

CINTACS



Newsletter of the Cincinnati Section of the American Chemical Society

March, 2012
Vol. 49 No. 6

Meeting Calendar

- Mar. 14 Joint with Dayton section
@Beckett Ridge Country
Club, Prof. Subha Das,
Carnegie Mellon
University
- April 7 Reception at Lloyd
Library and Museum
- Apr. 18 Education Awards Night
@NKU, Al Conklin,
Wilmington College
- May 25 Party Night at GABP

MARCH MEETING

Wednesday, March 14, 2012
Beckett Ridge Golf Club

*Joint with the Dayton Section of the
American Chemical Society*

Featured Speaker:
Professor Subha Das
Carnegie Mellon University, Pittsburgh, PA

The Kitchen Chemistry Sessions: Molecular Cuisine to make Science palatable

Register Online: Please register online at [http://
registration.acscincinnati.org/](http://registration.acscincinnati.org/). Alternatively, you may email the
webmaster at webmaster@acscincinnati.org to register. **Regis-
tration will close at noon on Monday, March 12**

In this issue

March mtg. announcement	1
From the Chair	2
March Speaker, Prof. Subha Das	4
Congratulations 2011 ACS Fellows	5
Teacher of the Year Call for Nominations	6
Poem winners announced	7
Overview of Patent Process	8
Teacher of the Year Call for Nominations	8
Invitation to Lloyd reception	9
CINTACS advertisements	10-11

Program:

5:30 – 7:00 pm: Registration

6:00 – 7:00 pm: Social Hour

7:00 – 8:00 pm: Dinner. (\$25.00 or \$15.00 for students,
emeritus, unemployed & new members). Menu: Caesar
Salad, Teres Major Beef Served with a Rich Burgundy
Sauce, Chicken Florentine, Confetti Orzo Pasta, Chef's
Choice Vegetable, Dinner Rolls with Butter, Carrot Cake
Bundt Cake with Cream Cheese Icing or Chocolate Bundt
Cake with Coconut Icing

8:00 – 9:00 pm: Speaker, Professor Subha Das

Directions To Meeting Venue

Directions and information about Beckett Ridge Golf
Club can be found here: <http://www.beckettridgegolf.com>

or on the Cincinnati ACS website.

THE CINTACS NEWSLETTER**Vol. 49, No. 6 March, 2012**

Editor.....Adam Bange
 Advertising.....Dan Esterline

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 15 for the April 2012 issue. Electronic submission is strongly preferred. All materials should be sent to:

Adam Bange
 Xavier University
 3800 Victory Parkway
 Mail Location 4221
 Cincinnati, Ohio 45207-4221
 Tel.: (513) 745-3950
 Fax: (513) 745-3695
 E-mail: Bangea1@xavier.edu

ACS Cincinnati SectionChair:

Rick Mullins
 (513)745-3361
 mullinsr@xavier.edu

1st Vice Chair & Chair-Elect:

Elizabeth Reno
 (513)622-1346
 reno.ea@pg.com

2nd Vice Chair:

Diana McGill
 (859)572-5409
 mcgill@nku.edu

Secretary:

Hong Zhang
 513-247-2986 x 8172
 hzhang@advancedtesting.net

Treasurer:

Ed Hunter
 (513)522-6199
 edhunter@fuse.net

Trustee (Chair)

Victor Arredondo
 (513)626-0242
 Arredondo.vm@pg.com

From The Chair

Greetings Section Members,

Apparently, February's answer to the post-holiday blues was a string of spring-like weather that at least in my mind, will hopefully continue until summer. While all of our school-aged children may disagree, the lack of any serious winter storms/school cancellations/traffic issues has been a nice relief from winters of the recent past. I hope that you have taken some time to enjoy the rare opportunity to engage in outdoor activities not normally done in February.

Speaking of outdoor activities, one of the activities I have always thought was absent from our section's social agenda is a golf outing. We don't usually get together during the summer months, but if there is sufficient interest, I think a golf outing sounds like a great idea. If you have interest in playing, or know of any members that would, please let me know. If we can generate enough interest, I will begin work on planning the event.

Before we begin thinking about the summer, we do have a busy schedule of events upcoming. The first happens on March 14 at Beckett Ridge Country Club in a joint meeting with the Dayton Section. This meeting always provides a great opportunity to catch up with our friends up north and I expect nothing less this time around. Our speaker will be Professor Subha Das of Carnegie Mellon University, who will be discussing a "Kitchen Chemistry" course he has developed. He recently presented this at a National ACS meeting to great acclaim. Given the number of academic institutions within the Cincinnati and Dayton section, I expect this particular topic to have broad appeal. Please encourage your colleagues in academia and industry to attend. More details can be found within.

