

## Publications

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1. Conrad M, Fechner P, **Proll G**, Gauglitz G. (2023) (R)evolution of the Standard Addition Procedure for Immunoassays, *Biosensors* 13(9):849
2. Conrad M, **Proll G**, Builes E, Dietzel A, Wagner S, Sill A, Gauglitz G (2023) Optimization of Amitriptyline Quantification by selecting Optimum antibody gold nanoparticle conjugates for lateral flow assay, *Microchimica Acta* 190:62
3. Fechner P, Gauglitz G, **Proll G** (2022) Through the Looking-Glass - recent developments in reflectometry open new possibilities for biosensor applications. *Trends in Analytical Chemistry* 156: 116708
4. Siegel J, Berner M, Werner JH, **Proll G**, Peter F, Schubert M (2022) Fourier Spotting: A Novel Setup for Single Colour Reflectometry. *Analytical and Bioanalytical Chemistry* 414: 1787–1796
5. Conrad M, Fechner P, **Proll G**, Gauglitz G (2021) Comparison of methods for quantitative biomolecular interaction analysis. *Analytical and Bioanalytical Chemistry* 414: 661–673
6. Hutterer J, **Proll G**, Fechner P, Gauglitz G (2021) Parallelized label-free monitoring of cell adhesion on extracellular matrix proteins measured by single colour reflectometry. *Analytical and Bioanalytical Chemistry* 414: 575–585
7. Mueller A, Jahn N, Fechner P, **Proll G**, Patel J (2018) Label-free detection of high-density peptide arrays. *Journal Of Peptide Science* 24:111
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9. Stäß J, Furin D, Fechner P, **Proll G**, Soriano-Dotor LM, Ruiz-Palomero C, Valcárcel M, Gauglitz G (2017) Analysis of nanoparticles with an optical sensor based on carbon nanotubes. *Proceedings of SPIE, Optical Sensors* 10231
10. **Proll G**, Markovic G, Fechner P, Proell F, Gauglitz G (2017) Reflectometric Interference Spectroscopy. *Biosensors And Biodetection: Methods And Protocols Vol.1: Optical-Based Detectors. Methods in Molecular Biology* 1571: 207-220
11. Striffler J, Mattes DS, Schillo S, Münster B, Palermo A, Ridder B, Welle A, Trouillet V, Stadler V, Markovic G, **Proll G**, Bräse S, Loeffler FF, Nesterov-Müller A, Breitling F (2016) Replication of Polymer-Based Peptide Microarrays by Multi-Step Transfer. *Chemnanomat* 2(9): 897-903
12. Barsan N, Gauglitz, G Oprea A, Ostertag E, **Proll G**, Rebner K, Schierbaum K, Schleifenbaum F, Weimar U, (2016) *Chemical and Biochemical Sensors, 1. Fundamentals*. In: Ullmann's encyclopedia of industrial chemistry. Ostertag E, Rebner K (eds). Wiley, Hoboken
13. Schindler AR, Bleher O, Thaler MA, Kocot CJ, Steigerwald U, **Proll G**, Gauglitz G, Luppä PB (2015) Diagnostic performance study of an antigen microarray for the detection of antiphospholipid antibodies in human serum. *Clinical Chemistry and Laboratory Medicine* 53(5): 801-808
14. Fechner P, Bleher O, Ewald M, Freudenberger K, Furin D, Hilbig U, Kolarov F, Krieg K, Leidner L, Markovic G, **Proll G**, Pröll F, Rau S, Riedt J, Schwarz B, Weber P, Widmaier J (2014) Size does matter! Label-free detection of small molecule-protein interaction. *Analytical and Bioanalytical Chemistry* 406(17): 4033-4051
15. Peine G, **Proll G** (2014) Multiplex platforms in diagnostics and bioanalytics. *Analytical and Bioanalytical Chemistry* 406(14): 3261-3262
16. Bleher O, Schindler A, Yin MX, Holmes AB, Luppä PB, Gauglitz G, **Proll G** (2014) Development of a new parallelized, optical biosensor platform for label-free detection of autoimmunity-related antibodies. *Analytical and Bioanalytical Chemistry* 406(14): 3305-3314

