# CINTACS



Newsletter of the Cincinnati Section of the American Chemical Society

March, 2016 Vol. 53 No. 6

#### **Section Calendar**

2016 Meeting Schedule

March 30th Chemist of the Year

April 27 Teacher and Student Awards

May 18-21 CERMACS

September 18 Family and Friends

Picnic

October Oesper Symposium

December 7 Joint Meeting with

NOBCChe, XU

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# March 2016 Meeting

Wednesday March 30th, Cooper Creek Event Center.

The March 2016 meeting will be held on Wednesday March 30th, at the Cooper Creek Event Center. The featured speaker for the evening is Dr. Mallikarjuna N. Nadgouda, of the EPA, and the 2016 ACS Cincinnati Local Section Chemist of the Year winner. For more information and to register, please go to the section website. Registration will close on Thursday, February 24th at 5pm.

#### **Meeting Program**

6:00 - 7:00pm Registration and Social Hour (Pinehurst

Room)

7:00 - 8:00pm Dinner (Augusta Banquet Room)

\$30.00 Members/Guests or \$15.00 for Emeritus, K-12 Teachers, Students, Unem

ployed, New Members

8:00 - 9:00pm Speaker: Dr. Mallikarjuna N.

Nadgouda, EPA

Green Chemistry and

**Environmental Remediation** 

**Reservations**: Please use the link below to register. The deadline for registration is 5 PM on Monday March 21st.

Register at http://www.acscincinnati.org/meetings/

#### THE CINTACS NEWSLETTER

#### Vol. 54, No. 6 March 2016

Editor.....Adam Bange

CINTACS is published eight times a year (September through May) by the Cincinnati Section of the American Chemical Society. The submission deadline will be approximately March 25 for the April 2016 issue. Electronic sub mission is strongly preferred. All materials should be sent to:

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Kevin Ashley Beth Reno Diana McGill It is with great honor that I have the privilege to announce our ACS Cincinnati Local Section Chemist of the Year award winner, Dr. Mallikarjuna N. Nadagouda! Dr. Nadgouda is currently with the EPA as a Physical Scientist at NRMRL in Cincinnati, Ohio. He will give a talk entitled "Green Chemistry and Environmental Remediation."

On a personal note, I am expecting the arrival of our second child in the month of March. I do apologize if you are trying to get a hold of me, and am unreachable, but now you know the reason why. I will more than likely not be at the March meeting, but hope you enjoy the featured presentation, and plan to see you in April. As a female minority chemist working in industry, I knew taking on the office of Chair of the section would be challenging, and I was able to take it to another level by being pregnant during my term as Chair. I want to stress to other young female members of the section, that this section is full of dedicated members. I have found nothing but help and support every time I have asked for it. I encourage you, to *Lean In*, at leadership opportunities as I have knowing that others are here to help.

This past month we had a great turn out for the Februrary 2016 local meeting at Procter & Gamble. We had the pleasure of having Dr. Glenn Boulitier speak on the topic of "Mastery and Other Important attributes for Innovation." I had the pleasure of working along Glenn before his recent retirement from P&G and new he would be a good speaker. His presentation was great for young and upcoming chemist to think about problem solving and how technical challenges in industry may seem similar at times, yet very different (and yellow). Also, a big Thank You to Praxair for being the official sponsor of the meeting!

ACS CERM 2016 is in full steam ahead! Please plan to show your support for the ACS Central Regional Meeting in May 2016. Dan McLoughlin and Roger Parker are organizing this conference. If you or your company would like to help support this effort, please go to this website for more information: <a href="https://www.acscerm2016.org">www.acscerm2016.org</a>

Jackie Thomas Chair, ACS Cincinnati Local Section Jthomas1210@gmail.com

## Congratulations to **Dr. Mallikarjuna N. Nadagouda**

## 2016 ACS Cincinnati Local Section Chemist of the Year



Dr. Mallikarjuna N. Nadagouda received his Ph.D. from India in 2003. While earning his Ph.D., Dr. Nadagouda worked with professor Gopalakrishanan of the Indian Institute of Science (IISc) in Bangalore, India for two years. After obtaining his Ph.D., he worked for General Electric (GE) in Bangalore, India for two years before moving on to work with the late Professor Alan G. MacDiarmid (2000 Nobel Laureate in Chemistry) at the University of Texas at Dallas. Dr. Nadagouda went on to become an Oak Ridge Institute of Science and Education (ORISE) postdoctoral fellow at the United State Environmental Protection Agency's (EPA) National Risk Management Research Laboratory (NRMRL), and subsequently achieved his current position as a Physical Scientist at NRMRL in Cincinnati, Ohio. He has worked in the areas of nanomaterials and nanotechnology, analytical chemistry, green chemistry, poly-

mer blends, solid coatings, solid state chemistry and drug delivery. He has received several Scientific and Technological Achievement Awards (STAA) from the EPA, including the National Risk Management Research Laboratory Goal 1 Award. He is a member of the editorial advisory board of several international journals, has published over 175 papers in reviewed journals with a citation index over 5700 (H index 36), and holds several patents.

