

Supporting Information

On the trade-off between processability and opto-electronic properties of single wall carbon nanotube derivatives *in thin film heterojunctions*

*Patrizio Salice,^a Camillo Sartorio,^b Alessandro Burlini,^a Roberto Improta,^c Bruno Pignataro,^{*b} and Enzo Menna^{*a}*

^aUniversità di Padova, Dipartimento di Scienze Chimiche, via Marzolo, 1 35131, Padova, Italy. E-mail: enzo.menna@unipd.it; Tel: + 39 0498275660

^bUniversità di Palermo, Dipartimento di Fisica e Chimica, V.le delle Scienze, Parco d'Orleans II, 90128, Palermo, Italy. Email: bruno.pignataro@unipa.it; Tel: +39 09123897983

^cConsiglio Nazionale delle Ricerche, Istituto di Biostrutture e Bioimmagini (IBB-CNR), Via Mezzocannone 16, I-80136, Napoli, Italy

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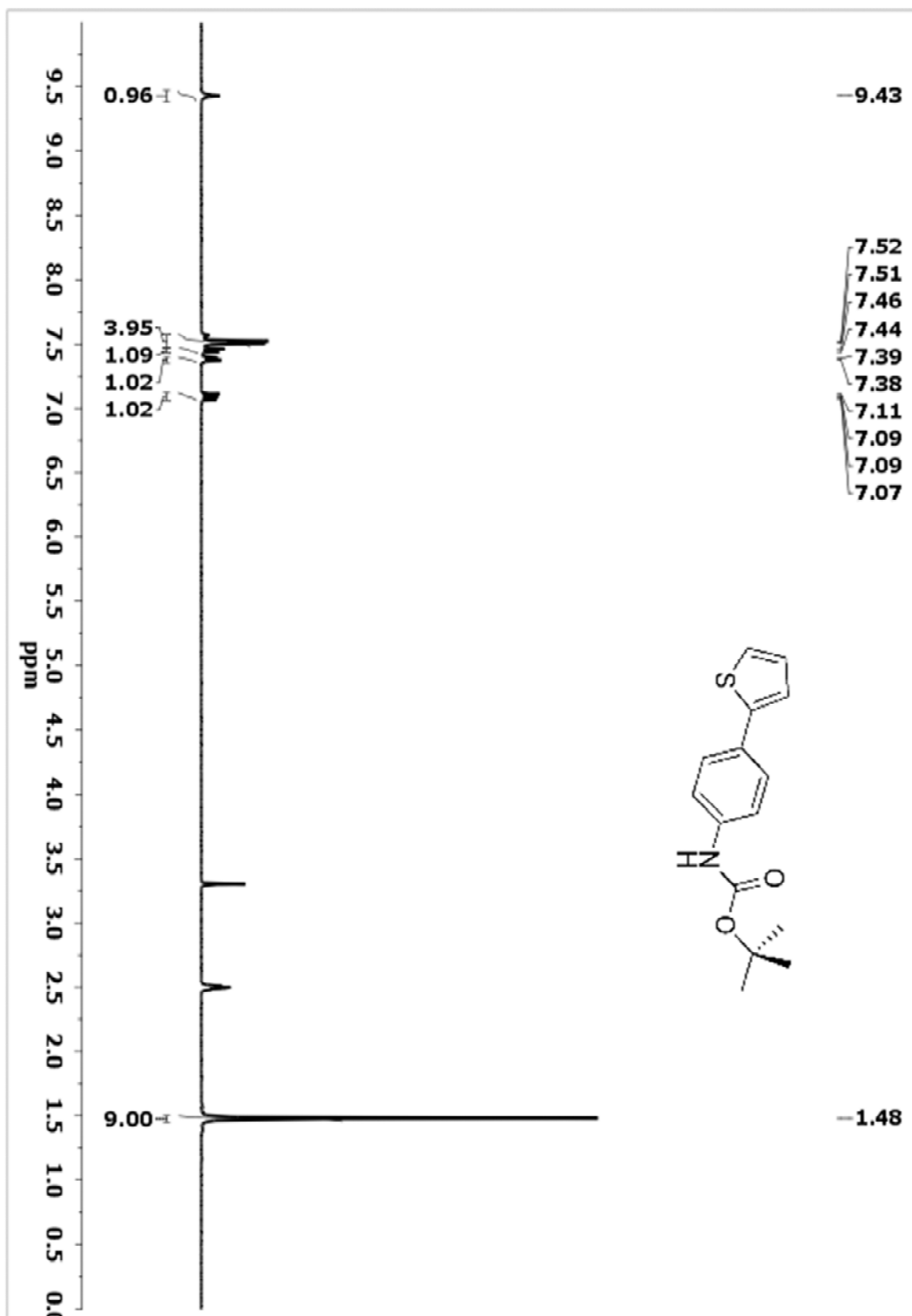


