1 Comparison ADS/NGspice

In this document the ngspice HICUM/L2.4.3 model in ngspice is compared against ADS simulations. The modelcard is taken from a real process and is realistic. This document is auto-generated using Pylatex. The shown ft, CBE, CCE and CBC results show quantities that are calculated from simulated Y-parameters. In these simulations all reactive model elements but one are turned off (except those simulations labeled as "all"). E.g. "only cjei0" means that only the Cjei capacitance is active.
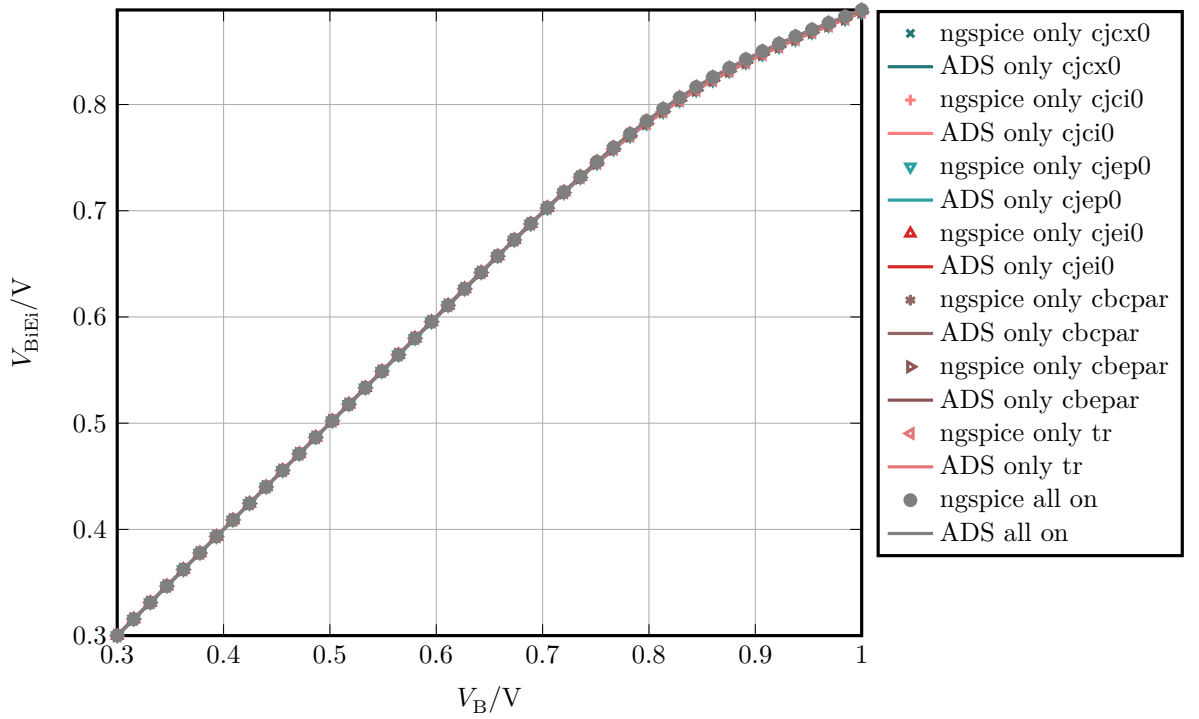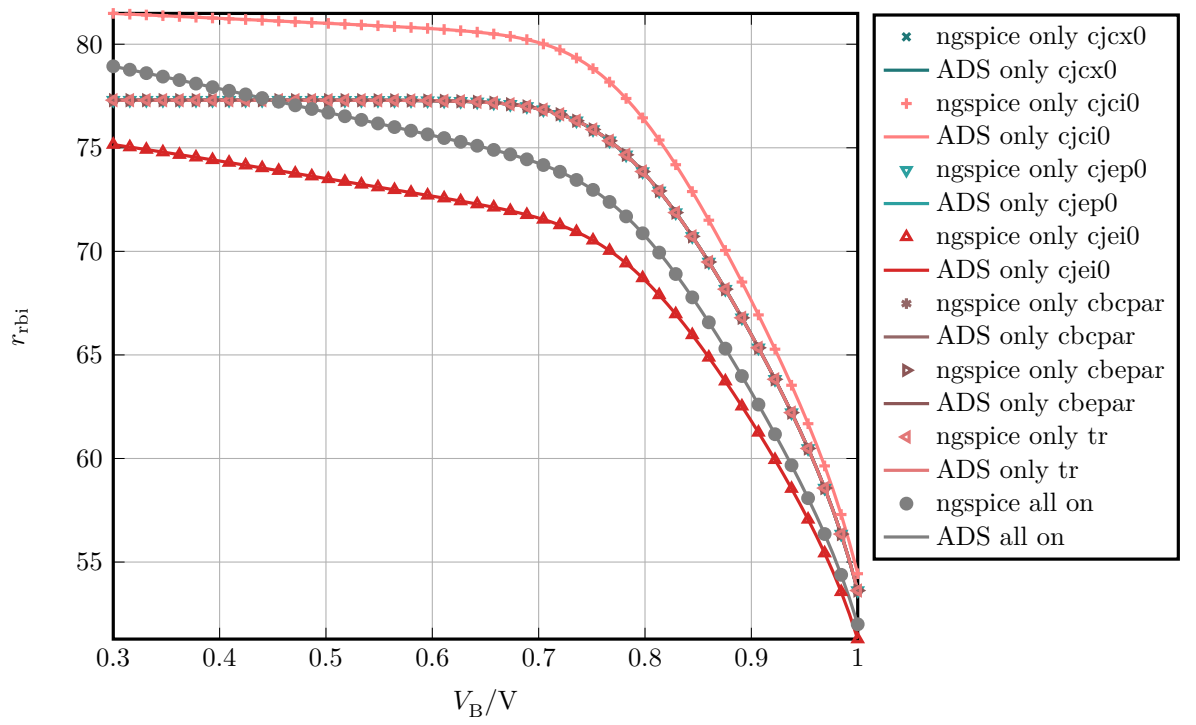
1.1 Plots

