



(12) AUSTRALIAN PATENT ABSTRACT
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(54) REMOVAL OF HCN, NH₃ AND COS FROM SYNTHESIS GAS
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 (74) SF
 (57) Claim

1. A process for the gasification of carbon-containing fuel comprising the steps of
 - (a) partially combusting particulate carbon-containing fuel in a gasification zone comprising at least one gasification reactor, and producing a gaseous stream containing synthesis gas, particulate matter, and minor amounts of HCN, NH₃ and COS;
 - (b) cooling said gaseous stream, and removing at least the bulk of the particulate matter therefrom, and scrubbing said gaseous stream in a scrubbing zone with an effective amount of an aqueous scrubbing solution and removing HCN, NH₃, COS and remaining particulate matter from said synthesis gas, producing a purified synthesis gas and loaded scrubbing solution;
 - (c) stripping the bulk of the HCN, NH₃ and COS from at least a portion of said loaded scrubbing solution in a stripping zone, producing a gas mixture containing HCN, NH₃ and COS, and a stripped liquid mixture, and removing said gas mixture from said stripped liquid mixture and said stripping zone; and
 - (d) introducing at least a portion of said gas mixture into at least one gasification reactor of said gasification zone.

