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강연제목: 생체광학/전자소자 구현을 위한 실크 단백질/Silk protein for biophotonic and bioelectronic devices

Abstract

Silk, a natural protein extracted from cocoons, has been attractive for biomedical optical and electronical applications due to its biocompatibility, optical transparency, and robust mechanical properties. Here I introduce high technological reinvents of silk. Silk can be used as a base material for demonstrations of biomedical applications including fully biocompatible optical devices, electronic skins, and electronic tattoos. This approach offers mush fascinating potential applications such as *in vivo* monitoring and a super-sensitive biosensor.

Brief Biosketch

Dr. Sunghwan Kim is a Professor of Biomedical Engineering at Hanyang University. Dr. S. Kim received a Ph.D. in Physics from Seoul National University in 2010, and had worked in the Biomedical Engineering at Tufts University as a postdoctoral researcher (2011-2013). From 2013, he had been a professor at Ajou University. His research interests are at the boundary of biologically inspired materials and science/engineering, with an emphasis on new approaches for re-invented biomaterials for biomedical engineering. He is now the committee member of the Next Generation Lithography Conference, the editorial board of Scientific Reports, the secretary of the Lithography Division in the Optical Society of Korea, and the vice executive editor of Current Applied Physics.