



Fig. 5. Effect of CNC loading on (a) mechanical tensile strength and (b) tensile modulus

IV. CONCLUSIONS

Cellulose nanocrystals from rice husk had been isolated using acid hydrolysis method. The diameter of cellulose nanocrystals recorded by transmission electron microscope (TEM) is 12 ± 3.04 nm. Plasticized cassava starch/cellulose biocomposite films were successfully prepared via solution casting technique. Reinforcement effect of filler was investigated at the variation of CNC loadings (0-10wt.%). It was found that the addition of CNC enhance the mechanical properties of the nanocomposite films with the 6 wt% CNC showed the highest tensile strength. Incorporating cellulose

nanocrystals also leads to a decrease in water uptake, and increased film crystallinity.

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