A voltage reference circuit based on threshold-voltage-summation ($\Sigma V_{th}$) architecture is proposed. Its output ($V_{REF}$) is not affected by the input offset of the feedback amplifier in the circuit. Thus, its $V_{REF}$ dispersion is considerably reduced. A prototype circuit fabricated in fully depleted CMOS/SIMOX technology can operate at a supply voltage as low as 0.6 V. The measured $V_{REF}$ is 530 mV ± 16.8 mV (3σ) and the measured temperature coefficient is 0.02 mV/$^\circ$C ± 0.06 mV/$^\circ$C (3σ).