification, Conference on Electric Roads and Vehicles, Logan , UT.
58. Barlow, J., Sims, R., Quinn, J.C., 2016, Renewable fuels from wastewater, Utah State University Student Research Symposium, Logan , UT.
59. Limb, B.J., Zane, R., Bradley, T.H., Quinn, J.C., 2016, Systems Optimization of Electrified Roadways Integrating Wireless Power Transfer, Utah State University Student Research Symposium, Logan , UT.
60. DeMill, C., Hoffman, J., Davis, R., Pate, R., Quinn, J.C., 2016, Techno-Economic and Life Cycle Assessment of the Conversion of Algae to Liquid Fuels and Intermediate Value Products, Utah State University Student Research Symposium, Logan , UT.
61. Edlund, A., Lewis, R., Quinn, J.C., 2016, E. Coli Fermented Spider Silk: Techno-economics & Life Cycle Analysis, Utah State University Student Research Symposium, Logan , UT.
62. Schlicher, C., Wood, B., Quinn, J.C., 2016, Logan City Energy Sustainability, Utah State University Student Research Symposium, Logan , UT.
63. Torres, E., Hess, D., McNeil, B., Quinn, J.C., 2016, Sorption and Impact of Ten Individual Heavy Metals on Microalgae, Utah State University Student Research Symposium, Logan , UT.
64. Edlund, A., Lewis, R., Jones, J., Quinn, J.C., 2015, Spider silk: A path towards Commercialization, USTAR Confluence, Salt Lake City, UT.
65. Limb, B., Pantic, Z., Barr, P., Zane, R., Quinn, J.C., 2015, Techno-Economic and Life Cycle Assessment of Wireless Power Transfer Roadway Electrification, USTAR Confluence, Salt Lake City, UT.
66. Barlow, J., Sims, R.C., Quinn, J.C., 2015, Resource recovery from dairy wastewater, USU Graduate Research Symposium, Logan, UT.
67. Summers, H., McCurdy, A., Ledbetter, R., Seefeldt, L., Quinn, J.C., 2015, Techno-economic feasibility and life-cycle assessment of dairy effluent to renewable diesel via hydrothermal liquefaction, USU Graduate Research Symposium, Logan, UT.
68. Jones, M., Odeh, I., Haddad, M., Hind, A., Quinn, J.C., 2015, Systems Modeling and economic analysis of photovoltaic (PV) powered water pumping and brackish water desalination for agriculture, USU Graduate Research Symposium, Logan, UT.
69. Edlund, A., Lewis, R., Jones, J., Quinn, J.C., 2015, Spider Silk: What does it cost?, USU Graduate Research Symposium, Logan, UT.
70. Summers, H., Ledbetter, R., McCurdy, A., Morgan, M., Seefeldt, L.C., Jena, U., Hoekman, S.K., Quinn, J.C.,

2015, Economic Feasibility and Environmental Impact of Waste Dairy to Biofuel via Hydrothermal Liquefaction, Synthetic Biomanufacturing Institute Annual Meeting, Logan, UT.

71. Barlow, J., Sims, R.C., Quinn, J.C., 2015, Resource recovery from dairy wastewater, Synthetic Biomanufacturing Institute Annual Meeting, Logan, UT.
72. Edlund, A., Lewis, R., Quinn, J.C., 2015, Economic Evaluation of Bio-products Derived from Synthetic Spider Silk Proteins, Synthetic Biomanufacturing Institute Annual Meeting, Logan, UT.
73. Hess, D., Napan,K., McNeil, B., Quinn, J.C., 2015, Impact and effects of heavy metals on microalgae growth and biofuel productivity from integration with flue gas, Synthetic Biomanufacturing Institute Annual Meeting, Logan, UT.
74. Quinn, J.C., Hoffman, J., 2015, Techno-economic Assessment of Microalgae Production Systems, Synthetic Biomanufacturing Institute Annual Meeting, Logan, UT.
75. Summers, H., Seefeldt, L., Quinn, J.C., 2014, Life cycle assessment and technoeconomic feasibility of upgrading waste lactose to bioproducts through yeast fermentation, USU-UNLV Symposium on Biotechnology, Renewable Energy, and Novel Materials, Las Vegas, NV.
76. Napan, K., Sims, R., Wood, B., Quinn, J.C., 2014, Microalgae cultivation in photobioreactors: growth parameter optimization, USU-UNLV Symposium on Biotechnology, Renewable Energy, and Novel Materials, Las Vegas, NV.
77. Moody, J., McGinty, C., Quinn, J.C., 2014, Global evaluation of microalgae productivity coupled with scalability assessment, USU Graduate Research Symposium, Logan, UT.
78. Bennion, E.P., Ginosar, D., Agblevor, F., Quinn J.C., 2014, Microalgae to renewable diesel: Lifecycle assessment of thermochemical conversion technologies, USU Graduate Research Symposium, Logan, UT.
79. Napan, K., Butler, R., Wood, B., Quinn, J.C., 2014, Influence of heavy metals from flue gas integration with algal production on biodiesel making, USU Graduate Research Symposium, Logan, UT.
80. Moody, J., Sims, R.C., Satish, A., Smith, T., Quinn, J.C., 2014, Life Cycle Assessment and Techno-Economic Analysis of Wastewater Algae for Electric and Fuel Production, Synthetic Biomanufacturing Institute Annual Meeting, Logan, UT.
81. Napan, K., Butler, R., Sims, R., Wood, B., Quinn, J.C., 2014, Assessment of Heavy Metals From Integration of Flue Gas with Algal-Biodiesel Production, Synthetic Biomanufacturing Institute Annual Meeting, Logan, UT.
82. Moody, J., McGinty, C., Quinn, J.C., 2014, Global Evaluation of Biofuel Potential from Microalgae, Synthetic Biomanufacturing Institute Annual Meeting, Logan, UT.
83. Bennion, E., Ginosar, D., Agblevor, F., Quinn, J.C., 2014, Microalgae to Biofuels: Lifecycle Assessment of Alternative Conversion Technologies, Synthetic Biomanufacturing Institute Annual Meeting, Logan, UT.
84. Geller, B., Fox, M., Alvarado, C., Barrett, P., Habib, H., Koelling, Z., Malakoutirad, M., Miksch, J., Salisbury, S., Sewell, S., Shea, C., Zevenbergen, M., Quinn, J.C., Bradley, T., 2012, Design of a Fuel Cell Plug-in Hybrid Electric Vehicle in a Range Extending Configuration by Colorado State University for the EcoCAR2 Competition, SAE 2012 International Powertrains, Fuels & Lubricants Meeting, Malmo, Sweden.
85. Catton, K., Quinn, J.C., Wagner, N., Bradley, T., 2011, GIS Assessment of US Lipid Productivity Potential Based on Validated Microalgae Growth Model, Colorado Center for Biorefining and Biofuels-Semi Annual Meeting, Fort Collins, CO, 2011
86. Fagerstone, K., Quinn, J.C., Bradley, T., Marchese, A., 2011, Measurement of Direct Nitrous Oxide (N2O) Emissions from Microalgae Cultivation in Photobioreactors (PBR's), Clean Energy Supercluster-Cenergy Expo, Fort Collins, CO.
87. Fagerstone, K., Quinn, J.C., Bradley, T., Marchese, A., 2011, Measurement of Direct Nitrous Oxide (N2O) Emissions from Microalgae Cultivation in Photobioreactors (PBR's), Colorado Center for Biofuels and Biorefining, Golden, CO.
88. Quinn, J.C., 2010, Analisis de Ciclo de Vida con GEI por biocombustibles a partir de Microaglae, International Symposium on Biofuels and Co-products from Microalgae, Bucaramanga, Colombia.
89. Quinn, J.C., Turner, C., Bradley, T., 2010, Diffuse versus Direct Light utilization in Photobioreactors, CSU and Wageningen University Algae Symposium, Fort Collins, CO.
90. Quinn, J. C., 2003, Pegasus Facility Upgrades, American Physical Society Division of Plasma Physics, Albuquerque, NM.
91. Quinn, J. C., 2003, Aries ST, a Fusion Reactor, University of Wisconsin Physics Colloquium, Madison, WI.

Patents

1. Bandhauer, T., Markey, E., Limb, B., Vercellino, Roberto, Quinn, J.C., Herber, D., Huyett, J., Abarr, M., Electric Resistance Heated Thermal Energy Storage for Flexible Carbon Capture, Invention Disclosure, 2022

2. Guo, T., Donadio, D., Quinn, J., Zeolite Particles, Systems for Using Same and Methods of Use in Desiccation, US 2020/0368718, Nov. 26, 2020
3. Bandhauer, T.M., Herber, D., Limb, B., Quinn, J, Gerland, S., Markey, E., Vercellino, R., Synergistic Heat Pumped Thermal Storage and Flexible Carbon Capture System, PCT/US2021/072129
4. Hetges, P.F., Barlow, T.C., Penoyer, J.T., Gorahm, D.S., Quinn, J.C., Letvin, P.A., Turner, C.W., Babbitt, G.R., Echter, N.P., Howard, J.W., Systems and methods for harvesting algae from photobioreactor, US 8,734.805 B2, May 27, 2014

CONTRACTS & GRANTS

Externally-Funded Projects as PI

2022-2025	Algal Turf Scrubbers: Improving Carbon Utilization and Productivity (ATS: CUP), DOE-BETO, $3,750,000
2021	INTERN- The Future of Electrified Transportation, NSF, $48,148
2021	Regional Greenhouse Gas Analysis of Compressor Drivers in Natural Gas Transmission Systems, Environment Canada, $30,047
2020-2022	Wind for Schools, Department of Energy, $40,000.
2020	Sustainability modeling of algae biofuels system, Department of Energy-Sandia National Laboratories, $100,000
2019-2022	Agent-based Modeling for the Multi-objective Optimization of Energy Production Pathways, DOE, $1,250,000
2019-2022	Colorado State University Extension Industrial Assessment Center, DOE, $635,335
2019	Platte River Power Authority: Life cycle Assessment of Power Generation Systems, $60,471
2019	Sustainability modeling of algae biofuels system, Department of Energy-Sandia National Laboratories, $100,000
2019	Regionally Greenhouse Gas Analysis of Compressor Driver, GMRC, $75,000
2019	Early Stage Assessment of Commercial Viability of a MicroUtility, Factor-e, $50,000
2018-2020	EcoCAR modility challenge, Bradley, T.H., Pasricha, S., Quinn, J.C., Windom, B., DOE, $1,058,000
2018-2021	Modeling-Enhanced Innovations Trailblazing Nuclear Energy Reinvigoration: Resource Team, DOE, $350,000
2018	Feasibility Study: Agricultural Production on Southern Ute Indian Reservation Utilizing Greenhouse Growth System, Southern Ute, $20,000
2018	Ash Removal in Benthic Biomass at Colorado State University, Idaho National Laboratories, $12,500.
2016-2018	Sustainability modeling of algae biofuels system, Department of Energy-Sandia National Laboratories, $120,544.
2017-2019	Wind for Schools, Department of Energy, $40,000.
2015-2016	Environmental Impact, Economic Feasibility, and Optimization of Transportation Electrification Integrating Wireless Power Transfer, Utah Governor's Office $14,965.
2013-2017	Effects of Metals from Flue Gas on Microalgae Biofuels and Co-products: Sustainability and Scalability, Wood, B., Britt, D., National Science Foundation, $335,079.
2013-2017	Upgrading Glanbia Delac to High Value Products, Seefeldt, L., Glanbia, $199,299.
2014-2015	Prospects of utilizing solar energy for water pumping and brackish water desalination in agriculture, Odeh, I., United States Agency for International Development, $37,994.
2013-2014	Technoeconomic and Lifecycle Assessment of the Biological Engineering Biorefinery, Utah Science Technology and Research initiative, $51,570.
2012-2013	Techno-economic modeling of microalgae biofuel systems, Downes, M., Department of Energy-NAABB, $9,500.

