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(71) Applicant: **L'AIR LIQUIDE, SOCIETE ANONYME POUR L'ETUDE ET L'EXPLOITATION DES PROCEDES GEORGES CLAUDE** [FR/FR]; 75 Quai d'Orsay, 75007 PARIS (FR).

(72) Inventors: **ROSSI, Umberto**; c/o Air Liquide E&C Solutions Germany GmbH, Olof-Palme-Straße 35, 60439 Frankfurt am Main (DE). **SCHMIDT, Sophia**; c/o Air liq-

uide E&C Solutions Germany GmbH, Olof-Palme-Straße 35, 60439 Frankfurt am Main (DE). **ULBER, Dieter**; c/o Air Liquide E&C Solutions Germany GmbH, Olof-Palme-Straße 35, 60439 Frankfurt am Main (DE).

(74) Agent: **ORCET, François**; L'AIR LIQUIDE S.A., 75 Quai d'Orsay, 75321 PARIS CEDEX 07 (FR).

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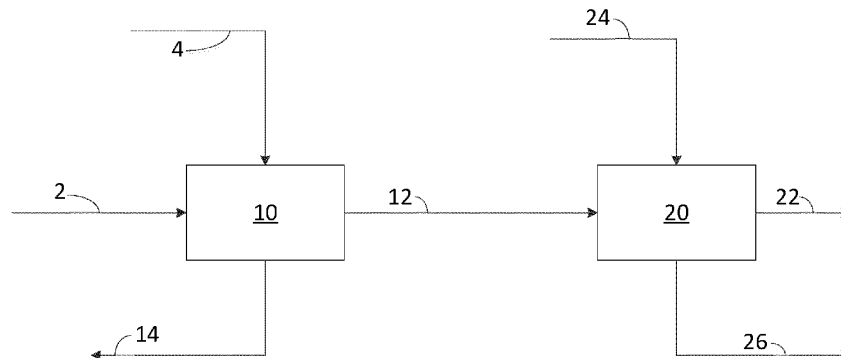


FIGURE 1

(57) Abstract: A method for generating hydrogen is provided. In certain embodiments, the method can include the steps of: introducing a hydrocarbon feed stream, at a first temperature, into a first reaction zone under conditions effective for producing a first process stream, wherein the first process stream is at a second temperature that is greater than the first temperature; introducing a second feed stream into a second reaction zone under conditions effective for producing a hydrogen product stream, wherein heat needed for producing the hydrogen product stream from the second feed stream is at least partially provided by heat exchange with the first process stream; and withdrawing the hydrogen product stream from the second reaction zone.

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WO 2023/117943 A1

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