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Polarized electrode enhances biological direct interspecies electron transfer for methane production in upflow anaerobic bioelectrochemical reactor

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Abstract

The influence of polarized electrodes on the methane production, which depends on the sludge concentration, was investigated in upflow anaerobic bioelectrochemical (UABE) reactor. When the polarized electrode was placed in the bottom zone with a high sludge concentration, the methane production was 5.34 L/L.d, which was 53% higher than upflow anaerobic sludge blanket (UASB) reactor. However, the methane production was reduced to

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