



Supporting Information

for

Pulsed laser synthesis of highly active Ag–Rh and Ag–Pt antenna–reactor-type plasmonic catalysts

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Beilstein J. Nanotechnol. **2019**, *10*, 1958–1963. doi:10.3762/bjnano.10.192

Additional experimental data

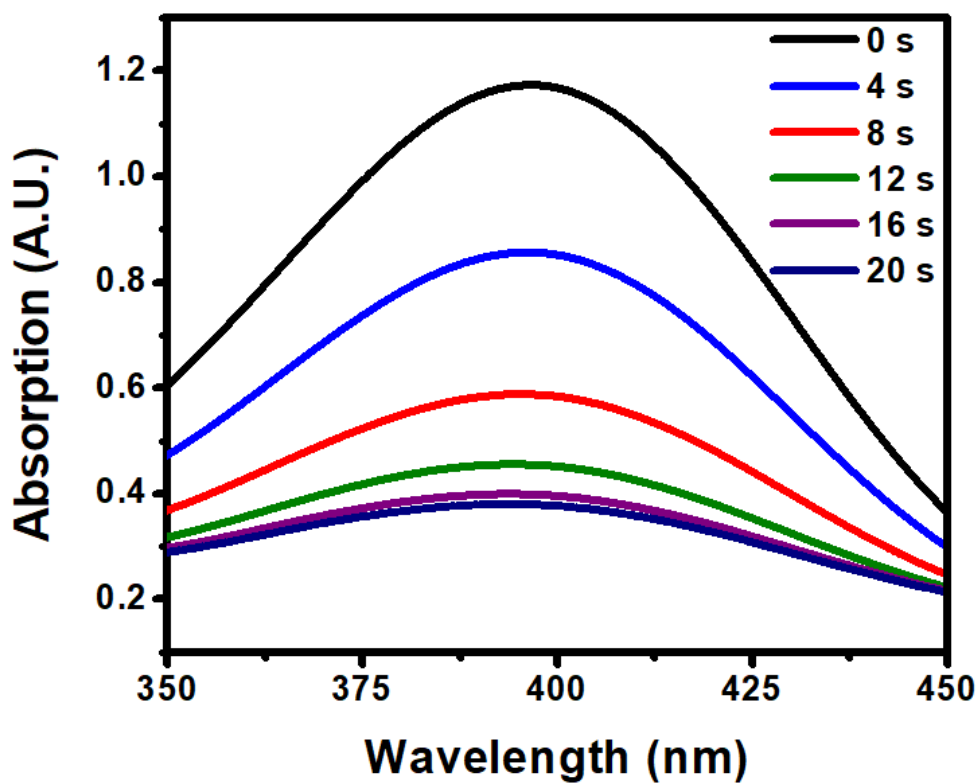


Figure S1: Time-dependent absorption spectrum of a typical 4-nitrophenol reduction over colloidal Ag–Pt heterostructures. The intensity of the absorption at 400 nm is proportional to the concentration of the 4-nitrophenolate ion in solution, which forms immediately after the introduction of NaBH_4 .

