Supplementary Information for

## **Ether Solvent-induced Chirality Inversion of Helical**

### Poly(quinoxaline-2,3-diyl)s Containing L-Lactic Acid Derived Side

#### Chains

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# Contents

1	NMR Spectra of New Compounds	<b>S41</b>
	<sup>1</sup> H NMR spectrum of <b>M1-NO<sub>2</sub></b> in $CDCl_3$	. S41
	$^{13}$ C NMR spectrum of <b>M1-NO<sub>2</sub></b> in CDCl <sub>3</sub>	. S42
	<sup>1</sup> H NMR spectrum of <b>M1-NC</b> in $C_6D_6$	. S43
	<sup>13</sup> C NMR spectrum of <b>M1-NC</b> in $\tilde{C}_6 D_6$	. S44
	<sup>1</sup> H NMR spectrum of $M2-NO_2$ in $CDCl_3$	. S45
	$^{13}$ C NMR spectrum of <b>M2-NO<sub>2</sub></b> in CDCl <sub>3</sub>	. S46
	<sup>1</sup> H NMR spectrum of <b>M2-NC</b> in $C_6D_6$	. S47

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<sup>13</sup> C NMR spectrum of <b>M2-NC</b> in $C_6D_6$	. S48
<sup>1</sup> H NMR spectrum of $M3-NO_2$ in $CDCl_3$	. S49
$^{13}$ C NMR spectrum of <b>M3-NO</b> <sub>2</sub> in CDCl <sub>3</sub>	. S50
<sup>1</sup> H NMR spectrum of <b>M3-NC</b> in $C_6D_6$	. S51
<sup>13</sup> C NMR spectrum of <b>M3-NC</b> in $C_6 D_6$	. S52
<sup>1</sup> H NMR spectrum of $M4-NO_2$ in $CDCl_3$	. S53
$^{13}$ C NMR spectrum of M4-NO <sub>2</sub> in CDCl <sub>3</sub>	. S54
<sup>1</sup> H NMR spectrum of <b>M4-NC</b> in $C_6D_6$	. S55
<sup>13</sup> C NMR spectrum of M4-NC in $C_6 D_6$	. S56
<sup>1</sup> H NMR spectrum of $M5-NO_2$ in $CDCl_3$	. S57
$^{13}$ C NMR spectrum of <b>M5-NO</b> <sub>2</sub> in CDCl <sub>3</sub>	. S58
<sup>1</sup> H NMR spectrum of <b>M5-NC</b> in $C_6D_6$	. S59
<sup>13</sup> C NMR spectrum of <b>M5-NC</b> in $C_6 D_6$	. S60
<sup>1</sup> H NMR spectrum of $M6-NO_2$ in $CDCl_3$	. S61
$^{13}$ C NMR spectrum of <b>M6-NO</b> <sub>2</sub> in CDCl <sub>3</sub>	. S62
<sup>1</sup> H NMR spectrum of <b>M6-NC</b> in $C_6D_6$	. S63
<sup>13</sup> C NMR spectrum of <b>M6-NC</b> in $C_6 D_6$	. S64
<sup>1</sup> H NMR spectrum of $M7-NO_2$ in $CDCl_3$	. S65
$^{13}$ C NMR spectrum of <b>M7-NO</b> <sub>2</sub> in CDCl <sub>3</sub>	. S66
<sup>1</sup> H NMR spectrum of <b>M7-NC</b> in $C_6D_6$	. S67
<sup>13</sup> C NMR spectrum of <b>M7-NC</b> in $C_6 D_6$	. S68
<sup>1</sup> H NMR spectrum of $M8-NO_2$ in $CDCl_3$	. S69
<sup>13</sup> C NMR spectrum of <b>M8-NO<sub>2</sub></b> in $CDCl_3$	. S70
<sup>1</sup> H NMR spectrum of <b>M8-NC</b> in $C_6D_6$	. S71
<sup>13</sup> C NMR spectrum of <b>M8-NC</b> in $C_6D_6$	. S72
<sup>1</sup> H NMR spectrum of $M9-NO_2$ in $CDCl_3$	. S73
<sup>13</sup> C NMR spectrum of $M9-NO_2$ in $CDCl_3$	. S74
<sup>1</sup> H NMR spectrum of <b>M9-NC</b> in $C_6D_6$	. S75
<sup>13</sup> C NMR spectrum of <b>M9-NC</b> in $C_6D_6$	. S76
<sup>1</sup> H NMR spectrum of $M10-NO_2$ in $CDCl_3$	. S77
<sup>13</sup> C NMR spectrum of <b>M10-NO<sub>2</sub></b> in $CDCl_3$	. S78
<sup>1</sup> H NMR spectrum of <b>M10-NC</b> in $C_6D_6$	. S79
<sup>13</sup> C NMR spectrum of <b>M10-NC</b> in $C_6D_6$	. S80
<sup>1</sup> H NMR spectrum of $1(40)$ in CDCl <sub>3</sub>	. S81
<sup>1</sup> H NMR spectrum of $2(40)$ in CDCl <sub>3</sub>	. S82
<sup>1</sup> H NMR spectrum of <b>3(40)</b> in $\text{CDCl}_3$	. S83
<sup>1</sup> H NMR spectrum of $4(40)$ in CDCl <sub>3</sub>	. S84
<sup>1</sup> H NMR spectrum of $5(40)$ in CDCl <sub>3</sub>	. S85
<sup>1</sup> H NMR spectrum of $6(40)$ in CDCl <sub>3</sub>	. S86
<sup>1</sup> H NMR spectrum of $7(40)$ in CDCl <sub>3</sub>	. S87
<sup>1</sup> H NMR spectrum of <b>8(40)</b> in $\text{CDCl}_3$	. S88
<sup>1</sup> H NMR spectrum of $9(40)$ in CDCl <sub>3</sub>	. S89
<sup>1</sup> H NMR spectrum of $10(40)$ in CDCl <sub>3</sub>	. <b>S</b> 90
<sup>1</sup> H NMR spectrum of $5(20)$ in CDCl <sub>3</sub>	. <b>S</b> 91
<sup>1</sup> H NMR spectrum of $5(60)$ in CDCl <sub>3</sub>	. S92

