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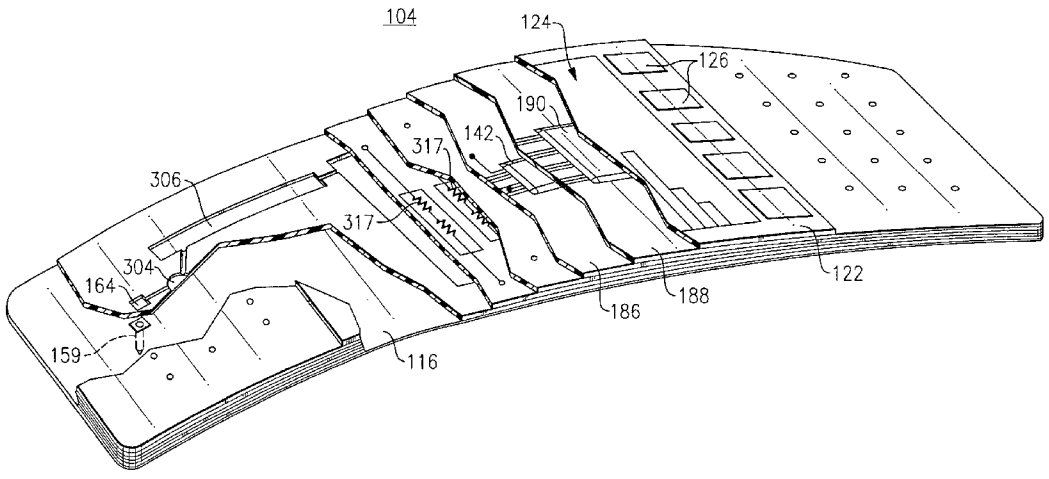
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(54) Title: PERSONAL DIAGNOSTIC DEVICES AND RELATED METHODS



(57) Abstract: Personal diagnostic devices including diagnostic patches (bio-patches) and interactive medical bracelets (bio-bracelets) are provided with a skin/patch interface, at least one analysis layer, a signal processing layer, and a user output interface. Embodiments of the interactive diagnostic devices may include micro-fluidic circuits with reaction chambers, analysis chambers, mixing chambers, and various pre-disposed chemistries or reagents for performing a wide verity of tests by trans-dermal transport of blood or perspiration. Sample collection chambers for the fluidic circuit may include minimally invasive tubules that penetrate the skin surface to acquire blood samples from capillaries near the epidermis. Alternate implementations of the personal diagnostic device may be equipped with logic processing, input/output devices, acoustic microphones, cryogenic circuits, embedded processors, electrical control circuitry, and battery current sources or photovoltaic sources of electrical power.

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