Figure S1: ¹H-NMR spectrum of *tert*-butyl (4-(thiophen-2-yl)phenyl)carbamate (**1**) (200 MHz, DMSO-d₆).

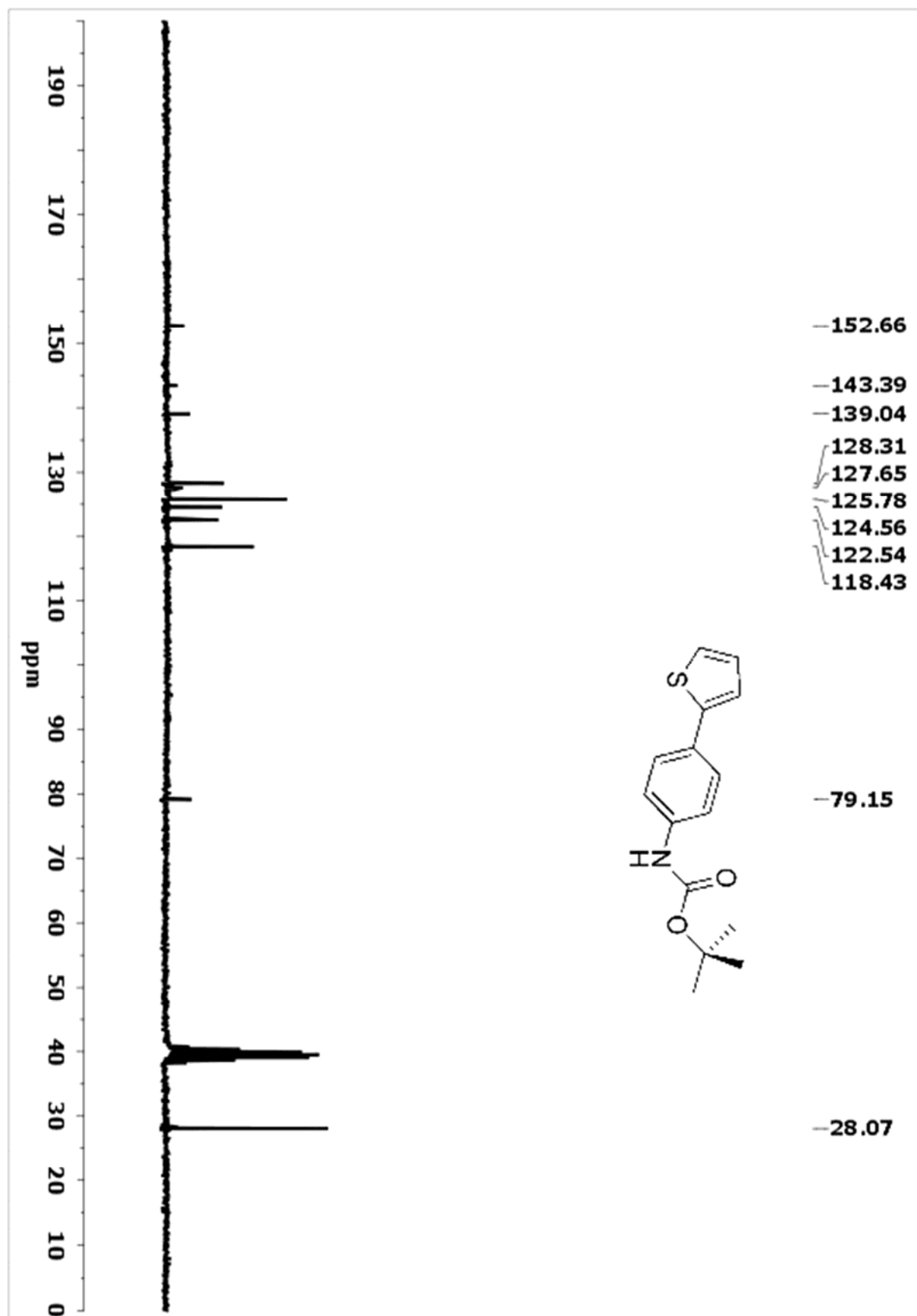


Figure S2: ^{13}C -NMR spectrum of *tert*-butyl (4-(thiophen-2-yl)phenyl)carbamate (1) (50 MHz, DMSO-d_6).

