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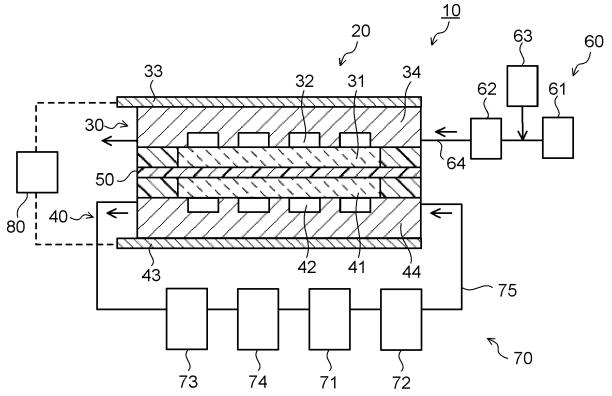
(54) **CARBON DIOXIDE ELECTROLYTIC DEVICE AND METHOD OF ELECTROLYZING CARBON DIOXIDE**

(57) A carbon dioxide electrolytic device of an embodiment includes: an electrolysis cell including a cathode to reduce carbon dioxide, an anode to oxidize water or hydroxide ion and having a base containing titanium, a cathode flow path to supply carbon dioxide to the cathode, an anode flow path to supply an electrolytic solution containing water to the anode, and a separator to separate the anode and the cathode; a gas supply unit to supply carbon dioxide to the cathode flow path; at least either of a humidifier to humidify carbon dioxide supplied to the cathode flow path by using a humidification water, and a liquid pouring part to add the humidification water to the carbon dioxide; and an electrolytic solution supply unit to supply the electrolytic solution to the anode flow path. At least one of the electrolytic solution, the humidification water, and the supplied gas contains an oxidant.

FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
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C25B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	5 September 2024	De Porcellinis, D

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