

**Table 1 Resolution presently achievable in optical imaging**

Instrument	<i>xy</i> resolution	<i>z</i> resolution
Standard microscope	~0.5 $\mu\text{m}$	~1.6 $\mu\text{m}$
Confocal/two-photon microscope	~0.25 $\mu\text{m}$	~0.7 $\mu\text{m}$
Evanescent wave	~0.5 $\mu\text{m}$	~0.3 $\mu\text{m}$
Second-harmonic microscope	~0.25 $\mu\text{m}$	<0.01 nm
Near-field imaging	~0.05 $\mu\text{m}$	~0.01 $\mu\text{m}$