

Supplementary documents

Synthesis of self-healable and pH responsive hydrogel based on ionic polymer/clay nanocomposite

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8 1. XRD analysis:

9 The XRD pattern of the MMT and OMMT was explained in Figure S2. From the figure it was
10 observed that for MMT and OMMT strong peak was observed at $2\theta = 6.10^\circ$ and 5.49°
11 respectively which confirmed the modification of pristine MMT with CTAB¹.

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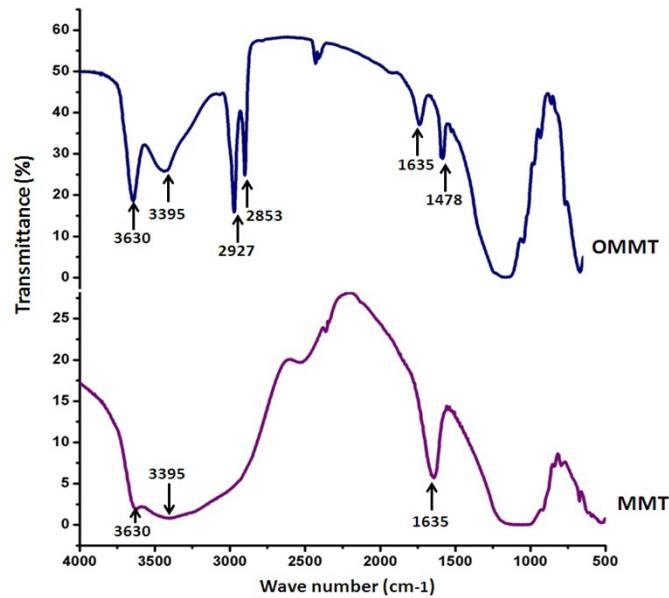
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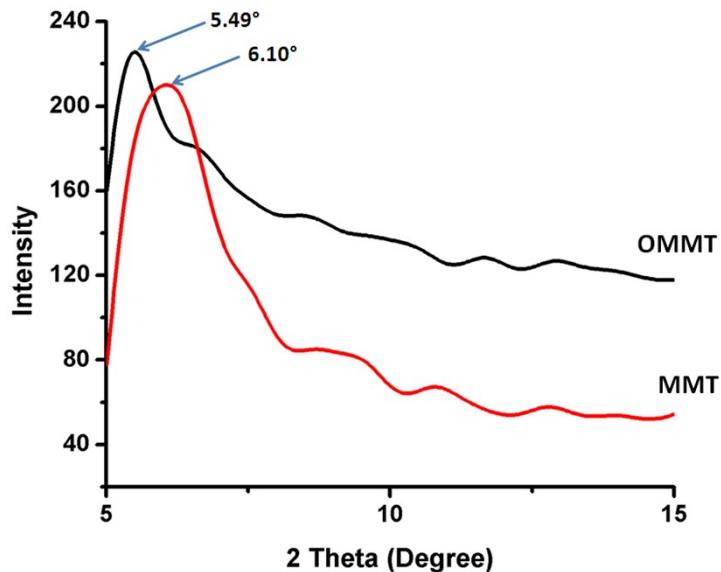
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Figure S1: FTIR spectroscopy analysis of (a) NaMMT and (b) CTAB modified MMT.



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Figure S2: XRD analysis of MMT and OMMT clay.

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30 **References:**

31 1. H. Li, Y. Yu and Y. Yang, European Polymer Journal, 2005, **41**, 2016-2022.

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