

# Polyisoprene block copolymers as support for metallocene and post-metallocene catalytic systems toward ethylene polymerization

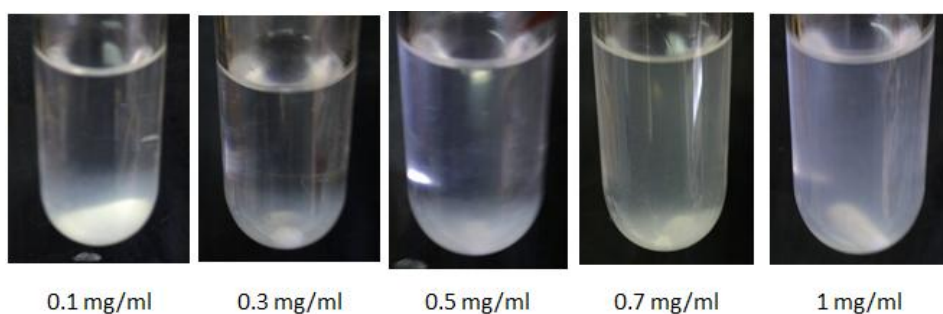
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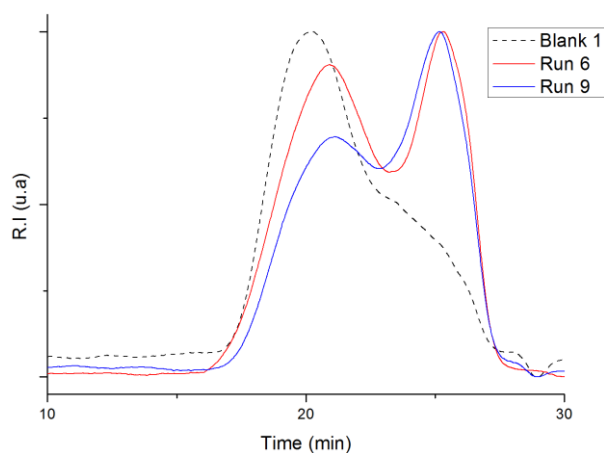
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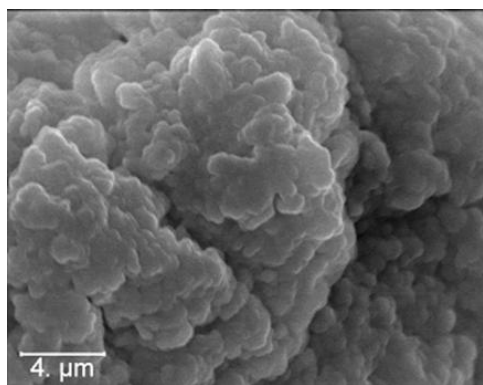
## Supporting Information



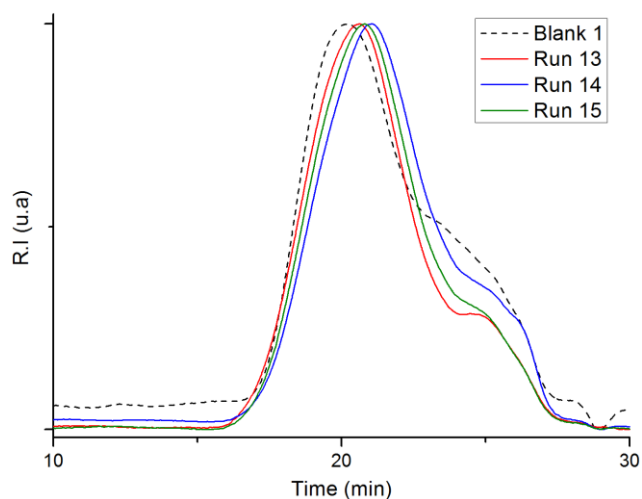
**Fig. 1** Photography of PI<sub>270</sub>-*b*-PMMA<sub>54</sub> dispersions with MAO. At 1 mg/ml, no more sedimentation is observed.



