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Authors: Ali Mirzaei, Sung Yong Kang, Sun-Woo Choi, Yong Jung Kwon, Myung Sik Choi, Jae Hoon Bang, Sang Sub Kim, Hyoun Woo Kim



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Fabrication and gas sensing properties of vertically aligned Si nanowires

Ali Mirzaei^a, Sung Yong Kang^b, Sun-Woo Choi^c, Yong Jung Kwon^b, Myung Sik Choi^b, Jae Hoon Bang^b, Sang Sub Kim^{c*}, Hyoun Woo Kim^{a,b*}

^aThe Research Institute of Industrial Science, Hanyang University, Seoul 133-791, Republic of Korea

^bDivision of Materials Science and Engineering, Hanyang University, Seoul 133-791, Republic of Korea

^cDepartment of Materials Science and Engineering, Inha University, Incheon 402-751, Republic of Korea

*Corresponding author. Tel.: +82-10-8428 0883; 82-32-860-7546. E-mail address: hyounwoo@hanyang.ac.kr; sangsub@inha.ac.kr

Highlights

- Novel configuration for a gas sensor consisting of vertically aligned silicon nanowires synthesized by metal-assisted chemical etching.
- Highly vertically oriented arrays of Si NWs with a straight-line morphology were obtained.
- Vertically aligned silicon nanowires exhibited a remarkable response ($R_g/R_a = 11.5\sim 17.1$)

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