

## **Supporting Information**

**for**

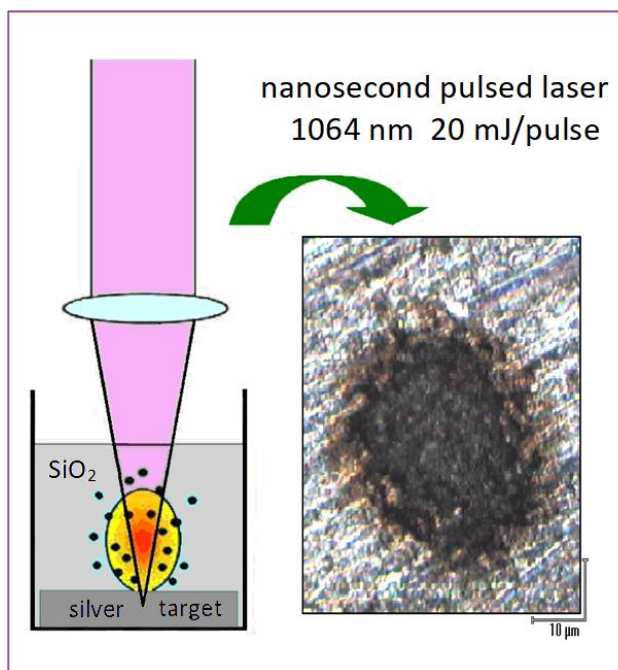
### **SERS active Ag-SiO<sub>2</sub> nanoparticles obtained by laser ablation of silver in colloidal silica**

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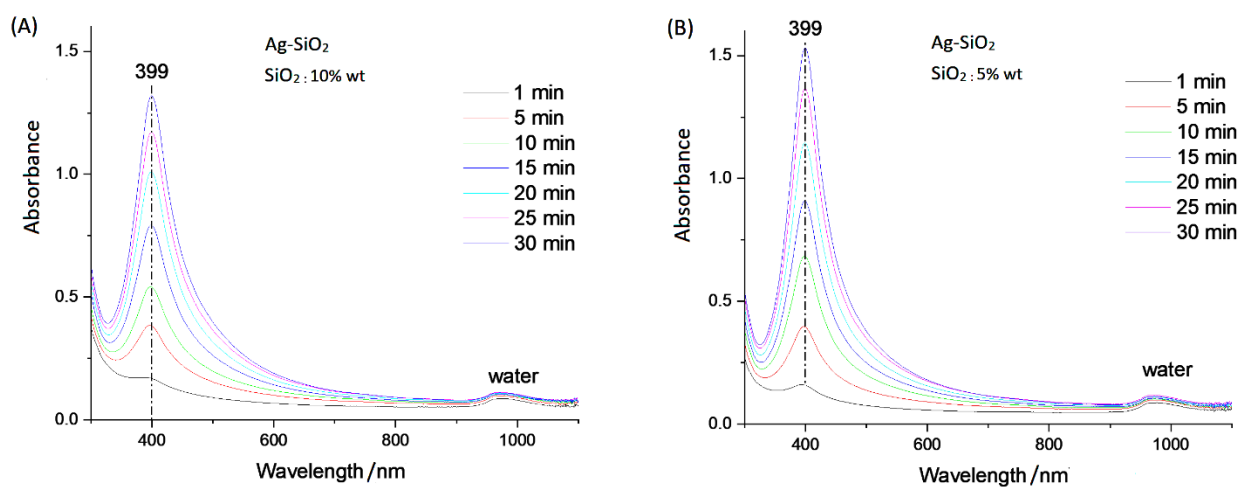
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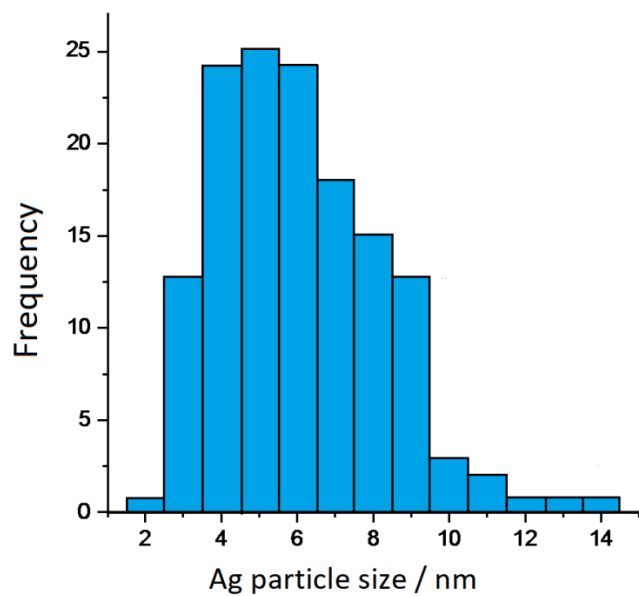
\*Corresponding author



