Electronic Supplementary Material (ESI) for Organic & Biomolecular Chemistry

Supplementary data

Polystyrene-supported TBD catalyzed ring-opening of aziridines with silylated nucleophiles.

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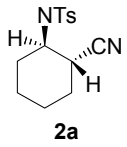
General

All reactions were performed under an argon atmosphere using oven-dried glassware. Flash column chromatography was performed using silica gel Wakogel C-200. Preparative thin-layer chromatography was carried out on silica gel Wakogel B-5F. Dehydrate DMF, THF, toluene and CH_3CN were purchased from Wako Chemical. Other commercially available reagents was used as received without further purification. The aziridines were prepared according to literature procedure (V. V. Thakur, A. Sudalai, *Tetrahedron Lett*., 2003, **44**, 989-992)..

Representative experimental procedures for PS-TBD catalyzed ring-opening of aziridines with silylated nucleophiles

To a solution of PS-TBD (0.05mmol) in DMF (1 mL) was added aziridine (1.0 mmol) and silylated nucleophile (1.25 mmol) at room temperature or 80 °C. After the reaction was complete (as determined by TLC), EtOAc (5 ml) was added to the mixture and PS-TBD was separated by filtration. The filtrate was concentrated under vacuum and purified by column chromatography on silica gel (EtOAc:hexane = 1:3) to give the corresponding product. The recovered catalyst is reusable after washing (acetone and water) and drying in vacuo.



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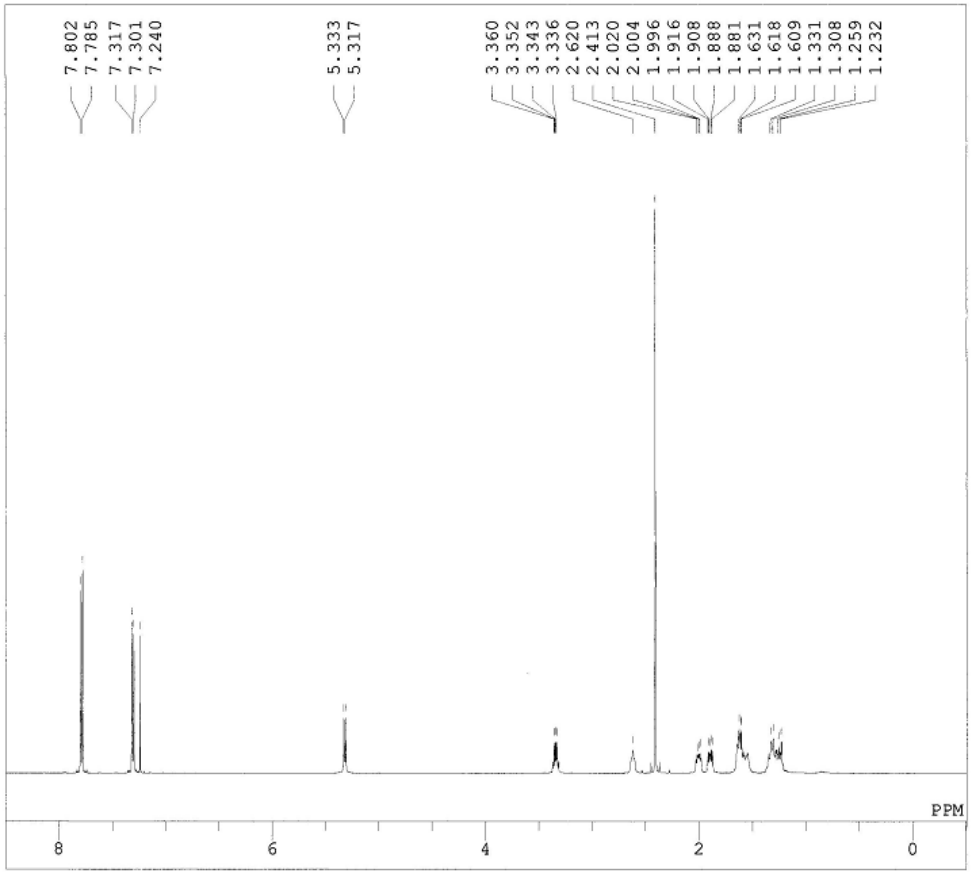

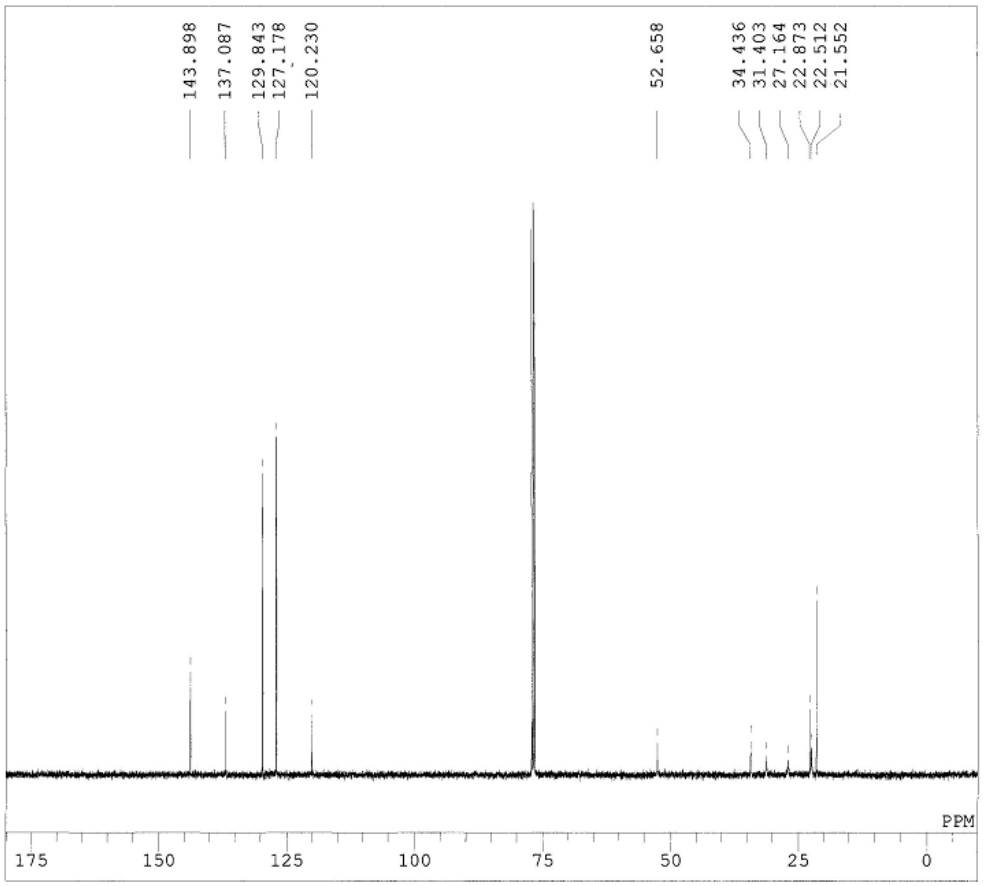

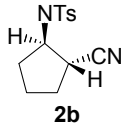

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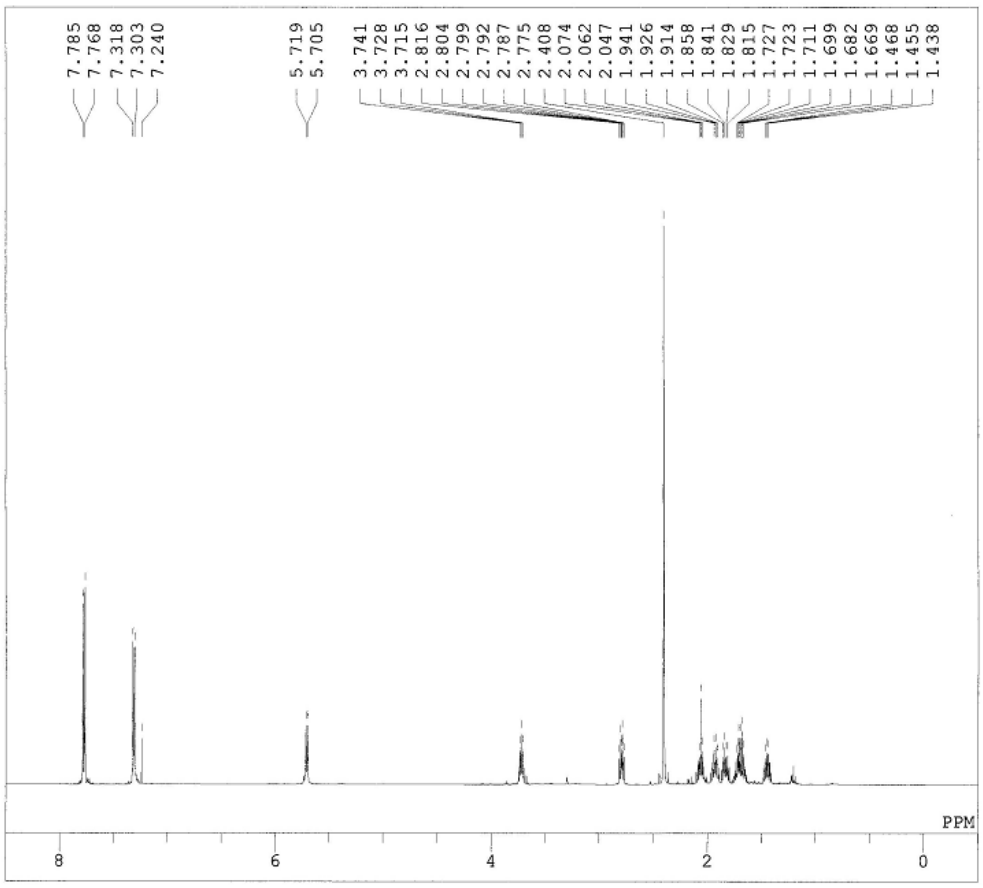