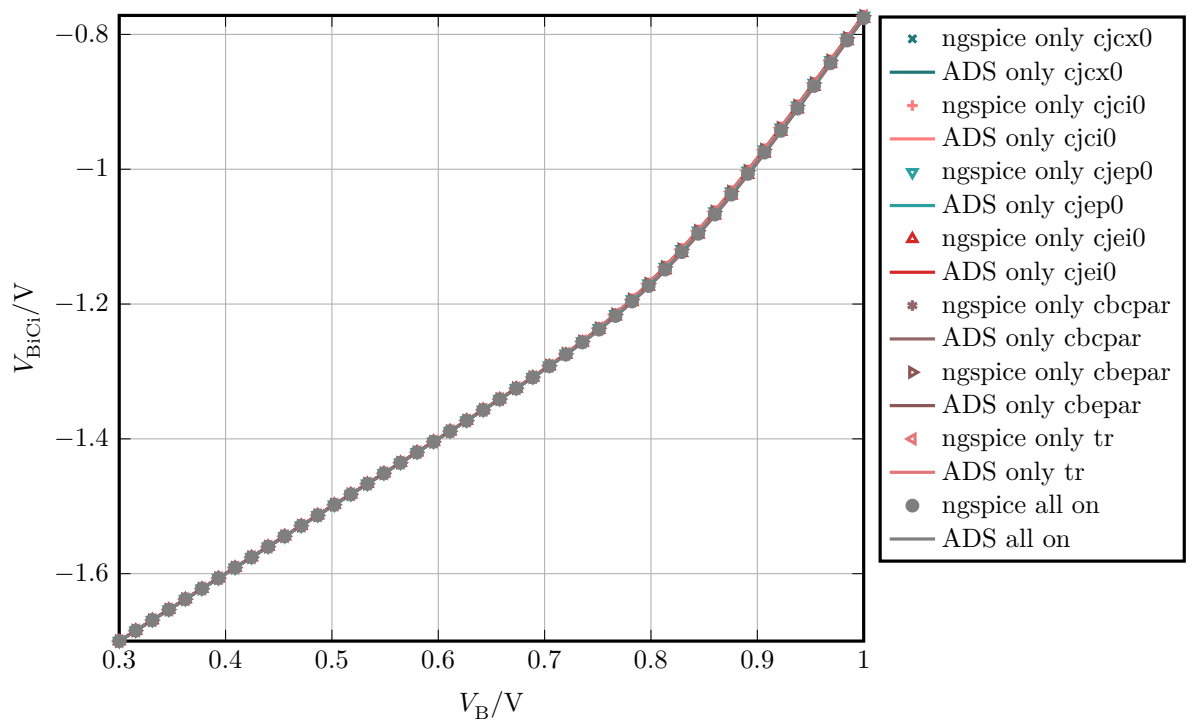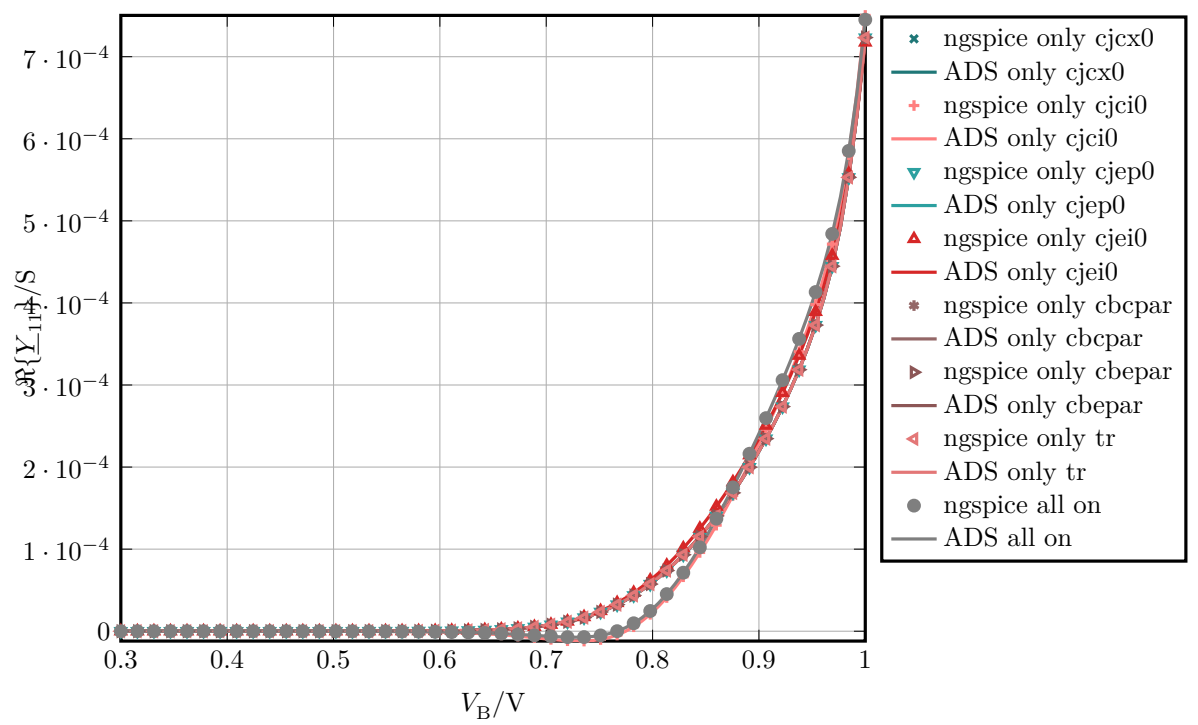Figure 1: VBIEI(VBE)

