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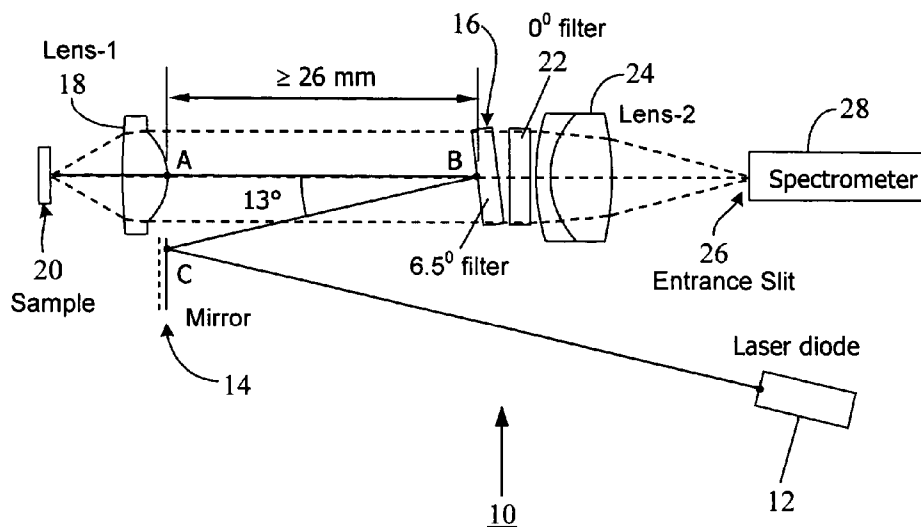
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

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(54) Title: COMPACT RAMAN OR FLUORESCENCE EXCITATION SYSTEM



(57) Abstract: A compact Raman and fluorescence spectroscopy system that uses a microprism or micromirror based optical structure to accomplish the introduction of excitation radiation with compactness and simplified system configuration for portable or mobile spectroscopy applications. A microprism may be glued to a surface location of a focusing lens in the system to directly receive the illumination signal without intervening optical components. Alternatively, the microprism may be simply placed in close physical proximity of the focusing lens without being glued thereto. On the other hand, a micromirror may be used instead of the microprism. The illuminating photons received by the microprism or micromirror may be directly transferred to the sample under investigation via the focusing lens. The compact system may be made portable and may further include an on-board spectrometer with or without a display unit. For chemical detecting applications, a detector may also be provided along with the spectrometer.



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USPC - 356/451

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) - G01B 9/02 (2008.01)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

USPTO WEST System (US, USPG-PUB, EPO, DERWENT), Patbase

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,923,423 A (SAWATARI et al) 13 July 1999 (13.07.1999) entire document	1-37
Y	US 2005/0047724 A1 (FARR) 03 March 2005 (03.03.2005) entire document	1-37
Y	US 2005/0237642 A1 (TAKAHASHI et al) 27 October 2005 (27.10.2005) entire document	5-7
Y	US 4,076,978 A (BRENNAN et al) 28 February 1978 (28.02.1978) entire document	8-10
Y	US 6,069,698 A (OZAWA et al) 30 May 2000 (30.05.2000) entire document	9-10, 30
Y	JP 02-039006 A (MASAAKI et al) 08 February 1990 (08.02.1990) entire document	15-19
Y	EP 0 176 625 B1 (TANIMOTO et al) 14 March 1990 (14.03.1990) entire document	20-26, 32-33, 36-37
Y	US 5,784,507 A (HOLM-KENNEDY et al) 21 July 1998 (21.07.1998) entire document	27
Y	US 2004/0096152 A1 (NAKAMA et al) 20 May 2004 (20.05.2004) entire document	28-33

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