

The use of a biopolymer conjugate for an eco-friendly one-pot synthesis of palladium-platinum alloys

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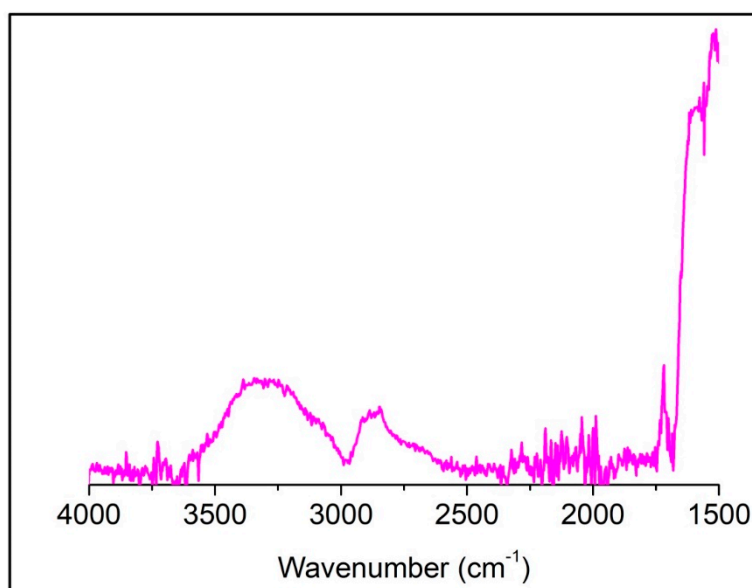


Figure 1. ATR-FTIR analysis of Pd/Pt ratio 1:1.

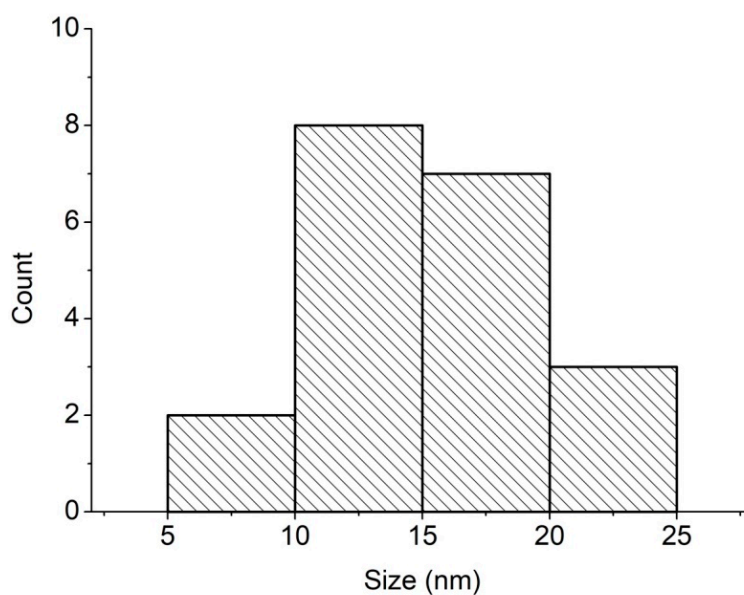


Figure 2. Size distribution of Pd/Pt synthesized at 130 °C and molar ratio 2:1 (Pd:Pt).

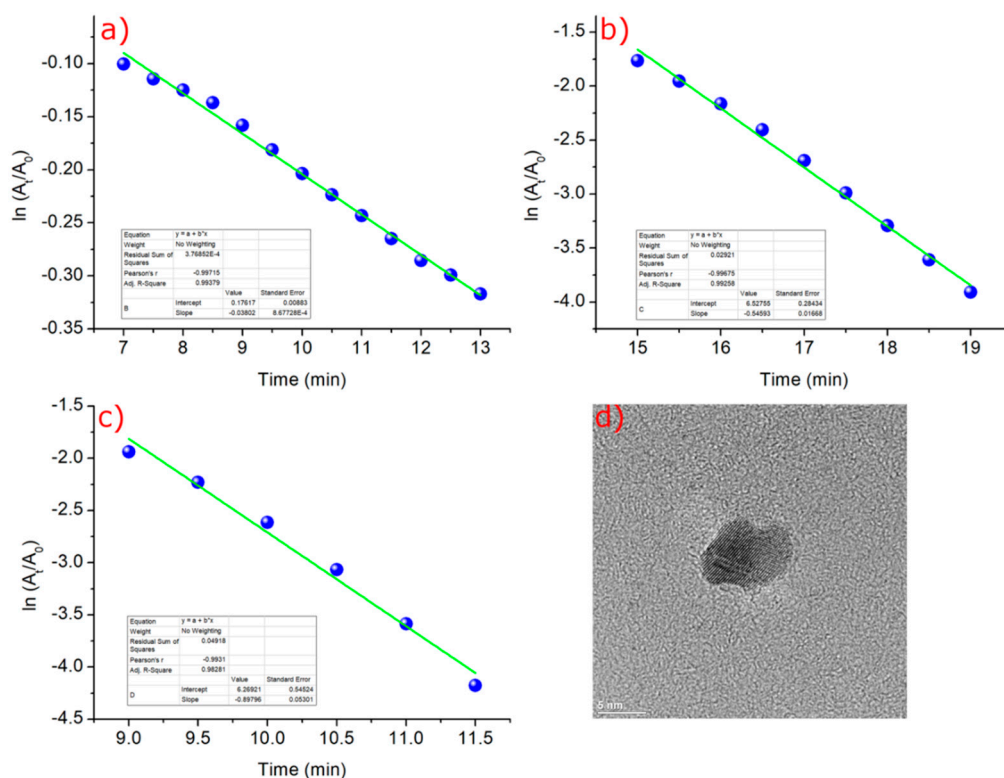


Figure 3. Pseudo-first-order kinetics of sample synthesized with molar ratio of 1:1 with different concentration of nanoparticles (a) 0.379 mg/L (R^2 0.993), (b) 0.757 mg/L (R^2 0.992), (c) 1.515 mg/L (R^2 0.982) and (d) HRTEM image of Pd/Pt decahedron nanoparticle (molar ratio 1:1 (Pd/Pt) 130 °C).

