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OVERVIEW OF *IN SITU* REMEDIATION TECHNOLOGIES FOR SITES AND GROUNDWATER

Maria Gavrilescu

*Technical University of Iasi, Department of Environmental Engineering and Management,
71 Mangeron Blvd., 700050 Iasi, Romania, e-mail: mgav@ch.tuiasi.ro*

Abstract

The development of new and innovative technologies and methods for treating environmental contaminants is a critical step in the effort to protect the environment and its components. The continuing investment of public and private resources in demonstration projects represents a major commitment to promoting the technical and cost advantages offered by these technologies to the engineering and regulatory sectors.

This paper is an overview of established and innovative *in situ* remediation technologies applied for soil, sediments, sludge and groundwater depollution.

A brief description of the status of each technology, advantages, disadvantages, limitations, and contaminants treated, are included in the discussion. Information provided consists of an introduction to the general principles and techniques, a discussion of the general applicability of the technology, an overview of data related to its utilization, and reported advantages and limitations of the technology. A large bibliography analyzed during preparation of this paper containing additional information sources is also provided.

Keywords: soil, groundwater, remediation, biodegradation, physico-chemical process, thermal degradation, contaminant, *in situ*
