



# Industrial & Engineering Chemistry

*Making Chemistry Work!*

## 2017 Special Edition

### Notes from the Programming Chair

Although the 254<sup>th</sup> National Meeting of the ACS concluded just last week in Washington, DC, it's time to submit abstracts for the upcoming 255<sup>th</sup> National Meeting, scheduled for March 18-22, 2018, in New Orleans. The I&EC Division has a robust program planned for New Orleans, with exciting and informative symposia spanning diverse facets of research in industrial engineering and chemistry. Truly, there is something for everyone. The purpose of this special edition of the I&EC Division newsletter is to highlight these upcoming symposia and solicit submission of abstracts from I&EC membership. Of course, membership is not a prerequisite for submission of an abstract, and I sincerely hope you will forward the enclosed Call for Papers to friends and colleagues with an interest in the subject matter.



Carter Abney  
I&EC Programming Chair

The theme of the conference is “Nexus of Food, Energy and Water,” and in keeping with this theme Shannon Mahurin (ORNL) and Geoffrey Geise (UVA) are organizing a symposium entitled “Water Purification for a Sustainable Future.” Two symposia are also being co-organized by the I&EC Separation Science and Technology Subdivision. The first is co-sponsored by the Separations Science Subdivision of the Analytical Division, aptly entitled “Inaugural Joint Symposium of the Separation Sciences Subdivisions,” and it is being organized by Glenn Fugate (ORNL) and Catherine Rimmer (NIST). The second joint symposium (no pun intended) is co-sponsored by the Cannabis Subdivision of the Chemical Health and Safety Division: “Separation Science and Technology in the Medical Cannabis and Hemp Industry,” organized by Jerry King (Univ. Arkansas) and Ezra Pryor (Heidolph). Two symposia are also being organized which we hope will appeal to our industry-oriented division. Joseph Falkowski (Exxon Mobil) is organizing a symposium on the translation of basic science to industrial applications, and Joe Saviano (Bio Solutions, LLC) is organizing a symposium for industrial research chemists local to the Gulf Region. The latter is the inauguration of a recurring symposium series which will highlight the research of scientists with terminal B.S. or M.S. degrees who are local to the region of the ACS National Meeting. On a more somber note, the late Prof. Ken Klabunde will be honored with a memorial symposium organized by Ryan Richards (Colorado School of Mines). Finally, for those of you with exciting research that doesn't cleanly fit into any of the above symposia, I'll be organizing the I&EC General symposium and your abstract submissions are always welcome.

In addition to the above symposia which are open for submissions from anyone, I&EC will also host seven (!) awards symposia, four of which honor new I&EC Fellows, and two roundtable discussions. The first is the ACS Pharma Roundtable, focused on Innovative Green Processing Technology and Chemistry. The second is “Preparing Students for Careers in Industry,” and is intended to stimulate conversation and generate ideas both for students interested in industrial careers, but also for universities seeking to promote these career paths. While presentation in the above symposia and roundtables is by invitation only, all are encouraged to attend and participate.

**To be considered for the National Meeting in New Orleans, abstracts need to be submitted to [MAPS](#) no later than October 16.** It is currently open for submissions, so please don't delay. As always, feel free to contact me ([abnecw@ornl.gov](mailto:abnecw@ornl.gov)) or the Programming Secretary, Richard Mayes ([mayerst@ornl.gov](mailto:mayerst@ornl.gov)), if you have any questions pertaining to I&EC programming or ideas for future symposia. (Planning for the 256<sup>th</sup> National Meeting in Boston is already underway!) It is an honor to serve as your Programming Chair, and I look forward to a stimulating and exciting symposia schedule in New Orleans.

Call for Papers:  
**Inaugural Joint Symposium of the  
Separation Science Subdivisions**

255<sup>th</sup> National Meeting of the  
American Chemical Society  
New Orleans, LA March 18 – 22, 2018

*Sponsored by the Separation Science and Technology Subdivision  
of the Industrial and Engineering Chemistry Division and the of Chromatography  
and Separations Chemistry Subdivision of the of Analytical Chemistry Division*

The Separations Subdivisions of the Industrial & Engineering Chemistry and Analytical Divisions both focus on separation science research and development. These subdivisions serve as forums to discuss basic science, technology and method improvements and as an interface between chemists and engineers in the transition of laboratory and bench scale studies to industrial application. This inaugural joint symposium aims to promote a wide range of technical talks over all aspects of separations science.