Externally-Funded Projects as CoPI

2022-2025	Zhang, W., Park, A.A., Quinn, J.C., Meng, J., Lassetter, W., Weems, M., Pierce, S.,

	Kinnes, D., Das, S., Xu, H., Energy-relevant Elements Recovery from CO2-reactive Minerals during Carbon Mineralization, DOE Arpa-E, $ 2,200,000
2022-2026	Building a Climate Smart Domestic Rubber Industry and a Solution for Growers to a Water Crisis, Ogden, K., Ellsworth, P., Dias, J., Sanyal, D., Song, Y., Dierig, D., Wang, G., Quinn, J.C., Grimm, R., USDA, $70,000,000
2022-2026	Developing climate-smart, net zero biofuel commodities from Northern Plains cropping systems, Hodges, K., Quinn, J.C., Paustian, K., Zhang, Y., Cross, J., USDA, $39,000,000
2022-2025	Efficient CO2 Use for Robust Marine Microalgae Biomass Yields, Posewitz, M., Weissman, J., Grossman A., Quinn, J.C., Crowe, B., Guarnieri, M., DOE-BERO, $3,750,00
2021-2024	Advancing Algal Productivity through Innovation in Cultivation Operation and Strain Traits (ADAPT-COST), Reardon, K., Quinn J.C., Peers, G., Dandy, D., MeGowen, J., DOE-BETO, $4,000,000
2021-2023	A Novel Electro-dialytic Crystallizer (EDC) for Energy Efficient Zero-liquid Discharge, Lin, S., Tong, T., Bandhauer, T., Quinn, J.C., Veerapaneni, S., NAWI, $1,100,000
2020-2021	UNrealized Critical Lanthanide Extraction via Sea Algae Mining (UNCLE-SAM): Domestic production of critical minerals from seawater Huesseman ARPA-e, Huesemann, M., Edmundson, S., Gao, S., Kuo, L., Mumford, T., Quinn,J.C., Greene, J., Schmidt, A., DOE-ARAP-e, $1,000,000
2020-2022	Bandhauer, T., Herber, D., Quinn, J.C., Wilcox, J., Meuleman, E., Abarr, M., Synergistic Heat Pumped Thermal Storage and Flexible Carbon Capture System, DOE, $1,100,000
2020-2023	Liu, K, Crocker, M, Quinn, J.C., NH4OH Looping with Membrane Absorber and Distributed Stripper for Enhanced Algae Growth, DOE, $3,751,329
2019-2024	NSF Engineering Research Center for Advancing Sustainability through Powered Infrastructure for Roadway Electrification (ASPIRE ERC), Zane, R., Blalack, T., Gkritza, K., Lv, Q., Nazarain, S., Fawson, C., Clawson, R., Santiago, I., Riley, D., Maksimovic, D., Christensen, D., Abdallah, I., Sullivan, J., Myers, B., Griffeth, A., Pekarek, S., Mandal, P., Kamineni, A., Wang, H., Aliprantis, D., Hodge, B., Afridi, K., PLett, G., Trimboli, S., Covic, G., Madawala, U., Halling, M., Roberts, N., Song, z., Cheu, K., Rodriguez, D, Bullock, D., Haddock, J., Bickerton, S., Wilson, D., Gunther, J., Hu, R., Tseng, B., Dall'Anese, E., Chantem, T., Gerdes, R., Graul, A., Fawson, C., Milford, J., Quinn, J.C., Santiago, I., Sharp, B., NSF, $25,000,000
2019-2022	Windom, B., Reardon, K., Quinn, J.C., Marchese, A., Labbe, N., McEnally, C., Pfefferle, L., Poly(oxymethylene) Ethers as a High Cetane, Low Sooting Biofuel Blendstock for Use in Medium to Heavy Duty Mixing Controlled Compression Ignition Engines, DOE, $1,972,050
2019-2022	Decision-Model Supported Algal Cultivation Process Enhancement, McGowen, J., Lammers, P., Weiss, T., Dale, T., Starkenburg, S., Quinn, J.C., Cookson, N., Ferry, M., Burge, S., DOE, $6,250,000
2019-2023	Corcoran, A., Starkenburg, S., Eacker, S., Hovde, B., Holguin, O., Mandal, S., Nalley, J., O'Kelly, C., Shurin, J., Quinn, J.C., Optimizing Selection Pressures and Pest Management to Maximize Algal Biomass Yield [OSPREY], DOE, $6,250,000
2019-2024	Reardon, K., Chan, J., DeLong, S., Quinn, J.C., Decker, S., Subramanian, V., Svedruzic, D., Atanassov, P., Li, H., Gilcrease, P., Electro-Enhanced Conversion of Wet Waste to Products Beyond Methane, DOE, $4,864,656
2019	Feasibility Study for the Use of Lake Kivu Methane Gas as a Household Utility, Industrial Utility and Transport Fuel in Rwanda, Rwanda Government, Wilson, B., Quinn, J.C., Bazilian, M., Lange, I., $458,726
2019-2022	Low-cost, Easy-to-integrate and reliable grid energy storage system with 2nd life lithium batteries, Tong, A., Zane, R., Quinn, J.C., DOE, $2,105,000
2018-2021	Maximizing Bio-Renewable Energy from Wet Wastes (M-BREWW), Schideman, L., Rajagopalan, K., Botte, G., Guy, K., Quinn, J.C., Yelvington, P., DOE, $1,981,397
2018-2021	Integrating an Industrial Source and Commercial Algae Farm with Innovative CO2 Transfer Membrane and Improved Strain Technologies, Reardon, K., Bailey, T.S., Dandy, D.S., Peers, G., Quinn, J.C., Davis, R., Laurens, L., Sammond, D., White, R., DOE, $2,682,039

2018-2021 Multi-pronged approach to improving carbon utilization by cyanobacterial cultures, Vermaas, W., Nielsen, D., Wang, X., McGowen, J., Weiss, T., Quinn, J.C., DOE, $3,132,202

2018-2021 High-Throughput Directed Evolution of Marine Microalgae and Phototrophic Consortia for Improved Biomass Yields, Posewitz, M., Hazlebeck, D., Beliaev, A., Bohutskyi, P., Quinn, J.C., DOE, $2,732,793

2018-2021 Integrating Community and Modeling Efforts to Evaluate Impacts and Tradeoffs of Food System Interventions, Jablonski, B., Bonanno, A., Thilmany, D., Pagliassotti, M., Ryan, E., Bellows, L., Cleary, R., David, O. Boone, R., Carolan, M., Meiman, P., Quinn, J.C., FFAR, $2,000,718

2017-2018 Development of the Ocean NOMAD (Nautical Off-shore Macroalgal Autonomous Device) for Low-Cost Production of Biomass for Foods, Feeds, and Fuels, Huesemann, M., Mumford, T., Quinn, J.C., Gulden, J., Wood, G., DOE, $564,000

2017-2022 Sustainable Bioeconomy for Arid Regions (SBAR), Ogden, K., Ray, D., Waller, P., Chavarria, S., Lopes, G., Fan, N., Gunatilaka, L, Rock, C., Maier, R., Molnar, I, Downes, C., McCloskey, W., Teegerstrom, T., Idowu, O., Gutierres, P., Grover, K., Holguin, F., Brewer, C., Angadi, S., Abdel-Haleem, H., McMahan, C., Dierig, D., Landis, A., Quinn, J.C., Bai, X., Seck, K., United States Department of Agriculture, $14,978,350

2017-2020 Rewiring Algal Carbon Energetics for Renewables (RACER), Laurens, L., Reardon, K., Peers, G., Quinn, J.C., McGowen., J., Posewitz, M., Green, R., Behnke, C., Department of Energy-Bioednergy Technology, $5,092,750

2017-2018 Feasibility Analysis of Electric Roadways Through Localized Traffic, Cost, Adoption, and Environmental Impact Modeling, Zane, R., Quinn, J.C., Song, Z., Gkritza, N., Bui, A., Department of Energy- ARPA-e, $516,713.

2017-2020 AOI 1 – CO2 to bioplastics: beneficial re-use of carbon emissions from coal-fired power plants using microalgae, Crocker, M., Groppo, J., Quinn, J.C., Stewart, J., Wilson, M.H., Zeller, A., Department of Energy-Bioenergy Technologies Office, $1,251,444.

2016-2018 A Novel Platform for Algal Biomass Production Using Cellulosic Mixotrophy, Lammers, P., Quinn, J.C., Frank, E.D., Krajmalnik-Brown, R., Holgiun, O., Ganuza, E., McGowan, J., Department of Energy-Bioenergy Technologies Office, $1,967,165.

2015-2016 Bioenergy from Produced Water, State of Utah Governor's Office, Sims, R., Miller, C., Quinn, J.C., Hong, A., Hansen, J., Utah Governor's Office, $124,318.

2015-2016 Center for Sustainable Electrified Transportation Systems, Zane, R., Quinn, J.C., Gerdes, R., Sharma, R., Barr, P. Utah Science Technology and Research Initiative, $750,000.

2014-2016 Spider Spider Silk MaSp1 and MaSp2 Proteins as Carbon Fiber Precursors, Lewis, R., Quinn, J., Hayashi, C., Paulauskas, F., Ozcan, S., Department of Energy, $1,988,042.

Externally-Funded Projects as Investigator or role other than PI or CoPI

2013-2017 Faculty Development Program to Integrate New Faculty in Nuclear Engineering Research, Ban, H., Technical Lead, Nuclear Regulatory Commission, $319,452 .

2013 New Mexico State University Assistance with Life Cycle Assessment (LCA) and Techno-economic Analysis (TEA) of Sustainable Aviation Biofuels, Downes, M., Technical Lead, Boeing, $43,801.

