**Supplementary Information**

**Fabrication of Cellulose Sponge: Effects of Drying Process and Cellulose Nanofiber Deposition on the Physical Strength**

The hydrometer measures the relative humidity (RH) of the system. We convert the relative humidity to the concentration of water in the atmosphere (mass fraction) by following equation

Antoine equation is used to predict the vapour pressure of water () (Himmelblau & Riggs, 2004)

where, = relative humidity

= partial pressure of H2O (mmHg)

= vapour pressure of H2O (mmHg)

, , are 18.3036, 3816.44, -46.13, respectively

= Temperature (K)

= environment pressure (760 mmHg)

=molar fraction

= mass fraction

References

1. Himmelblau, D. M., and Riggs, J. B. (2004). Basic principles and calculations in chemical engineering 7th ed., Prentice Hall, Upper Saddle River, New Jersey, U. S. A.