

Understanding chromium speciation and mobility in urban-industrial environments

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Glasgow has a legacy of chromium (Cr) contamination due to past industrial activities. Hexavalent chromium (Cr(VI)) is highly toxic and carcinogenic. This project seeks to determine the biogeochemical factors that influence transport of Cr(VI) and evaluate its bioaccessibility. Initial work shows Cr(VI) concentrations of <1500 mg/kg in the highly reducing Polmadie Burn sediment and 240 mg/kg in the burn-side soils. Laboratory experiments are being designed to probe under which conditions Cr will be released/absorbed from the sediment and burn-side soils.