

## Four Years of ACS Sustainable Chemistry & Engineering: Reflections and New Developments

ACS Sustainable Chemistry & Engineering (ACS SCE) was launched in January 2013, with a scope that included green chemistry, green engineering, and the grand challenges for sustainability in the chemical enterprise. As Editors, we have been honored by the response of the research community to the journal. Submissions and published content have grown by an order of magnitude since our launch, and as our fourth year came to a close, we were approaching 800 published articles per year. These publications are being widely cited, and the journal's impact factor, which currently stands at 5.27, is on an upward trajectory. Given the number and high quality of submissions that ACS SCE is attracting, we chose this editorial venue at the start of our fifth year to comment on the scope and future directions of ACS SCE, providing clarifications based on our collective editorial experience.

### ■ JOURNAL SCOPE ACCOMMODATES DIVERSE TOPICAL AREAS

ACS SCE will continue to cover both green chemistry and green engineering topics, along with issues related to bringing greener processes and products to the marketplace. The journal now publishes some of the most widely cited work from research communities focused on biomass-based fuels and materials and processes; catalysis and green manufacturing of chemicals, including commodity chemicals, specialty chemicals, and pharmaceuticals; electrochemistry for chemical production, as well as energy storage and conversion; use of wastes as raw materials; alternative solvents (including ionic liquids) and solvent free processes; nanoscale materials and their properties in the context of sustainability; and new methodologies for life cycle assessment and other quantitative assessments of environmental impacts of products and processes. Special issues of the journal have appeared in several of these topical areas. In the past year, these special issues have included Ionic Liquids at the Interface of Chemistry and Engineering (Volume 4, Issue 2; <http://pubs.acs.org/toc/ascecg/4/2>); a Festschrift honoring the research contributions of Rajender S. Varma, especially his work focused on green nanotechnology (<http://pubs.acs.org/page/ascecg/vi/varma-tribute.html>); Lignin Refining, Functionalization, and Utilization (Volume 4 Issue 10; <http://pubs.acs.org/toc/ascecg/4/10>); and Building on 25 Years of Green Chemistry and Engineering for a Sustainable Future (Volume 4, Issue 11; <http://pubs.acs.org/toc/ascecg/4/11>). We will continue to promote such special issues, and we welcome suggestions from our readers and authors for new special issue topics. We will also seek to increase submissions in a number of topical areas, including green synthesis pathways, life cycle assessment, macroscale material flow analyses, process intensification for distributed manufacturing as applied to chemical processes and products, and novel phenomena in the nanoscale enhancing sustainability.

On the other hand, we will regard as outside of our journal's scope manuscripts that exclusively focus on the following topics: pollution abatement catalysis, pollutant treatment

systems, and thermodynamic and/or physical property measurements and processing of materials from commercial sources. Exceptions include contributions in these areas that clearly contain novel elements of green chemistry, green engineering, or sustainability (e.g., first reports of the use of recycled or renewable materials as catalysts and adsorbents, novel capabilities of nanoscale materials for environmental remediation). While manuscripts in these areas that we regard as out of our journal's scope may have significant scientific merit, our editorial policy will be that they will be more appropriate for other journals, including other ACS journals (<http://pubs.acs.org/action/showPublications>).

### ■ RENEWED EMPHASIS ON QUANTITATIVE METRICS AND SAFETY

To promote one of the key distinguishing features of ACS SCE, we will continue to encourage authors to develop and use metrics that quantify the improvements in sustainability made possible by their research. While we realize that the use of such metrics is not possible or necessary in all cases, we will encourage authors to make these assessments to strengthen their manuscripts. We began this process with an editorial in Volume 3, Issue 10 of the journal, "Advancing the Use of Sustainability Metrics" (DOI: 10.1021/acssuschemeng.5b01026) that included literature references as examples. Our recent special issue, Building on 25 Years of Green Chemistry and Engineering for a Sustainable Future (Volume 4, Issue 11; <http://pubs.acs.org/toc/ascecg/4/11>), contained Feature and Research articles that advanced this discussion. We will continue to encourage authors to use sustainability metrics, and we will continue to publish invited Feature articles in this topical area as appropriate. Starting in 2017, we will specifically request reviewers to rate whether manuscripts have adequately used appropriate metrics to substantiate claims of sustainability. In addition, we have added to our formal author guidelines a statement directing authors to "emphasize any unexpected, new, or significant hazards or risks associated with the work reported". Safety is a critical element of all chemistry and engineering research, and we encourage authors to share with the broader community safety insights that their work has revealed.

### ■ RECOGNIZING AND INVOLVING EARLY CAREER RESEARCHERS

ACS SCE will also seek to actively engage early career researchers in the activities of the journal. This year, ACS SCE launched an annual Lectureship award program to recognize early career researchers. The inaugural winners (Dr. Gregg Beckham, Dr. Jinlong Gong, and Dr. Helen Sneddon), chosen from a global nomination pool, were announced in a

Received: December 16, 2016

Published: January 3, 2017

recent editorial (DOI: 10.1021/acssuschemeng.6b01992). We encourage our readers and authors to attend the symposia honoring the lectureship award winners at the 2017 ACS National Meeting in San Francisco. We also encourage nominations for the 2018 Lectureship Awards, when the call for nominations is issued in March 2017.

In addition to launching the Lectureship Awards, ACS SCE welcomes 11 members of our inaugural Early Career Board (ECB). This ECB supplements our Editorial Advisory Board (EAB), with researchers who are launching their careers in green chemistry, green engineering, and sustainability. The ECB members are listed on the journal's masthead (<http://pubs.acs.org/page/ascecg/editors.html>). The ECB members will assist the Editors in identifying topics for special issues, identifying high quality presentations at conferences that should be invited for submission to ACS SCE and proposing topics for and writing creative editorials and ACS Axial blog posts (<http://axial.acs.org/>). The ECB membership will be renewed and refreshed periodically as current ECB members advance in their careers. We are excited to have the new ECB members join us and look forward to their assistance in guiding the direction of the journal.

As the journal continues to evolve and grow, we encourage the engagement of the ACS SCE community. We welcome your suggestions and inquiries (E-mail: [ACSSustainable@acs.org](mailto:ACSSustainable@acs.org)) and look forward to meeting many of you at future scientific meetings.

**David T. Allen**, Editor-in-Chief 

**Danielle Julie Carrier**, Associate Editor

**Bing-Joe Hwang**, Associate Editor 

**Peter Licence**, Associate Editor 

**Audrey Moores**, Associate Editor 

**Thalappil Pradeep**, Associate Editor

**Bert Sels**, Associate Editor

**Bala Subramaniam**, Associate Editor 

**Michael K.C. Tam**, Associate Editor

**Rhea M. Williams**, Managing Editor

## ■ AUTHOR INFORMATION

### ORCID

David T. Allen: 0000-0001-6646-8755

Bing-Joe Hwang: 0000-0002-3873-2149

Peter Licence: 0000-0003-2992-0153

Audrey Moores: 0000-0003-1259-913X

Bala Subramaniam: 0000-0001-5361-1954

### Notes

Views expressed in this editorial are those of the authors and not necessarily the views of the ACS.