PRESS RELEASE
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ECS Institutional Members awarded Presidential Green Chemistry Challenge Award from the U.S. Environmental Protection Agency (EPA)

the society for solid-state and electrochemical science and technology

For Immediate Release

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The Electrochemical Society

ECS Institutional Members Receive Presidential Green Chemistry Challenge Award from EPA

Prestigious annual award recognizes chemical technologies that incorporate the principles of green chemistry into chemical design, manufacture, and use

GREEN CHEMISTRY A U.S. EPA Program

Several ECS institutional members have recently been awarded the annual Presidential Green Chemistry Challenge Award from the U.S. Environmental Protection Agency (EPA) in partnership with the American Chemical Society. The Presidential Green Chemistry Challenge Awards promote the environmental and economic benefits of developing and using novel green chemistry. These prestigious annual awards recognize chemical technologies that incorporate the principles of green chemistry into chemical design, manufacture, and use.

"We congratulate our members on being honored with the EPA Presidential Green Chemistry Challenge Award, which is proof positive that the ECS community is driving the research, technology, and manufacturing that will not only make our world a greener one, but will ensure the same for future generations," commented Tetsuya Osaka, President of ECS.

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FARADAY TECHNOLOGY, INC.

Faraday Technology, Inc. receives EPA Award for the FARADAYIC® TriChrome Plating Process

The FARADAYIC® TriChrome Plating process uses trivalent chromium [Cr(III)] a much less toxic and non-carcinogenic form of chromium, in place of Cr(VI) in the plating baths. This approach maintains the advantages of a functional chrome coating but vastly reduces the hazards associated with the plating process. In the past, Cr(III) had been used for decorative coating when only a thin layer of plating was needed, such as on a car bumper, but such coatings are not suitable for heavy-duty applications where hardness and wear resistance are required.

Development of the FARADAYIC® TriChrome Plating process has been supported by EPA, through its Small Business Innovation Research program, the National Center for Manufacturing Sciences, The Boeing Co., Messier-Bugatti-Dowty, United Technologies Research Center and other potential commercial clients. Commercialization of the FARADAYIC® TriChrome Plating process will occur via the existing metal finishing supply chain through partnerships with chemical formulators and chemical vendors. Use of Faraday's technology could eliminate about 13 million pounds of hexavalent chromium waste each year in the United States and as much as 300 million pounds worldwide.

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Dow Chemical Company receives EPA Award for the development of EVOQUE™ Pre-Composite Polymer Technology

This Dow innovation helps coatings formulators improve paint performance properties while using less titanium dioxide (TiO2), a white pigment that is energy intensive to manufacture but ubiquitous in architectural paint for its ability to provide quality hiding. This win marks the ninth time that Dow and its affiliates have won the U.S. EPA Presidential Green Chemistry Challenge Award, more than double any other company in Award history.

"EVOQUE Pre-Composite Polymer Technology was developed with the goal of driving gains in sustainability through more efficient raw material use coupled with increased paint performance," said Keith Watson, global R&D director, Dow Coating Materials and Performance Monomers. "This is our latest development in bringing more sustainable chemistry to the coatings industry, which began when we introduced waterborne binder technology 60 years ago. With the development and market acceptance of EVOQUE Pre-Composite Polymer Technology, we are once again driving innovation that is changing the way that paint is made and how we expect it to perform."

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Additional EPA Honors

Cargill, Inc. was honored with Designing Greener Chemicals Award for Vegetable Oil Dielectric Insulating Fluid for High-Voltage Transformers. Life Technologies Corporation received the Greener Synthetic Pathways Award for Safe, Sustainable Chemistries for the Manufacturing of PCR Reagents. Dr. Richard P. Wool from the University of Delaware received the Academic Award for Sustainable Polymers and Composites: Optimal Design.

About ECS

With more than 100 years of history, ECS is the recognized and trusted steward of the science. ECS estimates that nearly 65% of the content it publishes daily and presents at multiple international meetings involves the sustainability of our planet. The electrochemistry and solid state science community is discovering and developing the scientific breakthroughs that enable innovations such as the electrochemical toilet, lithium-ion batteries, solar fuels, and other scientific initiatives that are helping to solve real world issues, creating the technology that drives change and scientific improvement.

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