Figure 2: rbi(VBE)

Figure 3: VBICI(VBE)

Figure 4: ReY11(VBE)

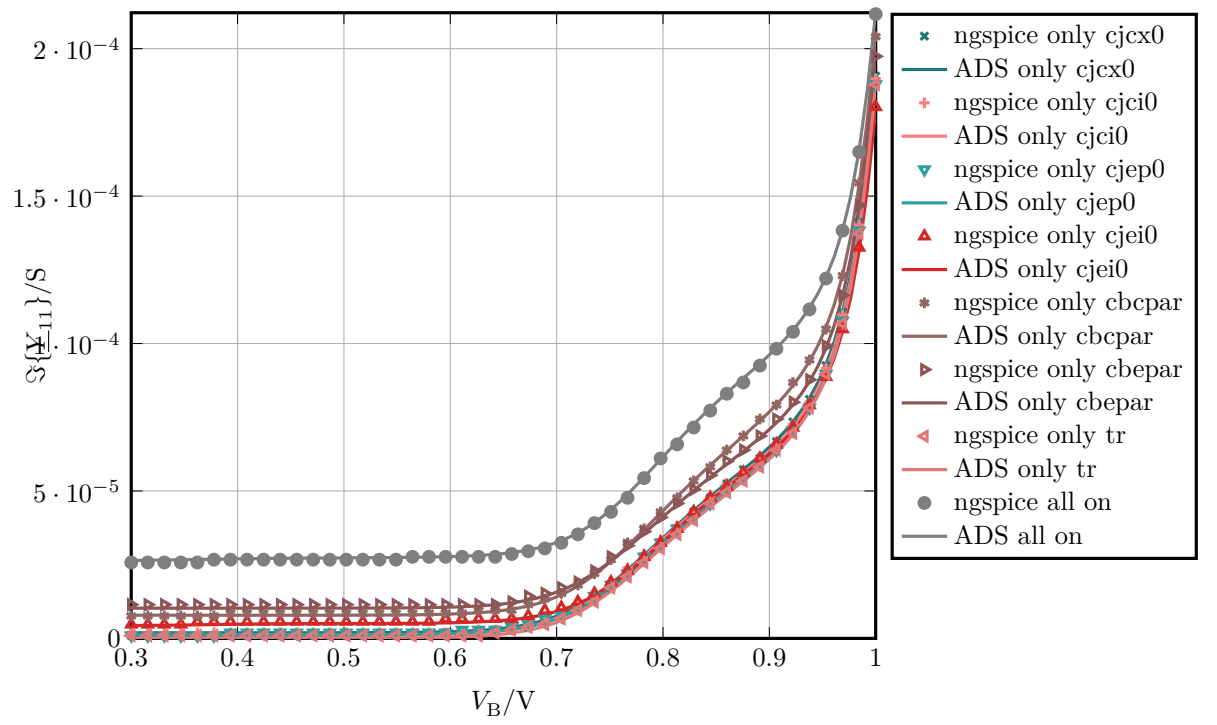Figure 5: ImY11(VBE)

5

Figure 6: ReY12(VBE)

Figure 7: ImY12(VBE)

