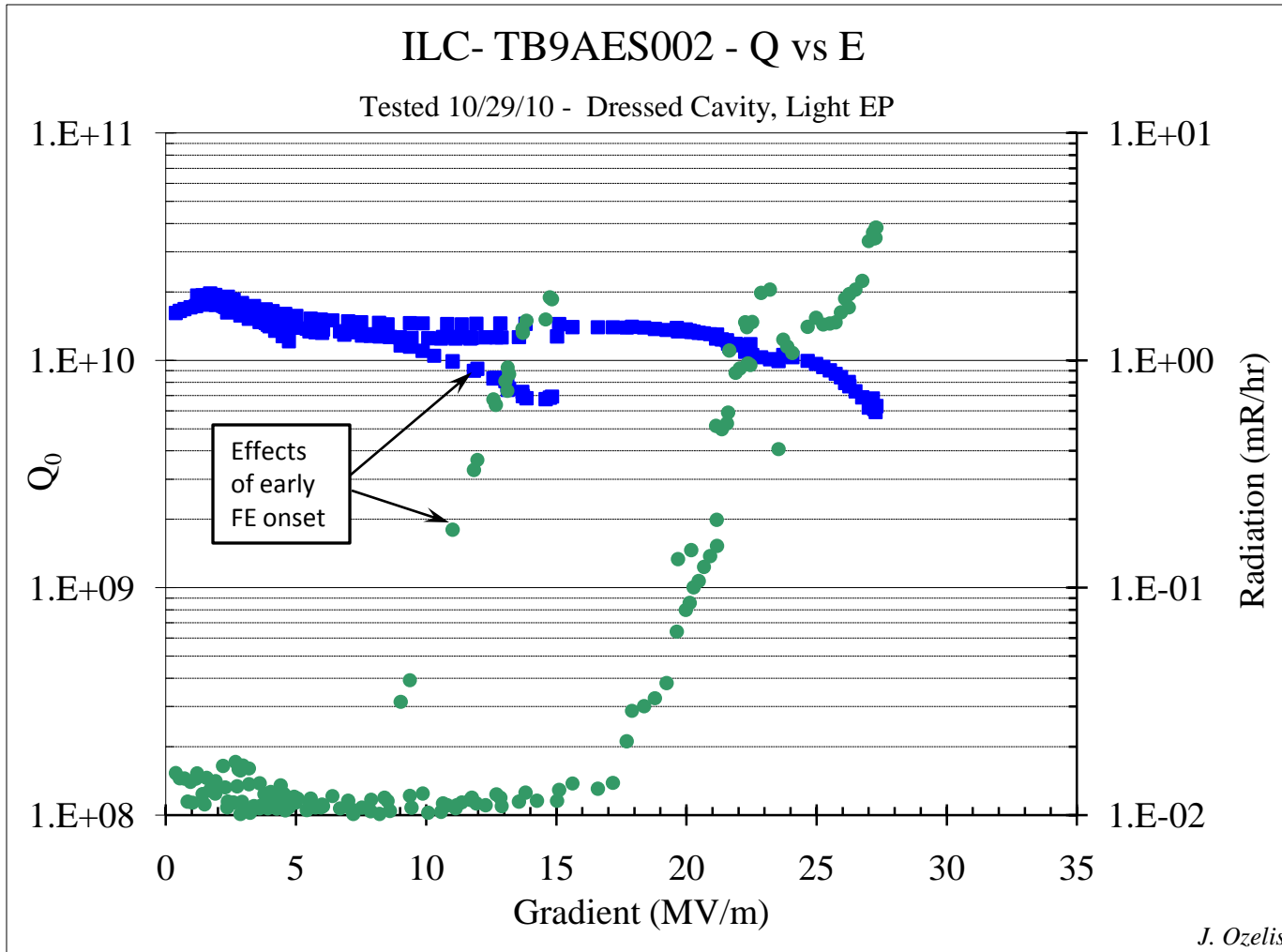


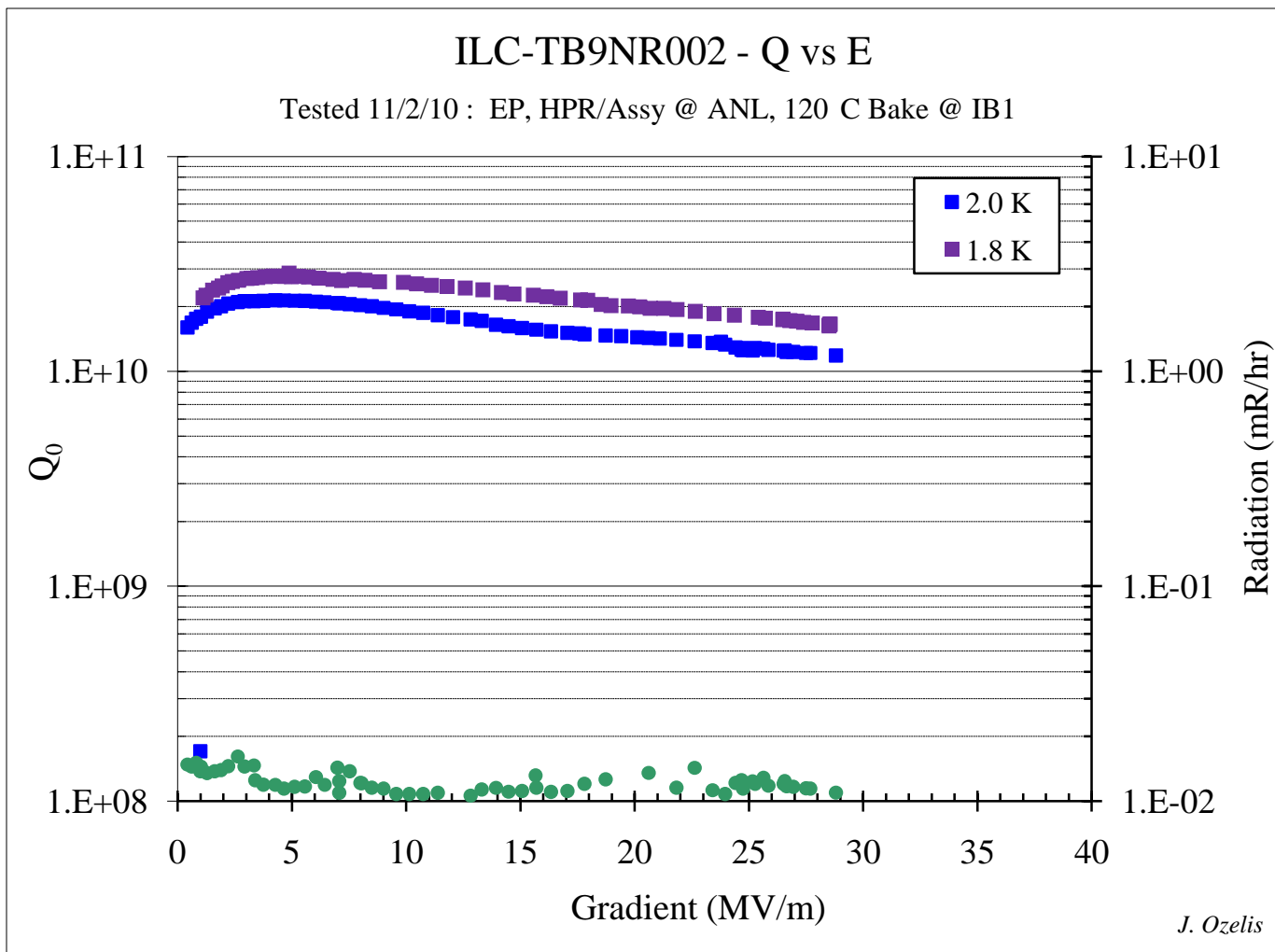
Cavity Test Results : TB9AES002 & TB9NR002

TB9AES002 (aka AES002) : dressed cavity that received light EP, after limited in 3 vertical tests to 20MV/m (hard quench)

