

## SPERO Scientific Research Papers

Status  
20180611

| Nr. | Titel                                                                                                                                 | Autoren                                                                                                                                                                                                                                                                               | Journal                                                                                      | Applikation                                            | Produkt | veröffentlicht |
|-----|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------|---------|----------------|
| 1   | <a href="#">Imaging-based molecular barcoding with pixelated dielectric metasurfaces</a>                                              | Andreas Tittl, Aleksandrs Leitis, Mingkai Liu, Filiz Yesilkoy, Duk-Yong Choi, Dragomir N. Neshev, Yuri S. Kivshar, Hatice Altug,                                                                                                                                                      | Science 08 Jun 2018:<br>Vol. 360, Issue 6393,<br>pp. 1105-1109                               | Chemical<br>Imaging,<br>Biomedical                     | Spero   | 2018           |
| 2   | <a href="#">Quantum Cascade Laser-Based Infrared Microscopy for Label-Free and Automated Cancer Classification in Tissue Sections</a> | Claus Kuepper, Angela Kallenbach-Thieltges, Hendrik Juette, Andrea Tannapfel, Frederik Großerueschkamp & Klaus Gerwert                                                                                                                                                                | Scientific Reportsvolume 8,<br>Article number: 7717 (2018)<br>doi:10.1038/s41598-018-26098-w | Tissue Analysis<br>Imaging Cancer<br>Research          | Spero   | 2018           |
| 3   | <a href="#">High definition infrared chemical imaging of colorectal tissue using a Spero QCL microscope</a>                           | Lisa V. Brown, Marcelo Davanco, Zhiyuan Sun, Andrey Kretinin, Yiguo Chen, Joseph R. Matson, Igor Vurgaftman, Nicholas Sharac, Alexander J. Giles, Michael M. Fogler, Takashi Taniguchi, Kenji Watanabe, Kostya S. Novoselov, Stefan A. Maier, Andrea Centrone, and Joshua D. Caldwell | Nano Letters/ DOI:<br>10.1021/acs.nanolett.7b04476                                           | Tissue Analysis,<br>Chemical<br>Imaging,<br>Biomedical | Spero   | 2018           |

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| 4   | <a href="#">Predicting Fibrosis Progression in Renal Transplant Recipients Using Laser-Based Infrared Spectroscopic Imaging</a> | Vishal K. Varma, Andre Kajdacsy-Balla, Sanjeev Akkina, Suman Setty, Michael J. Walsh                                              | Scientific Reports/ DOI: :10.1038/s41598-017-19006-1        | Tissue Analysis                               | Spero   | 2018           |
| 5   | <a href="#">3D Chemical Imaging of the Brain by Quantitative IR Spectro-Microscopy</a>                                          | Abiodun Ogunleke, Benoit Recur, Hugo Balacey, Hsiang-Hsin Chen, Maylis Delugin, Yeukuang Hwu, Sophie Javerzat, Cyril Petibois     | Royal Society of Chemistry/ DOI: 10.1039/C7SC03306K         | Chemical Imaging, Cancer Research             | Spero   | 2017           |
| 6   | <a href="#">3D Quantitative Chemical Imaging of Tissues by Spectromics</a>                                                      | Cyril Petibois                                                                                                                    | Trends in Biotechnology/ DOI: 10.1016/j.tibtech.2017.08.002 | Chemical Imaging, Cancer Research             | Spero   | 2017           |
| 7   | <a href="#">Fourier-transform vs. quantum-cascade-laser infrared microscopes for histo-pathology: From lab to hospital?</a>     | Abiodun Ogunleke, Vladimir Bobroff, Hsiang-Hsin Chen, Jeremy Rowlette, Maylis Delugin, Benoit Recur, Yeukuang Hwu, Cyril Petibois | Analytical Chemistry/ DOI: 10.1016/j.trac.2017.02.007       | Tissue Analysis, Chemical Imaging, Biomedical | Spero   | 2017           |
| 8   | <a href="#">Missing: A protocol for rapid, label-free histochemical imaging of fibrotic liver</a>                               | B. Bird, J. Rowlette                                                                                                              | Analyst/ DOI: 10.1039/C6AN02080A                            | Chemical Imaging, Cancer Research             | Spero   | 2017           |

