

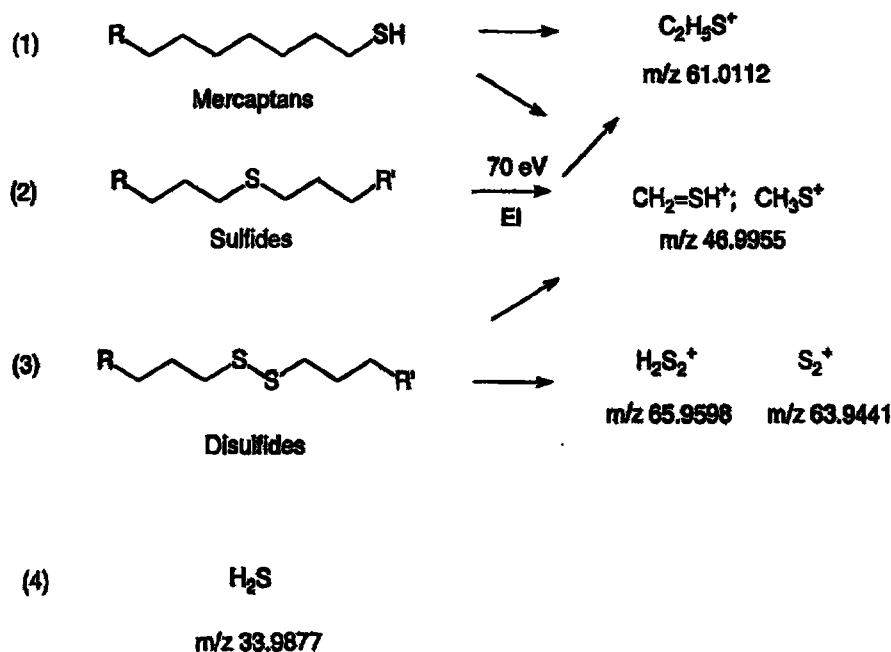
PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : G01N 11/00, G01D 18/00	A1	(11) International Publication Number: WO 99/58951 (43) International Publication Date: 18 November 1999 (18.11.99)
(21) International Application Number: PCT/US99/08460 (22) International Filing Date: 16 April 1999 (16.04.99) (30) Priority Data: 09/076,539 12 May 1998 (12.05.98) US (71) Applicant: EXXON RESEARCH AND ENGINEERING COMPANY [US/US]; 180 Park Avenue, P.O. Box 390, Florham Park, NJ 07932-0390 (US). (72) Inventors: ROUSSIS, Stilianos, George; 2886 Stoney Creek Drive, Bright Grove, Ontario N0N 1C0 (CA). FEDORA, James, Wade; 839 Prestwick Crescent, Sarnia, Ontario N7S 4J6 (CA). CAMERON, Andrew, Stuart, McGill; 5119 126 Street, Edmonton, Alberta T6H 3W1 (CA). (74) Agents: TAKEMOTO, James, H. et al.; Exxon Research and Engineering Company, P.O. Box 390, Florham Park, NJ 07932-0390 (US).	(81) Designated States: CA, JP, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.	

(54) Title: METHOD FOR ANALYZING TOTAL REACTIVE SULFUR



(57) Abstract

The invention relates to a method for determining total reactive sulfur in a crude oil or fraction thereof using a mass spectrometer or gas chromatograph and mass spectrometer. Selecting fragment ions (1-4) characteristic of reactive sulfur species enables the quantitative determination of total reactive sulfur species. The use of a low resolution mass spectrometer allows the rapid determination of total reactive sulfur in field or remote locations where more sophisticated instruments are not available.