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(54) **Title:** CARBON DIOXIDE SEQUESTRATION INVOLVING TWO-SALT-BASED THERMOLYTIC PROCESSES

(57) **Abstract:** The present invention relates to an energy efficient carbon dioxide sequestration processes whereby calcium silicate minerals and CO₂ are converted into limestone and sand using a two-salt thermolytic process that allows for the cycling of heat and chemicals from one step to another. In one embodiment, MgCl₂ is reacted with water under conditions to form Mg(OH)₂; and the Mg(OH)₂ product is further reacted with CaCl₂ and carbon dioxide to form MgCl₂, CaCO₃, and water.



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