Particular areas of interest include novel and new research in the following areas:

- Method development
- Separation compounds and systems
- Laboratory or industrial instruments and hardware
- Industrial separations needs and development

Organized by:

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Abstracts are to be submitted using the Meeting Abstracts Programming System (MAPS). Feel free to contact us to indicate your interest or to answer any questions.

## Call for Papers:

# **Separation Science and Technology in the Medical Cannabis and Hemp Industry**

255<sup>th</sup> National Meeting of the American  
Chemical Society

New Orleans, Louisiana, March 18-22, 2018

Co-Sponsored by the Separation Science and Technology Subdivision –IEC  
Division and Cannabis Chemistry Sub-Division – CHAS Division

Abstracts are invited in the application of separation techniques and processes for this co-sponsored session – particularly papers focused on post- and pre-extraction techniques/processes as well as scale-up for cannabis/hemp processing. Applicable processes include distillation for concentration and solvent removal, phase separation (i.e. de-waxing), adsorption, chromatography (SFC), as well formulation of extract delivery systems (infusion), as well related topics such as automation, module mobility, and requisite physicochemical data.

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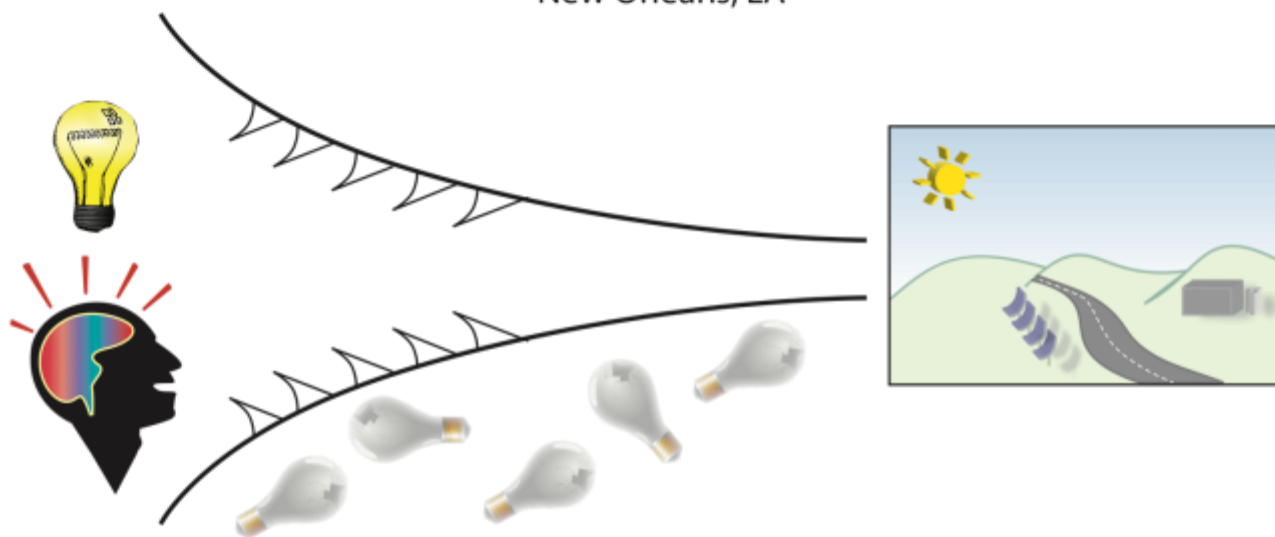
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Abstracts are due by October 16, 2017. Abstracts are to be submitted using the Meeting Abstract Programming System (MAPS) at [www.acs.org](http://www.acs.org).

## 255<sup>th</sup> ACS National Meeting

# Down the pipe: Translating basic science into industrial application

March 18<sup>th</sup>-22<sup>nd</sup> 2018  
New Orleans, LA



The treacherous path from idea to application is one fraught with peril, but one that every commercial application of fundamental research has traversed, whether from the academic lab to the start-up or from the corporate research lab into the business.

