

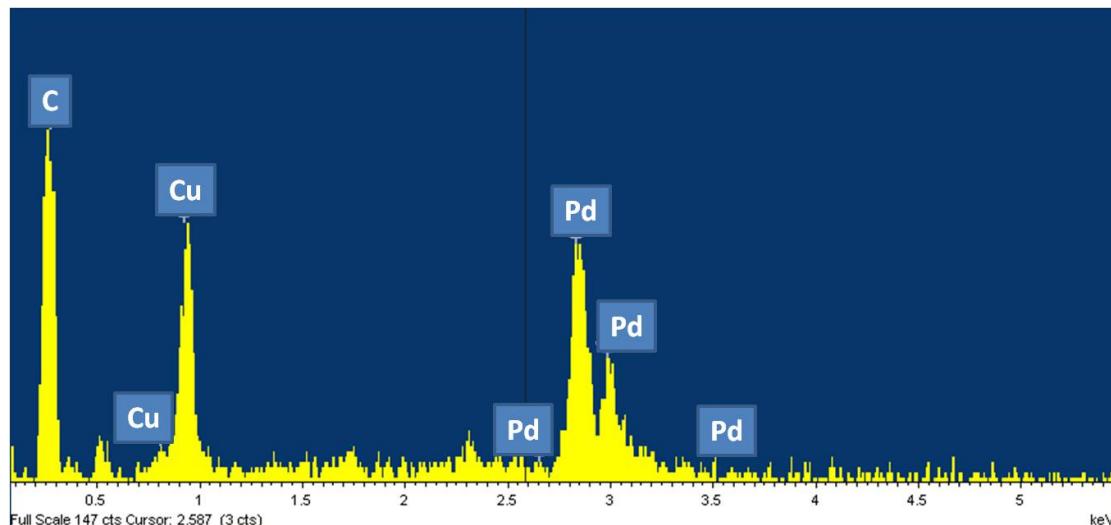
## Supporting Information

### One-step Synthesis and Shape-Control of CuPd Nanowire Networks

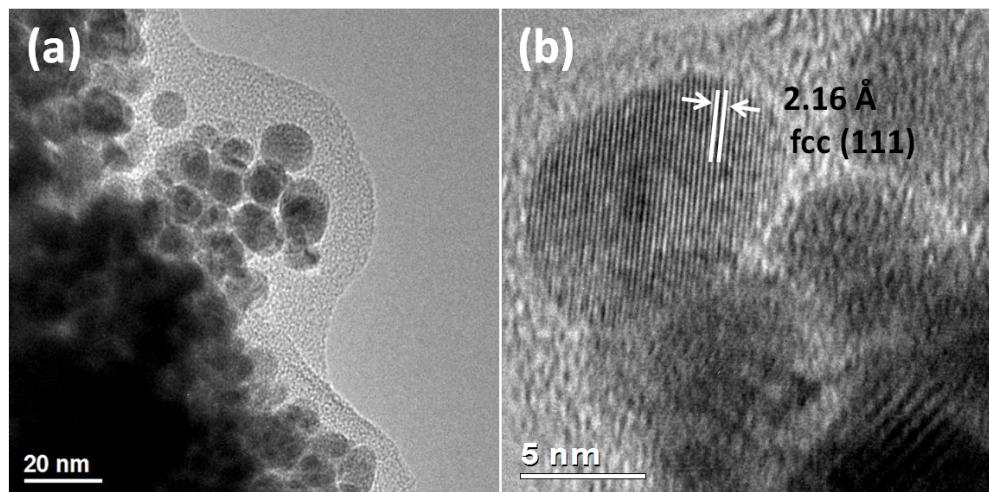
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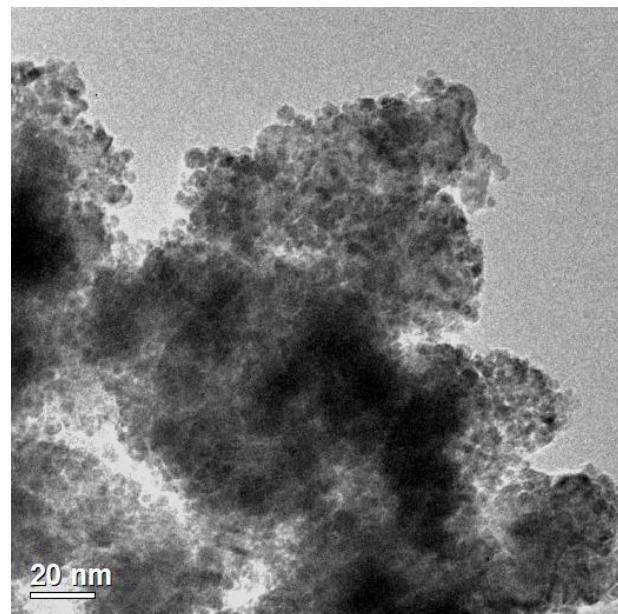
<sup>b</sup>Sasol Technology (UK) Ltd, Purdie Building, St Andrews, KY16 9ST, UK.



