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APPENDIX A

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APPENDIX A

FT-IR SPECTRA

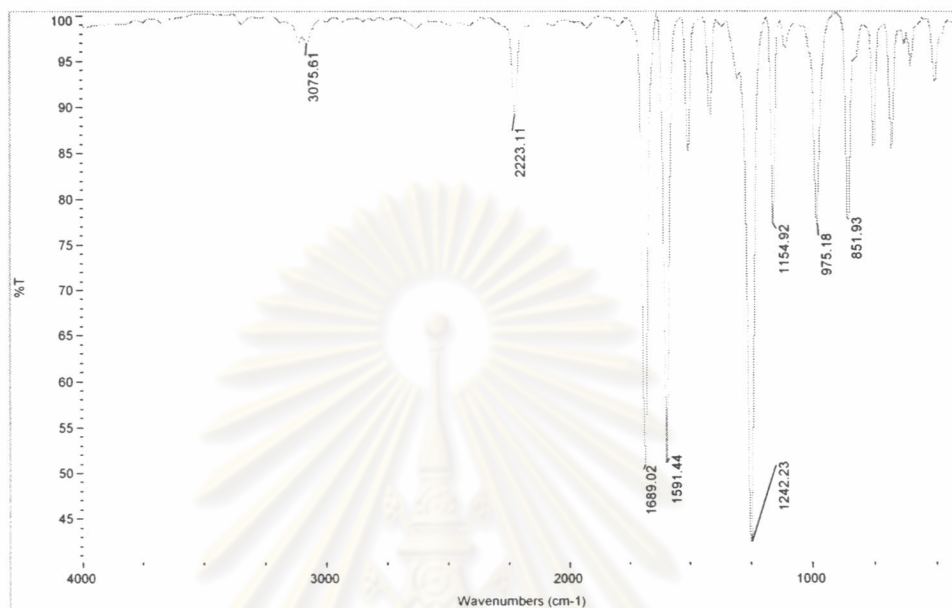


Figure A1: Typical FT-IR spectrum of benzoyl cyanide derivatives

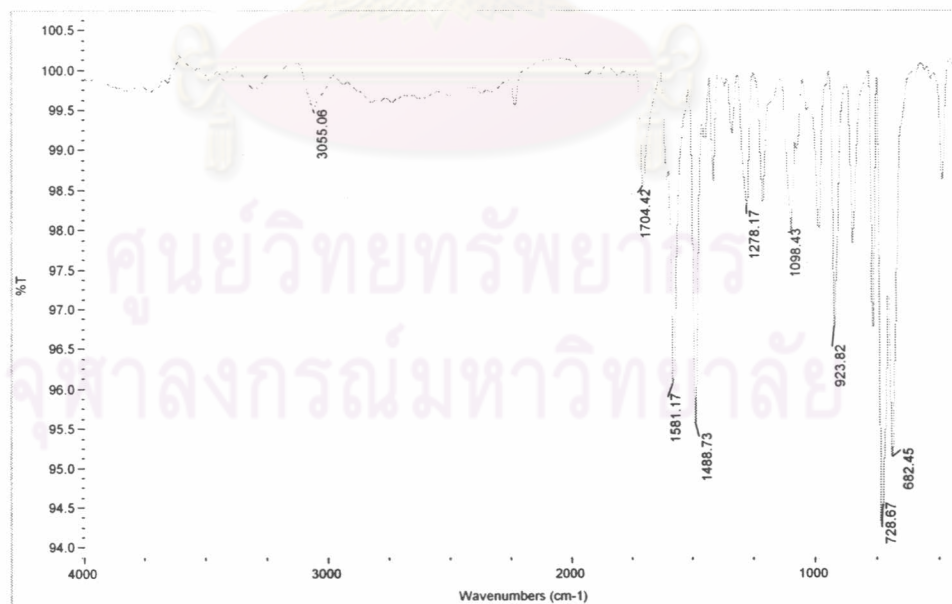


Figure A2: Typical FT-IR spectrum of 4-(4'-chloro-5'-phenyloxazol-2'-yl)-benzaldehyde derivatives

