

A dynamic characterization method for micro-nanocellulose comprises the following steps: (1) intermittently sonicating a micro-nanocellulose suspension; (2) injecting the micro-nanocellulose suspension treated by step (1); (3) adjusting an objective lens of a microscope to ensure a microfluidic channel is in within the field of view of the microscope and exhibits a clear image; (4) using a microscope directly connected CCD camera to capture micro-nanocellulose in the microfluidic channel; (5) transmitting photos taken by the CCD camera to a computer for image data processing, and distinguishing nanocellulose from water according to different pixel gray values of the nanocellulose and the water on an image. The invention uses a particle tracking velocity measuring technique to analyze the length, diameter, velocity, quantity and other important parameters of the nanocellulose according to the image data processed by CCD.