

# Electronic Supplementary Information

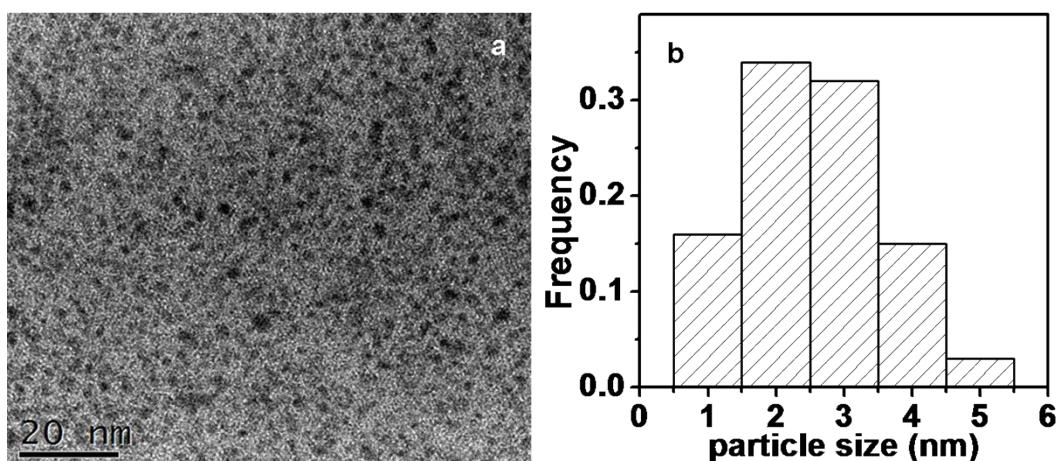
## Efficient thermal- and photocatalysts made of Au nanoparticles on MgAl-layered double hydroxides for energy and environmental applications

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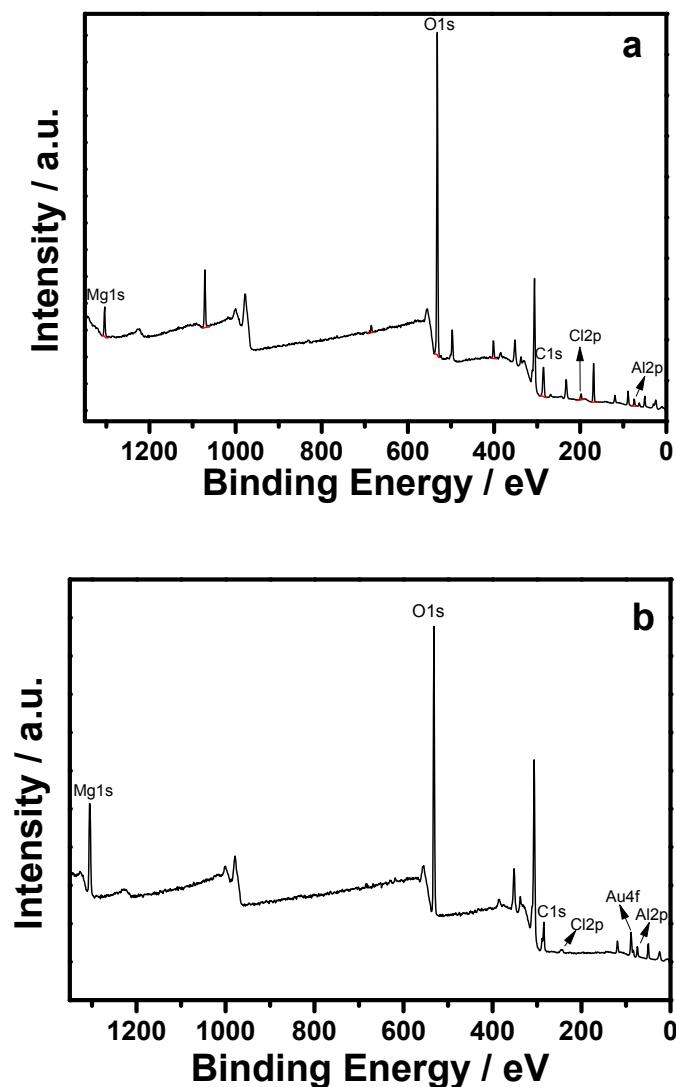
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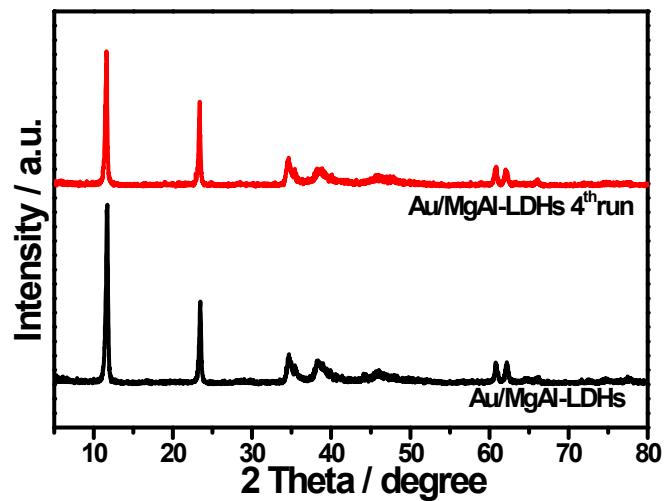
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**Fig. S1.** TEM images of PVP@Au colloids (a); size distribution of Au particles in PVP@Au colloids (b).



**Fig. S2.** XPS survey spectrum of MgAl-LDHs (a) and Au/MgAl-LDHs (b).



**Fig. S3.** XRD patterns of Au/MgAl-LDHs and Au/MgAl-LDHs 4<sup>th</sup> run.