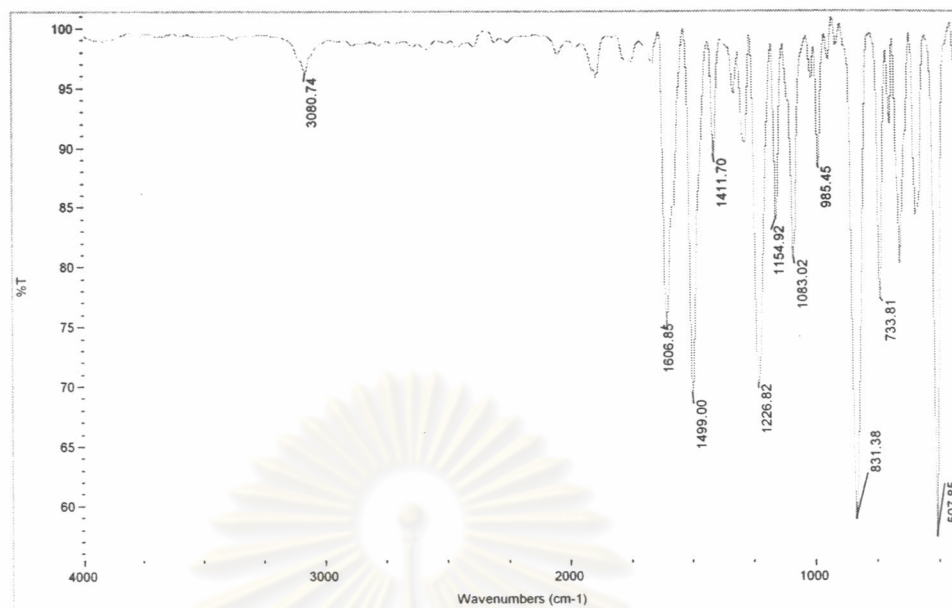


Figure A3: FT-IR spectrum of 4-chloro-2,5-bis-(4'-fluorophenyl)-oxazole

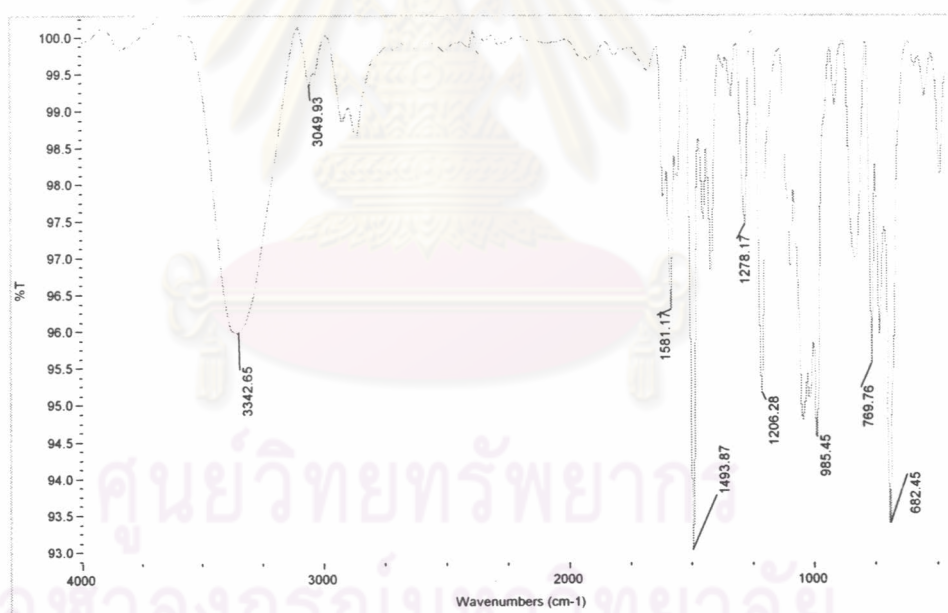


Figure A4: Typical FT-IR spectrum of [4-(4'-chloro-5'-phenyloxazol-2'-yl)-phenyl]methanol derivatives

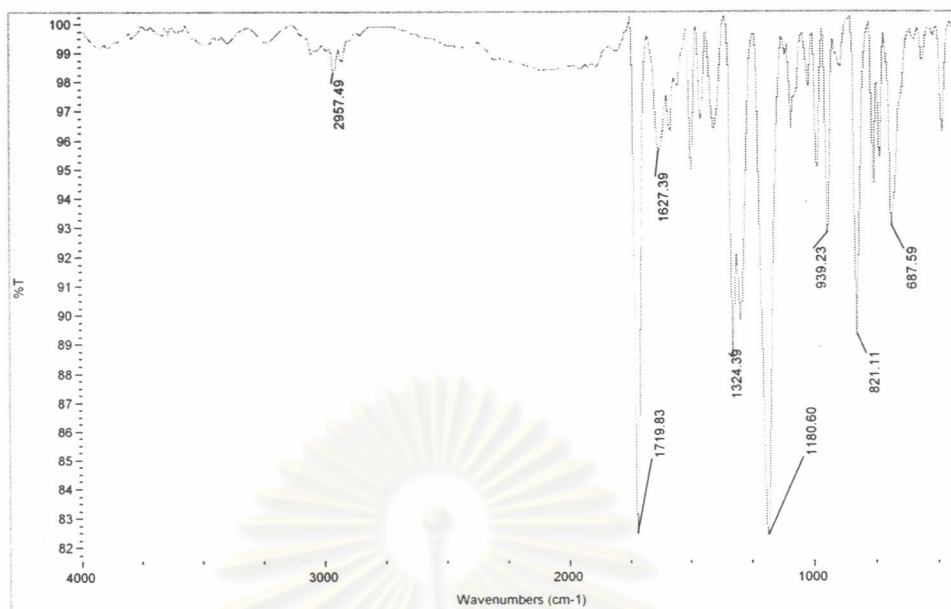


Figure A5: Typical FT-IR spectrum of [4-(4'-chloro-5'-phenyloxazol-2'-yl)phenyl]methyl methacrylate derivatives



