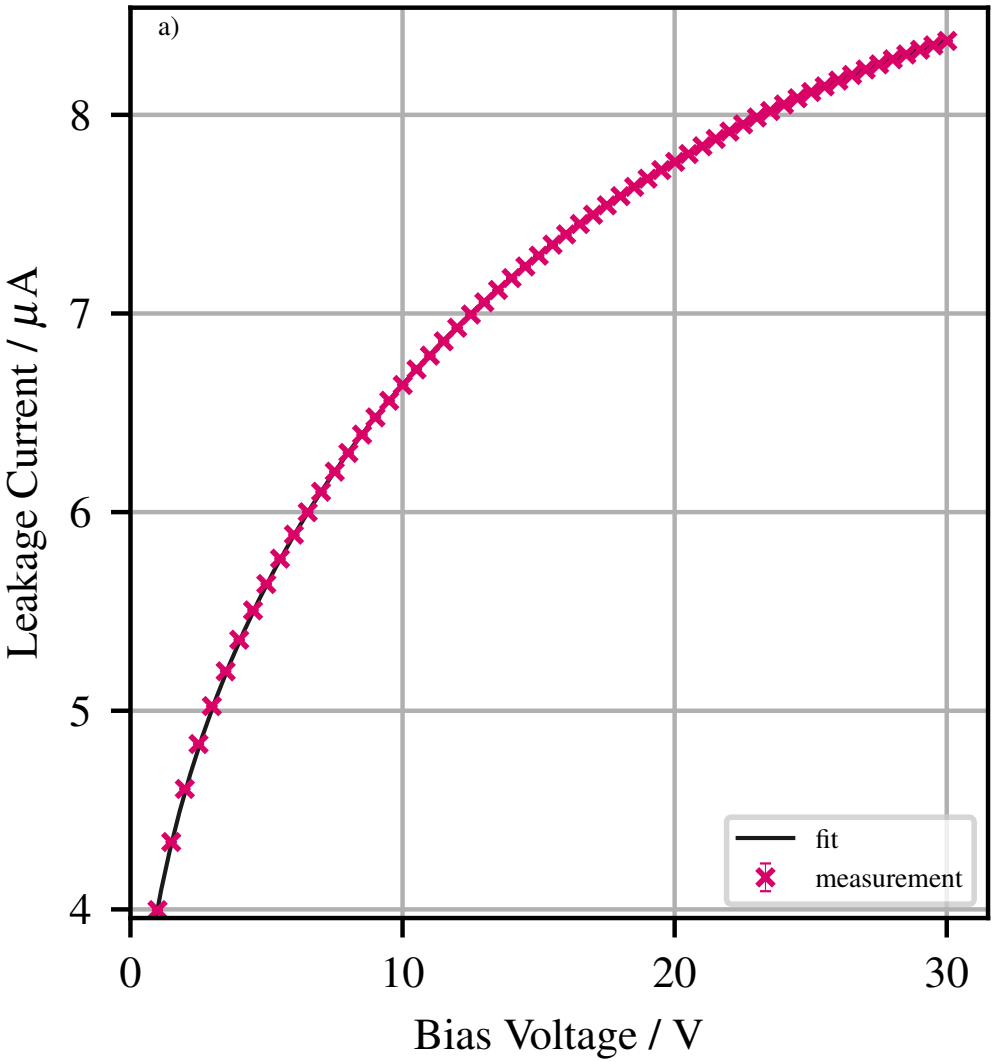
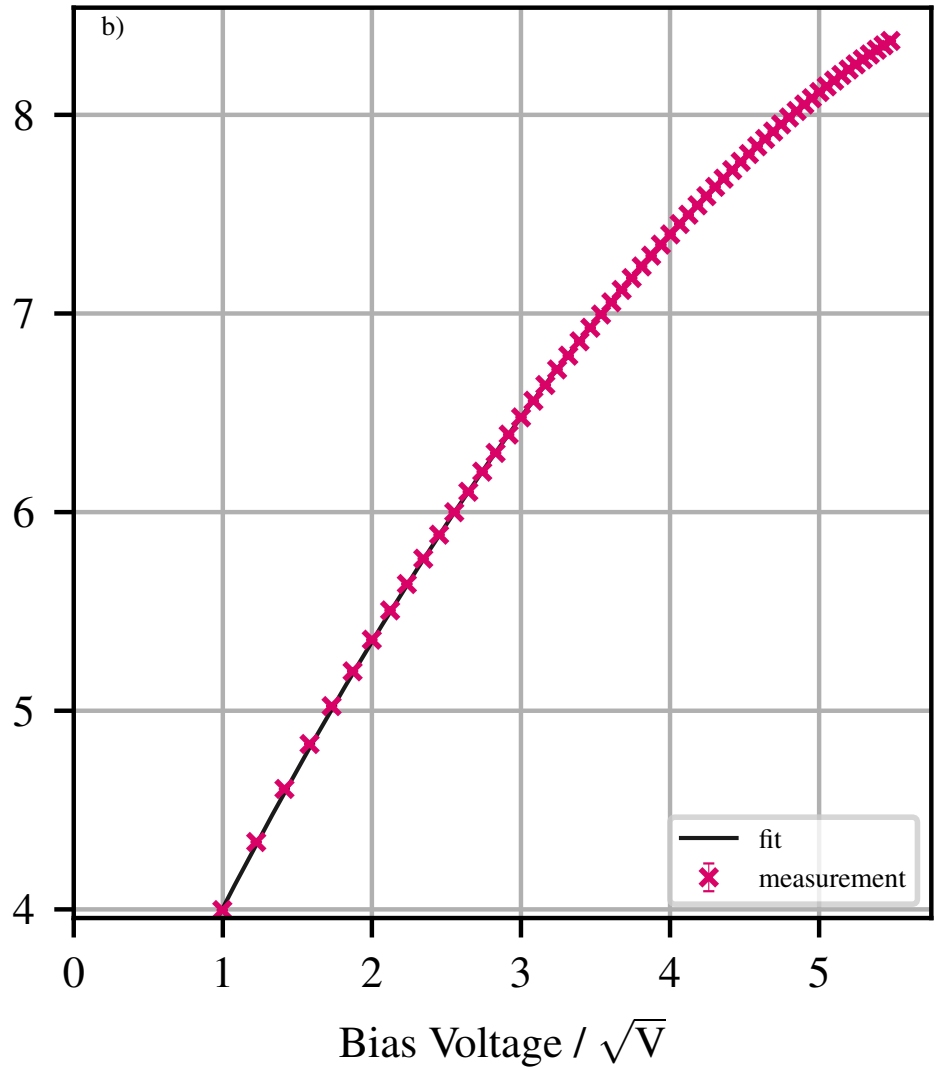
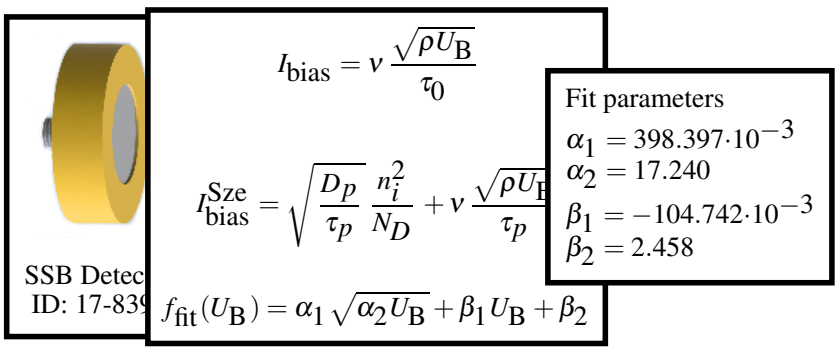
a)


Leakage Current / μA
8
7
6
5
4
0
10
20
30
Bias Voltage / V
fit
measurement

b)


8
7
6
5
4
0
1
2
3
4
5
Bias Voltage / √V
fit
measurement

c)


SSB Detec
ID: 17-839
$I_{\text{bias}} = \nu \frac{\sqrt{\rho U_B}}{\tau_0}$
$I_{\text{bias}}^{\text{Sze}} = \sqrt{\frac{D_p}{\tau_p}} \frac{n_i^2}{N_D} + \nu \frac{\sqrt{\rho U_B}}{\tau_p}$
$f_{\text{fit}}(U_B) = \alpha_1 \sqrt{\alpha_2 U_B} + \beta_1 U_B + \beta_2$
Fit parameters
$\alpha_1 = 398.397 \cdot 10^{-3}$
$\alpha_2 = 17.240$
$\beta_1 = -104.742 \cdot 10^{-3}$
$\beta_2 = 2.458$