

Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

Supporting Information for

Water Promoted C-C Bond Cleavage: Facile synthesis of
3,3-bipyrrole derivatives from dienones and tosylmethyl isocyanide
(TosMIC)

Rong Wang, Shun-Yi Wang and Shun-Jun Ji**

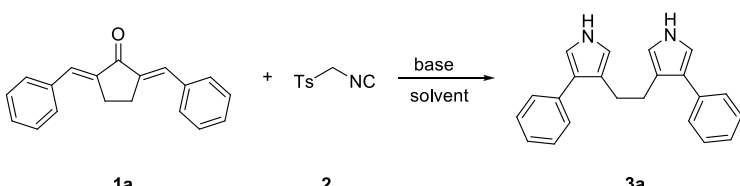
Key Laboratory of Organic Synthesis of Jiangsu Province, College of Chemistry, Chemical
Engineering and Materials Science, Soochow University, Suzhou 215123, China.

E-mail: shunyi@suda.edu.cn; chemjsj@suda.edu.cn

Table of Contents -----	S2
Copies of ¹ H and ¹³ C NMR Spectra -----	S3-S23

Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

Table 1. Screening of reaction conditions^a



1a **2** **3a**

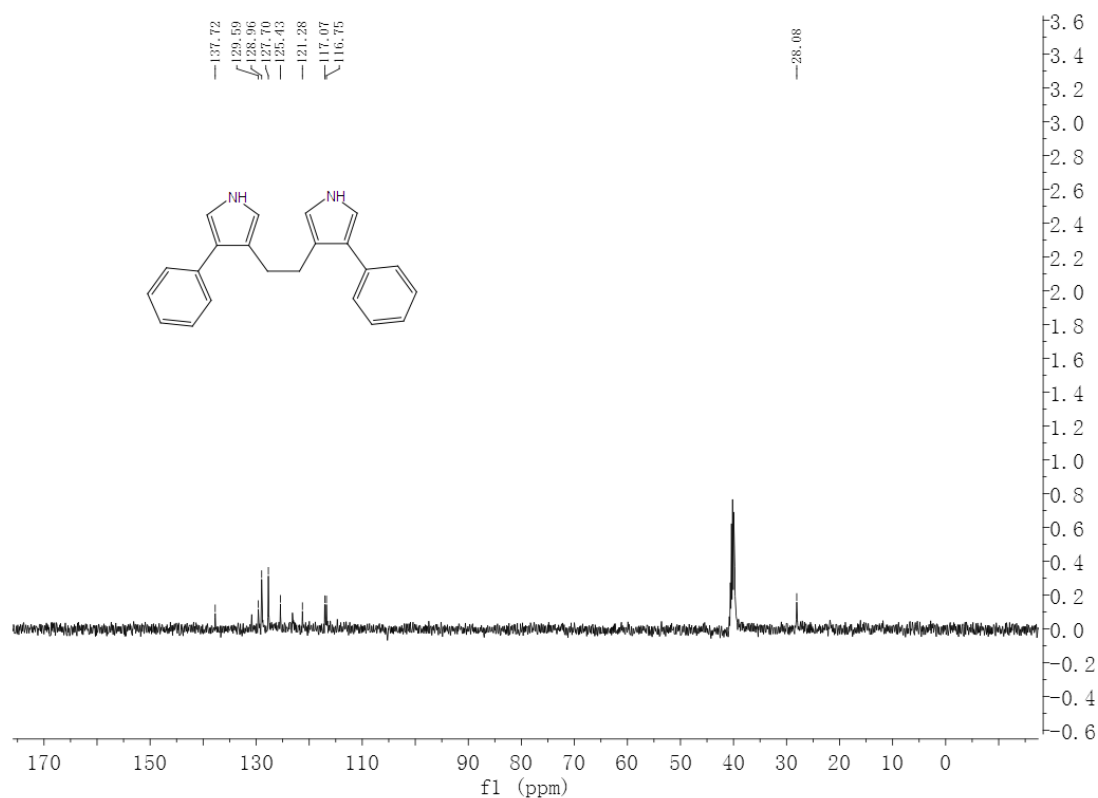
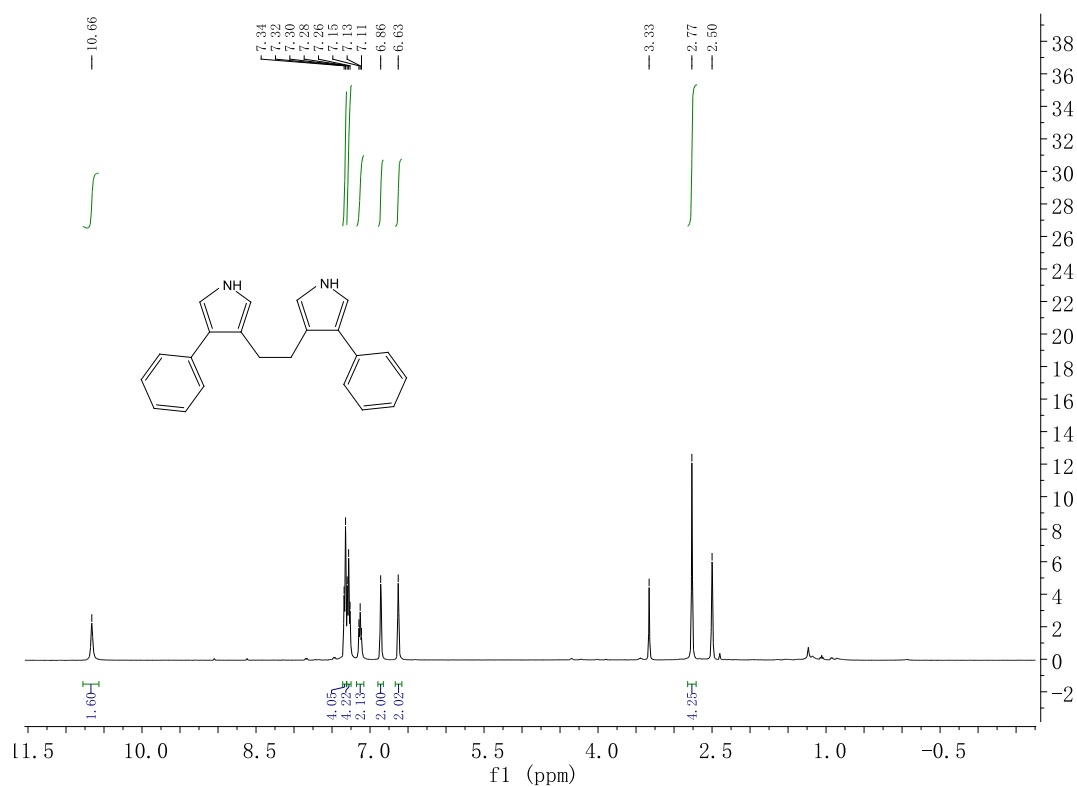
entr	Base	Solvent	Temp (°C)	Yield(
13	KOH	CH ₃ CN	25	21
14	KOH	CH ₂ Cl ₂	25	19
15	KOH	Tol.	25	15
16	KOH	DMF	0	10
17	KOH	DMF	50	45
18	KOH	dry DMF + 20 μl H ₂ O	100	78

^aThe reactions were performed with **1a** (0.5 mmol, 1.0 eq.) and TosMIC **2** (1.2 mmol, 2.4 eq.) in the presence of base.

^bIsolated yield.

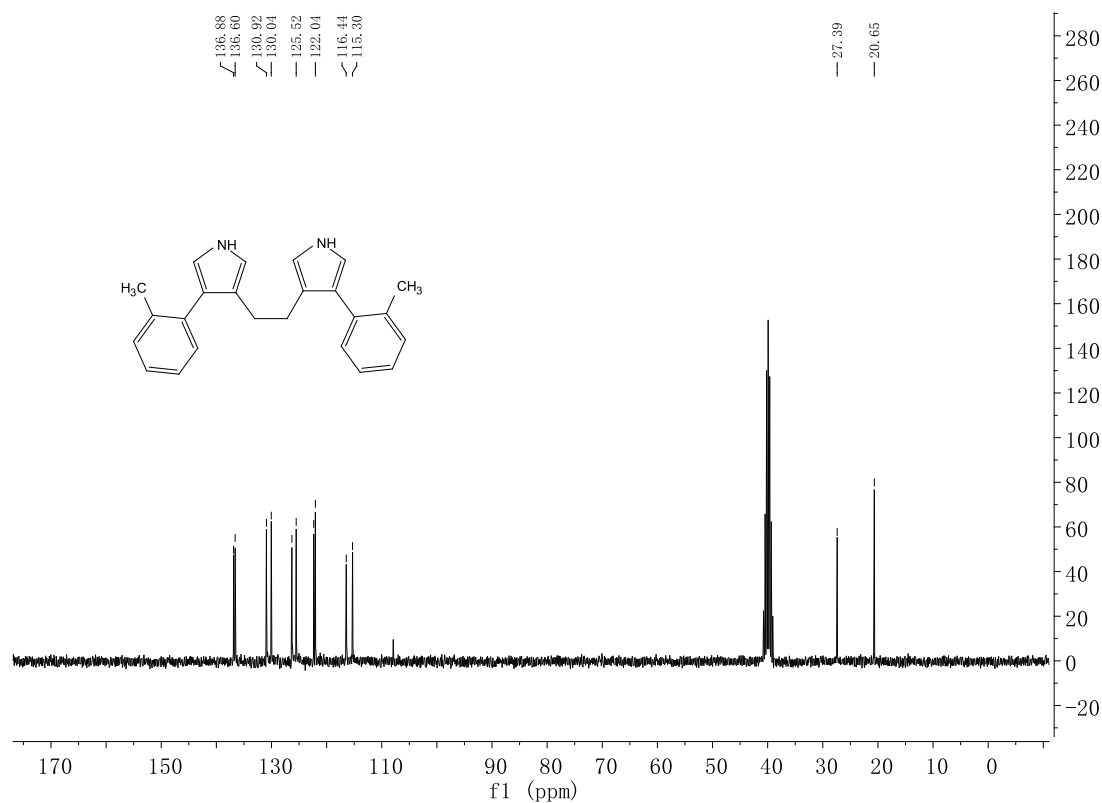
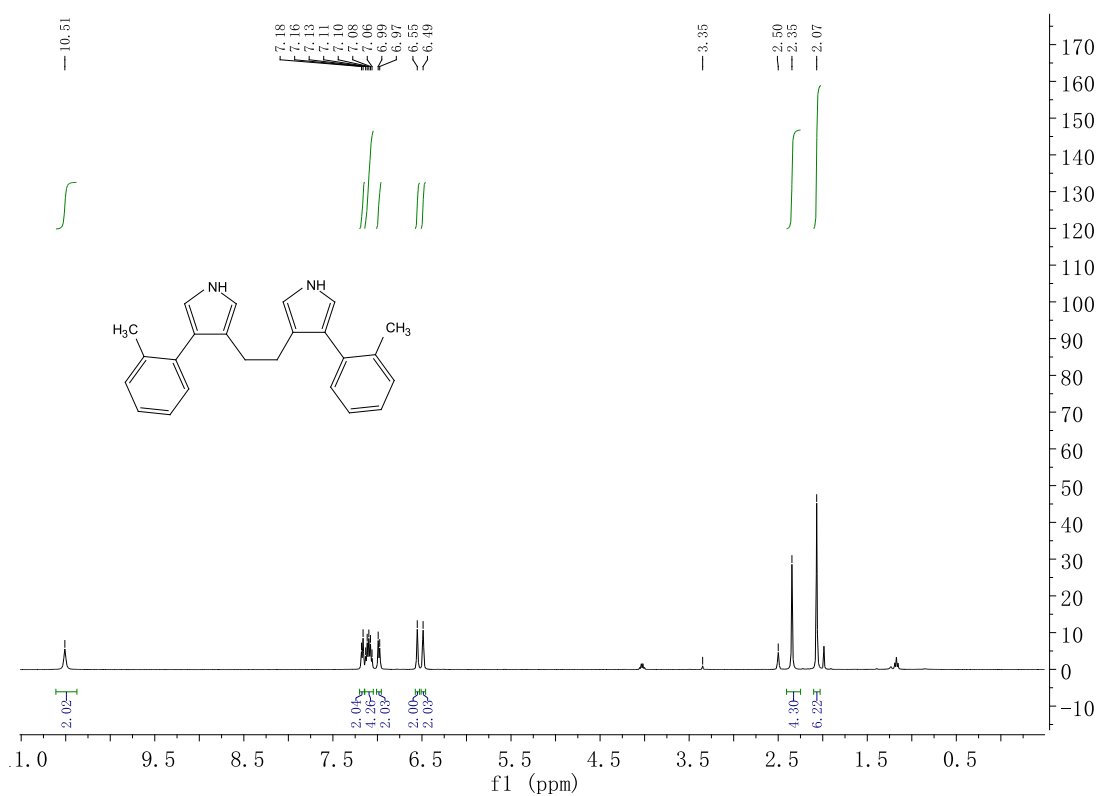
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-phenyl-1H-pyrrol-3-yl)ethane (3a).



