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Response of antimicrobial nitrofurazone-degrading biocathode communities to different cathode potentials

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1 **Response of antimicrobial nitrofurazone-degrading biocathode communities to**
2 **different cathode potentials**

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15
16 **Abstract**

17 Bioelectrodegradation of various organic pollutants has been extensively studied. However,
18 whether different cathode potentials could alter the antimicrobial-degrading biocathode
19 community structure and composition remain poorly understood. Here, the microbial
20 community structure and composition of the nitrofurans nitrofurazone (NFZ) degrading
21 biocathode in response to different cathode potentials (-0.45 ± 0.01 , -0.65 ± 0.01 and
22 -0.86 ± 0.05 V vs standard hydrogen electrode, with applied cell voltages of 0.2, 0.5 and 0.8
23 V, respectively) were investigated. The bioelectrodegradation efficiency and degree of NFZ

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