## Magnets for a new low emittance storage ring at The ESRF. J. Chavanne, G. Le Bec, F. Bouteille, P. N'Gotta, ESRF, Grenoble France

An upgrade of the existing storage ring is under study at the ESRF. The project aims at a large reduction of the horizontal electron beam emittance from the present 4 nm down to 160 pm. The new lattice based on a 7-bend achromat involves new types of magnets including dipoles with longitudinal gradient, combined dipole-quadrupoles, high gradient quadrupoles (up to 100 T/m) and strong sextupoles (2500 T/m^2) as well. The status of the magnet development and associated magnetic measurement will be presented.