9802471-4
RTMP's copy!

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G01N 21/05, 21/35 — A1

(11) International Publication Number: WO 97/14951

(43) International Publication Date: 24 April 1997 (24.04.97)

(21) International Application Number: PCT/EP96/04605

(22) International Filing Date: 17 October 1996 (17.10.96)

(30) Priority Data:
95307412.7 18 October 1995 (18.10.95) EP
(34) Countries for which the regional or international application was filed: GB et al.
96301646.4 11 March 1996 (11.03.96) EP
(34) Countries for which the regional or international application was filed: GB et al.

(71) Applicant *(for all designated States except CA)*: SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V. [NL/NL]; Carel van Bylandtlaan 30, NL-2596 HR The Hague (NL).

(71) Applicant *(for CA only)*: SHELL CANADA LIMITED [CA/CA]; 400 - 4th Avenue S.W., Calgary, Alberta T2P 2H5 (CA).

(72) Inventors: VAN DOORN, Ronald; Badhuisweg 3, NL-1031 CM Amsterdam (NL). HOOYMAN-SPAARGAREN, Froukje, Haasje; Badhuisweg 3, NL-1031 CM Amsterdam (NL). NEUGEBAUER, Ronald, Johan; Badhuisweg 3, NL-1031 CM Amsterdam (NL). SMEETS, Louis, Marie; Badhuisweg 3, NL-1031 CM Amsterdam (NL).

(81) Designated States: AU, CA, CZ, JP, NZ, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
With international search report.

(54) Title: TRANSMISSION CELL FOR MEASURING NEAR INFRARED SPECTRA OF A HYDROCARBONACEOUS MATERIAL

(57) Abstract

The present invention provides a transmission cell suitable for use in a device for measuring (near) infrared spectra of a hydrocarbonaceous material which comprises one or more sample compartments (2) and one or more reference compartments (3), wherein the sample compartment(s) comprise(s) two transparent windows between which a space (8) is formed for containing the hydrocarbonaceous material and inlet and outlet means (10, 11) for introducing and removing the hydrocarbonaceous material into and from the space between the windows; a (near) infrared spectrometer comprising such transmission cell; a method for predicting a physical property of a hydrocarbonaceous material using such (near) infrared spectrometer; a process for preparing a bitumen composition comprising blending two or more streams of different grades of bitumen and determining a property of the bitumen composition so obtained by means of the above method; and the use of the spectrometer in process control, process steering, and hydrocarbonaceous feedstock and hydrocarbonaceous product quality monitoring.

