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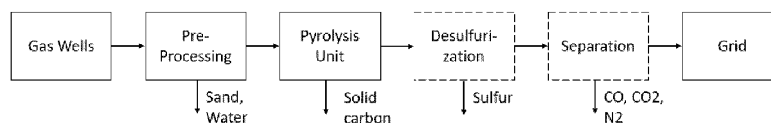
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(54) **Title:** PRETREATMENT OF C2-C6 ALKANES-RICH RAW NATURAL GAS OR INDUSTRY OFF GAS

Fig. 3



(57) **Abstract:** The present invention relates to a process for treatment of C2-C6 alkanes rich natural gas having an C2-C6 alkane content of 2.5 to 30 Vol.-% of the total raw natural gas or C2-C6 alkanes rich industry off-gas having an C2-C6 alkane content of 10 to 80 Vol.-% of the total industry off-gas to get pipeline quality natural gas or pipeline quality hydrogen, wherein (i) the C2-C6 alkanes rich natural gas and/or C2-C6 alkanes rich industry off-gas are introduced via the bottom of a moving bed reactor, having a temperature of 10 to 200°C, and substrates having a particle size of 0.3 to 8 mm are introduced via the top of said moving bed reactor, having a temperature of 10 to 200°C, (ii) the C2-C6 alkanes rich natural gas and/or C2-C6 alkanes rich off-gas is pyrolyzed in said moving bed reactor into a gaseous product stream containing at least methane and/or hydrogen and into solid carbon, (iii) the solid carbon is separated from that gaseous product stream and (iv) the gaseous product stream is fed into a natural gas grid and/or into a hydrogen grid or the gaseous product stream is used materially or energetically directly.