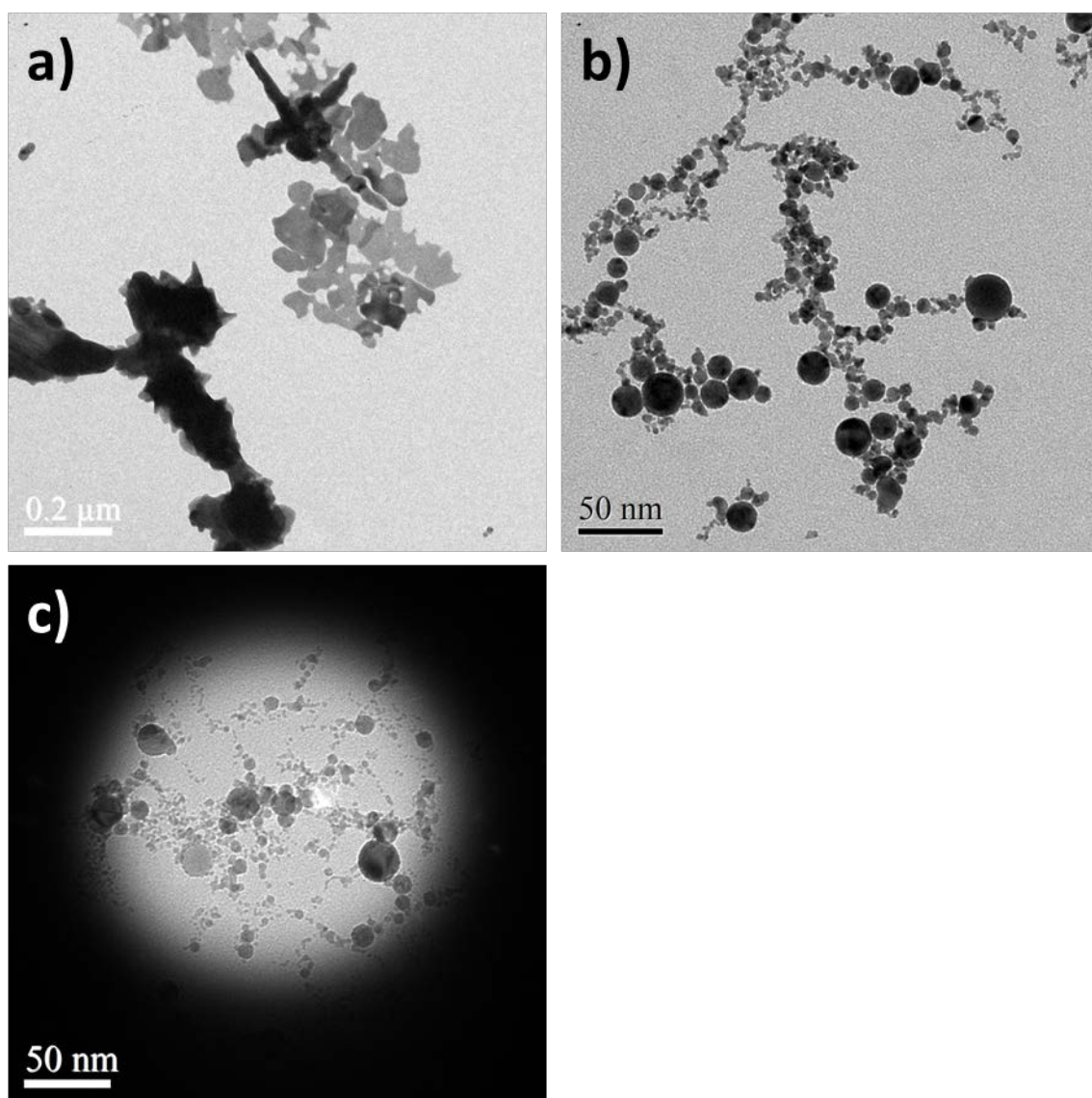


Figure S2: a) Silver nanostructures, b) platinum nanoparticles, and c) rhodium nanoparticles produced by pulse laser ablation.

