

## Supplementary Material

### Protecting-group-free synthesis of carboxylic group substituted alkyne by Sonogashira coupling in neat water

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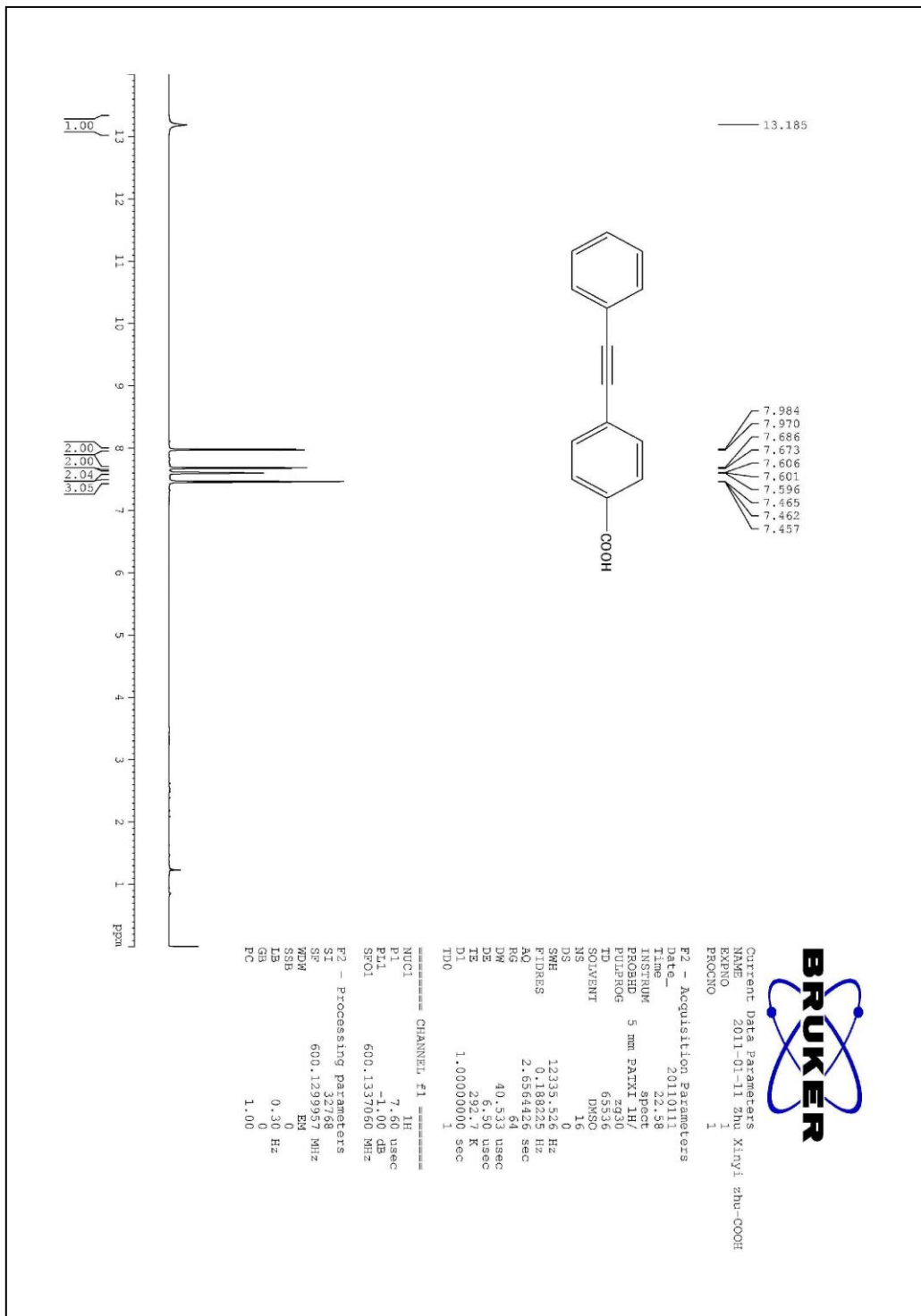
