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(71) Applicant *(for all designated States except US)*: **BP CHEMICALS LIMITED** [GB/GB]; Chertsey Road, Sunbury-on-Thames, Middlesex TW16 7BP (GB).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **LIGHTOWLERS, David** [GB/GB]; 6 Baxtergate, Hedon, Hull, East Yorkshire HU12 8JN (GB). **THOMSON, Alasdair, Iain** [GB/GB]; 11 St Mary's Close, Elloughton, Hull, East Yorkshire HU15 1JF (GB).

(74) Agent: **BROOKE, Caron**; BP International Limited, Global Patents & Technology Law (Central), Chertsey Road, Sunbury-on-Thames, Middlesex TW16 7LN (GB).

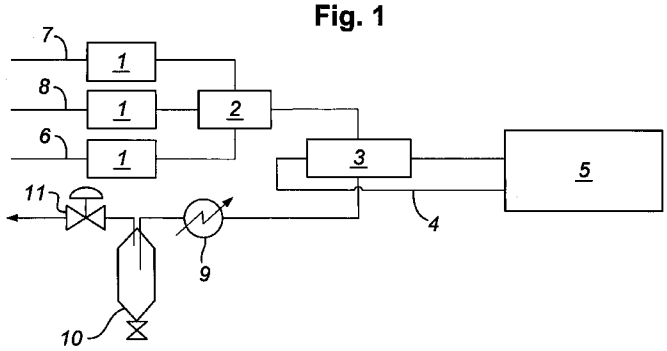
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(54) **Title:** A METHOD FOR THE ONLINE ANALYSIS OF A VAPOUR PHASE PROCESS STREAM

Fig. 1



(57) **Abstract:** A method for the on-line analysis of a process stream, which process stream is a feedstream to or an exit stream from a steam reformer, which process stream has a temperature of at least 2000C, the components of which process stream are in the vapour phase, which method comprises: (a) taking a slipstream from the process stream; (b) cooling the slipstream to a temperature above its dew point; (c) analysing the cooled slipstream by near infra-red (NIR) spectroscopy to obtain a spectrum characterising NIR-absorbing components of the process stream; and (d) correlating the spectrum obtained to established calibration models from NIR spectroscopy using chemometric techniques to determine the concentration of, and/or to determine the partial pressure of one or more of the NIR-absorbing components of the process stream.

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