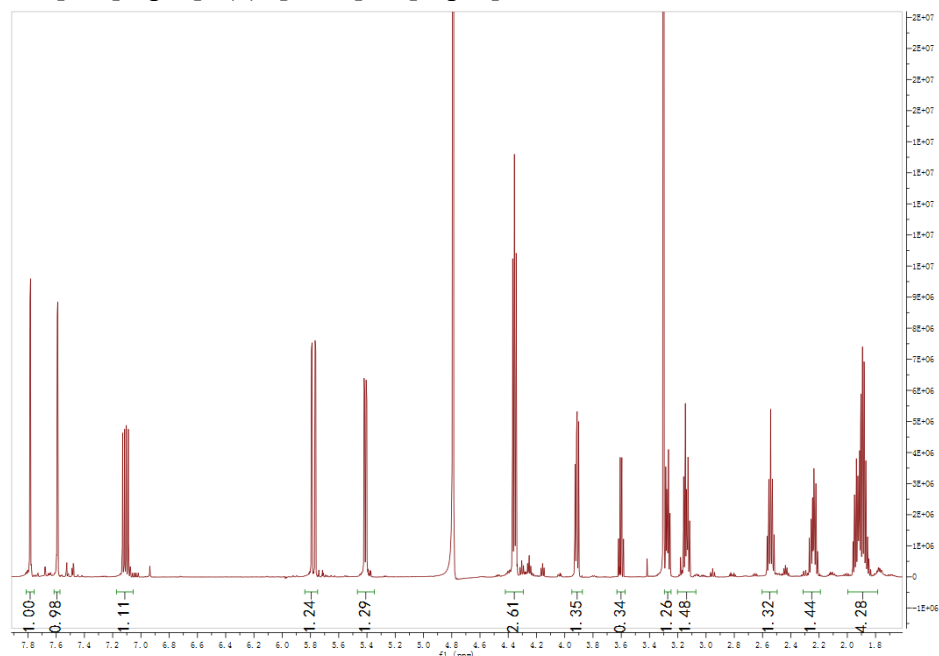
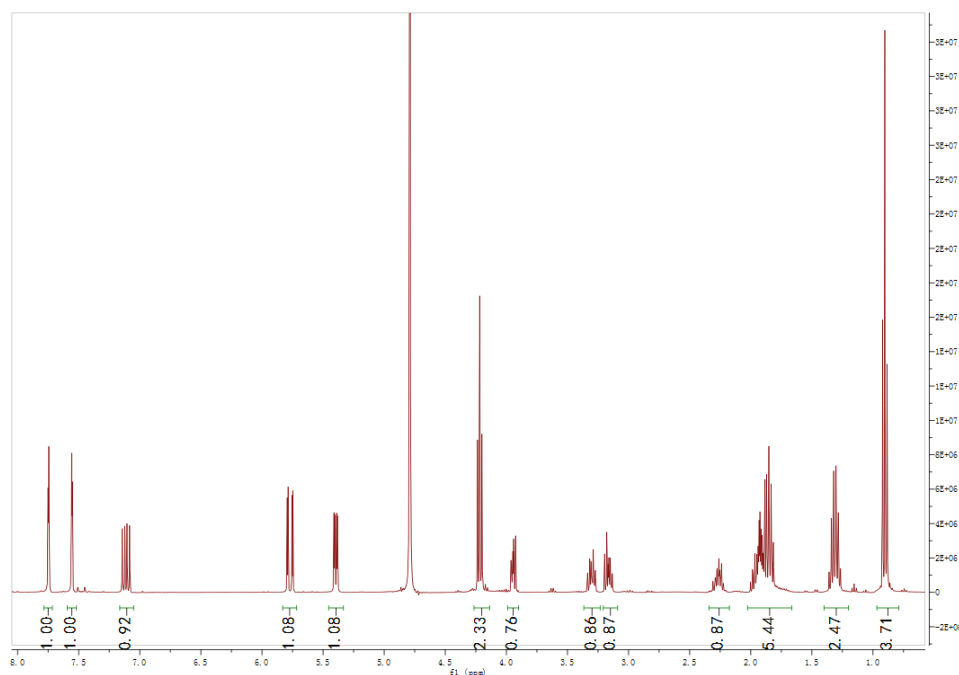


