

ABSTRACT

A CNF surface modification device and method for performing a surface modification on CNFs are provided. The device includes a spray drying mechanism, a
5 surface modification mechanism, and a surface modification agent supplying mechanism. The spray drying mechanism receives a suspension having the CNFs, atomizes the suspension into an aerosol, and dries the aerosol to obtain CNF powders. The spray drying mechanism is connected to the surface modification mechanism and further provides the CNF powders to the surface modification mechanism. The surface
10 modification agent supplying mechanism is connected to the surface modification mechanism and supplies an active gas having a surface modification agent into the surface modification mechanism, thereby enabling the surface modification agent to react with the CNF powders. FIG. 1