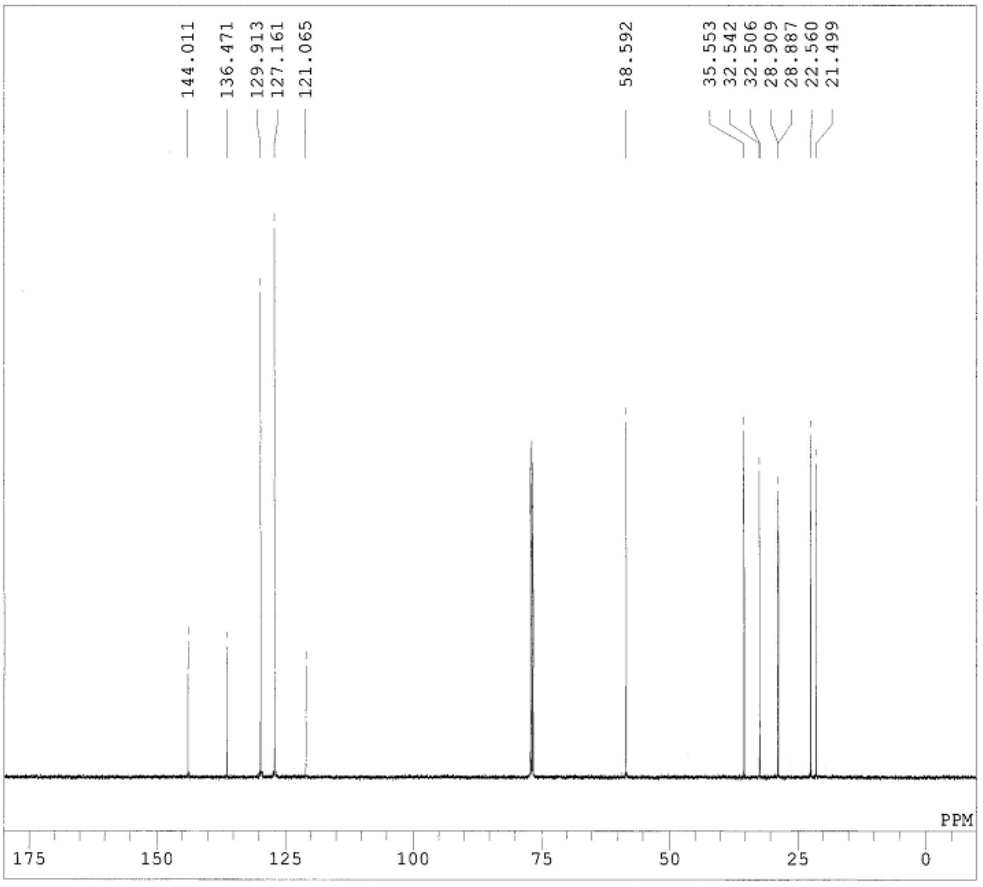

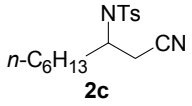
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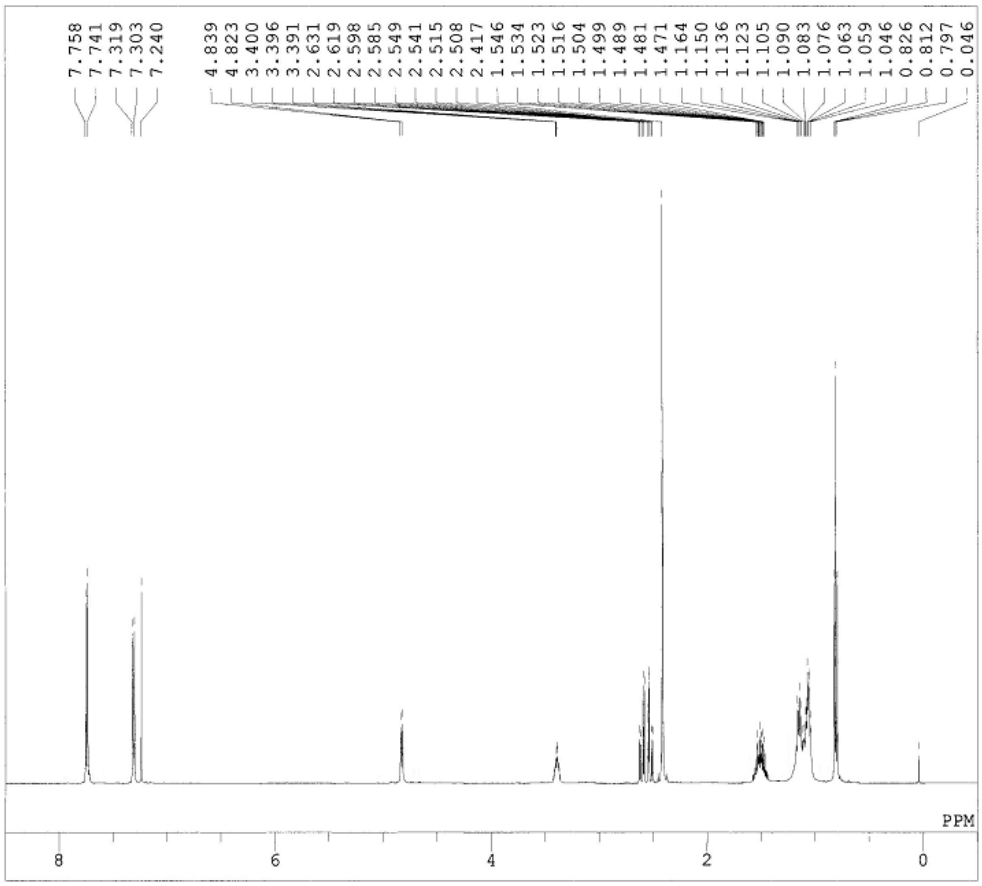
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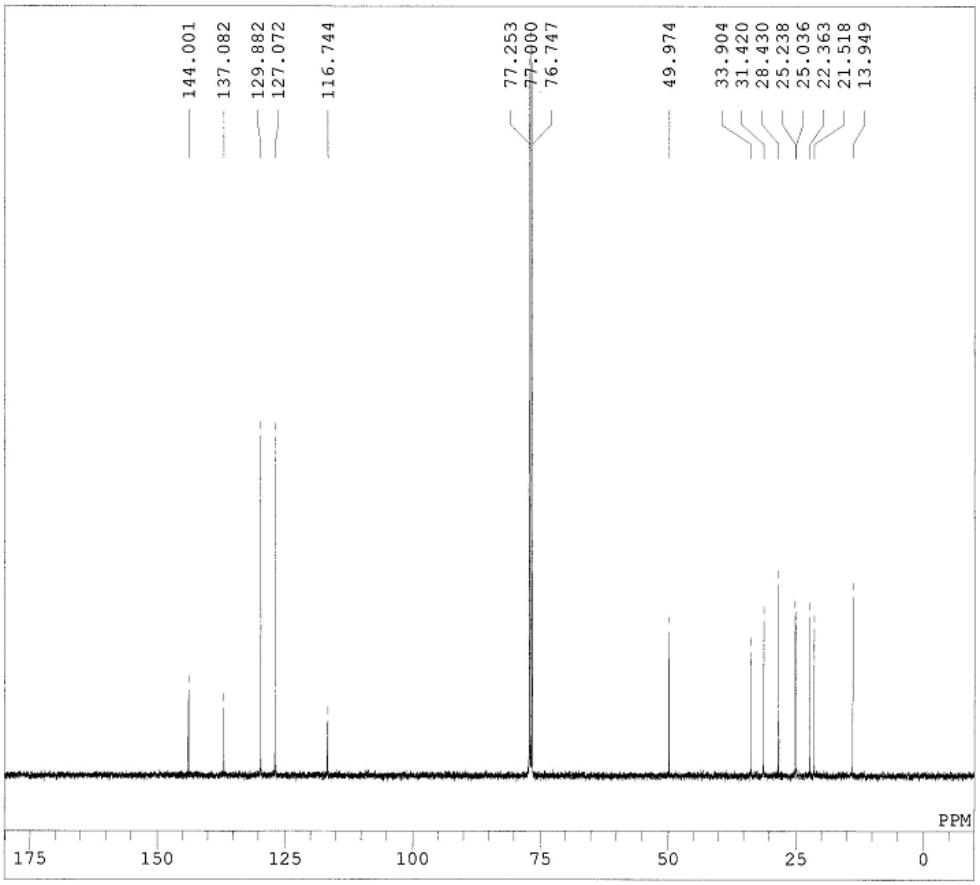
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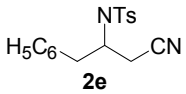

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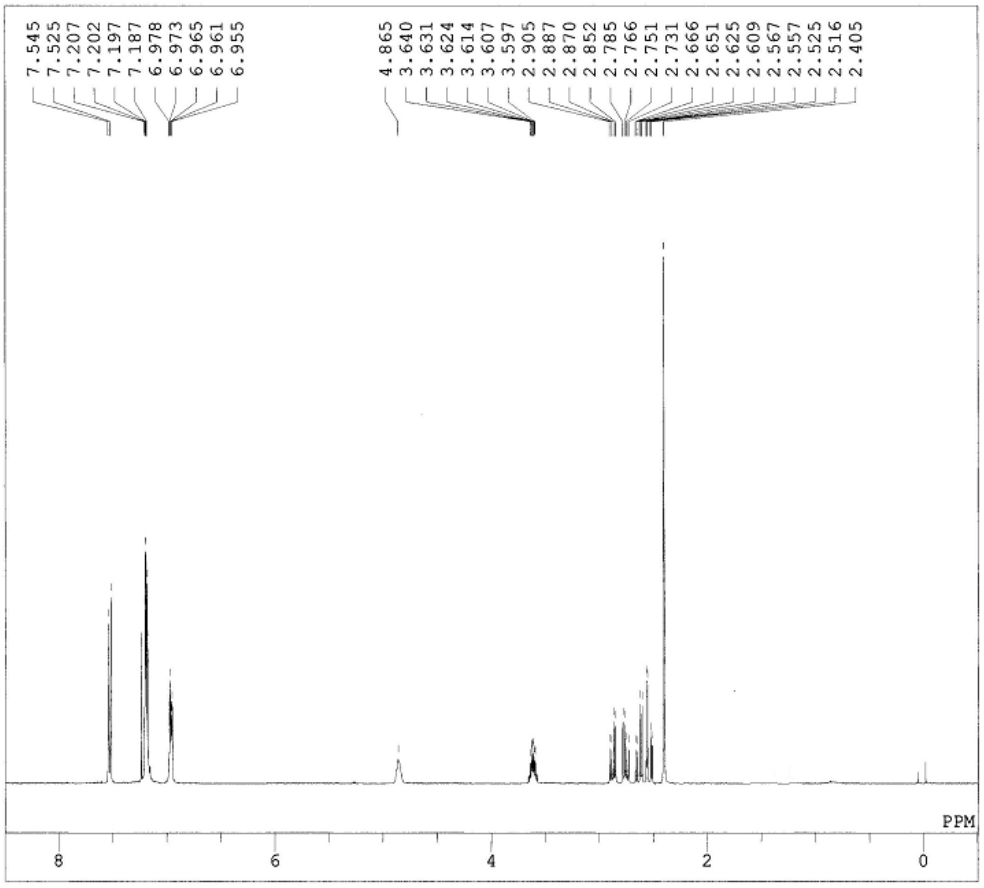

