cmos028fdsoi Technology

SG LLE PCpastRX models

DK1.2_RF_mmW

Comparison with DK1.1_RF_mmW model(s)

LLE - PCpastRX SG

Please use the bookmark to navigate

General information on SG LLE PCpastRX models

- Maximum supply voltage is - V.
- Validity domain is defined as follows:
  - ✔ Drawn gate length varies from 30nm to 10um.
  - ✔ Drawn transistor width varies from 80nm to 10um.
  - ✔ Device temperature varies from -40 °C to 125 °C.

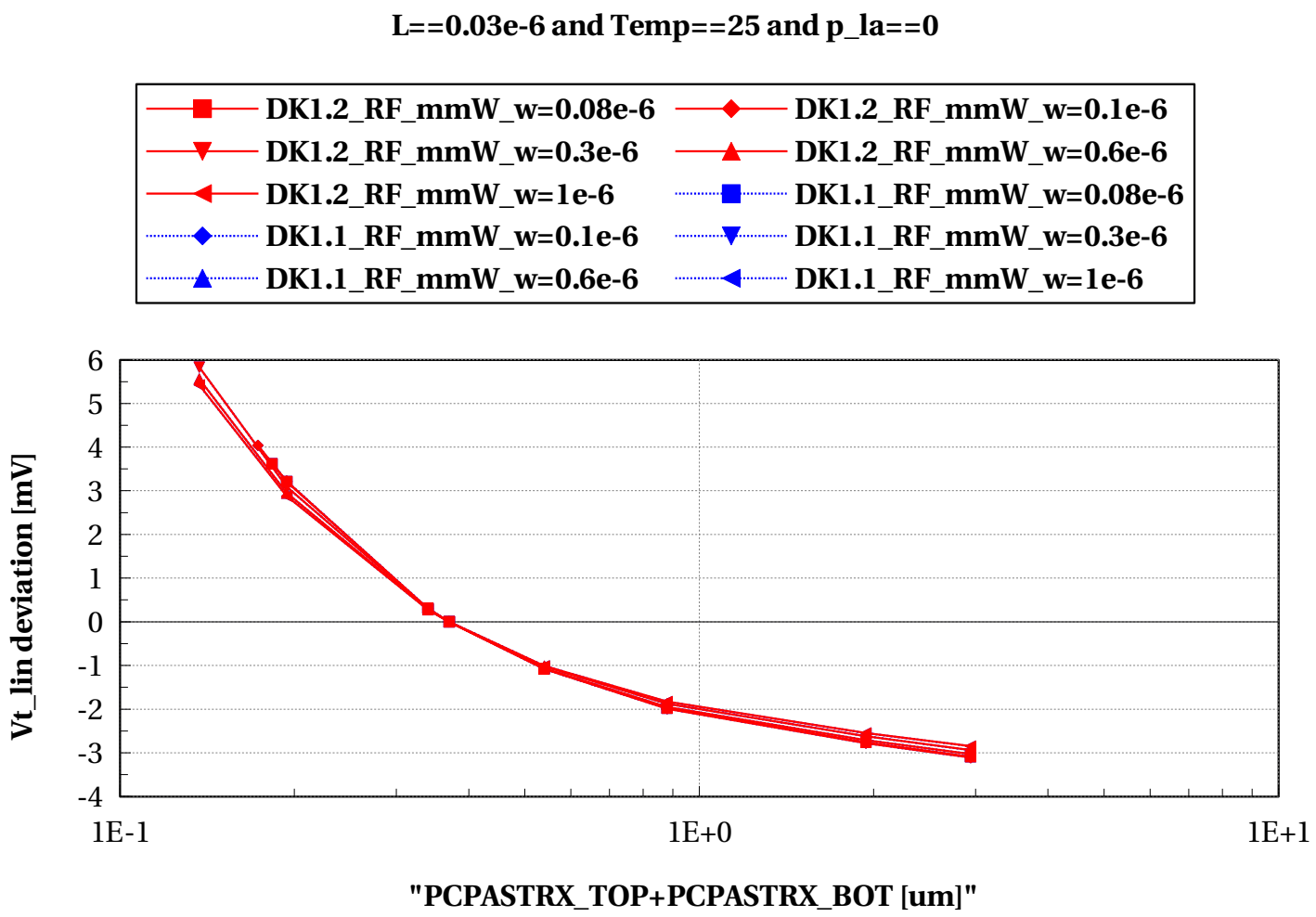
Output parameters definitions

- Model(s): lvtnfet_acc, lvtpfet_acc, nfet_acc, pfet_acc
  - ✔ Vt_lin : Threshold voltage defined as Vgs value for which drain current is ivt*M*1*W/(1*L+0+1*p_la) at Vds = 0.05V.
  - ✔ Isat : Drain current at Vgs = 1V, Vds = VddV.
  - ✔ Vt_sat : Threshold voltage defined as Vgs value for which drain current is ivt*M*1*W/(1*L+0+1*p_la) at Vds = vds_satV.
  - ✔ Ilin : Drain current at Vgs = 1V, Vds = 0.05V.
  - ✔ Logioff : log10(Ioffsat).

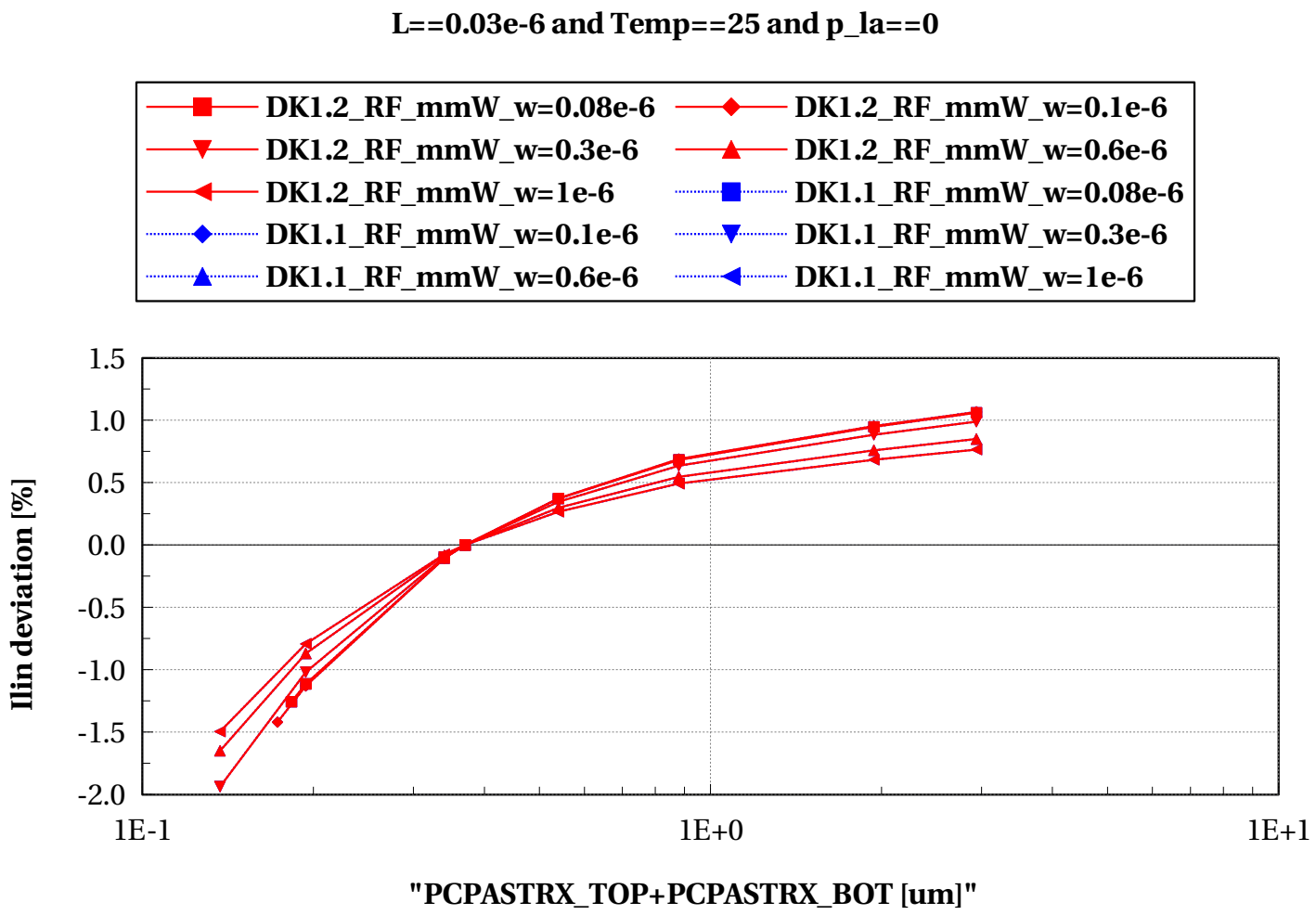
lvtnfet_acc
Electrical characteristics scaling

Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.03u

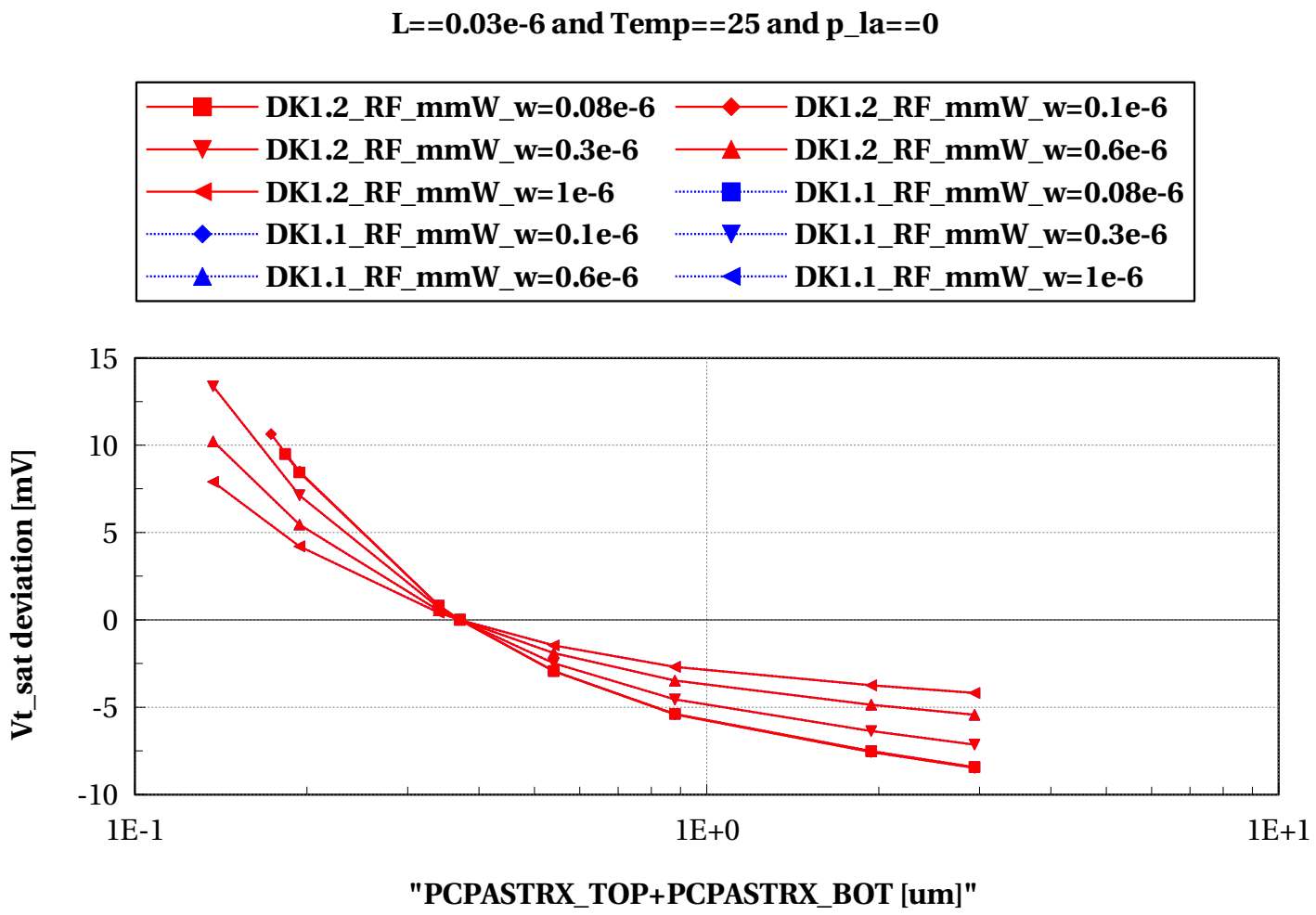
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



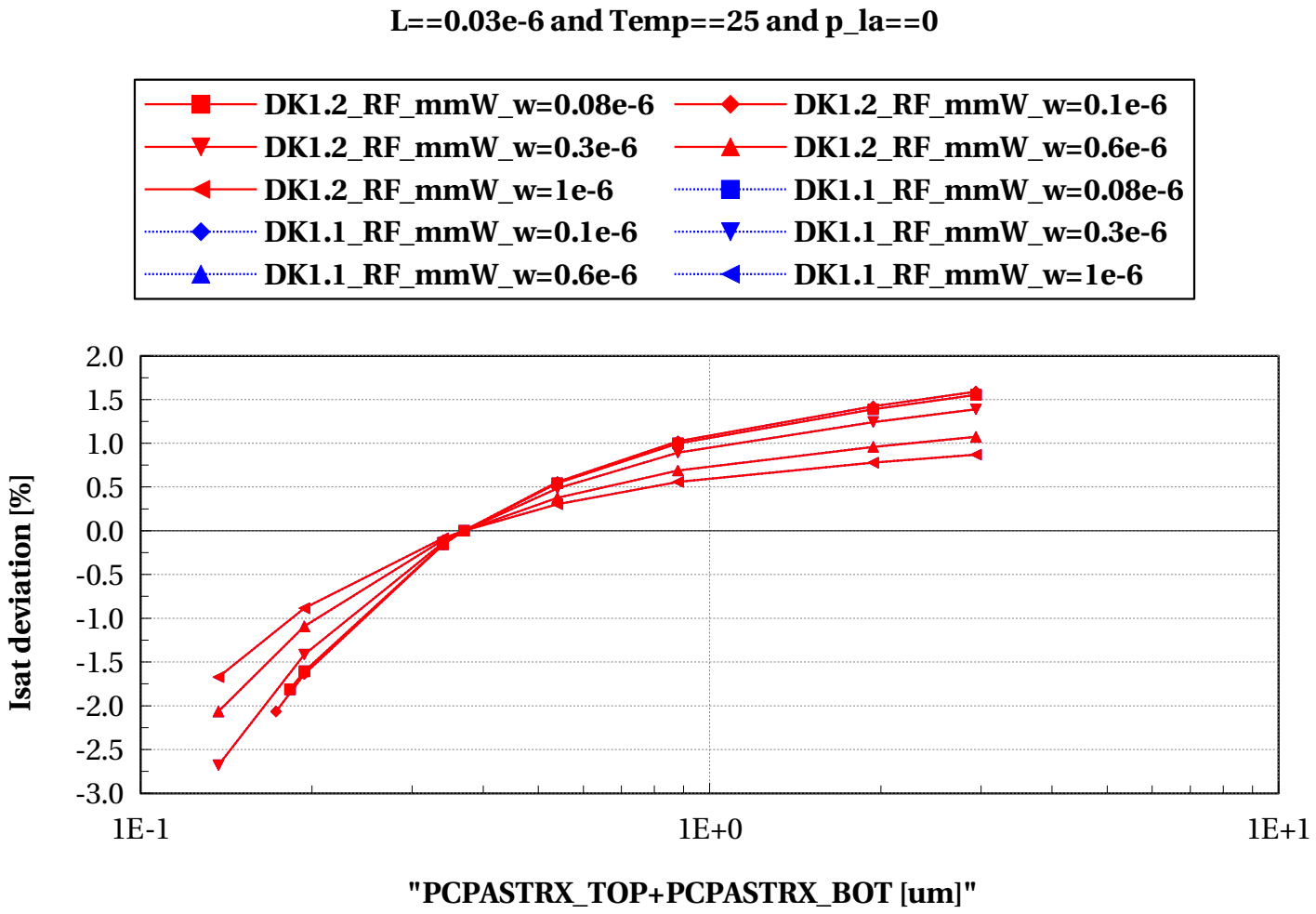
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



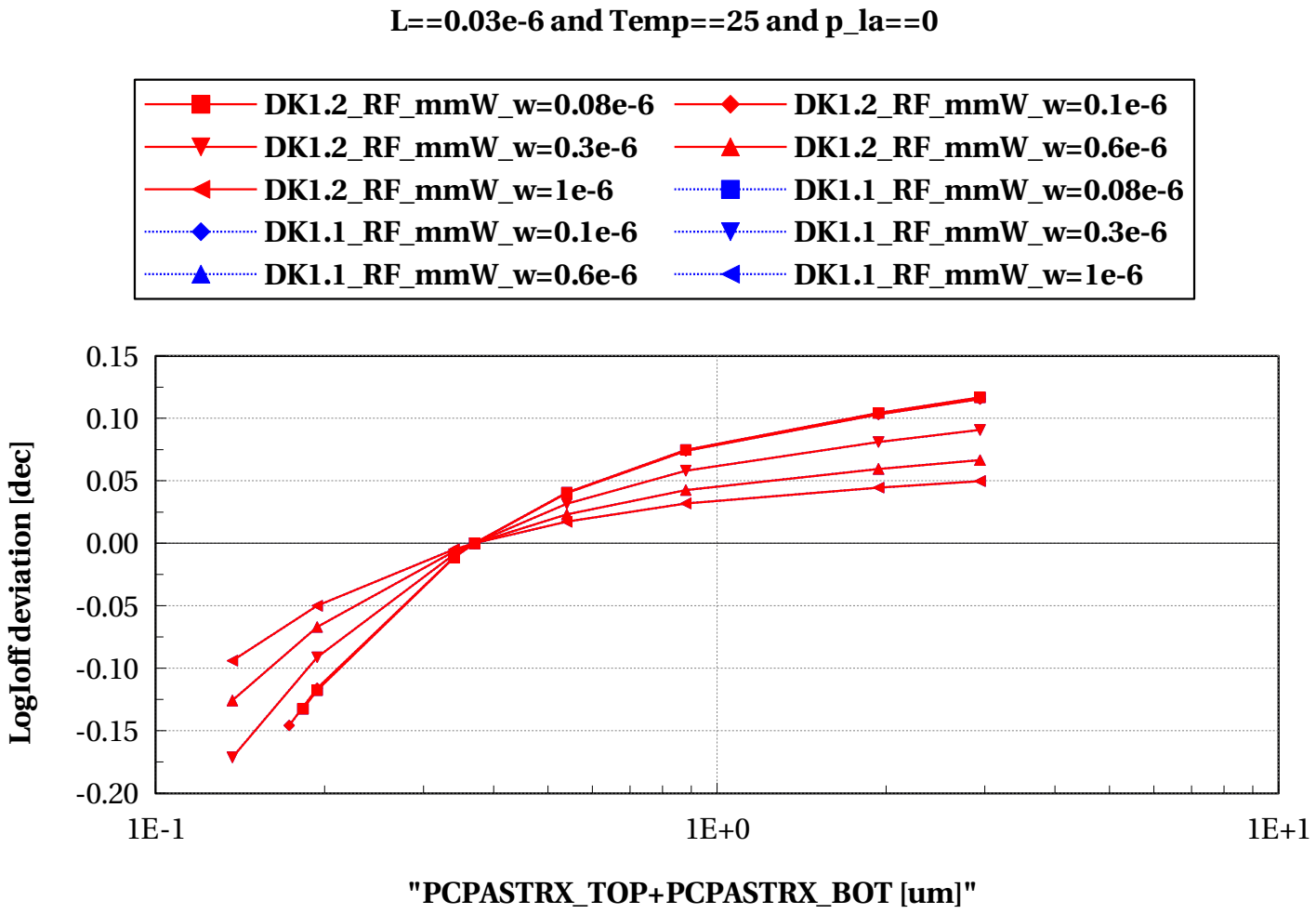
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

