Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

The room temperature formation of gold nanoparticles from the reaction of cyclohexanone and auric acid; a transition from dendritic particles to compact shapes and nanoplates

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Supplementary Information 1

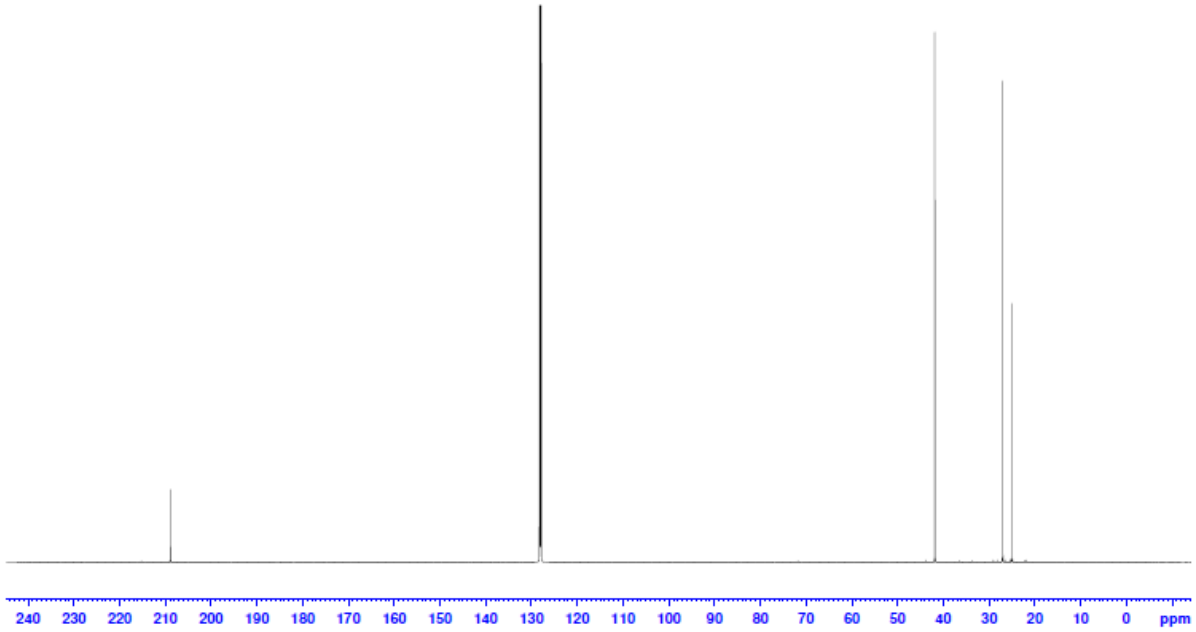


Figure S1: ^{13}C NMR spectrum of pure cyclohexanone standard (600 MHz, D_2O)

