

Technical Demo #2

Demonstration of Fiber Optic Sensor for Recording Real Time Binding Between Biomolecules

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A portable evanescent fiber optic sensor has been developed which monitors in real time, binding of Cy5-labeled molecules to a binding partner. The binding partner is linked to the sensor surface. Because an evanescent field falls off exponentially with distance from the surface, bound labeled molecules are seen by the sensor, whereas free labeled molecules are not. The effect of a third compound on the binding between the labeled macromolecules and molecules on the sensor can be analyzed by comparing binding curves generated in the presence and absence of the third compound. This sensor has been used to identify the presence of estrogen mimicking compounds in water samples. It's operation will be demonstrated.

This work was supported by NIEHS SBIR grants 8-R4 ES07471B and 8-R3ES10076A