

## In situ Raman scattering investigated transition in isotactic polybutene-1

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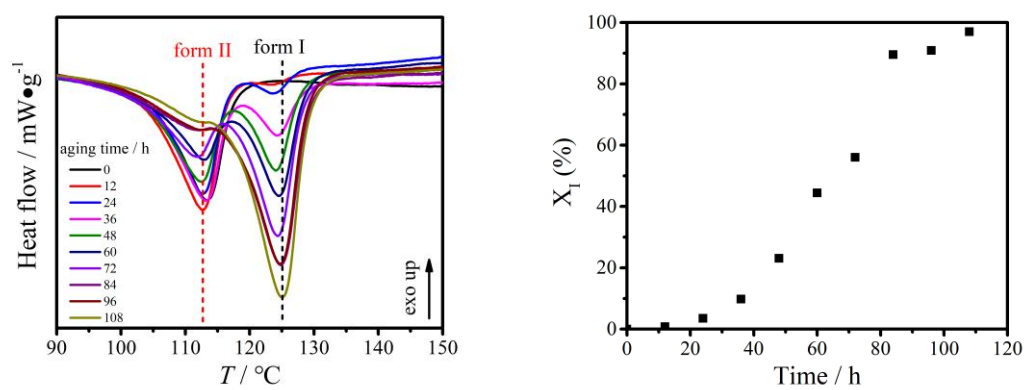
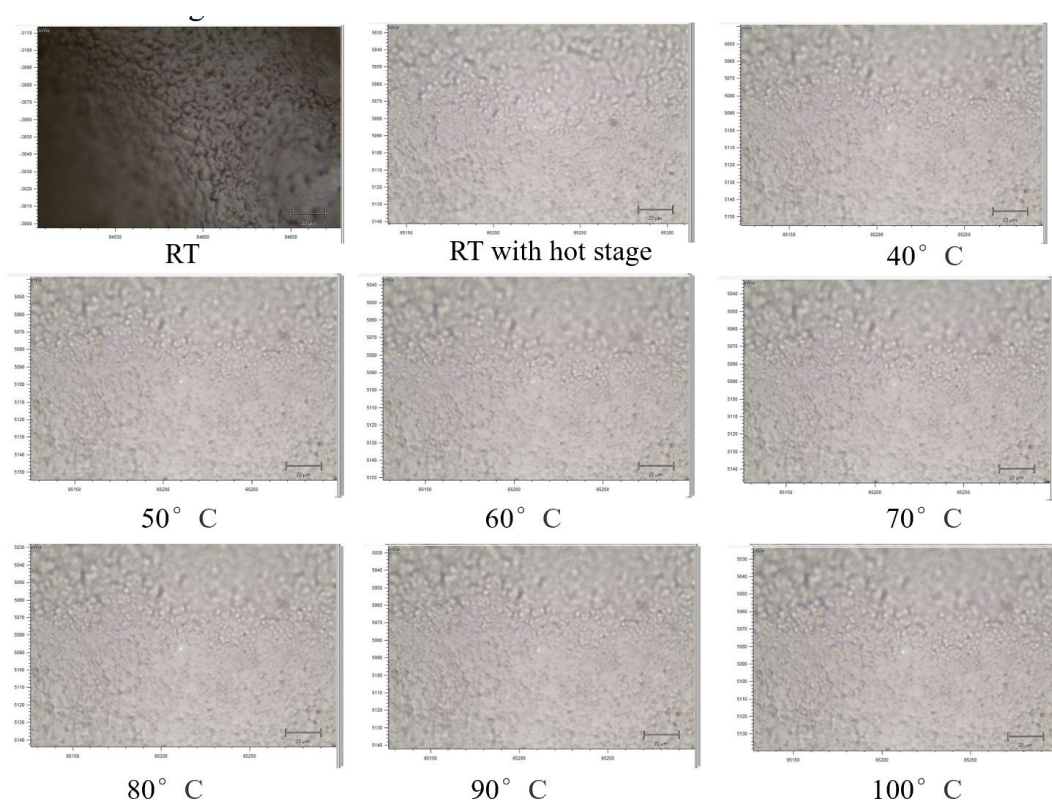
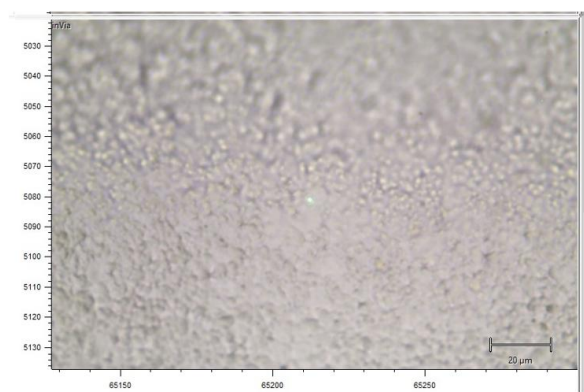
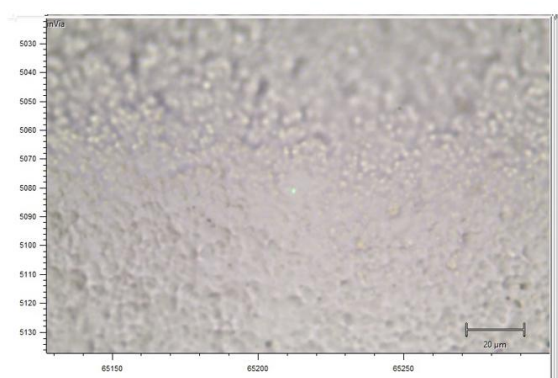
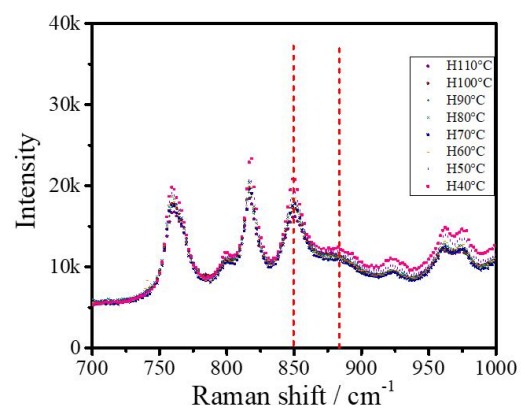


