DESCRIPTION

A practical, hands-on guide to using the microscope to analyze activated sludge in wastewater treatment

The microscope provides the wastewater treatment plant operator with a special tool for process control and troubleshooting of the activated sludge process. The operator can "read" the organisms and use them as "bioindicators" to determine if operational conditions are acceptable or not acceptable. Written for plant operators and technicians and avoiding unnecessary technical jargon, Microscopic Examination of the Activated Sludge Process explores and explains:

• Microscopy, including microscopic measurements and techniques

• Directions for preparing and applying microbiological stains and immobilizing agents and techniques for preparing wet mounts and smears

• How to identify various types of organisms, including: floc particles and foam; protozoa; rotifers; worms and worm-like organisms; crustaceans; filamentous organisms; and algae and fungi

• The collection, evaluation, and presentation of observations

This straightforward guide includes figures, tables, worksheets, photomicrographs, and black-and-white drawings of many living, microscopic components of the activated sludge process. It equips plant operators and technicians to monitor, regulate, and
troubleshoot the treatment processes and also serves as a valuable resource for research professionals and sanitary engineers in wastewater treatment.

ABOUT THE AUTHOR

Michael H. Gerardi holds an MS in biology from James Madison University. In addition to the prior books in Wiley's Wastewater Microbiology Series, he has authored more than 100 technical publications and has provided wastewater microscopy and consulting services to numerous municipal and industrial wastewater treatment plants. He is currently responsible for the development and presentation of wastewater biology courses at The Pennsylvania State University. Mr. Gerardi can be reached at hemlockstables@uplink.net.

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