

**Synthesis, aggregation-induced emission and electroluminescent properties of
three new phenylethylene derivative comprising carbazole and
(dimesitylboranyl)phenyl groups**

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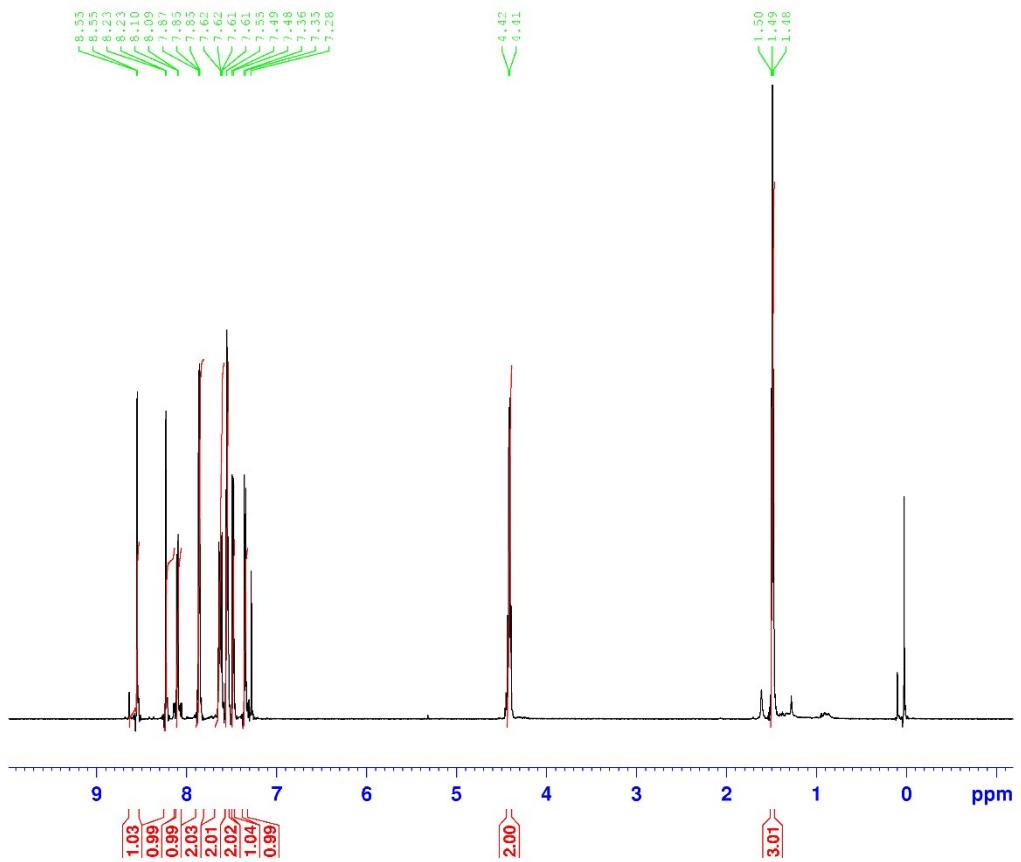
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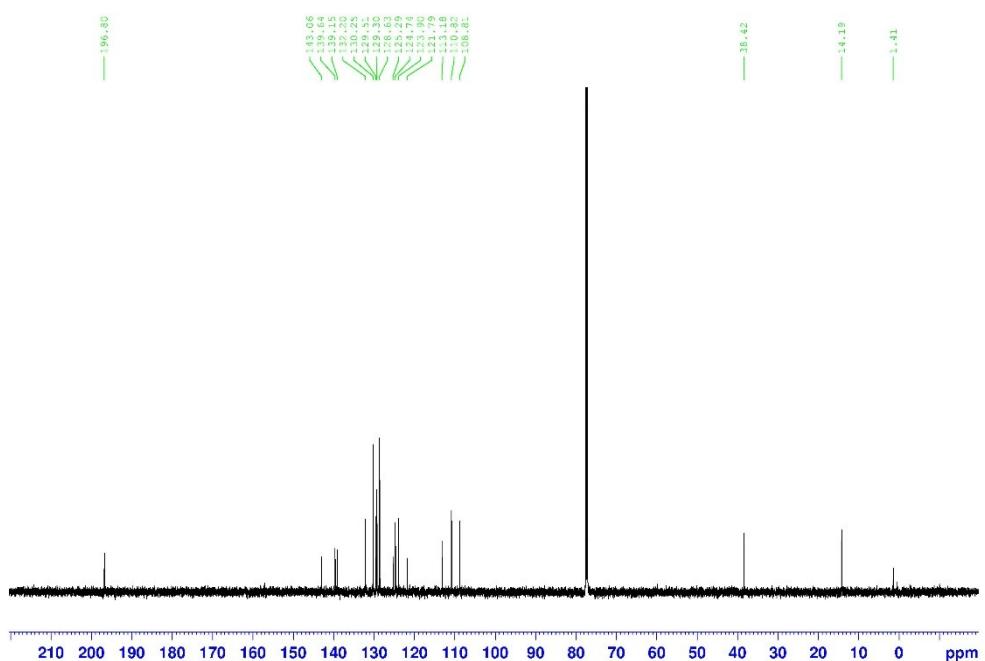
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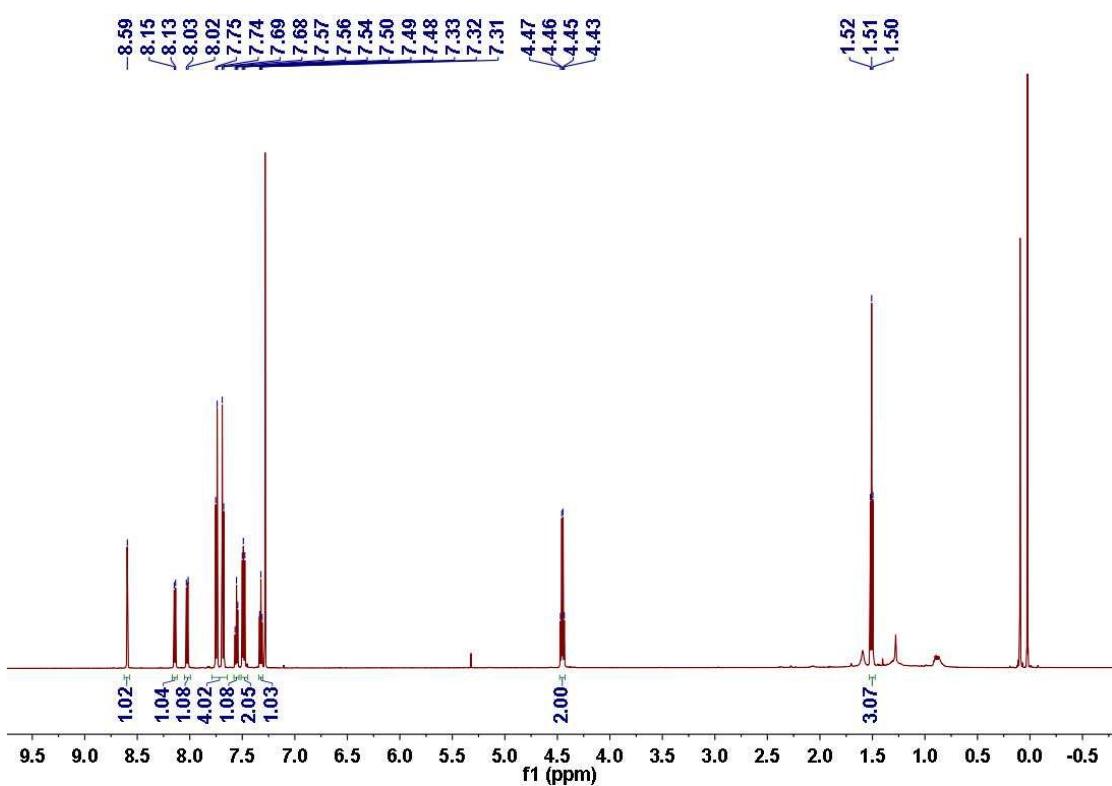
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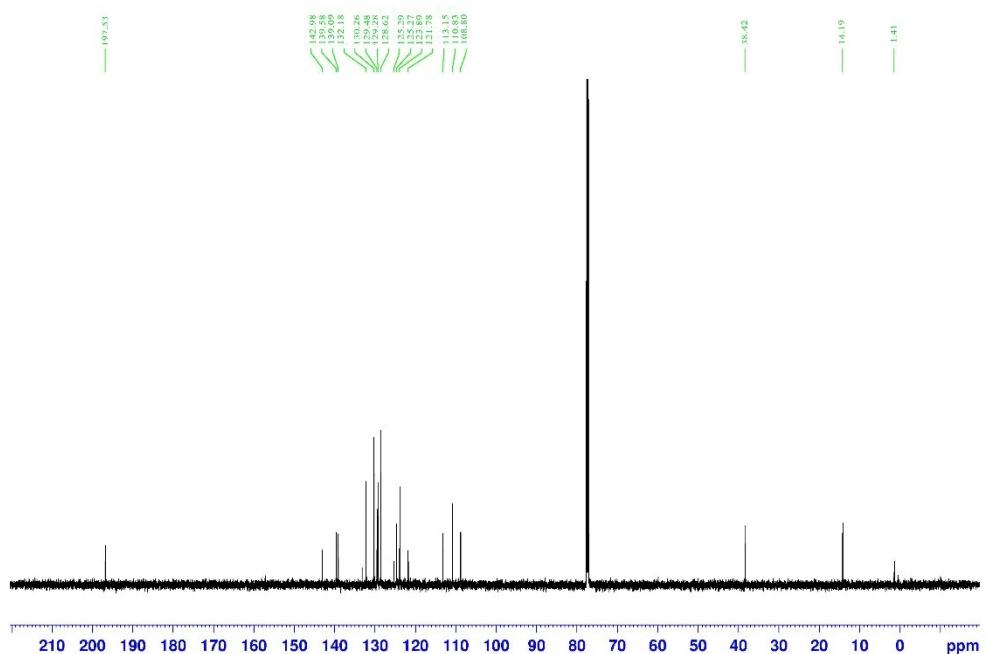
¹H NMR of compound 1