On Saturday, April 7, from 4-7 pm, the Lloyd Library and Museum will host a reception specifically for the Section, to commemorate the opening of the Cincinnati Section of the ACS Archives. Details on the event can be found within. Look for an email in the near future containing registration info for this event. The Lloyd is a little-known treasure in the community, and yet, it is an institution whose goals align very closely to those of the section. It is my sincere hope that this reception will mark the be-

ginning of a long and fruitful relationship between the two groups. The event is free of charge, so again, please encourage your colleagues to attend.

Another consequence of the great spring-like weather we have been having is that thoughts have already begun to turn to baseball and the hope that THIS is the year for our local team. Spring Training has just begun, Opening Day is around the corner and with the recent acquisition of solid starting and relief pitchers, "Hope [certainly] springs eternal" for the Reds this year. Although it seems like it is too far out to begin thinking about it, what better way to celebrate another successful year in the section than having our annual Party Night at Great American Ball Park on Friday, May 25. The (division leading?) Reds will be hosting the Colorado Rockies with a fireworks show to follow the game. Unlike in years past, but hopefully to become a tradition, this year's party night will be dedicated to our recently announced 2011 ACS Fellows, Bruce Ault, Joe Caruso and Diane Schmidt, three members who have contributed greatly to our science, our profession and our section. Please join us at Great American Ball Park to celebrate their achievements with us.

Unfortunately, the news in the section is not always great. Dr. John Warner, the anticipated speaker for the April Educational

Awards meeting at NKU, has unfortunately had to cancel his appearance. While it is hoped that he can be arranged for a meeting in the future, I wanted to make you aware of this schedule change as soon as possible. In the meantime, I am pleased to announce that Professor Al Conklin of Wilmington has agreed at this late notice to speak at this meeting, where he will entertain us with interesting chemistry demonstrations. Given that this meeting will be attended by local high school and elementary students, I expect this to be an enjoyable and educational night. Speaking of which, the deadline for Teacher of the Year Nominations has been extended. Please check out the details within for the nominating process and if you know of any deserving educators, please get that info to Lynn Hogue as soon as possible.

In conclusion, we have a couple of busy months ahead of us. Hopefully you can attend some, if not all, of the events we have planned. As always, if you have any suggestions/comments for the board, or wish to become more involved in the section, please let me know. See you soon.

Regards,
Rick Mullins
Chair
ACS Cincinnati Section
mullinsr@xavier.edu

WANTED: ACS Cincinnati Webmaster

The Cincinnati local section of the American Chemical Society is looking for a volunteer who is willing to serve as webmaster for the section.

The duties of the webmaster include updating the website, administering the meeting registration system, and sending announcement emails to the section.

If you are interested in serving as the webmaster, please send an email to webmaster@acscincinnati.org.

The Kitchen Chemistry Sessions: Molecular Cuisine to make Science palatable

Subha R. Das

Assistant Professor, Department of Chemistry, Carnegie Mellon University

The ability to alter and customize the texture and appearance of food and edible ingredients has long been possible through advances in food science and technology. Molecular cuisine or the popular misnomer, ‘molecular gastronomy’ that has burgeoned in recent years, is the adoption of ingredients, techniques and equipment typically used in scientific laboratories. These high impact foods and recipes provide a unique opportunity to use the known science of food to engage and teach basic principles and advanced topics in chemistry and biochemistry. The Kitchen Chemistry Sessions is a lecture and laboratory course that uses specific contemporary ‘molecular cuisine’ elements to highlight how scientific principles permeate students’ everyday life and to enhance students’ knowledge of chemistry and the scientific method. The food context provides a motivating opportunity that directs and sustains learning, as students are motivated to learn when they see the usefulness and relevance of what they are learning. Teaching through the real-world context of cooking permits one to apply chemistry and biochemistry to adapt and develop novel recipes and food presentations.



