Synthesis and catalytic application of glycodendrimers decorated with Gold nanoparticle-Reduction of 4-Nitrophenol

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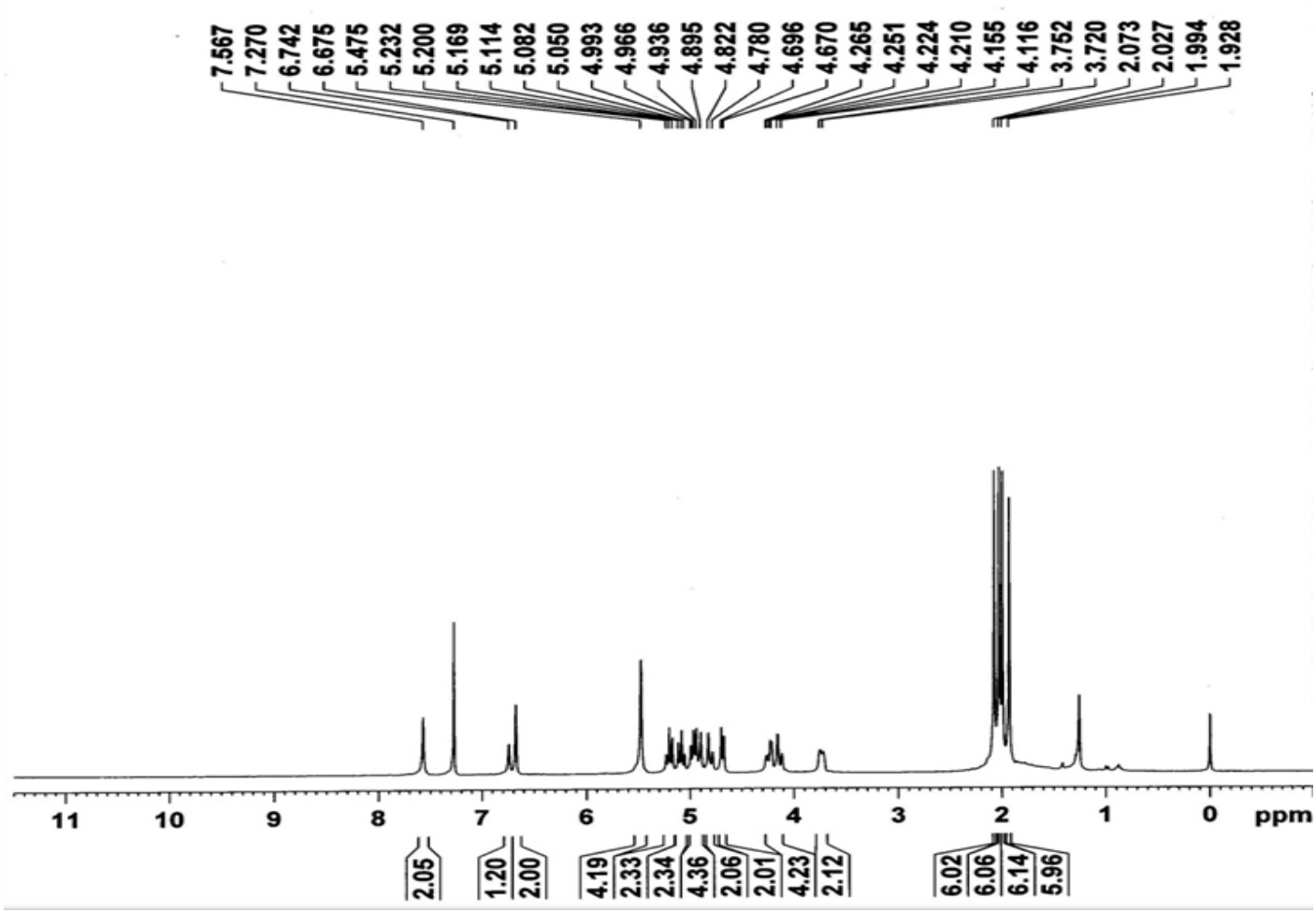
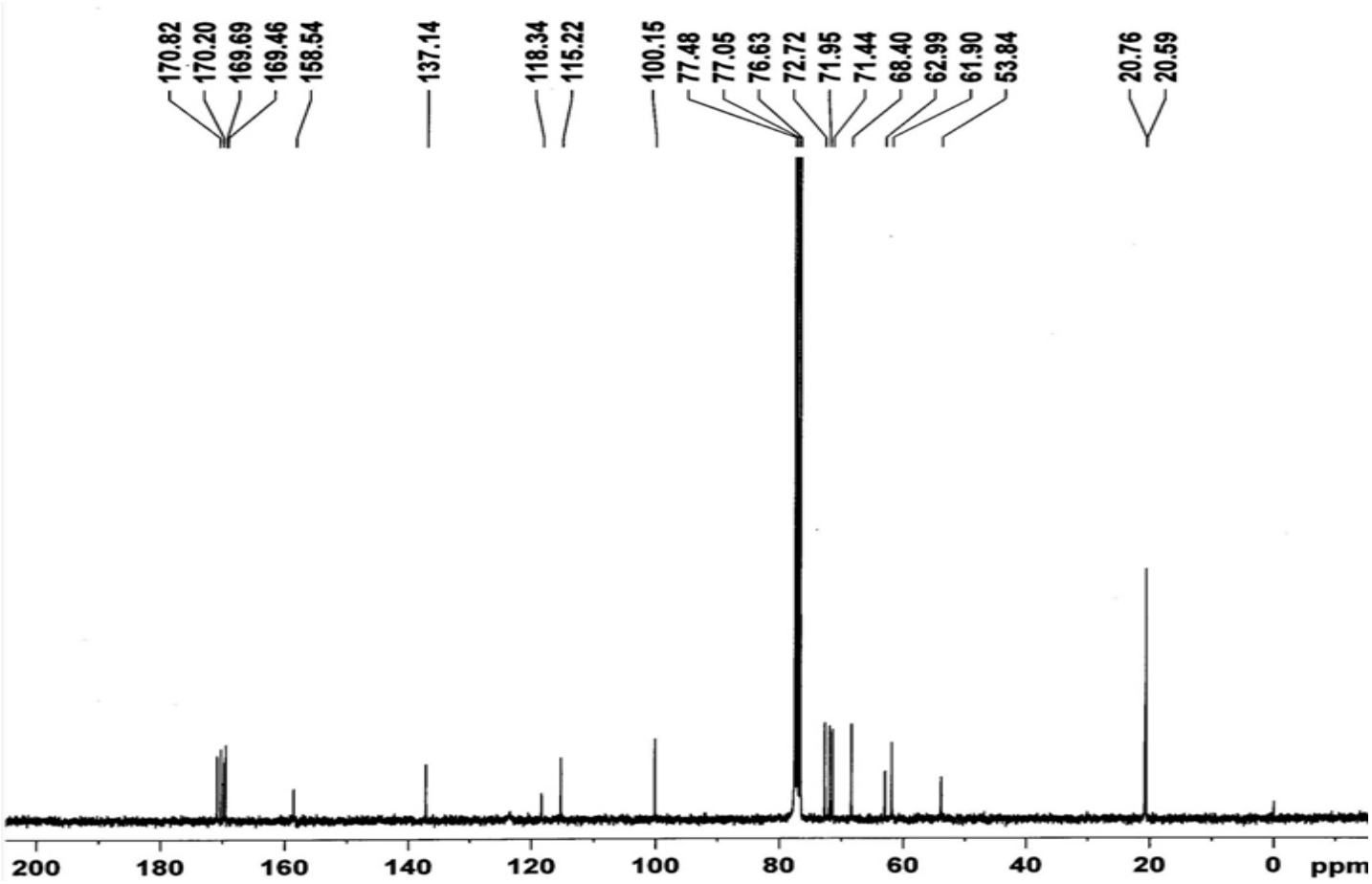
SUPPORTING INFORMATIONS