Nuclear magnetic hydrogen spectrum of vinyl imidazole

(a): $[\text{ViIm}]_2\text{C}_3[\text{L-pro}]_2$; (b): $[\text{ViIm}]_2\text{C}_4[\text{L-pro}]_2$; (c): $[\text{ViIm}]_2\text{C}_5[\text{L-pro}]_2$;
 (d): $[\text{ViIm}]_2\text{C}_6[\text{L-pro}]_2$; (e): $[\text{ViIm}]_2\text{C}_3[\text{L-pro}]_2$; (f): $[\text{ViIm}]_2\text{C}_4[\text{L-pro}]_2$;
 (g): $[\text{ViIm}]_2\text{C}_5[\text{L-pro}]_2$; (h): $[\text{ViIm}]_2\text{C}_6[\text{L-pro}]_2$

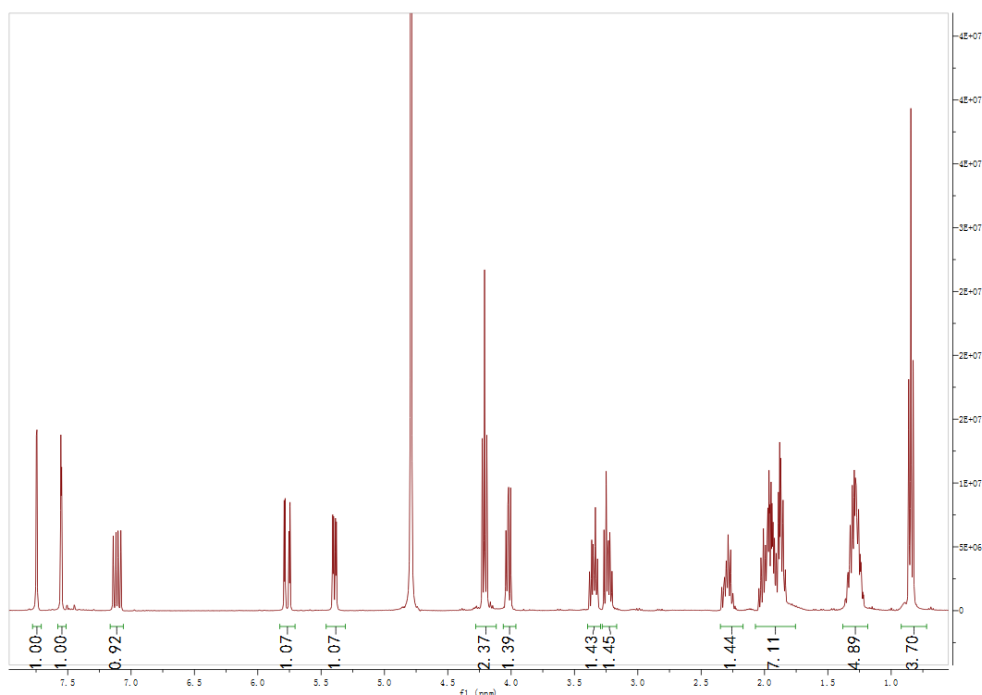


$[\text{ViIm}]_2\text{C}_3[\text{L-pro}]_2$: ^1H NMR (400 MHz, D_2O) δ 7.79 (d, 2H), 7.59 (d, 2H), 7.13-7.09 (m, 2H), 5.79-5.76 (m, 2H), 5.42-5.40 (m, 2H), 4.37-4.34 (m, 4H), 3.93-3.90 (m, 2H), 3.29-3.27 (m, 2H), 3.15-3.13 (m, 2H), 2.56-2.53 (m, 2H), 2.25-2.23 (m, 2H), 2.22-1.88 (m, 6H).

