

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Enhancing tracer diffusivity by tuning interparticle interactions and solvation shell structure JAMES CARMER, GAURAV GOEL, TOM TRUSKETT, University of Texas at Austin Chemical Engineering — Using computer simulations, we explore how tuning the tracer-solvent interactions affects the dynamics of a tracer particle. Optimizing the tracer particle contribution to excess entropy results in significant increases in tracer particle diffusivity. We also observe increases in dynamics while increasing the effective particle size. These changes are investigated at various densities and particle size ratios.

James Carmer
University of Texas at Austin Chemical Engineering

Date submitted: 19 Nov 2010

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