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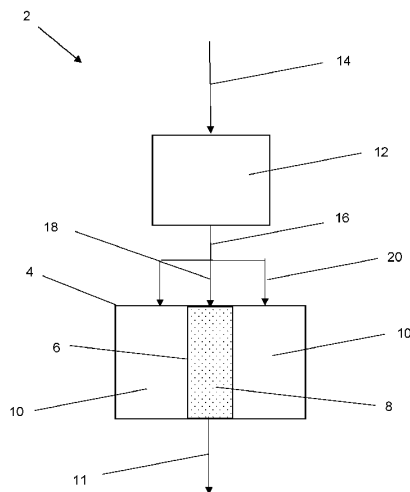
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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
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(54) Title: SYSTEM AND PROCESS FOR CRACKING AMMONIA

Fig. 1



(57) Abstract: A system for the catalytic cracking of ammonia to produce hydrogen, the system comprising: a main ammonia cracking reactor comprising one or more reaction tubes containing ammonia cracking catalyst and a fuel combustion zone surrounding the one or more reaction tubes to provide heat energy to support the cracking of ammonia in the one or more reaction tubes to generate a main hydrogen containing gas stream; and an auxiliary ammonia cracking reactor for cracking ammonia to generate an auxiliary hydrogen containing gas stream, the system being configured to direct the auxiliary hydrogen containing gas stream to both the ammonia cracking catalyst within the one or more reaction tubes of the main ammonia cracking reactor and to the combustion zone of the main ammonia cracking reactor to at least partially fuel the main ammonia cracking reactor.

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