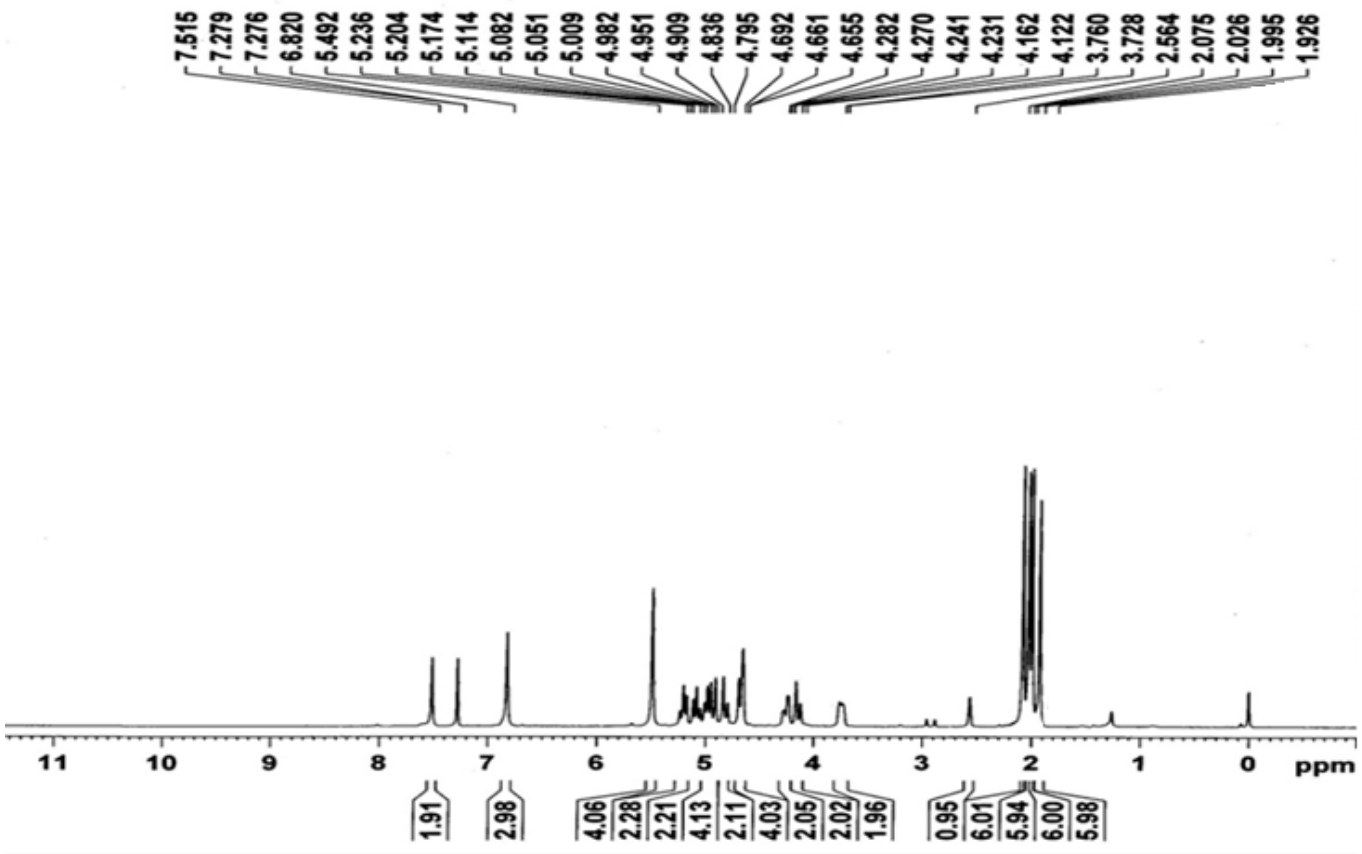
1. ^{1}H and ^{13}C NMR spectra of compounds **7**, **8**, **1**, **2**, **3** and **4** …… p 2- 13
2. Successive spectra monitoring the reduction of 4-NP ($1X10^{-4}$ m) in the presence of AuDENs (10 mol %) **2, 3** and **4**. …… P 14 & 15
3. Plot of $\ln(C_t/C_0)$ as a function of time for the reduction of 4-NP ($1x10^{-4}$ m) in the presence of AuDSNps (10 mol-%) stabilized by glycodendrimers …….. P 15 & 16
4. Mechanism of forming Au Nanoparticles …….. P 17



