

Supplementary Material

MOKE-XRD experiment for the study of magnetomechanical properties thin films deposited on stretchable substrates

Hatem Ben Mahmoud^{1,2}, Damien Faurie¹, Pierre Godard², Dominique Thiaudière³, Pierre-Olivier Renault², Fatih Zighem¹

¹Laboratoire des Sciences des Procédés et des Matériaux, CNRS, Université Sorbonne Paris Nord,
93430, Villejuif, France

²Université de Poitiers—CNRS, Institut Pprime, F86962 Futuroscope Chasseneuil, France

³Soleil Synchrotron, L'orme des merisiers, Saint-Aubin, France

e-mails: hatem.benmahmoud@sorbonne-paris-nord.fr, faurie@univ-paris13.fr, pierre.godard@univ-poitiers.fr, dominique.thiaudiere@synchrotron-soleil.fr, pierre.olivier.renault@univ-poitiers.fr, zighem@univ-paris13.fr

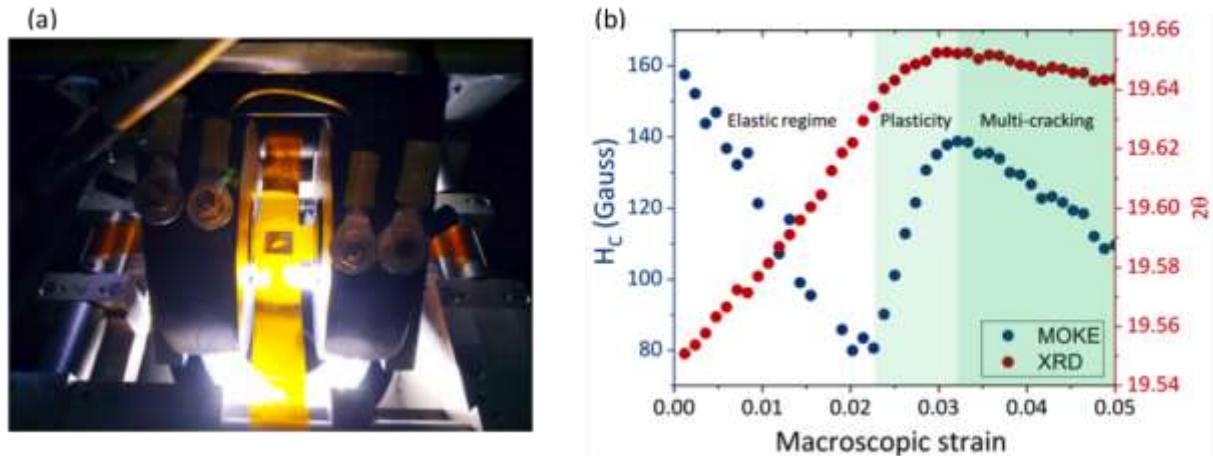


Figure 1: (a) Electromagnet combined with a biaxial machine located in the DiffAbs goniometer (SOLEIL). (b) Evolution of the coercive field H_c and of the angle 2θ with the macroscopic strain, for a 50 nm Co thin film on Kapton substrate, subjected to an equibiaxial loading.