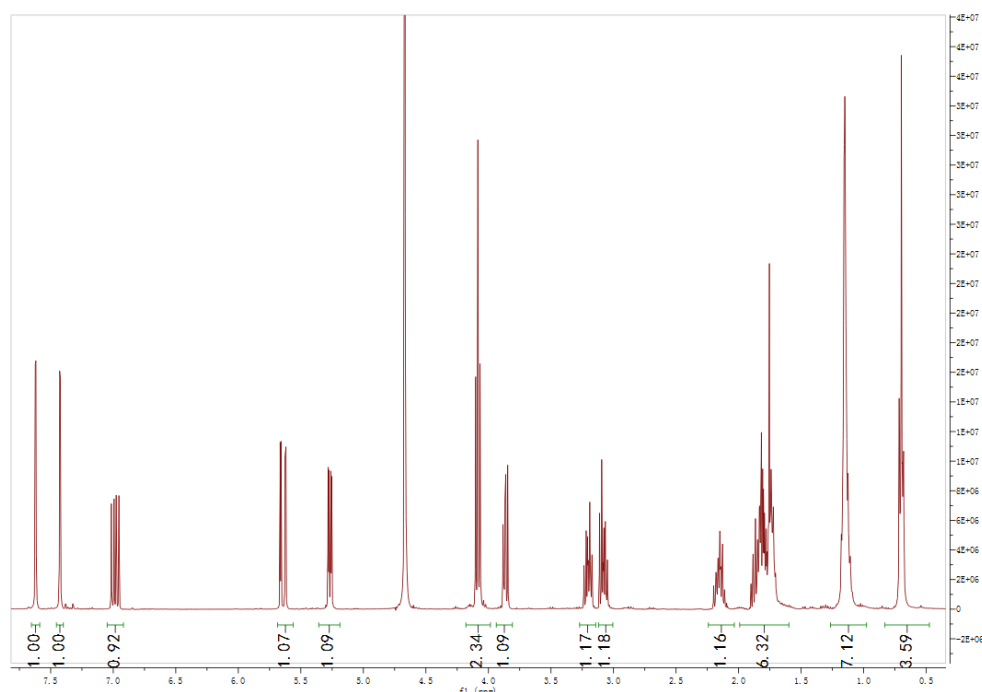


$[\text{ViIm}]_2\text{C}_4[\text{L-pro}]_2$: ^1H NMR (400 MHz, D_2O) δ 7.75 (d, 2H), 7.56 (d, 2H), 7.14-7.08 (m, 2H), 5.79-5.75 (m, 2H), 5.41-5.38 (m, 2H), 4.24-4.20 (m, 2H), 3.93-3.90 (m, 2H), 3.29-3.27 (m, 2H), 3.15-3.13 (m, 2H), 2.56-2.53 (m, 2H), 2.25-2.23 (m, 2H), 2.22-1.88 (m, 6H).

