

(S7) Abstract: An H2SO4-based calcite dissolution post-treatment process and apparatus for desalinated water are provided. The process comprises separating cations from seawater by ion exchange resin (s) (12) onto which the ions are loaded, contacting the ion exchange resin (s) (12) loaded with the cations with an effluent (1) of a calcite dissolution reactor (10) wherein the cations are exchanged with Ca²⁺ from this effluent. The Ca²⁺ concentration of the resulting desalinated water (6) decreases while the cations concentration increases to comply with required quality criteria. Batch type and continuous apparatus by which the process can be carried out are described.



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- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*