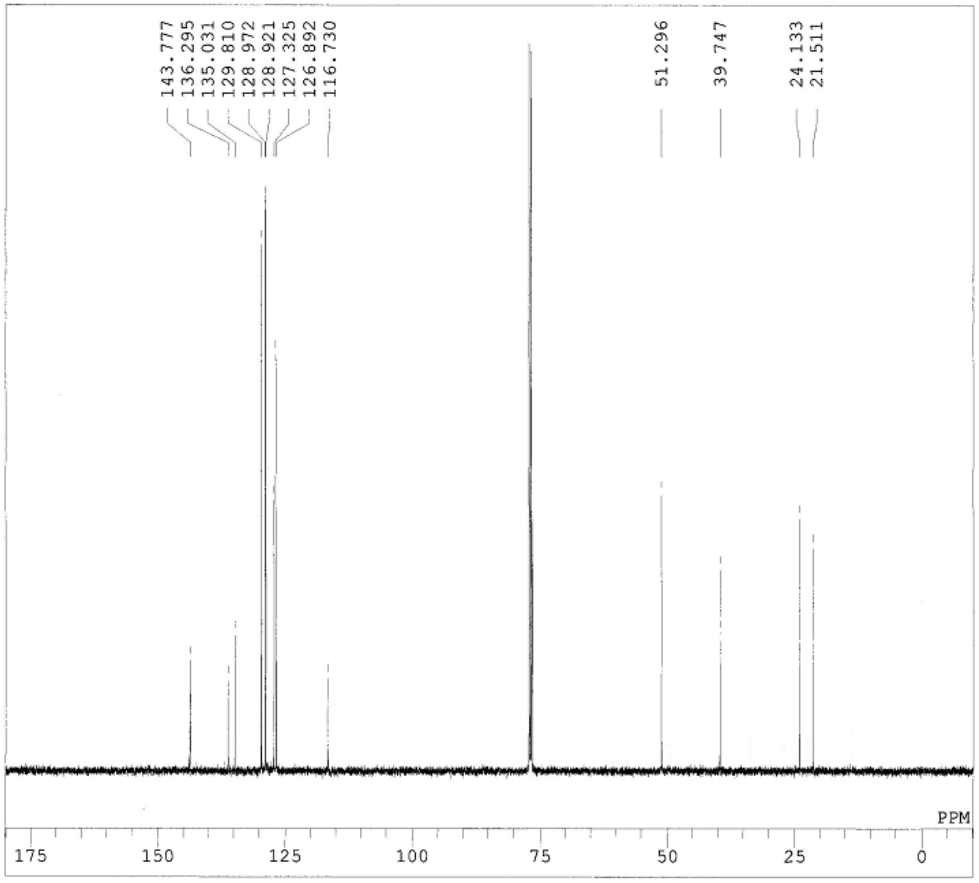

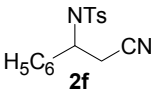
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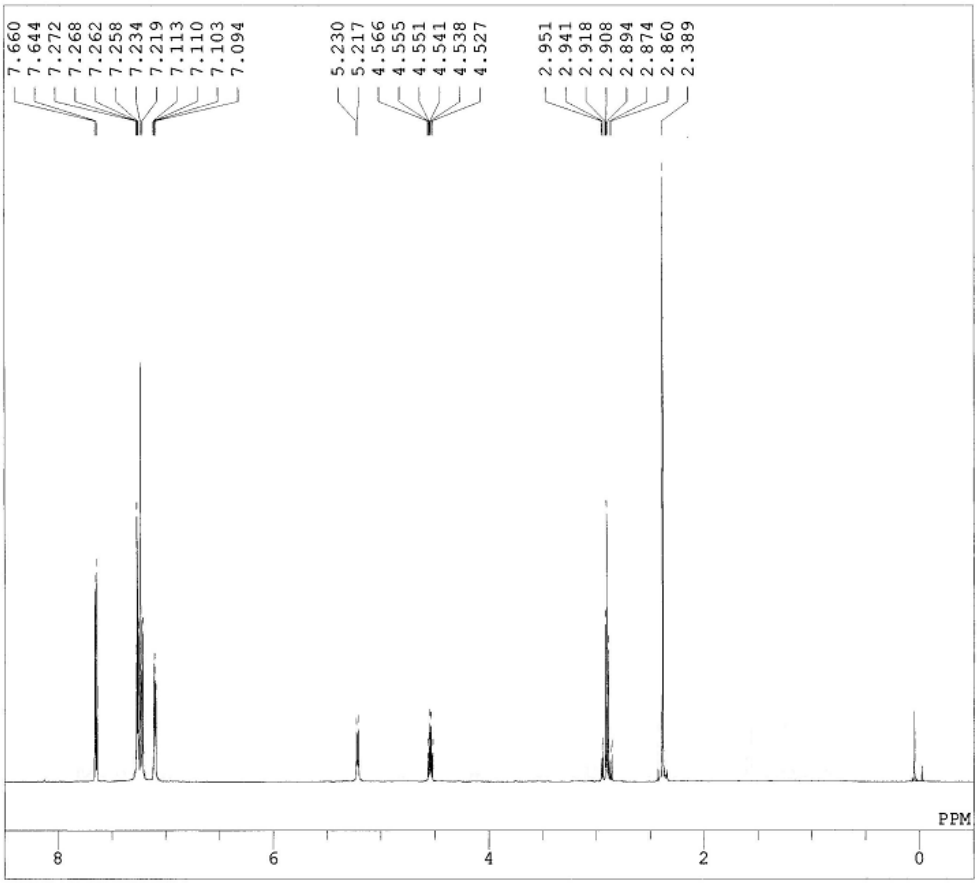
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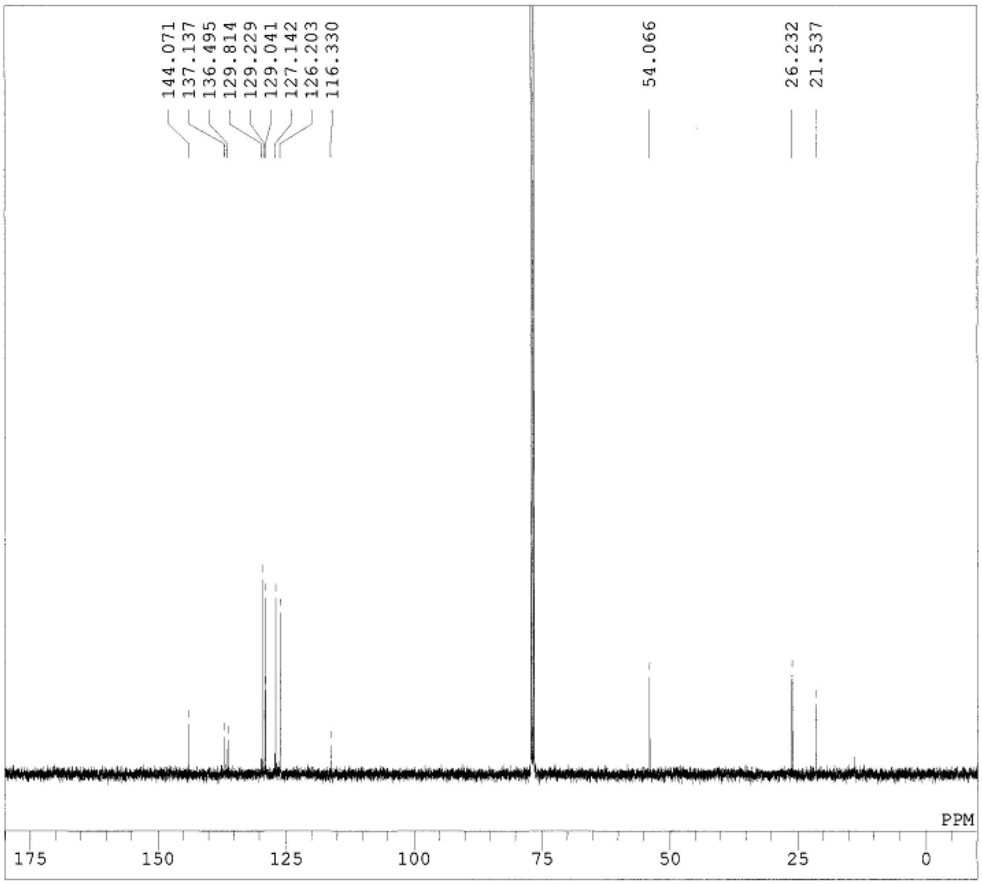
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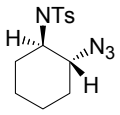

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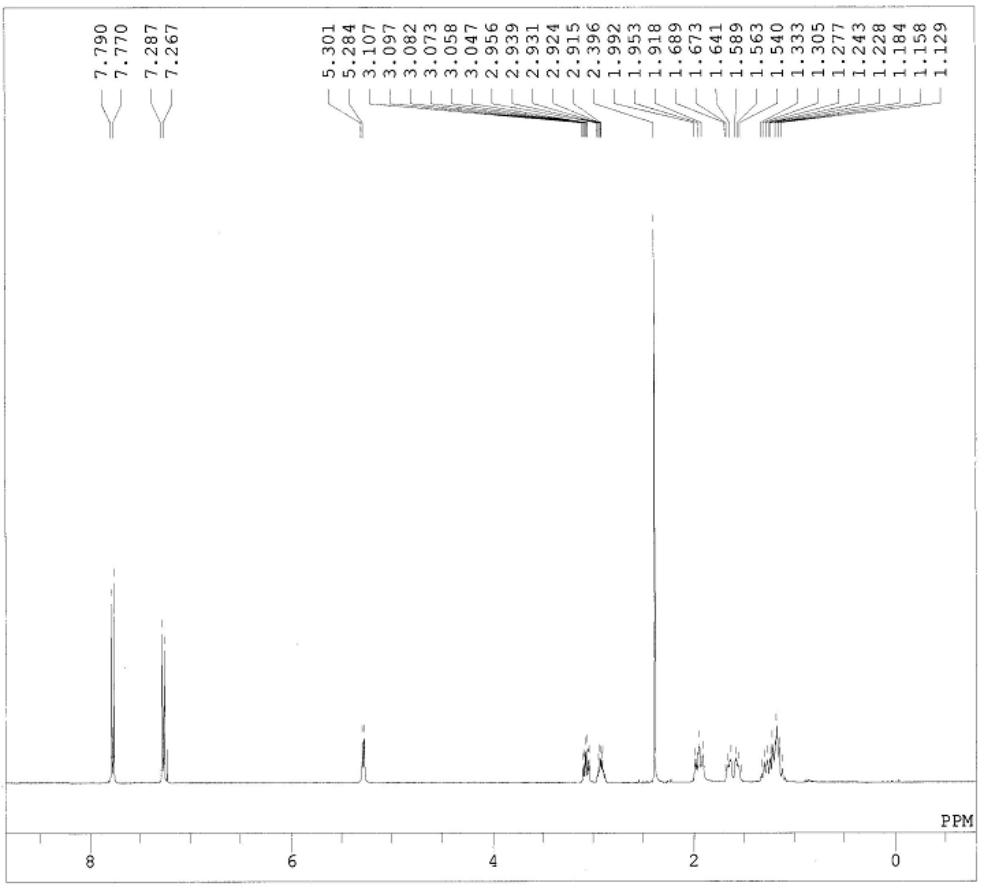

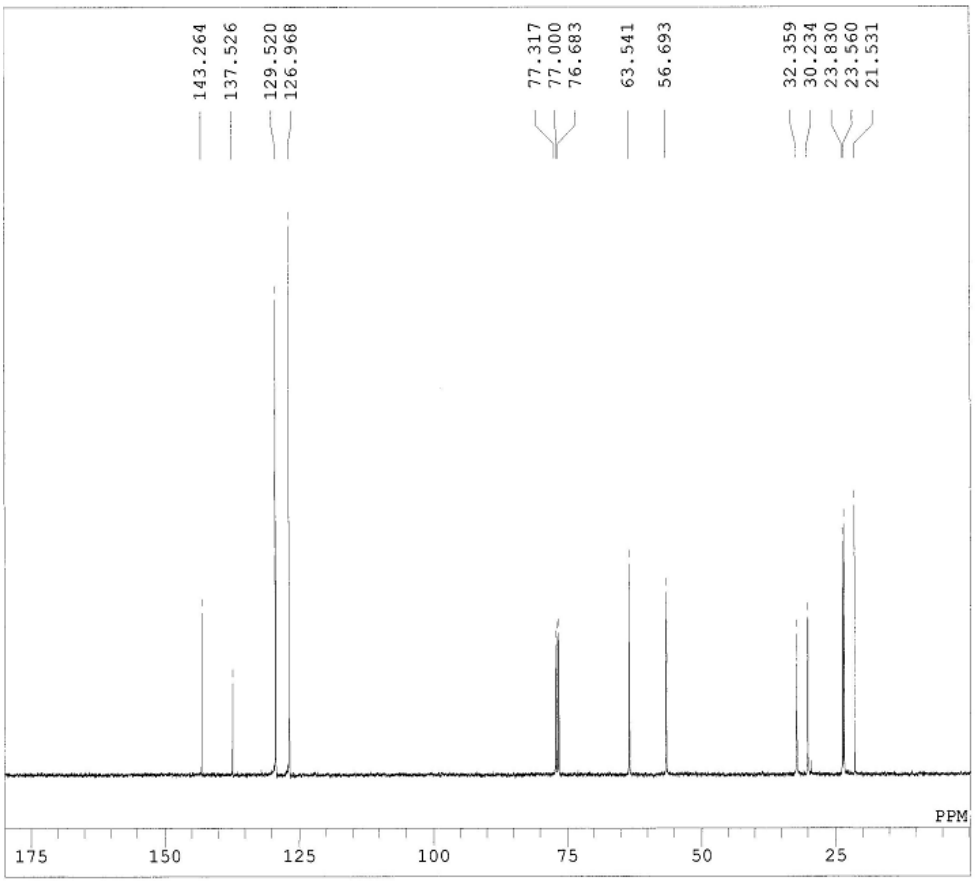

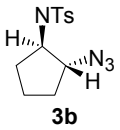

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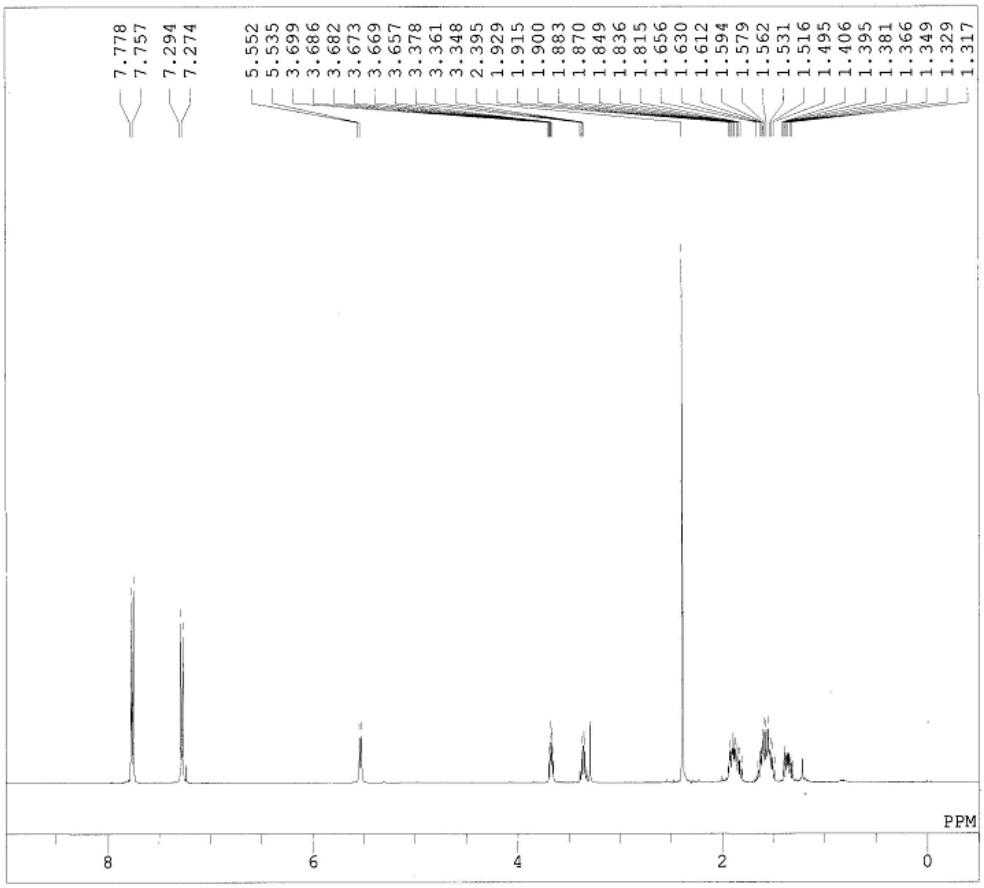

