Synthesis of Unsymmetrical Aryl-Ethynylated Benzenes via Regiocontrolled Sonogashira Reaction of 1,3,5-Tribromobenzene

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Figure S1. 1H NMR spectrum (300 MHz, CDCl3) of compound 2a.

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Figure S2. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 2b.

Figure S3. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 2c.
Figure S4. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 3a.

Figure S5. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 3b.
Figure S6. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 3c.

Figure S7. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 5c.
Figure S8. $^{13}$C NMR spectrum (75 MHz, CDCl$_3$) of compound 5c.

Figure S9. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 6c.
Figure S10. $^{13}$C NMR spectrum (75 MHz, CDCl$_3$) of compound 6c.

Figure S11. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 7.
Figure S12. $^1$C NMR spectrum (75 MHz, CDCl$_3$) of compound 7.

Figure S13. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 8.
Figure S14. $^{13}$C NMR spectrum (75 MHz, CDCl$_3$) of compound 8.

Figure S15. $^1$H NMR spectrum (300 MHz, CDCl$_3$) of compound 10.
Figure S16. $^{13}$C NMR spectrum (75 MHz, CDCl$_3$) of compound 10.