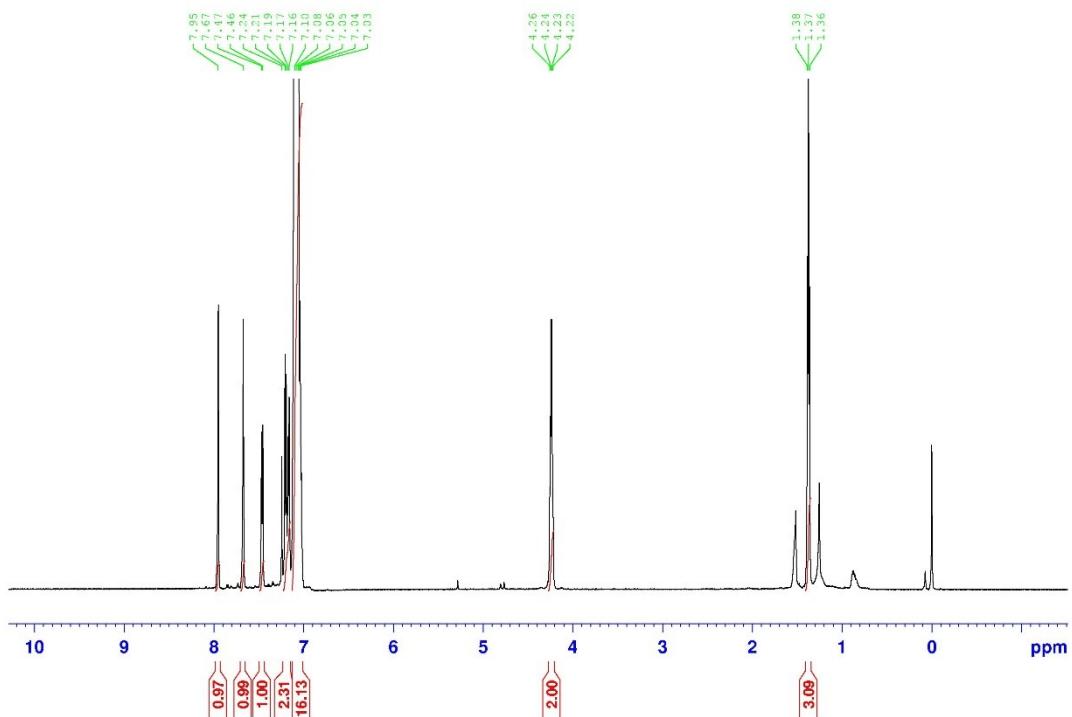
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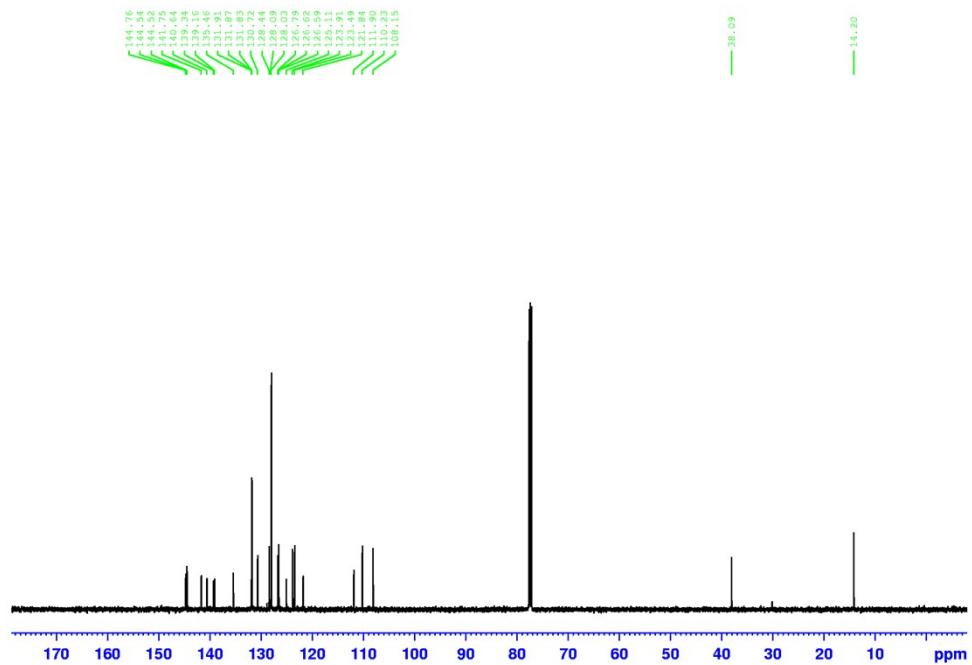
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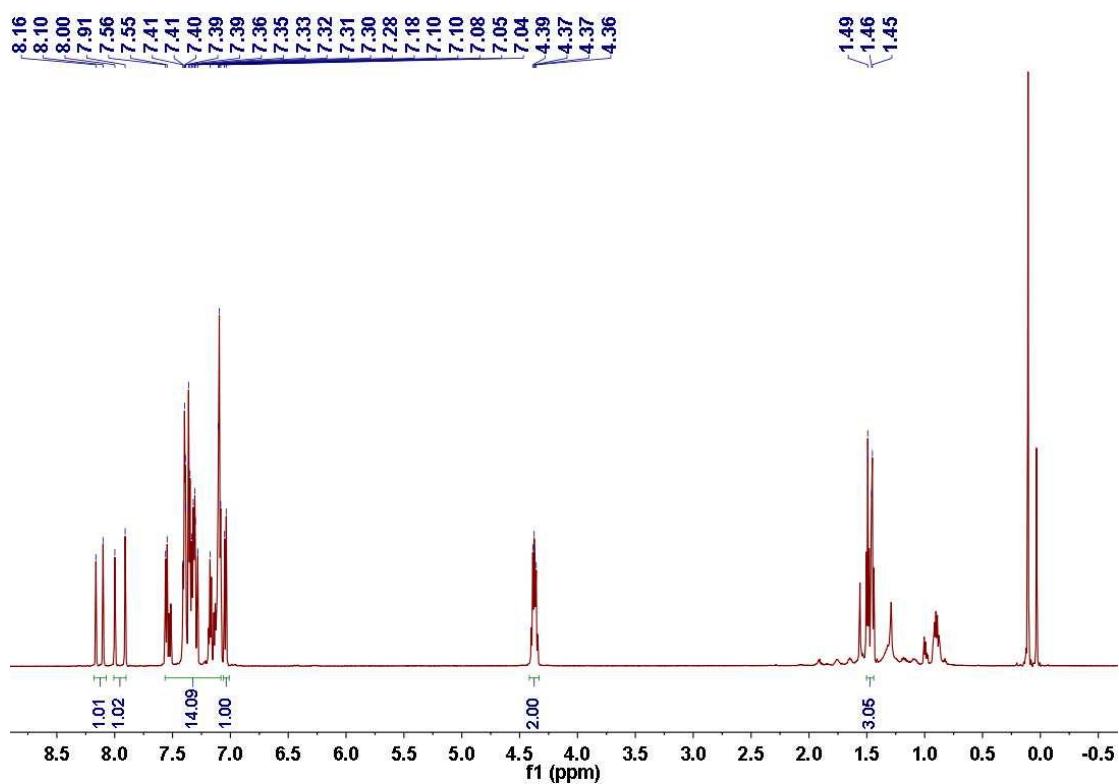
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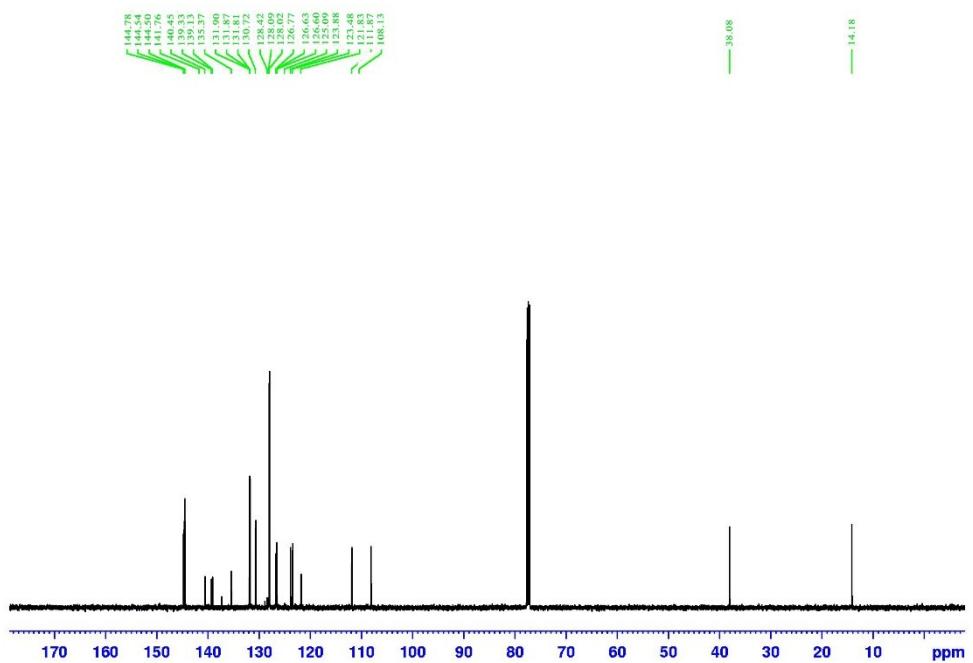
