



Highlighting research from Professor Fontcuberta i Morral's Laboratory, Laboratory of Semiconductor Materials, École Polytechnique Fédérale de Lausanne, Switzerland.

Control of Ge island coalescence for the formation of nanowires on silicon

Here, we report on the underlying growth mechanisms of Ge nanowires during selective area epitaxy. In particular, we highlight the crucial role of pre-growth surface treatment in controlling the nucleation density and lateral expansion of the initial Ge islands. We also provide a pathway to minimize defect formation. These results provide critical insight into the selective epitaxy of horizontal Ge nanowires on lattice-mismatched Si substrates that can be applied to other material systems.

As featured in:



See Anna Fontcuberta i Morral *et al.*, *Nanoscale Horiz.*, 2024, **9**, 555.