



The Chemical Consultant

Association of Consulting Chemists and Chemical Engineers, Inc.

Scientific, Engineering, Business & Management Consultants

Volume 29, No. 1

February—March 2017

FUTURE MEETINGS

None Scheduled

(Watch for email notifications of on-line and live meetings)

ACC&CE Officers

David M. Manuta,
President

dmanuta@dmanuta.com

Tom Borne, Vice-President

tslbrn@verizon.net

VACANT, Secretary

J. Stephen Duerr, Treasurer

chemlabconsulting@gmail.com

Joseph V. Porcelli,
Past President

jvpjii@jvporcelli.com

Charles Leonard,
Webmaster

charlie@cleonard.net

ABOUT THE ASSOCIATION

The Association of Consulting Chemists & Chemical Engineers (ACC&CE) is a network of senior-level consultants with a broad range of functional expertise and many years of experience in the chemical and allied industries.

The purposes of the organization are:

To offer prospective clients a “clearing house” which they can use to find the most qualified consultants or team of consultants whatever their particular problem may be.

To furnish support to its members as they conduct their consulting practices.

This newsletter is intended to support those purposes as well as to educate prospective new members and prospective client organizations about ACC&CE, and how we can be most helpful to them.

The ACC&CE has an interactive web site – www.chemconsult.org, that allows prospective clients either to input their problem or to search for those consultants most skilled in their area of concern.

IN THIS ISSUE

This newsletter begins as usual with a letter from the President, David Manuta, which appears on page 2. On page 3 is a message from your editor and on pages 4 and 5 are an obituary announcing the passing of John Bonacci and comments from some of our members regarding John’s contributions to ACC&CE.

On page 8, there are listing and some description of our newest three members. On pages 10 through 12 is an interesting article written by a one of our newer members, Anne-Marie Rossmeisl, about radioactive isotopes of Iodine, and how this led to the formation of her consulting practice.

I am always interested in comments and articles from our members. Please send them to: jvpjii@jvporcelli.com.

LETTER FROM THE PRESIDENT

Dr. David M. Manuta, (Certificate #882), President of ACC&CE

The 2017 Chem Show is scheduled from Tuesday (10/31/17) through Thursday (11/2/17) at the Javits Convention Center in New York City. The first Chem Show was held in 1915, so this is a well-established platform for those in the Chemical Process Industries to market their products. The Chem Show is held in odd numbered years, so the previous meeting was in 2015 (the 100th year) and the one after the current gathering will be held in 2019.

ACC&CE is one of the Chem Show's six (6) endorsing organizations. The other five (5) endorsing organizations are: The Society of Chemical Manufacturers and Affiliates (SOCMA), The Hydraulic Institute (HI), The Fluid Sealing Association (FSA), The Fluid Controls Institute (FSI), and The Measurement Control and Automation Association (MCAA). All of us bring our unique expertise to the table, enabling a synergy that truly sets the Chem Show apart from other like exhibitions.

Our late Executive Director, John Bonacci, Ph.D., PE involved the ACC&CE in the Chem Show seminar program. Several of us in the ACC&CE have previously presented examples of completed projects that align well with the interests of the Chem Show's attendees at earlier events. The plan is to do so again in 2017. It would be great to have at least five (5) or six (6) of us commit to sharing twenty (20) to thirty (30) minutes of our experience/wisdom with Chem Show attendees in the seminar program.

Please let me know of your interest in participating in the Chem Show seminar program. The actual topic for your seminar presentation can come later. My immediate interest is that we are able to fill our allotted time with high quality presentations that align well with the interests of the Chem Show's attendees.

The Chem Show seminar program is also an opportunity to market our consultancies to others (who can be key decision makers). The audience typically has colleagues in it who are considering becoming independent consultants as well as colleagues who have process problems that they want to solve. The questions posed are often challenging and are indicative of an effort to get something done. It is the opportunity to connect with these colleagues that makes the seminar program an exciting time for everyone present.

As a native New Yorker [who escaped over forty (40) years ago], I still feel "the energy" associated with the Big Apple at the Chem Show. When I enter the Javits Convention Center, I also walk through the exhibition hall. Just like being a boy in the proverbial candy store, I am fascinated by the rapid development of new and improved products in the chemical process industry space. Being creative and earning a few dollars through the application of fundamental technology is an interest to mine in growing my consultancy.

We'll also have a booth at the Chem Show. Chatting with attendees at the ACC&CE Booth is another way to market our consultancies. While attendees will tell us that they learn from us, we also learn from them.

