

<b>Title</b>	<b>Chemical-contrast imaging with pulse-shaping based pump-probe spectroscopy</b>
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<b>Abstract</b>	<p>Ultrafast pump-probe spectroscopy and pulse-shaping techniques are providing new modes of contrast for the field of multiphoton microscopy. Endogenous species such as heme proteins show rich nonlinear spectroscopic signatures of excited state absorption, stimulated emission and ground-state bleaching. Commercially available octave-spanning Ti:sapphire oscillators offer new opportunities for imaging based on pump-probe contrast. Spatial light modulators take advantage of this large bandwidth, shaping pulses of light to selectively excite molecular structures with similar spectral properties. We present two-color pump-probe imaging of heme proteins solutions and red blood cells. © (2013) COPYRIGHT Society of Photo-Optical Instrumentation Engineers (SPIE). Downloading of the abstract is permitted for personal use only.</p>
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