

Supporting information

## Ni-Based Catalysts Supported on Nature Clay of Attapulgite Applied in the Dry Reforming of Methane Reaction

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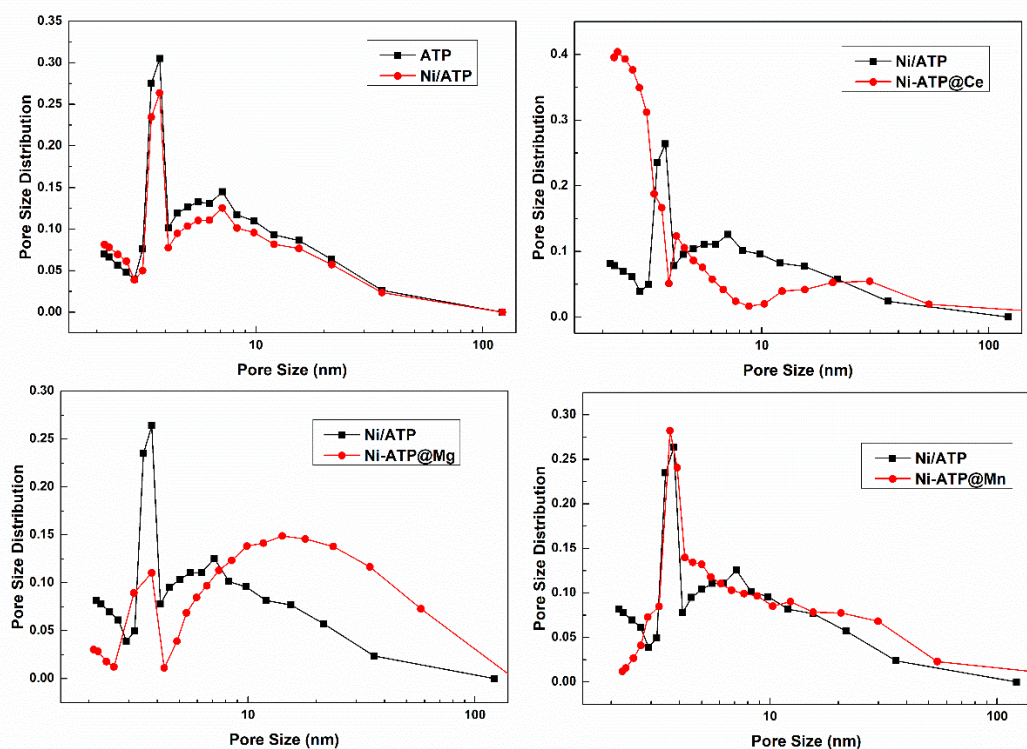
**Fig. S1.** The pore size distribution curves were calculated from the BJH method.

