***Supplementary Information***

# Synthesis of N-cinnamoyl dipeptide esters and investigation of their self-assembly leading to nanorods formation

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## Spectral Details of N-Cinnamoyl-Gly-Gly-OEt

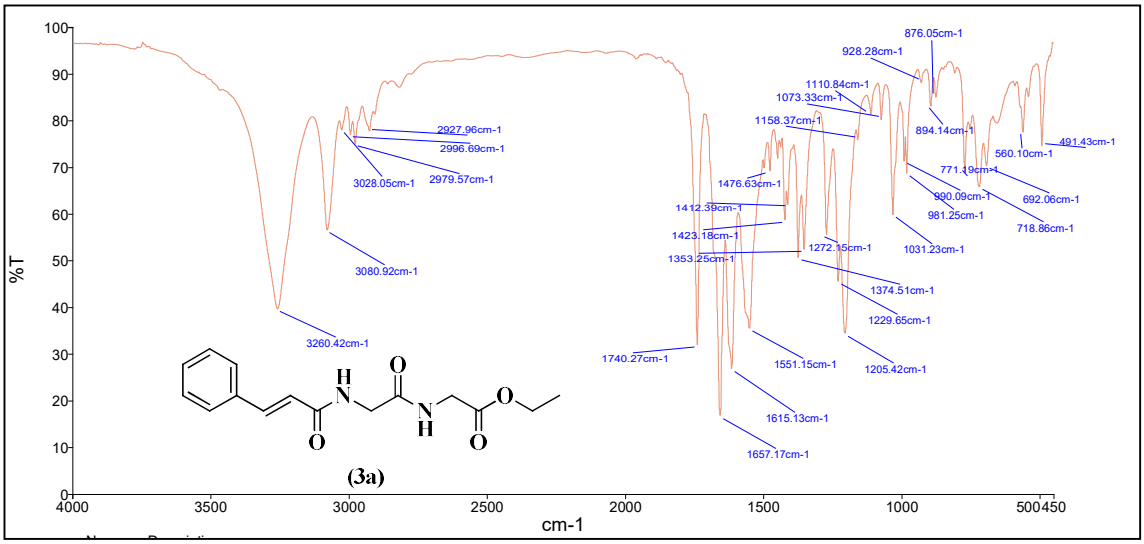


