

Probe for measuring Bioimpedance of the Human Uterine Cervix

Published date: Oct. 7, 2014

Technology description

Technical Details:

There are various clinical conditions, both normal and abnormal, where significant remodeling of the proteins in the human uterine cervix occurs. For example, with increased secretion of decorin in late pregnancy and labor, collagen (the main component of the extracellular matrix of cervical tissue) is hydrolyzed and replaced by hyaluronic acid, which has a high attraction for water molecules. The resultant increase in water content of cervical tissue improves its ability to conduct electrical current. A bioimpedance probe has been designed to detect subtle changes in tissue composition, and thereby detect the onset of cervical remodeling in a non-invasive manner and much earlier than existing clinical methods.

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