Subha R. Das completed his PhD at Auburn University on the synthesis of nucleosides as antiviral agents. Then, as a Howard Hughes Medical Institute postdoctoral research fellow at the University of Chicago, he examined the molecular mechanisms of RNA based enzymes. Over the years, the long hours spent on research and a deep dissatisfaction with cardboard offerings that passed as pizza in the trenches of academia, led him to hone his subsistence skills to maximize flavor in minimal time. Drawing on this and advances in molecular gastronomy, Das created The Kitchen Chemistry Sessions - courses to teach chemistry through the real-world context of food, cooking and molecular cuisine. Besides his courses, Das has organized workshops on molecular cuisine for students in grades four through twelve. Das and his students’ exhibition “Taste of Chemistry” was recently invited to the Geek Art/Green Innovators Festival in Pittsburgh. An assistant professor in the Department Of Chemistry at Carnegie Mellon University, Das’s research interests lie in the chemistry of nucleic acids and their applications to biochemistry and nanobiotechnology. His educational goals include communicating and advancing science, particularly chemistry, by making it palatable to a broader audience.

<http://www.chem.cmu.edu/faculty/das.html>



2011 ACS FELLOWS-THREE CINCINNATI SECTION MEMBERS SELECTED

Dr. Diane Grob Schmidt-Procter & Gamble, Dr. Bruce Ault-UC and Dr. Joseph Caruso-UC were inducted into the 2011 class of Fellows of the American Chemical Society [ACS] the world's largest scientific society.

Congratulations to Diane, Bruce and Joe!!! You bring honor and distinction to our profession and the Cincinnati Section.

All three 2011 ACS Fellows are past Cincinnati Section Chairs. Additionally, Dr. Schmidt served on the national ACS Board of Directors 2002-2010.

All 2011 ACS Fellows were honored for their outstanding accomplishments in chemistry and important contributions to ACS. The official list of inductees was published in the August 2011 issue of Chemical & Engineering News (C&EN) and a special ceremony was held during the ACS National Meeting in Denver in August 2011.

The Fellows Program began in 2009 to recognize and honor ACS members for their outstanding achievements in and contributions to science, the profession and the Society. The ACS Fellows Class of 2011 has representatives from academia, industry and government.



Cincinnati ACS @Cincinnati_ACS

Call for Nominations: Teacher of the Year Awards – DEADLINE EXTENDED

Each year the Cincinnati section of the American Chemical Society (ACS) recognizes outstanding area educators by giving awards in the following categories:

High School Chemistry Teacher of the Year

Middle School/Junior High School Science Teacher of the Year

Elementary School Science Teacher of the year.

Nominations should include the teacher's CV and at least one letter of nomination (ideally from the school principal), indicating why the individual exemplifies excellence in Chemistry Education (for High School) or Science for Middle or Elementary School.

If you know a teacher who has made a difference in students' lives through excellent, innovative teaching methods, encouraging students to pursue science, and dedication to their profession, please encourage them to apply. You can also help to find good candidates by forwarding this information to the principal of your children's school and encouraging them to nominate one of their teachers. Nominations are **due by Monday, March 5, 2012.**

Nomination materials should be sent to:

Lynn Hogue

HogueLM@muohio.edu

or

Lynn Hogue

9076 Arrowhead Ct.

Cincinnati, OH 45231

Electronic submission is strongly encouraged

**Robertson Microlit Laboratories**

Where speed and accuracy are elemental™

Elemental CHN, S, X, Analysis (*same day service*)

Metals by ICP-OES, ICP-MS, AA/AE

FTIR, UV/VIS Spectrometry

TGA, DSC, Melting Point/Range

Bioavailability

Polarimetry

Ion Chromatography, HPLC

KF Aquametry, Titrimetry

1705 US Highway 46 • Suite 1D • Ledgewood, NJ 07852 • 973.966.6668 • F 973.966.0136

www.robertson-microlit.com • email: results@robertson-microlit.com

Additional services available... Please call for information

Rapid Results • Quality • Accuracy • Competitive Pricing



2011 NATIONAL CHEMISTRY WEEK

As a part of National Chemistry Week that was held in October 2011, the local Cincinnati Section of the American Chemical Society sponsors a poster contest for local students to express their creativity and artistic ability while focusing on a chemistry theme. This year the contest was expanded to also include a poem based on the theme "Chemistry – Our Health, Our Future." The poem was 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-2nd grade, 3rd-5th grade, 6th-8th grade, and 9th-12th grade) for the section. Unfortunately, there were no entries for the K-2nd grade category. The winners are as follows:

Category	3 rd – 5 th grade	6 th -8 th grade	9 th - 12 th grade
1 st Place Winners	Jordynn Jenkins	Kes Kindle	John Ernst
Grade	4 th	8 th	10 th
Represented School	CHCA Armleder	CHCA Armleder	New Richmond High Sch.
Teacher	Catherine Cepass	Dwayne Dubois	Laura Prescott
Location	Cincinnati, OH	Cincinnati, OH	New Richmond, 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 18, 2011, at the Northern Kentucky University. Their teacher will need to email jheimkreiter@petercremerna.com with their contact information and to obtain further details.