Figure A6: Typical FT-IR spectrum of free-radical polymers

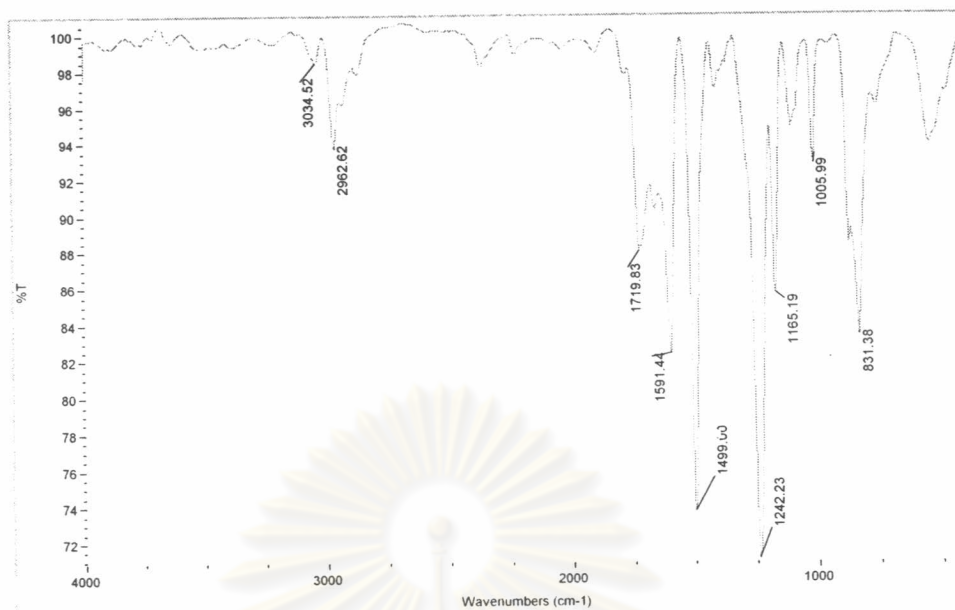


Figure A7: Typical FT-IR spectrum of condensation polymers

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APPENDIX B

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APPENDIX B

NMR SPECTRA

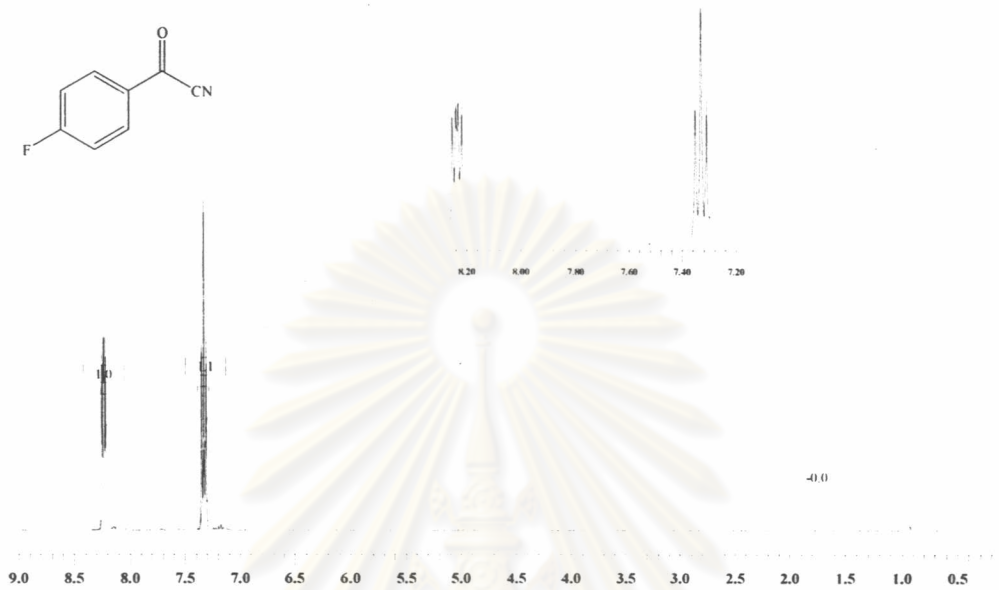


Figure B1: Typical ¹H NMR spectrum of benzoyl cyanide derivatives

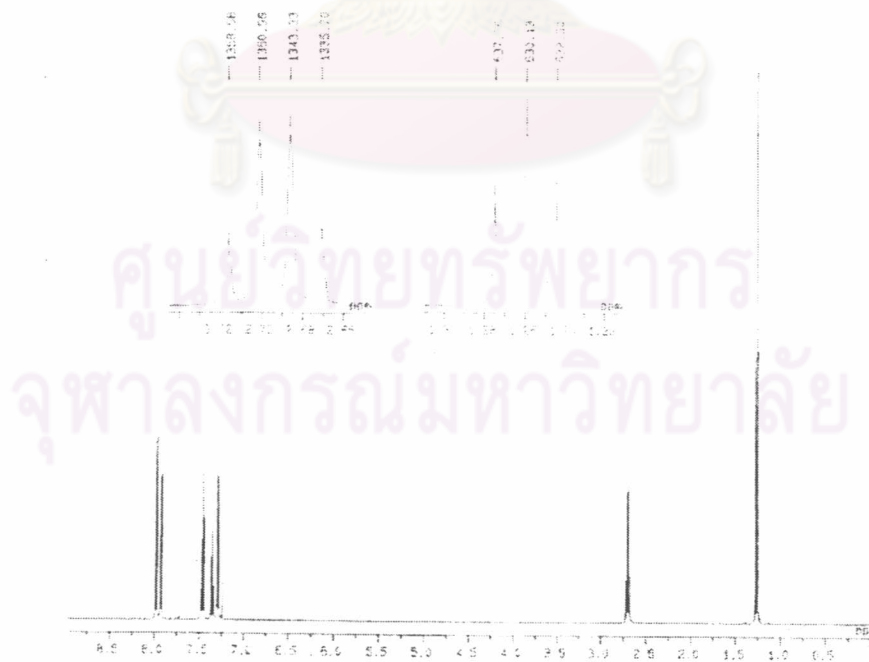


Figure B2: ¹H NMR spectrum of 4-chloro-2-(4'-ethylphenyl)-5-phenyloxazole

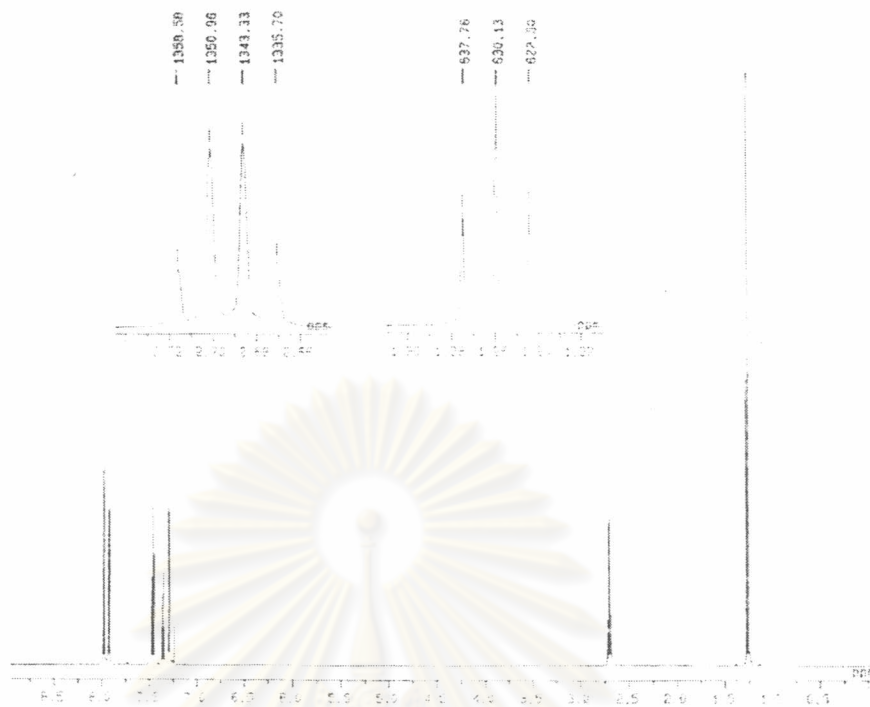


Figure B3: ^1H NMR spectrum of 2-[4'-(1-bromoethyl)phenyl]-4-chloro-5-phenyloxazole