2013 Bio-Oil Separation and Stabilization by Supercritical Fluid Fractionation, Ginosar, D., Technical Lead, Department of Energy, $749,991.

2011-212 Independent Energy Baseline Analysis and Senior Design of Stolle Standun Bodymaker for Energy Conservation, Radford, D., Bradley, T.H., Technical Lead, $115,000.

Externally-Funded Pending Projects as PI or CoPI

2022 Tong, A., Smith, K., Wang, H., Zane, R., Quinn, J.C., Gottlieb, J., Juergensen, M., Robertson, A., Low-cost and Scalable Second use Battery Demonstration in Central California for Equitable Domestic Manufacturing and Job Growth, DOE, $12,019,480

2022 Lammers, P., Kemmet, N., Quinn, J.C., Peers, G., Wen, Z., Falco, R., Lerer, L., Gross, M., Lawrence, D., Lauersen, K., Ayers, D., Corn Ethanol Carbon Management via Waste Stream Valorization, DOE, $5,885,334

2022 McGowen, J.A., Eustance, E., Rittmann, B., Cirucci, J., Móráin, P., Austell, M., Nalley, J., Ganuza, E., Quinn, J.C., Peers, G., Burge, S., Laurens, L., Knoshaug, E., Parra-Alvarez, M., Levine, I., Air to Algae: An Integrated CO2 Direct Air Capture Platform, DOE, $11,250,000

2022 Theristis, M., Kim, S., Davis, R., Stein, J., Quinn, J.C., Zivojnovich, M.J., Hazlebeck, D.K., Integrated agrivoltaic-algae system for biomass and electricity production, DOE, $2,000,00

2022 Bandhauer, T., Abarr, M., Meuleman, E., Fine, N., Psarras, P., Quinn, J.C., Herber, D.R., Slettehaugh, B., Fischer, D., Limb, B., Huyett, J., Natural Gas Combined Cycle System With Integrated Thermal Storage and Carbon Capture (NGCC-SWITCC), DOE ARPA-e, $5,430,000

Internally-Funded Awards

2022 Integrating Bioenergy Crops with Alternative Transfer Methods to Reduce Agricultural Water Use, Maintain Agricultural Production, and Improve Rural Economics, Quinn, J.C., Colorado Water Center, $50,000

2021-2023 Distributive versus centralized food production systems: Energy and water implications, Quinn, J.C., Interfews, $70,000

2021 Life Cycle Assessment of PowerHouse2, Quinn, J.C., Energy Institute, $10,000

2020 Life Cycle assessment of Living Ink technologies, Quinn, J.C., Energy Institute, $12,500

2020 Field to Foam: A Carbon footprint of microbreweries through life cycle assessment, Energy Institute, $5000

2019 Life Cycle Assessment of Beef, Quinn, J.C., Jablonski, B., Walter Scott Jr. Extension Internship, $6,000

2019 Supply Chain Life Cycle Assessment, Quinn, J.C., Weiner, C., Kaan, D., Walter Scott Jr. Extension Internship, $6,000

2019 Environmental Impact Assessment of Cannabis, Quinn, J.C., Energy Institute, Colorado State University, $5,000

2018 Potential of Algae to Meet Future Energy and Food Demand, Colorado State Energy Institute, $5,000

2018 Wind for Schools: Energy Conversion Education, Colorado State Energy Institute, $5,000

2018 Increasing Food Preservation Efficiencies to Optimize Energy Usage and Health Outcomes, Quinn, J.C., Vice President of Research, $50,000.

2018 Rural Wealth Creation: exploring food systems-led development strategies, Carolan, M., Jablonski, B.R., Schipanski, M,Wallenstein, M., Meiman, P., Cabot, P., Martin, M., Thilmany, D., Quinn, J.C., Uchanski, M., Christensen, L., Cavdar, G., Bellows, L., Colorado State University-Vice President of Research, $199,804.

2017 Energy Assessment of CSU Mountain campus, Quinn, J.C., Colorado State University-Energy Institute, $5,000.

2017 Early Stage Assessment of Commercial Viability: Economic Feasibility of Waste Heat Recovery for Implementation of Dry Cooling for Power Plants, Quinn, J.C., Bandhauer, T., Colorado State University-Energy Institute, $13,500.

2017 Feasibility of a net zero energy campus at the National Western Center, Quinn, J.C., Colorado State University-Energy Institute, $30,000.

2014 Thermochemical Conversion of Biomass to Non-Petroleum Based Precursors for Bioproducts and Biofuels, Quinn, J.C., Seefledt, L., Utah State University, $23,190.

Un-Funded Projects as PI or CoPI

2022 Barzee, T., Santillan-Jimenez, E., Groppo, J., Quinn, J.C., Zeller, A., Improving the economics of CO2 utilization from membrane-scrubbed flue gas by microalgae: alkaliphilic algae strains for the production of high value plastics, DOE, $ 2,316,639

2022 Reardon, K., Quinn, J.C., Peers, G., Conrad, S., Fan, M., Fulbright, S., Albers, S., Morris, W., Integrated Algal Conversion of Industrial CO2 to High-Value Products, DOE,

$2,534,276

2022 Huesemann, M., Edmundson, S., Schmidt, A., Valdez, P., Davis, R., Chiang, Y., Mumford, T., Quinn, J., Freeing Rare Earth Elements Deposited On Macroalgae (FREEDOM), DOE ARPA-E, $2,750,00

2022 Gregesen, O., Bavington, C., Stekoll, M., Decker, J., Quinn, J.C., Lauren, L., Garg, N., Cascaldi, M., MacroCAsh, DOE ARPA-E, $3,500,000

2022 Bavington, C.D., Castaldi, M.J., Riman, R.E., Banta, S., West, A.C., Quinn, J.C., Recovery of Rare Earth Elements from Algae & Seaweed biomass and Associated Residues, DOE ARPA-E, $3,500,000

2022 Accounting for Building Carbon- A Life Cycle Assessment Framework (ABC-LCA), Quinn, J.C., Clack, C., DOE ARAP-e, $1,976,061

2022 Tong, A., Ferry, M., Zane, R., Wang, H., Quinn, J.C., Scale-up A Grid-Connected Lithium Battery Repurposing Platform to Achieve GigaWatt Energy Stroage Production in U.S., DOE APRA-e, $24,500,000

2022 Tong, A., Ferry, M., Choi, C., Novak, W., Quinn, J.C., Zane, r., Wang, H., Smith, K., Schiek, A., Gottlieb, J., Tuladhar, A., Spiers, D., Helps, T., Ballard, M., Snowdon, M., Scaling Up A Domestic Lithium Battery Repurposing Platform, DOE ARPA-E, $37,778,253

2021 Rittmann, B., Lai, Y., Eustance, E,. Young, M., McGowen, J., Flory, J., Quinn, J.C., Optimizing alkaline DAC gravity-fed reactors to improve microalgal productivity, DOE, $4,000,000

2021 Reardon, K., peers, G., Quinn, J.C., Fan, M., Davies, F., Integrated Algal Conversion of Carbon to High-Value Products, DOE, $2,688,081

2021 Santillan-Jimenez, E., Moe, L., Quinn, J.C., Zeller, A., Improving the economics of CO2 utilization by microalgae: alkaliphilic algae strains for the production of high value plastics, DOE, $2,318,466

2021 Weiss, T., McGowen, J., McDaniel, S., Quinn, J.C., Burge, S., Algae Carbon-Capture Coatings (AC3), DOE, $2,500,000

2021 Rittmann, B.E., Lai, Y., Eustance, E., McGwoen, J., Young, M., Flory, J., Quinn, J.C., Greene, J., Optimizing alkaline DAC gravity-fed reactors to improve microalgal productivity, DOE, $4,000,000

2021 McGowen, J., Weiss, T., Quinn, J.C., Negi, S. Banerjee, S., Dale, T., Twary, S., Burge, S., Cold-Season Algae: Improvements for Open Cultivation Systems (COSEA), DOE, $4,000,000

2021 Weiss, T., McGowen, J., Lammers, P., Peers, G., Quinn, J.C., Starkenburg, S., Dynamics of Algal Evolution and Carbon Fluxes in Outdoor Systems (DECOS), DOE, $4,000,000

2021 Rorrer, G., Langdon, C., Huesemann, M., Edmundon, S., Quinn, J.C., Algae Productivity Exceeding Expectations (APEX) - Enhanced Productivity for Clonal Red Macroalgae in Open Raceways, DOE, $2,644,375

2021 Quinn, J.C., Reardon, K., McGowen, J., Davis, R.W., Monroe, E., Thomas, J., Zivojnovich, M., Improving Productivity in Algal Turf Scrubbers (I-PAT), DOE, $4,000,000

2021 Ogden, K., Edmundson, S., Gao, S., Heldman, D., Huesemann, M., Hickenbottom, K., Phinney, D., Quinn, J.C., Simons, C., Waller, P., Wick, M., Optimizing Productivity Through Integrating Multiple Approaches (OPTIMA), DOE, $4,000,000

2021 Van Belzen, R., Wagner, T., Tepesch, P., Bandhauer, T., Quinn, J.C., HEAT-PUMP ES: High temperature Earth Abundant Thermally PUMPed Energy Storage, DOE ARPA-e, $2,500,00

2021 Bandhauer, T., Quinn, J.C., Stark, A., Fuller, B., Industrial Steam Production with a High Efficiency Air Source Heat Pump, DOE APRA-e, $4,000,00

2021 Yourdkhani, M., Radford, D.W., Quinn, J.C., Snowberg, D., Rapid, Energy-Efficient Manufacturing of Wind Turbine Blades Using Recyclable Fiber-Reinforced Thermoset Composites, DOE ARPA-e, $1,894,738

2021 Huesemann, M., Schmidt, A., Lundquist, T., Wick, M., Ganjyal, G.M., Quinn, J.C., Valorization of Essential Amino Acids from Macroalgae for Greenhouse-gas Negative Biofuels (VEAGN Biofuels), DOE ARPA-e, $2,427,000

2021 Prigiobbe, V., Christodoulatos, C., Yang, E., Zang, X., Sharma, S., Agrawal, V., Carr, T., Garapati, N., Wilkins, M., Quinn,J.C., Qafoku, N., White, S., CO2 Mineralization for Carbon Storage and Mineral Extraction, $2,637,153

2021 Quinn, J.C., Mizia, J., CSU Industrial Assessment Center, DOE, $1,874,833

2021 Ogden, K., White, R., Hartzell, M., Quinn, J.C., Sproul, E., Scaling Guayule Resin Separations to Enable Rubber and Biofuels Production, DOE, $4,984,344

2021 Van Belzen, R., Wagner, T., Tepesch, P., Bandhauer, T., Quinn, J.C., HEAT-PUMP ES: High temperature Earth Abundant Thermally PUMPed Energy Storage, DOE, $2,500,000

