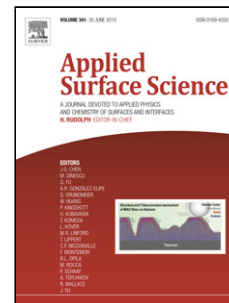


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Sn-loss effect in a Sn-implanted α -SiO₂ host-matrix after thermal annealing: A combined XPS, PL, and DFT study

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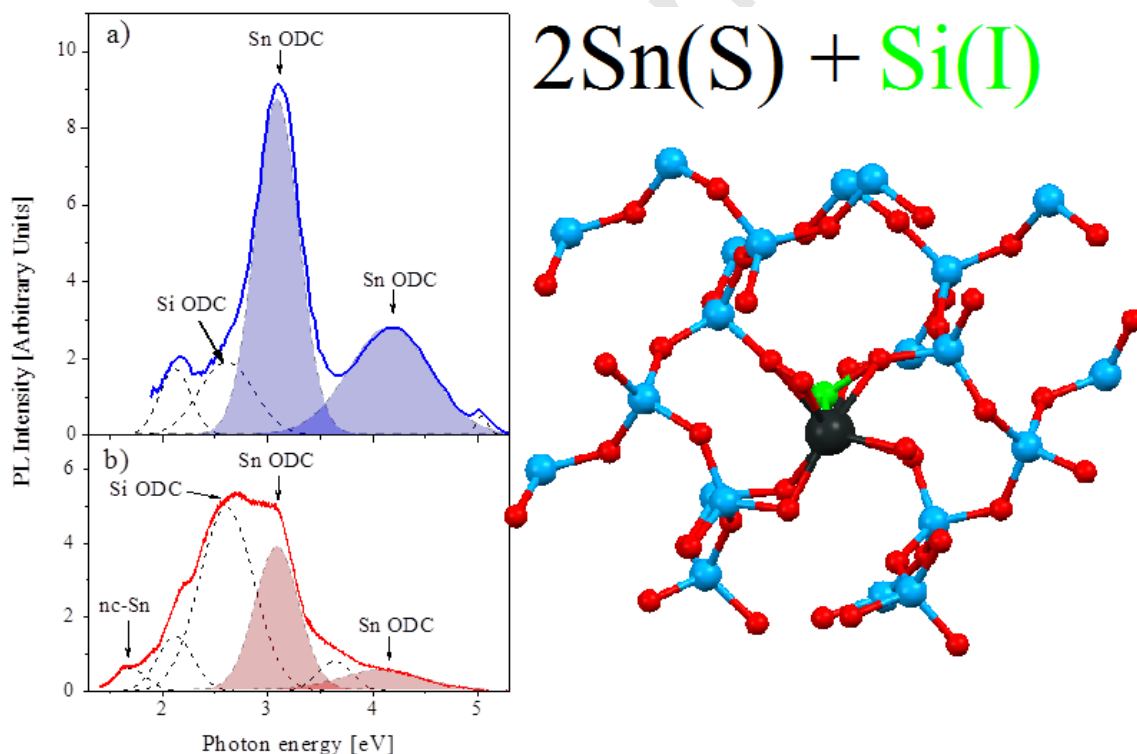
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Graphical abstract



Highlight

- Fabrication and annealing of Sn-doped amorphous SiO₂ were studied experimentally and theoretically
- We demonstrate that ions of impurities push ions of host materials in nearest interstitial void
- Annealing provide return of Si-ions in stoichiometric position and segregation of impurities in secondary phase

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