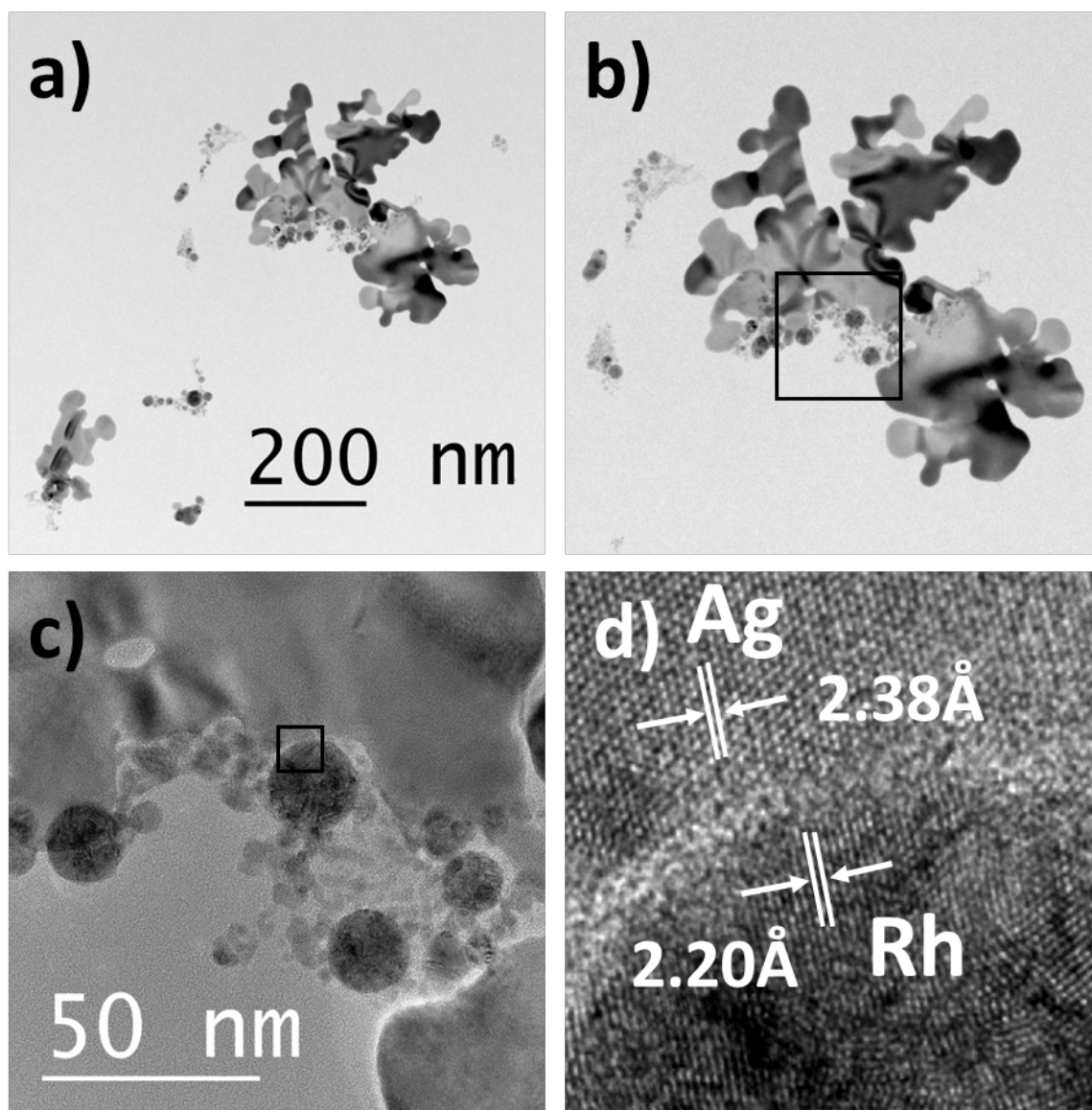


Figure S3: a) Bright-field image of mixed Ag–Rh heterostructures. b) Close up of (a) showing Rh NP grouping adsorbed onto Ag nanostructure concavity. c) HR-TEM image of highlighted area from (b) . d) Close-up of the highlighted area in (c) showing lattice spacings of Ag and Rh.

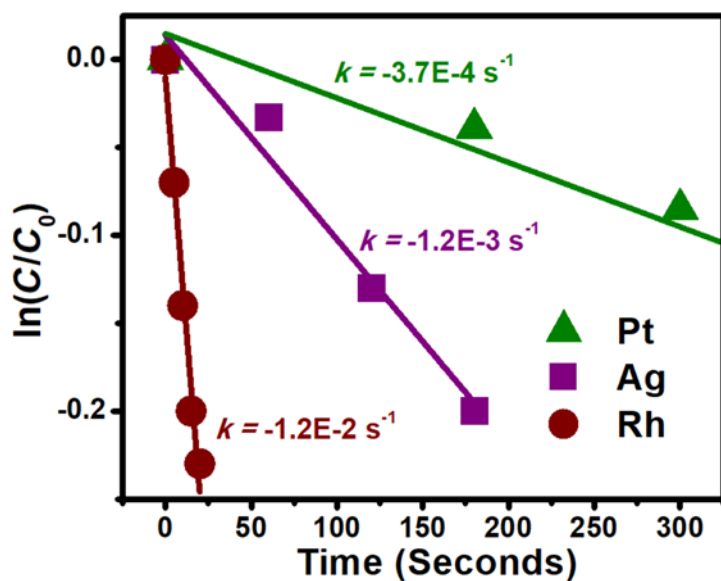


Figure S4: Experimentally observed rate constants in the form of $\ln(C/C_0) = -kt$. C_0 is taken as

$\text{Abs}_{400\text{nm}}$ prior to the reducing agent spike. $t = 0$ s is taken as the time the spike occurs.