

Abstract Submitted
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STED Microscopy as a Characterization Tool for Three Dimensionally Nanostructured Block Copolymer Thin Films CHAITANYA ULLAL, ROMAN SCHMIDT, ULRIKE BOEHM, Max Planck Institute for Biophysical Chemistry, SEBASTIAN PRIMPKE, PHILIPP VANA, Georg August Universitaet, Goettingen, STEFAN HELL, Max Planck Institute for Biophysical Chemistry — STED microscopy is an emerging method in the characterization of block copolymer film morphologies. We demonstrate a complete experimental platform that allows us to obtain in situ Three Dimensional images with microdomain specificity. IsoSTED, a variant of STED microscopy that coherently combines two opposing lenses, yields the necessary resolution, while the necessary fluorescence contrast is achieved by deterministically confining fluorophores to the targeted microdomain. These capabilities are combined to provide unambiguous images of various nanostructured block copolymer morphologies.

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