



### LF502 NanoScan

1. Riestler D, Hildmann C, Haus P, Galetovic A, Schober A, Schwienhorst A, Meyer-Almes FJ  
Non-isotopic dual parameter competition assay suitable for high-throughput screening of histone deacetylases.  
Bioorg Med Chem Lett. 2009 Jul 1;19(13):3651-6. Epub 2009 May 3
2. Pfeifer L, Grabolle M, Resch-Genger U  
Fluorescence Lifetime Read-Out of Quantum Dots in a Homogeneous Immunoassay.  
poster, SBS 2009, Lille
3. Grabolle M, Pfeifer L, Stein K, Resch-Genger U  
Homogeneous Duplex TR-FRET Assay using Quantum Dots and Ruthenium Chelates as FRET Donors.  
Luminescence 2008, 23: 226-227
4. Pfeifer L, Stein K.  
Duplex HTS Assay Measured Simultaneously with Nano-TRF and Fluorescence Lifetime Method.  
poster, SBS 2008, St. Louis
5. Sahoo H, Hennig A, Florea M, Roth D, Enderle T, Nau WM.  
Single-Label Kinase and Phosphatase Assays for Tyrosine Phosphorylation Using Nanosecond Time-Resolved Fluorescence Detection.  
J Am Chem Soc 2007; 129(51): 15927-15934
6. Hennig A, Florea M, Roth D, Enderle T, Nau WM.  
Design of Peptide Substrates for Nanosecond Time-Resolved Fluorescence Assays of Proteases: 2,3-Diazabicyclo[2.2.2]oct-2-ene as a Noninvasive Fluorophore.  
Anal Biochem. 360(2): 255-265, (2007)
7. Pfeifer L, Stein K.  
Suitability of Long-nanosecond Lifetime Probes for Nanosecond Time-resolved Fluorescence Assays.  
poster, MAF10 2007, Salzburg
8. Hennig A, Roth D, Enderle T, Nau WM.  
Nanosecond time-resolved fluorescence protease assays.  
Chembiochem. 7(5):733-737, (2006)
9. Pfeifer L, Stein K, Janda J.  
Fluorescence Lifetime and Nano-TRF Assay Technology for HTS.  
poster, SBS 2006, Seattle
10. Apfel CM, Enderle T.  
Assays for High-Throughput Screening in Drug Discovery.  
in: Combinatorial Chemistry (Second Revised Edition)  
Series: Methods and Principles in Medicinal Chemistry Published Online: 19 May 2006  
Editor(s): Prof. Dr. Willi Bannwarth, Dr. Berthold Hinzen
11. Hoefelschweiger BK, Pfeifer L, Wolfbeis OS.  
Screening Scheme Based on Measurement of Fluorescence Lifetime in the Nanosecond Domain  
Journal of Biomolecular Screening 10(7), 687-694, (2005)
12. Roth D, Matile H, Josel H-P, Enderle T.  
Fast-TRF: Novel Time-Resolved Assays for Drug Discovery  
poster, SBS 2005, Geneva

13. Janda J, Busch M, Wenger C, Thiericke R  
Comparison of Fluorescence Lifetime and Fluorescence Intensity Readouts Using Homogeneous Protease-Assay  
poster presentation, Miptec Basel, (May 2005)
14. Pfeifer L, Stein K, Fink U, Welker A, Wetzl B, Bastian P, Wolfbeis OS.  
Improved Routine Bio-medical and Bio-analytical Online Fluorescence Measurements Using Fluorescence Lifetime Resolution  
Journal of Fluorescence Vol 15, No 3, 433-442, (2005)
15. Wetzl B, Bastian P, Pfeifer L, Stein K, Wolfbeis OS.  
Homogenous Fluorescence Assays Based on Fluorescence Lifetime Analysis  
poster presentation, Miptec Basel, (May 2004)

