

Confocal Microscopy

Pinhole principle

Rejection of out-of-focus light

Optical sectioning

Thin optical slices through sample

Laser scanning

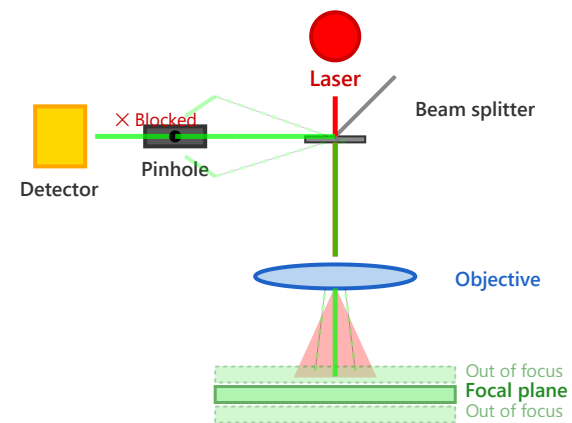
Point-by-point image acquisition

Z-stack acquisition

Series of optical sections

3D rendering

Volumetric visualization from stacks



Pinhole Principle

- ✓ In-focus light passes through pinhole
- ✗ Out-of-focus light blocked by pinhole
- High axial resolution (~500 nm)