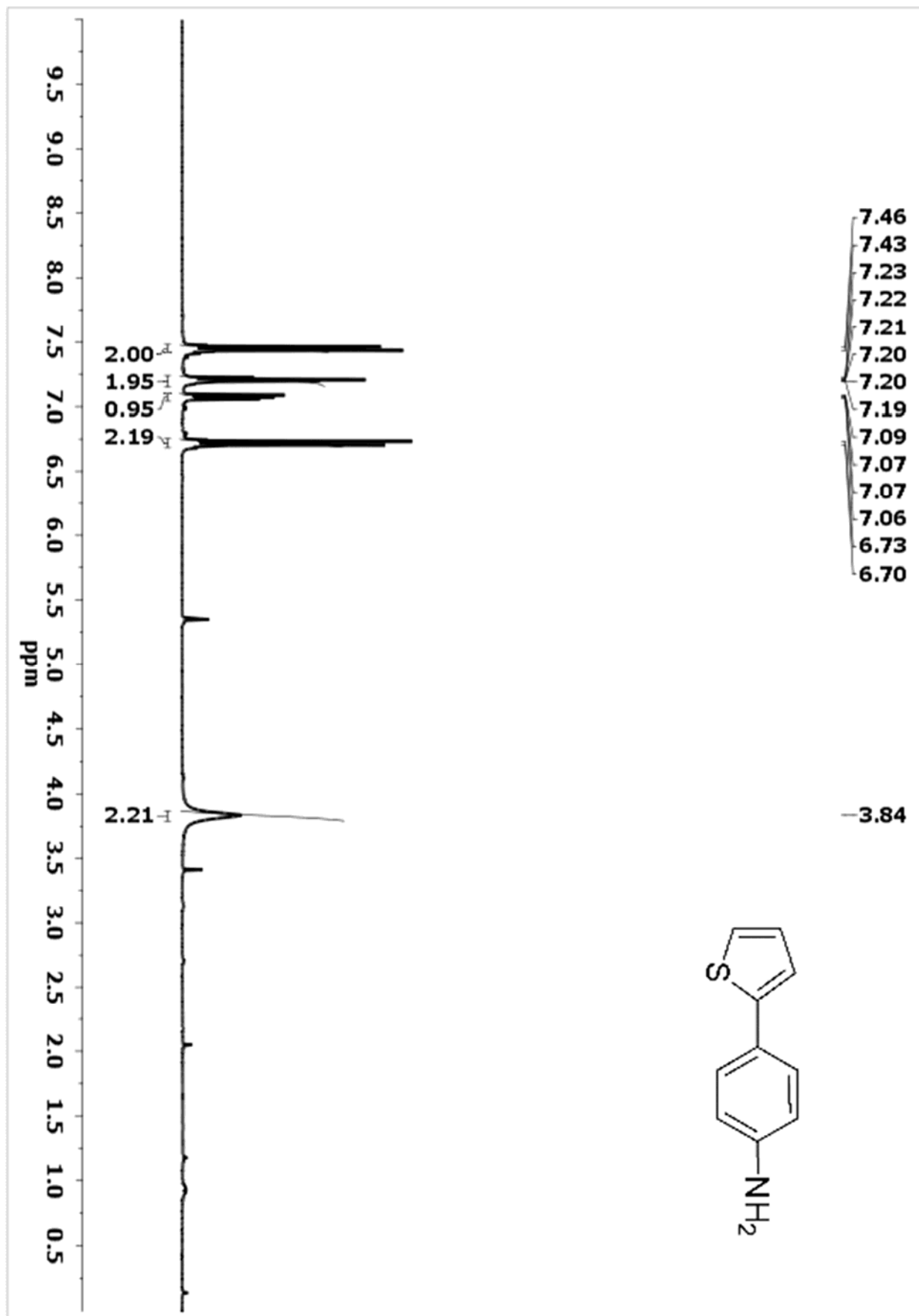


Figure S3: ^1H -NMR spectrum of 4-(thien-2-yl)aniline (**2**) (200 MHz, DMSO- d_6).