This broad symposium will examine the pitfalls and challenges of advancing research into application and the role of fundamental science in addressing the technical challenges associated with the application of chemistry in industrial settings.

**Submit abstracts by Oct. 16<sup>th</sup> 2017, through ACS  
MAPS, in I&EC Division**

Organizer

Joseph Falkowski, ExxonMobil Research and Engineering, [Joseph.m.falkowski@exxonmobil.com](mailto:Joseph.m.falkowski@exxonmobil.com)



## Call for Papers: Symposium in memory of Prof. Kenneth J. Klabunde

255<sup>th</sup> National Meeting of the  
American Chemical Society  
New Orleans, LA March 18 – 22, 2018

Dr. Ken Klabunde (1943–2017) was a brilliant chemist, professor, and mentor who made major contributions to nanoscale industrial catalysis at the intersection of organic and inorganic chemistry. Dr. Klabunde received his BA from Augustana College, majoring in Chemistry, and his PhD from the University of Iowa in 1969. After doing postdoctoral work at Penn State University, he was hired by the University of North Dakota in Grand Forks. In 1979, he moved to Manhattan, KS to become the Head of the Department of Chemistry at Kansas State University. He was named a University Distinguished Professor, and later became the founder of NanoScale Corporation. In the course of his 43-year career, he authored over 500 scholarly publications and books, filed over 20 patents, and received numerous awards. He was named a Fellow of the ACS Industrial and Engineering Division in 2009. Dr. Klabunde was especially proud of the achievements of the many students he mentored and inspired to pursue careers in the chemical sciences. The symposium calls for papers from former students, colleagues, and friends of Prof. Klabunde in areas including:

- Synthesis and characterization of novel nanoscale materials
- Applications of nanoscale materials in both homogenous & heterogeneous catalysis and destruction of toxic compounds
- Development of nanoscale materials for energy conversion and storage

Organized by:

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## CALL FOR PAPERS:

255<sup>th</sup> National Meeting of the American Chemical Society

# Water Purification for a Sustainable Future (I& EC Division)

**New Orleans, LA March 18 – 22, 2018**

A sustainable source of clean water is a critical global challenge because of its role in human health, energy production and industrial growth. Furthermore, clean water and energy are inextricably linked. Though a number of purification techniques currently exist, more energy efficient and cost-effective methods are critically needed to meet the increasing demand for fresh, clean water from more non-traditional sources. Improvements in water purification technologies with both increased energy efficiency and lower cost will require greater fundamental understanding of transport properties and surface interactions as well as novel materials and processes. The focus of this symposium is on new materials, structure/property relationships and novel purification concepts to address this global challenge.

### Topics of interest in this symposium include but are not limited to:

- Novel approaches for water purification
  - Forward osmosis
  - Capacitive deionization
  - Membranes
- Transport properties
- Pre-treatment and fouling
- Water and energy sustainability

Organized by:

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Abstracts are to be submitted using the Meeting Abstracts Programming System (MAPS). Feel free to contact us to indicate your interest or to answer any questions.

Call for Papers:  
**Industrial Research of Chemists Local to  
the Gulf Region**



255<sup>th</sup> National Meeting of the  
American Chemical Society  
New Orleans, LA March 18 – 22, 2018

*Sponsored by the Applied Chemical Technology Subdivision  
of the Industrial and Engineering Chemistry Division*

Scientists possessing terminal B.S. and M.S. degrees are the backbone of both the chemical industry and the American Chemical Society. In order to provide a forum for their research and development efforts to be recognized, the Applied Chemical Technology Subdivision of the Industrial & Engineering Chemistry Division is proud to announce the inaugural Regional Chemistry Symposium at the 255<sup>th</sup> National Meeting in New Orleans.

While researchers of all degrees and from all regions are welcome, the focus of this symposium is on scientists from the Gulf Coast region possessing terminal B.S. and M.S. degrees. With the economy of the Gulf Coast dominated by industries related to energy, petrochemicals, fishing, aerospace, and agriculture, industrial engineering and chemistry clearly play a central role in them all. There is no more fitting venue than New Orleans to launch this recurring symposium.

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Abstracts are to be submitted using the Meeting Abstracts Programming System (MAPS). Feel free to contact Joe to indicate your interest or to answer any questions.