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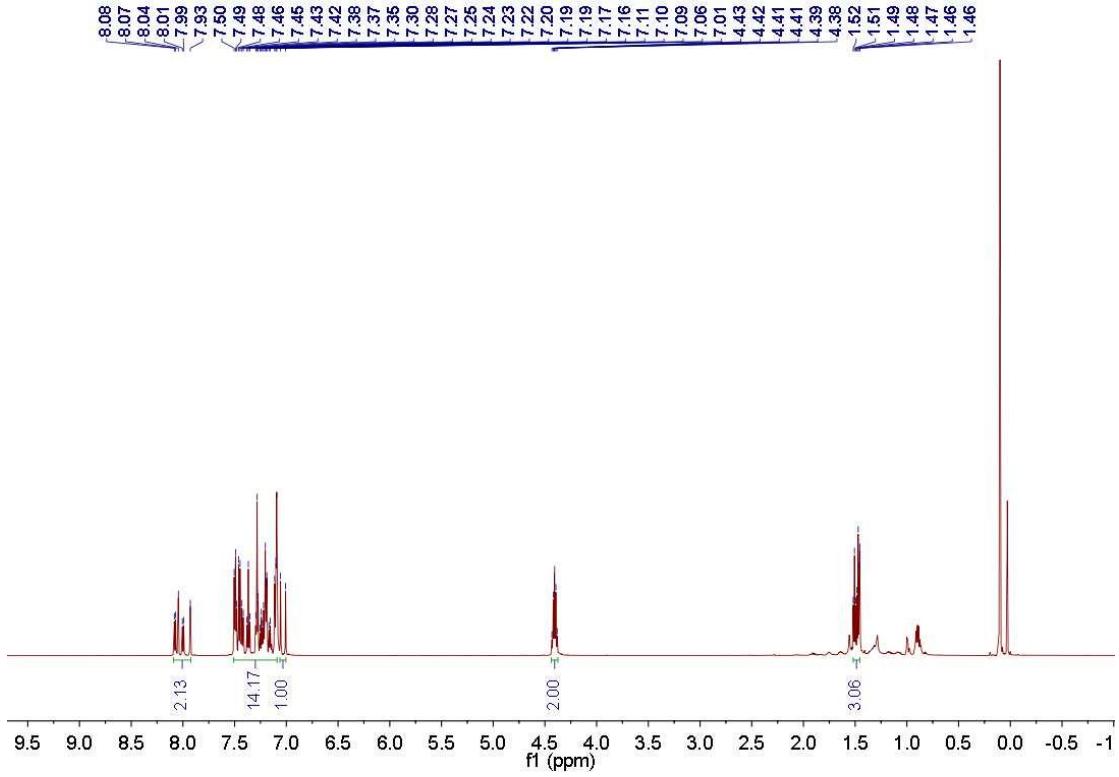
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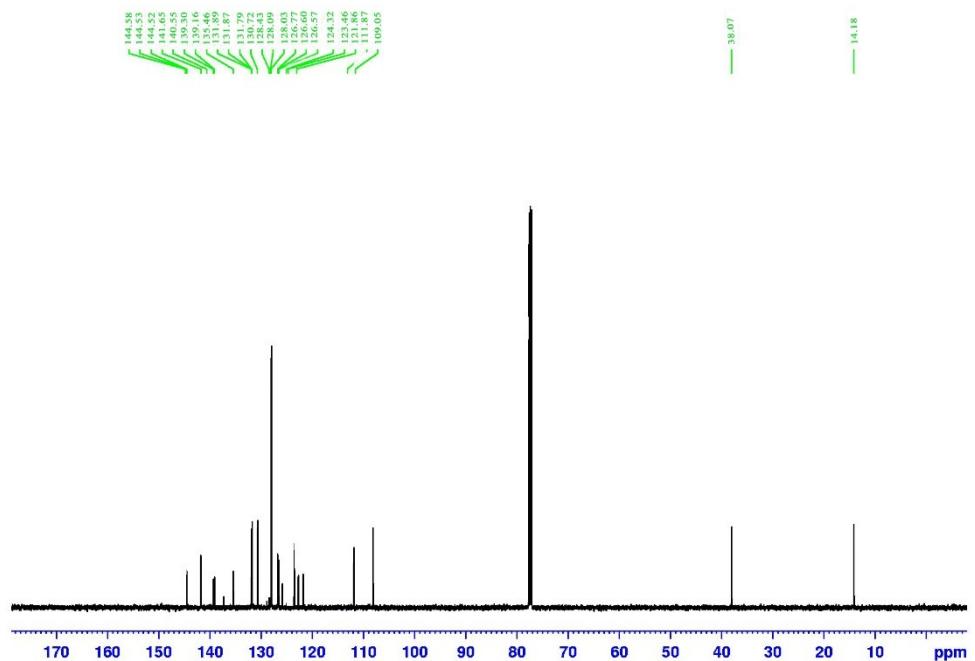
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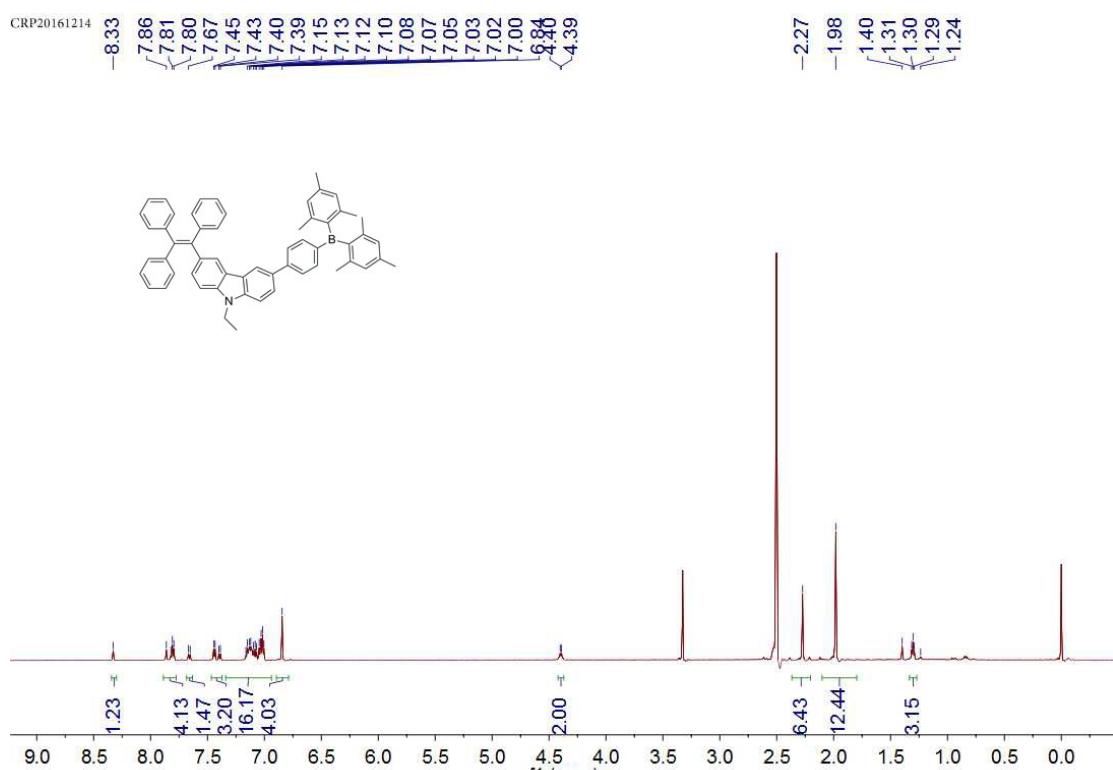
