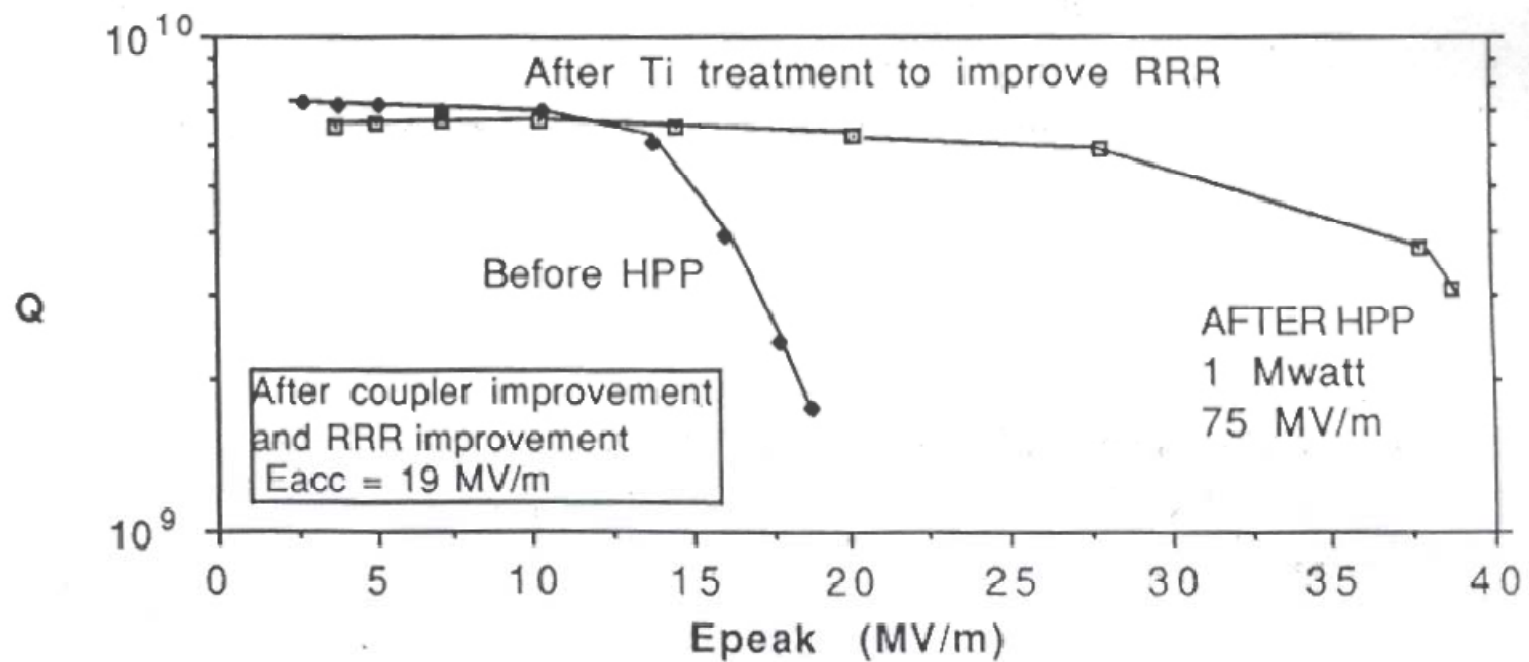
