

# Scientific Publications Dr. Christian David past 10 years

Last updated: July 2018

## 2018:

1. P. Juranić, J. Rehanek, C. Pradervand, R. Ischebeck, C. Erny, P. Heimgartner, I. Gorgisyan, G. Seniutinas, C. David, C. Hauri and L. Patthey  
*SwissFEL Aramis Beamline Photon Diagnostics*  
Journal of Synchrotron Radiation **25** (2018) p. 238–1248
2. G. Seniutinas, A. Weber, C. Padeste, I. Sakellari, M. Farsari, and C. David  
*Beyond 100 nm Resolution in 3D Laser Lithography – Post Processing Solutions*  
Microelectronic Engineering **191** (2018) p. 25-31
3. B. Rösner, F. Koch, F. Döring, J. Bosgra, V.A. Guzenko, E. Kirk, M. Meyer, J.L. Ornelas, R.H. Fink, S. Swaraj, R. Belkhou, B. Watts, J. Raabe, C. David  
*Exploiting Atomic Layer Deposition for Fabricating Sub-10 nm X-ray Lenses*  
Microelectronic Engineering **191** (2018) p. 91–96
4. A. Cattoni, D. Mailly, O. Dalstein, M. Faustini, G. Seniutinas, B. Rösner, C. David  
*Sub-10 nm Electron and Helium Ion Beam Lithography Using a Recently Developed Alumina Resist*  
Microelectronic Engineering **193** (2018) p. 18–22
5. M. Graczyk, A. Cattoni, B. Rösner, G. Seniutinas, A. Kvennefors, A. Löfstrand, D. Mailly, C. David, I. Maximov  
*Nanoimprint Stamps with Ultra-High Resolution: Optimal Fabrication Techniques*  
Microelectronic Engineering **190** (2018) p. 73–78
6. M.P. Olbinado, J. Grenzer, A. Pelka, P. Pradel, T. De Resseguier, P. Vagovic, M.-C. Zdora, V.G. Guzenko, C. David, and A. Rack  
*Indirect detector systems for various single-bunch, full-field, hard X-ray imaging at beamline ID19 of the European Synchrotron*  
Journal of Instrumentation **13** (2018) p. C04004, DOI: 10.1088/1748-0221/13/04/C04004

## 2017:

7. M. Lebugle, G. Seniutinas, F. Marschall, V.A. Guzenko, D. Grolimund, and C. David  
*A tunable kinoform X ray beamsplitter*  
Optics Letters **42** (2017) p. 4327-4330
8. B. Rösner, F. Döring, P.R. Riberič, D. Gauthier, E. Principi, C. Masciovecchio, M. Zangrando, J. Vila-Comamala, G. De Ninno, and C. David  
*High Resolution Beam Profiling of X-ray Free Electron Laser Radiation by Polymer Imprint Development*  
Optics Express **25** (2017) p. 30686-30695
9. F. Marschall, Z. Yin, J. Rehanek, M. Beye, F. Döring, K. Kubicek, D. Raiser, S. Thekku Veedu, J. Buck, A. Rothkirch, B. Rösner, V.A. Guzenko, J. Viefhaus, C. David, and S. Techert  
*Transmission zone plates as analyzers for efficient RIXS-mapping*  
Scientific Reports **7** (2017) p. 8849-7, DOI: 10.1038/s41598-017-09052-0
10. P.R. Riberič, B. Rösner, D. Gauthier, E. Allaria, F. Döring, L. Foglia, L. Giannessi, N. Mahne, M. Manfredda, C. Masciovecchio, R. Mincigrucci, N. Mirian, E. Principi, E. Roussel, A. Simoncig, S. Spampinati, C. David, G. De Ninno  
*Extreme Ultraviolet Vortices from a Free Electron Laser*  
Physical Review X **7** (2017) p. 031036 - 9
11. M. Lebugle, M. Liebi, K. Wakonig, V. A. Guzenko, M. Holler, A. Menzel, M. Guizar-Sicairos, A. Diaz, and C. David  
*High-acceptance versatile microfocus module based on elliptical Fresnel zone plates for small angle X ray scattering*  
Optics Express **25** (2017) p. 21145-21158
12. F. Marschall, D. McNally, V.A. Guzenko, B. Rösner, M. Dantz, X. Lu, L. Nue, V. Strocov, T. Schmitt, and C. David  
*Zone plates as imaging analyzers for resonant inelastic x-ray scattering*  
Optics Express **25** (2017) p. 15624-9, DOI: 10.1364/OE.25.015624

