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MICROELECTRODE INVESTIGATIONS OF CHLORINE DIOXIDE TRANSPORT INTO BIOFILMS

Ahmed A. Hosni[1], Am Jang[1], Michael Coughlin[2] and Paul L. Bishop[1*]
[1]*Department of Civil and Environmental Engineering, University of Cincinnati, Cincinnati, OH, 45221-0071, USA*
[2]*JohnsonDiversey, Inc. Innovation Center, 3630 East Kemper Road, Cincinnati, OH 45241, USA*

ABSTRACT

There is a wealth of anecdotes and conjecture regarding the transport of chlorine dioxide into biofilms. In reality, there is virtually no data to support many of the commonly held beliefs regarding chlorine dioxide transport into biofilms. This paper documents the use of a microelectrode to investigate chlorine dioxide transport into a biofilm composed of dairy microflora. The microelectrodes were also used to establish the stability of chlorine dioxide solutions on abiotic surfaces. The use of microelectrodes has for the first time addressed the issues of chlorine dioxide transport from solution into biofilms. Understanding these phenomena will lead to modifications in sanitation strategies.