Figure S1

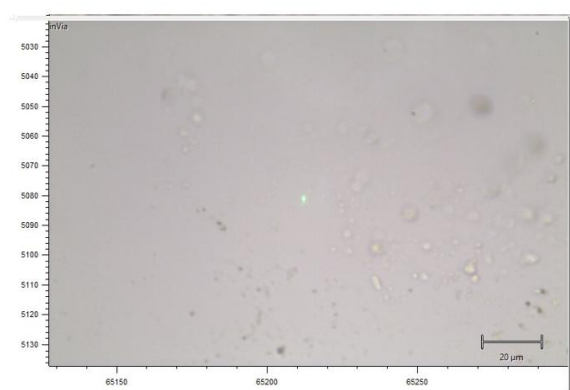




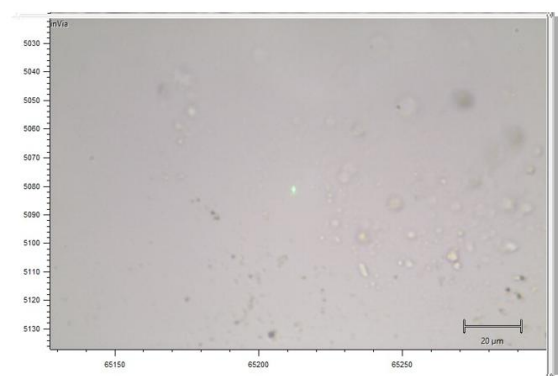
110° C



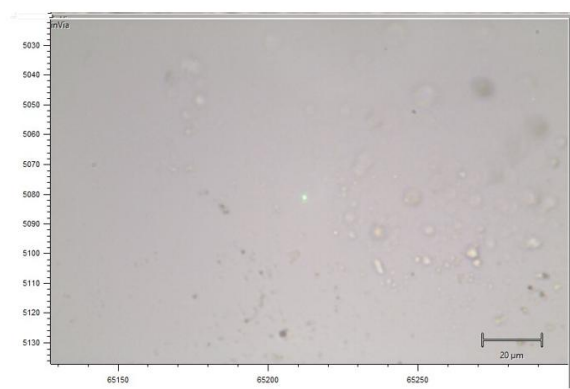
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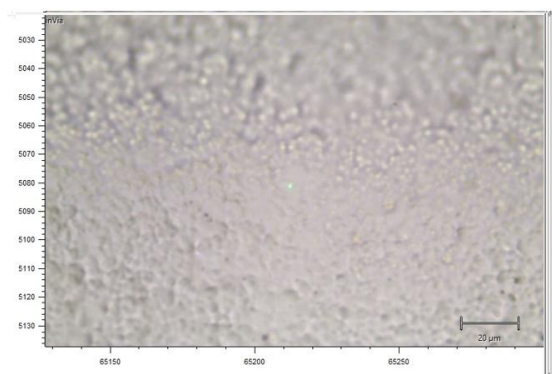
130° C



