

Peter R. Jaffé
Department of Civil and Environmental Engineering
Princeton University, Princeton NJ 08544

Peter R. Jaffé, the William L. Knapp '47 Professor of Civil Engineering, is a Professor in the Department of Civil and Environmental Engineering. His background is in chemical engineering, and he obtained a Ph.D. in Environmental and Water Resources Engineering from Vanderbilt University in 1981. He was chair of the Department of Civil and Environmental Engineering from 1999 to 2005 and was the Associate Director for Research at the Andlinger Center for Energy and the Environment from 2012 to 2019. He held the position of Research Associate in the Department of Civil Engineering at Princeton University from 1982 to 1983 and was a faculty member at the Universidad Simón Bolívar in Venezuela from 1983 to 1985. He joined the faculty of the Department of Civil Engineering at Princeton University in 1985. He held visiting positions at the Venezuelan Research Institute, the International Institute for Applied Systems Analysis in Austria, the University of Auckland, and the Ecole des Mines D'Albi, and was an AT&T Industrial Ecology Fellow. He has served on numerous committees and panels, including the National Research Council, EPA, NIH, NSF, DOE, the Singapore Expert Panel of The Environment and Water Industry Development Council, the Korean Institute of Geoscience and Mineral Resources, and others. He is an Elected Fellow of the American Geophysical Union and was appointed as Board Certified Environmental Engineering Member of the American Academy of Environmental Engineers by Eminence.

His research interests relate to the physical, chemical, and biological processes that govern the transport and transformation of pollutants in the environment, and their application towards the remediation of contaminated systems. His research has focused extensively on biological and chemical pollutant dynamics in porous media; simulation and analysis at the watershed scale of soil contamination processes and nutrient cycling; nitrogen cycling at the watershed scale; and dynamics of trace metals and radionuclides in sediments, wetland soils, and groundwater. Areas of current emphasis include biological defluorination of per- and polyfluorinated alkyl substances (PFAS); and understanding novel biological processes for anaerobic ammonium oxidation, focusing from field-scale transformations to applications for wastewater treatment.