A metric characterization of snowflakes of Euclidean spaces

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Abstract. We give a metric characterization of snowflakes of Euclidean spaces. Namely, we prove that a metric space is isometric to $\mathbb{R}^n$ equipped with a distance $(d_{\mathrm{E}})^{\epsilon}$, for some $n \in \mathbb{N}_0$ and $\epsilon \in (0, 1]$, where d_{E} is the Euclidean distance, if and only if it is locally compact, and 2-point isometrically homogeneous, and admits dilations of any factor.