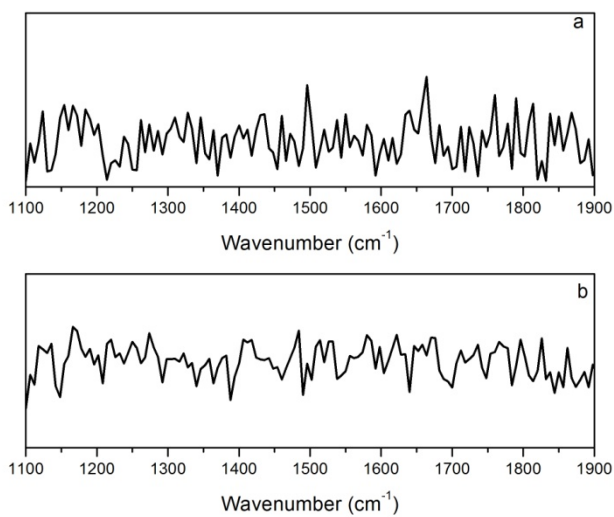
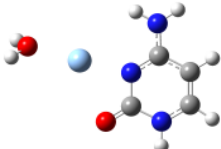
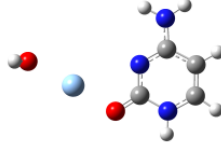
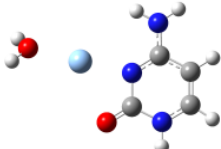
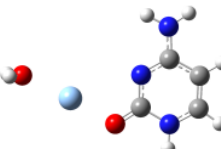
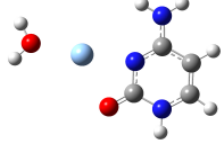
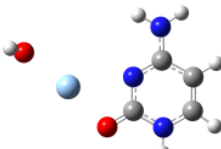
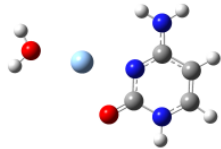



## SUPPLEMENTARY INFORMATION



**Figure S1.** (a) Ag<sup>+</sup> intensity and (b) m/z = 216 fragment intensity as function of the photon energy. Clearly the intensity of these ions is independent of the photon energy.

**Table S1.** Re optimization of the  $[\text{CAg-H}_2\text{O}]^{+1}$  and  $-2$  structures with the B3LYP and M062X functional and using Stuttgart<sup>41</sup> and Radloff<sup>42</sup> effective core potential to describe the silver cation. 6-311G++(d,p) basis set were employed for C, N, H, and O atoms in all cases. Thermochemical properties have been computed at 300K taking in to account the zero point correction. R.P. stands for relative population. All the values are expressed in eV.

<b>B3LYP/Radloff</b>		
		
	<b>[CAg-H<sub>2</sub>O]<sup>+1</sup></b>	<b>[CAg-H<sub>2</sub>O]<sup>+2</sup></b>
$\Delta\text{H}$	0	0.02
$\Delta\text{G}$ (300 K)	0.01	0
R.P	0.6 (38 %)	1 (62 %)
<b>B3LYP/SDD</b>		
		
	<b>[CAg-H<sub>2</sub>O]<sup>+1</sup></b>	<b>[CAg-H<sub>2</sub>O]<sup>+2</sup></b>
$\Delta\text{H}$	0	0.02
$\Delta\text{G}$ (300 K)	0.01	0
R.P	0.6 (38 %)	1 (62 %)
<b>M062X/Radloff</b>		
		
	<b>[CAg-H<sub>2</sub>O]<sup>+1</sup></b>	<b>[CAg-H<sub>2</sub>O]<sup>+2</sup></b>
$\Delta\text{H}$	0	0.05
$\Delta\text{G}$ (300 K)	0	0.02
R.P	1 (67 %)	0.5 (33 %)
<b>M062X/SDD</b>		
		
	<b>[CAg-H<sub>2</sub>O]<sup>+1</sup></b>	<b>[CAg-H<sub>2</sub>O]<sup>+2</sup></b>
$\Delta\text{H}$	0	0.01
$\Delta\text{G}$ (300 K)	0	0.01
R.P	1 (59 %)	0.7 (41 %)