TB9NR002 : first cavity fabricated by Niowave/Roarke to be processed/tested

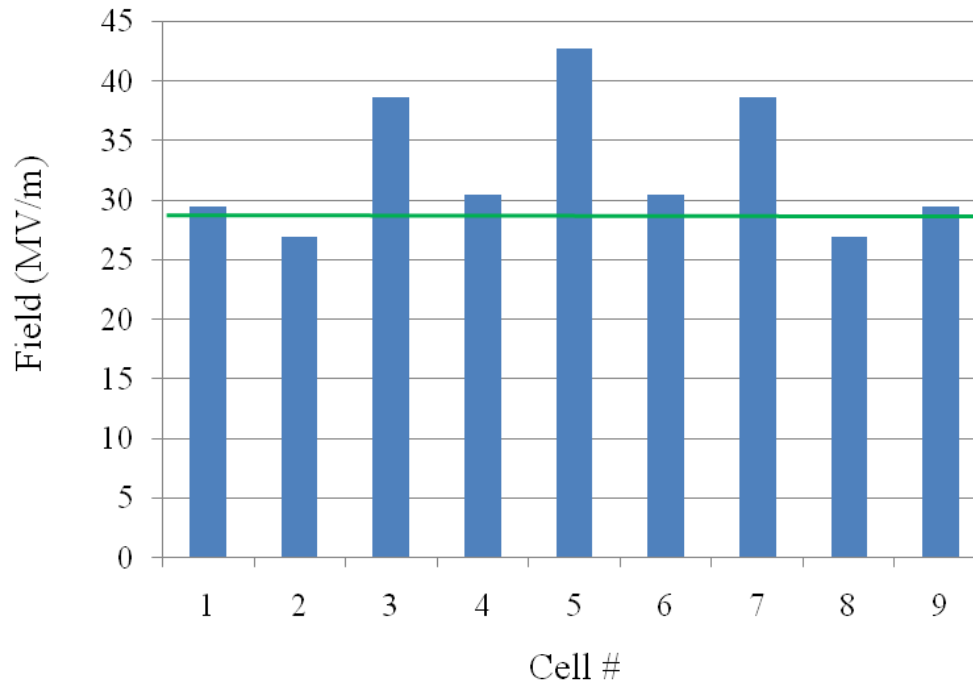


Early FE onset (9 MV/m), processed away. FE returned at 18MV/m. Limited by FE-induced quench at 27.3MV/m. LF Q_0 1.9×10^{10} ("hump"), strong Q_0 drop due to FE loading at 20MV/m. Improvement from previous 19.8MV/m (hard) quench limit, but FE much worse, and overall Q_0 is lower (LF and HF).



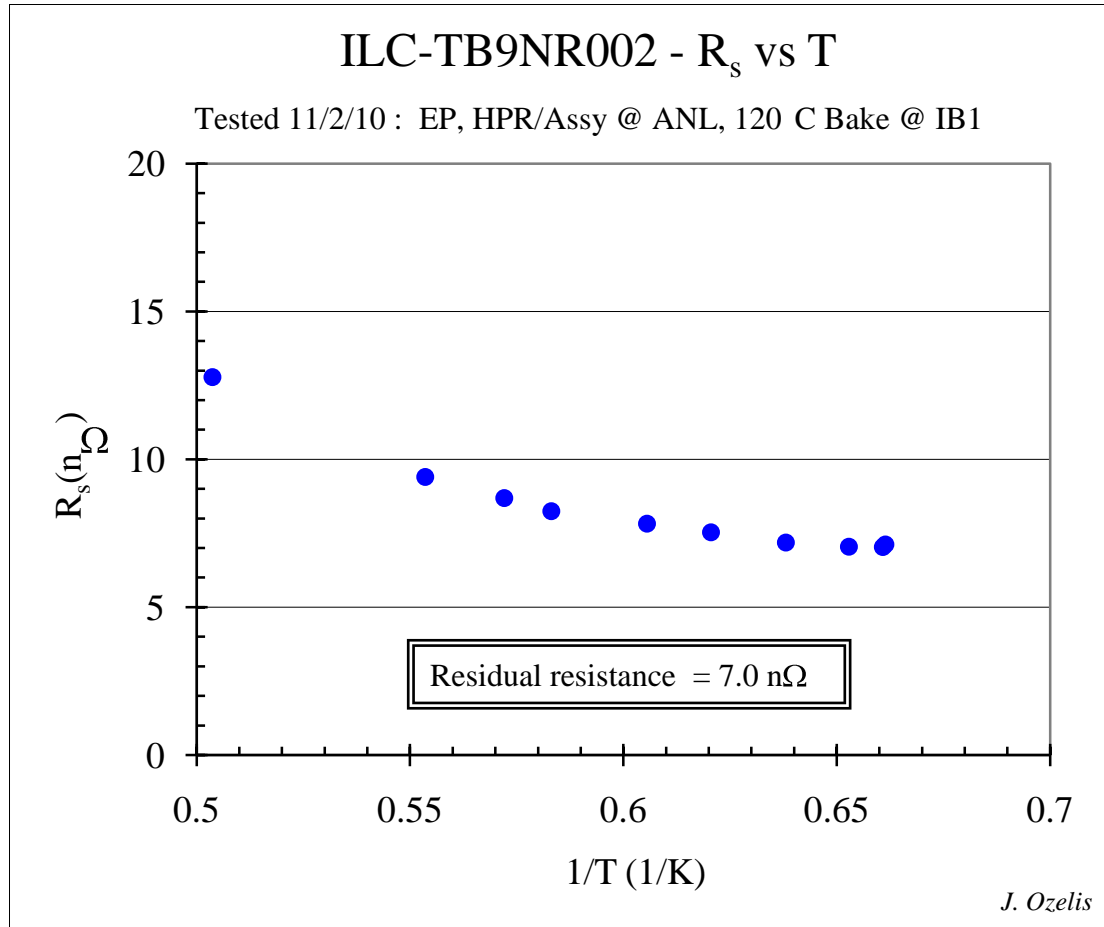
First N/R cavity to be tested. Full processing at FNAL/ANL. Quench limited to 28.5 MV/m (with Q_0 there 1.2×10^{10}). Also good LF Q_0 (2.1×10^{10}), no FE. At 1.8K, Q_0 improves by 30-40% (typical).

TB9NR002 - Cell Fields



J. Ozelis

Mode meas & OST data indicate cell #2 as limiting cell. Others do better : 30–43MV/m. Recent re-tests w/ thermometry and optimized placement of OST's indicate cells 1 and 2 are limiting performance at the 28-29 MV/m level.



Residual surface resistance $\sim 7n\Omega$.