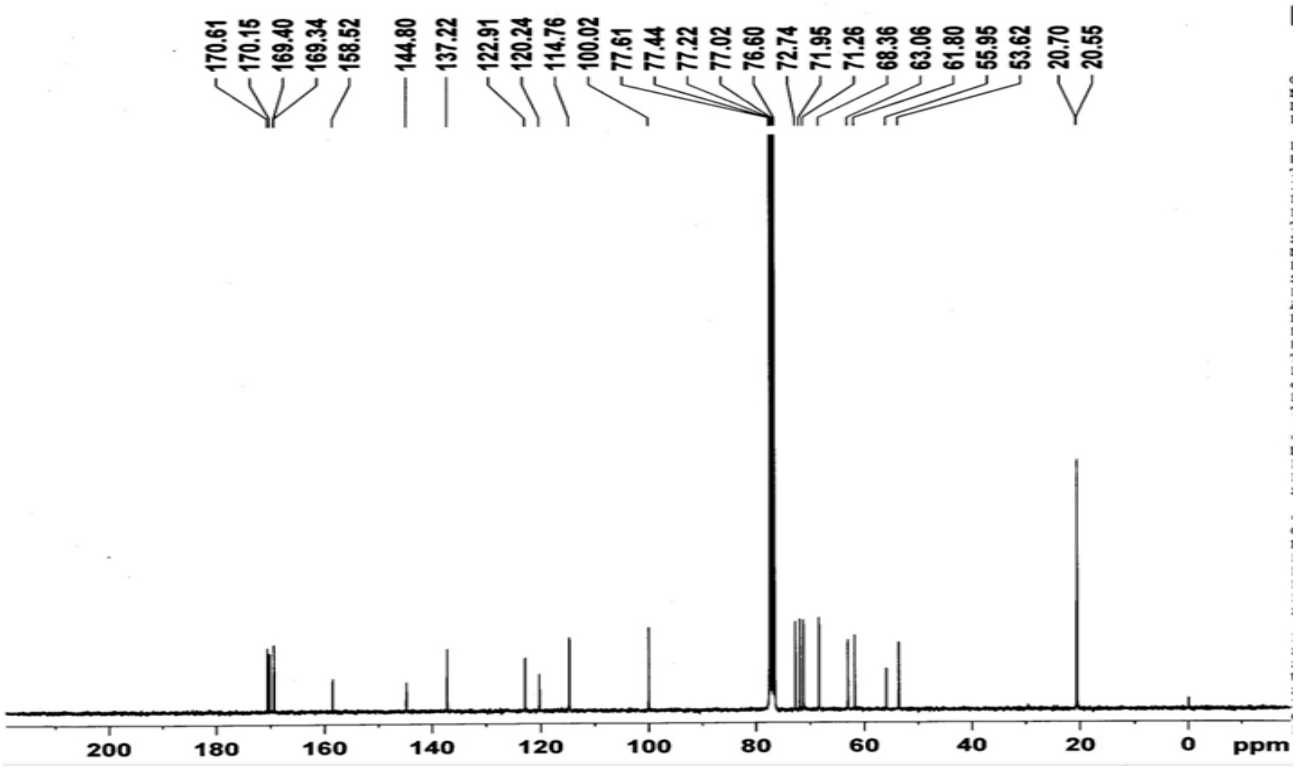
^{1}H ($CDCl_3$) NMR (300 MHz) spectrum of Compound 7



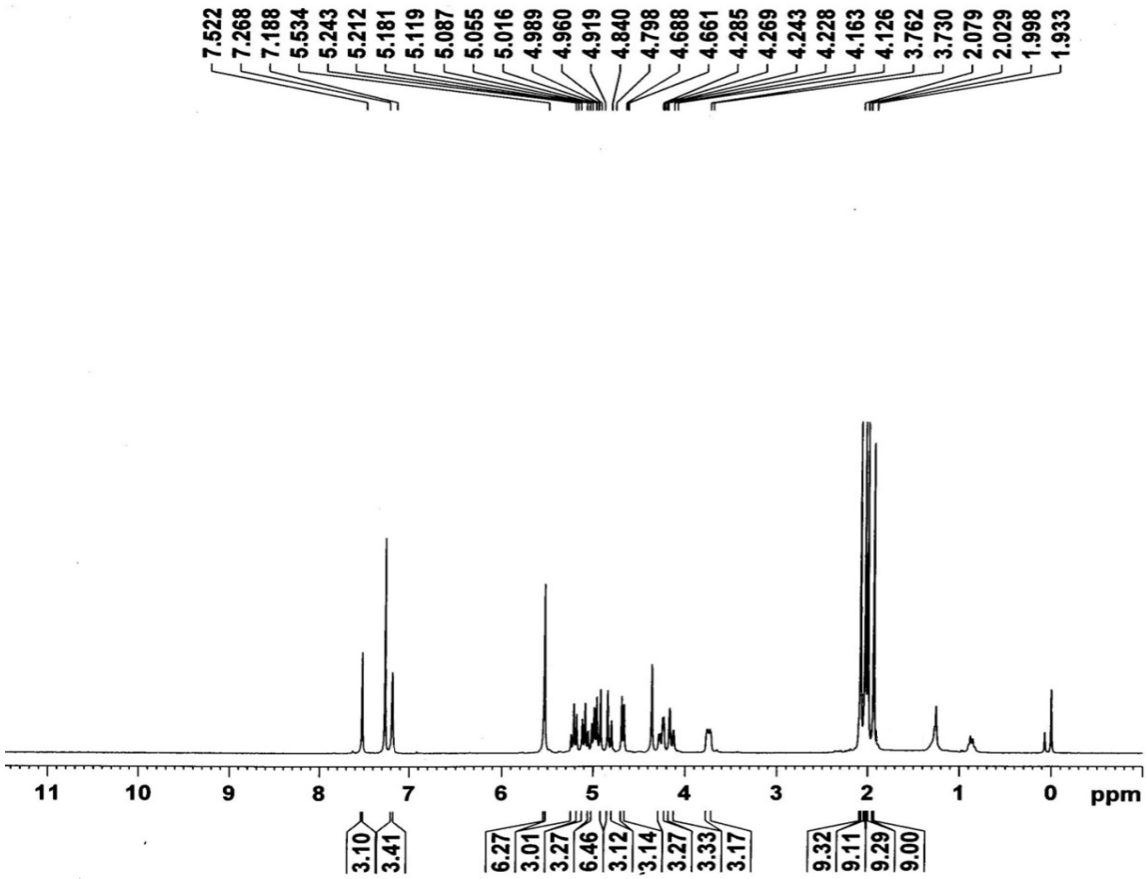
^{13}C ($CDCl_3$) NMR (75 MHz) spectrum of Compound 7



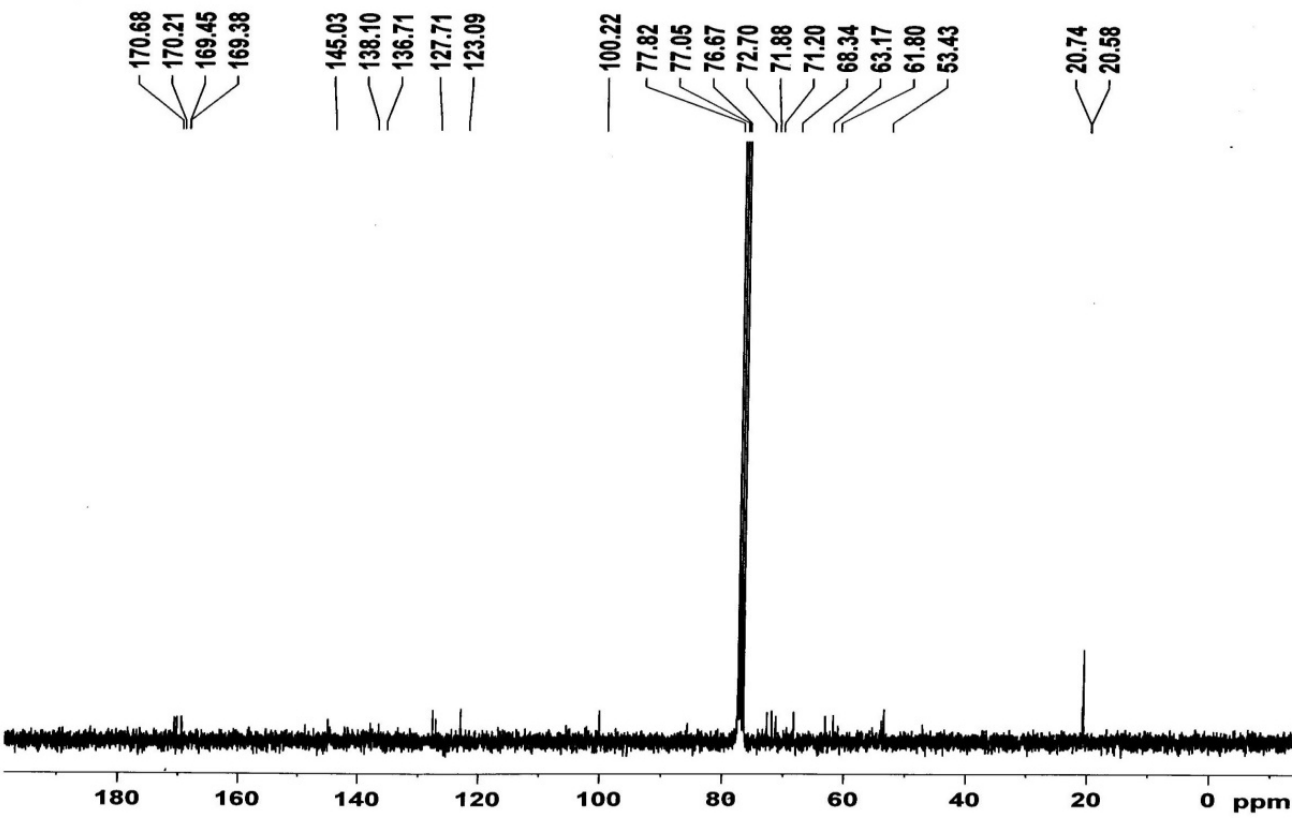
^{1}H ($CDCl_3$) NMR (300 MHz) spectrum of Compound 8