2021 Narula, M., Allan, B., Zane, R., Quinn, J.C., Bradley, T., Supertruck 3, DOE, $15,000,000

2021 Quinn, J.C., Cross, J., Paustain, K., Lahoff, R., Zhang, Y., Sustainability Modeling of Agricultural Systems, GEVO, $1,150,080

2021 Quinn, J.C., Optimizing cannabis operations to improve societal, economic and environmental impacts, Cannabis Institute, $250,000

2021 Quinn, J.C., Sustainability modeling for biomass to bioproducts systems, DOE-SNL, $120,000

2020 McGowen, J., Lammers, P., Weiss, T.L., Morain, P., Quinn, J.C., Sabarsky, M., Direct Air Capture for Biofuels and Bioproducts from Algae, DOE, $2,500,000

2020 Bradley, T.H., Sharvelle, S., Reardon, K., Quinn, J.C., Davis, R.W., Quiros-Arita, C., Microalgae Sidestream Nutrient Removal (MiSNR) to Enhance Efficiency of Wastewater Treatment, DOE, $2,483,330

2020 Reardon, K., Peers, G., Quinn, J.C., Corcoran, A., Holguin, F., Fan, M., Adidharma, H., Green, R., Samaranayaka, A., Lee, B., Efficient Linkage of Air-Captured CO2 to Algal Bioproducts (EL-AirBio), DOE, $2,499,744

2020 Crocker, M., Vorisek, F., Sarma, M., McGowen, J., Zeller, A., Quinn, J.C., Optimizing CO2 Solubility and the Rate of CO2 Uptake in Algae Cultures for Direct Air Capture, DOE, $2,500,00

2020 Zhang, W., Long, R., Quinn, J.C., Yu, K., Malleable and Recyclable Thermosets and Composites based on Biopolymers, DOE, $3,125,000

2020 Thomas, J., Siccardi, A., Benemann, J., Blackwell, S., Quinn, J.C., Davis, R.W., Chu, P., Monnell, J., Integrating Attached Algae Cultivation Systems with Wastewater Effluent for Major Nutrient Reclamation and Energy Production, DOE, $2,500,000

2020 Bandhauer, T.M., Quinn, J.C., Tong, T., Carlson, K., Joseph, T., Terry, C., Capture and Utilization of Waste Hydrocarbons for Flexible and Low Cost Treatment of Hypersaline Wastewater from Unconventional Oil and Gas Production, DOE, $2,500,00

2020 Brooks, C.S., Quinn, J.C., Kollar, L., Techno-economic analysis of repurposing fossil-fueled power plants with SMRs, DOE, $1,000,000

2020 Quinn, J.C., Zimmerle, D., Development of CO2e Economic Analysis Tool, PRCI, $88,230

2020 Conrad, S., Bradley, T.H., Simske, S., Quinn, J.C., Co-digestion capacity assessment and optimization of agricultural feedstocks in municipal wastewater treatment systems, USDA, $342,230

2019 Wick, M., Heldman, D., Huesemann, M., Edmundson, S., Quinn, J.C., Generation of Cost-effective Microalgal Biofuels via HTL with Very Substantial GHG Emission Reductions via Extraction and Processing of Proteins for Use in Meat Analogs, DOE, $3,750,000

2019 Crocker, M., McGowen, J., Quinn, J.C., Corcoran, A., Roelke, D., Integrating Engineering and Crop Protection for the Intensification, DOE, $4,864,656

2019 Zhang, W., Long, R., Quinn, J.C., Malleable and Recyclable Thermosets and Composites based on Biopolymers, DOE, $1,895,185

2019 Deng, S., Lin, J., Nielsen, D., Emady, H., Quinn, J.C., Enhanced Gasification of Biosolids in a Membrane-based Fluidized Reactor, DOE, $2,998,790

2019 Lammers, P., McGowen, P., Weiss, T., Selvaratnam, T., Edel, J., Lerer, L., Deng, S., Johnson, R., Spackman, C., Quinn, J.C., Renewable Energy from Urban and Suburban Wastes, DOE, $6,250,000

2019 Development of techno-economic optimization methodology for bio-derived jet fuel

blends based on NMR chemical functional group descriptor, Won, S.H., Dryer, F.L., Lee, T., Marchese, A., Windom, B., Quinn, J.C., Hallen, R., Anderson, D., Schmidt, A.J., DOE, $2,535,765

2019 New Methods for Sustainability Assessment: Integration of Emission Timing, National Science Foundation, $312,654.

2019 Bandhauer, T., Quinn, J.C., Bradley, T., Large-Scale Cold Thermal Energy Storage with Waste Heat Utilization, DOE, $750,000

2019 Huesemann, M., Gulden, J., Wood, G., Mumford, T, Quinn, J.C., Nautical Offshore Macroalgae Autonomous Device (NOMAD), DOE, $3,940,000

2019 Deng, S., Lin, J., Nielsen, D., Quinn, J.C., Enhanced Gasification of Sorted Municipal Solid Wastes via Continuous CO2 Removal using a Novel Membrane Reactor, DOE, $2,500,000

2019 Co-Production of H2 and Syngas via Water Splitting and Biomass Gasification in a Membrane Reactor, Deng, S., Lin, J., Nielsen, D., Quinn, J.C., DOE, $1,000,000

2019 Large-Scale Cold Thermal Energy Storage with Waste Heat Utilization, Bandhauer, T., Bradley, T., Quinn, J., DOE, $750,000

2018 Maximizing the Value of Algae Biomass to Improve the Economics of Algaebased CO2 Utilization, Crocker, M., Quinn, J.C., Zeller, A., DOE, $1,812,500

2018 Maximizing the Value of Algae Biomass to Improve the Economics of Algae-based CO2 Utilization, Crocker, M., Zeller, A., Quinn, J.C.,DOE, $1,875,000

2018 Utility Privatization Study, Matrix Design Group, $50,000

2018 Recovery of Water, Nitrogen, Energy, and Bioproducts from Wastewaters: Algal Pathway for Sustainable Agricultural Production (APSAP), Boeing, W., Carroll, K., Corcoran, A., Geli, H., Guzman, I., Holguin, O., Jena, U., Khandan, N., Pietrasiak, N., Quinn, J.C., Polle, J., Schaub, T., Xu, P., Zhang, Y., Angadi, S., Starkenburg, S., USDA, $10,000,000

2018 Improved Sustainable Biocrop Production through Aquatic-Terrestrial Route, Chaitanya, V., Boeing, W., Carroll, K., Corcoran, A., Geli, H., Guzman, I., Holguin, O., Jena, U., Khandan, N., Pietrasiak, N., Quinn, J.C., Polle, J., Schaub, T., Xu, P., Zhang, Y., Angadi, S., Starkenburg, S., USDA, $10,000,000

2018 Development and Commercialization of Next Generation Technologies for Large-Scale Drying of Agriculture Products, Youtsey, G., Wilson, B., Guo, T., Quinn, J.C., Donadio, D., Chandrasekar, V., Development and Commercialization of Next Generation Technologies for Large-Scale Drying of Agriculture Products, USDA, $10,000,000

2018 Development of Vacuum-guided microwave dehydration of zeolite desiccants for drying commodities, Guo, T., Donadio, D., Venkitasamy, C., Donis-Gonzalez, I., Bradford, K., Kornbluth, K., Siegel, J., DOE, $2,000,000

2018 Distributed combined heat and power from biomass ad/or waste, Proeschel, R., Dietenberger, M., Bandhauer, T., Quinn, J.C., Kastelic, P., Mackes, K., Gager, S., DOE, $3,500,000

2018 Gasification of Municipal Solid Wastes with CO2 Removal in a Membrane Reactor, Deng, S., Lin, J., Quinn, J.C., DOE, $1,250,000

2018 Production of Drop-in Renewable Jet Fuel Blendstocks from Salicornia and Microalgae, Lammers, P., Deng, S., Lu, Z., Quinn, J.C., Weiss, T., McGowen, J., Agee, K., Zhang, Y., DOE, $3,750,000

2018 High Power Unifying Battery System for Extreme Fast Charging, Tong, A., Quinn, J.C., Zane, R., Holmes, J., Liaw, B., Goldman, J., Abela, J.A., DOE, $10,000,000

2018 Poly(oxymethylene) Ethers as a High Cetane, Low Sooting Biofuel Blendstock for Use in Medium to Heavy Duty Mixing Controlled Compression Ignition Engines, Windom, B., Marchese, A., Quinn, J.C., Reardon, K., Labbe, N., McEnally, C., Pfefferle, L., DOE, $2,471,445

2018 Lignin Valorization for the Production of Chemicals, Biofuels, and Bioproducts, Sharma, B., Al-Qadi, I., Ozer, H., Quinn, J.C., Lignin Valorization for the Production of Chemicals, Biofuels, and Bioproducts, DOE, $1,765,037

2018 Improving the Rate of CO2 Uptake and CO2 Solubility in Algae Cultures, Crocker, M., Quinn, J.C., Dong, T., DOE $3,100,000

2018 Novel Algal Platform for High-Efficiency CO2 Capture and Utilization, Prasad, R., Maloney, J., Harrington, F., O'Brian, K., Schideman, L., Sharma, B.K., Quinn, J.C., Bostick, D., DOE, $3,100,000

2017 Lignin Valorization via Selective Catalytic Oxidation, Crocker, M., Meier, M., Laskar, D., Lehrburger, E, Quinn, J.C., Ware, A., Beckham, G., USDA, $3,750,000.

2017 A Comprehensive Decision Support Tool to Compare Social, Economic, and Environmental Data for Bioproduct and Biofuel Industries, Bradley, T., Quinn, J.C., Engle-Cox, J., Hartley, D., USDA, $2,000,000.

2017 INFEWS/T3: Resource-Efficient Thin-Film Photobioreactor System for Fuel and Fertilizer Production, Reardon, K., Burkhardt, J., Medlin, J.W., Peebles, C.A., Peers, G., Quinn, J.C., National Science Foundation, $2,500,000.

2017 Battery Integration Topology with Interconnected Plug-n-Play Power Inverters and Distributed Battery Estimation for 2nd Life EV Batteries Application, Tong, A., Zane, R., Quinn, J.C., Torre, W., DOE, $500,000.

2017 SWIFT: Systems for Improved Winter Productivity via Iterative Functional Testing, Lammers, P., McGowen, J., Krajmalnik-Brown, R., Huesemann, M., Quinn, J.C., Waller, P., Guarnieri. M., DOE, $3,334,822.

