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THE EFFECT OF ENVIRONMENTAL AND OPERATIONAL PARAMETERS ON *MICROTHRIX PARVICELLA* GROWTH IN BIOLOGICAL NUTRIENT REMOVAL ACTIVATED SLUDGE PLANTS

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ABSTRACT

Bench and pilot scale experiments were used to examine the effect of temperature, type of substrate, reactor configuration and the mode of operation on *Microthrix parvicella* growth. According to the results of bench scale experiments the proliferation of *M. parvicella* is ceased at temperatures greater than 20^{o}C. Also substrates in the form of long chain fatty acids favour the growth of *M. parvicella*. According to the pilot scale experiments the plug flow mode of operation seems to effectively control the growth of *M.parvicella*.

KEYWORDS: Bulking; filamentous bacteria; *Microthrix parvicella*; plug flow; substrate; temperature