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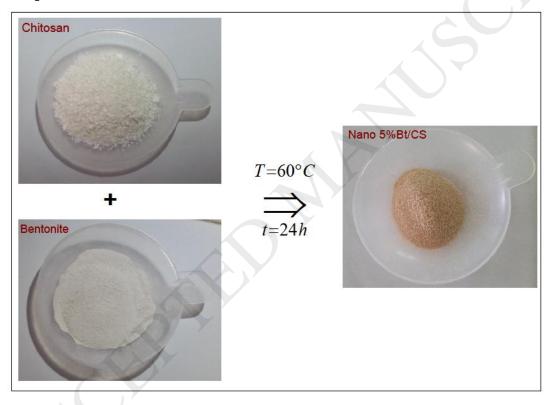
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Graphical abstract:



Highlights

- ✓ Characterization techniques show that the 5% Bt/CS is formed between Bt and CS.
- ✓ Thermal degradation experiments show that the 5% Bt/CS is stable than chitosan.
- ✓ Thermal degradation mechanism of 5% Bt/CS is complex and occurs in two-step.
- ✓ The interactions between Bt and CS are responsible for a reaction mechanism change.
- ✓ The SB model is used to describe qualitatively the thermal degradation mechanism.

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