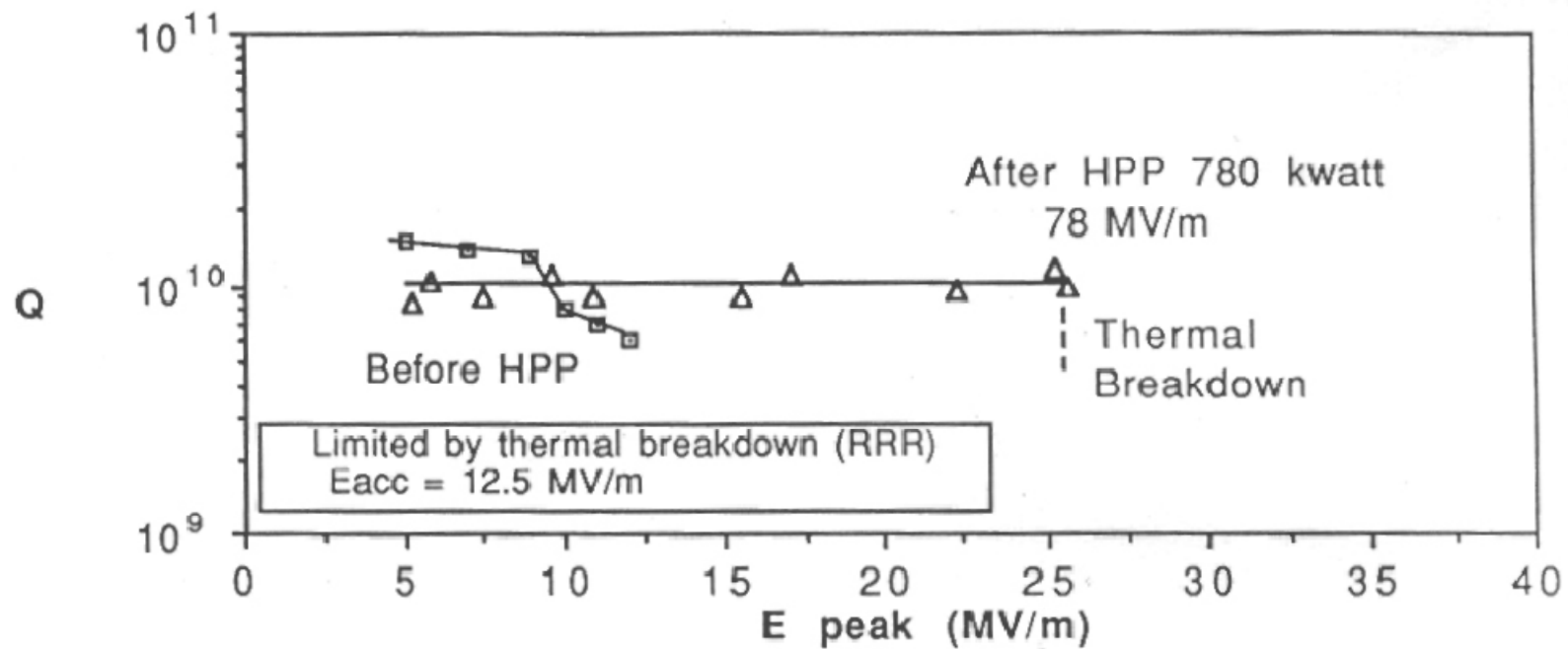


