Title:	Review-microbial electrosynthesis: A way towards the production of electro-commodities through carbon sequestration with microbes as biocatalysts
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Abstract:	There has been a considerable increment in the atmospheric CO2 concentration, which has majorly contributed to the problem of global warming. This issue can be extenuated by effectively developing microbial electrosynthesis (MES) for the sequestration of CO2 with the concurrent production of biochemical and biofuels. Though the MES technology is in its infancy, it has exhibited enormous potential for sustainable mitigation of CO2 and bioelectrosynthesis of multi-carbon organic compounds. The problem of storage of excess renewable electrical energy by conventional means can also be alleviated by employing MES, which stores it in the form of C-C bonds of chemicals. This review focuses on the various aspects of MES and recent developments made in this field to overcome its bottlenecks, such as the lower yield of organic compounds, separation of products of higher chain organic compounds, etc. In particular, the microbial catalysts and cathode materials employed in MES have also been emphasized. Keeping in mind the potential of this innovative technology, researchers should focus on improving the yield of MES by developing novel low-cost cathode materials and discovering efficient and robust micro-organisms, which would be a significant step forward towards the further advancement of this technology
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