

Supporting Information

Fingerprinting a Living Cell by Raman Integrated Mid-Infrared Photothermal Microscopy

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This section provides the impact of focus positions to the mid-infrared photothermal images.

- Figure S1. Depth-resolved MIP imaging of 500 nm PMMA beads.
- Movie S1. Depth-resolved MIP imaging of 500nm PMMA beads at 1730 cm⁻¹.

Effect of focus position

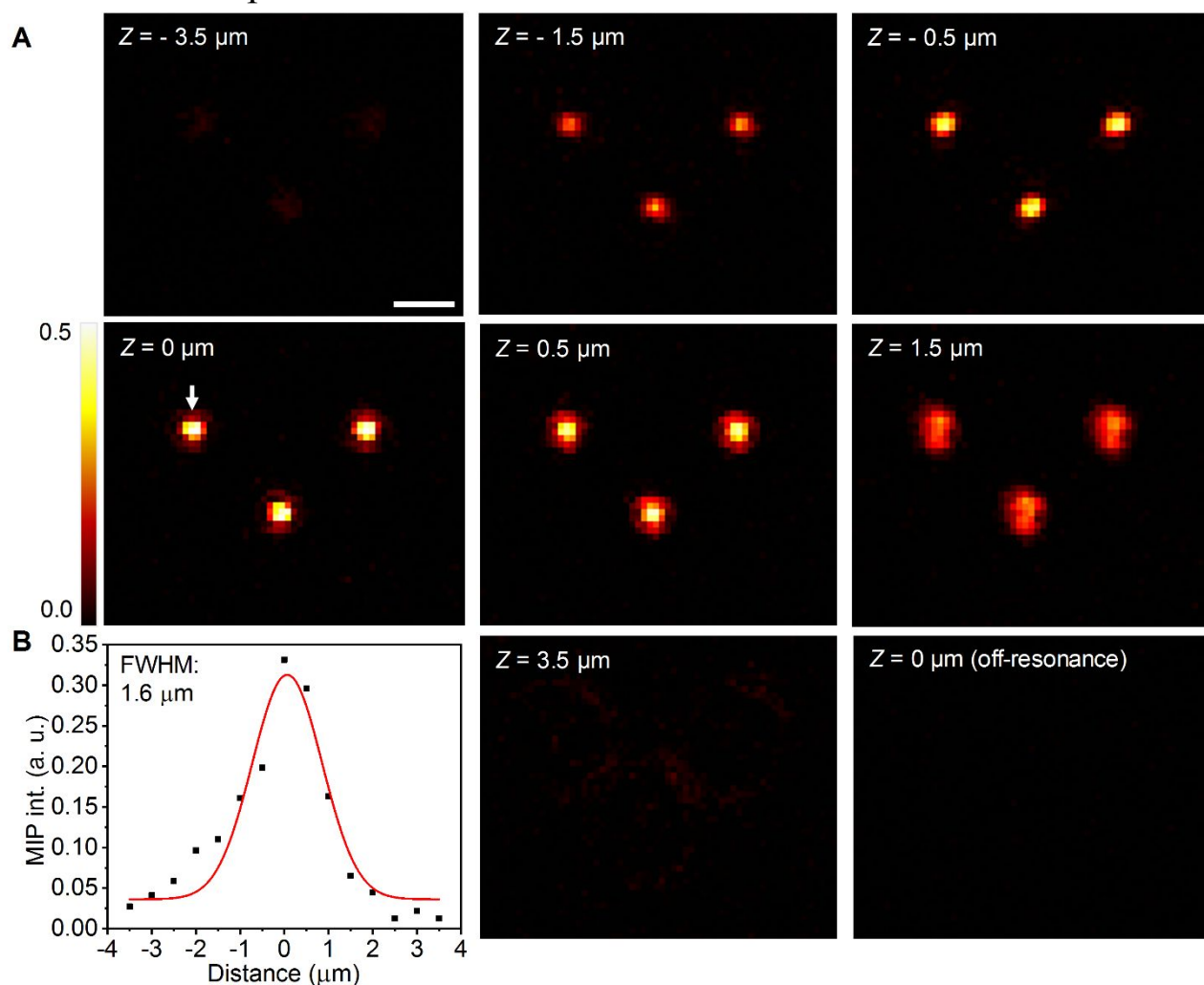


Figure S1. Depth-resolved MIP imaging of 500 nm PMMA beads. (A) MIP images of 500 nm PMMA beads at different z positions. Mid-IR excitation wavenumber: 1730 cm^{-1} . Mid-IR excitation wavenumber for off resonance: 1770 cm^{-1} . Pixel dwell time: 1.0 ms. Scale bar: $2 \mu\text{m}$. Probe power on the sample: 30 mW. Pump power on the sample: 5 mW at 1730 cm^{-1} . $Z=0 \mu\text{m}$ indicated the position with largest MIP intensity. (B) Axial intensity profile analysis for a 500 nm PMMA bead labeled with white arrow in panel A. See movie S1.