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“Sn-based Group-IV Semiconductors: new materials and applications opportunities”

The talk will address advances made in the epitaxy of new group IV semiconductors like binary GeSn, ternary CGeSn and SiGeSn as well as complex quaternary CSiGeSn alloys.

While binaries like GeSn are now actively investigated for photonics applications like monolithically integrated lasers, the other alloys like CGeSn and CSiGeSn are just appearing

on the semiconductor's map. The talk will address views from Photonics, electronics, thermoelectric and spintronic from the Sn-based materials point of view. The talk is a motivation for the research of these alloys toward discovery their intrinsic properties and extend /develop present and future fields of applications.