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MATERIALS SCIENCE AND ENGINEERING PH.D. STUDENT BRINGS HOME POSTER PRIZE

Posted on July 28, 2017

By:

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Doctoral candidate Sara Pouladi won the Best Poster Award for her work on thin film solar cells at the [44th IEEE Photovoltaic Specialists Conference](#) in Washington D.C.

Titled "Flexible GaAs single-junction solar cells based on single-crystal-like thin-film materials directly grown on metal tapes," the work offers that III-V compound semiconductor materials are the top candidates for thin-film photovoltaics.

"There is a fast and increasing demand for thin film solar cells in the photovoltaics industry due to several advantages including their light-weight, mechanical flexibility, low cost, wide range of applications and easy scalability," said Pouladi.

Pouladi, who studies under Assistant Professor Jae-Hyun Ryou of mechanical engineering, developed, in collaboration with Professor Venkat Selvamanickam's group, flexible thin Film GaAs solar cells based on a technology that can provide high-quality semiconductor thin films on low-cost metal foils, which would bypass expensive wafer substrates while also offering scalability and flexibility. This approach offers a new technology platform which has the potential for next-generation low-cost high-efficiency flexible solar cells.