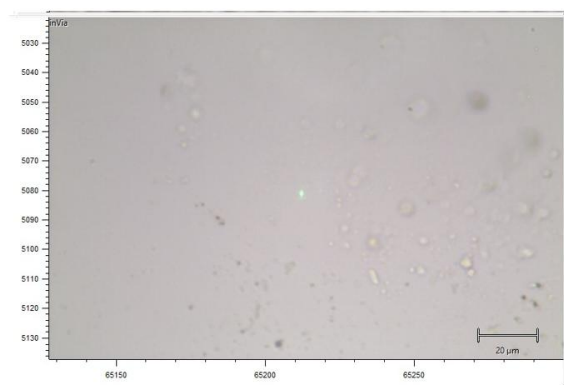
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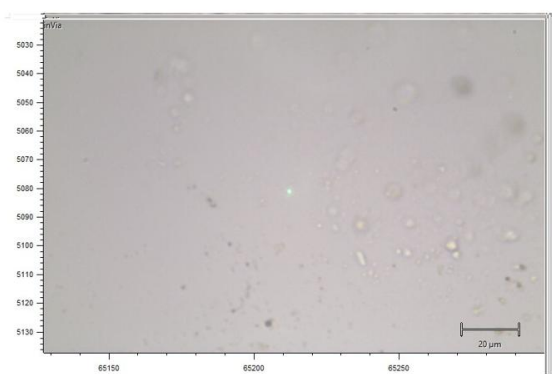
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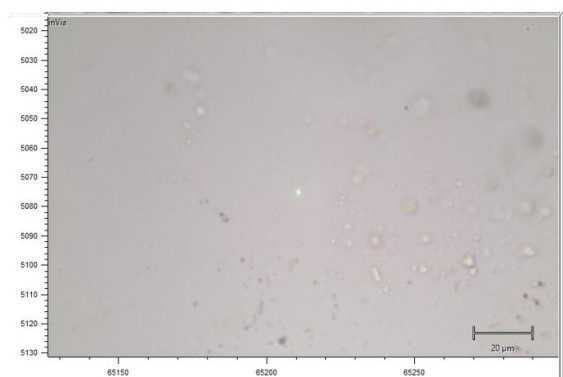
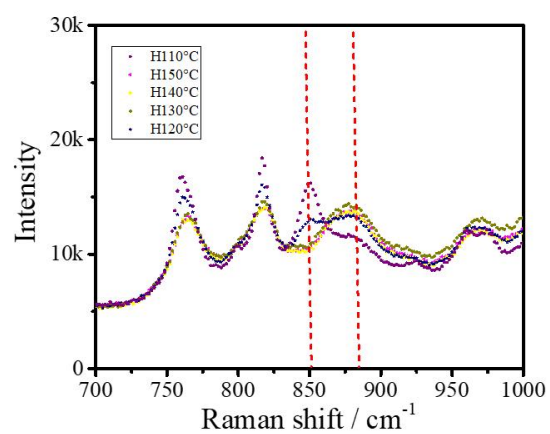
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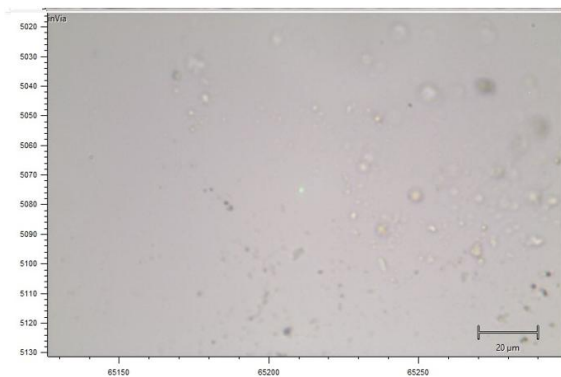
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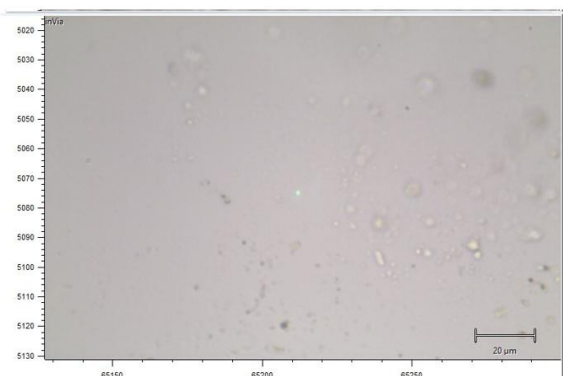
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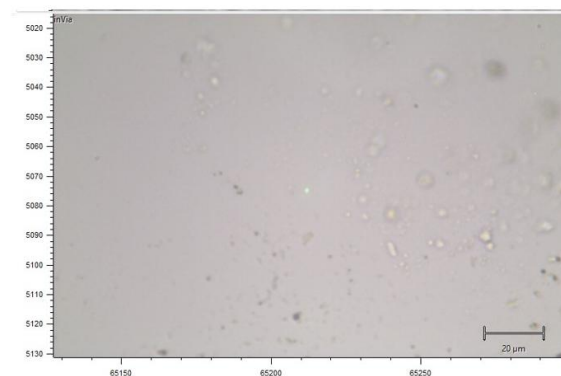
160° C