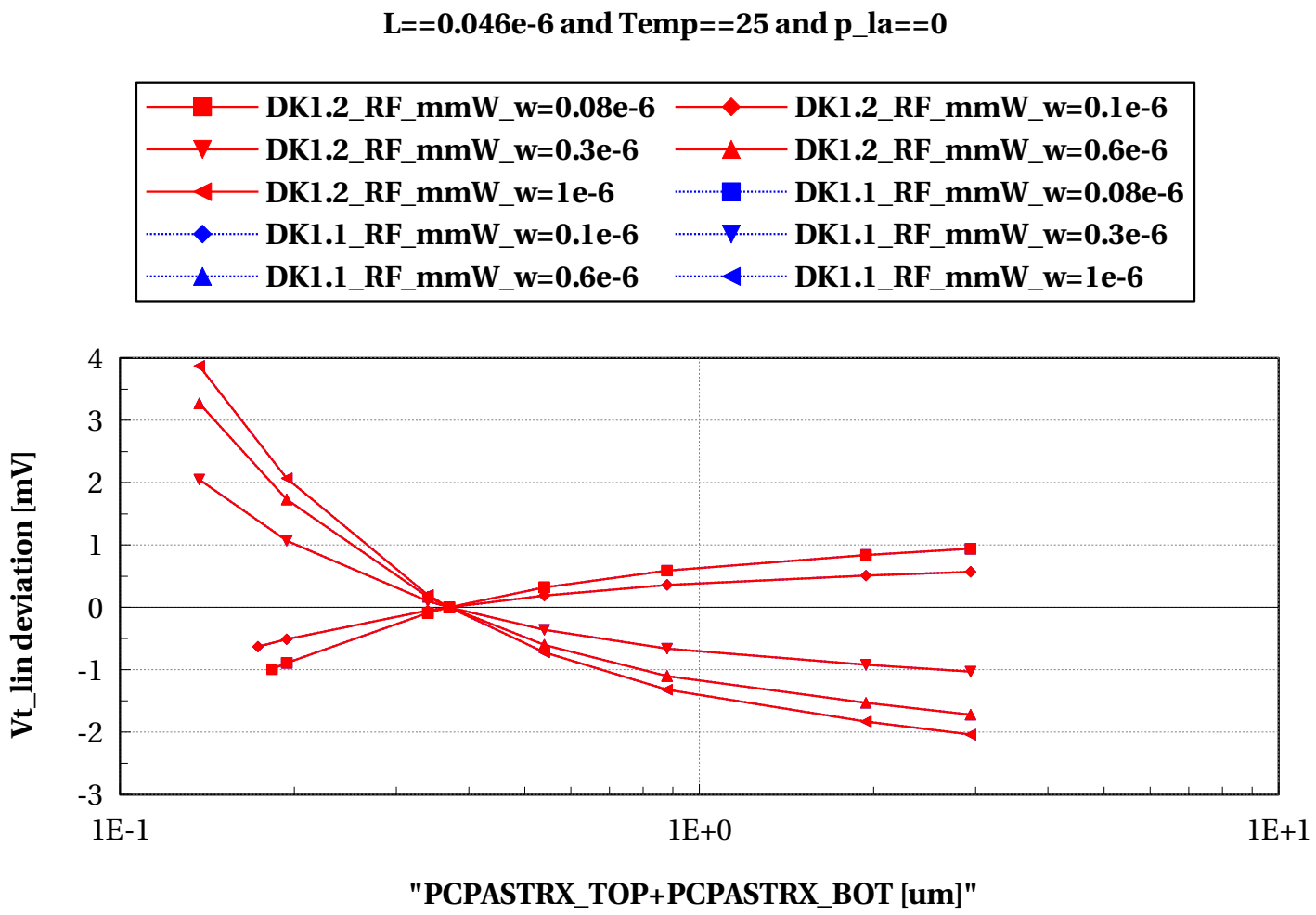


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

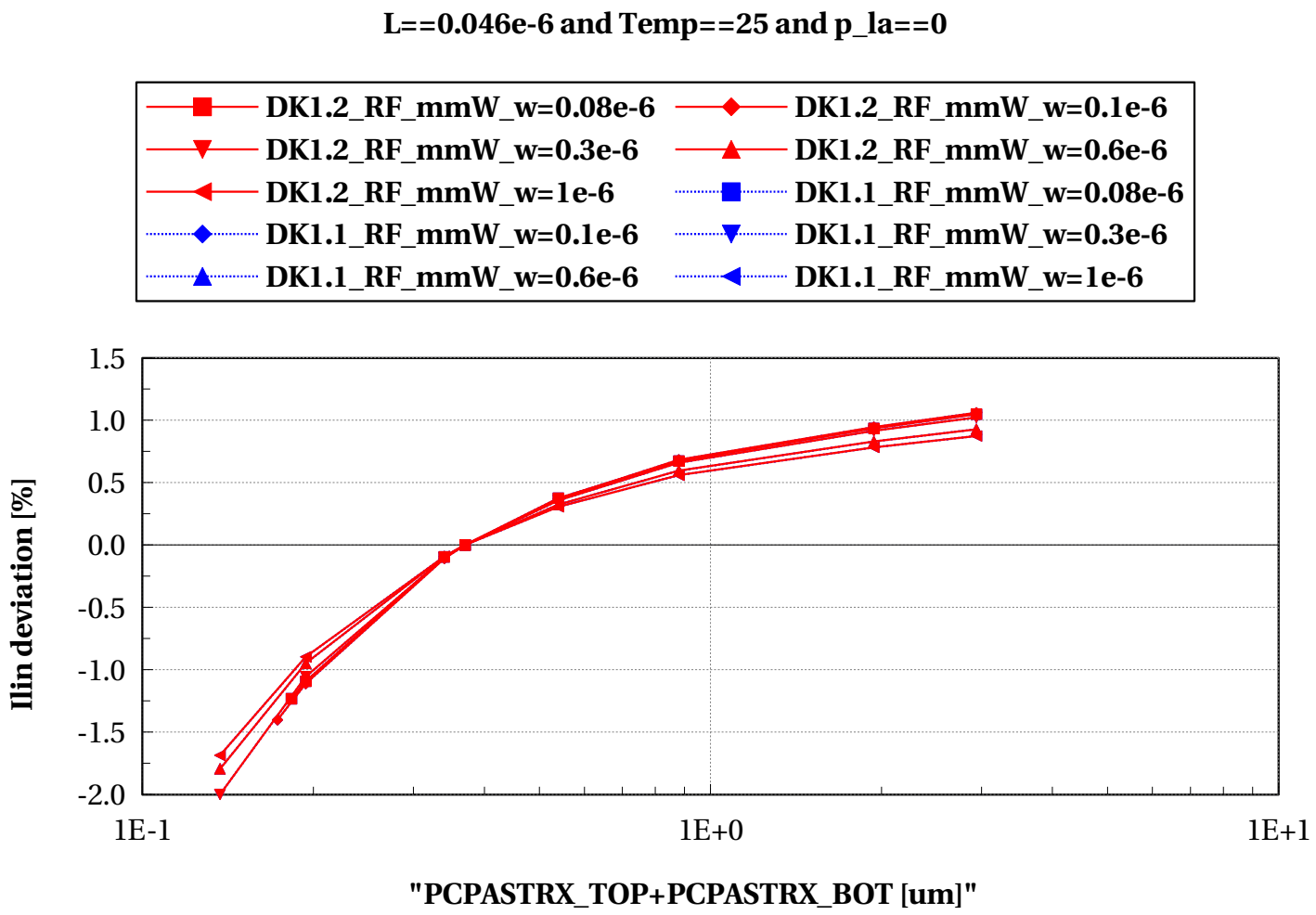


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.046u

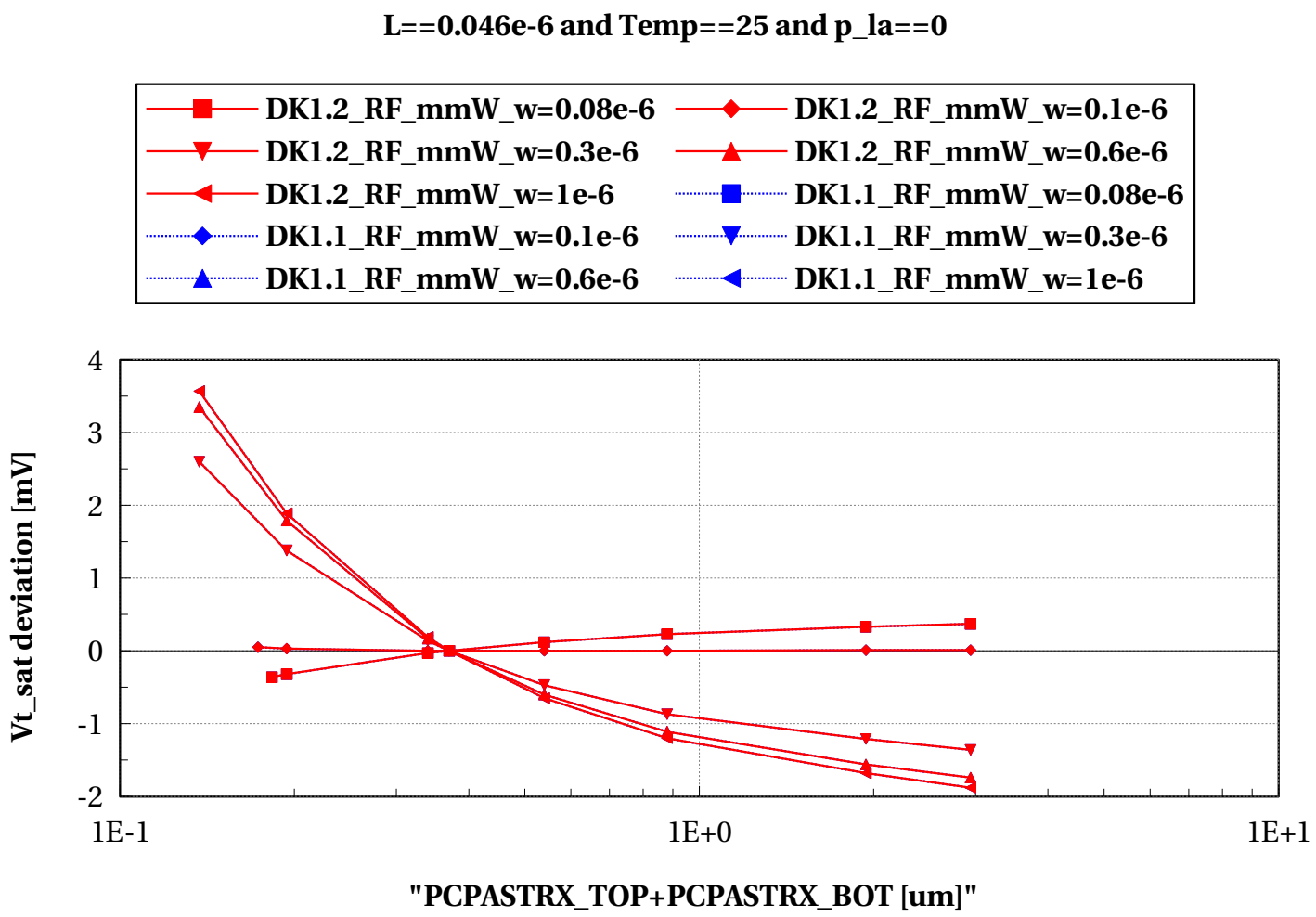
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



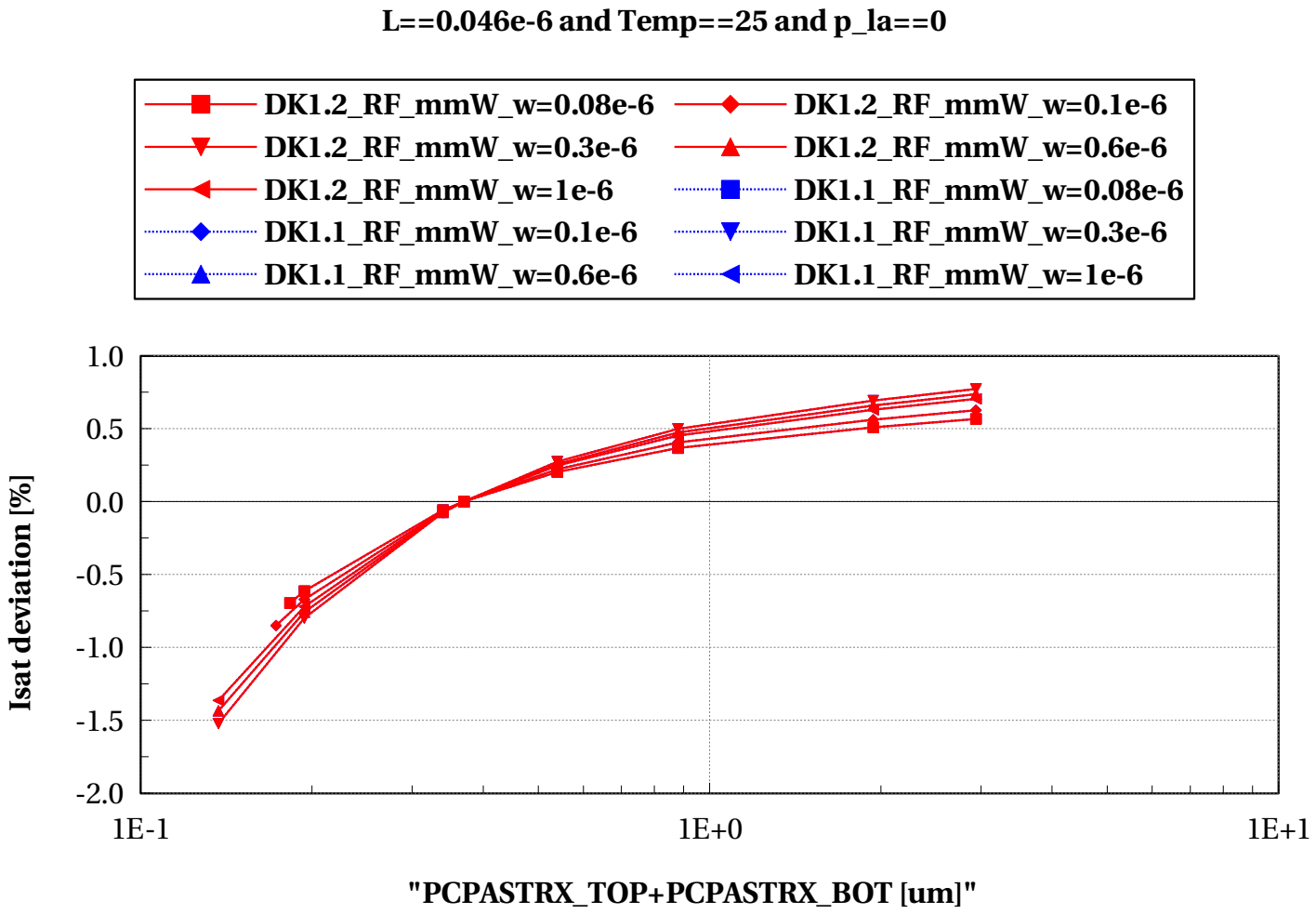
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



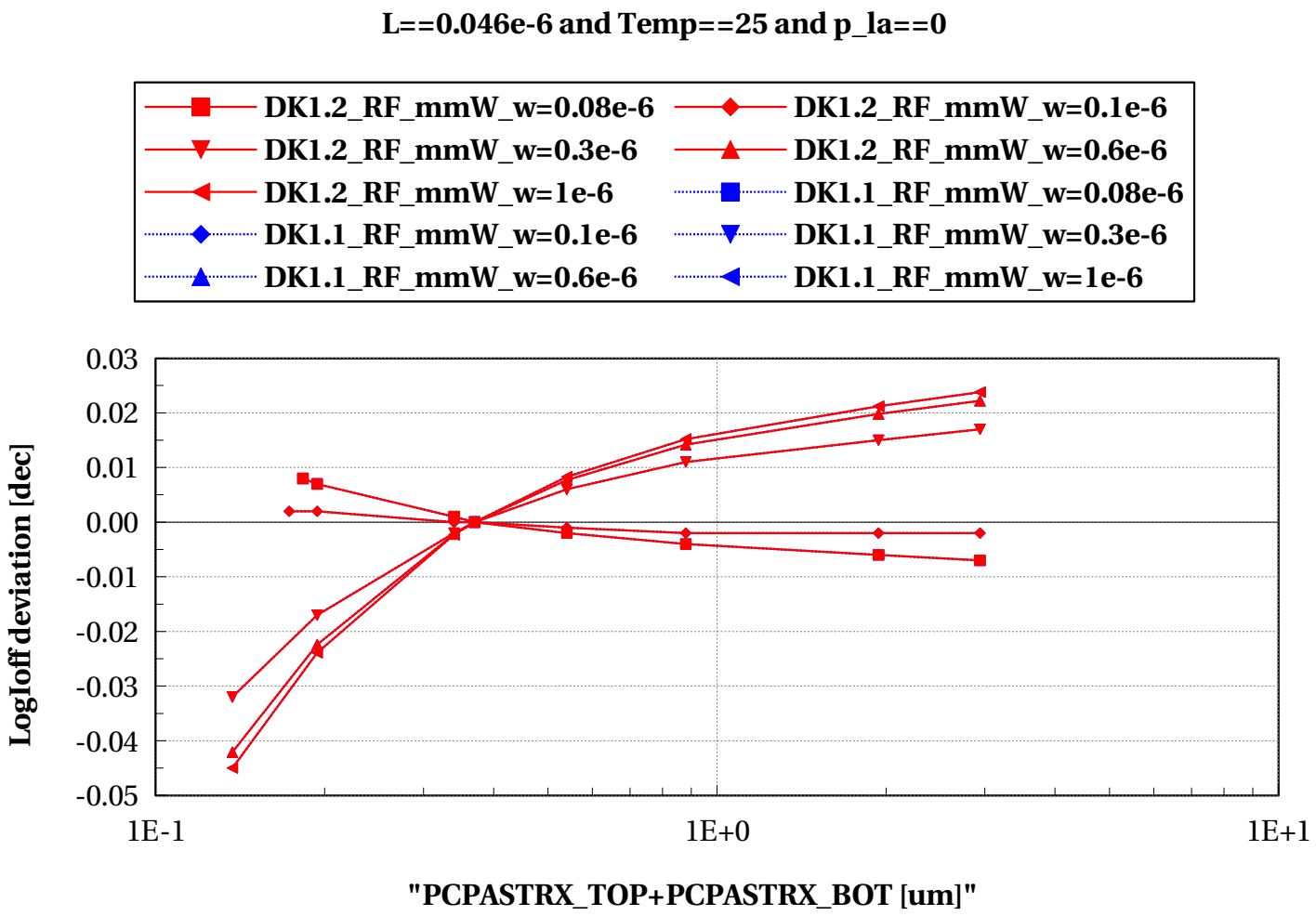
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