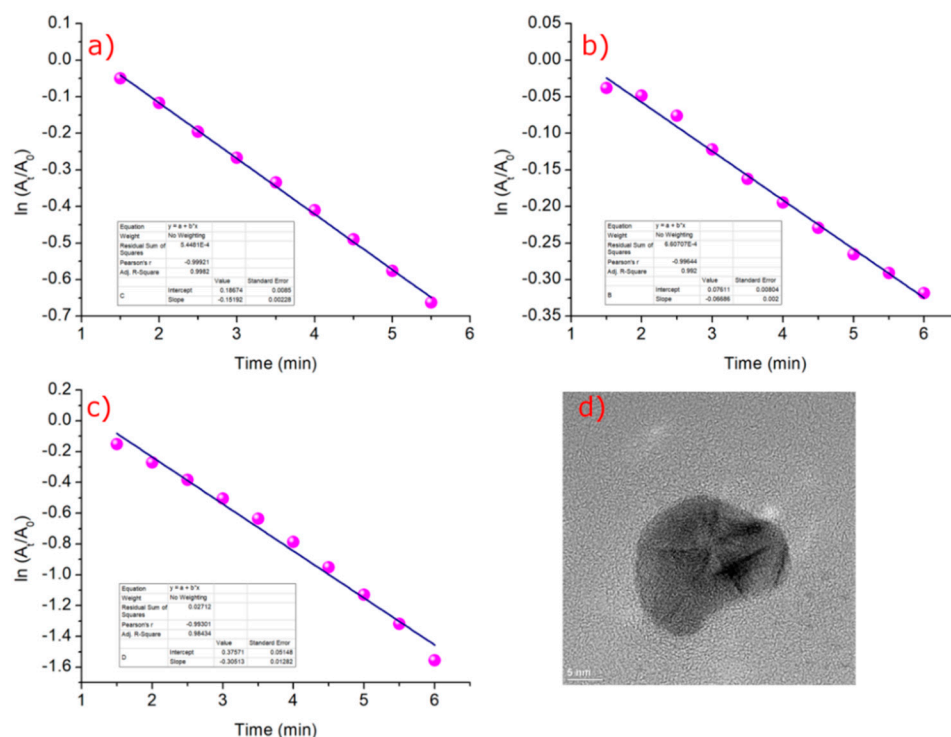


Figure 4. Pseudo-first-order kinetics of sample synthesized with molar ratio of 1:2 with different concentration of nanoparticles (a) 0.147 mg/L (R^2 0.992), (b) 0.293 mg/L (R^2 0.998), (c) 0.586 mg/L (R^2 0.984) and (d) HRTEM image of Pd/Pt decahedron nanoparticle (molar ratio 1:2 (Pd/Pt) 130 °C).

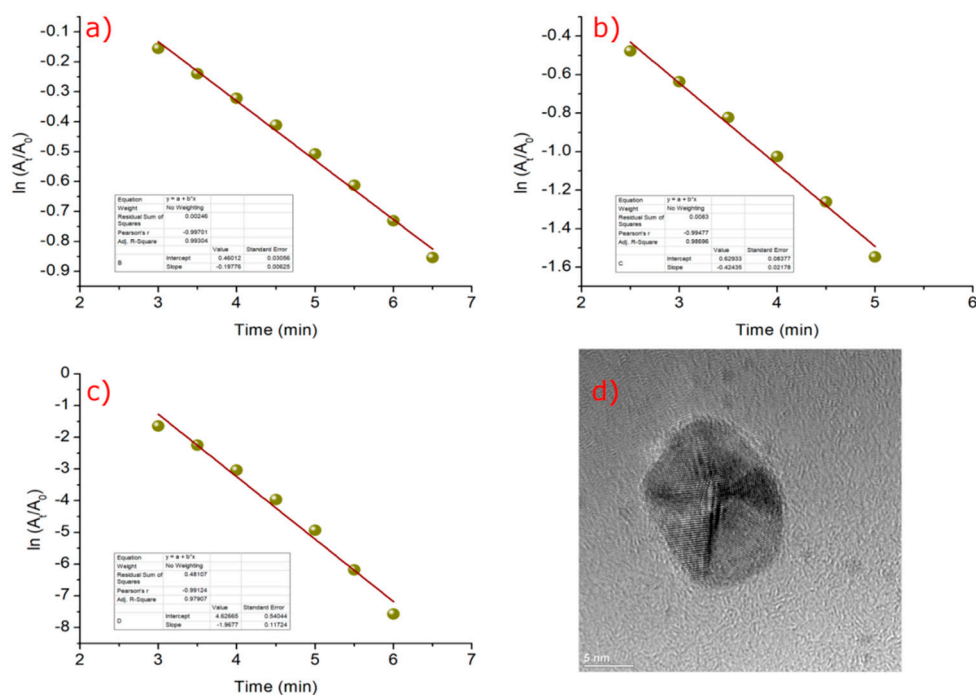


Figure 5. Pseudo-first-order kinetics of sample synthesized with molar ratio of 2:1 with different concentration of nanoparticles (a) 0.202 mg/L (R^2 0.997) (b) 0.404 mg/L (R^2 0.986) (c) 0.809 g/L (R^2 0.979) and (d) HRTEM image of Pd/Pt decahedron nanoparticle (molar ratio 2:1 (Pd/Pt) 130 °C).