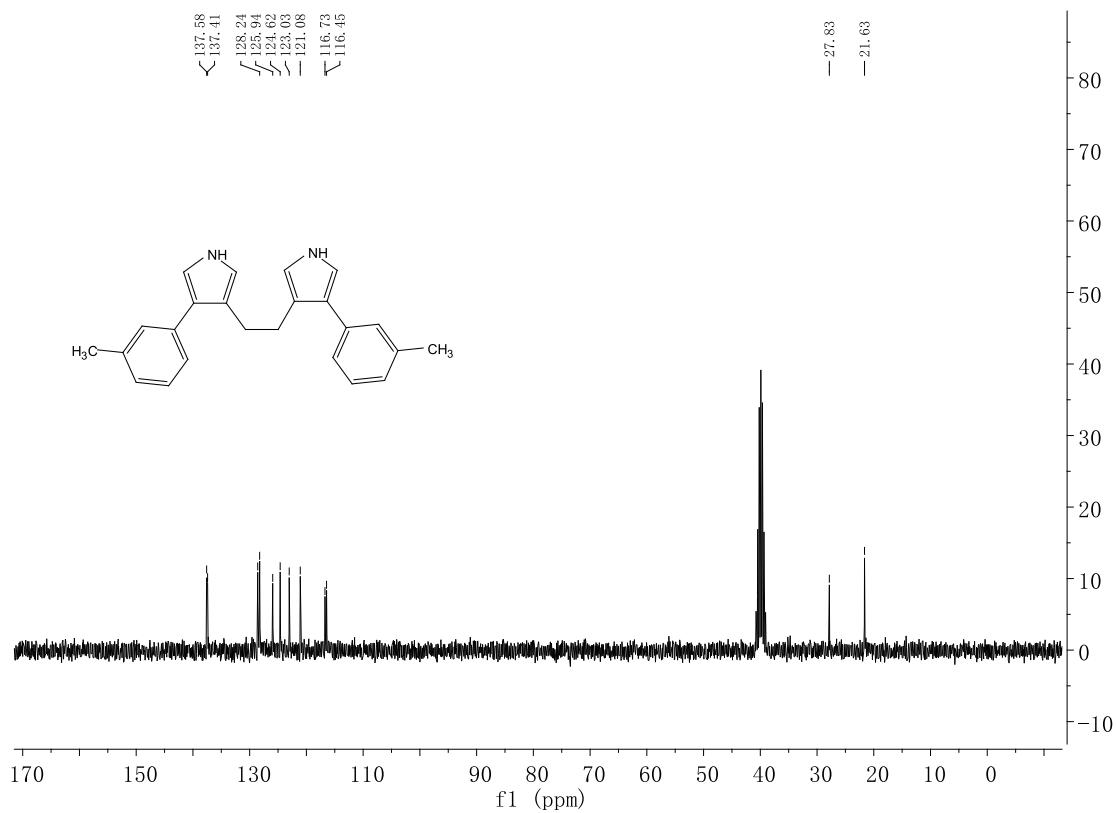
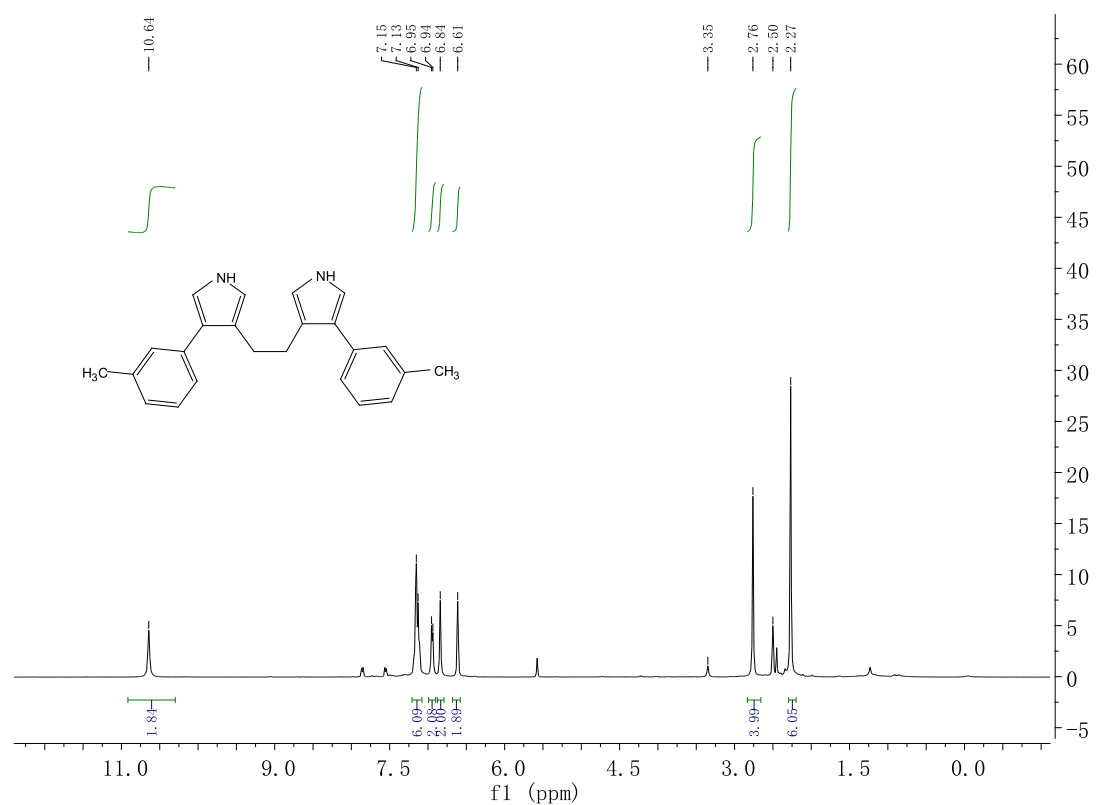
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-o-tolyl-1H-pyrrol-3-yl)ethane (3b).



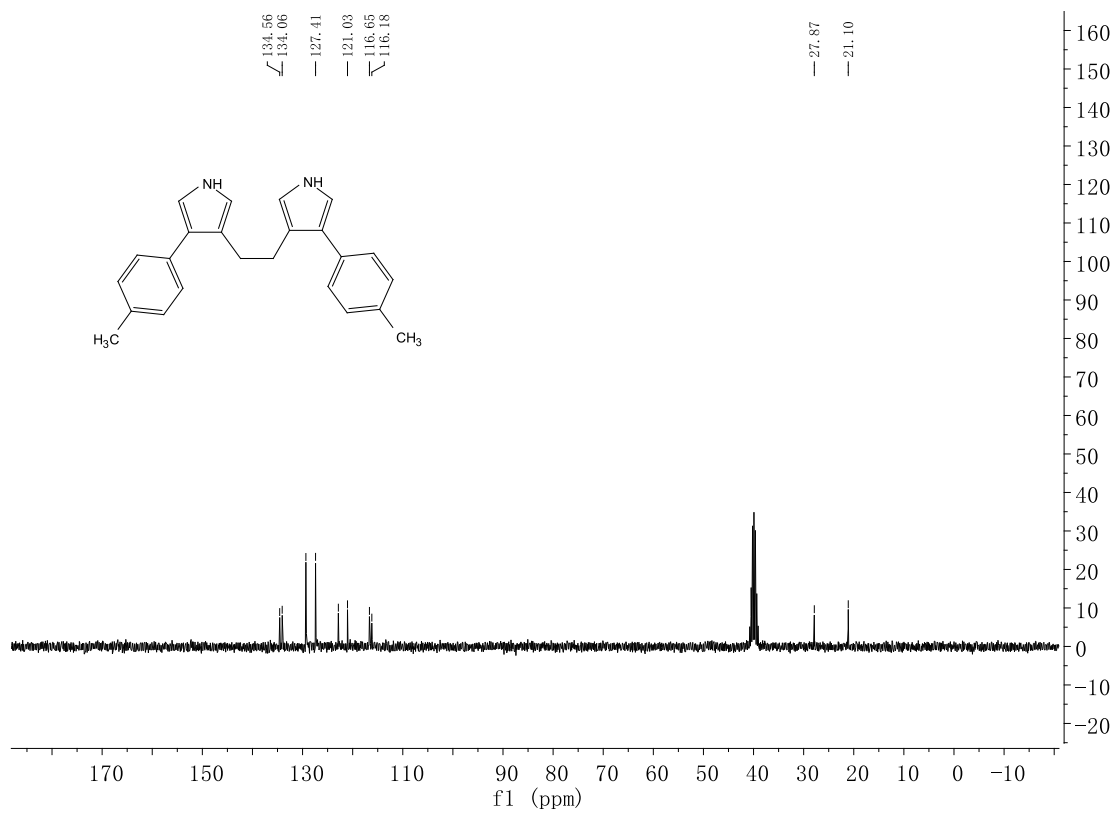
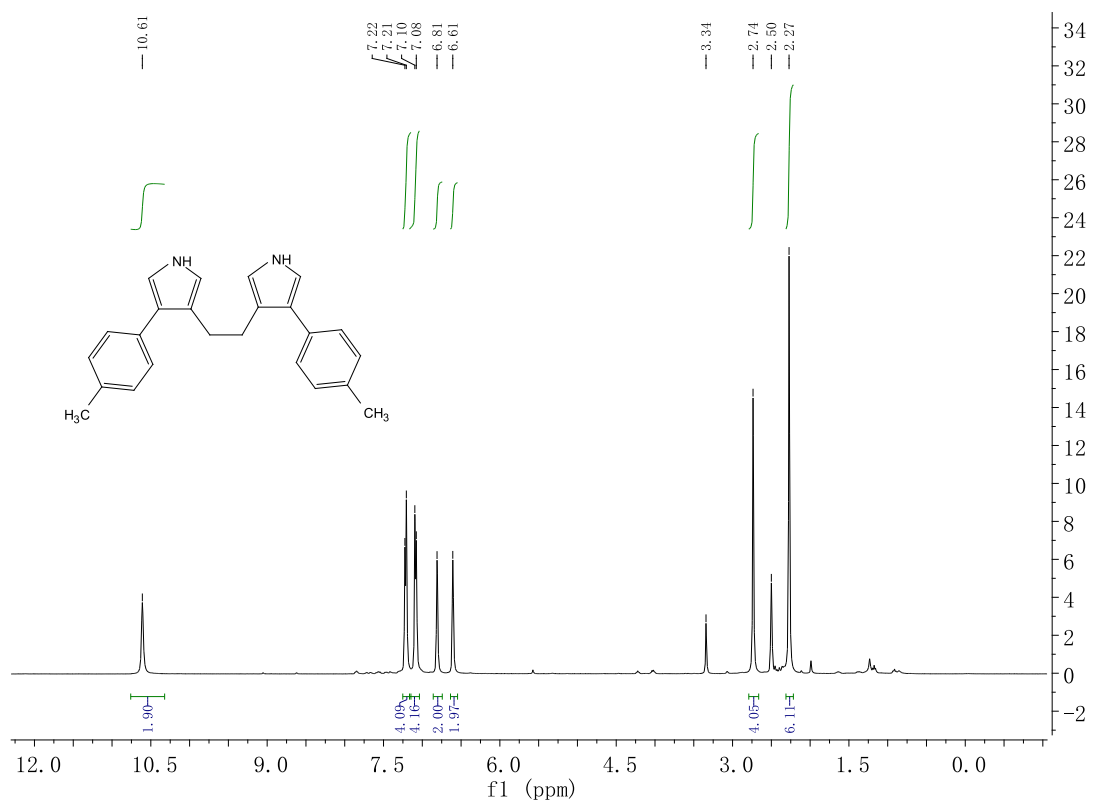
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-m-tolyl-1H-pyrrol-3-yl)ethane (3c).



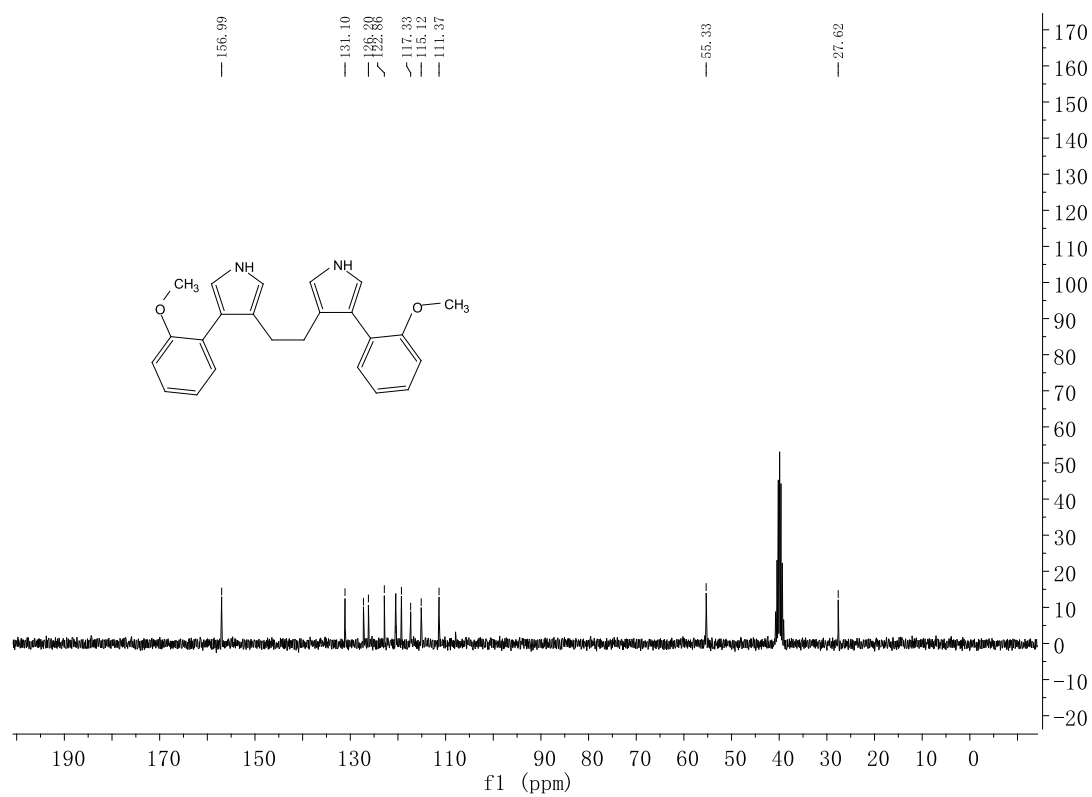
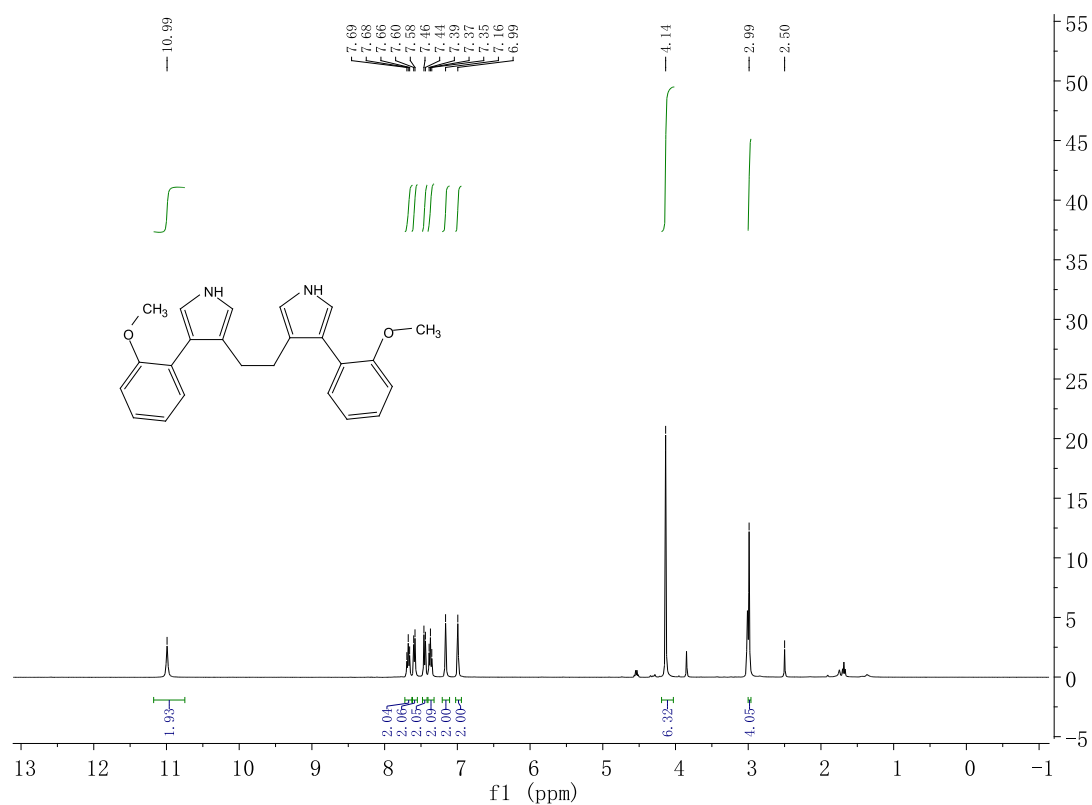
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-p-tolyl-1H-pyrrol-3-yl)ethane (3d).