	<sup>1</sup> H NMR spectrum of $5(80)$ in CDCl <sub>3</sub>		S93
	<sup>1</sup> H NMR spectrum of $5(100)$ in $CDCl_3$		S94
	<sup>1</sup> H NMR spectrum of $5(150)$ in CDCl <sub>3</sub>		S95
	<sup>1</sup> H NMR spectrum of $5(200)$ in CDCl <sub>3</sub>		S96
	<sup>1</sup> H NMR spectrum of $5(300)$ in CDCl <sub>3</sub>		S97
	<sup>1</sup> H NMR spectrum of <b>5</b> (1000-50) in $CDCl_3$		S98
2	UV-vis and CD Spectra of New Compounds		<b>S</b> 99
_	UV-vis absorption spectrum of (S)-BO in CHCl.		S99
	CD spectrum of $(S)$ -BQ in CHCl <sub>2</sub>	•	S99
	UV-vis absorption spectrum of $(S)$ - <b>BO</b> in CH <sub>2</sub> Cl <sub>2</sub>	•	S100
	CD spectrum of (S)- <b>BO</b> in CH <sub>2</sub> Cl <sub>2</sub>	•	S100
	UV-vis absorption spectrum of (S)- <b>BO</b> in 1.1.2-TCE	·	S100
	CD spectrum of (S)- <b>BO</b> in 1,1,2-TCF	·	S101
	UV-vis absorption spectrum of (S)-BO in Toluene	·	S102
	CD spectrum of $(S)$ - <b>BO</b> in Toluene	•	S102
	$UV_{vis} absorption spectrum of (S)-BO in THE$	•	S102
	CD spectrum of (S)- <b>B</b> Q in THF	·	S103
	$UV_{vis} absorption spectrum of (S)-BO in 1.4-Diovane$	·	S103
	CD spectrum of $(S)$ - <b>BO</b> in 1.4-Dioxane	•	S104 S104
	$UV_{vis} absorption spectrum of (S)-BO in 1.2-DME$	·	\$105
	CD spectrum of $(S)$ - <b>BO</b> in 1.2-DME	•	\$105
	$UV_{vis} absorption spectrum of (S)-BO in Et O$	·	\$105
	CD spectrum of (S)- <b>BQ</b> in Et <sub>2</sub> O	·	\$106
	UV vis absorption spectrum of (S)-BO in MTBE	•	\$100
	CD spectrum of (S)- <b>BQ</b> in MTBE	·	S107
	UV  vis absorption spectrum of  1(40)  in CHC	·	S107
	CD spectrum of $1(40)$ in CHCl	·	S108
	UV vis absorption spectrum of 1(40) in CH Cl	•	S100
	CD spectrum of $1(40)$ in CH Cl	·	S109 S109
	UV  vis absorption spectrum of  1(40)  in  1 1 2  TCE	·	S109 S110
	CD spectrum of $1(40)$ in 1,1,2 TCE	·	S110 S110
	UV  vis absorption spectrum of  1(40)  in Toluene	•	S110 S111
	CD spectrum of $1(40)$ in Toluene	·	<b>S</b> 111 <b>S</b> 111
	UV vis observation spectrum of $1(40)$ in THE	·	S111 S112
	$O_V$ -vis absorption spectrum of $1(40)$ in THF	•	S112 S112
	UV  wis observation spectrum of  1(40)  in  1.4  Disconst	•	S112 S112
	$O_{V-VIS}$ absorption spectrum of $1(40)$ in 1,4-Dioxane	•	S113 S112
	UV  wis observation spectrum of  1(40)  in  1.2  DME	•	S115 S114
	$O_{V-VIS}$ absorption spectrum of $I(40)$ in 1,2-DME	•	S114 S114
	UV vis observation spectrum of $1(40)$ in Et O	•	S114 S115
	$O_{V-VIS}$ absorption spectrum of $1(40)$ in $\mathbf{E}t_2 O_1 \dots \dots$	•	S113 C112
	UD spectfulli 01 $I(40)$ III $El_2 \cup \dots $	•	S113 C114
	$\cup$ v-vis absorption spectrum of $1(40)$ in MTBE	•	5110
	UV spectrum of $1(40)$ in MTBE	•	5110
	$\cup$ v-vis absorption spectrum of $1(40)$ in 2- MeTHF	•	211/

CD spectrum of <b>1(40)</b> in 2-MeTHF	S117
UV-vis absorption spectrum of 1(40) in CPME	S118
CD spectrum of <b>1</b> ( <b>40</b> ) in CPME	S118
UV-vis absorption spectrum of $2(40)$ in CHCl <sub>3</sub>	S119
CD spectrum of $2(40)$ in CHCl <sub>3</sub>	S119
UV-vis absorption spectrum of $2(40)$ in $CH_2Cl_2$	S120
CD spectrum of $2(40)$ in $CH_2Cl_2$	S120
UV-vis absorption spectrum of <b>2(40)</b> in 1,1,2-TCE	S121
CD spectrum of <b>2(40)</b> in 1,1,2-TCE	S121
UV-vis absorption spectrum of <b>2(40)</b> in Toluene	S122
CD spectrum of <b>2(40)</b> in Toluene	S122
UV-vis absorption spectrum of 2(40) in THF	S123
CD spectrum of <b>2(40)</b> in THF	S123
UV-vis absorption spectrum of 2(40) in 1,4-Dioxane	S124
CD spectrum of <b>2(40)</b> in 1,4-Dioxane	S124
UV-vis absorption spectrum of 2(40) in 1,2-DME	S125
CD spectrum of <b>2(40)</b> in 1,2-DME	S125
UV-vis absorption spectrum of $2(40)$ in $Et_2O$	S126
CD spectrum of $2(40)$ in Et <sub>2</sub> O	S126
UV-vis absorption spectrum of 2(40) in MTBE	S127
CD spectrum of <b>2(40)</b> in MTBE	S127
UV-vis absorption spectrum of 2(40) in 2- MeTHF	S128
CD spectrum of <b>2(40)</b> in 2-MeTHF	S128
UV-vis absorption spectrum of 2(40) in CPME	S129
CD spectrum of $2(40)$ in CPME	S129
UV-vis absorption spectrum of $3(40)$ in $CHCl_3$	S130
CD spectrum of $3(40)$ in CHCl <sub>3</sub>	S130
UV-vis absorption spectrum of $3(40)$ in 1,1,2-TCE	S131
CD spectrum of <b>3(40)</b> in 1,1,2-TCE	S131
UV-vis absorption spectrum of $3(40)$ in THF	S132
CD spectrum of $3(40)$ in THF	S132
UV-vis absorption spectrum of $3(40)$ in 1,4-Dioxane	S133
CD spectrum of $3(40)$ in 1,4-Dioxane	S133
UV-vis absorption spectrum of $3(40)$ in 2- MeTHF	S134
CD spectrum of $3(40)$ in 2-MeTHF	S134
UV-vis absorption spectrum of $3(40)$ in 1,2-DME	S135
CD spectrum of $3(40)$ in 1,2-DME	S135
UV-vis absorption spectrum of $3(40)$ in CPME	S136
CD spectrum of $3(40)$ in CPME	S136
UV-vis absorption spectrum of $3(40)$ in $\text{Et}_2\text{O}$	S137
CD spectrum of $3(40)$ in Et <sub>2</sub> O	S137
UV-vis absorption spectrum of $3(40)$ in MTBE	S138
CD spectrum of $3(40)$ in M1BE	S138
U v-vis absorption spectrum of $4(40)$ in CHCl <sub>3</sub>	S139
CD spectrum of $4(40)$ in CHCl <sub>3</sub>	\$139

