Under the pressure of water scarcity, municipal treated wastewater is increasingly used for agricultural irrigation in the world. However, treated wastewater contains numerous so-called contaminants of emerging concern (CECs), including bisphenols, steroids, and pharmaceutical and personal care products. When treated wastewater is used to irrigate food crops, some CECs may accumulate and pose health risks. We have carried out laboratory, greenhouse and field studies to evaluate the fate of CECs in soil and uptake of common CECs into vegetables. This presentation will provide an overview on the occurrence of CECs in treated wastewater, adverse ecological effects of CECs, fate in soil, accumulation into plants, and potential risks.

Speaker Bio
Professor Jay Gan is a Professor of Environmental Chemistry in the Department of Environmental Sciences at UC Riverside, where he also served as the Department Chair in 2007-2010. He is a fellow of the American Society of Agronomy (2006), a fellow of American Association for the Advancement of Science (2008), and a fellow of Soil Science Society of America (2010). Professor Gan is an Associate Editor of Environmental Pollution (http://www.journals.elsevier.com/environmental-pollution/), and an Editorial Board member for J. Agricultural & Food Chemistry (http://pubs.acs.org/journal/jafcau). He served the Chair of Environmental Quality Division (S11) of Soil Science Society of America (2009-11), and is the Vice Chair of Agrochemicals Division of American Chemical Society (2014). Professor Gan received his Ph.D. degree from Zhejiang University in China in 1988, followed by postdoctoral training at the UN-International Atomic Energy Agency’s Laboratories in Seibersdorf, Austria (1990-91), University of Minnesota (1991-93) and the USDA George E. Brown Salinity Laboratory (1993-95), where he was a project scientist till 2001. He joined the faculty rank at UCR in 2001. Professor Gan is the (co)author of over 210 peer-reviewed journal articles, 4 edited books, and many outreach and educational publications. To date his publications have received 5000 citations, with an H-index of 40.