

## Celestino Padeste, PSI: List of Publications, updated: Sept 1, 2021

1. H.T. Tran, M.S. Lucas, T. Ishikawa, S.H. Shahmoradian and C. Padeste, „A Compartmentalized Neuronal Cell-Culture Platform Compatible With Cryo-Fixation by High-Pressure Freezing for Ultrastructural Imaging.“ *Front. Neurosci.* 15 (2021) 726763. doi: 10.3389/fnins.2021.726763
2. I. Martiel, J.H. Beale, A. Karpik, C.-Y. Huang, L.Vera, N. Olieric, M. Wranik, C.-J. Tsai, J.Mühle, O. Aurelius, J. John, M. Högbom, M. Wang, M. Marsh and C. Padeste, Versatile microporous polymer-based supports for serial, macromolecular crystallography, *Acta Cryst. D77* (2021) 1153–1167. <https://doi.org/10.1107/S2059798321007324>
3. Karpik, A., Martiel, I., Kristiansen, P. M., & Padeste, C. (2020). Fabrication of ultrathin suspended polymer membranes as supports for serial protein crystallography. *Micro and Nano Engineering*, 7, 100053 (6 pp.). <https://doi.org/10.1016/j.mne.2020.100053>
4. Martiel, I., Mozzanica, A., Opara, N. L., Panepucci, E., Leonarski, F., Redford, S., Mohacsi, I., Guzenko, V., Ozerov, D., Padeste, C., Schmitt, B., Pedrini, B., Wang, M. (2020). X-ray fluorescence detection for serial macromolecular crystallography using a JUNGFRU pixel detector. *Journal of Synchrotron Radiation*, 27, 329-339. <https://doi.org/10.1107/S1600577519016758>
5. Mortelmans, T., Kazazis, D., Guzenko, V. A., Padeste, C., Braun, T., Li, X., & Ekinici, Y. (2020). Grayscale e-beam lithography: effects of a delayed development for well-controlled 3D patterning. *Microelectronic Engineering*, 225, 111272 (5 pp.). <https://doi.org/10.1016/j.mee.2020.111272>
6. M. Ł. Górzny, N.L. Opara, V.A. Guzenko, V.J. Cadarso, H. Schiff, X.D. Li, C. Padeste, “Microfabricated silicon chip as lipid membrane sample holder for serial protein crystallography”, *Micro and Nano Engineering* 3 (2019) 31-36, doi: 10.1016/j.mne.2019.03.002.
7. Mina Moradi, Nadia L. Opara, Ludovico G. Tulli, Christian Wäckerlin, Scott J. Dalgarno, Simon J. Teat, Milos Baljovic, Olha Popova, Eric van Genderen, Armin Kleibert, Henning Stahlberg, Jan Pieter Abrahams, Celestino Padeste, Thomas A. Jung, Patrick Shahgaldian, “Supramolecular Architectures of Molecularly Thin Yet Robust Free-Standing Layers”, *Sci. Adv.* 2019, 5, eaav4489; doi: 10.1126/sciadv.aav4489
8. Cecilia M. Casadei, Karol Nass, Anton Barty, Mark S. Hunter, Celestino Padeste, Ching-Ju Tsai, Sébastien Boutet, Marc Messerschmidt, Leonardo Sala, Garth J. Williams, Dmitry Ozerov, Matthew Coleman, Xiao-Dan Li, Matthias Frank and Bill Pedrini, “Structure-factor amplitude reconstruction from serial femtosecond crystallography of two-dimensional membrane-protein crystals“, *IUCrJ* 2019, 6 (1), 34-45; doi: 10.1107/S2052252518014641.
9. Wojciech Szmyt, Laurent Marot, Michel Calame, Celestino Padeste, and Clemens Dransfeld, “Carbon fibre-carbon nanotube multiscale composites - nanoengineering of the fibre surface for protection in extreme processing conditions.”, *Proceedings of ECCM18 - 18th European Conference on Composite Materials*, 2018.
