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(54) Title: PROCESS FOR PRODUCING ALKALI HYDROXIDE OR ALKALINE EARTH OXIDE EMPLOYING A WEAK ACID INTERMEDIATE

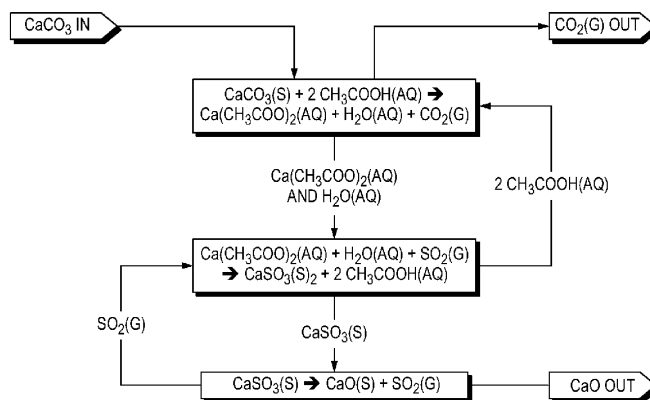


Figure 1

(57) Abstract: The present application pertains to processes producing oxides using a weak acid intermediate. In one embodiment a material comprising calcium carbonate is reacted, with a solution comprising aqueous carboxylic acid to form a gas comprising carbon dioxide and a solution comprising aqueous calcium carboxylate. The solution comprising aqueous calcium carboxylate is reacted with sodium sulfate to form a solution comprising aqueous sodium carboxylate and a solid comprising calcium sulfate. The solution, comprising aqueous sodium carboxylate is reacted with sulfur dioxide to form sodium sulfite and an aqueous carboxylic acid. The sodium sulfite is separated from said aqueous carboxylic acid and reacted to form a solid comprising calcium sulfite which is decomposed to form calcium oxide and sulfur dioxide.

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