Figure 8: ReY21(VBE)
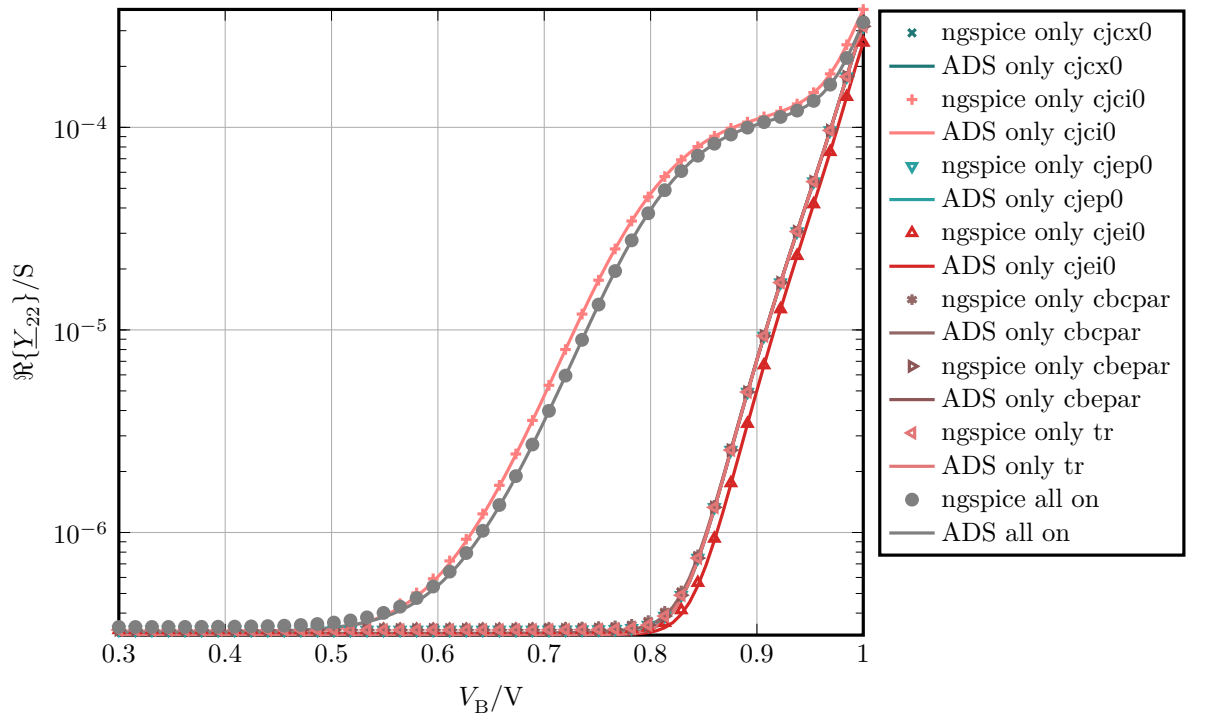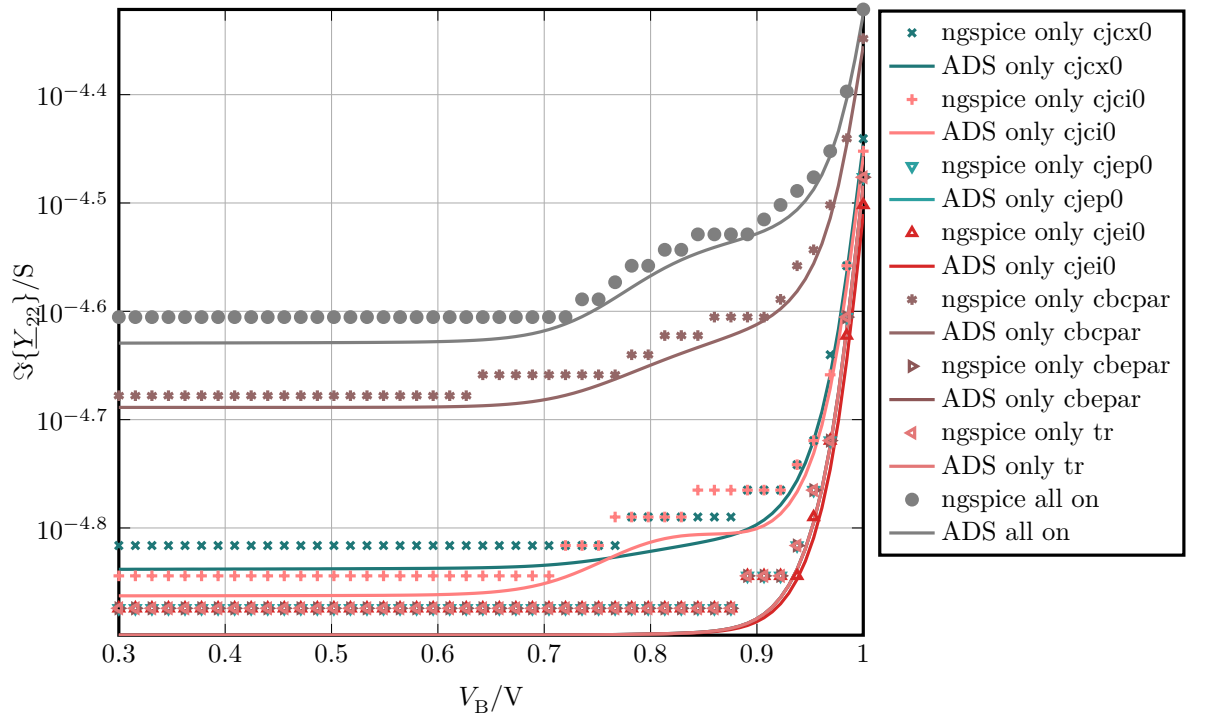
8

