



NitroStrip

Unirradiated measurements

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Freiburg Nitrostrip measurements

Setups:

IV/CV/interstrip capacitance and resistance etc:

Karl-Suess probestation for unirradiated sensors

So far only
measured on
probe station.

Cold setup for irradiated sensors with cooling $<30^{\circ} \text{C}$

Downside:

no automated needles \rightarrow single strip measurements very tedious

Beta-Source measurements:

Two setups based on ALIBAVA (one cooled $<20^{\circ} \text{C}$)

Laser setup based on ALIBAVA (974 nm)

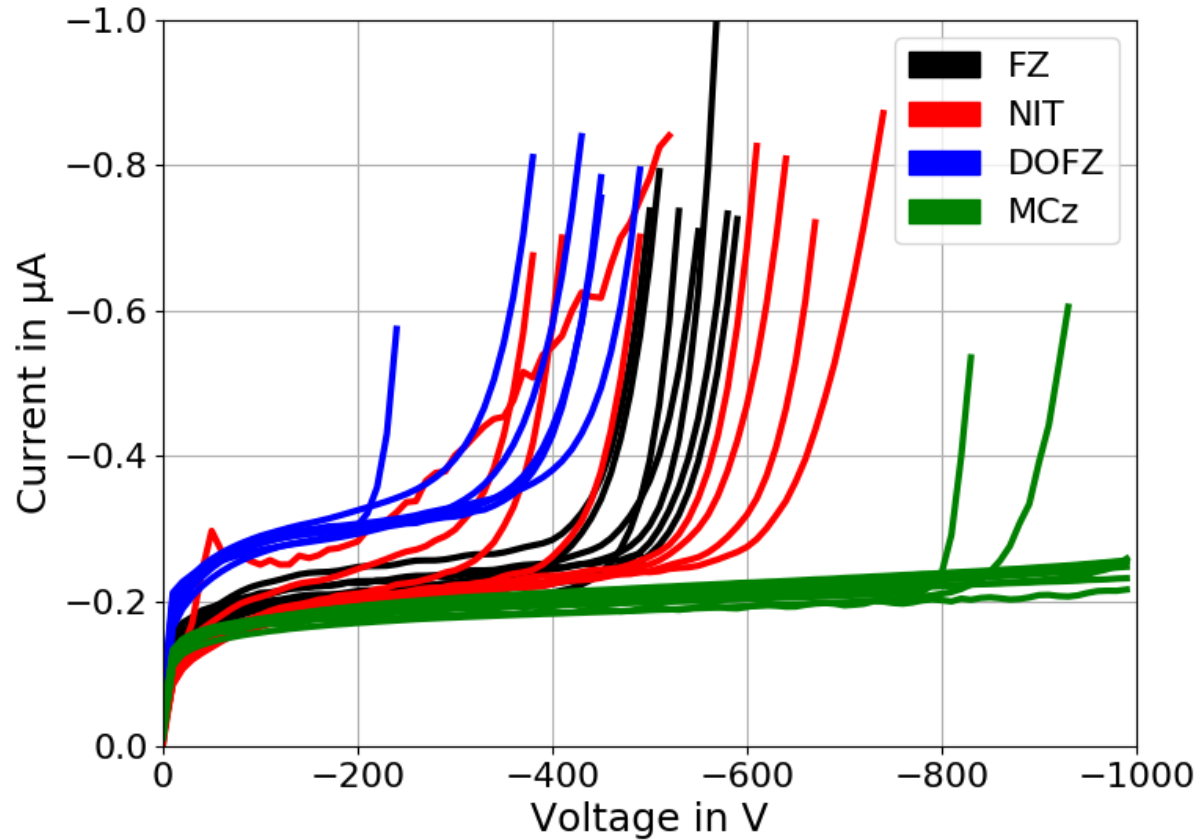
Edge-TCT setup

Prospective manpower:

$\frac{1}{2}$ Postdoc ; 1 PhD ; 1 Master student (?)