Supplementary Information 2

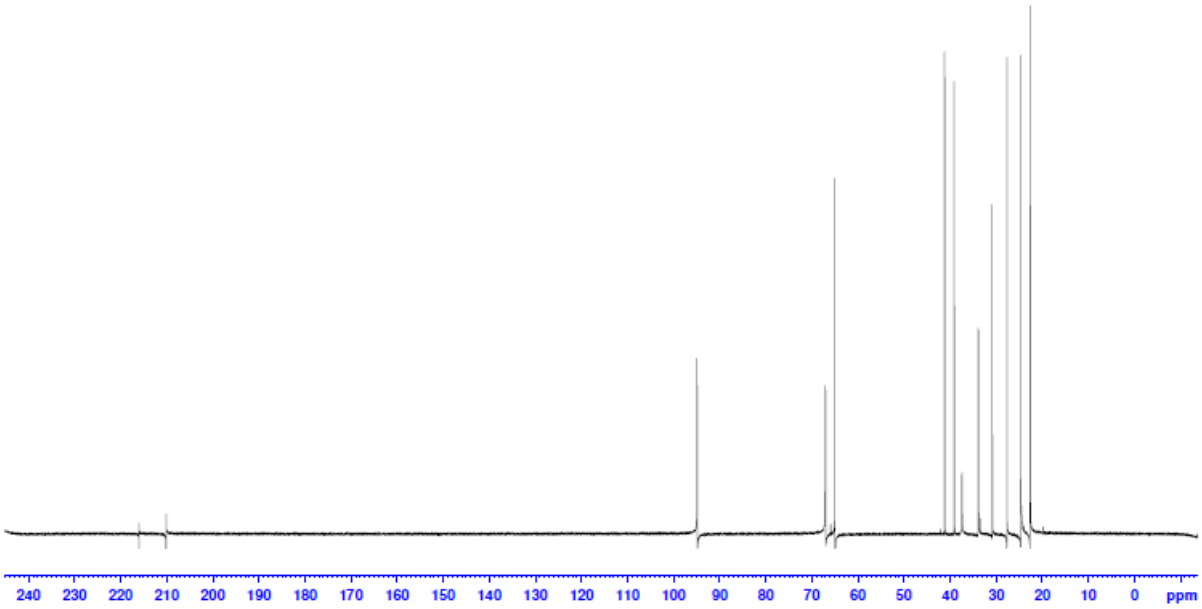


Figure S2: ^{13}C NMR spectrum of pure 2-chlorocyclohexanone standard (600 MHz, D_2O)

Supplementary Information 3(a)

(a)

