Abberior RESCue STED

RESCue STED designed for live-cell applications

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Basic idea:

Shut-off excitation & STED light

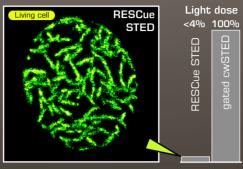
- where no signal arises in the first microseconds of the pixel dwell time
- where already enough signal has been collected



Neighboring pixels are **NOT** pre-stressed/ pre-bleached

Specs:

- ✓ RESCue STED reduces the light dose on the sample down to 4% compared to gated cw STED without compromising the resolution
- ✓ Avoids unnecessary excitation and de-excitation cycles (conventional STED applies the same light dose to any pixel)
- ✓ Reduction of photobleaching of any fluorescent marker
- ✓ Reduction of the light dose enhances live-cell imaging conditions in general
- ✓ Beneficial for time-lapse STED imaging
- ✓ Beneficial for volume imaging with 3D STED
- ✓ Can similarly be applied to confocal imaging



References:

√ T. Staudt, A. et al. "Far-field optical nanoscopy with reduced number of state transition cycles" Opt. Express 19, 5644 (2011)

