

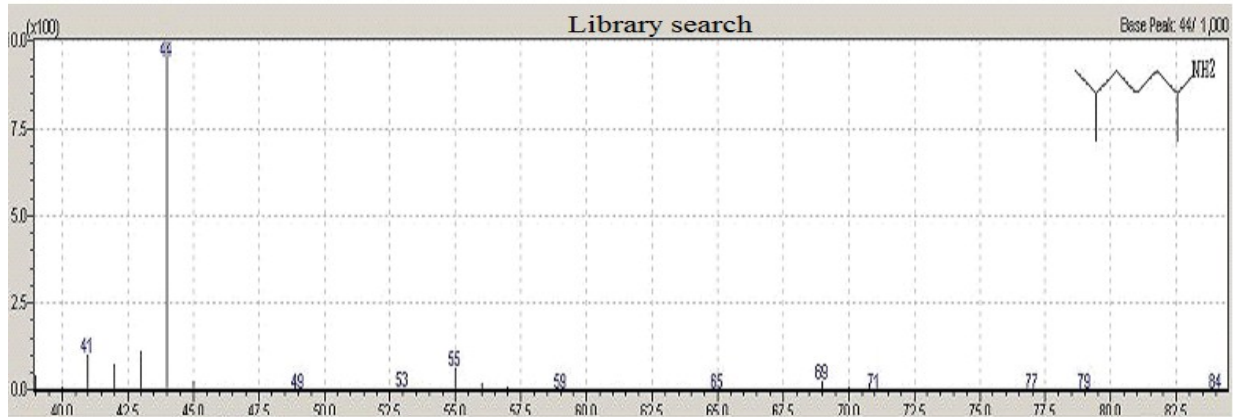
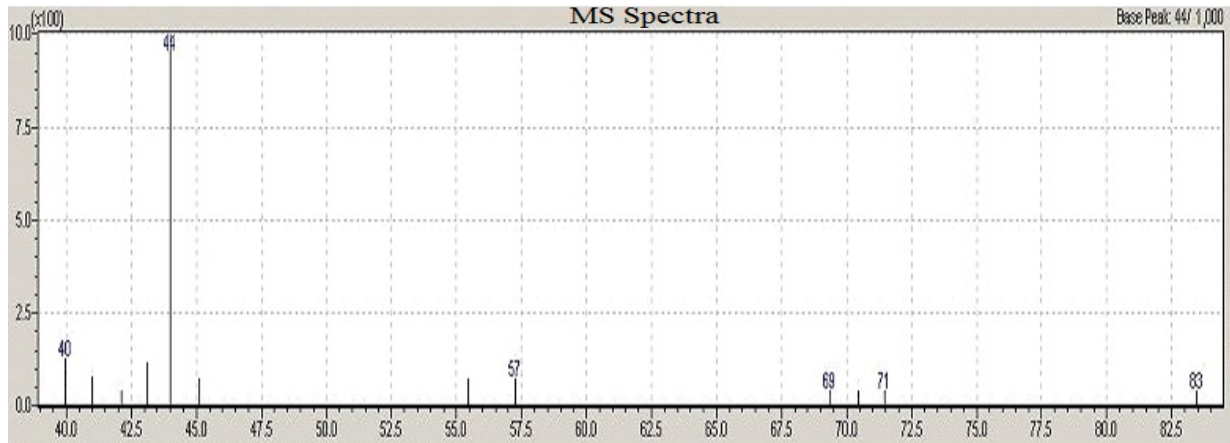
S1 Figure 1: (a) Fourier Transform Infrared Spectra of the Plant, (b) UV-Vis Spectra of the Plant Leaf Extract, And (c) GC Chromatogram of the Methanolic Extract of *E. Cognata* Leaves

S2 .Table 1: Phytochemicals of methanolic leaf extract of *E. Cognata* Individualized by GC-MS.