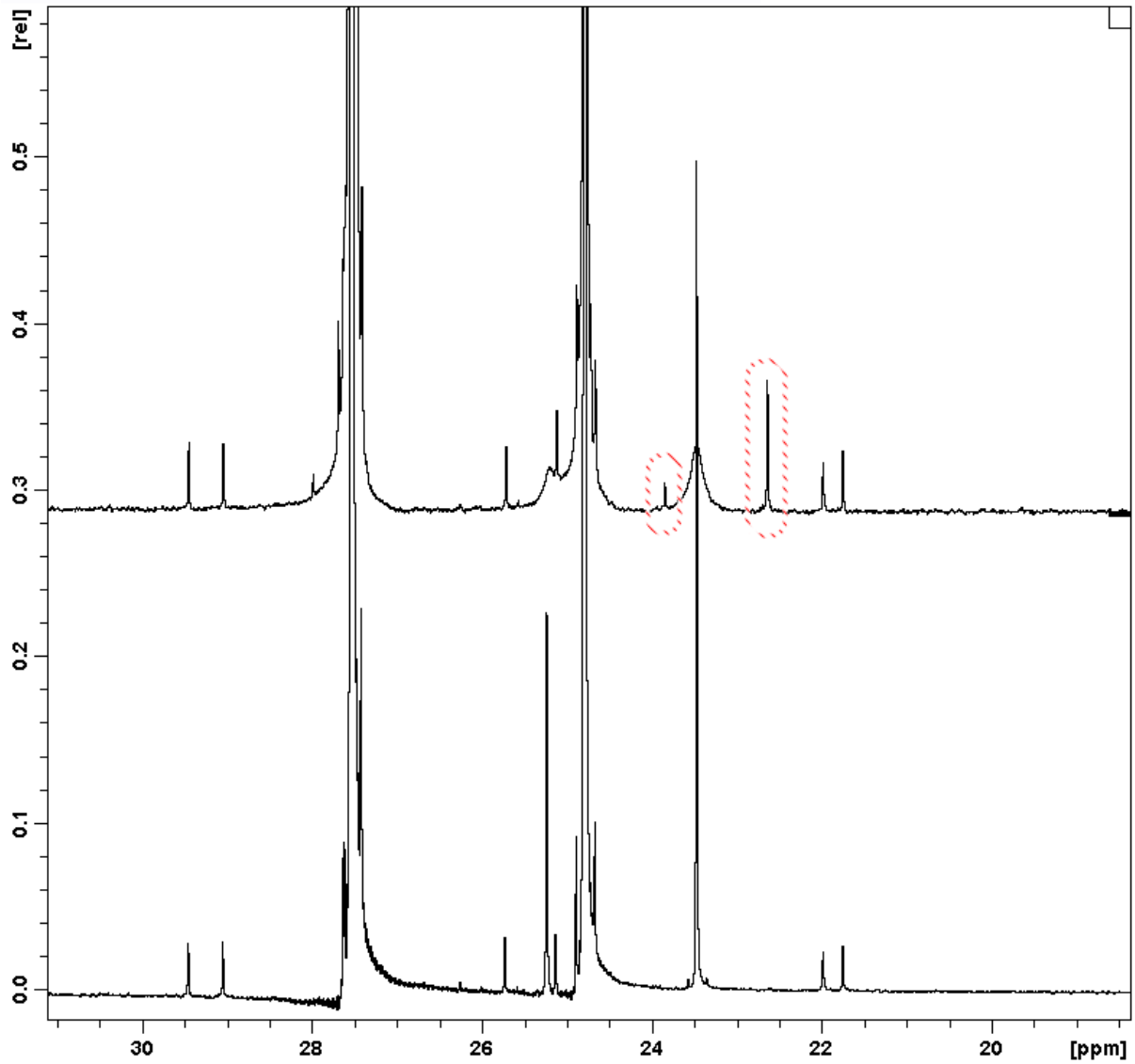
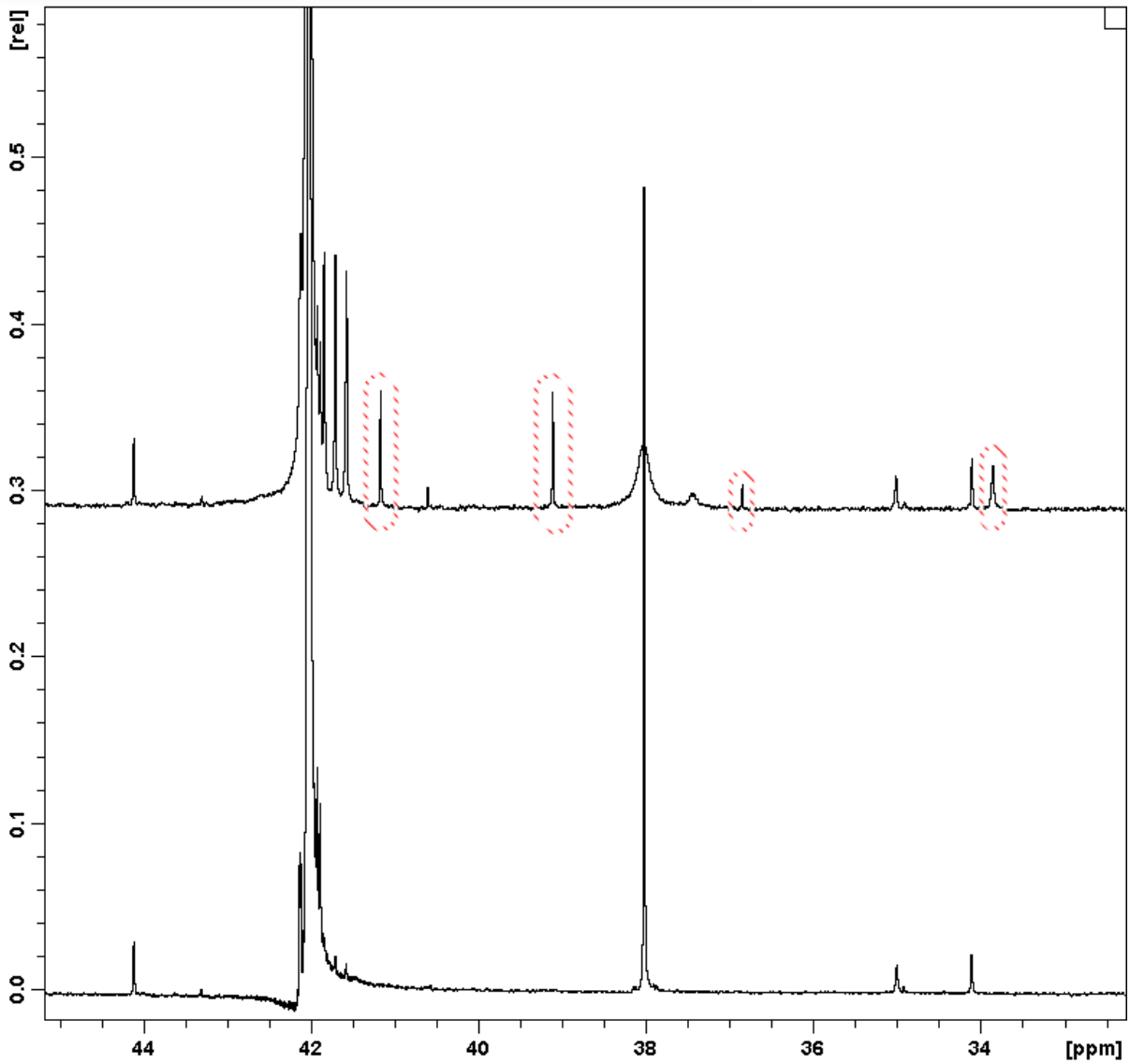