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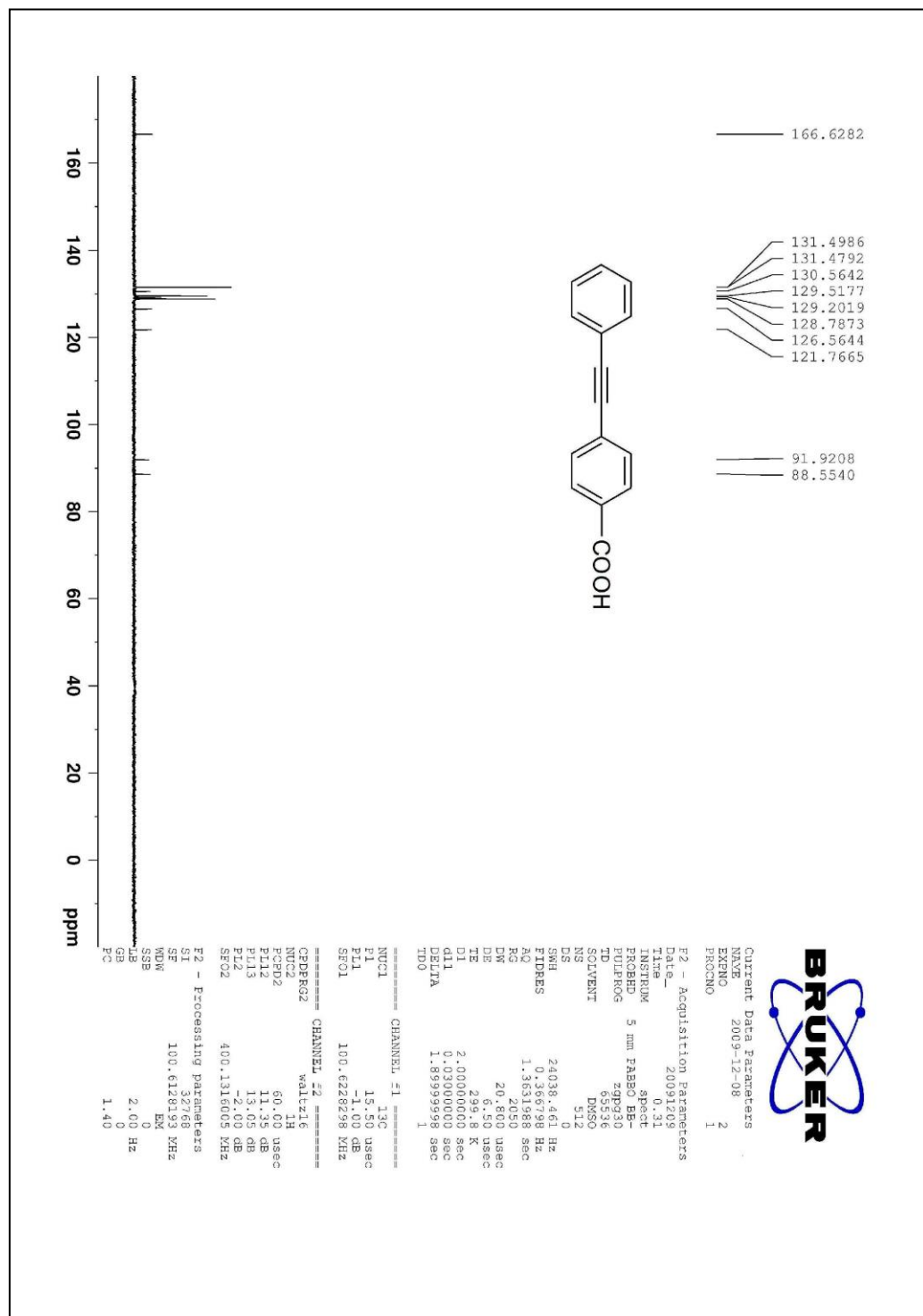
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## 1. NMR spectra for compounds (3a-3e)

Figure S1. <sup>1</sup>H NMR spectrum of the compound 3a.

