

# 2021 ANNUAL REVIEW

---

## MESSAGE FROM **THE PRESIDENT**

---

If I had dared to imagine last year what business would be like in the summer of 2021, I would have missed the unique and novel ways we have kept our markets moving. Although for many of us, we are not exactly where we hoped we would be with the pandemic and a return to “normalcy,” the pace of business activity is picking up. This is true of RadTech as well, as visits to our websites and inquiries from those first exploring the technology have increased.

*In the pages below, we review our activities over the last 12 months. Not only was much accomplished, but we continue to set in motion activities for the future growth of UV+EB technology. It is only with the financial support of our members and much thanks to hard work of our volunteers and staff members that this has been possible. of business activity is picking up.*

It is often my aim as a scientist, teacher, and business development manager to provide the breakthrough, knowledge or sales channel that allows others achieve; it is a goal I also extend to RadTech, and I hope one that you will share in as well. While RadTech’s aim has always been to advance UV and EB, more than ever our work is a shared effort to help ensure a sustainable, productive future with our exciting, growing technology--we look forward to partnering with you on that journey.



Susan Bailey  
President,  
RadTech NA; Michelman



---

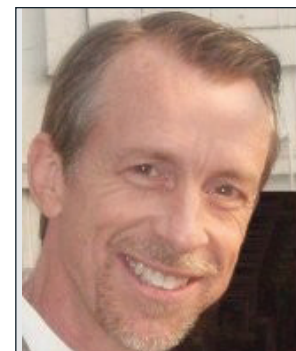
## RADTECH ENVIRONMENTAL HEALTH AND SAFETY COMMITTEE

---

With heightened public concern about chemicals in everyday products and in our environment, the RadTech Environmental Health and Safety Committee is working to monitor and address regulatory initiatives and inquiries. Our efforts include work with local, state, federal and international agencies.

### SCAQMD ADDS NEW UV LISTINGS IN BACT GUIDELINES

The South Coast Air Quality Management District Board unanimously approved two new Best Available Control Technology listings for UV/EB technology. The listings are significant because they involve “minor” sources which are typically small to medium sized businesses, which require an analysis to deem the technology proposed as cost effective. The two listings are for Glass Screen Printing – Flat Glass and Enclosed with Automated Spray Nozzles for Wood Cabinet. The latter is a completely new category created by UV technology in BACT as there was no prior listing for screen printing on glass.



Michael Gould, Rahn  
RadTech EHS Chair

### UV/EB/LED EXEMPTION FROM CA'S CTR REGULATION

RadTech's past efforts to encourage permit exemptions from the South Coast Air Quality Management District (SCAQMD) paid off at the state level. California's Regulation for Criteria Air Pollutant and Toxic Air Contaminant Emissions Reporting (CTR) will potentially add 600 new substances to the state's list of reportable materials. Only permitted processes have to be reported and thus, most UV/EB operations will not be subject to the regulation.

### MINNESOTA END USER ASSISTANCE

RadTech assisted an enduser in Minnesota who wanted to convert to UV technology but was under immense public scrutiny due to their existing processes which involved chemicals that were ultimately banned in Minnesota, with the facility becoming a “poster child” for the policy decision. RadTech provided public comments to the Minnesota Air Pollution Control Agency in support of the UV process and worked with community groups to provide information about the environmental benefits of the technology.



Rita Loof  
RadTech Director of  
Environmental Affairs

### UV & FENDER GUITAR

Fender Guitar in California converted part of their operations to UV. The SCAQMD staff required them to obtain permits for their UV equipment (although UV is exempt from permits) reasoning that because it was part of a solvent system, the UV process was brought into the permitting system, much like an anchor. RadTech is entering into discussions with the agency to exempt this operation as the SCAQMD's own permit evaluation shows all the emissions associated with the UV process are ZERO.

---

Marcy Gaaney  
TechCheck LLC,  
RadTech Consultant

---

### UV/EB AS ALTERNATIVE TO HEXAVALENT CHROME

RadTech is working with the California Air Resources Board on proposed rules for operations using hexavalent chromium. The Association is advocating for additional flexibility and regulatory relief for companies who chose conversion to UV/EB. Members have been actively participating and providing technical information.