When taken in its totality, there is a reason why the Chem Show has been successful for more than 100 years. If you are going to be in NYC over Halloween (and especially if you'll be presenting a seminar), I look forward to seeing you at the Javits Convention Center for the Chem Show. Thanks for reading!

LETTER FROM THE EDITOR

Dr. Joseph V. Porcelli (Certificate #906)

This issue of the Newsletter is intended to be distributed by the end of March, for a number of reasons. The previous issue emerged almost a month late due to my personal time constraints. Moreover, in my rush, I failed to post business card advertisements from two members as well as an article from one of those members.

A second motivation for this issue is the desire to get onto a four-per-year schedule, as requested by some members. Of course, this accelerated schedule will increase the urgency of my receiving articles and other postings from our membership on a timely basis.

Unfortunately, a long-time, very active member, Dr. John Bonacci (Certificate #821) passed away on February 20th, so I am inserting excerpts from the obituary and some comments from some of our other members who had interactions with John through the years.

I knew John years before I joined the Association, and we shared many colleagues from his time at Engelhard. John is the one who introduced me to ACC&CE, sending me newsletters and eventually inviting me to come to a meeting. (when he knew that I had retired from my corporate job and was starting my own consulting practice).

I interacted with John as consulting colleagues, and working in the effort to keep ACC&CE afloat. Finally, when we saw that we had to greatly reduce our fees to encourage members to stay in, John was the only volunteer to become Executive Director of the Association, when we had cut our last paid employee, our Executive Secretary, Linda Townsend. John was plagued by illness these last few years, with repeated stays at the hospital, and finally passed away after being very sick the last few months.

I will miss him.

Your editor,

Joe Porcelli

The Members of the Association of Consulting Chemists and Chemical Engineers, Inc. Mourn the Passing of Dr. John Bonacci (Certificate #843)



Dr. John Carl Bonacci, 81, of Murray Hill, NJ passed away with his family by his side on February 20, 2017.

John was born and raised in Utica, NY and has resided in Murray Hill for over 40 years. He was a 1953 graduate of Proctor High School in Utica, NY, after which he went on to receive his Bachelors of Science Degree and Masters of Science Degree in chemical engineering from Clarkson University. He also received a Ph.D in Chemical Engineering from the University of Pennsylvania. He was a registered professional engineer in New York State and a United States Patent Agent.

Over a 42-year industrial career, John was awarded 101 patents in the U.S. and 18 countries internationally. He held numerous research and development positions with the U.S. Air Force Research Center, DuPont Chemical Corporation, Mobil Oil, and the Engelhard Corporation, where he held high-level executive positions, including vice president and general manager of worldwide research.

John is the beloved husband of 59 years of Annette (nee Masella) and the loving father of Carla Jean Bonacci (husband Robert McNamara) and JoAnne Marie Bonacci (husband D.J. Cameron, II).

Some Comments from John Bonacci's Colleagues at ACC&CE

From David M Manuta: John championed what is good about working together with colleagues in chemistry, chemical engineering, and (in general) the process industries. To work as a Patent Agent requires deep technical knowledge and a great deal of patience to work with career federal government personnel. These career federal government personnel often have a very limited understanding of the important engineering/science at the heart of the patent, so John's work in this space was essential in ensuring that the technology developers could protect their intellectual property.

The Chem Show was an ideal venue to showcase the world that John resided in. I've got enormous shoes to fill in making sure that we maintain what John had built. Likewise, we have all found out how much work John did as Executive Director. It has taken the collective efforts of all of us to take on the roles that John had handled seamlessly/smoothly.

Per the obituary, he was a successful engineer and businessman. His work is inspiring and it goes without saying that John's enormous contributions to ACC&CE will be missed.

From Steve Duerr: As part-time Executive Director, John was instrumental in the orderly transition from fulltime Executive Secretary to the current virtual office for ACC&CE. He handled everything about ACC&CE including CHIs, dues collections, restaurant meetings, and biennial Chem Show. As volunteers took over the various responsibilities, he made sure that we all knew what we were supposed to be doing. His interest and guidance will be missed.

From Richard Goodman: John Bonacci was my friend and colleague. More than almost anyone else he is the reason I became active in ACC&CE. He was a fine man, gentle in spirit and firm in his ideas. He motivated me to be active at the Chem Show and was the reason I came from DC the last two shows to present and man the booth. He provided a major contribution to saving ACC&CE. He will be missed.

From Bernie Ennis: It would be worth noting his certification as a Patent Examiner by the United States Patent and Trademark Office. Also the memorable BBQ parties he hosted for ACC&CE with his lovely wife Annette.

