

Real-time glucose detection using ZnO nanowire FET based on glucose oxidase functionalization

지건구, 김진태, 김정수, Mehtab Muhammad, 임연호[†]
전북대학교
(yeonhoim@jbnu.ac.kr[†])

We have investigated nanowire FET type sensor as a part of efforts to develop continuous glucose-sensing technology. This nanowire FET device is desirable to in-vivo sensing applications due to several benefits such as micron-scale size, and rapid response. This work is for a preliminary study on the in-vivo nanowire glucose sensors were discussed. Nanowire FET biosensor can be fabricated by the novel top-down approach and effective functionalization technology. In the next step, we integrated this FET device with micro-needle type glucose sensor. Finally, it was demonstrated that this sensor could be used for real-time glucose monitoring.