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Affordable, efficient injection-locked magnetrons for superconducting cavities

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The cost of a klystron for the SNS is estimated to be in the \$200K range. A magnetron with the same power level is about one-fourth the cost. With ancillary equipment to functionally duplicate the performance of the klystron and allowing for the reduced lifetime of the magnetron compared to the klystron, about half the cost. Additional operational cost savings are related to the 805 MHz magnetron 90% efficiency, which for some applications is twice that of a corresponding klystron.

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Footnotes

I have read and accept the Privacy Policy Statement

Yes

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