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(54) Title: SYSTEM AND METHOD FOR ACQUIRING OPTOACOUSTIC DATA AND PRODUCING PARAMETRIC MAPS THEREOF

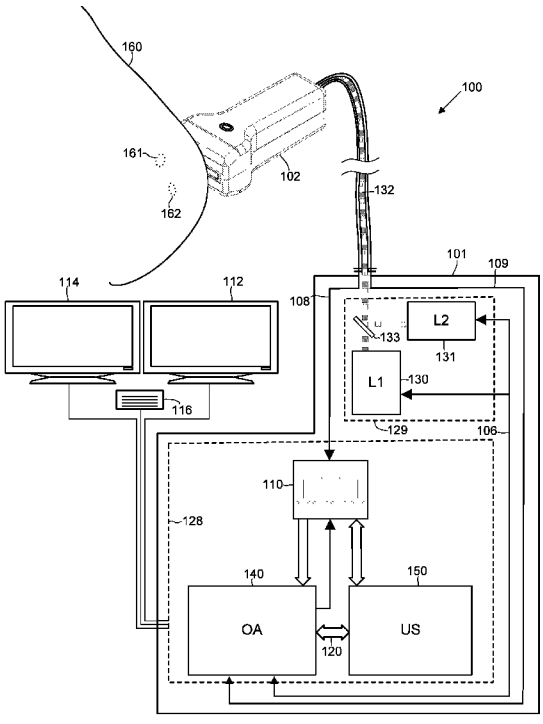


FIG. 1

(57) Abstract: A method is disclosed for generating sinograms by sampling a plurality of transducers acoustically coupled with the surface of a volume of tissue over a period of time after a light pulse at one wavelength, and after another light pulse at a different wavelength, and for processing those sinograms, reconstructing at least two optoacoustic images from the two sinograms, processing the two optoacoustic images to generate two envelope images and generating a parametric map from information in the two envelope images. In an embodiment, motion and tracking are determined to align the envelope images. In an embodiment, at least a second parametric map is produced from information in the same two envelope images. In an embodiment an ultrasound image is also acquired, and the parametric map is coregistered with and overlayed upon the ultrasound image, and then displayed.

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