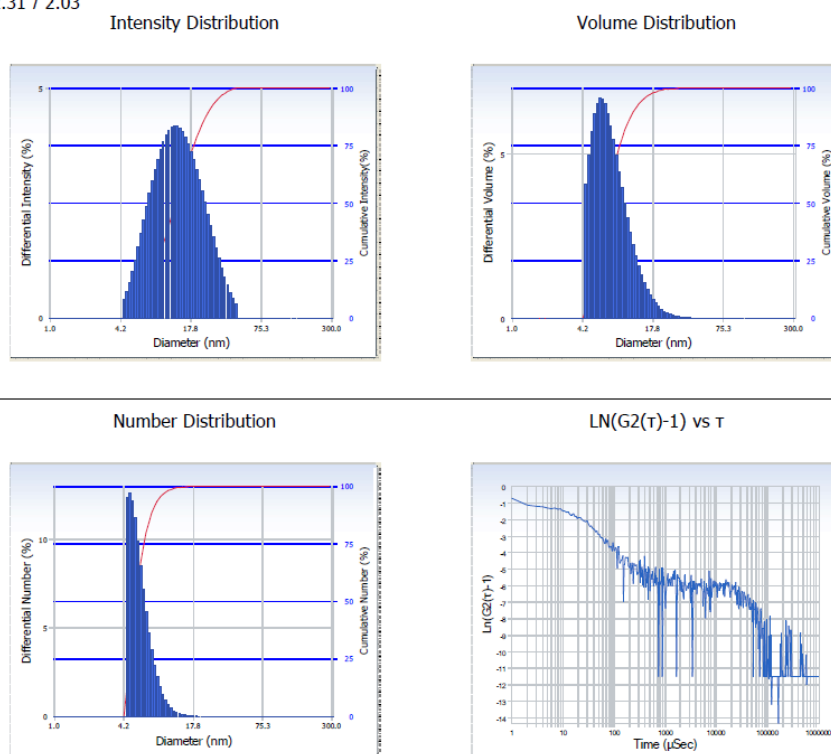


Supplementary Materials: Lipoic Acid Gold Nanoparticles Functionalized with Organic Compounds as Bioactive Materials

Ioana Turcu, Irina Zarafu, Marcela Popa, Mariana Carmen Chifiriuc, Coralia Bleotu, Daniela Culita, Corneliu Ghica and Petre Ionita

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Cumulants Results

Diameter (d) : 16.0 (nm)
 Polydispersity Index (P.I.) : 0.258
 Diffusion Const. (D) : 3.077e-007 (cm²/sec)
 Residual : 1.709e-002 (O.K)

Measurement Condition

Temperature : 25.0 (°C)
 Diluent Name : WATER
 Refractive Index : 1.3328
 Viscosity : 0.8878 (cP)
 Scattering Intensity : 8765 (cps)

Figure S1. DLS analysis of the LA Au NPs.

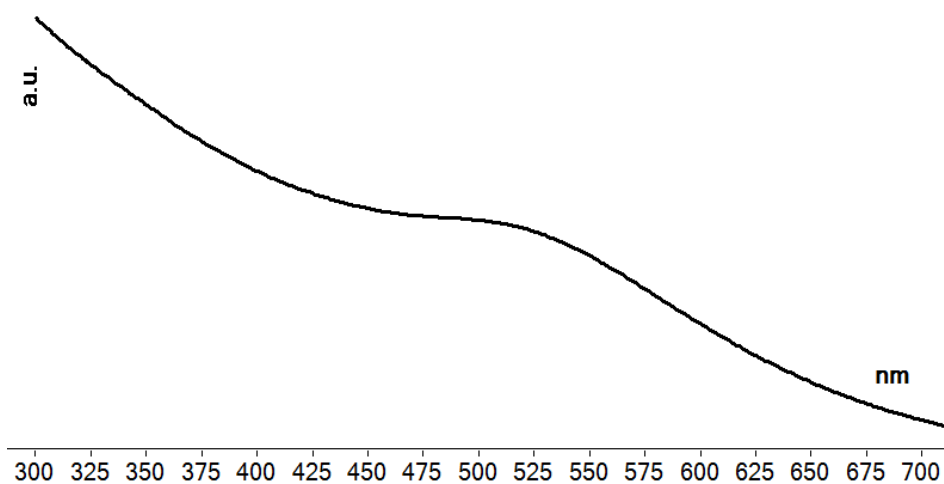


Figure S2. UV-Vis spectrum of the LA Au NPs.