Figure B4: ^1H NMR spectrum of 4-chloro-5-phenyl-2-(4'-vinylphenyl)oxazole

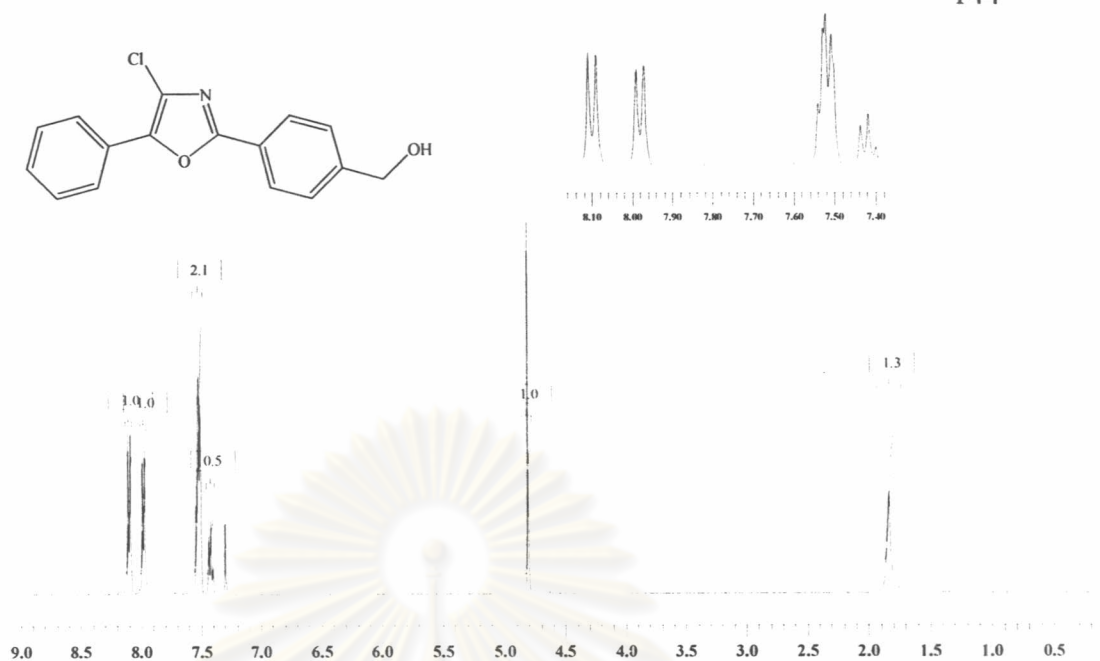


Figure B7: Typical ^1H NMR spectrum of [4-(4'-chloro-5'-phenyloxazol-2'-yl)-phenyl]methanol derivative

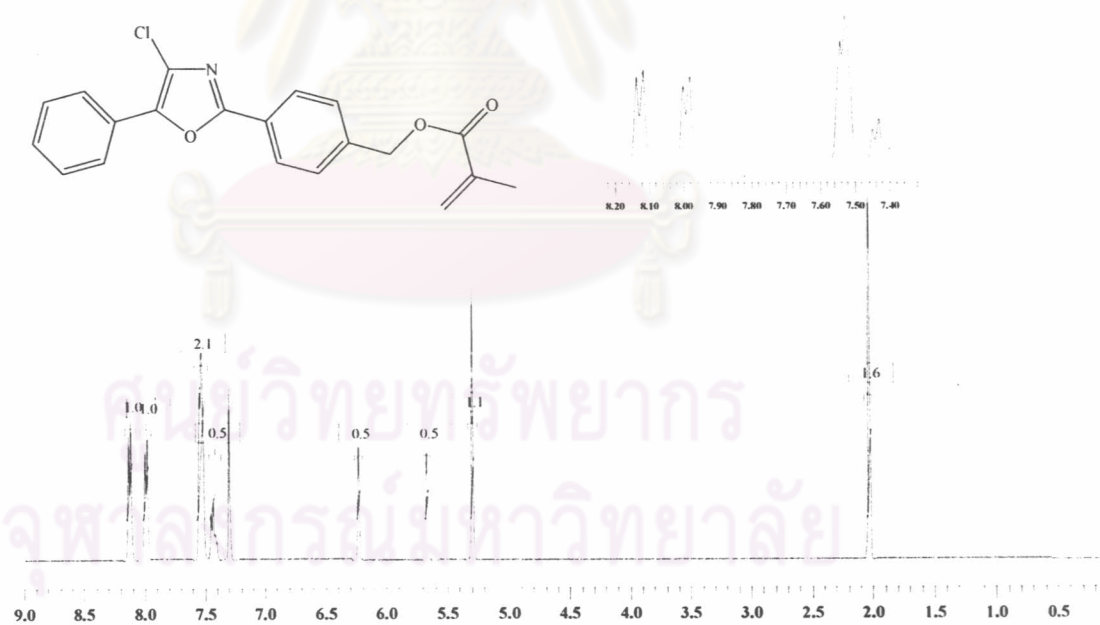


Figure B8: Typical ^1H NMR spectrum of [4-(4'-chloro-5'-phenyloxazol-2'-yl)phenyl]methyl methacrylate derivatives

