

Multi-Harmonic Buncher for ISRS

Test stand in Bilbao

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[1] Fields optimization Multi-Harmonic Buncher (MHB) design, 2D axisymmetric, 3D in COMSOL and ELCANO (home code) for fine parametric optimization.

[2] Validation. Fields exported for beam dynamics calculations with GPT and TRACWIN code.

[3] Ion Source. versatile Ion source H^+ , H_2^+ , H_3^+ , He^+ : New experiments using He, prove different specimens can be used. Experiments conducted with FCT1 showed we can produced and measure 50ns pulsed beams.

[4] RF Source Both analog and digital solutions already studied, PID feedback loop tests already implemented and verified in existing Klystron based RF amplifier.

