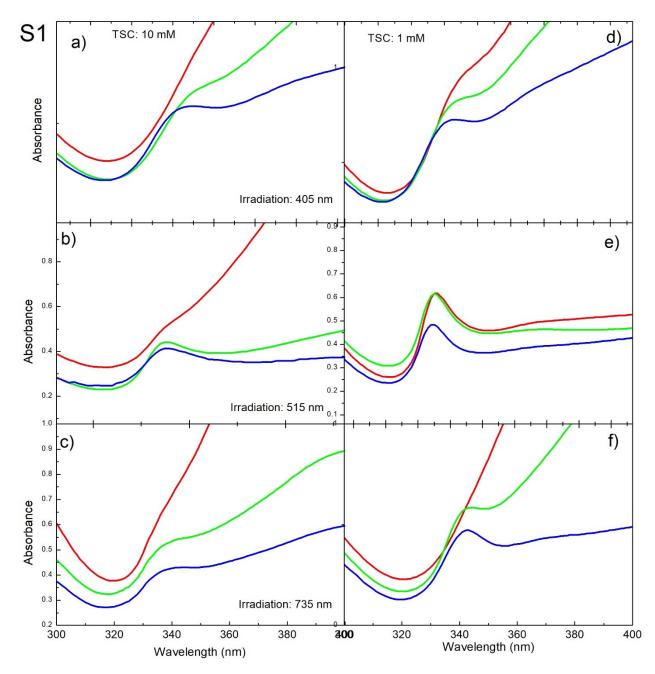
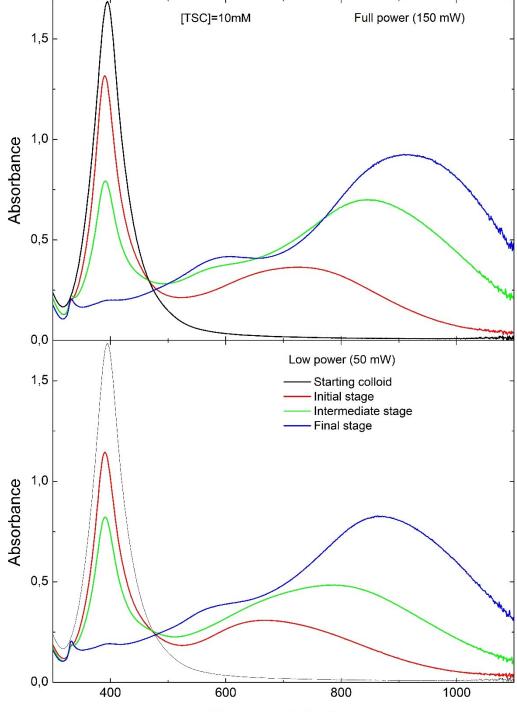
Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C. This journal is © The Royal Society of Chemistry 2020

## Supplementary Material

S1: a close-in on the transverse out-of-plane quadrupole mode of Ag nanoplates during the irradiation process, at initial (red), intermediate (green) and final (blue) stage of the process, upon cumulative



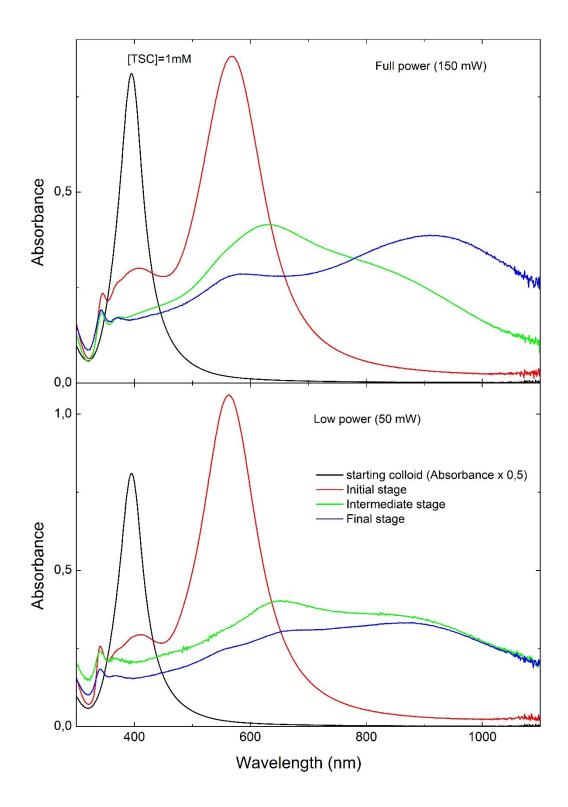
additions of  $H_2O_2$ .



