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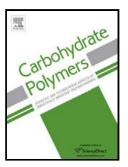
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### ACCEPTED MANUSCRIPT

# In situ observation of gelation of methylcellulose aqueous solution with viscosity measuring instrument in the diamond anvil cell

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#### **Highlights:**

- The viscosity of sample shows a dramatic change close to the phase transition point.
- MC solution undergoes phase separation prior to gelation upon heating or compression.
- T-P phase diagram of MC solution exhibits a parabola going downward in one direction.

#### **Abstract**

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