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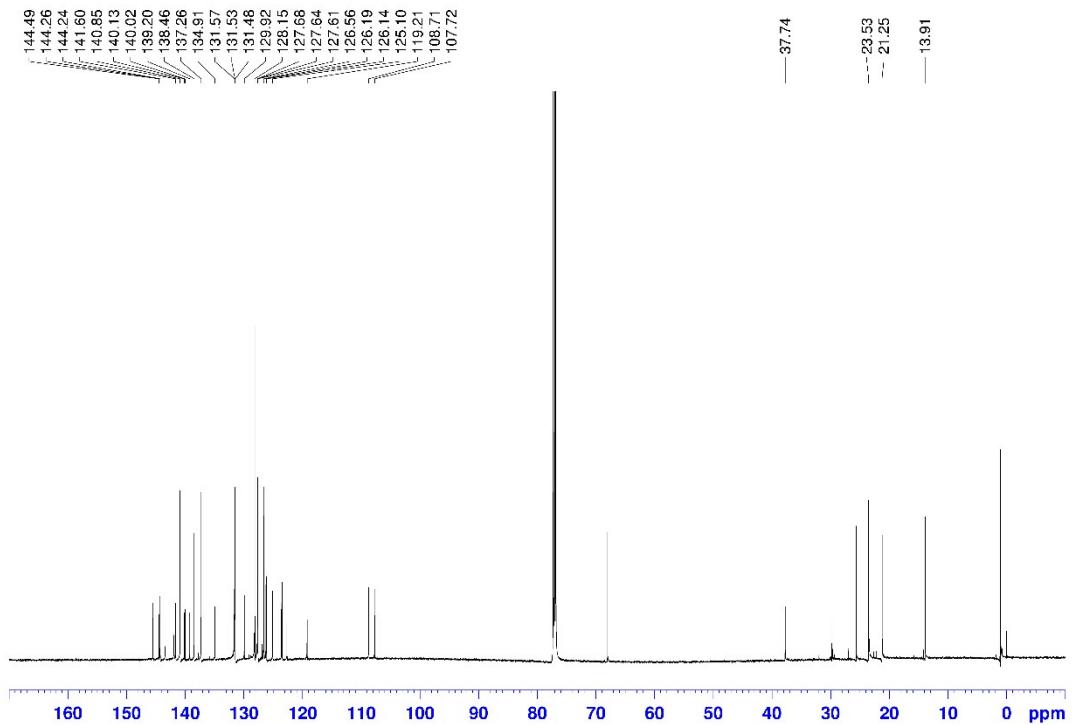
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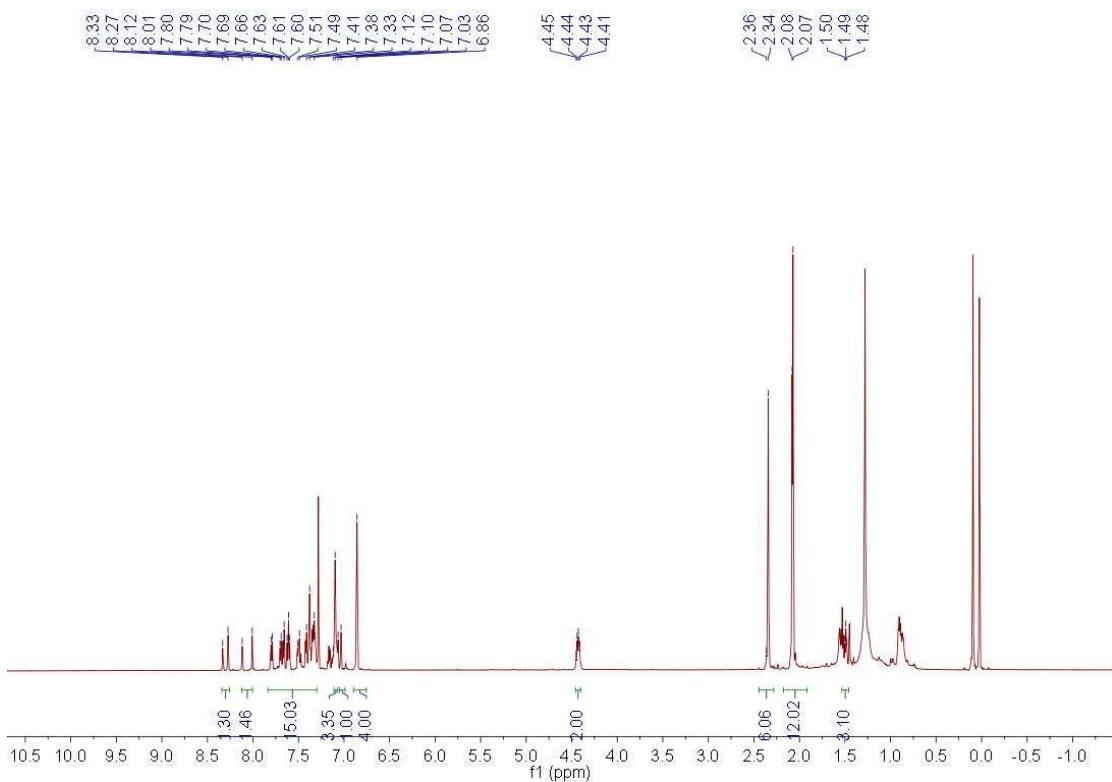
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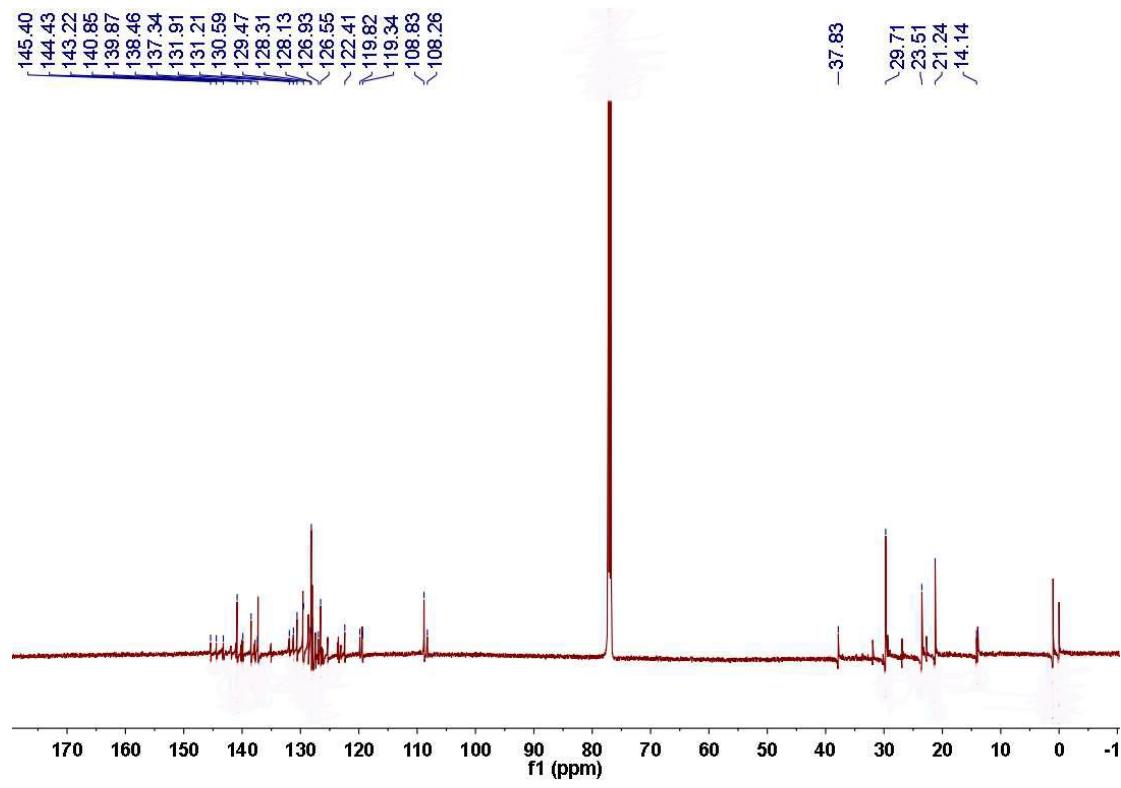
