Supplementary information

Effect of Cold Rolling on the Evolution of Shear Bands and Nanoindentation Hardness in $Zr_{41.2}Ti_{13.8}Cu_{12.5}Ni_{10}Be_{22.5}$ Bulk Metallic Glass

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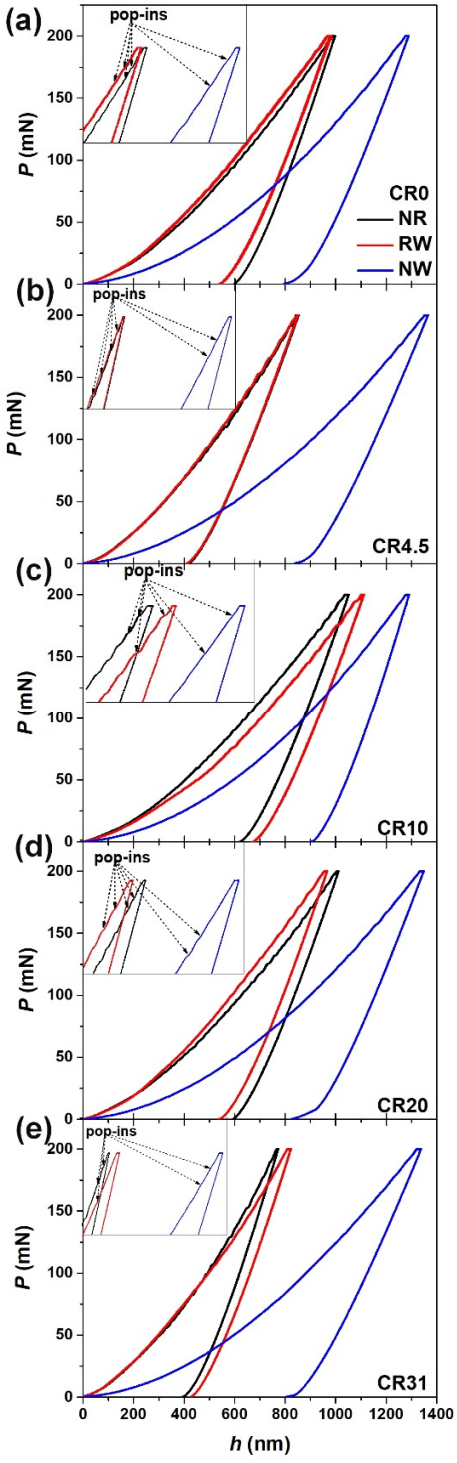

Figure S1: *P*- *h* plots at P_{max} = 200 mN along along NR, RW and NW; (**a**) CR0, (**b**) CR4.5, (**c**) CR10, (**d**) CR20 and (**e**) CR31, pop-in events are more pronounced in CR0, which gradually decreases with the increase of cold rolling strain.