10. G. Seniutinas, A. Weber, C. Padeste, I. Sakellari, M. Farsari, C. David; „Beyond 100 nm resolution in 3D laser lithography — Post processing solutions”. *Microelectronic Engineering*, 191 (2018) 25-31, doi: 10.1016/j.mee.2018.01.018.
11. Nadia L. Opara, Istvan Mohacsi, Mikako Makita, Daniel Castano-Diez, Ana Diaz, Pavle Juranić, May Marsh, Alke Meents, Christopher J. Milne, Aldo Mozzanica, Celestino Padeste, Valérie Panneels, Marcin Sikorski, Sanghoon Song, Henning Stahlberg, Ismo Vartiainen, Laura Vera, Meitian Wang, Philip R. Willmott, and Christian David “Demonstration of femtosecond X-ray pump X-ray probe diffraction on protein crystals” *Structural Dynamics*, (2018), 5, 054303; doi: 10.1063/1.5050618.
12. Cecilia Casadei, Ching-Ju Tsai, Anton Barty, Mark Hunter, Nadia Zatsepin, Celestino Padeste, Guido Capitani, Henry Benner, Sebastien Boutet, Stefan Hau-Riege, Christopher Kupitz, Marc Messerschmidt, John Ogren, Tom Pardini, Kenneth Rothschild, Leonardo Sala, Brent Segelke, Garth Williams, James Evans, Xiao-Dan Li, Matthew Coleman, Bill Pedrini and Matthias Frank, “Resolution extension by image summing in serial femtosecond crystallography of two-dimensional membrane protein crystals”, *IUCrJ*, (2018) 5, 103–117; doi: 10.1107/S2052252517017043.

13. Sahan Ranamukhaarachchi, Celestino Padeste, Urs Häfeli, Boris Stoeber, Victor Cadarso, "Design considerations of a hollow microneedle-optofluidic biosensing platform incorporating enzyme-linked assays", *Journal of Micromechanics and Microengineering*, *J. Micromech. Microeng.* 28 (2018) 024002. doi: 10.1088/1361-6439/aa9c9c.
14. Nadia Opara, Isabelle Martiel, Stefan A. Arnold, Thomas Braun, Henning Stahlberg, Mikako Makita, Christian David and Celestino Padeste, "Direct protein crystallization on ultrathin membranes for diffraction measurements at X-ray free electron lasers", *J. Appl. Cryst.* (2017) 50, 909-918. doi: 10.1107/S1600576717005799.
15. M. Dübner, V.J. Cadarso, T.N. Gevrek, A. Sanyal, N.D. Spencer, and C. Padeste, "Reversible Light-Switching of Enzymatic Activity on Orthogonally Functionalized Polymer Brushes", *ACS Appl. Mater. Interfaces*, 9 (11), 2017, 9245–9249, 10.1021/acsami.7b01154
16. Matthias Dübner, Maria-Eleni Naoum, Nicholas D. Spencer, Celestino Padeste, "From pH- to Light-Response: Post-Polymerization Modification of Polymer Brushes Grafted onto Microporous Polymeric Membranes", *ACS Omega*, 2, 2017, 455-461. doi: 10.1021/acsomega.6b00394
17. Katarzyna Gajos, Vitaliy A. Guzenko, Matthias Dübner, Jakub Haberko, Andrzej Budkowski, Celestino Padeste, Electron-beam lithographic grafting of functional polymer structures from fluoropolymer substrates, *Langmuir* 32(41), 2016, 10641–10650. doi: 10.1021/acs.langmuir.6b02808
18. S.A. Ranamukhaarachchi, C. Padeste, M. Dübner, U.O. Häfeli, B. Stoeber, V.J. Cadarso, Integrated hollow microneedle-optofluidic biosensor for therapeutic drug monitoring in sub-nanoliter volumes, *Sci. Rep.* 6 (2016) 29075. doi: 10.1038/srep29075
19. G. Panzarasa, M. Dübner, V. Pifferi, G. Soliveri and C. Padeste, ON/OFF Switching of Silicon Wafer Electrochemistry by pH-Responsive Polymer Brushes. *J. Mater. Chem.C.*, 4,26 (2016) 6287-6294. doi: 10.1039/c6tc01822j
20. Stefan A. Arnold, Stefan Albiez, Nadia Opara, Mohamed Chami, Claudio Schmidli, Andrej Bieri, Celestino Padeste, Henning Stahlberg, and Thomas Braun, "Total Sample Conditioning and Preparation of Nanoliter Volumes for Electron Microscopy", *ACS Nano*, 10 (2016) 4981–4988. doi: 10.1021/acsnano.6b01328.