#### **Green Chemistry and Environmental Remediation**

Nutrient remediation and recovery is a growing concern for two key reasons: (i) the prevention of harmful algal bloom proliferation, and (ii) the recycling of nutrients (e.g., phosphates) as they are non-renewable resources which are quickly being depleted. A wide range of materials have been used as adsorbents for phosphate remediation and recovery, including iron-based products (e.g., Bayoxide E33 Adsorption Media, La- and Ce-ferric adsorbents, Ca- and Mg-modified ferrites), carbonates (e.g., CaCO<sub>3</sub>, MgCO<sub>3</sub>, and LaCO<sub>3</sub>) obtained as waste materials, and a novel material (patent pending) that may greatly impact water and agricultural engineering. These materials have been characterized through a range of instruments, including particle analyzers, electron microscopes and x-ray spectroscopes, and various adsorption experiments, including batch, isotherm, and column flow-through experiments. Additionally, various catalysts have been explored for environmental remediation including heterogeneous and photo catalysts. Finally, green chemistry techniques were used to synthesize a range of nanoparticles, including the use of different plant extracts (e.g., coffee, tea and fruits), bacteria and other environmentally friendly reducing agents.



### 2015 NATIONAL CHEMISTRY WEEK

#### **Illustrated Poem Contest Winners**

As a part of National Chemistry Week that was held in October 2015, the local Cincinnati Section of the American Chemical Society sponsors an illustrated poem contest for local students to express their creativity and artistic ability while focusing on a chemistry theme. This year's theme was "Chemistry Colors our World." The poem is judged based upon relevance to and incorporation of the theme, word choice, and imagery, colorful artwork, adherence to poem style, originality and overall presentation.

One winner was selected for each grade category (K-2<sup>nd</sup> grade, 3<sup>rd</sup>-5<sup>th</sup> grade, 6<sup>th</sup>-8<sup>th</sup> grade, and 9<sup>th</sup>-12<sup>th</sup> grade) for the Cincinnati section. The winners are as follows:

Category	K- 2nd Grade	3 <sup>rd</sup> – 5 <sup>th</sup> Grade	6 <sup>th</sup> – 8 <sup>th</sup> Grade	9 <sup>th</sup> - 12 <sup>th</sup> Grade
1 <sup>st</sup> Place Winners	Kylie Miles	Benedict Domville	Salihah Israel	Skyler Lance
Grade	2 <sup>nd</sup> Grade	3 <sup>rd</sup> Grade	7 <sup>th</sup> Grade	10 <sup>th</sup> Grade
Represented School	M2SE / Rothenberg Preparatory Academy	Summit Country Day	Mt. Healthy Jr/Sr High School Minorities in Math, Science & Engineering	Archbishop McNicholas High School
Teacher	Tonya Howard	Stacy Remke	Veronica Dean	Regina Goines
Location	Cincinnati, OH	Cincinnati, OH	Cincinnati, OH	Cincinnati, OH

The first place winners along with their teachers and parents will be honored as guests of the local section at the Awards Banquet dinner /meeting on April 27, 2016 at the Northern Kentucky University. The teacher and parents can register for the banquet after April 1 on the website at http://www.acscincinnati.org/ or they will need to email jheimkreiter@petercremerna.com with their contact information to obtain further details.

The section also submitted the winning posters to the National ACS poster contest in Washington, DC. This year, Skylar Lance also won first place in the national contest! Congratulations!

We would also like to recognize the following students for Honorable Mention. They will receive a certificate in the mail to their respective school in April 2016 for their achievement.

- Brooklyn Adams 2nd grade, M2SE/ Rothenberg Preparatory Academy, Ms. T. Howard.
- Grace Elizabeth Tounge 3rd grade, Summit Country Day School, Ms. S. Remke.
- Damiyah Warner 4<sup>th</sup> grade, North College Hill Elementary School, Ms. M. Webb. Jared Johnston 4<sup>th</sup> grade, North College Hill Elementary School, Ms. M. Webb.
- Maria Jones 7th grade, Mt. Healthy Jr./Sr. High School, Ms. V. Dean.
- Natalie Martinez 10<sup>th</sup> grade, Archbishop McNicholas High School, Ms. R. Goines.

Parents, Educators: We were very pleased with all of the illustrated poems that were submitted. Thank you for being a part of the contest and encouraging your student to participate. Our children are the greatest investment into our future.

American Chemical Society Cincinnati Section Jamie N. Heimkreiter NCW Contest Committee Chair

> NCW 2016 will take place on October 16 – 22, 2016. Theme: "Solving Mysteries through Chemistry" Exploring the chemistry of fibers and forensics.



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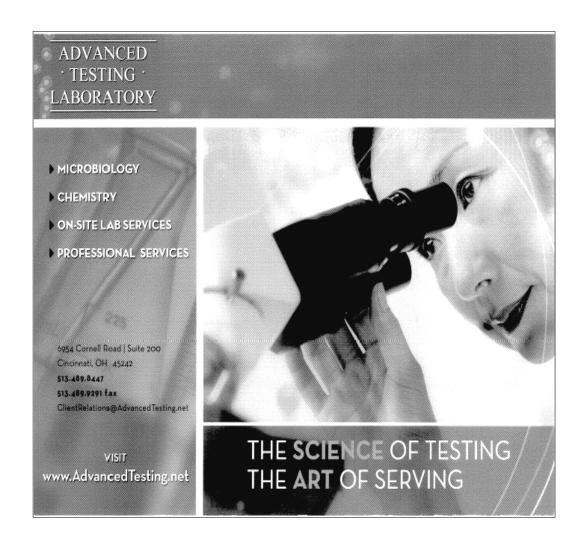
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