



# SOLAR QUEST

## SEMINAR ANNOUNCEMENT

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## **LARGE AREA INVERTED METAMORPHIC (IMM) ELO SOLAR CELLS**

DATE: Wednesday, January 21, 2015

TIME: 14:00 pm-16:00 pm

PLACE: Seminar Room A-502  
CCR Building, 5F

### **ABSTRACT**

Development of low cost, high efficiency, light weight and flexible solar cells with an efficiency performance reaching 40% (1 Sun, AM0) is very important for next generation space technology which can enable novel space applications. At MicroLink for the past several years, efforts are directed towards developing Epitaxial Lift Off (ELO) for realizing high efficiency, lightweight solar cells for space application. These solar cells are based on III/V multijunction technology on Gallium Arsenide (GaAs) substrates. ELO technology offers a unique solution to increase the specific power of a solar cell by completely eliminating the substrate weight. ELO technology also enables multiple substrate re-usages thereby providing a realistic cost reduction pathway for the multijunction solar cells. In this talk, I will present recent work done at MicroLink on development of  $\eta=29.4\%$  (AM0, 1 Sun) inverted metamorphic (IMM) triple junction (TJ) ELO solar cells on full 4-inch and 6-inch wafers. I will also present the performance of solar cells grown on reclaimed substrates. I will also discuss application of ELO cells in the form of flexible sheets for UAV and mobile solar applications.

Solar Quest Host: Prof. Yoshitaka Okada, ext. 56501  
Refreshments will be served.

