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(54) Title: HANDHELD OPTOACOUSTIC PROBE

(57) Abstract: A handheld optoacoustic probe includes an ultrasound transducer array and optical fibers with a first end formed into a fiber bundle providing an input and a second, distal end providing an output. A light bar guide retains the distal end of the optical fibers on the same plane. One or more optical windows may be associated with, and spaced from the light bar guide so as to prevent contact between a coupling agent and the distal ends of the optical fibers, thus mitigating a potential acoustic effect of the coupling agent in response to light emitting from the fibers. A silicon rubber acoustic lens doped with TiO2 may be provided, with a reflective metal surrounding the outer surface of the acoustic lens. A handheld probe shell houses the light bar guide, the ultrasound transducer array, and the acoustic lens.

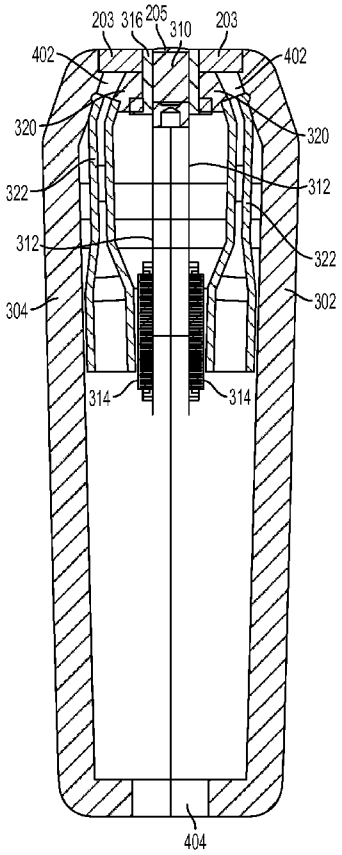


FIG. 4

WO 2013/067304 A1

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