21. V. Panneels, W. Wu, C.-J. Tsai, P. Nogly, J. Rheinberger, K. Jaeger, G. Cicchetti, C. Gati, L.M. Kick, L. Sala, G. Capitani, C. Milne, C. Padeste, B. Pedrini, X.-D. Li, J. Standfuss, R. Abela, G. Schertler; "Time-resolved structural studies with serial crystallography: A new light on retinal proteins." *Structural Dynamics*, 2, 041718 (2015); doi: 10.1063/1.4922774.
22. M. Dübner, T.N. Gevrek, A. Sanyal, N.D. Spencer, and C. Padeste, "Fabrication of Thiol–Ene "Clickable" Copolymer-Brush Nanostructures on Polymeric Substrates via Extreme Ultraviolet Interference Lithography", *ACS Applied Materials and Interfaces*, 7, 2015, 11337–11345. doi: 10.1021/acsami.5b01804.
23. C. Padeste, S. Neuhaus, "Polymer Micro- and Nanografting," A Volume in Micro- and Nanotechnologies, Elsevier, 2015.
24. J. Huang, D. Fan, Y. Ekinci, C. Padeste, "High Throughput Fabrication of Ultrahigh Resolution Metal Nanowires and Nanodots through EUV Interference Lithography", *Microelectronic Engineering*. 141 (2015) 32–36, doi: 10.1016/j.mee.2015.01.016.
25. M. Dübner, N.D. Spencer, C. Padeste "Light-Responsive Polymer Surfaces via Postpolymerization Modification of Grafted Polymer-Brush Structures", *Langmuir*, 30 (2014) 14971–14981, doi:10.1021/la503388j
26. B. Pedrini, C.-J. Tsai, G. Capitani, C. Padeste, M.S. Hunter, N.A. Zatsépin, A. Barty, W.H. Benner, S. Boutet, G.K. Feld, S.P. Hau-Riege, R.A. Kirian, C. Kupitz, M. Messerschmitt, J.I. Ogren, T. Pardini, B. Segelke, G.J. Williams, J.C.H. Spence, R. Abela, M. Coleman, J.E. Evans, G. Schertler, M. Frank and X.-D. Li, "7 Å resolution in protein two-dimensional-crystal X-ray diffraction at Linac Coherent Light Source." *Phil. Trans. R. Soc. B* 369 (2014) 20130500. doi: 10.1098/rstb.2013.0500

27. C. Padeste, S. Bellini, D. Siewert and H. Schiff, "Anti-sticking layers for nickel-based nanoreplication tools", *Microelectron. Engineering* **123** (2014) 23–27.  
doi: 10.1016/j.mee.2014.03.039.
28. H. Özçelik, C. Padeste and V. Hasirci, "Systematically organized nanopillar arrays reveal differences in adhesion and alignment properties of BMSC and Saos-2 cells". *Colloids and Surfaces B: Biointerfaces*, **119** (2014) 71-81. doi:10.1016/j.colsurfb.2014.03.019.
29. M. Frank, D. B. Carlson, M.S. Hunter, G.J. Williams, M. Messerschmidt, N.A. Zatsepin, A. Barty, W. H. Benner, K. Chu, A.T. Graf, S.P. Hau-Riege, R.A. Kirian, C. Padeste, T. Pardini, B. Pedrini, B. Segelke, M.M. Seibert, J.C.H. Spence, C.-J. Tsai, S.M. Lane, X.-D. Li, G. Schertler, S. Boutet, M. Coleman and J.E. Evans, "Femtosecond X-ray Diffraction from Two-Dimensional Protein Crystals", *IUCrJ* (2014) **1**, 95–100, doi: 10.1107/S2052252514001444.