From Kamesh Upadrashta: Very sad news. A nice gentleman, a brilliant chemical engineer, and an effective mentor. Per Hindu philosophy – 'Soul' has no death; it only changes its body just like the body changes worn-out clothes.

May his Soul rest in peace. May GOD bless his family with the strength to bear their irreparable loss.

From Linda Townsend: John Bonacci was dedicated to ACC&CE. He was always willing to volunteer his time whenever the Association needed assistance.

From Girish Malhotra: Extremely sorry to hear passing of John Bonacci. Please convey our condolences to his family. I will inform Clarkson University about his passing.



AM Rossmeisl Consulting

Anne-Marie Rossmeisl
Consulting Chemist

19 Nashua Road
Pelham, New Hampshire 03076
USA

1-603-560-9689 (cell) or 1-603-635-8432 (home)

Twitter: @amrchemconsult

E-mail: amrossmeisl@gmail.com

<http://amrossmeisl.wix.com/amrossmeislconsult>



*Consulting, Development, & Testing
of Adhesives and Specialty Coatings.*

www.chemsultants.com



Dr. David M. Manuta, FAIC, President
Fire Investigations/Litigation Support

Mission Statement: The application
of Fundamental Chemical Principles
to solve problems.

Phone: 740-947-7998
Fax: 740-947-1565
Cell: 740-352-2991
email: mc2@dmanuta.com
http://www.dmanuta.com

Vision Statement:
To solve problems that
aren't in any book.

431 Gordon Avenue
Waverly, Ohio 45690-1208



J. Stephen Duerr, Ph.D., P.E., CPC
Consulting Metallurgist/Chemist
chemlabconsulting, LLC
514 Corrigan Way, Cary, NC 27519
908-500-9333

chemlabconsulting@gmail.com
www.chemlabconsulting.com

SCHAUER ASSOCIATES

Dr. Richard L. Schauer
Regulatory Consultant

P.O. Box 398, 1211 Dexter Corner Road
Townsend, DE 19734

Phone: (732) 586-5678

Fax: (302) 449-6012

E-mail: rschauer@schauerassociates.com

CONHC₆H₁₀CH₂C₆H₁₀NHCOOCH₂CH₂CH₂

O

CH₂

CH₂

CH₂

CH₂

O

CH₂

CH₂

Catherine A. Byrne, Ph.D.
Consulting Polymer Chemist
Belmont Polymer Associates, LLC
10 Homer Road
Belmont, MA 02478-2311
tel (617)484-1797

cbyrne@belmontpolymerassociates.com

NEW MEMBER INFORMATION

John E. Pace, PE (#967)
Chemical Process Solutions PLLC
412 Bethel Road
Parkersburg, WV 26101
(304) 834-8832
john.pace.1@outlook.com

Consulting for the chemicals and plastics industries in the fields of chemical process engineering, process development and commercialization, design for process safety, and process engineering education. PE licenses in West Virginia and Michigan. Other state licenses can be obtained in a timely manner, as needed, through comity with a current NCEES record.

Scope of work: Consulting in process conceptualization, process development, process/design engineering, chemical process engineering education, piloting, scale-up, design for process safety, process modeling, optimization, trouble-shooting, debottlenecking, incident investigations, licensing, and process economics evaluations

Thomas Stephen Snyder, PhD (#968)
Snyder and Associates
214 Briarcliff Avenue
Oak Ridge, TN 37830
(865) 481-6064
Thomas.S.Snyder.pgh@gmail.com

Polly Berseth, PhD (#969)
Berseth Chemical Consulting, LLC
2243 Valencia Street #3
Bellingham, WA 98229
(360) 318-4448
bersethcc@gmail.com
<https://bersethcc.com>

We provide solutions to your chemistry challenges. Dr. Berseth has sixteen years of experience working with a combination of thin films, coatings, solid state chemistry and materials characterization. We have experience managing projects and designing materials tests including mixed mode wear testing, UV weathering, and coating performance test method development. From many years of running an instrument center we have a deep knowledge of materials characterization and can provide testing plans and expert data interpretation.

Professional Liability Insurance for Chemical Consultants



As a chemical consultant, can you afford a \$65,000 lawsuit? That is the average cost of defending yourself for a single professional liability claim. Even if a claim is false or fraudulent, the related time and costs can be devastating to a private practice. You deserve peace of mind.

The ACS endorsed Professional Liability Program covers your defense costs, liability settlements, and includes unique coverage enhancements such as:

- ✓ Dedicated Claims Counsel
- ✓ Risk Management Tools
- ✓ Worldwide Coverage
- ✓ Competitive Group Pricing
- ✓ Part-Time Option
- ✓ Premium Financing

Whether you are working full-time, consulting independently or a business owner, comprehensive protection is available to you at a competitive price.

