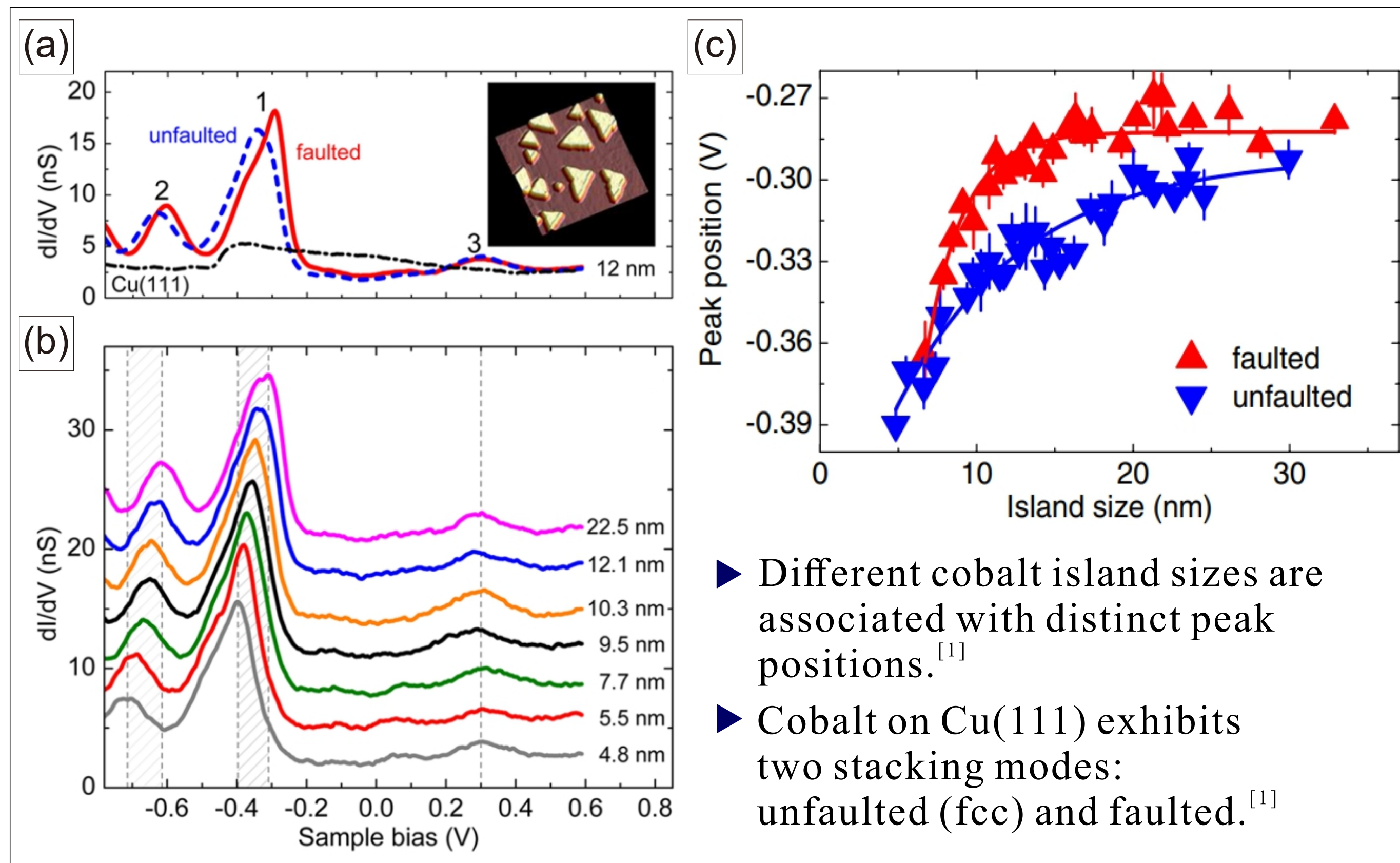
