

Over the past twenty years, the knowledge and understanding of wastewater treatment has advanced extensively and moved away from empirically-based approaches to a fundamentally-based first-principles approach embracing chemistry, microbiology, and physical and bioprocess engineering, often involving experimental laboratory work and techniques. Many of these experimental methods and techniques have matured to the degree that they have been accepted as reliable tools in wastewater treatment research and practice.

For sector professionals, especially the new generation of young scientists and engineers entering the wastewater treatment profession, the quantity, complexity and diversity of these new developments can be overwhelming, particularly in developing countries where access to advanced level laboratory courses in wastewater treatment is not readily available. In addition, information on innovative experimental methods is scattered across scientific literature and only partially available in the form of textbooks or guidelines. This book seeks to address these deficiencies. It assembles and integrates the innovative experimental methods developed by research groups and practitioners around the world and broadly applied in wastewater treatment research and practice.

Experimental Methods in Wastewater Treatment book forms part of the internet-based curriculum in sanitary engineering at UNESCO-IHE and, as such, may also be used together with video recordings of methods and approaches performed and narrated by the authors, including guidelines on best experimental practices. The book is written for undergraduate and postgraduate students, researchers, laboratory staff, plant operators, consultants, and other sector professionals.

"This book will make a major contribution to the establishment of a common language between scientists and wastewater treatment practitioners, enhancing communication beyond their specific field of expertise and on a global scale." Prof. Dr. Helmut Kroiss, President IWA

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