## **ENVIRONMENTAL HEALTH AND SAFETY COMMITTEE**

### **UV/EB AS ALTERNATIVE TO HEXAVALENT CHROME**

RadTech is working with the California Air Resources Board on proposed rules for operations using hexavalent chromium. The Association is advocating for additional flexibility and regulatory relief for companies who chose conversion to UV/EB. Members have been actively participating and providing technical information.

### **SCAQMD LETTER TO EPA REASONABLE AVAILABLE CONTROL TECHNOLOGY (RACT)**

RadTech is working with the South Coast Air Quality Management District (SCAQMD) to urge the Environmental Protection Agency (EPA) to revise its outdated guidance documents (some were issued in 1978) in order to reflect the current state of UV/EB/LED technology.

### **AIR QUALITY MANAGEMENT PLAN (AQMP)**

RadTech is currently an advisor to the SCAQMD on the AQMD Advisory Committee. We will continue to monitor the activities, especially in light of the staff's commitment to analyze UV/EB/LED technology as a potential emission control measure in the 2022 AQMP.

### **FUNDING FOR UV/EB/LED**

SCAQMD is a sponsor the RadTech RadLaunch program. We are also coordinating meetings with end users and key decision makers in the SCAQMD to promote UV/EB/LED technology.

### **MARICOPA COUNTY SURFACE COATING OPERATIONS**

RadTech submitted comments on Maricopa's County Surface Coating Operations Rule (Rule 336). RadTech has received feedback from members that this is an area of interest. The Maricopa county staff is not knowledgeable about UV/EB/LED and the technology has been essentially left out of the rulemaking. RadTech continues to advocate for the inclusion and recognition of UV/EB/LED.

### **PARTNERSHIP WITH RADTECH CHINA**

A representative from RadTech China presented RadTech's work with the SCAQMD during the RadTech China Annual Conference 2020. He thanked RadTech NA for our work and said it was quite inspiring". The thank you letter went on to say "I believe the communication between RadTech NA and governments is excellent, and quite helpful for promoting UV/EB technology. This is a very good example for other associations worldwide."

### **RE-APPOINTMENT TO LOCAL GOVERNMENT COMMITTEE**

RadTech's Rita Loof - Director of Environmental Affairs, was re-appointed as an advisor to the SCAQMD Local Government Small Business Advisory committee. Rita has served as a RadTech representative on this committee for over 10 years.

For questions concerning our West Coast activities, please contact Rita Loof - the RadTech Director of Environmental Affairs at [rml93@verizon.net](mailto:rml93@verizon.net).

---

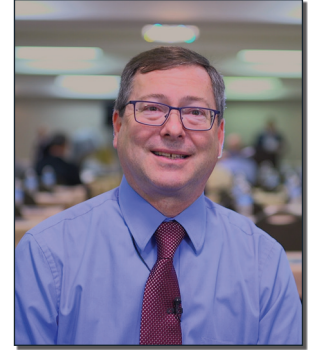
## SUSTAINABILITY

---

The RadTech Sustainability Committee continues its work to develop activities to ensure UV+EB technologies are positioned as part of the emerging circular economy, including participation in the Sustainable Packaging Coalition's Safe + Circular Materials Collaborative and the U.S. Plastics Pact, part of the Ellen MacArthur Foundation's global Plastics Pact network.



**Todd Fayne**  
PepsiCo,  
Chair



**David Biro**  
Sun Chemical,  
Chair

### *Did You Know?*

Ultraviolet and electron beam (UV+EB) cured inks have been found to cause few problems in the recycling process, according to **a recent study by the American Forest & Paper Association (AF&PA)**. The AF&PA Design Guidance for Recyclability, rated UV+EB inks as not adversely impacting the recyclability of corrugated packaging, bleached paperboard cartons, recycled/unbleached boxboard coated/uncoated, carrier stock cartons unbleached Kraft paperboard, Kraft paper bags, multiwall shipping sacks and molded fiber containers.

---

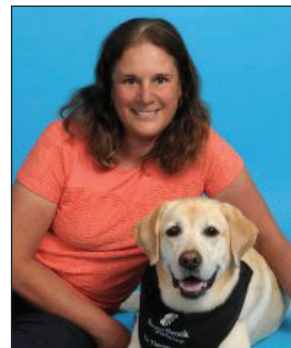
## KEEPING RADTECH MEMBERSHIP INFORMED

---

*Not subscribed to our Environmental, Health, Safety and Sustainability Newsletter for members? Email Doreen Monteleone at [doreen@radtech.org](mailto:doreen@radtech.org) to subscribe. Also please send Doreen your news on sustainability so she may post in the newsletter and promote the good work of our industry and technology!*

Congratulations to Doreen and Molly for being awarded Stony Brook Medicine's Pet Therapy Team Volunteers of the Year!