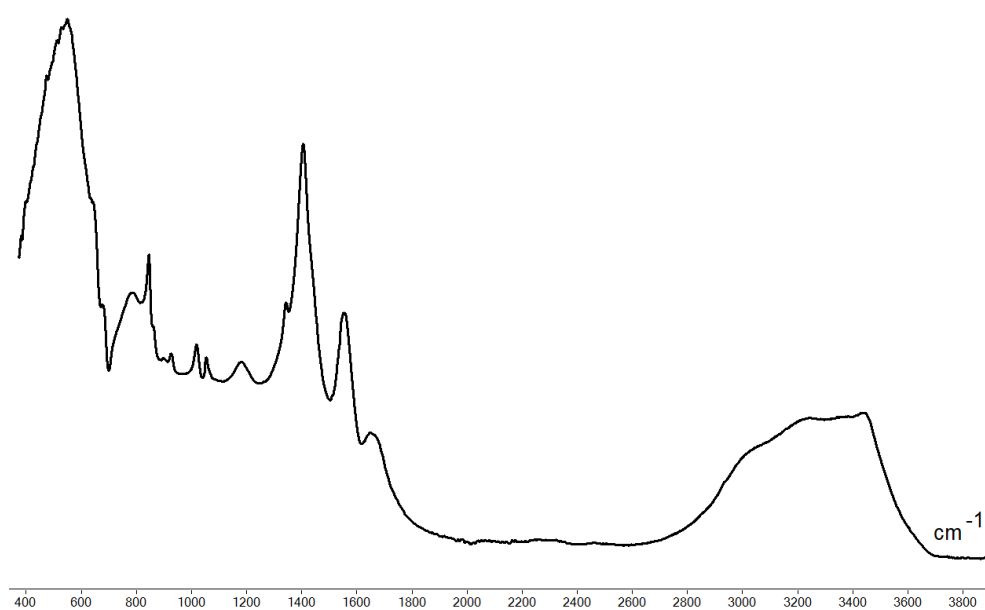


Figure S3. IR spectrum of the LA Au NPs.

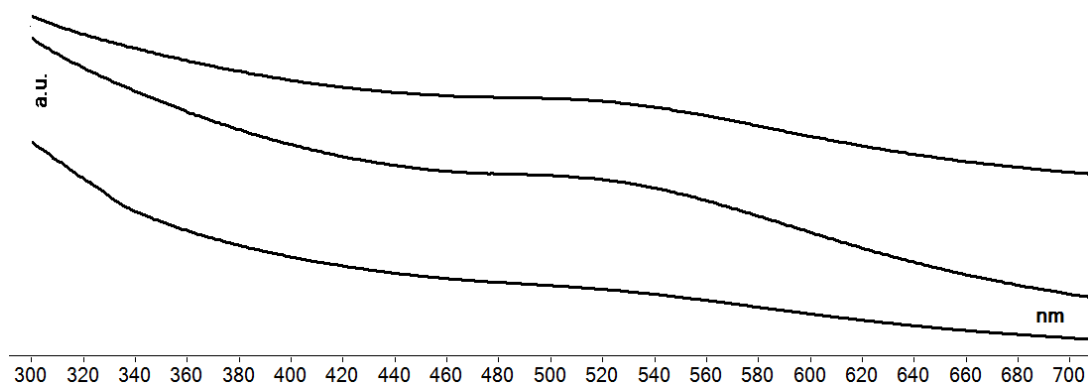


Figure S4. UV-Vis spectra of the functionalized Au NPs (from top to bottom: Au NPs functionalized with 1-naphthyl amine (II), 4-aminoantipyrine (III), and 4-aminobenzo-15-crown-5 (IV), respectively).