The section also submitted the winning posters to the National ACS poster contest in Washington, DC. The national winners are now listed on the national ACS website.

We would also like to recognize selected poems for honorable mention from Archbishop McNicholas High School in Cincinnati, Ohio. They will receive a certificate in the mail to their respective school in April 2011. The students are:

- Scott Frenzel, 10th grade
- Lauren Scott, 11th grade
- Alley Dombach, 10th grade

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
Contest Committee Chair



* GPC/SEC Analysis
 * GPC/SEC Polymer Standards
 * GPC/SEC Columns * Waters™ 150C Parts
 * WISP 710/712 Parts

Request your free catalog online

www.ampolymer.com
 American Polymer Standards Corporation
 8680 Tyler Blvd., Mentor, OH 44060

Phone: 440-255-2211 Fax: 440-255-8397



Overview of the Patent Process: Filing the Application

It would seem that the filing of a patent application should be easy -- simply send it (electronically) to the US Patent Office. But like most things in life, there is more than one way to do it. In this case it is beneficial to have several options because one or another may be better for your particular situation. This article will cover several methods of filing patent applications.

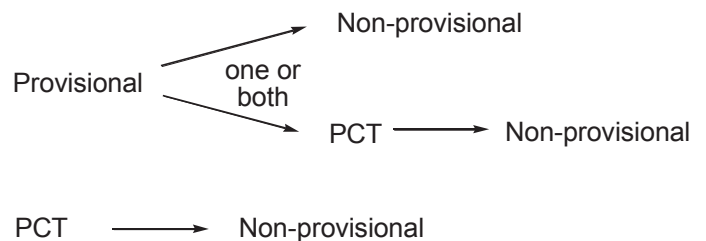
A non-provisional patent application is what most people think of when they think of a patent application. It is the application that is examined by the US Patent Office and may become a granted patent.

A second type is the provisional application, which acts as a placeholder. It expires after 12 months, before which the inventor may file a non-provisional application. The date the provisional application was filed may count as the filing date for the non-provisional application if it contains enough information to support what was filed in the non-provisional application. The benefits of a provisional are that it is cheaper, has fewer formal requirements than a non-provisional, is not published, and provides a delay to allow evaluation of the marketplace. The disadvantage is that the term that the patent is enforceable is typically shorter because it takes longer to obtain a granted patent. A patent is generally enforceable until 20 years from the date it was first filed. Because a provisional is not examined, the invention will not be protected until after a non-provisional has been filed and granted. The provisional application is simply an additional step in the process, which delays the date when patent is granted.

A third type is the PCT application, which is like a provisional application. It acts as a placeholder for filing a patent application in almost every country in the world, and like the provisional application is not examined. It must be filed within 12 months of the date the first application was filed and expires 30 months after the date the first application was filed. It will be published 18 months after the date the first application was filed. In addition a search will also be performed and an opinion will be published that discusses the patentability of the invention. A non-provisional application must be filed before the PCT expires in order to obtain a patent.

Foreign applications may also be filed. A separate application is required in each country where patent protection is desired. Foreign applications should be filed in each country within 12 months of the date of the first US application, or before the PCT expires.

There are many paths to filing the non-provisional patent application. The diagram below shows many of the options.



Scott Conley, PhD, JD, is a patent attorney at Frost Brown Todd in Cincinnati. He is an inventor on 10 U.S. patents and numerous applications. Scott can be reached at srconley@fbtlaw.com or (513) 651-6818.

YOU'RE INVITED...

...to join your colleagues at the **Lloyd Library and Museum (LLM)** on **Saturday, April 7, 4–7 pm.** for an hors d'oeuvres and wine reception celebrating the opening of the Cincinnati Chapter of the American Chemical Society (ACS) archives. From 4:30–5pm., there will be welcoming and introductory remarks by Rick Mullins and LLM staff members. After five o'clock there will be opportunities to take tours of the library, including an opportunity to see your collection of archives shelved on LLM's newly installed compact shelving, view LLM's exhibits, and network with your colleagues, as well as the LLM staff. The current book and art exhibit is *Turning Up the Heat this Winter: Peppers in Image and Word*, which features many books and information on the medicinal value of peppers, as well as artwork on loan from renowned pepper expert, W. Hardy Eshbaugh, Professor Emeritus, Department of Botany, Miami University. There are also permanent exhibits on the Lloyd Brothers as well as George Rieveschl, Jr. from his archival collection held by LLM. In addition, LLM will have a small display available of selections from the ACS collection.

