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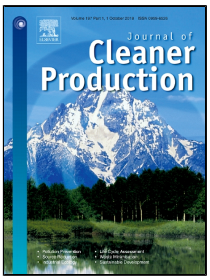

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Application of heavy metals sorbent as reactive component in cementitious composites

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Abstract

Sorption is technologically simple and cost-effective method for removal of heavy metals from waste waters. Wide range of sorbent can be used; aluminosilicates materials (clay minerals, zeolites) are well known for their ability to sorb ionic species from water solutions. Ceramic materials belong to aluminosilicates as well; the present paper deals with utilization of ceramic powder, generated as waste product in production of hollow bricks, as sorbent for heavy metals. Pozzolanic activity – i.e. ability to replace part of cement in concrete – is another attribute of powdered ceramic materials. The red-clay based ceramic powder was primarily used as sorbent