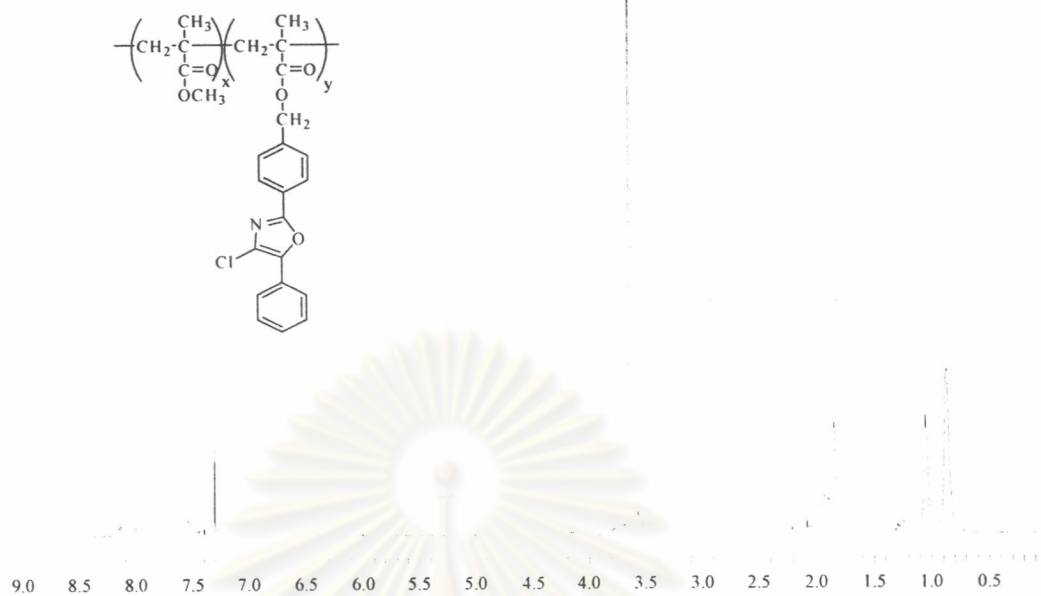


Figure B9: Typical ^1H NMR spectrum of free-radical polymers

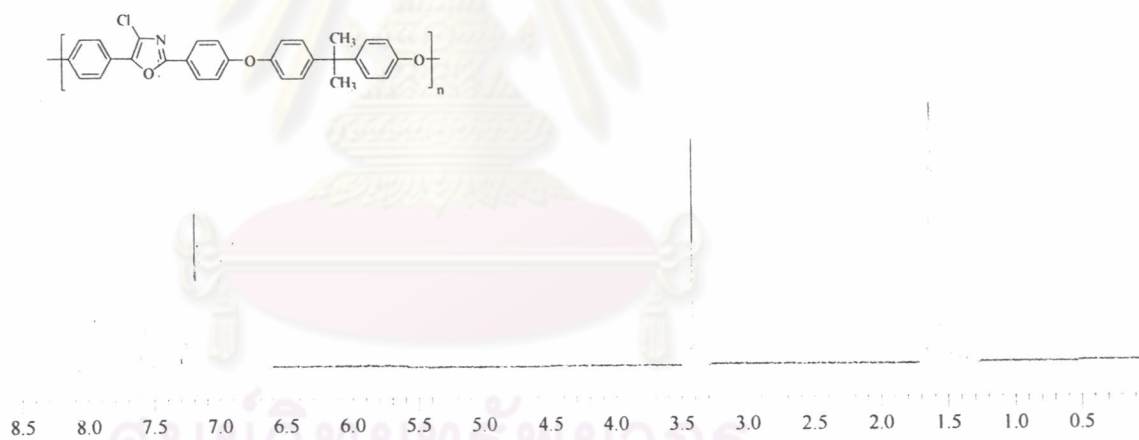


Figure B10: Typical ^1H NMR spectrum of condensation polymers

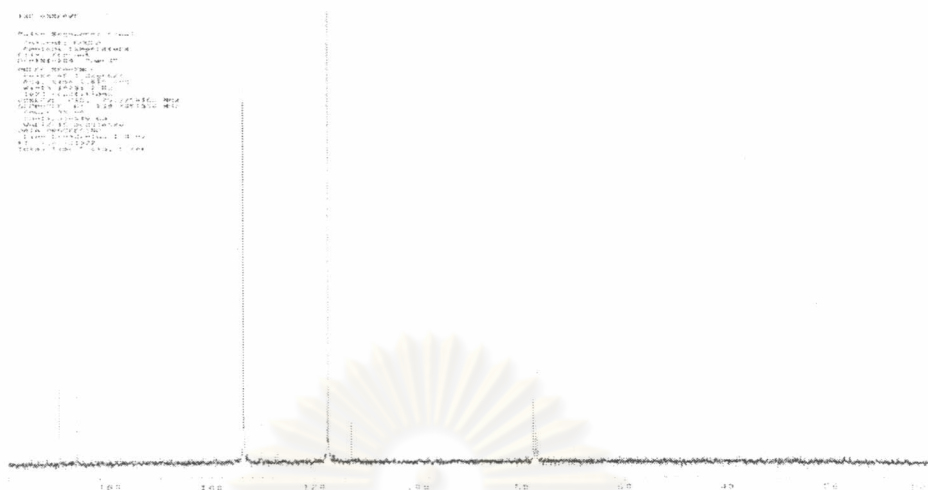


Figure B11: Typical ^{13}C NMR spectrum of benzoyl cyanide derivatives

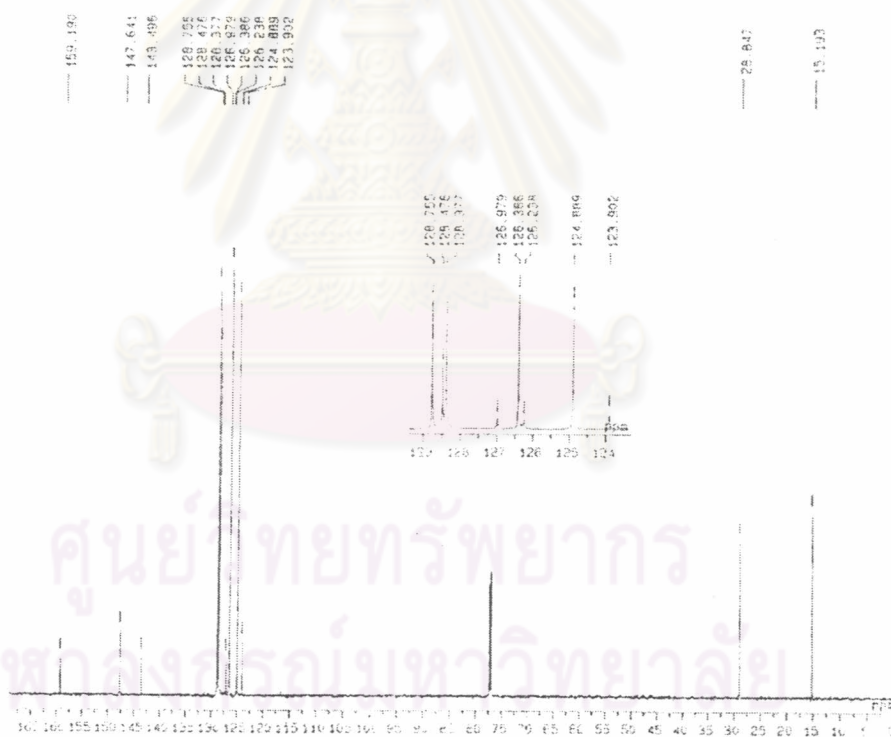


Figure B12: ^{13}C NMR spectrum of 4-chloro-2-(4'-ethylphenyl)-5-phenyloxazole

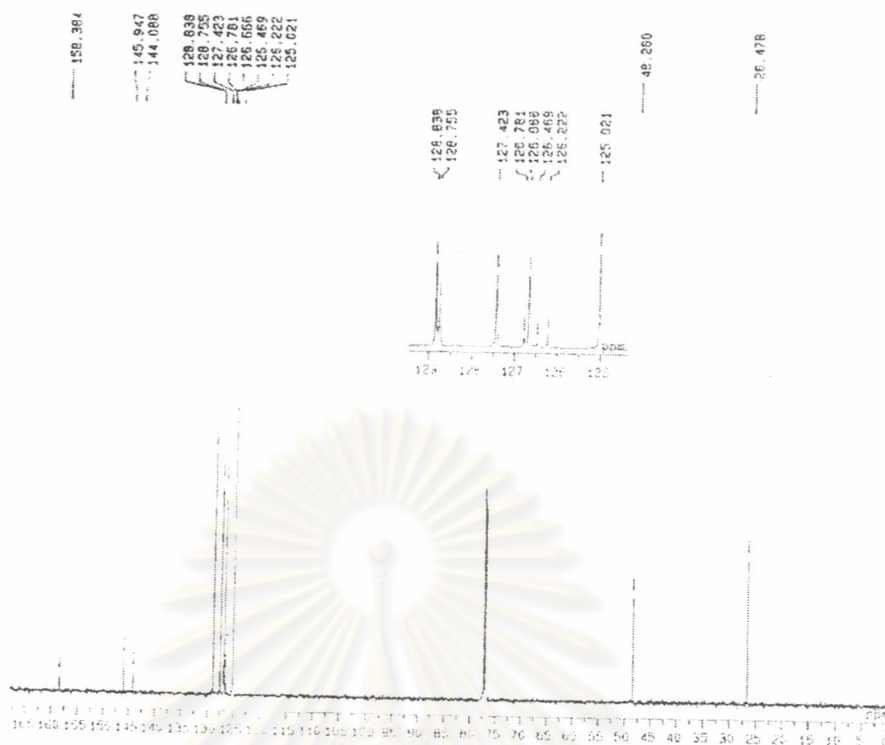


Figure B13: ^{13}C NMR spectrum of 2-[4'-(1-bromoethyl)phenyl]-4-chloro-5-phenyloxazole