30. J. Waser, A. Salamon, M. Waser, C. Padeste, M. Kreutzer, U. Pieleles, B. Müller and K. Peters, "Differentiation of human mesenchymal stem cells on plasma-treated polyetheretherketone", *Journal of Materials Science: Materials in Medicine* **25**, 2 (2014) 515-525.  
doi: 10.1007/s10856-013-5072-5.
31. T. Rath, C. Padeste, M. Vockenhuber, C. Fradler, M. Edler, A. Reichmann, I. Letofsky-Papst, F. Hofer, Y. Ekinici and T. Griesser, "Direct extreme UV-lithographic conversion of metalxanthates into nanostructured metal sulfide layers for hybrid photovoltaics. *J. Mater. Chem. A*, **1** (2013) 11135–11140; doi: 10.1039/c3ta12592k.
32. J. Althaus, P. Urwyler, C. Padeste, R. Heuberger, H. Deyhle, H. Schiff, J. Gobrecht, U. Pieleles, D. Scharnweber, K. Peters and B. Müller, "Micro- and nanostructured polymer substrates for biomedical applications", *Proc. SPIE* **8339** (2012) 83390Q;  
doi: 10.1117/12.915235
33. J. Althaus, C. Padeste, J. Köser, U. Pieleles, K. Peters and B. Müller, "Nanostructuring Polyetheretherketone for Medical Implants", *European Journal of Nanomedicine* **4**(1) (2012) 7-15  
doi: 10.1515/ejnm-2011-001
34. S. Neuhaus, N.D. Spencer, C. Padeste, "Anisotropic Wetting of Microstructured Polymers as a Function of Surface Chemistry", *ACS Applied Materials and Interfaces* **4** (2012) 123-127,  
doi: 10.1021/am201104q.
35. S. Neuhaus, C. Padeste, N.D. Spencer, "Versatile Wettability Gradients Prepared by Chemical Modification of Polymer Brushes", *Langmuir* **27** (2011) 6855–6861, doi: 10.1021/la2005908.
36. S. Neuhaus, C. Padeste, N.D. Spencer, "Functionalization of Fluoropolymers and Polyolefins via Grafting of Polyelectrolyte Brushes from Atmospheric-Pressure Plasma Activated Surfaces", *Plasma Processes and Polymers* **8**, 6 (2011) 512-522, doi: 10.1002/ppap.201000175
37. C. Padeste, H. Özçelik, J. Ziegler, A. Schleunitz, M. Bednarzik, D. Yücel, V. Hasirci, "Replication of high aspect ratio pillar array structures in biocompatible polymers for tissue engineering applications", *Microelectron. Engineering*, **88** (2011) 1836–1839, doi:10.1016/j.mee.2010.11.051.
38. V.A. Guzenko, J. Ziegler, A. Savouchkina, C. Padeste, C. David, "Fabrication of large scale arrays of metallic nanodots by means of high resolution e-beam lithography, *Microelectron. Engineering* **88** (2011) 1972-1974, doi:10.1016/j.mee.2011.02.042
39. K. Nygard, D.K. Satapathy, E. Perret, C. Padeste, O. Bunk, C. David and J. F. van der Veen, "Surface-specific ordering of reverse micelles in confinement", *Soft Matter* **6** (2010) 4536-4539.

40. S. Neuhaus, C. Padeste, H.H. Solak, N.D. Spencer, "Functionalization of fluoropolymer surfaces with nanopatterned polyelectrolyte brushes", *Polymer* **51** (2010) 4037-4043.  
doi: 10.1016/j.polymer.2010.07.002
41. A. Savouchkina, A. Foelske-Schmitz, R. Kötz, A. Wokaun, G. G. Scherer, C. Padeste, J. Ziegler, V. Auzelyte, H. H. Solak, "Extreme Ultraviolet Interference Lithography for Generation of Platinum Nanoparticles on Glassy Carbon" *ECS Transactions*, **25**, 24 (2010) 175-184.