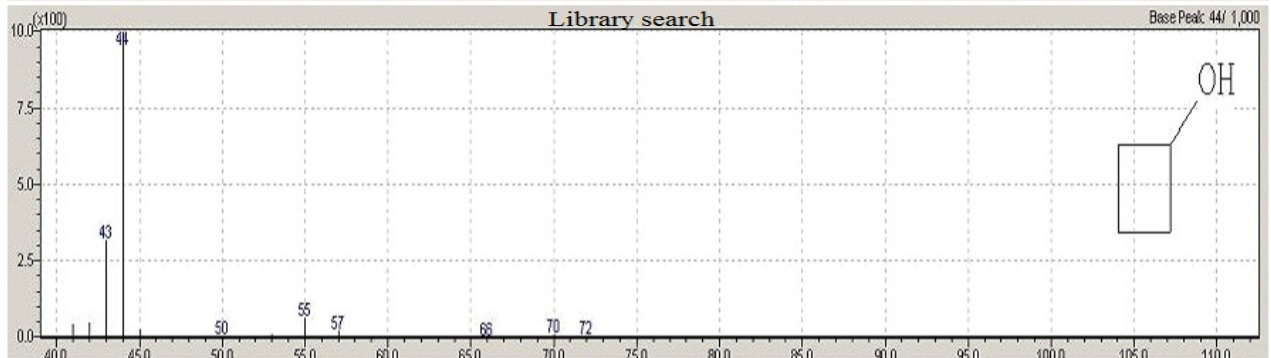
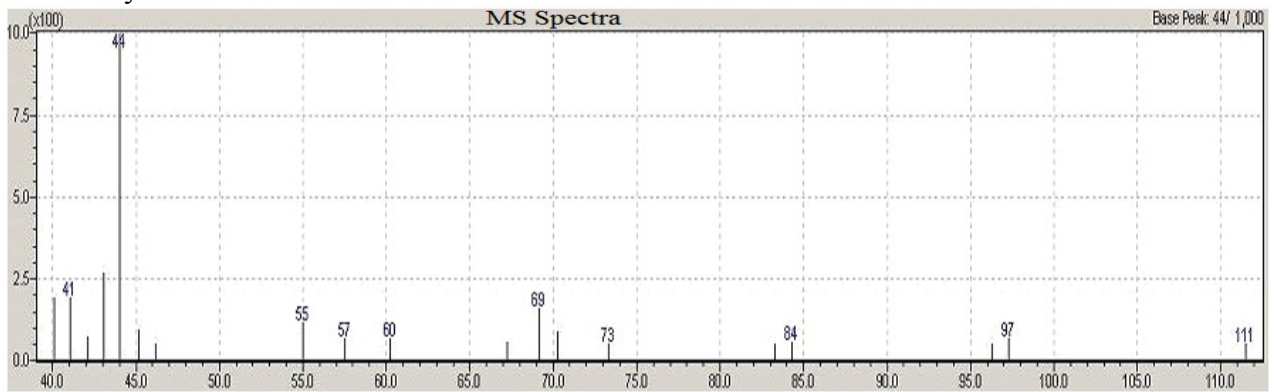
R. Time	Area (%)	Height (%)	Mol. weight	Chemical Formula	Name
12.64	3.70	7.49	129	C ₈ H ₁₉ N	Octodrine
17.28	0.88	1.41	72.11	C ₄ H ₈ O	cyclobutanol
21.4	0.79	0.98	171	C ₁₁ H ₂₅ N	1-Methyldecylamine
26.78	0.98	1.51	89	C ₃ H ₇ NO ₂	d-Alanine
28.38	12.92	24.95	172	C ₁₀ H ₂₀ O ₂	Decanoic acid
31.19	0.65	0.79	125	C ₈ H ₁₅ N	Azabicyclo[3.2.2]nonane
31.39	16.95	29.44	129	C ₈ H ₁₉ N	Octodrine
31.61	7.2	7.10	127	C ₈ H ₁₇ N	Cyclohexylethylamine