13. I. Greving, M. Ogurreck, F. Marschall, A. Last, F. Wilde, T. Dose, H. Burmester, L. Lottermoser, M. Müller, C. David and F. Beckmann,  
*Nanotomography endstation at the P05 beamline: Status and perspectives*  
IOP Conf. Series: Journal of Physics: Conf. Series **849** (2017) p. 012056
14. M. Buzzi, M. Makita, L. Howald, A. Kleibert, B. Vodungbo, P. Maldonado, J. Raabe, N. Jaouen, H. Redlin, K. Tiedtke, P.M. Oppeneer, C. David, F. Nolting, J. Lüning  
*Single-shot Monitoring of Ultrafast Processes via X-ray Streaking at a Free Electron Laser*  
Scientific Reports **7** (2017) p. 7253, DOI: 10.1038/s41598-017-07069-z
15. N. Opara, S. Arnold, T. Braun, H. Stahlberg, M. Makita, C. David, and C. Padeste,  
*Direct protein crystallization on ultrathin membranes for diffraction measurements at X-ray free electron lasers*  
Journal of Applied Crystallography **50** (2017) p. 909-918, DOI: 10.1107/S1600576717005799
16. P. Roedig, H.M. Ginn, T. Pakendorf, G. Sutton, K. Harlos, T.S. Walter, J. Meyer, P. Fischer, R. Duman, I. Vartiainen, B. Reime, M. Warmer, A. Brewster, I.D. Young, T. Michels-Clark, N. Sauter, M. Sikorsky, S. Nelson, D.S. Damiani, R. Alonso-Mori, J. Ren., E.E. Fry, C. David, D.I. Stuart, A. Wagner, and A. Meents  
*High-speed fixed-target serial virus crystallography*  
Nature Methods **14** (2017) p. 805-813, DOI:10.1038/nmeth.4335
17. G. Seniutinas, A. Balcytis, I. Reklaitis, F. Chen, J. Davis, C. David, and S. Juodkazis  
*Tipping solutions: emerging 3D nano-fabrication/-imaging technologies*  
Nanophotonics **6** (2017) p. 923-941, DOI: 10.1515/nanoph-2017-0008
18. I. Mohacsi, I. Vartiainen, B. Rösner, M. Guizar-Sicairos, V.A. Guzenko, I. McNulty, R. Winarski, M.V. Holt, and C. David  
*Interlaced zone plate optics for practical hard X-ray imaging in the 10 nm range*  
Scientific Reports **7** (2017) p. 43624, DOI: 10.1038/srep43624
19. B. Pedrini, A. Menzel, V.A. Guzenko, C. David, R. Abela, C. Gutt  
*Model-independent particle species disentanglement by solution X-ray cross-correlation scattering*  
Scientific Reports **7** (2017) p. 45618, DOI: 10.1038/srep45618
20. J. Rehanek, M. Makita, P. Wiegand, P. Heimgartner, G. Seniutinas, U. Flechsig, V. Thominet, C. Schneider, A. Rodriguez Fernandez, C. David, L. Pattthey and P. Juranić  
*The hard X-ray Photon Single-Shot Spectrometer of SwissFEL – initial characterization*  
Journal of Instrumentation **12** (2017) P05024, DOI:10.1088/1748-0221/12/05/P05024
21. M.-C. Zdora, J. Vila-Comamala, G. Schulz, A. Khimchenko, A. Hipp, A.C. Cook, D. Dilg, C. David, C. Grünzweig, C. Rau, P. Thibault, and I. Zanette  
*X-ray phase microtomography with a single grating for high-throughput investigations of biological tissue*  
Biomedical Optics Express **8** (2017) p. 1257-1270, <https://doi.org/10.1364/BOE.8.001257>
22. F. Marschall, J. Vila-Comamala, V.A. Guzenko, C. David  
*Systematic efficiency study of line-doubled ultra-high resolution zone plates*  
Microelectronic Engineering **177** (2017) p. 25-29
23. M. Makita, P. Karvinen, V.A. Guzenko, P. Vagovic, C. David  
*Diamond diffraction gratings for experiments with intense hard x-rays*  
Microelectronic Engineering **176** (2017) p. 75-78
24. Y. Kayser, C. David, U. Flechsig, J. Krempasky, V. Schlott and R. Abela  
*X-ray grating interferometer for in-situ and at-wavelength wavefront metrology*  
Journal of Synchrotron Radiation **24** (2017) p. 150-162

