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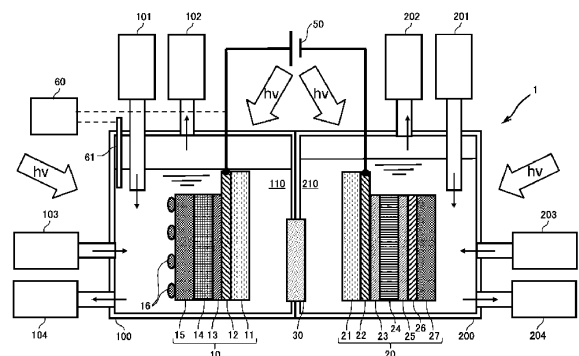
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(54) **PHOTOCATALYTIC APPARATUS**

(57) A photocatalytic apparatus is provided that uses a photovoltaic action for both electrodes and conjugates a photocatalytic action with the photovoltaic action to efficiently perform material transformation on the basis of a redox reaction on the electrodes using light energy. A photocatalytic apparatus includes a first electrode (10) functioning as an anode and a second electrode functioning as a cathode. The first electrode (10) includes a first transparent conductive substrate (11) having light transmittivity and electrical conductivity, a first light power generation layer (14) that is disposed on the first transparent conductive substrate (11) and absorbs light to generate electrons and holes, and a photocatalytic layer (15) that is disposed on the first light power generation layer (14) and catalyzes an oxidation reaction when being irradiated with light. The second electrode includes a second transparent conductive substrate (21) having light transmittivity and electrical conductivity, a second light power generation layer (24) that is disposed on the second transparent conductive substrate (21) and absorbs light to generate electrons and holes, and a catalytic layer (27) that is disposed on the second light power generation layer (24) and catalyzes a reduction reaction.

FIG. 1





EUROPEAN SEARCH REPORT

Application Number

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			C25B
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 9 July 2024	Examiner Dunn, Halina
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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