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(54) Title of the Invention: Downhole generation of microwaves from light
Abstract Title: Downhole generation of microwaves from light

(57) A method and system are disclosed that provide chemical composition data of a fluid. The system includes a first downhole electro-opto-mechanical device to transmit microwave radiation through the fluid. The microwave radiation is generated by the first downhole electro-opto-mechanical device in response to a first light signal. A second downhole electro-opto-mechanical device receives the microwave radiation and generates a second light signal in response to the received microwave radiation. A light detection device is coupled to the second downhole electro-opto-mechanical device to generate an electrical signal in response to the second light signal. The electrical signal is indicative of the chemical composition of the fluid.

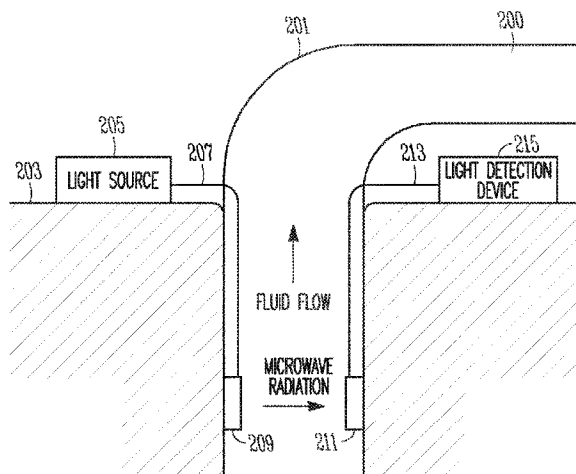


FIG. 2

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