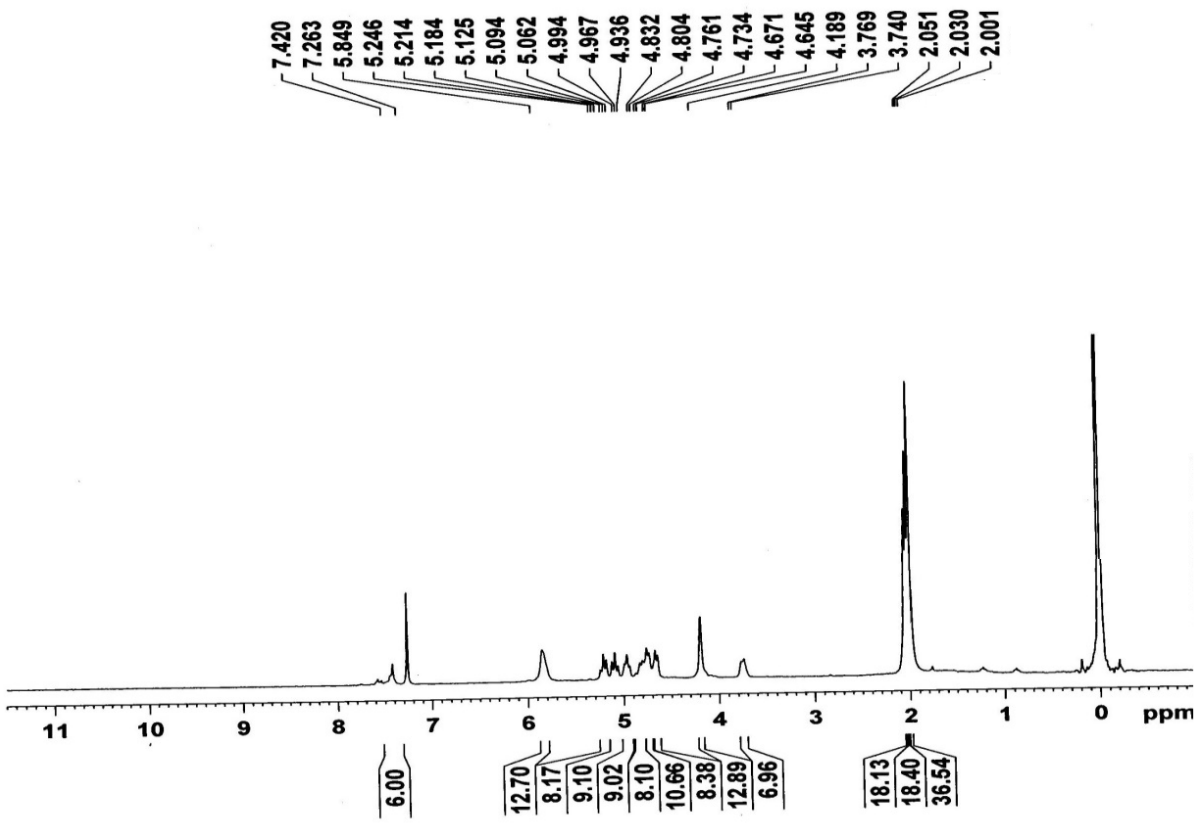
^{13}C ($CDCl_3$) NMR (75 MHz) spectrum of Compound 8



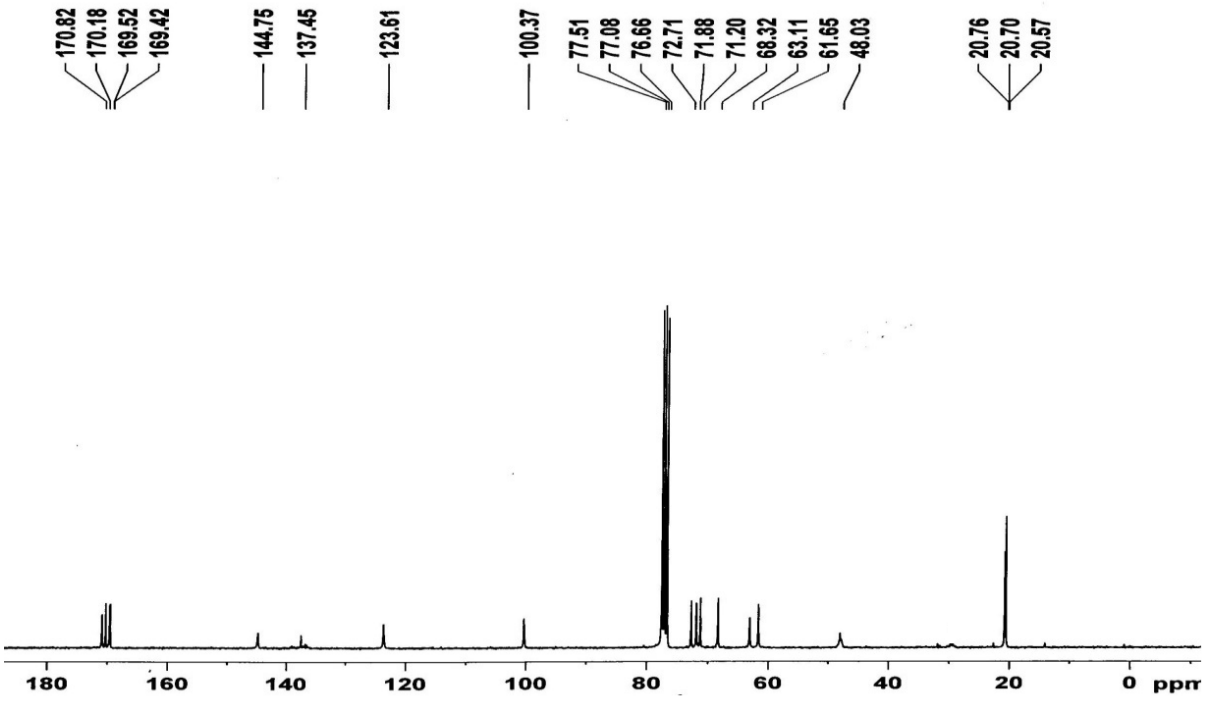
^{1}H ($CDCl_3$) NMR (300 MHz) spectrum of glycodendrimer 1



