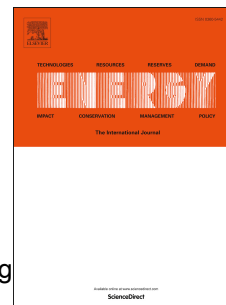


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Direct conversion of sewage sludge to electricity using polyoxometalate catalyzed flow fuel cell

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2 **catalyzed flow fuel cell**

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15  
16 **Highlights**

- 17 ➤ A novel pathway of sludge treatment is successfully designed by flow fuel cell
- 18 ➤ The power output reaches 50 mW/cm<sup>2</sup> which is over 100 times than that of MFC
- 19 ➤ The mechanisms are completely different from any reported sludge fuel cell
- 20 ➤ Low-cost and stable POM is used as both the catalyst and charge carrier
- 21 ➤ No complicated pretreatment or purification of sludge is needed

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