UV-vis absorption spectrum of <b>4(40)</b> in 1,1,2-TCE	S140
CD spectrum of <b>4(40</b> ) in 1,1,2-TCE	S140
UV-vis absorption spectrum of <b>4(40)</b> in THF	S141
CD spectrum of <b>4</b> ( <b>40</b> ) in THF	S141
UV-vis absorption spectrum of <b>4(40)</b> in 1,4-Dioxane	S142
CD spectrum of <b>4(40</b> ) in 1,4-Dioxane	S142
UV-vis absorption spectrum of <b>4(40)</b> in 2- MeTHF.	S143
CD spectrum of 4(40) in 2- MeTHF	S143
UV-vis absorption spectrum of 4(40) in 1,2-DME	S144
CD spectrum of <b>4</b> ( <b>40</b> ) in 1,2-DME	S144
UV-vis absorption spectrum of 4(40) in CPME	S145
CD spectrum of 4(40) in CPME	S145
UV-vis absorption spectrum of $4(40)$ in Et <sub>2</sub> O	S146
CD spectrum of $4(40)$ in Et <sub>2</sub> O	S146
UV-vis absorption spectrum of 4(40) in MTBE	S147
CD spectrum of 4(40) in MTBE	S147
UV-vis absorption spectrum of $5(40)$ in CHCl <sub>3</sub>	S148
CD spectrum of $5(40)$ in CHCl <sub>3</sub>	S148
UV-vis absorption spectrum of $5(40)$ in 1,1,2-TCE	S149
CD spectrum of <b>5(40)</b> in 1.1.2-TCE	S149
UV-vis absorption spectrum of 5(40) in THF	S150
CD spectrum of $5(40)$ in THF.	S150
UV-vis absorption spectrum of 5(40) in 1,4-Dioxane	S151
CD spectrum of $5(40)$ in 1,4-Dioxane	S151
UV-vis absorption spectrum of 5(40) in 2- MeTHF.	S152
CD spectrum of 5(40) in 2- MeTHF	S152
UV-vis absorption spectrum of 5(40) in 1,2-DME	S153
CD spectrum of <b>5</b> ( <b>4</b> 0) in 1,2-DME	S153
UV-vis absorption spectrum of 5(40) in CPME	S154
CD spectrum of 5(40) in CPME	S154
UV-vis absorption spectrum of $5(40)$ in Et <sub>2</sub> O	S155
CD spectrum of $5(40)$ in Et <sub>2</sub> O	S155
UV-vis absorption spectrum of 5(40) in MTBE	S156
CD spectrum of <b>5</b> ( <b>40</b> ) in MTBE	S156
UV-vis absorption spectrum of $6(40)$ in CHCl <sub>3</sub>	S157
CD spectrum of $6(40)$ in CHCl <sub>3</sub>	S157
UV-vis absorption spectrum of $6(40)$ in 1,1,2-TCE	S158
CD spectrum of <b>6(40</b> ) in 1,1,2-TCE	S158
UV-vis absorption spectrum of 6(40) in THF	S159
CD spectrum of <b>6(40)</b> in THF	S159
UV-vis absorption spectrum of 6(40) in 1,4-Dioxane	S160
CD spectrum of <b>6(40</b> ) in 1,4-Dioxane	S160
UV-vis absorption spectrum of 6(40) in 2- MeTHF	S161
CD spectrum of <b>6(40</b> ) in 2-MeTHF	S161
UV-vis absorption spectrum of 6(40) in 1,2-DME	S162

CD spectrum of <b>6(40)</b> in 1,2-DME	S162
UV-vis absorption spectrum of 6(40) in CPME	S163
CD spectrum of <b>6(40)</b> in CPME	S163
UV-vis absorption spectrum of $6(40)$ in $Et_2O$	S164
CD spectrum of $6(40)$ in Et <sub>2</sub> O	S164
UV-vis absorption spectrum of 6(40) in MTBE	S165
CD spectrum of <b>6(40)</b> in MTBE	S165
UV-vis absorption spectrum of $7(40)$ in CHCl <sub>3</sub>	S166
CD spectrum of $7(40)$ in CHCl <sub>3</sub>	S166
UV-vis absorption spectrum of <b>7(40)</b> in 1,1,2-TCE	S167
CD spectrum of <b>7</b> ( <b>40</b> ) in 1,1,2-TCE	S167
UV-vis absorption spectrum of <b>7(40)</b> in THF	S168
CD spectrum of <b>7</b> ( <b>40</b> ) in THF	S168
UV-vis absorption spectrum of <b>7(40)</b> in 1,4-Dioxane	S169
CD spectrum of <b>7</b> ( <b>40</b> ) in 1,4-Dioxane	S169
UV-vis absorption spectrum of 7(40) in 2- MeTHF	S170
CD spectrum of <b>7(40)</b> in 2-MeTHF	S170
UV-vis absorption spectrum of <b>7(40)</b> in 1,2-DME	S171
CD spectrum of <b>7</b> ( <b>40</b> ) in 1,2-DME	S171
UV-vis absorption spectrum of 7(40) in CPME	S172
CD spectrum of <b>7</b> ( <b>40</b> ) in CPME	S172
UV-vis absorption spectrum of $7(40)$ in $Et_2O$	S173
CD spectrum of $7(40)$ in Et <sub>2</sub> O	S173
UV-vis absorption spectrum of 7(40) in MTBE	S174
CD spectrum of <b>7(40)</b> in MTBE	S174
UV-vis absorption spectrum of $8(40)$ in $CHCl_3$	S175
CD spectrum of $8(40)$ in CHCl <sub>3</sub>	S175
UV-vis absorption spectrum of 8(40) in 1,1,2-TCE	S176
CD spectrum of <b>8(40)</b> in 1,1,2-TCE	S176
UV-vis absorption spectrum of 8(40) in THF	S177
CD spectrum of 8(40) in THF	S177
UV-vis absorption spectrum of 8(40) in 1,4-Dioxane	S178
CD spectrum of 8(40) in 1,4-Dioxane	S178
UV-vis absorption spectrum of 8(40) in 2- MeTHF	S179
CD spectrum of 8(40) in 2-MeTHF	S179
UV-vis absorption spectrum of 8(40) in 1,2-DME	S180
CD spectrum of 8(40) in 1,2-DME	S180
UV-vis absorption spectrum of 8(40) in CPME	S181
CD spectrum of <b>8(40)</b> in CPME	S181
UV-vis absorption spectrum of $8(40)$ in $Et_2O$	S182
CD spectrum of 8(40) in $Et_2O$	S182
UV-vis absorption spectrum of 8(40) in MTBE	S183
CD spectrum of 8(40) in MTBE	S183
UV-vis absorption spectrum of $9(40)$ in $CHCl_3 \dots \dots$	S184
CD spectrum of $9(40)$ in CHCl <sub>3</sub>	S184