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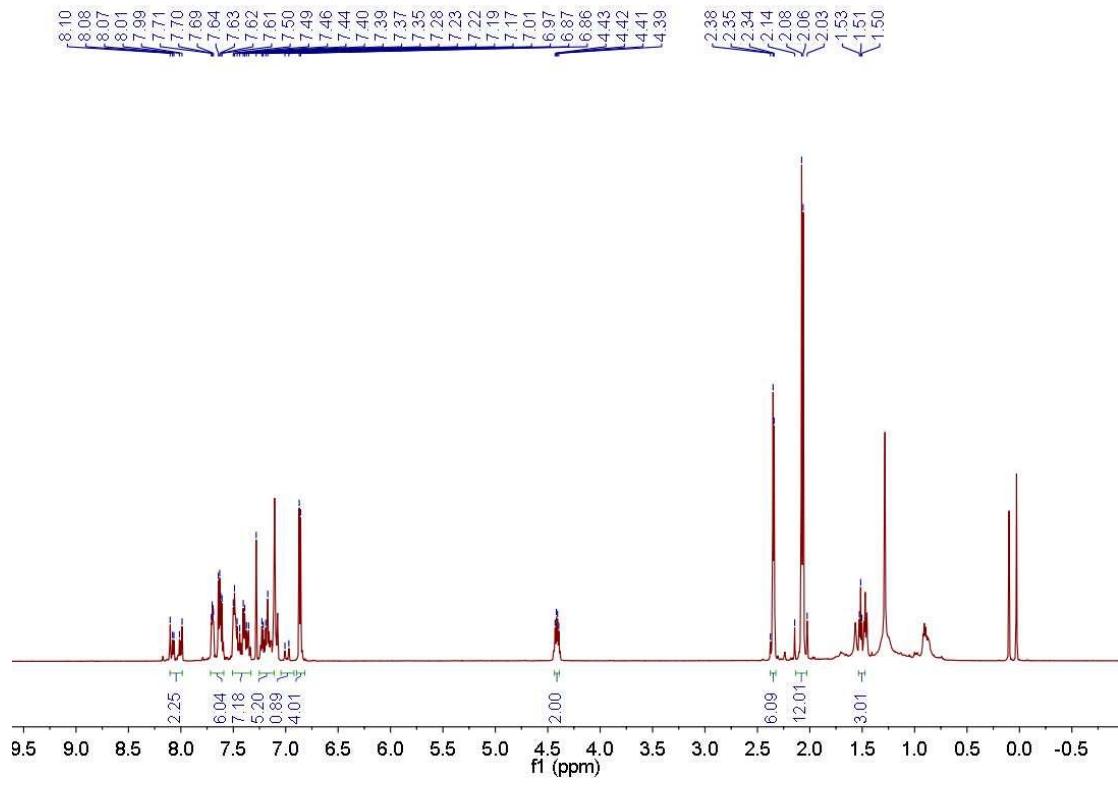
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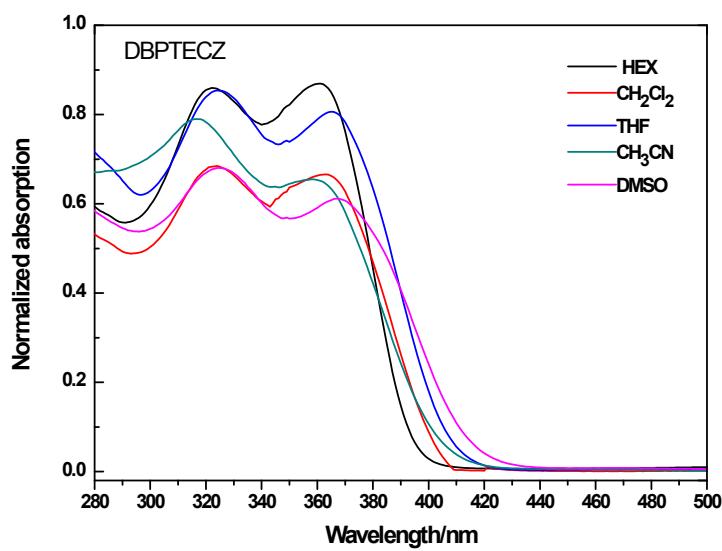
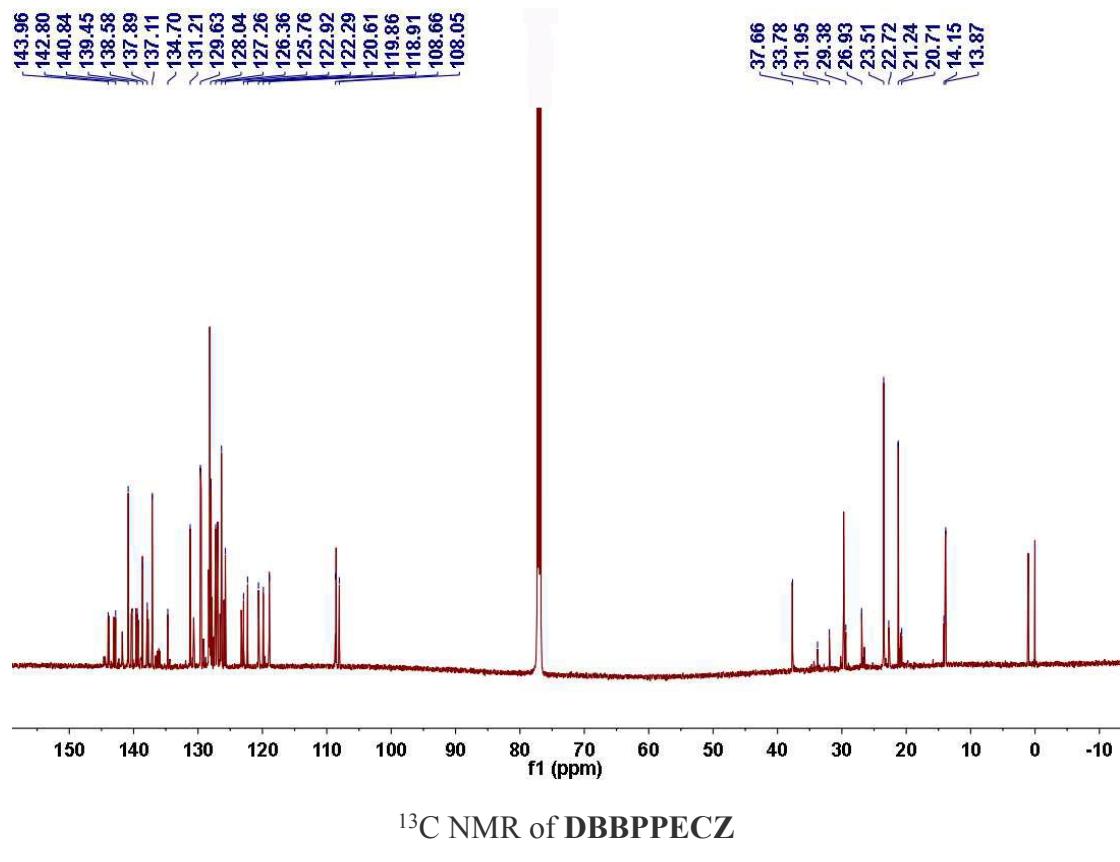
¹H NMR of DBPDPECZ