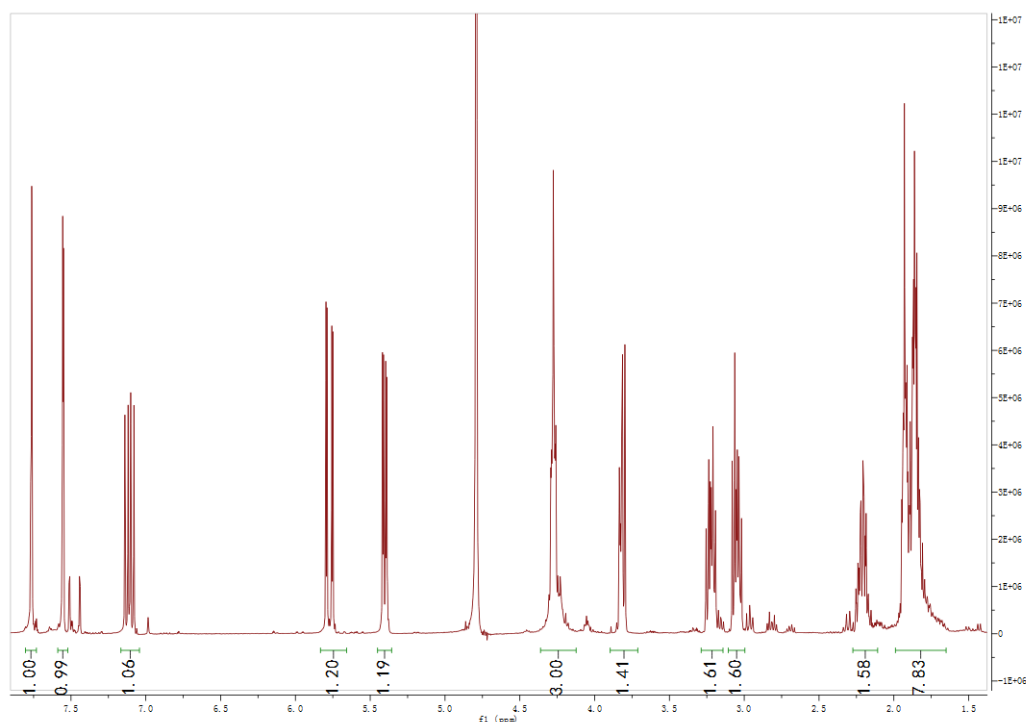
4H), 3.95-3.90 (m, 2H), 3.29-3.27 (m, 2H), 3.18-3.15 (m, 2H), 2.28-2.26 (m, 2H), 1.93-1.90 (m, 4H), 1.32-1.27 (m, 4H), 0.92-0.88 (m, 2H).



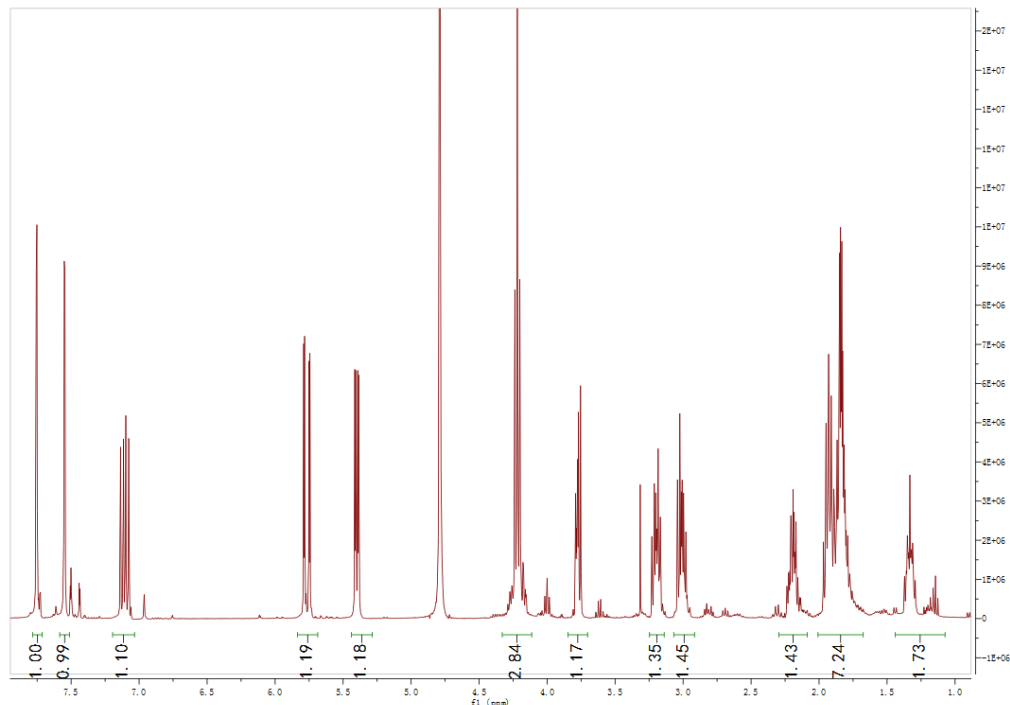
[ViIm]₂C₅[L-pro]₂: ¹H NMR (400 MHz, D₂O) δ 7.75 (d, 2H), 7.55 (d, 2H), 7.14-7.08 (m, 2H), 5.79-5.75 (m, 2H), 5.41-5.38 (m, 2H), 4.24-4.19 (m, 4H), 4.03-4.00 (m, 2H), 3.33-3.32 (m, 2H), 3.27-3.22 (m, 2H), 2.29-2.26 (m, 2H), 1.97-1.90 (m, 8H), 1.32-1.27 (m, 4H), 0.92-0.88 (m, 2H).