UV-vis absorption spectrum of <b>9(40)</b> in 1,1,2-TCE	S185
CD spectrum of <b>9(40)</b> in 1,1,2-TCE	S185
UV-vis absorption spectrum of <b>9(40)</b> in THF	S186
CD spectrum of <b>9(40)</b> in THF	S186
UV-vis absorption spectrum of <b>9(40)</b> in 1,4-Dioxane	S187
CD spectrum of <b>9(40)</b> in 1,4-Dioxane	S187
UV-vis absorption spectrum of 9(40) in 2- MeTHF.	S188
CD spectrum of <b>9(40)</b> in 2- MeTHF	S188
UV-vis absorption spectrum of 9(40) in 1,2-DME	S189
CD spectrum of <b>9(40)</b> in 1,2-DME	S189
UV-vis absorption spectrum of <b>9(40)</b> in CPME	S190
CD spectrum of $9(40)$ in CPME $\ldots$	S190
UV-vis absorption spectrum of $9(40)$ in Et <sub>2</sub> O	S191
CD spectrum of $9(40)$ in Et <sub>2</sub> O	S191
UV-vis absorption spectrum of <b>9(40)</b> in MTBE	S192
CD spectrum of $9(40)$ in MTBE $\ldots$	S192
UV-vis absorption spectrum of $10(40)$ in CHCl <sub>2</sub>	S193
CD spectrum of $10(40)$ in CHCl <sub>2</sub>	S193
UV-vis absorption spectrum of $10(40)$ in 1.1.2-TCE	S194
CD spectrum of $10(40)$ in 1.1.2-TCE	S194
UV-vis absorption spectrum of <b>10(40)</b> in THF	S195
CD spectrum of $10(40)$ in THF	S195
UV-vis absorption spectrum of <b>10(40)</b> in 1.4-Dioxane	S196
CD spectrum of $10(40)$ in 1.4-Dioxane	S196
UV-vis absorption spectrum of 10(40) in 2- MeTHF	S197
CD spectrum of $10(40)$ in 2-MeTHF	S197
UV-vis absorption spectrum of <b>10(40)</b> in 1.2-DME	S198
CD spectrum of $10(40)$ in 1.2-DME $\dots$	S198
UV-vis absorption spectrum of 10(40) in CPME	S199
CD spectrum of $10(40)$ in CPME	S199
UV-vis absorption spectrum of $10(40)$ in Et <sub>2</sub> O	S200
CD spectrum of $10(40)$ in Et <sub>2</sub> O	S200
UV-vis absorption spectrum of $10(40)$ in MTBE	S201
CD spectrum of $10(40)$ in MTBE	S201
UV-vis absorption spectrum of <b>5(20)</b> in MTBE	S202
CD spectrum of $5(20)$ in MTBE	S202
UV-vis absorption spectrum of 5(60) in MTBE	S203
CD spectrum of $5(60)$ in MTBE	S203
UV-vis absorption spectrum of 5(80) in MTBE	S204
CD spectrum of $5(80)$ in MTBE $1$	S204
UV-vis absorption spectrum of 5(100) in MTBE	S205
CD spectrum of <b>5</b> (100) in MTBE	S205
UV-vis absorption spectrum of 5(150) in MTBE	S206
CD spectrum of <b>5</b> ( <b>150</b> ) in MTBE	S206
UV-vis absorption spectrum of 5(200) in MTBE	S207
UV-vis absorption spectrum of 5(200) in MTBE	S207

CD spectrum of <b>5(200)</b> in MTBE
UV-vis absorption spectrum of <b>5(300)</b> in MTBE
CD spectrum of <b>5(300)</b> in MTBE
UV-vis absorption spectrum of 5(20) in 1,2-DME
CD spectrum of <b>5(20)</b> in 1,2-DME
UV-vis absorption spectrum of 5(60) in 1,2-DME
CD spectrum of <b>5</b> ( <b>60</b> ) in 1,2-DME
UV-vis absorption spectrum of <b>5(80)</b> in 1,2-DME
CD spectrum of <b>5(80)</b> in 1,2-DME
UV-vis absorption spectrum of <b>5(100)</b> in 1,2-DME
CD spectrum of <b>5(100)</b> in 1,2-DME
UV-vis absorption spectrum of <b>5(150)</b> in 1,2-DME
CD spectrum of <b>5(150)</b> in 1,2-DME
UV-vis absorption spectrum of <b>5(200)</b> in 1,2-DME
CD spectrum of <b>5(200)</b> in 1,2-DME
UV-vis absorption spectrum of <b>5(300)</b> in 1,2-DME
CD spectrum of <b>5(300)</b> in 1,2-DME
UV-vis absorption spectrum of 1(40) in EtOAc
CD spectrum of <b>1(40)</b> in EtOAc
UV-vis absorption spectrum of <b>2(40)</b> in EtOAc
CD spectrum of <b>2(40)</b> in EtOAc
UV-vis absorption spectrum of <b>3(40)</b> in EtOAc
CD spectrum of <b>3(40)</b> in EtOAc
UV-vis absorption spectrum of 4(40) in EtOAc
CD spectrum of <b>4(40)</b> in EtOAc
UV-vis absorption spectrum of 5(40) in EtOAc
CD spectrum of <b>5(40)</b> in EtOAc
UV-vis absorption spectrum of 6(40) in EtOAc
CD spectrum of <b>6(40)</b> in EtOAc
UV-vis absorption spectrum of 7(40) in EtOAc
CD spectrum of <b>7(40)</b> in EtOAc
UV-vis absorption spectrum of 8(40) in EtOAc
CD spectrum of <b>8(40)</b> in EtOAc
UV-vis absorption spectrum of <b>9(40)</b> in EtOAc
CD spectrum of <b>9(40)</b> in EtOAc
UV-vis absorption spectrum of 10(40) in EtOAc
CD spectrum of <b>10(40)</b> in EtOAc



# 1 NMR Spectra of New Compounds

Figure S3. <sup>1</sup>H NMR spectrum of  $M1-NO_2$  in  $CDCl_3$ .



Figure S4. <sup>13</sup>C NMR spectrum of  $M1-NO_2$  in  $CDCl_3$ .



