



*The World Congress on Ozone and Ultraviolet (UV) Technologies, held Aug. 27 to 29 in Los Angeles, lived up to its promise as a historic event and an important technical conference. For the first time, the congress brought together the International Ozone Association (IOA) and the International Ultraviolet Association (IUVA)—the two most progressive technology groups in disinfection and water treatment. The meeting showcased the multiple benefits that ozone and UV bring to water, wastewater, air treatment and industrial processes.*

**By Bob Smith-McCollum**



In his welcome address, IOA president Mike Dimitriou said, "This is the largest meeting of global disinfection and oxidation professionals to ever gather under one roof."

He added, "The IOA and IUVA chose to meet together because of the great synergies that exist between the technologies. Both ozone and UV bring unique benefits, independently and in combined operation, to the public as well as operations professionals in municipal and industrial treatment."

These sentiments were echoed by Andreas Kolch, president of the IUVA, in his welcome letter to participants, saying: "We already feel that this is the right thing to do in order to serve the interests of our members in a better and more efficient

manner, and this joint congress will be a great venue and a big success for both organizations. It is important for all stakeholders to discuss, identify and understand where the synergies are between the technologies, where there might be overlaps and where the pros and cons of the two technologies are used in different kinds of applications."

The World Congress was very timely. Ozone and UV technologies are destined to play a larger role in water treatment with the inauguration of the latest water regulations. Worldwide concern regarding food safety has grown tremendously in the face of increasing recalls of fresh and prepared foods. Concern over indoor air quality has resulted in several regulatory changes in California, the host state

for the congress. These current events, changing regulatory framework and applications for appropriate ozone and UV technologies were addressed at this comprehensive congress.

### **Excellent Attendance**

Attendance at the congress exceeded expectations, with 830 registrants attending from 39 countries. Participants were drawn by keynote speakers and oral presentations of nearly 300 technical papers from 31 countries and six continents. Many participants traveled great distances to share their knowledge of ozone and UV technologies and applications while gaining new insights from their global colleagues.

### **The Role of Technology**

The congress opened with three keynote addresses. Speakers underscored the important roles of ozone and UV technologies in addressing global challenges of protecting and improving the supply of freshwater.

Sally C. Gutierrez, director of the National Risk Management Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency (EPA), provided an EPA perspective on emerging issues in water treatment and water quality. Alan Roberson, director of security and regulatory affairs for the American Water Works Association, provided his outlook on the future of water and wastewater regulation in North America. The European viewpoint was provided by Regina Sommer of the Medical University of Vienna, who spoke on drinking water regulations in Europe and the impact on human health.

Common threads were interwoven throughout the keynote addresses: Providing safe drinking water becomes more and more difficult as supplies of freshwater become increasingly scarce and more complex emerging contaminants, such as endocrine disrupting compounds, must be addressed. These and other challenges are driving rapid changes in drinking water regulation.

In turn, growing regulatory complexity is creating substantial compliance challenges for municipalities and water companies. Advanced clean technologies, such as ozone and UV, must be



# Coming Together

*Joint ozone and UV congress a success*

utilized to create solutions that are effective and accessible to a broad range of water suppliers—from large municipalities to small water companies and mutual water systems.

Roberson emphasized that U.S. water systems serving less than 10,000 people are getting hit hard by the growing volume and complexity of drinking water regulations and are most at risk for non-compliance. Sally Gutierrez outlined the EPA's research programs in ozone and UV, emphasizing the importance that the EPA places on these and other technologies in managing and safeguarding the quality and security of the nation's drinking water system.

### Key Issues

The World Congress on Ozone and Ultraviolet Technologies covered a broad range of topics. The sections on agriculture, food and beverage applications; emerging contaminants; and advanced oxidation technologies attracted the most submissions and were very enlightening. A number of other topics were also addressed, including water treatment, ozone and UV technology, industrial applications, soil and groundwater treatment, and ozone and UV plant operations.

An interesting intersection occurred between the topics of advanced oxidation technologies and emerging contaminants. Prescription medicines, over-the-counter drugs, personal care products, fire retardants and other sources contribute a growing body of complex compounds to wastewater. These chemicals ultimately return to the raw water supply and can cause unintended side effects in humans and wildlife, such as disruption of endocrine function.

Many emerging contaminants are not easily removed or destroyed by conventional treatment regimens. Several papers presented in the emerging contaminants sections of the congress described recent efforts to denature these compounds with ozone, UV and advanced processes, including ozone or UV treatment in conjunction with hydrogen peroxide or titanium dioxide. Many of the results in the presentations showed promise, and some presenters concluded that more research is needed to better understand the kinetics and byproducts of these reactions.

### Proceedings Available

It is impossible to cover all of the topics and research presented at the congress in one article. Fortunately, the proceedings and other post-conference materials are available for purchase through the websites of the IOA ([www.io3a.org](http://www.io3a.org)) and

the IUVA ([www.iuva.org](http://www.iuva.org)).

### Mark Your Calendar

Plans have been set for the 2008 Annual Conference of the International Ozone Association-Pan American Group: Aug. 24 to 27, Orlando, Fla., Disney's Coronado Springs Resort. The IOA has also issued a call for papers for the

conference. More information is available at [www.io3a.org](http://www.io3a.org). *wqp*

### About the Author

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