

세미나 초록

성명	박유민
소속	나노종합기술원 나노바이오개발센터
발표 주제	Semi-conductor-based Biosensing Platform for High sensitivity and Selectivity as a POCT Biosensor
발표 내용	<p>Semi-conductor technology has been widely developed and merged with bio-technology to improve the performance of biosensor. In this, two-types of semi-conductor-based nanostructure was developed in the form of positive and negative structure to fabricate nano-arrayed biosensor. These sensors have different characteristics in the electrochemistry. The positive-structured sensors are possible to immobilize a large amount of receptor based on its high aspect-ratio, and resultantly, the sensors can be accepting the high electrochemical signal in comparison with plat sensors. The negative-structured sensor has a million array in form of nano-well on the sensor. The various biomaterials in the real sample could be effectively filtered out by nano-well array, and the unexpected signals and noise could be reduced. Using these sensors, we successfully demonstrated the high sensitivity and selectivity to the various biomarker such as proteins and virus.</p>