

THE WAVE



The newsletter publication of the International Microwave Power Institute

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IMPI Symposium Serves as Catalyst for Job Opportunity

IMPI Member, Sumeet Dhawan, has had a busy summer. After graduating with a PhD in Biological and Agricultural Engineering, he has been hired as a Microwave Technology Specialist with Nestle.

Dhawan, who joined IMPI as a student member in June of 2011, studied under Past IMPI President, and newly appointed Fellow, Dr. Juming Tang at Washington State University. Tang has been a huge supporter of IMPI and its Symposia, bringing several students with him to present their research each year.

“Students who attended the IMPI meetings came back with very positive comments,” said Tang. “They enjoyed the person to person interactions and the chance to talk to leading experts, which would not be possible do in other much larger conferences such as IFT Annual meetings in which people are busy running around attending multiple sessions. The students really enjoyed the attention that they got at the IMPI meetings. The subjects covered by IMPI sessions are very well focused with depths, and audience includes world experts in microwave fields. The feedback the students received for their oral and poster presentations are very helpful for their future work. They realize that they can not find in any other meeting so many true experts in the field of microwave heating for both domestic and industrial applications. Students at recent IMPI meetings were very happy about the friendly environment the meeting organizers and participants provided.”

For Dhawan, it was the 45th Annual IMPI Symposium (June 2011 in New Orleans) that provided him the perfect opportunity to meet his would-be-employer. Dhawan was presenting his research on migration in packaging materials for microwave sterilization. “I used to be advised by my all my Professors and senior colleagues that networking is possibly the most important thing for a good career. I used to always wonder if that was actually true until I started attending scientific meetings and conferences,” said Dhawan.

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Letter from the President

by Bob Schiffmann

IMPI 47 is now history; the Institute’s 47th Annual Symposium was held in Providence, Rhode Island, June 25-27 and was a fine example of IMPI’s unique qualities. The 72 attendees, representing 15 countries, heard 50 presentations (40 podium and 10 posters) covering topics such as microwave-assisted chemistry, computer modeling, food safety, microwave oven standards and testing, materials processing, and more. Three, well-received, interactive “Ask the Expert” panel-sessions covered the areas:

- General microwave technology;
- Food safety;
- Microwave foods, ovens, packaging and processing.

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Job Opportunity Continued

“(The Symposium) helped me connect to Ulrich Erle, Senior Scientific Adviser at Nestlé R&D, Solon. I inquired with him for an internship opportunity with Nestlé which was fortunately materialized in May 2012,” he said.



From left to right, Ulrich Erle, Sumeet Dhawan and Erich Heinze (all with Nestlé) at this years IMPI Symposium in Providence, Rhode Island.

According to Erle, “From the first moment, I had the impression that (Sumeet) really understood his subject and was also able to explain it well. He expressed interest in an internship at Nestlé, so we exchanged contact information. Later, when we needed an intern for some work in the area of microwaves, I proposed Sumeet. He showed excellent communication skills during the phone interviews and was immediately accepted as an intern. During his internship, he delivered very good results while also working on his personal network. When a vacancy opened up, there was a quick decision to offer the job to Sumeet.”

“Microwave specialists and students specializing in microwaves are hard to find. In the US, the annual IMPI Symposium is obviously the most important event in the field of microwave heating,” says Erle, “It is where students get the attention of microwave professionals and where companies look for new staff members. In addition, the Journal of Microwave Power and Electromagnetic Energy and the IMPI Newsletter offer a forum for scientific and other communication throughout the year.”

Dhawan’s new role at Nestlé has him supporting research on microwave applications in food.

Do you have an idea for a Feature Article in The Wave? Does your company have a job opening you would like to share with the IMPI membership? Email your story or job posting to info@mpi.org.

Letter from the President *cont.*

Our three Keynote presenters were:

Klaus Werner (NXP Semiconductors): “Solid State RF Energy: Facts and Prospects for Transformative Innovations”

Juming Tang (Washington State University) “Industrial Technologies Using RF/Microwave Energy: Challenges and Opportunities”

Gerald M. Goldhaber (Goldhaber Research Associates): “When Are Warnings Appropriate for Selected Foods?”

