

Atmospheric Optics

Scattering:

- Blue Sky (and polarized sky) [Rayleigh scattering]
- Red Sunset [Rayleigh scattering]
- Blue Haze [Rayleigh scattering]
- Brown Smog [Mie scattering]
- Blue (or other strange colored) Sun [Mie scattering]
- White Clouds [geometric scattering]
- Hazy (white) Sky [geometric scattering]
- Crepuscular Rays [geometric scattering]
- Twilight [all three]

Refraction:

- Green Flash [air]
- Elliptical Sun or Moon [air]
- Star Twinkle (scintillation) [air]
- Twilight [air]
- Delayed Sunset, Early Sunrise [air]
- Mirages [air]
 - Superior Mirage [hot over cold air]
 - Inferior Mirage [cold over hot air]
- Rainbow [water]
- 22° Halo [side-on hexagonal ice columns]
- Tangent Arc [side-on hexagonal ice columns]
- 46° Halo [end-on hexagonal ice columns]
- Circumzenithal Arc [hexagonal ice plates falling flat]
- Sundogs [hexagonal ice plates falling flat]

Reflection:

- Sun Pillars [hexagonal ice plates falling flat]
- Heiligenschein [dew droplets]
- Glory/Brocken Bow [water or ice]

Diffraction/Interference:

- Corona [water or dust]
- Iridescence [water or dust, varied sizes]