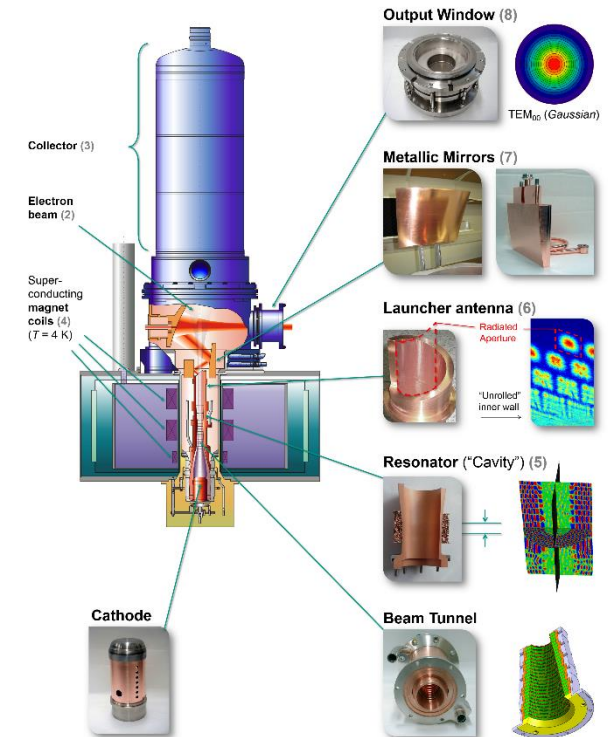


Self Consistent Scattering Matrix Gyrotron Staring Current Simulation

Gyrotrons are high power microwave oscillators which are used to heat plasma in fusion reactors. Currently, fusion gyrotrons can generate an output power of up to 2 MW at a frequency of up to 170 GHz.

In this thesis, the influence of so-called mode conversion in the gyrotron cavity section and its influence on gyrotron operation will be investigated. For this purpose, an existing scattering matrix code shall be extended. First experiences in Matlab or Python would be advantageous.

If you want to be part of the international fusion research and work on the energy source of tomorrow, do not hesitate to contact us.



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