APPENDIX TWO

Spectra Relevant to Chapter Two:

Studies Directed Toward the Total Synthesis of Saudin and the Development of a Tandem Stille-Oxa-Electrocyclization Reaction
Figure A2.1 $^1$H NMR (300 MHz, DMSO-$d_6$) of compound 56.
**Figure A2.2** Infrared spectrum (KBr pellet) of compound 56.

**Figure A2.3** $^{13}$C NMR (75 MHz, DMSO-$d_6$) of compound 56.
Figure A2.4 $^1$H NMR (300 MHz, CDCl$_3$) of compound 52a.
Figure A2.5 Infrared spectrum (thin film/NaCl) of compound 52a.

Figure A2.6 $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 52a.
Figure A2.7 $^1$H NMR (300 MHz, CDCl$_3$) of compound 52b.
Figure A2.8  Infrared spectrum (thin film/NaCl) of compound 52b.

Figure A2.9  $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 52b.
Figure A2.10 $^1$H NMR (300 MHz, CDCl$_3$) of compound 52c.
Figure A2.11 Infrared spectrum (thin film/NaCl) of compound 52c.

Figure A2.12 $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 52c.
Figure A2.13 $^1$H NMR (300 MHz, CDCl$_3$) of compound 53a.
Figure A2.14 Infrared spectrum (thin film/NaCl) of compound 53a.

Figure A2.15 $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 53a.
**Figure A2.16** $^1$H NMR (300 MHz, CDCl$_3$) of compound 53b.
Figure A2.17 Infrared spectrum (thin film/NaCl) of compound 53b.

Figure A2.18 $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 53b.
Figure A2.19 $^1$H NMR (300 MHz, CDCl$_3$) of compound 53c.
Figure A2.20 Infrared spectrum (thin film/NaCl) of compound 53c.

Figure A2.21 $^{13}$C NMR (75 MHz, C₆D₆) of compound 53c.
Figure A2.22 $^1$H NMR (300 MHz, CDCl$_3$) of compound 63.
Figure A2.23  Infrared spectrum (thin film/NaCl) of compound 63.

Figure A2.24  $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 63.
Figure A2.25 $^1$H NMR (300 MHz, CDCl$_3$) of compound 50.
Figure A2.26  Infrared spectrum (thin film/NaCl) of compound 50.

Figure A2.27  $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 50.
Figure A2.28 $^1$H NMR (500 MHz, C$_6$D$_6$) of compound 66a.
Figure A2.29 Infrared spectrum (thin film/NaCl) of compound 66a.

Figure A2.30 $^{13}$C NMR (125 MHz, C$_6$D$_6$) of compound 66a.
Figure A2.31 $^1$H NMR (500 MHz, C$_6$D$_6$) of compound 66b.
Figure A2.32  Infrared spectrum (thin film/NaCl) of compound 66b.

Figure A2.33  $^{13}$C NMR (125 MHz, C$_6$D$_6$) of compound 66b.
Figure A2.34 $^1$H NMR (300 MHz, C$_6$D$_6$) of compound 68(1).
Figure A2.35  Infrared spectrum (thin film/NaCl) of compound 68(1).

Figure A2.36  $^{13}$C NMR (125 MHz, $C_6D_6$) of compound 68(1).
Figure A2.37 $^1$H NMR (300 MHz, C$_6$D$_6$) of compound $68(2)$. 

Diastereomer 2
Figure A2.38 Infrared spectrum (thin film/NaCl) of compound 68(2).

Figure A2.39 $^{13}$C NMR (125 MHz, C$_6$D$_6$) of compound 68(2).
Figure A2.40 $^1$H NMR (500 MHz, C$_6$D$_6$) of compound 70.
Figure A2.41  Infrared spectrum (thin film/NaCl) of compound 70.

Figure A2.42  $^{13}$C NMR (125 MHz, C$_6$D$_6$) of compound 70.
Figure A2.43  $^1$H NMR (300 MHz, CDCl$_3$) of compound 79.
Figure A2.44  Infrared spectrum (thin film/NaCl) of compound 79.

Figure A2.45  $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 79.
Figure A2.46 $^1$H NMR (300 MHz, CDCl$_3$) of compound 82.
Figure A2.47 Infrared spectrum (thin film/NaCl) of compound 82.

Figure A2.48 $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 82.
Figure A2.49: \(^1\)H NMR (300 MHz, CDCl\(_3\)) of compound 84.
Figure A2.50 Infrared spectrum (thin film/NaCl) of compound 84.

Figure A2.51 $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 84.
Figure A2.52: $^1$H NMR (300 MHz, C$_6$D$_6$) of compound 75.
**Figure A2.53** Infrared spectrum (thin film/NaCl) of compound 75.

**Figure A2.54** $^{13}$C NMR (75 MHz, C$_6$D$_6$) of compound 75.
Figure A2.55: $^1$H NMR (300 MHz, C$_6$D$_6$) of compound 76.
Figure A2.56  Infrared spectrum (thin film/NaCl) of compound 76.

Figure A2.57  $^{13}$C NMR (75 MHz, C$_6$D$_6$) of compound 76.
Figure A2.58 $^1$H NMR (300 MHz, C$_6$D$_6$) of compound 77.
Figure A2.59  Infrared spectrum (thin film/NaCl) of compound 77.

Figure A2.60  $^{13}$C NMR (75 MHz, C$_6$D$_6$) of compound 77.
Figure A2.61 $^1$H NMR (300 MHz, CDCl$_3$) of compound 71a.
Figure A2.62 Infrared spectrum (thin film/NaCl) of compound 71a.

Figure A2.63 $^{13}$C NMR (75 MHz, CDCl$_3$) of compound 71a.
Figure A2.64 $^1$H NMR (300 MHz, C$_6$D$_6$) of compound 71b(1).
Figure A2.65 Infrared spectrum (thin film/NaCl) of compound 71b(1).

Figure A2.66 $^{13}$C NMR (125 MHz, C$_6$D$_6$) of compound 71b(1).
Figure A2.67 $^1$H NMR (300 MHz, C$_6$D$_6$) of compound 71b(2).
Figure A2.68 Infrared spectrum (thinfilm/NaCl) of compound 71b(2).

Figure A2.69 $^{13}$C NMR (125 MHz, $C_6D_6$) of compound 71b(2).
Figure A2.70 $^1$H NMR (300 MHz, C$_6$D$_6$) of compound 71c.
Figure A2.71  Infrared spectrum (thin film/NaCl) of compound 71c.

Figure A2.72  $^{13}$C NMR (75 MHz, C$_6$D$_6$) of compound 71c.
Figure A2.73 $^1$H NMR (300 MHz, CDCl$_3$) of compound 85.
Figure A2.74  Infrared spectrum (thin film/NaCl) of compound 85.

Figure A2.75  $^{13}$C NMR (75 MHz, C$_6$D$_6$) of compound 85.
Figure A2.76 $^1$H NMR (300 MHz, CDCl$_3$) of compound 89.
Figure A2.77  Infrared spectrum (thin film/NaCl) of compound 89.

Figure A2.78  $^{13}$C NMR (125 MHz, CDCl$_3$) of compound 89.
Figure A2.79 $^1$H NMR (300 MHz, C$_6$D$_6$) of compound 90.
Figure A2.80 Infrared spectrum (film) of compound 90.

Figure A2.81 $^{13}$C NMR (75 MHz, C$_6$D$_6$) of compound 90.