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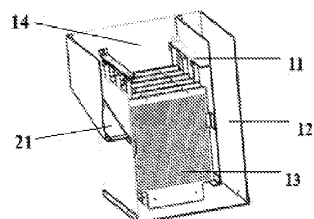


Figure 1

(57) Abstract: An energy efficient, high-performance reactor (1) for wastewater treatment is disclosed herein. The reactor (1) has a chamber (14) provided with an inlet (11) to allow the entry of the wastewater, and an outlet (21) to allow the treated water to exit. The chamber includes an electrode assembly (13), wherein each of the pair of electrodes includes a layer of metal matrix composites. A polarity switching DC power is provided across the electrode assembly (13), thereby inducing an array of microelectrodes for enhanced surface area and better efficiency for the reaction.

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