Supporting Information

Solar light assisted green synthesis of palladium nanoparticle decorated nitrogen doped graphene for hydrogen storage application

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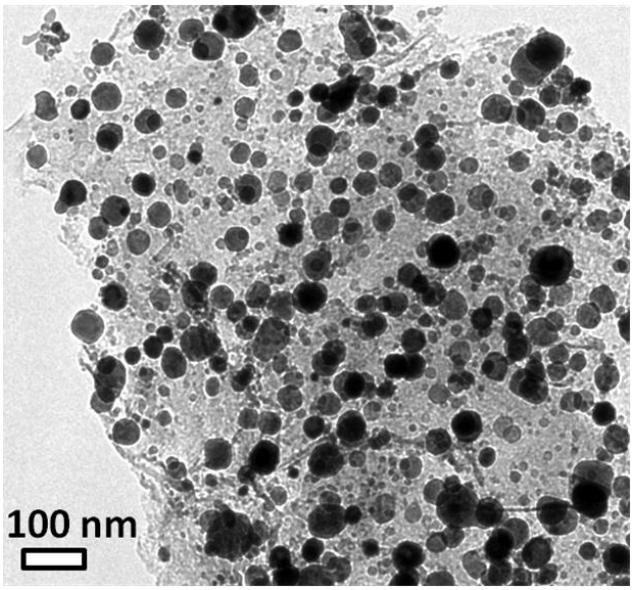

Figure S1: TEM image of Pd/SG sample

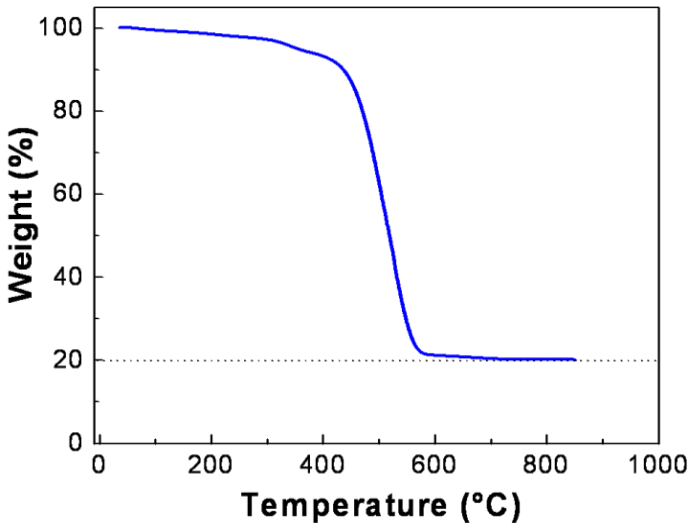

Figure S2: TGA image of Pd/N-SG sample

Table S1: Hydrogen storage capacity of different carbon nanomaterials decorated with Pd metal

Material	Pd metal loading (%)	Temperature and Pressure	Hydrogen storage capacity (wt. %)	Reference
Pd bulk	-	23 °C , 0.1 MPa	0.56	[1]
Pd nanoparticles (~7 nm)	-	25 °C, 2 MPa	0.72	[2]
Pd/Super activated carbon	10	25 °C, 10 MPa	1.15	[3]
Pd/Activated carbon	49	23 °C, 9 MPa	0.70	[1]
Pd/SWNT	31	23 °C, 9 MPa	0.5	[1]
Pd/MWNT	20	25 °C, 2.2 MPa	0.35	[4]
Pd/Nitrogen doped graphite nanoplatelets	10	25 °C, 3.2 MPa	1.25	[5]
Pd/Acid functionalized few layer graphene	20	25 °C, 2 MPa	1.76	[6]
Pd/Graphite oxide	10	25 °C, 10 MPa	0.95	[3]
Pd/Nitrogen doped few layer graphene	30	25 °C, 4 MPa	2.3	[2]