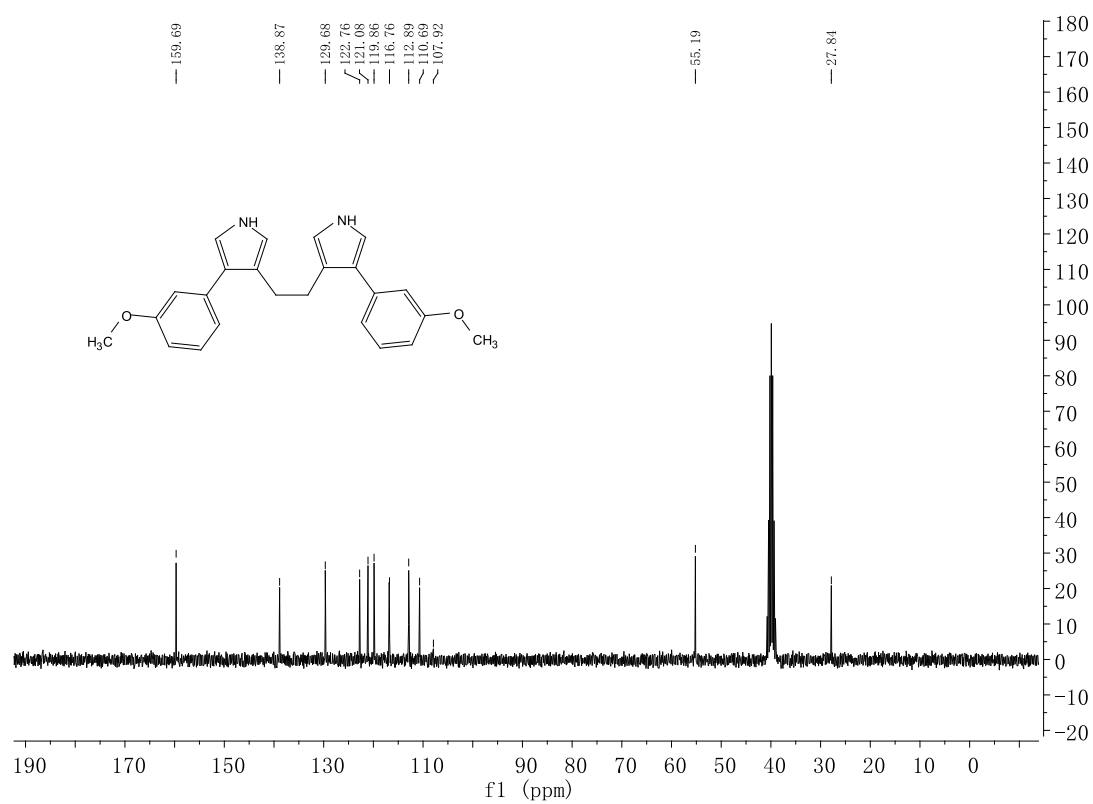
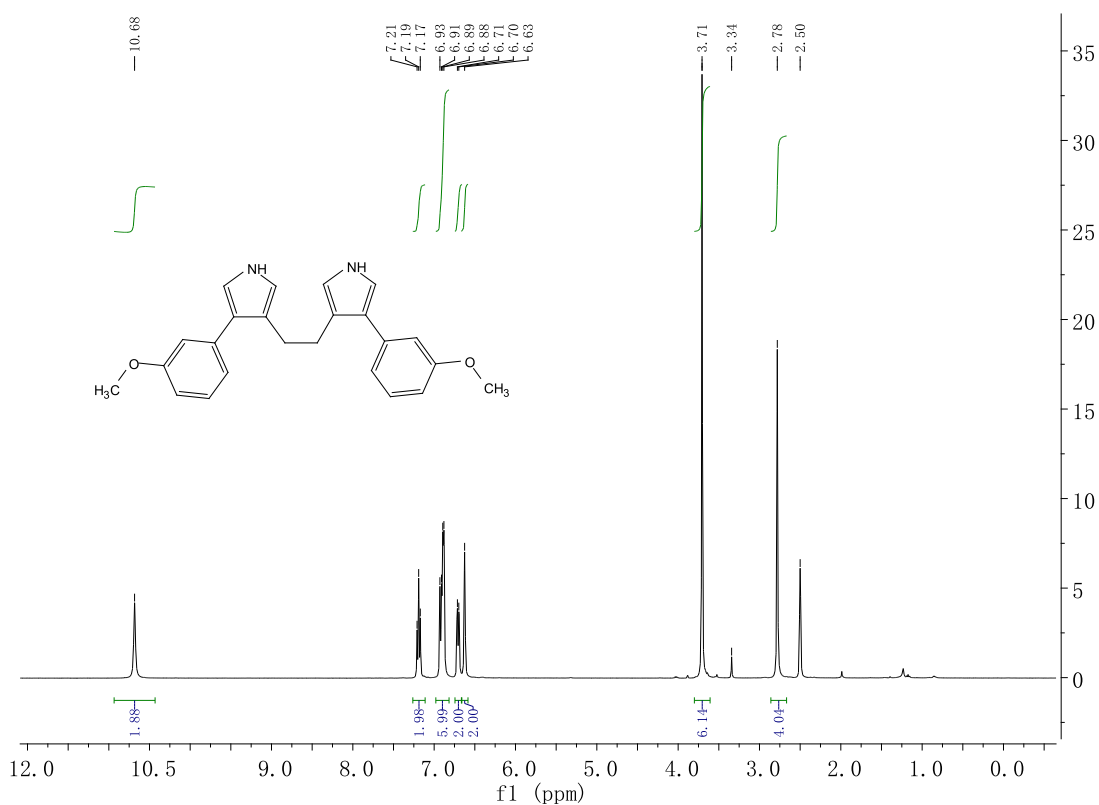
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(2-methoxyphenyl)-1H-pyrrol-3-yl)ethane (3e).



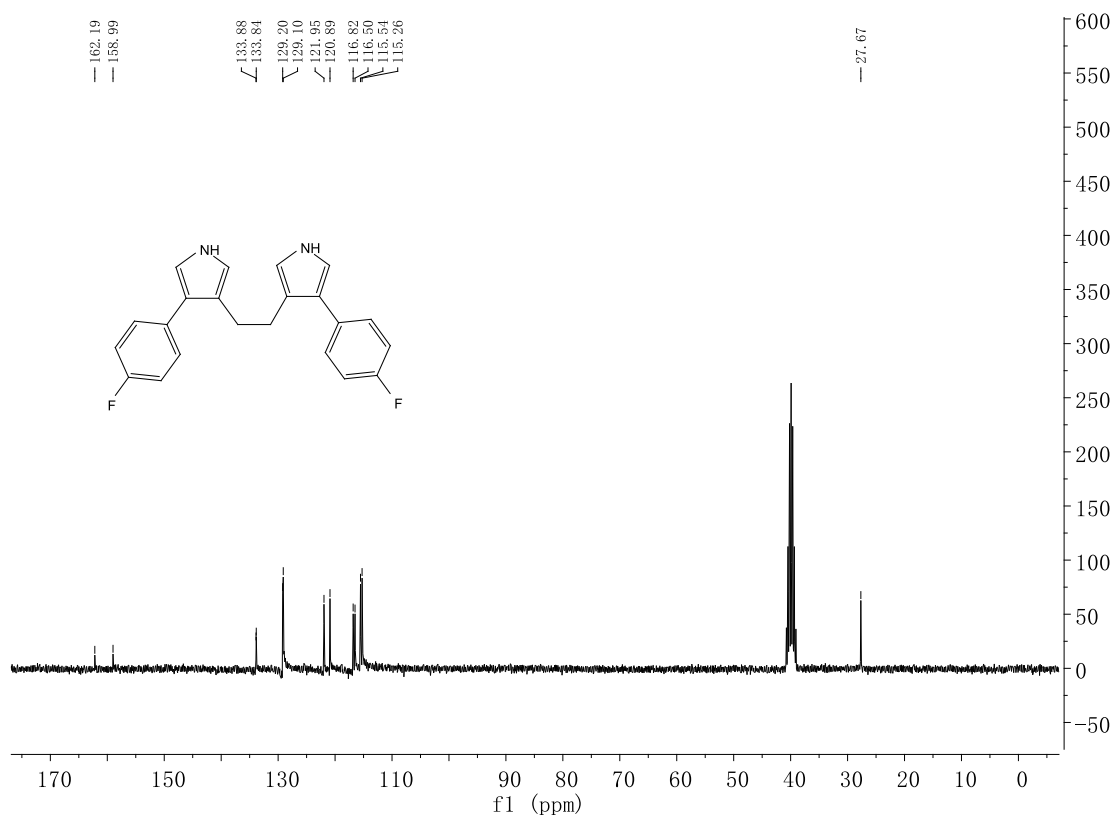
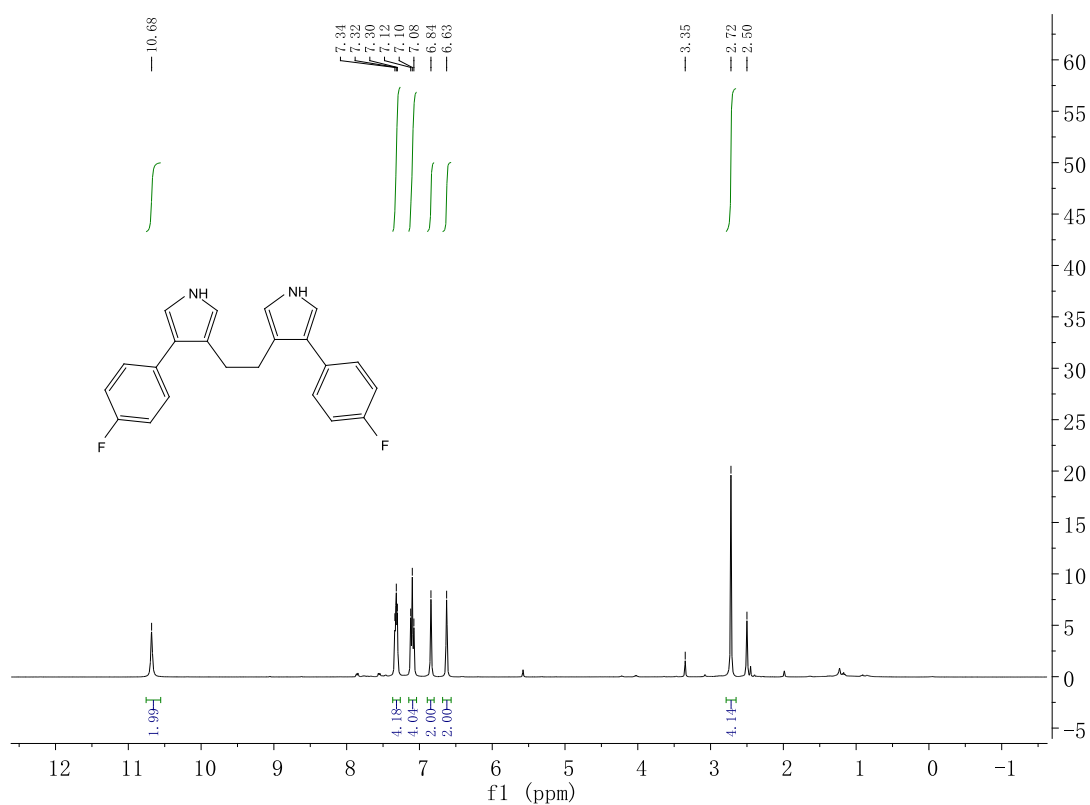
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(3-methoxyphenyl)-1H-pyrrol-3-yl)ethane (3f).