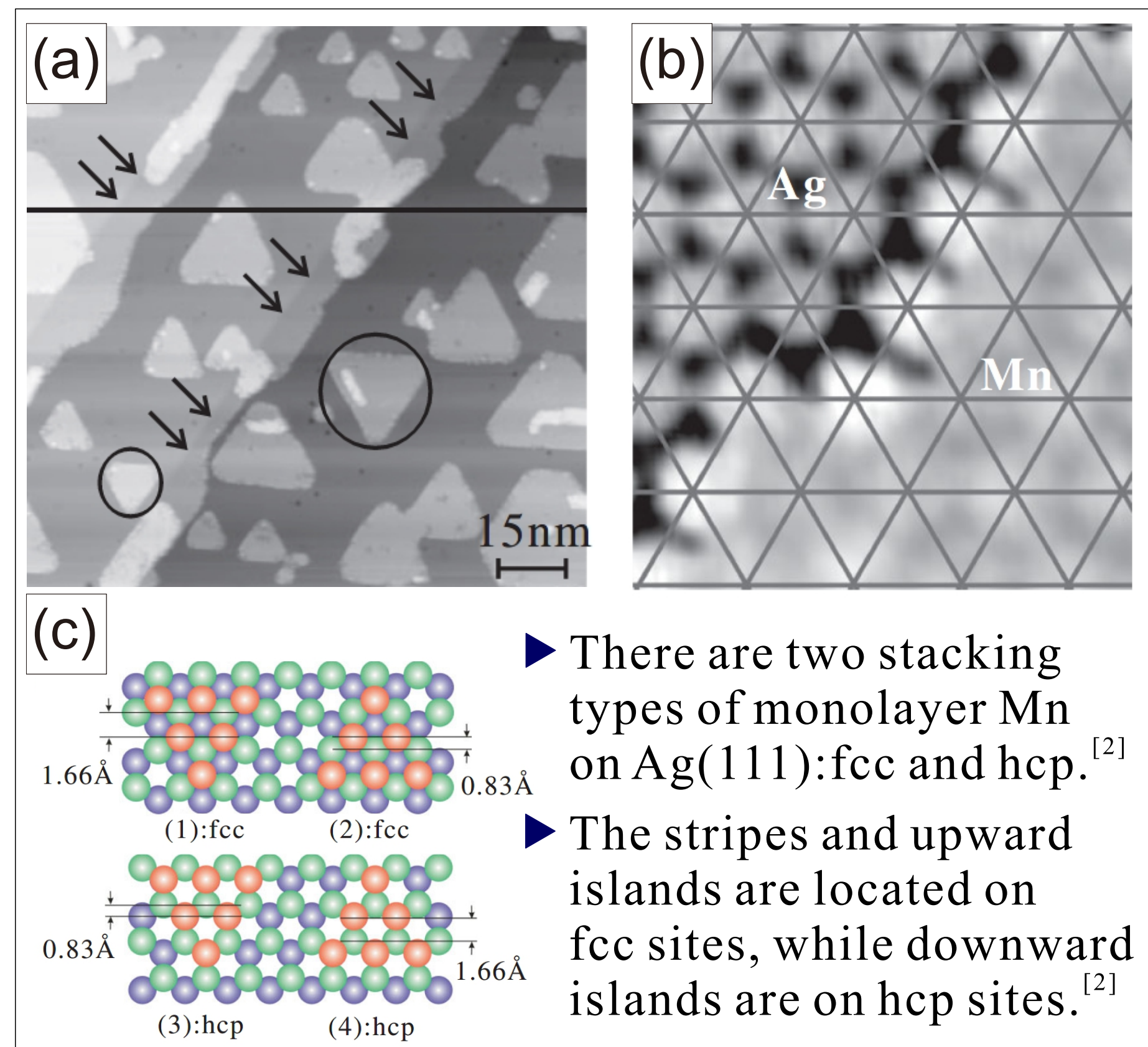