Figure S2. <sup>13</sup>C NMR spectrum of the compound 3a.

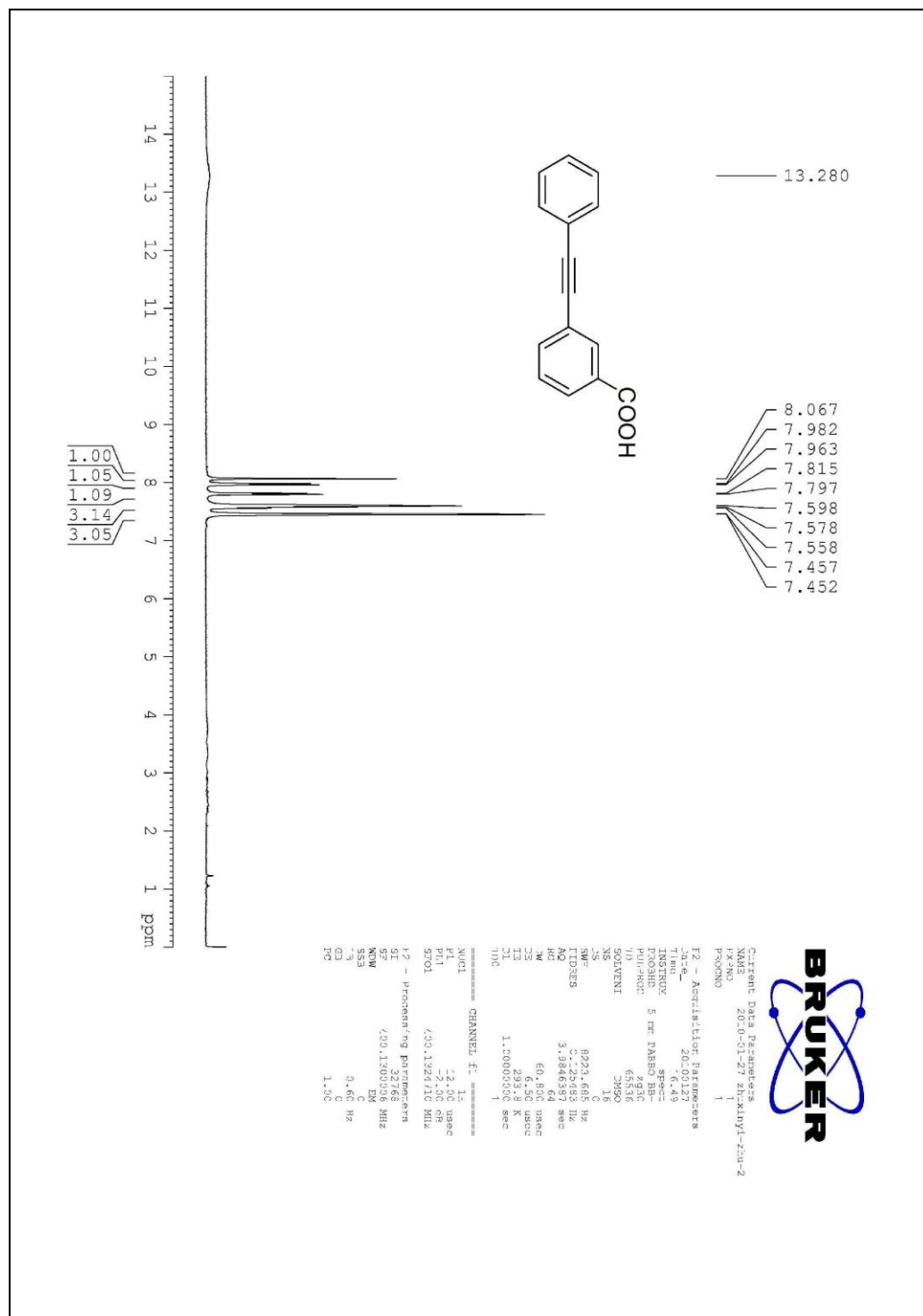


Figure S3. <sup>1</sup>H NMR spectrum of the compound 3b.

