



Selected Publications



SELECTED PUBLICATIONS PERTAINING TO THE ATTANA SYSTEMS

This document gives an overview of publications related to the Attana systems. It is divided into three sections based on molecular species; macromolecules (cells, membranes and DNA), proteins (antibodies) and carbohydrates.

Abstracts can be found on our webpage: www.attana.com/applications/scientific_publications



MACROMOLECULES:

Chemical Communications (2010) DOI: 10.1039/b924766a

Dynamic Glyovesicle Systems for Amplified QCM Detection of Carbohydrate-Lectin Multivalent Biorecognition

Eugene Mahon, Teodor Aastrup and Mihail Barboiu

Talanta 77 (2008) 468–472

Flow-injection Assay of the Pathogenic Bacteria Using Lectin-based Quartz Crystal Microbalance Biosensor

Gulnara Safina, Margret van Lier, Bengt Danielsson

Protein Engineering, Design & Selection (2005) 18(11):537-546

Isolation of Novel Single-chain Cro Proteins Targeted for Binding to the bcl-2 Transcription Initiation Site by Repertoire Selection and Subunit Combinatorics

Kristina Jonas, Erhard Van Der Vries, Mikael T. I. Nilsson and Mikael Widersten

PROTEINS/ANTIBODIES:

Nature Structural & Molecular Biology 17, 133-138 (Dec. 2009) doi:10.1038/nsmb.1727 Technical Report

Modulation of Protein Properties in Living Cells Using Nanobodies

Axel Kirchhofer, Jonas Helma, Katrin Schmidthals, Carina Frauer, Sheng Cui, Annette Karcher, Mireille Pellis, Serge Muyldermans, Corella S Casas-Delucchi, M Christina Cardoso, et al.

The Journal of Biological Chemistry (2009) 284, 25612-25619

Biodistribution of a Bispecific Single-chain Diabody and Its Half-life Extended Derivatives

Roland Stork, Emmanuelle Campigna, Bruno Robert, Dafne Müller and Roland E. Kontermann

PNAS vol. 106, no. 12, 4623–4628 (Mar. 2009)

Controlled Release of Functional Proteins Through Designer Self-assembling Peptide Nanofiber Hydrogel Scaffold

Sotirios Koutsopoulos, Larry D. Unsworth, Yusuke Nagai, and Shuguang Zhang

Tumor Biology 30:26–36 (Feb. 2009)

Characterization of Monoclonal Antibodies Directed against Squamous Cell Carcinoma Antigens: Report of the Second TD-10 Workshop

K. Nustad, O. Nilsson, K. Majnesjö, A. Murakami, N. Sugino, D.J. Warren, and H. Kato

Journal of Molecular Biology (2008) 384, 1143–1156

Generation, Affinity Maturation, and Characterization of a Human Anti-Human NKG2D Monoclonal Antibody with Dual Antagonistic and Agonistic Activity

Ka Yin Kwong, Sivasubramanian Baskar, Hua Zhang, Crystal L. Mackall and Christoph Rader

Analytical Biochemistry 341 (2005) 89-93

Electro-immobilization of Proinsulin C-peptide to a Quartz Crystal Microbalance Sensor Chip for Protein Affinity Purification

Ermias Melles, Henrik Anderson, Daniel Wallinder, Jawed Shafqat, Tomas Bergman, Teodor Aastrup and Hans Jörnvall

CARBOHYDRATES:

Bioconjugate Chemistry 10.1021/bc9003519 (November 4, 2009)

Photo-Click Immobilization of Carbohydrates on Polymeric Surfaces - A Quick Method to Functionalize Surfaces for Biomolecular Recognition Studies

Oscar Norberg, Lingquan Deng, Mingdi Yan and Olof Ramström

Analytical Chemistry 79 (18): 6897-6902 (Sep. 15, 2007)

Photoderivatized Polymer Thin Films at Quartz Crystal Microbalance Surfaces: Sensors for Carbohydrate-Protein Interactions

