



ACS

Orange County Section

*The Orange County Section of the American Chemical Society
Chemical Society and Environmental Group
(an in-person presentation)*

February 2023 Dinner Meeting Thursday, February 23, 2023

The Old Spaghetti Factory
110 E. Santa Fe Ave., Fullerton, CA 92832
Phone: 714-526-6801

Social: 5:30PM
Dinner: 6:15PM
Presentation: 7:00PM



Award Presentations

Sanda Sun : 2022 Service through Chemistry Award
Brent Shenton : 2020 Service through Chemistry Award
Erin Araneta : 2022 Volunteer of the year



Technical Presentation

**Microplastics: Their Impact and Current State of Environmental
Analysis: A Laboratory Perspective**

Curtis B. Desilets
Executive Vice President,
Environ-Chem Laboratories, Pomona, CA

Abstract

Microplastics are small solid plastic particles composed of mixtures of polymers and functional additives. They may also contain residual impurities. Microplastics can be

unintentionally formed when larger pieces of plastic, like car tires or synthetic textiles, wear and tear. But they are also deliberately manufactured and added to products for specific purposes, such as exfoliating beads (microbeads) in facial or body scrubs.

Once in the environment, microplastics do not biodegrade. They accumulate in animals, including fish and shellfish, and are consequently also consumed as food by humans. Thus, they are of imminent concern. Yet, the science of analyzing for them and the regulatory framework by which we can control them, is in its infancy.

California is again on the forefront of cracking into this problem. In August, 2022, the State Water Resources Control Board issued a document "POLICY HANDBOOK ESTABLISHING A STANDARD METHOD OF TESTING AND REPORTING OF MICROPLASTICS IN DRINKING WATER." No other state has done so, yet.

We will examine the items in the proposal including the details of laboratory testing and give you updates as to where we are in tackling this current environmental problem.

Biography

Curtis B. Desilets has been working in an environmental testing laboratory for over 35 years. For six years (from 1987-1993) he analyzed soil, air, water and complex matrix samples for a variety of organic contaminants utilizing GC and GC/MS technologies @ Truesdail Labs in Tustin, CA. He then became Senior Project Manager @ Calscience Environmental Laboratories in Garden Grove, CA (1993-1997), managing several large projects including Port of L.A., SCE, DTSC, MWD, MTA, Riverside County Waste Management and others. In 1997, Curtis was hired to run a smaller laboratory: Enviro-Chem Laboratories in Pomona, California and was the Laboratory Director there for over 20 years. He now serves as Executive Vice President for Enviro-Chem Laboratories.

Curtis has a B.A. in Psychobiology/Chemistry (Double Major) from U.C. Santa Cruz (1987). He studied Chemistry @ Macquarie University in Sydney, NSW, Australia as part of the U.C. Education Abroad Program. Curtis has a Graduate Certificate in Environmental Auditing from CSU Long Beach and has attended several seminars and conferences in the fields of environmental analysis, groundwater, geology, waste management, environmental marketing and others.