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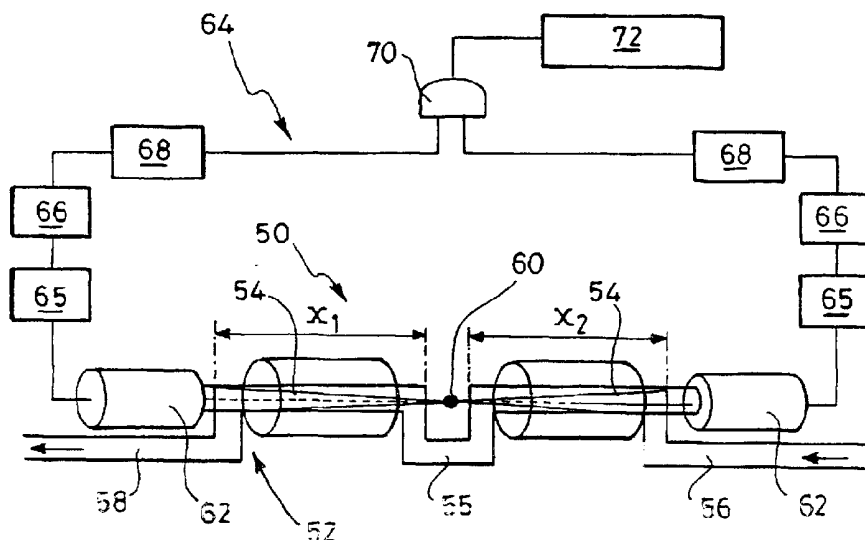
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(54) Abstract Title: Fluid density measurement

(57) A wellbore tool for measuring the density of a fluid flowing in a wellbore by a photon attenuation technique includes a tube defining a flow path for the fluid, a photon source at one end of the tube, and a photon detector arranged to receive photons which have passed along the tube. In a preferred implementation, a source which emits coincident photon pairs, preferably <sup>22</sup>Na, is used. In this embodiment, the tube defining the fluid flow path has first and second relatively straight and aligned measurement portions disposed on opposite sides of the photon source, so that each measurement portion receives a respective photon of some of the coincident pairs for transmission longitudinally along it. Respective detectors at the other ends of the measurement portions receive respective ones of the photon pairs. The detected coincident photons are counted, and the density of the fluid is derived from the count rate.



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