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"Gheorghe Asachi" Technical University of Iasi, Romania



SUSTAINABLE REMEDIATION TECHNOLOGIES FOR CONTAMINATED MARINE SEDIMENTS: PRELIMINARY RESULTS OF AN EXPERIMENTAL INVESTIGATION

Francesco Todaro*, Sabino De Gisi, Michele Notarnicola

Department of Civil, Environmental, Land, Building Engineering and Chemistry, Polytechnic University of Bari, Via E. Orabona n. 4, 70125 Bari, Italy

Abstract

This paper deals with the relevant environmental issues concerning marine sediments contamination, for which there is the need for further development of sustainable remediation technologies. Among the in-situ remediation options, the reactive capping turns out to be an interesting approach. On the other hand, when the sediments must be dredged, the stabilization and solidification (S/S) treatments can represent an efficient and sustainable solution for the recovery of the materials, in the spirit of the circular economy. In the present paper, the first results of an on-going experimental investigation on remediation of the contaminated marine sediments from the Gulf of Taranto are presented. The research activities aim at assessing the effectiveness of both solutions as remediation options for marine sediments contaminated by heavy metals, polycyclic aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs).

Key words: contaminated sediments, reactive capping, solidification/stabilization

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^{*} Author to whom all correspondence should be addressed: e-mail: francesco.todaro@poliba.it; Phone: +390994733203; Fax: +39 3397787542