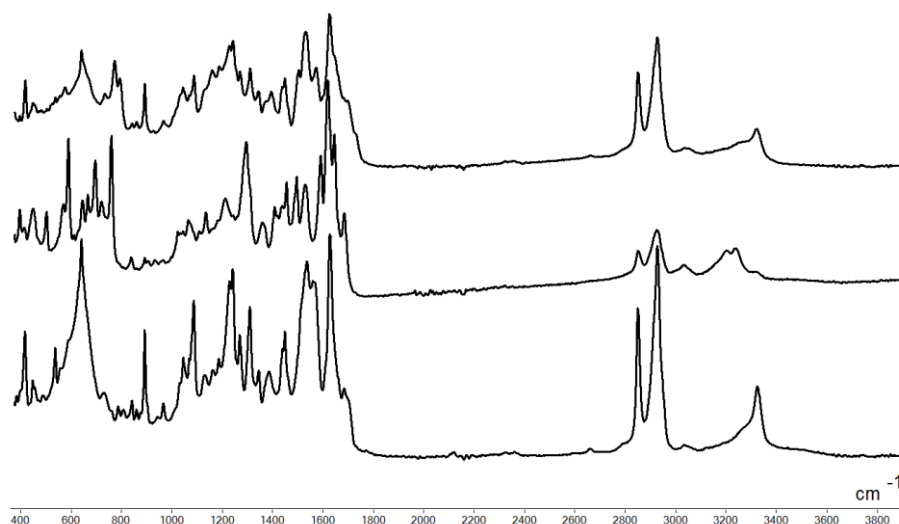
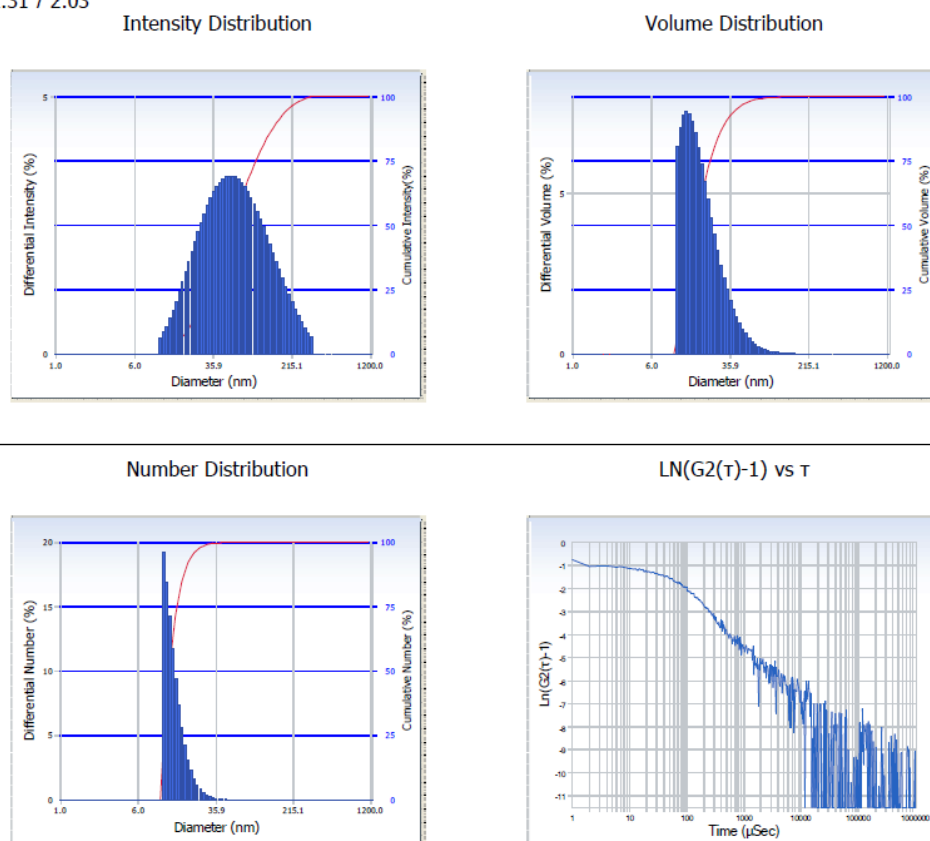


Figure S5. IR spectra of the functionalized Au NPs (from top to bottom: Au NPs functionalized with 1-naphthyl amine (II), 4-aminoantipyrine (III), and 4-aminobenzo-15-crown-5 (IV), respectively).

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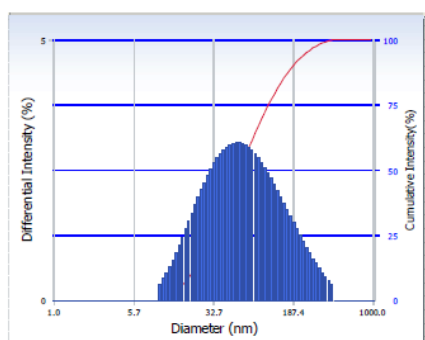
Cumulants Results			Measurement Condition		
Diameter	(d)	: 66.6 (nm)	Temperature	: 25.0 (°C)	
Polydispersity Index (P.I.)		: 0.242	Diluent Name	: WATER	
Diffusion Const.	(D)	: 7.385e-008 (cm ² /sec)	Refractive Index	: 1.3328	
Residual		: 1.568e-002 (O.K)	Viscosity	: 0.8878 (cP)	
			Scattering Intensity	: 9824 (cps)	

(a)

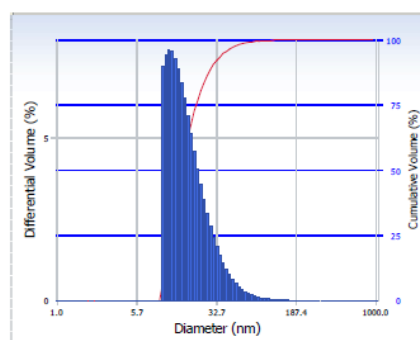
Cont.

