Erratum: Real-Space Observation of Current-Driven Domain Wall Motion in Submicron Magnetic Wires [Phys. Rev. Lett. 92, 077205 (2004)]

A. Yamaguchi, T. Ono, S. Nasu, K. Miyake, K. Mibu, and T. Shinjo

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There is an error in the critical current density required for the current-driven domain wall (DW) motion. At the time when we reported this Letter [1], we had calculated the current density by using the pulsed voltage applied to the sample and the sample resistance at room temperature. However, it was found in the next study [2] that the sample resistance, when the current-driven DW motion occurred, was much higher than the sample resistance at room temperature. Thus, the values of the current density in this Letter were inaccurate. The current density of 1.0×10^{12} (the critical current density), 1.2×10^{12}, and 1.3×10^{12} A/m^2 correspond to the accurate current density of 6.7×10^{11}, 7.1×10^{11}, and 7.3×10^{11} A/m^2, respectively. Figure 4(b) shows the average DW velocity as a function of the correct current density.

The conclusions of our Letter are not affected by this error.

[1] A. Yamaguchi, T. Ono, S. Nasu, K. Miyake, K. Mibu, and T. Shinjo, Phys. Rev. Lett. **92**, 077205 (2004).
[2] A. Yamaguchi, S. Nasu, H. Tanigawa, T. Ono, K. Miyake, K. Mibu, and T. Shinjo, Appl. Phys. Lett. **86**, 012511 (2005).

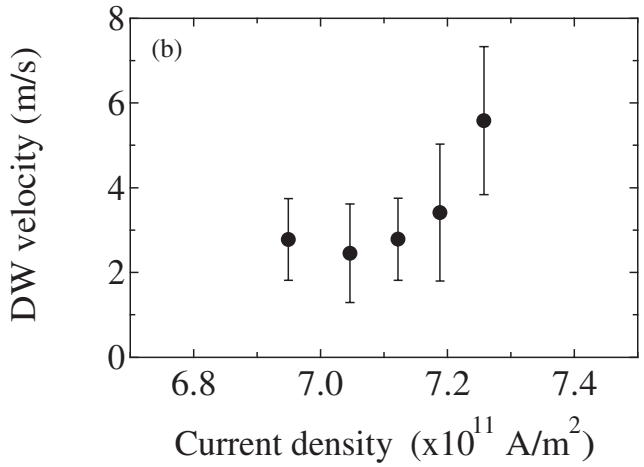

FIG. 4. (b) Average DW velocity as a function of the current density.

