

Supporting Information

A Study into the Stability of 3,6-Dihydro-2H-thiopyran Rings: Key Linkages in the RAFT Hetero Diels-Alder *Click* Concept

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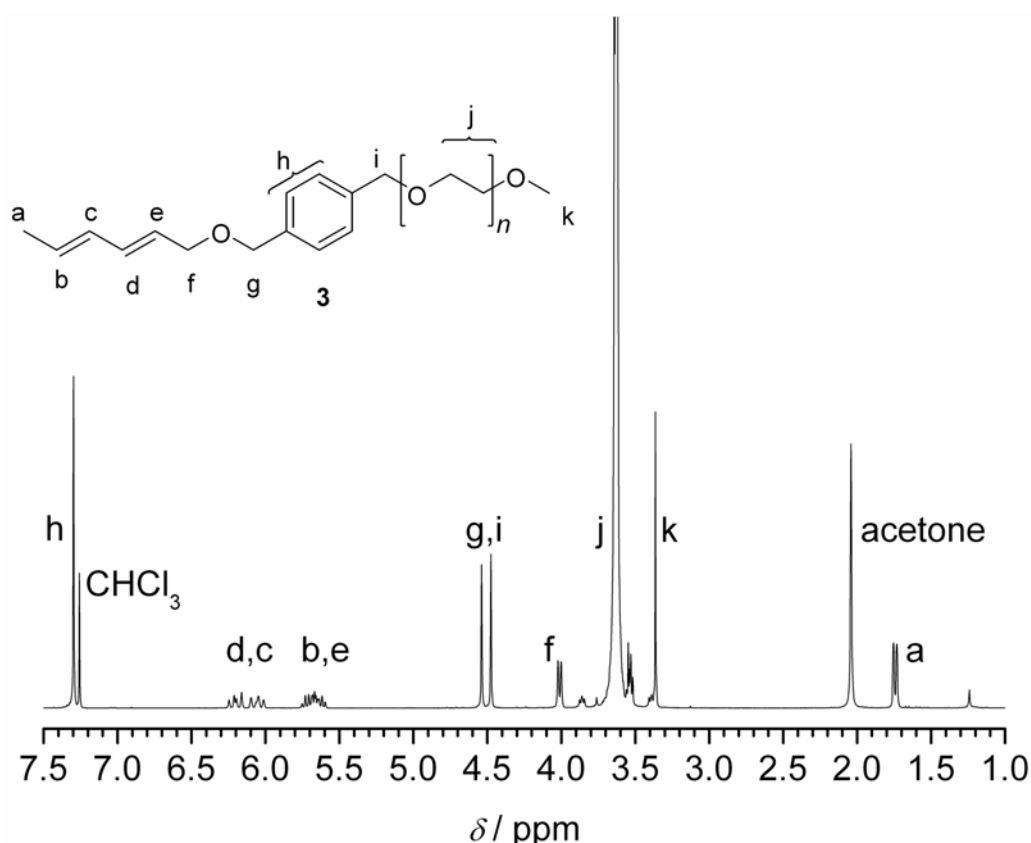


Figure SI-1. ¹H NMR spectrum of the diene functionalized PEG **3** after etherification of PEG monomethylether **2** with 1-((trans,trans-hexa-2,4-dienyloxy)methyl)-4-(bromomethyl)benzene **1** (NaH, THF, 6 h, room temperature).