## 2016:

25. J. Szlachetko, J. Hoszowska, J.-Cl. Dousse, M. Nachtegaal, W. Błachucki, Y. Kayser, J. Sà, M. Messerschmidt, S. Boutet, G.J. Williams, C. David, G. Smolentsev, J.A. van Bokhoven, B.D. Patterson, T.J. Penfold, G. Knopp, M. Pajek, R. Abela, C.J. Milne  
*Establishing nonlinearity thresholds with ultraintense X-ray pulses*  
Scientific Reports **6** (2016) p. 33292
26. C.-S. Lee, Y.-Y. Lee, K.S.L. Chong, L. Wang, C. Dais, F. Clube, H.H. Solak, I. Mohacsi, C. David and R. Bischofberger  
*High-resolution, high-aspect-ratio iridium-nickel composite nanoimprint molds*  
Journal of Vacuum Science and Technology B **34** (2016) p. 061804-5

27. Y. Kayser, C. David, U. Flechsig, J. Krempasky, V. Schlott and R. Abela  
*X-ray grating interferometer for in-situ and at-wavelength wavefront metrology*  
Journal of Synchrotron Radiation **24** (2016) p. 1-13 <https://doi.org/10.1107/S1600577516017562>
28. L. Ahad, I. Vartiainen, T. Setälä, A.T. Friberg, C. David, M. Makita, and J. Turunen  
*On spectral and temporal coherence of X-ray free-electron laser beams*  
Optics Express **24** (2016) p. 13081-13090
29. P. Roedig, R. Duman, J. Sanchez-Weatherby, I. Vartiainen, A. Burkhardt, M. Warmer, C. David, A. Wagner, and A. Meents  
*Room-temperature macromolecular crystallography using a micro-patterned silicon chip with minimal background scattering*  
Journal of Applied Crystallography **49** (2016) p. 968-975
30. J. Vila-Comamala, J. Bosgra, D.S. Eastwood, U. Wagner, A.J. Bodey, M. Garcia-Fernandez, C. David, C. Rau,  
*Transmission x-ray microscopy at Diamond-Manchester I13 Imaging Branchline*  
AIP Conference Proceedings **1696** (2016) p. 020036-4
31. Y. Kayser, S. Rutishauser, T. Katayama, T. Kameshima, H. Ohashi, U. Flechsig, M. Yabashi, and C. David  
*Shot-to-shot diagnostic of the longitudinal photon source position at the SPring-8 Angstrom Compact Free Electron Laser by means of X-ray grating interferometry,*  
Optics Letters **41** (2016) p. 733-736
32. I. Vartiainen, I. Mohacsi, K. Stachnik, M. Guizar-Sicairos, C. David, and A. Meents  
*Zernike X-ray Ptychography*  
Optics Letters **41** (2016) p. 721-724
33. T. Katayama, S. Owada, T. Togashi, K. Ogawa, P. Karvinen, I. Vartiainen, A. Eronen, C. David, T. Sato, K. Nakajima, Y. Joti, H. Yumoto, H. Ohashi, and M. Yabashi  
*A Beam Branching Method for Advanced Single-shot Characterization of Hard X-ray Free-electron Lasers*  
Structural Dynamics **3** (2016) p. 034301-14
34. I. Mohacsi, I. Vartiainen, M. Guizar-Sicairos, P. Karvinen, V.A. Guzenko, E. Müller, C.M. Kewish, A. Somogyi and C. David  
*Fabrication and characterization of high efficiency double-sided blazed X-ray optics*  
Optics Letters **41** (2016) p. 281-284