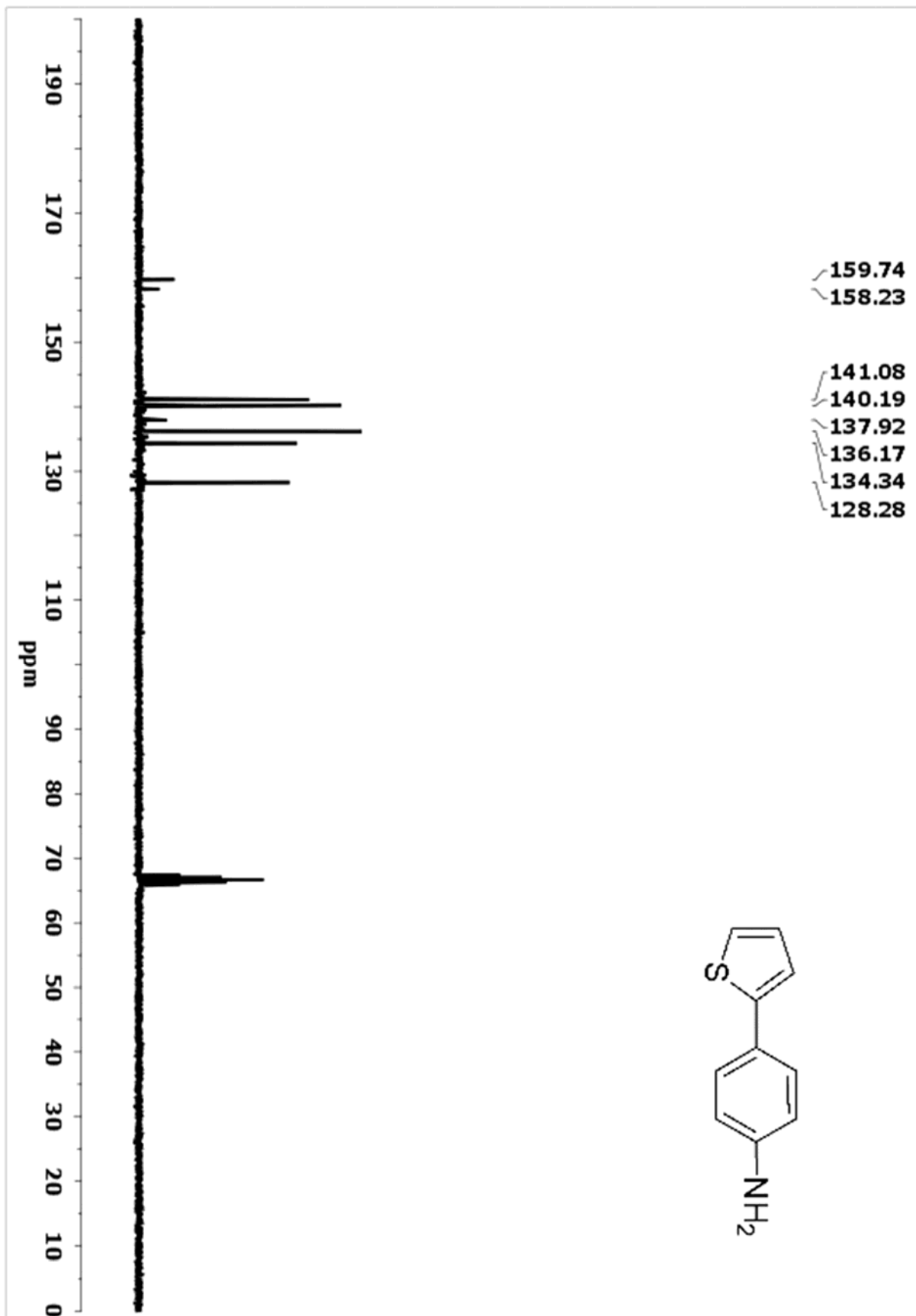


Figure S4: ^{13}C -NMR spectrum of 4-(thien-2-yl)aniline (2) (50 MHz, DMSO-d_6).