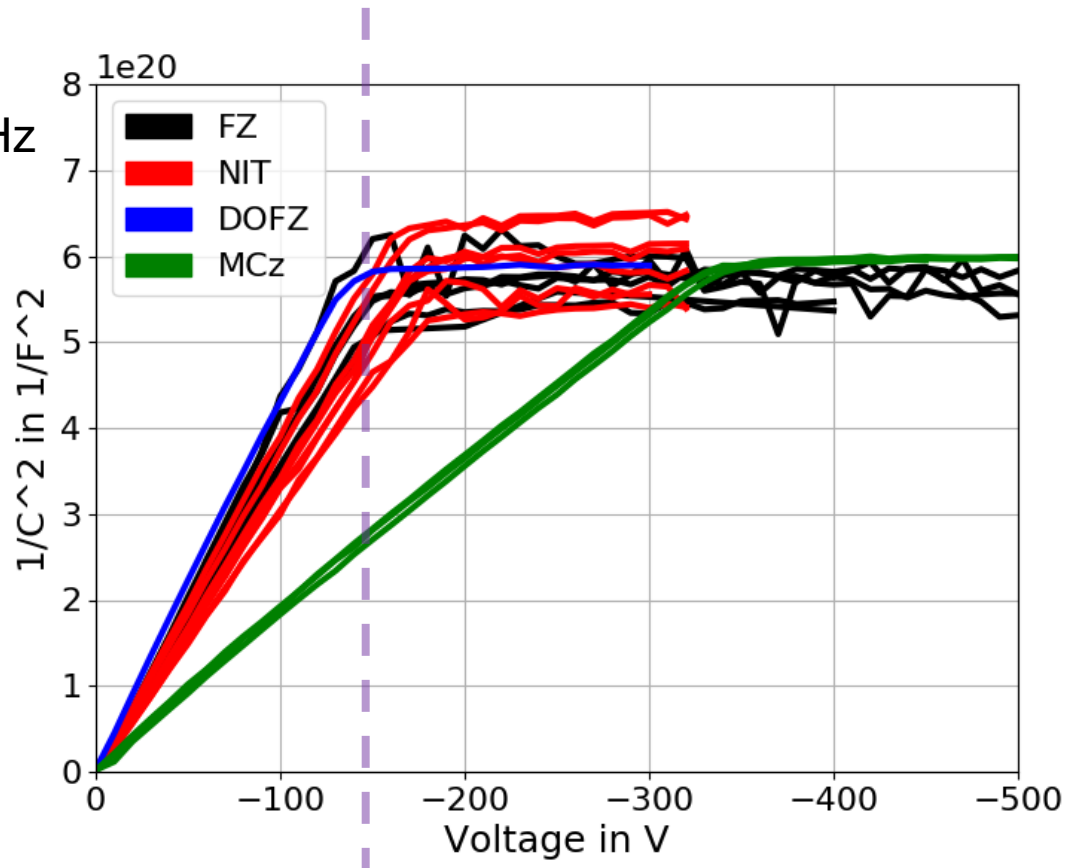
IV curves

All measurements taken at 22 C



CV curves

Taken at 10 kHz

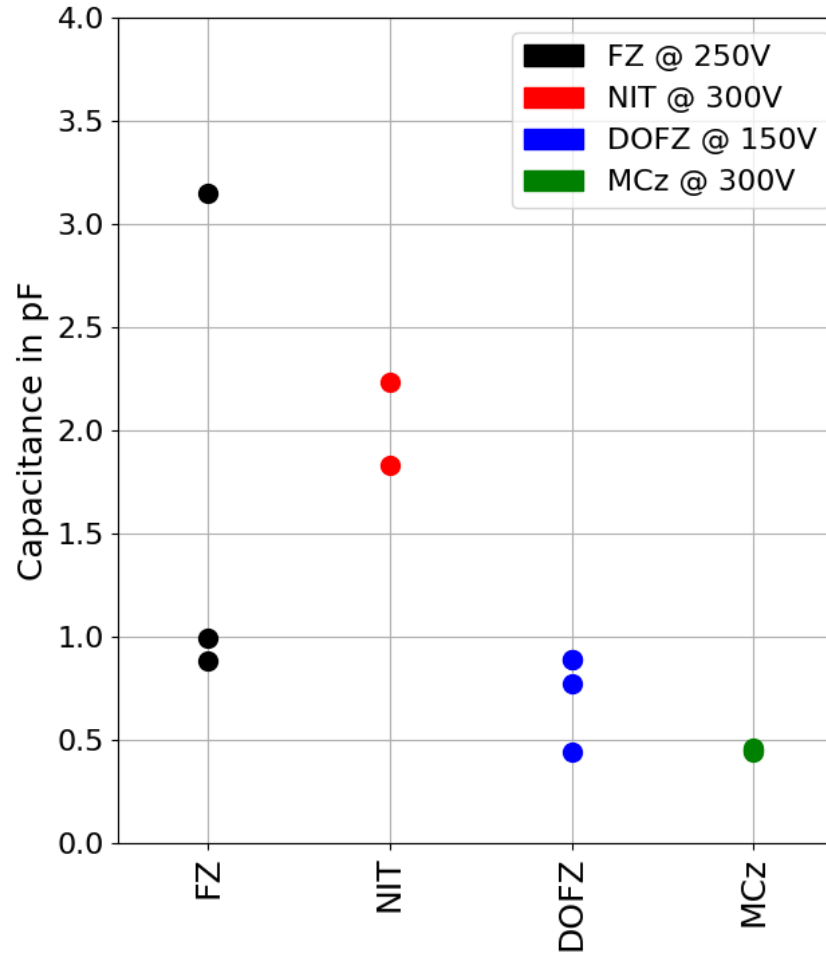


Depletion voltage $\sim 150V$

Interstrip capacitance

Taken at 100 kHz

Capacitance was measured between strip and closest neighbouring strips



Necessary to readjust needles manually after each step.

Summary and outlook

- First measurements completed
 - Depletion voltage @ $\sim 150\text{V}$
 - Interstrip capacitance around $0.4\text{-}2\text{ pF}$
- Results in agreement with KIT results shown at RD50 in Krakow

Next steps:

Measure IV and CV for all sensors

Prepare for charge collection efficiency measurements