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Process for enzyme immobilization on a fluorocarbon surface

Description of Technology: The patent covers three different methods of immobilizing a biomolecule on a fluorocarbon surface.

Patent Listing:

1. **US Patent No. 5,342,772**, Issued August 30, 1994, "Process for enzyme immobilization on a fluorocarbon surface."
http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=5,342,772.PN.&OS=PN/5,342,772&RS=PN/5,342,772

Market Potential: This patent calls for using poly(fluoroalkyl) sugar regeants, not mono(fluoroalkyl) sugar regeants, and the combination of fluoroalkyls allows for a more secure attachment of the reagent to the fluorocarbon surface. The main advantages of the use of poly(fluoroalkyl) sugar reagents over the mono(fluoroalkyl) reagents are: higher retention of biological activity, higher immobilization efficiency, more secure attachment of the biomolecule, a more stable preactivated support, and a simpler immobilization procedure. The supports described in this invention can be used for various kinds of extra-corporeal depletion therapy, for nucleic acid hybridization assays, to capture DNA or RNA from mixtures and for various configurations of solid and liquid phase bioassays.

Benefits:

- Higher retention of biological activity.
- Higher immobilization efficiency.
- More secure attachment of the biomolecule.
- A more stable preactivated support.
- Simpler immobilization procedure.

Applications:

- Extra-corporeal depletion therapy.
- Nucleic acid hybridization assays.
- Capture DNA or RNA from mixtures.
- For various configurations of solid and liquid phase bioassays.

Contact:
Delaware Economic Development Office
Direct: (302) 577-8477, Fax: (302) 577-8499