## 2015:

35. C. David, P. Karvinen, M. Sikorski, I. Vartiainen, S. Song, C.J. Milne, A. Mozzanica, Y. Kayser, A. Diaz, I. Mohacsi, G. Carini, S. Herrmann, E. Färm, M. Ritala, D.M. Fritz, and A. Robert  
*Following the dynamics of matter with femtosecond precision using the X-ray streaking method*  
Scientific Reports **5** (2015) p. 7644
36. I. Mohacsi, I. Vartiainen, M. Guizar-Sicairos, P. Karvinen, V.A. Guzenko, E. Müller, E. Färm, M. Ritala, C. Kewish, A. Somogyi, and C. David  
*Double-sided diffractive X-ray optics for hard X-ray microscopy*  
Optics Express **23** (2015) p. 776-786
37. I. Vartiainen, C. Holzner, I. Mohacsi, P. Karvinen, A. Diaz, and C. David  
*Artifact characterization and reduction in scanning X-ray Zernike phase contrast microscopy*  
Optics Express **23** (2015) p. 13278-13294
38. P. Roedig, I. Vartiainen, R. Duman, S. Panneerselvam, N. Stuebe, O. Lorbeer, M. Warmer, G. Sutton, D.H. Stuart, E. Weckert, C. David, A. Wagner, and A. Meents  
*A micro-patterned silicon chip as sample holder for macromolecular crystallography experiments with minimal background scattering*  
Scientific Reports **5** (2015) p. 10451
39. K. Stachnik, I. Mohacsi, I. Vartiainen, N. Stuebe, J. Meyer, M. Warmer, C. David, and A. Meents  
*Influence of finite spatial coherence on ptychographic reconstruction*  
Applied Physics Letters **107** (2015) p. 011105-5
40. P. Trtik, J. Hovind, C. Grünzweig, A. Bollhalder, V. Thominet, C. David, A. Kaestner, and E.H. Lehmann  
*Improving the spatial resolution of neutron imaging at Paul Scherrer Institut - The Neutron Microscope Project*  
Physics Procedia **69** (2015) p. 169-176
41. M. Makita, P. Karvinen, D. Zhu, P. Juranic, J. Grünert, S. Cartier, J.H. Jungmann-Smith, H.T. Lemke, A. Mozzanica, S. Nelson, L. Patthey, M. Sikorski, S. Song, Y. Feng, and C. David  
*High Resolution Single Shot Spectral Monitoring of Hard X-ray Free Electron Laser Radiation*  
Optica **2** (2015) p. 912-916

42. S.V. Roth, R. Döhrmann, R. Gehrke, R. Röhlberger, K. Schlage, E. Metwalli, V. Körstgens, M. Burghammer, C. Riekkel, C. David, and P. Müller-Buschbaum  
*Mapping the morphological changes of deposited gold nanoparticles across an imprinted groove*  
Journal of Applied Crystallography **48** (2015) p. 1-7
43. I. Manke, N. Kardjilov, R. Schäfer, A. Hilger, M. Strobl, M. Dawson, C. Grünzweig, G. Behr, M. Hentschel, C. David, A. Kupsch, A. Lange, J. Banhart,  
*Three-dimensional imaging of magnetic domains*  
Physics Procedia **69** (2015) p. 404-412