**Fig. S2.** The HRTEM images for Ni/ATP (a), Ni/ATP@Ce (b), Ni/ATP@Mg (c) and Ni/ATP@Mn (d) catalysts.

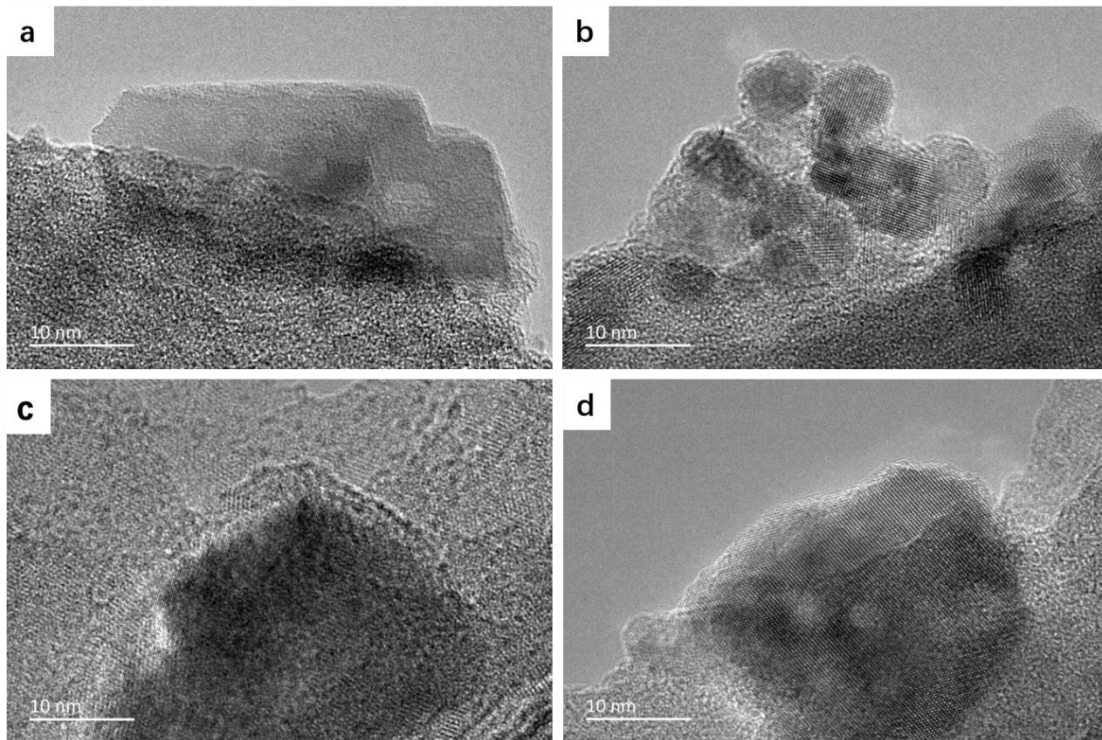
**Fig. S3.** The XPS wide-scan spectrum from top to the bottom were Ni/ATP, Ni-ATP@Ce, Ni-ATP@Mg and Ni-ATP@Mn catalysts.

**Fig. S4.** Ni 2p<sub>3/2</sub> photoelectron spectrum of reduced Ni/ATP, Ni-ATP@Ce, Ni-ATP@Mg and Ni-ATP@Mn catalysts.

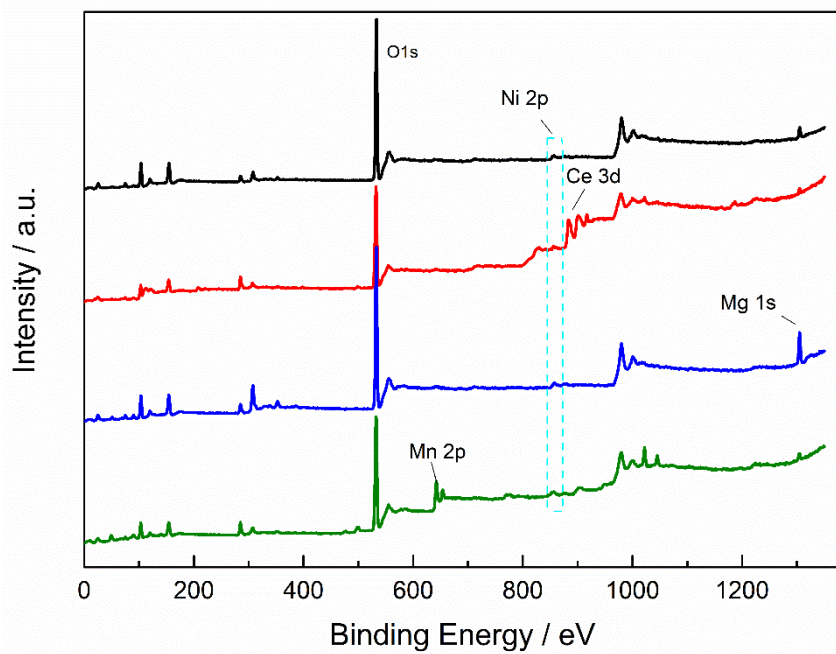
**Fig. S5.** O 1s photoelectron spectrum of reduced Ni/ATP, Ni-ATP@Ce, Ni-ATP@Mg and Ni-ATP@Mn catalysts.



