

Title (en)
REGENERATABLE SYSTEM FOR CONTAMINANT REMOVAL

Title (de)
REGENERIERBARES SYSTEM ZUR ENTFERNUNG VON VERUNREINIGUNGEN

Title (fr)
SYSTÈME POUR ÉLIMINATION DE CONTAMINANTS POUVANT ÊTRE RÉGÉNÉRÉ

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Application
EP 21740390 A 20210618

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Abstract (en)
[origin: WO2021257946A1] A system and method for water purification by capture of contaminants in an aqueous mixture is described herein. A system and method for regenerating the capture system is also described. An integrated capture and regeneration system and method is also described including a separation vessel that houses a capture bed and optionally an electrode in electrical contact with the bed with a power source for applying a voltage to the electrode. The applied voltage enhances capture of the contaminant from aqueous liquid on the capture bed and modulation of the applied voltage enhances release of contaminant on the capture bed into aqueous wash liquid to regenerate the bed. The aqueous wash liquid may contain a counter ion that binds to the contaminant forming an aggregate contaminant phase that separates from the aqueous wash liquid.

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