## LF402 Metabolic

1. Hamann M, Richter A, Fink H, Rex A.  
Altered nicotinamide adenine dinucleotide (NADH) fluorescence in dt sz mutant hamsters reflects differences in striatal metabolism between severe and mild dystonia.  
J Neurosci Res. 2009 Feb 15; 87(3):776-83.
2. Grünwald I, Stahn RM, Kindt CM, Pfeifer L, Hetzer R.  
Criteria for the Multiple Use of Isolated Perfused Hearts in Electrophysiological and Metabolic Experiments.  
Biomed Tech (Berl). 2008; 53(1):16-24
3. Pfeifer L, Grünwald I, Welker A, Stahn RM, Stein K, Rex A.  
Fluorometric Characterization of Metabolism Activity of Ex Vivo Perfused Pig Hearts.  
Biomed Tech (Berl). 2007; 52(2):193–199
4. Rex A, Fink F.  
Applications of Laser-induced Fluorescence Spectroscopy for the Determination of NADH in Experimental Neuroscience  
Laser Phys Lett 3(9): 452–459 (2006)
5. Rex A, Fink H.  
Effects of 8-OH-DPAT on Hippocampal NADH Fluorescence In Vivo in Anaesthetized Rats  
Journal of Neuroscience Research 83, 551–556, (2006)
6. Rex A, Hentschke M-P, Fink H.  
„Bioavailability of Reduced Nicotinamide-adenin-dinucleotide (NADH) in the Central Nervous System of the Anaesthetized Rat Measured by Laser-Induced Fluorescence Spectroscopy“  
Pharmacology and Toxicology, 90, 220-225, (2002)
7. Büchner M, Huber R, Sturchler-Pierrat C, Staufenbiel M, Riepe MW.  
„Impaired Hypoxic Tolerance and Altered Protein Binding of NADH in Presymptomatic App23 Transgenic Mice“  
Neuroscience Vol114, No 2, 285-289, (2002)
8. Plettenberg HKW, Hoffmann M.  
„Applications of Autofluorescence for Characterisation of Biological Systems (Biomonitoring)“  
Biomed Tech (Berl) 47 Suppl 1 Pt2, 596-597, (2002)
9. Rex A, Pfeifer L, Fink H.  
Determination of NADH in Frozen Rat Brain Sections by Laser-Induced Fluorescence  
Biol Chem, Vol 382, pp 1727-1732, (2001)
10. Schuchmann S, Kovacs R, Kann O, Heinemann U, Buchheim K.  
“Monitoring NAD(P)H Autofluorescence to Assess Mitochondrial Metabolic Functions in Rat Hippocampal-Entorhinal Cortex Slices”  
Brain Research Protocols 7, 267-276, (2001)
11. Huber R, Büchner M, Li H, Schlieter M, Sperfeld AD, Riepe M.  
“Protein Binding of NADH on Chemical Preconditioning”  
Jour Neurochem 75 1, (2000), 329-335

