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## Comment on evidence for surface-initiated homogeneous nucleation

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**Abstract.** We investigate theoretical, laboratory, and atmospheric evidence for a recently proposed hypothesis: homogeneous ice nucleation initiates at the surface, not in the volume, of supercooled water drops. Using existing thermodynamic arguments, laboratory experiments, and atmospheric data, we conclude that ice embryo formation at the surface cannot be confirmed or disregarded. Ice nucleation rates measured as a function of drop size in an air ambient could help distinguish between volume and surface nucleation rates.

▣ [Final Revised Paper](#) (PDF, 192 KB) ▣ [Discussion Paper](#) (ACPD)

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