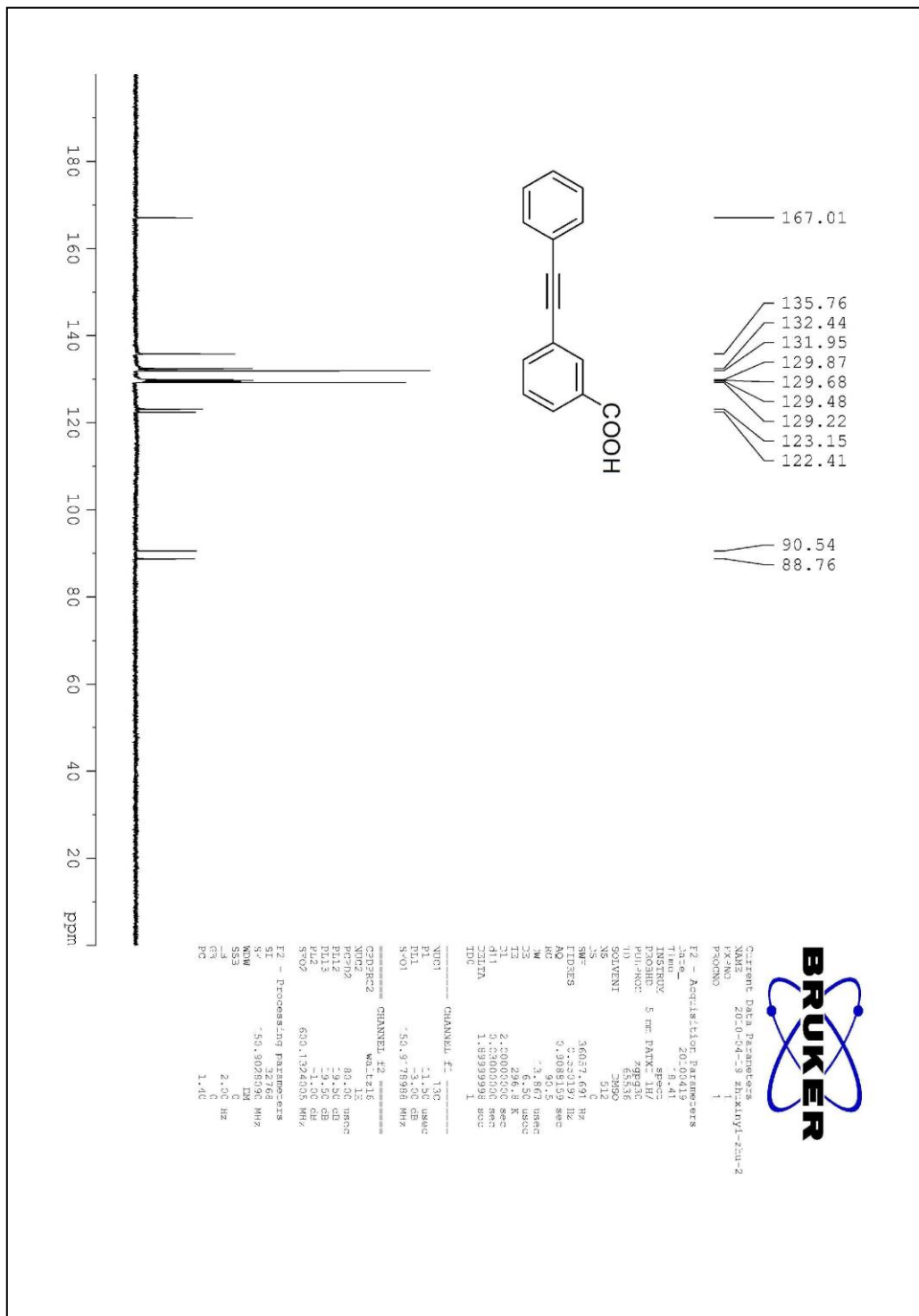


Figure S4. <sup>13</sup>C NMR spectrum of the compound 3b.

