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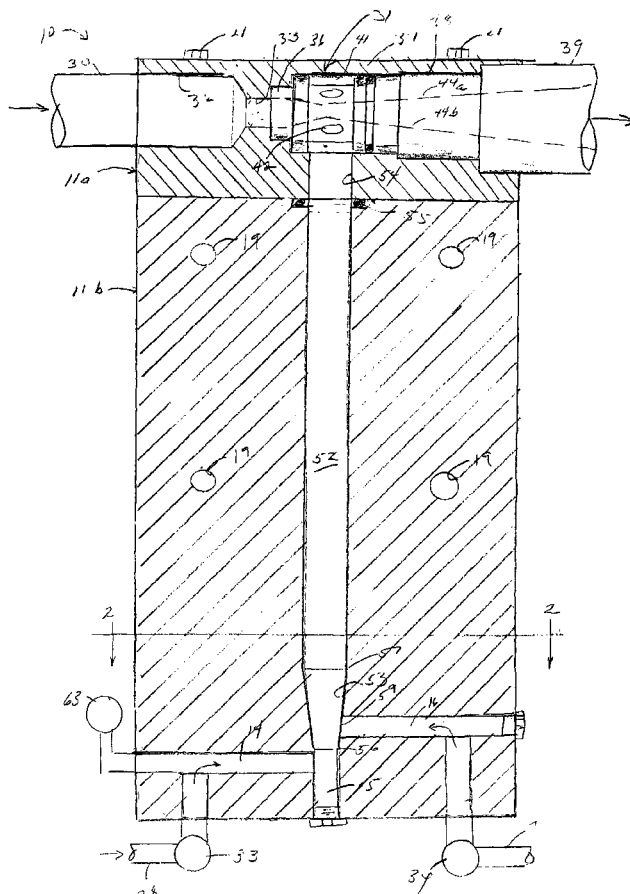
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(54) Title: **CHLORINE DIOXIDE GENERATOR**



(57) Abstract: A solid-state chlorine dioxide generator (10) for generating an aqueous solution of ClO₂ is formed within a block (11a, 11b) comprising an eductor (31) for establishing a vacuum pressure and a reaction column (52) for producing ClO₂ from precursor chemicals. The eductor (31) has a water stream flowing therethrough which establishes a vacuum pressure and draws the ClO₂ from the reaction column (52) into the water stream to form an aqueous ClO₂ solution. The reaction column (52) comprises a novel transition zone (53) of increasing flow area wherein the precursor chemicals thoroughly mix resulting in conversion efficiencies of precursors into ClO₂ of 95 % and above.



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