Figure 9: ImY21(VBE)

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Figure 10: ReY22(VBE)

Figure 11: ImY22(VBE)
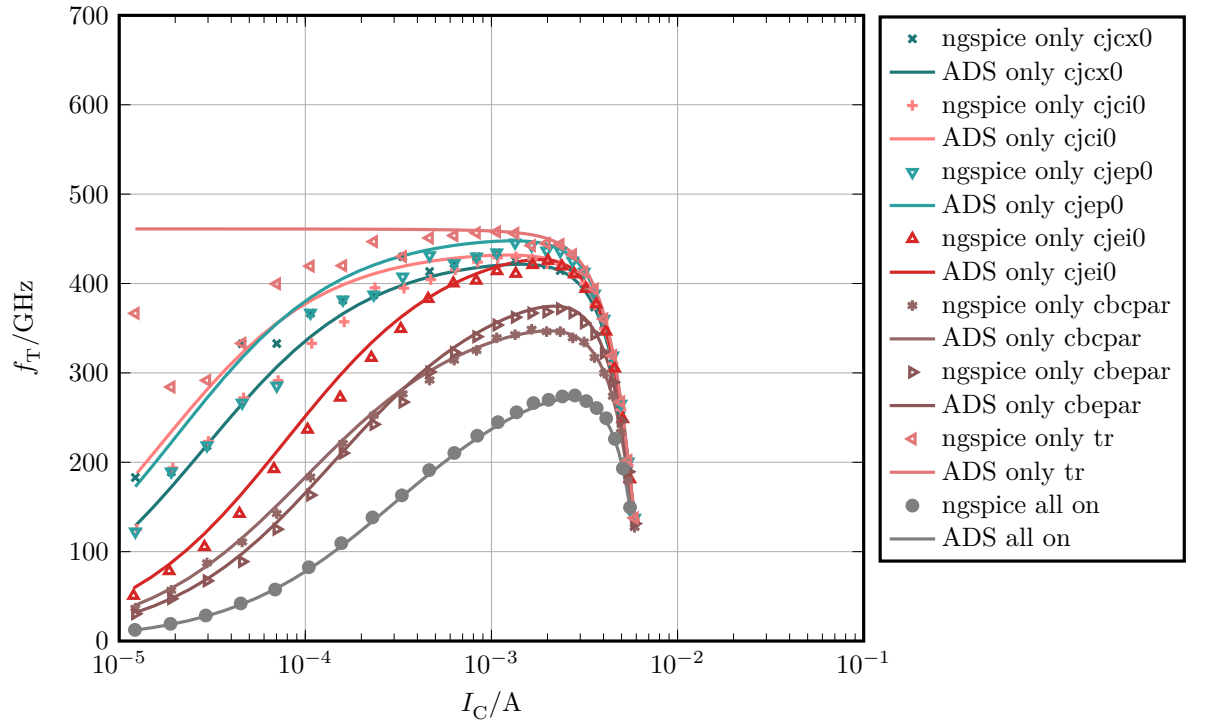
Figure 12: FT(VBE)
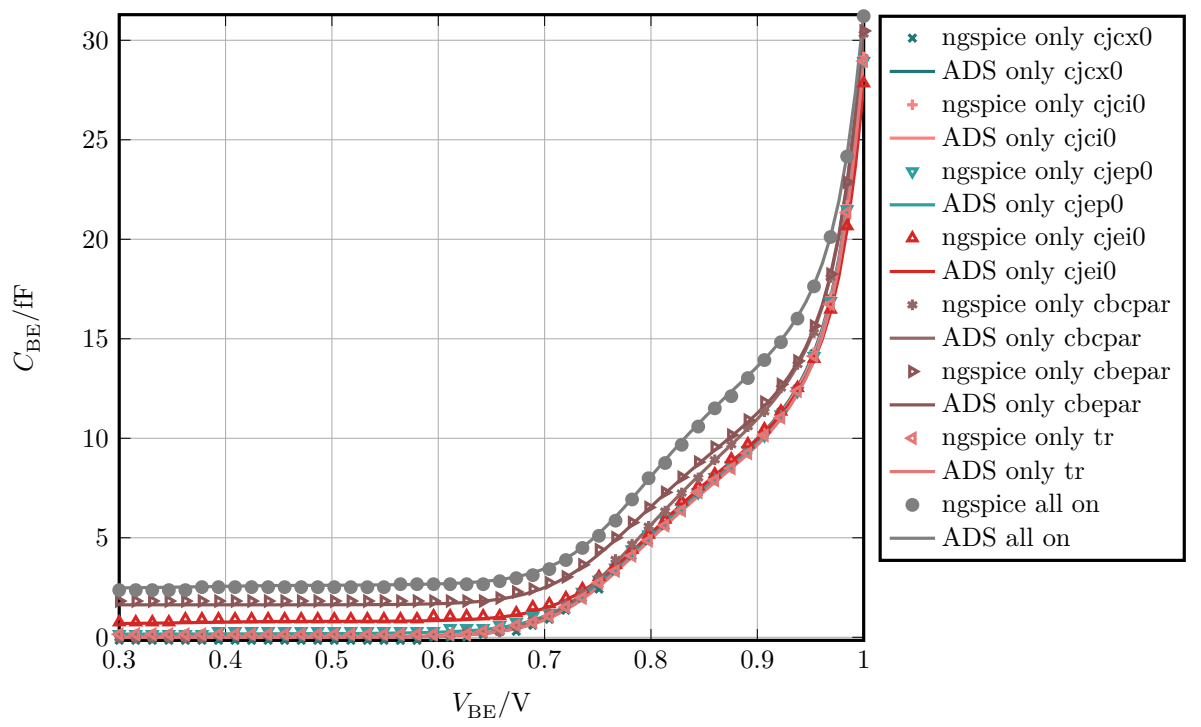
Figure 13: CBE(VBE)