In an Invited Presentation, Joy Daniel (Appliance Consultant) presented highlights from the 2013 “Consumer Survey Report” (Note: Survey copies are available, contact Molly Poisant)

Other invited presentations covered:

Computer Modeling: Walter R. Frei (Comsol) and W. Gwarek (QWED)

Food Safety: W. K. Shaw (USDA/FSIS)

Microwave Extraction: M. Radiou (Sairem)

Dielectric & Thermal Measurements: V.V. Komarov (Saratov State Technical University) presented by V. Yakovlev

Plasma: R. Boxman (Tel Aviv University)

IMPI & the Microwave Oven Industry: John Osepchuk (Full Spectrum Consulting)

Prior to the Symposium, 2 short courses were presented:

“Microwave 102: Product Testing and Labeling for Microwavable Products” taught by Bob Schiffmann

“Design Considerations for Microwave Powered Systems” taught by John E. Gerling.

IMPI 47 featured 4 exhibitors: Neoptix; Sairem/PSC; Ferrite Microwave Technologies; and NXP Semiconductors. For the 3rd consecutive year, IMPI was fortunate to have Washington State University and the USDA as sponsors of the Symposia; additionally, John Moores Liverpool University provided the hard copies of the Proceedings for the event registrants. We thank them all for their support and participation.

Special thanks must be given to IMPI’s Technical Program Chair, Dr. Vadim Yakovlev of Worcester Polytechnic, as well as to all those on his Technical Program Committee. Well done!

The symposium was held at the elegant Biltmore Hotel, which provided excellent meeting space for the conference speakers, as well as continuous networking opportunities. In addition, the Tuesday night (June 25) reception for attendees and companions was held on the outdoor terrace under excellent weather. Also, the group dinner in the Italian district was a hit with all who participated.

The annual Symposium is always the time for the Annual General Meeting that here included reports from the Executive Director, the Treasurer (John E. Gerling) and the Nominating Committee (chaired by Ben Wilson). By unanimous vote, the following persons were elected to the IMPI board of governors for three-year terms: Ulrich Erle (Nestlé), Justin Balousek, Ric Gonzalez (ConAgra Foods), and Bob Schiffmann who will be filling out a two-year term for Steve Vlock. We thank the following persons who left the Board: Amy Lawson (General Mills), Steve Vlock (ConAgra Foods), and Sohan Birla (U. of Nebraska).



IMPI 48 to be Held in New Orleans, Louisiana



The 48th Annual Microwave Power Symposium will be held June 18-20, 2014 at the Doubletree Hotel in New Orleans, Louisiana, USA.

The Technical Program Chairman for IMPI 48 is Professor Ray Boxman from Tel Aviv University. IMPI President Bob Schiffmann will Chair at the Food Track Committee. IMPI 48 will take place just before the annual IFT in New Orleans.

For additional details on the Call for Papers, program, hotel and registration, click [here](#).

Congratulations to Our Newest IMPI Fellows



DAVID BARON



JUMING TANG

Shown above with IMPI President Bob Schiffmann during their induction on June 26, 2013 at the 47th Annual Microwave Power Symposium in Providence, RI.

Eleanor R. Adair, 86, Microwave Proponent

by John M. Osepchuk, IMPI Fellow

That was the headline in the NY Times obituary on May 6 for a great lady, leading researcher, courageous defender of microwaves and true friend of IMPI. In an extensive interview in the Times in 2001, Dr. Adair, or Ellie, as known to friends, defended microwave ovens and closed her interview by decrying the billions of dollars spent looking for evidence of hazards from exposure to electromagnetic energy--"because there is really nothing there." At that time, the Times published a picture of her in a white lab coat in an anechoic chamber at the AF Research Lab in Brooks AFB, Texas where she was chief scientist for 5 years.

Her scientific prominence was built on decades of top-notch research, beginning with many years of exposure (at the John B. Pierce Foundation in New Haven, CT) of squirrel monkeys at warming levels of microwaves with no adverse results., followed by many short-term (e.g. 45 minutes) exposures of human volunteers to warming levels of microwaves, well above accepted safety limits, again with no adverse effects. (I was one of those volunteers).

