



Supplementary Material

Enhanced Magnetic Behavior of Cobalt Nano-Rods Elaborated by the Polyol Process Assisted with an External Magnetic Field

Mohamed Ali Bousnina ¹, Amel Dakhlaoui-Omrani ^{1,2}, Frédéric Schoenstein ¹,
Yaghoub Soumare ^{1,3}, Aliou Hamady Barry ^{1,3}, Jean-Yves Piquemal ⁴, Guillaume Viau ⁵,
Silvana Mercone ^{1,*} and Noureddine Jouini ^{1,*}

¹ Laboratoire des Sciences des Procédés et des Matériaux, CNRS, UPR 3407, Université Sorbonne Paris Nord, 99 avenue J.B. Clément, F-93430 Villetaneuse, France; medalibousnina@yahoo.fr (M.A.B.); amel_dakhlaoui@yahoo.fr (A.D.-O.); frederic.schoenstein@univ-paris13.fr (F.S.); soumareyaghoub@yahoo.fr (Y.S.); barryaliouhamady@ymail.com (A.H.B.)

² Department of Chemistry, Faculty of Sciences and Arts-Khulais, University of Jeddah, Khulais P.O. Box 355, Jeddah 21921, Saudi Arabia

³ Laboratoire de chimie des Matériaux, Département de chimie, Faculté des sciences et Techniques, Université des Sciences de Technologie et de Médecine, Nouakchott BP 880, Mauritanie

⁴ Laboratoire Interfaces Traitements Organisation et DYnamique des Systèmes, CNRS, UMR 7086, Université de Paris, 15 rue J.-A. de Baïf, F-75013 Paris, France; jean-yves.piquemal@u-paris.fr

⁵ Laboratoire de Physique et Chimie des Nano-objets, CNRS, INSA, UPS, Université de Toulouse, 135 avenue de Rangueil, F-31077, Toulouse CEDEX 4, France; guillaume.viau@insa-toulouse.fr

* Correspondence: silvana.mercone@univ-paris13.fr (S.M.); jouini@univ-paris13.fr (N.J.); Tel.: +33-1-49-40-34-20 (S.M.); +33-1-49-40-34-35 (N.J.)

Received: 31 December 2019; Accepted: 11 February 2020; Published: 15 February 2020

