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VABILO NA INŠTITUTSKO PREDAVANJE / INVITATION TO THE INSTITUTE LECTURE

Prof. Dr. Stanislaw Slomkowski

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Petek / Friday, 2. 10. 2009, ob / at 13:00

Velika predavalnica Kemijskega inštituta / Lecture Hall at the
National Institute of Chemistry; Hajdrihova 19, Ljubljana

Polyglycidol containing microspheres for medical diagnostics

Povzetek / Abstract

In the lecture there will be described synthetic methods allowing for obtaining core-shell type polystyrene-polyglycidol microspheres suitable for covalent immobilization of biologically active compounds, mainly proteins. There will be discussed in details physicochemical properties of these particles, in particular their response to external stimuli (temperature, pH and ionic strength). Characteristics of polystyrene-polyglycidol particle assemblies formed at solid-liquid and solid-liquid-air interfaces also will be presented. Procedures allowing to adsorb and/or covalently immobilize (in controlled manner) macromolecules of proteins, in particular human serum albumin (HSA), gamma globulins (γ G) onto surface of microspheres and results of evaluation of their biological activity after immobilization are described. Examples of application of microspheres with immobilized antigens and/or antibodies for diagnostic tests will be given. There will be presented also the new diagnostic tests for detection of antigens against *Helicobacter pylori*. The test is based on monitoring changes of electrophoretic mobility of microspheres exposed to contact with appropriate analyte.

Vljudno vabljeni! / Kindly invited!

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