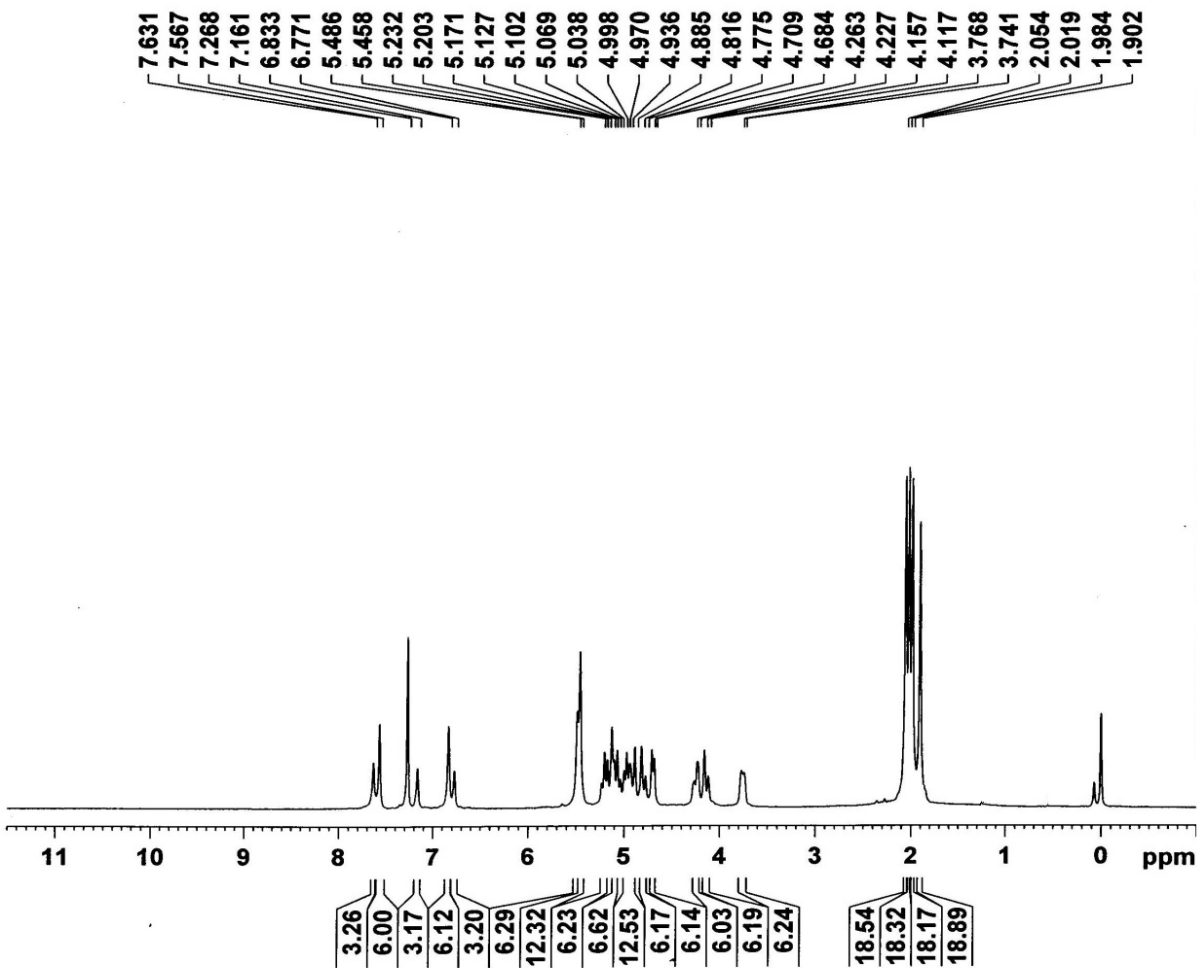
^{13}C ($CDCl_3$) NMR (75 MHz) spectrum of glycodendrimer 1



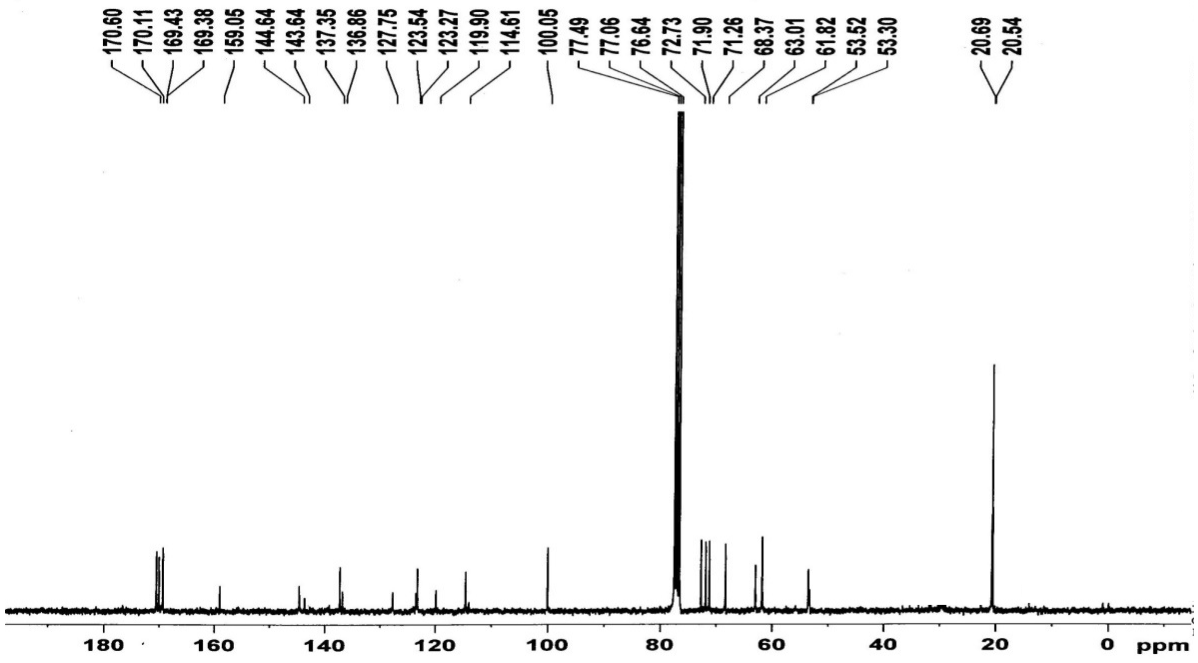
^{1}H ($CDCl_3$) NMR (300 MHz) spectrum of glycodendrimer 2