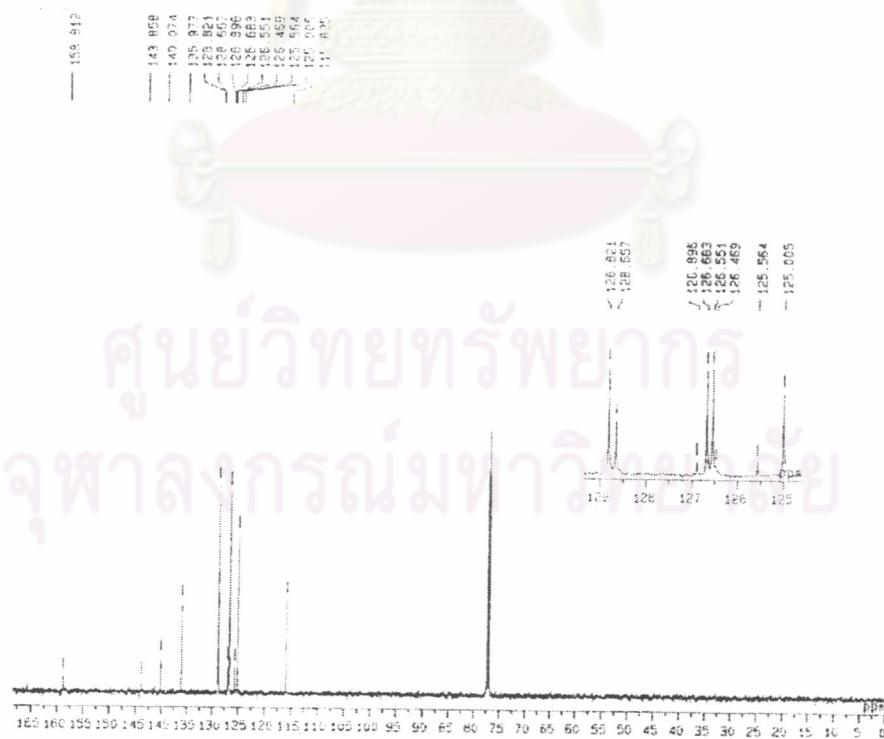


Figure B14: ^{13}C NMR spectrum of 4-chloro-5-phenyl-2-(4'-vinylphenyl)oxazole

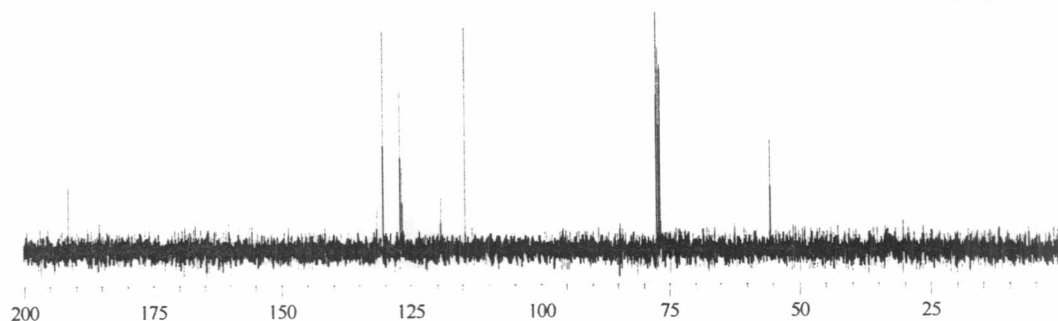


Figure B15: Typical ^{13}C NMR spectrum of 4-(4'-chloro-5'-phenyloxazol-2'-yl)benzaldehyde derivatives

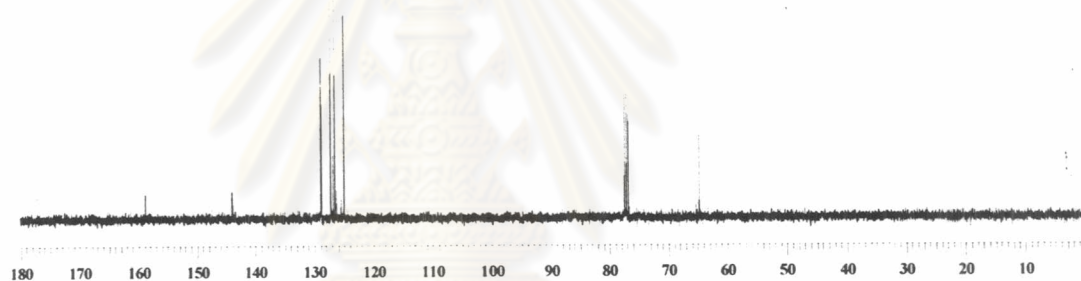


Figure B16: Typical ^{13}C NMR spectrum of [4-(4'-chloro-5'-phenyloxazol-2'-yl)phenyl]methanol derivatives