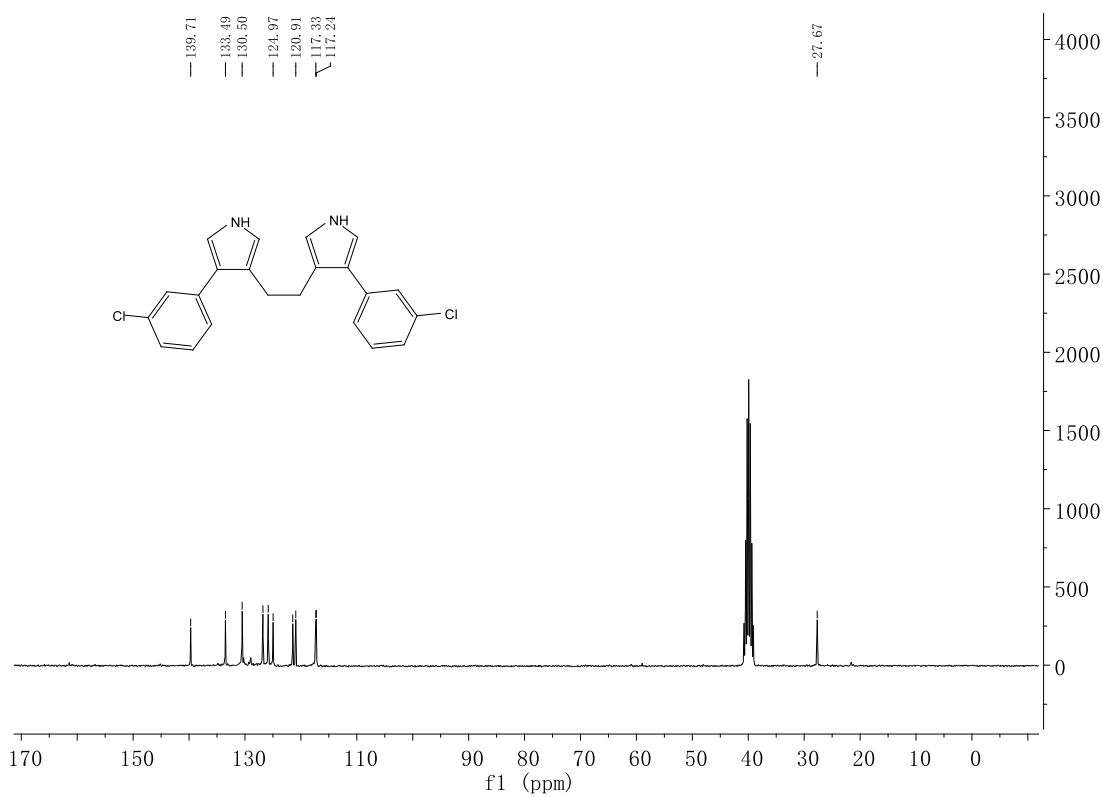
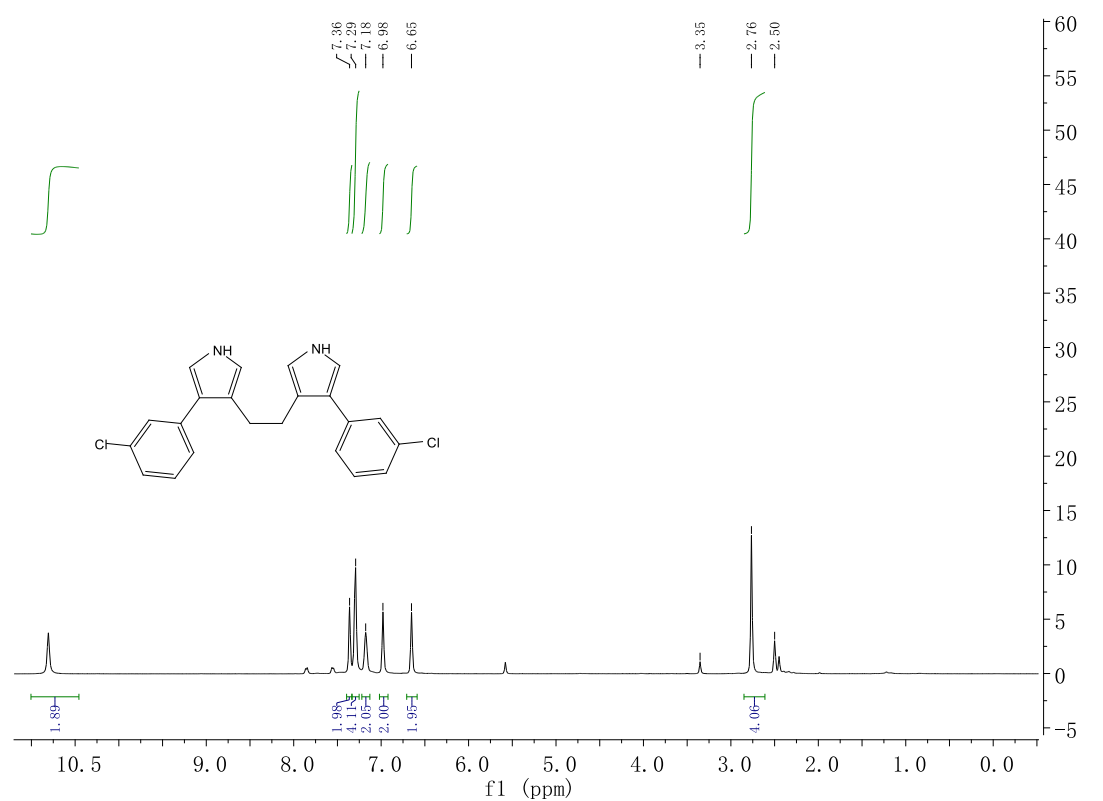
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(4-fluorophenyl)-1H-pyrrol-3-yl)ethane (3g).



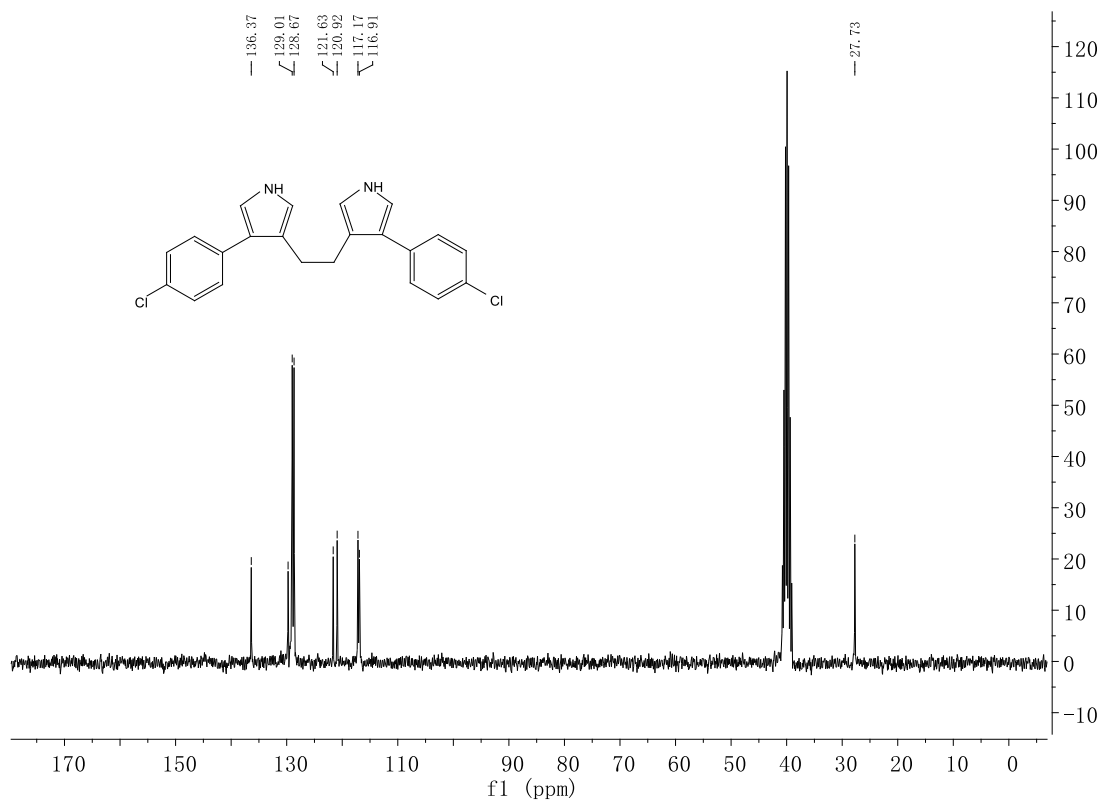
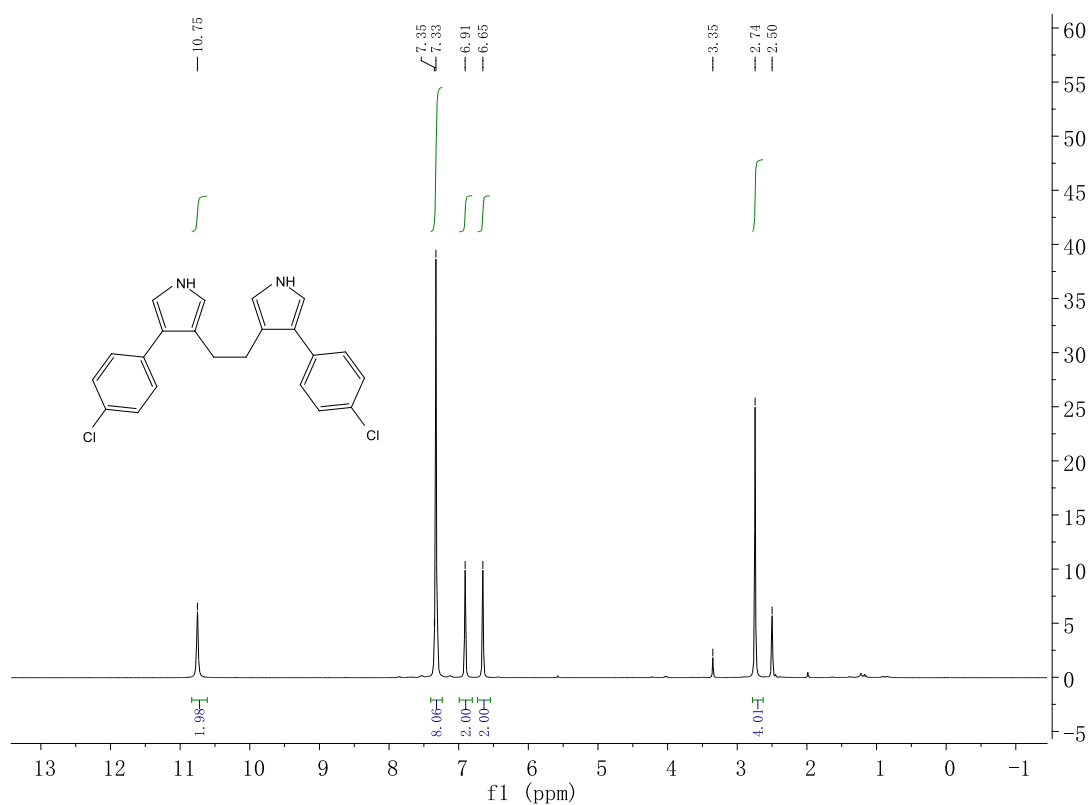
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(3-chlorophenyl)-1H-pyrrol-3-yl)ethane (3h).



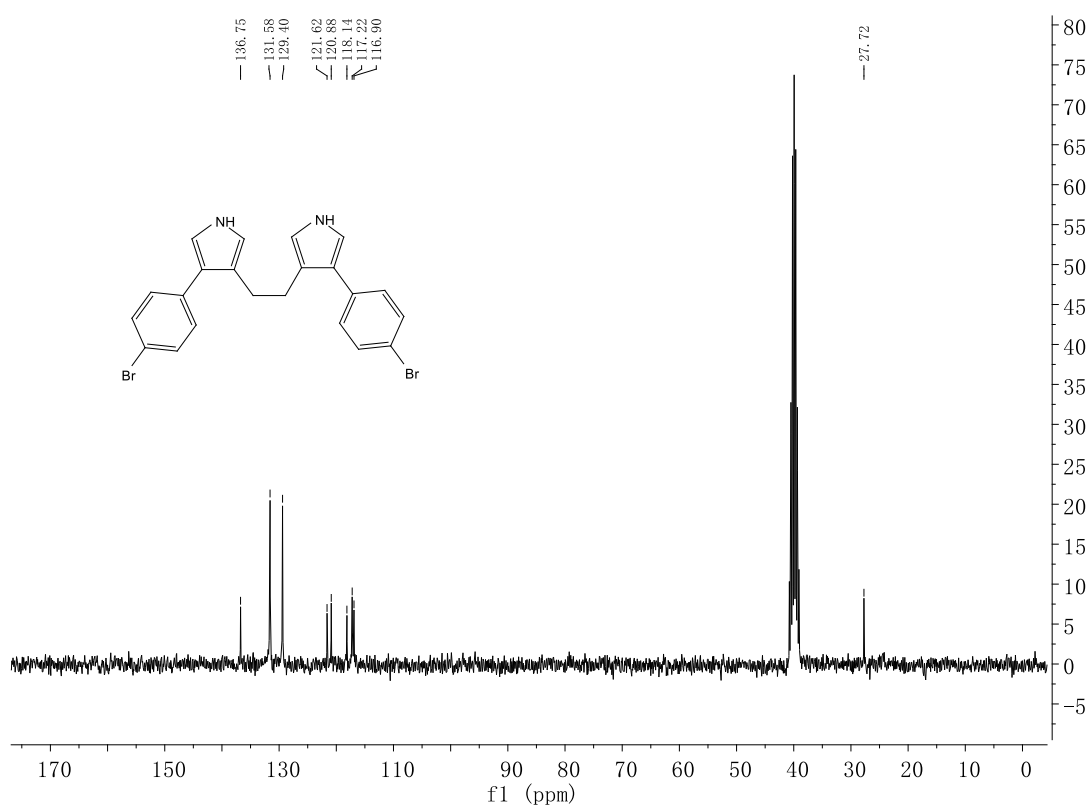
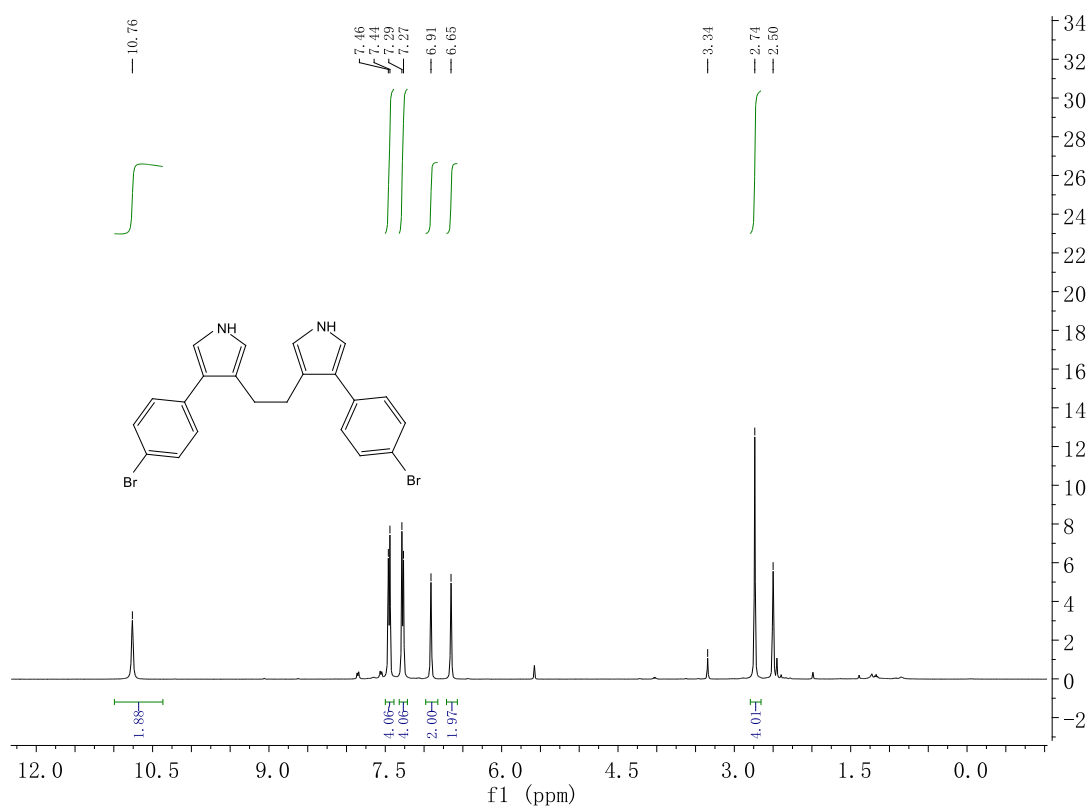
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(4-chlorophenyl)-1H-pyrrol-3-yl)ethane (3i).