2017 Methane for Transportation, Bradley, T., Quinn, J.C., Jagar, S., Rwanda, $374,898

2017 Increased Production and Protection through Polycultures and Polyploidy (IP4), Boeing, W., Burnett, M., Holguim, O., Huesemann, M., Khandan, N., Polle, J., Quinn, J.C., Schaub, T., Van Voorhies, W., Waller, P., Xu, J., DOE, $4,000,000

2017 The cultivation-ready improved algae strain (CRIAS) project: Creation of superior strains of the green alga Acutodesmus obliquus to increase biomass productivities in wastewater, Polle, J., Holguim, O., Voorhies, W., Khandon, N., Boeing, W., Huesemann, M., Starkenburg, S., Quinn, J.C., DOE, $4,125,567

2017 Accelerating Pond Production (APP), Ogden, K, Brown, J., Huesemann, M., Kacira, M., Quinn, J.C., Sayre, R., Waller, P., DOE, $3,000,000.

2017 Colorado State University Extension Industrial Assessment Center, Bradley, T., Quinn, J.C., DOE, $847,111.

2016 Realization of Algae Potential (REAP), Lammers, P., Frank, E., Boeing, W., Quinn, J.C., Huesemann, M., Chen, S., Weber, A., Davis, R., Cady, R., Dale, T., Ganuza,E., Chance, R., Dunlop, E., Wood, M., Dev, M., DOE, $6,250,000.

2016 The Algae Fuel Initiative (AFI): Development and Application of Immediately Deployable Algal Feedstock Strains for Open-Pond-Based Oil Production Systems, Polle, J., Hildebrand, M., Huesemann, M., Holguin, O., Van Voorhies, W., Boeing, W., Pietrasiak, N., Rastegary, J., Schaub, T., Brewer, C., Khandan, N., Quinn, J.C., DOE, $6,125,000.

2016 Optimizing the Production of Algae Biofuel Intermediate by Integrating Bioreactor Engineering with Molecular Biology, Crocker, M., Stewart, S., McGowen, J., Lawal, A., Quinn, J.C., DOE, $4,089,387.

2016 Economic viability and Siting/Licensing/Deployment Strategy for successful integration of SMRs into US Utilities, Sabharwall, P., Christensen, R., Alessa, L., Quinn, J.C., Blumsack, S., DOE, $900,000.

2016 Optimization of a Scalable, Low Energy Ultrasonic Harvesting for Micro-organisms, Quinn, J.C., Marchese, A., NSF, $320,601.

2016 Development of Time Value of Emissions Accounting for Integrated Life Cycle and Techno-Economic Assessment of Energy Systems, Quinn, J.C., NSF, $300,000.

2015 Foundational Study of Mesoscale Vehicle and Grid Electrification Infrastructure for Optimum Deployment of Dynamic Wireless Charging, Pantic, Z., Quinn, J.C., Zane, R., NSF, $345,619 .

2015 Integrated Open Access Life Cycle and Techno-economic Model of Microbial Based Biofuel & Bioproduct Production Systems, Quinn, J.C., NSF, $318,561.

2015 A Novel Platform for Algal Biomass Production Using Cellulosic Mixotrophy, Lammers, P., Quinn, J.C., Frank, E.D., Krajmalnik-Brown, R., Holgiun, O., Ganuza, E., McGowan, J., DOE, $2,000,000.

2015 Producing Novel and High-Value Waxes in Algae as a Replacement for Petroleum-Based

Products, Hipps, J., Stephens, J., Sayre, R., Williams, R., Quinn, J.C., DOE, $2,000,000.

2015 Techno-Economic Feasibility, System Requirements and Optimization, and Environmental Impact of Wireless Power Transfer Roadway Electrification, Quinn, J., Bradley, T.H., Zane, R., DOE, $633,717.

2014 Algal Turf to Fuels and Products (ATRP), Pate, R., Davis, R., George, A., Fogleman, B., Hewson, J., Drennen, T., Wu, B., Valdez, P., Nelson, M., Dempster, T., Blersch, D., Adhikari, S., Wells, D., May, P., Kangas, P., Zivojnovich, M., Bazurto, R., Jones, D., Deluca, C., Jaenike, F., Adey, W., Calahan, D., Quinn, J., Seefeldt, L., DOE, $11,741,481.

2014 Algal Biofuels/Bioproducts Consortium, Pienkos, P., Laurens, L., Davis, R., Hames, M., Guarnieri, M., Nagle, N., Hunt, R., McGowen, J., Posewitz, M., Quinn, J., DOE, $10,954,250 .

2014 Microalgal Crop Protection by Allelopathic Control, Holguin, O., Schaub, T., Lammers, P., Downes, M., Quinn, J., DOE, $1,237,691.

2014 Opportunities for Enhanced Carbon Dioxide Uptake in Algae, Barney, B., Seefeldt, L., Libourel, I., Quinn, J., DOE, $1,250,232.

2014 Multi-Scale Research for Enhanced Carbon Utilization and Algal Biomass Productivity, Gardner, R., Peyton, B., Quinn, J., Helms, G., DOE, $1,250,012.

2014 Engineering Solutions to Algal Stability: PBR light Optimization, Shear Impacts on Rotifers, and Symbiotic Algal and Bacteria Growth, Quinn, J., Bugbee, B., DOE, $644,302.

2014 Attached Algae Technology Platform for Sustainable Increased Biomass Productivity and Higher Feedstock Yields, Sims, R., Miller, C., Quinn, J., DOE, $1,256,578.

2014 Integrated Open Access Life Cycle and Techno-economic Model of Microbial Based Biofuel & Bioproduction Systems, Quinn, J., NSF, $310,775.

2014 Design and Technoeconomic Assessment of an Indoor Photobioreactor System: Matrix Genetics, Quinn, J., Matrix, $72,800.

2014 NSF REU- Energy-Related Research within the Mechanical and Aerospace Engineering Department at Utah State University, Spall, R., Quinn, J., NSF, $279,807.

2014 NRT: Transformative Interdisciplinary Synthetic Biomanufacturing, Becker, K., Ban, H., Lewis, R., Khandan, N., Bugbee, B., Takemoto, J., Quinn, J., Lammers, P., Iverson, C., Feldon, D., NSF, $2,999,564.

2014 Engineering Research Center for Sustainable ELECtrified Transportation (SELECT), Zane, R., Afridi, K, Barr, P., Bennett, A., Boult, T., Chantem, T., Christensen, D., Erickson, R., Feldon, D., Gerdes, R., Gkritza, K., Govindasamy, S., Haddock, J., Halling, M., Heaslip, K., Hu, R., Khaliqi, D., Lawanto, O., Lee, O., Maguire, M, Maksimovic, D., McDaniel, R., Miller, S., Mur-Miranda, J., Olek, J., Olsen, A., Pantic, J., Pekarek,. S., Plett, G., Popovic, Z., Quinn, J., Secrist, A., Sudhoff, S., Trimboli, M., Whiting, N., Zavattieri, P., NSF, $18,500,000.

2014 Techno-economic Assessment of the Production of Spider Silk Protein based Products, Quinn, J., USU, $68,399.

2014 Experimental Validation of Engineering System Models for Technoeconomic Feasibility and Life Cycle Assessment of Upgrading Waste Lactose to Bioproducts through Yeast Fermentation, Quinn, J., Seefledt, L., Iverson, C., USU, $28,200.

2014 Evaluation of Microalgae Biofuels: Open Source, Multipathway, and Integrated Techno-economic, Life cycle, and Resource Assessment, Quinn, J., Ramsey, R., Smith, T.,, DOE, $679,274.

2014 Climate Change, Water Supply and Conflicts of Water Use in Utah, Kim, M., Caplan, A., Kaluarachchi, J., Quinn, J., Gillies, R., Wang, S., USDA, $5,000,000.

2014 New Strategies for Converting Waste Lactose from Cheese Production to High Value Bioproducts: Scalability and Sustainability, Quinn, J., Seefeldt, L., Jena, U, Hoekman, K., USDA, $499,997.

2014 NRC Curriculum Development, Spall, R., Quinn, J., Roberts, N., NRC, $166,640.

2014 Conversion of Farm Equipment to Dual Fuel (Natural Gas and Diesel): Resource Availability, Economic Feasibility, and Environmental Impact, Quinn, J., Ramsey, R., McGinty, C., Downes, C., USDA, $499,997.

2013 Extraction of high value added ingredients from microalgae, Seefeldt, L., Quinn, J., SigmaNine, $199,632.

2013 NSF REU- Energy-Related Research within the Mechanical and Aerospace Engineering Department at Utah State University, Spall, R. E., Quinn, J., NSF, $279,807.

2013 Prospects of utilizing solar energy for water pumping and brackish water desalination in agriculture , Quinn, J., Odeh, I., FABRI, $73,555.

2013 CAREER: Sustainable Biofuel Production from Oleaginous Yeast Cultivated on Agricultural Waste Streams , Quinn, J., NSF, $407,387.

2013 Upgrading Agricultural Waste Streams to Biofuels using Yeast Platforms and Hydrothermal Liquefaction, Quinn, J., Seefeldt, L., USDA-Sun, $588,715.

2013 Use of Turbulence to Stabilize and Increase Algal Biomass Yields in Raceway Ponds, Wood, B. D., Quinn, J., Zemke, P., DOT-Sun, $295,444.

2013 New Strategies for Converting Waste Lactose from Cheese Production to High Value Bioproducts: Scalability and Sustainability, Quinn, J., Seefeldt, L., SBI, $50,000.

2013 Lifecycle Assessment of Pinion/Juniper based Biofuels: Water, Soil, and Land-use, Quinn, J., Ramsey, D., USDA , $852,870.

2013 New Strategies for Converting Waste Lactose from Cheese Production to High Value Bioproducts: Scalability and Sustainability, Quinn, J., Seefeldt, L., USDA, $499,998.

2013 Integrated processing of stable biomass pyrolysis oils to improve carbon and hydrogen efficiencies, Agblevor, F., Quinn, J., Gangwal, S., Oyama, S. Ted, Battaglia, F., McClung, R., Klein, M., Talmadge, M., Seefeldt, L., DOE, $4,000,000.

2013 Innovative Systems to Accelerate Algal Biofuels , Quinn, J., Newby, D., Hu, Zemke, P., Agblevor, F., Wood, B. D., Seefeldt, L., Bugbee, B. G., DOE, $4,100,000.

2013 GIS Evaluation of Biofuel Potential from Microalgae in South Africa, Quinn, J., Ramsey, D., MPE, $91,281.

2012 EFRI-PSBR Preliminary Proposal: Merging Measurements and Computational, Seefeldt, L., Bugbee, B. G., Katz, A., Quinn, J., Wood, B. D., Norton, J. M., NSF, $1,922,222.

2012 Human & Societal Response to Resource Availability and Delivery, Quinn, J., Downes, C., Archambault, S., Alok, B., ARL, $1,385,986.