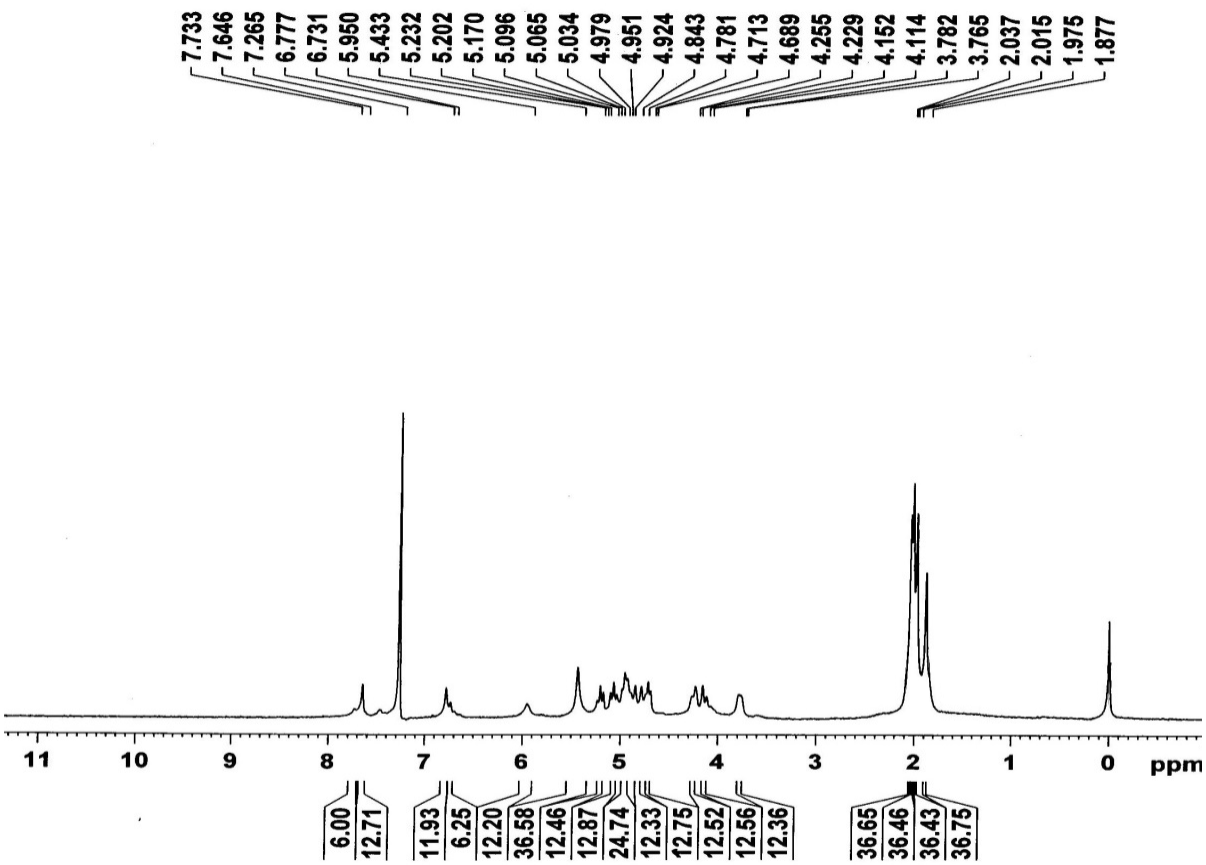
^{13}C ($CDCl_3$) NMR (75 MHz) spectrum of glycodendrimer 2



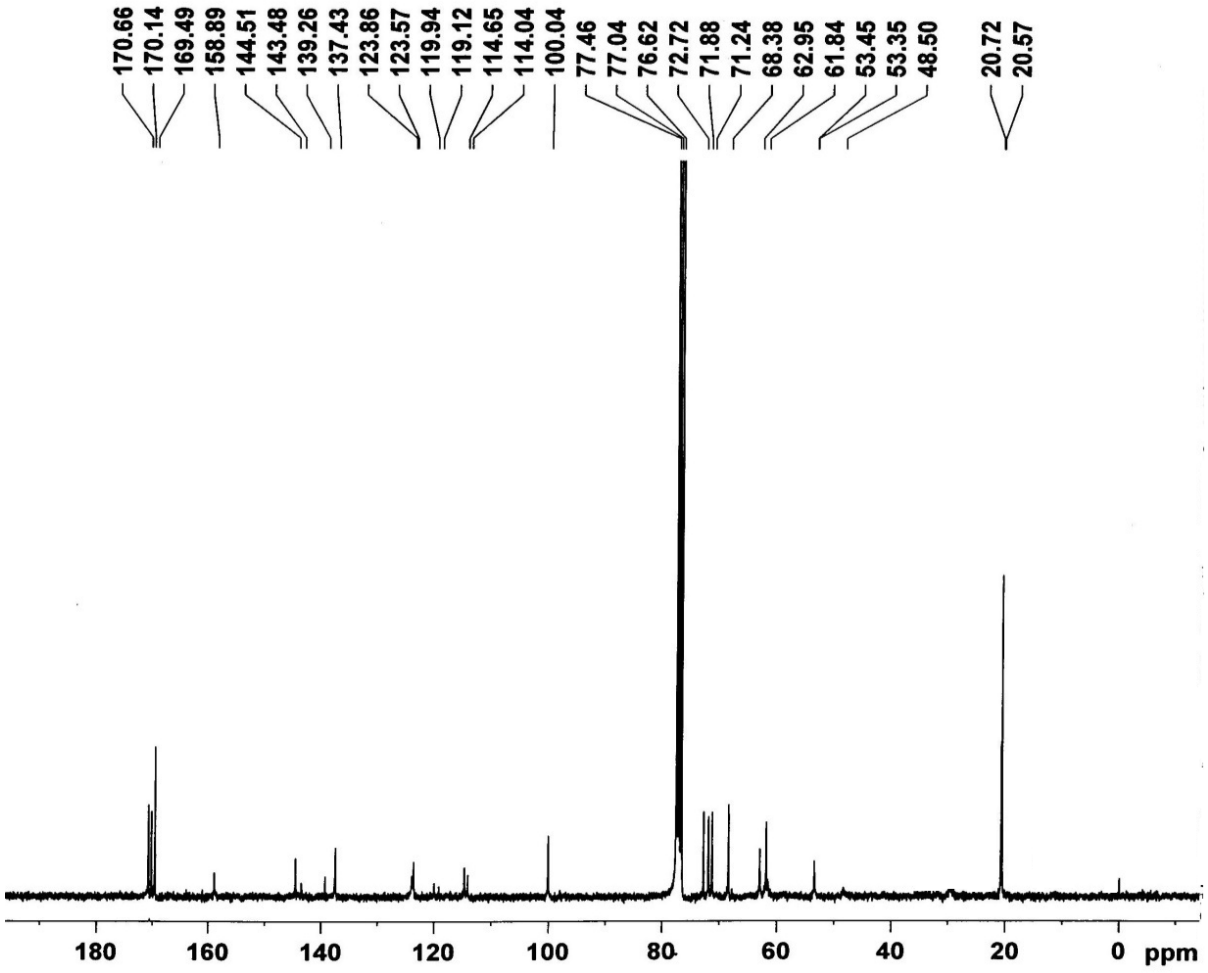
^{1}H ($CDCl_3$) NMR (300 MHz) spectrum of glycodendrimer 3



