

The invention relates to biology and medicine and can be used in fundamental investigations of erythrocyte functions, therapy and diagnostics of state of blood micro-circulation, treatment control and prognosis. An automated electrodeless method for measurement of erythrocyte charge consists in measurement of blood physical parameters. Measurements are carried out through registration of quality factor of blood and its plasma. Capsules with blood are placed to oscillatory contour inductively connected to bio-inert Teflon capillary solenoid. The complex for measurements is connected to a computer to which one enters clinical data on content of blood and its plasma under investigation. Then the capillary solenoid is in sequence filled with blood under investigation with determination of the level of its quality factor, and with plasma under investigation, with determination of its quality as well, and by values of quality factor of blood and plasma under investigation one calculates the charge of erythrocyte by respective formula. The method provides increase of accuracy and quality of measurements and increase of the range of application.