Yuxin Pei, Hui Yu, Zhichao Pei, Matthias Theurer, Carolin Ammer, Sabine André, Hans-Joachim Gabius, Mingdi Yan and Olof Ramström

Biosensors and Bioelectronics 22 (2006) 42–48 Quartz Crystal Microbalance Bioaffinity Sensor For Rapid Identification of Glycosyldisulfide Lectin Inhibitors from a Dynamic Combinatorial Library

Zhichao Pei, Rikard Larsson, Teodor Aastrup, Henrik Anderson, Jean-Marie Lehn and Olof Ramström

Bioorganic & Medicinal Chemistry Letters 15 (2005) 2707–2710

Redox-responsive and Calcium-dependent Switching of Glycosyldisulfide Interactions with Concanavalin A

Zhichao Pei, Teodor Aastrup, Henrik Anderson and Olof Ramström

Biosensors and Bioelectronics 21 (2005) 60–66 Study of Real-time Lectin–Carbohydrate Interactions on the Surface of a Quartz Crystal Microbalance

Zhichao Pei, Henrik Anderson, Teodor Aastrup and Olof Ramström



Balancing **Power** and **Simplicity** in Molecular Interaction Studies

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This document gives an overview of publications related to the Attana systems. It is divided into three sections based on topic; surface chemistry, QCM-technology and Attana.

Abstracts can be found on our webpage: www.attana.com/applications/scientific_publications

SURFACE CHEMISTRY:

Journal of Colloid and Interface Science (2007), doi:10.1016/j.jcis.2007.05.016

Forces and Friction Between Hydrophilic and Hydrophobic Surfaces: Influence of Oleate Species

Katarina Theander, Robert J. Pugh, and Mark W. Rutland

Review of Scientific Instruments 78, 083110 (2007)

System for In Situ Studies of Atmospheric Corrosion of Metal Films Using Soft X-ray Spectroscopy and Quartz Crystal Microbalance

J. Forsberg, L.-C. Duda, A. Olsson, T. Schmitt, J. Andersson, J. Nordgren, J. Hedberg, C. Leygraf, T. Aastrup, D. Wallinder, and J.-H. Guo

Langmuir, 23 (22), 11147 -11156 (2007)

Mode of Heavy Meromyosin Adsorption and Motor Function Correlated with Surface Hydrophobicity and Charge

Nuria Albet-Torres, John O'Mahony, Christy Charlton, Martina Balaz, Patricia Lisboa, Teodor Aastrup, Alf Månsson, and Ian A. Nicholls

Chemistry of Materials 17 (2005) 4092-4096

UV-Cross-Linked Poly(vinylpyridine) Thin Films as Reversibly Responsive Surfaces

Bernadette Harnish, Joshua T. Robinson, Zhichao Pei, Olof Ramström and Mingdi Yan

Analytica Chimica Acta 536 (2005) 191-196

Molecularly Imprinted Polymer Thin Films on Quartz Crystal Microbalance Using a Surface Bound Photo-radical Initiator

Theeraphon Piacham, Åsa Josell, Hans Arwin, Virapong Prachayasittikul and Lei Ye

QCM TECHNOLOGY:

Sensors and Actuators B 123 (2007) 27-34

Quartz Crystal Microbalance Sensor Design I. Experimental Study of Sensor Response and Performance

Henrik Anderson, Mats Jönsson, Lars Vestling, Ulf Lindberg, and Teodor Aastrup

Sensors and Actuators B 123 (2007) 21-26

Quartz Crystal Microbalance Biosensor Design II. Simulation of Sample Transport

Mats Jönsson, Henrik Anderson, Ulf Lindberg, and Teodor Aastrup

ATTANA:

Analytical Biochemistry 398 (2010) 161-168, Pages 161-168

Optimizing Immobilization on Two-dimensional Carboxyl Surface: pH Dependence of Antibody Orientation and Antigen Binding Capacity

Zhichao Pei, Henrik Anderson, Annica Myrskog, Gunnar Dunér, Björn Ingemarsson and Teodor Aastrup



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