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Modeling Foam Flow at Achievable Flow Rates in the Subterranean Formation Using the Population-balance Approach and Implications for Experimental Design

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Highlights:

- Bubble population-balance approaches are used to simulate foam flow in porous media
- Strong and weak-foam states are separated by a relatively narrow transition zone
- The model with the minimum pressure gradient can simulate the two possibilities
- The minimum pressure gradient parameter can be tuned with the velocity scan data
- Remaining foam-model parameters can be estimated in the strong-foam state

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