ISTITUTO ITALIANO
DI TECNOLOGIA

TITLE

Random access stimulated emission depletion (STED) microscopy

INVENTORS

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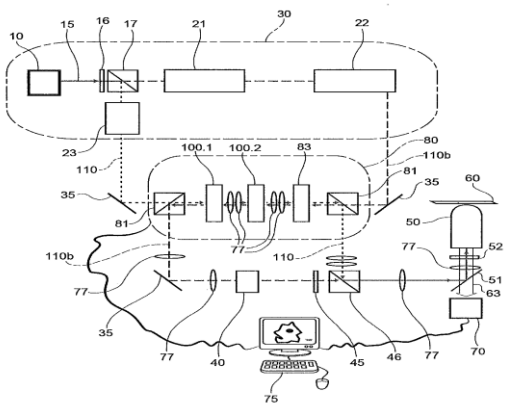
DESCRIPTION

Optical scanning system, comprising an optical system for guiding a first and a second light beam, and deflector devices for deflecting first and second light beams in a directionally variable manner. The deflector devices comprise at least one acousto-optic deflector, and the optical system is arranged in such a way that the first and second light beams are counter-propagating through the acousto-optic deflector, which is controllable for deflecting the first and second light beams simultaneously or in pulse sequence. STED microscopy apparatus comprising an optical scanning system based on acousto-optic deflectors.



APPLICATIONS

Structural imaging, fast functional imaging, monitoring nanostructures

KEYWORDS

Microscopy, three-dimensional, diffraction, optics, random access

BIBLIOGRAPHIC DATA

Microscopia a deplezione mediante emissione stimolata (STED) ad accesso casuale

Application Number	IT TO2013A000229
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Applicants	Fondazione Istituto Italiano di Tecnologia, Baylor College of Medicine

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