

- *Supplementary Information* -

**Lanthanide Tri-Benzyl Complexes: Structural Variations and Useful Precursors
to Phosphorus-Stabilised Lanthanide Carbenes**

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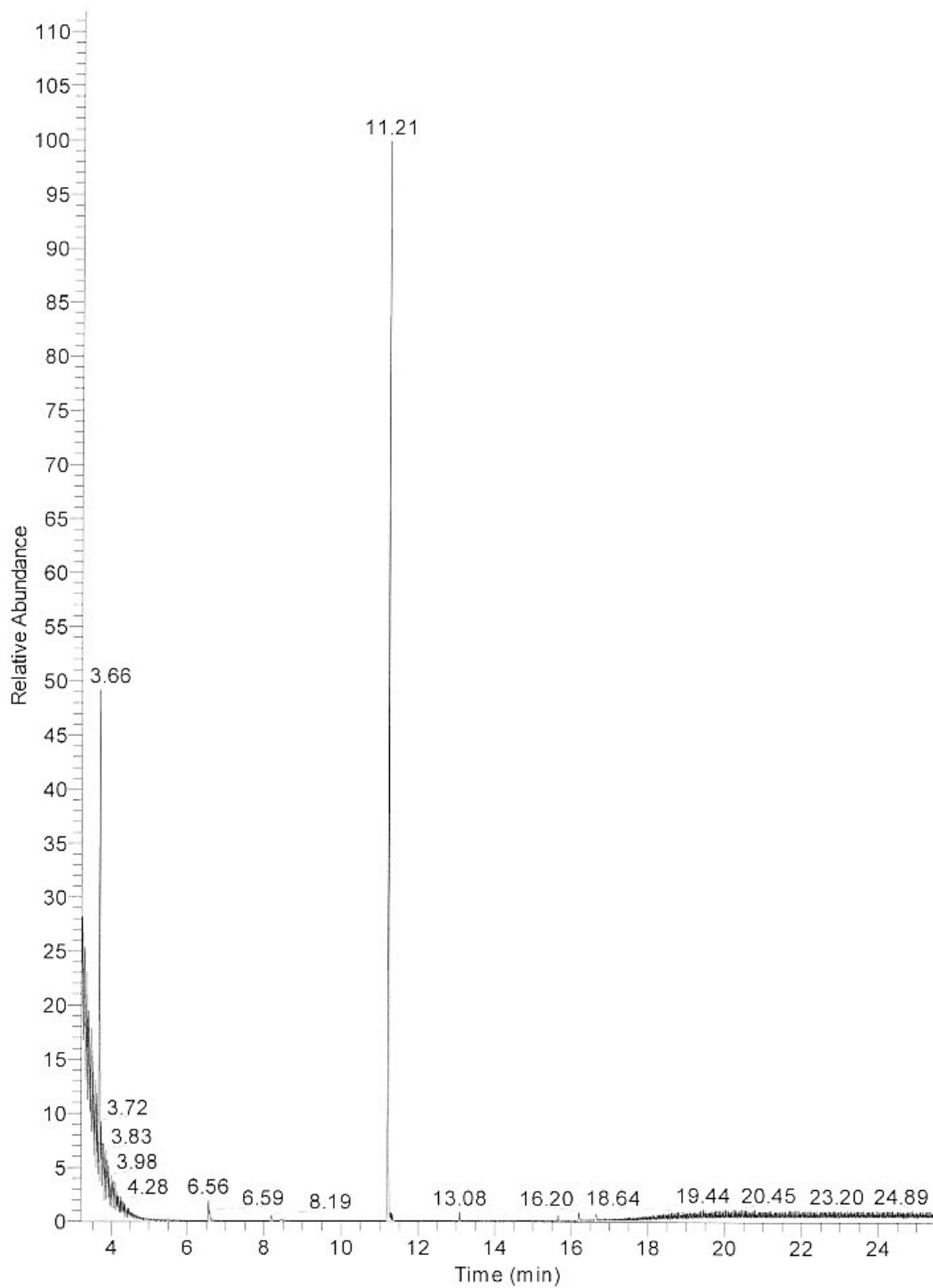
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GC-MS Data

GC-MS were recorded on a Thermo Finnigan Trace GC 2000 Polaris Q instrument. An aliquot was removed from the reaction mixture and analysed. MS of the fraction at 3.66 minutes was shown to be predominantly toluene. MS of the fraction at 11.21 minutes showed PhCH₂CH₂Ph present as PhCH₂ (*m/z* 91.04) and PhCH₂CH₂Ph (*m/z* 182.05). This was compared to an authentic sample of PhCH₂CH₂Ph which gave an exact match for retention time, fragmentation pattern and peak masses, confirming the formation of PhCH₂CH₂Ph during the synthesis of **9**.

GC Time Trace



MS of fraction at t = 11.21 minutes