**Doreen Monteleone**  
Director of Sustainability and  
EHS Initiatives for RadTech



## EDUCATION AND EVENTS

*RadTech has gone virtual, with plans for greater engagement and in person events in 2022.*



**Mickey Fortune**

Associate Executive Director,  
Education and Outreach

- Building on the success of our in-person 2020 Conference, our **2020 2.0 Webinar Series** has attracted over 2000 real time attendees and over 9000 online views, with an average of 1025 views per webinar.
- **UV+EB Industry Thought Leaders** Webinar Series featuring speakers from Ford Motor Company, Carbon 3D, and Applied Materials generating over 1500 "live" attendees and over 2100 online views of the webinar videos.
- A one-month, **Advanced Photopolymer Concepts** webinar series presented by RadTech and curated by the Photopolymerization Fundamentals Conference with over 1000 "live" attendees and over 2700 online views of the webinar videos.
- We created and released a six-module video series on **The Safe Use of UV+EB Materials** featuring information on Introduction / Health Effects/Toxicity, Personal Protective Equipment (PPE), Personal Hygiene + Housekeeping, SDSs and Other Safety Literature and, Labels / First Aid, Storage and Disposal, and Photoinitiators/Additives and Equipment Safety/Precautions.

CHECK OUT THE ALL NEW  
**WWW.RADTECH.ORG!!!**

**RADTECH**  
THE ASSOCIATION FOR UV&EB TECHNOLOGY

Home Education Resources Health & Safety Sustainability Upcoming Events About RadTech Member Login

**THE ASSOCIATION FOR UV&EB TECHNOLOGY**

**Latest News**

- RadTech Announces Call for Papers for 2022 Conference & Exposition**  
FOR IMMEDIATE RELEASE Contact: Mickey Fortune, 240-643-0517, micky@radtech.org  
RadTech Announces Call for...  
[Read More](#)
- 2021 RadTech Fall Meeting**  
Jul 30, 2021  
Monday, October 4, 2021 Hyatt Regency Orlando, Orlando, Florida
- RadTech UV+EB Technology Expo & Conference 2022**  
May 24, 2021  
Chevy Chase, MD (May 24, 2021) :: RadTech announces its 18th biennial conference and exhibition dedicated to UV/EB...
- RadTech Announces New Board Members, Secretary,**

*Our new platform offers a modernized responsive layout for customized look and feel for desktop, tablet & mobile devices; improved user experience; faster load times; best SEO practices.*

## RADTECH YPs

Please visit our new RadTech YP website!  
<https://radtech.org/radtech-young-professionals>  
 and [LinkedIn](#).



**KEJIA YANG**

Align Technologies,  
Co-Chair



**KANGMIN KIM**

Living Ink Technologies,  
Co-Chair



**SUNNY YE**

Facebook,  
Co-Chair

With much thanks to our Chairs, our RadTech Young Professional are proactively undertaking exciting new initiatives to help secure a bright future for UV+EB Technology:

- **Collecting names:** The RadTech YPs are setting up a mail list for those interested in getting RadTech-YP-specific news/announcements and to start updates including job postings/referrals. To be added to the list. QR code:
- **Spotlighting our YPs** by publishing quarterly interviews with 1-2 YPs in the in UV+EB Technology Magazine; posting interviews on RadTech's social media platforms
- **Surveying RadTech members**--with 110+ responses so, as the basis to develop a YP action plan
- **The RadTech YP chapter** is reaching out to other YP groups, for example, the ASTM International Emerging Program, to exchange ideas, resources, and to connect YPs; plans are underway for a join event
- **Networking events:** RadTech YPS are planning to host virtual networking events in 2021 to provide opportunities to connect without traveling, with plans to use Gather.town
- **RadTech YPs** are working to develop a presence at conferences: with a plan to fund awards to sponsor YP to travel to conferences to promote UV/EB technology and help YPs network
- **RadTech committees:** YPs will be appointed to each RadTech Committee as a liaison for the YP community and as an opportunity to train in leadership with RadTech.



