

# Existence of omega-periodic solutions for a delayed chemostat with periodic inputs

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## Abstract

This paper proposes an omega-periodic version of the Ellermeyer model of delayed chemostat. We obtain a sufficient condition ensuring the existence of a positive omega-periodic solution. Our proof is based on the application of the generalized continuation theorem. In addition, as a consequence of the implicit function theorem, we obtain a uniqueness result for sufficiently small delays. (C) 2020 Published by Elsevier Ltd.

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