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Deadline for the Abstract Submission: October 3, 2014 (Friday)

"Materials Frontier for Transparent Advanced electronics"

Organizers:

Lead Organizer

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Topics:

Materials for transparent oxide semiconductors Materials for metal nano-network transparent contacts Materials for carbon based transparent contacts Indium based or Indium-free high performance transparent conducting oxides Theory based guidance for new materials development and optimization Non-vacuum based deposition and processing of transparent contacts Composite, hybrid and multi-layer structures of increased functionality Applications of transparent materials for renewable energy technologies Applications of transparent materials to new and emerging electronics

Scope:

Research and development on wide gap oxide materials and their use have been increasing pervasively in many fields such as high-performance thin film transistors (TFTs/TTFTs) or storage devices, renewable energy technologies, various kinds of display devices, and many other optoelectronic applications. Especially transparent oxide semiconductors (TOSs) and amorphous oxide semiconductors (AOSs) such as indium-gallium-zinc-oxide (a-IGZO) and related materials, have attracted much attention as high performance channel materials for thin film transistors. On the other hand, transparent conductive oxides (TCOs) have also been the key materials for various emerging technologies for the more sophisticated applications aiming to the "Ubiquitous Society" and a "Universal Design". These topics will be discussed in a framework of traditional and emerging fields of oxide materials and their device applications including but not limited to: TOSs, AOSs and TCOs for high-performance TFTs/TTFTs, solar cells, displays, lighting, storage, flexible electronics and other transparent electronics.