*Subscribe to the YP Email List*

Our vision: use our social media and contacts with RadTech to ask questions and discuss opportunities and challenge.

## UV+EB TECHNOLOGY



Dianna Brodine  
Editor

- In the seventh year of publication, the magazine combines technical data from leaders in the UV/EB/LED fields with application concepts and columns designed to help users troubleshoot common questions.
- The magazine has more than 11,500 readers of the quarterly print and digital magazine —with newsletters from our editor Dianna Brodine each month reaching more than 5,000 industry members. The magazine's digital edition receives more than 12,500 page views per month.
- Our editorial board is comprised of 19 industry members from across a wide range of markets and application. These volunteers review technical articles prior to publication and are a critical part of the magazine's success.
- The magazine's website collates content from all published issues of UV+EB Technology, allowing constant access to the collection of articles, including frequent international visitors, averaging visits of nearly 3,000 unique users each month, resulting in 3,800 average monthly visits and 5,425 page views. These numbers continue to climb.

## RADLAUNCH

With our 2021 class including: Biomass derived raw materials, UV 3d printing home building ("making houses with light"), 3-D printed ceramics and multi color visible light additive manufacturing, and Carbon Fiber cured with X-Rays, the 4th annual 2021 RadLaunch was a success!! Learn more and view our 2021 awards ceremony at [www.radlaunch.org](http://www.radlaunch.org).

Unique Idea  
Accelerator  
for  
UV+EB  
Start-ups,  
Students &  
Innovators

**RADTECH**  
THE ASSOCIATION FOR UV&EB TECHNOLOGY

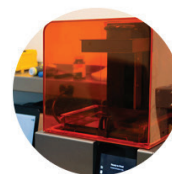
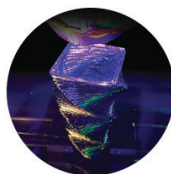
### RadLaunch 2021

Connecting Technology Start-Ups to UV+EB Industry Leaders

*"RadLaunch serves as critical support to companies working in the UV/EB space as they take their first steps on the long and challenging road to commercialization. Many companies that have an excellent idea and perhaps early positive lab results are missing the contacts and network that will take them past the concept phase. one of the most valuable things that RadLaunch offers is an introduction to member companies such as material and equipment suppliers and end users that can furnish support and guidance."*

Mike Idacavage, Co-Chair, RadLaunch

A Unique Idea Accelerator for UV+EB Start-ups, Students & Innovators



RadTech, the nonprofit trade association for UV+EB technologies (ultraviolet and electron beam),



## TRANSPORTATION COMMITTEE

With much thanks to Chris Seubert of Ford and Mary Ellen Rosenberger of BaySprings Solutions LLC, RadTech is once again planning to hold a session at SAE's annual conference: **WCX2022, April 5-7, 2022 at TCF, Detroit, MI.** Our 2022 session -- UV+EB Leading the Way for Automotive -- will focus on material science, 3D printing and a new focus for the event: Military technology transfer. With work continuing on future technologies and fully autonomous electric vehicles, the WCX2022 strategy is to produce leading edge papers centered on the topics of key advancements--including with UV+EB.



**Chris Seubert**  
Ford Motor Co.,  
Chair



**Mike Dvorchak**  
Dvorchak Enterprises LLC,  
Chair



[Detailed list of current automotive applications](#)

- Exterior Auto Body, Class A Surfaces
- Headlamps, Door Handles, Mirrors
- Wheels, Wheel Trim, Steering Wheels
- Lighting Reflector Housing
- Body Side Moldings, SMC Body Panels
- Under Hood, Air Bag Covers
- Tail Lamps
- Consoles, Door and Instrument Panels
- Grilles, Trim, Rumble Strips
- Fascia, Fenders, Cladding, Spoilers
- Roof Racks, Truck Bed Liners
- Radio Buttons

### EDUCATION AND EVENTS

## UPCOMING RADTECH 2022

A return to in-person events with **RadTech 2022**, taking place May 9-12, 2022 at the Hyatt Regency Orlando in Orlando, FL. We will offer **enhanced exhibitor engagement opportunities** to allow exhibitors and attendees to connect online, months before the live event begins.