S3 MS Spectra of main identified Compounds

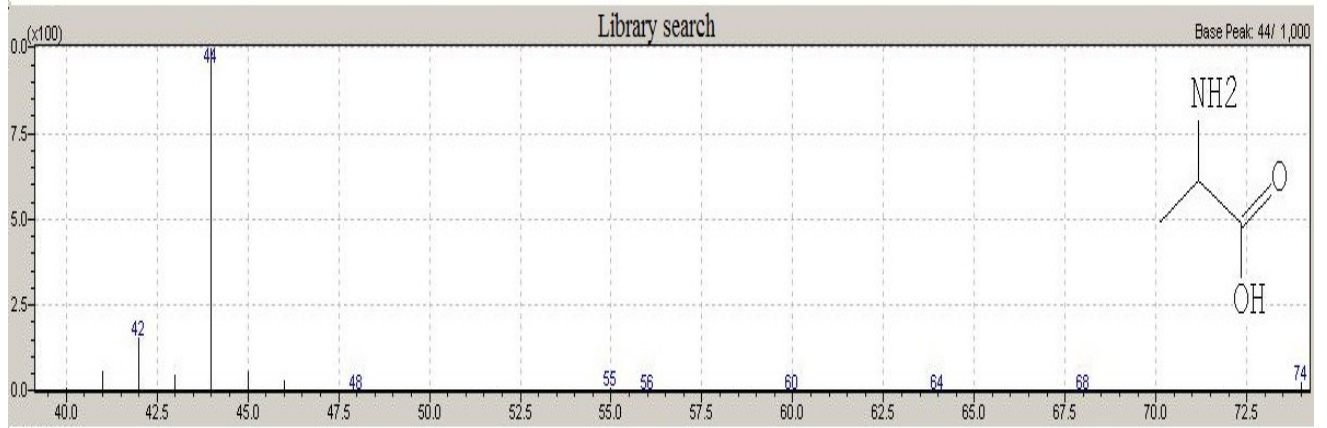
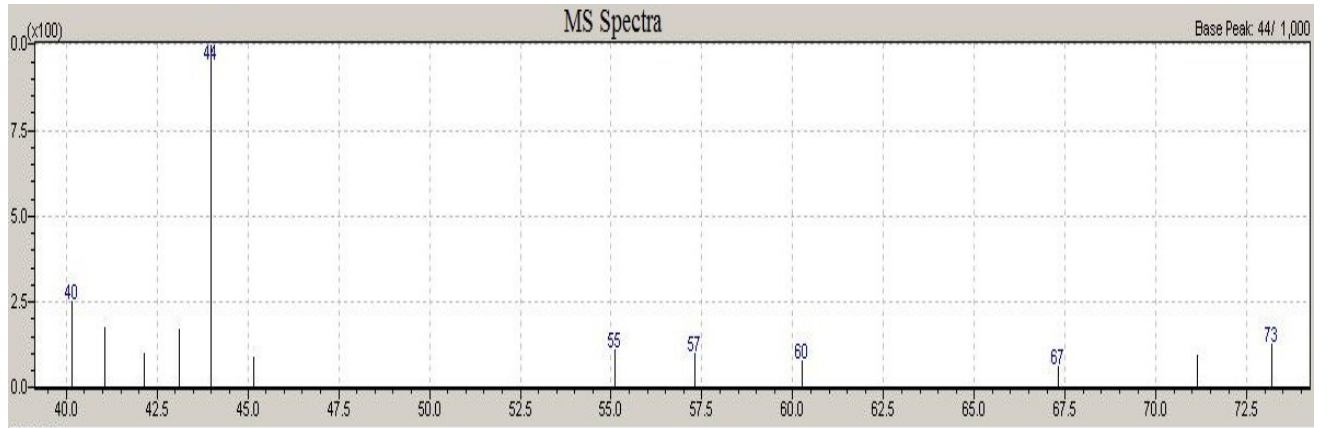
1. Octodrine



