## **Accepted Manuscript**

Title: HfO<sub>2</sub> Gate Dielectric on Ge (111) with Ultrathin Nitride Interfacial Layer formed by Rapid Thermal NH<sub>3</sub> Treatment

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#### ACCEPTED MANUSCRIPT

### **Highlights**

- 1. The GeON/HfO<sub>2</sub> gate stack is formed on Germanium (111) substrate.
- 2. The Rapid thermal nitridation was carried out by using NH<sub>3</sub>.
- 3. The GeON forms the stable interface between high-k and Ge substrate.
- 4. The results show the improvement in k value and EOT due to NH<sub>3</sub> pre deposition annealing.
- The effect of post metallization annealing was studied on different parameters of Ge MOS devices.

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