% Wavelength properties, either ‘wavelength’ or ‘sensor’/’band’ must be specified, but not both

% ‘wavelength’ – vector if sensor is a spectrometer, or Nx2 matrix if sensor is multispectral (use [0.28 5] to get full spectrum albedo)

% ‘waveUnit’ – units for wavelength, default ‘mum’

% ‘sensor’ – instead of ‘wavelength’, can specify spectrometer or multispectral sensor, anything in the SensorTable.m function

% ‘bands’ – bands of the sensor, either numeric vector, cell vector, or categorical vector of bands,

of, if omitted, all bands for that sensor

% ‘ignoreSolar’ – if false (default), solar radiation accounted for unless outside range of SolarScale.m  
if true, ignores solar radiation and just provides band-average reflectivity (this is needed to calculate emissivity around 4 um)  
set to false automatically if sensor is a spectrometer

% –

% Properties applicable to either snow or cloud

% ‘sizeUnit’ – units for optically equivalent radius of snow grains (default ‘mum’)

% ‘dust’ – mass fraction

% ‘dustRadius’ – same units as for optically equivalent snow grain radius

% ‘soot’ – mass fraction

% ‘sootRadius’ – same units as for optically equivalent snow grain radius

% ‘WE’ – water equivalent, Inf if not specified but must be specified for cloud

% ‘weUnit’ – unit for measuring WE, default ‘mm’

% ‘R0’ – reflectance of surface under cloud or snow, or if ‘WE’ is not specified (or specified as Inf), then treat as a fractional-snow mixed with dirt and/or vegetation, scalar or size Nx1 or Nx2, where N is the length of the ‘wavelength’ vector or number of bands if ‘sensor’ is specified

% ‘lookup’ – Use lookup tables to calculate Mie variables, default true

% –

% Properties applicable only to snow

% ‘wet’ – water mass fraction (0 to 0.15)

% ‘fractionalCoverage’ – if ‘WE’ is not specified (or is Inf) and R0 is a scalar, then a 2-element vector [fSCA fOther] that sums to 1.0, or if R0 is a matrix, then a 3-element vector [fSCA fMem1 fMem2] that also sums to 1.0 (Mem1 and Mem2 might be soil and vegetation, for example)

% ‘substance’ – ‘snow’ (or inferred by radius or ‘WE’)

% –

% Properties applicable only to clouds

% ‘mixed’ – water mass fraction

% ‘iceRadius’ or ‘waterRadius’ – one must be specified if ‘mixed’, the required radius argument assumed to be the other

% ‘substance’ – ‘ice’ or ‘water’ (must be specified if not ‘mixed’)