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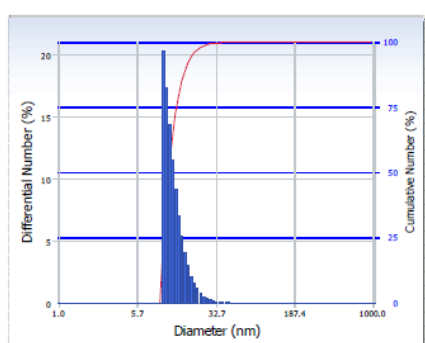
Intensity Distribution



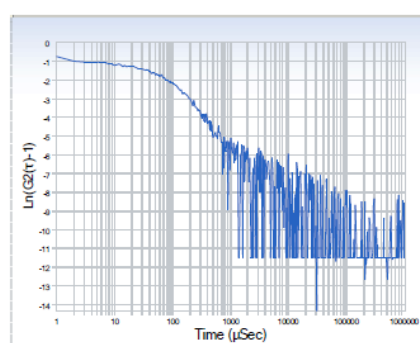
Volume Distribution



Number Distribution



LN(G2(τ)-1) vs τ



Cumulants Results

Diameter (d) : 48.6 (nm)
 Polydispersity Index (P.I.) : 0.297
 Diffusion Const. (D) : 1.012e-007 (cm²/sec)
 Residual : 5.960e-003 (O.K)

Measurement Condition

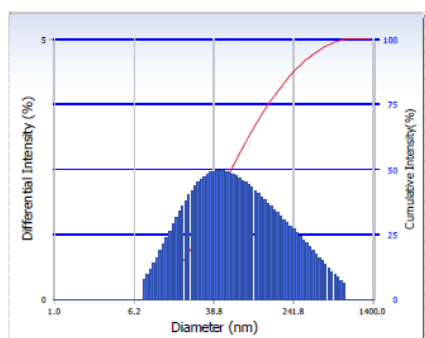
Temperature : 25.0 (°C)
 Diluent Name : WATER
 Refractive Index : 1.3328
 Viscosity : 0.8878 (cP)
 Scattering Intensity : 10178 (cps)

(b)

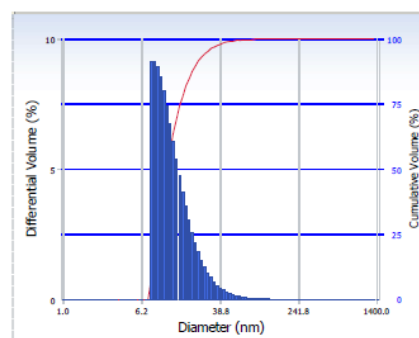
Cont.

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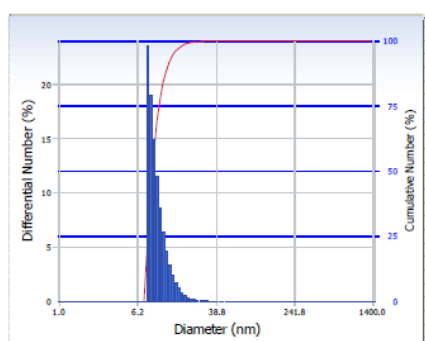
Intensity Distribution



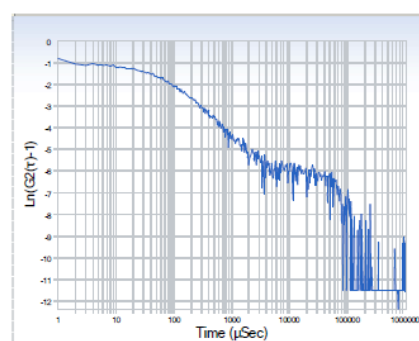
Volume Distribution



Number Distribution



LN(G2(τ)-1) vs τ



Cumulants Results

Diameter	(d)	: 86.8	(nm)
Polydispersity Index (P.I.) : 0.192			
Diffusion Const.	(D)	: 5.669e-008	(cm ² /sec)
Residual		: 1.202e-002	(O.K)

Measurement Condition

Temperature	: 25.0	(°C)
Diluent Name	: WATER	
Refractive Index	: 1.3328	
Viscosity	: 0.8878	(cP)
Scattering Intensity	: 9966	(cps)

(c)

Figure S6. DLS analysis of the functionalized LA Au NPs with 1-naphtyl amine (a), 4-aminoantipyrine (b), and 4-aminobenzo-15-crown-5 (c), respectively.