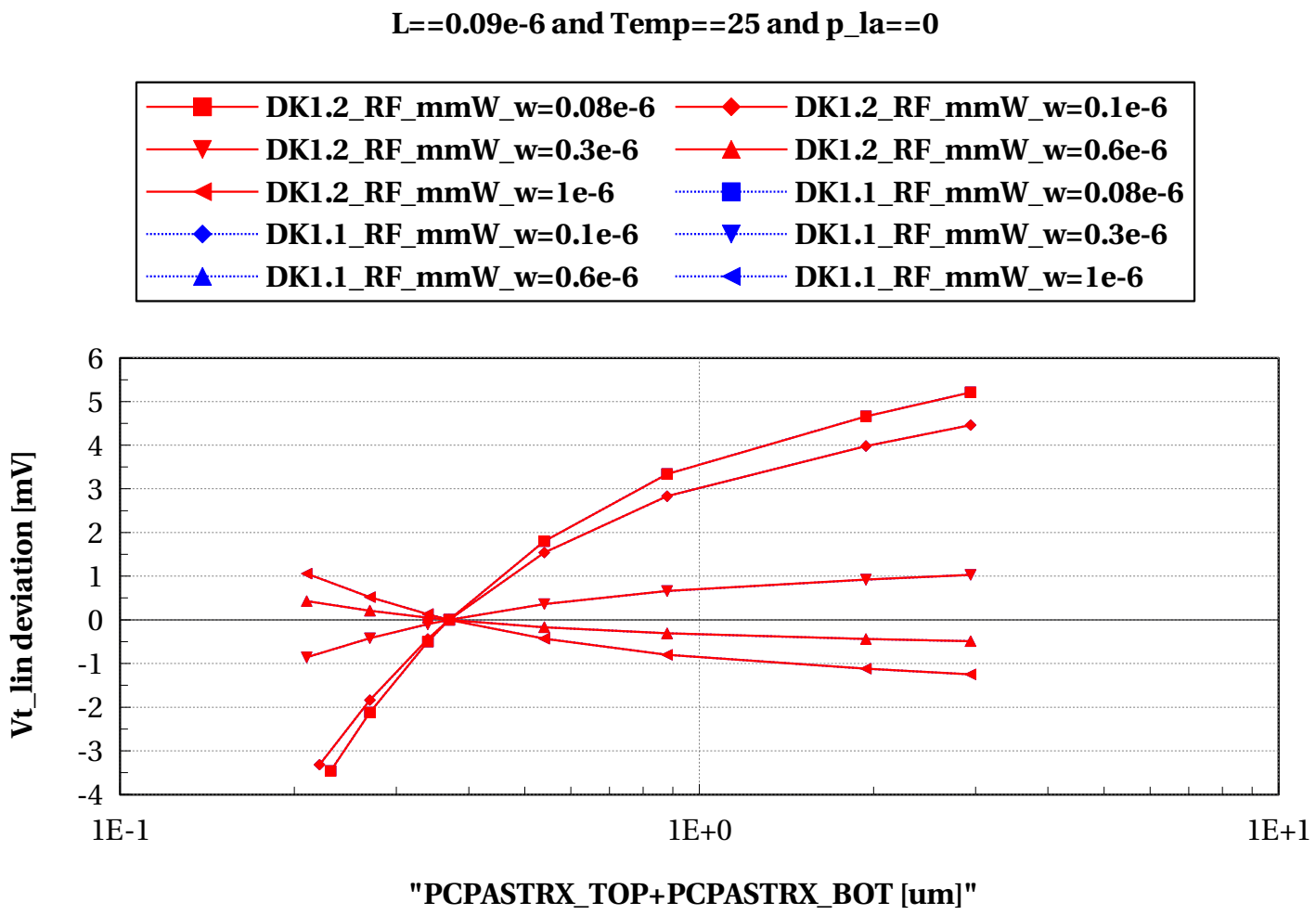


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

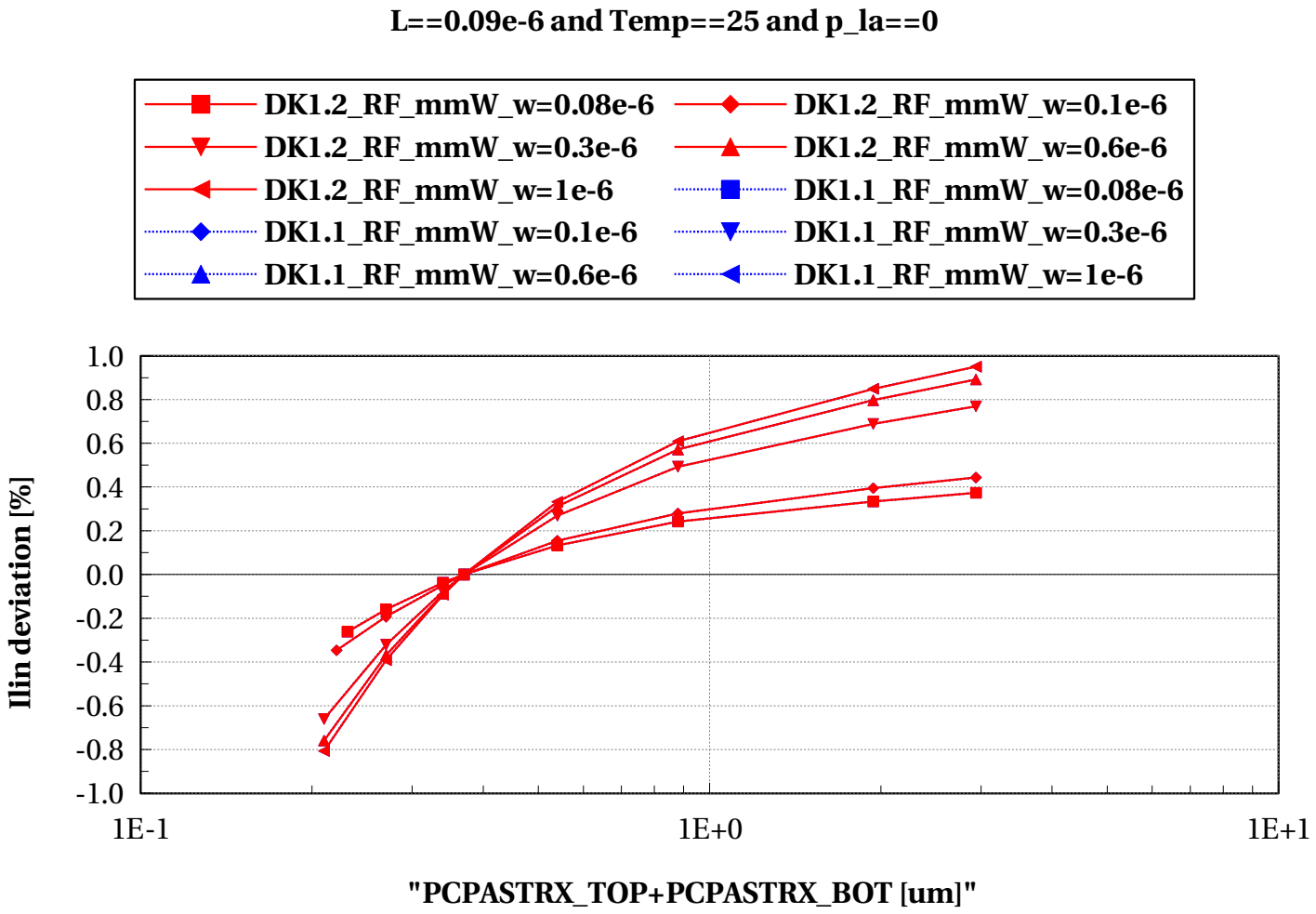


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.09u

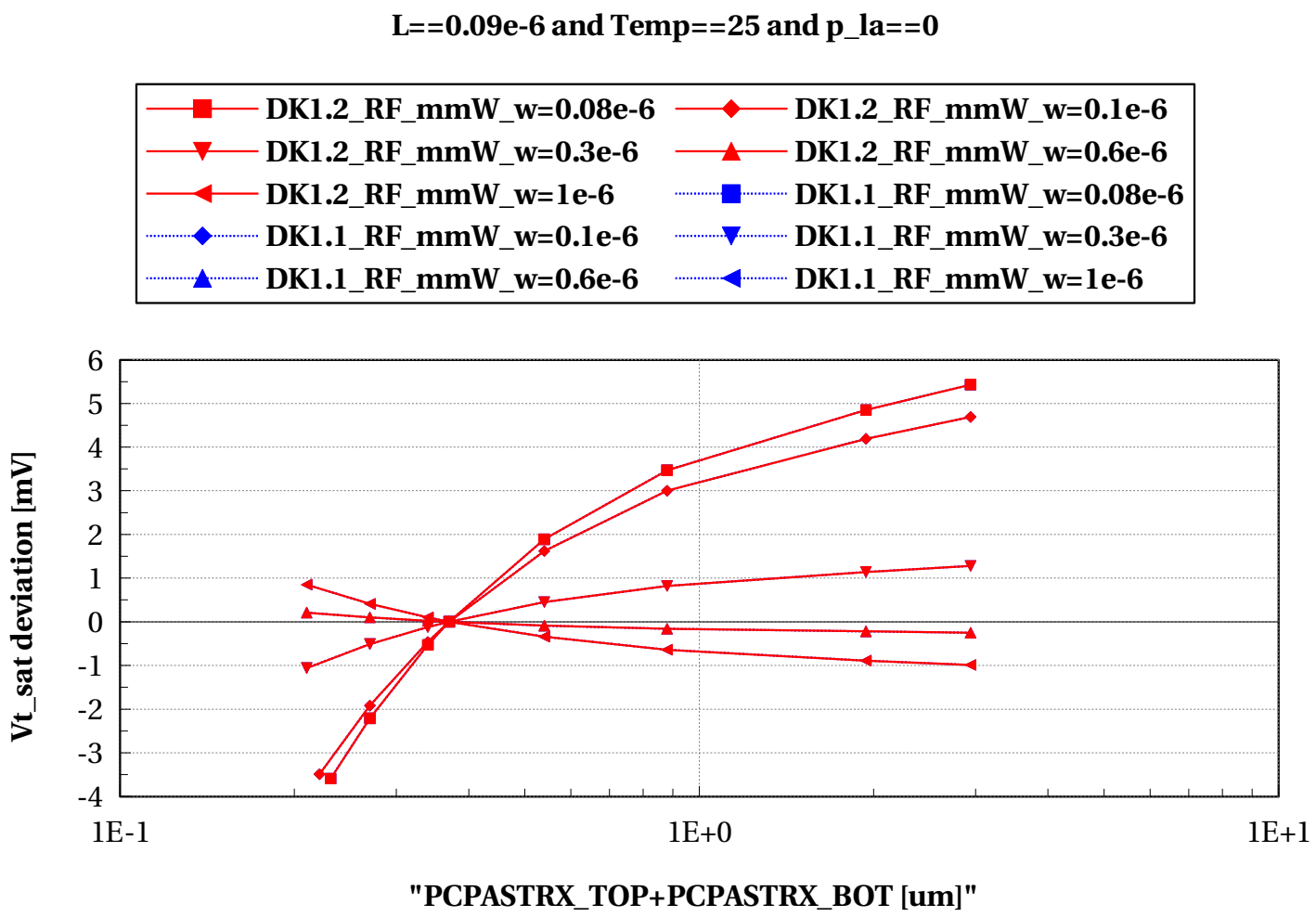
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



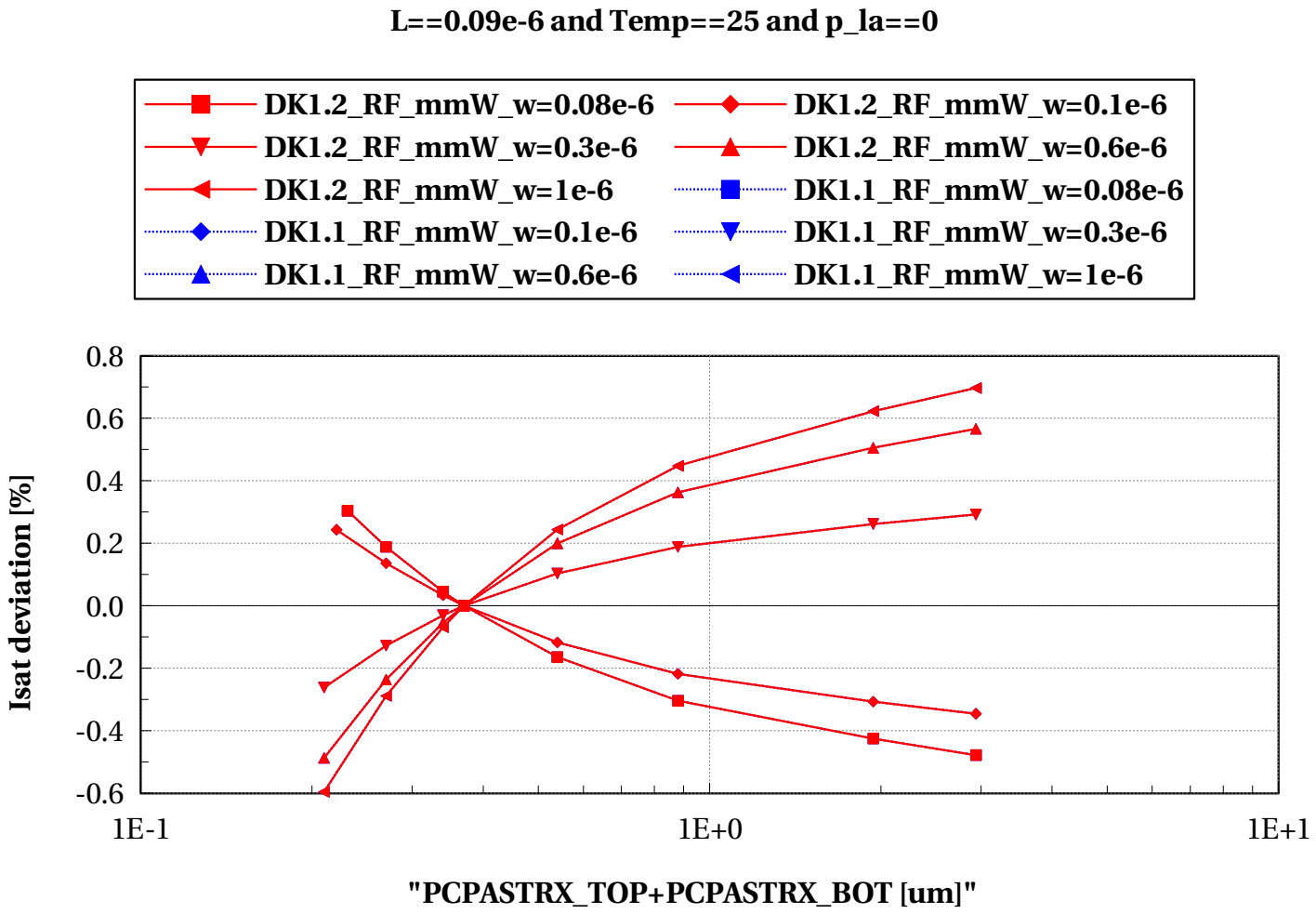
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



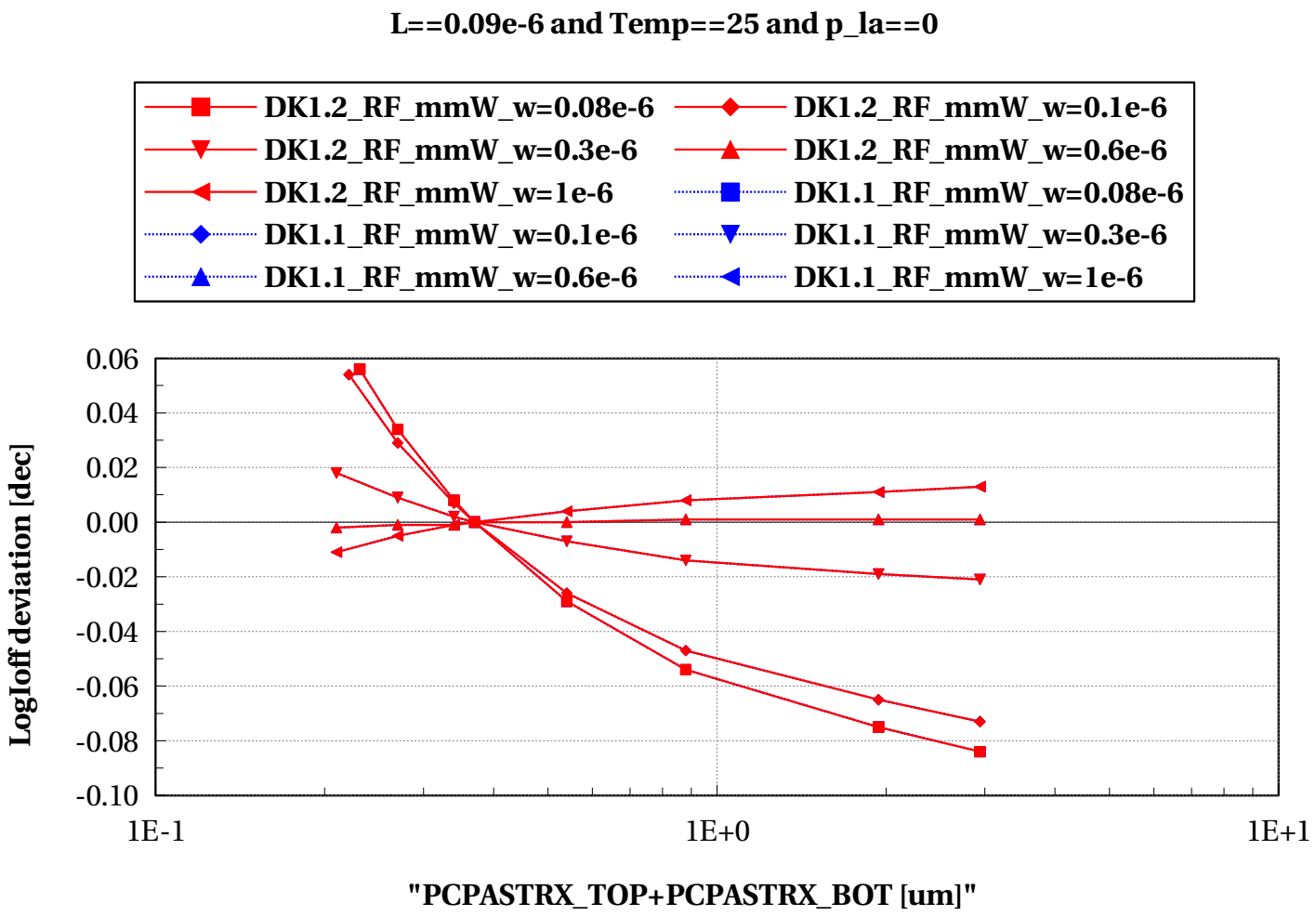
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

