Please plan on attending the Division of Chemical Health and Safety’s Technical Program and Workshops in Orlando, FL, April 2019. We have listed for your consideration our workshops and technical programming. We believe we have put together the best technical program to help you be successful and work safely in your laboratory.
Monday cont.
2:55 Harvesting solar energy for pharmaceutical production in outer space using flow chemistry. T. Noel
3:20 Hands-on solar spectroscopy for introductory chemistry classes. J.M. Newman
3:45 Flow chemistry applications in microgravity: Innovative approaches to chemical synthesis and microfluidic systems. J. Stoudermeier
4:10 Exploring the chemistry of spaceflight with the National Air and Space Museum. V.L. Miller

Sci-Mix
Convention Center, West Hall C
J. M. Pickel, Organizer
8:00 - 10:00pm
• Developing SOPs for hazardous chemical manipulations. T. Chandra
• Division of Chemical Health and Safety Poster. J.M. Pickel
• Impacts of various acids on thermal decomposition of tetrahydrocannabinolic acid (THCA) and tetrahydrocannabinol (THC) in methanol and ethanol. M.N. Bauer, B.M. Carfield
• Database of pharmacokinetic time-series data and parameters for evaluating the safety of environmental chemicals. R. Sayre, J. Wombaugh, C. Grulke

TUESDAY SESSIONS
Cannabis Chemistry's First Annual EliSholy Award Symposium
Convention Center, Room W232C
K. Boyar, E. M. Pryor, Presiding
9:00 Opening Remarks.
9:30 Formulation of customized cannabis concentrates. T. Treh
9:55 Cannabis microbiome sequencing and its implications for cannabis safety testing. K. Boyar
10:20 How a cannabis CRO can support cannabis LPs in their processing optimization needs. M. Roggen, J. Hein, G. Sammis
10:45 Development of an efficient method for the extraction and isolation of cannabinol (CBD) from bulk industrial hemp using pressurized liquid extraction (PLE) and flash chromatography. C.A. Kinney, D. Seffried

Bridging the [Safety] Gap between Academia & Industry
Tuesday cont. Convention Center, Room W414C
Sponsored by PRES, Cosponsored by CA, CCS, CHAS,1, CHED, PROF and YCC.
8:30 Introductory Remarks
8:45 Dow Lab Safety Academy: Promoting a positive safety culture in academia. J. Seller
9:10 UMN Joint Safety Team, the Minnesota Model for lasting changes. A. Sitek
9:35 Identifying key factors of safety culture in academia from those identified in industry. M.E. Gonzalez, D.J. Casadonte
10:00 Intermission
10:20 Peer to a mentor: Engaging graduate students in laboratory safety at northwestern. X. Wang
10:45 Cultivating a Safety Culture in Chemistry at Yale. J. Freeze
11:10 Impact of a pilot laboratory safety team workshop. K.A. Miller, K. J. Tyler

Improving Academic Safety Culture: Undergraduate & Graduate Student Leadership in Laboratory Safety
Convention Center, Room W232C
Sponsored by CCS and PROF
K. A. Miller, Presiding
1:30 Introductory Remarks.
1:35 Leadership and empowerment: How to ask and answer safety questions well. R. Stuart
2:00 Building a stronger, sustainable safety culture at the University of Chicago. J. Ting, R.J. Menssen, S.R. Zinn, J. Leitlow, B. Slav, L. Pulido, Q. Wu, J.H. Wright, K. Mormann
2:25 Design your own safety education. K.P. Fivelzani
2:50 How effective is safety training in undergraduate teaching labs? K. Mesa
3:15 Student-led safety inspections of chemistry teaching and research laboratories. B.J. Stockman

Ask Doctor Safety about New Materials, Processes & Products
Convention Center, Room W232C
9:00 Opening Remarks.
9:05 Chemistry of cannabis concentrate aerosolization. J. Meehan-Atrash, A. R. Wise, Organizer, Presiding
9:30 Standardizing the Entourage Effect: Regulating terpenes & flavor additives for inhalable cannabis products without throwing the baby out with the bathwater. B. Douglass, J.C. Rober
9:55 Chemistry of cannabis concentrate aerosolization. J. Meehan-Atrash, A. R. Wise, Organizer, Presiding
10:20 Combining safety and green chemistry. A. Gilbert
10:45 Intermission
11:00 Hands-on introduction to advanced GC/MS analysis. A. Gilbert, A. Fivelzani, A. C. Morgan
11:20 Novel formation of THC isomers in cannabis oil distillate. N. Mosely, J. Izard
11:45 Fundamental chemistry research from a collaborative cannabis research venture. M. Roggen, G. Sammis, J. Hein