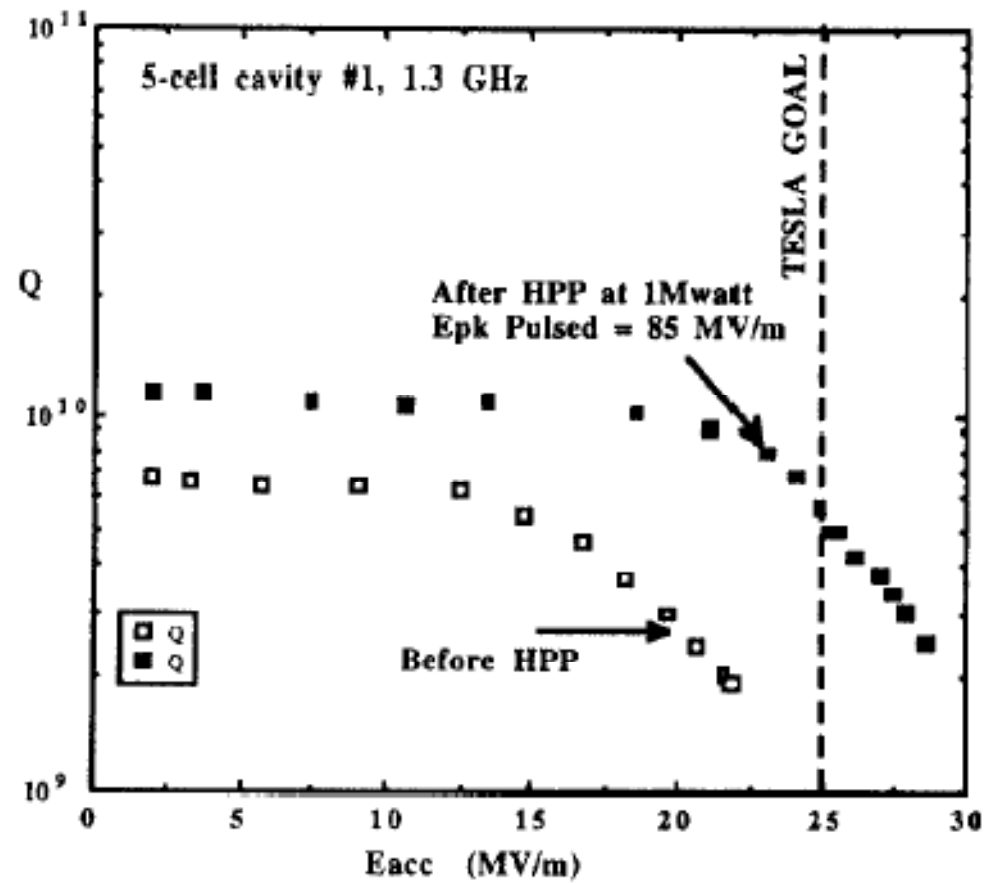
# Post Purification for Multi-Cells

# Cornell 5-cell, 1.3 GHz cavity #1

- Start RRR = 250
- limited by quench at 12.5 MV/m improved by titanisation to 19 MV/m and after more etching to > 28 MV/m, limited by Q-slope + FE.
- References: See 6th SRF workshop (CEBAF) p. 539, Q vs E curve before >titanisation and epac94 paper attached, after titanisation and HPP.

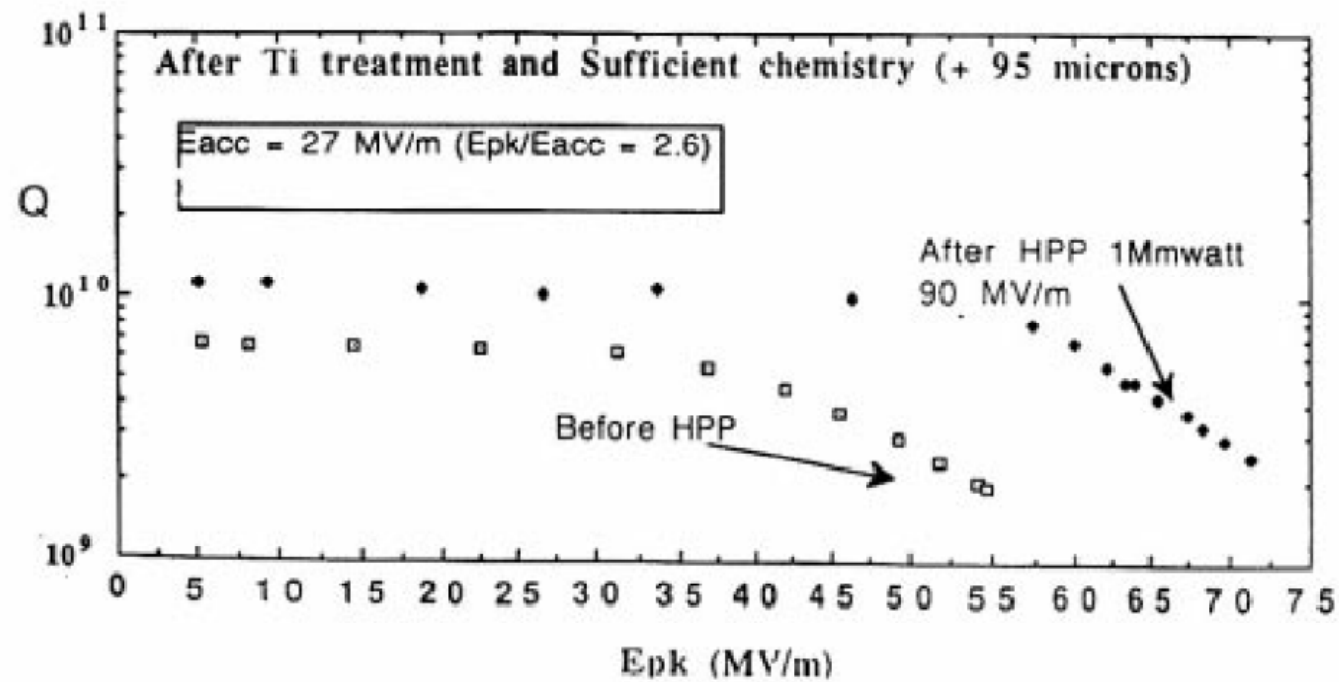
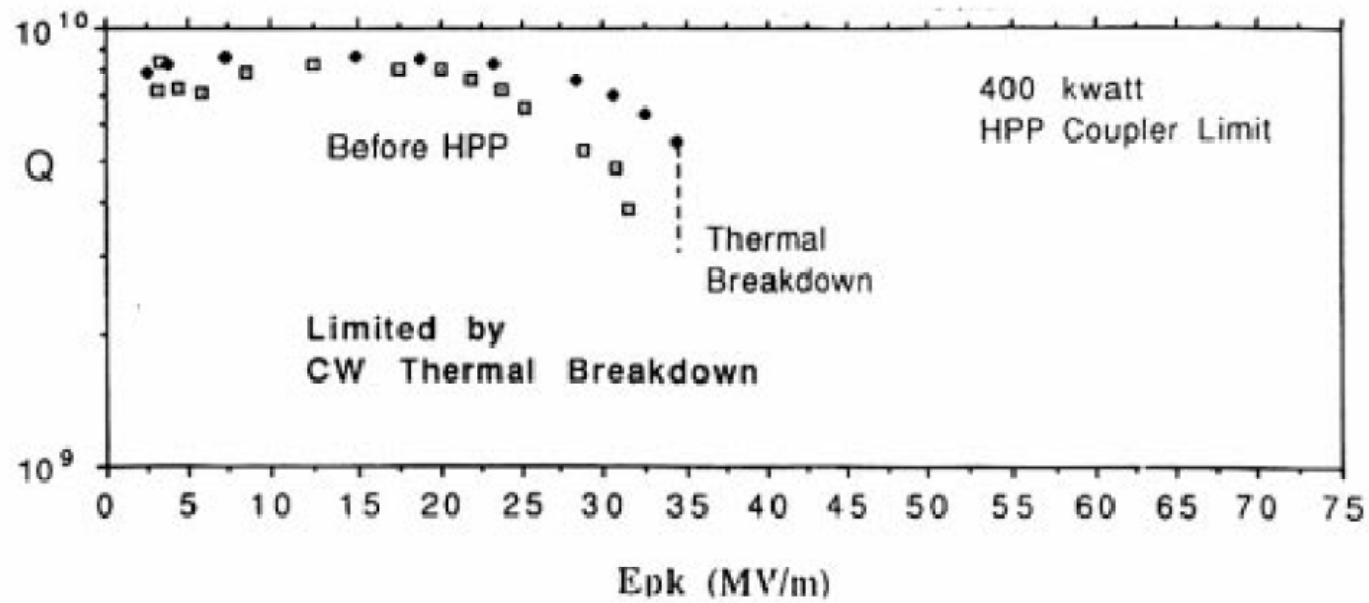