Figure S5. <sup>1</sup>H NMR spectrum of **M1-NC** in  $C_6D_6$ .



Figure S6. <sup>13</sup>C NMR spectrum of **M1-NC** in  $C_6D_6$ .



Figure S7. <sup>1</sup>H NMR spectrum of  $M2-NO_2$  in  $CDCl_3$ .



Figure S8. <sup>13</sup>C NMR spectrum of  $M2-NO_2$  in  $CDCl_3$ .



Figure S9. <sup>1</sup>H NMR spectrum of **M2-NC** in  $C_6D_6$ .



Figure S10. <sup>13</sup>C NMR spectrum of M2-NC in  $C_6D_6$ .



Figure S11. <sup>1</sup>H NMR spectrum of **M3-NO<sub>2</sub>** in CDCl<sub>3</sub>.



Figure S12. <sup>13</sup>C NMR spectrum of  $M3-NO_2$  in CDCl<sub>3</sub>.



Figure S13. <sup>1</sup>H NMR spectrum of **M3-NC** in  $C_6D_6$ .



Figure S14. <sup>13</sup>C NMR spectrum of **M3-NC** in  $C_6D_6$ .



Figure S15. <sup>1</sup>H NMR spectrum of **M4-NO<sub>2</sub>** in CDCl<sub>3</sub>.



Figure S16. <sup>13</sup>C NMR spectrum of  $M4-NO_2$  in  $CDCl_3$ .



Figure S17. <sup>1</sup>H NMR spectrum of **M4-NC** in  $C_6D_6$ .



Figure S18. <sup>13</sup>C NMR spectrum of M4-NC in  $C_6D_6$ .



Figure S19. <sup>1</sup>H NMR spectrum of **M5-NO<sub>2</sub>** in CDCl<sub>3</sub>.



Figure S20. <sup>13</sup>C NMR spectrum of  $M5-NO_2$  in  $CDCl_3$ .



Figure S21. <sup>1</sup>H NMR spectrum of **M5-NC** in  $C_6D_6$ .



Figure S22. <sup>13</sup>C NMR spectrum of **M5-NC** in  $C_6D_6$ .



Figure S23. <sup>1</sup>H NMR spectrum of **M6-NO<sub>2</sub>** in CDCl<sub>3</sub>.



Figure S24. <sup>13</sup>C NMR spectrum of  $M6-NO_2$  in  $CDCl_3$ .



Figure S25. <sup>1</sup>H NMR spectrum of **M6-NC** in  $C_6D_6$ .



Figure S26. <sup>13</sup>C NMR spectrum of M6-NC in  $C_6D_6$ .



Figure S27. <sup>1</sup>H NMR spectrum of **M7-NO<sub>2</sub>** in CDCl<sub>3</sub>.



Figure S28. <sup>13</sup>C NMR spectrum of  $M7-NO_2$  in CDCl<sub>3</sub>.



Figure S29. <sup>1</sup>H NMR spectrum of **M7-NC** in  $C_6D_6$ .



Figure S30. <sup>13</sup>C NMR spectrum of **M7-NC** in  $C_6D_6$ .


Figure S31. <sup>1</sup>H NMR spectrum of **M8-NO<sub>2</sub>** in CDCl<sub>3</sub>.



Figure S32. <sup>13</sup>C NMR spectrum of **M8-NO<sub>2</sub>** in  $CDCl_3$ .



Figure S33. <sup>1</sup>H NMR spectrum of **M8-NC** in  $C_6D_6$ .



Figure S34. <sup>13</sup>C NMR spectrum of **M8-NC** in  $C_6D_6$ .



Figure S35. <sup>1</sup>H NMR spectrum of **M9-NO<sub>2</sub>** in CDCl<sub>3</sub>.



Figure S36. <sup>13</sup>C NMR spectrum of **M9-NO<sub>2</sub>** in CDCl<sub>3</sub>.



Figure S37. <sup>1</sup>H NMR spectrum of **M9-NC** in  $C_6D_6$ .



Figure S38. <sup>13</sup>C NMR spectrum of **M9-NC** in  $C_6D_6$ .



Figure S39. <sup>1</sup>H NMR spectrum of  $M10-NO_2$  in  $CDCl_3$ .



Figure S40. <sup>13</sup>C NMR spectrum of **M10-NO<sub>2</sub>** in CDCl<sub>3</sub>.



Figure S41. <sup>1</sup>H NMR spectrum of **M10-NC** in  $C_6D_6$ .



Figure S42. <sup>13</sup>C NMR spectrum of **M10-NC** in  $C_6D_6$ .



Figure S43. <sup>1</sup>H NMR spectrum of **1(40)** in CDCl<sub>3</sub>.



Figure S44. <sup>1</sup>H NMR spectrum of **2(40)** in CDCl<sub>3</sub>.



Figure S45. <sup>1</sup>H NMR spectrum of **3(40)** in CDCl<sub>3</sub>.



Figure S46. <sup>1</sup>H NMR spectrum of **4(40)** in CDCl<sub>3</sub>.



Figure S47. <sup>1</sup>H NMR spectrum of **5(40)** in CDCl<sub>3</sub>.



Figure S48. <sup>1</sup>H NMR spectrum of **6(40)** in CDCl<sub>3</sub>.



Figure S49. <sup>1</sup>H NMR spectrum of **7(40)** in CDCl<sub>3</sub>.



Figure S50. <sup>1</sup>H NMR spectrum of **8(40)** in CDCl<sub>3</sub>.



Figure S51. <sup>1</sup>H NMR spectrum of **9(40)** in CDCl<sub>3</sub>.



Figure S52. <sup>1</sup>H NMR spectrum of **10(40)** in CDCl<sub>3</sub>.



Figure S53. <sup>1</sup>H NMR spectrum of **5(20)** in CDCl<sub>3</sub>.



Figure S54. <sup>1</sup>H NMR spectrum of **5(60)** in CDCl<sub>3</sub>.



Figure S55. <sup>1</sup>H NMR spectrum of **5(80)** in CDCl<sub>3</sub>.



Figure S56. <sup>1</sup>H NMR spectrum of **5(100)** in CDCl<sub>3</sub>.



Figure S57. <sup>1</sup>H NMR spectrum of **5(150)** in CDCl<sub>3</sub>.



Figure S58. <sup>1</sup>H NMR spectrum of **5(200)** in CDCl<sub>3</sub>.



Figure S59. <sup>1</sup>H NMR spectrum of **5(300)** in CDCl<sub>3</sub>.



Figure S60. <sup>1</sup>H NMR spectrum of 5(1000-50) in CDCl<sub>3</sub>.