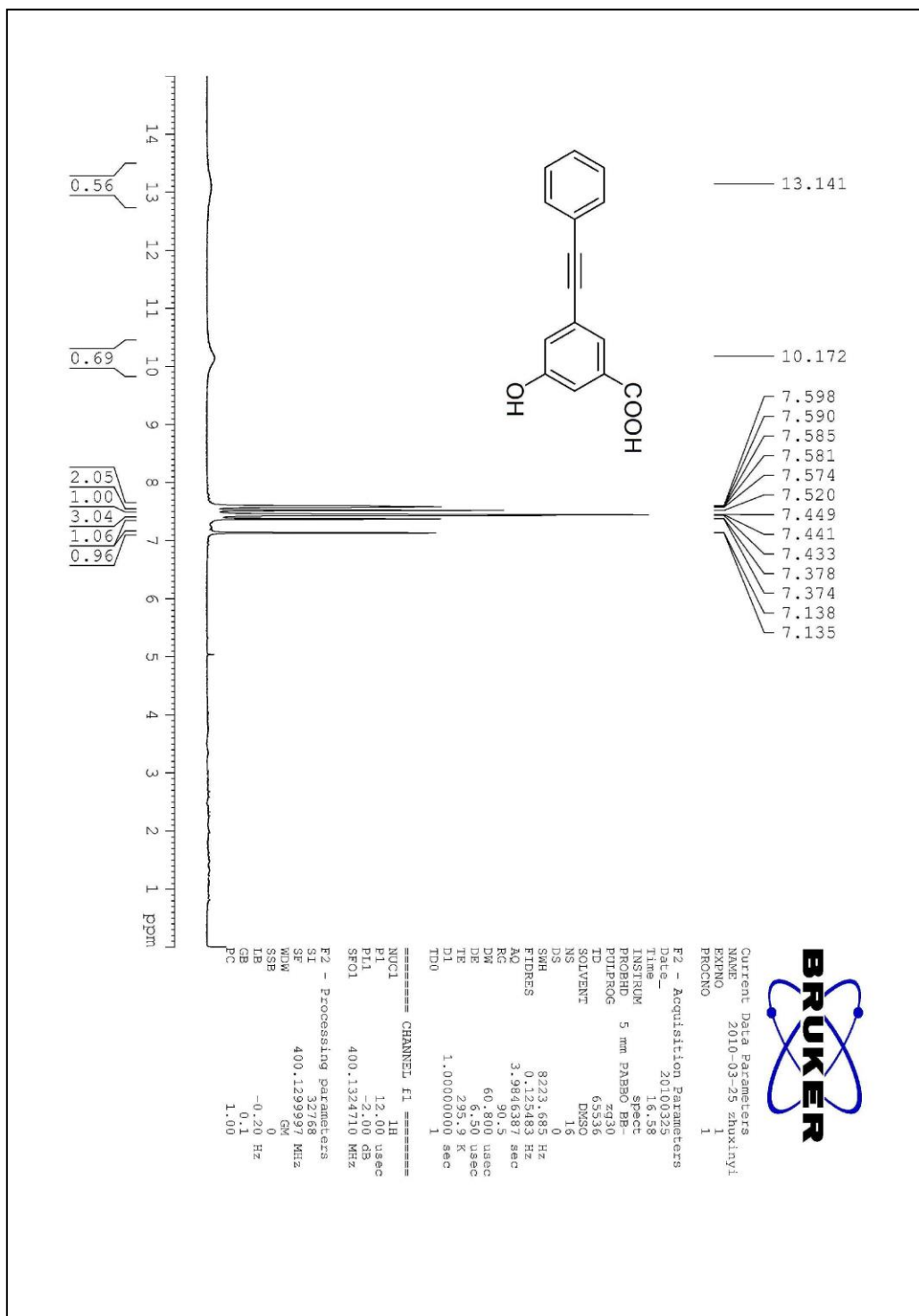


Figure S5. <sup>1</sup>H NMR spectrum of the compound **3c**.

