



Article

Direct Conjugation of Resveratrol on Hydrophilic Gold Nanoparticles: Structural and Cytotoxic Studies for Biomedical Applications

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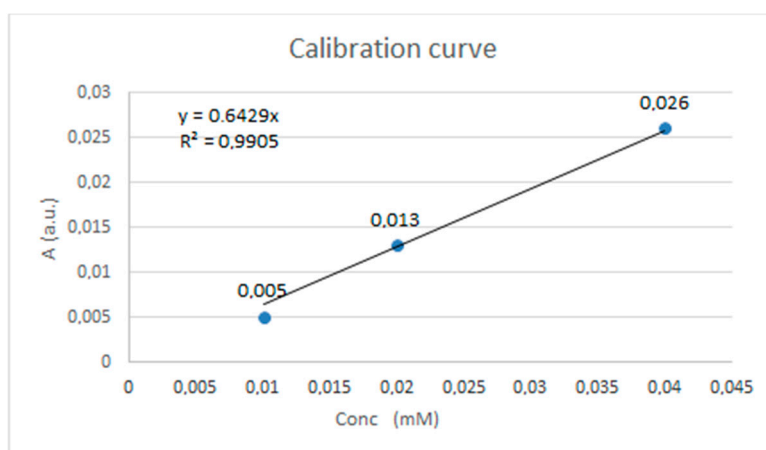


Figure S1. Calibration curve of RSV in water.

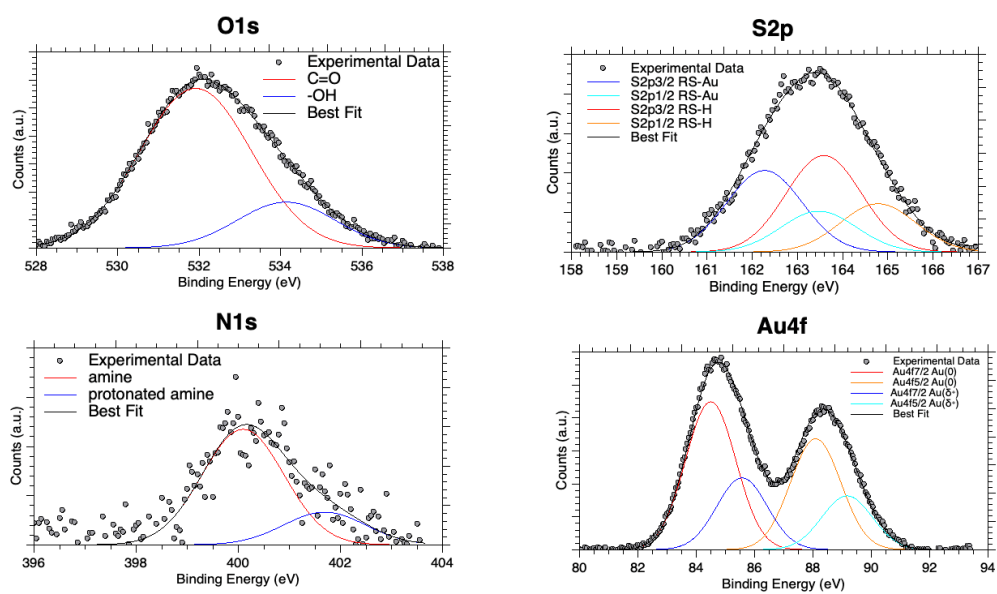


Figure S2. O1s, N1s, S2p and Au4f XPS spectra of AuNPs@RSV1.

Table S1. XPS BE, FWHM, Atomic Percent values and Assignments.

Sample	Signal	BE (eV)	FWHM (eV)	Atomic Percent (%) or Atomic Ratio (O _i /O _j)	Assignment
AuNPs	C1s	285.00	1.81	32.7	C–C
		286.82	1.81	28.2	C–N, C–S, C–O
		288.37	1.81	24.2	COOH
		290.07	1.81	10.1	COO–
		291.72	1.81	4.8	impurities
	Au4f _{7/2}	84.00	2.03	67.3	Au(0)
		85.07	2.03	32.7	Au(+)
	S2p _{3/2}	162.27	1.96	45.8	RS–Au
		163.59	1.96	54.2	RS–H
	N1s	400.13	2.50	71.7	RNH ₂
401.74		2.50	28.3	RNH ₃ ⁺	
O1s	531.93	2.85	3.0	O=C–	
	533.34	2.85	1.0	–O–H	
RSV	C1s	284.70	1.54	79.2	C–C
		286.38	1.54	11.4	C–OH
		289.00	1.54	9.4	COOH impurities
	O1s	529.66	1.62	-	TiO ₂ (substrate)
		531.47	1.62	2.3	O=C–
		532.92	1.62	1.0	–O–H
AuNPs@RSV1	C1s	285.00	2.17	44.4	C–C aliphatic+aromatic
		286.60	2.17	32.0	C–N, C–S, C–O
		288.45	2.17	18.5	COOH
		290.31	2.17	5.1	COO–
	Au4f _{7/2}	83.96	1.20	79.9	Au(0)
		84.97	1.20	23.1	Au(+)
	S2p _{3/2}	161.99	1.82	68.1	RS–Au
		164.11	1.82	31.9	RS–H
	N1s	400.10	1.89	80.0	RNH ₂
		401.69	1.89	20.0	RNH ₃ ⁺
O1s	529.47	3.03	-	TiO ₂ (substrate)	
	532.12	3.03	2.3	O=C–	
	533.18	3.03	1.0	–O–H	
AuNPs@RSV2	C1s	284.70	1.60	87.3	C–C aliphatic+aromatic
		286.48	1.60	4.9	C–OH
		288.16	1.60	7.8	COOH
	Au4f _{7/2}	83.98	1.29	82.6	Au(0)
		85.00	1.29	17.4	Au(+)
	S2p _{3/2}	161.54	1.86	80.6	RS–Au
		163.79	1.86	19.4	RS–H
	N1s	399.18	2.51	100	RNH ₂
	O1s	529.66	1.79	-	TiO ₂ (substrate)
		531.20	1.79	4.2	O=C–
532.87		1.79	1.0	–O–H	