DESCRIPTION

The practical guide on what to do right when biological influences cause a sequencing batch reactor to go wrong

This richly illustrated, straightforward guide carries forth the legacy established by previous editions in the Wiley Wastewater Microbiology series by focusing attention on the mixed gathering of organisms cohabitating within a sequencing batching reactor (SBR), and the key roles their biology plays in this wastewater processing tank's function. With a clear, user-friendly presentation of complex subject matter, Troubleshooting the Sequence Batch Reactor first teaches plant operators how to differentiate the positive and expected organismal dynamics present in optimal SBR performance from the negative and damaging ones that create unhealthy sludge, and a stoppage in SBR operations. Next, Troubleshooting the Sequence Batch Reactor delivers all the tools necessary to get an SBR back on track and running safely. In this book you'll get:

• Short-course situations tested by the author for the past fifteen years

• Accessible material aimed at operators instead of design and consulting engineers
Essential information for understanding biological conditions such as aerobic, anoxic, and anaerobic/fermentative at the treatment process.

Examination of the properties of protozoa (single-celled) and metazoa (multi-celled) organisms, and their significance in wastewater treatment.

Devoid of overwhelming scientific jargon, chemical equations, and kinetics, this book simplifies details to provide quick instruction for plant operators on how to make more informed day-to-day process control decisions, how to troubleshoot confidently when SBR conditions become compromised, and how to act decisively when the problem is ultimately identified.

ABOUT THE AUTHOR

Michael H. Gerardi holds an M.S. in Biology from James Madison University and has served as an expert witness for the US EPA on nitrification and denitrification. In addition to the prior books in Wiley's Wastewater Microbiology series, he has authored more than one hundred technical publications and has provided wastewater microscopy and consulting services for numerous municipal and industrial wastewater treatment plants. He is currently an operations specialist for Cromaglass Corporation in Williamsport, Pennsylvania.

Brittany Lytle is a native of central Pennsylvania and graduate of Lycoming College. She has illustrated two books, numerous poems, Pennsylvania State University course manuals, and had many solo and group exhibitions in the Williamsport, Pennsylvania area.

SERIES

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