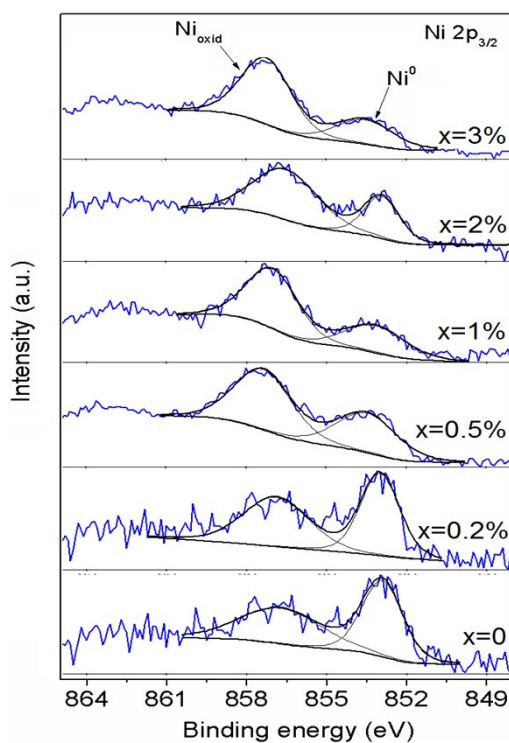


## Electronic Supplementary Information

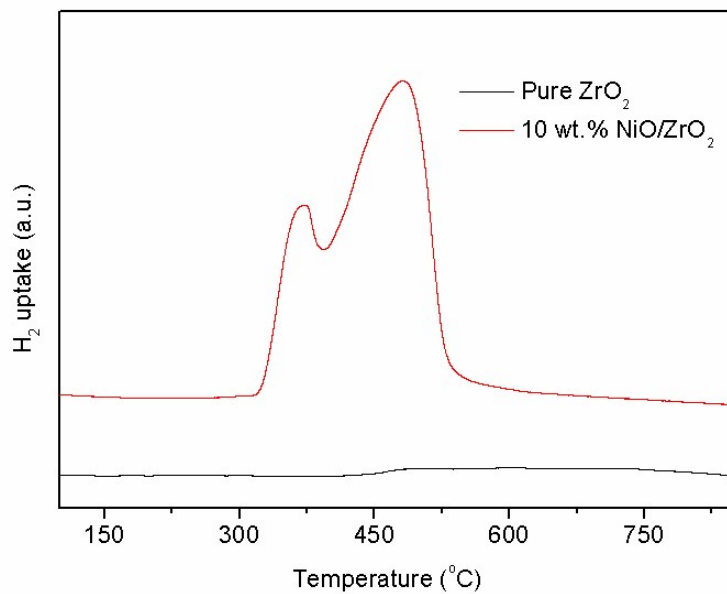
### Effect of molybdenum carbide concentration on the Ni/ZrO<sub>2</sub> catalysts for steam-CO<sub>2</sub> bi-reforming of methane

Weizuo Li, Zhongkui Zhao\*, Panpan Ren, and Guiru Wang

State Key Laboratory of Fine Chemicals, Department of Catalysis Chemistry and Engineering, School of Chemical Engineering, Dalian University of Technology, 2 Linggong Road, Dalian 116024, China; E-mail: [zkzhao@dlut.edu.cn](mailto:zkzhao@dlut.edu.cn)



**Fig. S1** Ni 2p region of XPS spectra for the low-content molybdenum carbide modified Ni/ZrO<sub>2</sub> catalysts with different nominal Mo<sub>2</sub>C loadings (x).



**Fig. S2** H<sub>2</sub>-TPR profiles for the pure ZrO<sub>2</sub> and the supported NiO catalyst on ZrO<sub>2</sub>.