

Title (en)
MEMBRANE ENHANCED REACTOR

Title (de)
VERBESSERTER MEMBRANREAKTOR

Title (fr)
REACTEUR A MEMBRANE AMELIORE

Publication
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Application
EP 05808744 A 20050919

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Abstract (en)
[origin: WO2006034086A1] A hydrogen producing reactor is disclosed. The hydrogen producing reactor has a reaction chamber containing a catalyst bed adapted to produce reaction products containing hydrogen from a hydrogen-producing feedstock. The reaction chamber also includes a hydrogen-selective, hydrogen-permeable gas separation module adapted to receive the reaction products from the catalyst bed and to separate a product stream containing hydrogen from the reaction products. The gas separation module comprises a porous substrate, an intermediate layer located at the porous substrate, and a hydrogen-selective membrane overlying the intermediate layer. The intermediate layer comprises particles and a binder metal, where the binder metal is distributed through out the intermediate layer. A steam reforming process is also disclosed using the disclosed reactor.

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