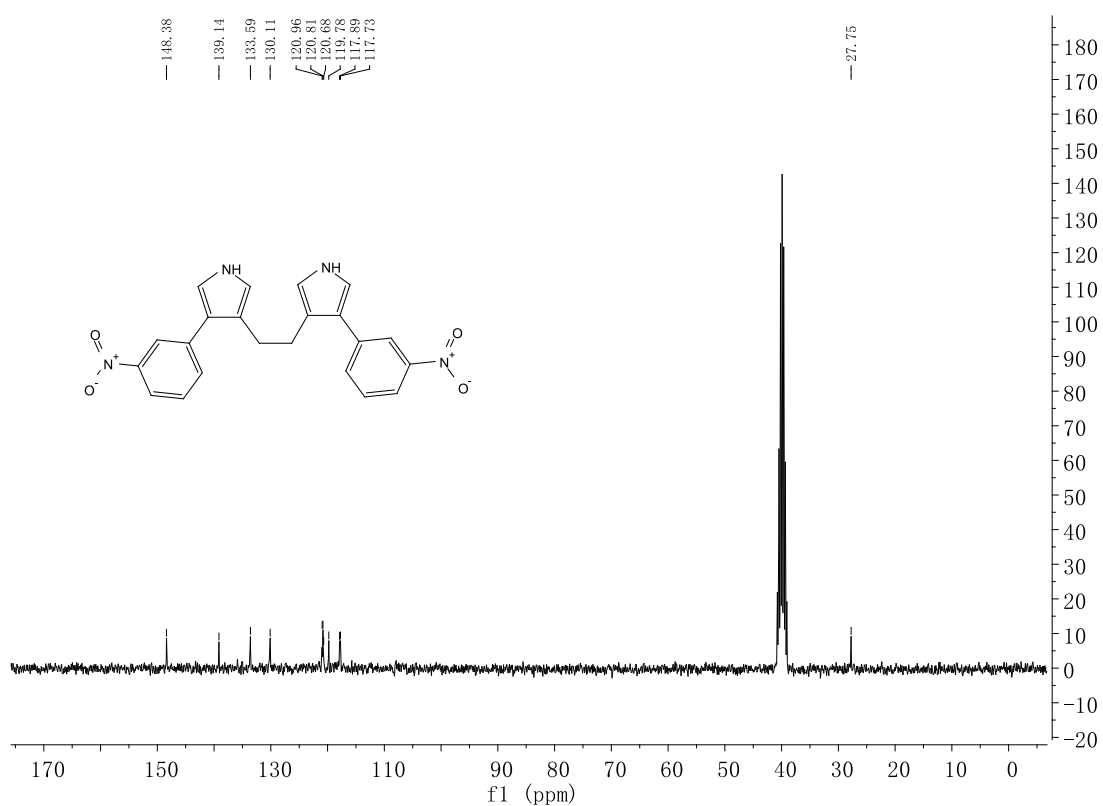
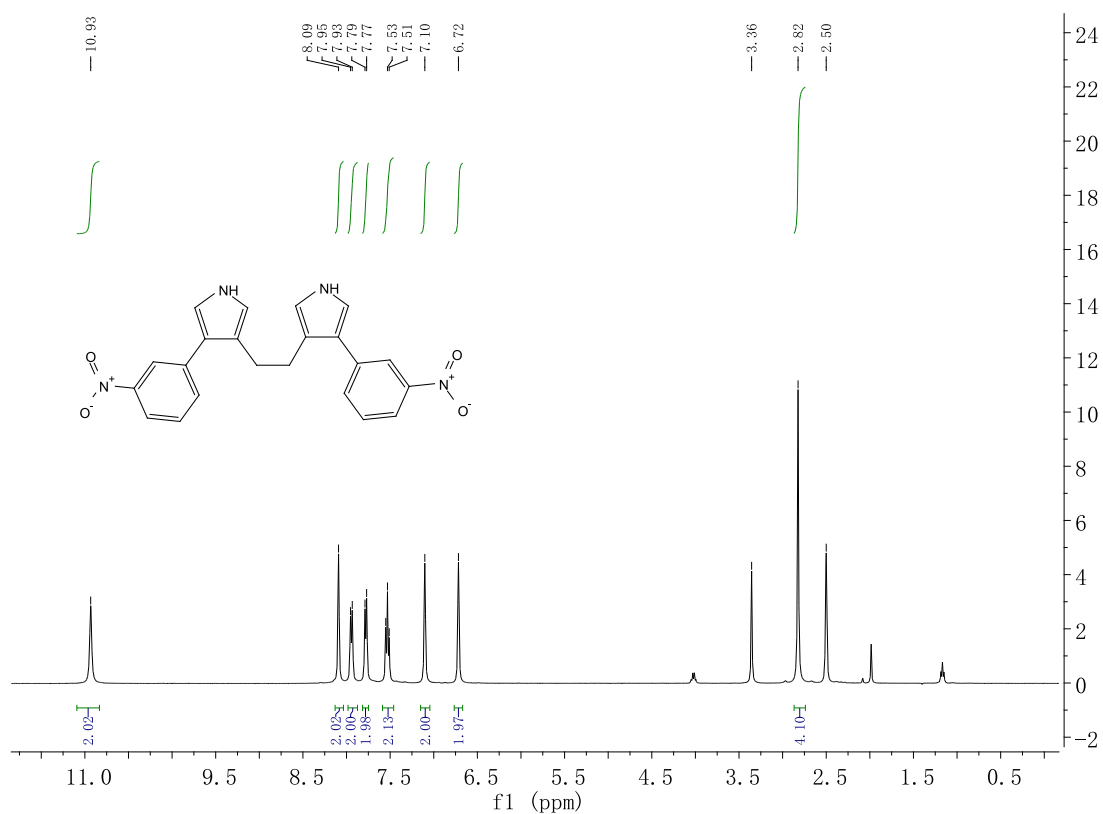
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(4-bromophenyl)-1H-pyrrol-3-yl)ethane (3j).



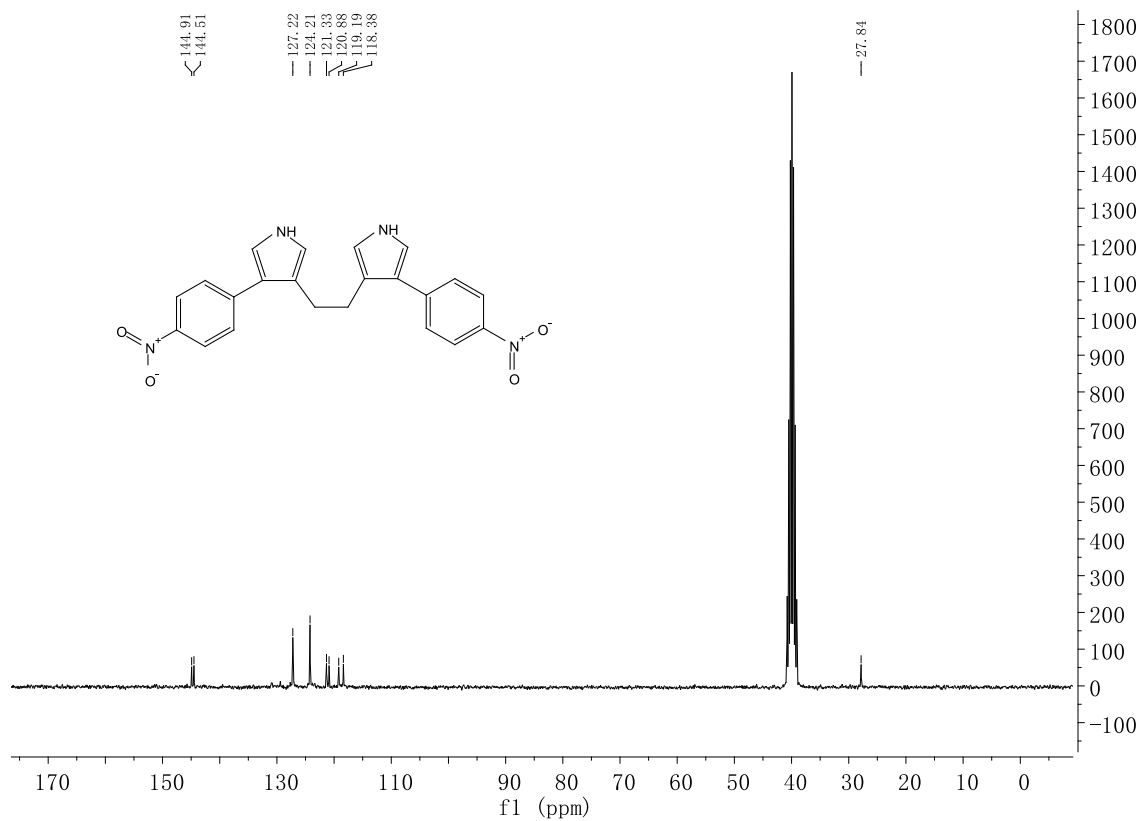
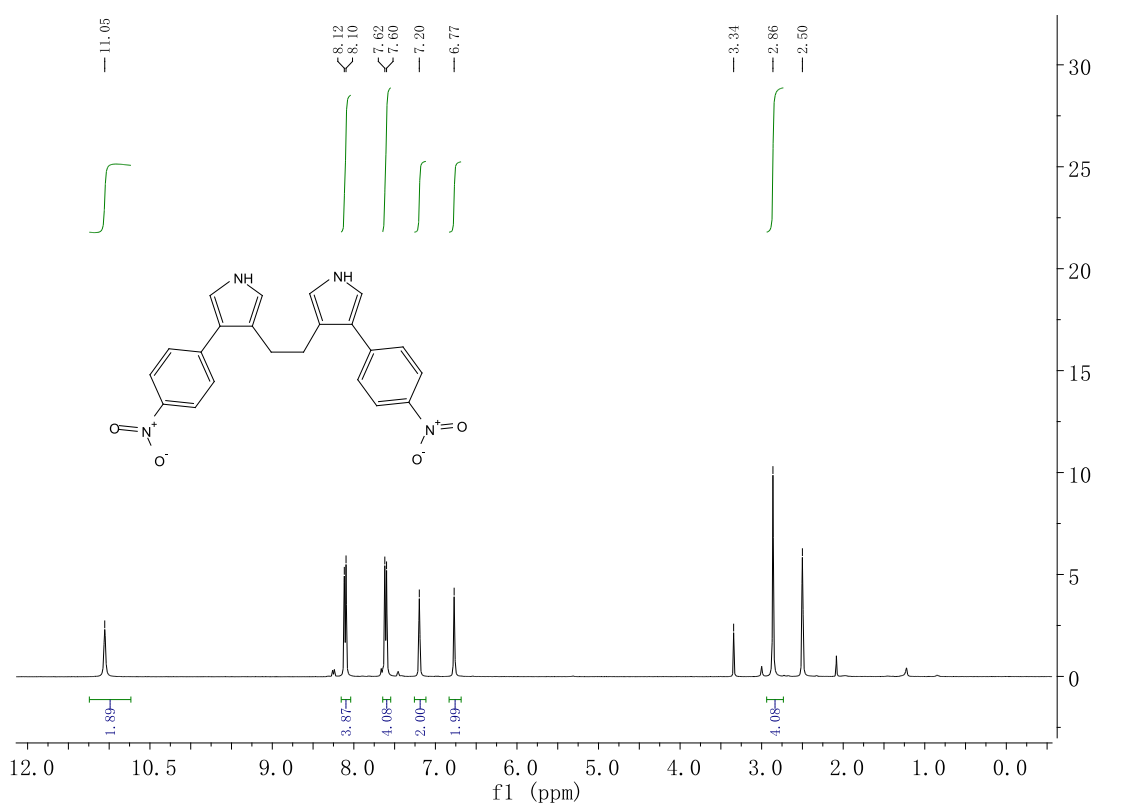
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(3-nitrophenyl)-1H-pyrrol-3-yl)ethane (3k).