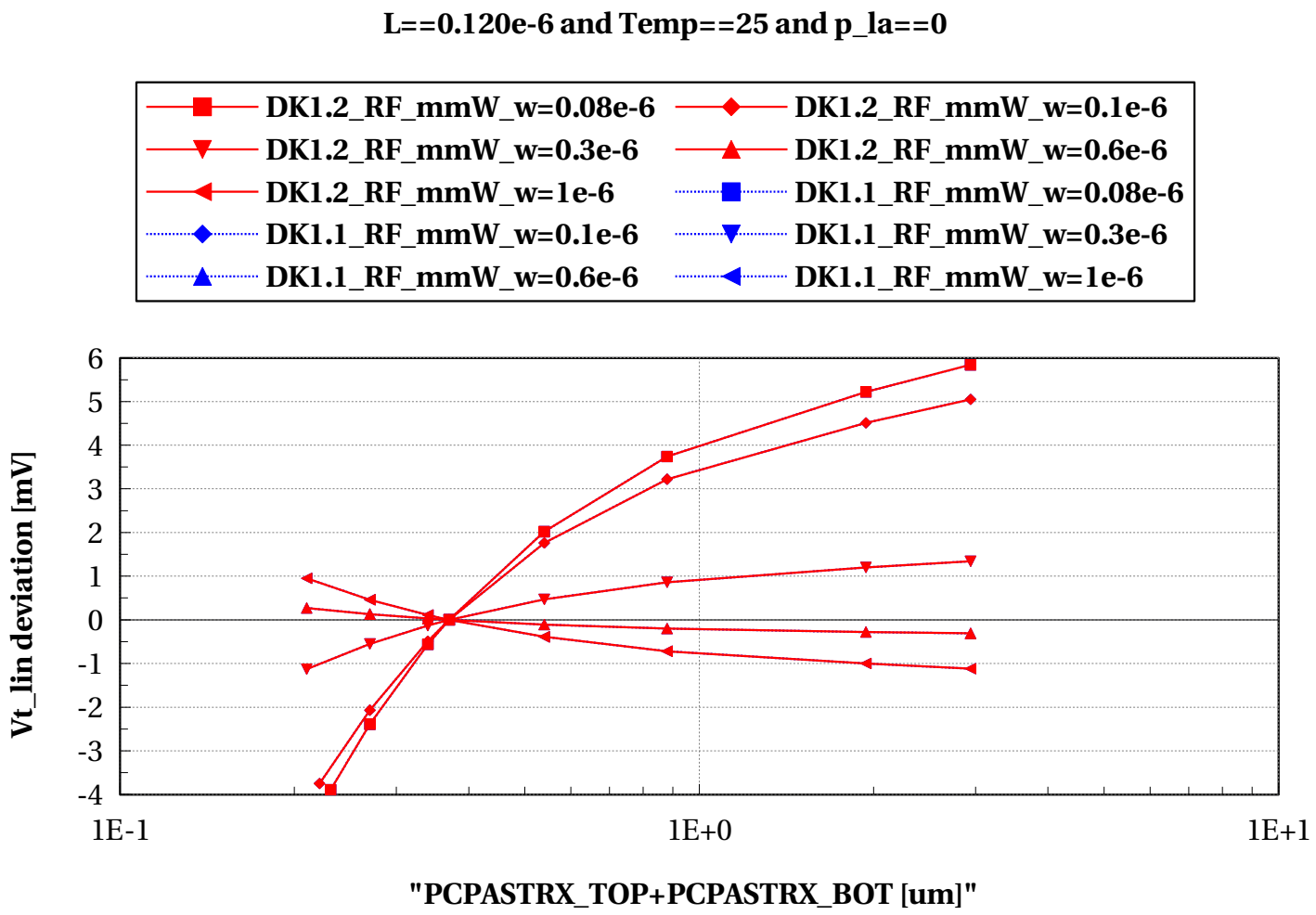


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

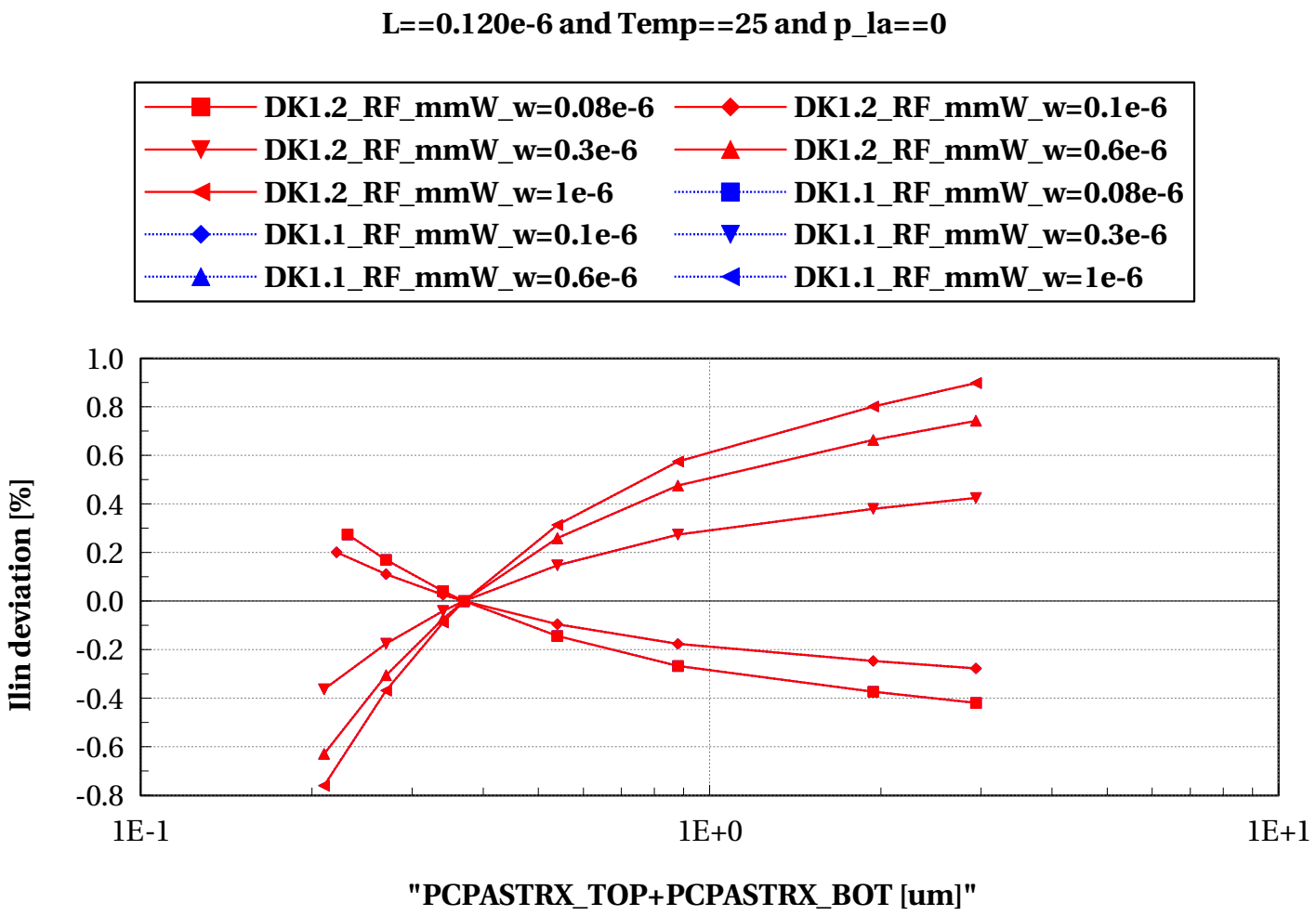


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.12u

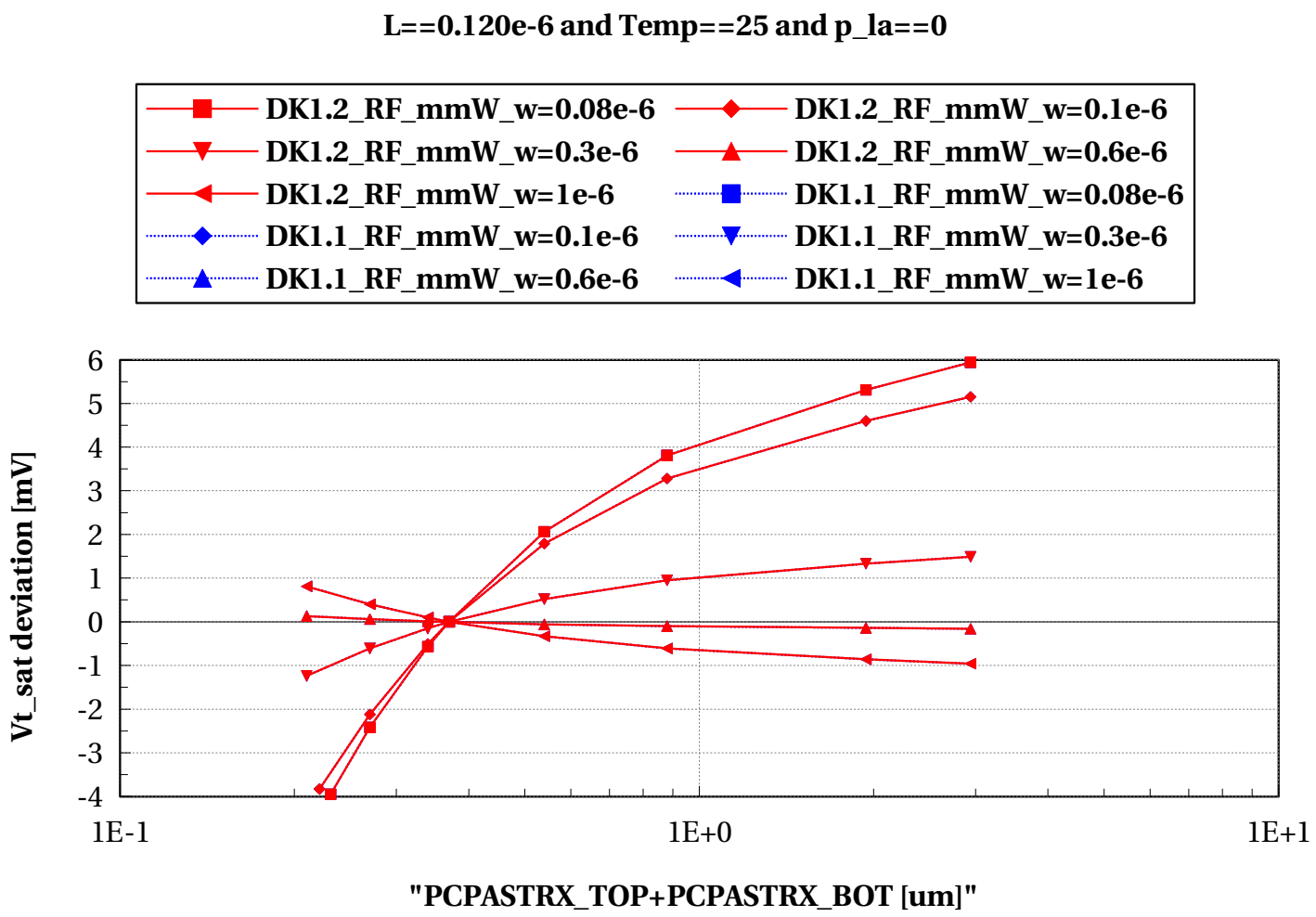
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



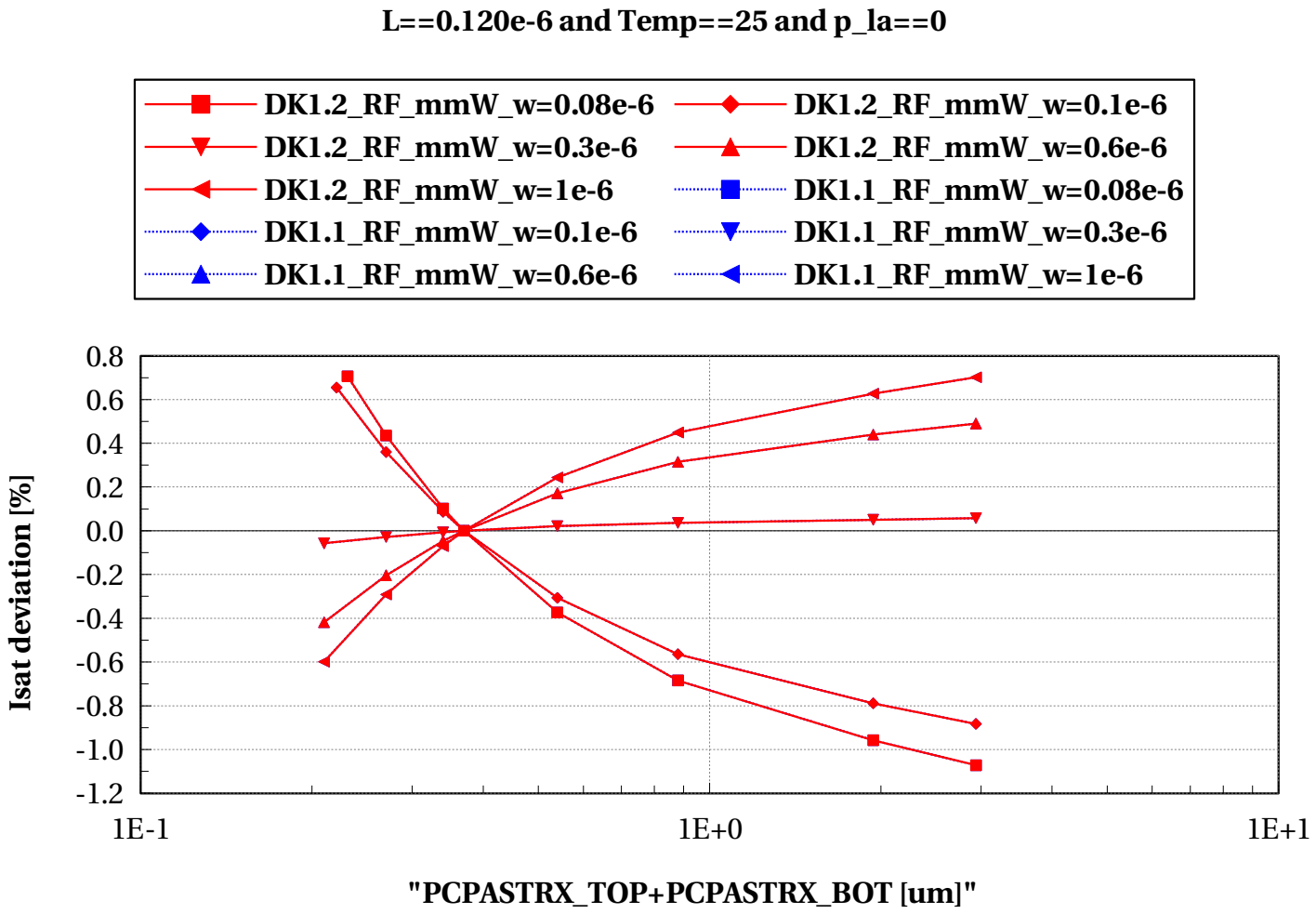
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



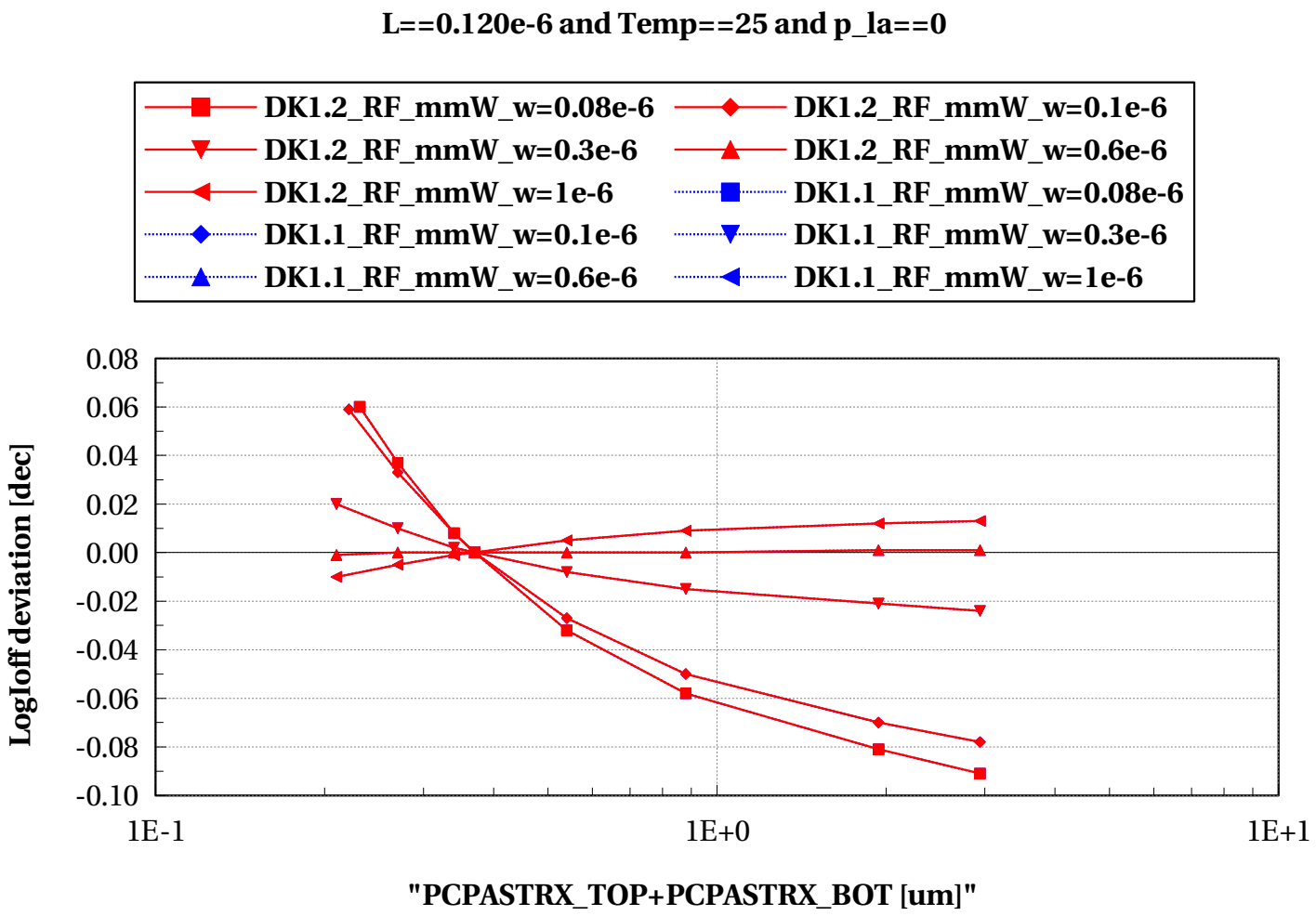
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

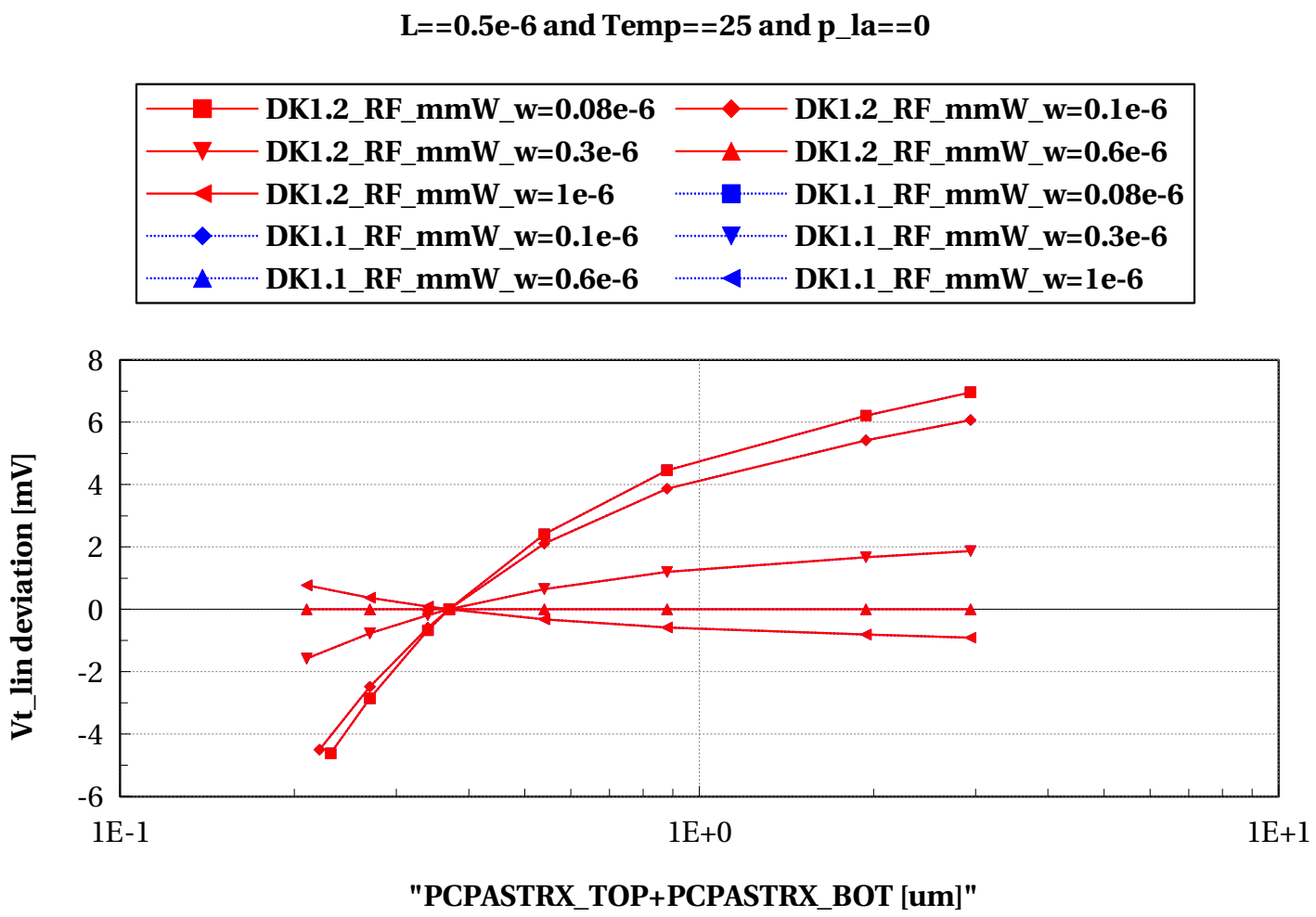


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

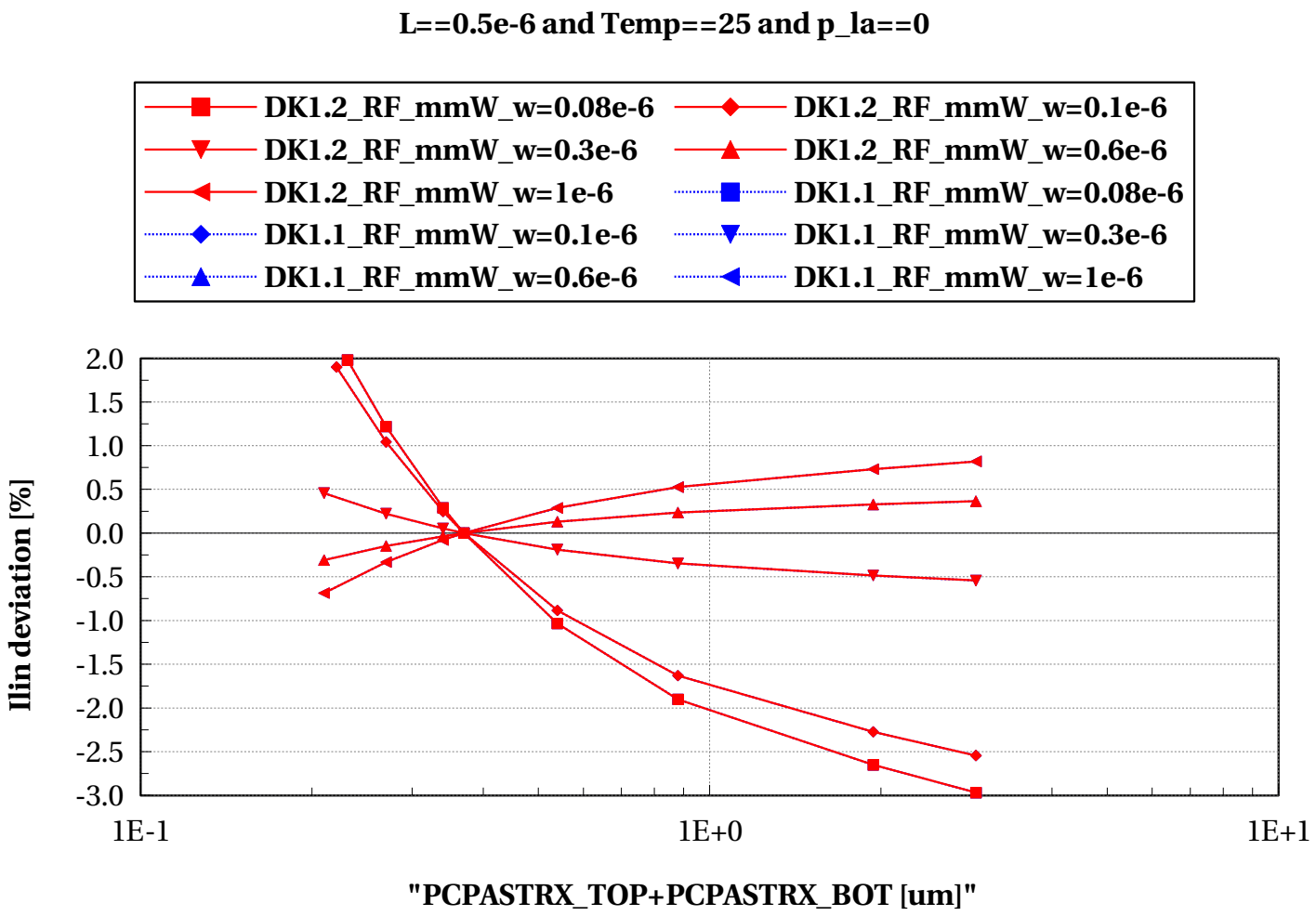


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.5u

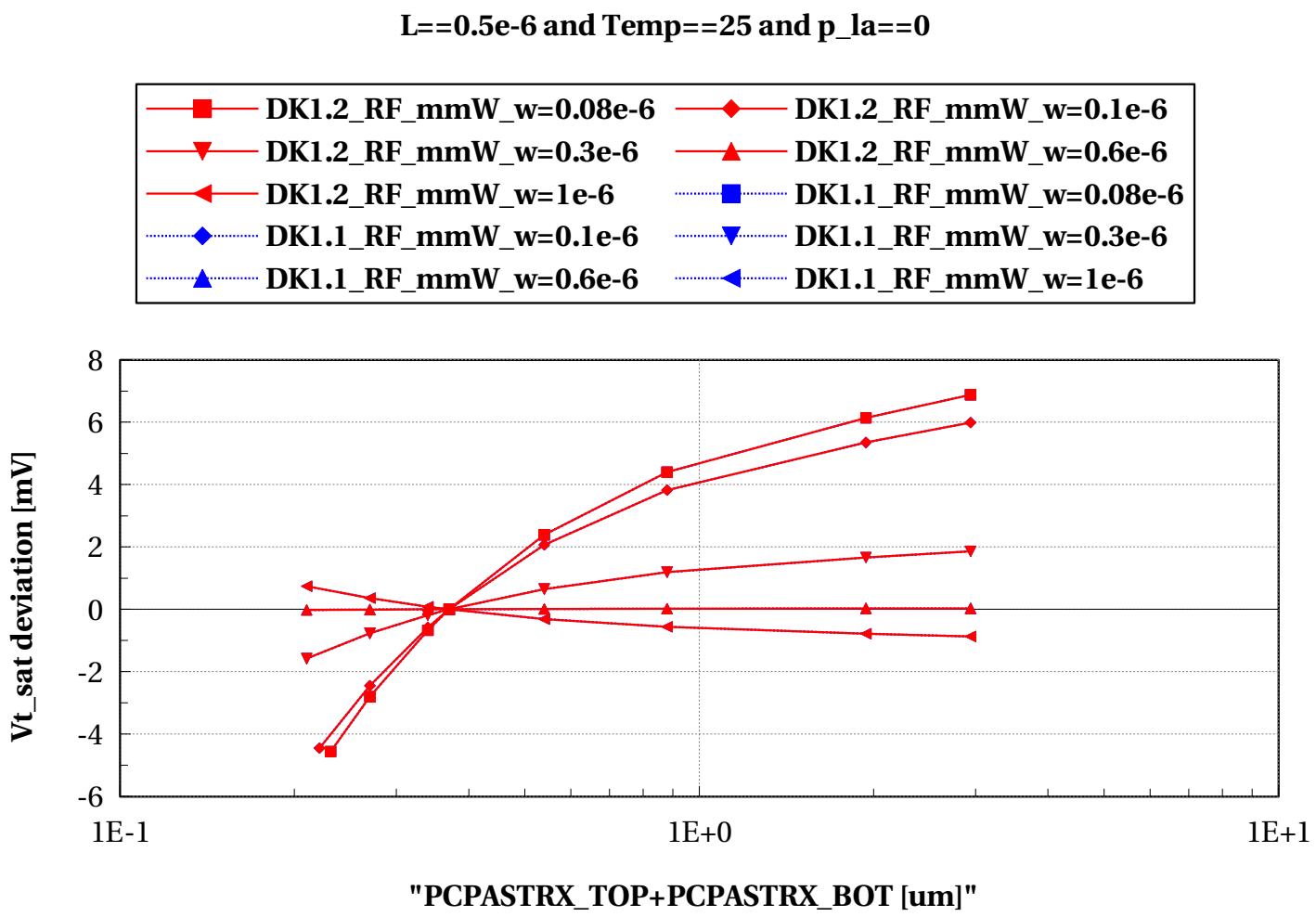
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



