ABSTRACT

CARBON DIOXIDE CAPTURING METHOD AND SYSTEM FOR CO-PRODUCING OF CARBON MONOXIDE AND HYDROGEN

Disclosed are a carbon dioxide capturing method and system for co-producing of carbon monoxide and hydrogen, which includes: capturing, by an alkaline solution, carbon dioxide in a target component, to obtain an aqueous solution containing a carbonate; performing, on the aqueous solution containing the carbonate, a first electrolytic process, to obtain a first aqueous solution containing a bicarbonate and hydrogen; and performing, on the first aqueous solution containing the bicarbonate in the presence of a catalyst, a second electrolytic process, to obtain the carbon monoxide and the hydrogen, where the catalyst is selected as at least one component from a group consisting of an elementary substance of metal, alloy and compound of group VIII, group IB, group IIB, group IVA and lanthanide.

Figure 1