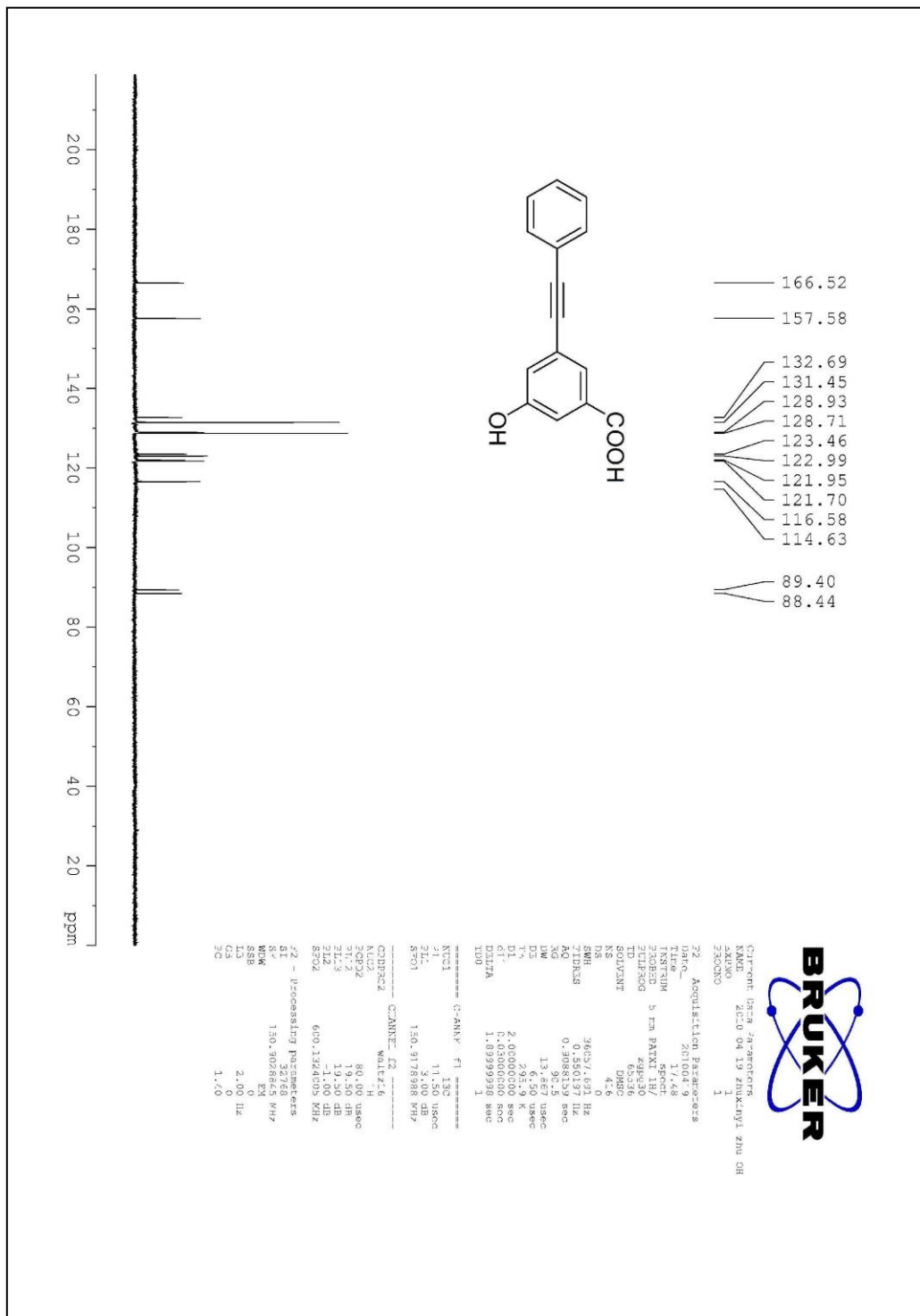


Figure S6. <sup>13</sup>C NMR spectrum of the compound 3c.