Figure S3: Zoomed in ^{13}C NMR spectra (600 MHz, D_2O) across four key regions of δ ppm where the top spectrum in the series represents a gold nanoparticle solution (diluted by a factor of 100) formed from the reaction of auric acid (0.28 mM) and cyclohexanone (0.48 M) in D_2O at room temperature after 1 hr and the bottom spectrum in the series represents cyclohexanone alone in D_2O (0.48 M). The peaks highlighted in dotted red relate were identified as 2-chlorocyclohexanone environments

Supplementary Information 3(b)

(b)



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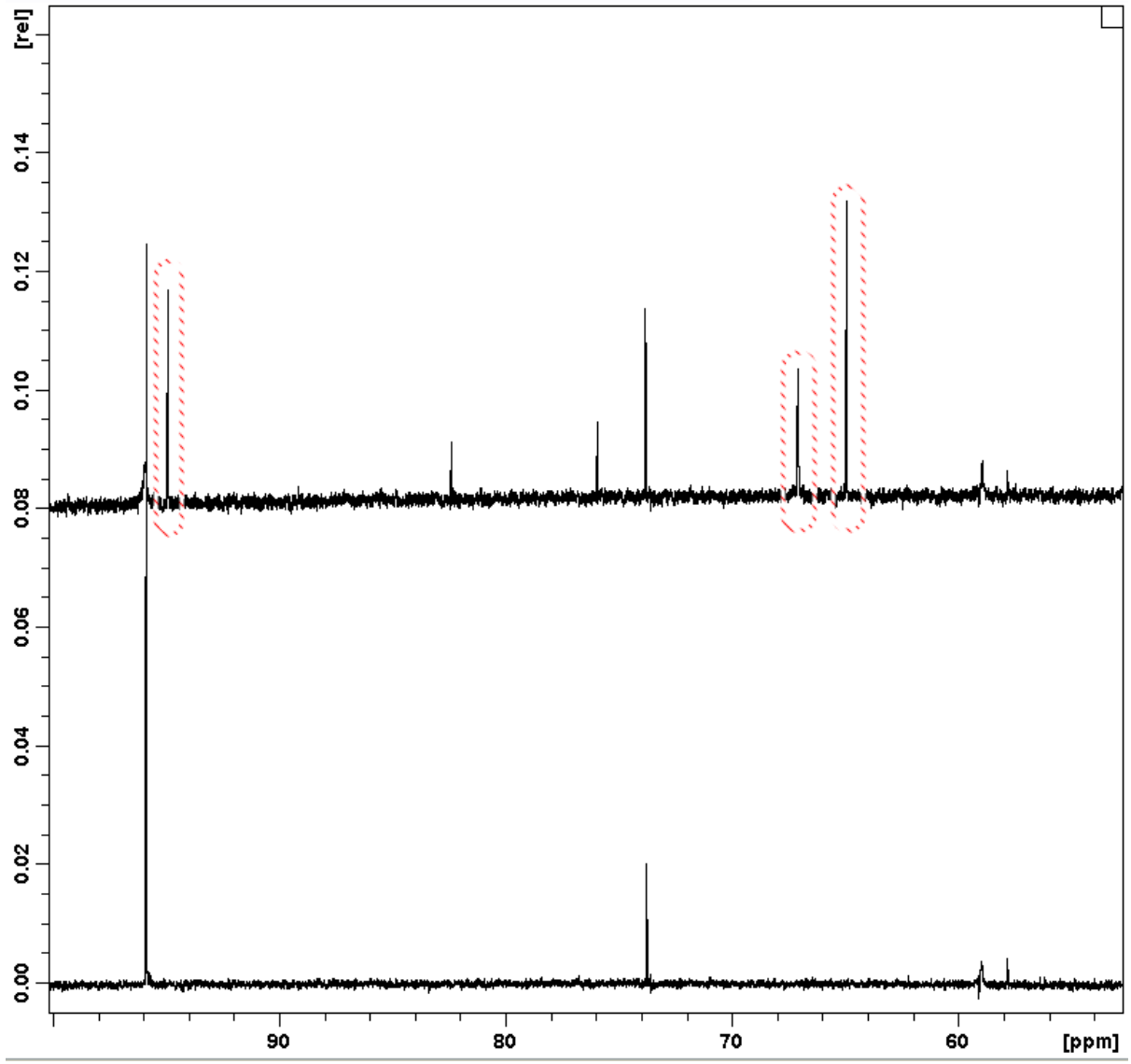
Supplementary Information 3(c)

