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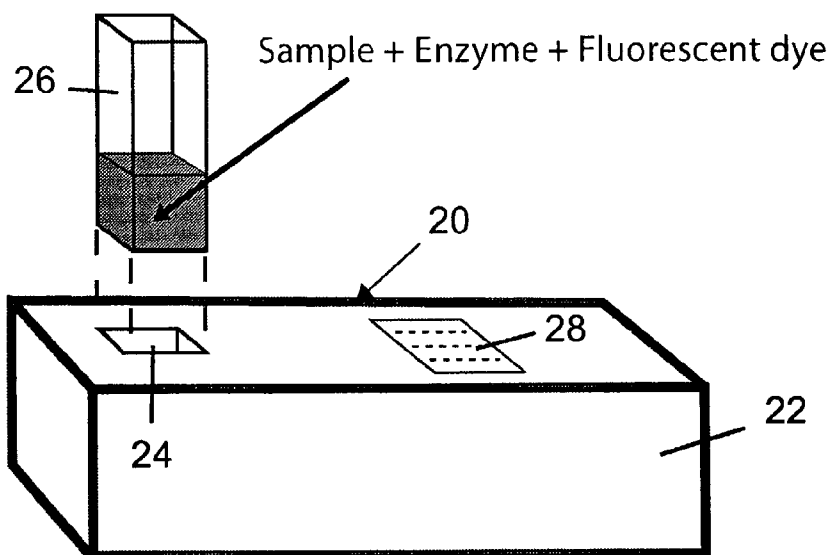
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(54) Title: MALE FERTILITY ASSAY METHOD AND DEVICE



(57) Abstract: A method and device for assaying sperm motility in a forward direction and density of active sperm in a semen sample are disclosed. The device includes a microfluidics structure having a sample reservoir, a downstream collection region and a microchannel extending therebetween. The microchannel is dimensioned to confine sample sperm to single-direction movement within the channel, such that sperm in a semen sample placed in the sample reservoir enter and migrate along the microchannel toward and into the collection region. Also included is a detector for detecting the presence of labeled sperm in the microchannel or collection region, and an electronics unit operatively connected to the detector for (i) receiving detector signals, (ii) based on the detector signals received, determining sperm motility and density in the sperm sample, and (iii) displaying information related to sperm motility and density.

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