

# Highlights

## Behavior of weakly adsorbing protein impurities in flow-through ion-exchange chromatography

Chase E. Herman, Xuankuo Xu, Steven J. Traylor, Sanchayita Ghose,  
Zheng Jian Li, and Abraham M. Lenhoff

- Contributions to the breakthrough of weakly adsorbing impurities are elucidated.
- Column simulations show that dilute impurity breakthrough can be rather diffuse.
- Dilute solute breakthrough volumes correlate with a mass transfer Graetz number.
- Stoichiometric displacement model parameters follow a separate correlation.