Figure 1: IR Spectrum of N-Cinnamoyl-Gly-Gly-OEt **(3a)**

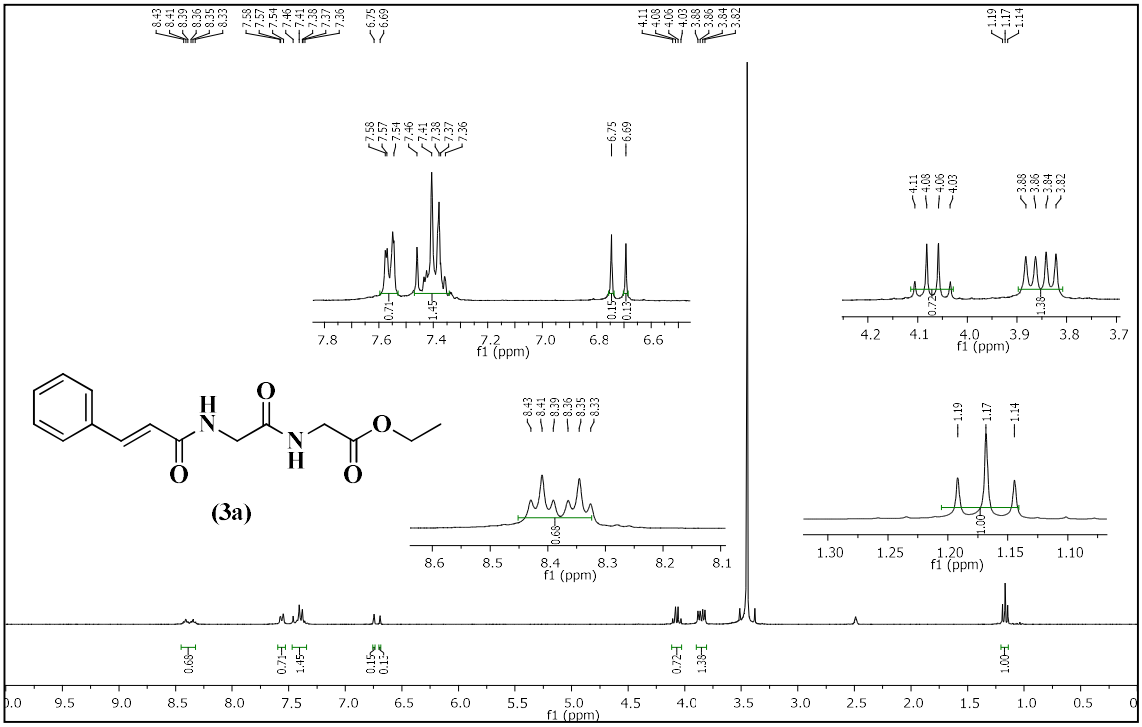


Figure 2: $^{1}$H NMR Spectrum of N-Cinnamoyl-Gly-Gly-OEt **(3a)**

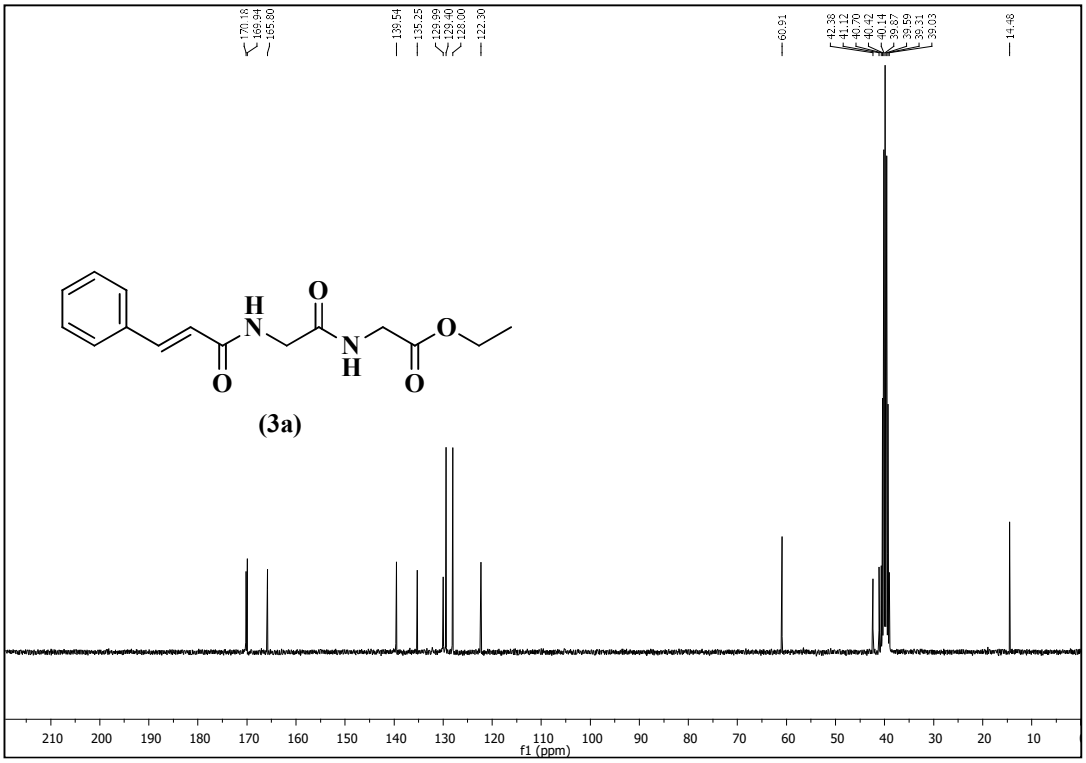


Figure 3: $^{13}$C NMR Spectrum of N-Cinnamoyl-Gly-Gly-OEt **(3a)**

## Spectral Details of N-Cinnamoyl-Ala-Gly-OEt

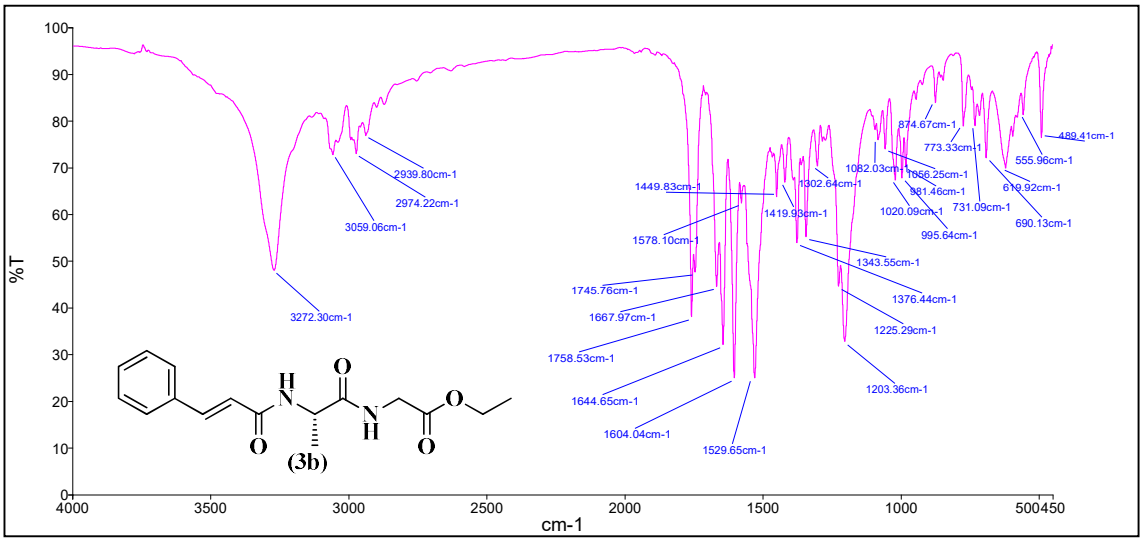