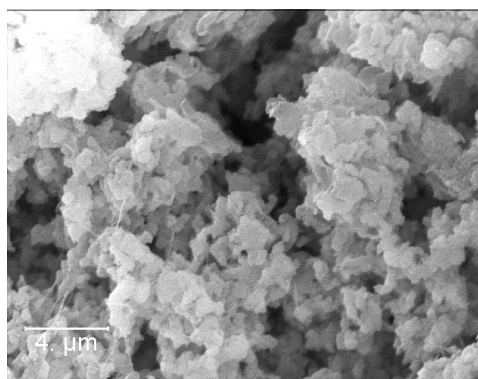
**Fig. 2** SEC traces of polyethylenes produced with PI<sub>71</sub>-*b*-PMMA<sub>10</sub> as a support and MeDIP(2,6*i*PrPh)<sub>2</sub>FeCl<sub>2</sub> as a catalyst (detector: refractometer)



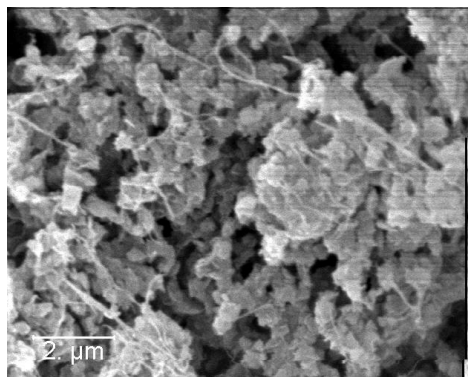
**Fig. 3** SEM picture of PE prepared MeDIP(2,6iPrPh)<sub>2</sub>FeCl<sub>2</sub> in the presence of PI<sub>71</sub>-*b*-PMMA<sub>10</sub> (run 7)



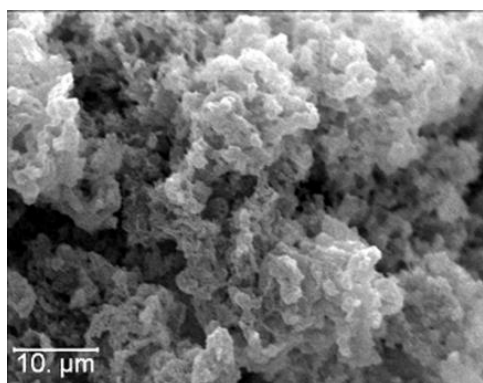
**Fig. 4** SEC traces of polyethylenes produced with PI<sub>71</sub>-*b*-PMMA<sub>10</sub> as a support and MeDIP(2,6iPrPh)<sub>2</sub>FeCl<sub>2</sub> as a catalyst (detector: refractometer)



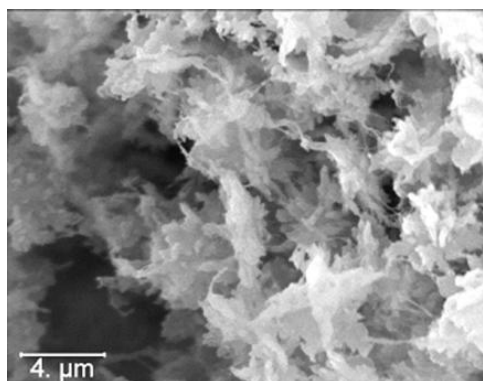
**Fig. 5** SEM picture of PE prepared MeDIP(2,6iPrPh)<sub>2</sub>FeCl<sub>2</sub> in the presence of PI<sub>16</sub>-*b*-PMMA<sub>4</sub> (run 15)



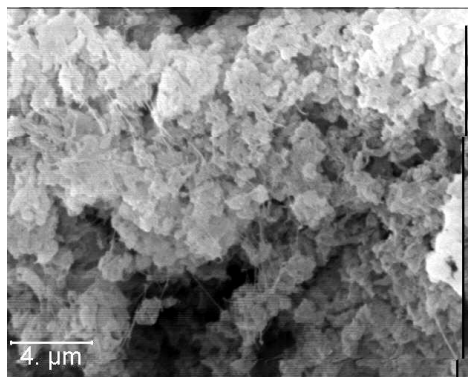
**Fig. 6** SEM picture of PE prepared MeDIP(2,6iPrPh)<sub>2</sub>FeCl<sub>2</sub> in the presence of PI<sub>27</sub>-*b*-PEO<sub>4</sub> (run 10)



**Fig. 7** SEM picture of PE prepared Ind<sub>2</sub>ZrCl<sub>2</sub> in the presence of PI<sub>270</sub>-*b*-PMMA<sub>54</sub> (run 5)



**Fig. 8** SEM picture of PE prepared with Ind<sub>2</sub>ZrCl<sub>2</sub> in the presence of PI<sub>71</sub>-*b*-PMMA<sub>10</sub> (run 8)



**Fig. 9** SEM picture of PE prepared  $\text{Ind}_2\text{ZrCl}_2$  in the presence of  $\text{PI}_{27}\text{-}b\text{-PEO}_{50}$  (run 3)