

# Accepted Manuscript

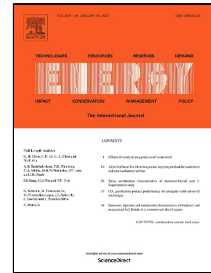
Computational analysis of flow features and energy separation in a counter-flow vortex tube based on number of inlets

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- Experimental data is well predicted by Reynolds stress turbulence model
- CFD studies focused on the number of inlets with the same combined mass flow rate
- Better results at low mean pitch, big core size, long residence time of streamlines
- Significant change in vorticity and turbulent kinetic energy at the dividing line
- Prominent secondary vortices play a key role in energy separation

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