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| 9   | <a href="#">Missing: Fourier-transform vs. quantum-cascade-laser infrared microscopes for histo-pathology: From lab to hospital?</a>     | Cyril Petibois                                          | TrAC Trends in Analytical Chemistry Vol. 89             | Chemical Imaging, Cancer Research             | Spero   | 2017           |
| 10  | <a href="#">Missing: High definition infrared chemical imaging of colorectal tissue using a Spero QCL microscope</a>                     | B. Bird, J. Rowlette                                    | Analyst/ DOI: 10.1039/C6AN01916A                        | Chemical Imaging, Cancer Research             | Spero   | 2017           |
| 11  | <a href="#">Missing: Label-free molecular imaging of the kidney</a>                                                                      | Boone M. Prentice, Richard M. Caprioli, Vincent Vuiblet | Kidney International/ DOI: 10.1016/j.kint.2017.03.052   | Chemical Imaging, Cancer Research             | Spero   | 2017           |
| 12  | <a href="#">Missing: Quantum Cascade Laser Spectral Histopathology: Breast Cancer Diagnostics Using High Throughput Chemical Imaging</a> | Michael J. Pilling, Alex Henderson, Peter Gardner       | Analytical Chemistry/ DOI: 10.1021/acs.analchem.7b00426 | Chemical Imaging, Cancer Research             | Spero   | 2017           |
| 13  | <a href="#">A protocol for rapid, label-free histochemical imaging of fibrotic liver</a>                                                 | B. Bird and J. Rowlette                                 | Royal Chemistry Society/ DOI: 10.1039/c6an02080a        | Tissue Analysis, Chemical Imaging, Biomedical | Spero   | 2016           |

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| 14  | <a href="#">High-throughput Quantum Cascade Laser (QCL) spectral histopathology: a practical approach towards clinical translation</a>                                 | Michael. J. Pilling, Alex Henderson, Benjamin Bird, Mick D. Brown, Noel W. Clarke, Peter Gardner | Royal Chemistry Society/ DOI: 10.1039/C5FD00176E              | Nanoscale, Tissue Analysis, Chemical Imaging, Biomedical | Spero   | 2016           |
| 15  | <a href="#">Infrared spectroscopic imaging detects chemical modifications in liver fibrosis due to diabetes and disease</a>                                            | Hari Sreedhar, Vishal K. Varma, Francesca V. Gambacorta, Grace Guzman, Michael J. Walsh          | Biomedical Optics Express DOI: 10.1364/BOE 7.002419           | Biomedical                                               | Spero   | 2016           |
| 16  | <a href="#">Missing: Site-Specific Dynamics of <math>\beta</math>-Sheet Peptides and DPro-Gly Turns Probed by Laser-Excited Temperature-Jump Infrared Spectroscopy</a> | Alexander Popp, David Scheerer, Heng Chi, Timothy A. Keiderling, Karin Hauser                    | Chem Phys Chem DOI: 10.1002/cphc.201501089                    | Time Resolved, Biomedical                                | Spero   | 2016           |
| 17  | <a href="#">Missing: "High throughput Quantum Cascade Laser (QCL) spectral histopathology : a practical approach towards clinical translation "</a>                    | Michael J. Pilling, Alex Henderson, Peter Gardner, Benjamin Bird, Mick D. Brown                  | Royal Society of Chemistry/ Vol. 187/ DOI: 10.1039/C5FD00176E | Chemical Imaging, Cancer Research                        | Spero   | 2016           |

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| 18  | <a href="#">Introducing Discrete Frequency Infrared Technology for High-Throughput Biofluid Screening</a>                                                            | Caryn Hughes, Graeme Clemens, Benjamin Bird, Timothy Dawson, Katherine M. Ashton, Michael D. Jenkinson, Andrew Brodbelt, Miles Weida, Edeline Fotheringham, Matthew Barre, Jeremy Rowlette, Matthew J. Baker | Scientific Reports/6:20173/<br>DOI: 10.1038/srep20173 | Cancer Research,<br>Biomedical,<br>Microfluidics     | Spero   | 2015           |
| 19  | <a href="#">New Source Improves Infrared Imaging</a>                                                                                                                 | Daylight                                                                                                                                                                                                     | C & E News                                            | Biomedical                                           | Spero   | 2015           |
| 20  | <a href="#">Real-time mid-IR chemical imaging of dynamic processes: Proton-Dueteron exchange within a micro fluidic system using the Spero™ QCL based microscope</a> | Bill Mohar                                                                                                                                                                                                   | Application Note: 201501                              | Chemical<br>Imaging,<br>Biomedical,<br>Microfluidics | Spero   | 2015           |
| 21  | <a href="#">High-confidence, high-throughput screening with high-def IR microspectroscopy</a>                                                                        | Benjamin Bird, Miles Weida, Jeremy Rowlette, Matthew Barre, David Arnone, Timothy Day                                                                                                                        | BioOptics World                                       | Biomedical                                           | Spero   | 2014           |
| 22  | <a href="#">Large scale imaging of tissue micro arrays (TMAs) using a tunable Quantum Cascade Laser (QCL) based microscope</a>                                       | Paul Bassana, Miles J. Weida, Jeremy Rowlette, and Peter Gardner                                                                                                                                             | Analyst                                               | Biomedical                                           | Spero   | 2014           |
| 23  | <a href="#">Quantum cascade laser-based mid-infrared spectrochemical imaging of tissues and biofluids</a>                                                            | Graeme Clemens, Benjamin Bird, Miles Weida, Jeremy Rowlette, Matthew J. Baker                                                                                                                                | Spectroscopy Europe/ DOI:<br>10.1039/C4AN00638K       | Biomedical                                           | Spero   | 2014           |