## **Supplementary Information**

Article : Control of anisotropic growth of cobalt nanorods in liquid phase: from experiment to theory ... and back.

By

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**Figure S1.** Gas chromatograms of: (a) commercial as-received 1,2-butanediol, (b) 1,2-butanediol heated under reflux in air for 24 h and (c) the liquid phase recovered after 10 min at 448 K.



**Figure S2.** Side views of 12 layers slab of Co(1010) (left-hand side) and Co(0110) (right-hand side). The four bottom layers are kept frozen in the bulk position. The upper layers have been relaxed up to forces lower than 0.01eV/Å. The Co atoms are represented using a color gradient from bottom (red) to top (blue).



**Figure S3.** Adsorption of 1,2-butanediol: (a) on Co(0001) surface and (b) on  $Co(10\overline{1}0)$  surface. The numbers correspond to Co-O distances in Å.