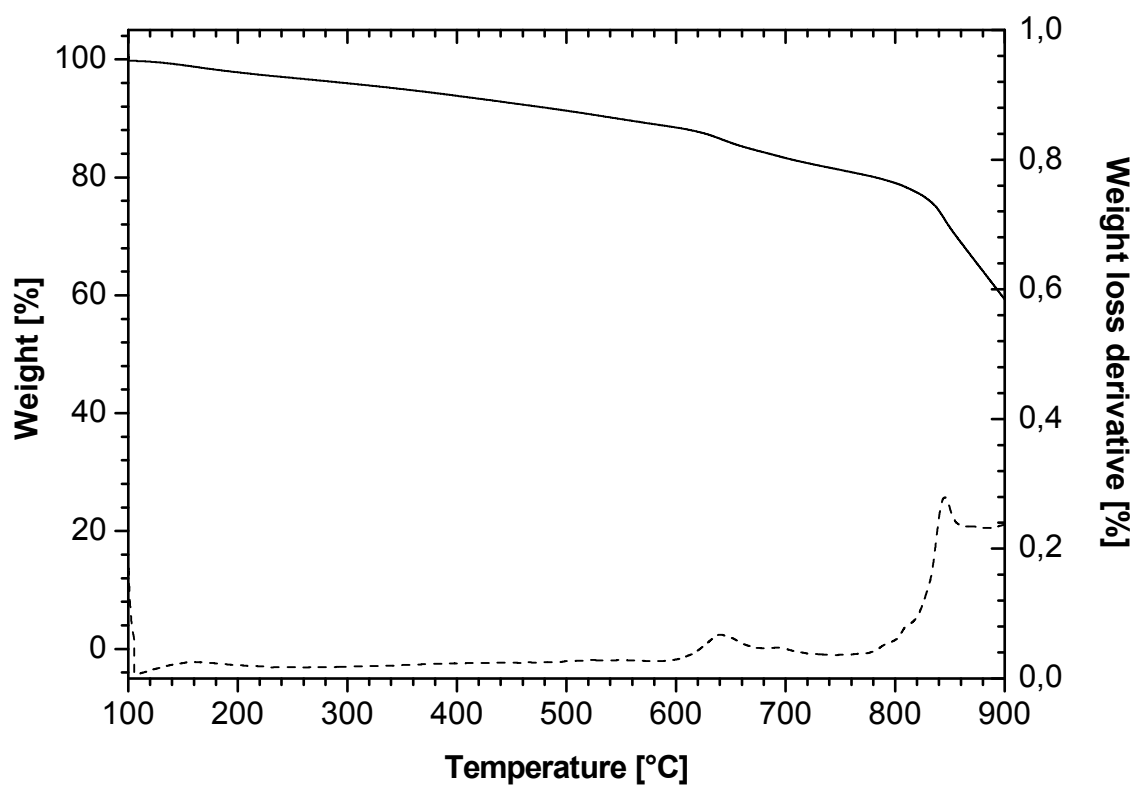


Figure S5: Thermogram of pristine SWCNTs (heating rate: 10 °C/min; atmosphere: nitrogen).

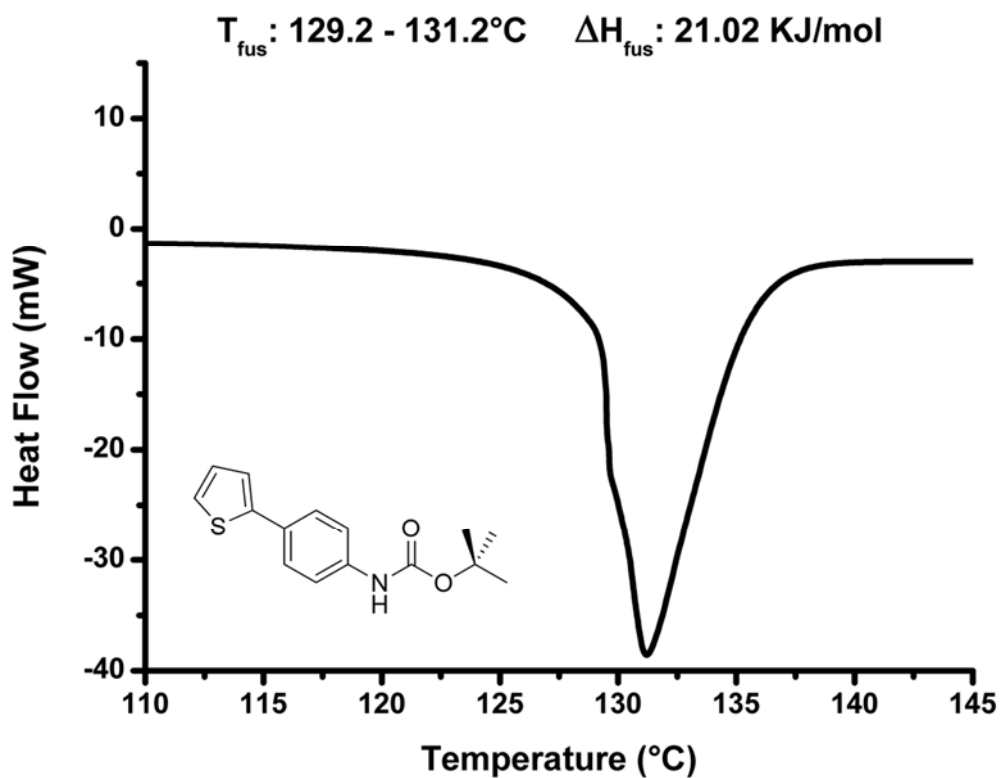


Figure S5: DSC thermogram of *tert*-butyl (4-(thiophen-2-yl)phenyl)carbamate (**1**) (1 $^{\circ}\text{C}/\text{min}$ under nitrogen).