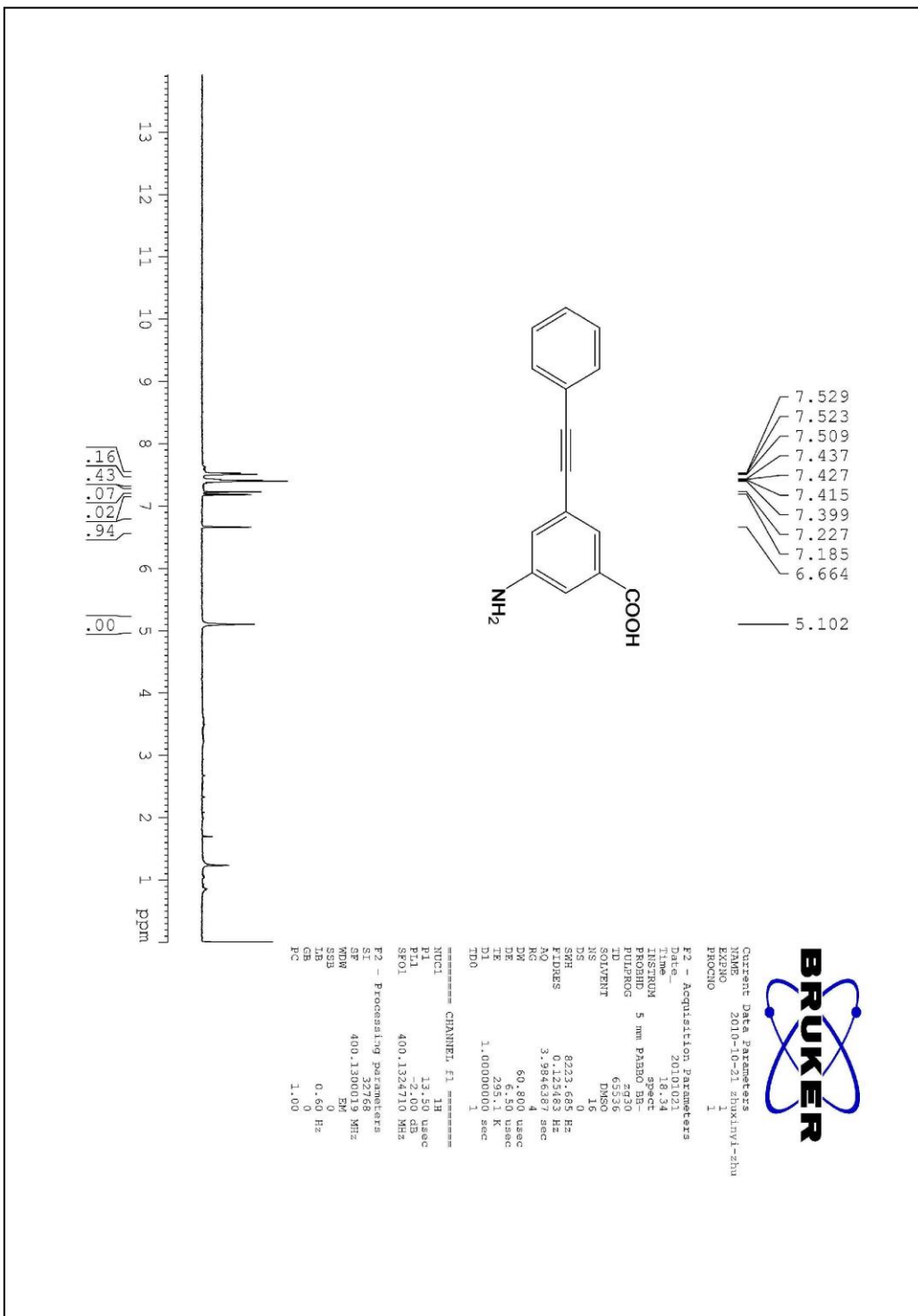


Figure S7. <sup>1</sup>H NMR spectrum of the compound 3d.