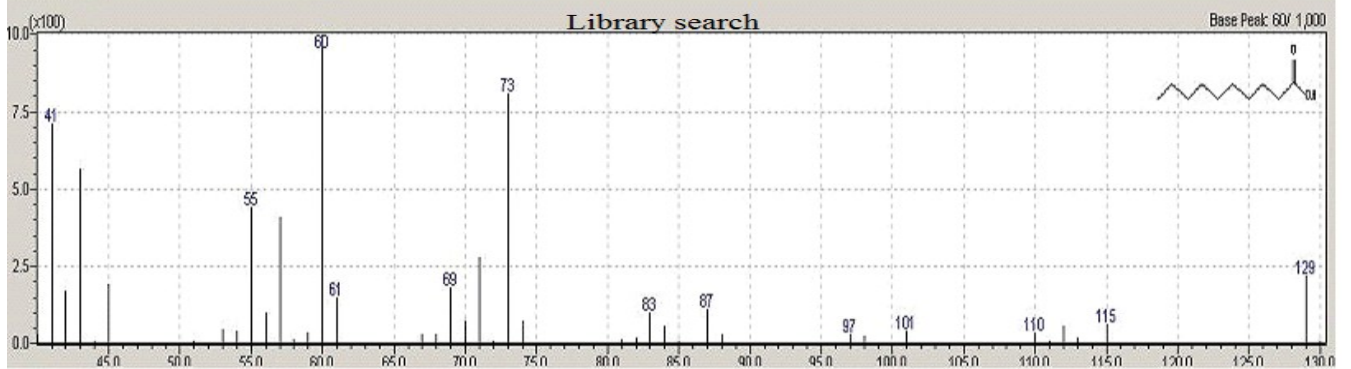
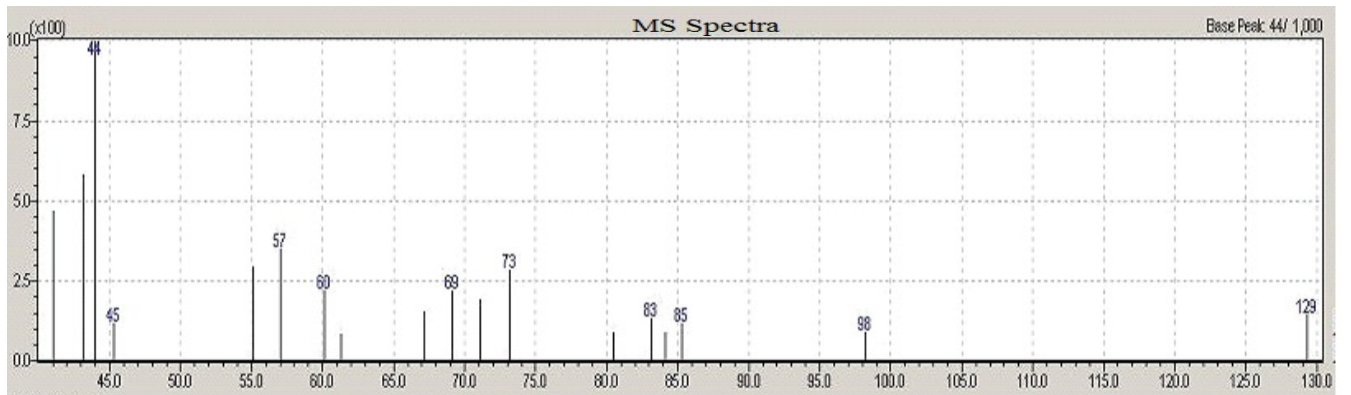
2. Cyclobutanol



3. d-Alanine



4. Decanoic acid



Sol Gel synthesis of Nanomaterial

The materials used in sol-gel method consisted of Molybdenum(II) acetate ($\text{Mo}_2(\text{O}_2\text{CCH}_3)_4$), Cobalt(II) acetate tetrahydrate ($\text{C}_4\text{H}_6\text{CoO}_4 \cdot 4\text{H}_2\text{O}$), and ethylene glycol ($\text{C}_2\text{H}_6\text{O}_2$). Absolute ethanol ($\text{C}_2\text{H}_5\text{OH}$) was used as solvent and Citric acid ($\text{C}_6\text{H}_8\text{O}_7$) as gelling agent. 20 mM solution of each precursor salt ($\text{Mo}_2(\text{O}_2\text{CCH}_3)_4$, $\text{C}_4\text{H}_6\text{CoO}_4 \cdot 4\text{H}_2\text{O}$) and 1 molar citric acid was dissolved separately in different beakers, each containing 50 ml of the solvent ethanol. To ensure solution homogeneity, the solutions were continuously stirred for 30 min using a magnetic stirrer at a speed of 300 rpm and slowly heated up to 45 °C to ensure complete material dissolution. After that, 0.5 ml of ethylene glycol was added to the solutions. Then, citric acid was added to each precursor salt solution under continuous stirring and heating at a temperature of 60 °C for 1 h to complete the reaction. The final solution was dried in oven at 95 °C for 10 h. After drying, the resulting product was treated at a temperature of 450 °C to remove all the remaining organic compounds and to get pure nanomaterial.