Green Chemistry as a Pillar of Safety Education
Sponsored by CHED, Cosponsored by CHAS
Tuesday cont. Convention Center, Room W311C
J. Wissinger, Organizer
H. Weisman, Organizer, Presiding
1:30 Introductory Remarks
1:35 Green Chemistry: Where the concepts of safety and ethics meet. G. Bodner
1:55 Teaching safety through a green chemistry lens. A. Sitek
2:15 Incorporation of green chemistry and best safety practices in an organic chemistry laboratory curriculum. M. Rao
2:35 Introduction to lab safety through green chemistry. A. Gilbert
2:55 Lab safety for a clean environment: Implementing green chemistry into lab safety. A. Fivelzani

WEDNESDAY SESSIONS
New Frontiers in Cannabis: Analytical Tools, Post-Processing, & Policy Directions
Convention Center, Room W232C
A. R. Wise, Organizer, Presiding
J. Bramante, Organizer
9:00 Opening Remarks
9:05 Using Image for automated counting of colony forming units of yeast and molds in cannabis flowers. N. Stolze, A. Sutief, A.E. Holmes
9:30 Standardizing the Entourage Effect: Regulating terpenes & flavor additives for inhalable cannabis products without throwing the baby out with the bathwater. B. Douglass, J.C. Rober
9:55 Chemistry of cannabis concentrate aerosolization. J. Meehan-Atrash, A. R. Wise, Organizer, Presiding
10:20 Chemical and genetic origins of strain-specific aroma in cannabis sativa I. A. Gilbert
10:45 Intermission
11:00 Gas chromatography-mass spectrometry and tandem-mass spectrometry for cannabinoid analysis and discovery. A. Leghissia, Z. Hildenbrand, K. Schug
11:20 Novel formation of THC isomers in cannabis oil distillate. N. Mosely, J. Izard
11:45 Fundamental chemistry research from a collaborative cannabis research venture. M. Roggen, G. Sammis, J. Hein

Cannabis Chemistry's First Annual EliSholy Award Symposium
Monday cont. Convention Center, Room W232C
K. Boyar, E. M. Pryor, Presiding
1:30 Opening Remarks.
1:35 Constituents of cannabis: Less is more? S. Goldman
2:00 Analytical expressions for viscosity of concentrated cannabis oils. M.T. Czajkowski
2:25 Brief synopsis of basic propagation and breeding techniques in cannabis. B.A. Jones
2:50 Intermission.
3:00 Old wine in new bottles: The health and safety implications of the cannabis access law on the prescription drugs. D. J. Mancu, J. Roberts
3:25 Innovation involves inspiration. M. Vipalando
3:50 Frontiers in the development of cannabis-based therapeutics. M.A. Elsohly

The Chemistry of Disasters
Sponsored by PRES, Cosponsored by CCS & CHAS
Convention Center Room W414C
Joe Pickel, Organizer, Presiding
1:30 Introductory Remarks
1:45 Caught in the Storm: Extreme Weather Hazards in the Chemical Enterprise. K.M. Kulowski
2:30 Hurricane Maria: Forging the future of science in Puerto Rico. I. Montes
3:00 Intermission
3:20 Looking Back to See Forward: Lessons from a Plant Explosion. D. Mason
3:50 Importance of Business Continuity and Emergency Planning for Research. M.B. Koza

Chemistry in Space: Future Directions
Sponsored by YCC, Cosponsored by AGFD, ANYL, BIOT, BMGT, CHAS, ENVR, FLUO, GEOC, HIST, I&EC, MEDI, POLY and PROF
Convention Center Room W414D
Attila Pavlath, Ferenc Darvas Organizers, Presiding
12:30 Introductory Remarks
12:35 Decentralized pharmaceutical manufacturing. F. Gupton
1:00 On-demand reagents. D.T. McQuade
1:25 Perspectives on continuous-flow capture and conversion of CO2 in martian science. D. Kim
1:50 Polymers and nanomaterials for space manufacturing. Flow chemistry demonstration. R.C. Advinica
2:15 Towards compact configurable flow devices for synthesis and crystallization. V.S. Sangorrin
2:40 Intermission