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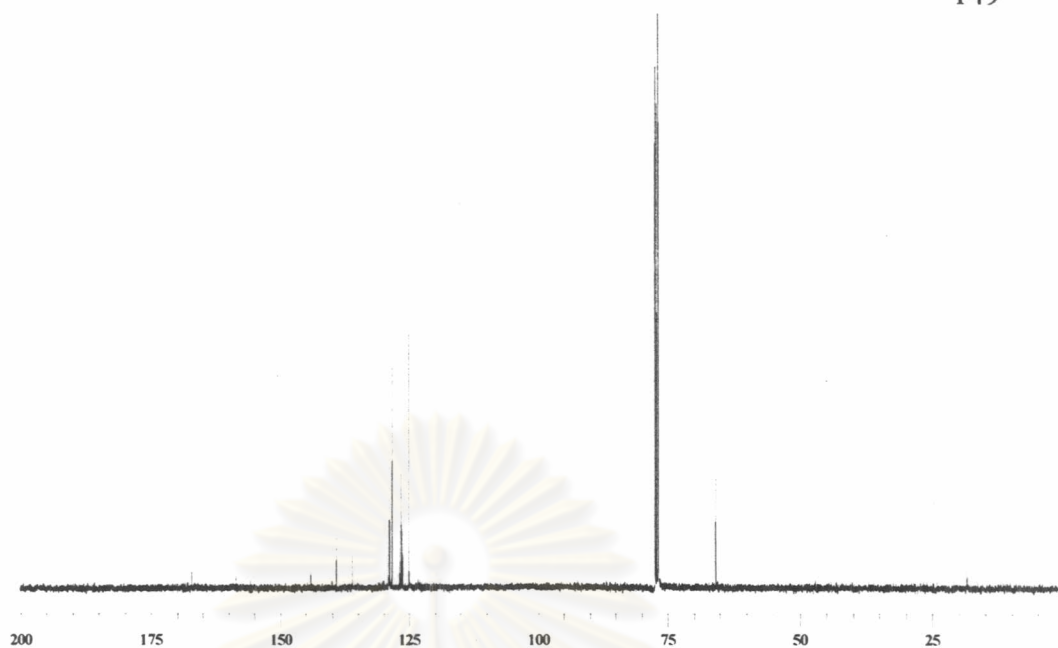


Figure B17: Typical ^{13}C NMR spectrum of [4-(4'-chloro-5'-phenyloxazol-2'-yl)phenyl]methyl methacrylate derivatives

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APPENDIX C

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APPENDIX C

MASS SPECTRA



Figure C1: Typical Mass spectrum of benzoyl cyanide derivatives

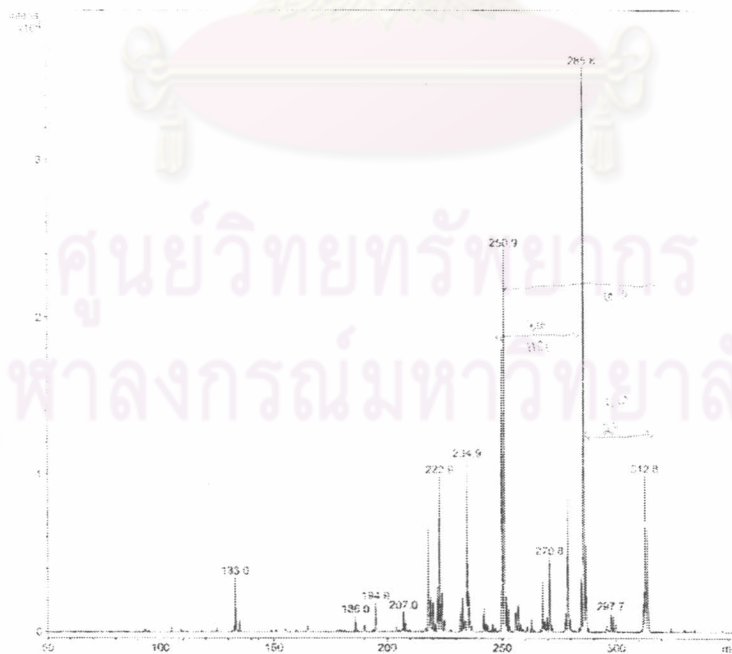


Figure C2: Typical Mass spectrum of 4-(4'-chloro-5'-phenyloxazol-2'-yl)-benzaldehyde derivatives

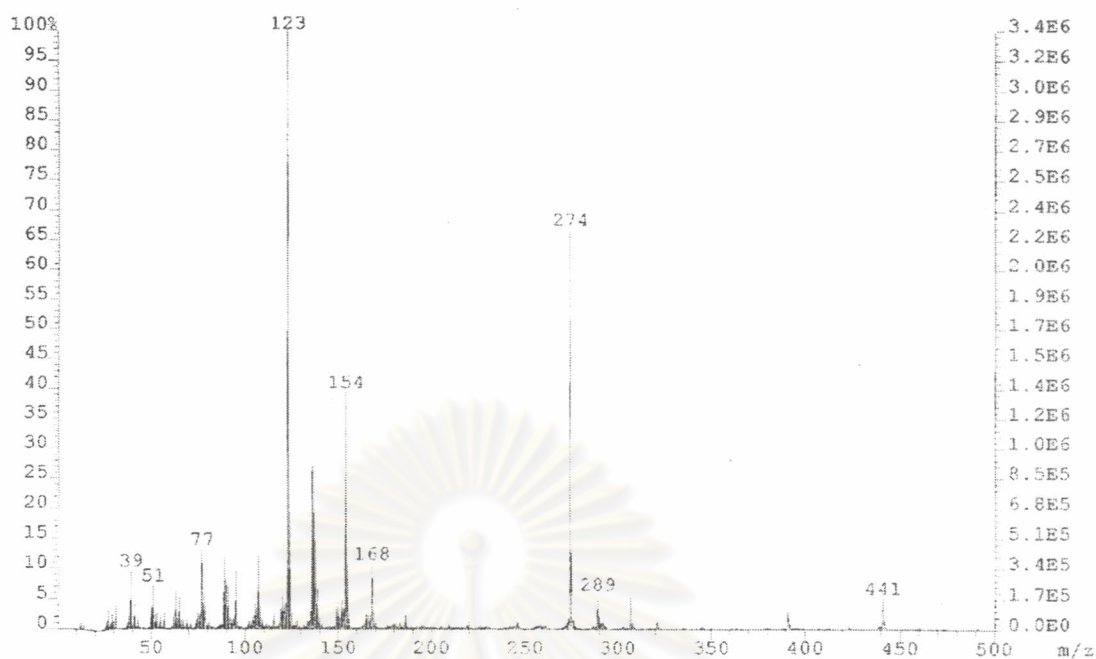


Figure C3: Mass spectrum of 4-chloro-2,5-bis-(4'-fluorophenyl)oxazole



Figure C4: Mass spectrum of [4-(4'-chloro-5'-phenyloxazol-2'-yl)phenyl]-methanol derivatives