¹³C NMR of DBPDPECZ



¹H NMR of DBBPPECZ



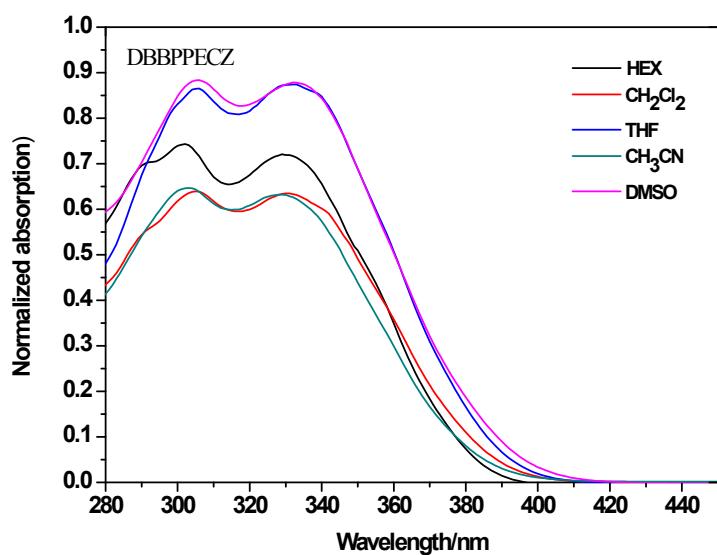
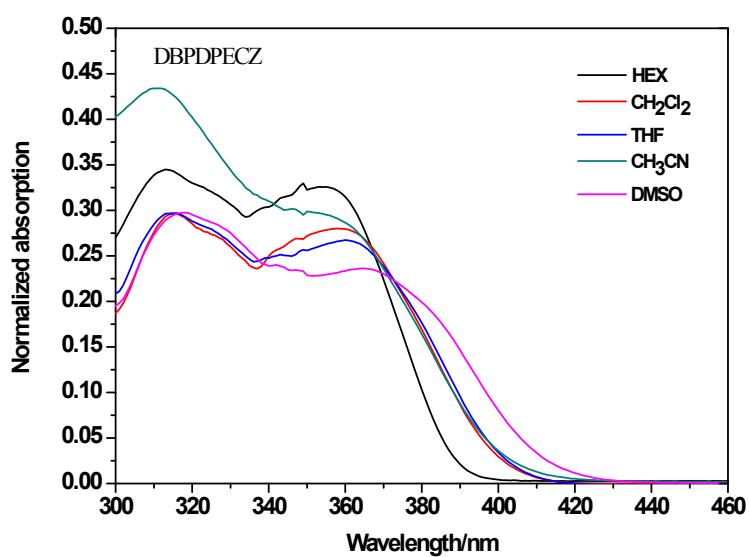
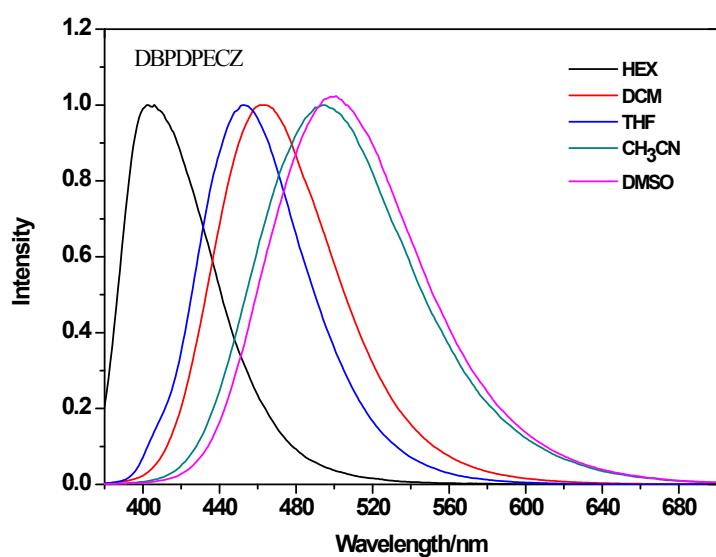
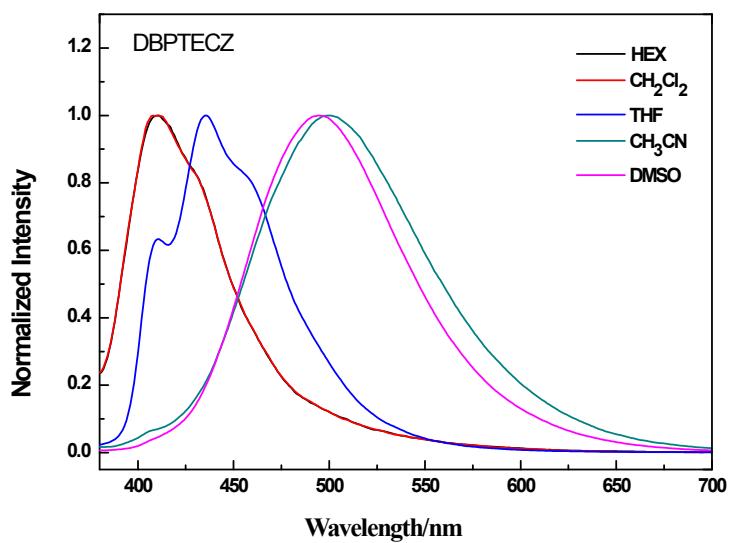


Fig. S1 UV-vis absorption spectra of **DBPTECZ**, **DBPDPECZ** and **DBBPPECZ** in various solvents ($10^{-5}\text{ mol L}^{-1}$)