## 2 UV-vis and CD Spectra of New Compounds



Figure S61. UV-vis absorption spectrum of (S)-**BQ** in CHCl<sub>3</sub> ( $2.54 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S62. CD spectrum of (S)-**BQ** in CHCl<sub>3</sub> ( $2.54 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S63. UV-vis absorption spectrum of (S)-**BQ** in  $CH_2Cl_2$  (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S64. CD spectrum of (S)-**BQ** in CH<sub>2</sub>Cl<sub>2</sub> ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S65. UV-vis absorption spectrum of (S)-**BQ** in 1,1,2-TCE ( $1.86 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S66. CD spectrum of (*S*)-**BQ** in 1,1,2-TCE ( $1.86 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S67. UV-vis absorption spectrum of (*S*)-**BQ** in Toluene ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S68. CD spectrum of (S)-**BQ** in Toluene ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S69. UV-vis absorption spectrum of (S)-**BQ** in THF ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S70. CD spectrum of (S)-**BQ** in THF ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S71. UV-vis absorption spectrum of (S)-**BQ** in 1,4-Dioxane ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S72. CD spectrum of (*S*)-**BQ** in 1,4-Dioxane ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).


Figure S73. UV-vis absorption spectrum of (S)-**BQ** in 1,2-DME ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S74. CD spectrum of (S)-BQ in 1,2-DME ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S75. UV-vis absorption spectrum of (S)-**BQ** in Et<sub>2</sub>O ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S76. CD spectrum of (S)-**BQ** in Et<sub>2</sub>O ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S77. UV-vis absorption spectrum of (*S*)-**BQ** in MTBE ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S78. CD spectrum of (S)-**BQ** in MTBE ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S79. UV-vis absorption spectrum of 1(40) in CHCl<sub>3</sub> (2.37 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S80. CD spectrum of 1(40) in CHCl<sub>3</sub> (2.37 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S81. UV-vis absorption spectrum of 1(40) in CH<sub>2</sub>Cl<sub>2</sub> (2.75 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S82. CD spectrum of 1(40) in CH<sub>2</sub>Cl<sub>2</sub> (2.75 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S83. UV-vis absorption spectrum of 1(40) in 1,1,2-TCE ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S84. CD spectrum of **1(40)** in 1,1,2-TCE ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S85. UV-vis absorption spectrum of 1(40) in Toluene ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S86. CD spectrum of 1(40) in Toluene  $(3.2 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S87. UV-vis absorption spectrum of 1(40) in THF (2.37 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S88. CD spectrum of 1(40) in THF (2.37 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S89. UV-vis absorption spectrum of 1(40) in 1,4-Dioxane ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S90. CD spectrum of 1(40) in 1,4-Dioxane (3.2 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S91. UV-vis absorption spectrum of 1(40) in 1,2-DME ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S92. CD spectrum of **1(40)** in 1,2-DME ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S93. UV-vis absorption spectrum of 1(40) in Et<sub>2</sub>O (2.37 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S94. CD spectrum of 1(40) in Et<sub>2</sub>O (2.37 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S95. UV-vis absorption spectrum of 1(40) in MTBE ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S96. CD spectrum of 1(40) in MTBE  $(3.2 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S97. UV-vis absorption spectrum of 1(40) in 2- MeTHF ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S98. CD spectrum of 1(40) in 2- MeTHF (3.2 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S99. UV-vis absorption spectrum of 1(40) in CPME ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S100. CD spectrum of 1(40) in CPME ( $3.2 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S101. UV-vis absorption spectrum of 2(40) in CHCl<sub>3</sub> (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S102. CD spectrum of 2(40) in CHCl<sub>3</sub> (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S103. UV-vis absorption spectrum of **2(40)** in  $CH_2Cl_2$  (2.98 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S104. CD spectrum of **2(40)** in CH<sub>2</sub>Cl<sub>2</sub> (2.98 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S105. UV-vis absorption spectrum of 2(40) in 1,1,2-TCE (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S106. CD spectrum of **2(40)** in 1,1,2-TCE ( $2.85 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S107. UV-vis absorption spectrum of **2(40)** in Toluene ( $2.85 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S108. CD spectrum of 2(40) in Toluene (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S109. UV-vis absorption spectrum of 2(40) in THF (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S110. CD spectrum of 2(40) in THF (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S111. UV-vis absorption spectrum of 2(40) in 1,4-Dioxane (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S112. CD spectrum of 2(40) in 1,4-Dioxane (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S113. UV-vis absorption spectrum of 2(40) in 1,2-DME (2.98 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S114. CD spectrum of **2(40)** in 1,2-DME ( $2.98 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S115. UV-vis absorption spectrum of **2(40)** in Et<sub>2</sub>O ( $2.85 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S116. CD spectrum of 2(40) in Et<sub>2</sub>O (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S117. UV-vis absorption spectrum of **2(40)** in MTBE ( $2.98 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S118. CD spectrum of 2(40) in MTBE ( $2.98 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S119. UV-vis absorption spectrum of 2(40) in 2- MeTHF (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S120. CD spectrum of 2(40) in 2-MeTHF (2.85 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S121. UV-vis absorption spectrum of **2(40)** in CPME ( $2.85 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S122. CD spectrum of **2(40)** in CPME ( $2.85 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S123. UV-vis absorption spectrum of **3(40)** in CHCl<sub>3</sub> ( $4.62 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S124. CD spectrum of **3(40)** in CHCl<sub>3</sub> ( $4.62 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S125. UV-vis absorption spectrum of **3(40)** in 1,1,2-TCE ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S126. CD spectrum of **3(40)** in 1,1,2-TCE ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S127. UV-vis absorption spectrum of **3(40)** in THF ( $4.62 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S128. CD spectrum of **3(40)** in THF ( $4.62 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S129. UV-vis absorption spectrum of **3(40)** in 1,4-Dioxane  $(3.05 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm}).$ 



Figure S130. CD spectrum of 3(40) in 1,4-Dioxane  $(3.05 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S131. UV-vis absorption spectrum of **3(40)** in 2- MeTHF ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S132. CD spectrum of 3(40) in 2-MeTHF (3.05 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S133. UV-vis absorption spectrum of **3(40)** in 1,2-DME ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S134. CD spectrum of **3(40)** in 1,2-DME ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S135. UV-vis absorption spectrum of **3(40)** in CPME ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S136. CD spectrum of **3(40)** in CPME ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S137. UV-vis absorption spectrum of **3(40)** in Et<sub>2</sub>O ( $4.62 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S138. CD spectrum of 3(40) in Et<sub>2</sub>O ( $4.62 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S139. UV-vis absorption spectrum of **3(40)** in MTBE ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S140. CD spectrum of **3(40)** in MTBE  $(3.05 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S141. UV-vis absorption spectrum of 4(40) in CHCl<sub>3</sub> (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S142. CD spectrum of 4(40) in CHCl<sub>3</sub> ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S143. UV-vis absorption spectrum of **4(40)** in 1,1,2-TCE ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S144. CD spectrum of **4(40)** in 1,1,2-TCE ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).