Introduction

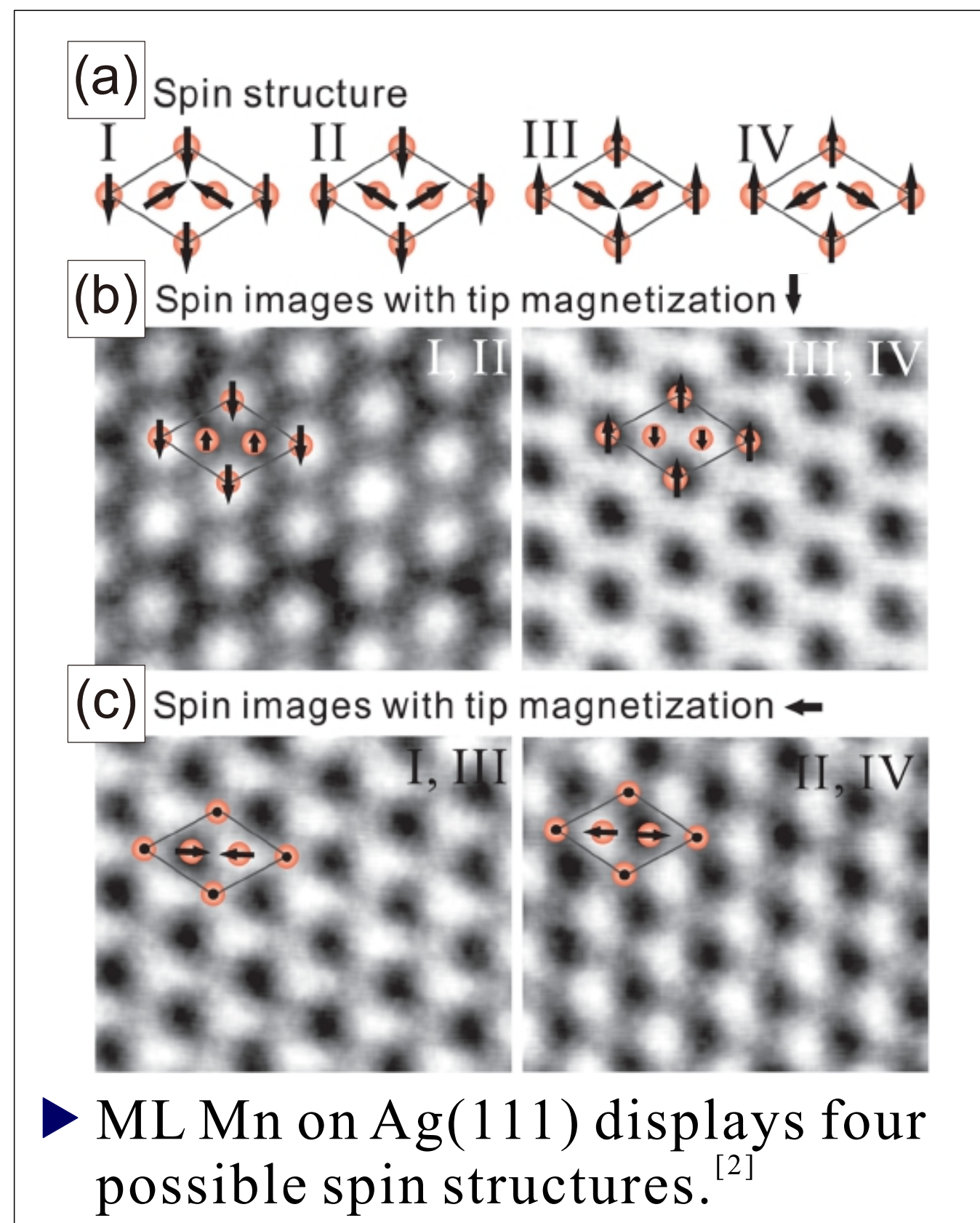
Co/Cu Quantum Size Effect



Mn/Ag(111)

