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[Continued on next page]

(54) **Title:** INTERFACING WITH A DIGITAL MICROFLUIDIC DEVICE

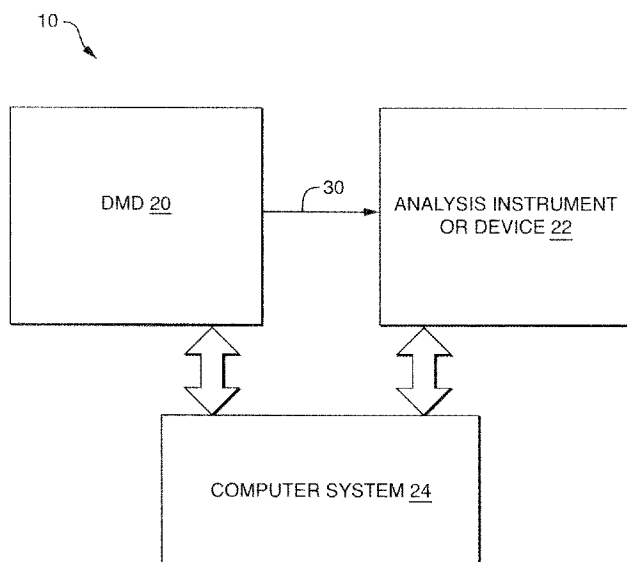


FIG. 1

(57) **Abstract:** Described are techniques for use in connection with analyzing a droplet. One or more droplets of a sample are formed on a surface of a digital microfluidic device. The droplets are manipulated to perform processing using said one or more droplets generating one or more resulting droplets. The one or more resulting droplets may be transferred from the microfluidic device to another device for analysis. The one or more droplets may also be provided to the digital microfluidic device from yet another device or analysis instrument.

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B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) USPC: 250/281 IPC(8): H01J 49/00 (2009.01)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 250/282; 436/43, 161, 173; search terms below		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PubWest(PGPB,USPT,USOC,EPAB,JPAB); Google Scholar; microfluidic device, fluid, sample, droplets, analysis, electrode, electrospray, tip, top, bottom, digital, mass spectrometer, liquid chromatography, etc.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2006/0114296 A1 (Gascoyne et al.), 01 June 2006 (01.06.2006), entire document, esp. abstract, fig 1, para [0033]-[0034], [0075], [0079].	1-42
Y	US 2006/0060769 A1 (Bousse et al.), 23 March 2006 (23.03.2006), entire document, esp. abstract, para [0027], [0034], [0042].	1-42
Y	US 2007/0128078 A1 (Sarrut et al.), 07 June 2007 (07.06.2007), entire document, esp. abstract, fig 10D, para [0114].	7-11, 13-14, and 33
Y	US 6,337,480 B1 (Andrien et al.) 08 January 2002 (08.01.2002), entire document, esp. abstract; fig. 1A; col 4, ln 44-50.	18-27
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>		
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: <div style="text-align: right;">Lee W. Young</div> PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774