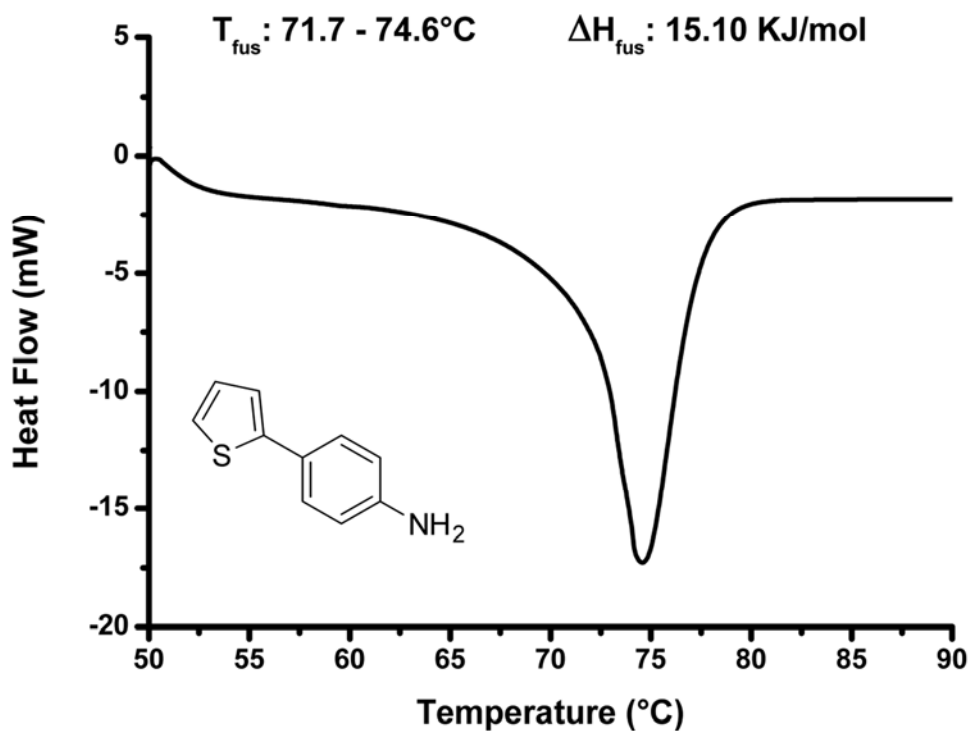


Figure S6: DSC thermogram of 4-(thien-2-yl)aniline (**2**) (1 $^{\circ}\text{C}/\text{min}$ under nitrogen).

