**Figure A2.1** 1H NMR spectrum of compound **2-2** (400 MHz, acetone-*d6*, 25°C).



**Figure A2.2** 13C NMR spectrum of compound **2-2** (126 MHz, acetone-*d6*, 25°C).



**Figure A2.3** 1H NMR spectrum of compound **M0** (400 MHz, tetrahydrofuran-*d8*, 25°C).



**Figure A2.4** 13C NMR spectrum of compound **M0** (101 MHz, tetrahydrofuran-*d8*, 25°C).

**Figure A2.6** 13C NMR spectrum of compound **D0** (101 MHz, DMSO-*d6*, 25°C). **Figure A2.7** 1H NMR spectrum of compound **2BrCZ** (400 MHz, CDCl3, 25°C).

 **Figure A2.8** 13C NMR spectrum of compound **2BrCZ** (101 MHz, CDCl3, 25°C).



**Figure A2.9** 1H NMR spectrum of compound **M1** (500 MHz, CD2Cl2, 25°C).



**Figure A2.10** 13C NMR spectrum of compound **M1** (126 MHz, CD2Cl2, 25°C).



**Figure A2.11** 1H NMR spectrum of compound **M2** (400 MHz, CD2Cl2, 25°C).

 **Figure A2.12** 13C NMR spectrum of compound **M2** (101 MHz, CD2Cl2, 25°C).