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Liang Qi, Yingxu Wei, Lei Xu*, Zhongmin Liu*. Reaction Behaviors and Kinetics during Induction Period of Methanol Conversion on HZSM-5 Zeolite, **ACS Catalysis**, 2015, 5(7), 3973-3982, 22 15 (IF=10.614), (Google , 2017 9 14)

Liang Qi, Jinzhe Li, Yingxu Wei, Lei Xu*, Zhongmin Liu*. Role of naphthalene during the induction period of methanol conversion on HZSM-5 zeolite, **Catalysis Science & Technology**, 2016, 6(11), 3737-3744. (Cover paper) 9 4 (IF=5.773), (Google , 2017 9 14)

Liang Qi, Jinzhe Li, Linying Wang, Yingxu Wei, Lei Xu*, Zhongmin Liu*. Unusual deactivation of HZSM-5 zeolite in the methanol to hydrocarbon reaction, **Catalysis Science & Technology**, 2017, 7(4), 894 - 901. 1 0

You Zhou, **Liang Qi**, Yingxu Wei, Zhongmin Liu*, Comparative investigation of the MTH induction reaction over HZSM-5 and HSAPo-34 catalysts, **Journal of Molecular Catalysis A: Chemical**, 2017, 433, 20-27, 1 1 (IF=4.2), (Google , 2017 9 14)

Liang Qi Zhongmin Liu* Different Induction and Deactivation Reaction behavior over HZSM-5 and HSAPo-34 Catalysts during Methanol to Hydrocarbon Reaction under Low Temperature, 8th International Symposium on Acid-Base Catalysis, May 7th 2017, Rio de Janeiro, **Oral presentation**.

Liang Qi, Zhongmin Liu *, Role of HCP Species in the Deactivation Behavior for low-temperature Methanol Conversion over HZSM-5 and HSAPo-34 Catalyst, Europacat, August 27th 2017, Florence, **Oral presentation**.

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