Figure S145. UV-vis absorption spectrum of **4(40)** in THF ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S146. CD spectrum of 4(40) in THF ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S147. UV-vis absorption spectrum of 4(40) in 1,4-Dioxane (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S148. CD spectrum of 4(40) in 1,4-Dioxane ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S149. UV-vis absorption spectrum of 4(40) in 2- MeTHF (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S150. CD spectrum of 4(40) in 2- MeTHF ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S151. UV-vis absorption spectrum of 4(40) in 1,2-DME (2.99 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S152. CD spectrum of **4(40)** in 1,2-DME ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S153. UV-vis absorption spectrum of 4(40) in CPME ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S154. CD spectrum of 4(40) in CPME ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S155. UV-vis absorption spectrum of 4(40) in Et<sub>2</sub>O ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S156. CD spectrum of 4(40) in  $Et_2O$  (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S157. UV-vis absorption spectrum of **4(40)** in MTBE ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S158. CD spectrum of 4(40) in MTBE  $(3.01 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S159. UV-vis absorption spectrum of **5(40)** in CHCl<sub>3</sub> ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S160. CD spectrum of **5(40)** in CHCl<sub>3</sub> ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S161. UV-vis absorption spectrum of 5(40) in 1,1,2-TCE ( $2.46 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S162. CD spectrum of **5(40)** in 1,1,2-TCE ( $2.46 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S163. UV-vis absorption spectrum of **5**(40) in THF ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S164. CD spectrum of 5(40) in THF ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S165. UV-vis absorption spectrum of **5(40)** in 1,4-Dioxane ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S166. CD spectrum of 5(40) in 1,4-Dioxane (3 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S167. UV-vis absorption spectrum of **5(40)** in 2- MeTHF ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S168. CD spectrum of 5(40) in 2-MeTHF (3 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S169. UV-vis absorption spectrum of 5(40) in 1,2-DME ( $3.49 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S170. CD spectrum of **5(40)** in 1,2-DME ( $3.49 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S171. UV-vis absorption spectrum of **5(40)** in CPME ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S172. CD spectrum of **5(40)** in CPME ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S173. UV-vis absorption spectrum of **5(40)** in Et<sub>2</sub>O ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S174. CD spectrum of **5(40)** in Et<sub>2</sub>O ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S175. UV-vis absorption spectrum of **5(40)** in MTBE ( $3.49 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S176. CD spectrum of **5(40)** in MTBE  $(3.49 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S177. UV-vis absorption spectrum of 6(40) in CHCl<sub>3</sub> (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S178. CD spectrum of **6(40)** in CHCl<sub>3</sub> ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S179. UV-vis absorption spectrum of 6(40) in 1,1,2-TCE (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S180. CD spectrum of **6(40)** in 1,1,2-TCE ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S181. UV-vis absorption spectrum of 6(40) in THF (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S182. CD spectrum of 6(40) in THF (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S183. UV-vis absorption spectrum of 6(40) in 1,4-Dioxane ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S184. CD spectrum of 6(40) in 1,4-Dioxane (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S185. UV-vis absorption spectrum of 6(40) in 2- MeTHF (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S186. CD spectrum of 6(40) in 2- MeTHF (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S187. UV-vis absorption spectrum of 6(40) in 1,2-DME (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S188. CD spectrum of **6(40)** in 1,2-DME ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S189. UV-vis absorption spectrum of 6(40) in CPME (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S190. CD spectrum of **6(40)** in CPME ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S191. UV-vis absorption spectrum of 6(40) in  $Et_2O$  (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S192. CD spectrum of 6(40) in Et<sub>2</sub>O (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S193. UV-vis absorption spectrum of **6(40)** in MTBE ( $3.01 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S194. CD spectrum of **6(40)** in MTBE  $(3.01 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S195. UV-vis absorption spectrum of **7(40)** in CHCl<sub>3</sub> ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S196. CD spectrum of **7(40)** in CHCl<sub>3</sub> ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S197. UV-vis absorption spectrum of **7(40)** in 1,1,2-TCE ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S198. CD spectrum of **7(40)** in 1,1,2-TCE ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S199. UV-vis absorption spectrum of **7(40)** in THF ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S200. CD spectrum of **7(40)** in THF ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S201. UV-vis absorption spectrum of **7(40)** in 1,4-Dioxane ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S202. CD spectrum of 7(40) in 1,4-Dioxane ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S203. UV-vis absorption spectrum of **7(40)** in 2- MeTHF ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S204. CD spectrum of **7(40)** in 2- MeTHF ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S205. UV-vis absorption spectrum of **7(40)** in 1,2-DME ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S206. CD spectrum of **7(40)** in 1,2-DME ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S207. UV-vis absorption spectrum of **7(40)** in CPME ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S208. CD spectrum of **7(40)** in CPME ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S209. UV-vis absorption spectrum of **7(40)** in Et<sub>2</sub>O ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S210. CD spectrum of **7(40)** in  $\text{Et}_2\text{O}$  (2.99 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S211. UV-vis absorption spectrum of **7(40)** in MTBE ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S212. CD spectrum of **7(40)** in MTBE ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S213. UV-vis absorption spectrum of **8(40)** in CHCl<sub>3</sub> ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S214. CD spectrum of **8(40)** in CHCl<sub>3</sub> ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S215. UV-vis absorption spectrum of 8(40) in 1,1,2-TCE ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S216. CD spectrum of **8(40)** in 1,1,2-TCE ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).


Figure S217. UV-vis absorption spectrum of 8(40) in THF ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S218. CD spectrum of 8(40) in THF ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S219. UV-vis absorption spectrum of **8(40)** in 1,4-Dioxane  $(3.02 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm}).$ 



Figure S220. CD spectrum of 8(40) in 1,4-Dioxane ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S221. UV-vis absorption spectrum of 8(40) in 2- MeTHF ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S222. CD spectrum of 8(40) in 2- MeTHF ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S223. UV-vis absorption spectrum of 8(40) in 1,2-DME ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S224. CD spectrum of **8(40)** in 1,2-DME ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S225. UV-vis absorption spectrum of 8(40) in CPME ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S226. CD spectrum of **8(40)** in CPME  $(3.02 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S227. UV-vis absorption spectrum of 8(40) in Et<sub>2</sub>O ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S228. CD spectrum of 8(40) in Et<sub>2</sub>O ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S229. UV-vis absorption spectrum of 8(40) in MTBE ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S230. CD spectrum of 8(40) in MTBE  $(3.02 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm}).$ 