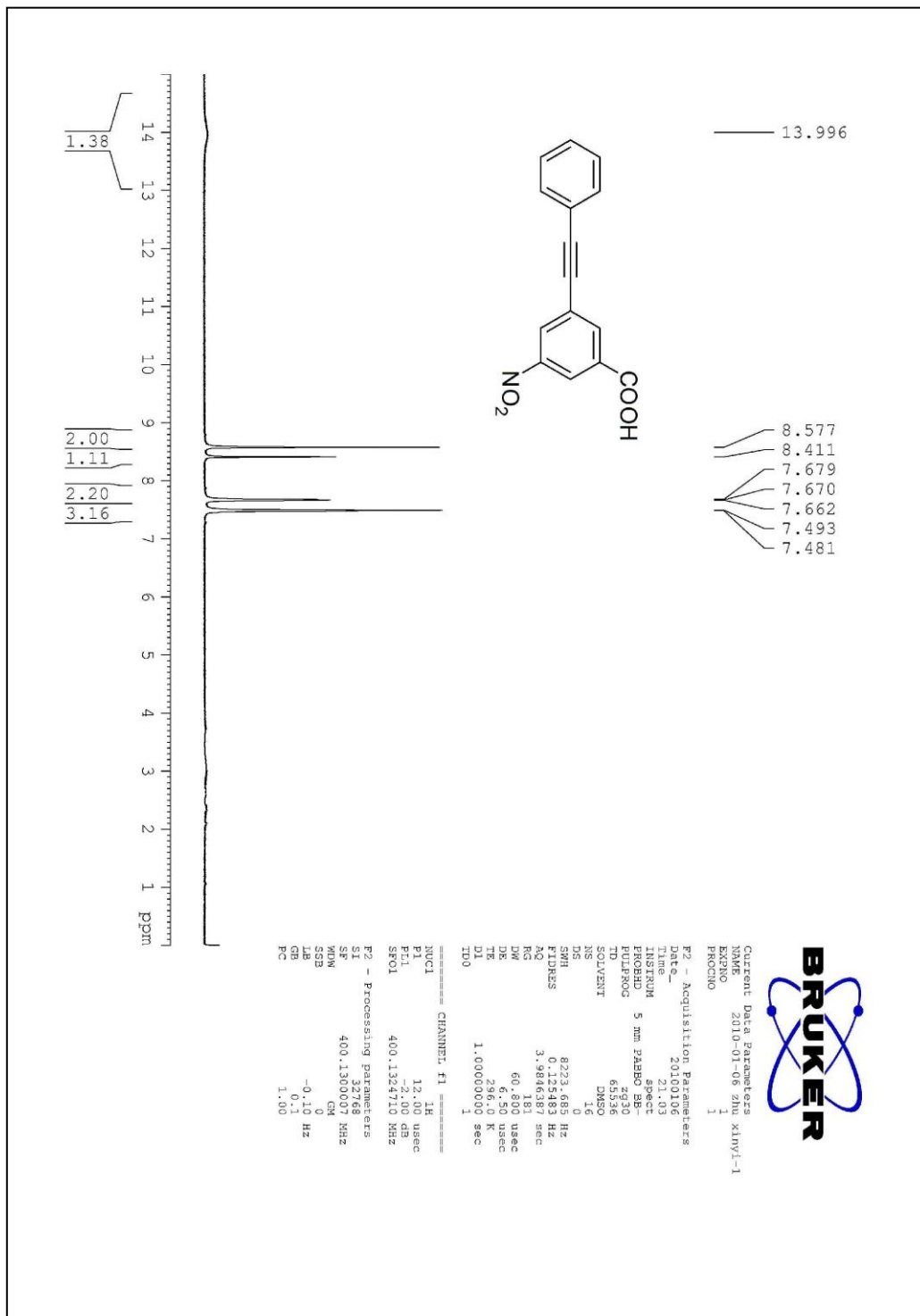


Figure S9. <sup>1</sup>H NMR spectrum of the compound 3e.