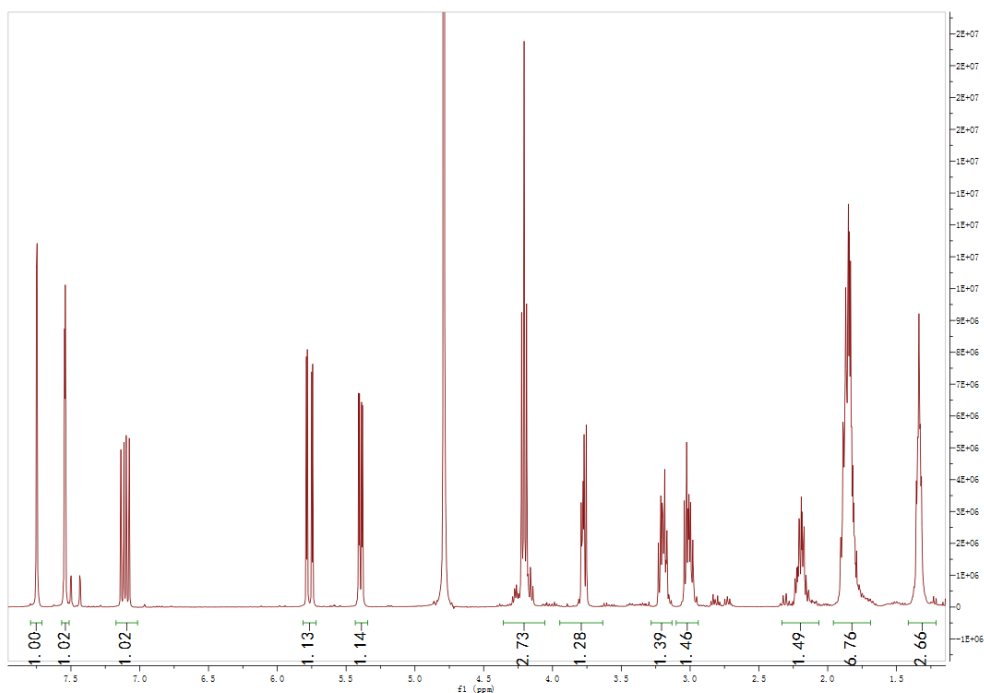
[ViIm]₂C₆[L-pro]₂: ¹H NMR (400 MHz, D₂O) δ 7.74 (d, 2H), 7.55 (d, 2H), 7.14-7.07 (m, 2H), 5.79-5.74 (m, 2H), 5.40-5.37 (m, 2H), 4.22-4.19 (m, 4H), 3.99-3.96 (m, 2H), 3.23-3.20 (m, 2H), 3.20-3.19 (m, 2H), 2.28-2.25 (m, 2H), 1.96-1.93 (m, 8H), 1.28-1.23 (m, 8H), 0.82-0.80 (m, 2H).