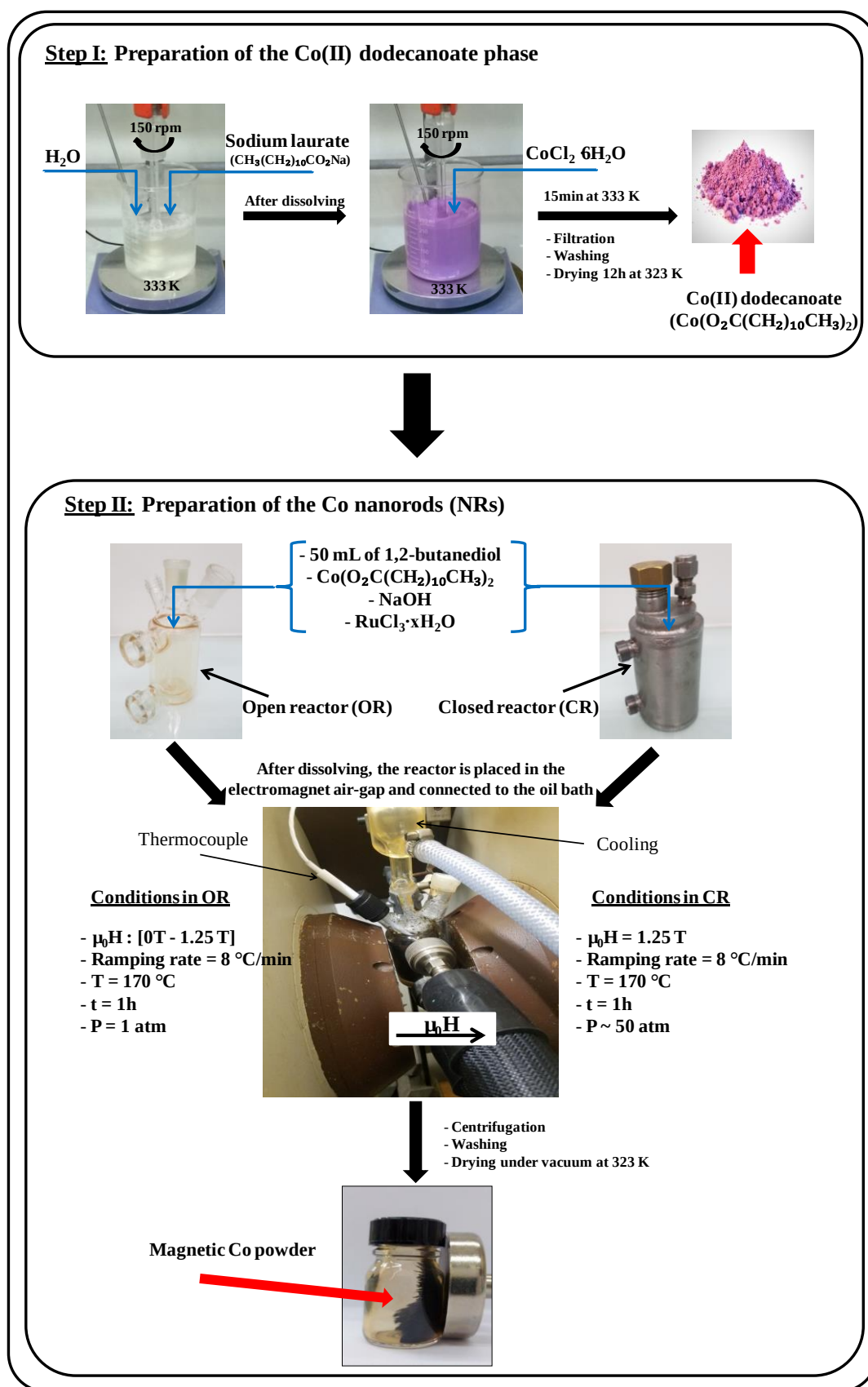


Figure S1. Schematic drawing of the setup and of the preparation steps of Co NWs in open reactor / closed reactor under external magnetic field.

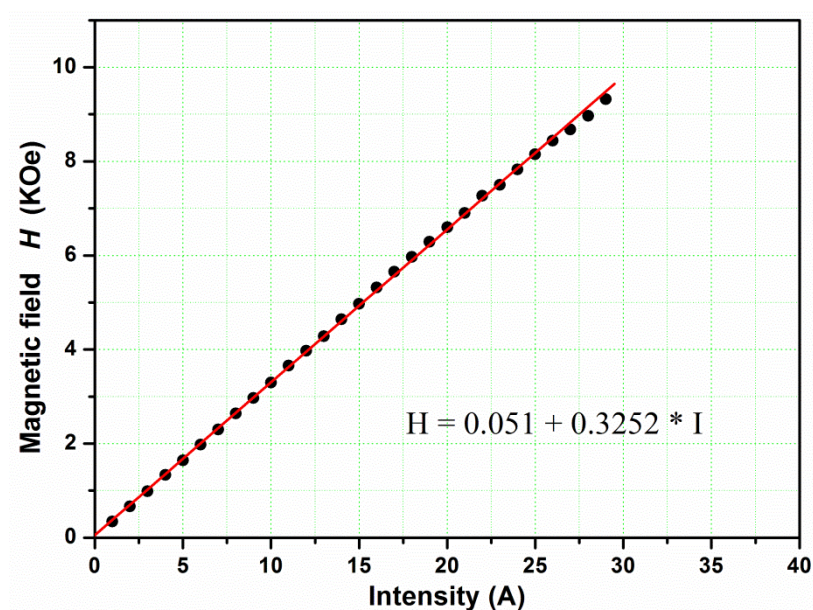
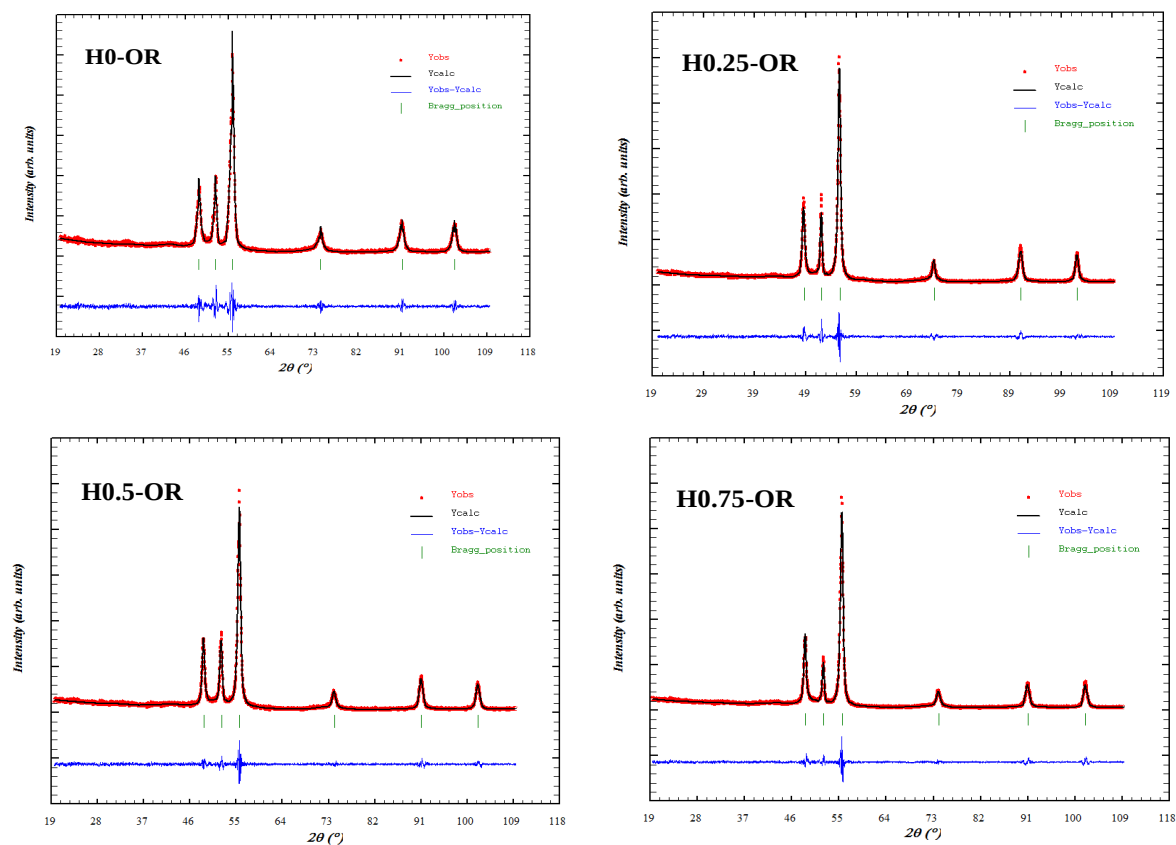