To learn more call us at 888-437-7008 or visit us online at :
<https://acs-aiche.haysaffinity.com>.

CRDR CONSULTING, INC.

Consultation Services for Research, Development and the Regulation of **Cosmetics**

All Regulatory Aspects—Ingredient Listings—Label Copy
Documentation Preparation, Foreign and Domestic, including S.O.P.'s, MSDS
Formula & Process Development—Vendor Relations—Trouble Shooting
Internal Lab Procedures—QC Procedures—Patent Development

“Have the advantage over your vendors!”

Thomas J. Vichroski, SCC, ACS, ACCCE, RAPS

P.O. Box 2861
Tel. (631) 271-5194

Huntington Station, NY 11746-0686
Fax (631) 271-5195

Email: CRDRConsulting@verizon.net

Consideration for $^{125}\text{I}/^{131}\text{I}$ Labeled Compounds for Research Purposes (or Why I Decided to Start a Consulting Business)

Anne-Marie Rossmeisl, AM Rossmeisl Consulting, Certificate #962

Labeling of compounds with the radioactive isotopes of iodine have been in existence for quite some time; however, it seems that in recent years the need for such compounds in pharmaceutical or industrial settings has declined due to the emergence of other types of tracer compounds such as fluorescent amalgamates. This is due in part by pharmaceutical companies/research facilities to decrease their radioactive waste and/or radiation exposure of their employees. Disposing of radioactive waste can be costly and radiation exposure and contamination has its safety concerns.

However, labeling of proteins, peptides, and other molecules with molecular structures conducive for reacting well with ^{125}I or ^{131}I , still has a place in the research and development world of the pharmaceutical industry. These iodinated compounds are still the best means of progressing with research projects whether it's for radioimmunoassay (RIA's) or receptor binding assays. They are also very useful for detection, localization and quantitation purposes as well as in determining the pharmacokinetics of newly developed drugs. Researchers looking to have radiolabeled compounds as part of their research project will either purchase products from reputable biotechnology companies specializing in such radiological substances or utilize a Custom Synthesis Service. However, some of these products and services can be quite costly.

The researchers, however, still need these compounds, so they sometimes resort to doing the radioiodination procedures themselves. Graduate students also fall into this group seeing as they sometimes need radiolabeled compounds for their thesis work. Some of these situations are a one-time need but very vital to the work at hand. How many graduate students or scientists have searched for the following three journal articles: **W.M. Hunter and F.C. Greenwood, *Nature*, 194, 495 (1962); F.C. Greenwood, W.M. Hunter and J.S. Glover, *Biochem. J.*, 89, 114 (1963) and A.E. Bolton and W.M. Hunter, *Biochem. J.*, 133, 529 (1973)** in order to gain insight into radioiodination techniques? These are some of the gold to reference these articles all the time during my career at DuPont. Ergo, this is the main reason I decided to start my chemistry consulting business. I feel that there is a definite need for my kind of expertise in this area of chemistry.

(Continued on next page)

Consideration for $^{125}\text{I}/^{131}\text{I}$ Labeled Compounds for Research Purposes (Continued)

I worked in the Iodination Department of E.I. DuPont for fourteen years. I contributed to their regular product line but I mainly worked in the Custom Synthesis section. I have much experience in labeling compounds with the isotopes of iodine and the purification methods needed to obtain a pure product. I also know how to proceed when handling radioactive materials. Because of this, I can offer advice and guidance for reaction mechanics to purification parameters as well as radiation safety. Deciding what reaction method (Chloramine-T, Lactoperoxidase, Bolton-Hunter Reagent, etc...) and/or purification conditions (HPLC, open column, etc...) to use for a particular compound comes from experience and knowledge in this area of chemistry. I can offer this advice in order to guide scientists/graduate students through the process. I feel that I would offer a vital service for their work. As far as radiation safety is concerned, I could also inform them how to handle themselves properly and what equipment and lab environment would be needed. In any of these cases (reaction mechanics, HPLC parameters, radiation safety regulations etc...), sometimes all is needed is a little SOP authoring or advice to achieve the yield and results for a particular project. I would think it would be so frustrating on the part of a researcher or student to have to commit and focus solely on trying to desperately achieve a pure iodinated product while they could be focusing on other parts of their project. I could offer advice and guidance so they could procure the iodinated substance needed and move on with their goals and objectives of the project at hand and no precious time would be wasted.

