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Impact dynamics of compound drops

The impact of a liquid drop has many applications, from combustion to cooling technologies or 3D printing. Additional materials can be loaded into the drop to enhance these applications, such as for the printing of dispersions, biomaterials or polymer foams. The impact dynamics of the resulting complex drops are still not well understood. We focus here on the simplest geometries of compound drops, where either a particle, an immiscible liquid drop or a bubble is added inside the drop. We systematically investigate some of the new dynamics emerging from the impact of these compound drops, including vertical jetting and rebound.