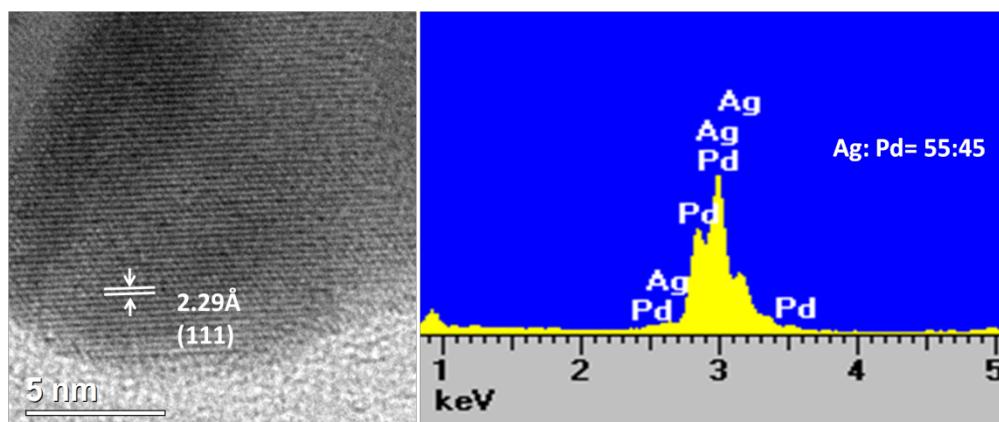
**Figure S1.** A typical EDX spectrum of CuPd nanowires. An average Cu/Pd ratio from 10 randomly selected spots is 58:42.



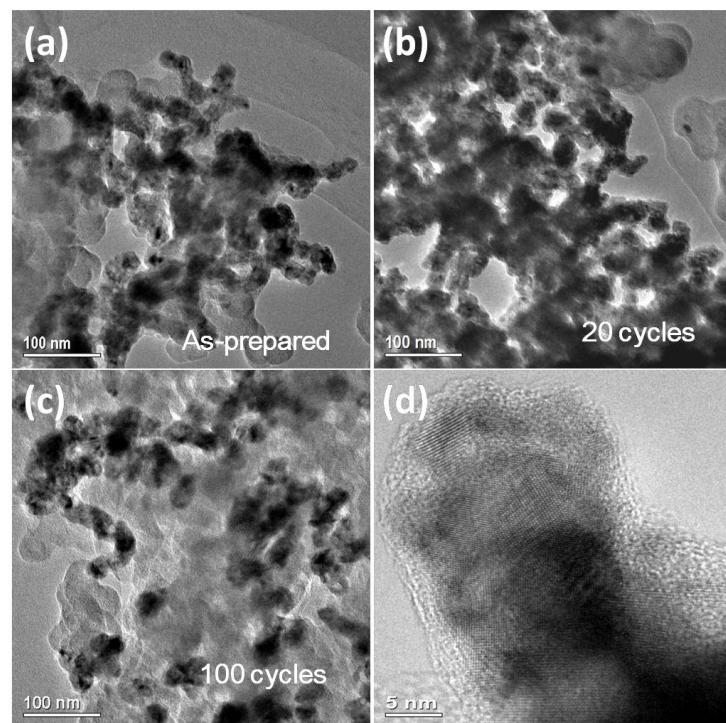
**Figure S2.** TEM images of CuPd nanoparticles reduced by formanilide in ODE, producing fcc structured CuPd nanoparticles.



**Figure S3.** TEM images of agglomerated CuPd particles prepared in absence of PVP.



**Figure S4.** HRTEM image of an AgPd nanowire with a d-spacing of 2.29 Å, which can be indexed to (111) planes of AgPd alloy. EDX result gives an Ag: Pd ratio of 55:45.



**Figure S5.** TEM images of CuPd nanowires loaded on carbon, (a) as-prepared (b) after 20 CV cycles and (c) after 100 CV cycles and (d) HRTEM image of the nanowires after test, it is still polycrystalline. The structure of CuPd remained unchanged.