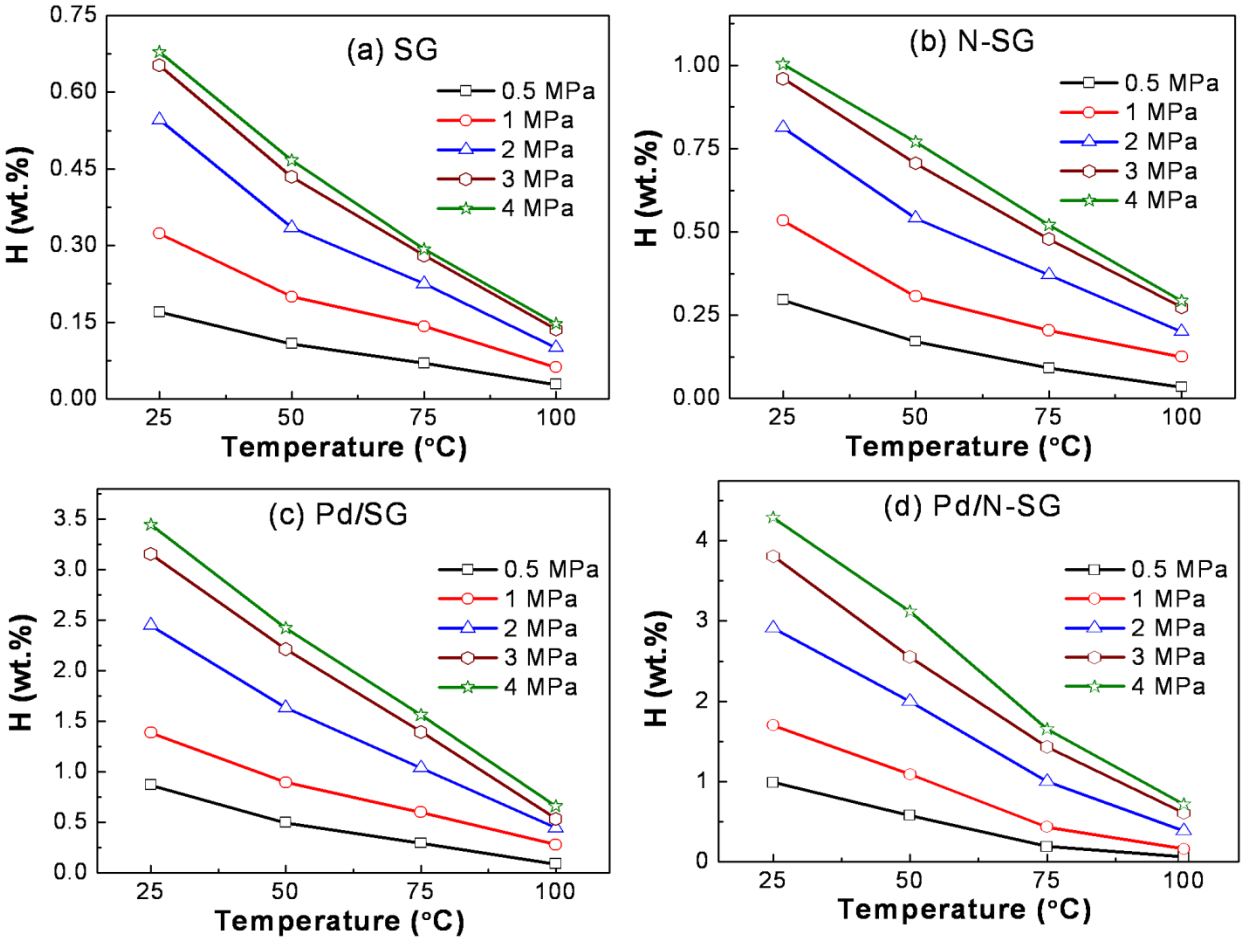

Figure S3: Temperature variations of hydrogen storage capacity for the samples SG, N-SG, Pd/SG and Pd/N-SG at different pressures.

References

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