42. V. Trabadelo, A. Retolaza, S. Merino, A. Cruz, P. Heredia, A. Foelske, H. Schiff, C. Padeste, Protein patterning by thermal nanoimprint lithography and NH<sub>3</sub>-plasma functionalization of polystyrene, *J. Vac. Sci. Technol. B*, **27**, 3 (2009) 1060-1062.
43. P. Kappenberger, F. Luo, L. J. Heyderman, H.H. Solak, C. Padeste, C. Brombacher, D. Makarov, T.V. Ashworth, L. Philippe, H. J. Hug, and M. Albrecht, "Template-directed self-assembled magnetic nanostructures for probe recording," *Appl. Phys. Lett.* **95**, (2009) 023116.
44. Julia Herzen, Tilman Donath, Franz Pfeiffer, Oliver Bunk, Celestino Padeste, Felix Beckmann, Andreas Schreyer, and Christian David, "Quantitative phase-contrast tomography of a liquid phantom using a conventional x-ray tube source," *Optics Express*, **17**, 12 (2009), 10010-10018.
45. V. Auzelyte, C. Dais, P. Farquet, D. Grützmacher, L. Heyderman, F. Luo, S. Olliges, C. Padeste, P.K. Sahoo, T. Zhomson, A. Turchanin, C. David and H.H. Solak, "Extreme Ultraviolet Interference Lithography at the Paul Scherer Institut", *Journal of Micro/Nanolithography, MEMS, and MOEMS*, **8** (2009), 021204.
46. P. Farquet, C. Padeste, M. Börner, H. Ben youssef, S.A. Gürsel, G.G. Scherer H.H. Solak, V. Saile and A. Wokaun, „Microstructured proton conducting membranes by synchrotron radiation induced grafting,” *Journal of Membrane Science* **325** (2008) 658-664.
47. O. Bunk, D.K. Satapathy, F. Pfeiffer, A. Diaz, C. David, K. Nygard, E. Perret, C. Padeste, P.R. Willmott, B.D. Patterson, B. Schmitt and J.F. van der Veen, Concentration Profiles of Colloidal Fluids in One-Dimensional Confinement, *Chima* **62**, 10 (2008), 789-792.
48. P. Farquet, C. Padeste, H.H. Solak, S.A. Gürsel, G.G. Scherer and A. Wokaun, "Extreme UV radiation grafting of glycidyl methacrylate nanostructures onto fluoropolymer foils by RAFT-mediated polymerization." *Macromolecules*, **41**, 17 (2008) 6309-6316.
49. F.A. Zoller, C. Padeste, Y. Ekinici, H.H. Solak and A. Engel, "Nanostructured substrates for high density protein arrays", *Microelectronic Engineering*, **85**, 6-5 (2008) 1370-1374.
50. Y. Ekinici, H.H. Solak, C. Padeste, J. Gobrecht, M.P. Stoykovich, P.F. Nealey  
*20 nm Line/space patterns in HSQ fabricated by EUV interference lithography.*  
*Microelectronic Engineering* **84**, (2007) 700
51. P. Farquet, A. Kunze, C. Padeste, H.H. Solak, S. Alkan Gürsel, G.G. Scherer and A. Wokaun, "Influence of the solvent viscosity on surface graft-polymerization reactions", *Polymer*, **48** (2007) 4936-4942.
52. O. Bunk, A. Diaz, F. Pfeiffer, C. David, C. Padeste, H. Keymeulen, P.R. Willmott, B.D. Patterson, B. Schmitt, D.K. Satapathy, J.F. van der Veen, H. Guo, and G.H. Wegdam, "Confinement-induced liquid ordering investigated by x-ray phase retrieval", *Phys. Rev. E* **75**, 021501 (2007).
53. Patrick Farquet, Celestino Padeste, Harun H. Solak, Selmiye Alkan Gürsel, Günther G. Scherer and Alexander Wokaun, „EUV lithographic radiation grafting of thermo-responsive hydrogel nanostructures“, *Nucl. Inst. Meth. Phys. Res. B*, **265** (2007) 187-192.