**2014:**

44. K. Bedner, V.A. Guzenko, A. Tarasov, M. Wipf, R.L. Stoop, S. Rigante, J. Brunner, W. Fu, C. David, M. Calame, J. Gobrecht and C. Schönenberger  
*Investigation of the dominant 1/f Noise Source in Silicon Nanowire Sensors*  
Sensors and Actuators B **191** (2014) p. 270 - 275
45. S.S. Sarkar, H.H. Solak, C. David, J.F. van der Veen  
*Pinhole diffraction holography for fabrication of high-resolution Fresnel Zone Plates*  
Optics Express **22** (2014) p. 1402-1412
46. J. Szlachetko, C.J. Milne, J. Hoszowska, J.-Cl. Dousse, W. Błachucki, J. Sà, Y. Kayser, M. Messerschmidt, R. Abela, S. Boutet, C. David, G. Williams, M. Pajek, B. Patterson, G. Smolentsev, J.A. van Bokhoven, and M. Nachttegaal  
*The electronic structure of matter probed with a single femtosecond hard x-ray pulse*  
Structural Dynamics **1** (2014) p. 021101-8
47. I. Vartiainen, R. Mokso, M. Stampanoni, and C. David  
*Halo suppression in full field X-ray Zernike phase contrast Microscopy*  
Optics Letters **39** (2014) p. 1601-1604
48. I. Mohacsi, P. Karvinen, I. Vartiainen, V.A. Guzenko, A. Somogyi, C. Kewish, P. Mercere and C. David  
*High efficiency X-ray nanofocusing by multilevel zone plates*  
Journal of Synchrotron Radiation **21** (2014) p. 497-501
49. Y. Kayser, S. Rutishauser, T. Katayama, T. Kameshima, H. Ohashi, U. Flechsig, M. Yabashi, and C. David  
*Wavefront metrology measurements at SACLA by means of x-ray grating interferometry*  
Optics Express **22** (2014) p. 9004-9015
50. I. Vartiainen, M. Warmer, D. Goeries, E. Herker, R. Reimer, C. David and A. Meents  
*X-ray Zernike phase contrast imaging of biological samples with tender X-rays at 50 nm resolution*  
Journal of Synchrotron Radiation **21** (2014) p. 1-5, doi:10.1107/S1600577514010388
51. T. Thüring, M. Abis, Z. Wang, C. David, M. Stampanoni,  
*X-ray phase-contrast imaging at 100 keV on a conventional source*  
Scientific Reports **4** (2014) p. 5198, doi:10.1038/srep05198
52. P. Karvinen, C. Borca, M. Willimann, B. Meyer, M. Birri, D. Grolimund, J. Patommel, G. Wellenreuther, G. Falkenberg, M. Guizar-Sicairos, A. Menzel and C. David  
*Kinoform diffractive lenses for efficient nano-focusing of hard X-rays*  
Optics Express **22** (2014) p. 16676-16685
53. P. Modregger, M. Kagias, S. Peter, V.A. Guzenko, C. David, and M. Stampanoni  
*Multiple scattering tomography*  
Physical Review Letters **113** (2014) p. 020801- 5
54. T. Zhou, U. Lundström, T. Thüring, S. Rutishauser, D.H. Larsson, M. Stampanoni, C. David, H.M. Hertz, and A. Burvall  
*Comparison of propagation- and grating-based x-ray phase-contrast imaging techniques with a liquid-metal-jet source*  
Proceedings of the SPIE **9033** (2014) p. 903353 doi: 10.1117/12.2043417
55. P. Modregger, S. Rutishauser, J. Meiser, C. David, and M. Stampanoni  
*Two-dimensional ultra-small angle X-ray scattering with grating interferometry*  
Applied Physics Letters **105** (2014) p. 024102-4
56. V.A. Guzenko, B. Pedrini, A. Menzel, C. David  
*Fabrication of nanoparticles with 3D shape control for X-ray scattering experiments*  
Microelectronic Engineering **121** (2014) p. 127-130