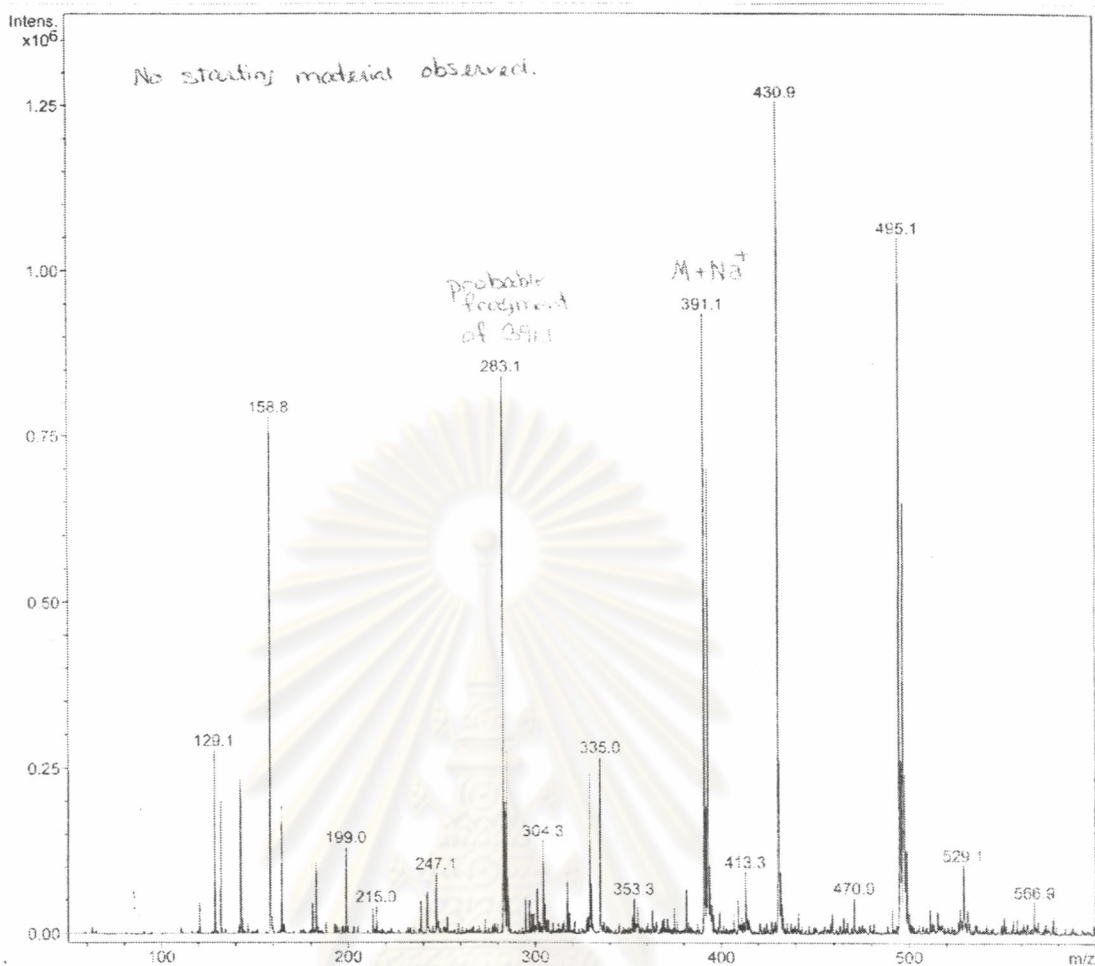


Figure C5: Mass spectrum of [4-(4'-chloro-5'-phenyloxazol-2'-yl)phenyl] methyl methacrylate derivatives

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APPENDIX D

ศูนย์วิทยทรัพยากร
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APPENDIX D

THERMOGRAVIMETRIC CURVES and DSC THERMOGRAMS



Figure D1: Typical thermogravimetric curve of free-radical polymer in N_2



Figure D2: Typical DSC thermogram of free-radical polymer

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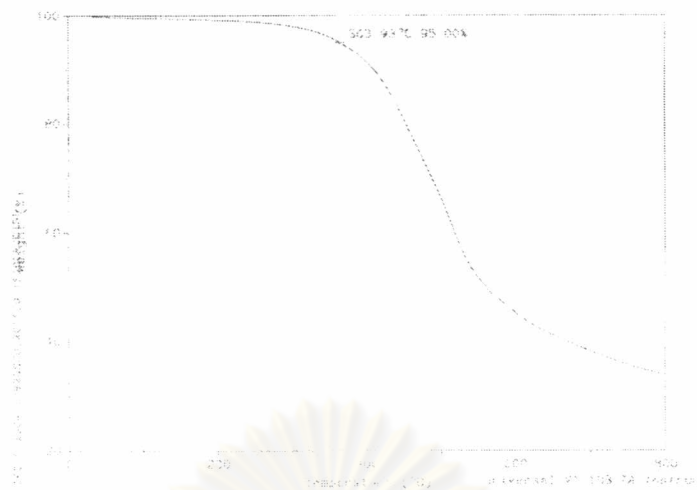


Figure D3: Typical thermogravimetric curve of condensation polymer in N₂

Figure D4: Typical DSC thermogram of condensation polymer

ศูนย์วิทยทรัพยากร
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BGJ scholar, The Thailand Research Fund (TRF), 2000
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- Publication: Pimpha, N., Tantayanon, S., Harris, W. F. " Synthesis and Characterization of a Novel Poly(aryl ether) Containing 4-Chloro-2,5-diphenyloxazole" *Macromol. Symp.* **2004**, 216, 109-115.
- Presentations:
1. Pimpha, N., Samingprai, S., Tantayanon, S. " Effect of Substituents on the Formation of 2,5-Diphenyloxazole derivatives" 27th Congress on Science and Technology of Thailand, October 16-18, 2001, Songkla.
 2. Pimpha, N., Harris, W. F., Tantayanon, S. " Synthesis and Fluorescence Emission Property of a Novel Fluorescent Polymer" 29th Congress on Science and Technology of Thailand, October 20-22, 2003, Khon Kean.
 3. Pimpha, N., Tantayanon, S., Harris, W. F. " Synthesis and Characterization of a Novel Poly(aryl ether) Containing 4-Chloro-2,5-diphenyloxazole" 8th Pacific Polymer Conference, November 24-27, 2003, Bangkok.
 4. Pimpha, N., Tantayanon, S., Harris, W. F. " Synthesis, Characterization and Optical Properties of Poly(aryl ether) Containing 4-Chloro-2,5-diphenyloxazole Unit" 40th International Symposium on Macromolecules, World Polymer Congress, Macro 2004, July 4-9, 2004, Paris, France.
 5. Pimpha, N., Tantayanon, S., Harris, W. F. " Direct Synthesis of Phenyl Substituted 4-Chloro-2,5-diphenyloxazoles" 30th Congress on Science and Technology of Thailand, October 19-21, 2004, Impact Exhibition and Convention Center, Muang Thong Thani, Bangkok.