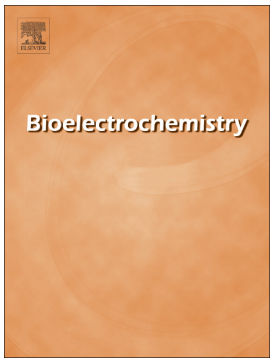

Adaptation of microbial community of the anode biofilm in microbial fuel cells to temperature

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Adaptation of microbial community of the anode biofilm in microbial fuel cells to temperature

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Abstract:

Temperature as an important ecological factor affects biofilm development and microbial metabolic activity. Here, the performances and microbial communities of microbial fuel cells (MFCs) at different temperature were analyzed. As the temperature decreased, the power output of MFCs declined. A maximum power density of 894.3±48.6 mW/m² was obtained in MFCs operating at 30^{o}C, which was 18.5% and 64.5% higher than that in MFCs at 20 ^{o}C and 10 ^{o}C, respectively. Illumina