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Title: Computational fluid dynamics study of viscous fingering in supercritical fluid chromatography

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Highlights

- Computational fluid dynamics model developed to study solute propagation in SFC
- Simulations verify hypothesis of viscous fingering in SFC systems.
- Coupled effect of viscous fingering and plug effect contribute to peak distortions
- Solute band broadening in small-volume injections influenced by plug effect

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