54. Celestino Padeste, Patrick Farquet, Christian Potzner and Harun H. Solak, „Nanostructured bio-functional polymer brushes”, *J. Biomater. Sci. Polymer Edn.* **17** (2006) 1285-1300.
55. Celestino Padeste, Patrick Farquet and Harun H. Solak „Surface relief polymer structures grafted onto polymer films“, *Microelectronic Engineering* **83** (2006) 1265-1268.
56. Toralf Scharf, Sunggook Park, Celestino Padeste, Helmut Schiff, Naci Basturk and Joachim Grupp, „Liquid Crystal Alignment on Chemical Nanopatterns: Control over Azimuthal and Polar Alignment“, *Mol. Cryst. Liq. Cryst.* **438** (2005) 55-65.
57. Selmiye A. Gürsel, Celestino Padeste, Harun H. Solak, Günther G. Scherer, „Microstructured Polymer Films by X-ray Lithographic Exposure and Grafting”, *Nuclear Instruments and Methods in Physics Reserearch B* **236** (2005) 449-455.
58. Sunggook Park, Sina Saxer, Celestino Padeste, Harun H. Solak, Jens Gobrecht and Helmut Schiff „Chemical Patterning of Sub-50 nm Half Pitches via Nanoimprint Lithography”, *Microelectronic Engineering*, **78-79** (2005) 682-688.
59. H. Schiff, S. Saxer, S. Park, C. Padeste, U. Piles and J. Gobrecht, „Controlled co-evaporation of silanes for nanoimprint stamps”, *Nanotechnology* **16** (2005) 171-175.
60. Sunggook Park, Celestino Padeste, Helmut Schiff, Jens Gobrecht and Toralf Scharf, „Chemical nanopatterns via nanoimprint lithography for simultaneous control over azimuthal and polar alignment of liquid crystals”, *Adv. Materials*, **17** (2005) 1398-1401.
61. S. Park, H. Schiff, C. Padeste, A. Scheybal, T. Jung, B. Schnyder, R. Kötz and J. Gobrecht, „Improved anti-adhesive coating for nanoimprint lithography by co-evaporation of tri- and monochlorosilanes”, *Mat. Res. Soc. Proc. Vol. EXS-2* (2004) 37-39.
62. C. Padeste, H. H. Solak, H.P. Brack, M. Slaski, S. Alkan Gürsel and G.G. Scherer, „Patterned Grafting of Polymer Brushes onto Flexible Polymer Substrates”, *J. Vac. Sci. Technol. B*, **22**, 6 (2004) 3191-3195.
63. H.-P. Brack, C. Padeste, M. Slaski, S. Alkan, and H. H. Solak, „Preparation of Micro- and Nanopatterns of Polymer Chains Grafted onto Flexible Polymer Substrates”, *J. Am. Chem. Soc.*, **126**, 4 (2004) 1004-1005.
64. D. Stamou, C. Musil, W.-P. Ulrich, K. Leufgen, C. Padeste, C. David, J. Gobrecht, C. Duschl, and H. Vogel, „Site-Directed Molecular Assembly on Templates Structured with Electron-Beam Lithography”, *Langmuir* **20** (2004) 3495-3497.
65. C. Padeste, B. Steiger, A. Grubelnik and L. Tiefenauer, „Molecular Assembly of Redox-Conductive Ferrocene-Streptavidin Conjugates – Towards Bio-Electrochemical Devices”, *Biosensors and Bioelectronics* **20** (2004) 545-552.
66. S. Park, H. Schiff, C. Padeste, B. Schnyder, and J. Gobrecht. „Improved Anti-adhesive Coating for Nanoimprint Lithography by Co-evaporation of Tri- and Monochlorosilanes”, *Proceedings of the MRS2003 Fall Meeting*.
67. S. Park, H. Schiff, C. Padeste, B. Schnyder, R. Kötz and J. Gobrecht, „Anti-adhesive Layers on Nickel Stamps for Nanoimprint Lithography”, *Microelectronic Engineering*, **73-74** (2004) 196-201.
