

**Changing VICKSI into ISL: A VE-RFQ as Injector for the Cyclotron,** W. BUSSE, H. HOMEYER, B. MARTIN, W. PELZER, HMI<sup>\*</sup>; O. ENGELS, F. MARHAUSER, A. SCHEMPP, IAP<sup>\*\*</sup> - In order to improve its performance in terms of higher beam currents and larger mass variety of ions in the energy range of 2 to 6 MeV/n for solid state physics applications, the cyclotron at the ISL (Ionen-Strahl-Labor Berlin) receives a new injector. Ions with charge per mass number of 1/8 to 1/5 are provided by a 14 GHz ECR source on a 200 KV platform. Prebunched and chopped, the ions are injected into a VE-RFQ (Variable Energy-RFQ) injector to produce beams with output energies between 90 and 360 KeV/n. Injection of these beams into the cyclotron will result in further acceleration to energies in the range of 2 to 6 MeV/n. The old accelerator combination VICKSI, a 6MV CN Van-de- Graaff as injector for the cyclotron, will be used primarily for eye cancer treatment with a special proton beam. The status of the RFQ-injector-project is given, with special attention to some matching problems and novel RFQ-features.

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