



Légende : Conceptual illustration of polyextremophilic microbial electrosynthesis, showing how microorganisms from deep-sea hydrothermal vents use electrical energy at electrodes to convert CO_2 into valuable compounds. The diagram links extreme environments, low-cost 3D-printed bioelectrochemical reactors, microbial enrichment and isolation, and the production of bioplastics, biofuels, and other high-value molecules from renewable electricity.