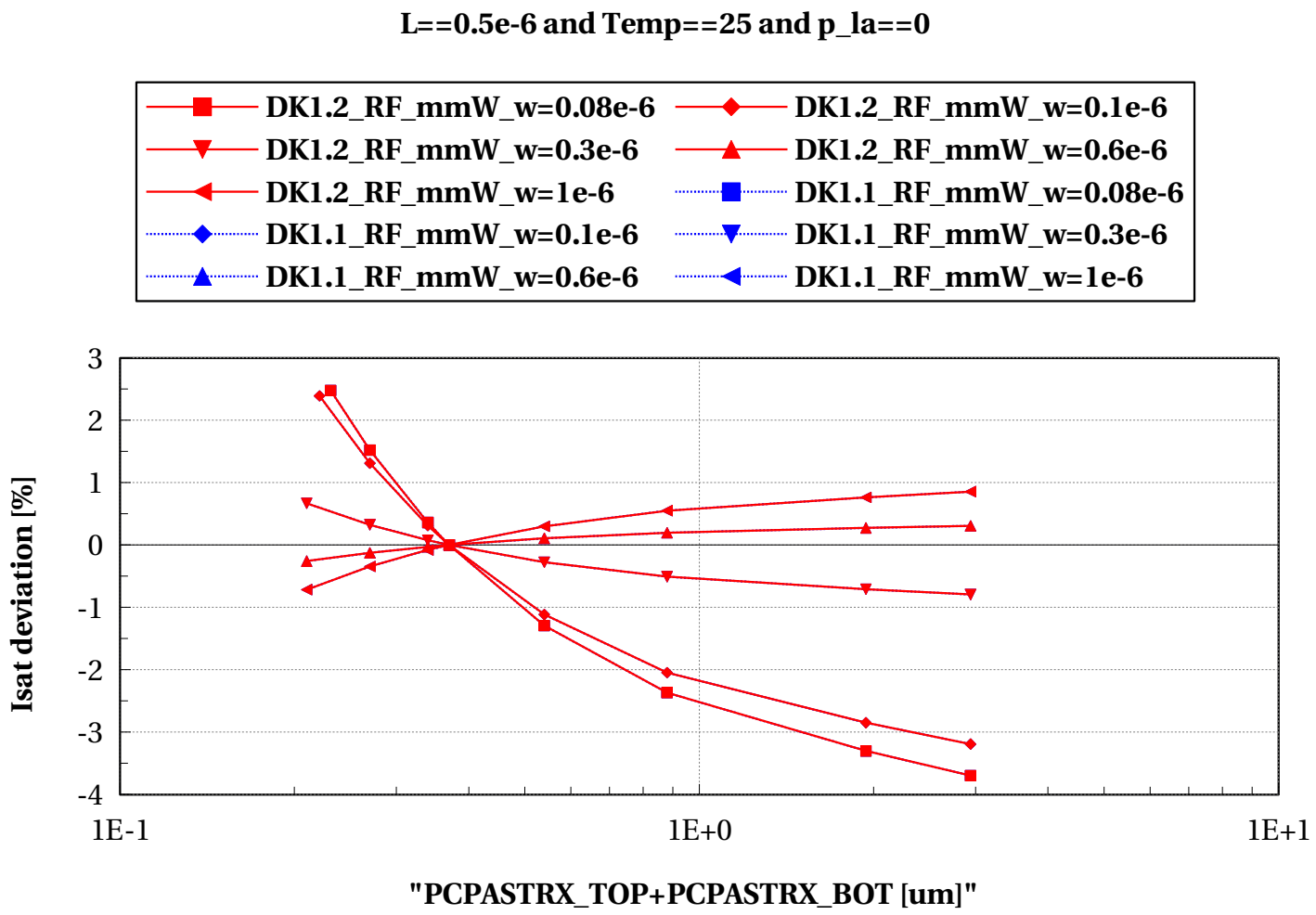
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



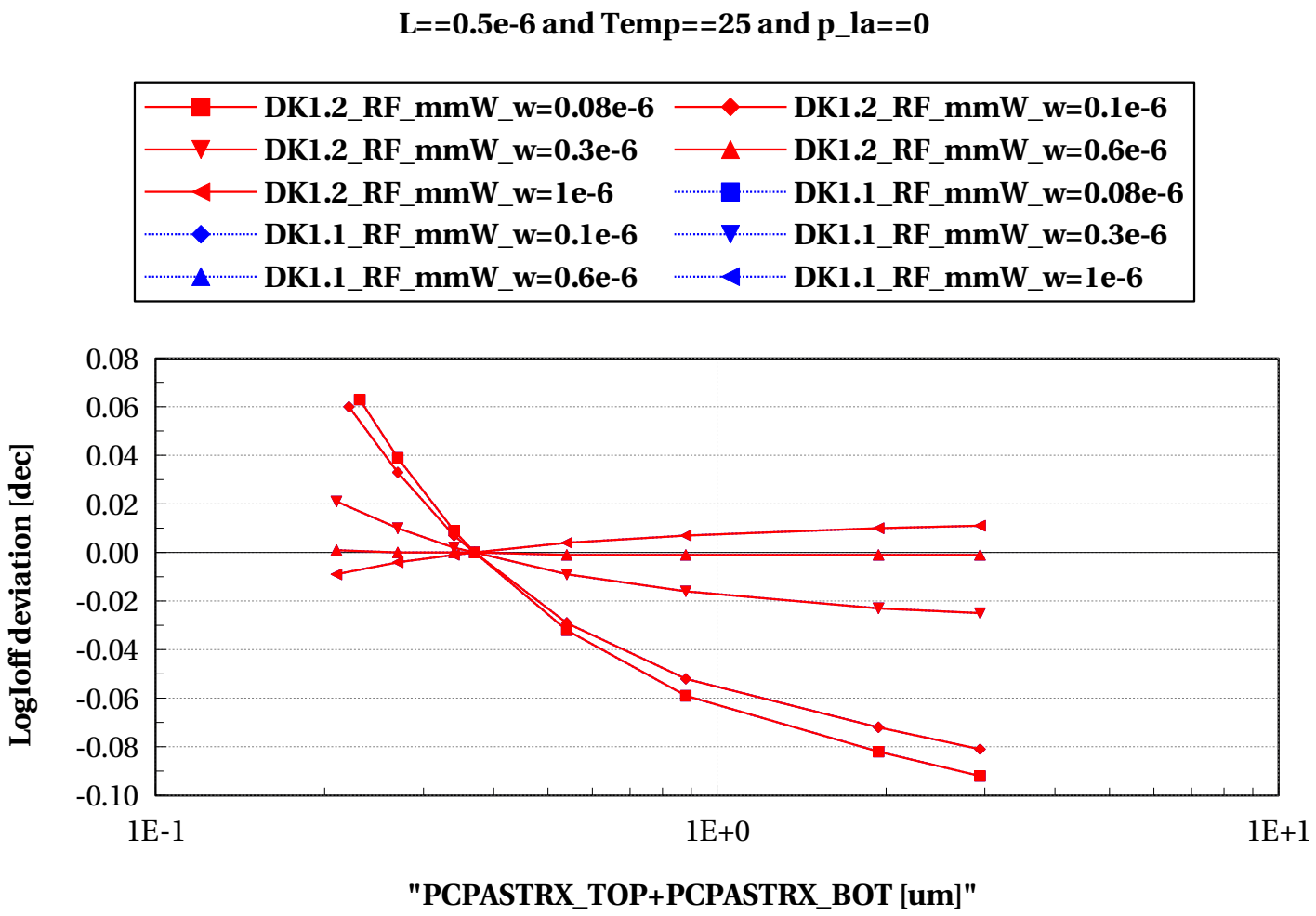
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

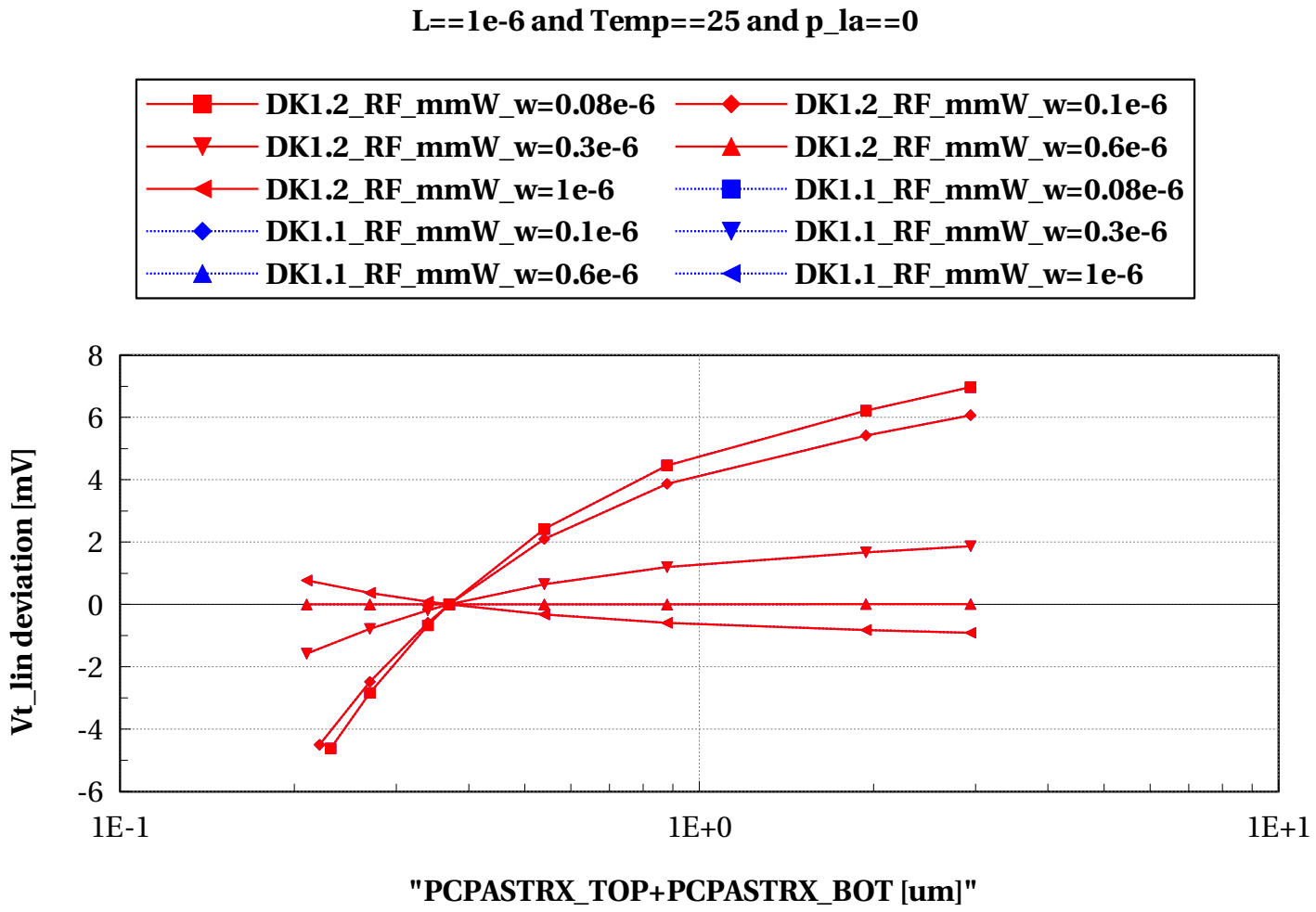


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

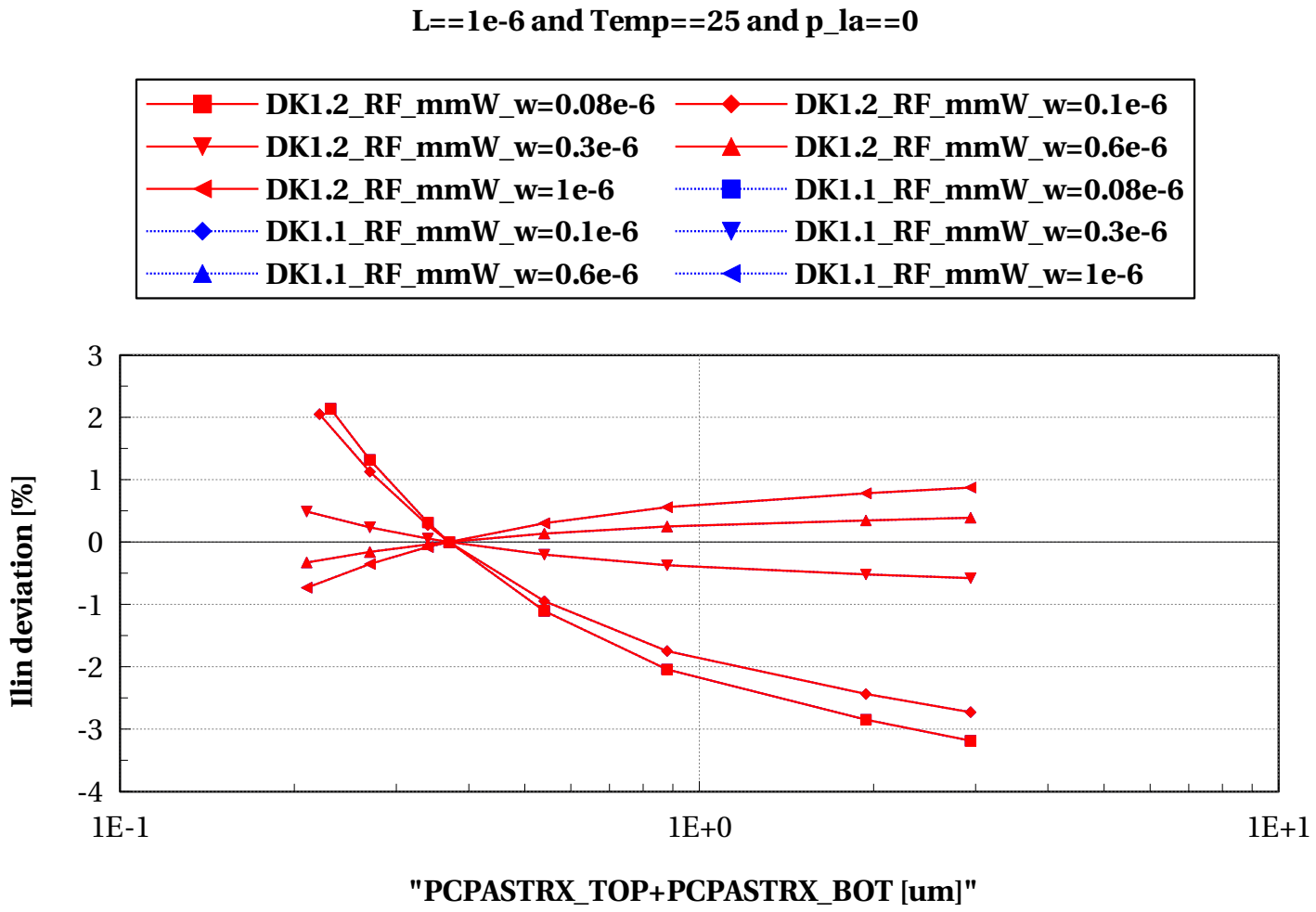


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=1u

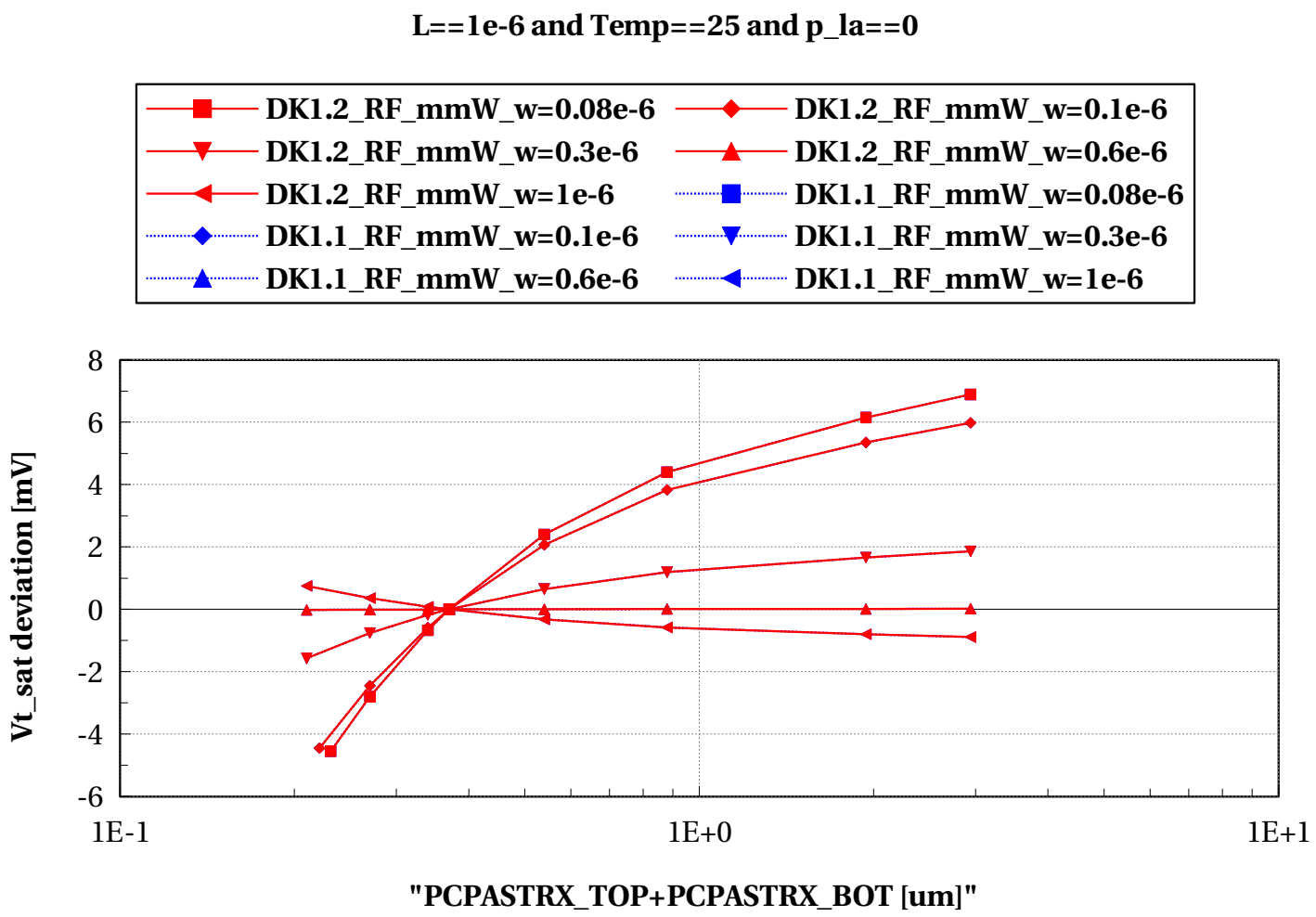
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



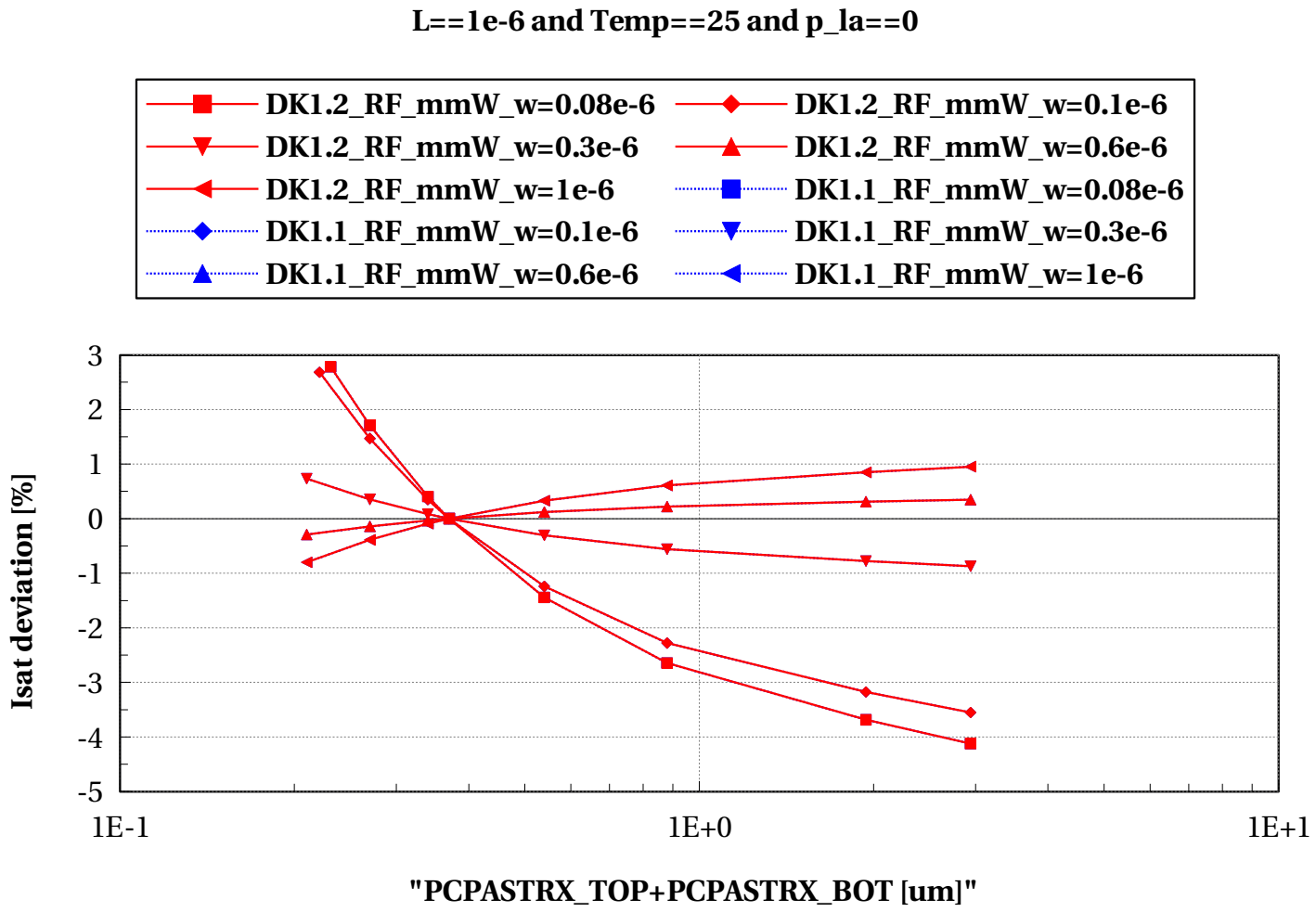
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



