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## **Light Scattering by Hexagonal Ice Crystals with Irregularly Distributed Inclusions**

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Understanding the fundamental scattering properties of ice particles in clouds is important for proper interpretation of observations and for development of radiation parametrizations in climate models. Even at the level of single-particle scattering there are a number of complications to consider, principal among them being particle overall shape, surface roughness, and internal inhomogeneity. In this talk we discuss our recent work on a particular form of inhomogeneity, inclusion of air bubbles or soot particles. For a fixed hexagonal ice crystal shape, but a range of size parameters, we present results concerning the effects on the single-scattering properties of total volume fraction of inclusions, as well as how that total fraction is distributed within the particle.