(c)



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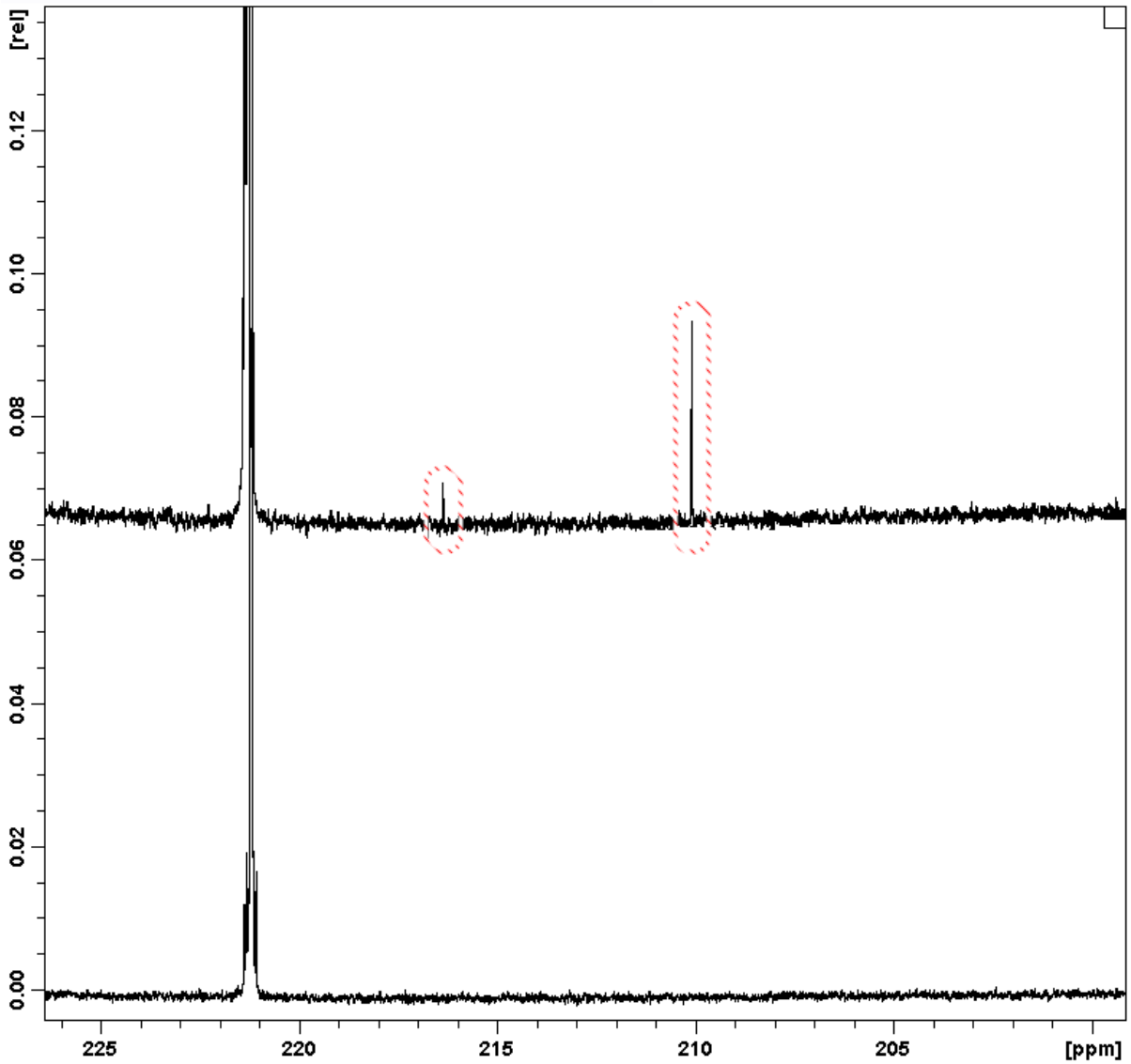
Supplementary Information 3(d)

(d)



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