Biosensors and Nanotechnology : using light to glue biomolecules onto sensor surfaces.

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Biosensors development is expected to accelerate in a highly significant manner in the years to come. Sensors progressively become smaller, cheaper and often more sensitive. Multi-potent biosensors detecting a range of relevant human diseases from a single droplet of biofluid is likely to become a reality within the next decade. In this process enabling technologies are of tremendous importance. The presentation will focus on one such enabling technology: Micrometer resolved light induced immobilisation of proteins onto sensor surfaces. We have succefully developed a unique method for immobilizing proteins such as antibodies onto chemically activated glass, quartz or silicium surfaces with a precision that are expected to reach the 1 micrometer level. Prototypes for automated tools are being created at the moment allowing for multipotent sensor construction.