Supporting Information for the article:

**Orientational dynamics of colloidal ribbons self-assembled from microscopic magnetic ellipsoids.**

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**Supporting Videos.**

**MovieS1(.WMV):** ribbon composed of 5 hematite ellipsoids reorienting perpendicular to the direction of an oscillating field direction. The applied field has amplitude $H = 1600\text{ A m}^{-1}$ and angular frequency $\omega = 314.1 \text{ rad s}^{-1}$. The video corresponds to Fig.3(a) of the manuscript.

**MovieS2(.WMV):** ribbon composed of 6 hematite ellipsoids and subjected to an external oscillating magnetic field with amplitude $H = 2780\text{ A m}^{-1}$ and angular frequency $\omega = 314.1 \text{ rad s}^{-1}$. Given the high amplitude of the field, the individual ellipsoids follow synchronously the external field and the ribbon break into pieces rather than reorienting as a whole. The video corresponds to the inset in Fig.3(d) of the manuscript.