The expertise I would offer to potential clients could be very involved and complicated or very simple advice to clear-up a dilemma in their radioiodination process. Some of the criteria to consider when labeling compounds with the isotopes of iodine include but are not limited to:

- Handling/disposal of radioactive substances and radiation protection
- Stability of radioactive isotopes and labeled compounds
- Reaction mechanics and HPLC (or other purification methods) parameters
- Quality Control testing in order to determine product purity and stability
- Formulation of final product (i.e. frozen, liquid, lyophilized)
- Storage conditions of final product, (i.e. 4°C, -20°C, -80°C, Ambient)
- Troubleshooting and ongoing support to insure stable shelf-life
- Procuring ^{125}I and ^{131}I isotopes
- Determining specific activity
- Radiological decomposition

(Continued on next page)

Consideration for $^{125}\text{I}/^{131}\text{I}$ Labeled Compounds for Research Purposes (Continued)

Sometimes it is determined that a particular molecule is not conducive to labeling with radioactive iodine. It could be that the optimum site to label is also the active site for the receptor and thus could inhibit receptor binding. Some compounds just inherently give low yields so this must be considered as well.

Quality control (Q.C.) of radioiodinated compounds is a vital component to this entire process. The ultimate goal is to achieve a substantial yield and adequate purity in order for the product to be useful in assays. During the iodination reaction, oxidation occurs which can in turn affect the final product. Consideration must be taken to separate any impurities so as not to affect any receptor binding or stability.

These criteria and considerations concerning radioiodinated products which I have mentioned are areas that I can provide consultation on in order for a client to achieve their goals. I feel that it is a unique area of chemistry yet one that is vital for researchers to perform experiments from receptor binding assays to clinical trials.

In conclusion, I believe that the radiolabeling of compounds with ^{125}I and ^{131}I still has a significant place in chemistry. For those researchers and scientists who need assistance in performing such methods, I can offer a consulting service which would aide in eliminating any obstacles they might face.

I have always believed that scientists should work as a team and approach finding answers in chemistry, biology, physics, etc... together and not perceive each other as competition. Accepting assistance from fellow scientists can help all of us achieve success in our chosen fields of study and careers.

AM Rossmeisl Consulting can be a team player for clients searching for expertise and advice in radioiodination techniques.

Anne-Marie Rossmeisl
AM Rossmeisl Consulting
Certificate #962

JVP

INTERNATIONAL, INC.

DR. JOSEPH V. PORCELLI

Chemical and Allied Industry Consultant

Catalyst and Process Technology Evaluation

Commercialization Advice

Expert Witness and Litigation Support

Phone (917) 912-9804 Email jvpil@jvporcelli.com

www.jvporcelli.com

FORRESTAL CONSULTANTS INTERNATIONAL

www.forrestalconsultants.com

FORRESTAL CONSULTANTS LLC

Princeton Forrestal Village
116 Village Boulevard, Suite 200
Princeton, New Jersey 08540-5799
(609) 951-2285
Facsimile: (609) 371-9247
info@forrestalconsultants.com

Alfred A. Sagarese, PE
President

Princeton . Los Angeles . Boston . Sao Paulo . Geneva . London . Mumbai . Tokyo

WETZEL CHEMISTRY CONSULTING, LLC

**CHEMISTRY LEADERSHIP FOR
DRUG DISCOVERY AND DEVELOPMENT**

ORGANIC | MEDICINAL | ANALYTICAL

Compound design, synthesis and evaluation

Intellectual property protection

Chemistry, Manufacturing & Controls management

Due diligence

Infrastructure design and implementation

Litigation consulting

WWW.WETZELCONSULTING.COM

Take an Opportunity to Advertise your Business or your Company in this Newsletter

This newsletter issues three times and for special situations, four times a year, and advertising is sold on an annual basis, with ads appearing in each issue. Advertising is open to all members, and nonmember ads will be considered on a case-by-case basis. The price list for advertising is as follows:

Business Card Size (2.0 x 3.5 inches)	\$50/year
Larger Size (3.0 x 5.0 inches) -	\$90/year
Half-page—	\$250/year
Custom size and features—	pricing upon request

To discuss advertising with us, please contact --

Steve Duerr — chemlabconsulting@gmail.com

Joe Porcelli — jvpil@jvporcelli.com

THE CHEMICAL CONSULTANT

A publication of the
Association of Consulting Chemists and Chemical Engineers
c/o J. STEPHEN Duerr, Ph.D., P.E., CPC
ACC&CE Treasurer
514 Corrigan Way, Cary, NC 27519, USA
Phone—(908) 500-9333
accce@chemconsult.org
www.chemconsult.org

Opinions expressed herein are not necessarily those of ACC&CE.