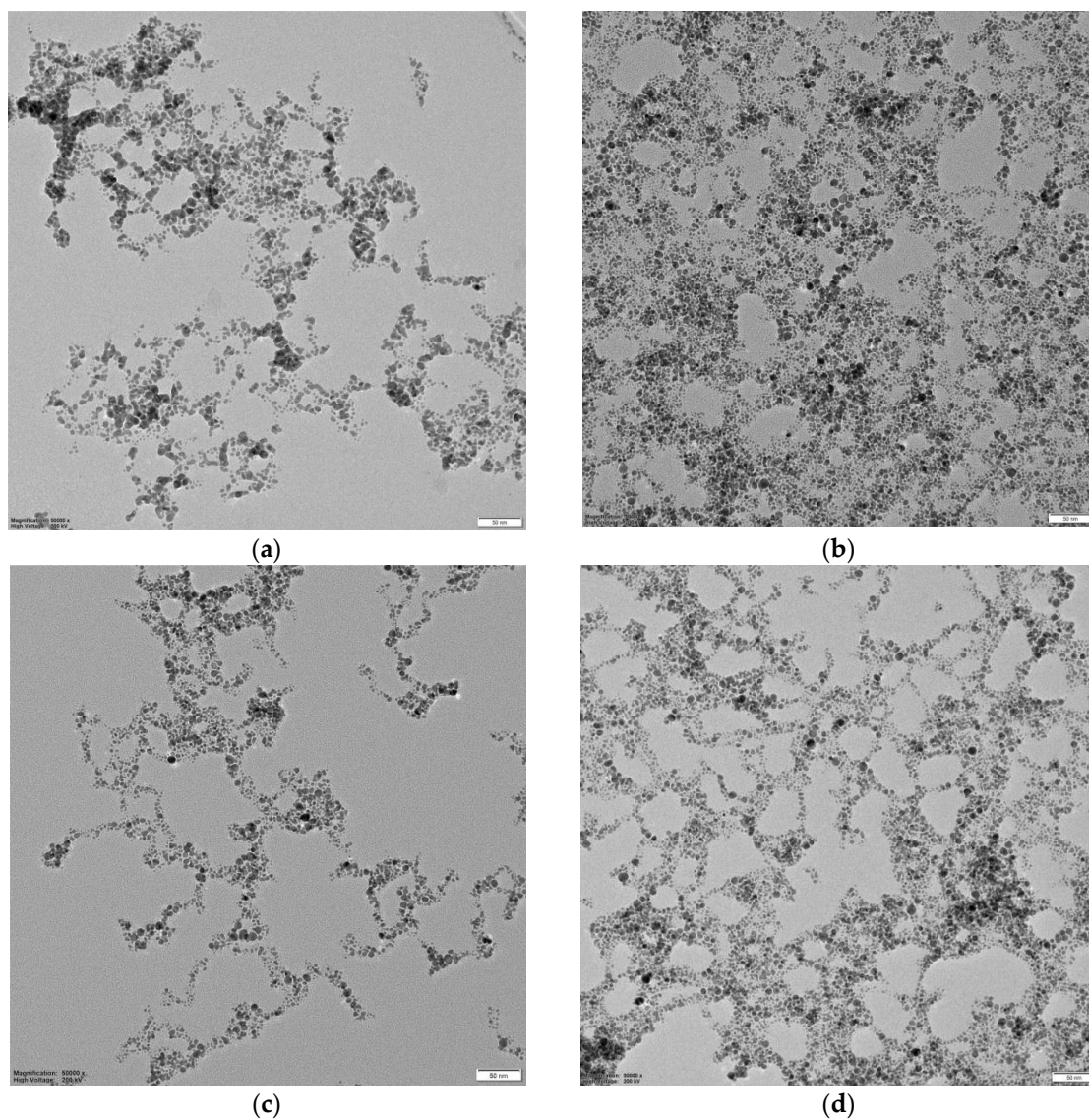


Figure S7. TEM analysis of the functionalized LA Au NPs (a), with 1-naphthyl amine (b), 4-aminoantipyrine (c), and 4-aminobenzo-15-crown-5 (d), respectively.