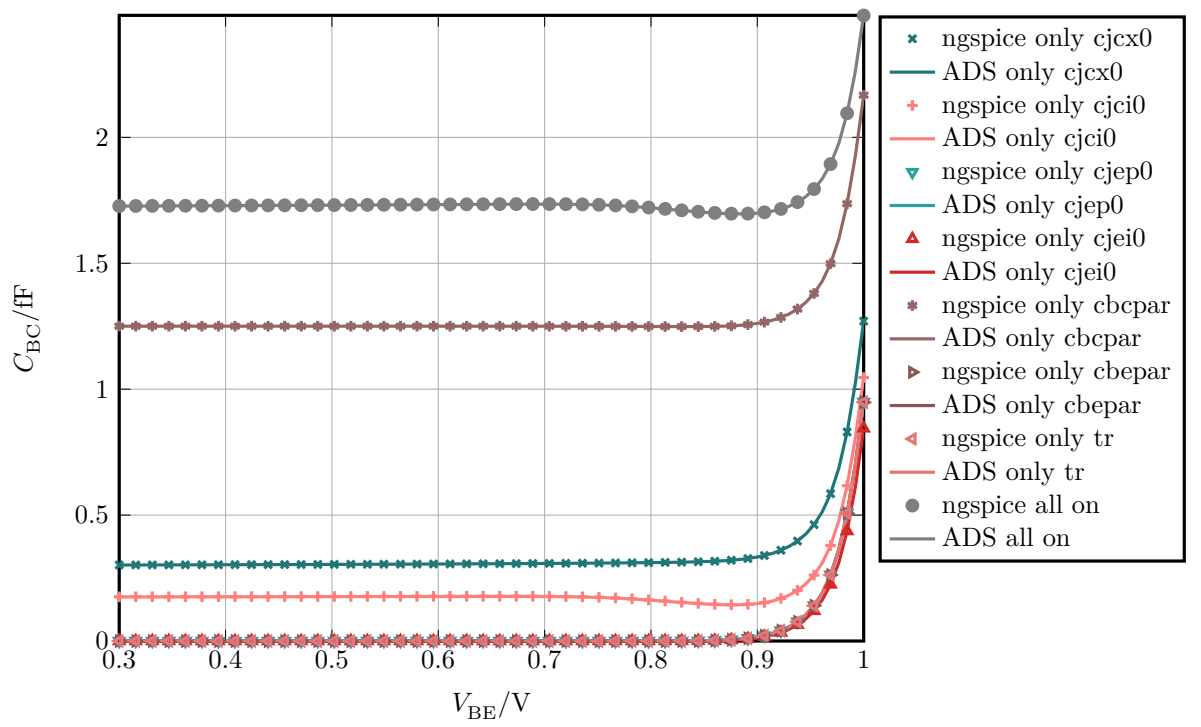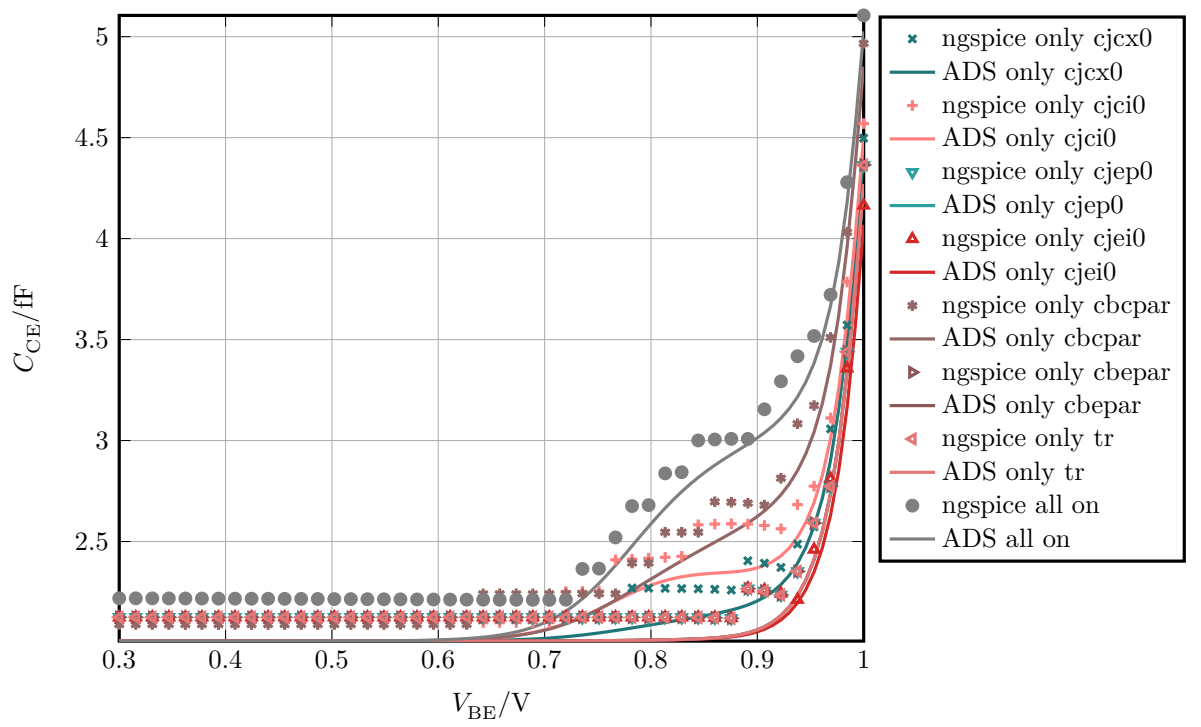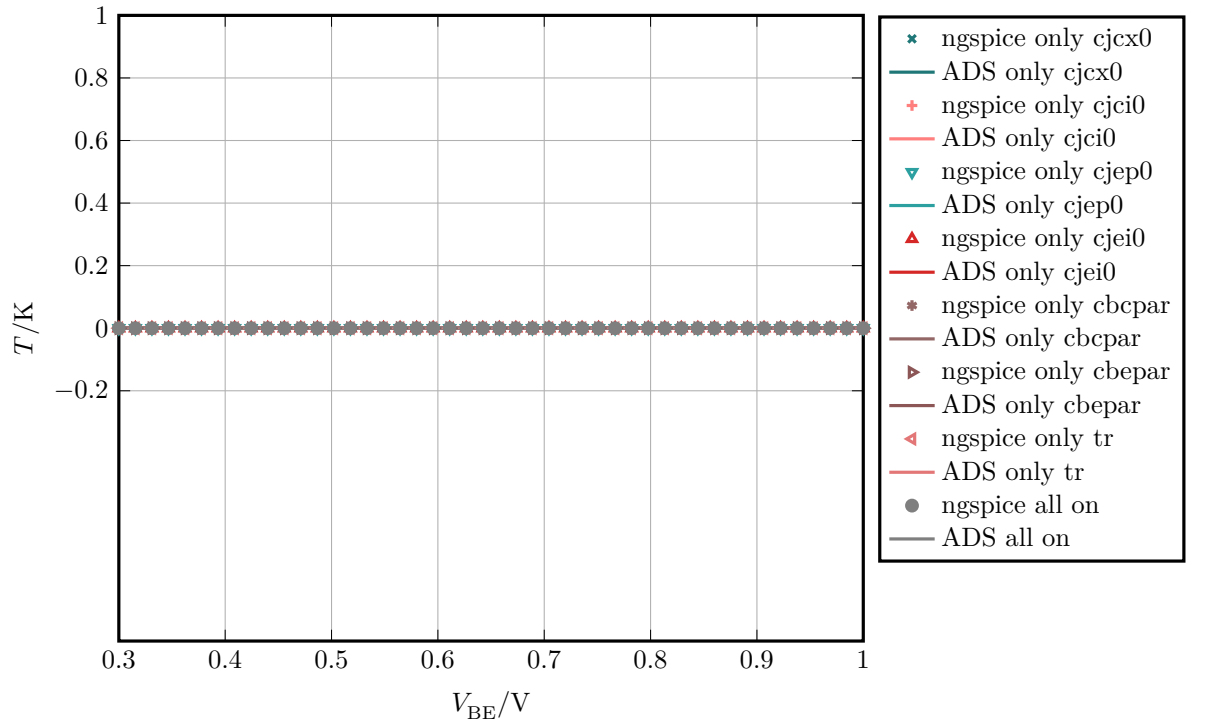
Figure 14: CBC(VBE)