170° C



180° C



190° C

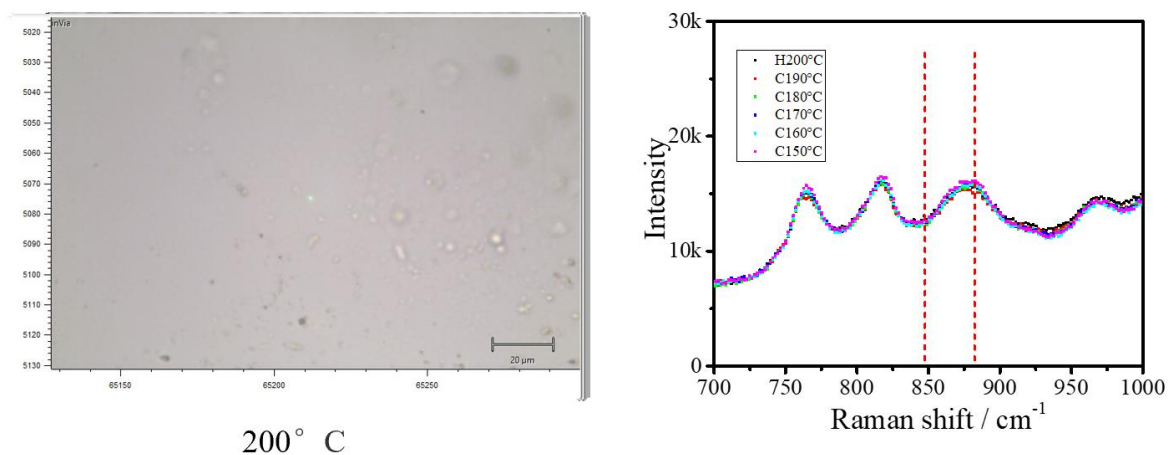
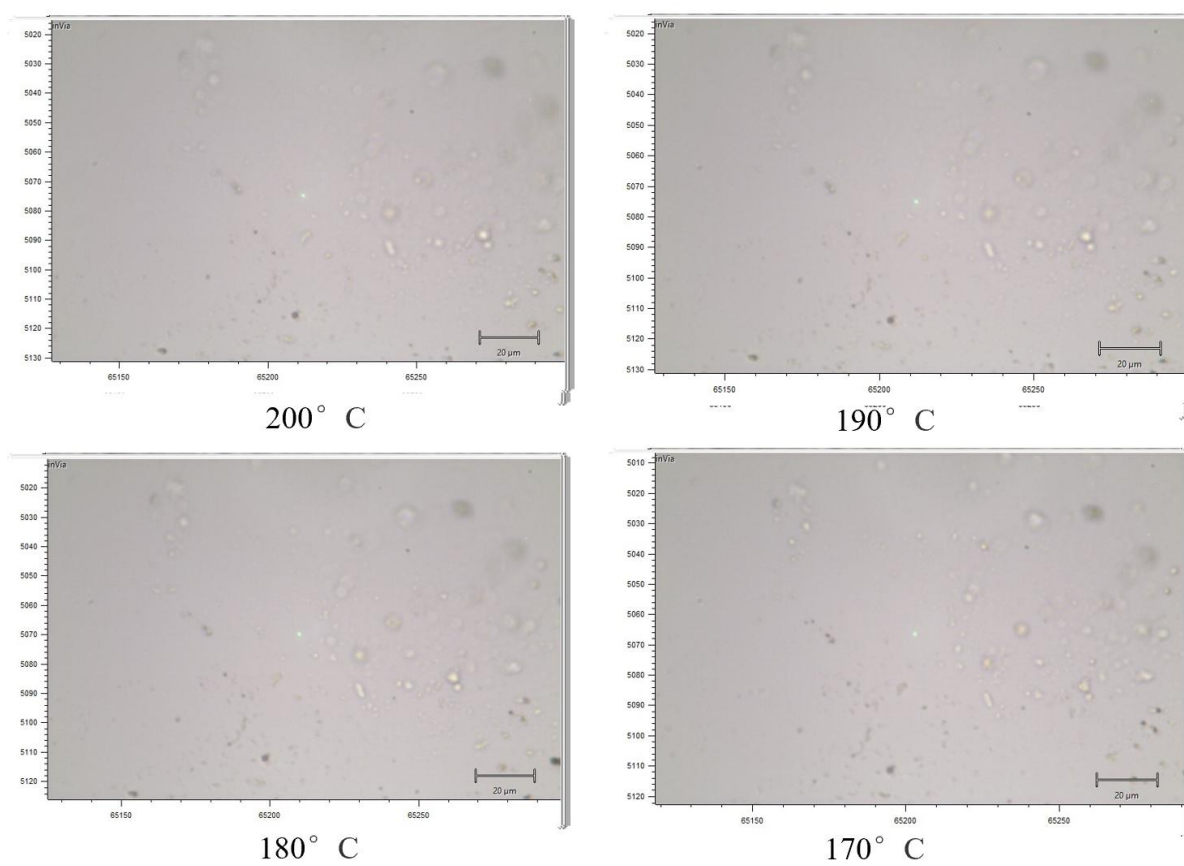
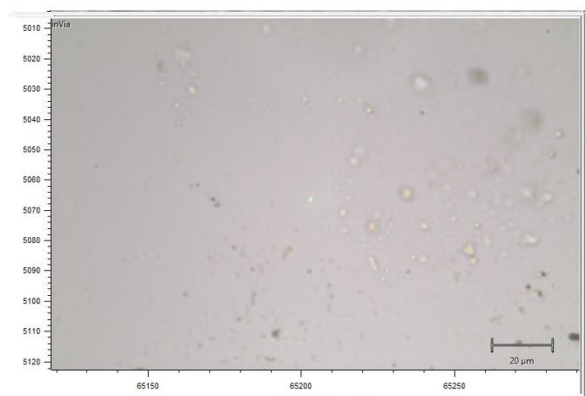


