

Facile Histamine Detection by Surface-Enhanced Raman Scattering using SiO₂@Au@Ag Alloy Nanoparticles

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Assignment of SERS Histamine Bands

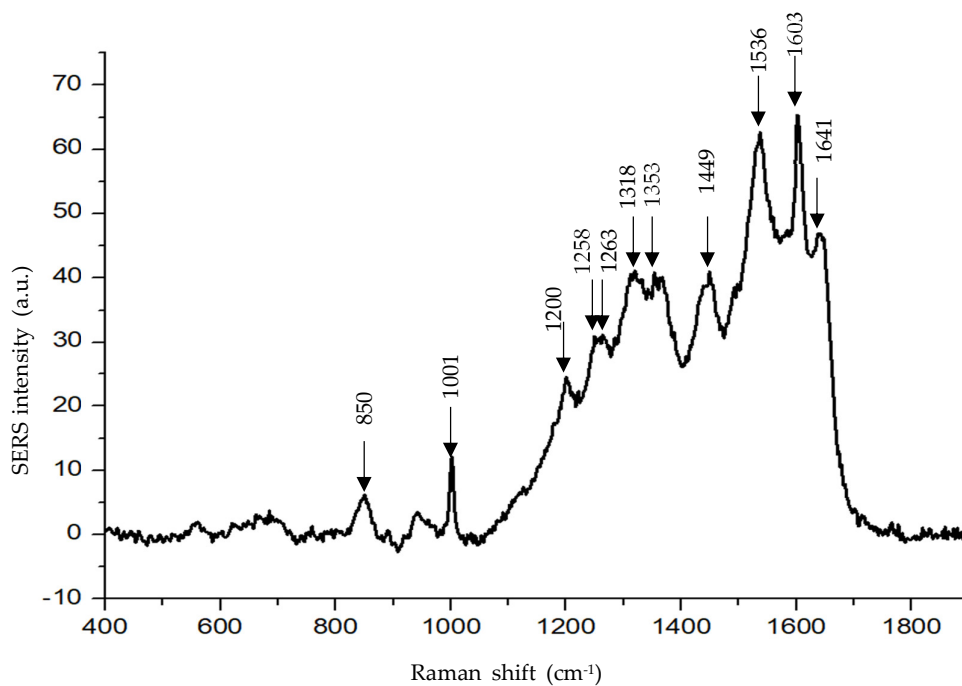


Figure S1: SERS spectra of histamine absorbed on the surface of SiO₂@Au@Ag.

Table S1: Wave number (cm⁻¹) and assignment of Raman spectra of dissolved histamine

Experiment	B3LYP/6-311G neutral histamine (calculated)	Histamine in D ₂ O	Histamine bands using Ag NPs made by citrate	Histamine in pH 7.4	Assignment
	Ref [49]	Ref [45]	Ref [48]	Ref [46]	
1641				1637	Stretching of ring
1603	1607	1604			Stretching of ring
1536			1533		Stretching of ring
1449	1448	1446		1448	Bending of side chain (CH ₂)
1353	1353	1356	1353		Stretching of ring
1318	1313	1321	1320		Wagging of CH ₂
1263			1268		Ring breathing
1258	1251	1254			Bending of ring (CH)
1200	1200	1211		1194	Ring breathing
1001	998	1004	996		Bending of C-H in ring
850				852	Stretching of C-C