



Preparation and test of Nb₃Sn film cavities by tin vapor method at Peking University

Tuesday 23 September 2025 14:30 (3 hours)

Researches on preparation of Nb₃Sn superconducting cavities has been carried at Peking University. Nb₃Sn films were prepared by tin vapor method with a high vacuum furnace. We proposed a coating scheme of 1.3 GHz single cell Nb₃Sn cavity with three tin sources inside. Nb₃Sn films with a tin content of more than 25 % were obtained. The vertical tests show the Q of the prepared Nb₃Sn cavities reaches 3.2E10 at low accelerating gradient and larger than 1.0E10@10 MV/m after optimization of the annealing procedure.

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Yes

Footnotes

Funding Agency

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