^{13}C ($CDCl_3$) NMR (75 MHz) spectrum of glycodendrimer 3



^{1}H ($CDCl_3$) NMR (300 MHz) spectrum of glycodendrimer 4



^{13}C ($CDCl_3$) NMR (75 MHz) spectrum of glycodendrimer 4

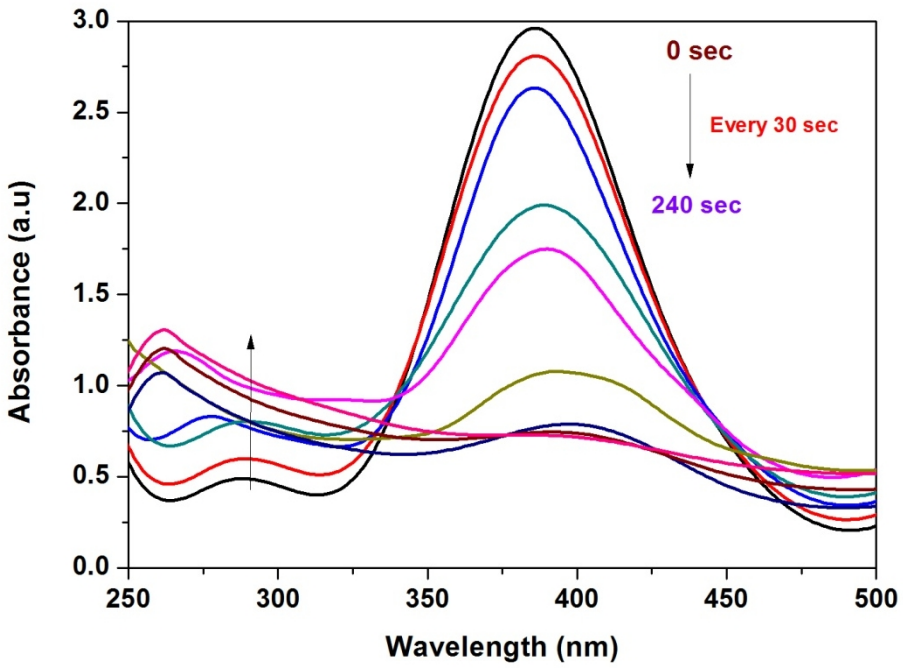


Fig. 4b. Successive spectra monitoring the reduction of 4-NP ($1X10^{-4}$ m) in the presence of AuDENs (10 mol-%) stabilized by glycodendrimer **2**.

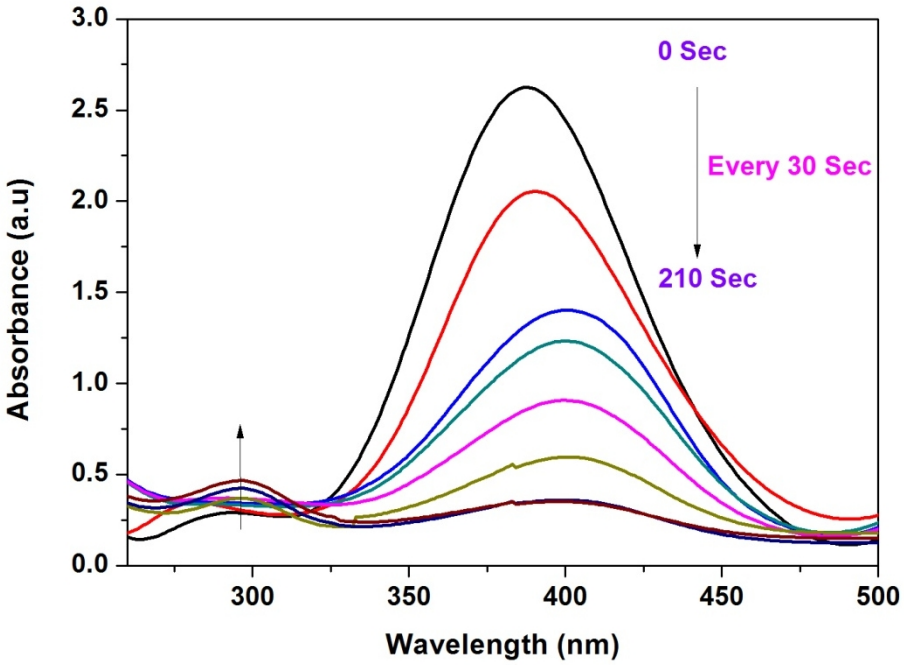


Fig. 4c. Successive spectra monitoring the reduction of 4-NP ($1X10^{-4}$ m) in the presence of AuDENs (10 mol-%) stabilized by glycodendrimer **3**.

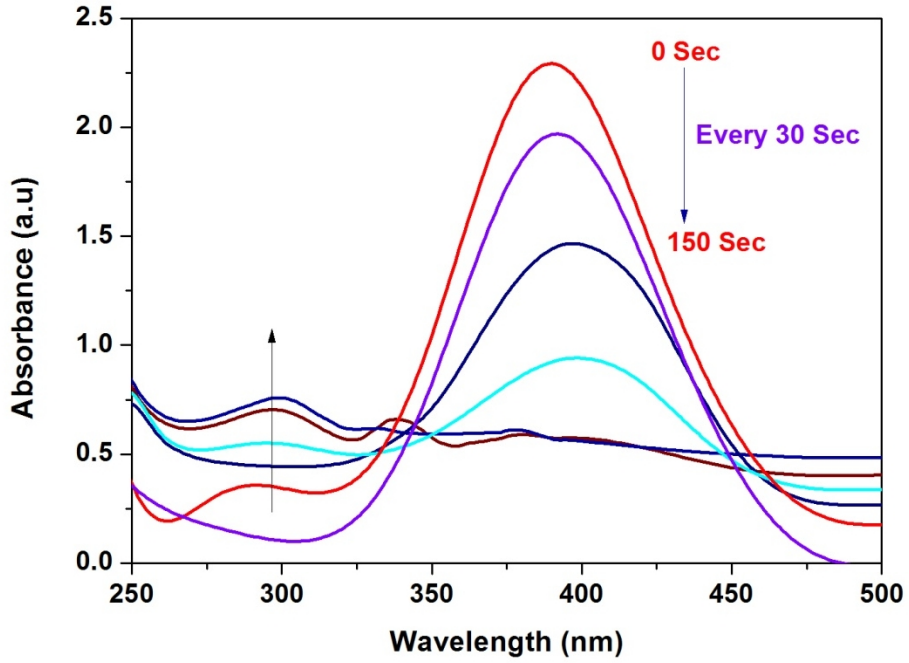


Fig. 4d. Successive spectra monitoring the reduction of 4-NP (1X10^{-4} m) in the presence of AuDENs (10 mol-%) stabilized by glycodendrimer **4**.