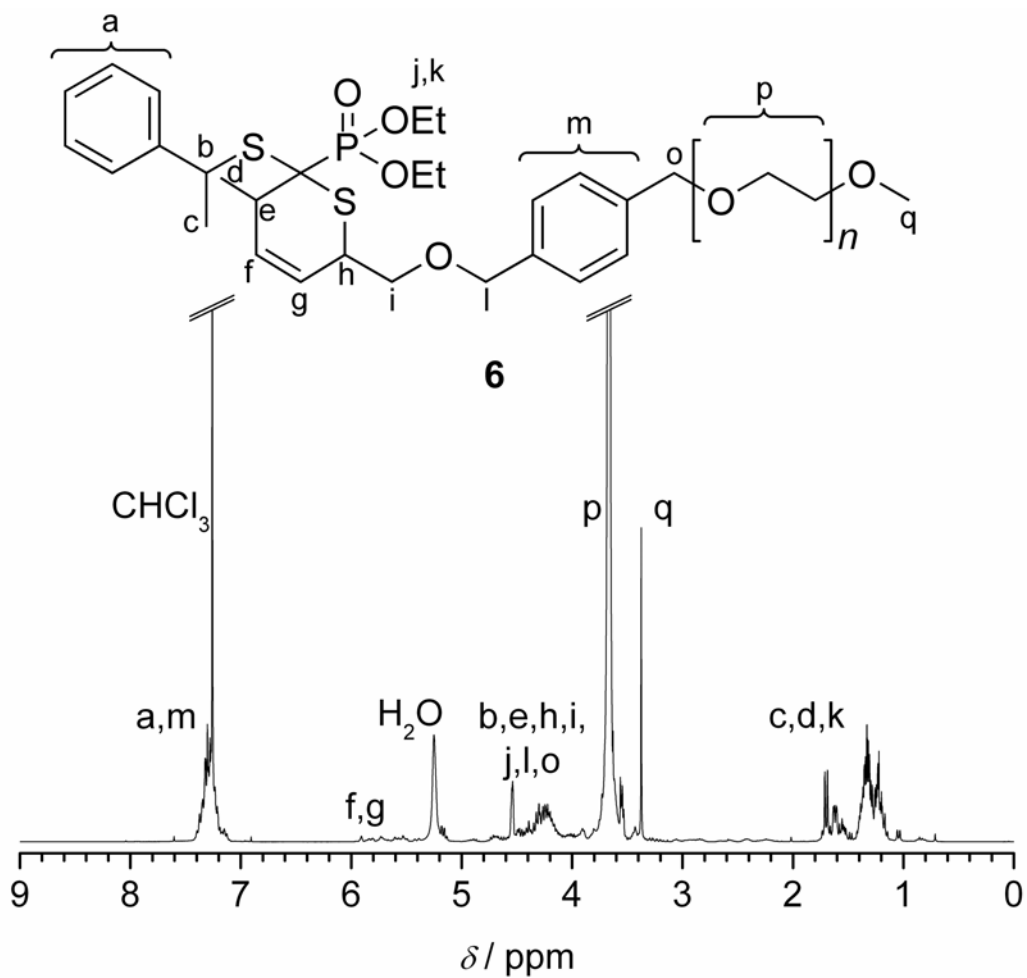


Figure SI-2. ^1H NMR spectrum of PEG 6 after the HDA cycloaddition between RAFT agent 4 and PEG 3 (zinc chloride as the catalyst, chloroform, 24 h, 50 °C).

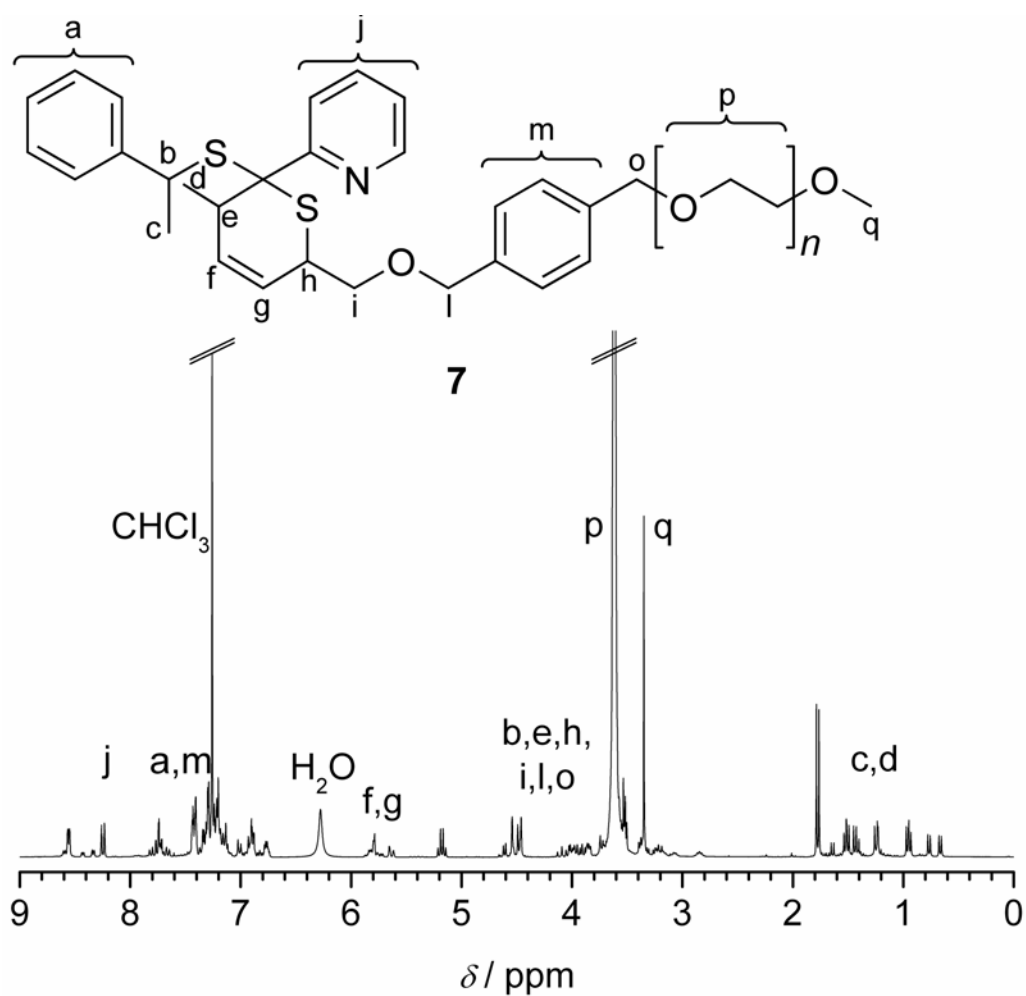


Figure SI-3. ¹H NMR spectrum of PEG 7 after the HDA cycloaddition between RAFT agent 5 and PEG 3 (trifluoroacetic acid as the catalyst, chloroform, 24 h, 50 °C).