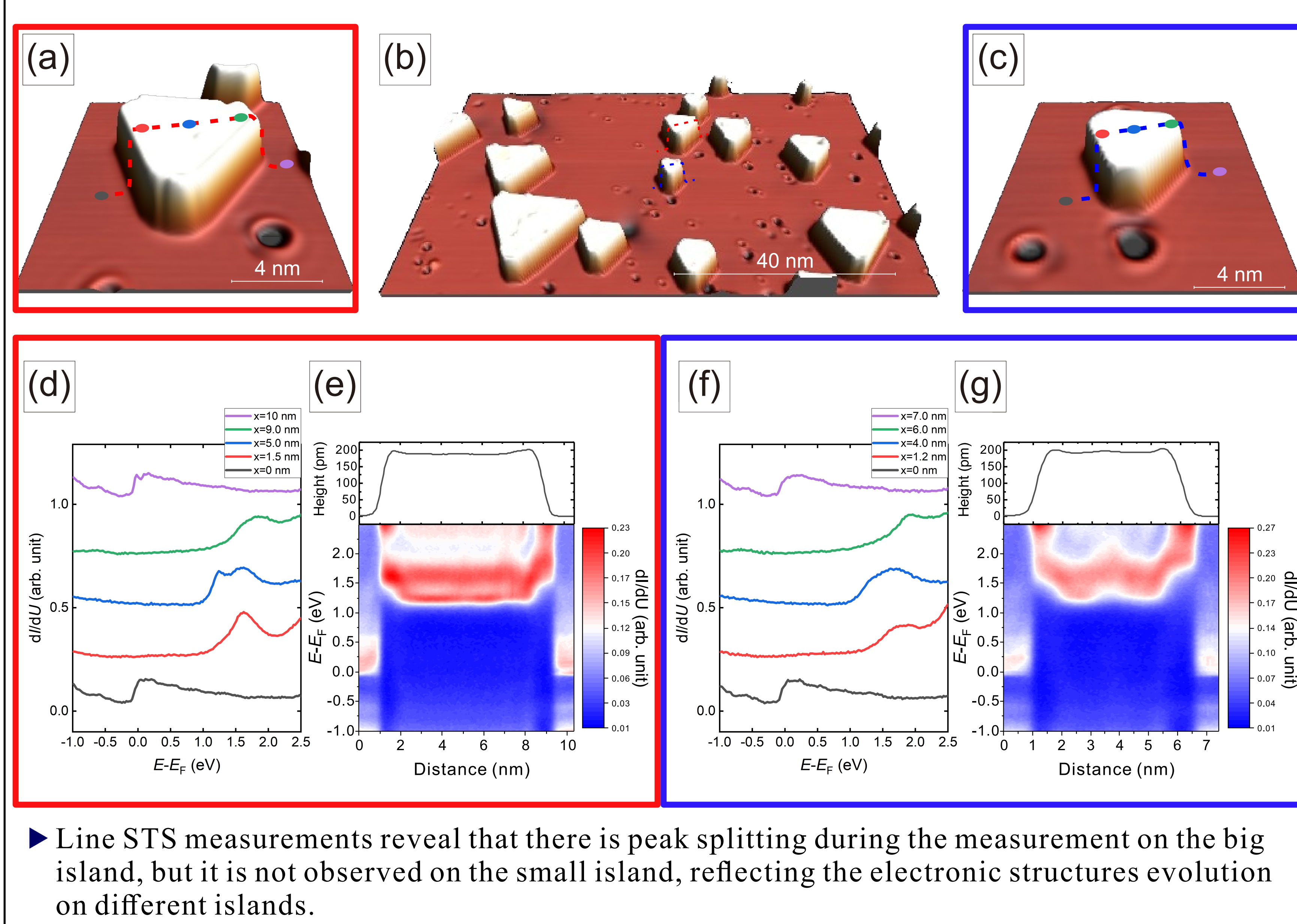


120° Néel Structure

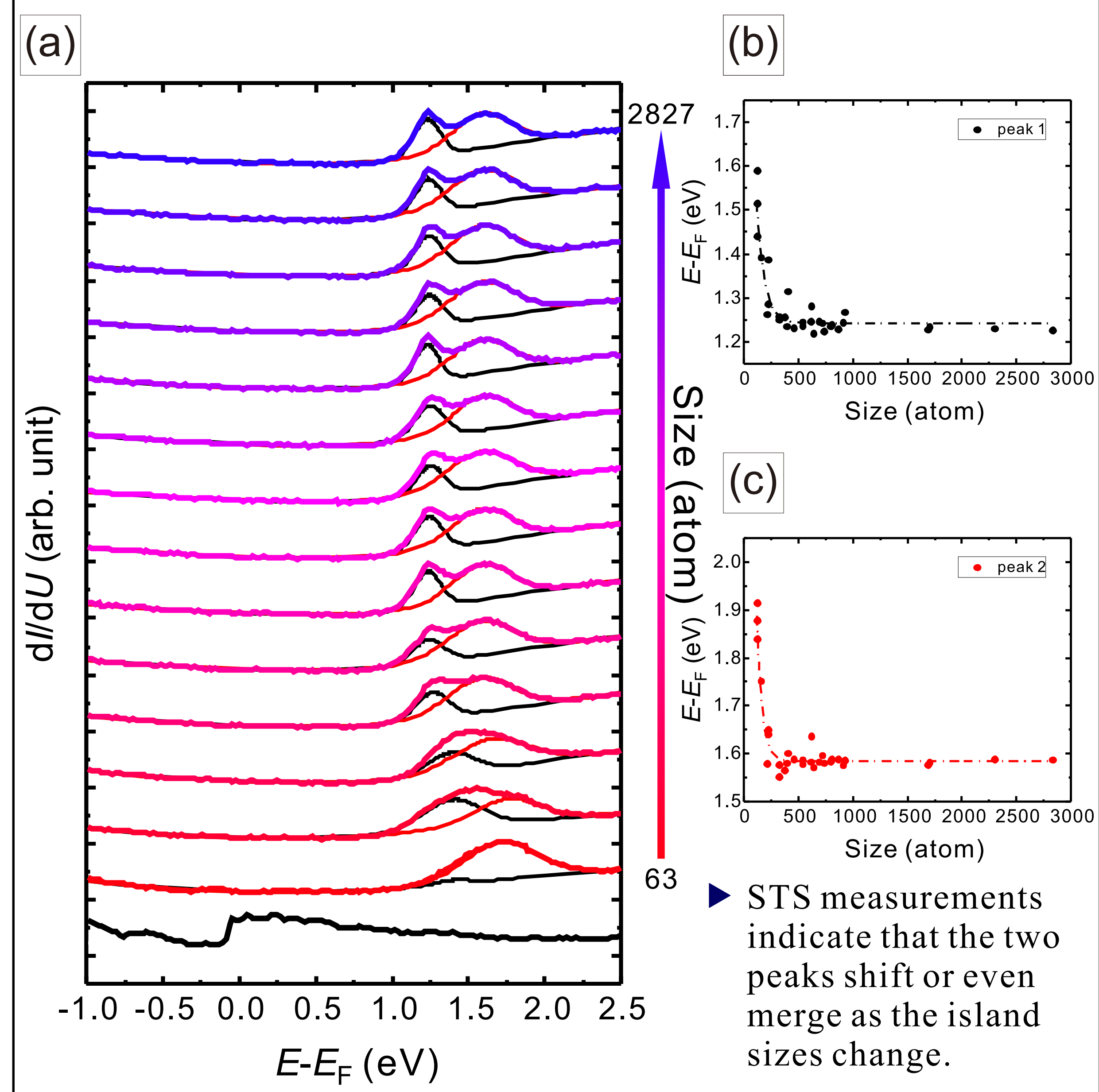


Experiment Results

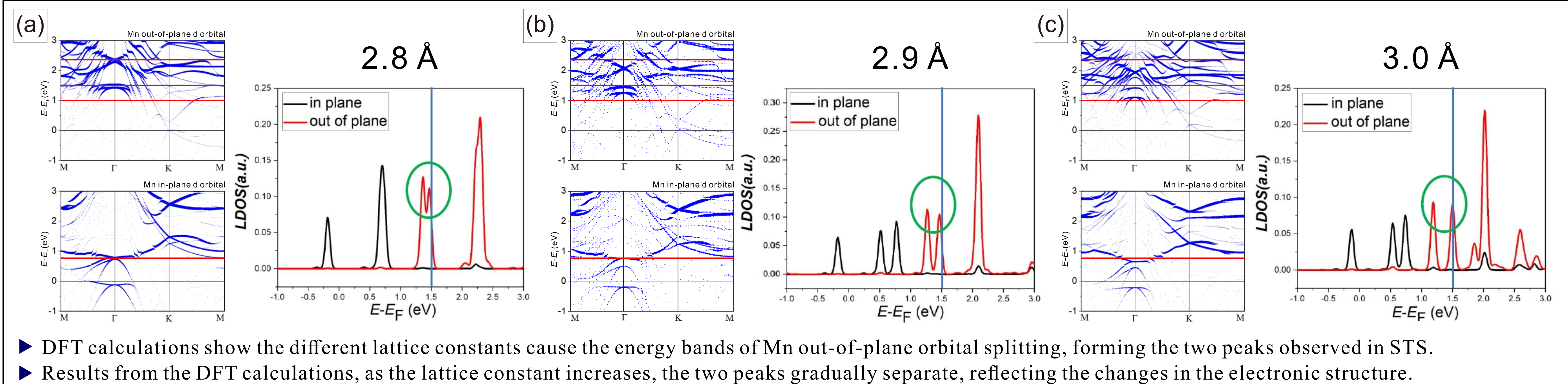
Topography & Line STS measurement



Size-dependent STS measurement



Density Functional Theory Calculation



Summary

- Through the STM measurements, we found that there are two peaks shown on STS measurements, and these two peaks are mainly located at 1.2 V and 1.6 V.
- According to theoretical calculations, we figured out that the two peaks in STS measurements are mainly from Mn out-of-plane orbital splitting.
- Combining experimental and theoretical results, we recognized that the two peaks shift or merge as the island sizes change. Moreover, variations in the two peaks can also be observed when moving across the island.

Reference

- [1] M. V. Rastei *et al.*, Phys. Rev. Lett. **99**, 246102 (2007)
- [2] C. L. Gao *et al.*, Phys. Rev. Lett. **101**, 267205 (2008)