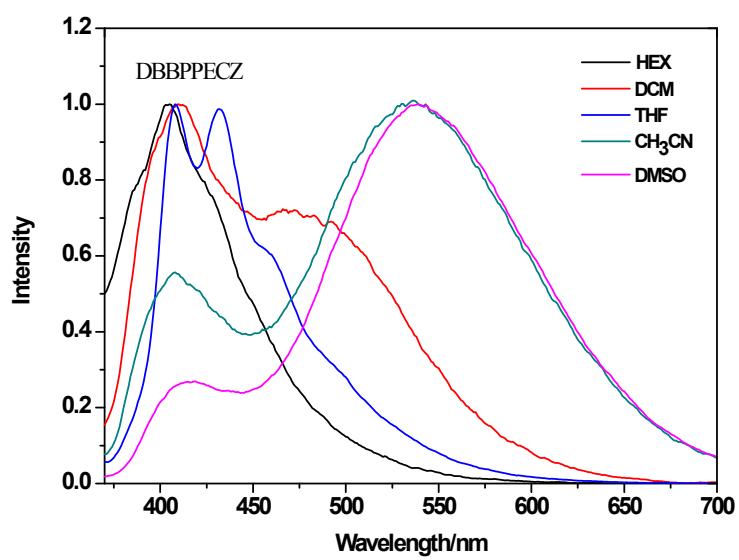
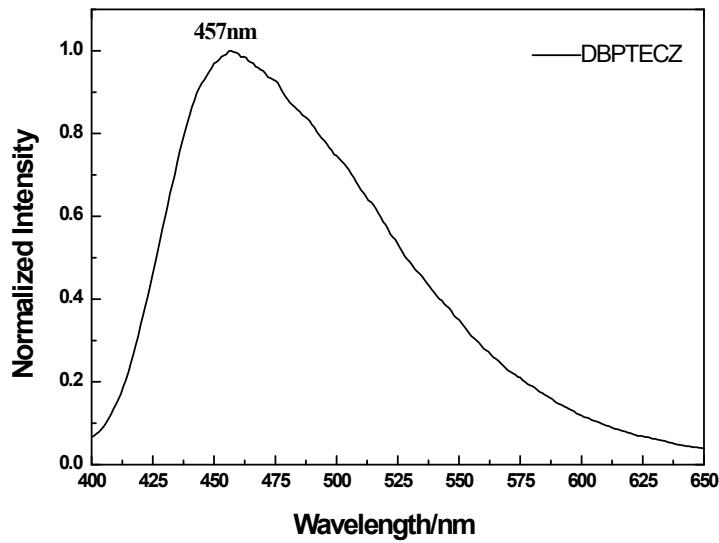


Fig. S2 Fluorescence spectra of **DBPTECZ**, **DBPDPECZ** and **DBBPPECZ** in various solvents (10^{-5}mol L^{-1})



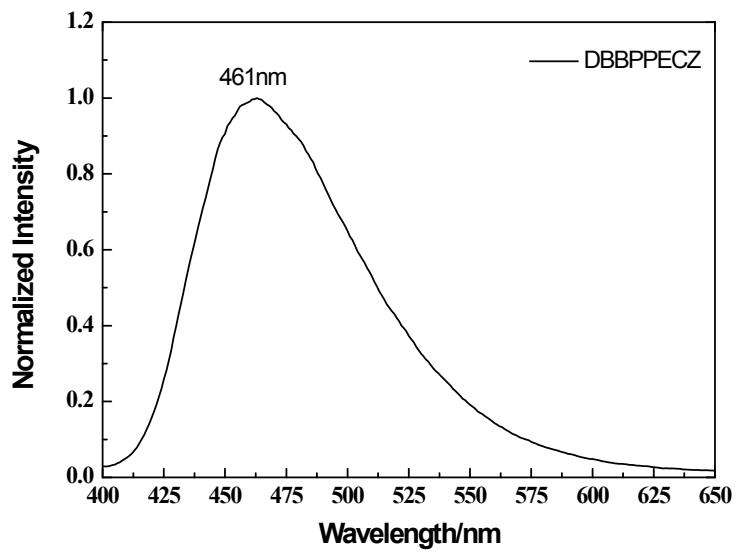
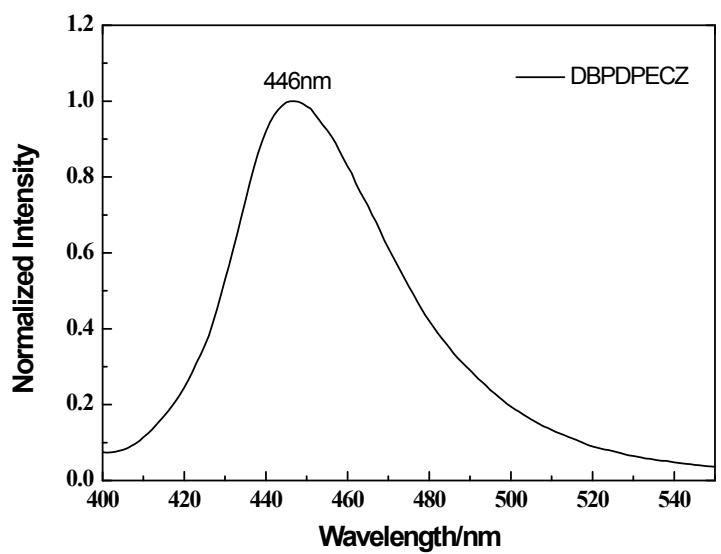
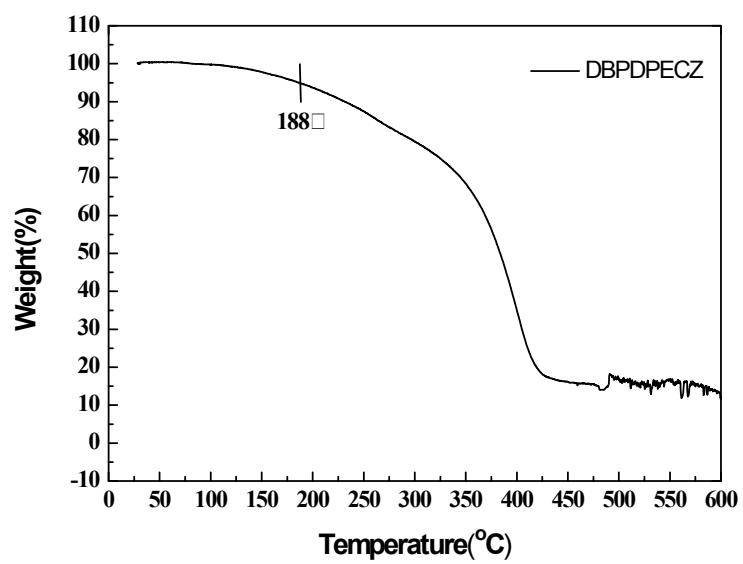
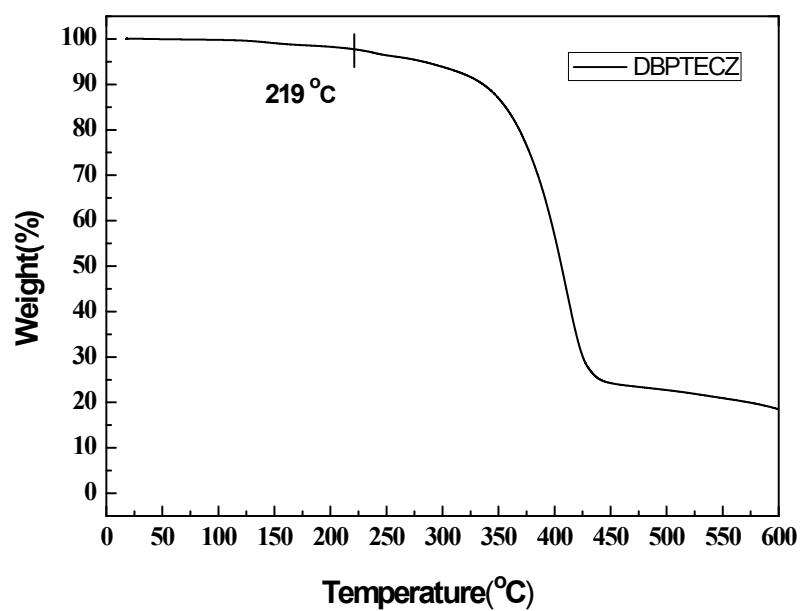