68. H. H. Solak, C. Padeste, J. Gobrecht, „Patterning of Surfaces with X-ray Interference Lithography at Macromolecular Length Scales“, *European Cells and Materials* **6**, Suppl. 1 (2003) 71.
69. C. Padeste, B. Steiger, A. Grubelnik and L. Tiefenauer, „Redox Labelled Avidin for Enzyme Sensor Architectures“, *Biosensors and Bioelectronics*, **19** (2003) 239-247.

70. B. Steiger, C. Padeste, A. Grubelnik and L. Tiefenauer, „Charge Transport Effects in Ferrocene-Streptavidin Multilayers Immobilised on Electrode Surfaces“, *Electrochimica Acta*, **48** (2003) 761-769.
71. S. Park, C. Padeste, H. Schiff and Jens Gobrecht, „Nanostructuring of Anti-adhesive Layers by Hot Embossing Lithography“, *Microelectronic Engineering*, **67-68** (2003) 252-258.
72. H. Schiff, L.J. Heyderman, C. Padeste and J. Gobrecht, „Chemical Nano-Patterning using Hot Embossing Lithography“, *Microelectronic Engineering*, **61-62** (2002) 423-428.
73. H. Sorribas, C. Padeste and L. Tiefenauer, „Photolithographic Generation of Protein Micropatterns for Neuron Culture Applications“, *Biomaterials* **23**, 3 (2002) 893-900.
74. A. Grubelnik, C. Padeste and L. Tiefenauer, „Highly Sensitive Immunoassays for the Detection of  $\beta$ -Lactam Antibiotics“, *Food and Agricultural Immunology* **13** (2001) 161-169.
75. C. Padeste, A. Grubelnik and L. Tiefenauer, „Ferrocene-Avidin Conjugates for Bioelectrochemical Applications“, *Biosensors and Bioelectronics* **15**, 9-10 (2000) 431-438.
76. H. Sorribas, C. Padeste, T. Mezzacasa, L. Tiefenauer, L. Leder, D. Fitzli and P. Sonderegger, „Neurite outgrowth on microstructured surfaces functionalized by a neural adhesion protein“, *J. Mat. Sci, Mat. in Medicine*, **10** (1999) 787-791.
77. R. Ros, F. Schwesinger, C. Padeste, A. Plückthun, D. Anselmetti, H.-J. Güntherodt and L. Tiefenauer, „SPM for Functional Identification of Individual Biomolecules“, *Proc. SPIE* **3607** (1999) 84-89.
78. L. Tiefenauer and C. Padeste, „Micro- and Nanotechnology in Biosensor Research“, *Chimia* **53**, 3 (1999) 62-65.
79. C. Padeste, A. Grubelnik and L. Tiefenauer, „Amperometric Immunosensing using Microperoxidase MP-11 Antibody Conjugates“, *Anal. Chim. Acta.*, **374** (1998) 167-176.
80. V. von Reding, C. Padeste, J. Spichiger, A. Grubelnik and L. Tiefenauer, „Testsystem für amperometrische Immunosensoren“, *Bioworld* 4/98 (1998) 30-32.
81. S. Kossek, C. Padeste, L.X. Tiefenauer and H. Siegenthaler, „Localization of Individual Biomolecules on Sensor Surfaces“, *Biosensors & Bioelectronics*, **13**, 1 (1998) 31-43.
82. L.X. Tiefenauer, S. Kossek, C. Padeste and P. Thiébaud, „Towards Amperometric Immunosensor Devices“, *Biosensors & Bioelectronics* **12**, 3 (1997) 213-223.
83. C. Padeste, S. Kossek, H.W. Lehmann, C.R. Musil, J. Gobrecht and L. Tiefenauer, „Fabrication and Characterization of Nanostructured Gold Electrodes for Electrochemical Biosensors“ *J. Electrochemical Soc.*, **143**, 12 (1996) 3890-3895.
84. S. Kossek, C. Padeste and L. Tiefenauer, „Immobilization of Streptavidin for Immunosensors on Nanostructured Surfaces“, *J. Mol. Recogn.* **9** (1996) 485-487.
