



ACS

Orange County Section



## Dinner Meeting and Scientific Presentation

Thursday, February 26, 2026

Waters Corporation Facility  
3540 Howard Way,  
Suite 100/125  
Costa Mesa, CA 92626



Make your reservation  
NOW

Social: 5:30 PM Dinner: 6:00 PM Program & Presentation: 7:00 PM

### **Reservations**

Please email [OCACS@sbcglobal.net](mailto:OCACS@sbcglobal.net) immediately, no later than 12 noon on Monday, February 23, 2026, and indicate if you will be attending the dinner and program, or the program only. List all the names of attendees and special food requests like vegetarian or gluten free. There is a limit on the number of attendees, so make your reservation early.

Dinner cost is \$25 for members and members' significant others; \$35 for non-members or those without reservations. **Teachers and students who register for this meeting will receive a \$10 discount on their dinner.** Since we are not at this time set up to accept credit cards, please plan on using a check or cash.

*Note:* OCACS pays the caterer on the basis of the number of dinner reservations made. Your reservation for dinner is a commitment to pay.

### **Presentation**

## **Taste & Odor in Potable Water Reuse: Barrier or Opportunity for Public Acceptance?**

**Keisuke Ikehata, PhD, PE**

Texas State University, San Marcos, TX

### **Abstract:**

Taste and odor (T&O) has traditionally been viewed as a secondary or aesthetic consideration in drinking water treatment. However, experiences from potable reuse systems suggest that T&O may play a more nuanced role in how advanced treatment is perceived by the public. In particular, practitioners involved in the City of Wichita Falls' emergency direct potable reuse (DPR) program reported that some customers preferred the taste of DPR water over conventional surface water supplies, which were periodically affected by algal blooms and associated geosmin and 2-MIB episodes. Motivated by these observations, this talk presents chemical and sensory insights from a DPR pilot study conducted in Central Texas, with a focus on how advanced treatment processes, including reverse osmosis, UV

advanced oxidation, ozonation, and biologically activated carbon, affect common T&O compounds. Results indicate that advanced treatment can effectively remove or suppress many of these compounds, often producing finished waters with favorable sensory characteristics. At the same time, treatment-induced transformations and breakthrough patterns highlight the need for careful process understanding and monitoring. Rather than framing T&O solely as a barrier to potable reuse, this presentation explores how chemistry-informed treatment design and evaluation can help position T&O as an opportunity to build public confidence. The talk concludes with reflections on how analytical measurements and sensory analysis can be used together to better understand and communicate water quality in potable reuse systems.



### **Speaker Biography**

Keisuke Ikehata, Ph.D., P.E., is an Associate Professor of Civil Engineering at Texas State University in San Marcos, TX. His research focuses on water reuse, advanced water treatment and purification technologies, desalination, and water quality assessment. Dr. Ikehata has led and collaborated on research projects involving advanced oxidation processes (AOPs), membrane technologies, disinfection byproducts, potable reuse, and circular water systems integrating rainwater and reclaimed water. He is also interested in the development of sustainable water systems, including the use of data science and AI to improve treatment performance and resiliency.

He has over 20 years of experience in water and wastewater science and engineering, including more than 8 years as a consulting engineer in Southern California, developing expertise across a range of technologies and regulatory contexts. He is a licensed Professional Engineer in Arizona and Alberta, Canada, and regularly collaborates with municipalities, utilities, and industry professionals on water reuse and treatment challenges. Dr. Ikehata holds a Ph.D. in Civil and Environmental Engineering from the University of Alberta and has authored more than 60 peer-reviewed journal articles and book chapters. He is an active member of the American Chemical Society (ACS), the American Water Works Association (AWWA), the International Ozone Association (IOA), the American Membrane Technology Association (AMTA), and the Water Environment Federation (WEF). Dr. Ikehata was a member of the ACS Committee on Sustainability and Environmental (CES) between 2017 and 2025. He currently holds several leadership roles, such as Trustee of AWWA's Water Quality and Technology Division and Secretary of the IOA-Pan American Group. He was also a past Chair of the Orange County Section of ACS (OCACS) in 2019.

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