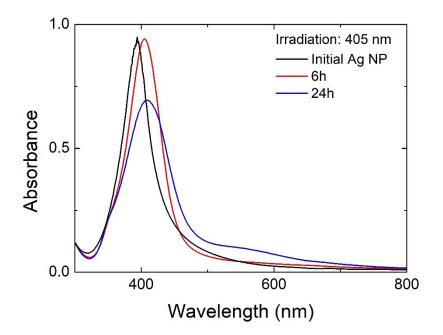
S2: reshaping under different irradiation power at 515 nm and [TSC]=10mM

Wavelength (nm)

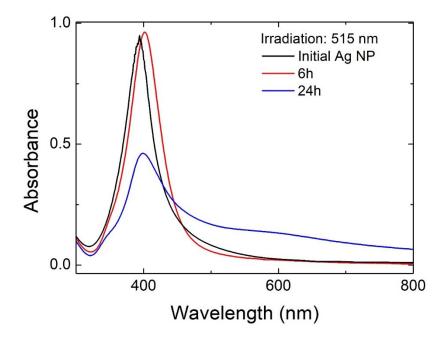
S3: reshaping under different irradiation power at 515 nm and [TSC]=1mM. Absorbance of starting colloid was halved for clarity purpose.



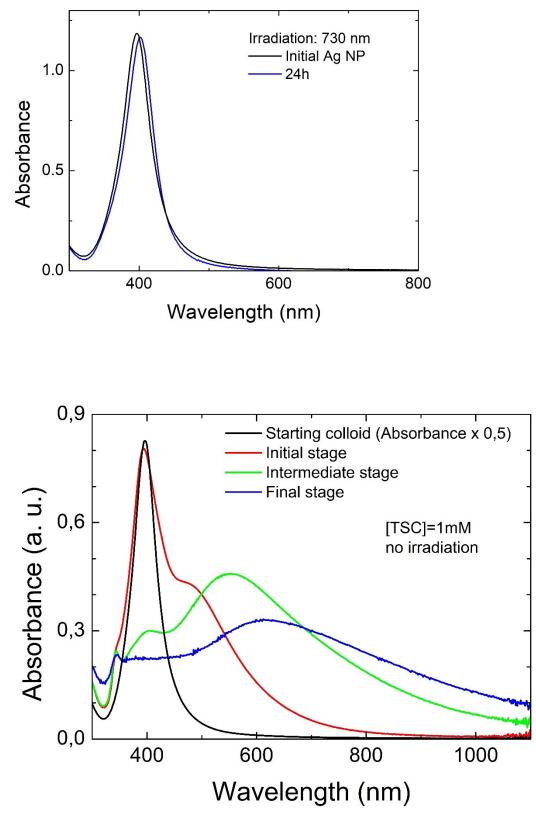
S4: evolution of plasmonic resonance of Ag nanoparticles under 405 nm irradiation at [TSC]=1mM for 24h, without  $H_2O_2$ 



S5: evolution of plasmonic resonance of Ag nanoparticles under 515 nm irradiation at [TSC]=1mM for 24h, without  $H_2O_2$ .



S6: evolution of plasmonic resonance of Ag nanoparticles under 730 nm irradiation at [TSC]=1mM for 24h, without  $H_2O_2$ .



S7-S8: Reshaping process with H<sub>2</sub>O<sub>2</sub> addition in dark conditions at [TSC]=1mM and 10 mM

