Kinetics and Mechanisms of Environmentally Important Reactions on Soil Colloidal Surfaces

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Without question, one of the pressing issues of our time is the preservation of the environment. Throughout the world, concerns have been expressed about an array of soil and water contaminants. These include: inorganic pollutants such as nitrates and phosphates, heavy metals such as arsenic,cadmium, chromium, copper, lead, mercury, and nickel, and radionuclides; and, organic contaminants such as pesticides, industrial chemicals, municipal sludges, and animal wastes. Intensive research efforts are being conducted by soil scientists, engineers, geochemists, and chemists to find ways to decontaminate polluted soils and ground and surface waters and to better predict the mobility and fate of contaminants in soils.