

Methoxy-group control of helical pitch in stereoregular poly(2-ethynylmethoxynaphthalene) prepared by Rhodium complex catalyst

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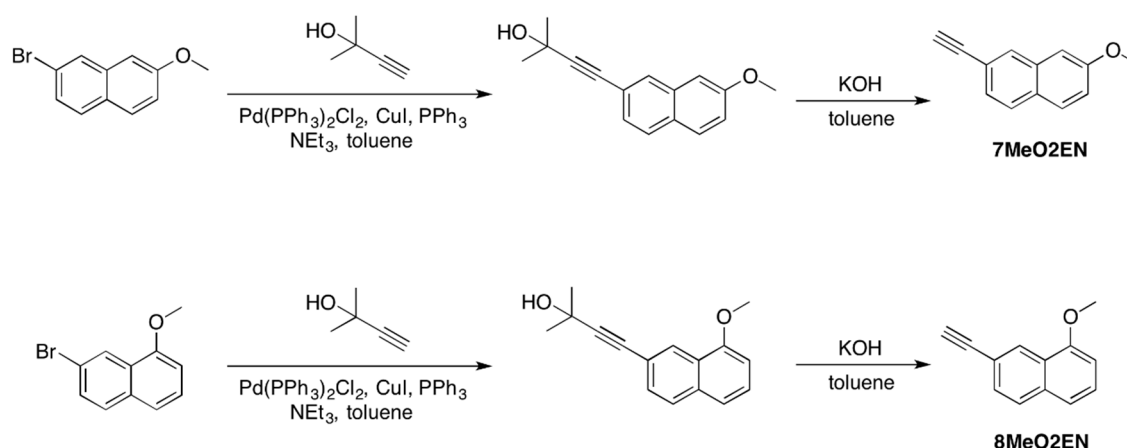
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The starting materials, 2-bromo-7-methoxynaphthalene[S1] and 2-bromo-8-methoxynaphthalene[S2] were synthesized according to the reported procedures. The monomers, 7MeO2EN and 8MeO2EN, were synthesized by using the same procedure for 2-ethylnaphthalene (2EN) described in our previous report [25].



Scheme S1. Synthesis of 7-methoxy-2-ethylnaphthalene (7MeO2EN) and 8-methoxy-2-ethylnaphthalene (8MeO2EN).

Supplementary References

- S1. Qi Zou, Xin Li, Ji Zhou, Kangkang Bai, Hans Ågren. Synthesis and photochromism of a spirooxazine derivative featuring a carbazole moiety: Fast thermal bleaching and excellent fatigue resistance. *Dyes Pigment* **2014**, *107*, 174-181.
- S2. Molino, Bruce F.; Liu, Shuang; Berkowitz, Barry A.; Guzzo, Peter R.; Beck, James P.; Cohen, Marlene. Aryl- and heteroaryl- substituted tetrahydroisoquinolines and their preparation, pharmaceutical compositions and use thereof to block reuptake of norepinephrine, dopamine, and serotonin for the treatment of neurological and psychological disorders. *PCT Int. Appl.* **2006**, WO 2006020049 A2.

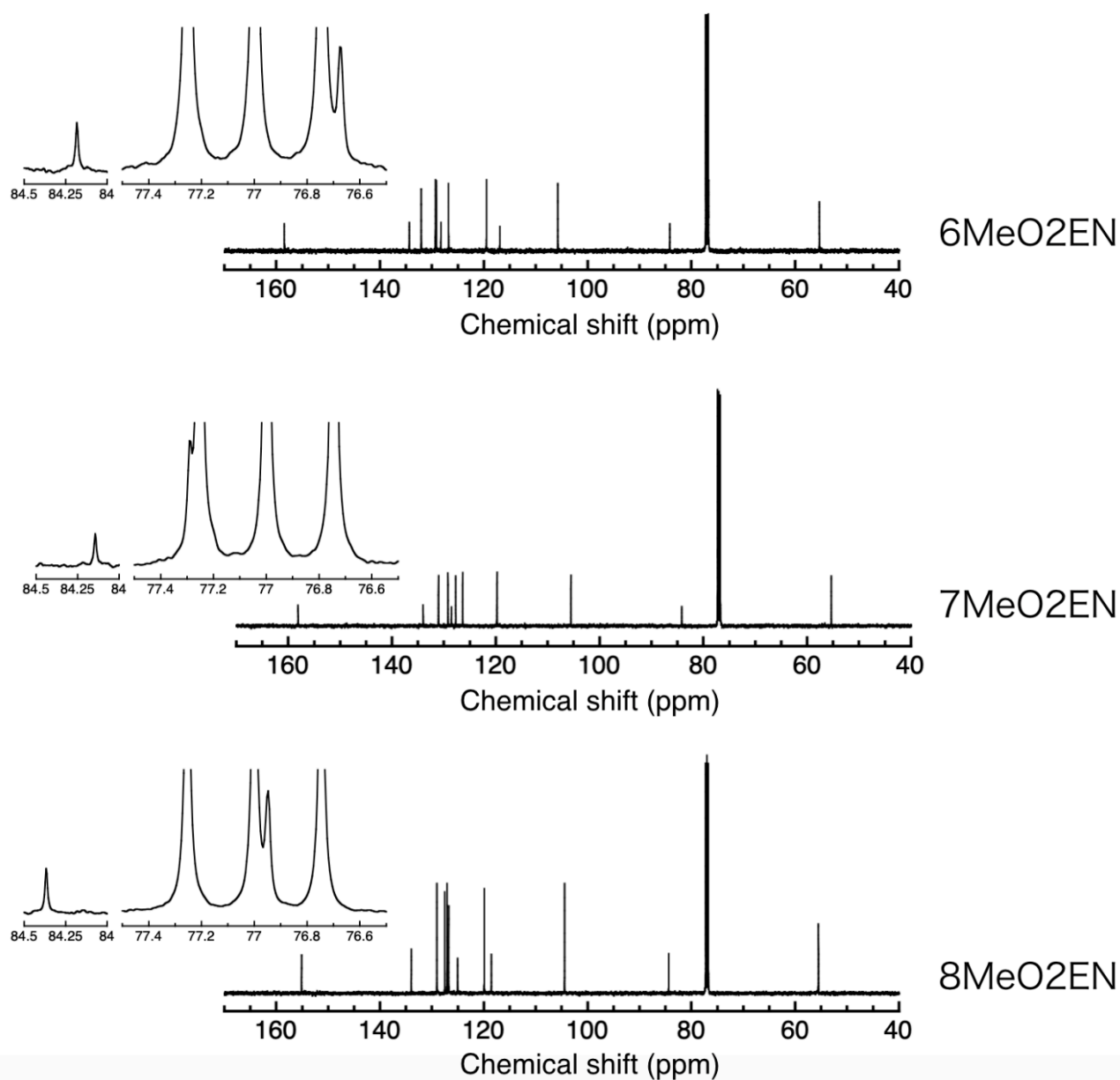


Figure S1. ^{13}C NMR spectra of nMeO2EN monomers (n=6, 7, and 8).