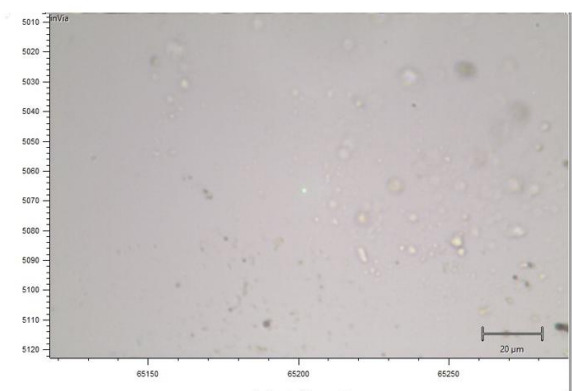
Figure S2 Images and corresponding Raman spectra within the helical sensitive vibrational band range of iPB-1 during heating



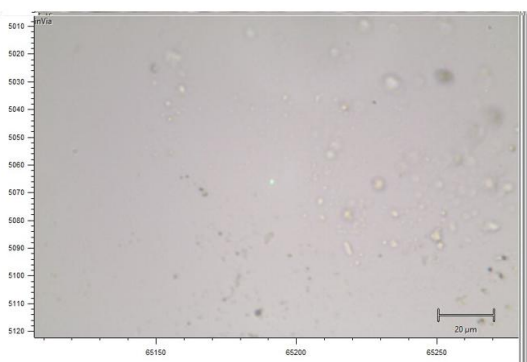




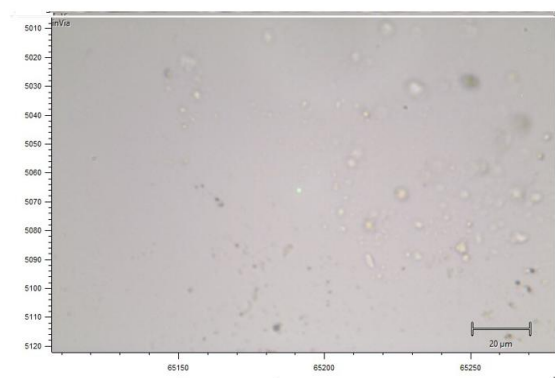
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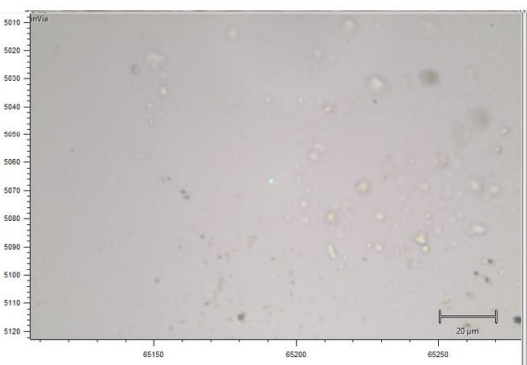
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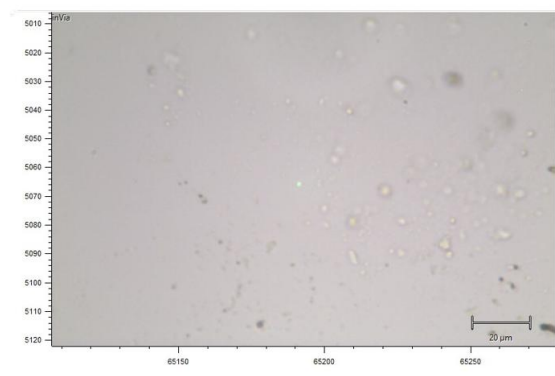
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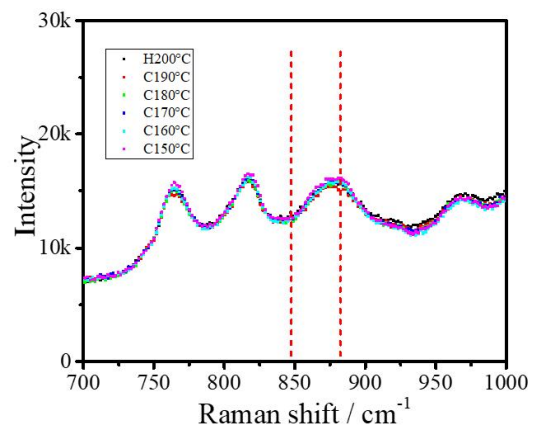
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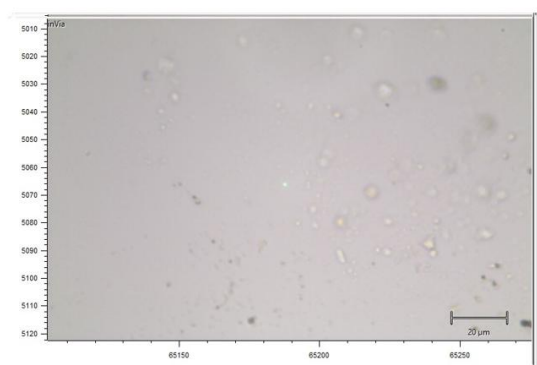
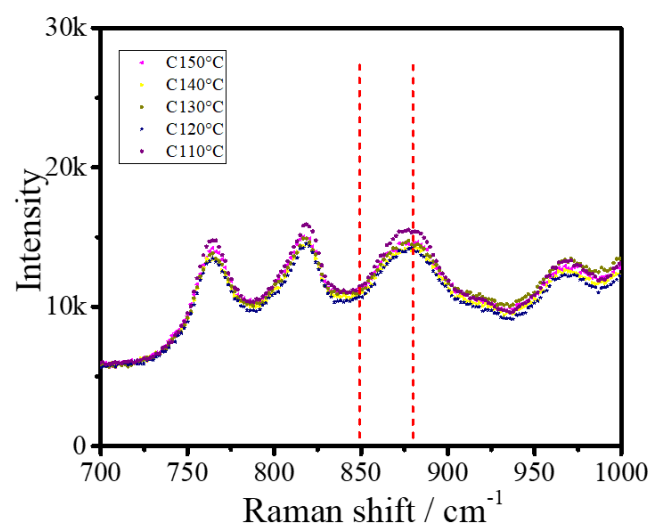


