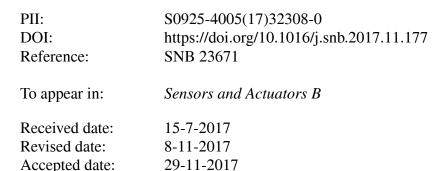
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Ag nanoparticles-functionalized rough silicon nanowires array and its unique response characteristics to ultrararefied NO₂

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HIGHLIGHTS:

- 1. Novel facile, cost-effective process for Ag modified SiNWs array is first reported.
- 2. Ag modification to SiNWs is realized directly from MACE-produced Ag dendrites.
- 3. Crucial TMAH post-etching is developed to provide double functions.
- 4. Modified rough SiNWs exhibit ultrasensitive, rapid response to 10 ppb NO₂ at RT.

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