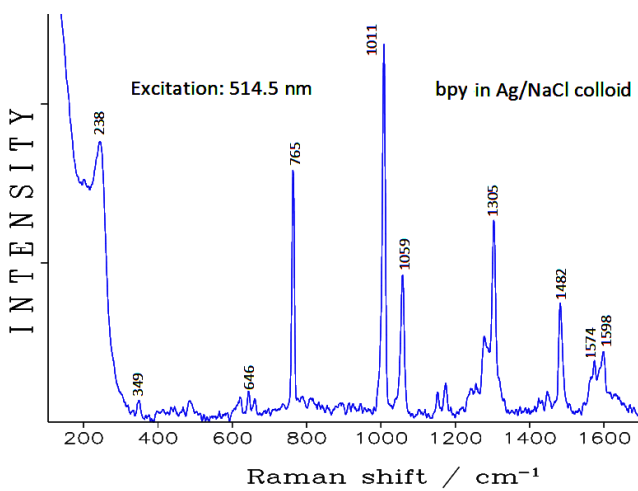
**Figure S1:** Scheme of the laser ablation procedure of a silver target in colloidal silica.



**Figure S2:** Time evolution of the plasmonic band of Ag-SiO<sub>2</sub> colloids with different silica content during laser ablation procedure.

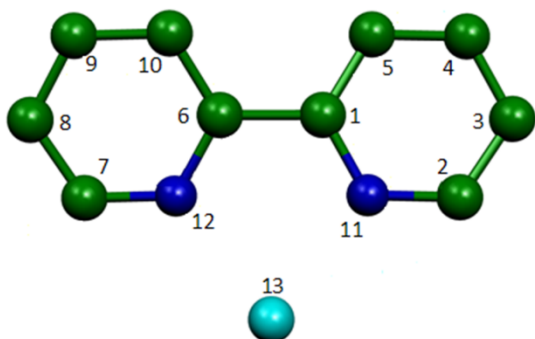


**Figure S3:** Size distribution of silver nanoparticles in the Ag-SiO<sub>2</sub> colloid.



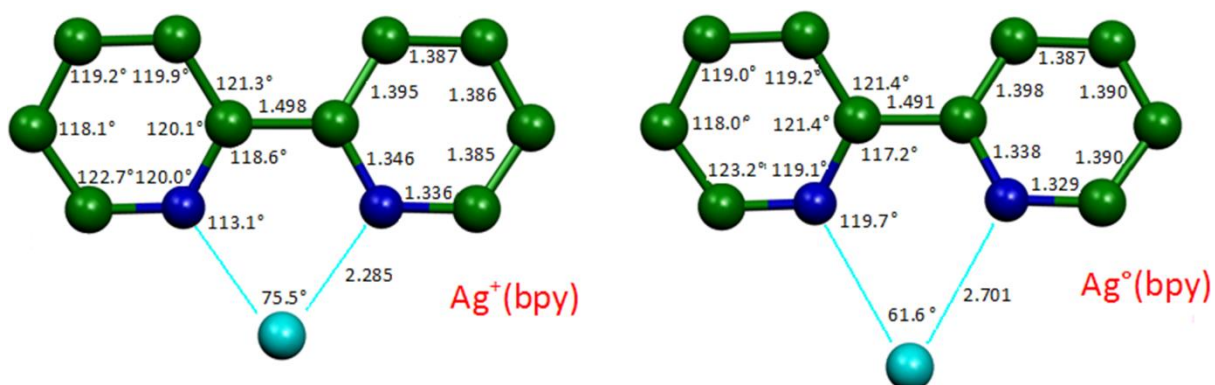
**Figure S4:** SERS of bpy in laser-ablated Ag colloid.

**Table S1:** Mulliken charges.<sup>a</sup>



Atom	Ag <sup>+</sup> (bpy)	Ag <sup>0</sup> (bpy)
1 C	0.2101	0.1908
2 C	0.1620	0.1244
3 C	0.0728	0.0291
4 C	0.0833	0.0346
5 C	0.0276	-0.0347
6 C	0.2101	0.1908
7 C	0.1620	0.1244
8 C	0.0728	0.0291
9 C	0.0833	0.0346
10 C	0.0276	-0.0346
11 N	-0.2938	-0.2609
12 N	-0.2938	-0.2609
13 Ag	0.4758	-0.1664

<sup>a</sup>with hydrogens summed into heavy atoms.



**Figure S5:** Structural parameters of the silver complexes.