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Design of X-band distributed-coupling accelerating structure

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Distributed-coupling structures has been proposed as an advanced type of high-gradient accelerators, RF power flow independently into each cavity. This method has few advantages such as high shunt impedance, superior power efficiency, and low costs. And the most distributed-coupling structures typically set 0° or 180° as the phase advance which can simplify the design. In this study we introduces a new-designed distributed-coupling structures with phase advance greater than 180° . This choice of angle will significantly reduce costs without affecting the shunt impedance.

Footnotes

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Region represented

Asia

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