

Supporting Information for:

**Silica Boron-sulfuric Acid Nanoparticles (SBSANs):  
Preparation, Characterization and Their Catalytic  
Application in “Ritter Reaction” for Synthesis of Amide  
Derivatives**

*Ali Khalafi-Nezhad,\*<sup>a</sup> Habib ollah Foroughi,<sup>a</sup> Mohammad Mahdi Doroodmand,<sup>a,b</sup>  
Farhad Panahi\*<sup>a</sup>*

---

\*Corresponding author:

Tel.: +98-711-2282380

Fax: +98-711- 2280926

E-mail: khalafi@chem.susc.ac.ir

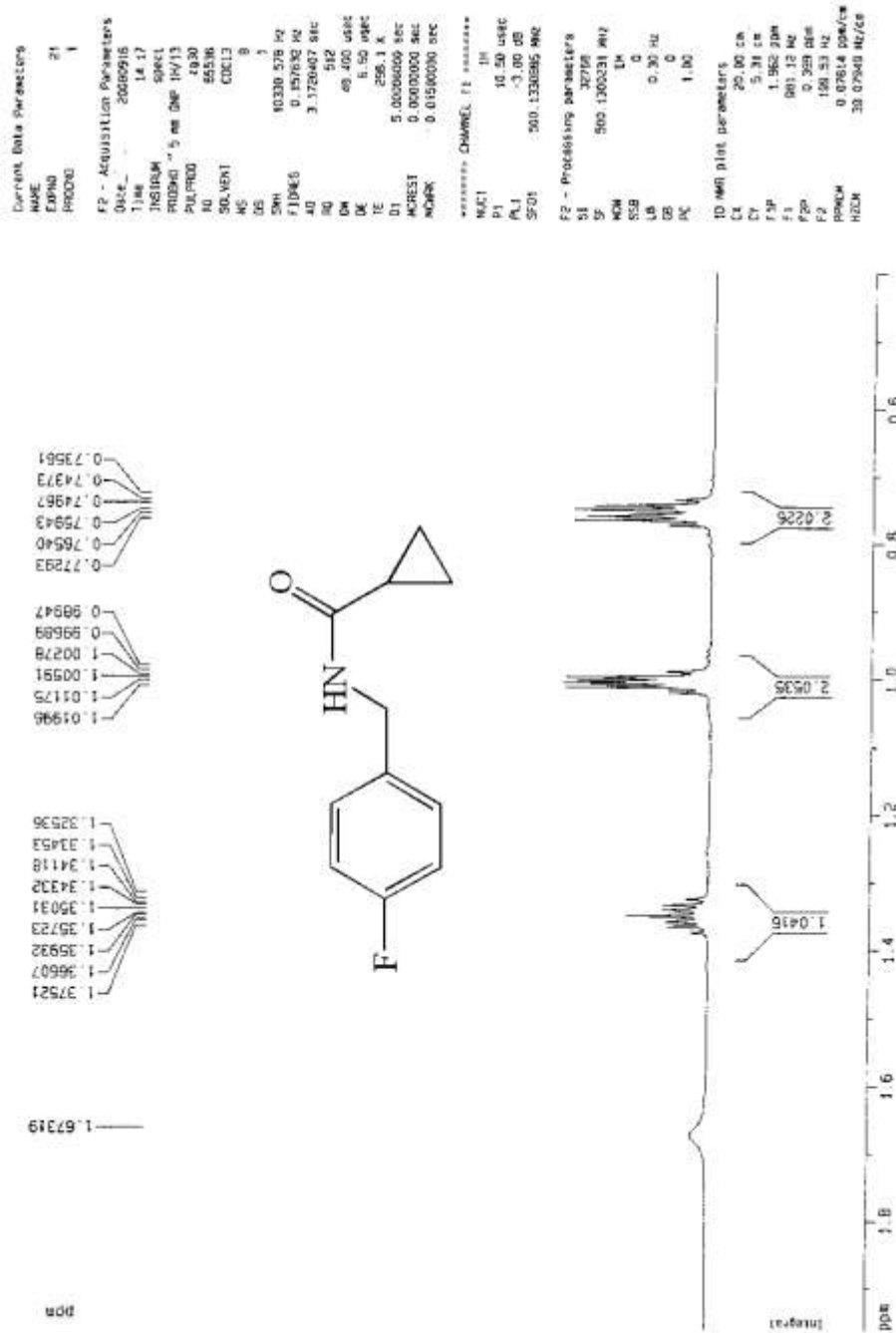
panahi@shirazu.ac.ir

<sup>a</sup> Department of Chemistry, Shiraz University, Shiraz, Iran

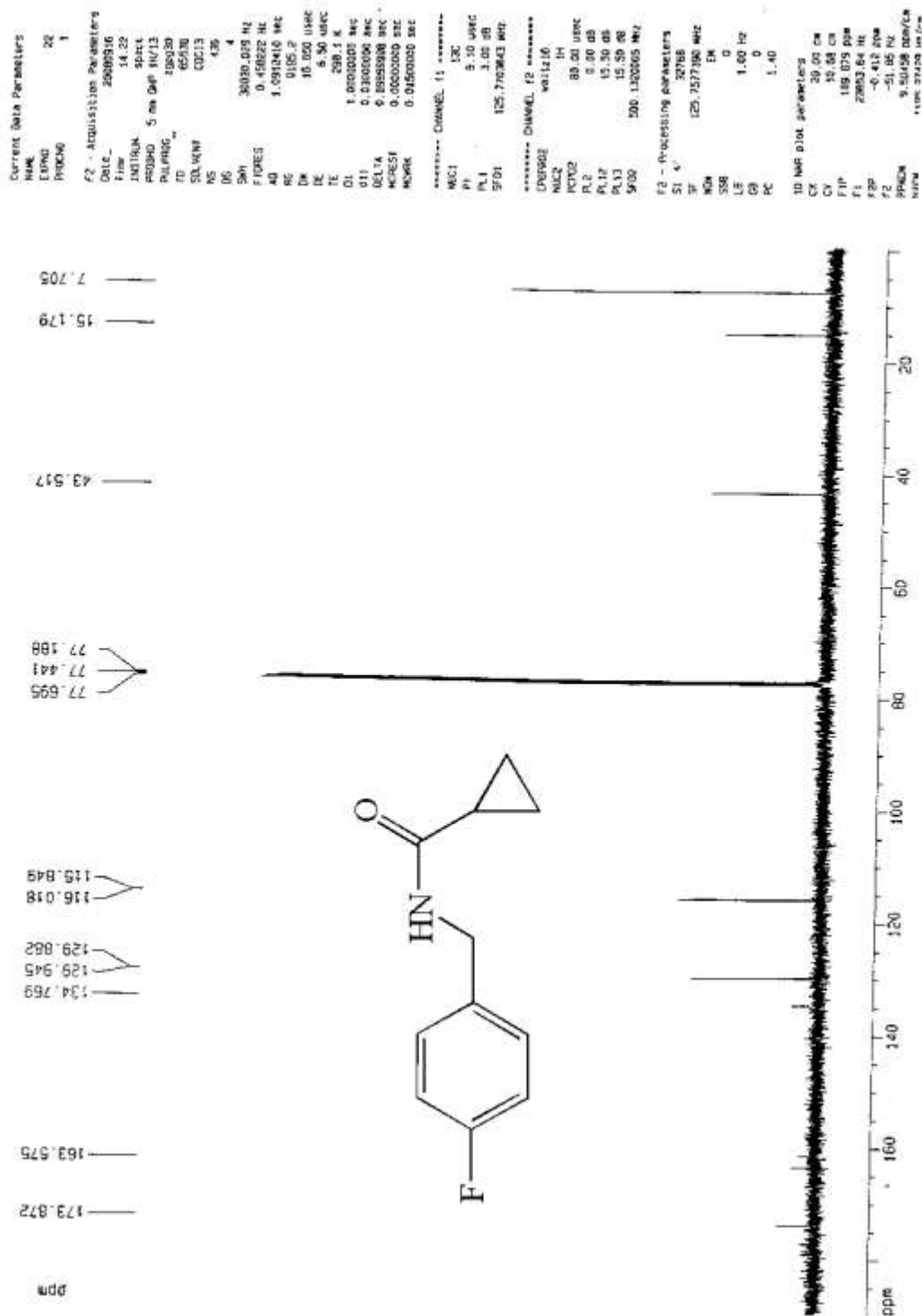
<sup>b</sup> Nanotechnology Research Institute, Shiraz University, Shiraz, Iran



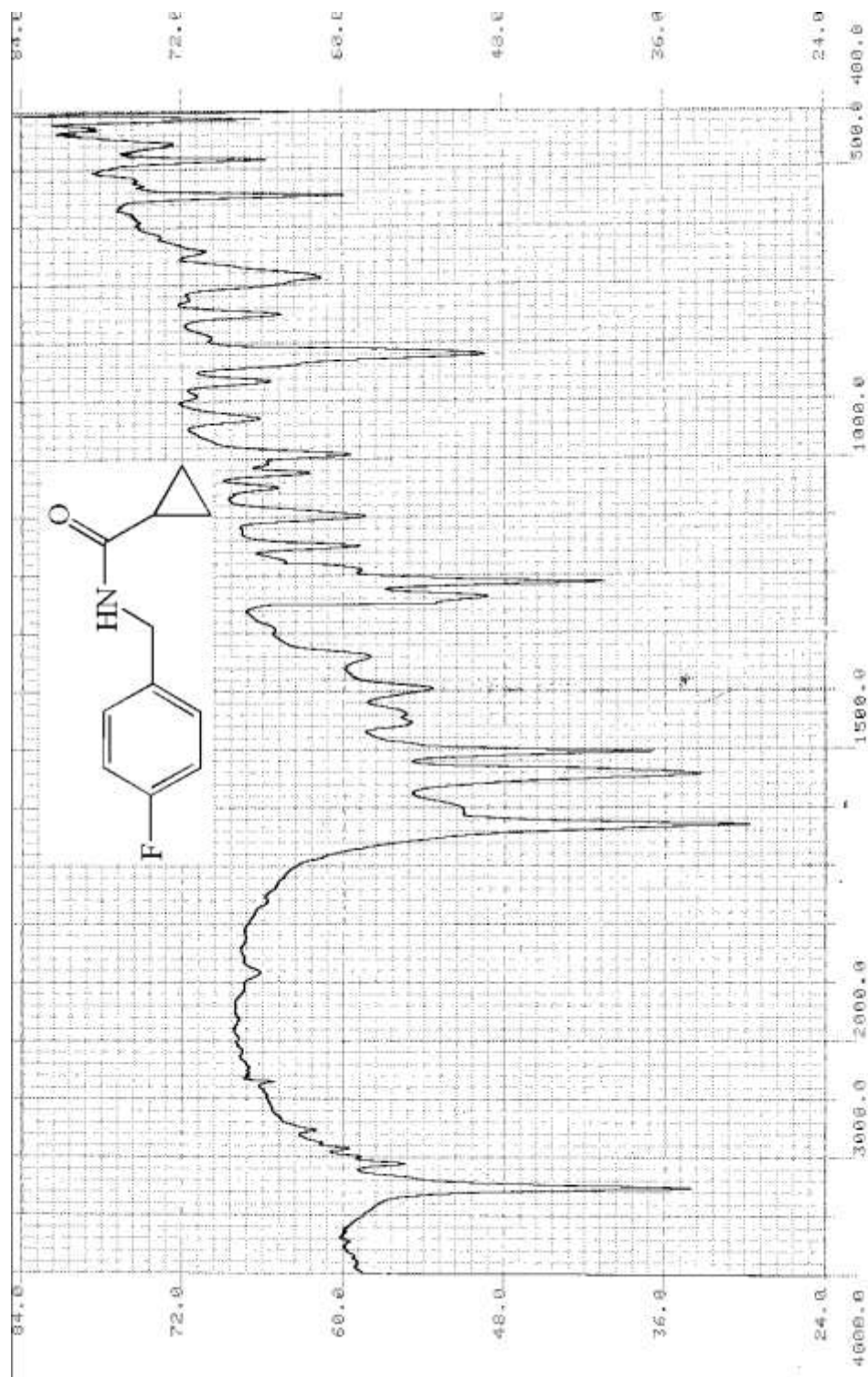
Expand:



<sup>13</sup>CNMR



IR:

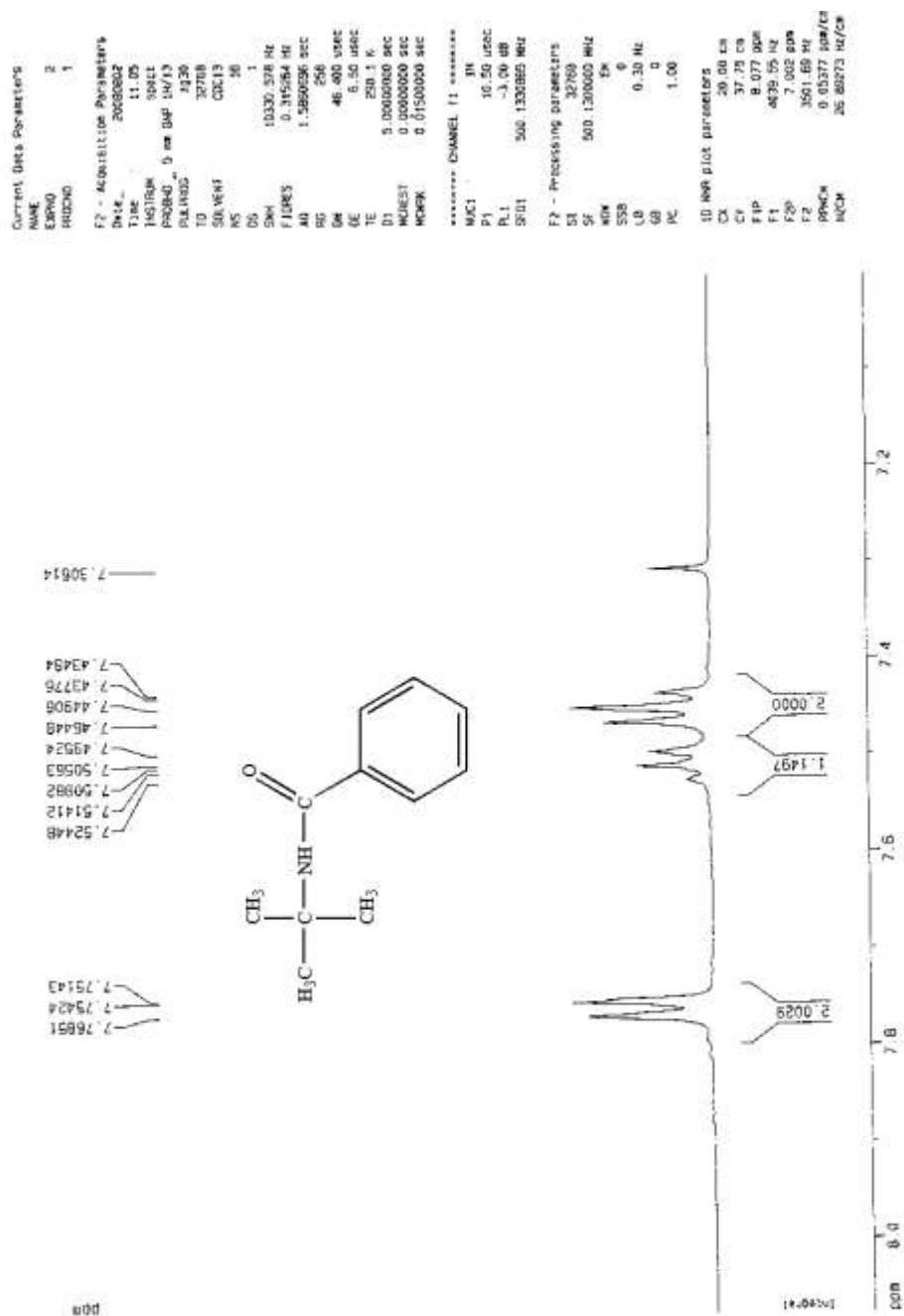


SHIMADZU CORPORATION CHART 200-91527

SHIMADZU CORPORATION CHART 200



Expand:

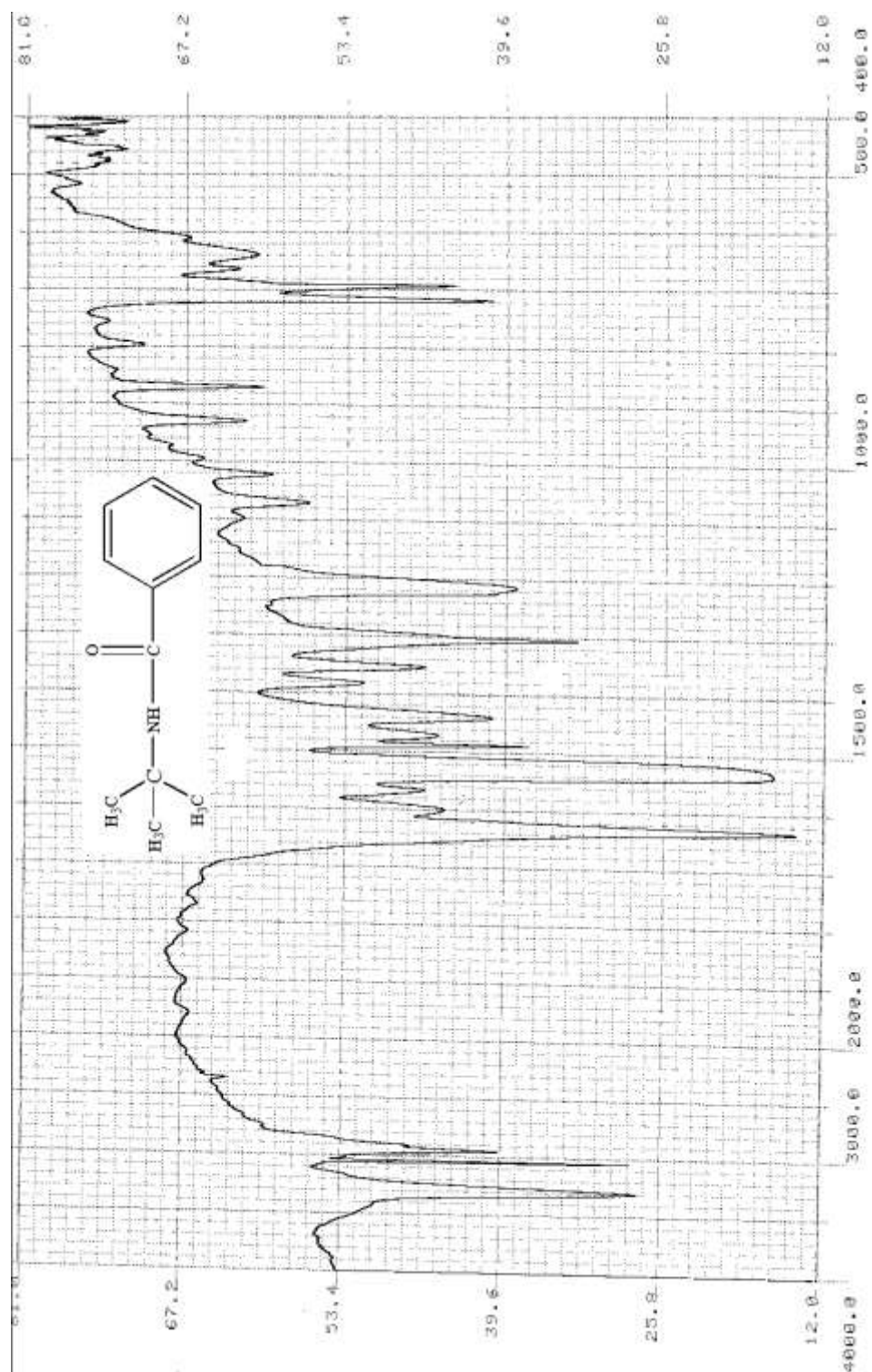






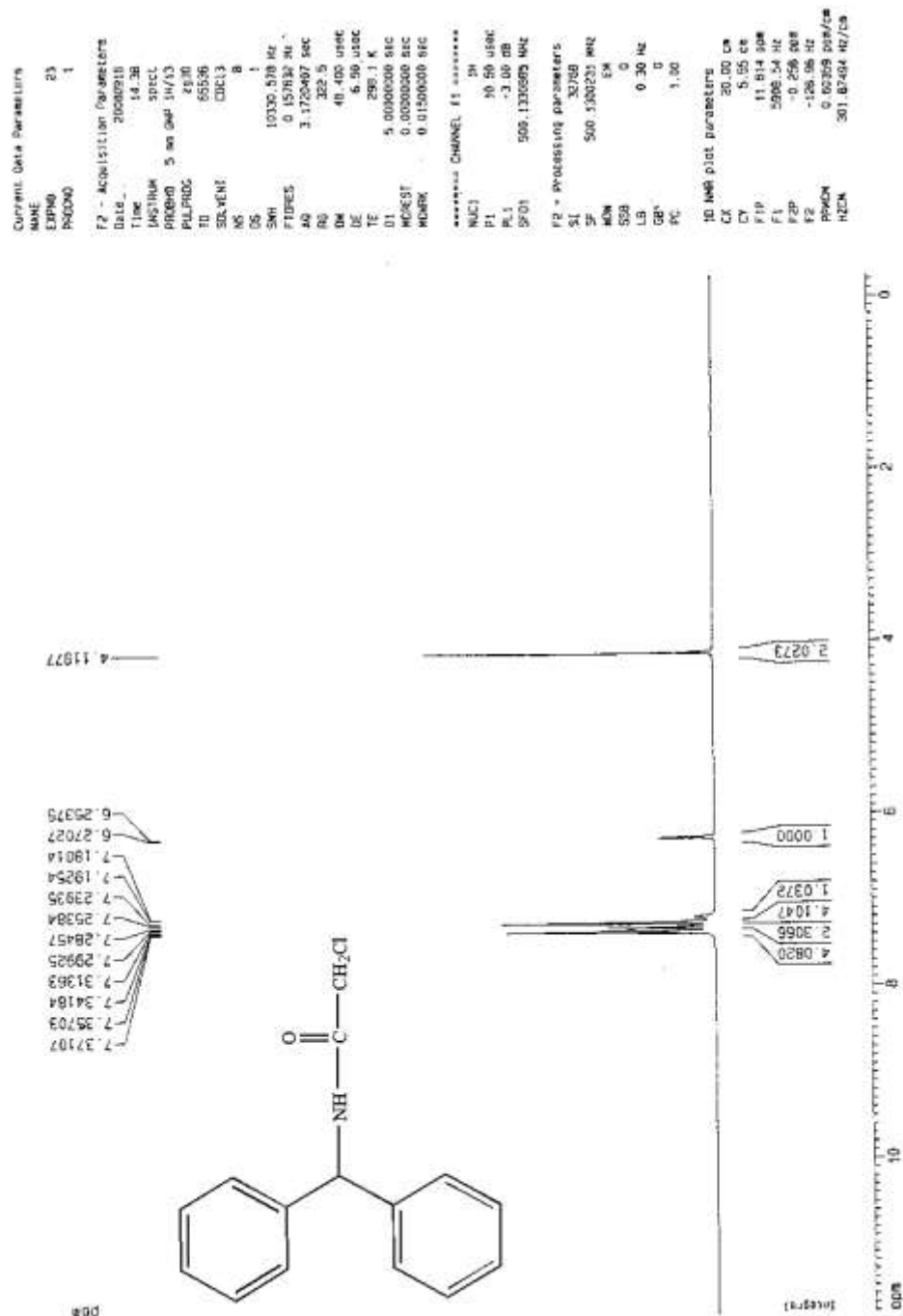


IR:

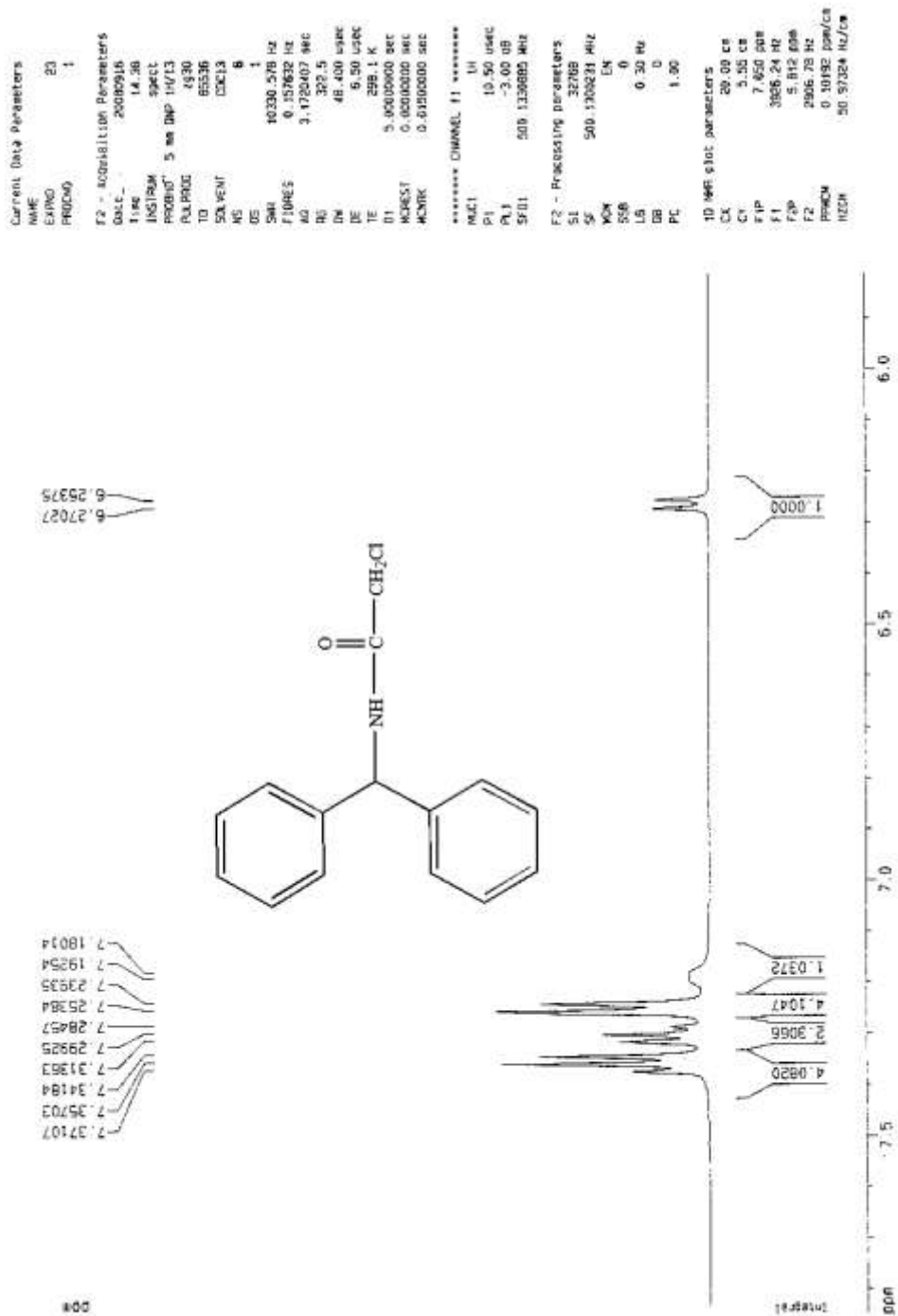


3. N-benzhydryl-2-chloroacetamide

<sup>1</sup>HNMR:

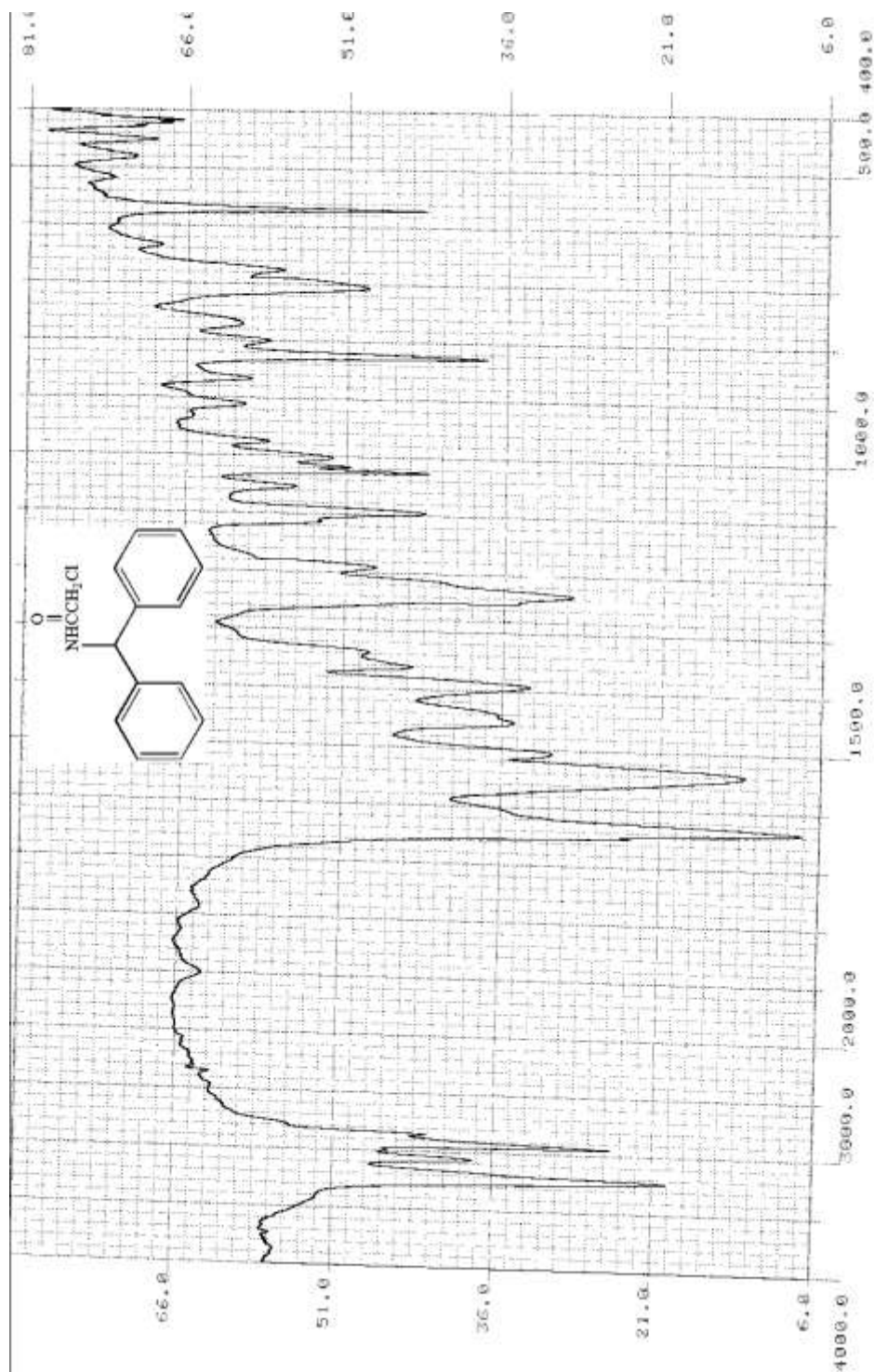


Expand:





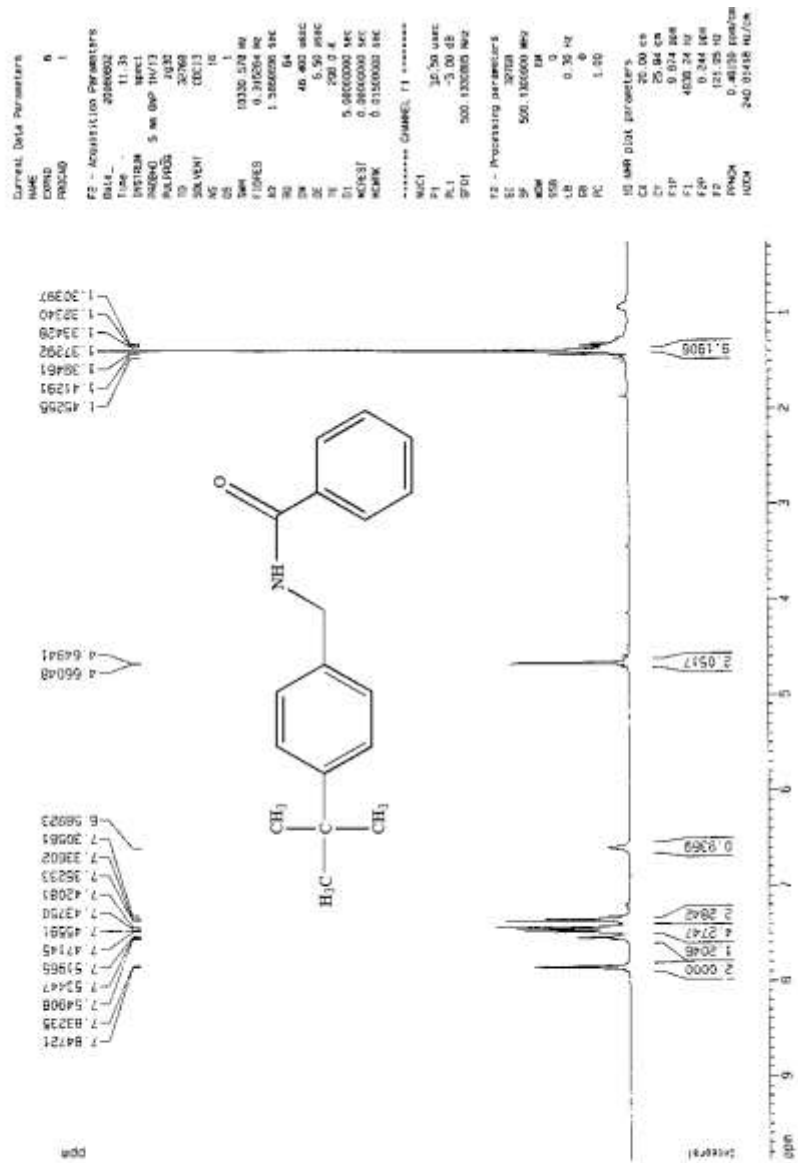
IR:



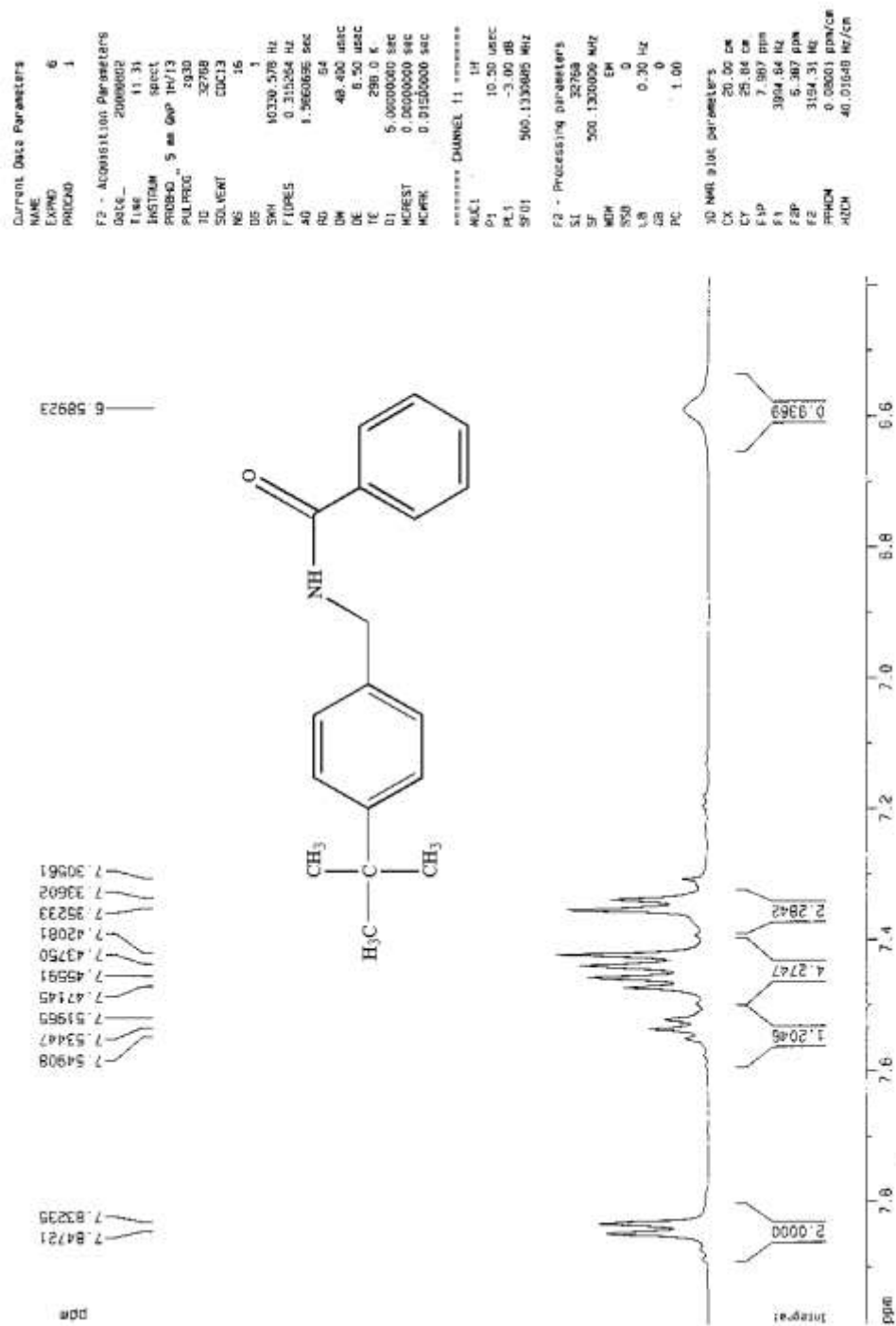


4. N-(4-tert-butylbenzyl) benzamide

<sup>1</sup>HNMR:

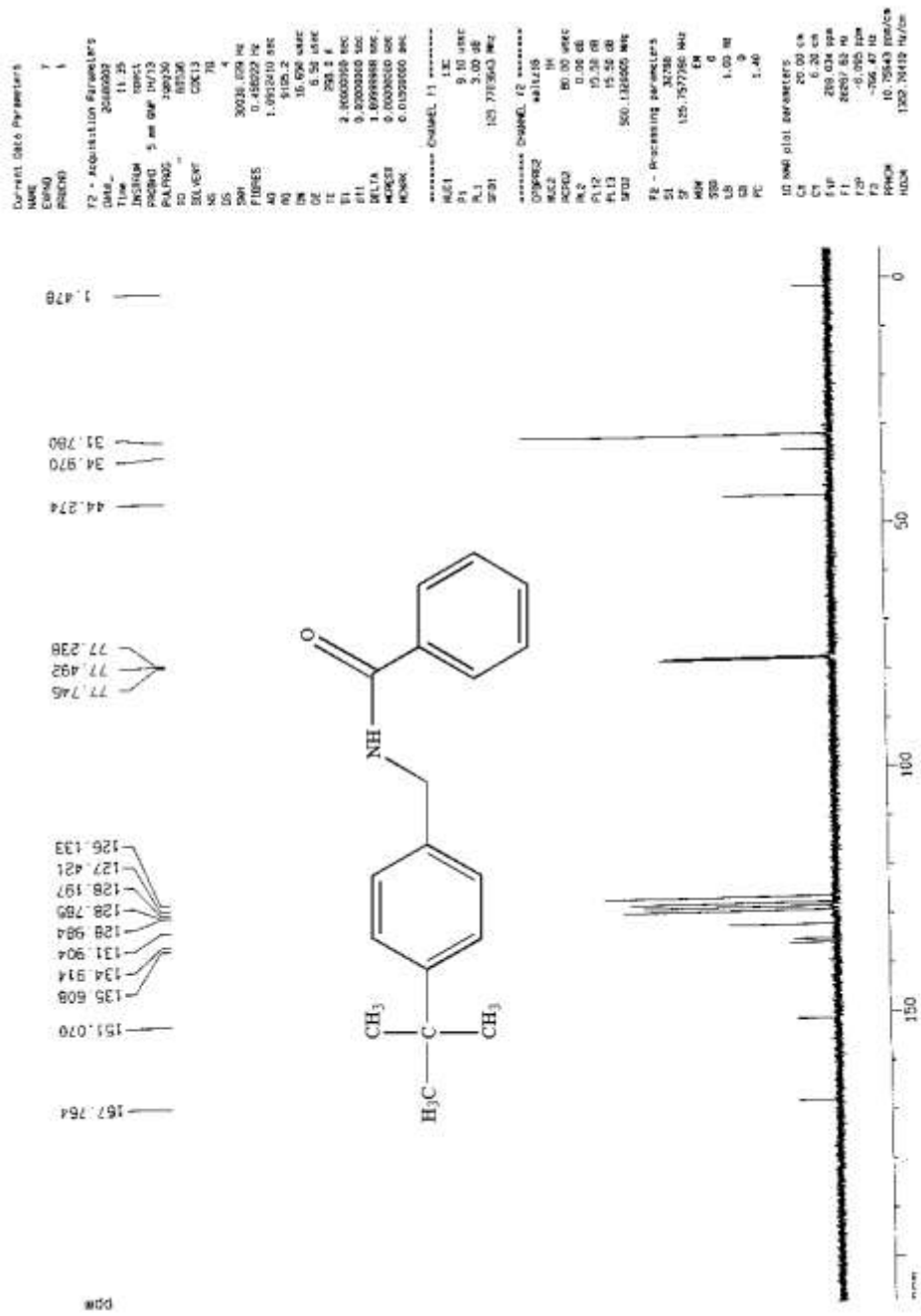


Expand:

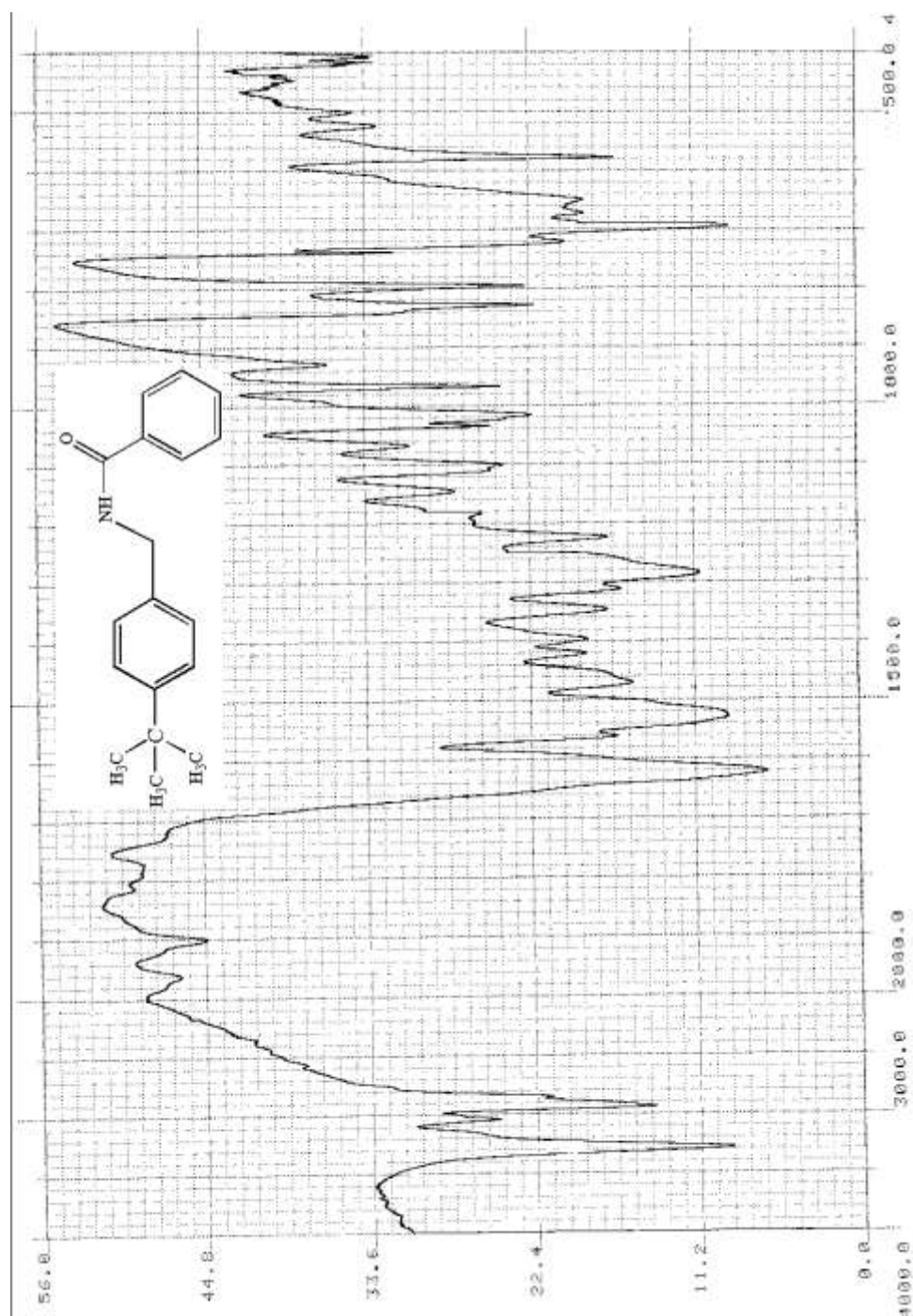




<sup>13</sup>CNMR:

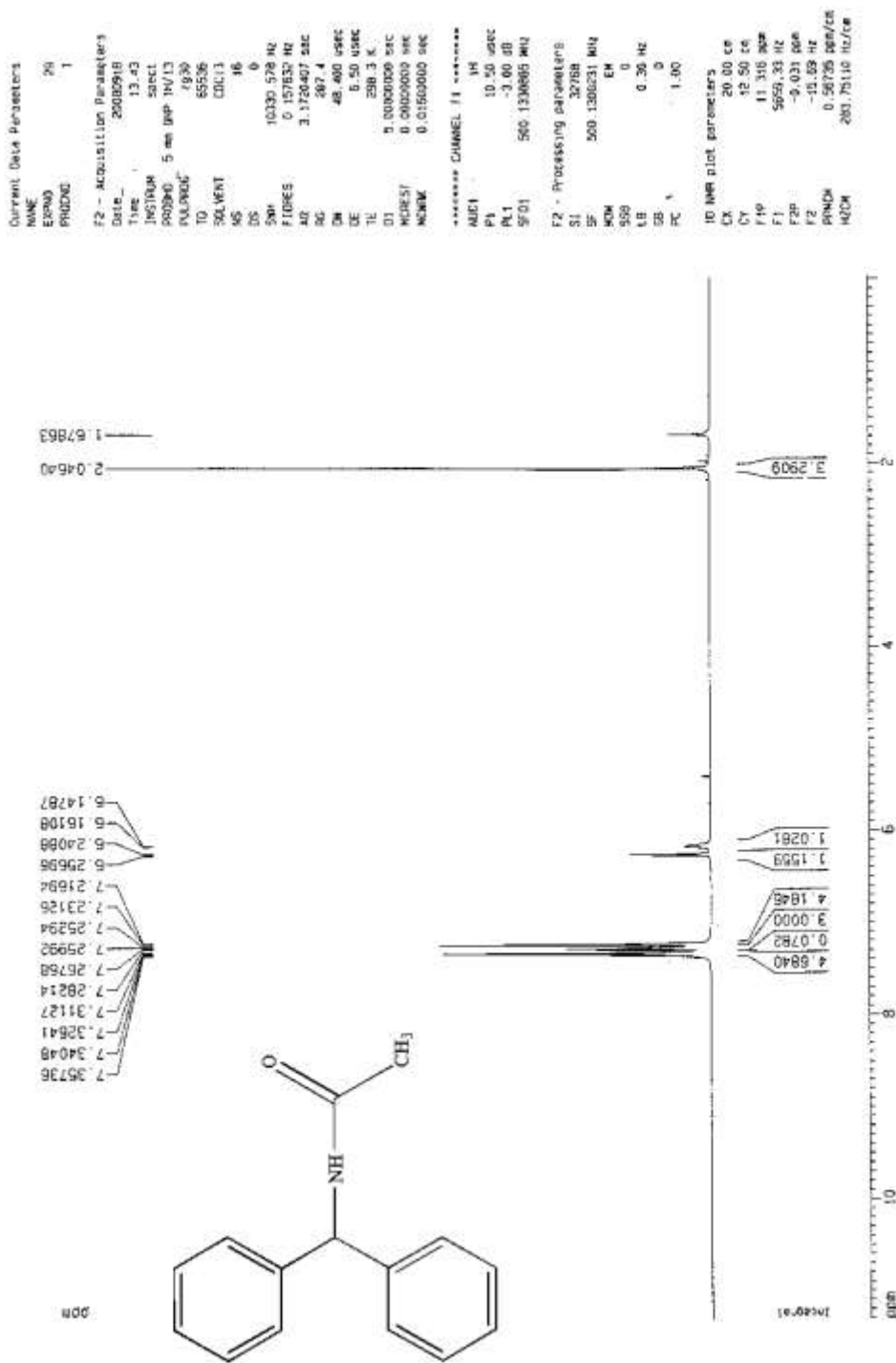


IR:

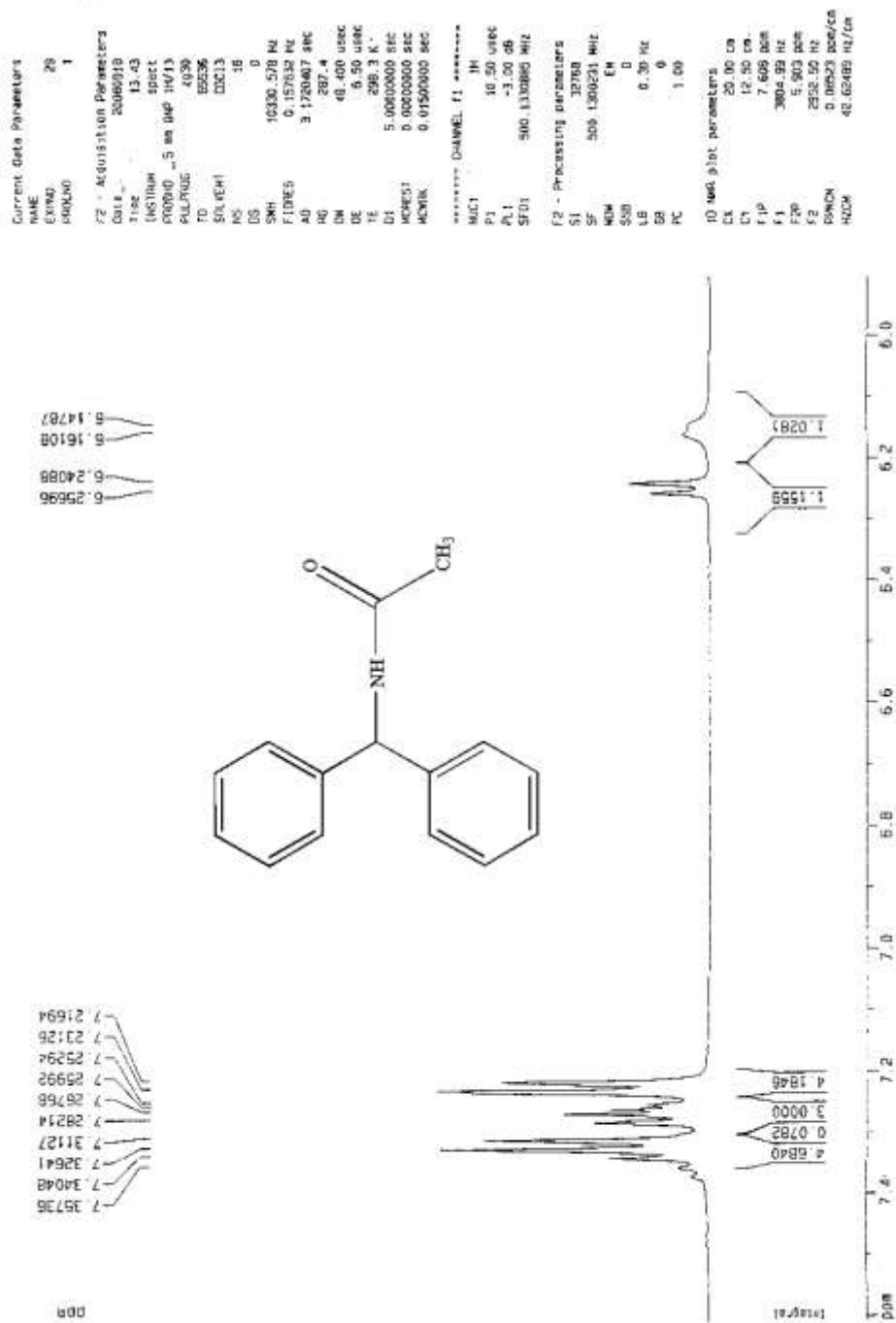


5. N-benzhydrylacetamide

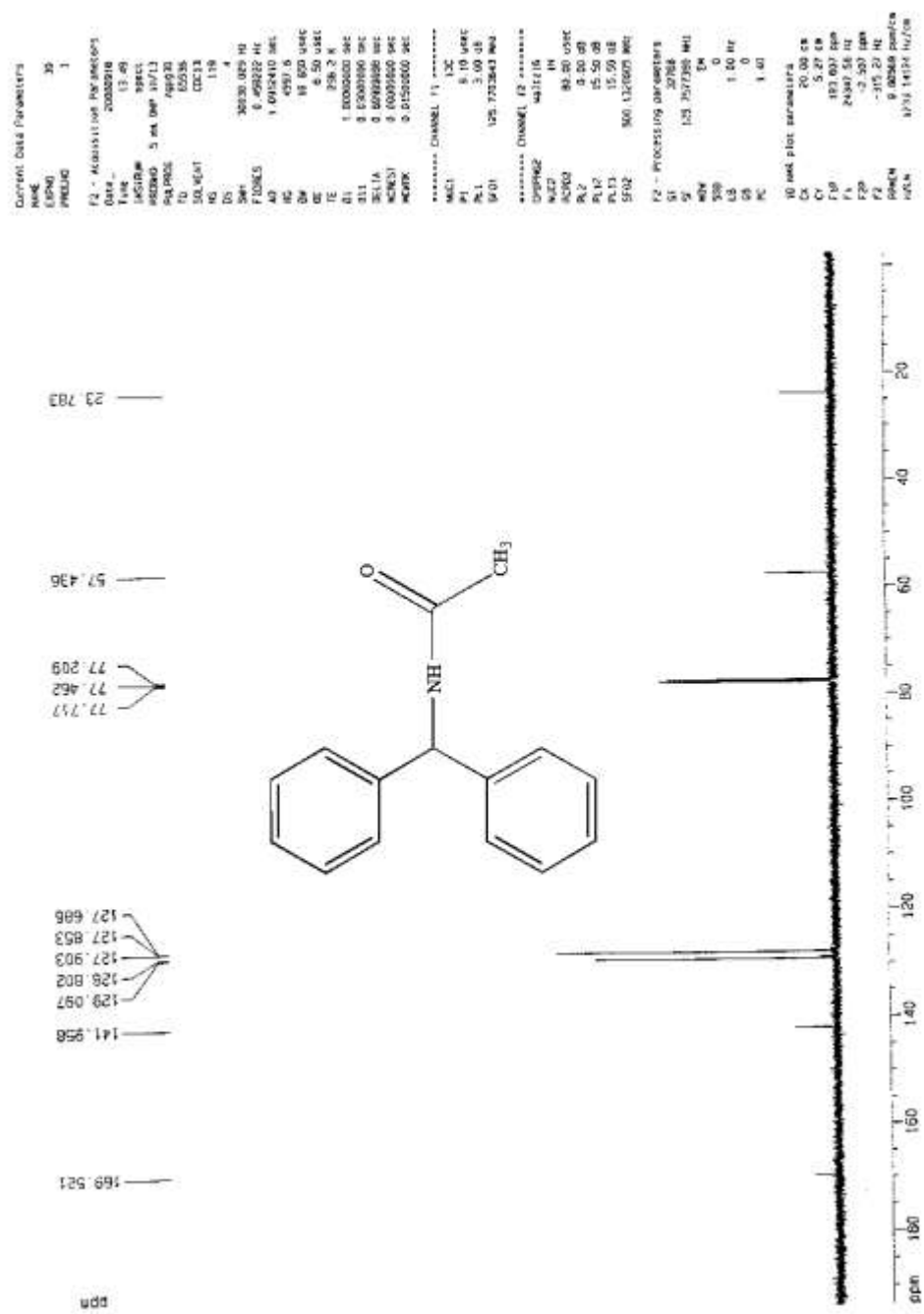
<sup>1</sup>HNMR:



Expand:

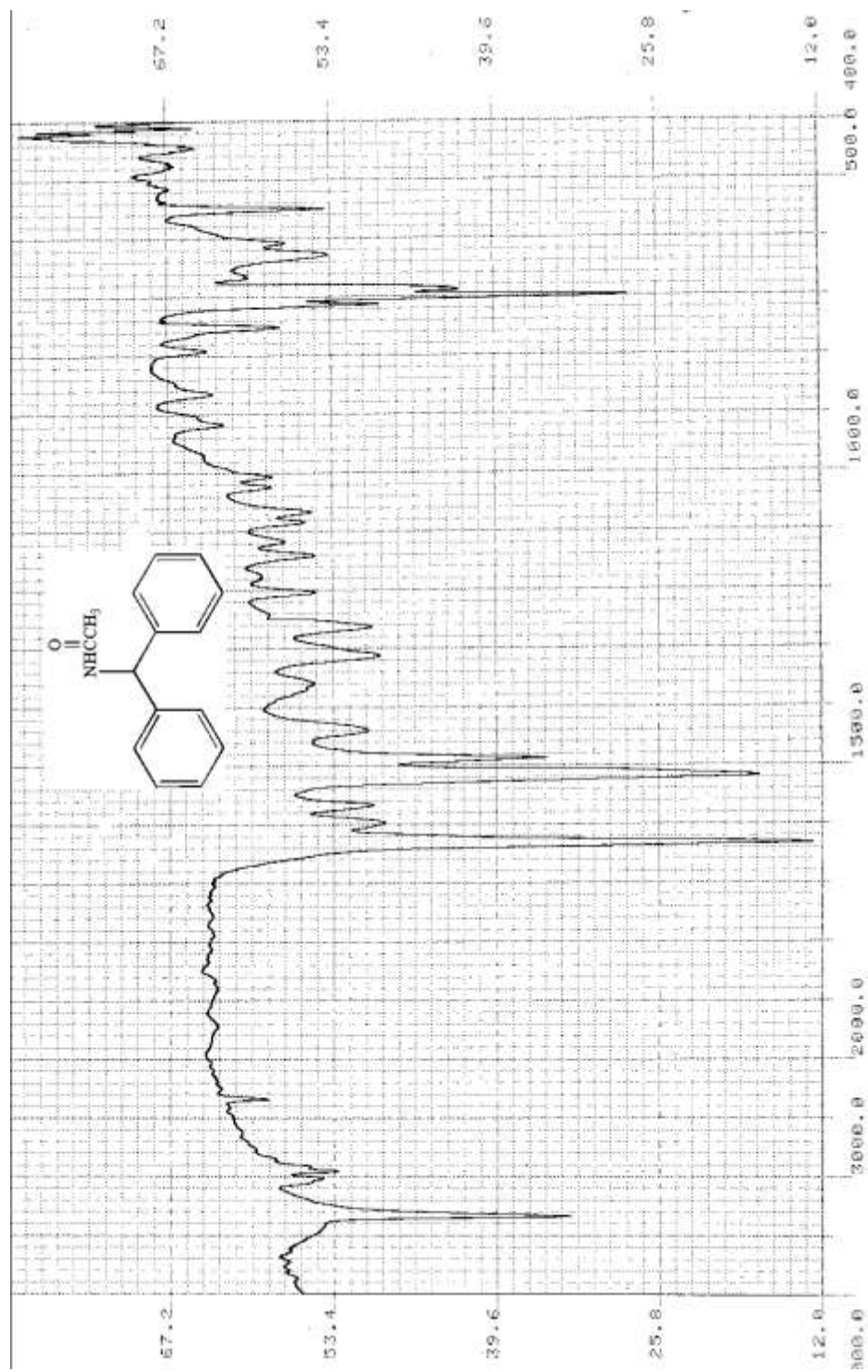


<sup>13</sup>CNMR:





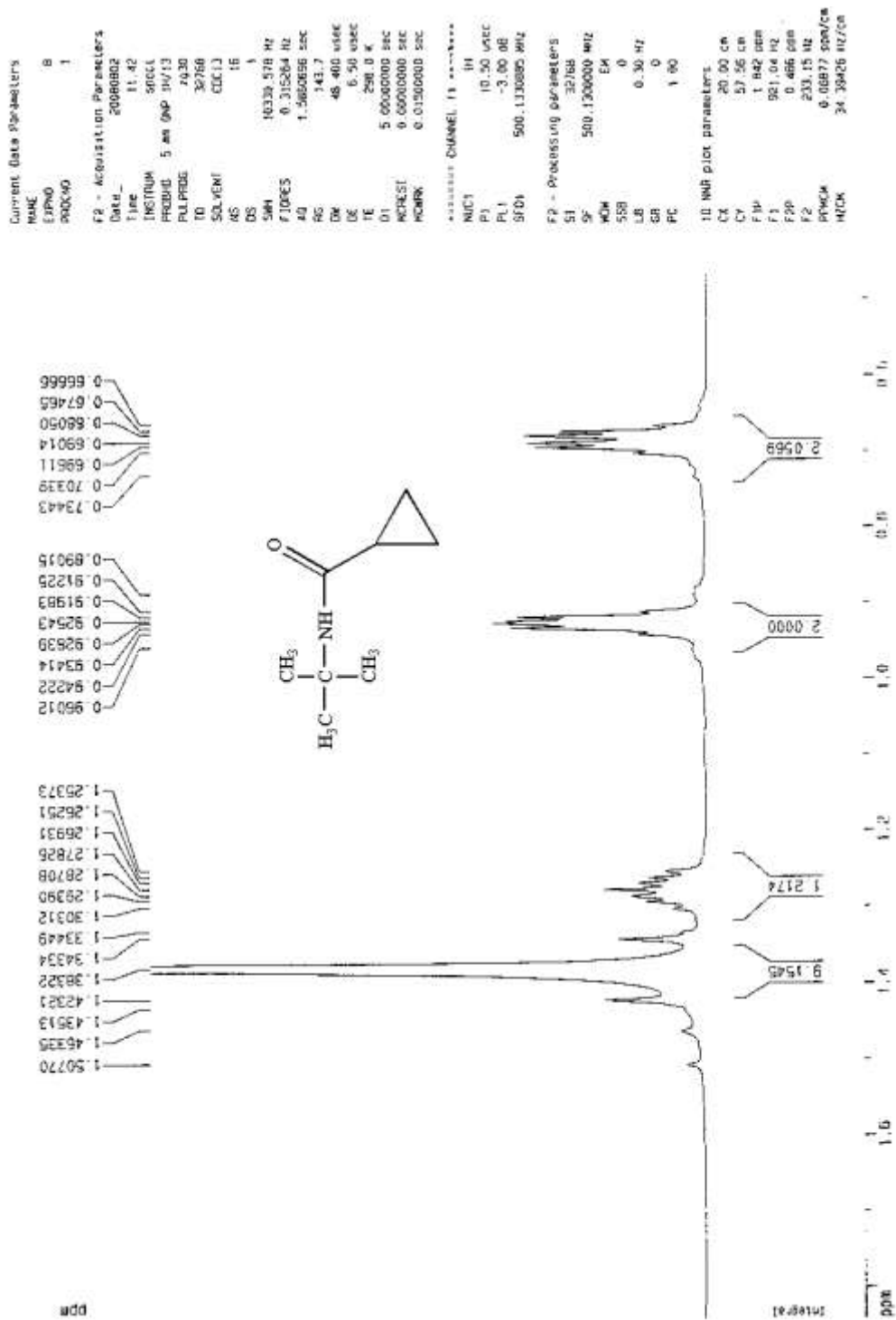
IR:





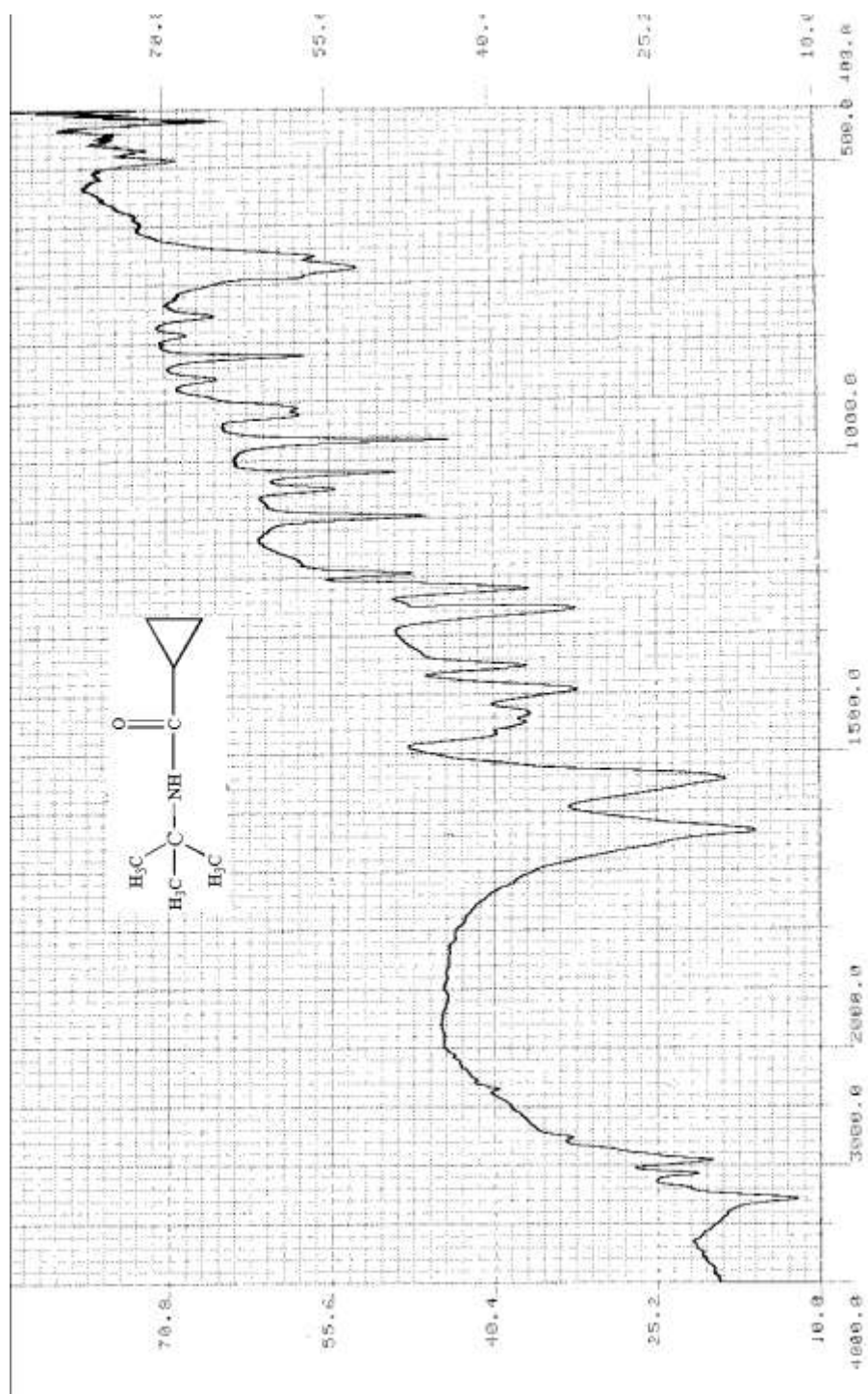


Expand:



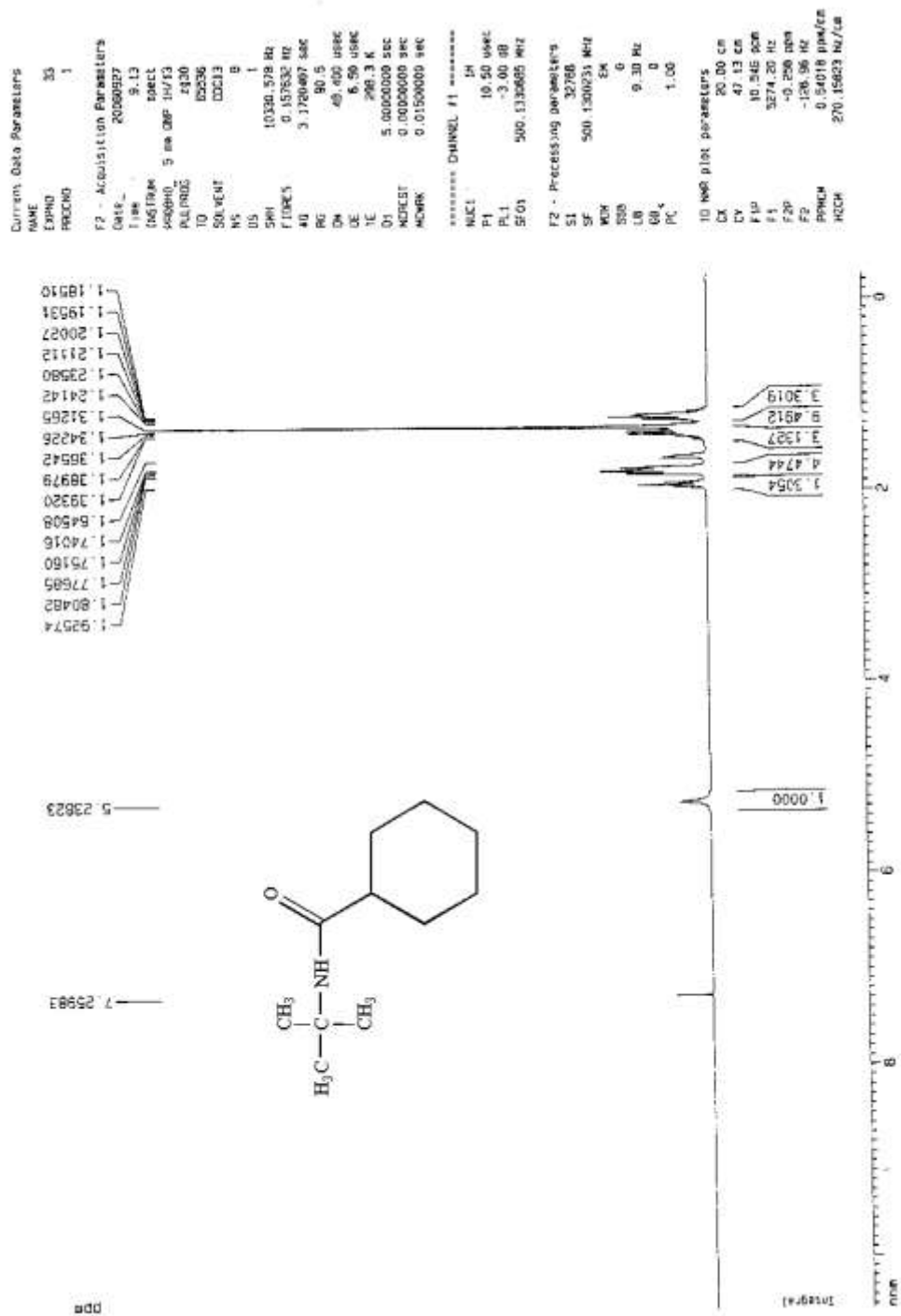


IR:

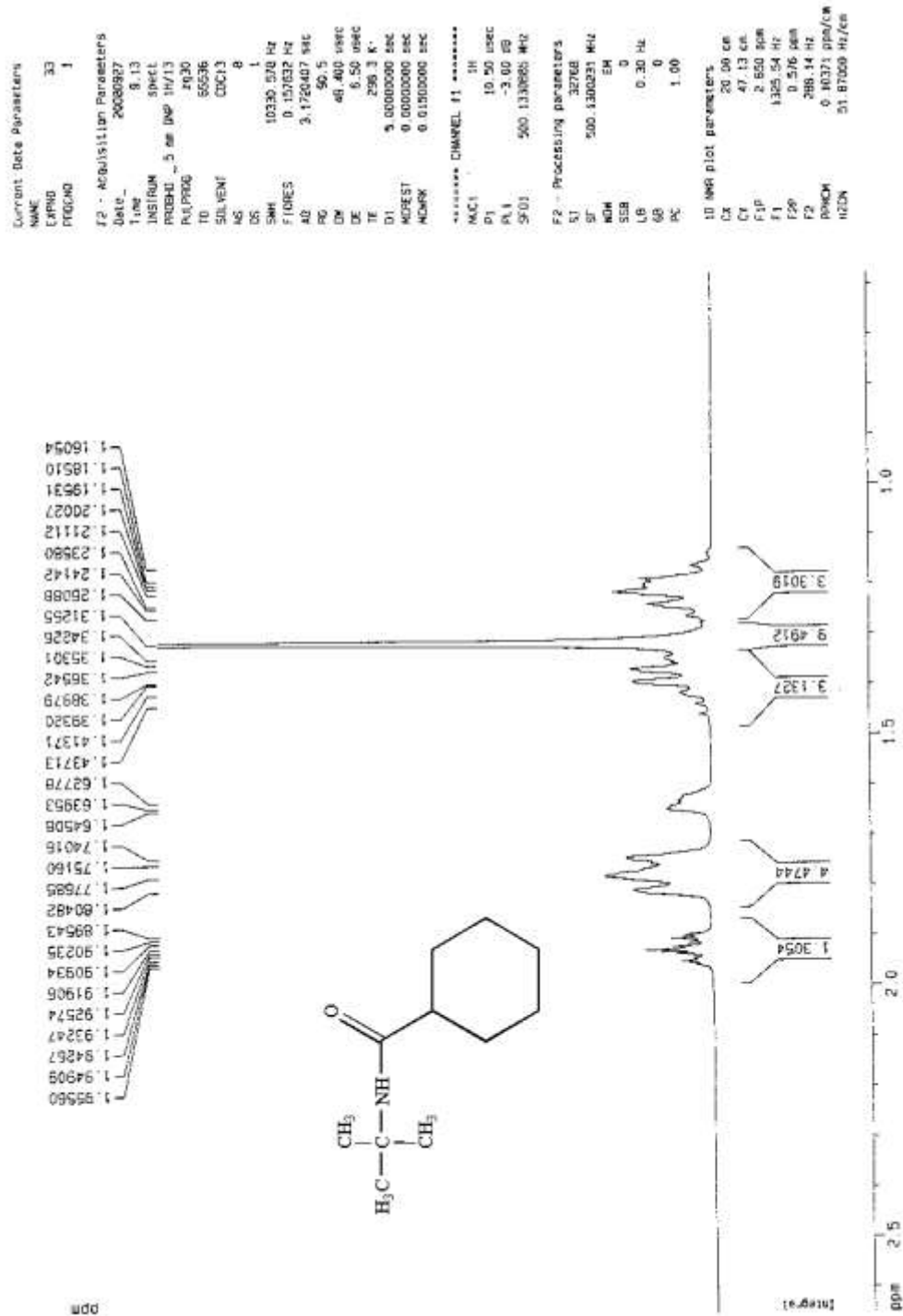


7. N-tert-butyl cyclohexane carboxamide

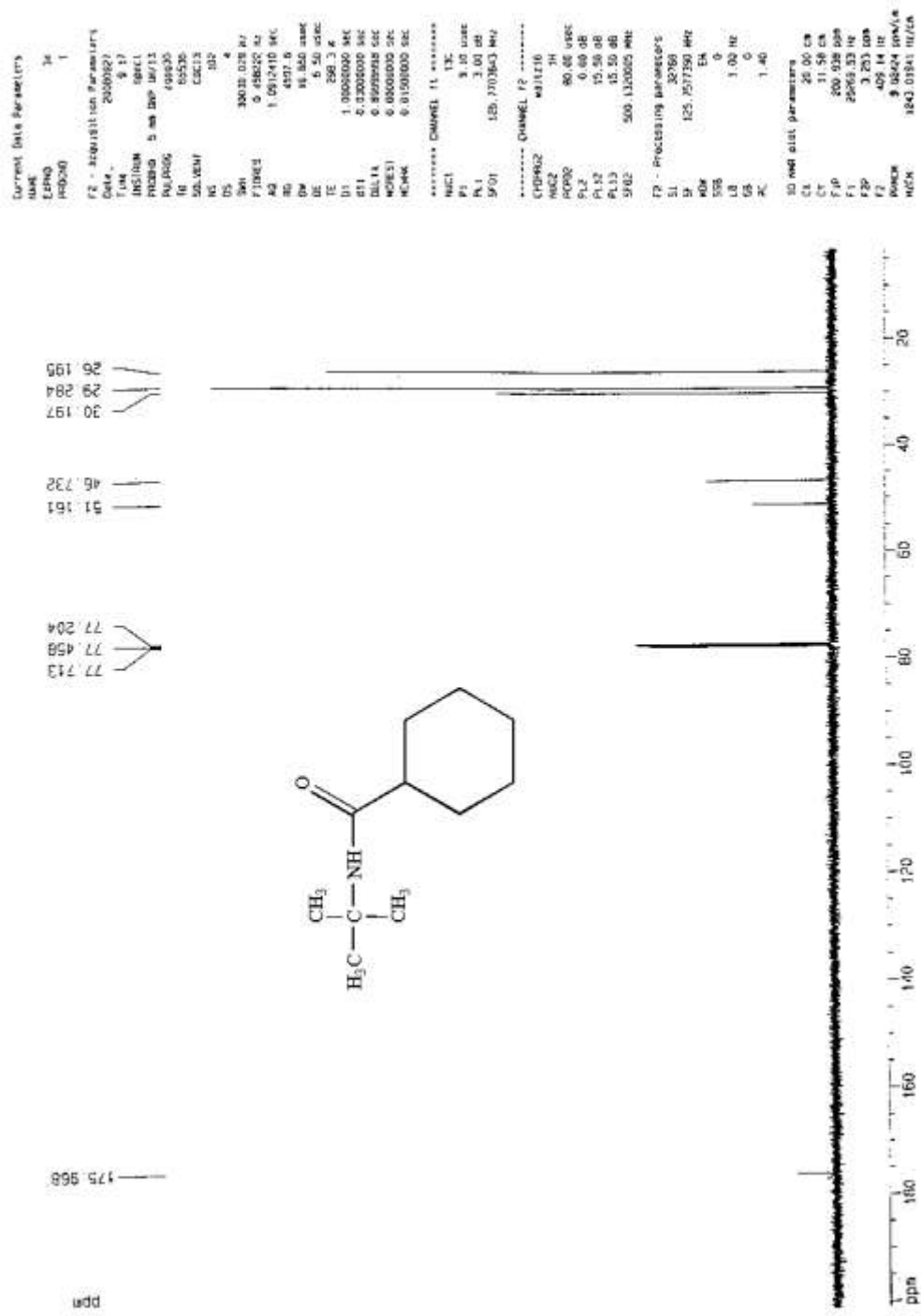
<sup>1</sup>HNMR:



Expand:

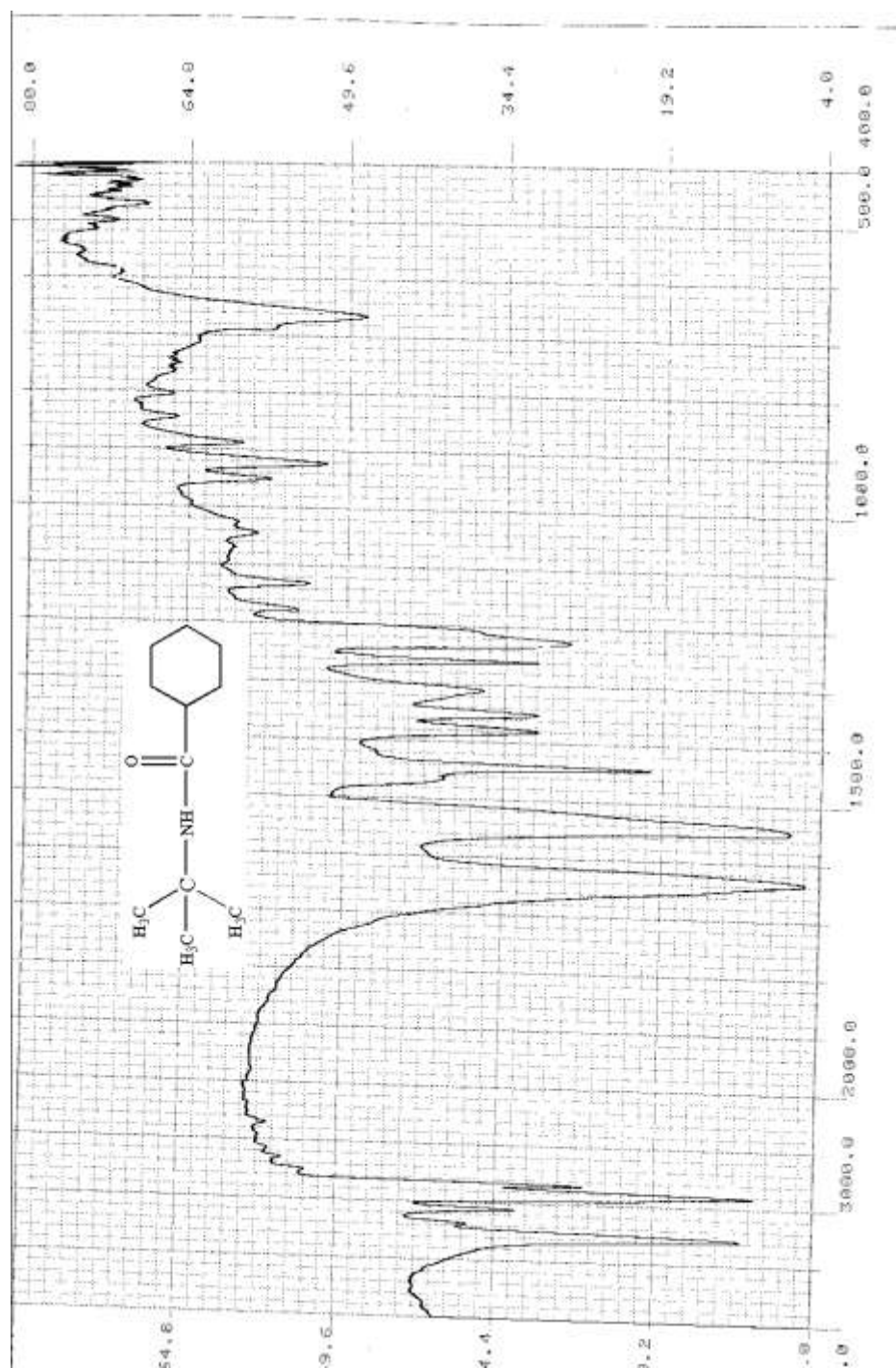


<sup>13</sup>CNMR:





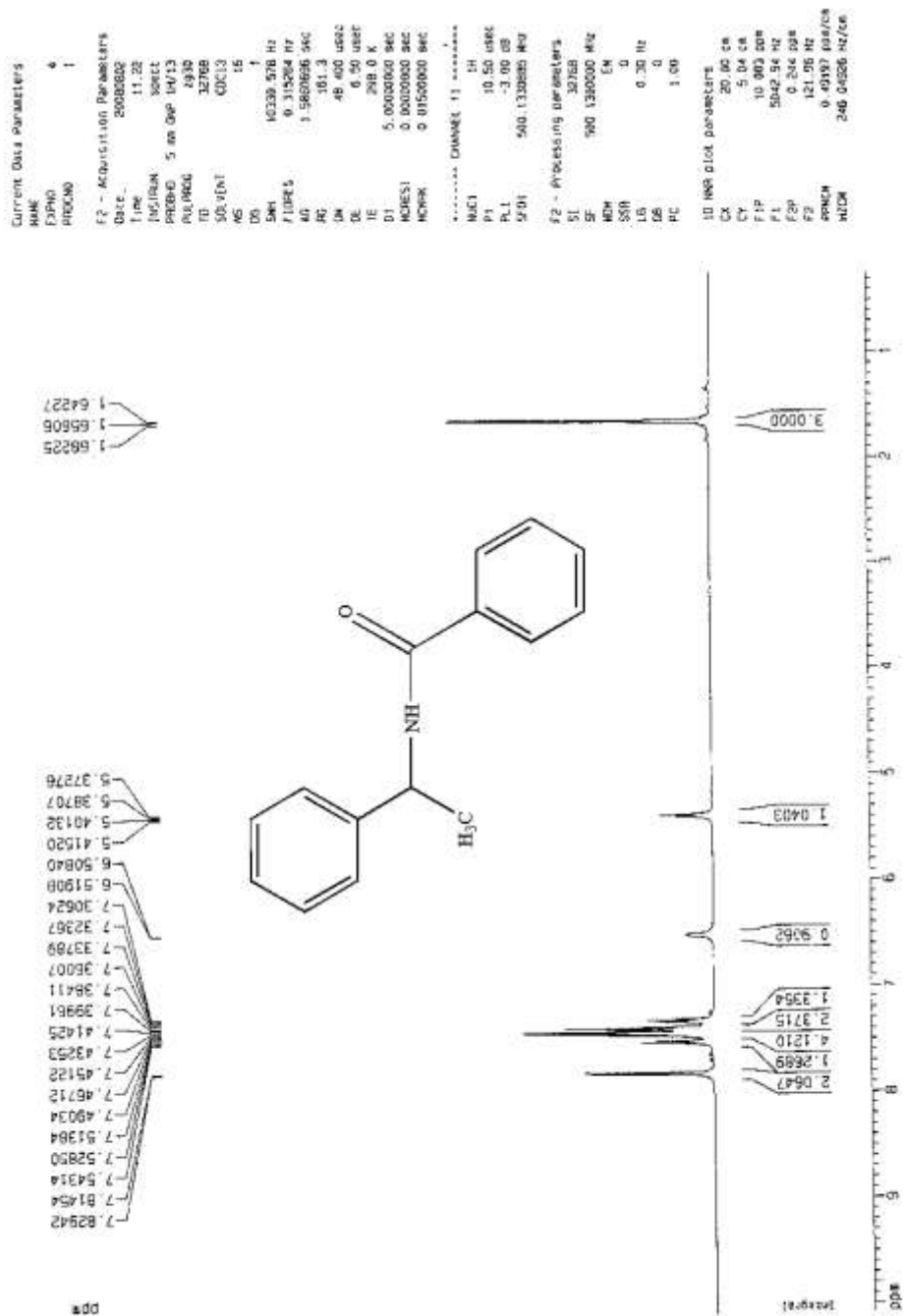
IR:



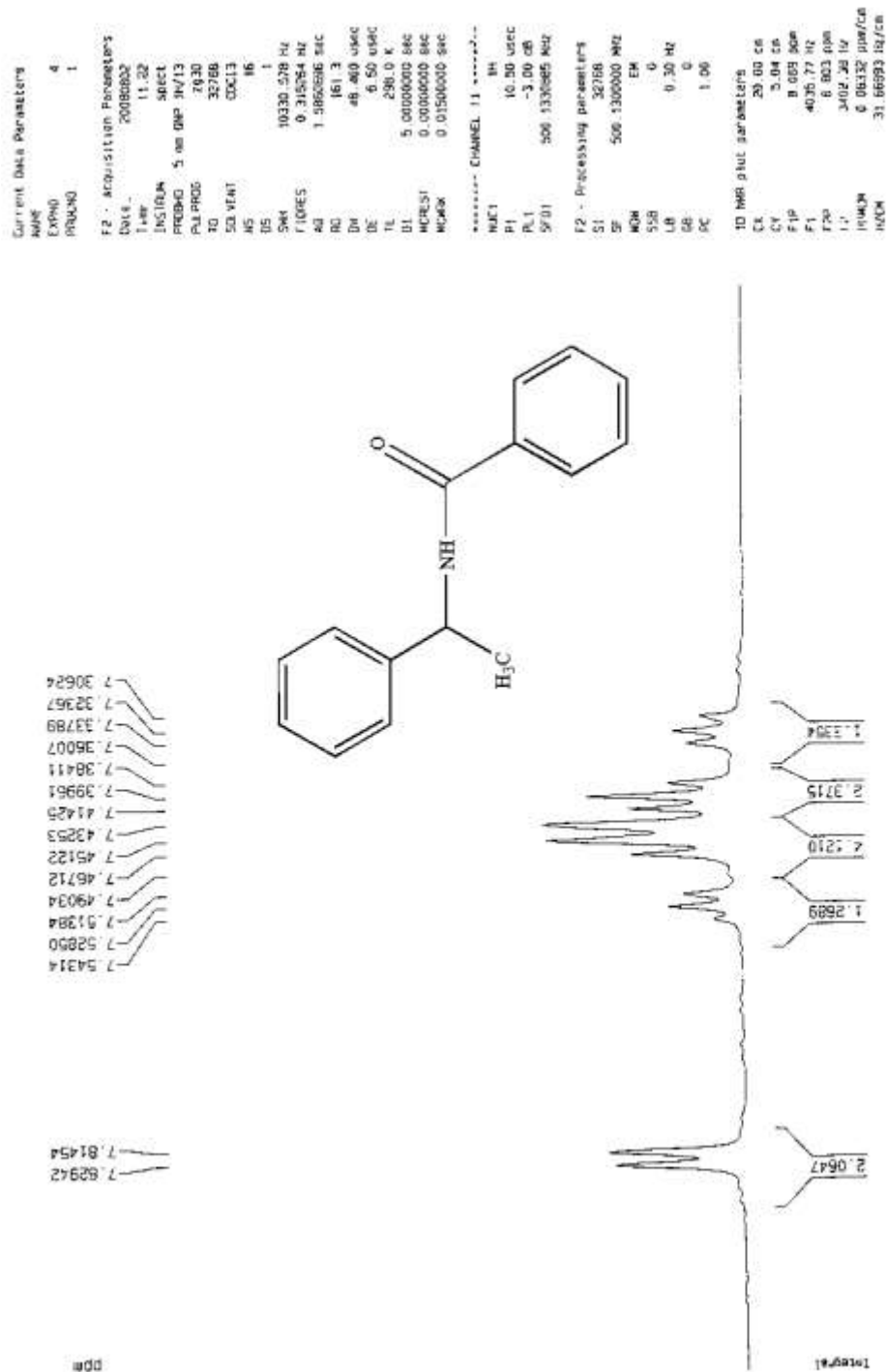


8. N-(1-phenylethyl) benzamide

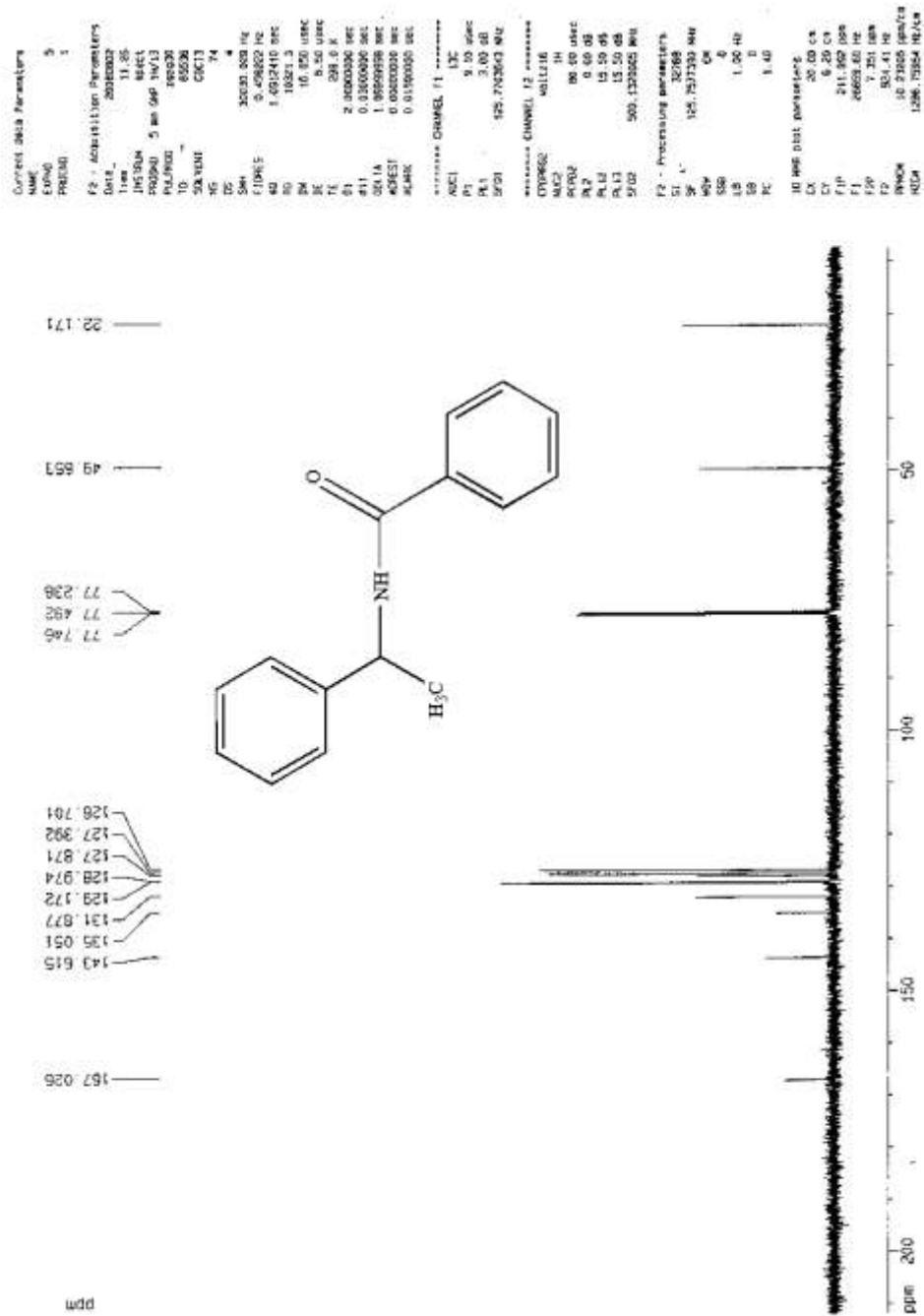
<sup>1</sup>HNMR:



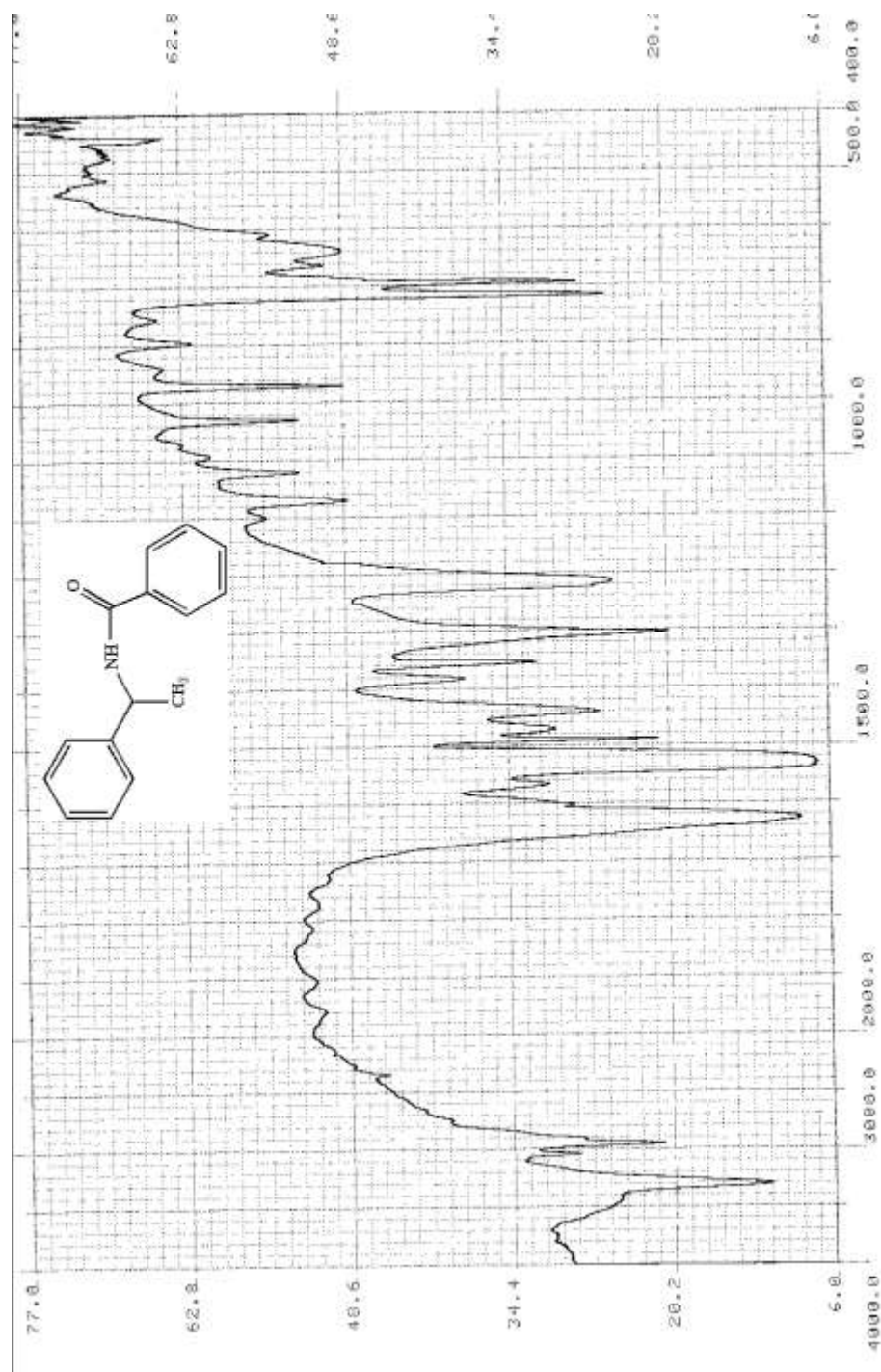
Expand:



<sup>13</sup>CNMR:

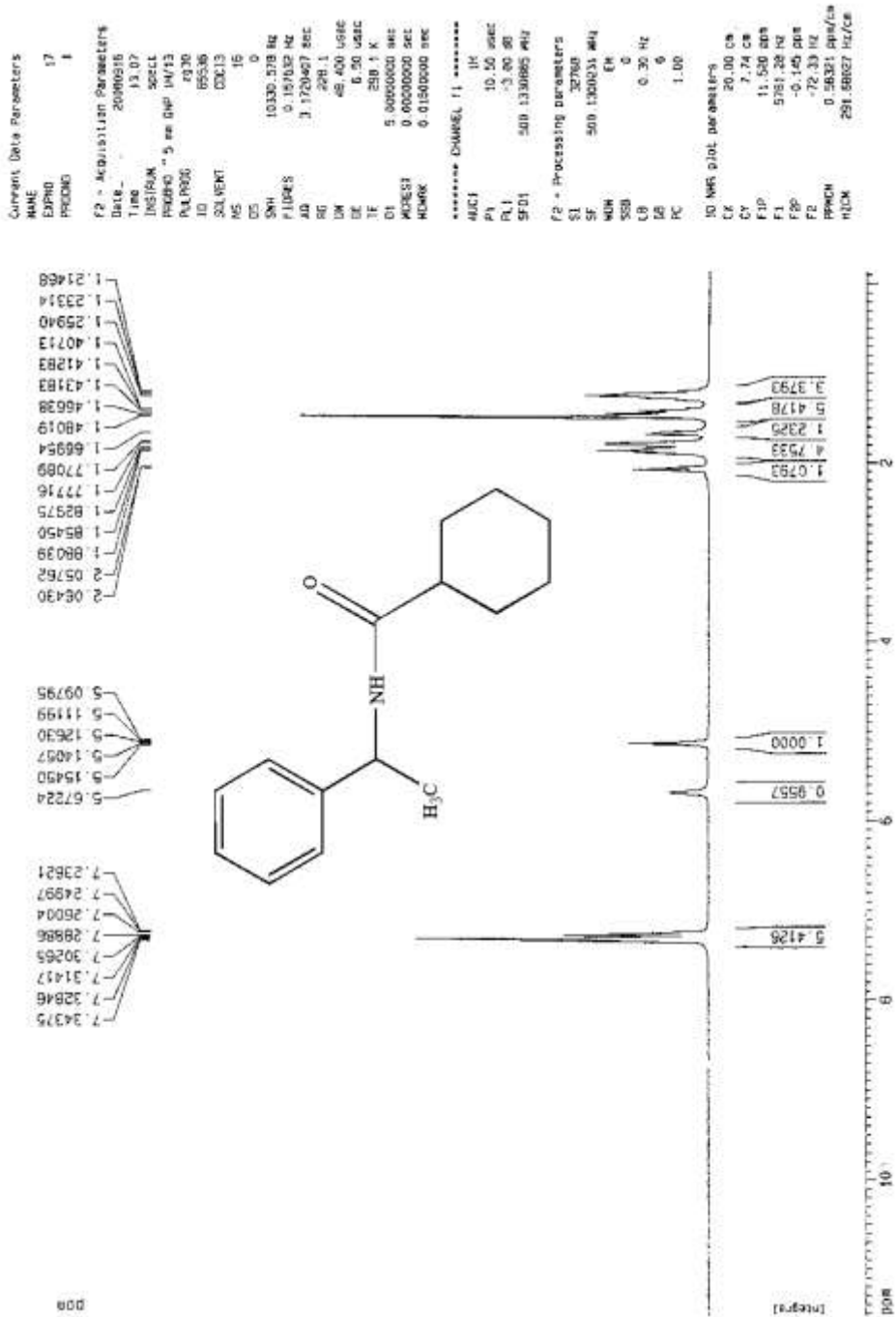


IR:



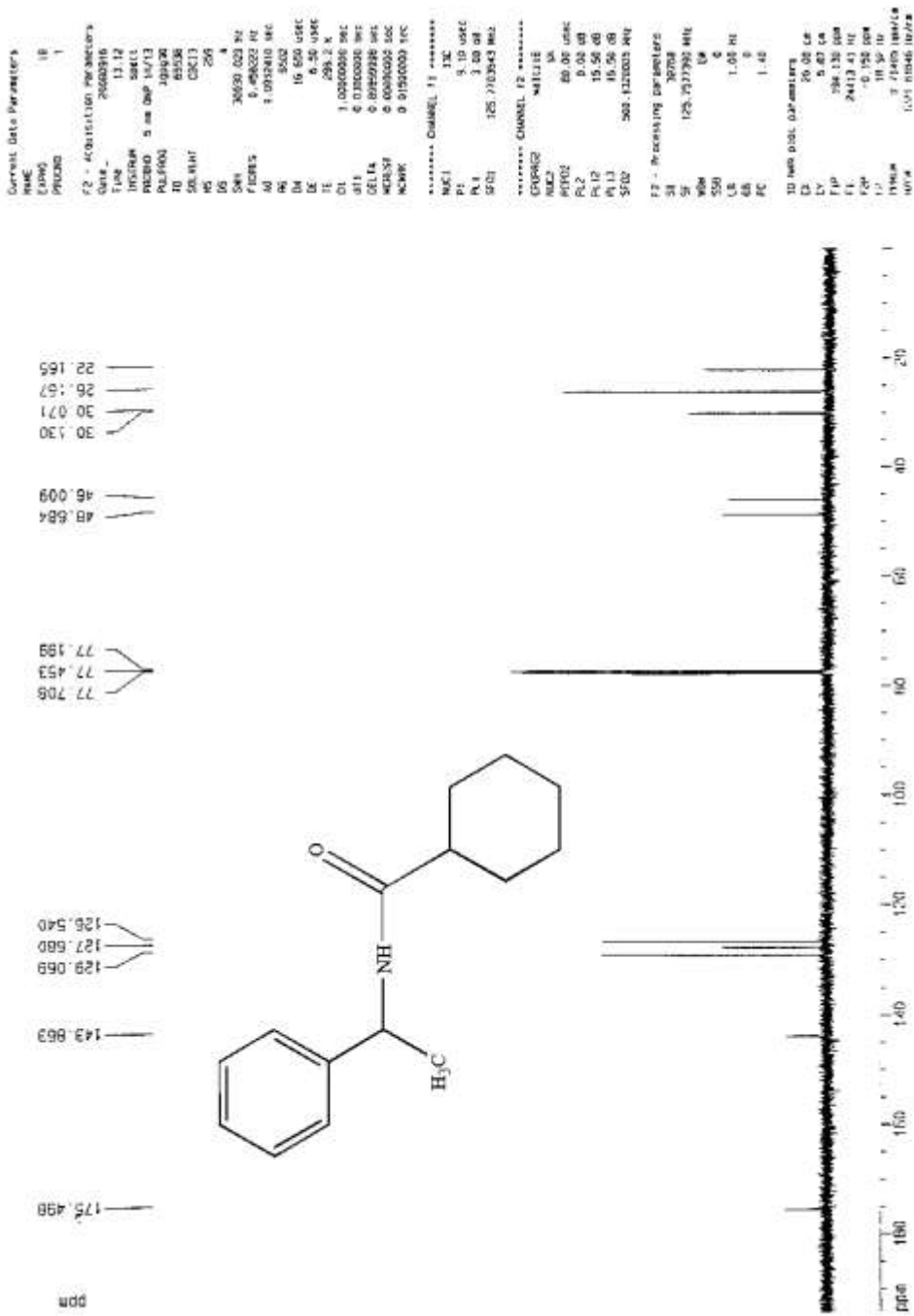
9. N-(1-phenylethyl) cyclohexane carboxamide

<sup>1</sup>HNMR:



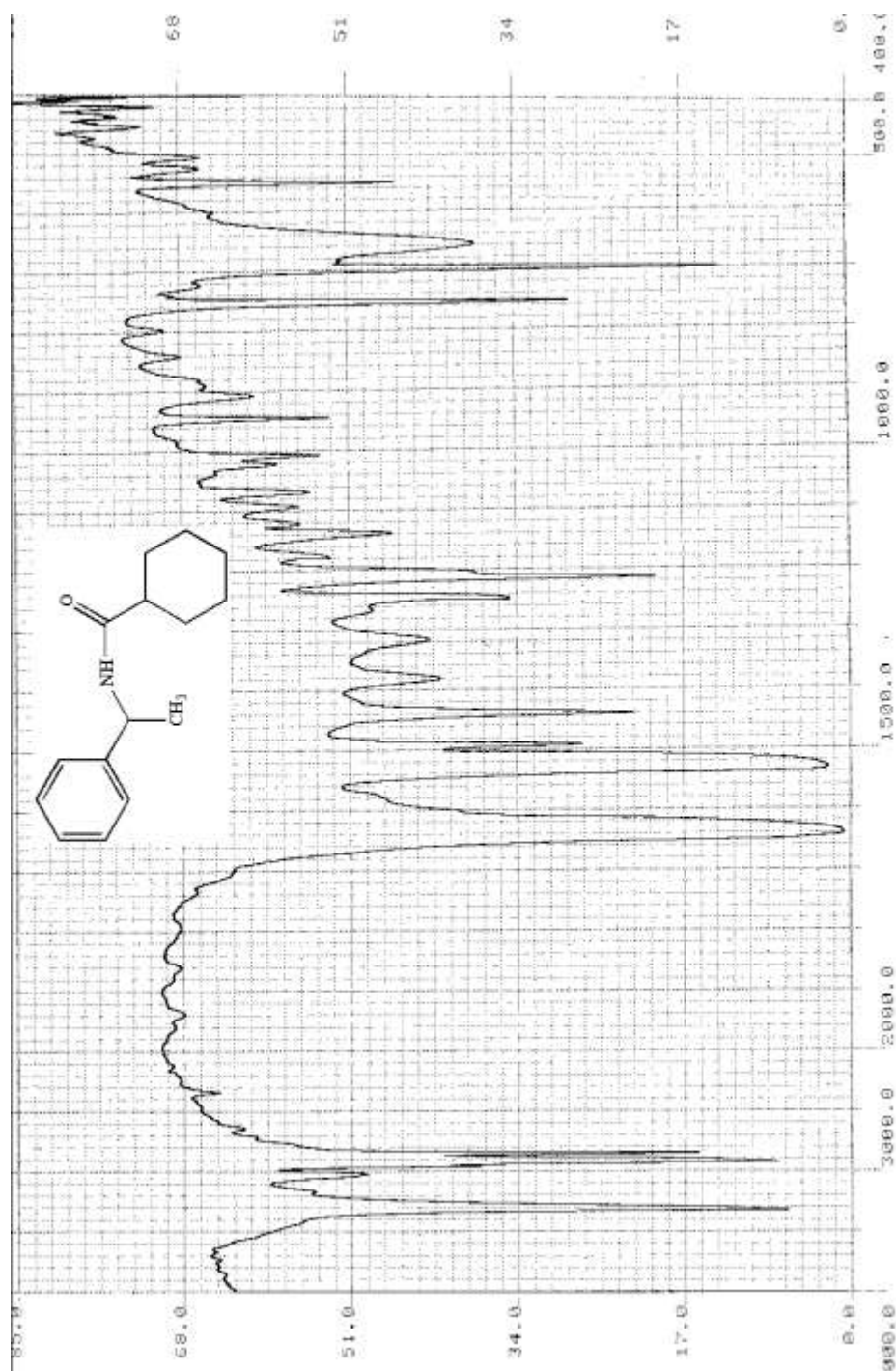


<sup>13</sup>CNMR:



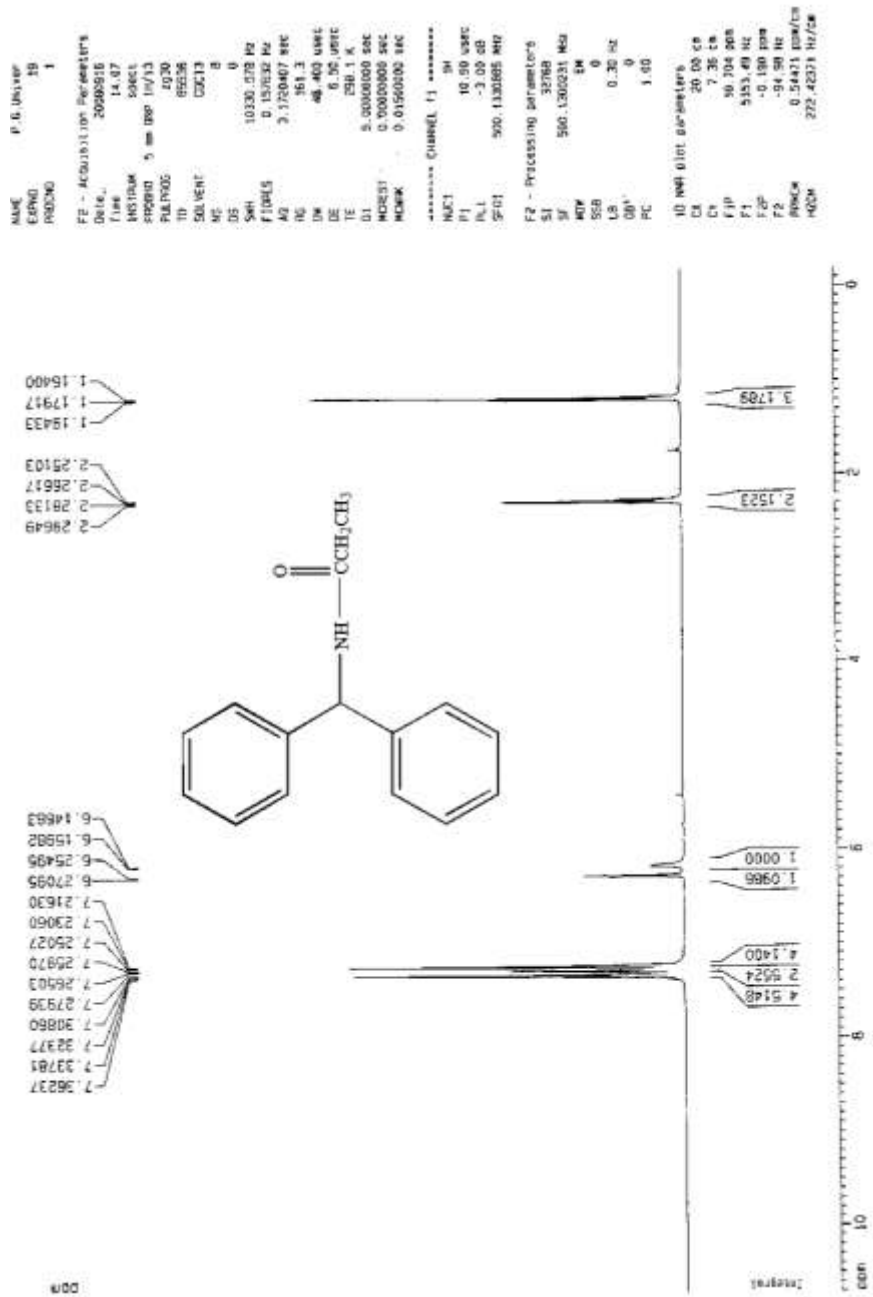


IR:

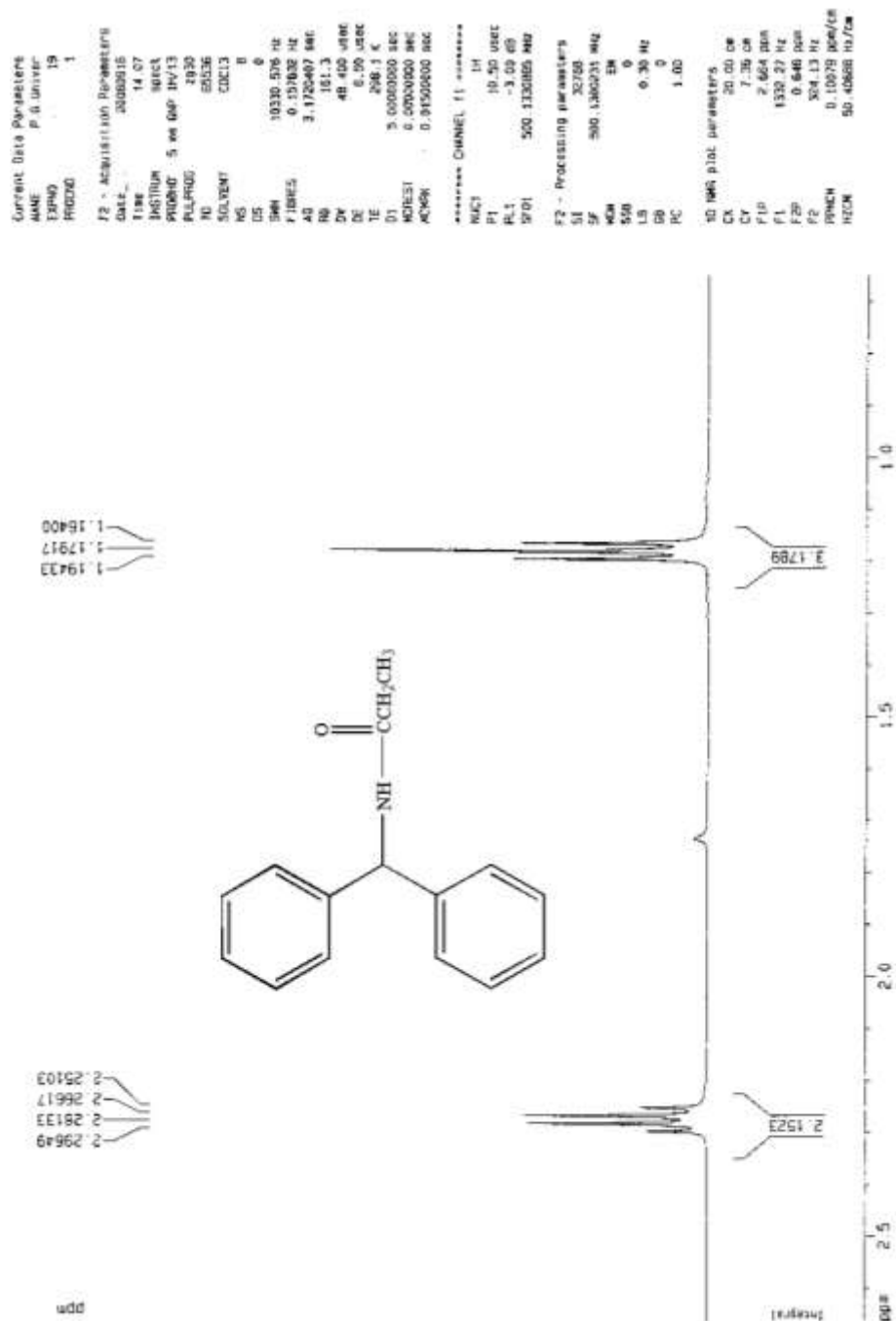


10. N-benzhydryl propionamide

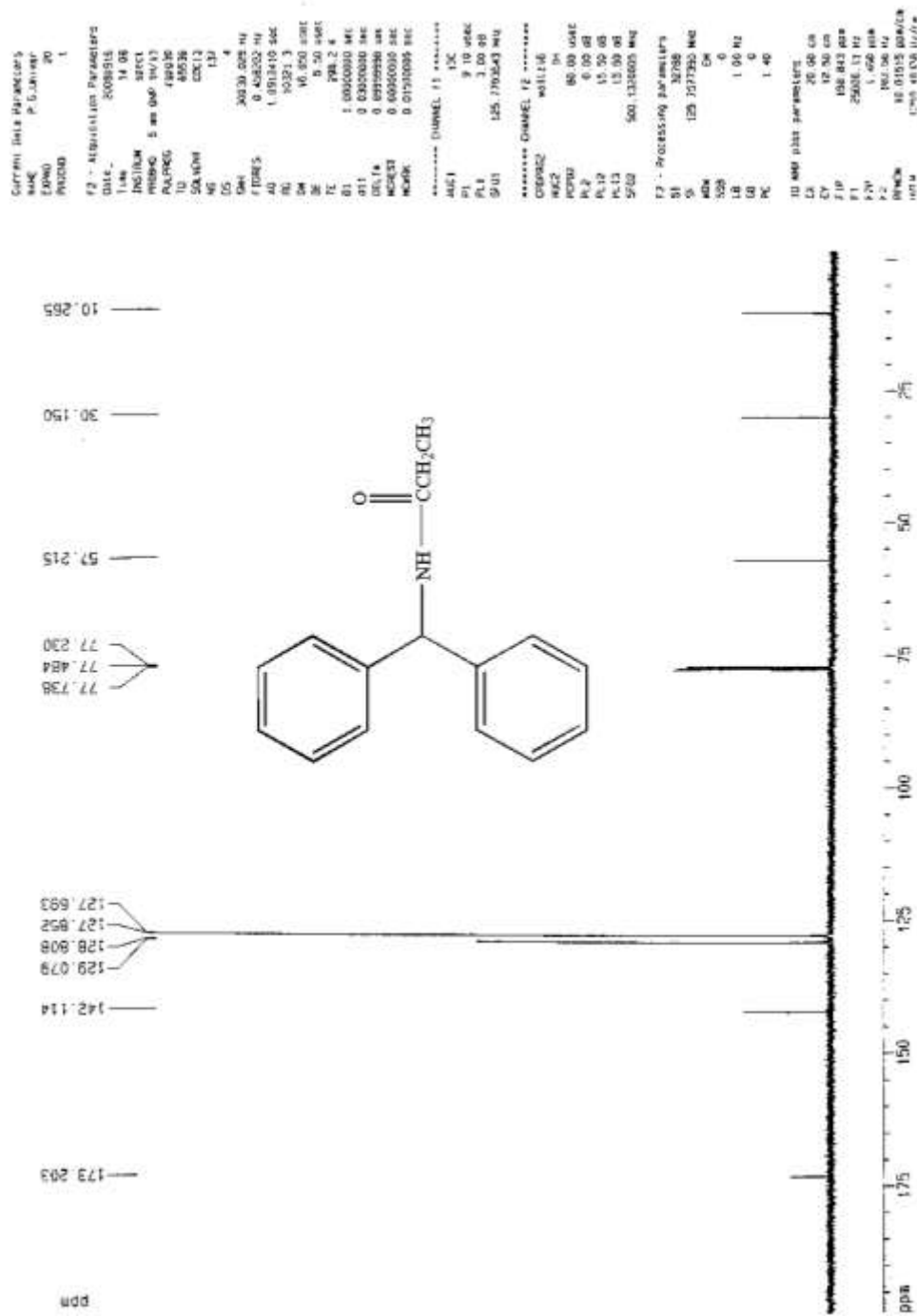
<sup>1</sup>HNMR:



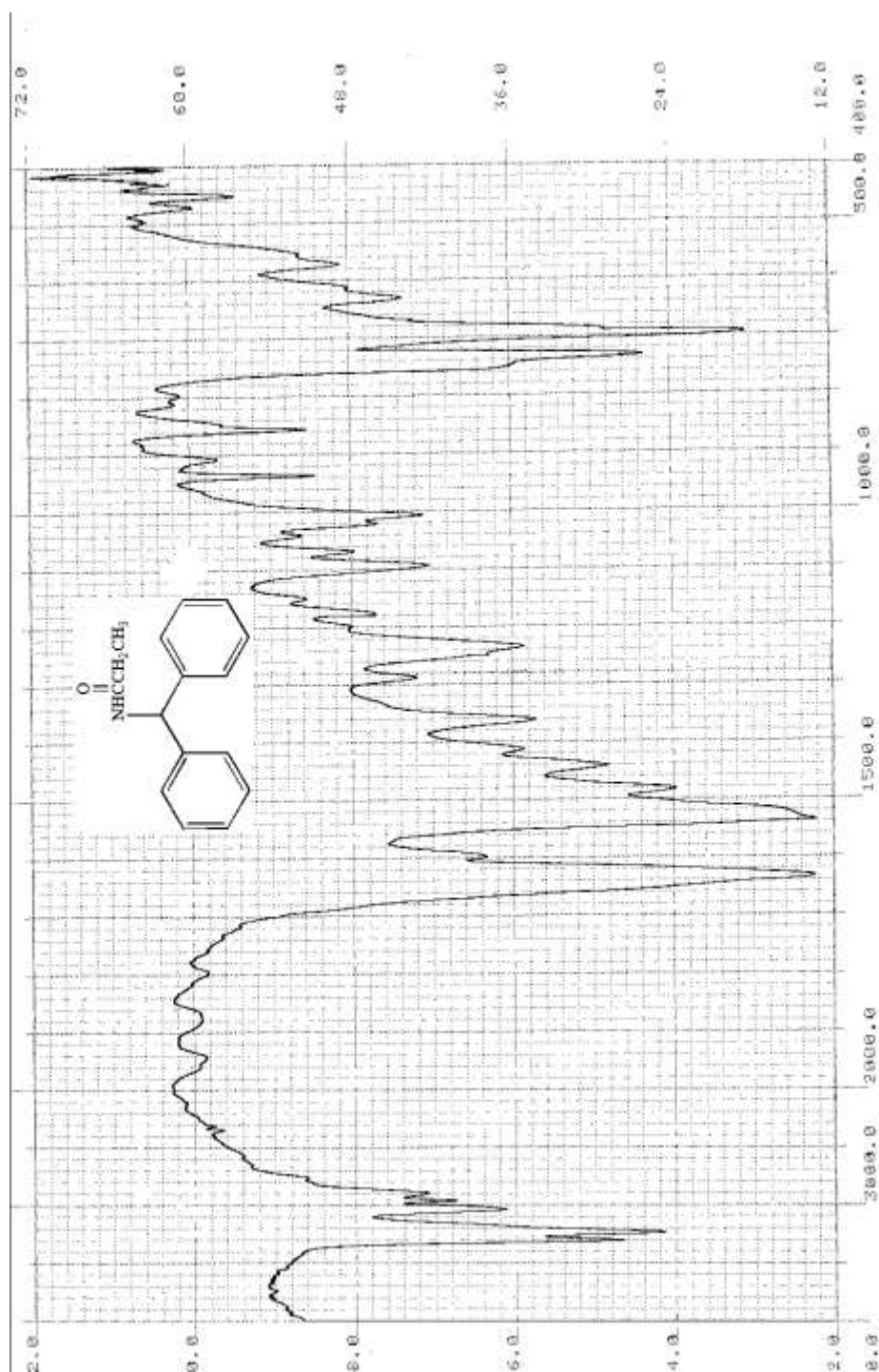
Expand:



<sup>13</sup>CNMR:



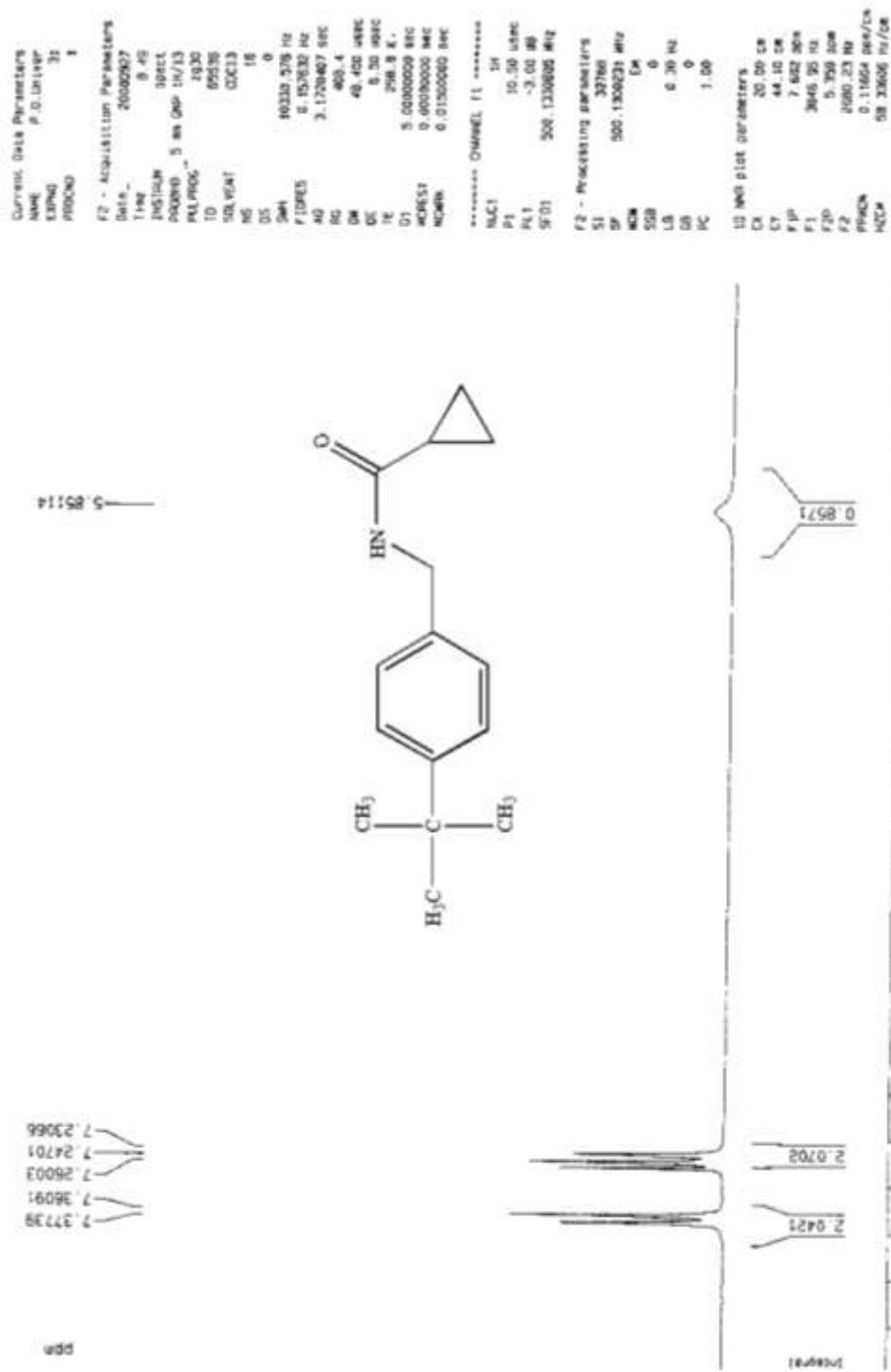
IR:



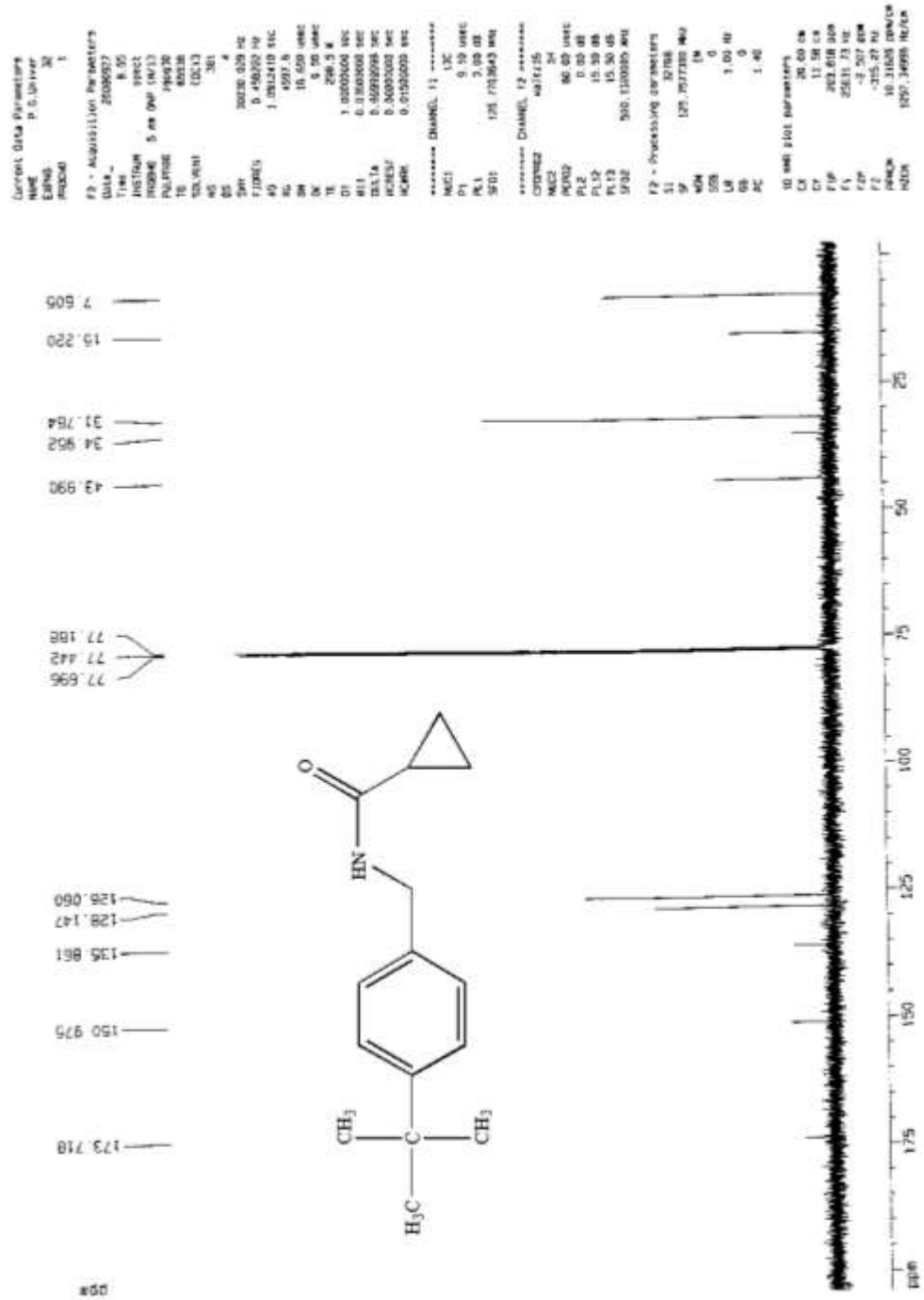




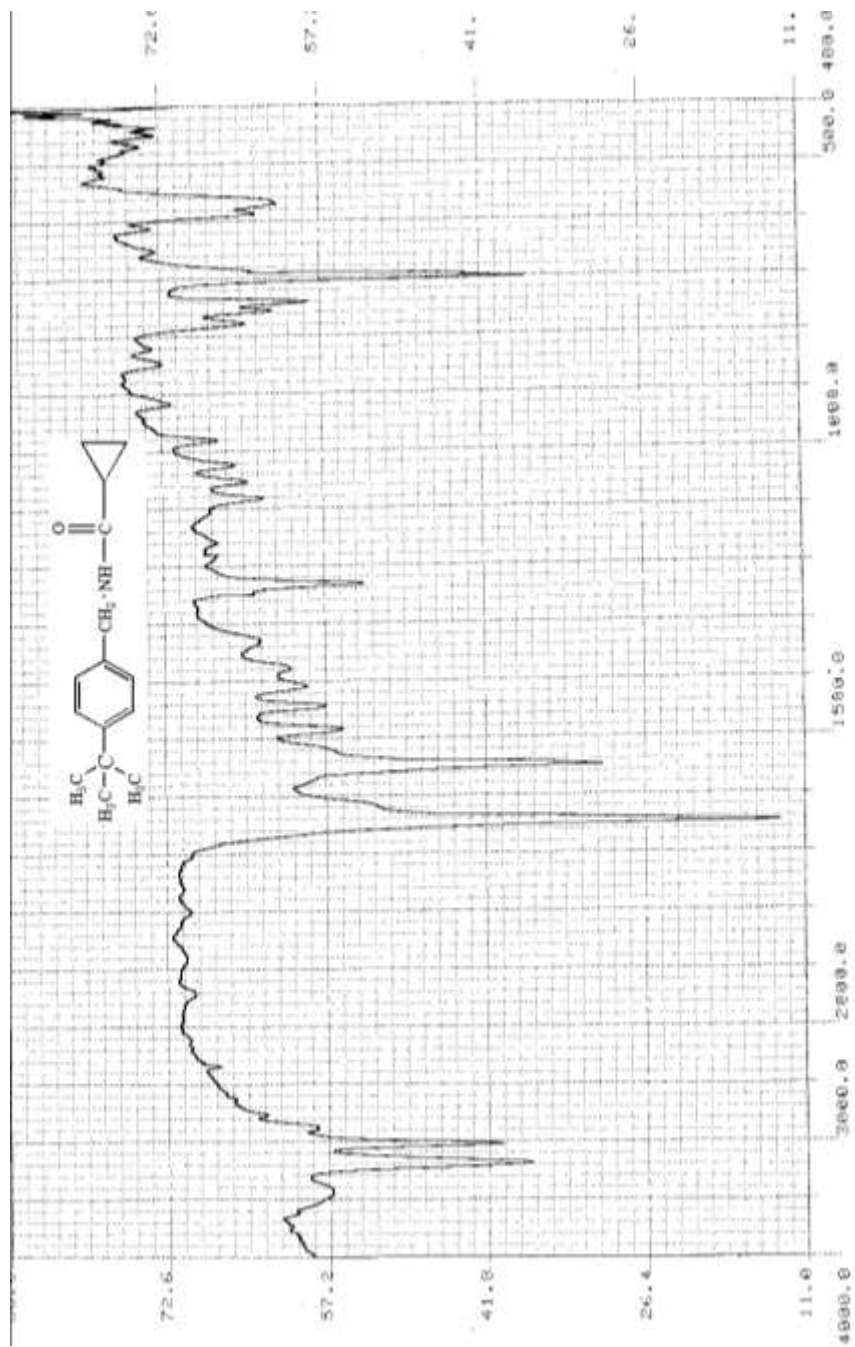
Expand:



<sup>13</sup>CNMR:

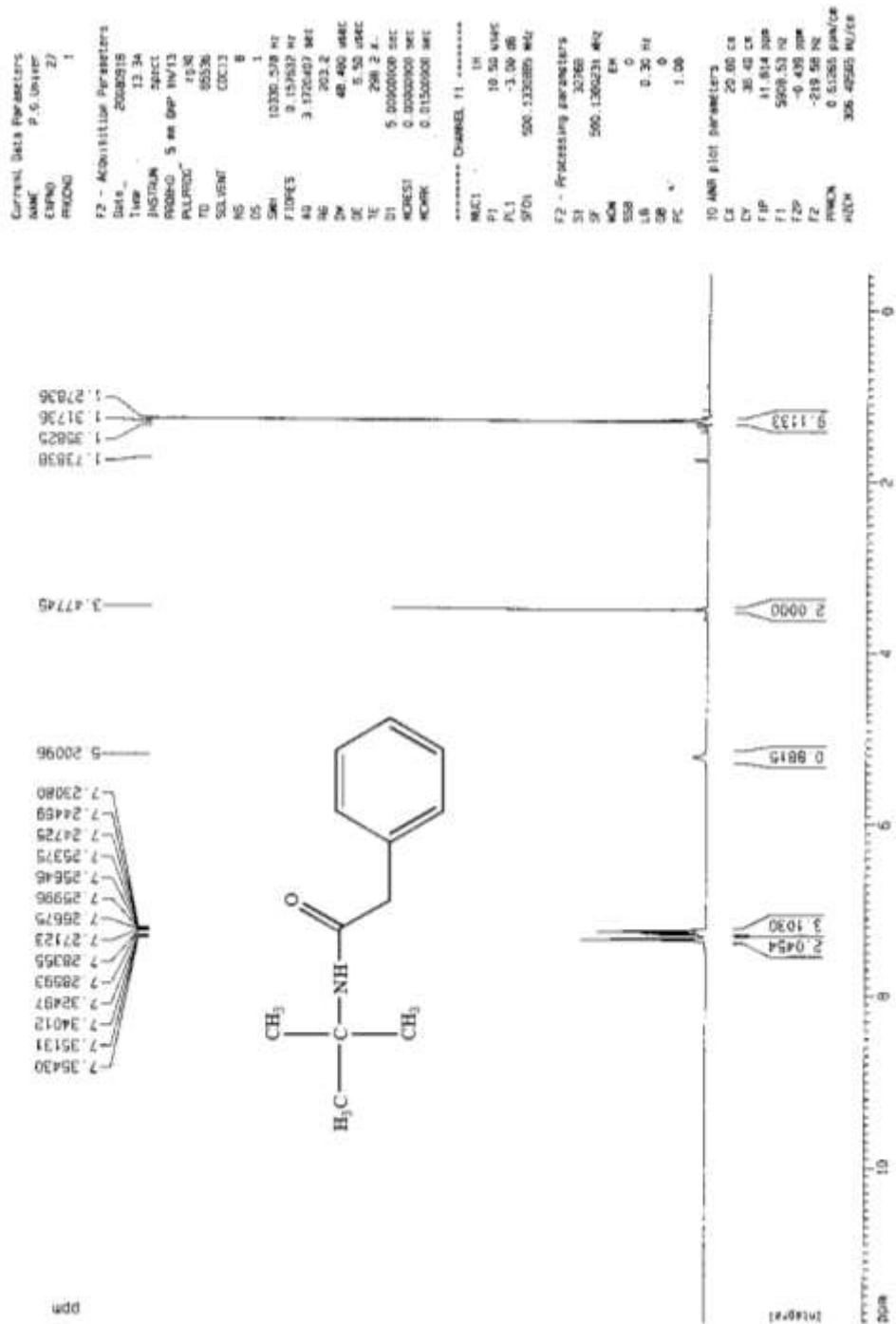


IR:

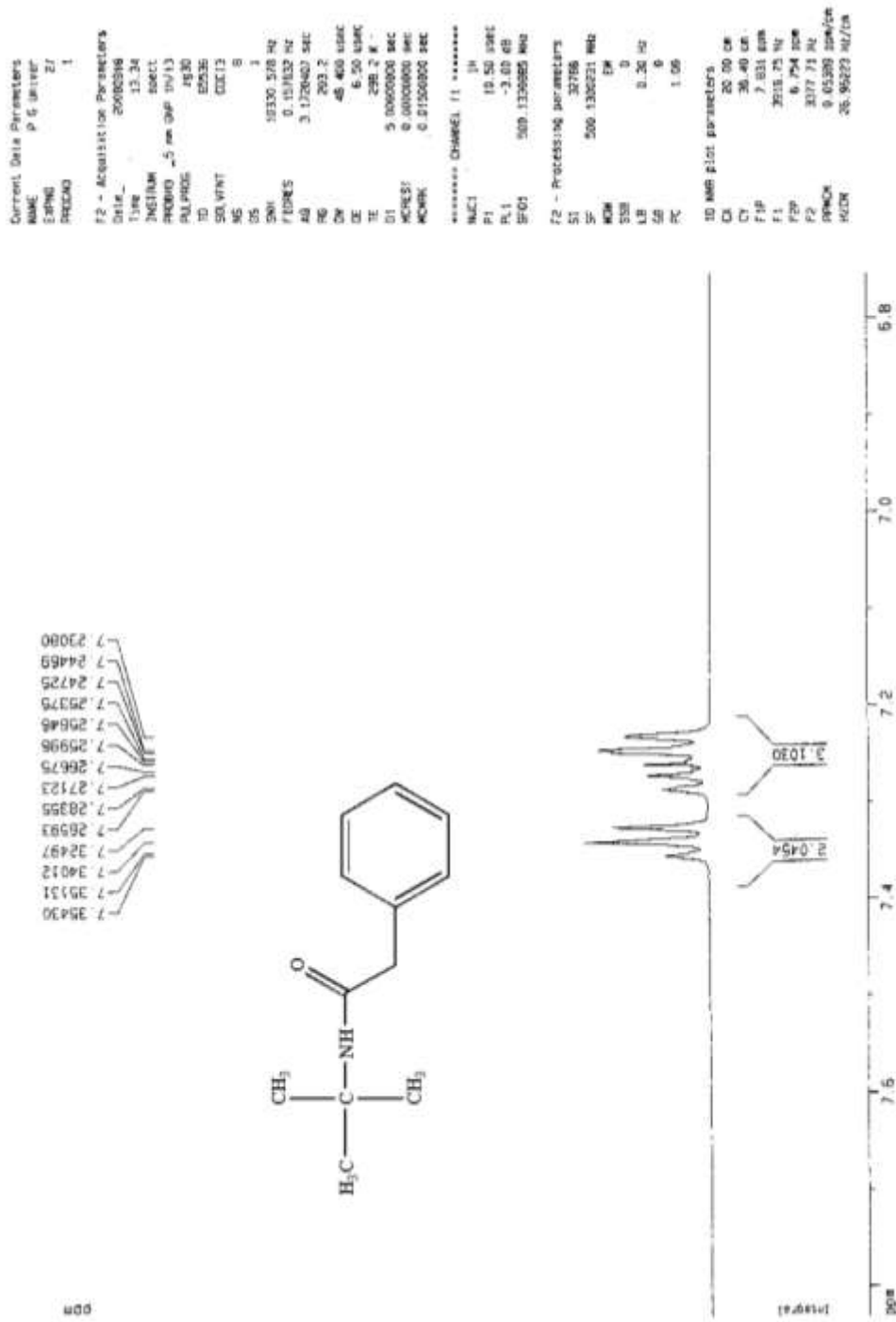


12. N-tert-butyl-2-phenylacetamide

<sup>1</sup>HNMR:



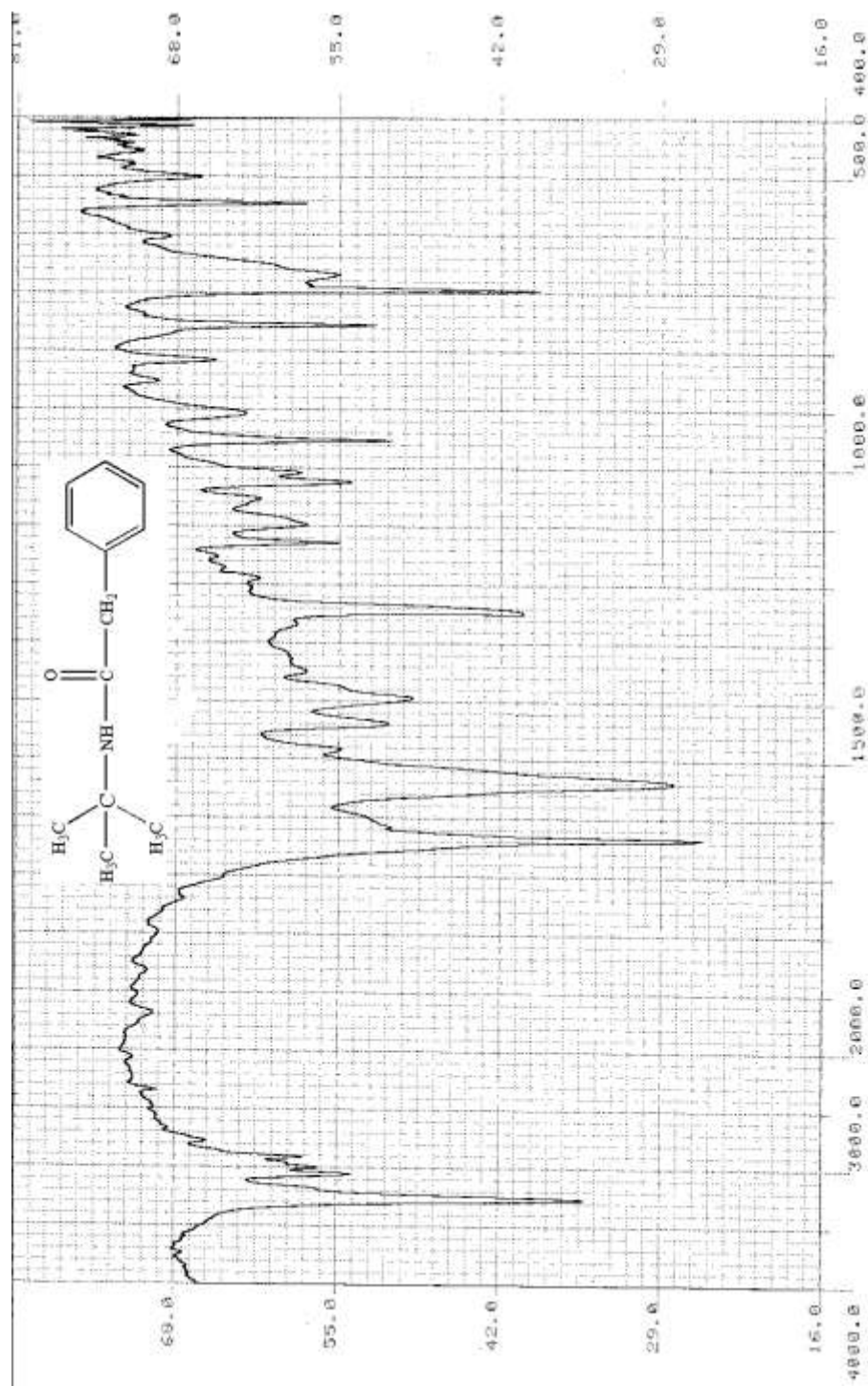
Expand:



<sup>13</sup>CNMR:

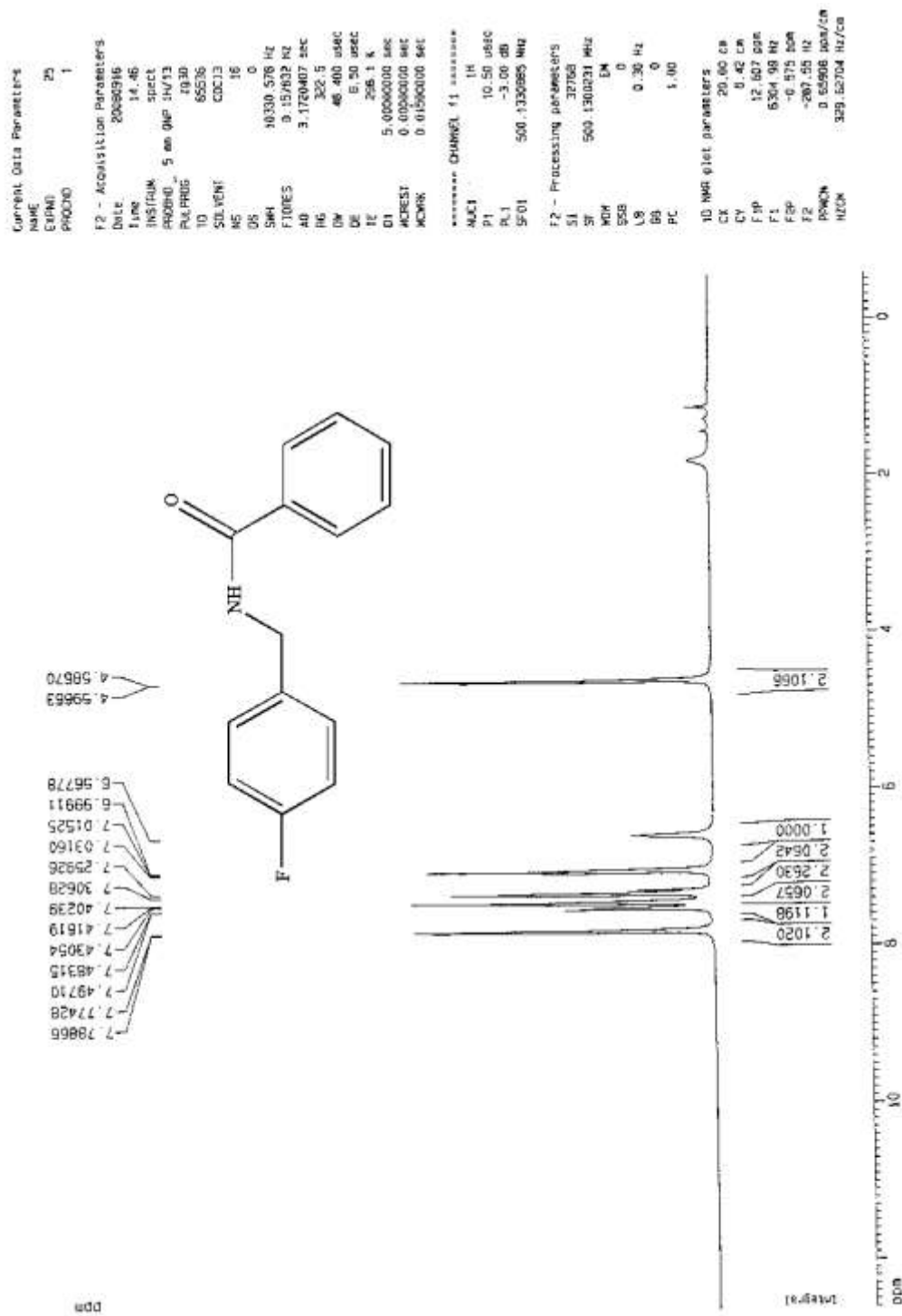






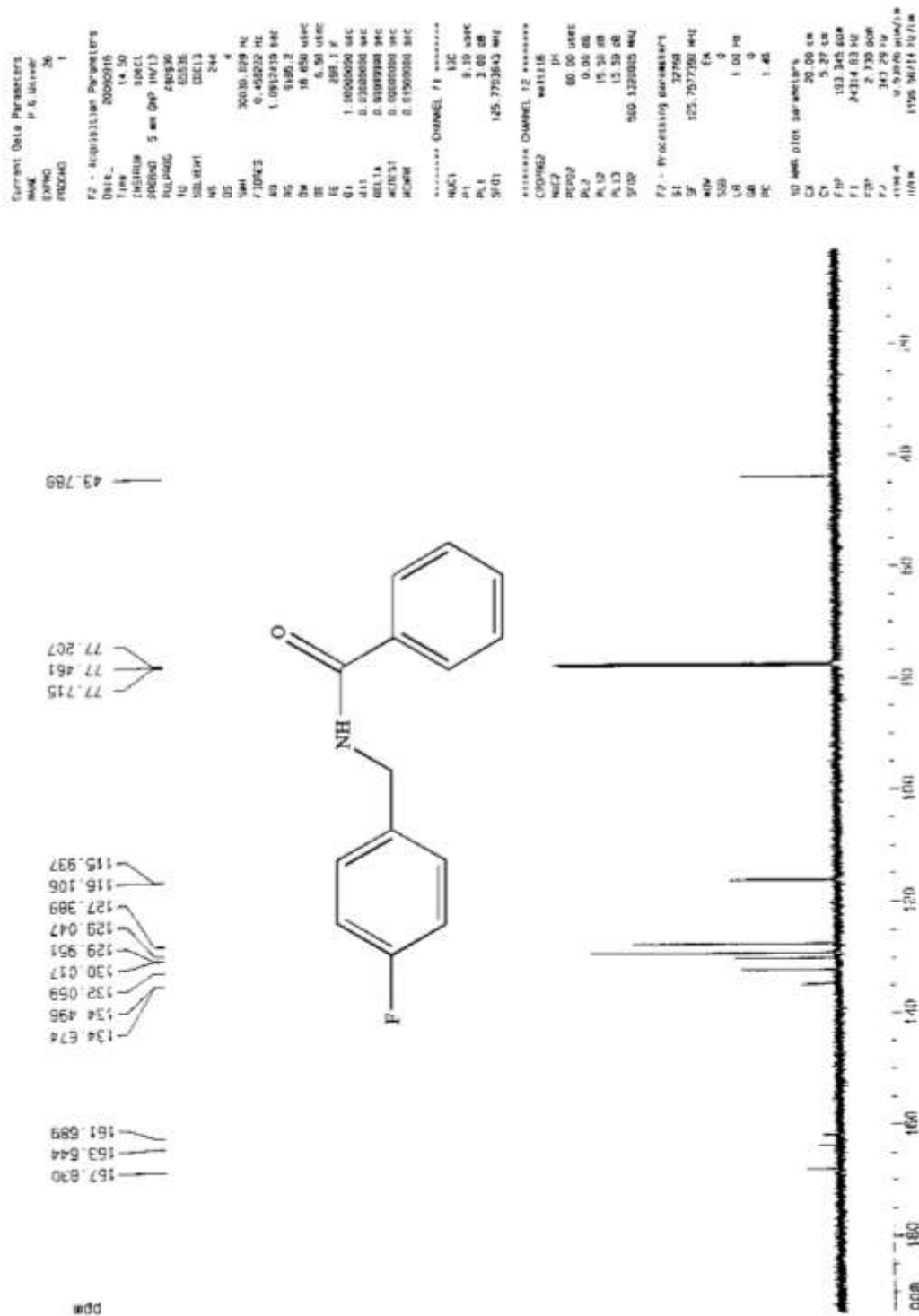
13. N-(4-fluorobenzyl) benzamide

<sup>1</sup>HNMR:





<sup>13</sup>CNMR:



IR:

