Erratum: Quantum size effects in metal nanofilms: Comparison of an electron-gas model and density functional theory calculations [Phys. Rev. B 80, 155404 (2009)]

Yong Han and Da-Jiang Liu

(Received 7 April 2010; published 27 April 2010)

DOI: 10.1103/PhysRevB.81.159903 PACS number(s): 68.55.jd, 71.10.Ca, 73.61.At, 71.15.Nc, 99.10.Cd

When calculating the surface free energy of Ag(100), we used an incorrect supercell free-face area of $\sqrt{3}a^2/4$, which is actually that of a Ag(111) supercell. The supercell free-face area of Ag(100) should be $a^2/2$, and thus the values of the vertical axis of Fig. 8(b) should be multiplied by a factor of $\sqrt{3}/2$. The surface free energy of Ag(100) after this correction will be consistent with the inset of Fig. 5 in Ref. 1.

There is a similar correction for Fig. 9(b). When calculating the surface free energy of Mg(0001), we used an incorrect supercell free-face area of $\sqrt{3}a^2/4$. The supercell free-face area of Mg(0001) should be $\sqrt{3}a^2/2$, and thus the values of the vertical axis of Fig. 9(b) should be multiplied by a factor of $1/2$.

Please note that these corrections do not alter our discussion and conclusions.

---

[1] Y. Han, J. W. Evans, and D.-J. Liu, Surf. Sci. **602**, 2532 (2008).

