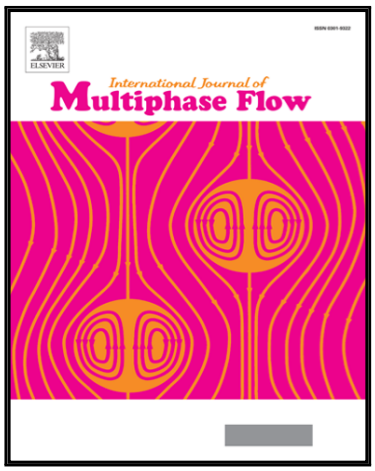

Ultrasonic measurements of sand particle erosion under upward multiphase annular flow conditions in a vertical-horizontal bend

Ronald E. Vieira , Mazdak Parsi , Peyman Zahedi ,
Brenton S. McLaury , Siamack A. Shirazi

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Highlights

- A non-intrusive ultrasonic technique is used to measure the wall thickness around an elbow.
- Erosion patterns and magnitudes under annular flow conditions are obtained
- Effects of different parameters on erosion are investigated