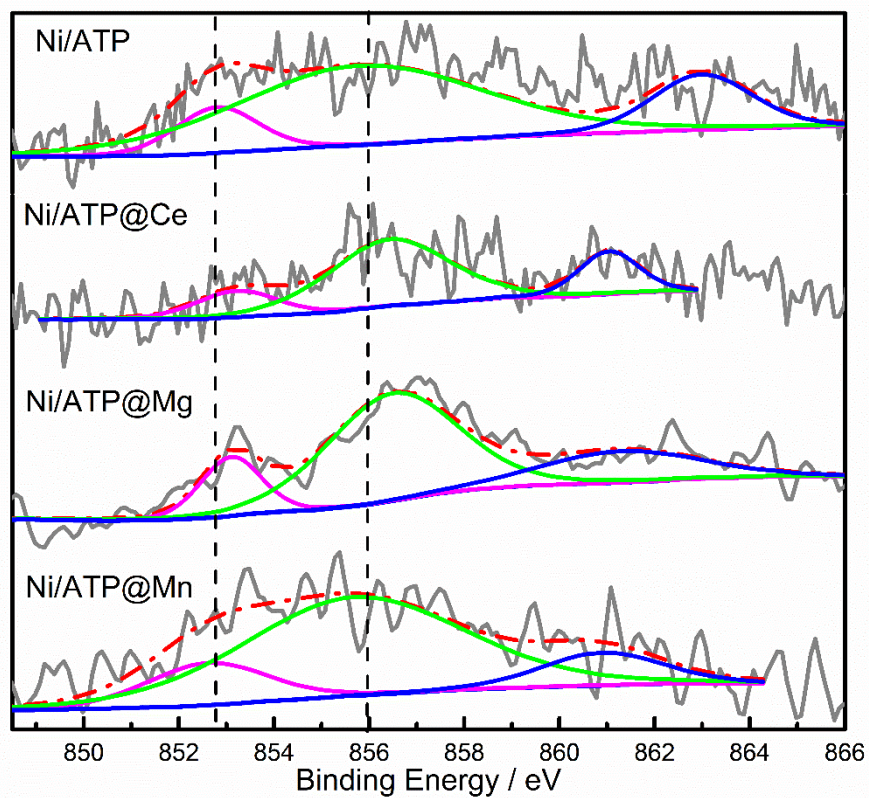
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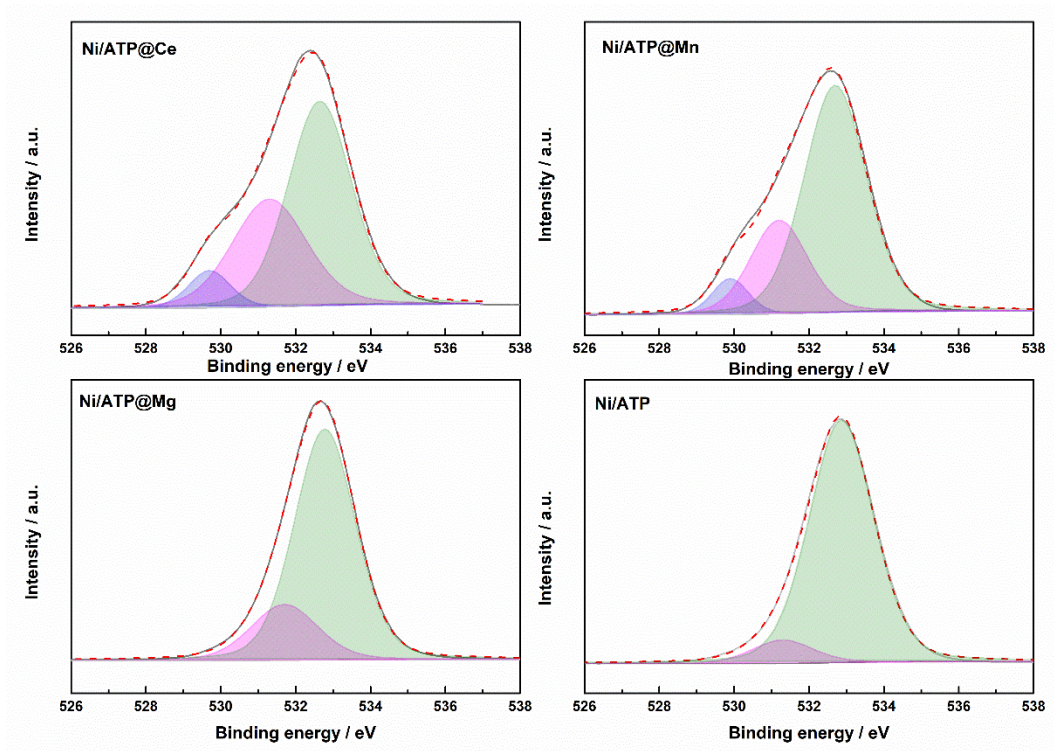
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