

The color analysis of the decomposition of PP/CNC composites

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Real View® allows several options for understanding material behavior. One is image color analysis, which enables the calculation of RGB, CMYK, L*a*b* values, and then converts them into graphic form. The b* value of L*a*b* allows the evaluation of the sample's yellowness.

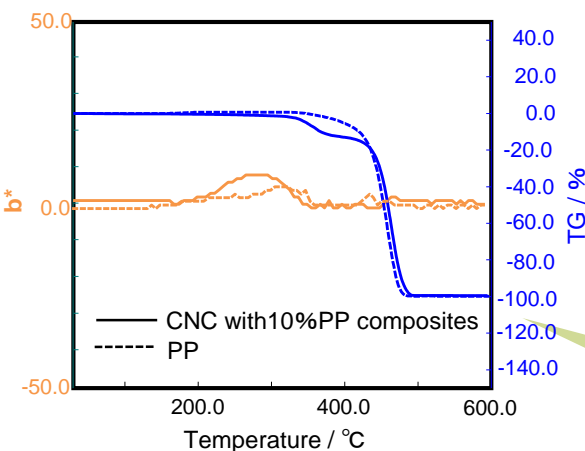
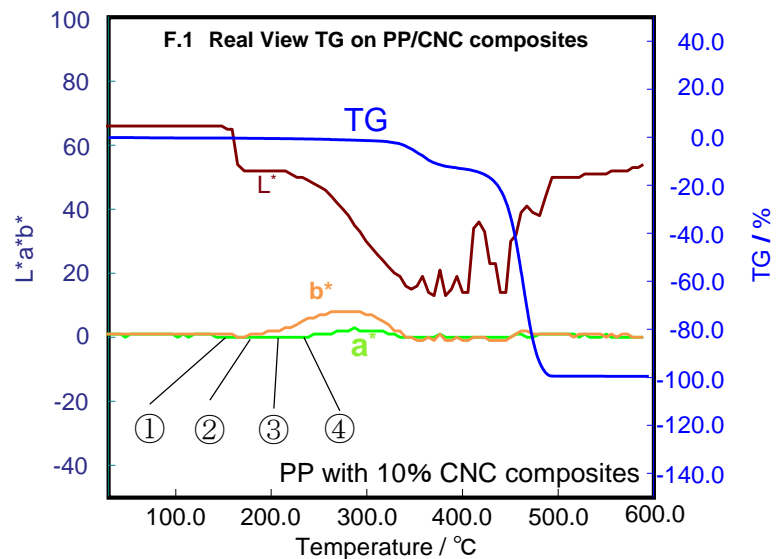
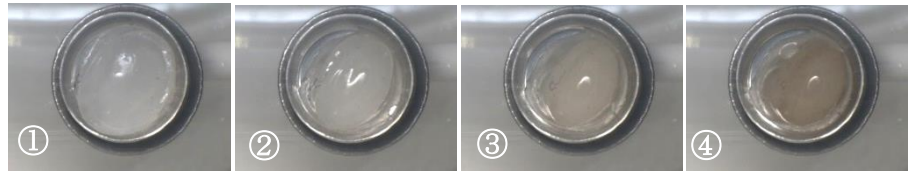
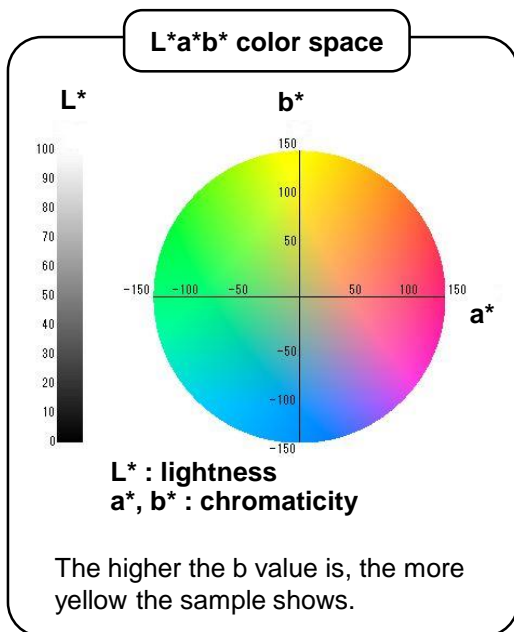
Here we show how the L*a*b* test of cellulose nanocrystal (CNC)-polypropylene (PP) composites based on the image captured by Real View allows tracking its decomposition and corresponds to other data from the NEXTA® STA.

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Simultaneous Thermogravimetric Analyzer
NEXTA STA200RV

Measurement Example



An increase in the b* value indicates that the yellowness index starts at a lower temperature than the TG weight loss(%) of the sample starts at.

Compared to the PP sample, the PP/CNC composites turned yellow faster at a low temperature, indicating faster decomposition.

Other reports on Real View:
Technical Report TA No.109
Technical Report TA No.111

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Thanks to Dr. Kenji Okada from Okayama Biomass Chemical Laboratory Co.,Ltd. for his kind assistance.