

Supplementary materials.

Third type of domain wall in soft magnetic nanostrips

V. D. Nguyen,^{1,2} O. Fruchart,^{1,2} S. Pizzini,^{1,2}

J. Vogel,^{1,2} J.-C. Toussaint,^{1,2} and N. Rougemaille^{1,2,*}

¹*CNRS - Institut NÉEL - F-38042 Grenoble - France*

²*Université Grenoble Alpes - Institut NÉEL - F-38042 Grenoble - France*

**nicolas.rougemaille@neel.cnrs.fr*

(Dated: September 16, 2015)

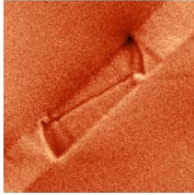
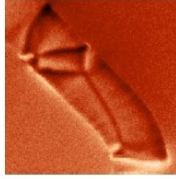
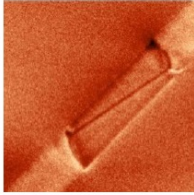
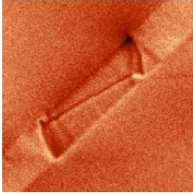
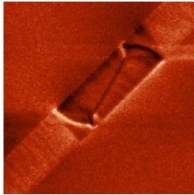
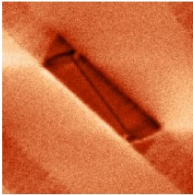
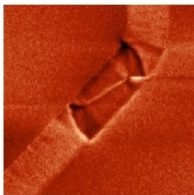
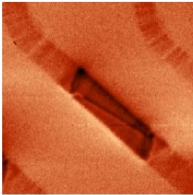
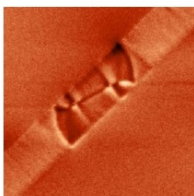
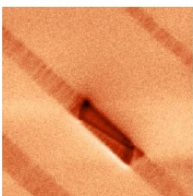
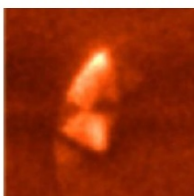
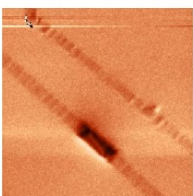
Varying the thickness of the strip		Varying the width of the strip	
Width = 1000 nm	Thickness	Thickness = 80 nm	Width
	80 nm		1200 nm
	70 nm		1000 nm
	60 nm		800 nm
	55 nm		600 nm
	50 nm		400 nm
	40 nm		200 nm

FIG. 1. (Color online) MFM images of Landau DWs in 1 μm -wide strips of different thicknesses (left column) and in 80 nm-thick strips of different widths (right column).

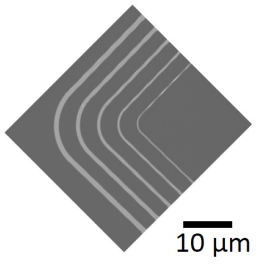
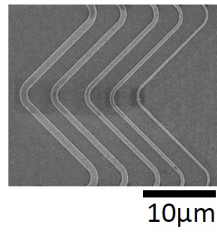
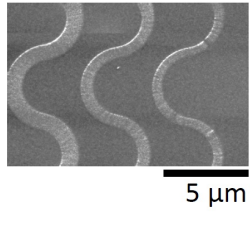
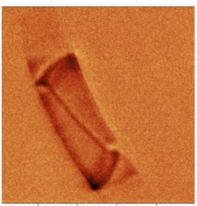
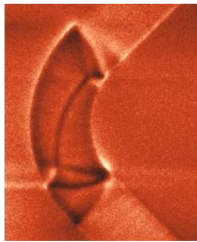
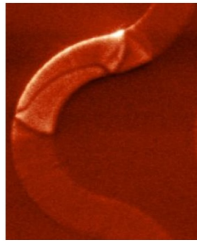
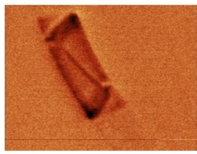
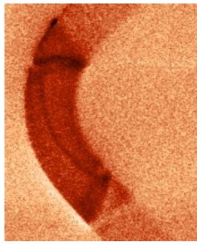
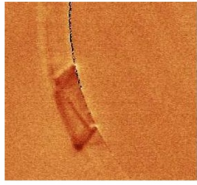
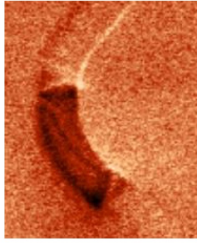
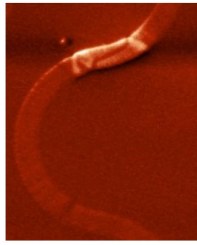
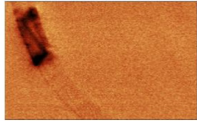
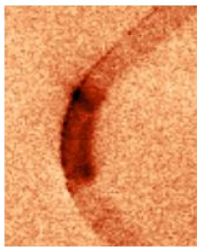
Varying the shape and width of the strip (thickness = 80 nm)			
Smooth corner	Sharp corner	Very sharp corner	Width
 10 μm	 10 μm	 5 μm	
			1000 nm
			800 nm
			600 nm
			400 nm

FIG. 2. (Color online) Electron micrographs and MFM images of Landau DWs in 80 nm-thick strips of different widths and shapes.