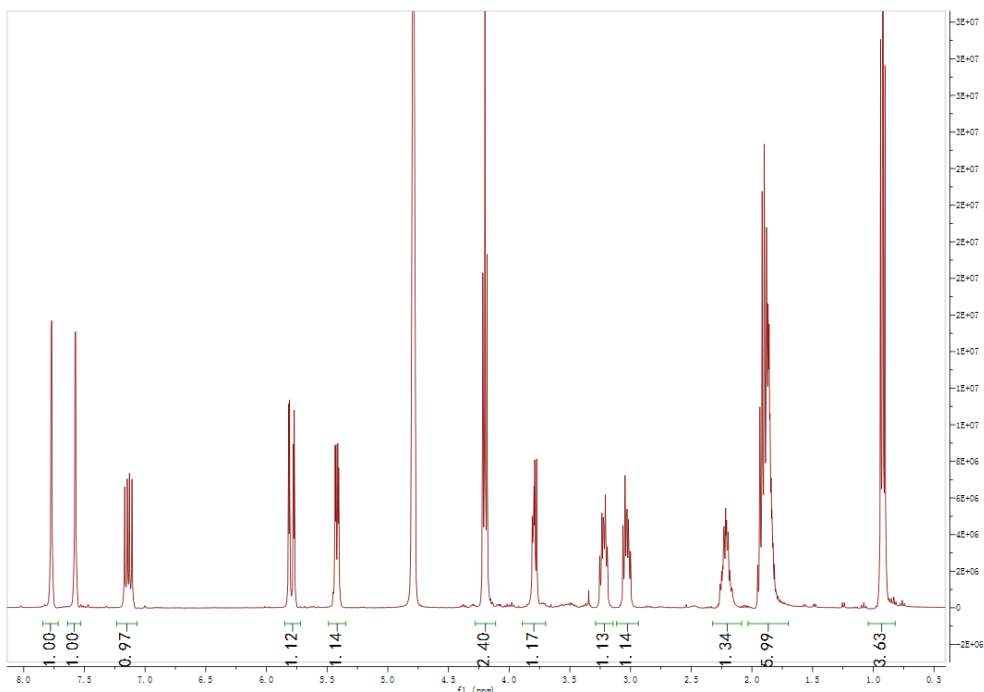
ViImC₃-L-pro: ¹H NMR (400 MHz, D₂O) δ 7.76 (d, 1H), 7.55 (d, 1H), 7.14-7.08 (m, 1H), 5.80-5.75 (m, 1H), 5.42-5.39 (m, 1H), 4.27-4.22 (m, 2H), 3.83-3.81 (m, 1H), 3.21-3.20 (m, 1H), 3.05-3.03 (m, 1H), 2.22-2.18 (m, 1H), 1.88-1.81 (m, 4H)。



ViImC₄-L-pro: ¹H NMR (400 MHz, D₂O) δ 7.75 (d, 1H), 7.44 (d, 1H), 7.12-7.08 (m, 1H), 5.79-5.73 (m, 1H), 5.41-5.39 (m, 1H), 4.24-4.20 (m, 2H), 3.75-3.61 (m, 1H), 3.32-3.17 (m, 1H), 3.02-3.00 (m, 1H), 2.21-2.14 (m, 1H), 1.88-1.74 (m, 4H), 1.35-1.14 (m, 2H)。



ViImC₅-L-pro: ¹H NMR (400 MHz, D₂O) δ 7.75 (d, 1H), 7.43 (d, 1H), 7.14-7.08 (m, 1H), 5.79-5.74 (m, 1H), 5.41-5.38 (m, 1H), 4.21-4.18 (m, 2H), 3.79-3.76 (m, 1H), 3.19-3.17 (m, 1H), 3.03-3.00 (m, 1H), 2.21-2.17 (m, 1H), 1.86-1.747 (m, 6H), 1.35-1.32 (m, 2H)。



ViImC₆-L-pro: ¹H NMR (400 MHz, D₂O) δ 7.77 (d, 1H), 7.58 (d, 1H), 7.17-7.11 (m, 1H), 5.82-5.77 (m, 1H), 5.43-5.41 (m, 1H), 4.22-4.18 (m, 2H), 3.81-3.71 (m, 1H), 3.27-3.20 (m, 1H), 3.04-3.00 (m, 1H), 2.21-2.20 (m, 1H), 1.92-1.81 (m, 6H), 0.94-0.90 (m, 4H)。