Fig. S3 Solid fluorescence spectra of **DBPTECZ**, **DBPDPECZ** and **DBBPPECZ**



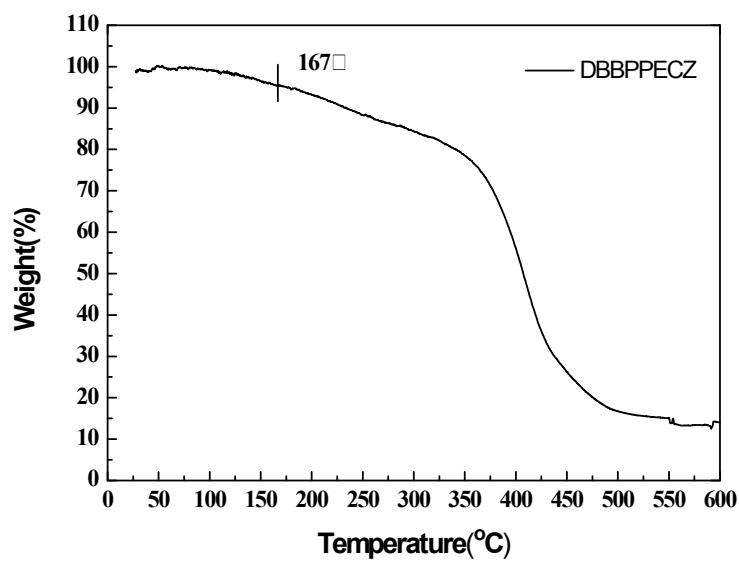
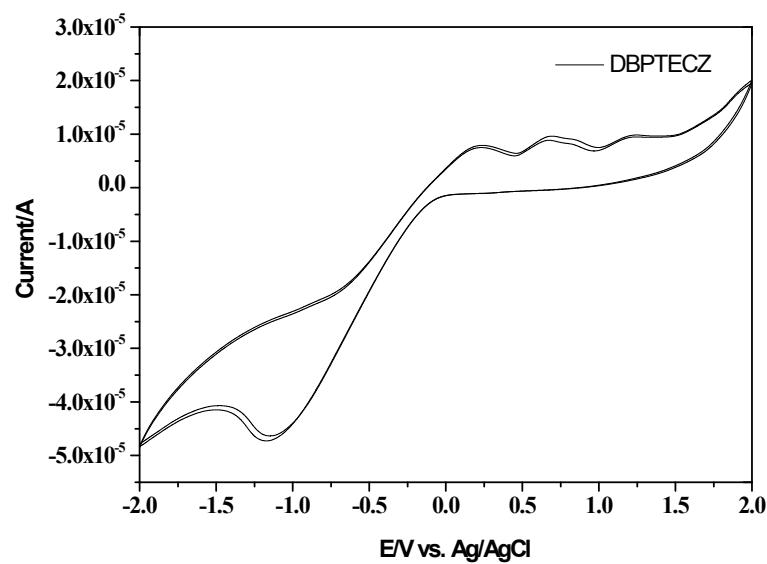


Fig. S4 TGA curves of **DBPTECZ**, **DBPDPECZ** and **DBBPPECZ** in solid



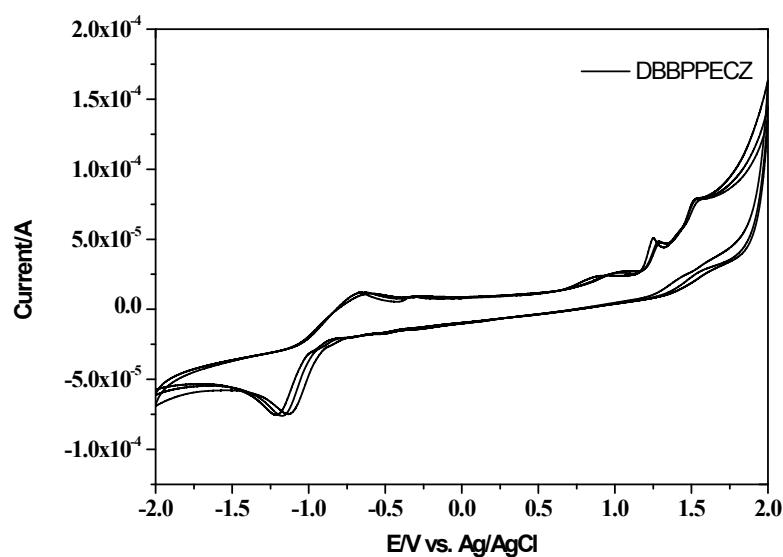
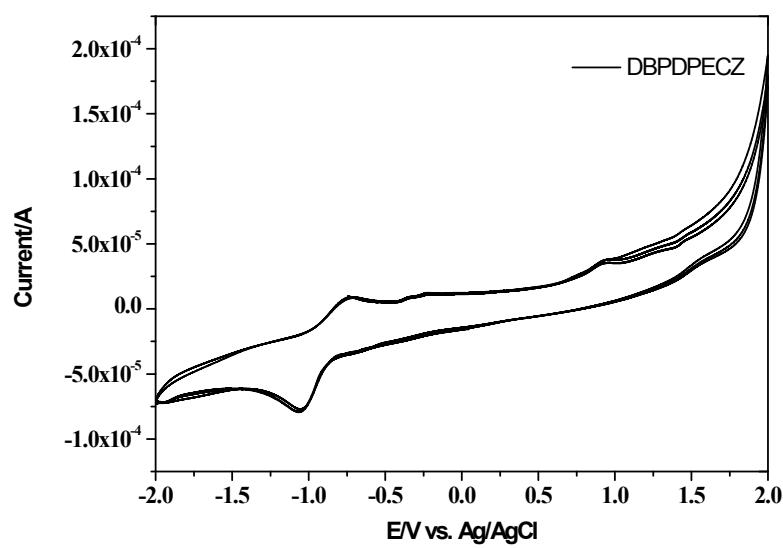


Fig. S5 The cyclic voltammogram curves of **DBPTECZ**, **DBPDPECZ** and **DBBPPECZ** in THF solvents (10^{-3} mol L⁻¹)

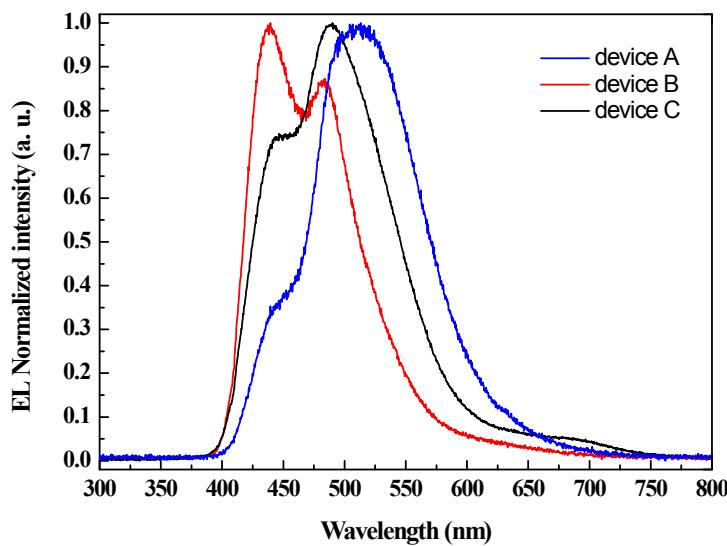


Fig. S6 The EL spectrum of Device A, B, and C

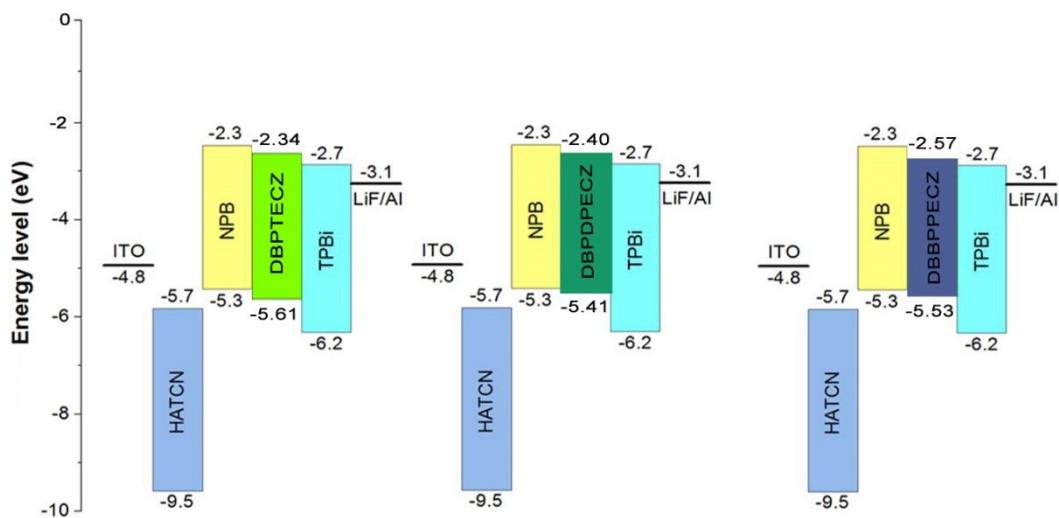


Fig. S7 Energy level diagrams of **DBPTECZ**, **DBPDPECZ** and **DBBPPECZ** based multilayer OLEDs.