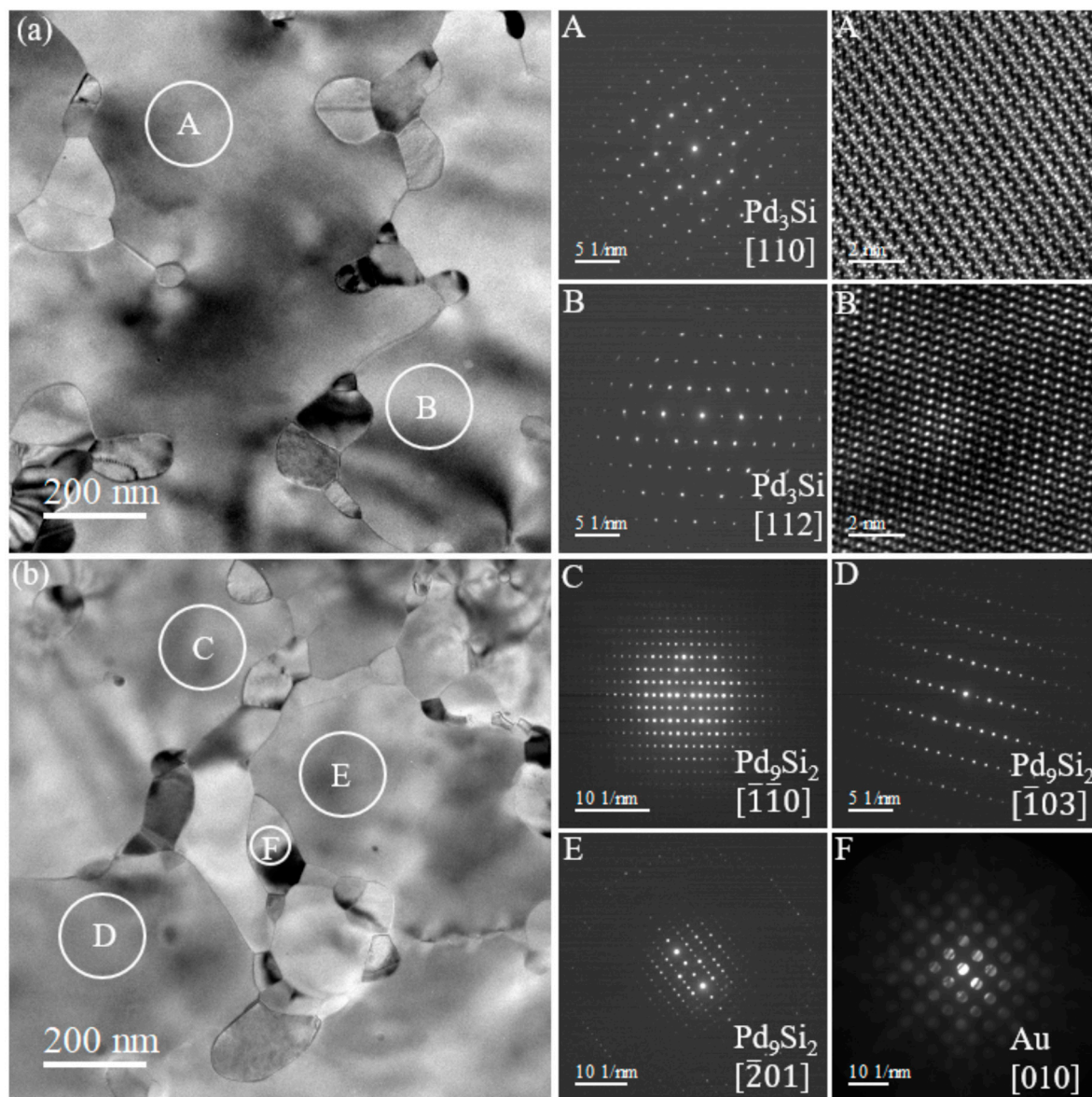
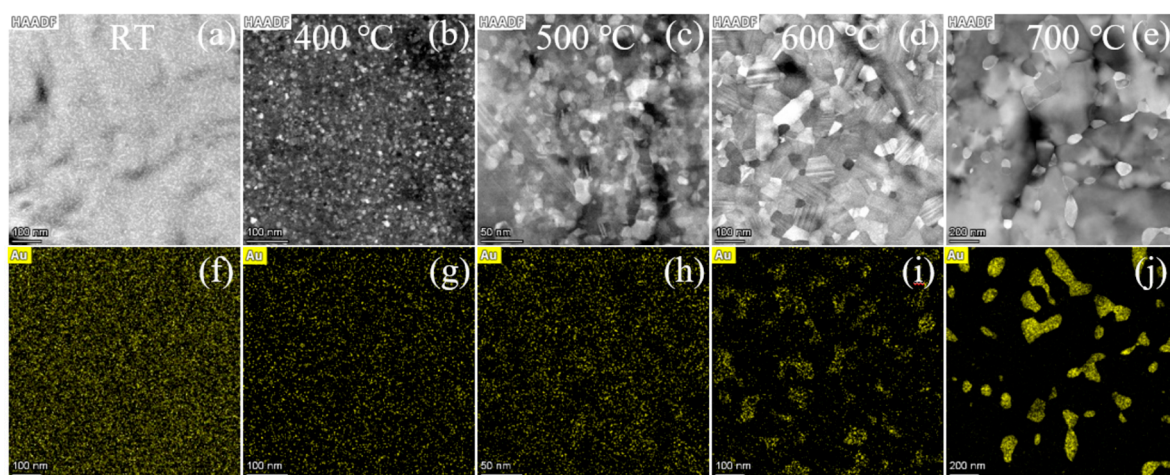


# Thermal Stability and Crystallization Processes of $\text{Pd}_{78}\text{Au}_4\text{Si}_{18}$ Thin Films Visualized via In Situ TEM



**Figure S1.** The final products of heating treatment of  $\text{Pd}_{78}\text{Au}_4\text{Si}_{18}$  thin film at around 900 K. (a)  $\text{Pd}_3\text{Si}$  intermetallic phase and the corresponding SAED patterns and HRTEM lattice images of the regions marked by A and B. (b)  $\text{Pd}_9\text{Si}_2$  intermetallic phase and the SAED patterns and HRTEM lattice images of the regions marked by C, D, E, and F.



**Figure S2.** HAADF-STEM images (a–e) and EDXS mappings (f–j) of the  $\text{Pd}_{78}\text{Au}_4\text{Si}_{18}$  thin film at different temperatures.