Single Molecule Spectroscopy and Superresolution Imaging XI

Jörg Enderlein Ingo Gregor Zygmunt Karol Gryczynski Rainer Erdmann Felix Koberling Editors

27–28 January 2018 San Francisco, California, United States

Sponsored by SPIE

Cosponsored by PicoQuant Photonics (United States)

Published by SPIE

Volume 10500

The papers in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. Additional papers and presentation recordings may be available online in the SPIE Digital Library at SPIEDigitalLibrary.org.

The papers reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from these proceedings:

Author(s), "Title of Paper," in *Single Molecule Spectroscopy and Superresolution Imaging XI*, edited by Jörg Enderlein, Ingo Gregor, Zygmunt Karol Gryczynski, Rainer Erdmann, Felix Koberling, Proceedings of SPIE Vol. 10500 (SPIE, Bellingham, WA, 2018) Seven-digit Article CID Number.

ISSN: 1605-7422

ISSN: 2410-9045 (electronic)

ISBN: 9781510614857

ISBN: 9781510614864 (electronic)

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA Telephone +1 360 676 3290 (Pacific Time)· Fax +1 360 647 1445

SPIE.org

Copyright © 2018, Society of Photo-Optical Instrumentation Engineers.

Copying of material in this book for internal or personal use, or for the internal or personal use of specific clients, beyond the fair use provisions granted by the U.S. Copyright Law is authorized by SPIE subject to payment of copying fees. The Transactional Reporting Service base fee for this volume is \$18.00 per article (or portion thereof), which should be paid directly to the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923. Payment may also be made electronically through CCC Online at copyright.com. Other copying for republication, resale, advertising or promotion, or any form of systematic or multiple reproduction of any material in this book is prohibited except with permission in writing from the publisher. The CCC fee code is 1605-7422/18/\$18.00

Printed in the United States of America Vm7 i ffUb 5 qpc WJUHY oz + WZi bXYf" WV bqY Zfca 'GD-9.

Publication of record for individual papers is online in the SPIE Digital Library.



Paper Numbering: Proceedings of SPIE follow an e-First publication model. A unique citation identifier (CID) number is assigned to each article at the time of publication. Utilization of CIDs allows articles to be fully citable as soon as they are published online, and connects the same identifier to all online and print versions of the publication. SPIE uses a seven-digit CID article numbering system structured as follows:

- The first five digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B ... 0Z, followed by 10-1Z, 20-2Z, etc. The CID Number appears on each page of the manuscript.

Contents

V ∨ii	Authors Conference Committee
	FLIM, FCS AND FRET I
10500 02	Photon spectroscopy by picoseconds differential Geiger-mode Si photomultiplier [10500-1]
	FLIM, FCS AND FRET II
10500 07	Analyzing conformational changes in single FRET-labeled A_1 parts of archaeal A_1A_0 -ATP synthase $[10500-6]$
	NANOSCOPY OR SUPER-RESOLUTION FLUORESCENCE IMAGING I
10500 OB	Measuring 3D molecular orientation and rotational mobility using a Tri-spot point spread function [10500-12]
	NANOSCOPY OR SUPER-RESOLUTION FLUORESCENCE IMAGING II
10500 0C	A simple and low-cost structured illumination microscopy using a pico-projector [10500-13]
10500 0D	Characterization and improvement of highly inclined optical sheet microscopy [10500-14]
10500 OE	A robust statistical estimation (RoSE) algorithm jointly recovers the 3D location and intensity of single molecules accurately and precisely [10500-15]
	BIOLOGICAL APPLICATIONS OF SM SPECTROSCOPY AND IMAGING
10500 OL	Interferometric scattering (iSCAT) microscopy: studies of biological membrane dynamics [10500-22]
10500 OM	Tilted light sheet microscopy with 3D point spread functions for single-molecule super-resolution imaging in mammalian cells (PicoQuant Young Investigator Award) [10500-23]
10500 ON	Identifying and correcting pixel locking errors with the SPIFF algorithm [10500-24]

	NANOSCOPY OR SUPER-RESOLUTION FLUORESCENCE IMAGING IV
10500 OQ	Superresolution fluorescence imaging by pump-probe setup using repetitive stimulated transition process [10500-27]
	POSTER SESSION
10500 OS	Ultrafast single molecule technique for the study of force dependent kinetics and conformational changes of actin-protein interaction involved in mechanotransduction [10500-29]
10500 OU	Diagram method for resolution limit calculation in laser microscopy [10500-31]