



Department: School of Chemical Engineering

Professional field: Chemical Engineering and Technology

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Profile

Education

2003: PhD, Chemical engineering, ECUST, China

1999: MS, Chemical engineering, ECUST, China.

1993: Junior college, Chemical engineering, Jiangnan University, China.

Academic Experience

2008-present: Associate professor, School of Chemical Engineering, ECUST, China.

2007-2008: Visiting scholar, Faculty of Chemical Engineering, Technion-Israel Institute of Technology, Israel.

2005-2007: Associate professor, School of Chemical Engineering, ECUST, China.

2003-2005: Lecturer, School of Chemical Engineering, ECUST, China

Research Field

Supercritical fluid technology

Heavy oil processing

Computational chemistry

Research results and selected published papers

1. X.L. Yu, Y. Li, S.M. Xin, P.Q. Yuan*, and W.K. Yuan, Partial hydrogenation of benzene to cyclohexene on Ru@XO₂ (X=Ti, Zr or Si), Industrial & Engineering Chemistry Research, 57, 1961-1967 (2018).
2. J. Liu, Y. Xing, Y.X. Chen, P.Q. Yuan*, Z.M. Cheng and W.K. Yuan, Visbreaking of heavy oil under supercritical water environment, Industrial & Engineering Chemistry Research, 57, 867-875 (2018).
3. K. Wang, L.Y. Bao, Y. Xing, P.Q. Yuan*, Z.M. Cheng and W.K. Yuan, Demetalization of Heavy oil Based on the Preferential Self-assembly of Heavy Aromatics in Supercritical Water, Industrial & Engineering Chemistry Research, 56, 12920-12926 (2017).
4. Q.K. Liu, Y. Xu, X.C. Tan, P.Q. Yuan*, Z.M. Cheng and W.K. Yuan, Pyrolysis of asphaltenes in subcritical and supercritical water: Influence of H-donation from hydrocarbon surroundings, Energy & Fuels, 31, 3620-3628, (2017).
5. Y. Chen, K. Wang, J.Y. Yang, P.Q. Yuan*, Z.M. Cheng and W.K. Yuan, Dealkylation of aromatics in subcritical and supercritical water: Involvement of carbonium mechanism, Industrial & Engineering Chemistry Research, 55, 9578-9585 (2016).
6. S.M. Xin, Q.K. Liu, K. Wang, Y. Chen, P.Q. Yuan*, Z.M. Cheng and W.K. Yuan, Solvation of asphaltenes in supercritical water: A molecular dynamics study, Chemical Engineering Science, 146, 115-125 (2016).
7. Q.K. Liu, D.Q. Zhu, X.C. Tan, J.Y. Yang, P.Q. Yuan*, Z.M. Cheng and W.K. Yuan, Lumped reaction kinetic models for pyrolysis of heavy oil in the presence of supercritical water, AIChE Journal, 62, 207-216 (2016).
8. D.Q. Zhu, Q.K. Liu, X.C. Tan, J.Y. Yang, P.Q. Yuan*, Z.M. Cheng and W.K. Yuan, Structural characteristics of asphaltenes derived from condensation of maltenes in supercritical water, Energy & Fuels, 29, 7807-7815 (2015).
9. X.C. Tan, Q.K. Liu, D.Q. Zhu, P.Q. Yuan*, Z.M. Cheng and W.K. Yuan, Pyrolysis of heavy oil in the presence of supercritical water: The reaction kinetics in different phases, AIChE Journal, 61, 857-866 (2015).