

## **75 Word Abstract**

### **Strained Silicon NMOS with Nickel-Silicide Metal Gate**

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Strained Si NMOS transistors with gate lengths down to 35nm were fabricated using NiSi as metal gate electrode material for the first time. Compared to poly gate devices, NiSi metal gate devices showed further enhanced performance with good control of short channel effects and no degradation in gate oxide integrity.