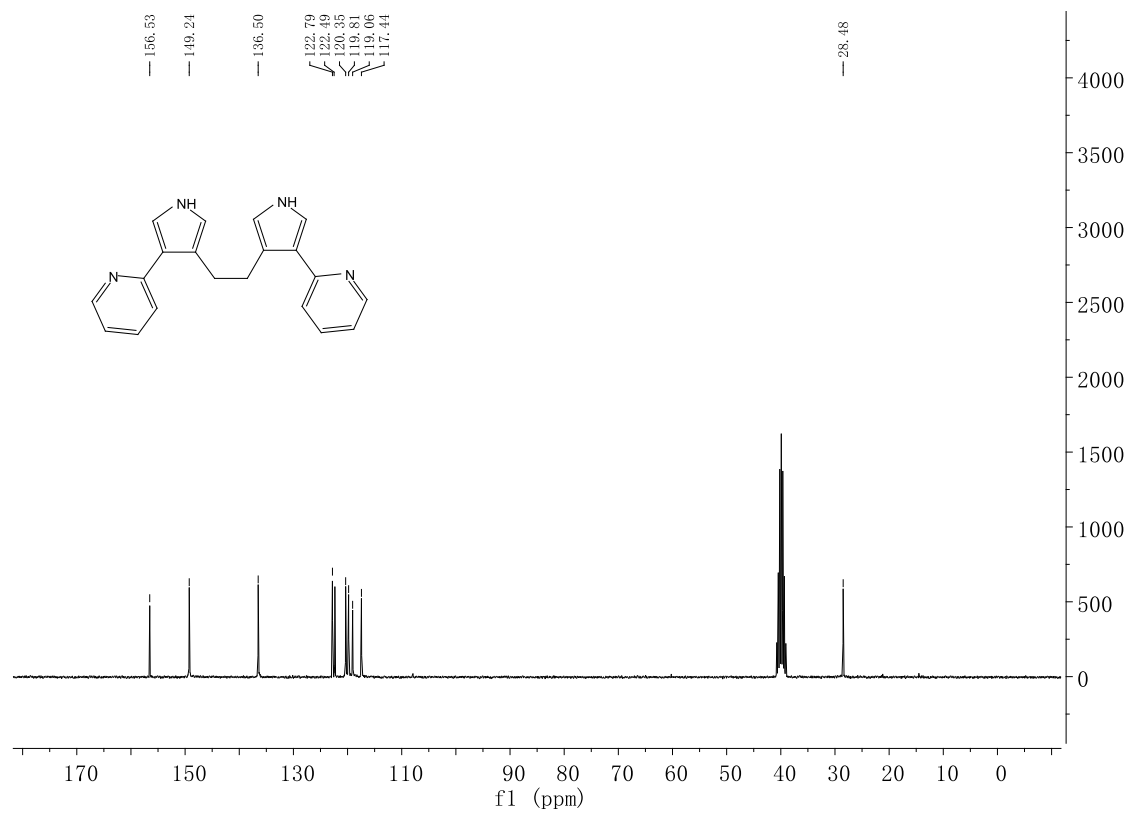
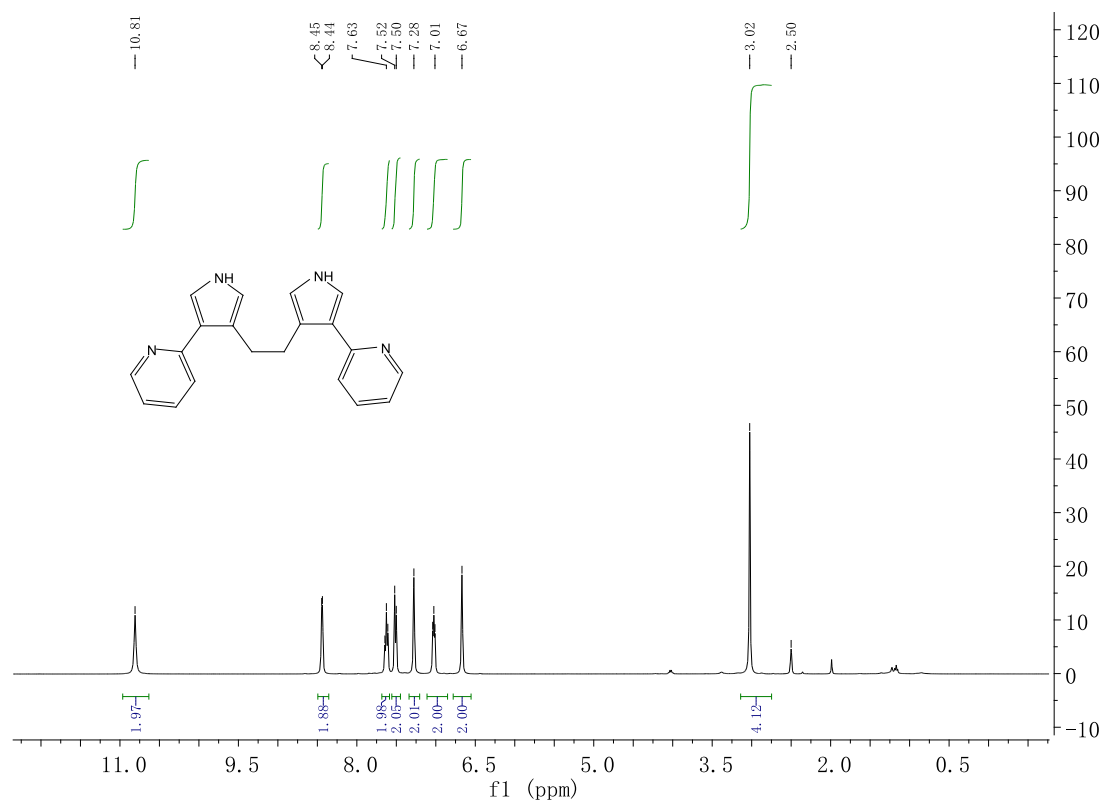
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(4-nitrophenyl)-1H-pyrrol-3-yl)ethane (3l).



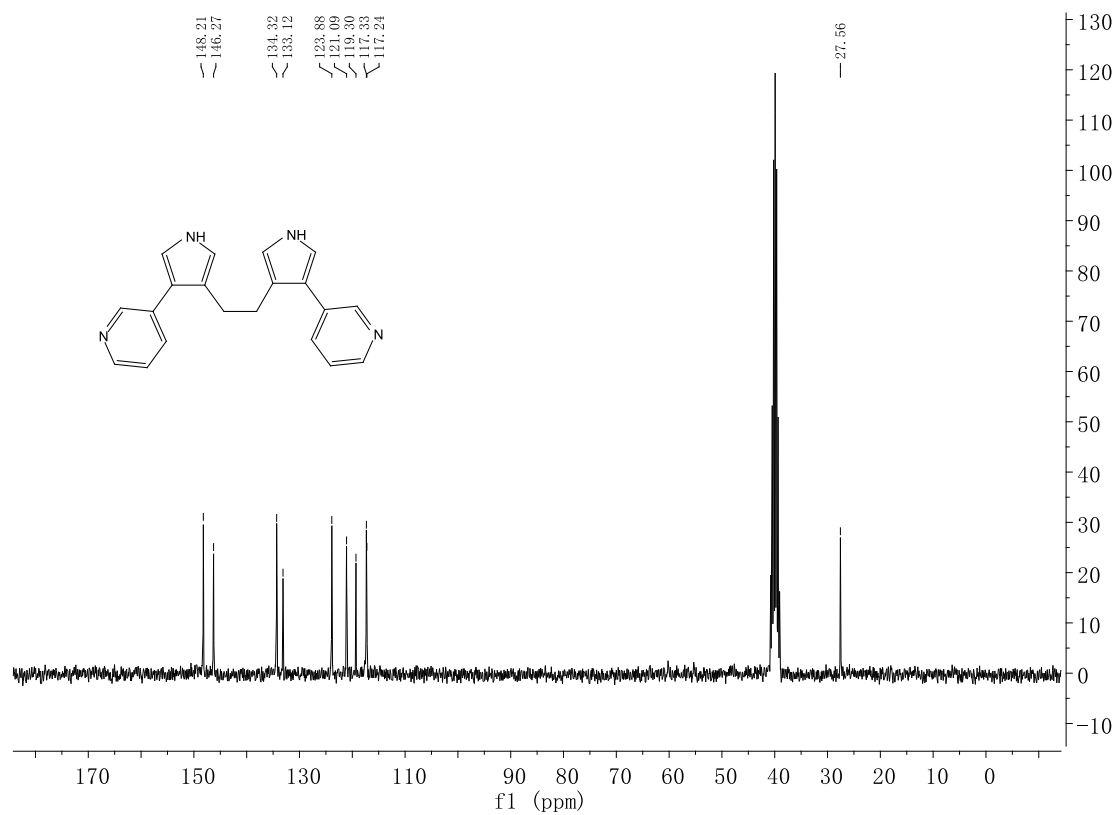
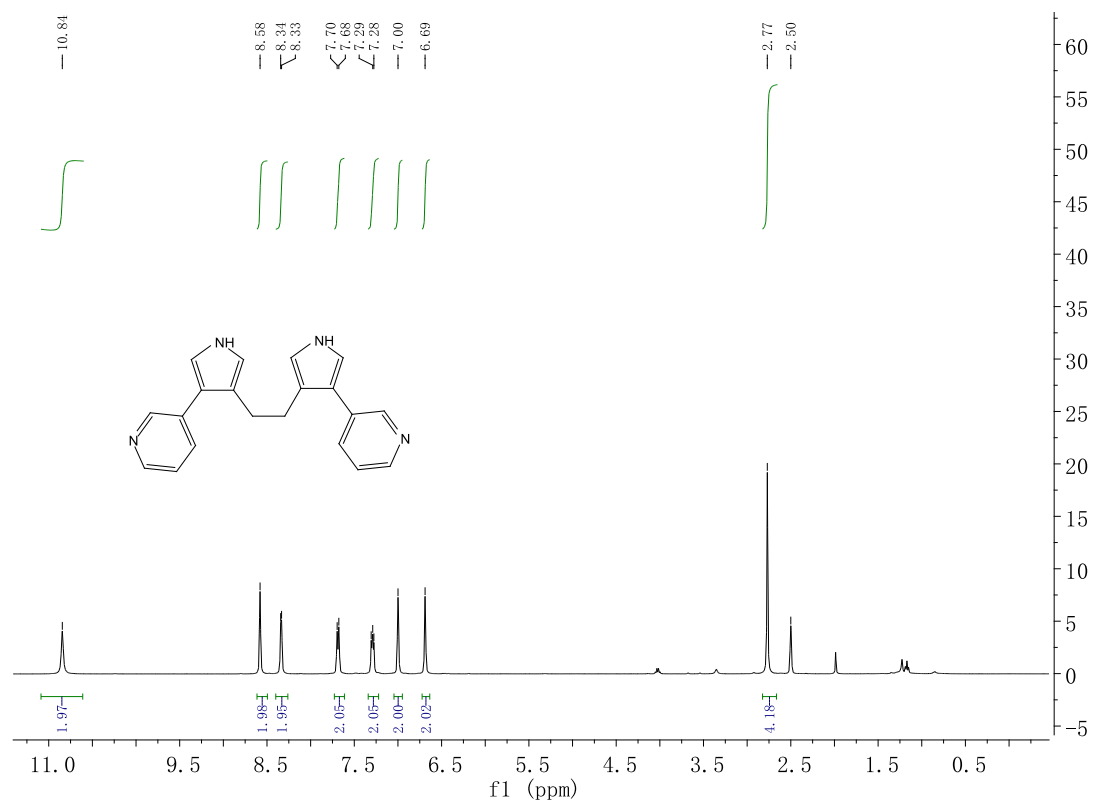
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(pyridin-2-yl)-1H-pyrrol-3-yl)ethane (3m).



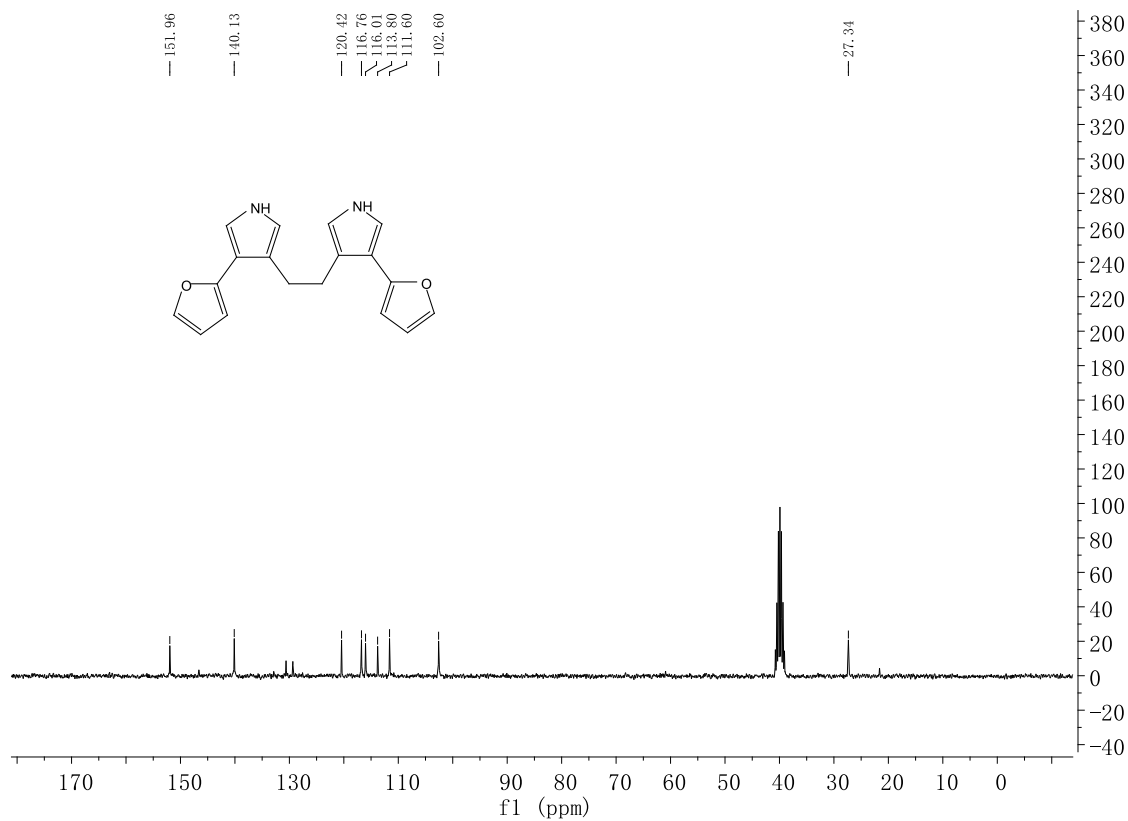
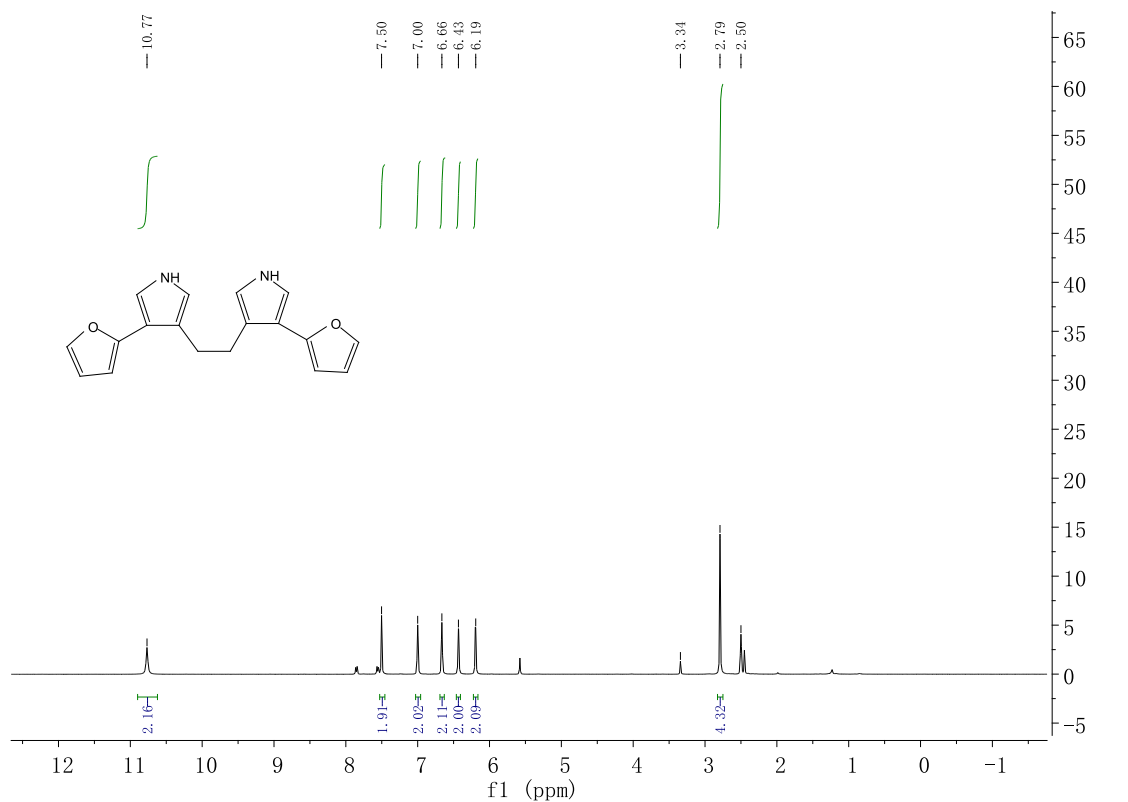
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(pyridin-3-yl)-1H-pyrrol-3-yl)ethane (3n).



