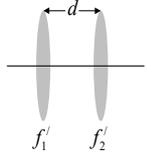


Lens Systems

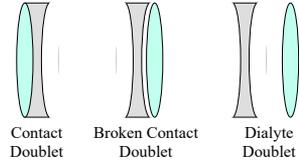
Two Lens Systems



Power of assembly

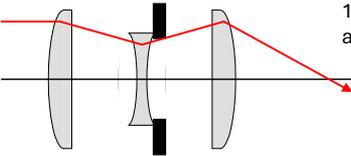
$$C = \frac{1}{f_1'} + \frac{1}{f_2'} - \frac{d}{f_1' f_2'}$$

Achromatic Doublet



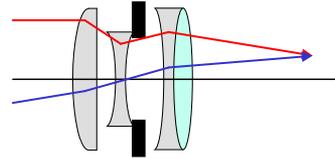
- 1) Corrects axial chromatic aberrations.
- 2) Equalizes focal length for different colors.
- 3) One lens had high dispersion and the other low dispersion with opposite sign power.

Triplet (Cooke) Lens



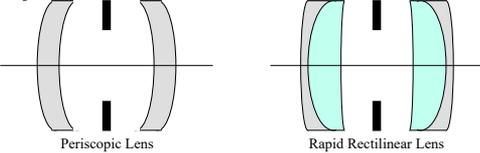
- 1) Corrects all seven first order aberrations.

Tessar Lens



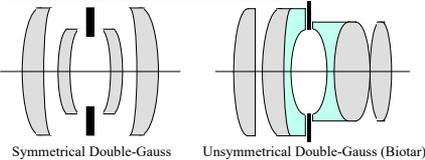
- 1) More compact and better performance than Cooke triplet.

Symmetrical Lenses



No coma.

Double-Gauss Lenses



Petzval Lens

Inverted Telephoto Lens

Eyepieces

Projection Lenses

Field Lenses

Relay Lenses

Landscape Lenses

Magnifier (Eye Loupe) Lenses

Telephoto Lens