To read the full tribute, please [click here](#)

Fall Short Course 2013

IMPI will host a Fall Short Course, October 9-10, 2013 on the ConAgra Campus in Omaha, Nebraska.

The Course will examine topics such as food safety, food quality, consumer trends, validation, packaging and labeling, product development and performance.

There will also be a Microwaves 101 Pre-Short Course held the afternoon of Tuesday, October 8th.

The Course is being co-chaired by Ric Gonzalez of ConAgra Foods and Marie Jirsa of Hillshire Brands; Lori Kjos (General Mills), Justin Balousek (HJ Heinz) and Ulrich Erle (Nestle) are serving on the Short Course Planning Committee.

Additional details on the speakers, registration and hotel accommodations can be found [here](#).

AMPERE SEPTEMBER 16-19, 2013

The [14th International Conference on Microwave and High Frequency Heating](#) organised by [The University of Nottingham](#) and [The Association for Microwave Power in Europe for Research and Education \(AMPERE\)](#) is taking place in Nottingham, UK on 16-19th September 2013.

The conference is the premier Microwave processing forum in Europe and focuses on novel applications of MW and RF heating in Industry and Academia. For more information please visit the conference website www.ampere2013.com

President Message Continued

The following persons have been elected Officers of IMPI for the coming year: President: Bob Schiffmann
Vice President: Ben Wilson
Treasurer: John F. Gerling Secretary: Ric Gonzalez
They, along with Molly Poisant, form the Executive Committee.

I am pleased to tell you that IMPI is in good financial health and is growing in membership and stature. The fine work of Dr. Juan Aguilar-Garib, Editor-in-Chief of JMPEE, has ensured that the publication remains an important one for the entire microwave power community. I'm also happy to see the enthusiastic participation of many members in assisting the development of IMPI's educational and other programs; we still need more volunteers, and all of you are invited to lend your services to assist in our various activities.

Finally, I want to thank my colleagues on the IMPI Executive Committee for their intensely focused work, and the IMPI Board for your support in reelecting me President. I especially want to thank our excellent Executive Director Molly Poisant for her continuing hard work and dedication. I can state without equivocation that IMPI could not be what it is today if it were not for Molly's extraordinary efforts.

With best wishes to all of you for a wonderful summer,

Bob

INTERACTIVE IMPI Direct links to Microwave News on the Web

Snopes.com describes as FALSE the concept of charging cell phones ion a microwave oven. Test photos show serious damage to the phone and microwave oven interior. This is an [example of the misinformation](#) about microwave ovens that is all over the Web.

Nestlé opens foodborne pathogens lab; [breaks ground on factory in Germany](#)

New government regulations regarding [microwave oven standby power](#)

Read more about microwaves and [consumer energy bills](#)

Laboratory experiments @ U. Bradford (UK) demonstrated an unique ability to co-crystallize two materials with [different solubility characteristics](#)

Wireless bio-absorbable [circuits could zap bacteria](#)

Microwaves used for accelerated [DNA testing and more.](#)

Enwave microwave Vacuum technology licensed for the [production of fruit based products.](#)

REGULATORY CORNER

During the IMPI 47 Food Track, Dr. Bill Shaw, (USDA/FSIS/ Office of Policy and Program Development), spoke about the validation of cooking Instructions for NRTE foods and gave as Illustrations the following active FSIS programs, suggesting that the participants read and comment on each, noting that they contain detailed descriptions of the validation procedures:

Docket No. FSIS-2008-0017:
Descriptive Designation for Needle or Blade Tenderized Beef Products

Docket No. FSIS-2009-0019: HACCP Systems Validation

Docket Number: FSIS-2012-007:
HACCP Plan Reassessment for NRTE Comminuted Poultry Products and Related Agency Verification Procedures (December 6, 2012)

INTERNATIONAL MICROWAVE POWER INSTITUTE

PO BOX 1140
MECHANICSVILLE, VA
23111
USA

Ph: + 1 804-559-6667
Email: info@impi.org
www.impi.org



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