Figure 15: CCE(VBE)

Figure 16: $dT(VBE)$

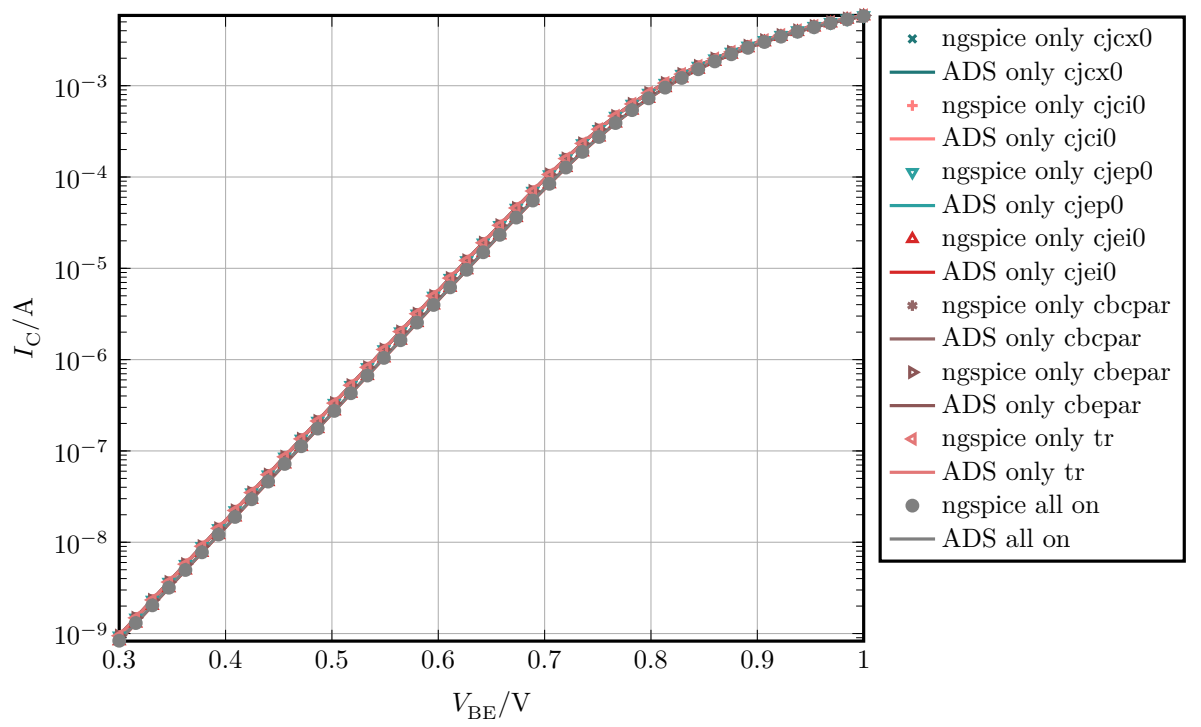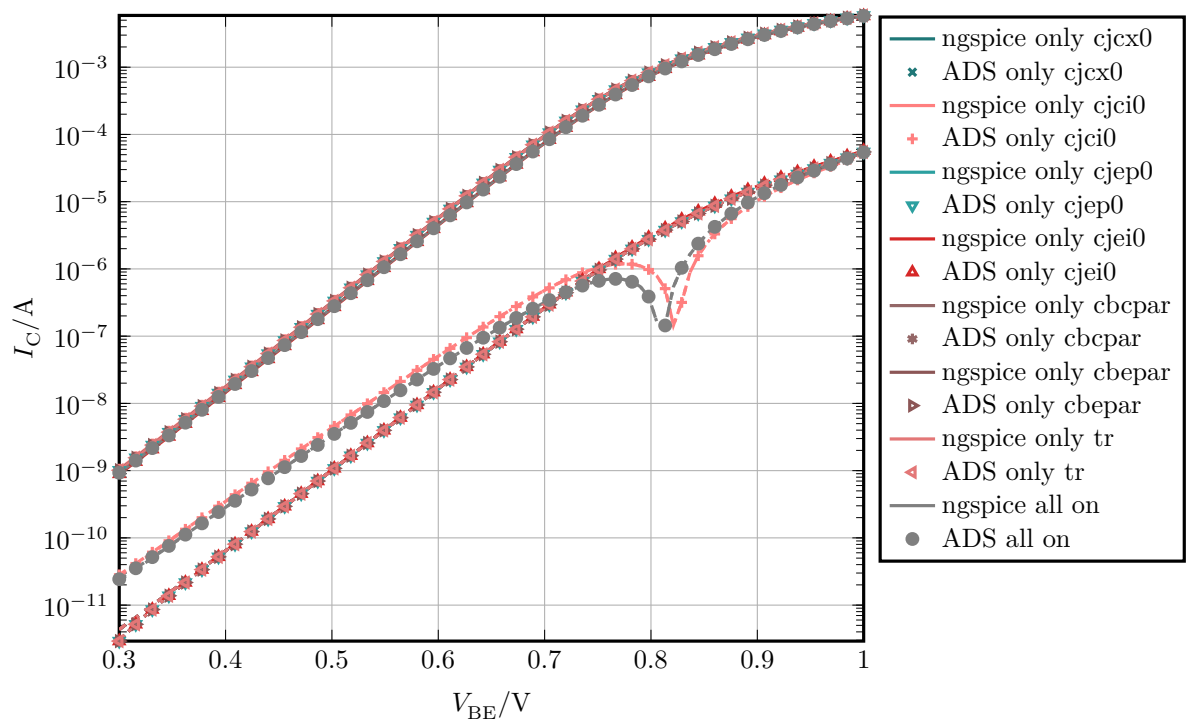Figure 17: IT(VBE)

Figure 18: $I(V_{\mathrm{BE}})$