Figure 4: IR Spectrum of N-Cinnamoyl-Ala-Gly-OEt **(3b)**

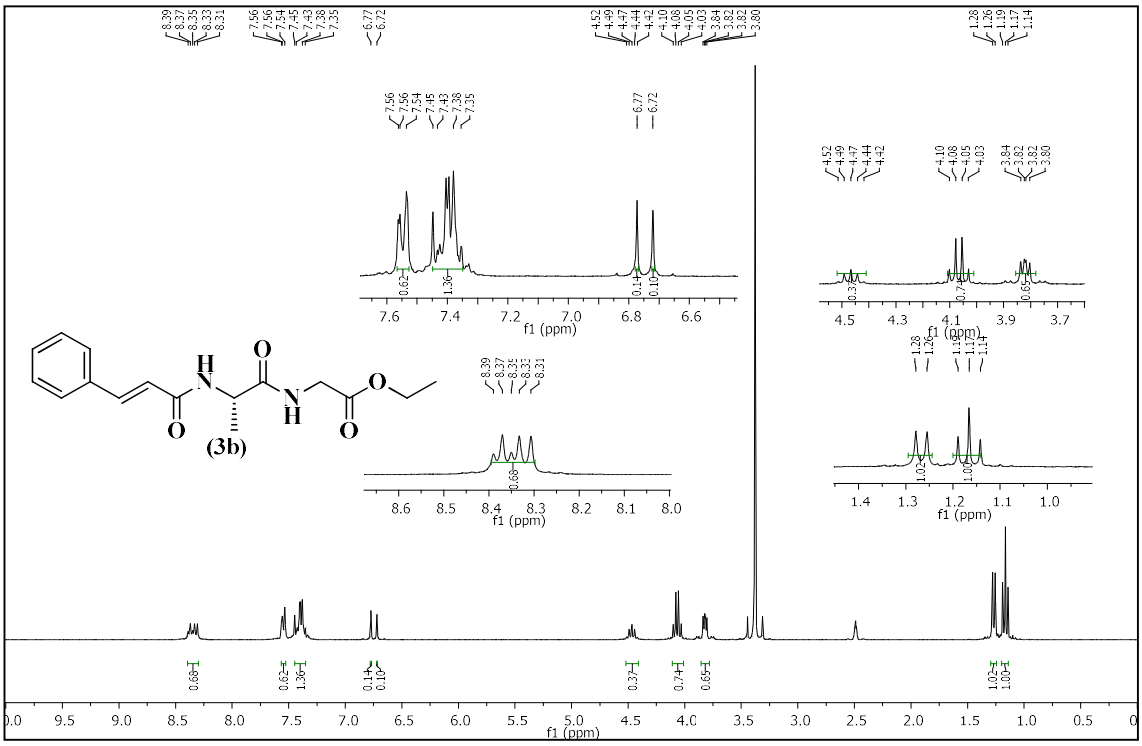


Figure 5: $^{1}$H NMR Spectrumof N-Cinnamoyl-Ala-Gly-OEt **(3b)**

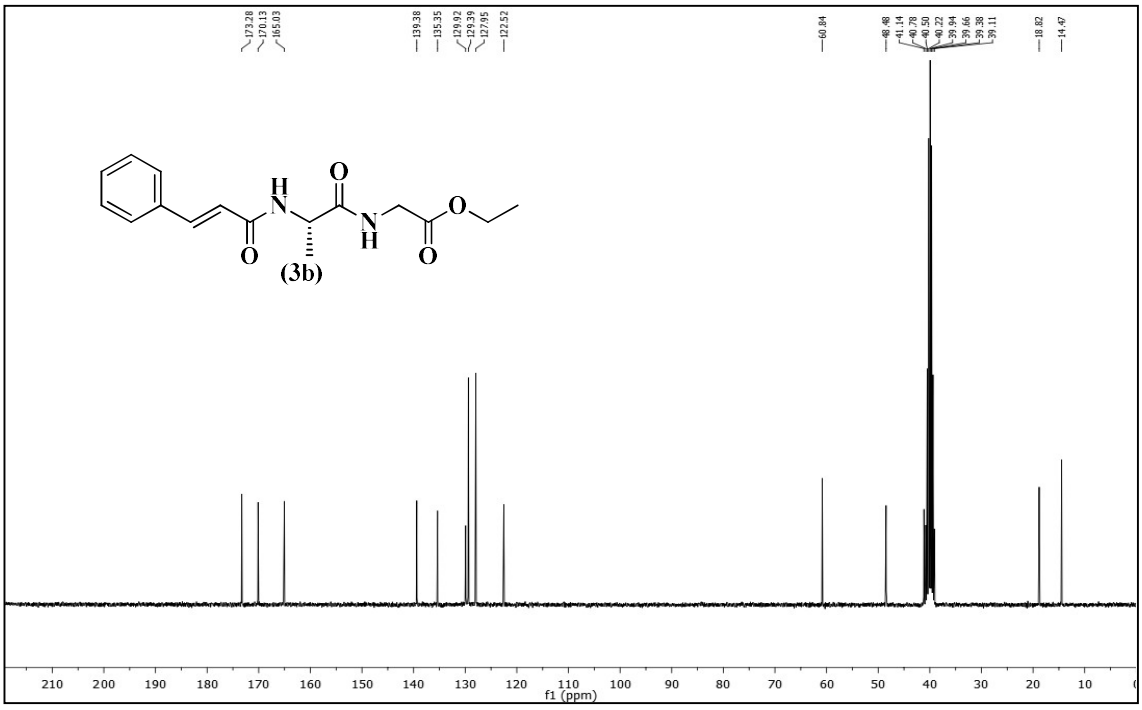


Figure 6: $^{13}$C NMR Spectrum of N-Cinnamoyl-Ala-Gly-OEt (3b)