2012 Global Evaluation of Biofuel Potential from Microalgae Cultivated in Photobioreactors, Quinn, J., Neste Oil, $62,251.

2012 Nuclear and Mechanical Engineering Curriculum Development, Spall, R. E., Li, L., Quinn, J., NRC, $173,022.

2012 Energy and Bioproducts from Rural Farms in the Intermountain West: An Integrated Production System Design That Incorporates Farm Waste Management, Quinn, J., Eppink, J., Wood, B. D., Seefeldt, L., Newby, D., Feris, K., Coats, E., USDA-BRDI, $5,146,018.

2012 Renewable Fuels Derived from High- and Low-Lignin Biomass, Quinn, J., Seefeldt, L., Wood, B. D., Agblevor, F., Wahlen, B., Newby, D., Misra, Pease, Mohanty, USDA-BRDI, $6,375,000.

CV SECTION 3:
EVIDENCE OF TEACHING AND ADVISING EFFECTIVENESS

EVIDENCE OF INCORPORATING DIVERSITY, EQUITY, INCLUSION, AND/OR SOCIAL JUSTICE (DEISJ) IN TEACHING AND ADVISING EFFECTIVENESS

Today's engineers are challenged with multidisciplinary, complex, global design problems. Engineers are expected to incorporate knowledge of business, economics, materials, and environmental impact into elegant designs. Thus, success in engineering is critically rooted in creativity. Diversity of culture, gender, educational background, and life experience are key components to a creative team. Engineering as a field is currently at a disadvantage due to lack of diversity. It is imperative to proactively engage in making engineering more appealing and accessible to greater demographics. There are surveys and research to show that multidisciplinary programs that include Sustainability, Environmental Impact, Sustainable Living, and Global Energy generate interest in more diverse groups of people. However, attracting diverse groups of people is only the beginning. We also must be proactive in creating a culture of inclusion and equity, so the voices and ideas of all engineers are heard and respected. It is not enough to say we want to increase diversity; we must take active steps to combat the hurdles and biases that under-represented groups face every day, especially in the field of engineering.

Contributions in Education: Through my work in the classroom and as a research mentor, I have developed and facilitated initiatives in diversity and inclusion in education. The topics have included unconscious bias, gender discrimination in STEM, racism, social justice, and use of inclusive language. Examples include:

- I facilitated a series of 7 small group discussions after students read the book "How to be an Anti-Racist" by Ibram X. Kendi for the Introduction to Mechanical Engineering course. This year, for the first time at CSU, 20% of the content in this course was dedicated to diversity and inclusion content.
- To introduce the issue of gender discrimination in STEM this semester, I sponsored the screening of "Picture a Scientist" and facilitated a discussion in my lab group and my thermodynamics class. Prior to screening the film, I worked with my female graduate students to ensure a safe environment for discussion after the film. All of the students that identify as female put together a list of their own experiences and one member presented all of the stories to the entire group. I plan to expand on gender discrimination in the future to include transgender and gender diverse individuals in STEM.
- In 2019, I attended the "SAFE Zone" training that CSU offers to educate staff and faculty to be advocates and allies to the LGBTQ+ community. I field many questions about fostering a "SAFE Zone" from my colleagues and have encouraged them to attend the training as well.
- I am participating in a year-long training through CSU in the Faculty Institute for Inclusive Excellence. This training is focused on helping faculty to create an equitable and inclusive environment in the classroom and to grow and reflect on key topics related to diversity and inclusion.

TEACHING:

Colorado State University:

Year	Semester	Course No./Title	Cr. Hrs.	Enrollment
2021	Fall	MECH516- *Lifecycle & Techno-economic Assessment*	3	24
2021	Spring	MECH337-*Thermodynamics*	4	36
2020	Spring	MECH337-*Thermodynamics*	4	97
2019	*Spring*	*MECH681- Lifecycle & Techno-economic Assessment*	*3*	*5*
2018	*Fall*	*MECH303-Energy Engineering*	*3*	*60*
2018	*Spring*	*MECH237-Thermodynamics*	*3*	*154*
2017	*Fall*	*MECH303-Energy Engineering*	*3*	*52*
2017	*Fall*	*MECH538-Thermodynamics*	*3*	*32*
2017	*Spring*	*MECH681- Lifecycle & Techno-economic Assessment*	*3*	*10*
2016	*Fall*	*MECH337-Intro. Thermodynamics*	*4*	*168*

Other teaching:

2018	Spring	2018 Science Olympiad National Tournament

Utah State University:

Year	Semester	Course No./Title	Cr. Hrs.	Enrollment
2016	*Spring*	*MAE2300- Thermodynamics*	*3*	*156*
2015	*Spring*	*MAE6930- System Engineering*	*3*	*4*
2015	*Fall*	*MAE5450-Renewable Energy*	*3*	*23*

2015	*Spring*	*MAE2300- Thermodynamics*	*3*	*135*
2015	*Spring*	*MAE6930- System Engineering*	*3*	*6*
2014	*Fall*	*MECH337-Intro. Thermodynamics*	*3*	*168*
2014	*Fall*	*MAE5450-Renewable Energy*	*3*	*29*
2014	*Spring*	*MAE5930- System Engineering*	*3*	*29*
2013	*Fall*	*MAE5450-Renewable Energy*	*3*	*29*
2013	*Spring*	*MAE5930- System Engineering*	*3*	*29*
2012	*Fall*	*MAE5450-Renewable Energy*	*3*	*22*

Student Course Surveys

Course Evaluations have been provided for the following course:

Year	**Semester**	**Course No./Title**	**Cr. Hrs.**	**Enrollment**
2021	Fall	MECH516- *Lifecycle & Techno-economic Assessment*	3	24
2021	Spring	MECH337-*Thermodynamics*	4	36
2020	Spring	MECH337-*Thermodynamics*	4	97
2019	*Spring*	*MECH681- Lifecycle & Techno-economic Assessment*	*3*	*5*
2018	*Fall*	*MECH303-Energy Engineering*	*3*	*60*
2018	*Spring*	*MECH237-Thermodynamics*	*3*	*154*
2017	*Fall*	*MECH303-Energy Engineering*	*3*	*52*
2017	*Fall*	*MECH538-Thermodynamics*	*3*	*32*
2017	*Spring*	*MECH681- Lifecycle & Techno-economic Assessment*	*3*	*10*
2016	*Fall*	*MECH337-Intro. Thermodynamics*	*4*	*168*
2016	*Spring*	*M2300- Thermodynamics*	*3*	*156*
2015	*Fall*	*MAE5450-Renewable Energy*	*3*	*23*
2015	*Spring*	*MAE2300- Thermodynamics*	*3*	*135*
2014	*Fall*	*MECH337-Intro. Thermodynamics*	*3*	*168*
2014	*Fall*	*MAE5450-Renewable Energy*	*3*	*29*
2014	*Spring*	*MAE5930- System Engineering*	*3*	*29*
2013	*Fall*	*MAE5450-Renewable Energy*	*3*	*29*
2013	*Spring*	*MAE5930- System Engineering*	*3*	*29*
2012	*Fall*	*MAE5450-Renewable Energy*	*3*	*22*

Example Comments:

"Probably one of the best instructors I've had. Was very knowledgeable and enthusiastic about teaching thermo, and had a genuine concern in helping students understand the material. Actually enjoyed going to class."

"Jason was one of my favorite teachers here at CSU and I feel like he helped me understand the material in a way that I will be able to use it in the future."

"I would rate him excellent because he is one of the few instructors at CSU I've had that demonstrated he really cared for his students, and made it fun to learn and come to class, and I believe that is why I learned more and retained more of the material. I believe he will make a great instructor where ever and whatever he teaches next!"

"Extremely knowledgeable, passionate, funny, and available. I would take another class from him if I had the opportunity."

"Down to earth, easy to communicate with, very knowledgeable, made class fun to attend"

"Jason was a great professor. Quinn is a funny dud and a great instructor!"

"Jason is an amazing teacher! He has a smile and joy to him that makes me want to be at class at 8am."

"One of the best professors I've has so far."

"You are definitely one of the best prof. I've had"

"Great Lecture! Entertaining and engaging."

"He is one of the best and most entertaining teachers I have ever had and that's saying something for an 8am MECH class"

"If it was not for your enthusiasm in the morning this would have been a killer 8 am"

"One of the best instructors I've had at CSU. Instructor actually tried to ensure students understood material"

"Dr. Quinn is, by far, one of the best professors I've has at CSU and I sincerely hope to have him teach me again in a future course."

"Quinn is an awesome professor, I thoroughly enjoyed your class and hop we cross paths again in other classes"

"Easily the best class I've taken at CSU. I'll be looking for classes Quinn teaches in the future"

"Loved the enthusiasm and laid back teaching style"

"Dr. Quinn did an incredible job with this course."

"Dr. Quinn was a great teacher!"

"Best teacher I have had. Passionate to teach and made sure students learned all content. Impressive!"

"One of the best professors I have had in my college career."

"Thanks for being passionate about what you do and for actually caring to be a quality professor, its refreshing"

"Overall one of the best professors that I've had."

"Loved your enthusiasm for teaching!"

"This class was definitely challenging but I really understood it thanks to you." I really enjoyed how interactive you made the class"

"Quinn was an excellent teacher. He is enthusiastic, funny, and very reasonable. I would recommend him to others."

"Excellent class, excellent teacher, well organized, entertaining, tough, I will more classes were this well run!"

"Quinn is awesome! He's enthusiastic and very knowledgeable"

"This class was really great and I wish you could teach all my classes:

"Dr. Quinn was a great teacher, even when sick he still brought a passion unlike any other teacher I have."

"Easily the best professor I've ever had. Going to recommend Quinn to all future thermos students because he's a real game changer. Wish he could teach all of my MECH classes"

"Keep caring for your students like you do, it's refreshing to see!"

TEACHING EFFECTIVENESS FRAMEWORK

My teaching philosophy is based on the development of a successful engineer in today's world. Technical competence is

important, but engineers must also problem solve, effectively communicate, participate actively in groups, be able to work on increasingly complex problems that are multidisciplinary, as well as embrace diversity and participate in a culture of inclusion. My job as a faculty member at CSU is to create an environment that fosters the development of this engineer. This requires a variety of pedagogical techniques focused on active learning, student empowerment, and most importantly, the development of an inclusive and equitable environment.

Impactful Classroom, Clinical, or Other Direct Teaching Improvement(s)

Inclusive Pedagogy: My experiences as an instructor, professional consultant, advisor to both graduate and undergraduate researchers, and as a student myself, have helped me realize that an engineer needs a well-rounded education. The student must develop a global understanding of the social, ethical, environmental, and political implications of their work. To encourage students to be inquisitive and develop as dynamic engineers, I believe in integrating hands-on learning through multidisciplinary and open-ended design challenges, group discussions, and demonstrations. Ultimately, I strive to instill a desire for life-long education and encourage students to be self-motivated and creative.