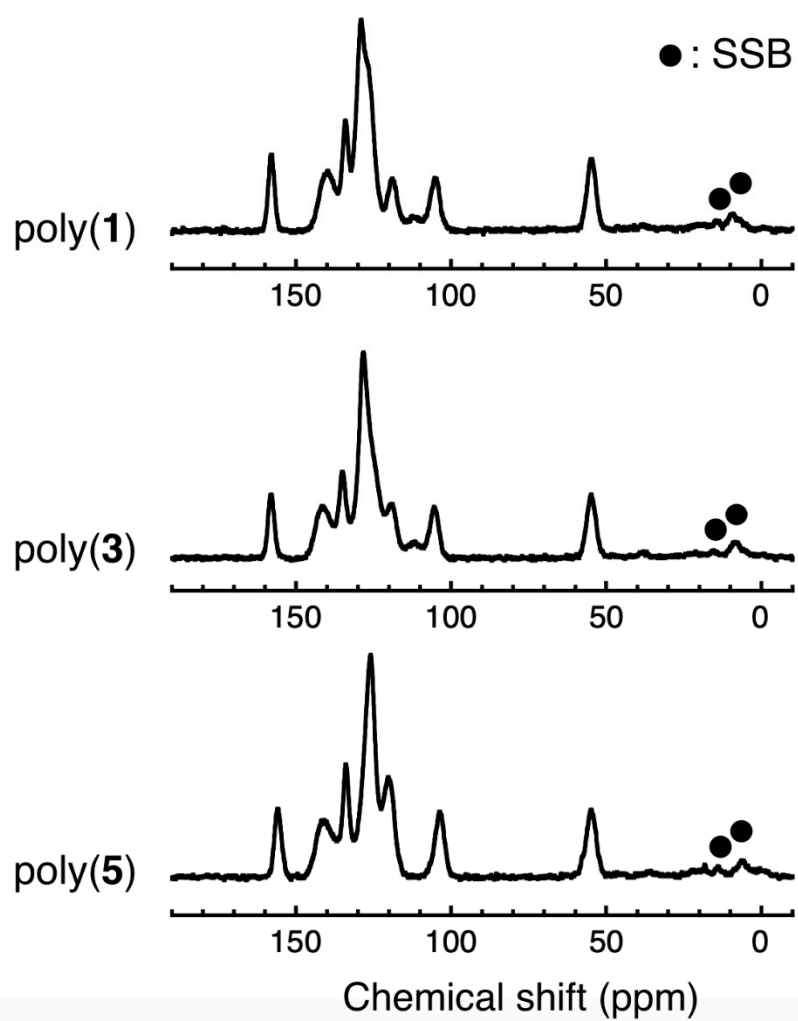


Figure S2. Room-temperature ^{13}C CPMAS NMR spectra of poly(1), poly(3), and poly(5). SSB represents spinning side band.

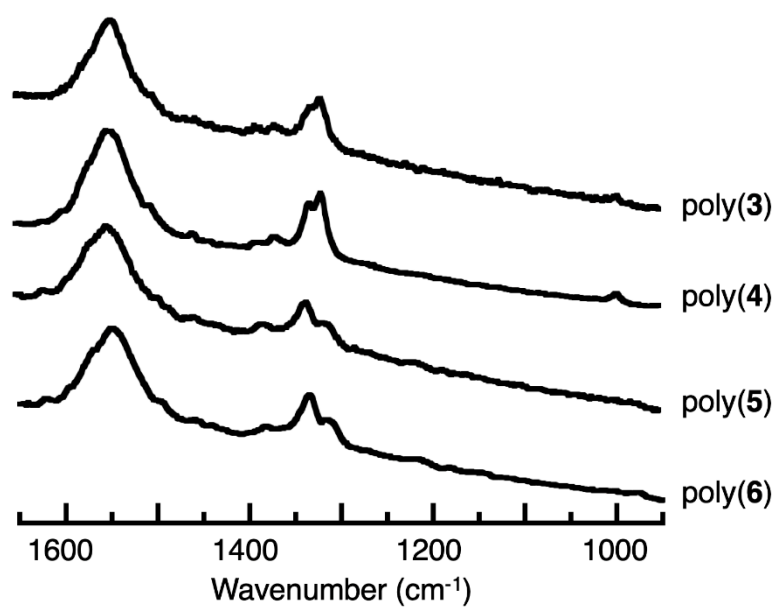


Figure S3. Resonance Raman spectrum of Resonance Raman spectra of poly(3) ~ poly(6) in the solid state.