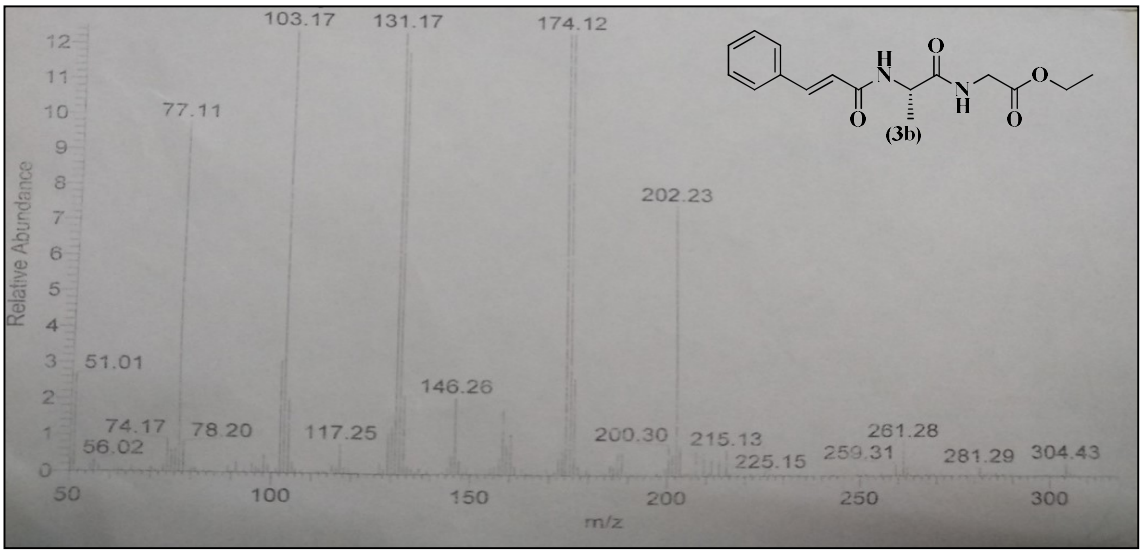


Figure 7: Mass Spectrum of N-Cinnamoyl-Ala-Gly-OEt **(3b)**

## Spectral Details of N-Cinnamoyl-Phe-Gly-OEt

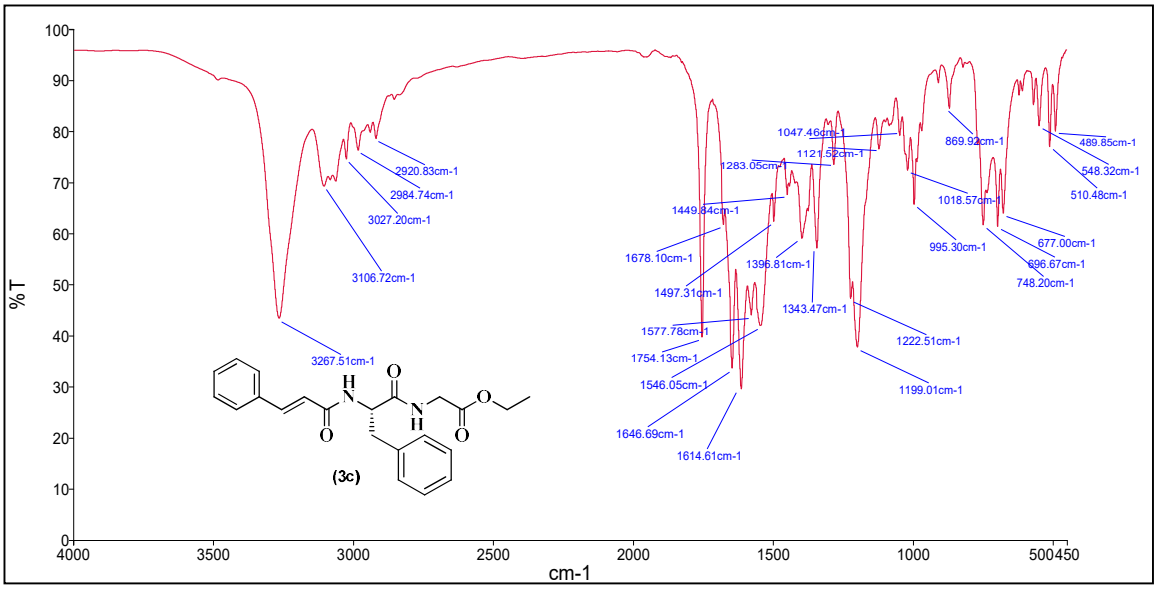


Figure 8: IR spectrum of N-Cinnamoyl-Phe-Gly-OEt **(3c)**

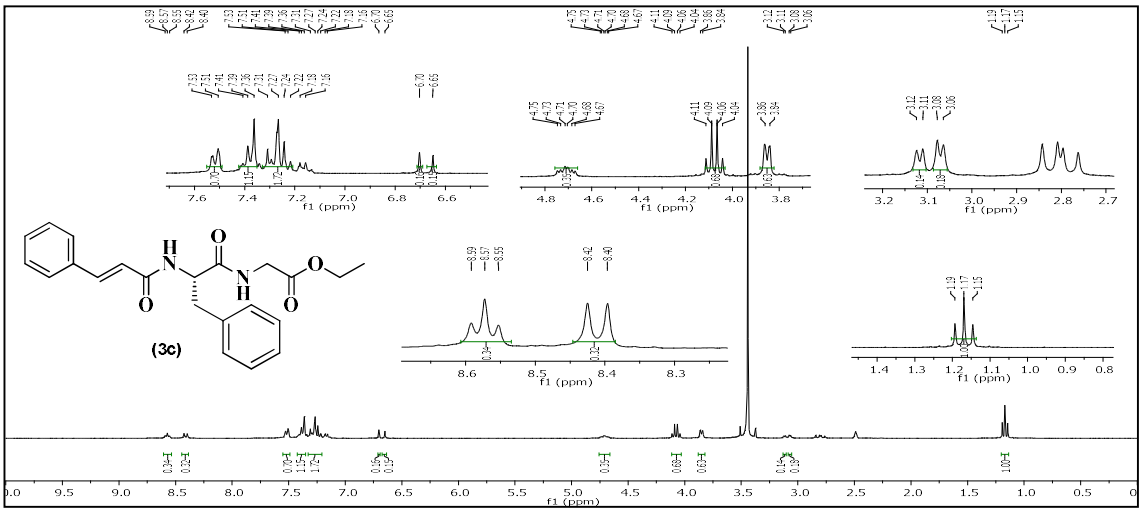


Figure 9: $^{1}$H NMR spectrum of N-Cinnamoyl-Phe-Gly-OEt **(3c)**

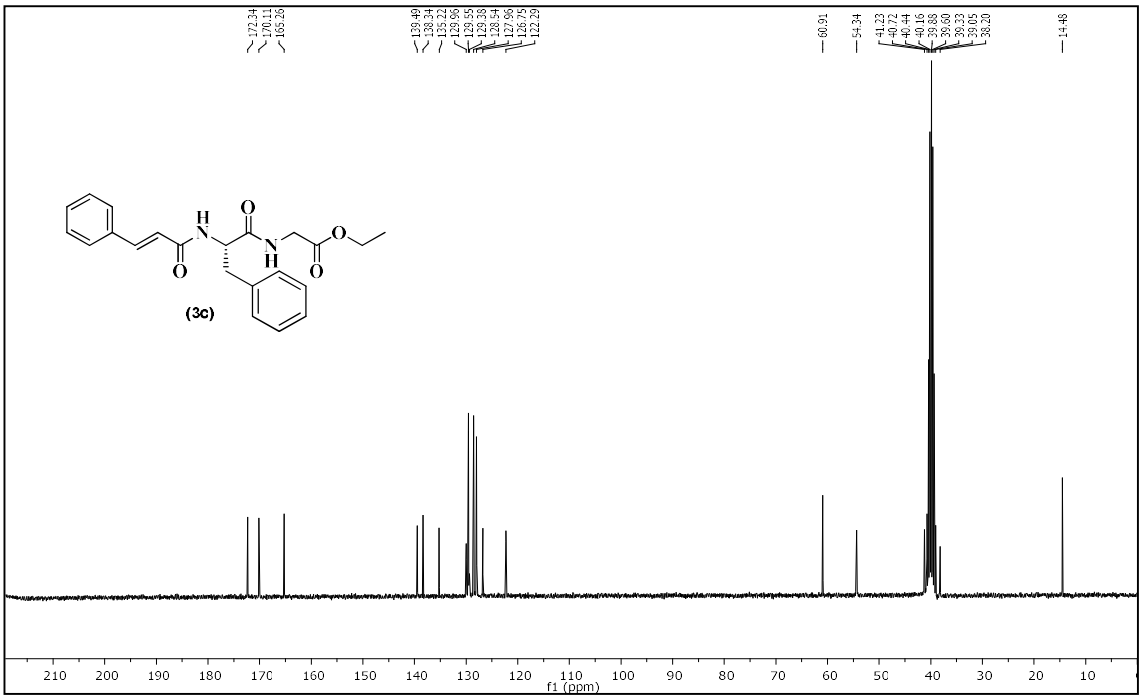


Figure 10: $^{13}$C NMR Spectrum of N-Cinnamoyl-Phe-Gly-OEt **(3c)**

## Spectral Details of N-Cinnamoyl-Gly-Phe-OEt

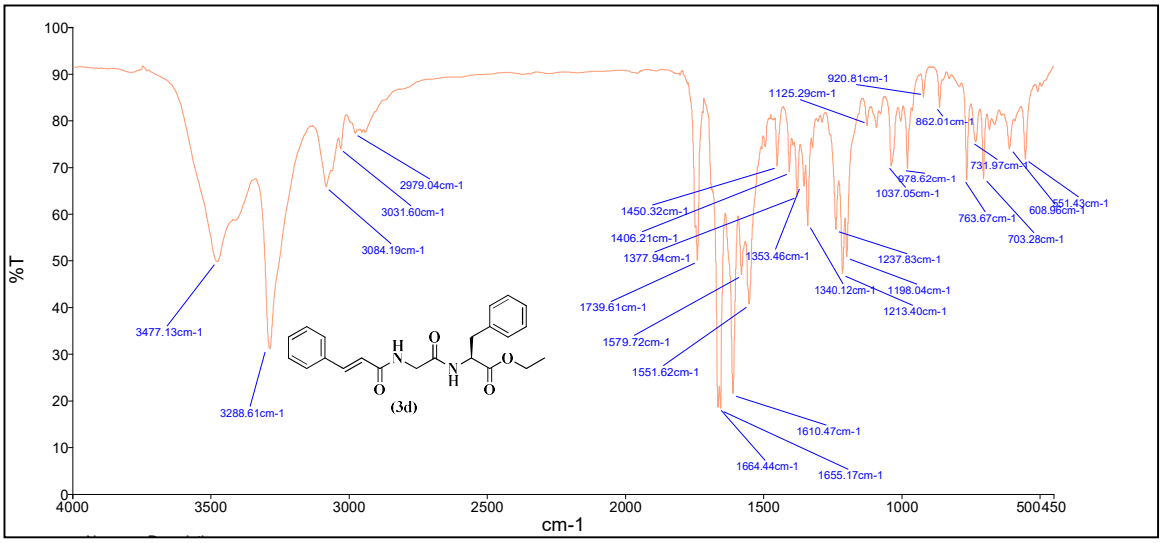