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18. **Proll G**, Ehni M (2014) Immunoassays. In: Handbook of Spectroscopy: Second, Enlarged Edition. Gauglitz G, Moore DS (eds). Wiley, 1313-1334
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20. **Proll G** (2012) Multi-Analyte Immunoassays for Water Monitoring. Antibodies Applications and new Developments. In: Antibodies Applications and New Developments. Meulenber EP (ed). Bentham e Books, Netherlands, 146-155
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30. **Proll G**, Tschmelak J, Kaiser J, Kraemmer P, Sacher F, Stien J, Gauglitz G (2006) Advanced environmental biochemical sensor for water monitoring: Automated Water Analyser Computer Supported System (AWACSS). In: Soil and Water Pollution Monitoring, Protection and Remediation IV. Earth and Environmental Sciences, Vol. 69, NATO Science Series. Springer, 131-145
31. Tschmelak J, Kumpf M, Käppel N, **Proll G**, Gauglitz G (2006) Total internal reflectance fluorescence (TIRF) biosensor for environmental monitoring of testosterone with commercially available immunochemistry: Antibody characterization, assay development and real sample measurements. Talanta 69(2):343-350
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36. Tschmelak J, **Proll G**, Riedt J, Kaiser J, Kraemmer P, Bárzaga L, Wilkinson JS, Hua P, Hole JP, Nudd R, Jackson M, Abuknesha R, Barceló D, Rodriguez-Mozaz S, López de Alda, Sacher F, Stien J, Slobodník J, Oswald P, Kozmenko H, Korenková E, Tóthová L, Krascenits Z, Gauglitz G (2005) Automated Water Analyser Computer Supported System (AWACSS) - Part II: Intelligent, remote-controlled, cost-effective, on-line, water-monitoring measurement system. *Biosensors and Bioelectronics* 20(8):1509-1519
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43. Tschmelak J, Kumpf M, **Proll G**, Gauglitz G (2004) Biosensor for seven sulphonamides in drinking, ground and surface water with difficult matrices. *Analytical Letters* 37(8):1701-1718
44. Willard D, **Proll G**, Reder S, Gauglitz G (2003) New and Versatile Optical-Immunoassay Instrumentation for Water Monitoring. *Environmental Science and Pollution Research* 10:188-191
45. Nickel M, Leininger S, **Proll G**, Brümmer F (2001) Comparative studies on two potential methods for the biotechnological production of sponge biomass. *Journal of Biotechnology* 92(2): 169-178

## Intellectual property

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1. Utility model DE202004020238 (Application date: December 31, 2004; Title: "Vorrichtung zur Bestimmung optischer Eigenschaften dünner Schichten" ("Device for Identification of Optical Qualities of Thin Layers"); Inventors: Prof. Dr. Günter Gauglitz, **Günther Proll**, Matthias Wegner, Prof. Dr. Wolfgang Osten, Klaus-Peter Proll, Dr. Klaus Körner)
2. Patent family derived from priority application DE102007038797.2 (Application date: August 9, 2007; Title: "Untersuchung molekularer Wechselwirkungen an und/oder in dünnen Schichten" ("Analysis of Molecular Interactions on and/or in Thin Layers"); Inventors: Prof. Dr. Günter Gauglitz, **Dr. Günther Proll**, Florian Pröll, Lutz Steinle, Dr. Markus Schubert): EP2179269, WO2009/019043
3. Patent family derived from priority application DE102009019711.7 (Application date: May 5, 2009; Title: "Verfahren und Vorrichtung zur Bestimmung von Reflexionskoeffizienten an Filteranordnungen mit dünnen Schichten" ("Process and Device for Identification of Reflection Coefficients on Filter Assemblies with Thin Layers"); Inventors: Dr. Johannes Landgraf, **Dr. Günther Proll**, Florian Pröll): PCT/EP 2010/002752
4. Patent family derived from priority application DE102009019476.2 (Application date: May 4, 2009; Title: "Wiedererkennbarer Träger für optische Messverfahren" ("Recognizable Media for Optical Measuring Processes"); Inventors: Dr. Johannes Landgraf, **Dr. Günther Proll**, Florian Pröll): PCT/EP 2010/002728
5. Patent family derived from priority application PCT/EP 2011/000419 (Application date: 31.01.2011; Title: „Verfahren und Vorrichtung zur Bestimmung optischer Eigenschaften durch gleichzeitiges Messen von Intensitäten an dünnen Schichten mit Licht mehrerer Wellenlängen“; Inventors: **Dr. Günther Proll** und Dr. Florian Pröll)
6. Patent application „Mehrkanal-Teststreifen und Herstellungsverfahren dafür“ (Application date: 21.12.2021), Inventors: Günter Gauglitz, **Günther Proll**, Monika Conrad, Andreas Dietzel, Monika Leester-Schädel, Esteban Builes, Lars Hecht