120° C

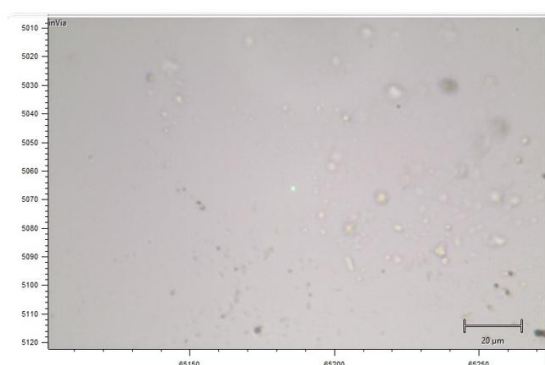


110° C

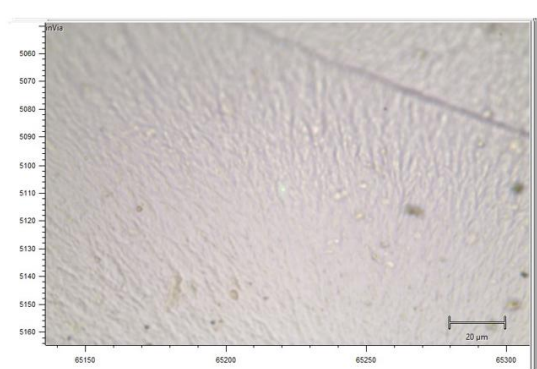




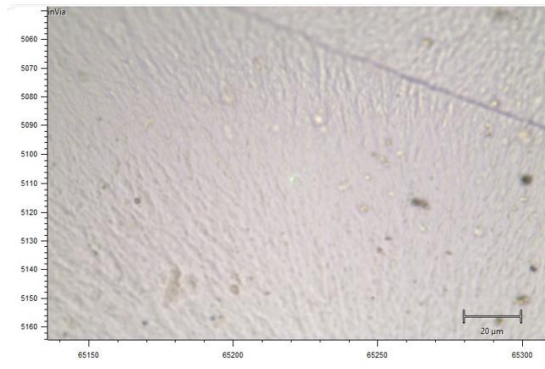
100° C



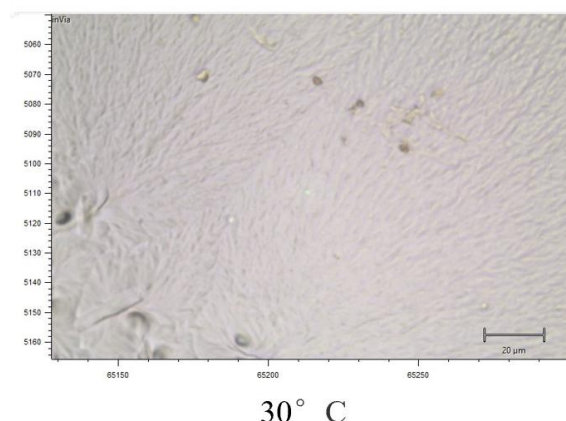
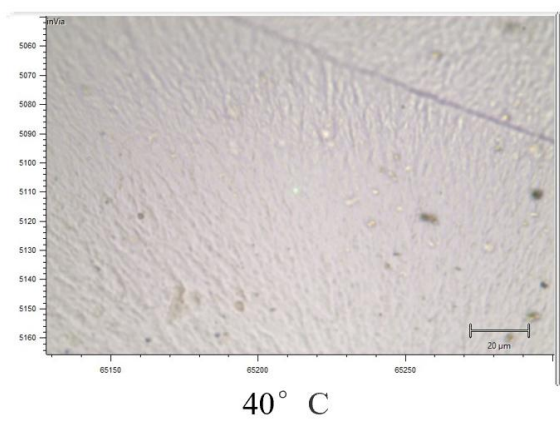