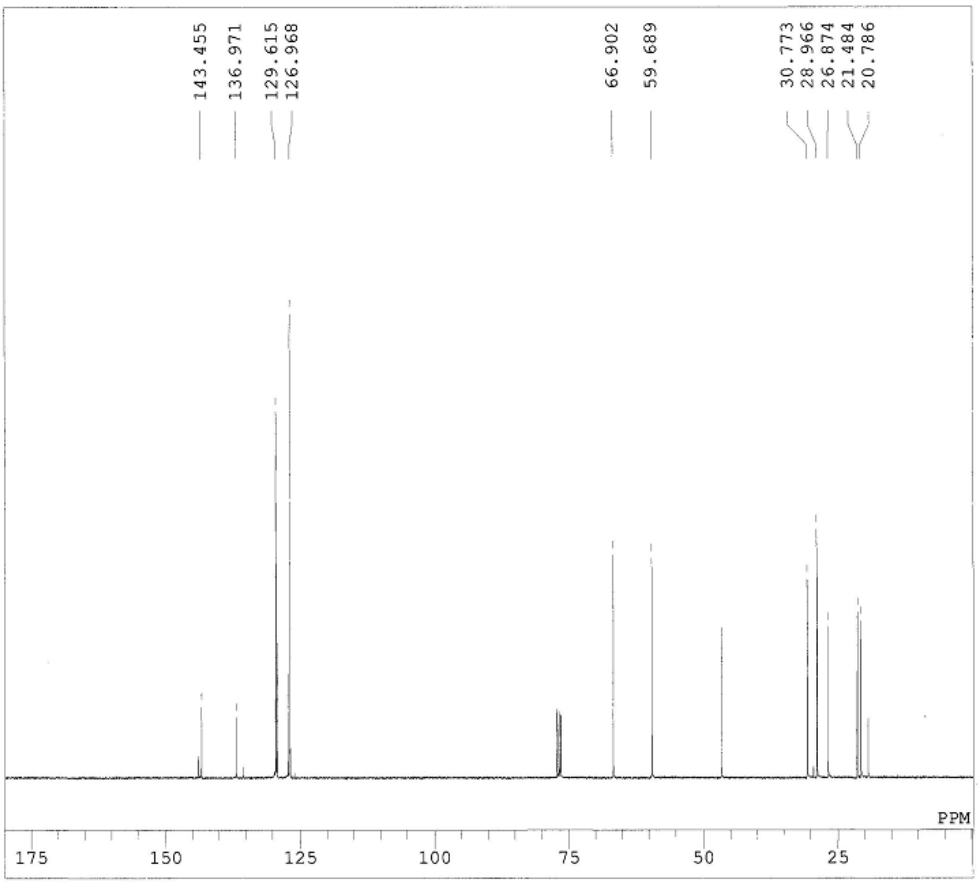

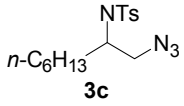
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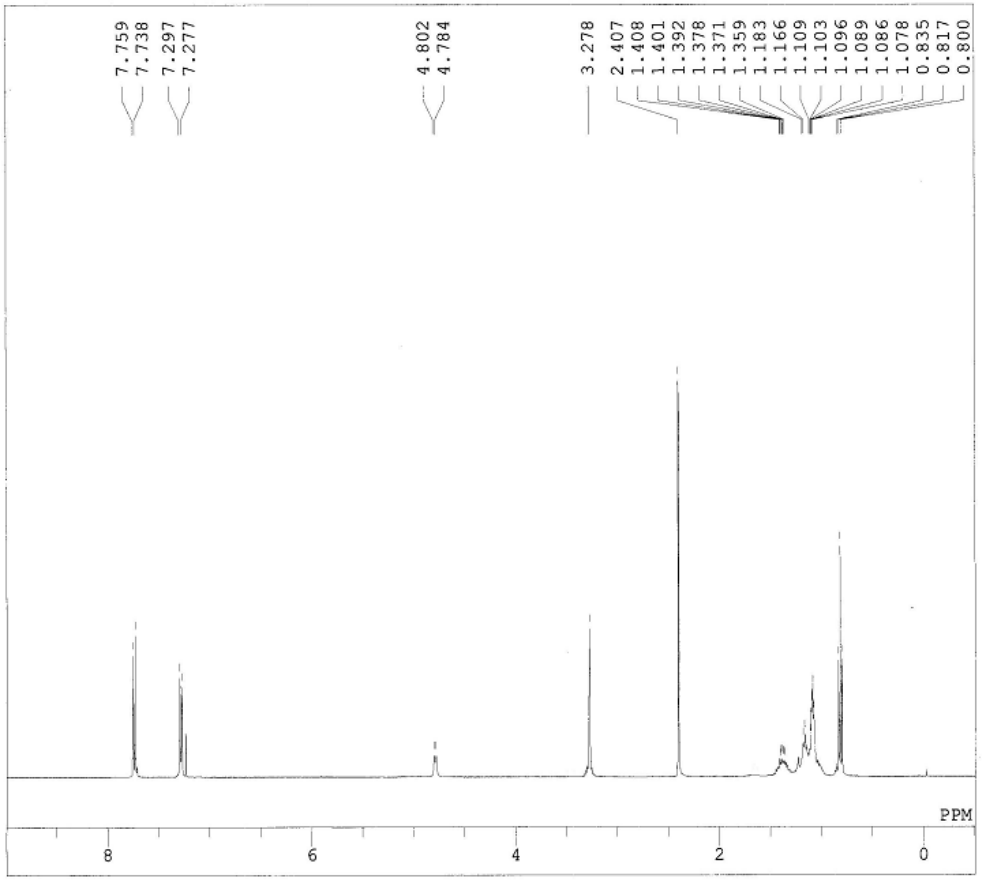
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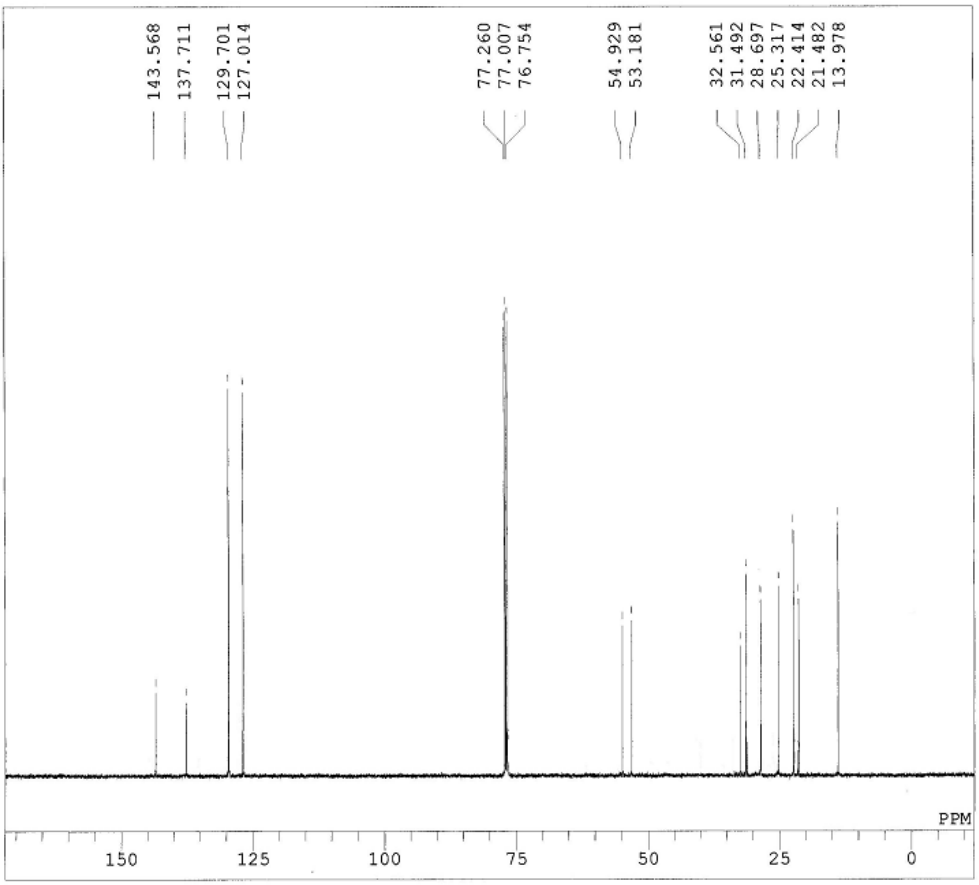
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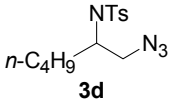

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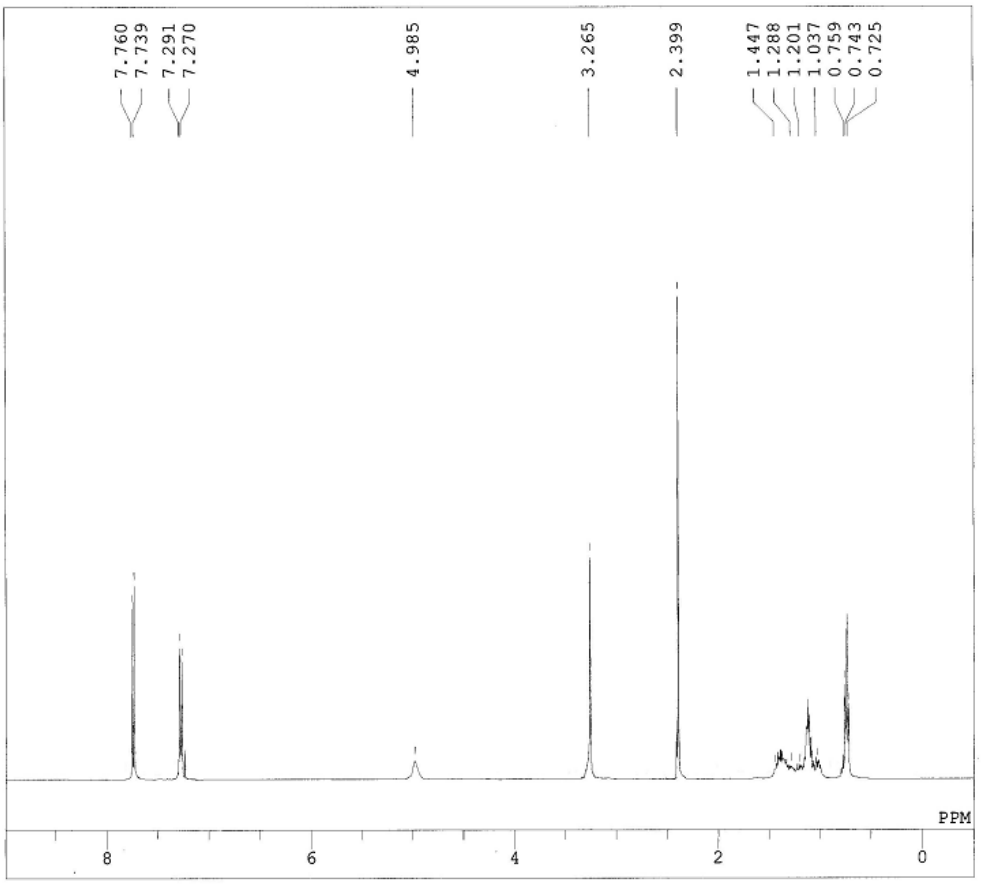

