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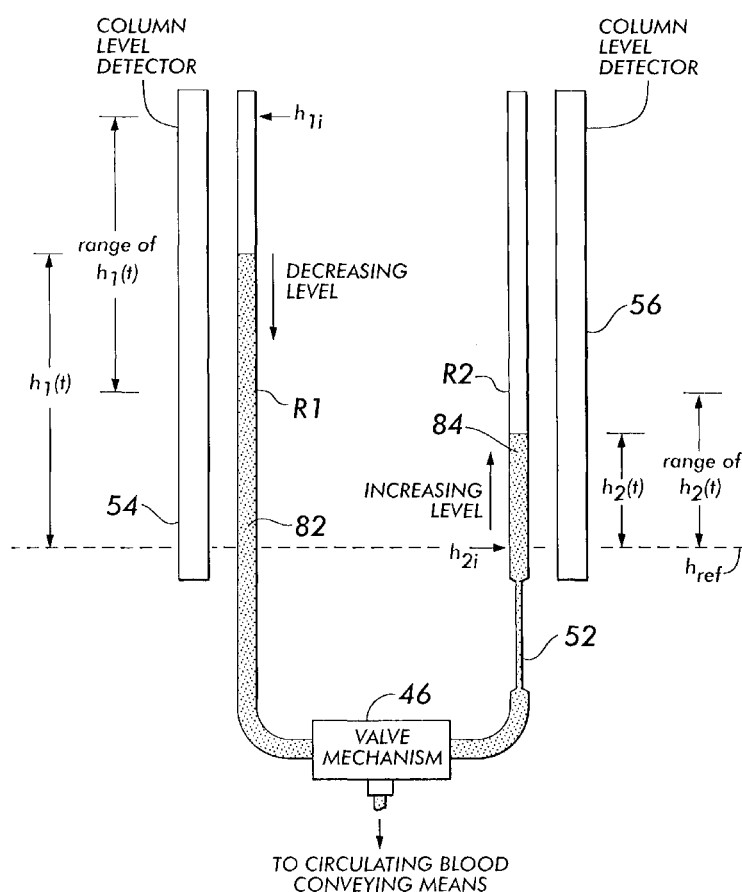
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(54) Title: DUAL RISER/SINGLE CAPILLARY VISCOMETER



(57) Abstract: A blood viscosity measuring system and methods for measuring blood viscosity monitors the change in height of two, oppositely-moving, columns of blood from the circulating blood of a patient and, given the dimensions of a capillary tube through which the blood flows, determines the blood viscosity over a range of shears, especially low shears. The system includes a tube set (disposable or non-disposable) that includes a pair of riser tubes, a capillary tube of predetermined dimensions that is coupled between the riser tubes (or that forms a portion of one riser tube) and a valve mechanism for controlling the circulating flow of blood from the patient into the riser tubes. Respective sensors monitor the movement of the columns of blood in each of the riser tubes and an associated microprocessor analyzes these movements, along with the predetermined dimensions of the capillary tube to determine the viscosity of the patient's circulating blood. An alternative system and method monitors only one of the two oppositely moving columns while detecting a single height position of the other one of the moving columns. From that data, along with the dimensions of a capillary tube through which the blood flows, the blood viscosity over a range of shears, especially low shears, is determined.



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