

Doping of Self-Catalyzed Nanowires under the Influence of Droplets

Yunyan Zhang,[†] Zhiyuan Sun,^{‡,⊥} Ana M. Sanchez,^{#,⊥} Manfred Ramsteiner,^{§,⊥} Martin Aagesen,^{||} Jiang Wu,[†]

Dongyoung Kim,[†] Pamela Jurczak,[†] Suguo Huo,[¶] Lincoln J. Lauhon,[‡] and Huiyun Liu[†]

[†] Department of Electronic and Electrical Engineering, University College London, London WC1E 7JE, United Kingdom;

[‡] Department of Materials Science and Engineering, Northwestern University, 2220 Campus Drive, Evanston, Illinois 60208-3108, United States

[#] Department of Physics, University of Warwick, Coventry CV4 7AL, United Kingdom

[§] Paul-Drude-Institut für Festkörperelektronik, Hausvogteiplatz 5–7, 10117 Berlin, Germany

^{||} Center for Quantum Devices, Niels Bohr Institute, University of Copenhagen, Universitetsparken 5, 2100 Copenhagen, Denmark

[¶] London Centre for Nanotechnology, University College London, London WC1H 0AH, United Kingdom

Supporting information 1:

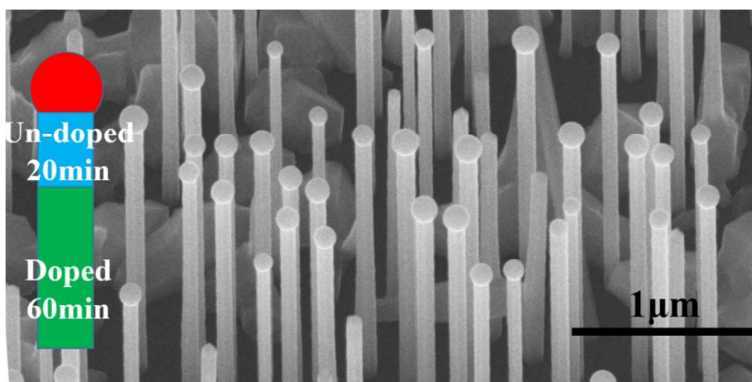


Figure S1. SEM image of GaAs NWs grown with a 60 mins Be doped duration (nominal concentration $1.6 \times 10^{18}/\text{cm}^3$) and then followed by a 20 mins non-doped duration. The Ga droplet is on the exact top of the NW.

Supporting information 2:

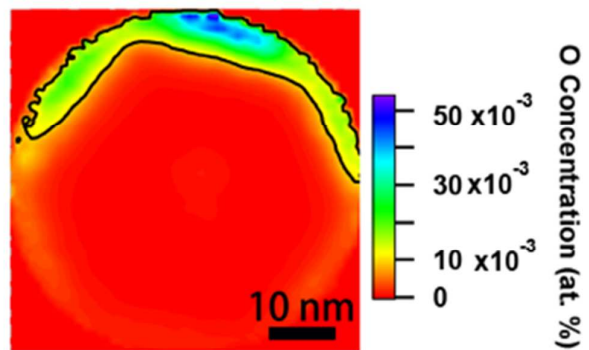


Figure S2. Oxygen distribution map in the NW cross-section shown in Figure 3a.