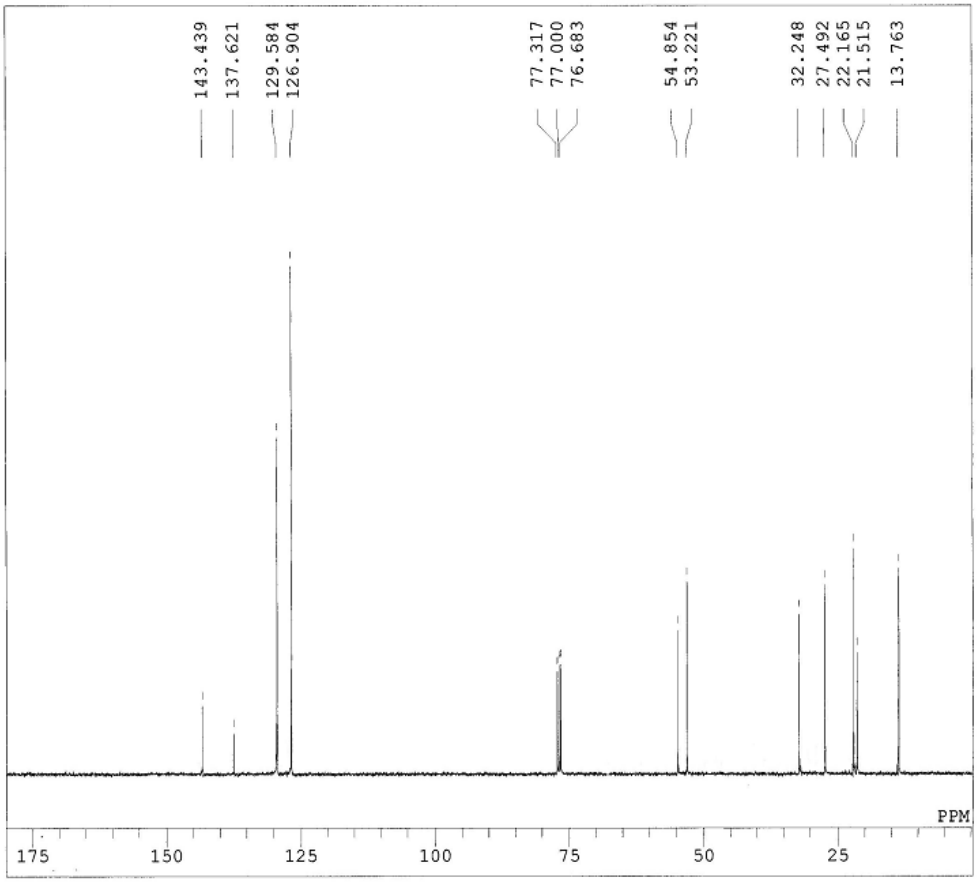

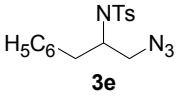

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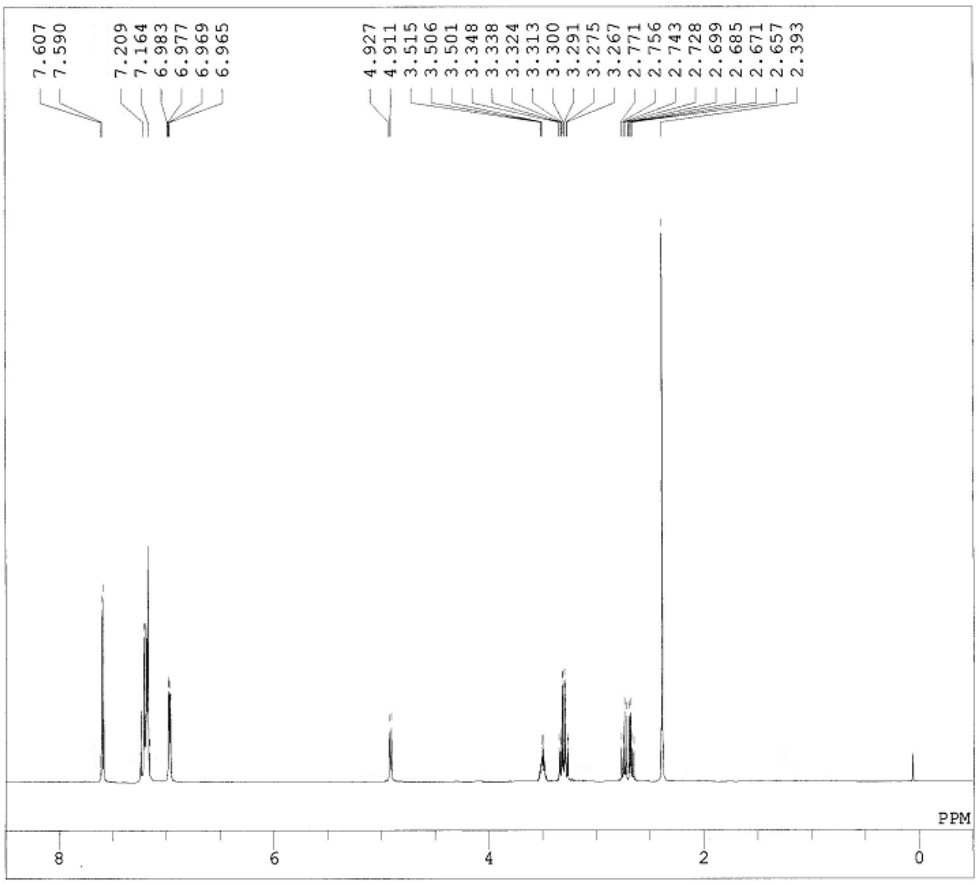

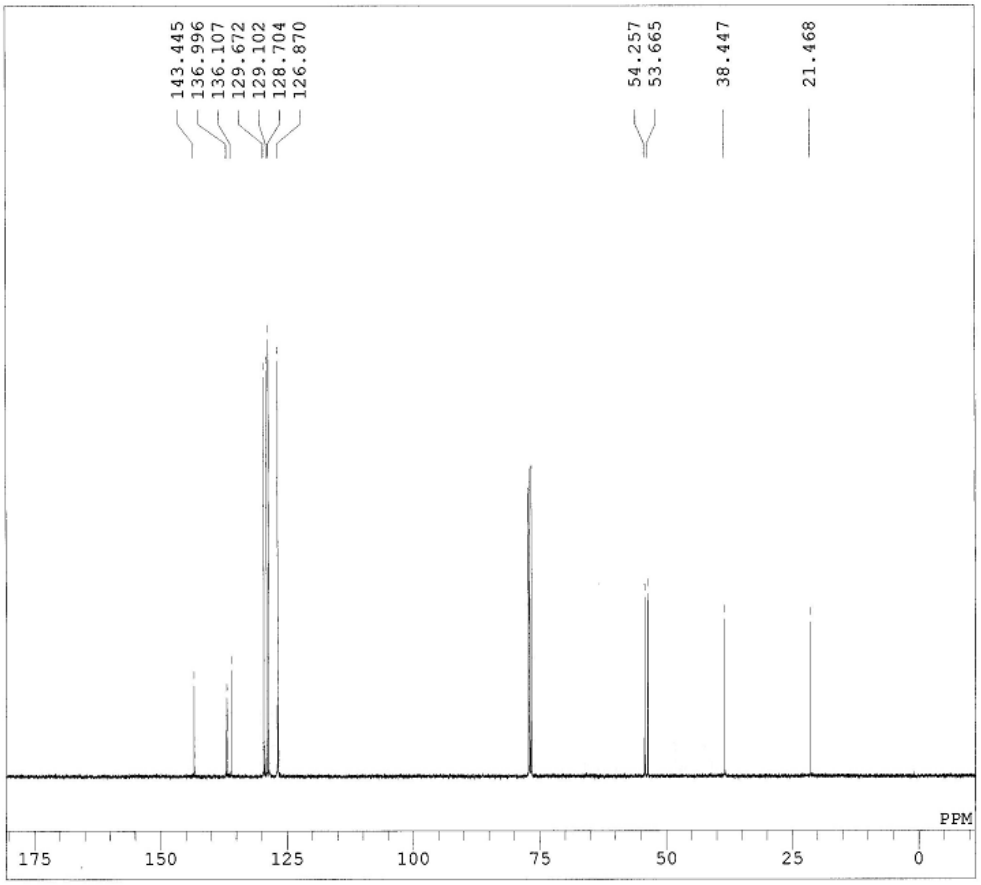

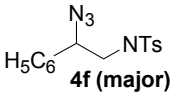
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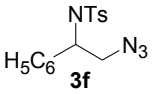
4f (major)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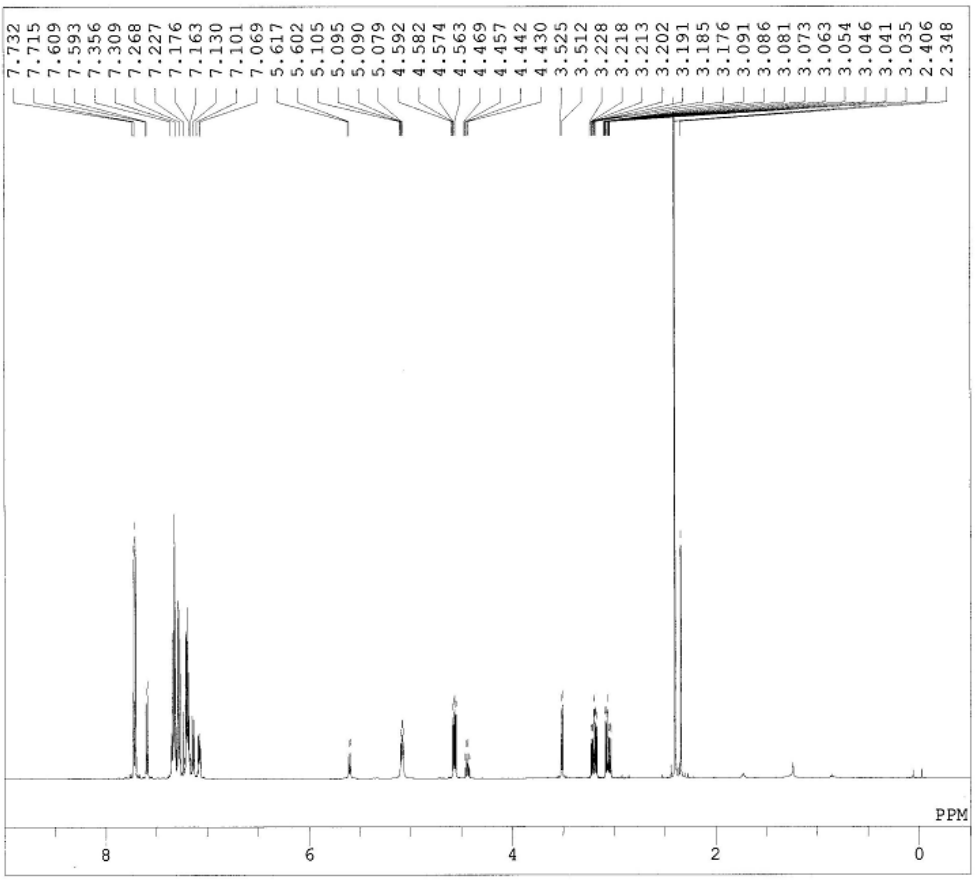
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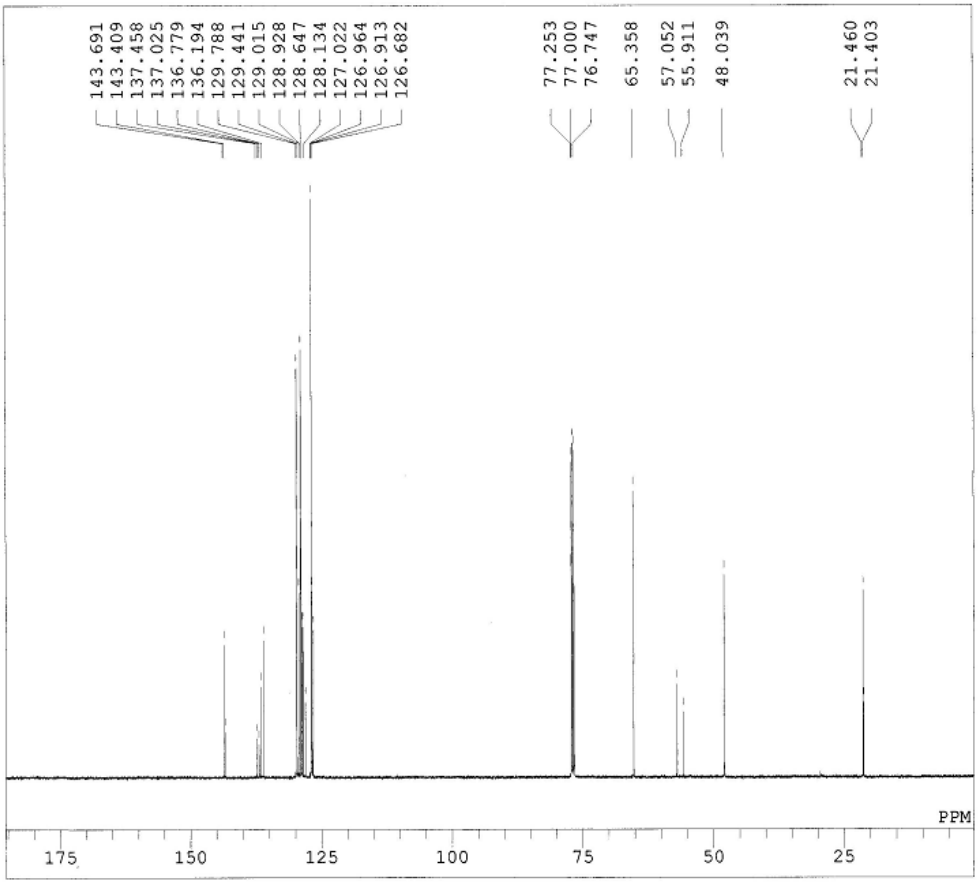
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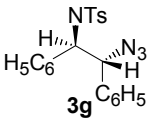