12. Rex A, Pfeifer L, Fink F, Fink H.  
Cortical NADH during Pharmacological Manipulations of the Respiratory Chain and Spreading Depression In Vivo  
Jour Neurosc Res 57, 359-370, (1999)
13. Maerz HK, Buchholz R, Emmrich F, Pfeifer L, Marx U.  
Development of a Pharmacological Test System in a Miniaturized Hollow Fiber Bioreactor in: "Microreaction Technology"  
Editor: W Ehrfeld  
Springer Berlin, Heidelberg, New York (1998)
14. Maerz HK, Buchholz R, Emmrich F, Fink F, Geddes CL, Pfeifer L, Raabe F, Scheper T, Ulrich E, Marx U.  
Applicating Fiber Optical Methods for Toxicological Testing in Vitro  
Proceedings of Systems and Technologies for Clinical Diagnostics and Drug Discovery II,  
Editors: Cohn, J C, Owicki, J C,  
SPIE Vol 3603, 228 – 239, (1998)
15. MW Riepe, K Schmalzigaug, F Fink, K Oexle and AC Ludolph.  
„NADH in the Pyramidal Cell Layer of Hippocampal Regions CA1 and CA3 upon Selective Inhibition and Uncoupling of Oxidative Phosphorylation"  
Brain Res 710, 21-27, (1996)
16. Maerz HK, Buchholz R, Emmrich F, Fink F, Geddes CL, Pfeifer L, Raabe F, Marx U.  
„Monitoring Tissue Metabolism via Time-Resolved Laser Fluorescence“  
Proceedings of Advances in Fluorescence Sensing Technology IV,  
Editors: Lakowicz JR, Soper SA, Thompson RB,  
SPIE Vol 3602, 24 - 35
17. Maerz H, Emmrich F, Fink F, Pfeifer L, Marx U.  
The NADH LASER - A Powerful Tool for Tissue Engineering  
(poster presentation at the 8th European Congress On Biotechnology (ECB8)  
17 - 21 August 1997, Budapest, Hungary)
18. Maerz H et al 1997.  
Development of a Pharmacological Test System in a Miniaturized Hollow Fiber Bioreactor  
(Proceedings of the 1st International Conference on Microreaction Technology, 23-25 Feb 97 in Frankfurt/M, Germany), Springer, 1998
19. Maerz H, Emmrich F and Marx U.  
On-line Monitoring Drug Effects on Human Tissue in Vitro  
(poster presentation at the 8th European Congress On Biotechnology (ECB8)  
17 - 21 August 1997, Budapest, Hungary)
20. Syring C, Maier ST, Yalcin E, Comte A, Scheper T, Schmalzigaug K, Buchholz R, Emmrich F, Marx, U.  
On-line Monitoring of pO<sub>2</sub>, pH and NAD(P)H in Miniaturized Hollow Fiber Bioreactors  
8th Annual Meeting of the Japanese Association for Animal Cell Technology, 1995 in Iizuka, Japan,  
(1996)
21. Pfeifer L, Paul R, Yalcin E, Marx U, König F and Fink F.  
"A time-gated spectrometer using optical fibres for detecting fluorescent biomolecules in cells and tissue"  
7th Int Conf on In Vivo Methods - Monitoring molecules in Neuroscience; St.Cruz de Tenerife, Spain,  
S 42-43, (1996)
22. Kemnitz K, Pfeifer L, Ainsbund MR  
Detector for Multichannel Spectroscopy and Fluorescence Lifetime Imaging on the Picosecond Timescale  
Nucl Instr Meth Phys, (1996)
23. Arzhantsev, SYu, Ainsbund MR, Chikishev A Yu, Koroteev NI, Shkurinov AP, Toleutaev BN, Turbin EV, Lehmann A, Pfeifer L, Fink F, Kemnitz K.  
Picosecond Fluorescence Lifetime Imaging Microscopy at 1 µm Space- and 10 ps Time-Resolution: 50x50 ch MCP-PMT with Quadrant-Anode  
Fluorescence Microscopy and Fluorescent Probes 2, 69-74, (1998)

24. Yalcin E.  
BS thesis: „On-line NADH-Messungen an Säugerzellen mit Hilfe der laserinduzierten Fluoreszenzspektroskopie“  
Universität Karlsruhe (TH), (1995)
25. Rex A, Schmalzigaug K, Fink F and Fink H.  
“In vivo monitoring of NADH using laser-induced fluorescence spectroscopy”  
7th Int Conf on In Vivo Methods - Monitoring molecules in Neuroscience, St.Cruz de Tenerife, Spain,  
S 44-45, (1996)
26. König F.  
„Die Bedeutung der Laserinduzierten Autofluoreszenz für die Früherkennung des Harnblasenkarzinoms“; Dissertation am Bereich Medizin (Charité) der Humboldt-Universität zu Berlin,  
1995
27. F König, D Schnorr, SA Loening, R Paul, L Pfeifer, A Lehmann, A Scheer, F Fink.  
“Laser-induced autofluorescence of prostate- and bladder tissue“  
Proceedings of OE/LASE, Los Angeles, USA; SPIE-Vol 2134 „Laser-Tissue Interaction V“, (1994)
28. Pfeifer L, Maerz H, Marx U.  
„Bioreaktor-Monitoring durch laserinduzierte Fluoreszenz“  
Laborpraxis (April 1999), 30-35