Bring friends and family to LLM's celebration of ACS; and, don't forget to tell your colleagues who may be interested. We hope to see a "full house" at the Lloyd on **Saturday, April 7, 4–7 pm.**

 <p>Shepherd <i>The Shepherd Color Company</i> We Brighten Lives</p>	<h2>Lasting Color for a Demanding World</h2>
<p>4539 Dues Drive Cincinnati, Ohio USA Tel: 1-513-874-0714 Fax: 1-513-874-5061 salesusa@shepherdcolor.com www.shepherdcolor.com</p>	  

Cincinnati Section is on Facebook

The new Facebook page for the Cincinnati Section of the ACS is up and running. As mentioned in the previous issue, this site will be used for sharing accomplishments and networking amongst the membership. For example, you can check out pictures from recent meetings on the site. If you are already on Facebook, find the section page, “like” us and recommend us to your colleagues and friends. If you have something you would like to share (a recent publication, funded grant, promotion, birth, wedding, etc...), email the section chair, Rick Mullins, at mullinsr@xavier.edu and this page will be used to share these important happenings in the lives of section members. Additionally, you can follow us on Twitter for similar announcements (@Cincinnati_ACS). The section will continue to maintain the website (<http://www.ascincinnati.org>) for major announcements, including upcoming meetings.



micron inc
ANALYTICAL SERVICES
MATERIALS CHARACTERIZATION
MORPHOLOGY - CHEMISTRY - STRUCTURE
3815 LANCASTER PIKE WILMINGTON DE. 19805
Voice 302-998-1184, Fax 302-998-1836
E Mail micronanalytical@compuserve.com
WEB PAGE : WWW.MICRONANALYTICAL.COM

Kinetica, Inc.

ISO 17025 Certified Thermoanalytical Testing Services for the Chemical Process Industry

**Kinetica provides testing and consulting services
for process safety and process development**

- Accelerating Rate Calorimetry
- Bomb Calorimetry
- Differential Scanning Calorimetry
- Solution Calorimetry
- Explosives and Pyrotechnics Analysis
- Large-scale SADT Testing
- Litigation Support

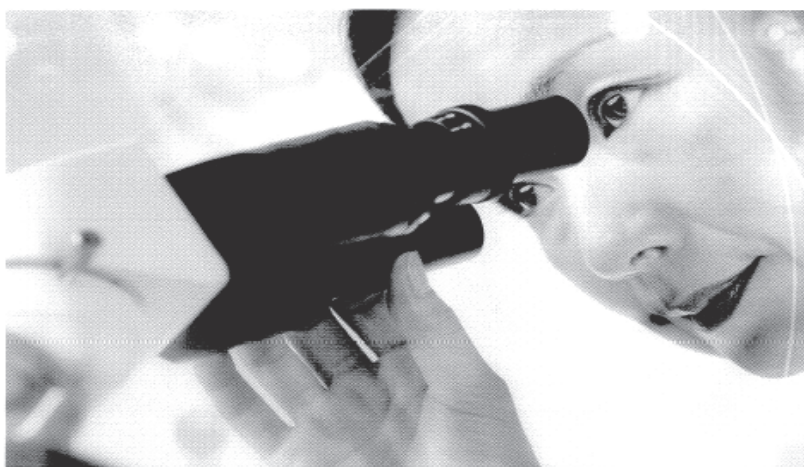
9560 North Dixie Highway • Franklin OH 45005 • Telephone: 937-743-3082 • Fax: 937-743-3652
www.thermochemistry.com

ADVANCED TESTING LABORATORY

- ▶ MICROBIOLOGY
- ▶ CHEMISTRY
- ▶ ON-SITE LAB SERVICES
- ▶ PROFESSIONAL SERVICES

6954 Cornell Road | Suite 200
Cincinnati, OH 45242
513.489.8447
513.489.9291 fax
ClientRelations@AdvancedTesting.net

VISIT
www.AdvancedTesting.net



**THE SCIENCE OF TESTING
THE ART OF SERVING**

American Chemical Society – Cincinnati Section

Xavier University
Department of Chemistry
3800 Victory Parkway
Cincinnati, Ohio 45207

**Non-Profit Org.
U.S. Postage
Paid
Cincinnati, Ohio
Permit #517**