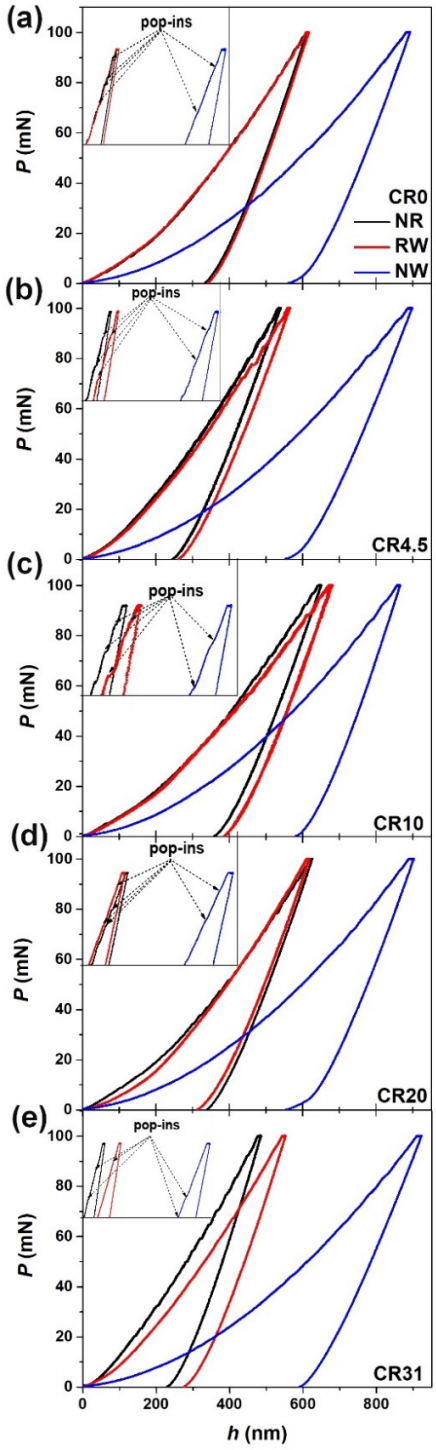

Figure S2: *P*- *h* plots at P_{max} = 100 mN along along NR, RW and NW; (**a**) CR0, (**b**) CR4.5, (**c**) CR10, (**d**) CR20 and (**e**) CR31, pop-in events are more pronounced in CR0, which gradually decreases with the increase of cold rolling strain.

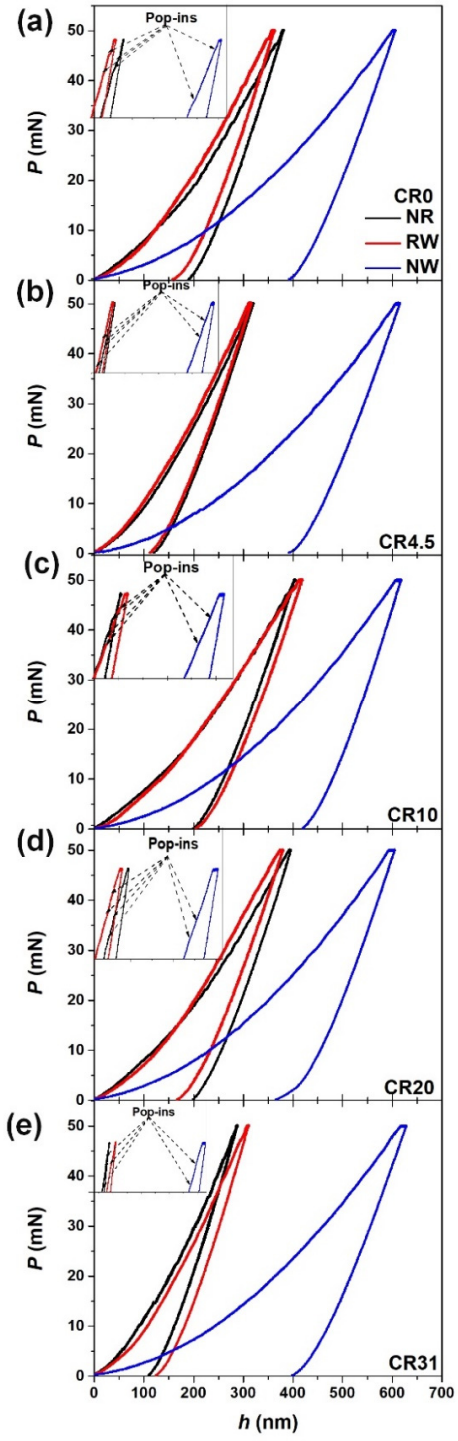

Figure S3: *P*- *h* plots at P_{max} = 50 mN along NR, RW and NW; (**a**) CR0, (**b**) CR4.5, (**c**) CR10, (**d**) CR20 and (**e**) CR31, pop-in events are more pronounced in CR0, which gradually decreases with the increase of cold rolling strain.