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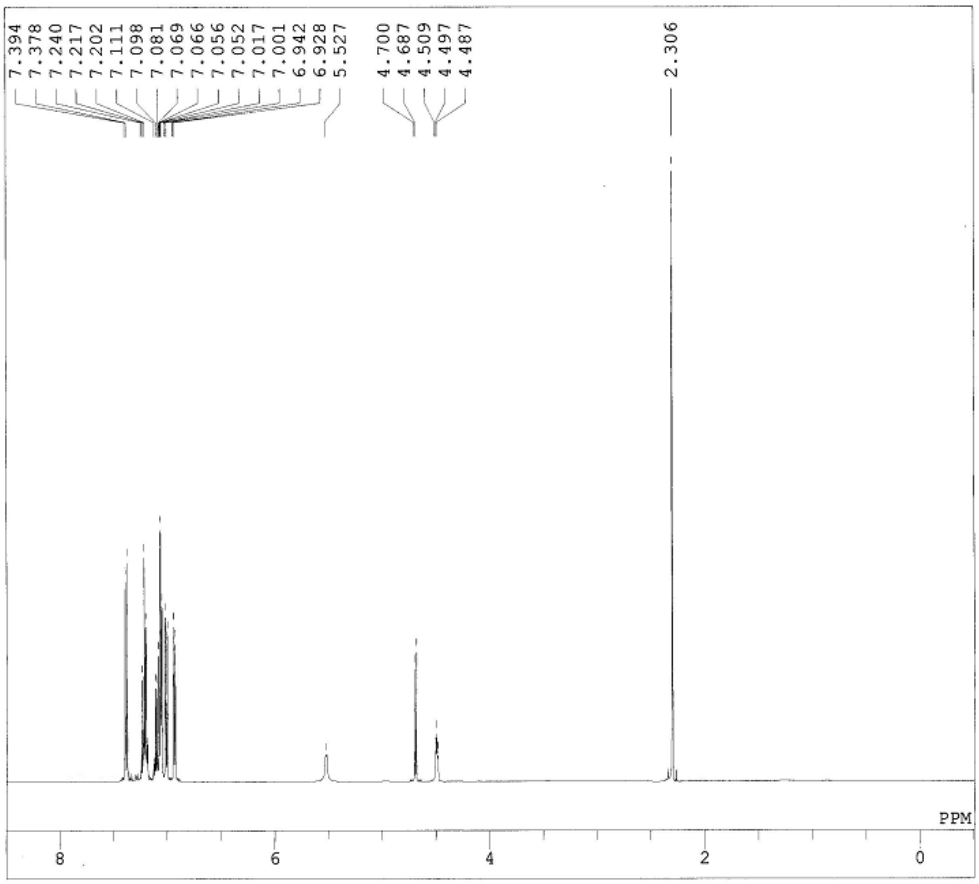

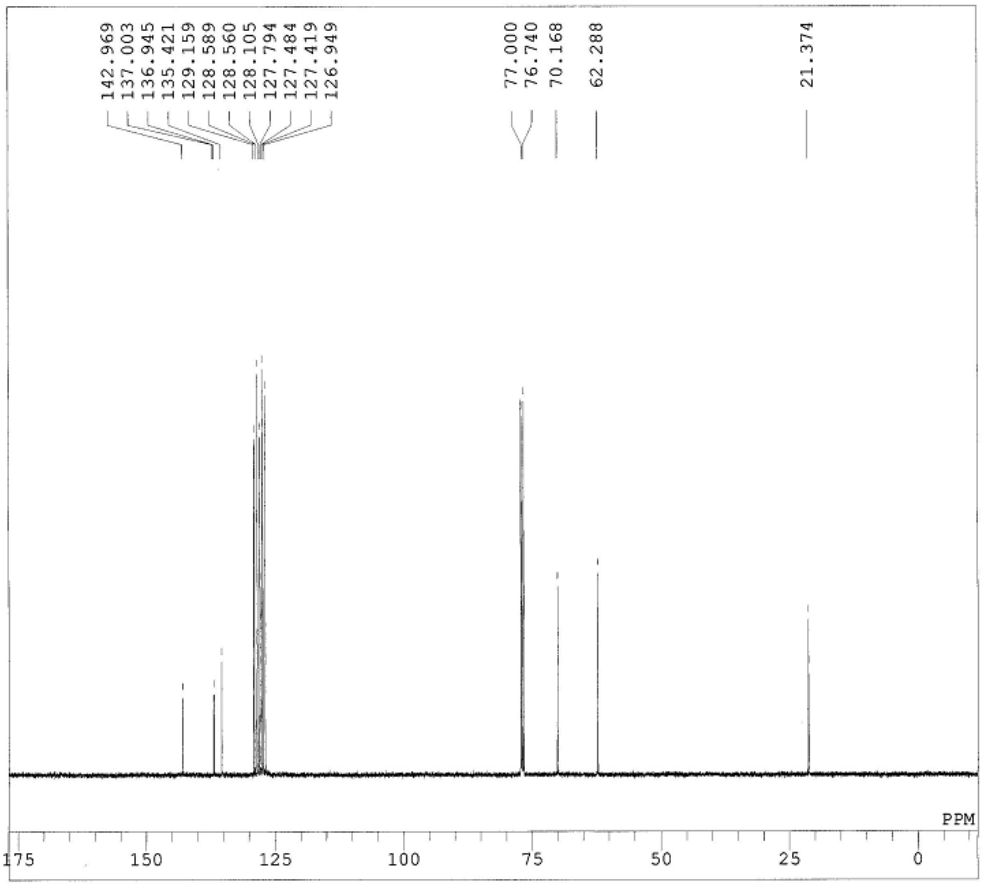

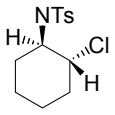

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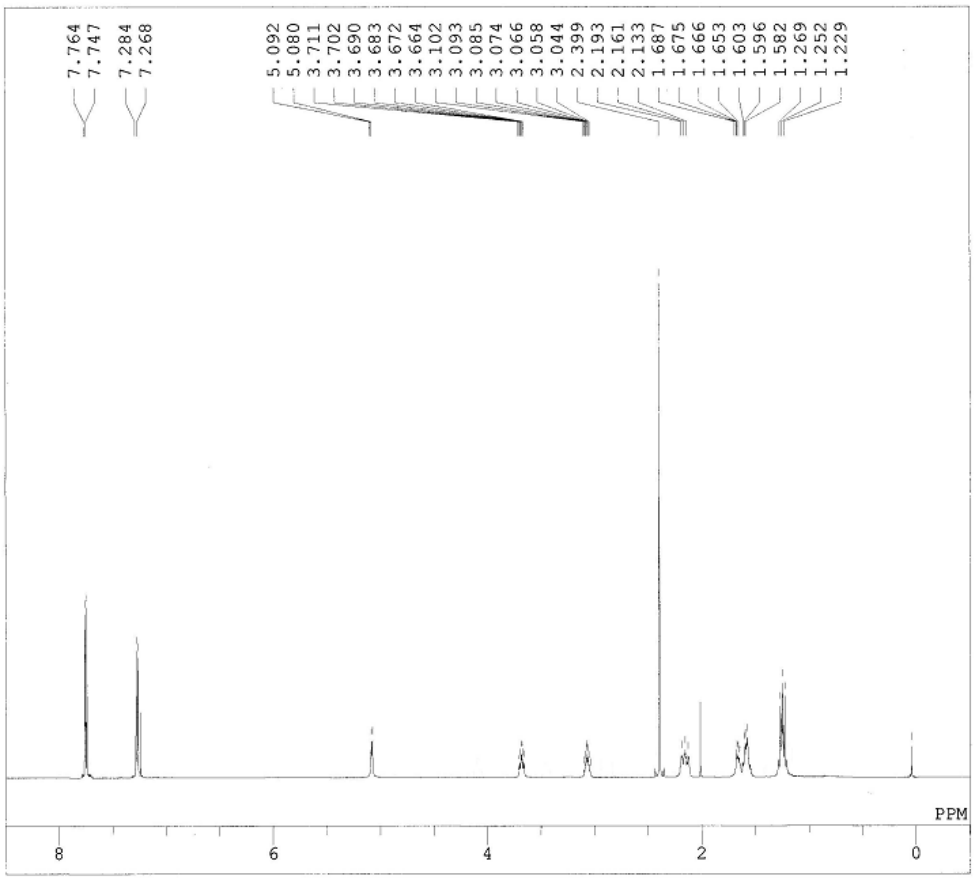

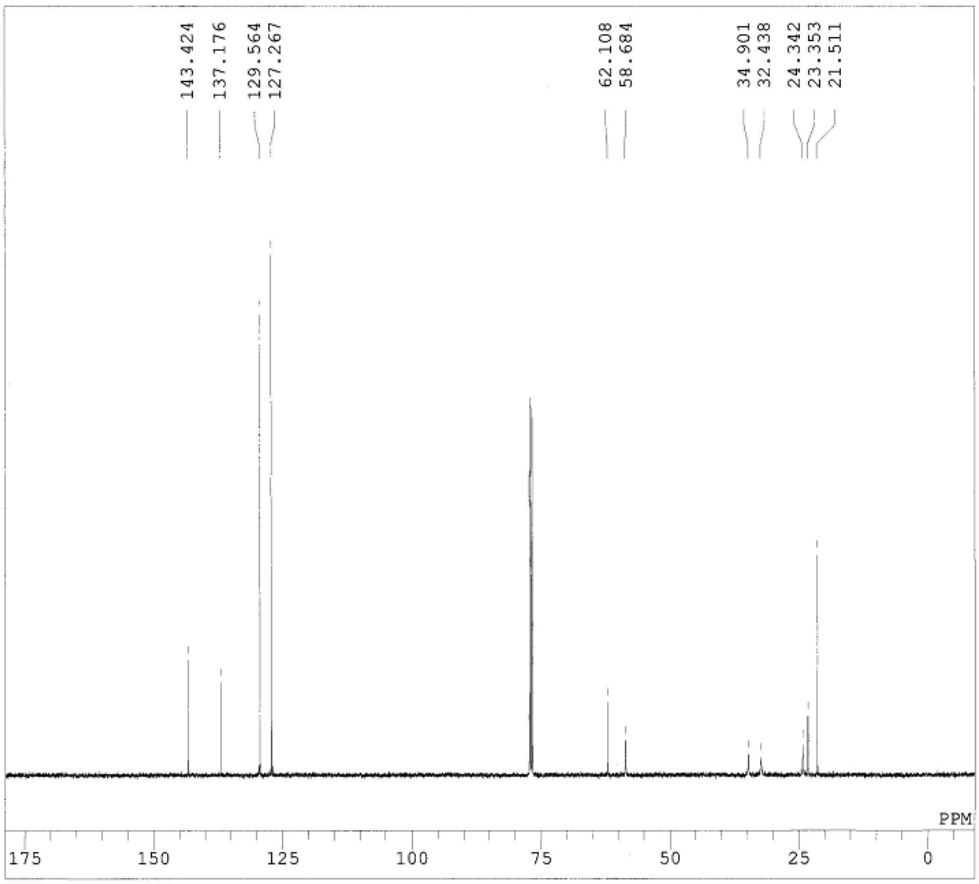

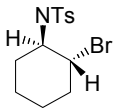

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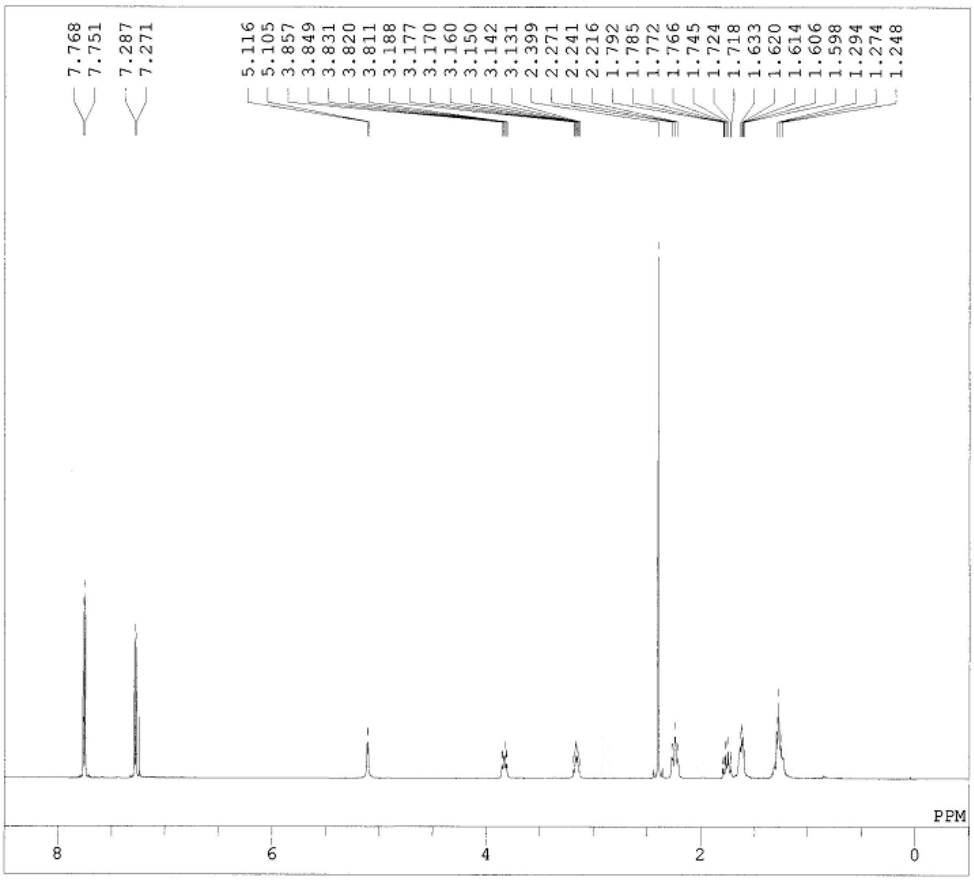