Figure 11: IR Spectrum of N-Cinnamoyl-Gly-Phe-OEt **(3d)**

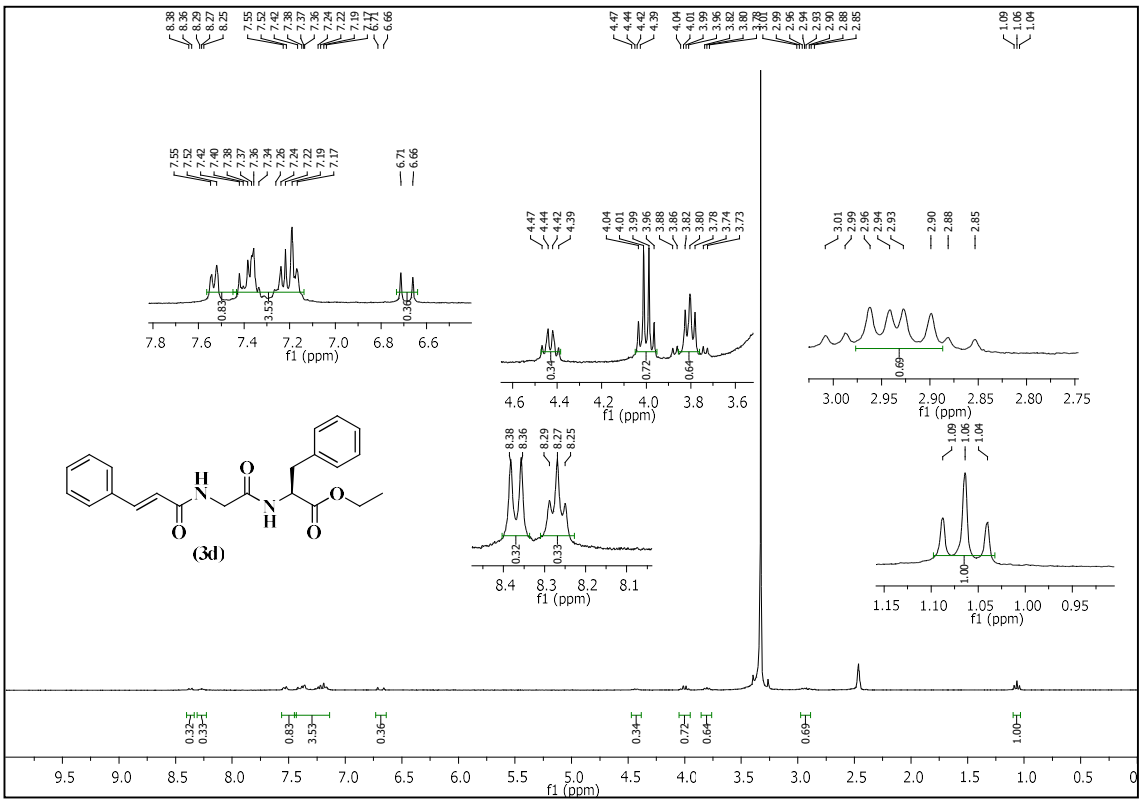


Figure 12: $^{1}$H NMR Spectrum of N-Cinnamoyl-Gly-Phe-OEt **(3d)**

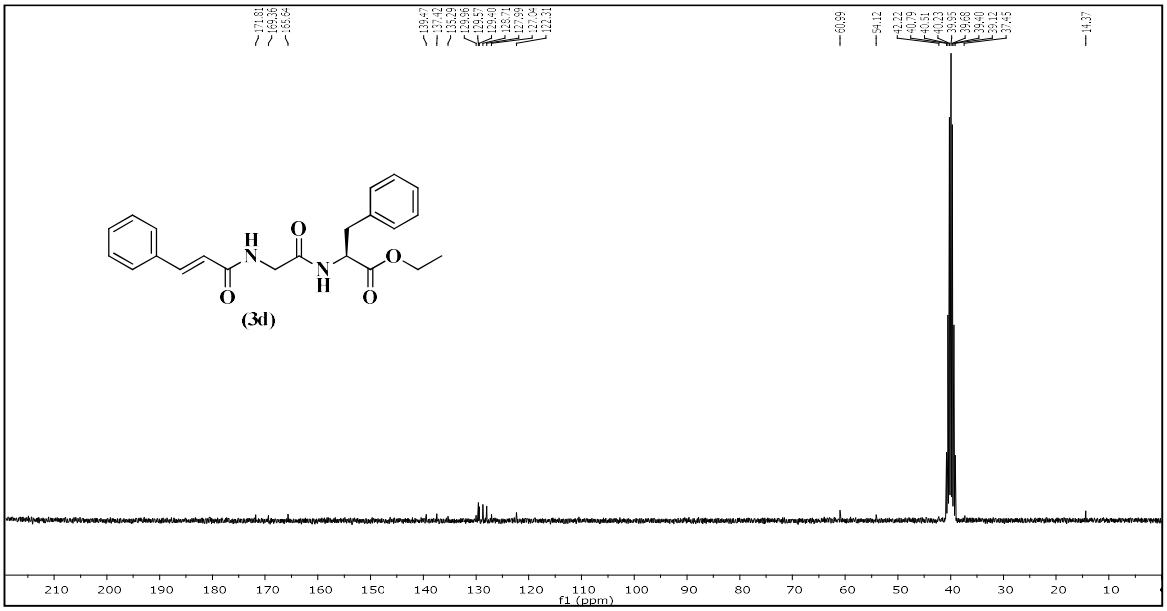


Figure 13: 13C NMR Spectrum of N-Cinnamoyl-Gly-Phe-OEt **(3d)**

## Spectral Details of N-Cinnamoyl-Ala-Phe-OEt

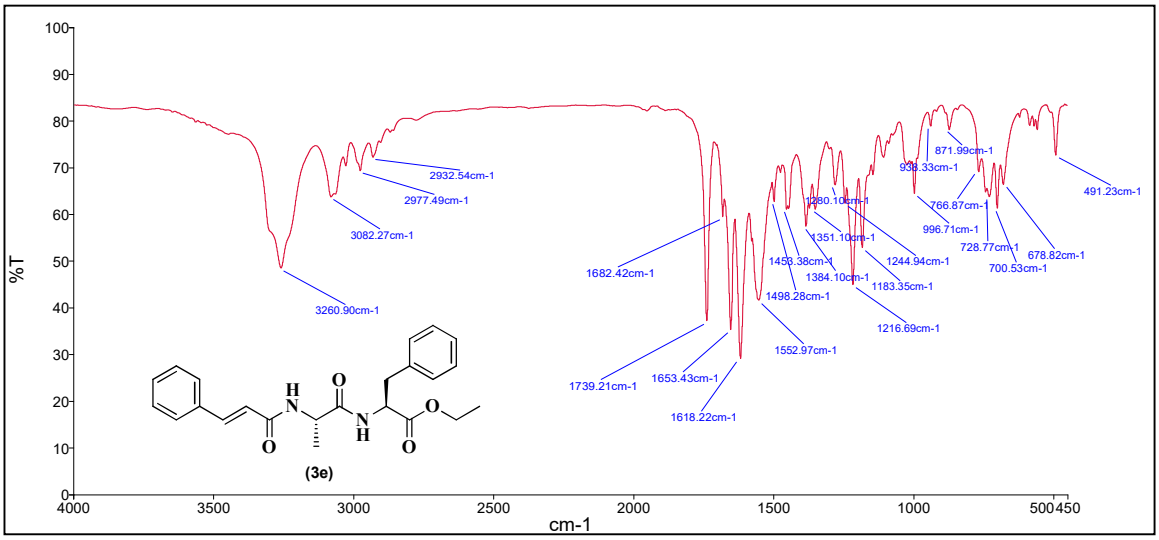


Figure 14: IR spectrum of N-Cinnamoyl-Ala-Phe-OEt **(3e)**

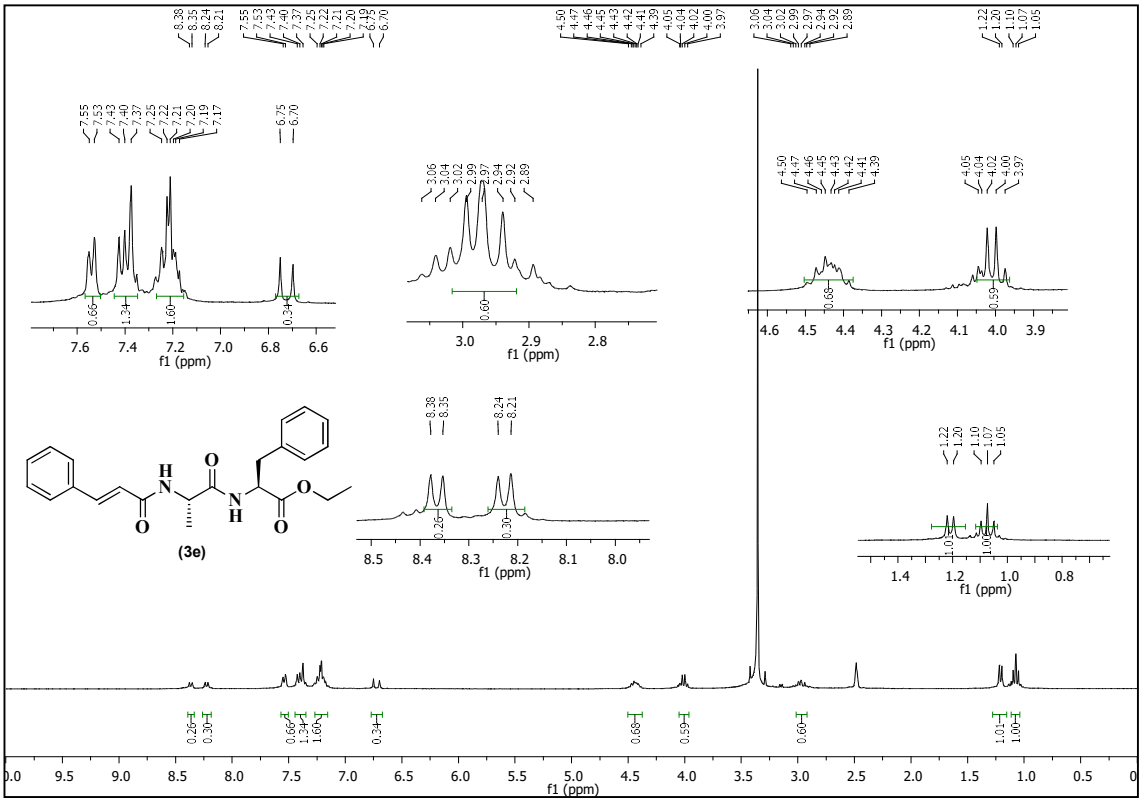