57. S. Lang, I. Zanette, M. Dominiotto, M. Langer, A. Rack, G. Schulz, G. Le Duc, C. David, J. Mohr, F. Pfeiffer, B. Müller, T. Weitkamp  
*Comparing spatial and density resolution of grating- and propagation-based X-ray tomography of soft tissues*  
Journal of Applied Physics **116** (2014) p. 154903-12

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58. S. Rutishauser, M. Bednarzik, I. Zanette, T. Weitkamp, M. Börner, J. Mohr, C. David  
*Fabrication of two-dimensional hard X-ray diffraction gratings*  
Microelectronic Engineering **101** (2013) p. 12 - 16
59. T.H. Jensen, M. Bech, T. Binderup, A. Böttiger, C. David, T. Weitkamp, I. Zanette, F. Rank, R. Feidenhans'l, A. Kjær, L. Højgaard, F. Pfeiffer  
*Imaging of Metastatic Lymph Nodes by X-ray Phase Contrast Tomography*  
PLoS ONE **8** (2013) p. e54047
60. S. Rutishauser, A. Rack, T. Weitkamp, Y. Kayser, C. David and A.T. Macrander  
*Heat bump on a monochromator crystal measured with X-ray grating interferometry*  
Journal of Synchrotron Radiation **20** (2013) p. 300 - 305
61. E. Lima, A. Diaz, M. Guizar-Sicairos, S. Gorelick, P. Pernot, T. Schleier, A. Menzel,  
*Cryo-scanning x-ray diffraction microscopy of frozen-hydrated yeast*  
Journal of Microscopy **249** (2013) p. 1-7
62. H. Wang, S. Berujon, I. Pape, S. Rutishauser, C. David, and K. Sawhney  
*X-ray wavefront characterization of a Fresnel zone plate using a two dimensional grating interferometer*  
Optics Letters **38** (2013) p. 827 - 829
63. A. Rack, T. Weitkamp, L. Assoufid, T. Rack, I. Zanette, Ch. Morawe, R. Kluender, C. David  
*Protocol to study wavefront preservation capabilities of reflective X-ray optics with coherent synchrotron light*  
Nuclear Instruments in Physics A **710** (2013) p. 101–105
64. B. Pedrini, A. Menzel, M. Guizar-Sicairos, V.A. Guzenko, S. Gorelick, C. David, B.D. Patterson, and R. Abela  
*Two-dimensional structure from random multi-particle X-ray scattering images using cross-correlations*  
Nature Communications **4** (2013) p. 1647-9
65. J. Vila-Comamala, M. Wojcik, A. Diaz, M. Guizar-Sicairos, C.M. Kewish, S. Wang and C. David  
*Angular spectrum simulation of X-ray focusing by Fresnel zone plates*  
Journal of Synchrotron Radiation **20** (2013) p. 397–404
66. T. Thüring, S. Hämmerle, S. Weiss, J. Nüesch, J. Meiser, J. Mohr, C. David, M. Stampanoni  
*Compact hard X-ray grating interferometry for table top phase contrast micro CT*  
Proceedings of the SPIE - The International Society for Optical Engineering **8668** (2013) p. 866813-1
67. T. Thüring, R. Guggenberger, H. Alkadhi, J. Hodler, M. Vich, Z. Wang, C. David, M. Stampanoni  
*Human hand radiography using X-ray differential phase contrast combined with dark-field imaging*  
Skeletal Radiology **42** (2013) p. 827-835
68. P.R. Willmott, D. Meister, S.J. Leake, M. Lange, A. Bergamaschi, M. Böge, M. Calvi, C. Cancellieri, N. Casati, A. Cervellino, Q. Chen, C. David, U. Flehsig, F. Gozzo, B. Henrich, S. Jäggi-Spielmann, B. Jakob, I. Kalichava, P. Karvinen, J. Krempasky, A. Lüdeke, R. Lüscher, S. Maag, C. Quitmann, M.L. Reinle-Schmitt, T. Schmidt, B. Schmitt, A. Streun, I. Vartiainen, M. Vitins, X. Wang and R. Wulschleger  
*The Materials Science beamline upgrade at the Swiss Light Source*  
Journal of Synchrotron Radiation **20** (2013) p. 667–682
69. T. Thüring, T. Zhou, U. Lundström, A. Burvall, S. Rutishauser, C. David, H. M. Hertz, and M. Stampanoni  
*X-ray grating interferometry with a liquid-jet anode source*  
Applied Physics Letters **103** (2013) p. 091105
70. C. Grünzweig, J. Kopecek, B. Betz, A. Kaestner, K. Jefimovs, J. Kohlbrecher, U. Gasser, O. Bunk, C. David, T. Donath, F. Pfeiffer  
*Quantification of the neutron dark-field imaging signal in grating interferometry*  
Physical Review B **88** (2013) p. 125104
71. H. Wang, S. Berujon, I. Pape, S. Rutishauser, C. David, K. Sawhney  
*At-wavelength metrology using the moiré fringe analysis method based on a two dimensional grating interferometer*  
Nuclear Instruments and Methods in Physics Research A **710** (2013) p. 78–81