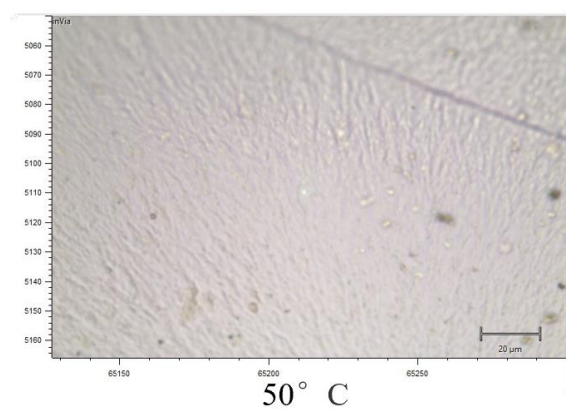
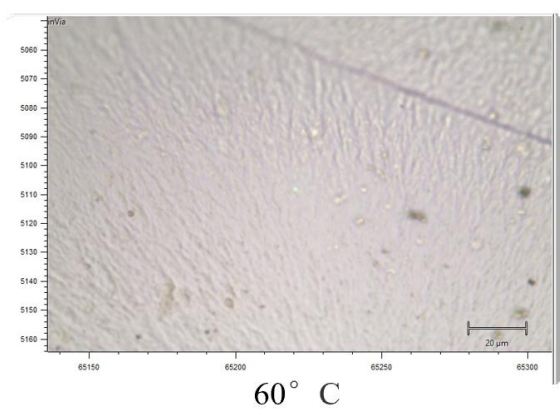
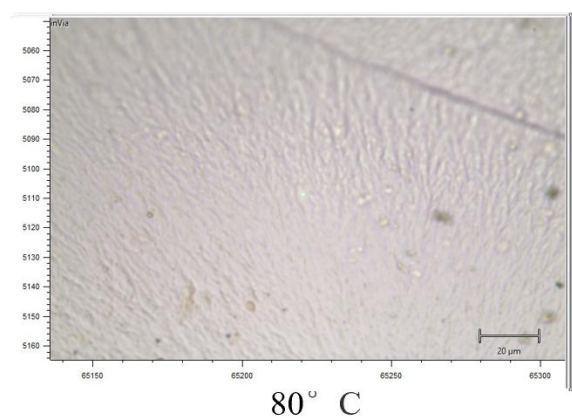
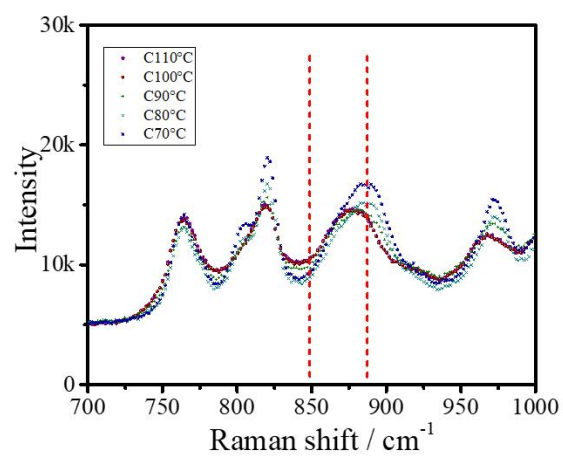
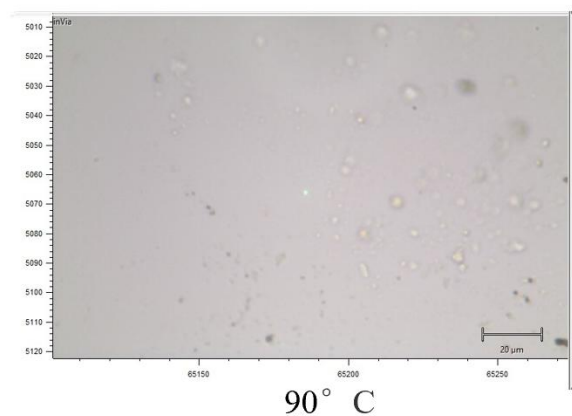
90° C



