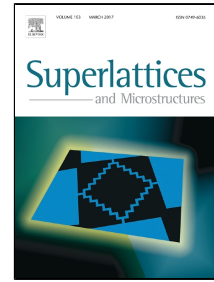


# Accepted Manuscript

A high performance Ge/Si<sub>0.5</sub>Ge<sub>0.5</sub>/Si heterojunction dual sources tunneling transistor with a U-shaped channel

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PII: S0749-6036(17)30133-7

DOI: 10.1016/j.spmi.2017.03.037

Reference: YSPMI 4904

To appear in: *Superlattices and Microstructures*

Received Date: 16 January 2017

Revised Date: 19 March 2017

Accepted Date: 22 March 2017

Please cite this article as: Wei Li, Hongxia Liu, Shulong Wang, Qianqiong Wang, Shupeng Chen, A high performance Ge/Si<sub>0.5</sub>Ge<sub>0.5</sub>/Si heterojunction dual sources tunneling transistor with a U-shaped channel, *Superlattices and Microstructures* (2017), doi: 10.1016/j.spmi.2017.03.037

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### Research highlights

- A Ge/Si<sub>0.5</sub>Ge<sub>0.5</sub>/Si heterojunction dual sources UTFET (Ge\_DUTFET) is designed.
- The point tunneling and line tunneling simultaneously occur on both sides of gate.
- The Ge\_DUTFET has the higher on-state current,  $f_T$  and GBW.
- The Ge\_DUTFET has smaller turn-on voltage.
- Ge\_DUTFET has the better analog/RF performance compared with the Si\_DUTFET.

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