
Postech Harvard find key to nano scale optoelectronic devices

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On May 24th 2009 a new scientific breakthrough which could help scientists develop nano scale optoelectronic devices, thereby removing a major obstacle to developing optoelectronic devices using photoelectric elements, was announced.

The research team, led by Mr Jo Moon ho, a professor in Postech's Materials Science and Engineering Department, and Mr Park Hong kun, a professor in Harvard University's Chemistry/Physics Department, published its findings on "Near field electrical detection of optical plasmons and single plasmon sources" in the internationally prominent science journal Nature Physics on May 24th 2009.

Through the joint research, the two scientists developed a photoelectric element that changes light signals from surface plasmons into electric signals in a near field through nano wire transistors. At the same time, the scientists also proved that a single surface plasmon produced from single light quanta can also be changed into an electric signal.

Opening new possibilities for developing a solid optoelectronic device that can change a light signal such as a plasmon into an electric signal, the research is widely recognized as a stepping stone for developing futuristic nano materials that can be used for such scientific breakthroughs as a quantum computer.

Mr Jo Moon ho said that "The research is highly evaluated in academic circles as it has opened ways to develop nano-scale optoelectronic devices, which had long been believed to be almost impossible to develop."

(Sourced from www.postech.ac.kr)

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