# Final Test on #1



## 2) Cornell 5-cell cavity # 3

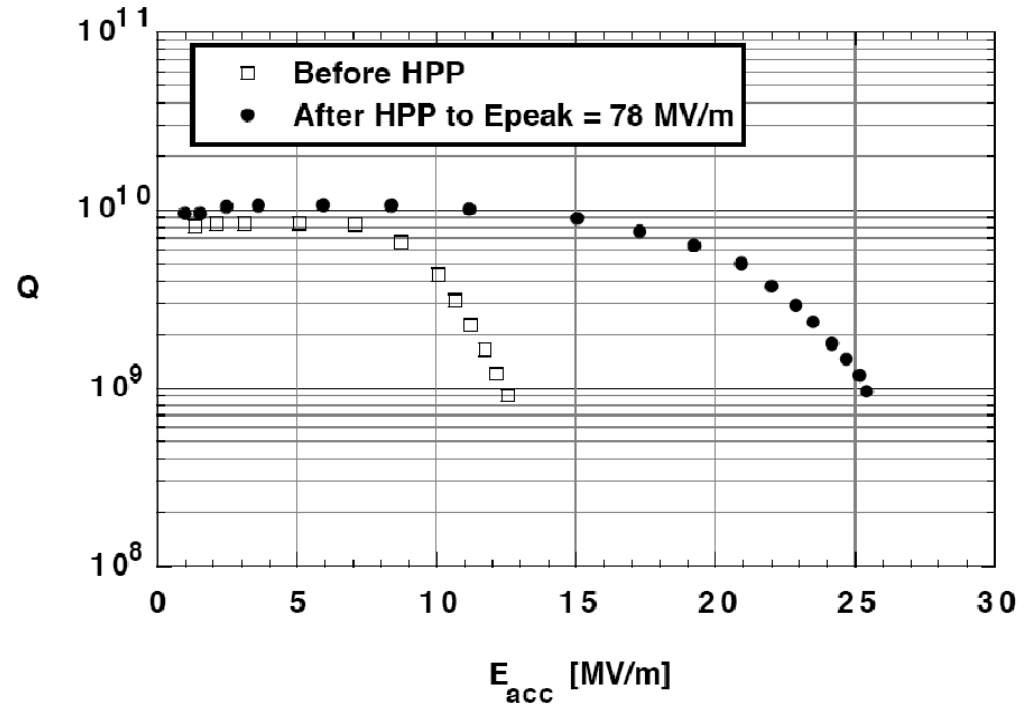
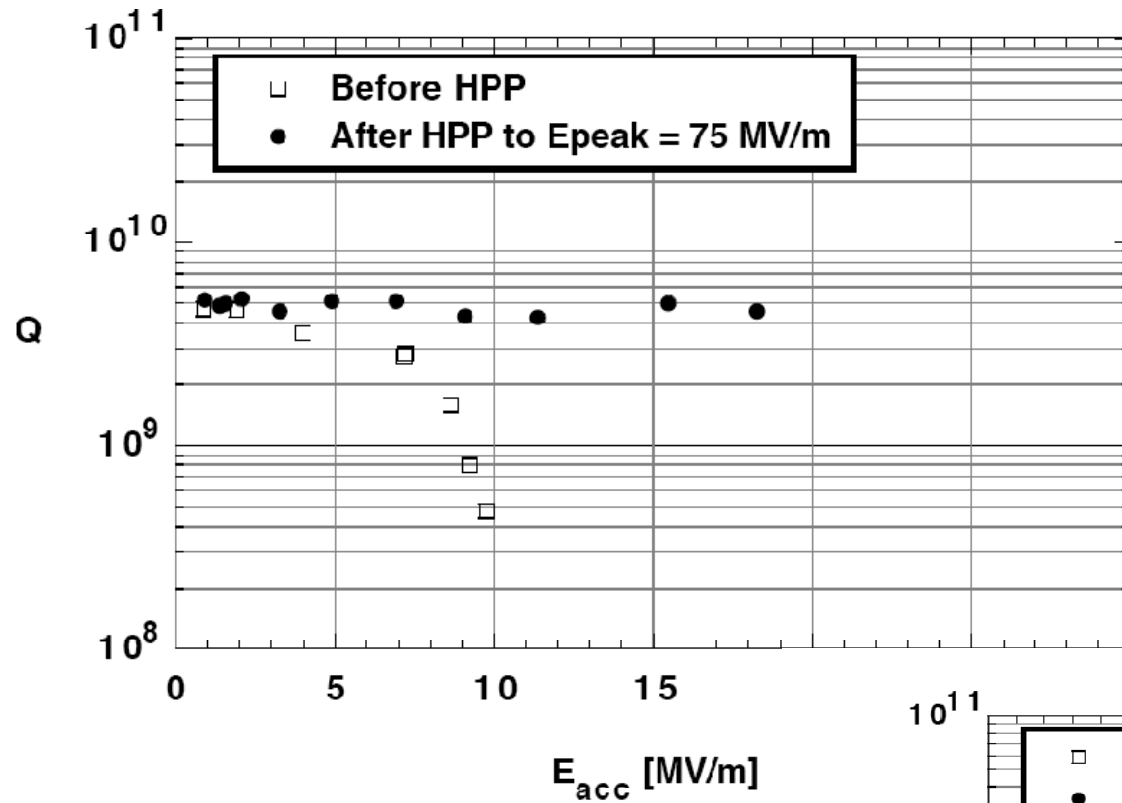
- Start RRR= 250
- 1.3 GHz, limited by quench at 13.5 MV/m and improved by titanisation to 27 MV/m,  
>Reference: see p. 303 of Book: RF Superconductivity for Accelerators..Before/after titanisation



### 3) Cornell, 4-cell cavity, 1.3 GHz,

- Start with RRR = 500 material from Russia
- thermal breakdown field improved from 18 MV/m to 25 MV/m after postpurification..  
>Reference: 7th SRF Workshop (Saclay)  
attached paper

# 4-cell Russian Nb cavity





# Many Single Cell Cavities Show Gradient Improvement for Quench Limit

- Cornell, Jlab, Saclay...

- Zanon, DESY 9-cell cavities 82, 83, 84  
>Lutz report at the TTC Frascati TB (Dec. 2005) meeting (slide 10) >that these cavities had weld problems and that "none of these >cavities achieves a gradient above 28 MV/m without titanisation... >T maps show quenches on the equator"