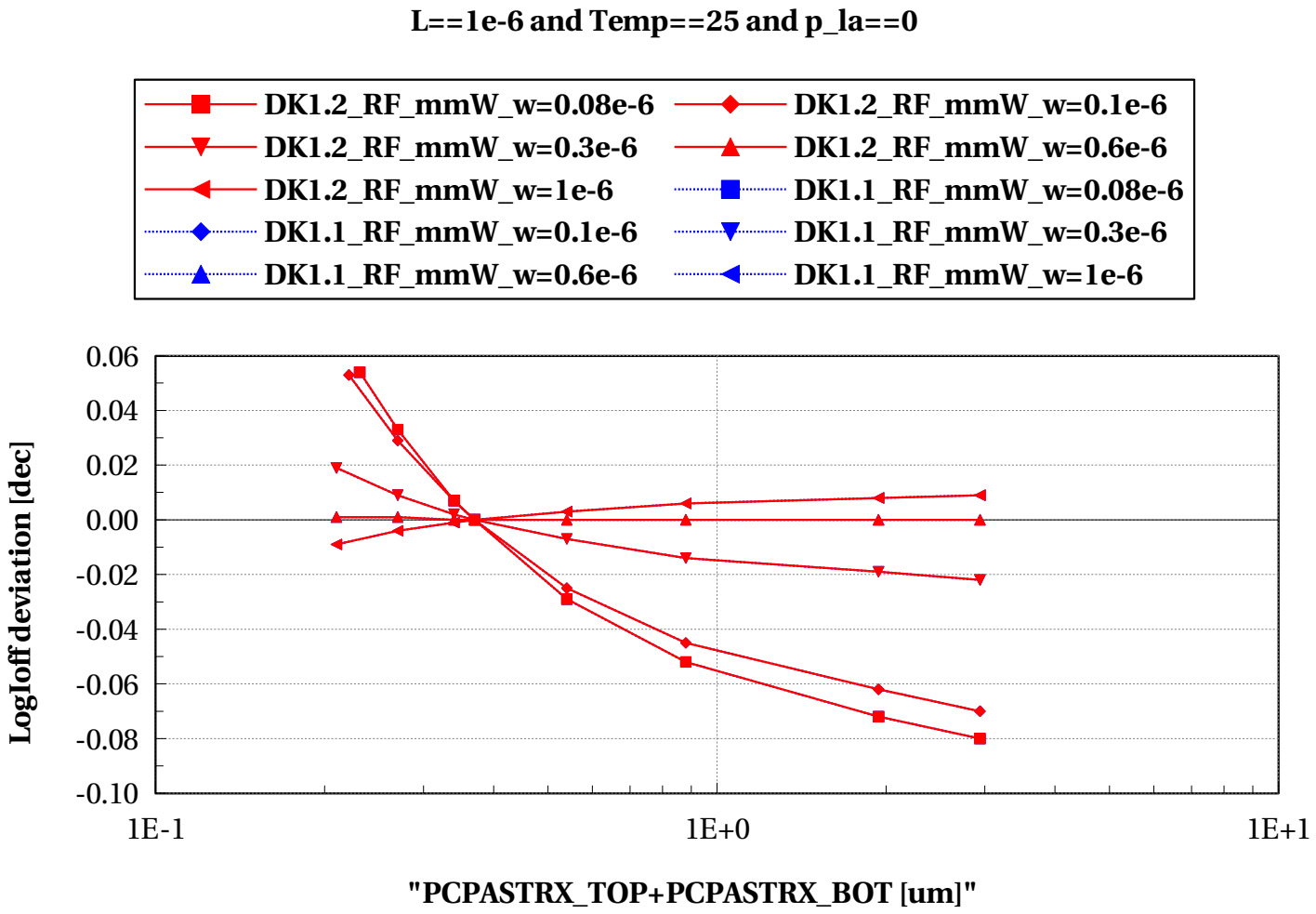
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

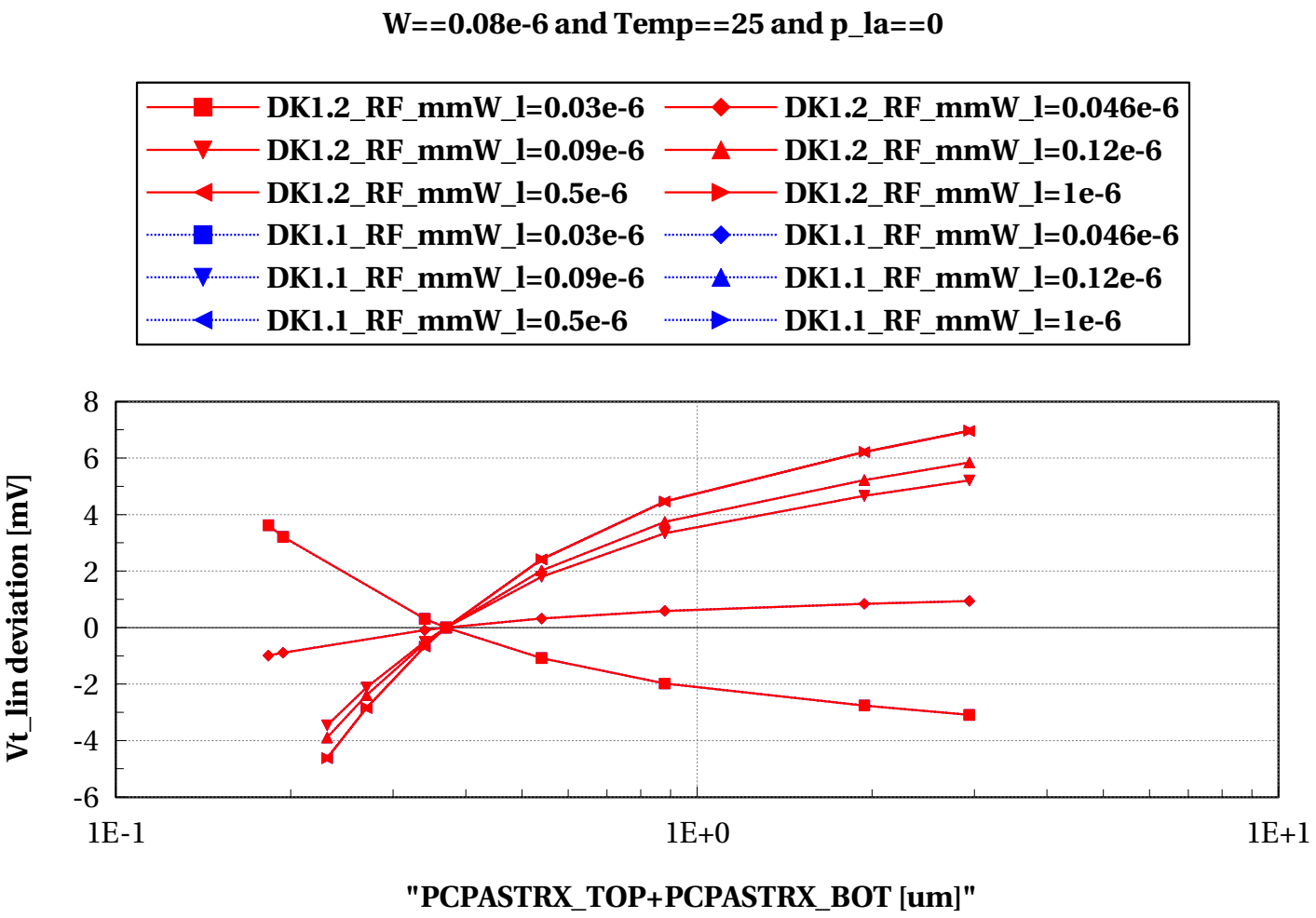


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

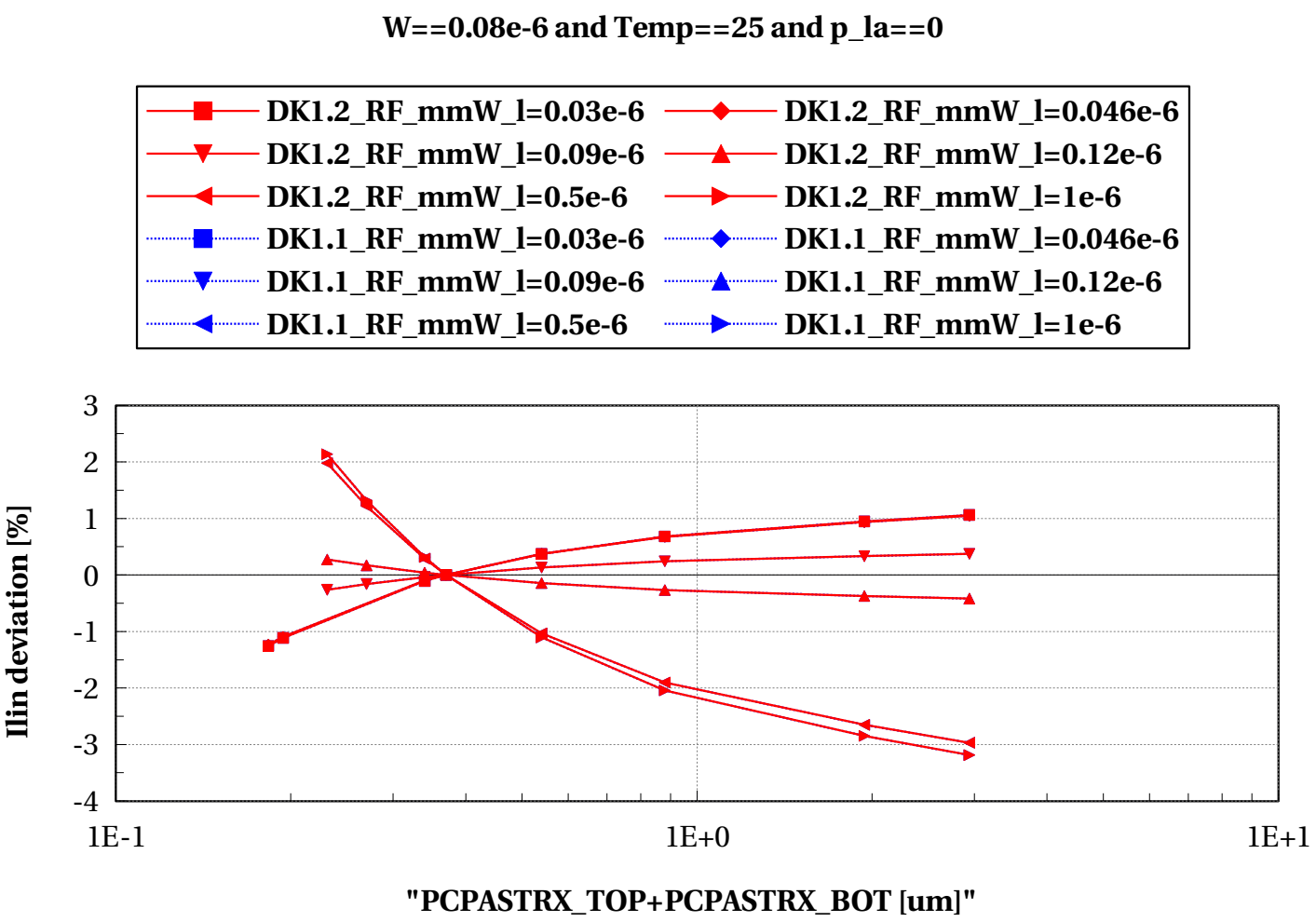


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=0.08u

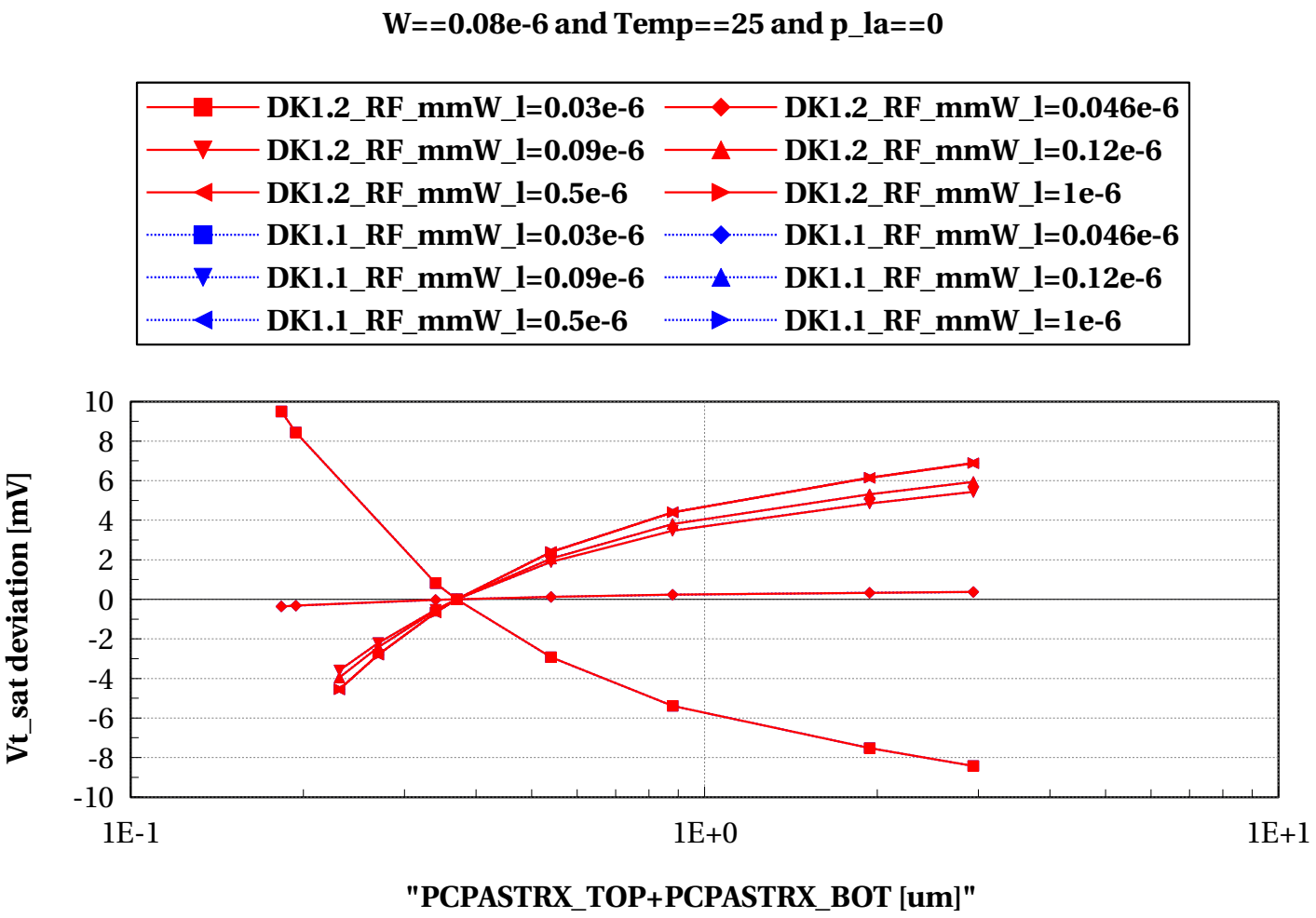
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



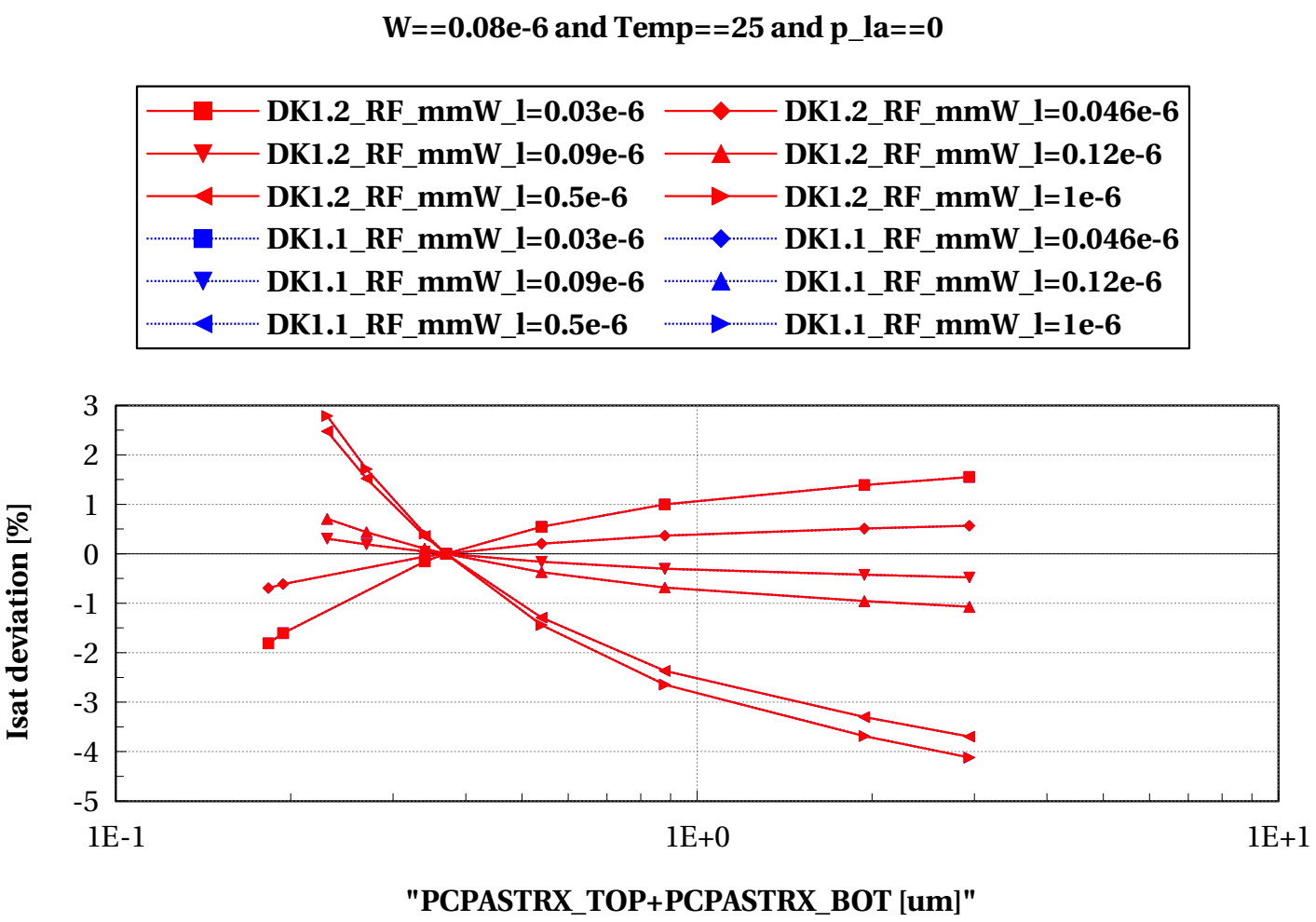
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