80° C



70° C





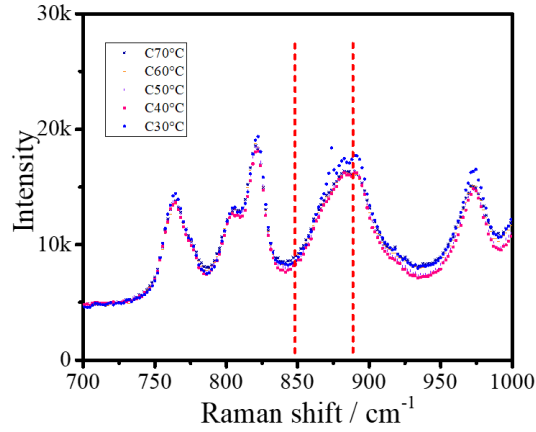


Figure S2 Images and corresponding Raman spectra within the helical sensitive vibrational band range of iPB-1 during cooling

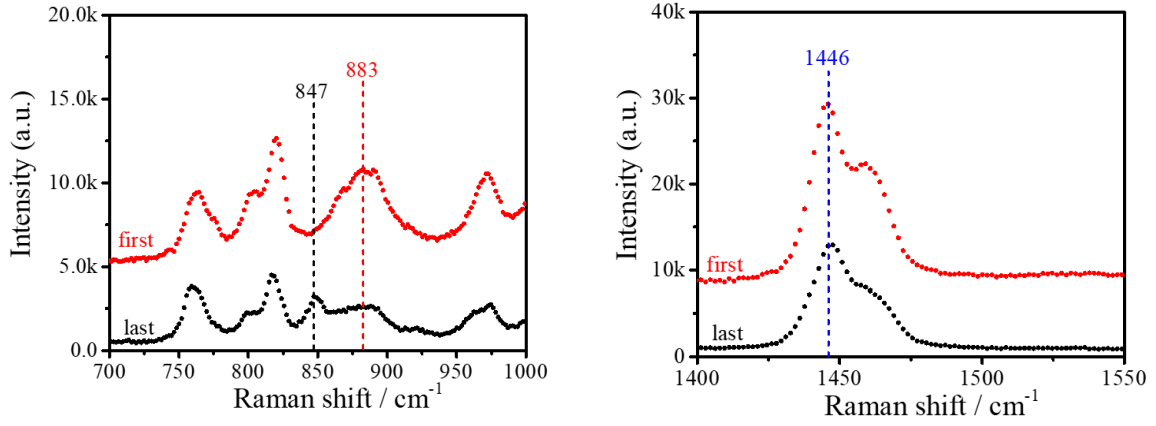


Figure S3 The first and last Raman spectra of iPB-1 during transition within the helical sensitive and unsensitive vibrational band ranges

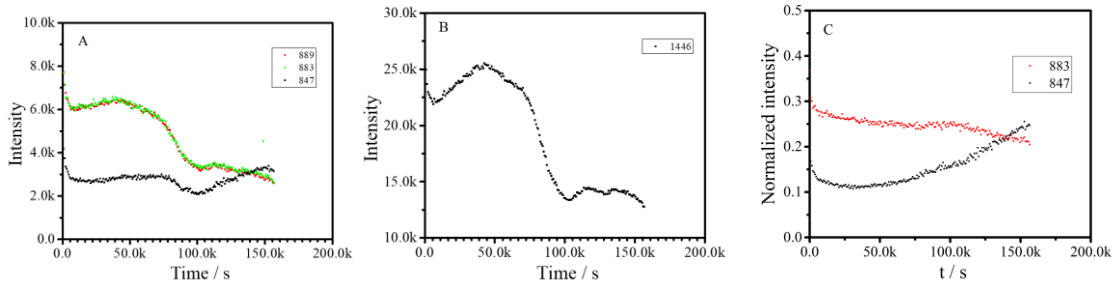


Figure S4 The time related Raman spectra intensity evolution of experimental vibration sensitive and not sensitive to helix angle during the transition (A: Raman shift intensity around band shift 889, 883 and 847  $\text{cm}^{-1}$ , B: Raman shift intensity around band 1446  $\text{cm}^{-1}$ , C: Normalized intensity by the results in Figure S4B)