Supplementary Information

Side-Chain Boron Difluoride Formazanate Polymers via Ring-Opening Metathesis Polymerization

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Emission Correction Data

![Graph showing wavelength-dependent emission correction](image)

**Fig. S1**  Wavelength-dependent emission correction provided by Photon Technology International.

NMR Spectra

![NMR spectrum of hydrazone 9 in CDCl₃](image)

**Fig. S2**  $^1$H NMR spectrum of hydrazone 9 in CDCl₃.
Fig. S3  $^1$H NMR spectrum of formazan 10 in CDCl$_3$.

Fig. S4  $^{13}$C($^1$H) NMR spectrum of formazan 10 in CDCl$_3$. 
Fig. S5  $^1$H NMR spectrum of BF$_2$ formazanate monomer 11 in CDCl$_3$.

Fig. S6  $^{13}$C{$_^1$H} NMR spectrum of BF$_2$ formazanate monomer 11 in CDCl$_3$. 
Fig. S7  $^{11}$B NMR spectrum of BF$_2$ formazanate monomer 11 in CDCl$_3$.

Fig. S8  $^{19}$F NMR spectrum of BF$_2$ formazanate monomer 11 in CDCl$_3$. 
Additional GPC Data

![GPC Traces](image)

**Fig. S9** GPC Traces for Control Experiment Involving the Reaction of Grubbs' 3rd Generation Catalyst with Polymer 12.

Polymer NMR Data

![NMR Spectrum](image)

**Fig. S10** $^1$H NMR spectrum of BF$_2$ formazanate polymer 12 in CDCl$_3$. 

S6
Fig. S11  $^{11}$B NMR spectrum of BF$_2$ formazanate polymer 12 in CDCl$_3$.

Fig. S12  $^{19}$F NMR spectrum of BF$_2$ formazanate polymer 12 in CDCl$_3$. 
Thermal Analysis

Fig. S13  TGA trace for BF$_2$ formazanate polymer 12.

Fig. S14  DSC thermogram collected for BF$_2$ formazanate polymer 12.
**UV-Vis Absorption Spectra**

**Fig. S15**  UV-Vis absorption spectrum of BF$_2$ formazanate monomer 11 recorded in CH$_2$Cl$_2$.

**Fig. S16**  UV-Vis absorption spectrum of BF$_2$ formazanate polymer 12 recorded in CH$_2$Cl$_2$. 
Cyclic Voltammetry Data

**Fig. S17**  Cyclic voltammograms for BF$_2$ formazanate monomer 11 (black line) and polymer 12 (red line) recorded in dry, degassed THF containing ~ 1 mM analyte and 0.1 M $n$Bu$_4$NPF$_6$ at a scan rate of 250 mV s$^{-1}$.

**Fig. S18**  Cyclic voltammograms for BF$_2$ formazanate monomer 11 (black line) and polymer 12 (red line) recorded in dry, degassed CH$_2$Cl$_2$ containing ~ 1 mM analyte and 0.1 M $n$Bu$_4$NPF$_6$ at a scan rate of 250 mV s$^{-1}$.