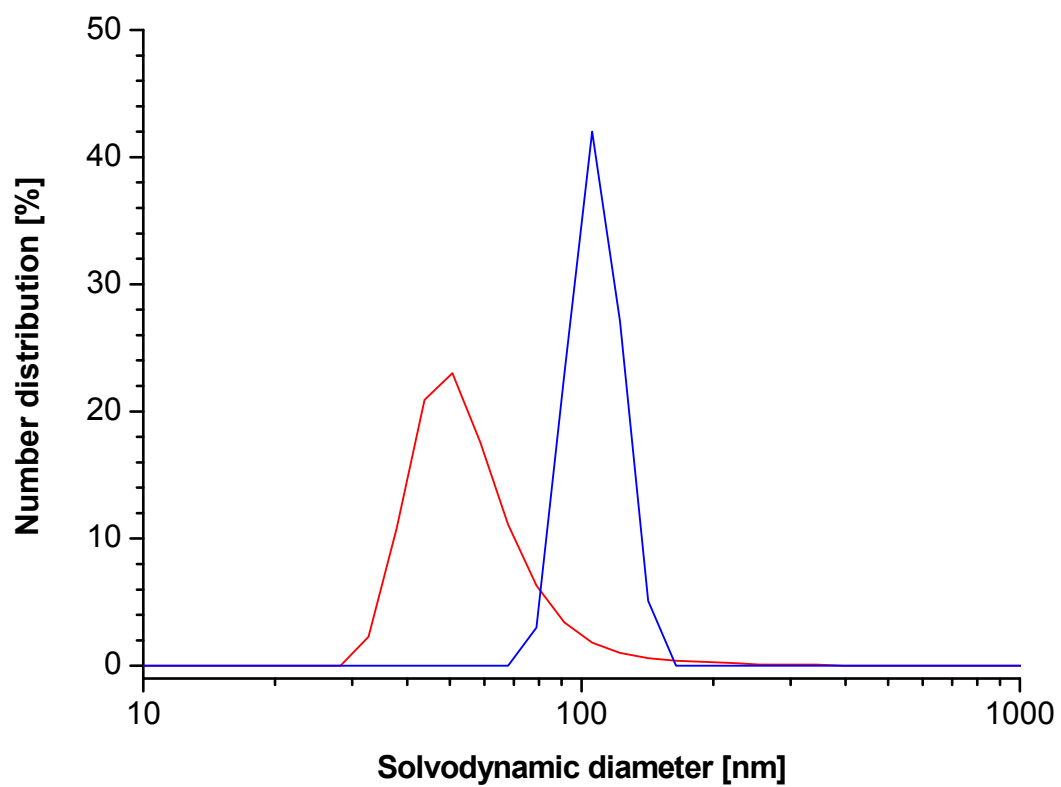


Figure S7: DLS analysis of SWCNT-PhTh prepared in batch (red line) and in flow (blue line) conditions.

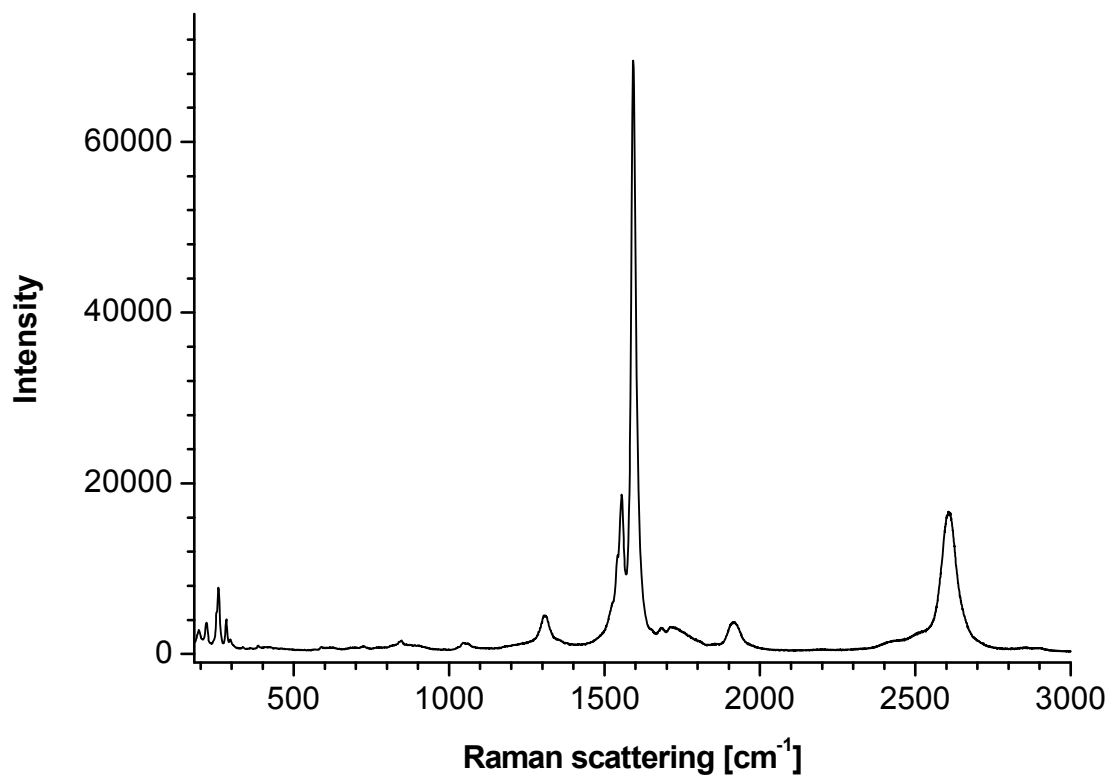


Figure S8: Raman spectrum of pristine SWCNTs (excitation: 633 nm).