Erratum: Formation of a bilayer ordered surface alloy Mn/Ag(001) [Phys. Rev. B 57, 8823 (1998)]

Wondong Kim, Wookje Kim, S.-J. Oh, J. Seo, J.-S. Kim, H.-G. Min, and S.-C. Hong

[S0163-1829(98)01947-X]

After publication of our paper, it was brought to our attention that P. Schieffer and co-workers had previously suggested a model for the $c(2\times2)$ structure of a Mn/Ag(100) system with two-layer mixing in the following two publications: (1) P. Schieffer, C. Krembel, M. C. Hanf, and G. Gewinner, Phys. Rev. B **55** 13 884 (1997); and (2) P. Schieffer, C. Krembel, M. C. Hanf, D. Bolmont, and G. Gewinner, Solid State Commun. **97**, 757 (1996). Although we have cited in Ref. 7 of our paper a work from the same group which proposed the mixing of Mn and Ag atoms in the topmost two layers [P. Schieffer *et al.*, Surf. Sci. **352-354**, 823 (1996)], we unintentionally overlooked the above-mentioned two papers which proposed a concrete model for the $c(2\times2)$ structure and studied its thermodynamic instability at room temperature. Their model, however, is different from ours in one important aspect. They proposed that the $c(2\times2)$ superstructure originates in the first atomic plane only and the second layer is disordered, while we concluded from LEED I-V analysis that *both* first and second layers are ordered (hence the name ''bilayer ordered surface alloy''). This difference can be most easily seen in the comparison of Fig. 7(a) of paper (1) above with Fig. 1 of our paper. We agree, however, with P. Schieffer *et al.* on the thermodynamic instability of this superstructure at room temperature. We observed the sudden disappearance of the $c(2\times2)$ LEED pattern after annealing as reported in our paper, and this is also consistent with the result of total energy calculations.