Figure S2. Calibration curve of the electromagnet: Magnetic Field versus Intensity.



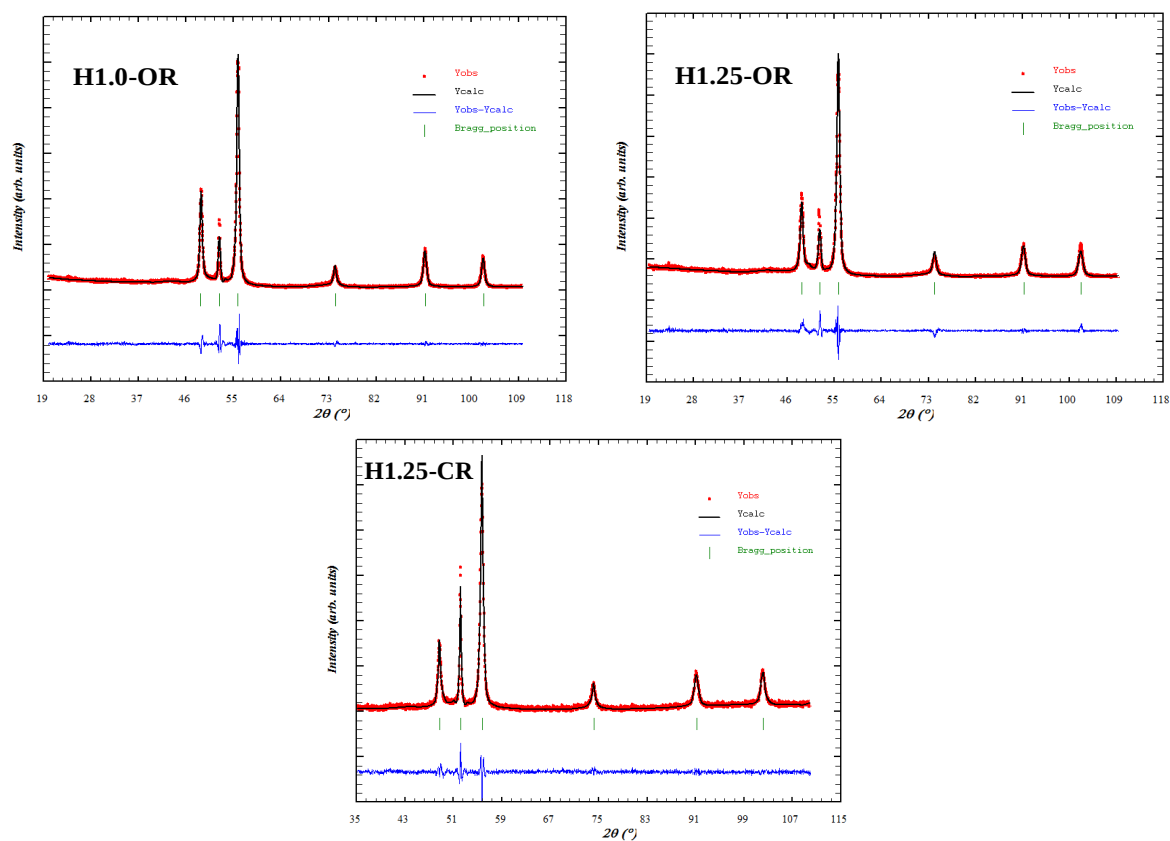


Figure S3. Rietveld refinement results of XRD patterns of Co NWs samples prepared under external magnetic field varied from 0 T to 1.25 T. The experimental data are shown as dots; the global fitting profile and the difference curve are shown as solid lines; the calculated reflection positions are indicated by stick marks.



© 2020 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).