Instructional Strategies: My class time is aimed at making material transparent and interesting to the student. I invest time in creating lectures that are inquisitive and interactive; using demonstrations and group discussion to draw the student into the topics. I have employed a number of pedological techniques to effectively communicate material to a diverse student body including but not limited to flipped classroom, designed lectures to be participatory in nature with a focus on group problem solving, integration of real-world examples into the curriculum, hands-on group design problems that are based on core concepts to encourage critical thinking, development of problem-solving skills, and group participation and integration of experimentation and demonstration activities in class. I have additionally worked to infused diversity, equity and inclusion into the core content of my teaching. This has been a seamless integration and has empowered students to develop in this area through active learning. As a part of my commitment to DE&I, I have adopted inclusive language such as “student hours” instead of “office hours” in an effort to encourage students to take advantage of this time.

Student Motivation: one of the most important tools I use in education is connecting with students. I strive to know every student’s name. This represents a powerful tool for accountability and relationship building. On the first day, I tell students who I am and ask them as a first assignment to tell me who they are, what they are passionate about, and why they are in the class. This enables me to connect with them outside of the core material and ultimately is the foundation of the relationship.

Enduring Educational Materials

Instructional Strategies: I am committed to accessible education materials. As a part of this commitment I have developed an open source module based educational tool for MECH 516. The devolved materials replace a traditional textbook and are provided to students and the community at no cost. The new course is divided into 12 modules that are each 1 week in length. It is structured such that there is group learning in each module to support learning.

Student Motivation: In thermodynamics I have committed to getting students involved. Integration of demonstrations to large (greater than 150 person) class. Changes included development of demonstrations that focused on core concepts, 1st law, entropy, cycles, and problem solving. All demonstrations involved student interaction on multiple levels. The development of these demonstrations was intended to reach students who disengage in the large classroom setting.

Curriculum/Program Development

***Curriculum/Curricular Alignment*:** Over my tenure I have developed tow new coursed. MECH 516: Lifecycle & Techno-economic Assessment. Graduate level course in sustainability. Course was developed without a textbook with a focus on educating graduate students on sustainability assessments. The class included the development of technical and non-technical skills. MAE 5450: Renewable Energy. Undergraduate technical elective focused on engineering applied to renewable energy technologies. Materials were assembled from multiple sources to support technical requirements of a senior engineering technical elective. Course included student projects covering, solar PV, wind, and micro-grid simulations. Projects included written and oral presentations in an effort to develop non-technical skill sets.

Inclusive Pedagogy: My class time is aimed at making material transparent and interesting to the student. I invest time in creating lectures that are inquisitive and interactive; using demonstrations and group discussion to draw the student into the topics. I employ the following techniques to effectively communicate material to a diverse student body: 1) I have integrated flipped classroom as a technique to make class time more flexible for discussion, clarification of confusing topics, and supplementary clarification of core concepts. 2) I design lectures to be participatory in nature with a focus on group problem solving. This technique develops logical thinking, solution methodology, and self-discovery. Active participation encourages the student to be self-invested and more likely to be successful. I strive to create a safe

community within the classroom to facilitate the flow of thoughts and ideas. 3) Integrating real-world examples into the curriculum and bringing professionals into the classroom. Students enjoy learning from experts within the field because it reminds them that course work is pertinent to real-world situations. 4) I generate hands-on group design problems, based on core concepts, to encourage critical thinking, development of problem solving skills, and group participation. 5) Integration of experimentation and demonstration activities in class.

ADVISING:

STUDENT ADVISING/GRADUATE SUPERVISION

UNDERGRADUATE STUDENTS:
1 Current Undergraduate Advisees
Mendez,Priscila
3 Previous Undergraduate Advisees –2021
4 Previous Undergraduate Advisees –2020
4 Previous Undergraduate Advisees - 2019
3 Previous Undergraduate Advisees - 2018
4 Previous Undergraduate Advisees - 2017
4 Previous Undergraduate Advisees - 2016
5 Previous Undergraduate Advisees - 2015
5 Previous Undergraduate Advisees – 2014
4 Previous Undergraduate Advisees - 2013

GRADUATE STUDENTS:
Current Graduate Advisees:
Horesh, Noah, PhD
Quiroz, David, PhD
Maynard, Matthew (Reid), PhD
Pittman, Smith, PhD
Silagy, Brooke, MS
Zelaya, Arturo, MS
Stubbers, Jenna, MS

Current Graduate Committee Memberships (excluding those chaired):
_____# Plan C
_____# Plan B
__2__# MS/MA
__6__# PhD
Graduate Committee Memberships (for past 5 years, not including those above)
_____# Plan C
_____# Plan B
__5__# MS/MA
_____# PhD

Graduate Degrees Completed Under Your Supervision (past 5 years):

Andraski, Andrew, 2022, MS
Smith, Jack, 2022, MS
Asuega, Anthony, 2022, MS
Banks, Austin, 2022, MS
Soliman, Abdo, 2022, MS
Saarloos, Benjamin, 2022, PhD
Chen, Peter, 2022, PhD
Cole, Garrett, 2021, MS

Summers, Hailey, 2021, PhD
Beattie, Audrey, 2021, MS
McKenney, Benjamin, 2021, MS
Adelman, Derek, 2021, MS
Quiroz, David, 2021, MS
Knackstedt, Clinton, 2021, MS
Sproul, Evan, 2020, PhD
DeRose, Katherine, 2020, PhD
Rabinowitz, Aaron, 2020, MS
Greene, Jonah, 2019, MS
Beckstrom, Braden, 2019, MS
Luck, Benjamin, 2019, MS
Hess, Derek, 2019, MS
Aligata, Alyssa, 2018, MS
Cruce, Jesse, 2018, MS
Somers, Michael, 2018, MS

Post Doctorial Scholars/Research Scientists Under Your Supervision (past 5 years):

Current:
Greene, Jonah, 2020-present
Limb, Braden, 2020-present
Cole, Garrett, 2021-present
Banta, Kelly, 2022-present
Smith, Jack, 2022-present

Past 5 years:
Sproul, Evan, 2020-2021
Quinn, Casey, 2019-2021

Peer Evaluations of Teaching

2014, Peer Evaluation, Dr. Thomas H. Fronk, "Dr. Quinn loved to teach engineering. While Dr. Quinn has had great success in his research his heart is in teaching. He loved the topics he teaches and enjoys interacting with students. He understands that active interaction with the class is very important. To stimulate interaction he asks well-posed questions. His questions cause the students to think and the answers require understanding of the concept. Whatever other successes he has, he will always be a teacher, first and foremost."

2013, Peer Evaluation, Dr. David K. Geller, "I observed Dr. Quin as a dynamic teacher with a brad and detailed knowledge if the subject area. He assigned problems to be solved by the students during class, and gauged their progress by walking through the classroom, provided comments, and encouraged questions. Overall it was a very engaging classroom environment. Dr. Quinn knew many of the student's names and was able to relate to them on their own individual levels. In summary, I found Dr. Quinn to be an outstanding teacher. He teaches well in an electronic environment and is thus well prepared for the future. He is able to tune and engage students, effectively answer their questions and present detailed knowledge of the course material in a very clear an intelligent manner."

Descriptions of Mentoring Activities

My teaching extends outside of the classroom within the roles of academic advisor and research mentor. It is my responsibility to develop a relationship with the student by taking an active interest in the student's goals and academic desires. I strongly believe a successful research program is dependent on the recruitment and training of quality graduate students who are self-invested. I have helped students to define their academic goals, both educationally and professionally, while at the same time push them to expand their horizons through opportunities in research. I know that being attentive to each individual student encourages them to be self-invested in their education. Creating self-invested students not only improves retention, but also increases academic success and is a critical component to a successful research program.

OTHER ACTIVITIES/ACCOMPLISHMENTS – TEACHING/ADVISING

Instructor, Fundamentals of Engineering Review: Thermodynamics, College of Engineering, Colorado State University, Fort Collins, CO, Spring 2017-20 students

Guest Instructor, MAE 3400 Thermodynamics II, College of Engineering, Utah State University, Logan, UT, Fall 2013 100 students

Guest Instructor, MAE Introduction to Research, College of Engineering, Utah State University, Logan, UT, Spring 2013 15 students

Guest Instructor, MAE 3600 Engineering Professionalism and Ethics, College of Engineering, Utah State University, Logan, UT, Fall 2012, 80 students

CV SECTION 4: Evidence of Outreach/Service

EVIDENCE OF INCORPORATING DIVERSITY, EQUITY, INCLUSION, AND/OR SOCIAL JUSTICE (DEISJ) IN OUTREACH/SERVICE/ENGAGEMENT

Serving as the Chair of the Diversity and Inclusion Committee has enabled me to take an active role in fostering diversity, equity, and inclusion in the mechanical engineering department. The committee and chair position were recently created to improve the experience of underrepresented groups in mechanical engineering and improve the culture of the department. As the chair, I am leading multiple efforts centered on these goals and they include:

1) Developing a 3- and 5-year plan of action for the department
2) Infusion of diversity and inclusion materials into the mechanical engineering curriculum
3) Leading faculty and staff trainings at bi-annual retreats
4) Evaluation of the current departmental climate from the perspective of current students, faculty, and staff
5) Developing annual review criteria for faculty and staff to encourage their commitment to diversity and inclusion efforts.

This leadership position is expansive, and the goals outlined are ambitious. As a result, I have recently made a request for the development of an Associate Department Head of Diversity and Inclusion position to underline the importance of these efforts and to facilitate the execution of resources and initiatives.