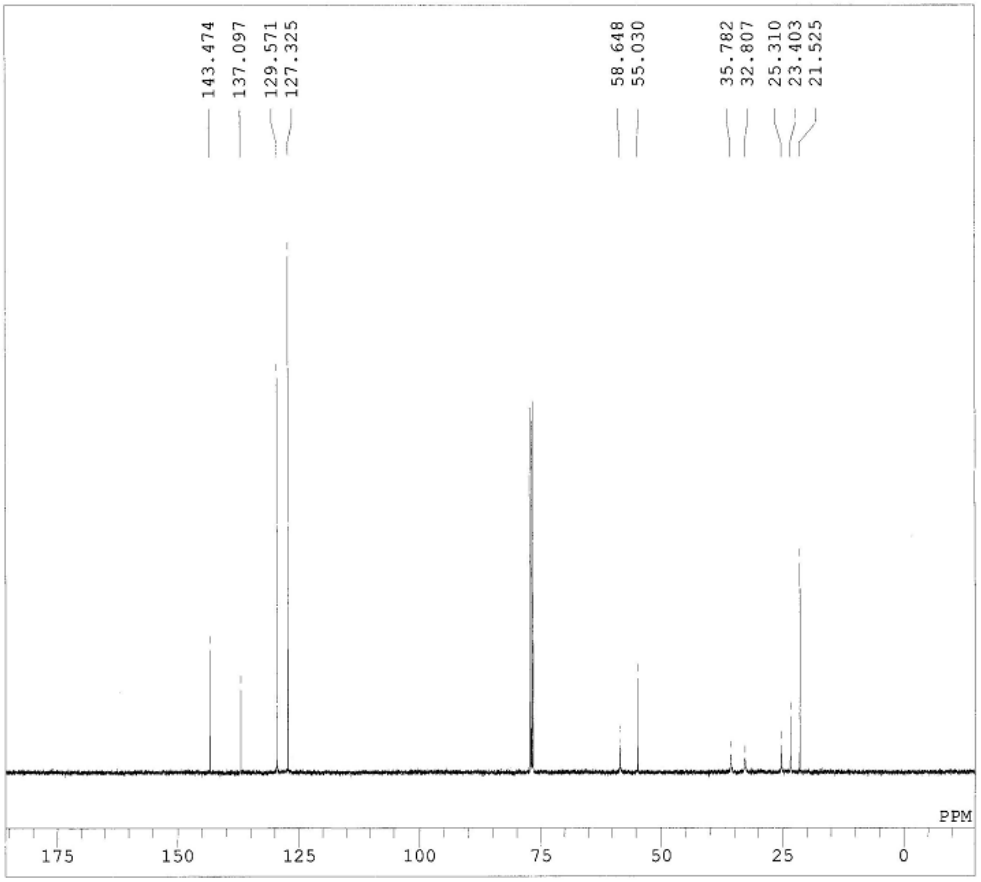

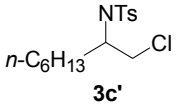

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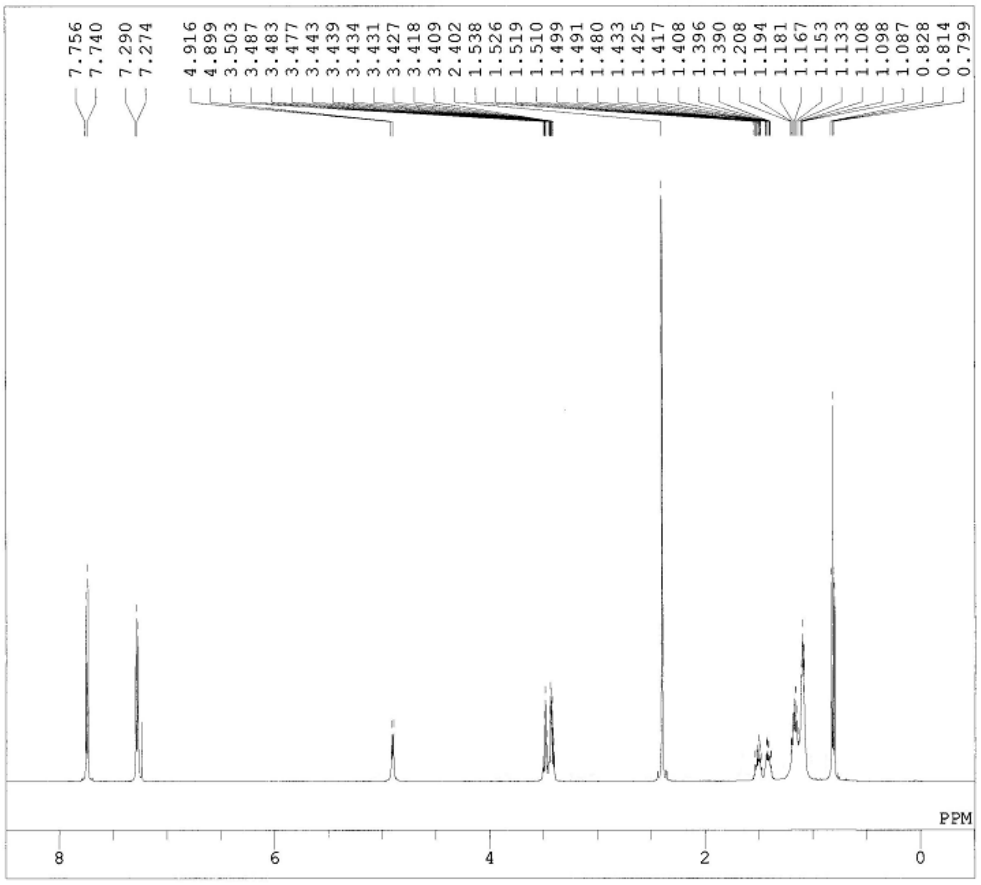

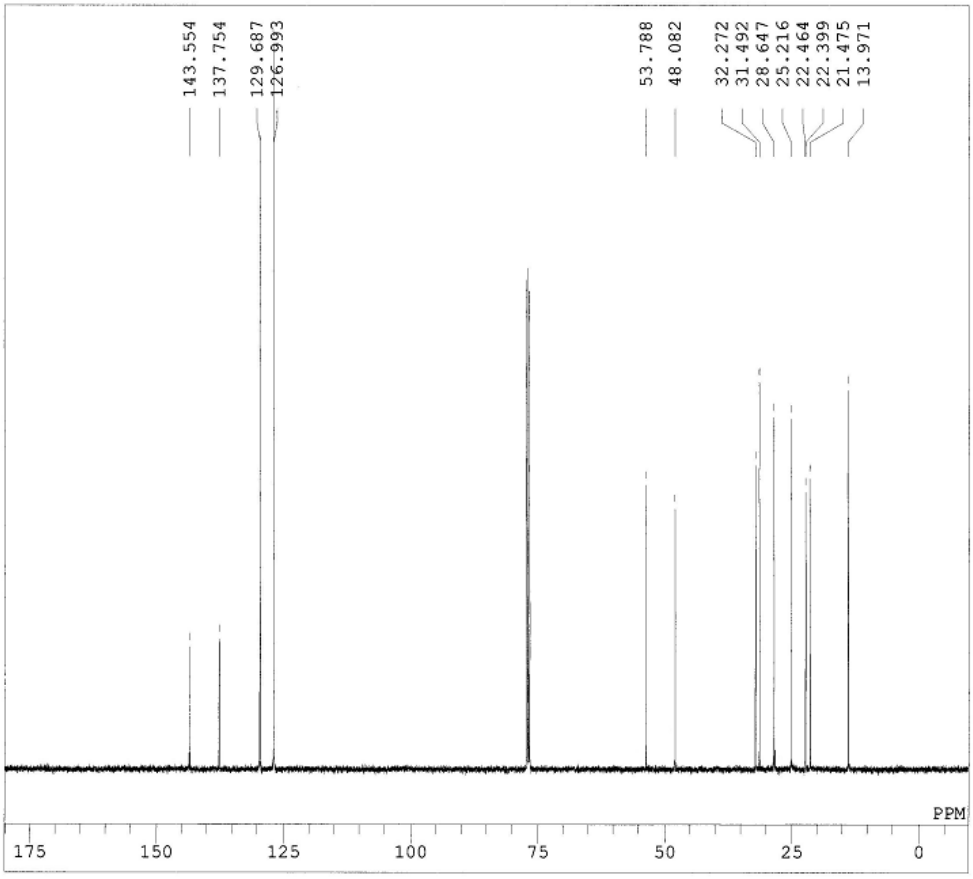

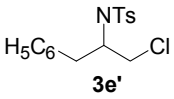

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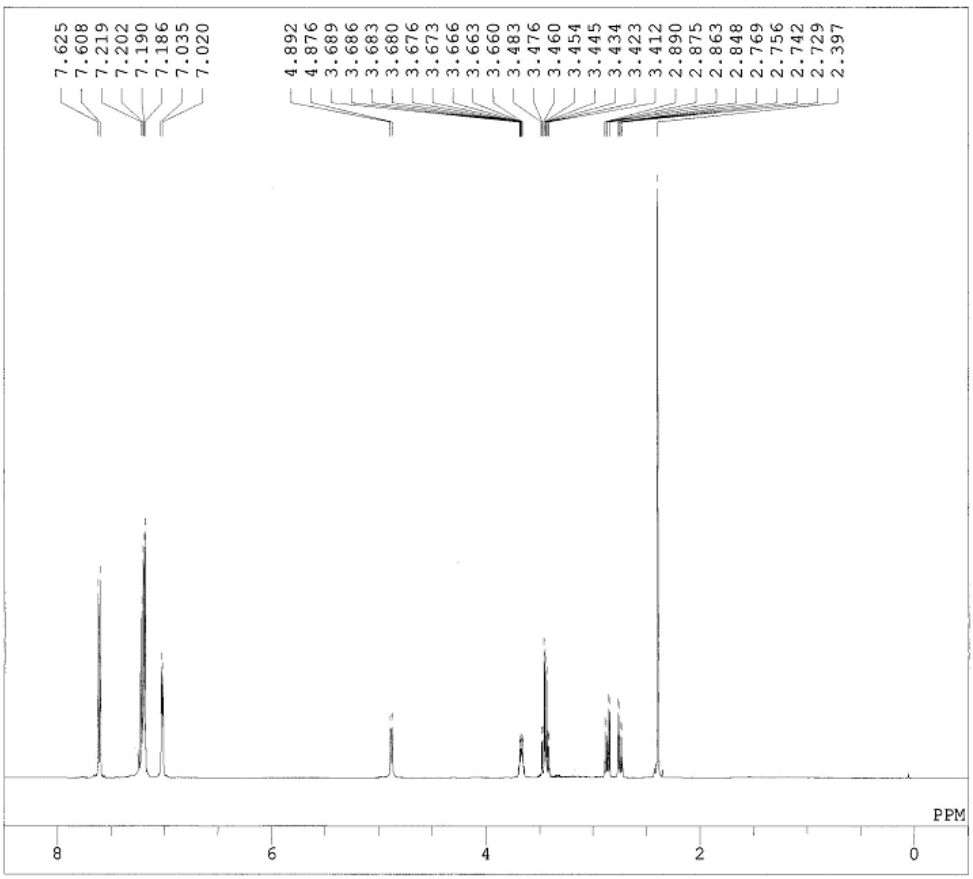