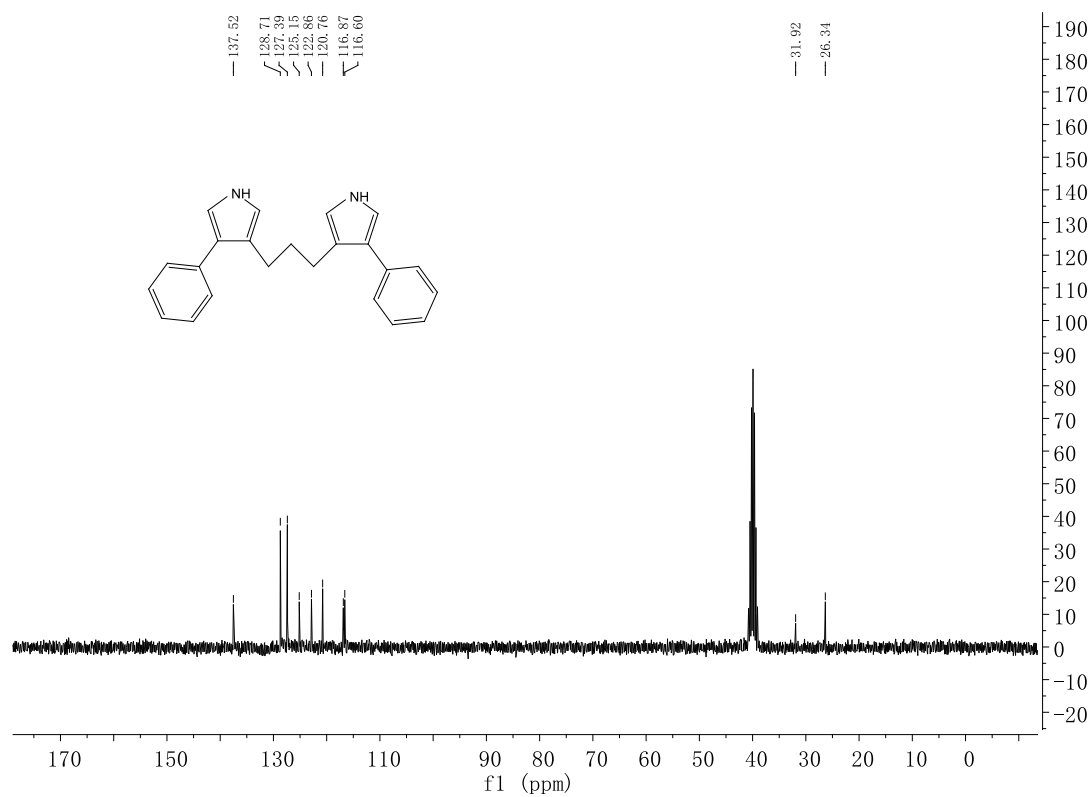
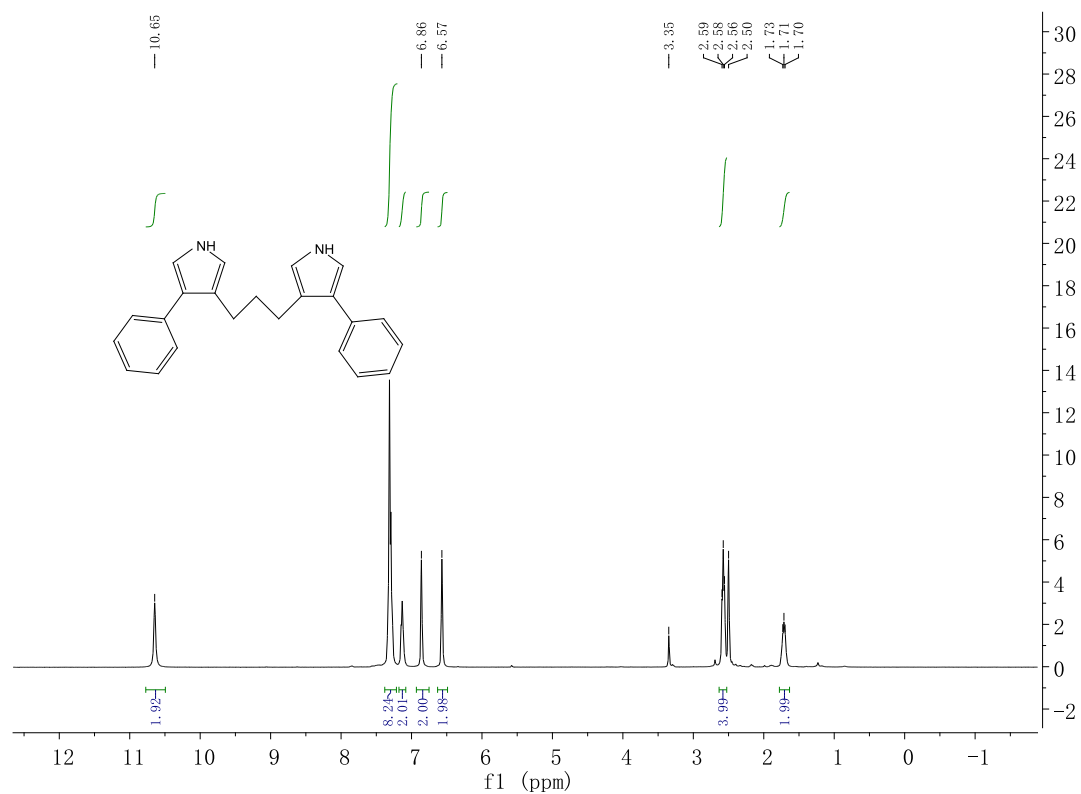
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,2-bis(4-(furan-2-yl)-1H-pyrrol-3-yl)ethane (3o).



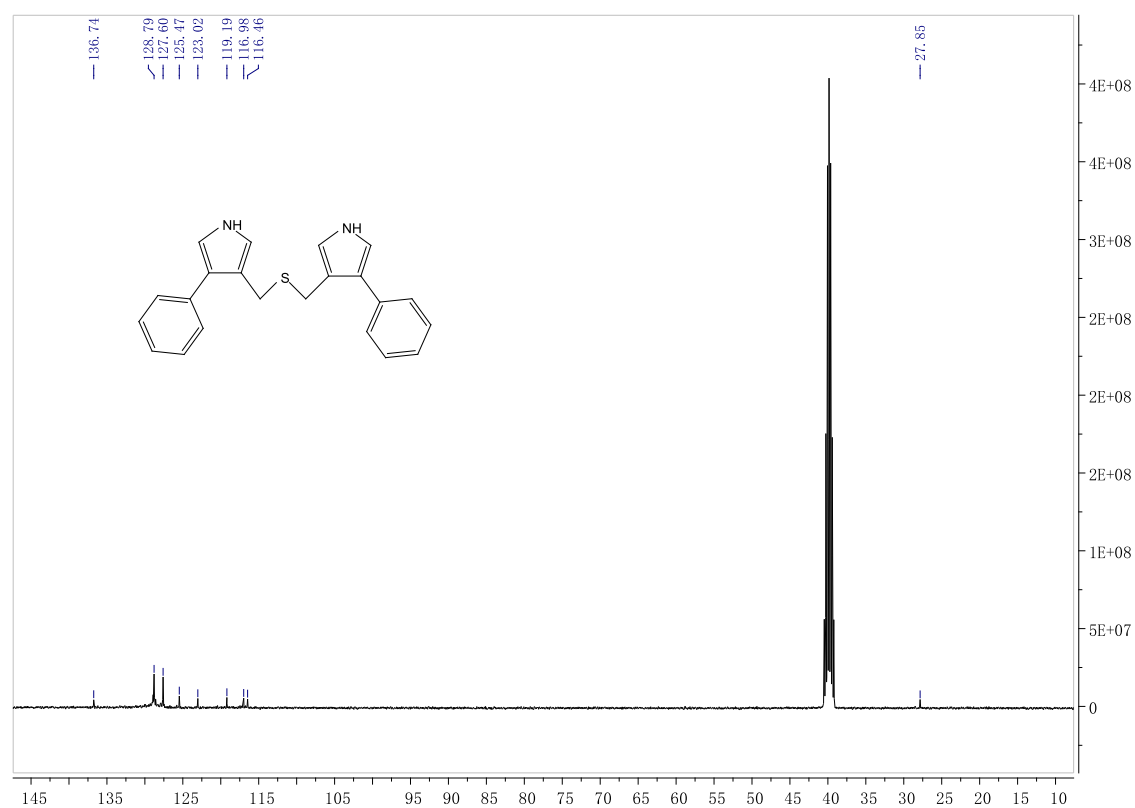
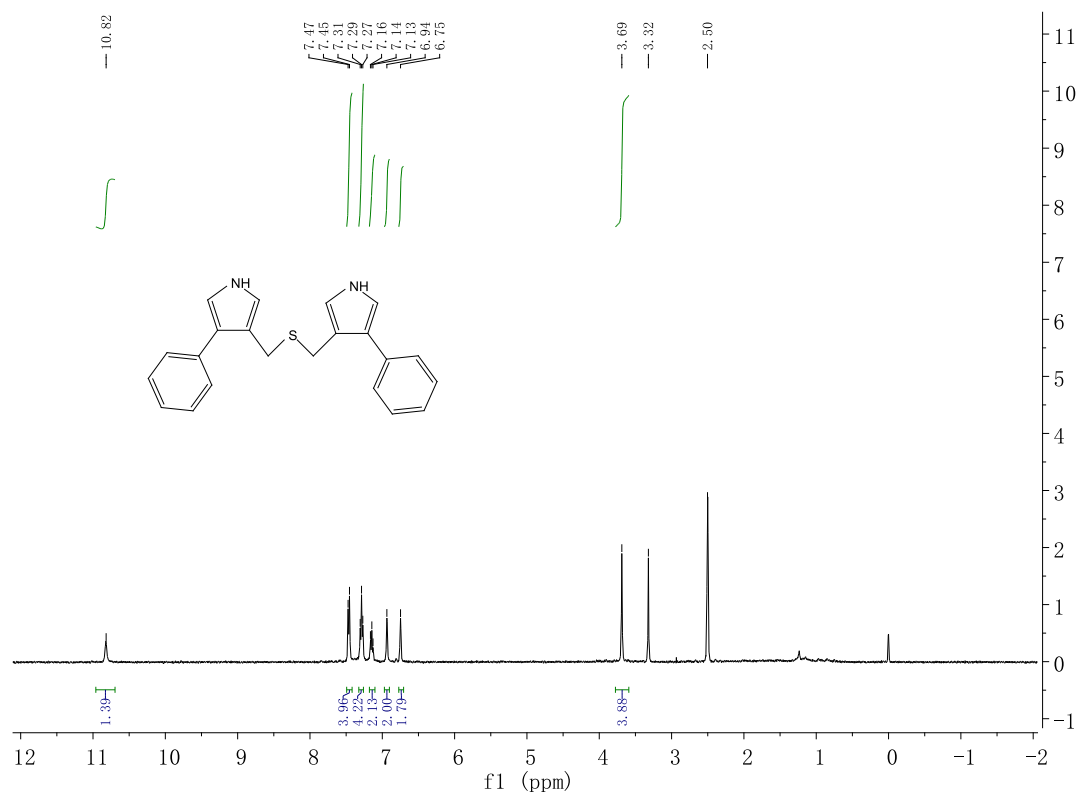
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

1,3-bis(4-phenyl-1H-pyrrol-3-yl)propane (3p).



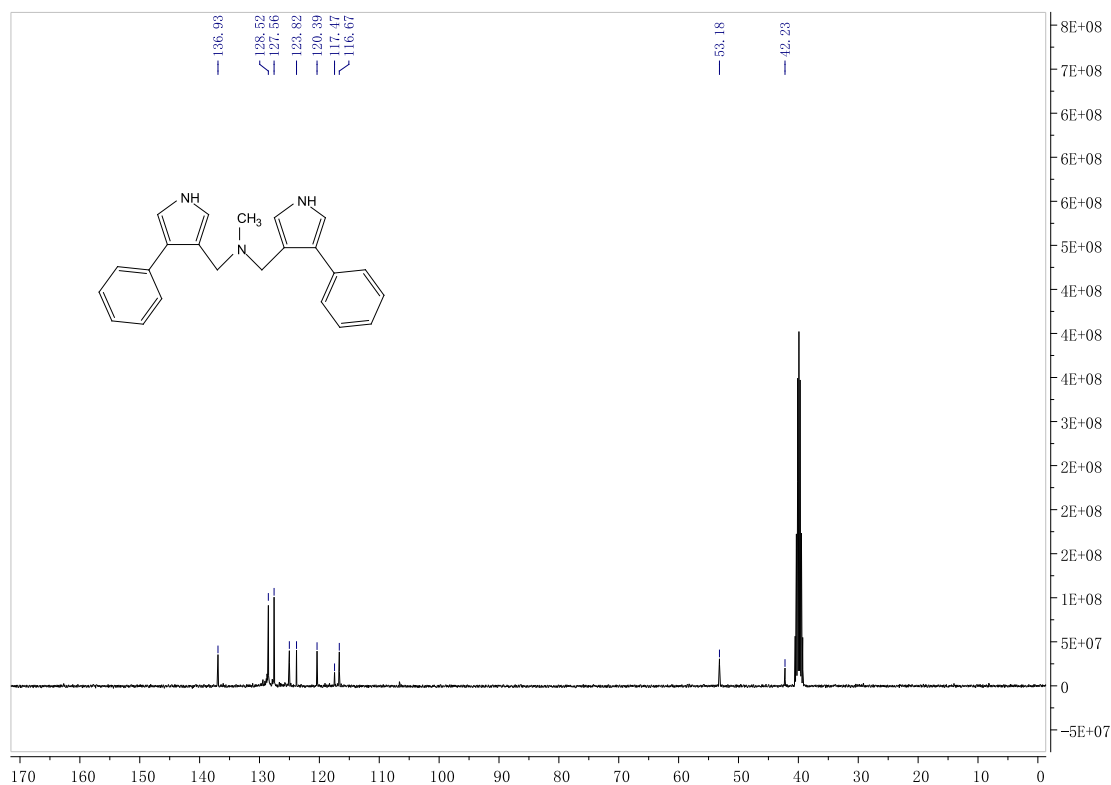
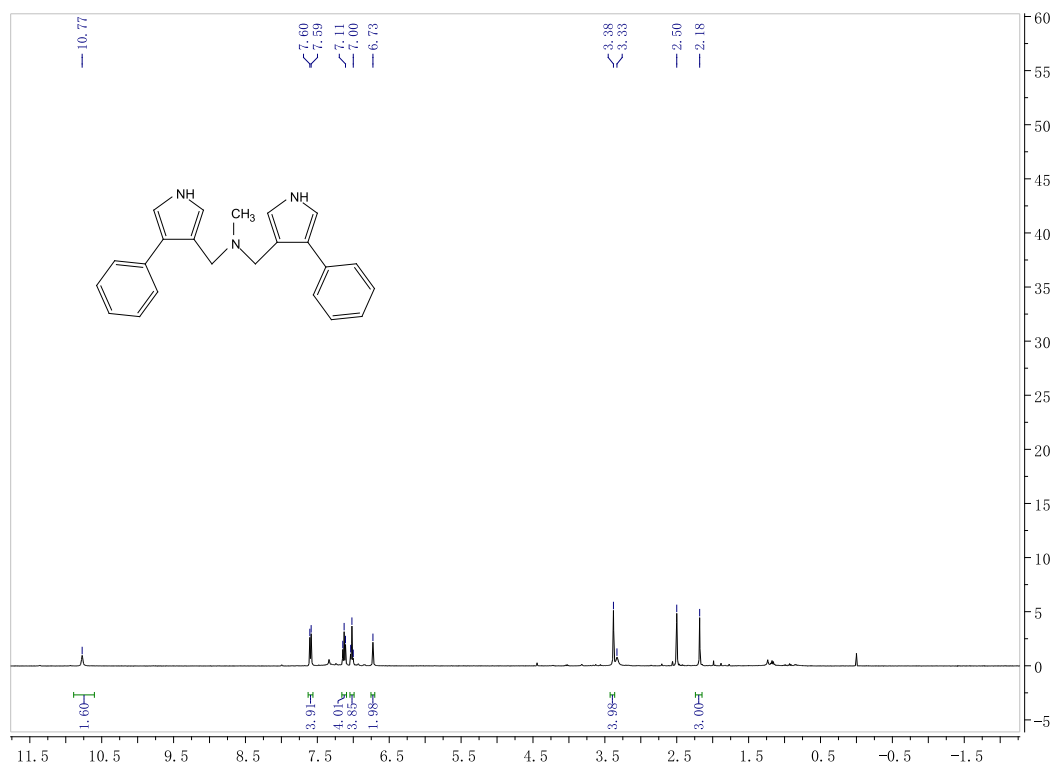
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

