

Nanogen Issued Patent for Permeation Layer of Microchip

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Nanogen, Inc., developer of advanced diagnostic products, announced today that it was issued U.S. Patent No. 6,838,053, "Platinum silicide permeation layer device with microlocations," by the U.S. Patent and Trademark Office. The '053 patent relates to methods of making a covalently bonded permeation layer on a microchip. The technology described in the patent relates to Nanogen's advanced chip designs, which are used for analysis of biological molecules such as nucleic acids for diagnostic applications.

The '053 patent provides for a protective porous membrane layer, or permeation layer, to be deposited over microchip electrodes. The permeation layer can be made of materials from natural or synthetic polymers. Nanogen's '053 patent relates to the chemistries used to create the permeation layer, which allows electrochemical products generated at the electrode surface to travel through the layer and into the solution immediately above the electrodes.

Previously, common methods used to layer membranes on the microchip substrate were prone to separate or delaminate from the electrode surface. Nanogen's invention solves this problem by combining covalent chemistries that make it possible to apply an electronic bias to the electrodes of a microchip while preventing the separation of the permeation layer from the electrode surface.

This new patent expands Nanogen's intellectual property portfolio to include 112 patents issued in the U.S.

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