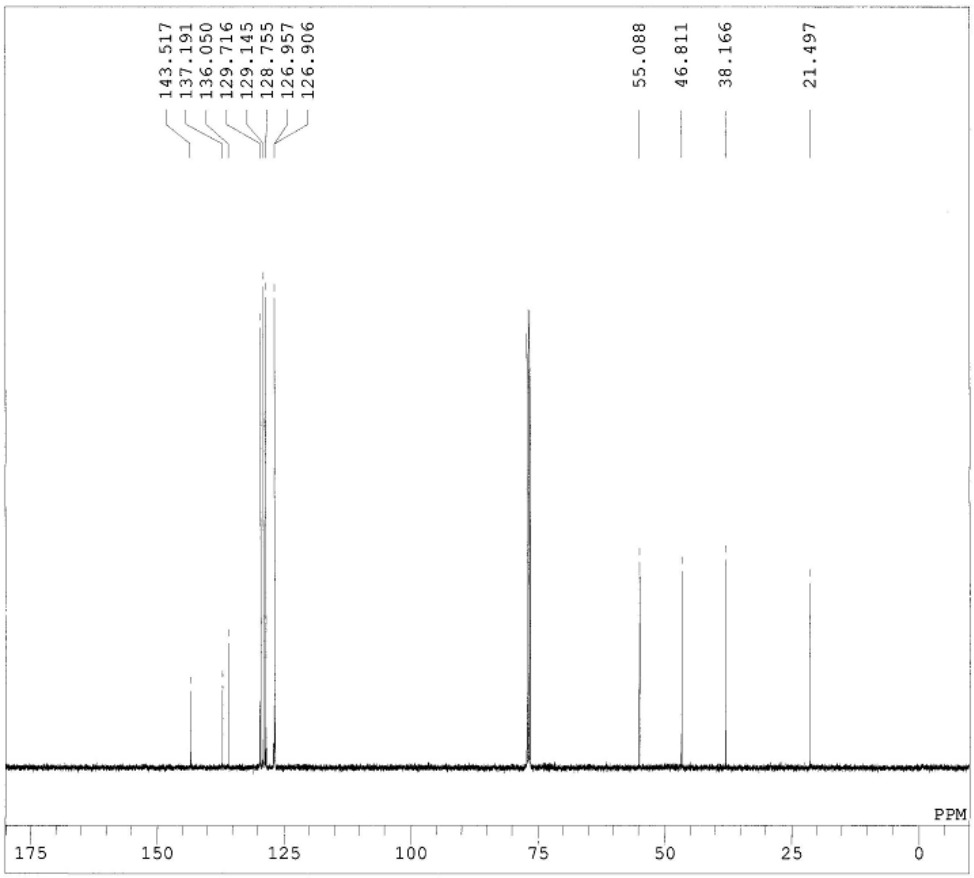

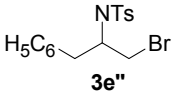

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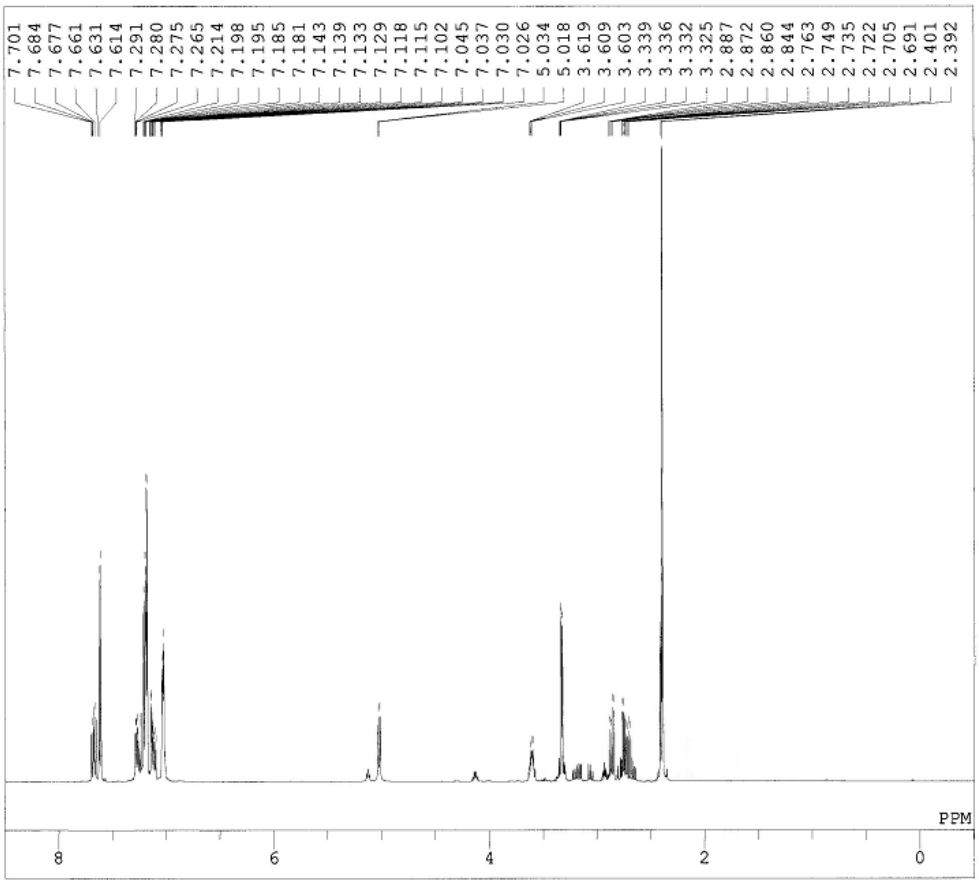

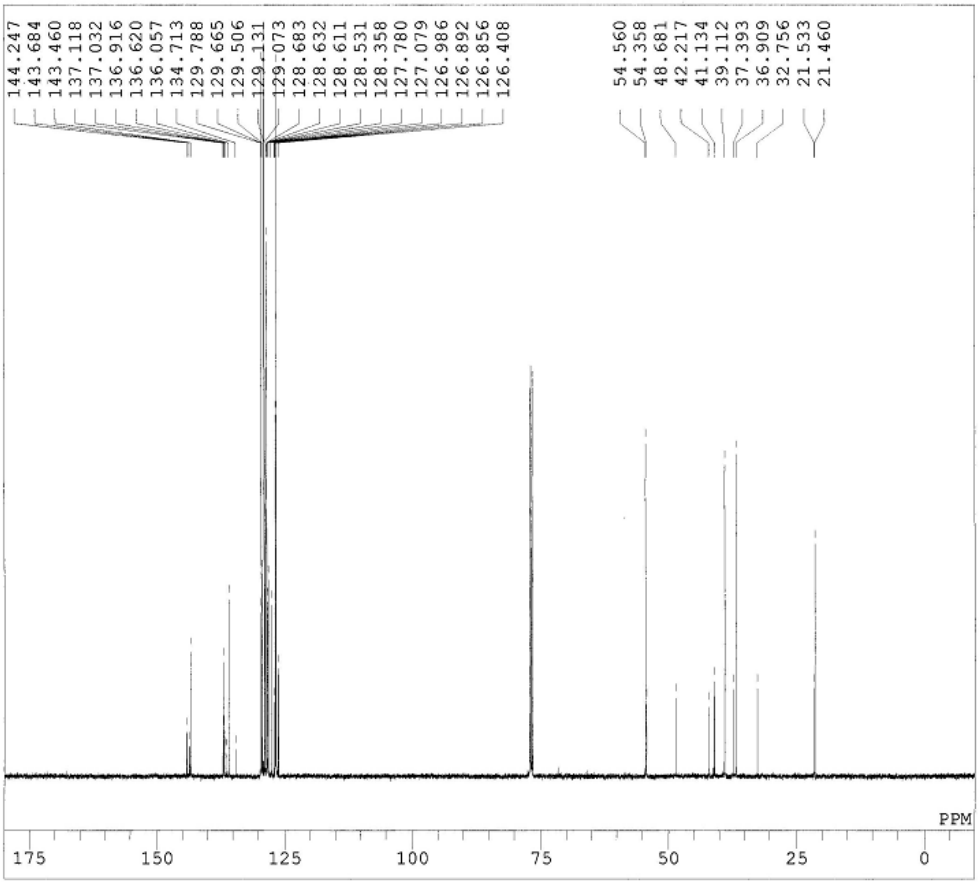

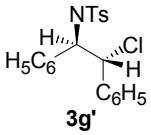
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H
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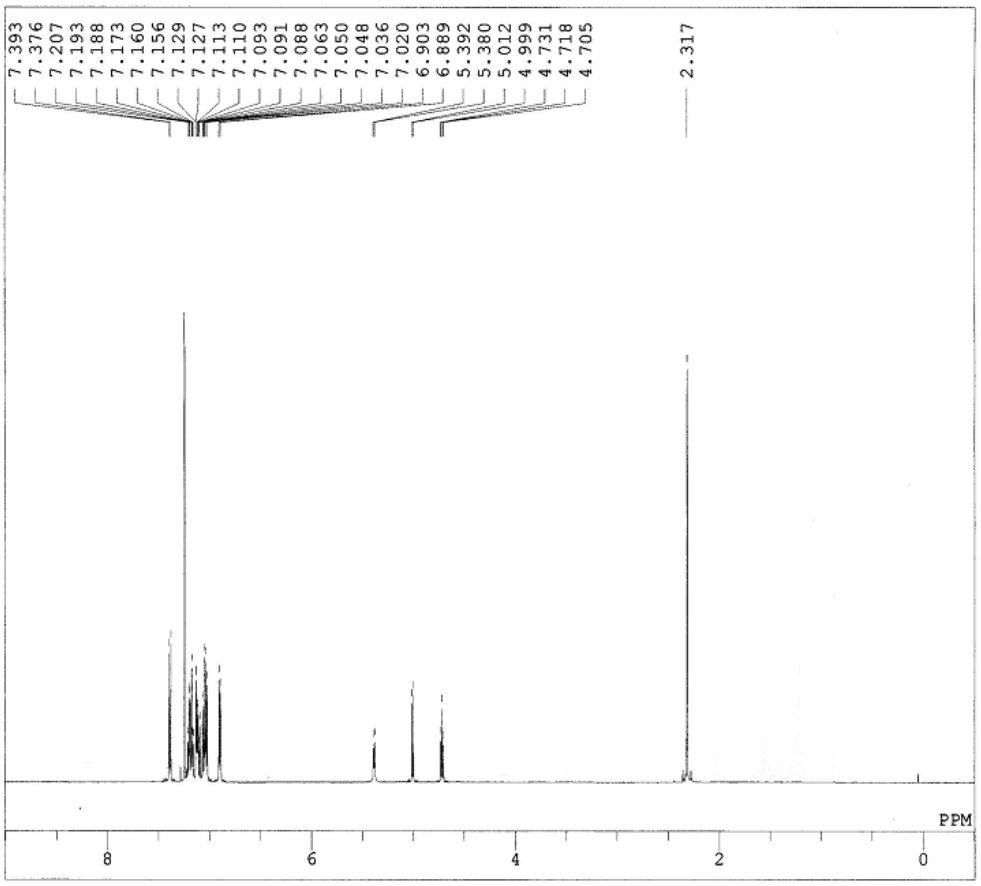
3g'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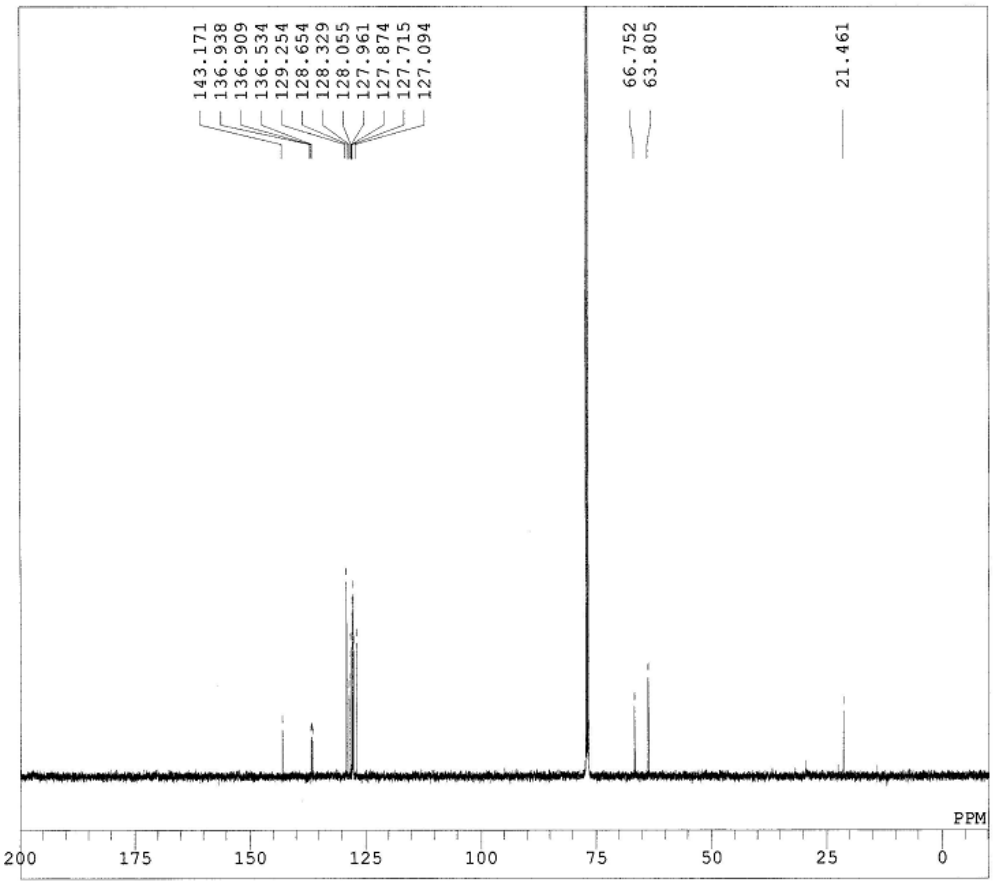
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