

Josephson Junction Array for Voltage Metrology

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For several decades, the Josephson effect had profound impact on the electrical metrology, and the Josephson junction array for voltage metrology has been one of the successful examples of practical application of the superconductive electronics. In this brief review, we will overview history of Josephson voltage standard, and introduce current and future development issues including programmable Josephson voltage standards (PJVS), ac Josephson voltage standard (ACJVS) as well as dynamics of Josephson junction array, which is important to understand the electronic properties of the Josephson junction array and to optimally design and operate it.

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