85. D.L. Trimm, C. Padeste, D.J. Pettigrew, B. Whittington and N.W. Cant, “Precious Metal-Ceria interactions in Car Exhaust Catalysts“, in R.J. MacDonald, E.C. Taglauer, K.R. Wandelt (Eds.), „Surface Science, Principles and Current Applications“, Springer, Heidelberg (1996) pp. 363-372.
86. C. Padeste, S. Kossek and L. Tiefenauer, „Modular Amperometric Immunosensor Devices“ *Digest of Technical Papers of Transducers '95/Euroensors IX*, Stockholm, 1995, p.487-490.
87. F. Mohammadi, P. Timbrell, S. Zhong, C. Padeste and M. Skyllas-Kazakos, „Overcharge in the Vanadium Redox Battery and Changes in Electrical Resistivity and Surface Functionality of Graphite-Felt Electrodes“ *J. Power Sources*, **52** (1994) 61-68.

88. C. Padeste, N.W. Cant and D.L. Trimm, „Reactions of Ceria Supported Rhodium with Hydrogen and Nitric Oxide Studied with TPR/TPO and XPS techniques“, *Catal. Lett.* **28** (1994) 301-311.
89. C. Padeste, N.W. Cant and D.L. Trimm, „Thermal Decomposition of Pure and Rhodium Impregnated Cerium (III) Carbonate Hydrate in Different Atmospheres“, *Catal. Lett.* **24** (1994) 95-105.
90. S. Zhong, C. Padeste, M. Kazacos and M. Skyllas-Kazacos, „Comparison of the Physical, Chemical and Electrochemical Properties of Rayon- and Polyacrylonitrile-Based Graphite Felt Electrodes“, *J. Power Sources*, **45** (1993) 29-41.
91. C. Padeste, N.W. Cant and D. L. Trimm, „The Influence of Water on the Reduction and Reoxidation of Ceria“, *Catal. Lett.* **18** (1993) 305-316.
92. C. Padeste, D.L. Trimm and R.N. Lamb, „Characterization of Sn Doped Ni/Al<sub>2</sub>O<sub>3</sub> Steam Reforming Catalysts by XPS“, *Catal. Lett.*, **17** (1993) 333-339.
93. C. Padeste, H. Schmalte and H.R. Oswald, „Crystal Structure of Calcium Hydroxide Nitrate Hydrate and its Superstructure in Relation to Cadmium Hydroxide Nitrate Hydrate“, *Z. Krist.* **200** (1992) 35-96.
94. C. Padeste, A. Reller and H.R. Oswald, „The Thermal Behaviour of Pure and Nickel-Doped Hydromagnesite in Different Atmospheres“, *Mat. Res. Bull.* **26**, 12 (1991) 1263-1268.
95. A. Reller, R. Emmenegger, C. Padeste and H.R. Oswald, „Thermochemical Reactivity of Metal Carbonates“, *Chimia* **45** (1991) 262-266.
96. C. Padeste, A. Reller and H.R. Oswald, „The Influence of Transition Metals on the Thermal Decomposition of Calcium Carbonate in Hydrogen“, *Mat. Res. Bull.* **25** (1990) 1299-1305.
97. A. Reller, H. Maurer and C. Padeste, „The Use of Solar Energy for the Generation of Organic Carbon Compounds from Natural Metal Carbonates and for the Thermochemical Reduction of Metal Oxides“, *Proc. 4th Int. Symp. on Research, Development and Applications of Solar Thermal Technology*, Hemisphere Publishing Corporation, New York, Washington, Philadelphia, London, 1990, p. 407.
98. C. Padeste, „Thermische Reaktionen von Metallcarbonaten in Wasserstoff: Ein Weg zur CO<sub>2</sub>-Reduktion“. Ph.D. thesis, University of Zürich, 1989.
99. A. Reller, C. Padeste and P. Hug, „Formation of Organic Compounds from Metal Carbonates“, *Nature*, **239** (1987) 527.