Figure S231. UV-vis absorption spectrum of **9(40)** in CHCl<sub>3</sub> ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S232. CD spectrum of **9(40)** in CHCl<sub>3</sub> ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S233. UV-vis absorption spectrum of 9(40) in 1,1,2-TCE ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S234. CD spectrum of **9(40)** in 1,1,2-TCE ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S235. UV-vis absorption spectrum of **9(40)** in THF ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S236. CD spectrum of **9(40)** in THF ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S237. UV-vis absorption spectrum of 9(40) in 1,4-Dioxane (3.14 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S238. CD spectrum of 9(40) in 1,4-Dioxane (3.14 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S239. UV-vis absorption spectrum of 9(40) in 2- MeTHF ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S240. CD spectrum of 9(40) in 2-MeTHF (3.14 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S241. UV-vis absorption spectrum of **9(40)** in 1,2-DME ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S242. CD spectrum of **9(40)** in 1,2-DME ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S243. UV-vis absorption spectrum of **9(40)** in CPME ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S244. CD spectrum of **9(40)** in CPME ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S245. UV-vis absorption spectrum of 9(40) in Et<sub>2</sub>O ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S246. CD spectrum of 9(40) in Et<sub>2</sub>O (3.14 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S247. UV-vis absorption spectrum of **9(40)** in MTBE ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S248. CD spectrum of **9(40)** in MTBE ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S249. UV-vis absorption spectrum of 10(40) in CHCl<sub>3</sub> (2.68 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S250. CD spectrum of **10(40)** in CHCl<sub>3</sub> ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S251. UV-vis absorption spectrum of 10(40) in 1,1,2-TCE (2.68 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S252. CD spectrum of **10(40)** in 1,1,2-TCE ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S253. UV-vis absorption spectrum of **10(40)** in THF ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S254. CD spectrum of 10(40) in THF ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S255. UV-vis absorption spectrum of 10(40) in 1,4-Dioxane (2.68 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S256. CD spectrum of 10(40) in 1,4-Dioxane ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S257. UV-vis absorption spectrum of **10(40)** in 2- MeTHF ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S258. CD spectrum of 10(40) in 2- MeTHF ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S259. UV-vis absorption spectrum of **10(40)** in 1,2-DME ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S260. CD spectrum of **10(40)** in 1,2-DME ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S261. UV-vis absorption spectrum of **10(40)** in CPME ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S262. CD spectrum of 10(40) in CPME ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S263. UV-vis absorption spectrum of **10(40)** in  $\text{Et}_2\text{O}$  (2.68 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S264. CD spectrum of **10(40)** in Et<sub>2</sub>O (2.68 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S265. UV-vis absorption spectrum of **10(40)** in MTBE ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S266. CD spectrum of 10(40) in MTBE ( $2.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S267. UV-vis absorption spectrum of **5(20)** in MTBE ( $3.34 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S268. CD spectrum of **5(20)** in MTBE  $(3.34 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S269. UV-vis absorption spectrum of **5(60)** in MTBE ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S270. CD spectrum of **5(60)** in MTBE ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S271. UV-vis absorption spectrum of **5(80)** in MTBE ( $2.86 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S272. CD spectrum of **5(80)** in MTBE ( $2.86 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S273. UV-vis absorption spectrum of **5(100)** in MTBE ( $2.38 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S274. CD spectrum of 5(100) in MTBE ( $2.38 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S275. UV-vis absorption spectrum of **5(150)** in MTBE ( $3.33 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S276. CD spectrum of **5(150)** in MTBE ( $3.33 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S277. UV-vis absorption spectrum of **5(200)** in MTBE ( $3.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S278. CD spectrum of 5(200) in MTBE ( $3.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S279. UV-vis absorption spectrum of **5(300)** in MTBE ( $3.09 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S280. CD spectrum of **5(300)** in MTBE ( $3.09 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S281. UV-vis absorption spectrum of **5(20)** in 1,2-DME ( $3.34 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S282. CD spectrum of **5(20)** in 1,2-DME ( $3.34 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S283. UV-vis absorption spectrum of **5(60)** in 1,2-DME ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S284. CD spectrum of **5(60)** in 1,2-DME ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S285. UV-vis absorption spectrum of **5(80)** in 1,2-DME ( $2.86 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S286. CD spectrum of **5(80)** in 1,2-DME ( $2.86 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S287. UV-vis absorption spectrum of 5(100) in 1,2-DME (2.38 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S288. CD spectrum of **5(100)** in 1,2-DME ( $2.38 \times 10^{-2}$  g/L, path length = 10 mm).


Figure S289. UV-vis absorption spectrum of 5(150) in 1,2-DME (3.33 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S290. CD spectrum of **5(150)** in 1,2-DME ( $3.33 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S291. UV-vis absorption spectrum of 5(200) in 1,2-DME (3.68 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S292. CD spectrum of **5(200)** in 1,2-DME ( $3.68 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S293. UV-vis absorption spectrum of 5(300) in 1,2-DME (3.09 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S294. CD spectrum of **5(300)** in 1,2-DME ( $3.09 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S295. UV-vis absorption spectrum of 1(40) in EtOAc (2.75 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S296. CD spectrum of 1(40) in EtOAc (2.75 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S297. UV-vis absorption spectrum of **2(40)** in EtOAc ( $2.98 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S298. CD spectrum of 2(40) in EtOAc (2.98 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S299. UV-vis absorption spectrum of **3(40)** in EtOAc ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S300. CD spectrum of **3(40)** in EtOAc ( $3.05 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S301. UV-vis absorption spectrum of **4(40)** in EtOAc ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S302. CD spectrum of 4(40) in EtOAc ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S303. UV-vis absorption spectrum of **5(40)** in EtOAc ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S304. CD spectrum of **5(40)** in EtOAc ( $3 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S305. UV-vis absorption spectrum of 6(40) in EtOAc (3.01 × 10<sup>-2</sup> g/L, path length = 10 mm).



Figure S306. CD spectrum of **6(40)** in EtOAc  $(3.01 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S307. UV-vis absorption spectrum of **7(40)** in EtOAc ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S308. CD spectrum of **7(40)** in EtOAc ( $2.99 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S309. UV-vis absorption spectrum of **8(40)** in EtOAc ( $3.03 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S310. CD spectrum of **8(40)** in EtOAc  $(3.03 \times 10^{-2} \text{ g/L}, \text{ path length} = 10 \text{ mm})$ .



Figure S311. UV-vis absorption spectrum of **9(40)** in EtOAc ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S312. CD spectrum of **9(40)** in EtOAc ( $3.14 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S313. UV-vis absorption spectrum of **10(40)** in EtOAc ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).



Figure S314. CD spectrum of 10(40) in EtOAc ( $3.02 \times 10^{-2}$  g/L, path length = 10 mm).