bis((4-phenyl-1H-pyrrol-3-yl)methyl)sulfane (3q).



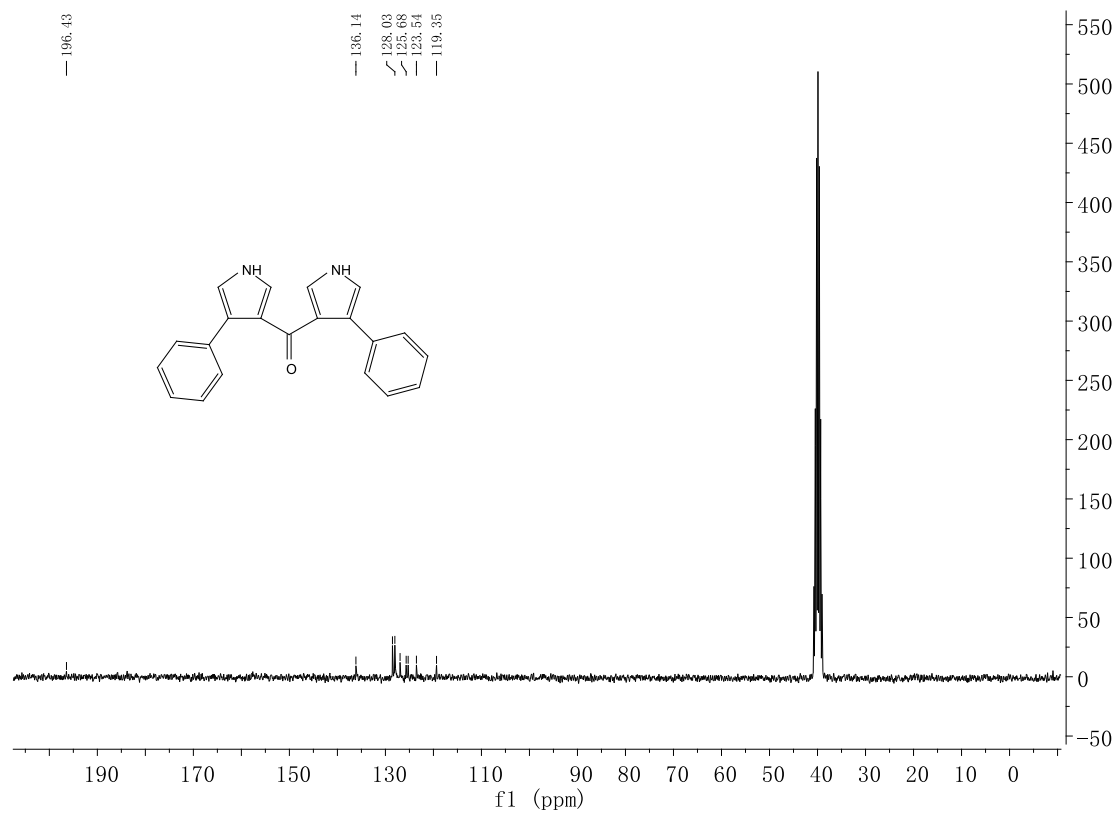
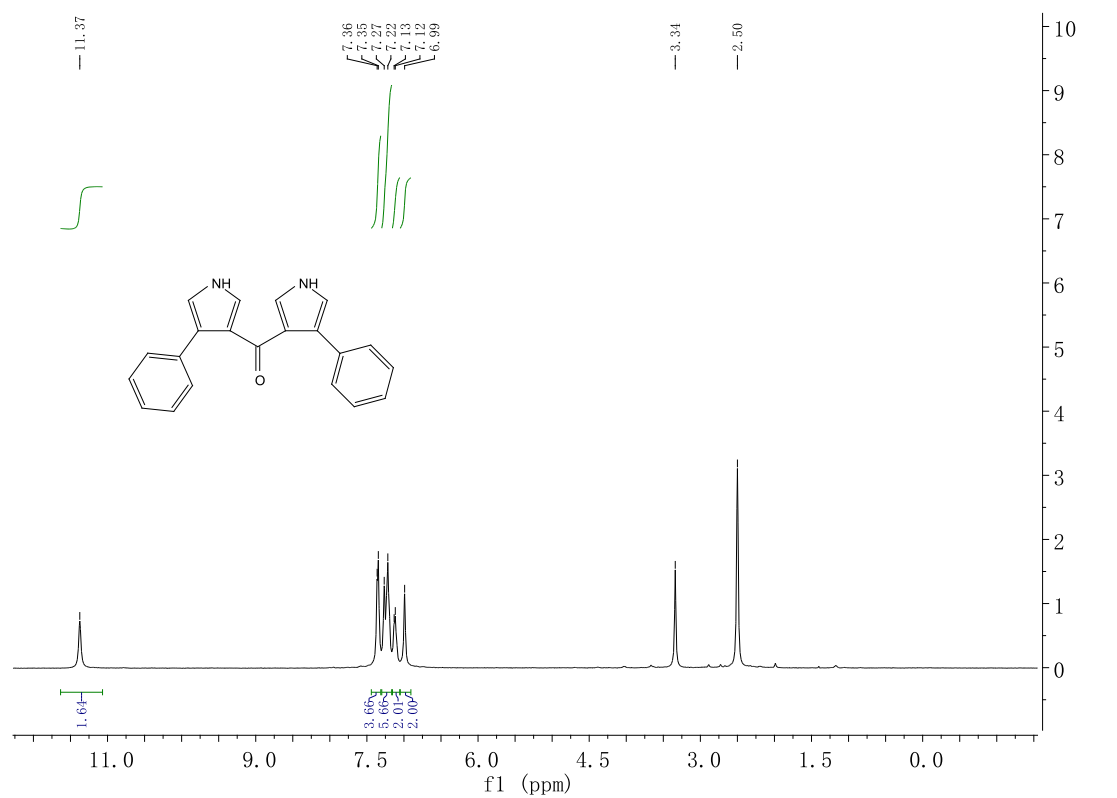
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

N-methyl-1-(4-phenyl-1H-pyrrol-3-yl)-N-((4-phenyl-1H-pyrrol-3-yl)methyl)methanamine (3r).



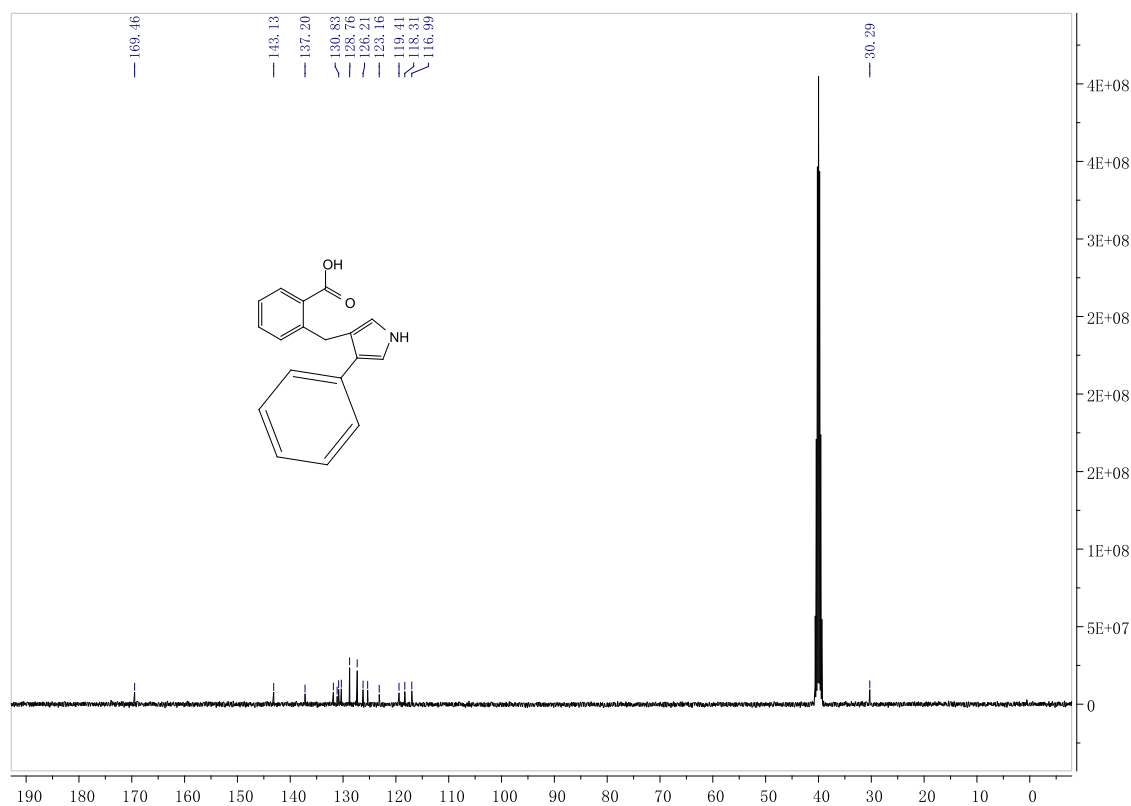
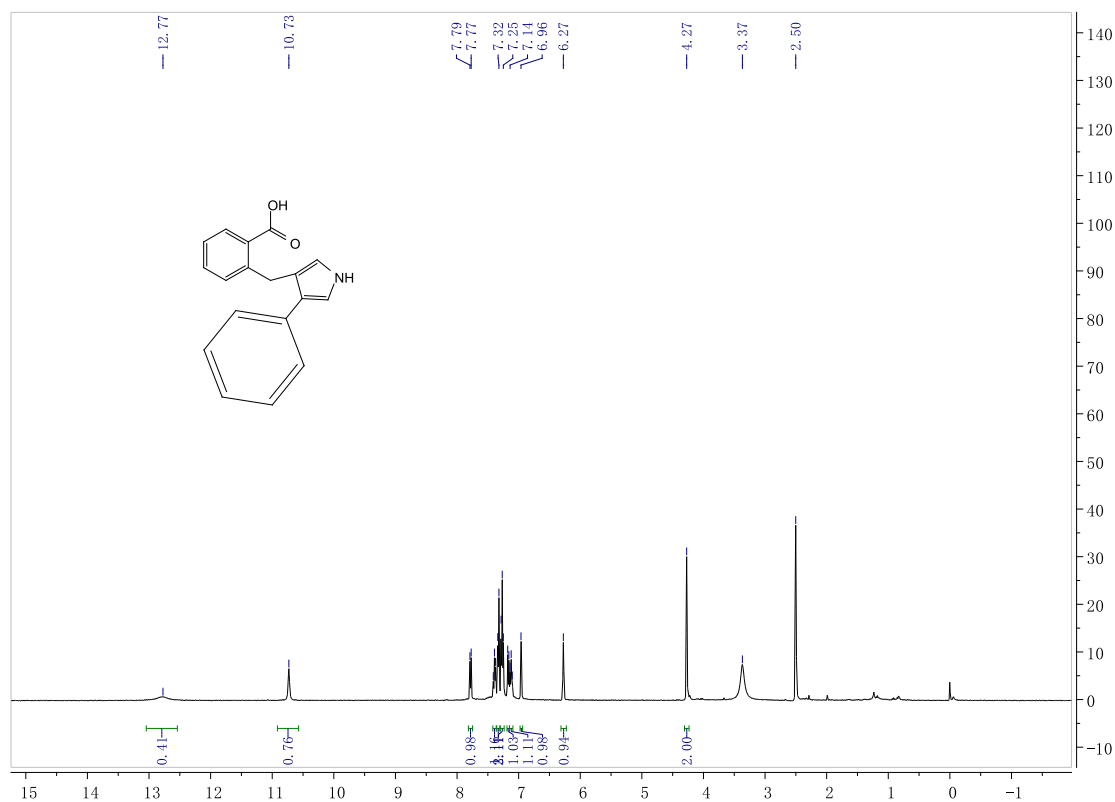
Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

bis(4-phenyl-1H-pyrrol-3-yl)methanone (3s).



Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

2-((4-phenyl-1H-pyrrol-3-yl)methyl)benzoic acid (3t).



Electronic Supplementary Material (ESI) for *Organic & Biomolecular Chemistry*
This journal is © The Royal Society of Chemistry 2013

Intermediate (D).