72. M. Stampanoni, Z. Wang, T. Thüring, C. David, E. Rössl, U. van Stevendaal, T. Köhler, M. Trippel, G. Singer, R.A. Kubik-Huch, M.K. Hohl and N. Hauser  
*Toward clinical differential phase contrast mammography: preliminary evaluations and image processing schemes*  
Journal of Instrumentation **8** (2013) p. C05009, doi:10.1088/1748-0221/8/05/C05009
73. K. Morgan, P. Modregger, S.C. Irvine, S. Rutishauser, V.A. Guzenko, M. Stampanoni, C. David  
*A sensitive x-ray phase contrast technique for rapid imaging, using a single phase grid analyser*  
Optics Letters **38** (2013) p. 4605 – 4608
74. K. Bedner, V.A. Guzenko, A. Tarasov, M. Wipf, R.L. Stoop, D. Just, S. Rigante, O. Knopfmacher, W. Fu, R.A. Minamisawa, C. David, M. Calame, J. Gobrecht and C. Schönenberger  
*pH Response of Silicon Nanowire Sensors: Impact of the Nanowire Width and the Gate Oxide*  
Sensors and Materials **25** (2013) p. 567 - 576
75. I. Mohacsi, P. Karvinen, I. Vartiainen, A. Diaz, A. Somogyi, C.M. Kewish, P. Mercere, C. David  
*High efficiency X-ray nanofocusing by the blazed stacking of binary zone plates*  
Proceedings of the SPIE **8851** (2013) doi:10.1117/12.2022640
76. A. Meents, B. Reime, N. Stuebe, P. Fischer, M. Warmer, D. Goeries, J. Roever, J. Meyer, J. Fischer, A. Burkhardt, I. Vartiainen, P. Karvinen, C. David  
*Development of an in-vacuum X-ray microscope with cryogenic sample cooling for beamline P11 at PETRA III*  
Proceedings of the SPIE **8851** (2013) p. 88510K1-doi:10.1117/12.2022640
77. T. Zhou, U. Lundström, T. Thüring, S. Rutishauser, D.H. Larsson, H.M. Hertz, M. Stampanoni, C. David, and A. Burvall  
*Comparison of x-ray phase-contrast imaging methods with a liquid-metal-jet source*  
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