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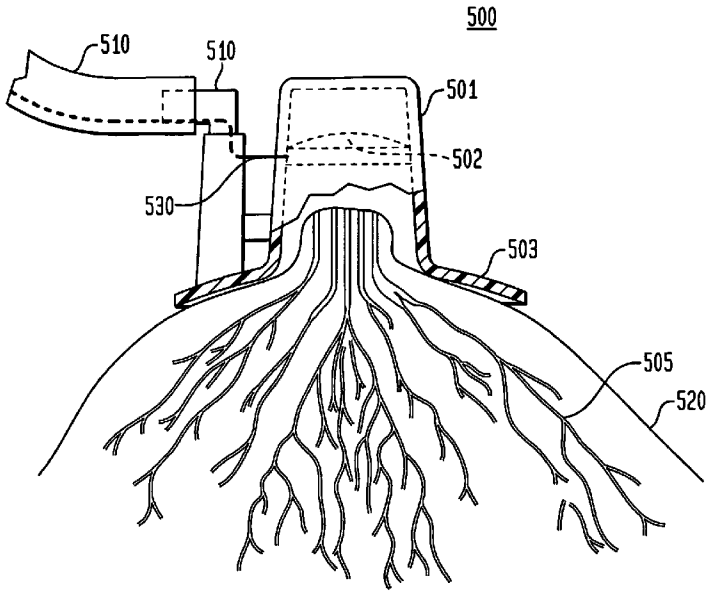
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(54) Title: METHOD AND SYSTEM FOR DETECTING ELECTROPHYSIOLOGICAL CHANGES IN PRE-CANCEROUS AND CANCEROUS BREAST TISSUE AND EPITHELIUM




(57) Abstract: A method and system are provided for determining a condition of a selected region of epithelial and stromal tissue in the human breast. A plurality of measuring electrodes are used to measure the tissue and transepithelial electropotential of breast tissue. Surface electropotential and impedance are also measured at one or more locations. An agent may be introduced into the region of tissue to enhance electrophysiological characteristics. The condition of the tissue is determined based on the electropotential and impedance profile at different depths of the epithelium, stroma, tissue, or organ, together with an estimate of the functional changes in the epithelium due to altered ion transport and electrophysiological properties of the tissue. Devices for practicing the disclosed methods are also provided.

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