

Supplementary Material for:

Dynamics of rising bubbles in a quiescent slag bath with varying thermo-physical properties

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Video: 01_single_bubble_radial_thermal_gradient.mp4

Caption: Single bubble rising in a bath with radial temperature gradient. Comparison between the configurations with constant properties, literature data and experimental data

Video: 02_single_bubble_horizontal_thermal_gradient.mp4

Caption: Single bubble rising in a bath with horizontal temperature gradient. Comparison between the configurations with constant properties, literature data and experimental data

Video: 03_single_bubble_vertical_thermal_gradient.mp4

Caption: Single bubble rising in a bath with vertical temperature gradient. Comparison between the configurations with constant properties, literature data and experimental data

Video: 04_two_bubbles_radial_thermal_gradient.mp4

Caption: Two bubbles rising in a bath with radial temperature gradient. Comparison between the configurations with constant properties, literature data and experimental data

Video: 05_two_bubbles_horizontal_thermal_gradient.mp4

Caption: Two bubbles rising in a bath with horizontal temperature gradient. Comparison between the configurations with constant properties, literature data and experimental data

Video: 06_two_bubbles_vertical_thermal_gradient.mp4

Caption: Two bubbles rising in a bath with vertical temperature gradient. Comparison between the configurations with constant properties, literature data and experimental data

Video: 07_single_bubble_Air-CO₂-SO₂_comparison.mp4

Caption: Single bubble rising in a bath with radial temperature gradient. Comparison between the configurations with air, CO₂ and SO₂

Video: 08_single_bubble_R_0.010m.mp4

Caption: Single bubble rising in a bath with radial temperature gradient. Comparison between the configurations with constant properties, literature data and experimental data with $R = 0.010$ m

Video: 09_single_bubble_R_0.0075m.mp4

Caption: Single bubble rising in a bath with radial temperature gradient. Comparison between the configurations with constant properties, literature data and experimental data with $R = 0.0075$ m