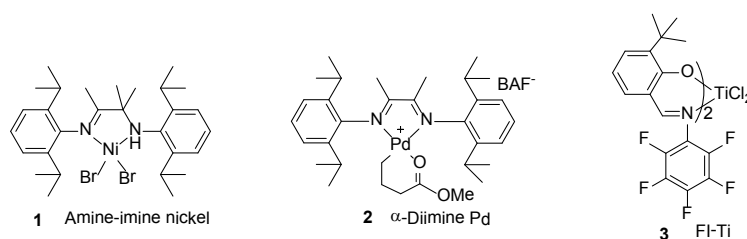


## Supporting Information for

# Relationship between Degree of Branching and Glass Transition Temperature of Branched Polyethylene: Experiment and Simulation

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Scheme S1



Scheme S1 Catalyst structures for the ethylene polymerization

Fig. S1

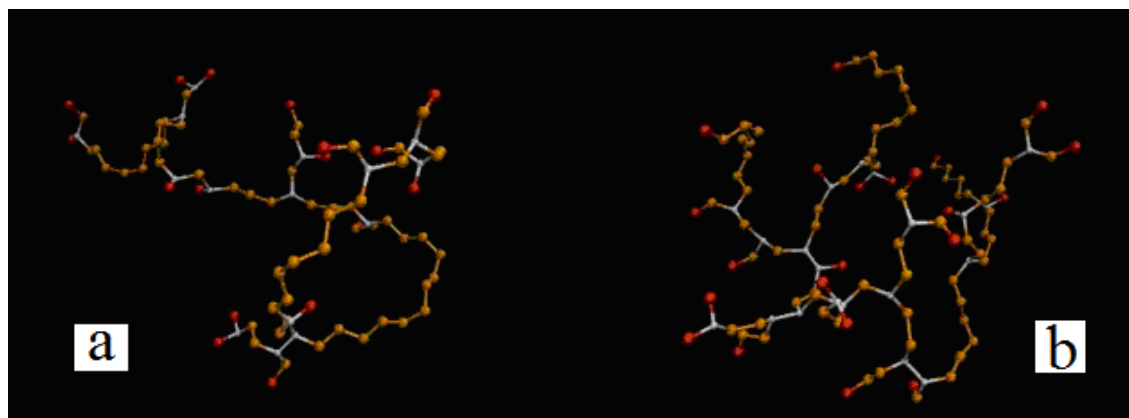


Fig. S1a A snapshot showing the nearly linear polyethylene chain with short branches; b A snapshot of the polyethylene with 'hyperbranched' structure. The red beads represent  $\text{CH}_3$ , the orange beads represent  $\text{CH}_2$ , and the white beads represent  $\text{CH}$ .

Fig. S2

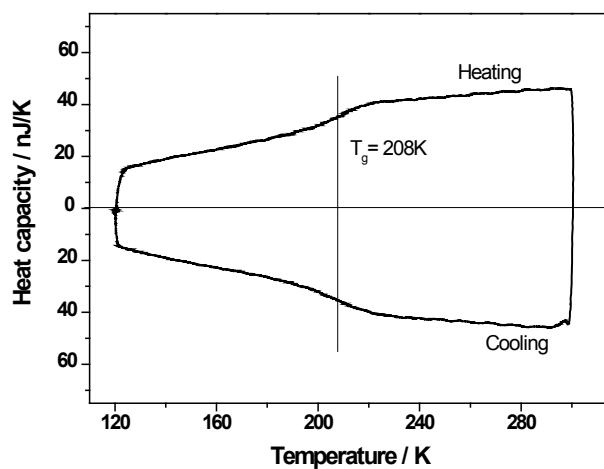


Fig. S2 Heating and cooling curve of branched PE 6 at scanning rate of 500K/s

Fig.S3

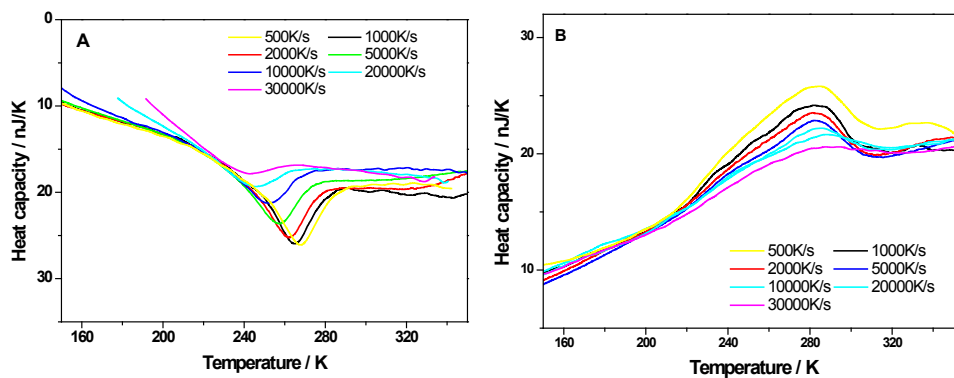


Fig. S3 Cooling (A)/heating (B) curves of branched PE 4 at the corresponding different rates  
(from 500 K/s to 30000 K/s)