COMMITTEES

Mechanical Engineering Diversity and Inclusion Committee Chair, Colorado State University, 2020-2022
Mechanical Engineering Faculty Hire, Chair, Colorado State University, 2019-2020
Faculty Council, Walter Scott College of Engineering Representative, Colorado State University, 2018-2020
College of Engineering Silver Medal Committee, Colorado State University, 2017-present
Systems Engineering Multiple Faculty Hires, Colorado State University, 2017-2018
Systems Engineering Multiple Faculty Hires, Colorado State University, 2016-2017
Mechanical Engineering Awards Committee, Colorado State University, 2016-2020
Mechanical & Aerospace Engineering undergraduate curriculum committee, Utah State University, 2012-2016
Mechanical & Aerospace Engineering Professor of Practice, Utah State University, 2015-2016
Mechanical & Aerospace Engineering Curriculum Committee, Utah State University, 2013-present
Mechanical & Aerospace Engineering Multiple Faculty Hires, Utah State University, 2013-2014
Mechanical & Aerospace Engineering Department Head, Utah State University, Spring 2013

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Associate Editor:

Associate Editor, Algal Research, April 2015-January 2018

Conference Program Chair

ISSST, Program Chair, Virtual Conference, 2021
ISSST, Program Chair, Virtual Conference, 2020
Algal Biomass Summit, Algal Biomass Organization, Salt Lake City, UT 2017
Algal Biomass Summit, Algal Biomass Organization, Phoenix, AZ, 2016

Conference Track Chairs:

Engineering & Analysis, Algal Biomass Summit, Algal Biomass Organization, Washington DC, 2015

Conference Session Chairs:

1. Virtual Cannabis Research Conference, The Sustainability of Cannabis and Hemp: Economics and Life Cycle Assessment, Cannabis Research Conference, August 2021
2. Virtual Scoping Workshop on Sustainable Energy Opportunities in Food Systems, NREL and CSU, June 6 2020
3. New Technologies in Support of Algal Research, Algal Biomass, Biofuels, and Bioprodcuts, Boulder, CO, June 2019
4. *Equipment and engineering*, Liquid Arts, Fort Collins, CO, May 2018
5. *Sustainability*, Liquid Arts, Fort Collins, CO, May 2018
6. *Trailblazers: Lessons on Bringing New Products to Market from Algae's Next New Market Mavens*, Algal Biomass Summit, Salt Lake City, UT, October 2017
7. *Analysis and Sustainability*, Algal Biomass Summit, Phoenix, AZ, October 2016

8. *Algal Harvesting and Extraction*, Algal Biomass, Biofuels, and Bioprodcuts, San Diego, CA, June 2016
9. *Analysis and Sustainability*, Algal Biomass Summit, Washington DC, September 2015
10. *Technoeconomic and Sustainability Modeling*, Algal Biomass, Biofuels, and Bioprodcuts, San Diego, CA, June 2015
11. *Carbon Capture and Open Pond Cultivation*, Algal Biomass Summit, San Diego, CA, September 2014
12. *Technoeconomic modeling of Algal biofuels systems*, Algal Biomass, Biofuels, and Bioprodcuts, Santa Fe, NM, June 2014
13. *Modeling a Sustainable Algae Industry*, Algal Biomass Summit, San Diego, CA, September 2014
14. *Progress in Cultivation Techniques and Systems*, Algal Biomass Summit, Denver, CO, September 2012

Peer Service and Review:

ABET, PEV Fall 2022
Reviewer Algal Research, July 2022
Reviewer Renewable & Sustainable Energy Reviewer, February 2022
Reviewer Algal Research, January 2022
Reviewer Algal Research, September 2021
Reviewer Renewable & Sustainable Energy Reviewer, June 2021
Algal Biomass Summit Abstract reviewer, April 2021
Reviewer Applied Energy, April 2021
Reviewer Algal Research, March 2021
Reviewer Applied Energy, March 2021
Reviewer Algal Research, March 2021
Reviewer Applied Energy, February 2021
Reviewer for Algal Research, January 2021
Reviewer for Biotechnology for Biofuels, December 2020
Reviewer for Algal Research, August 2020
Reviewer for Journal of CO2 utilization, August 2020
DOE LDRD proposal reviewer, August 2020
Reviewer for Algal Research, July 2020
Reviewer for Resources, Conservation & Recycling, June 2020
Reviewer Environmental Science & Technology, March 2020
Reviewer SoGES Sustainability Leadership Fellows applicants, March 2020
Reviewer for Algal Research, March 2020
ARPA-e SMARTFARMS reviewer, March 2020
Reviewer Nature: Communications Biology, February 2020
Reviewer for Algal Research, February 2020
Reviewer Sustainable Chemistry and Engineering, January 2020
Reviewer Bioresource technology, December 2019
Reviewer JBEI: on site annual review of the program, November 2019
Reviewer Nature: Communications Biology, October 2019
Reviewer Nature, October 2019
Reviewer NREL CAP design report, October 2019
Reviewer for Environmental Science & Technology, September 2019
Reviewer for Journal of Cleaner Production, September 2019
Reviewer for Environmental Science & Technology, June 2019
Reviewer for Applied Energy, June 2019
ABBB student travel awards reviewer, March 2019
USDA panel reviewer, March 2019
Reviewer for Algal Research, February 2018
ABBB conference abstract reviewer, February 2019
Proposal Reviewer for Netherlands Organisation for Scientific Research, February 2019
Reviewer for Nature Energy, January 2019
Reviewer for Algal Research, December 2018
Reviewer for Algal Research, November 2018
Stage-gate-reviewer, Department of Energy, October 2018
Reviewer for Algal Research, October 2018

Reviewer Applied Energy, September 2018
Reviewer for Energy Conversion and Management, August 2018
Reviewer Applied Energy, August 2018
Reviewer for Biotechnology for Biofuels, August 2018
Reviewer for Algal Research, July 2018
Reviewer for Information Processing in Agriculture, May 2018
Reviewer for Algal Research, April 2018
Advisory Board, PACE project, 2017-present
USDA SPIR proposal review panel, January 2018
Reviewer for Algal Research, November 2017
Reviewer for Environmental Science & Technology, April 2017
Review Panel, Environmental Engineering, National Science Foundation, March 2017
Reviewer for Energy and Fuels, March 2017
Reviewer for Applied Energy, February 2017
ARPA-e strategic planning, Chicago, IL, February 2017
Reviewer for Applied Energy, January 2017
Reviewer for Applied Energy, January 2017
Reviewer for Biotechnology and Bioengineering, November 2016
Reviewer for Bioresource Technology, November 2016
Poster Judge, Graduate Research Symposium, Fort Collins, CO, November, 2016
Poster Judge Algal Biomass Summit, Phoenix, AZ, October 2016
Reviewer for Biotechnology and Bioengineering, November 2016
Utah State University Native American Mentorship Program, June 2016
Utah State University Engineering State, June 2016
Abstract and Panel reviewer 2016 ABO Summit, April 2016
Poster Judge, Algal Biomass Summit, Washington DC, September 2015
Utah State University Native American Mentorship Program, June 2015
Utah State University Engineering State, June 2015
Utah State University Engineering Extravaganza, Society of Women Engineers, April 2015
Utah State University SRS poster judge, April 2015
Utah State University Undergraduate Research and Creative Opportunities proposal reviewer, March 2015
Reviewer Algal Research, March 2015
Reviewer Environmental Science & Technology, February 2015
Reviewer Algal Research, November 2014
Editorial Board, Algal Research, November 2014-April 2015
Reviewer Algal Research, November 2014
Reviewer Algal Research, October 2014
Reviewer, DOE EPSCOR, May 2014
Review Panel, Environmental Sustainability, National Science Foundation, May 2014
Review Panel, Energy for Sustainability, National Science Foundation, April 2014
Utah State University Engineering State, June 2014
Reviewer Algal Research, June 2014
Reviewer Algal Research, June 2014
Abstract and Panel reviewer 2014 ABO Summit, April 2014
Panel participant, USU Graduate Research Symposium, April 2014
Reviewer Algal Research, April 2014
Judge for Bridgerland Science and Engineering Fair, February 2014
Internal Selection Committee ORAU Ralph E. Powe Junior Faculty Enhancement Awards, December 2013
Reviewer for Algal Research, December 2013
Reviewer for Energies, October 2013
Reviewer for Algal Research, October 2013
Reviewer for Engineering Life Science, October 2013
Reviewer for Energies, September 2013
Reviewer for Energies, August 2013
Engineering State, June 2013
Reviewer for Algal Research, June 2013

Reviewer for Environmental Science & Technology, May 2013
Reviewer for Biotechnology and Bioprocess Engineering, May 2013
Abstract and Panel reviewer 2013 ABO Summit, April 2013
Reviewer for Renewable & Sustainable Energy Reviews, February 2013
Reviewer for Biotechnology and Bioengineering, February 2013
Reviewer for Biotechnology and Bioengineering, November 2012
Reviewer for Bioresource Technology, October 2012
Reviewer for Environmental Science & Technology, August 2012
Reviewer for Journal of Experimental Marine Biology and Ecology, July 2012
Abstract and Panel reviewer 2012 ABO Summit, May 2012
Reviewer for Biofuels, March 2012
Reviewer for Bioresource Technology, February 2012
Reviewer for Bioresource Technology, December 2011
Reviewer for Environmental Science & Technology, December 2011
Reviewer for Bioresource Technology, November 2011
Reviewer for Bioresource Technology, October 2011
Reviewer for Biotechnology and Bioengineering, June 2011
Reviewer for Journal of Industrial Ecology, March 2011
Reviewer for Journal of Industrial Ecology, August 2011
Abstract and Panel reviewer 2011 ABO Summit, May 2011
Reviewer for Chemical Engineering Journal, January 2011
Reviewer for Environmental Science & Technology, April 2010
Reviewer for Environmental Science & Technology, September 2010
Tutor, The Institute for Teaching and Learning, Fall 2010
Tutor, Mechanical Engineering Department, Spring 2010
Panel Participant Succeeding in Graduate School, McNair & AGEP Research Undergraduates, August 2009

DIVERSITY AND INCLUSION COMMITMENT

1. Faculty Institute for Inclusive Excellence, Colorado State University, Fort Collins, CO, 2021, topics: S&I at CSU, Identity of Students, Identity of the Instructor, Pedagogy and Praxis, Managing Conflict, Exploring Teaching
2. Mechanical Engineering 337 "Various Diversity & Inclusion assignments," Mechanical Engineering, Fort Collins, CO, Spring 2021
3. Mechanical Engineering Spring 2021 faculty and Staff Diversity and Inclusion retreat lead, Mechanical Engineering, Fort Collins, CO, Spring 2021
4. Affinity Arts "WSCOE ENGAGE - Affinity Arts Consulting seminar," Walter Scott Jr College of Engineering, Fort Collins, CO, Spring 2020
5. Experiences as a minority in STEM, Quinn Research Group discussion, Mechanical Engineering, Fort Collins, CO, Fall 2020
6. Picture a Scientist, Quinn Research Group discussion, Mechanical Engineering, Fort Collins, CO, Fall 2020
7. Implicit Bias, Quinn Research Group discussion, Mechanical Engineering, Fort Collins, CO, Fall 2020
8. Mechanical Engineering 103 "How to be an Antiracist" discussion leader, Fall 2020
9. Mechanical Engineering Fall 2020 faculty and Staff Diversity and Inclusion retreat lead, Mechanical Engineering, Fort Collins, CO, Fall 2020
10. Diversity and Inclusion Mechanical Engineering Committee Chair, Walter Scott Jr. College of Engineering, Fort Collins, CO, 2020-Present
11. Replacing Implicit Bias: Recognize, Reconsider, and Respond, American Society for Engineering Education training, Virtual Event, 2020
12. Safe Zone Training, Pride Resource Center, Colorado State University, Fort Collins, CO, 2018
13. Allies Training, USU Inclusion Training, Utah State University, Logan, UT, 2014