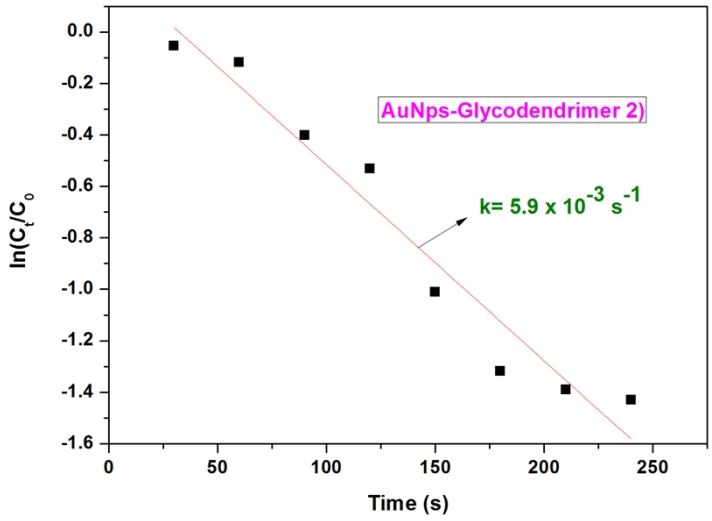


Figure 5b. Plot of ln(C_t/C_0) as a function of time for the reduction of 4-NP (1x10^{-4} m) in the presence of AuDSNps (10 mol-%) stabilized by glycodendrimer **2**.

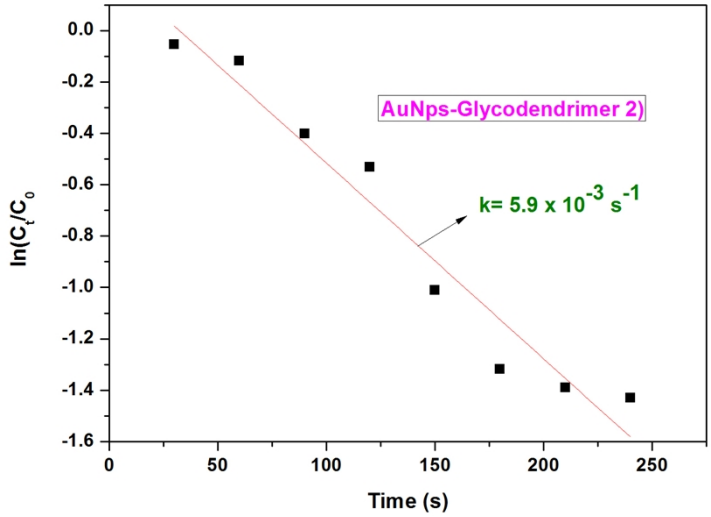


Figure 5c. Plot of $\ln(C_t/C_0)$ as a function of time for the reduction of 4-NP ($1x10^{-4}$ m) in the presence of AuDSNps (10 mol-%) stabilized by glycodendrimer **3**.

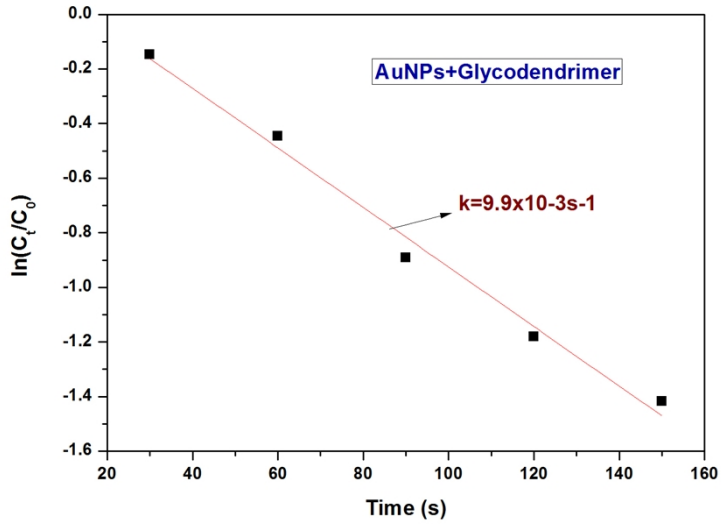
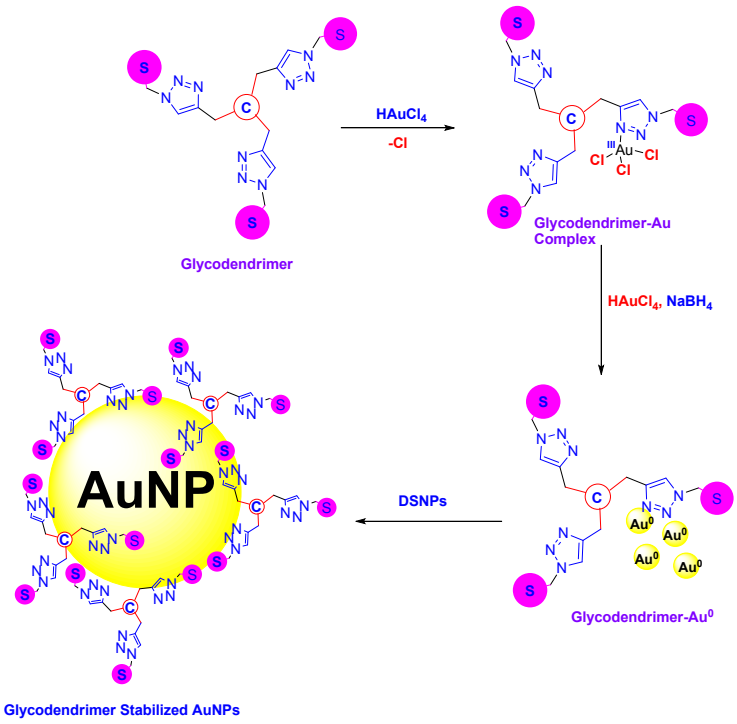


Figure 5d. Plot of $\ln(C_t/C_0)$ as a function of time for the reduction of 4-NP ($1x10^{-4}$ m) in the presence of AuDSNps (10 mol-%) stabilized by glycodendrimer **4**.

Mechanism of forming Au Nanoparticles

1. Stabilisation



2. Encapsulation