Figure 15: $^{1}$H NMR Spectrum of N-Cinnamoyl-Ala-Phe-OEt **(3e)**

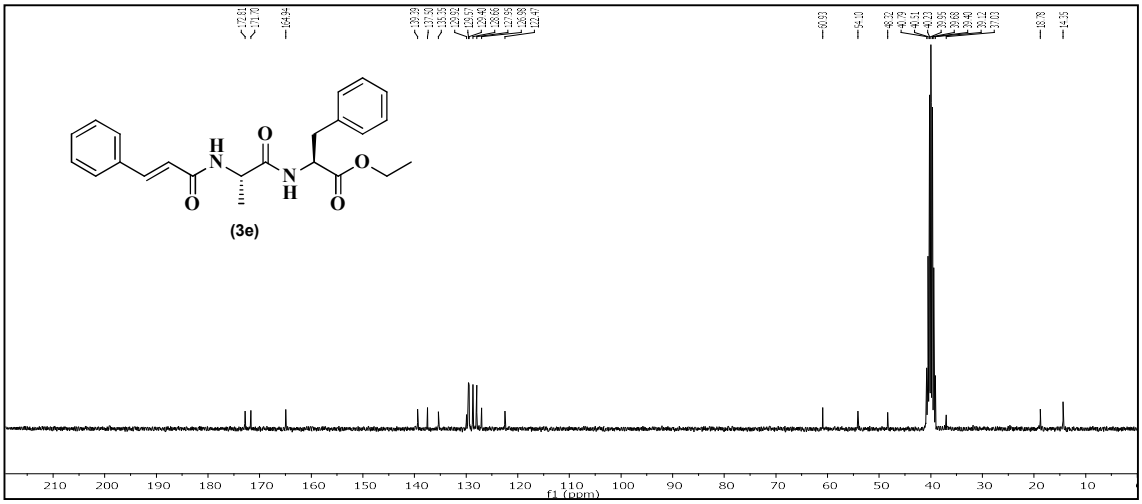


Figure 16: $^{13}$C NMR Spectrum of N-Cinnamoyl-Ala-Phe-OEt **(3e)**

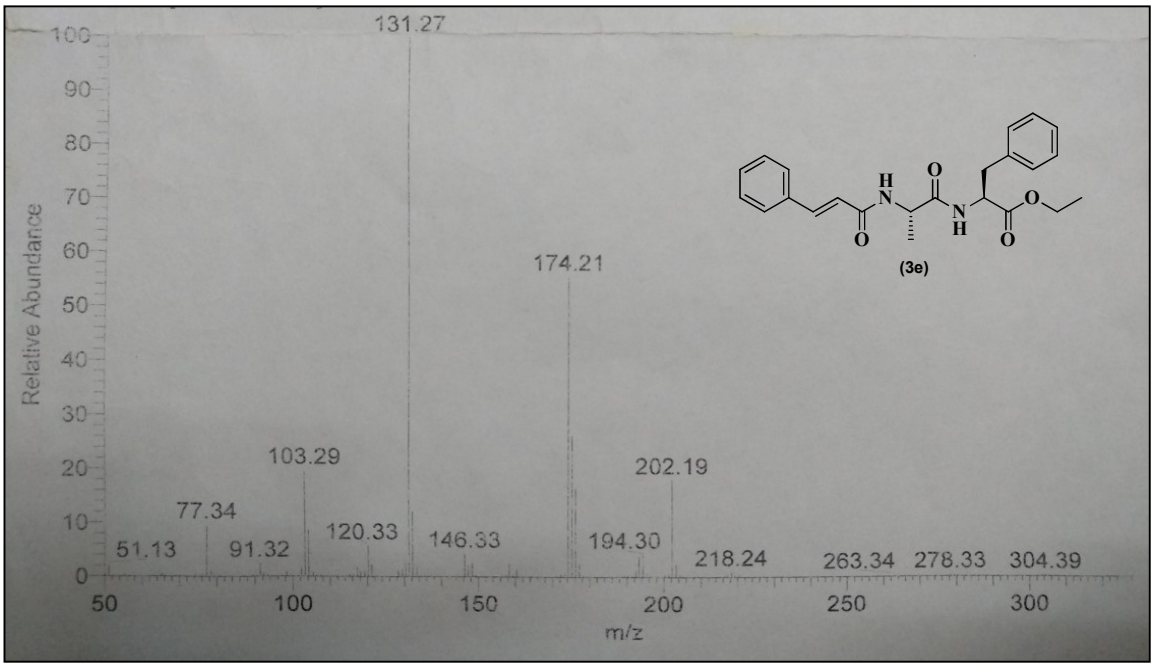


Figure 17:Mass spectrum of N-Cinnamoyl-Ala-Phe-OEt **(3e)**

**Sample preparation procedure for the Morphological Study of N-Cinnamoyl-dipeptide ester (3):**

**1. Preliminary step for SEM sample preparation of N-Cinnamoyl-dipeptide ester (3)**

A fresh stock of solution was prepared by dissolving N-Cinnamoyl dipeptide ester in 1,1,1,3,3,3-Hexafluoro-2-propanol (HFIP) at a concentration of 100 mg/mL. 10mg (100µL) of compound was then taken out from the stock solution and diluted into final concentration of 2 mg/mL in double distilled water. After dilution with water, spontaneous precipitation was observed. The precipitated sample was further analysed using SEM.

**2. SEM Analysis of N-Cinnamoyl-dipeptide ester (3) :** 10 uL of the solution prepared in step 1 of N-Cinnamoyl-dipeptide ester of concentration 2 mg/mL was spotted on a aluminium plate. The plate was allowed to dry in vacuum desiccator and was subjected to SEM analysis.

**3. TEM Analysis of N-Cinnamoyl-dipeptide ester (3)** 10 uL of the solution prepared in step 1 of N-Cinnamoyl-dipeptide ester of concentration 2 mg/mL was spotted on a copper grid, coated by carbon stabilized Formvar film. The grid was dried in a vacuum desiccator. 10 uL of 2 % uranyl acetate solution in water was then spotted on the same grid and then it was dried in vacuum. The grid was then studied using TEM.