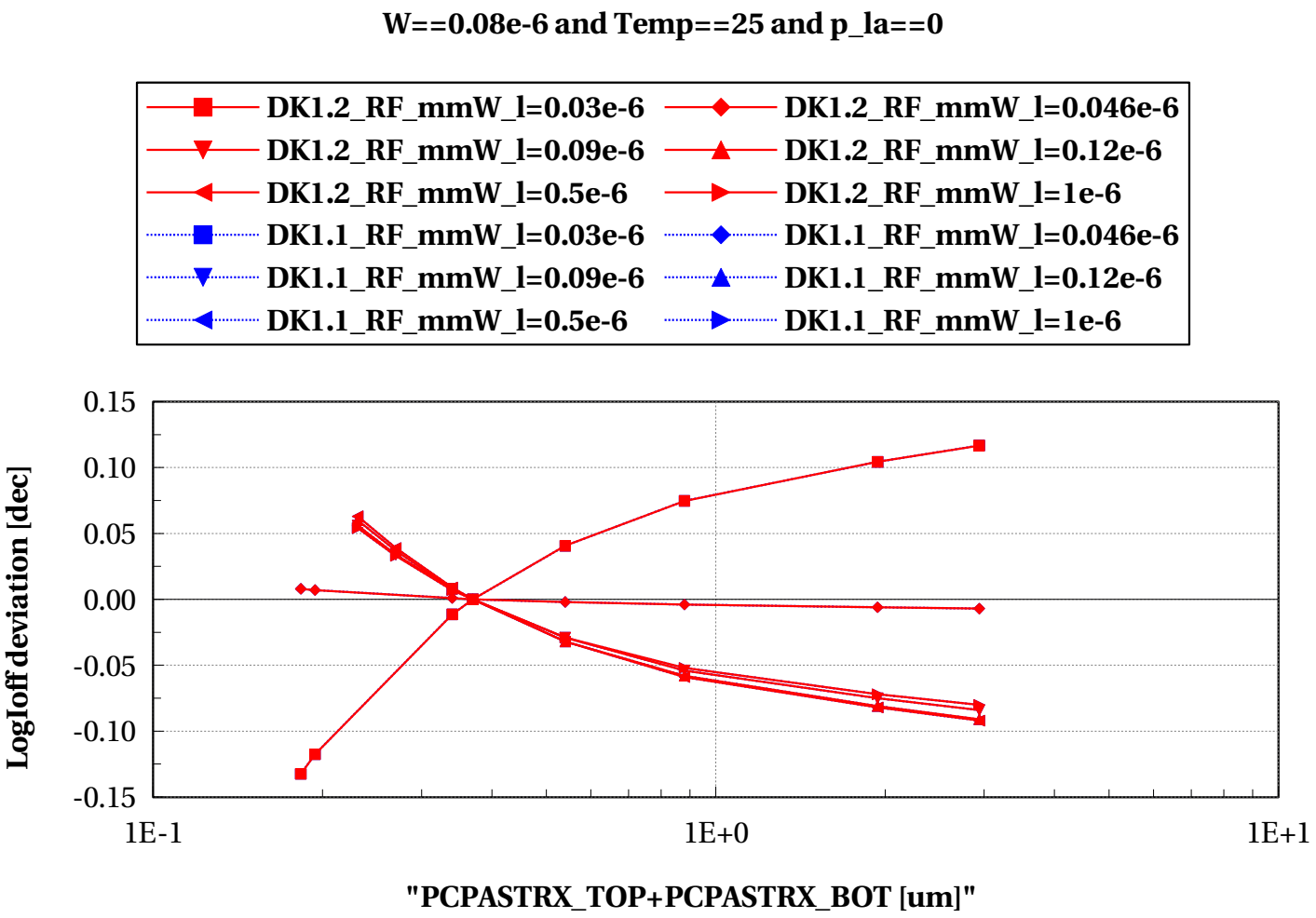
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

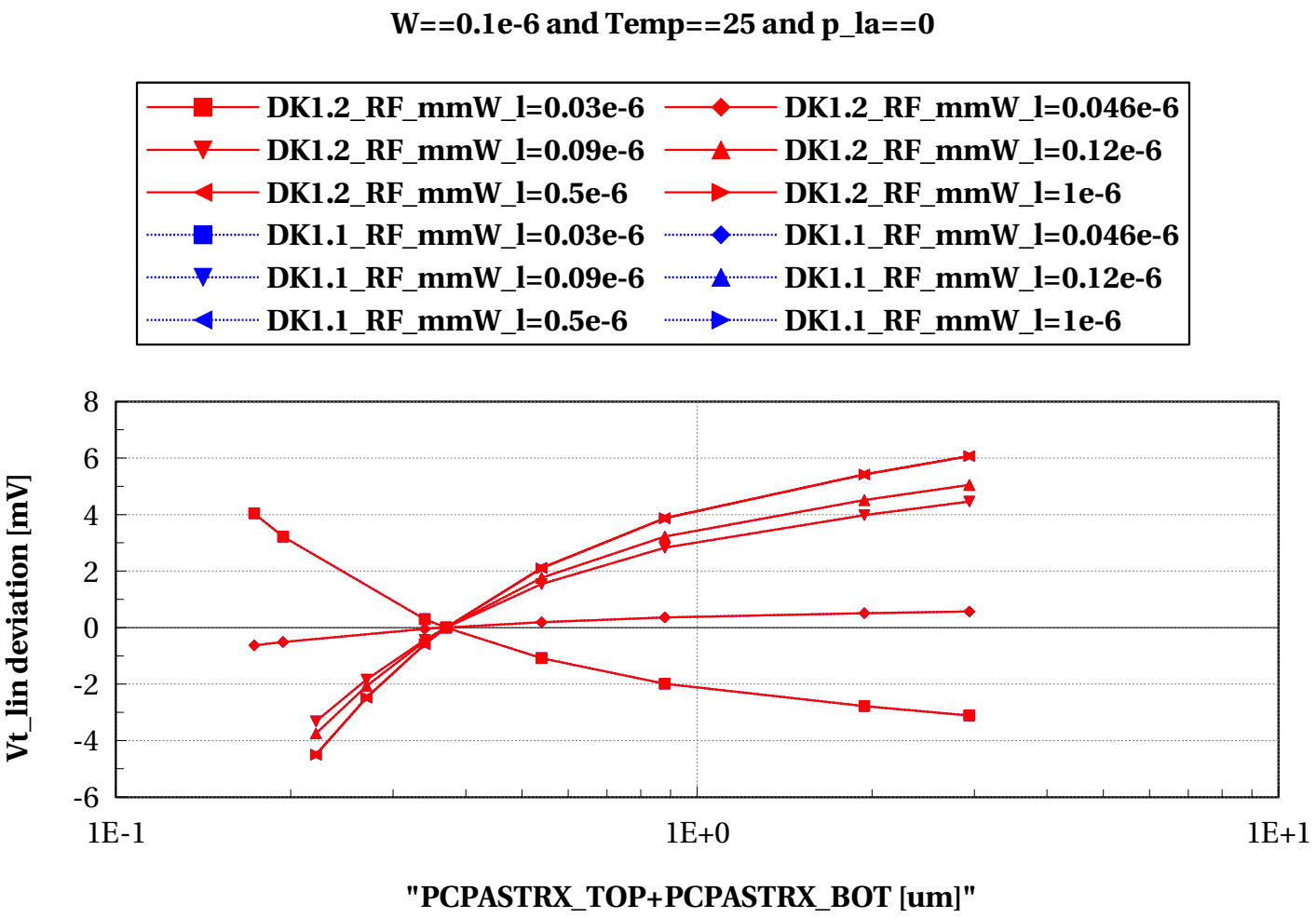


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

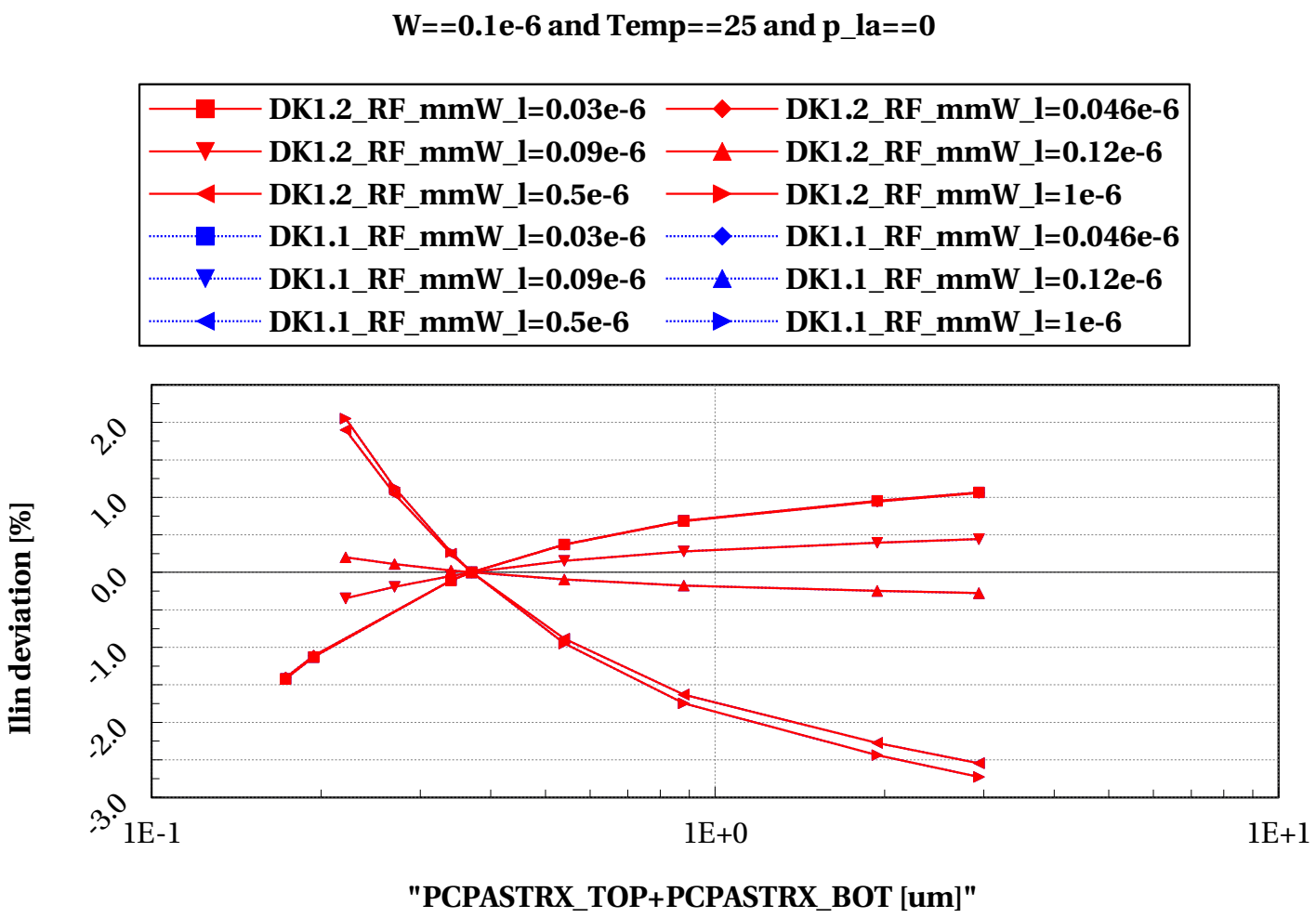


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=0.1u

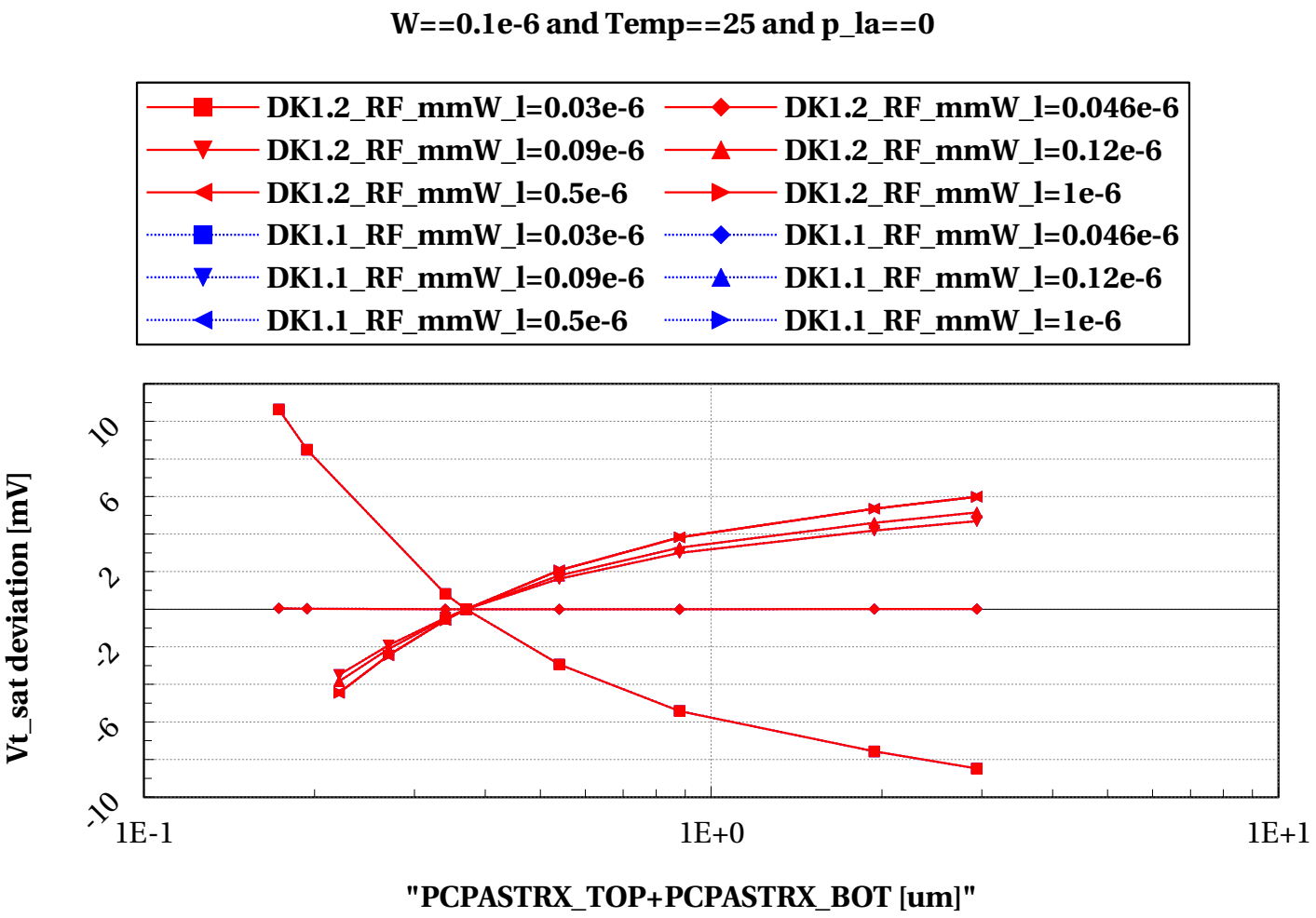
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



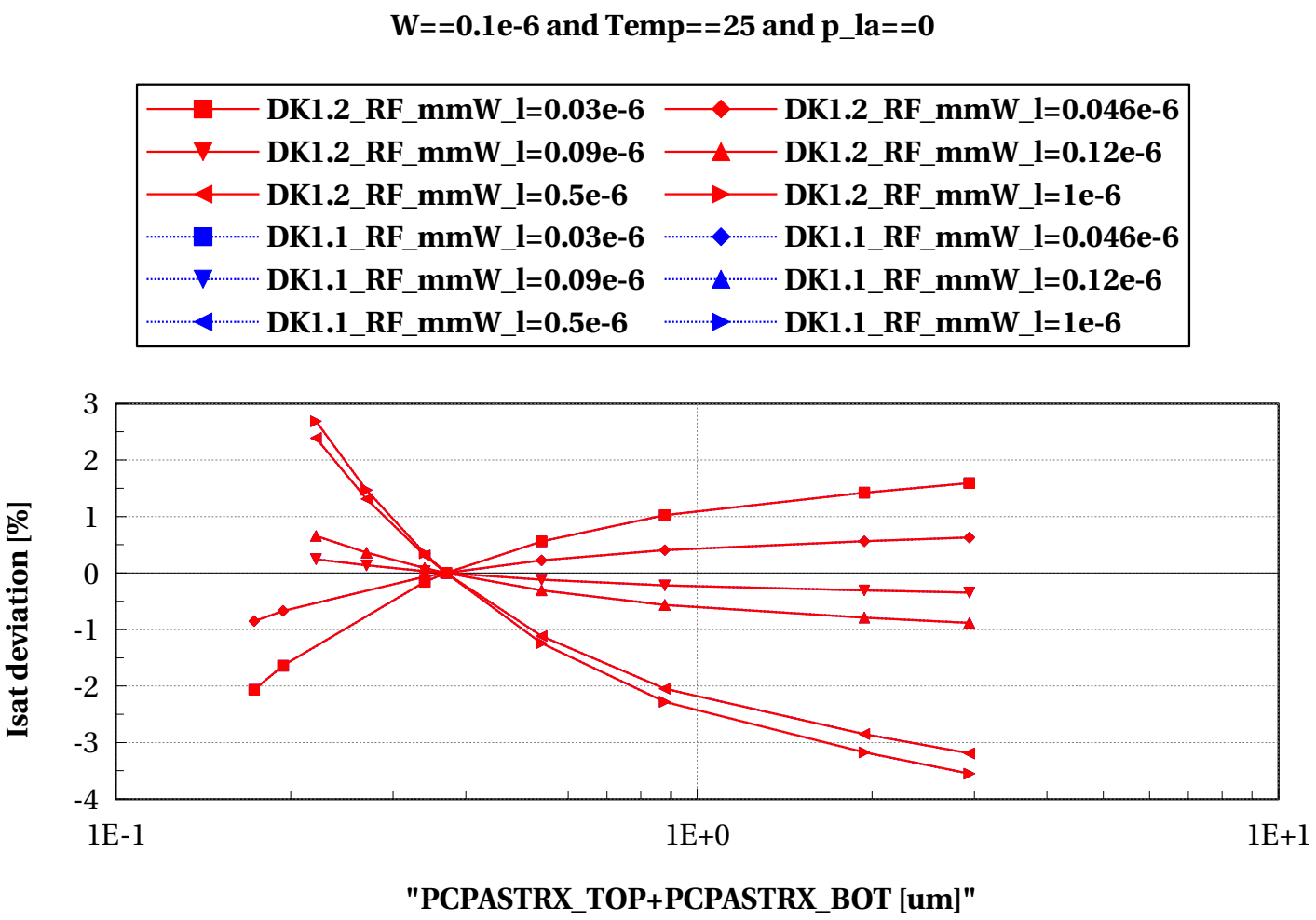
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



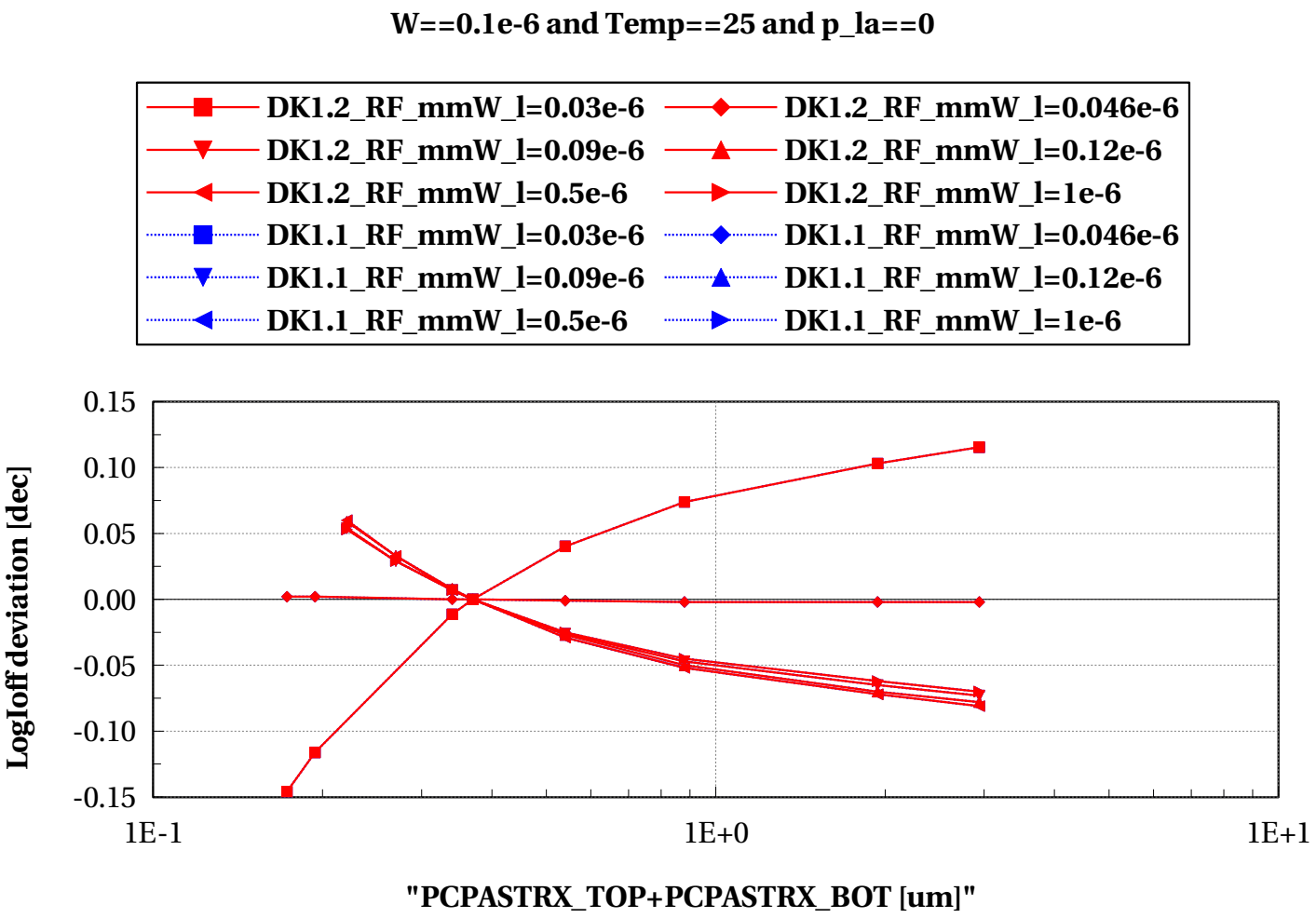
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

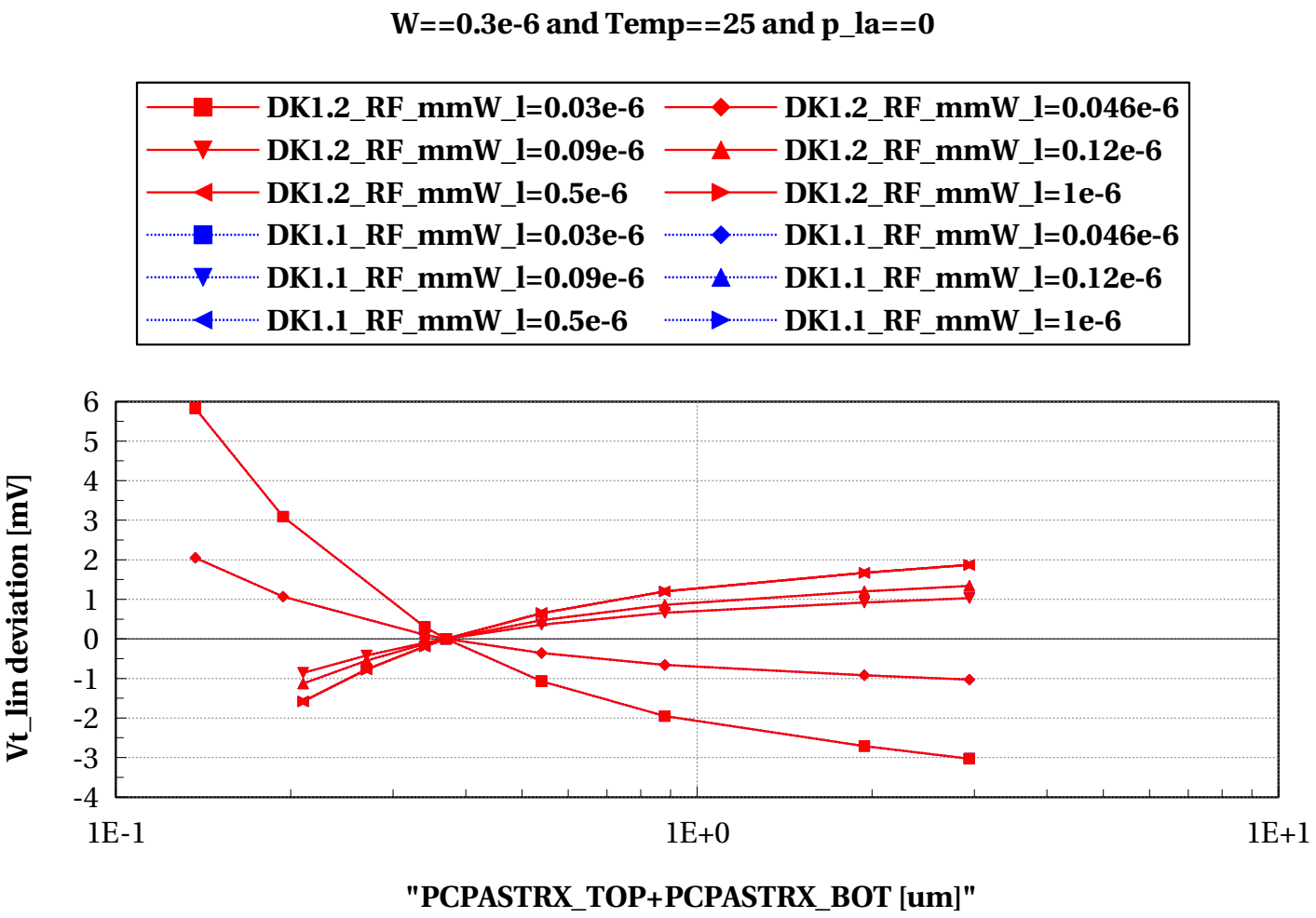


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

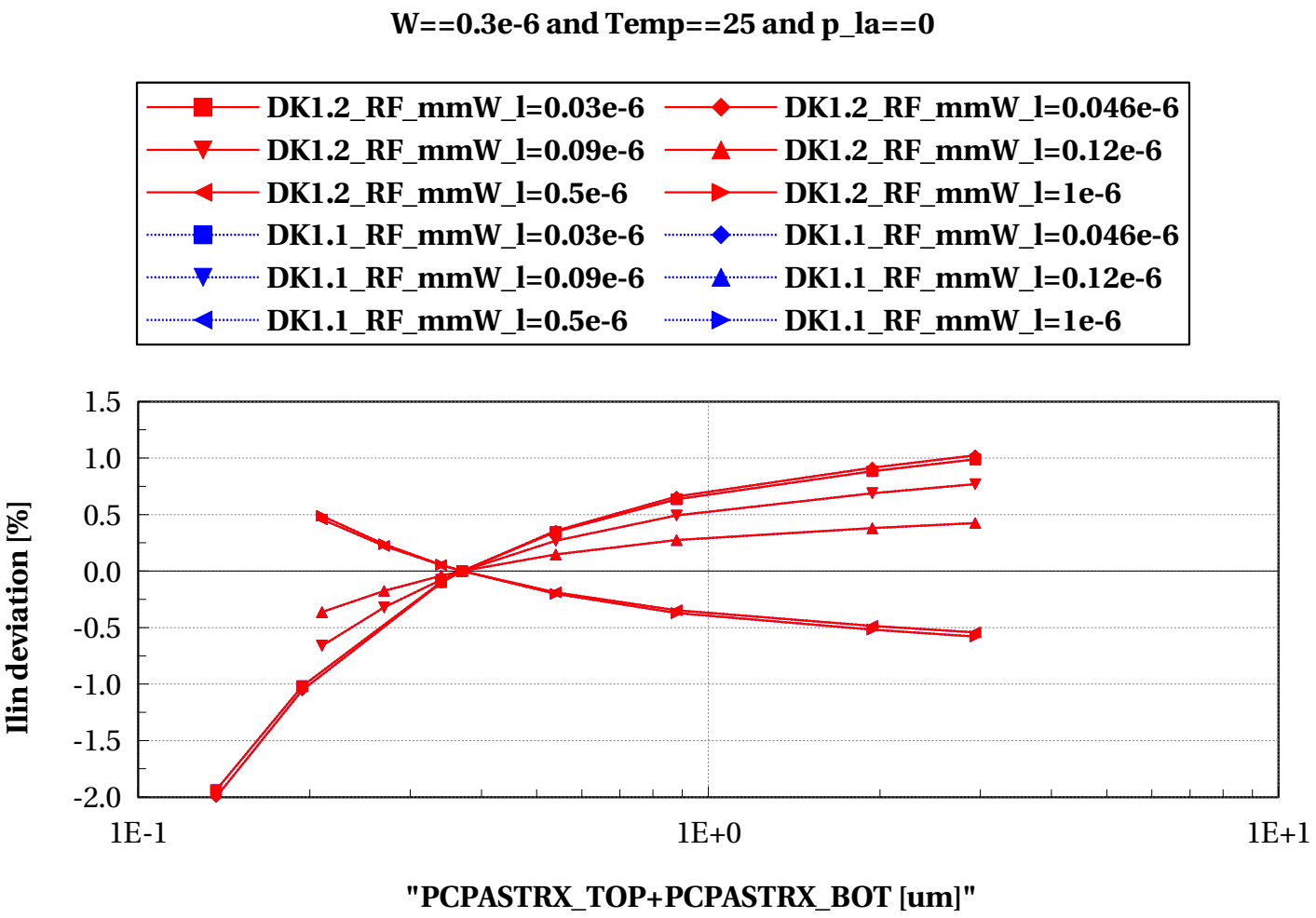


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling@W=0.3u

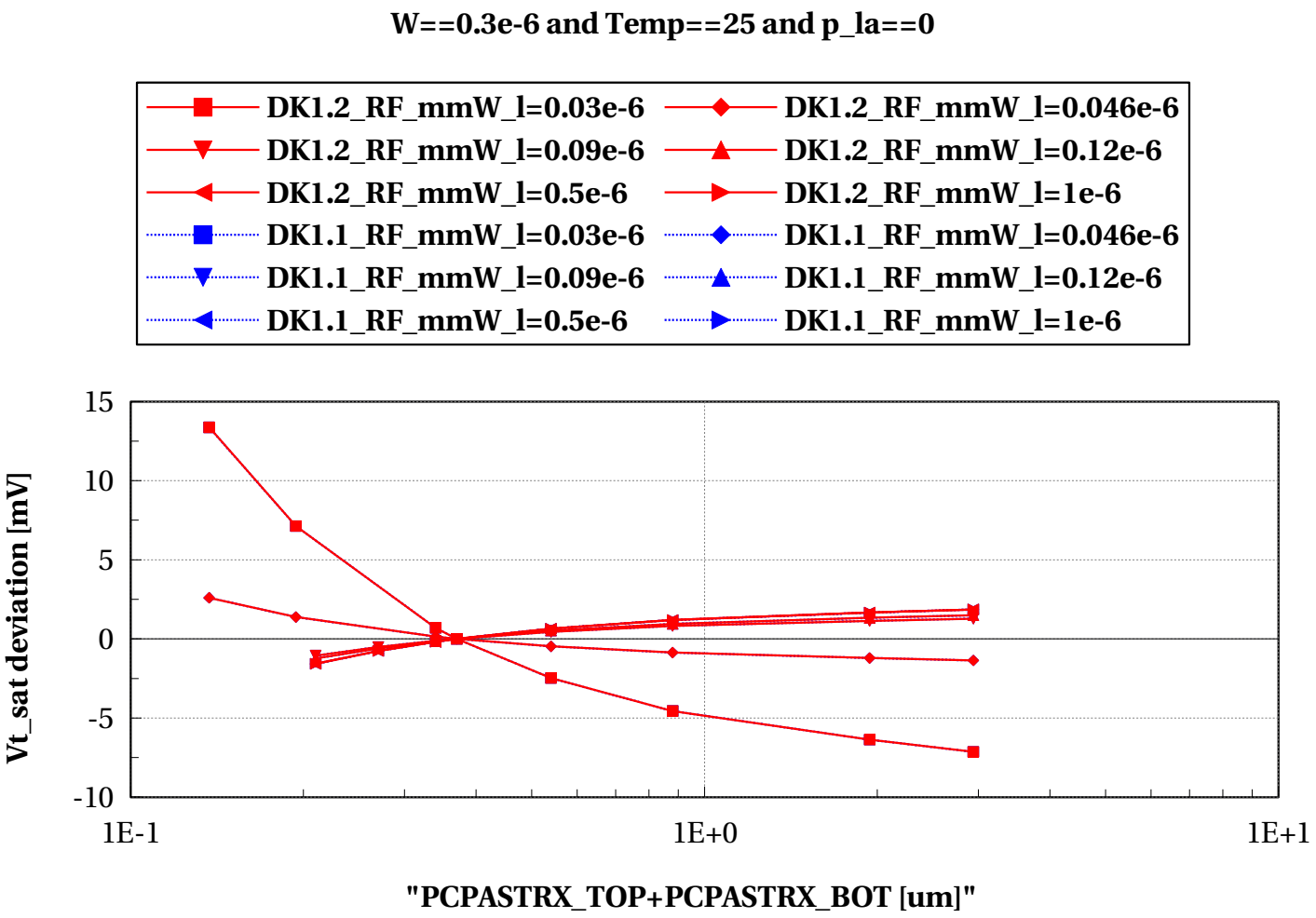
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



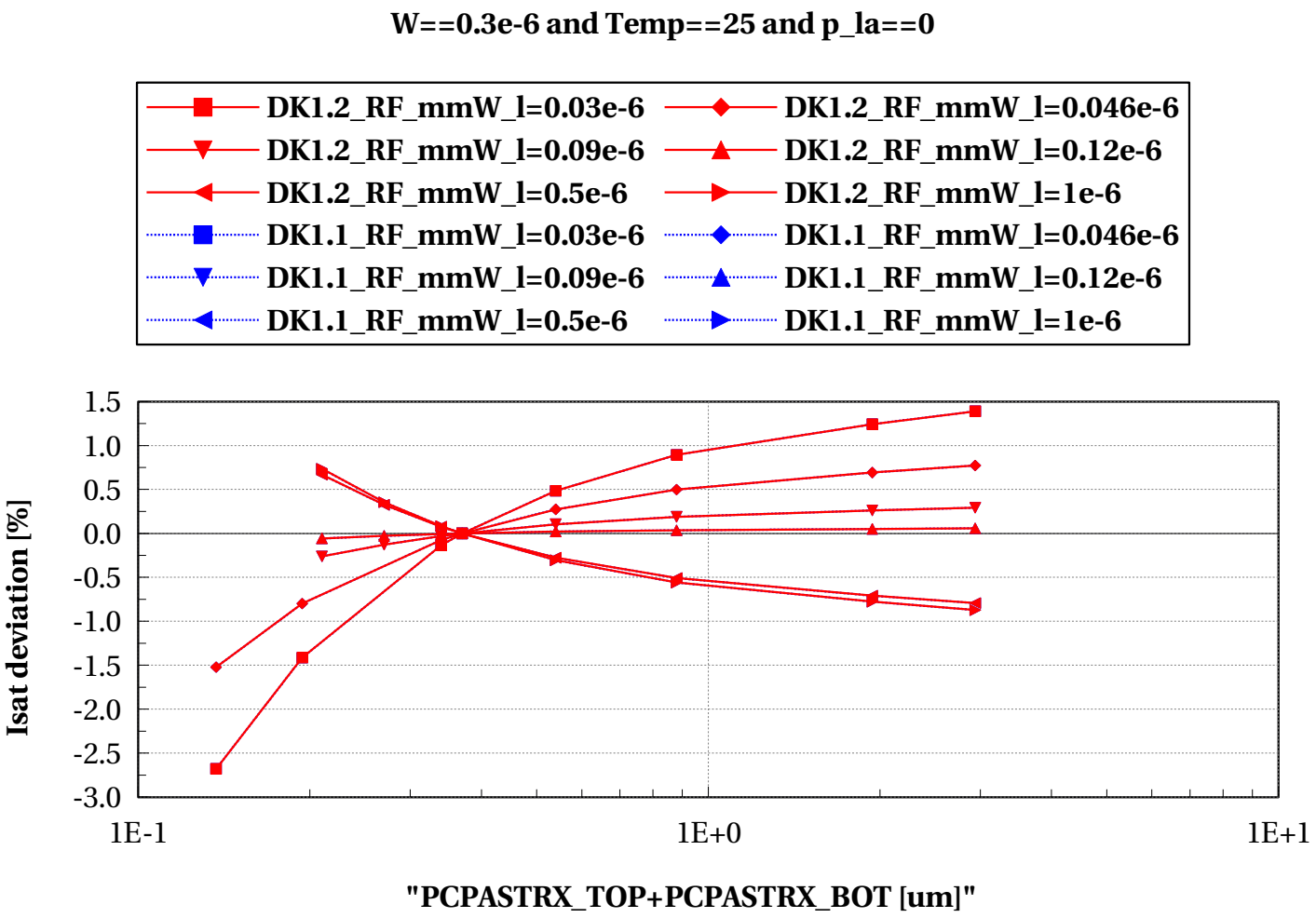
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



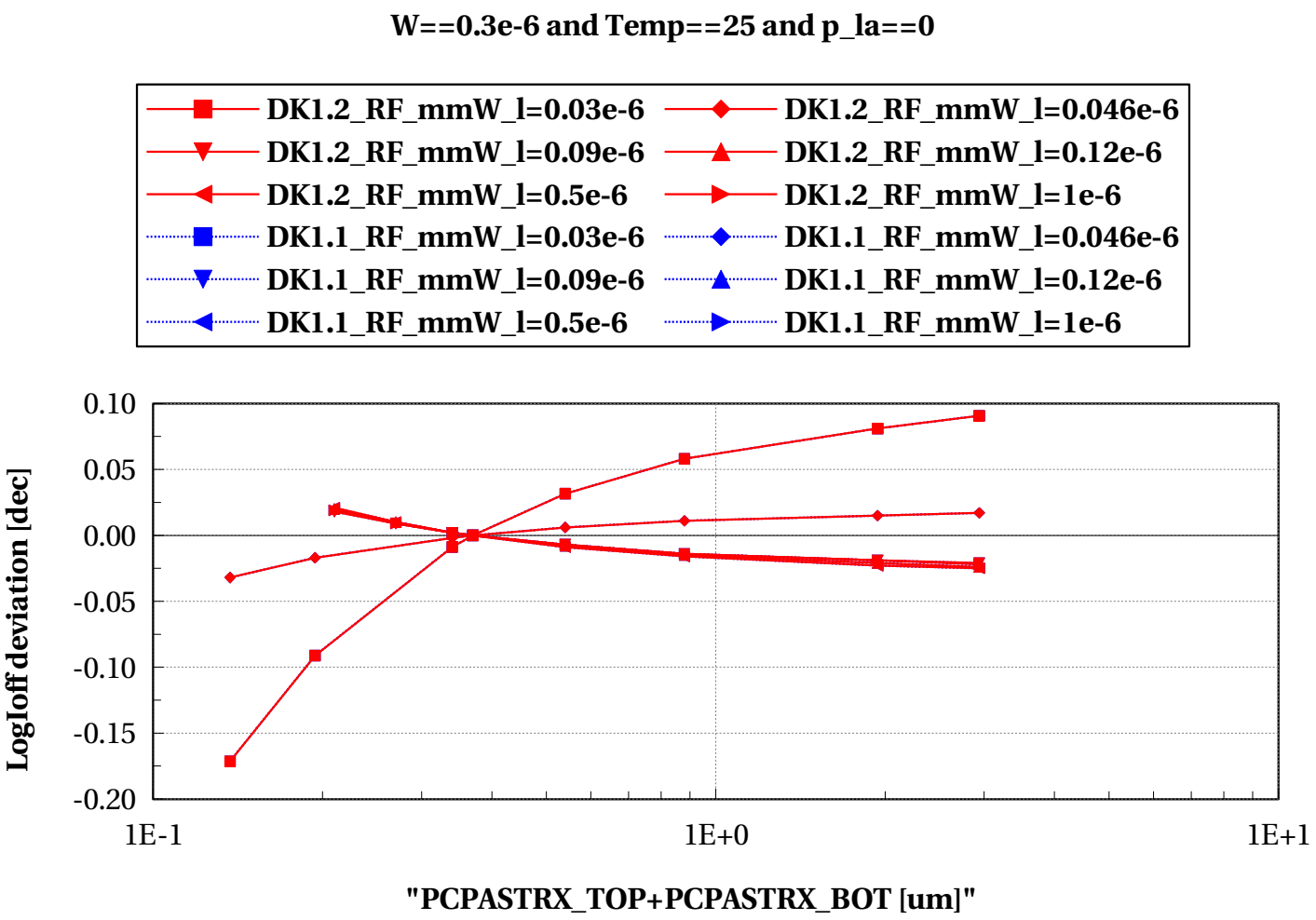
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

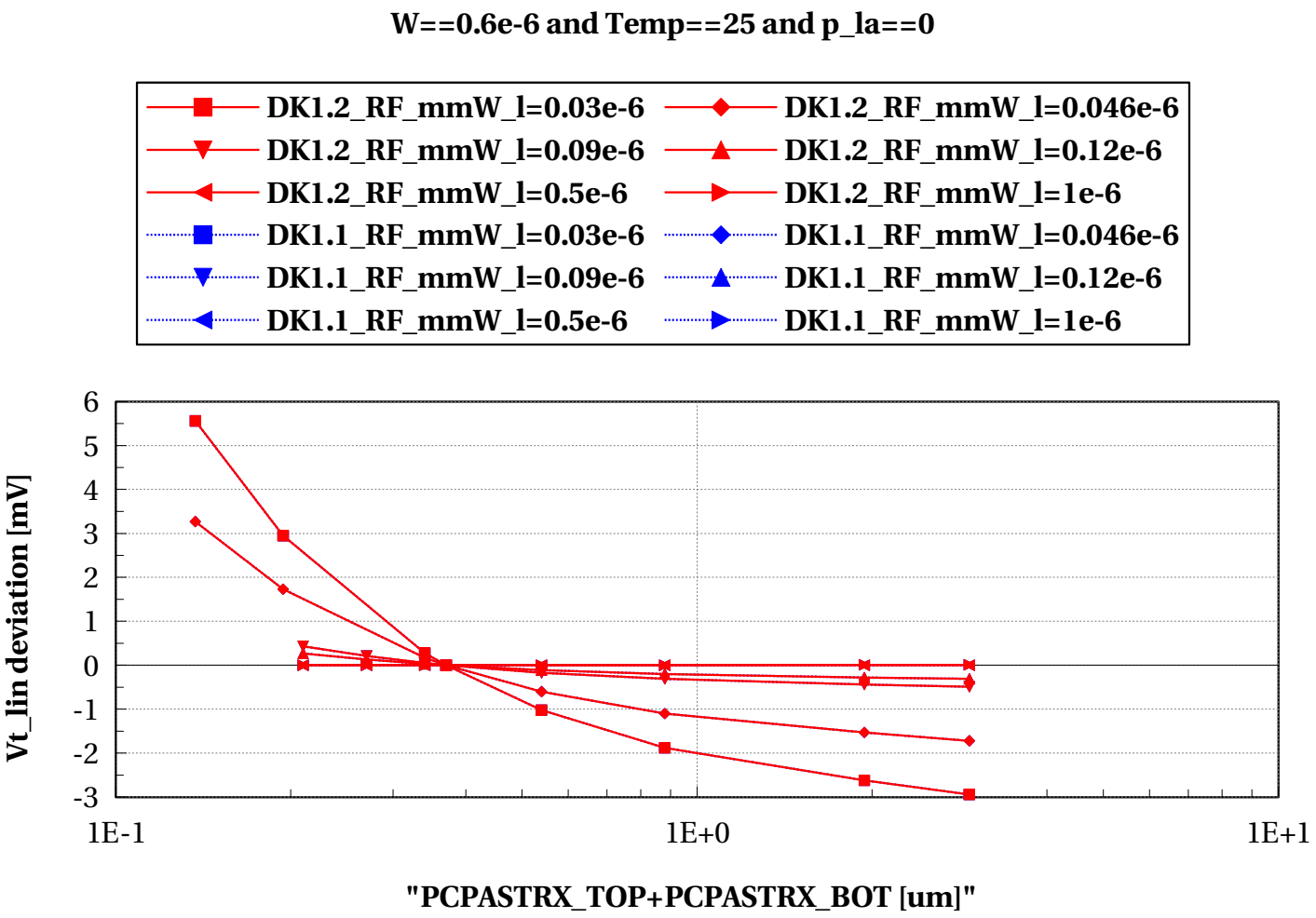


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

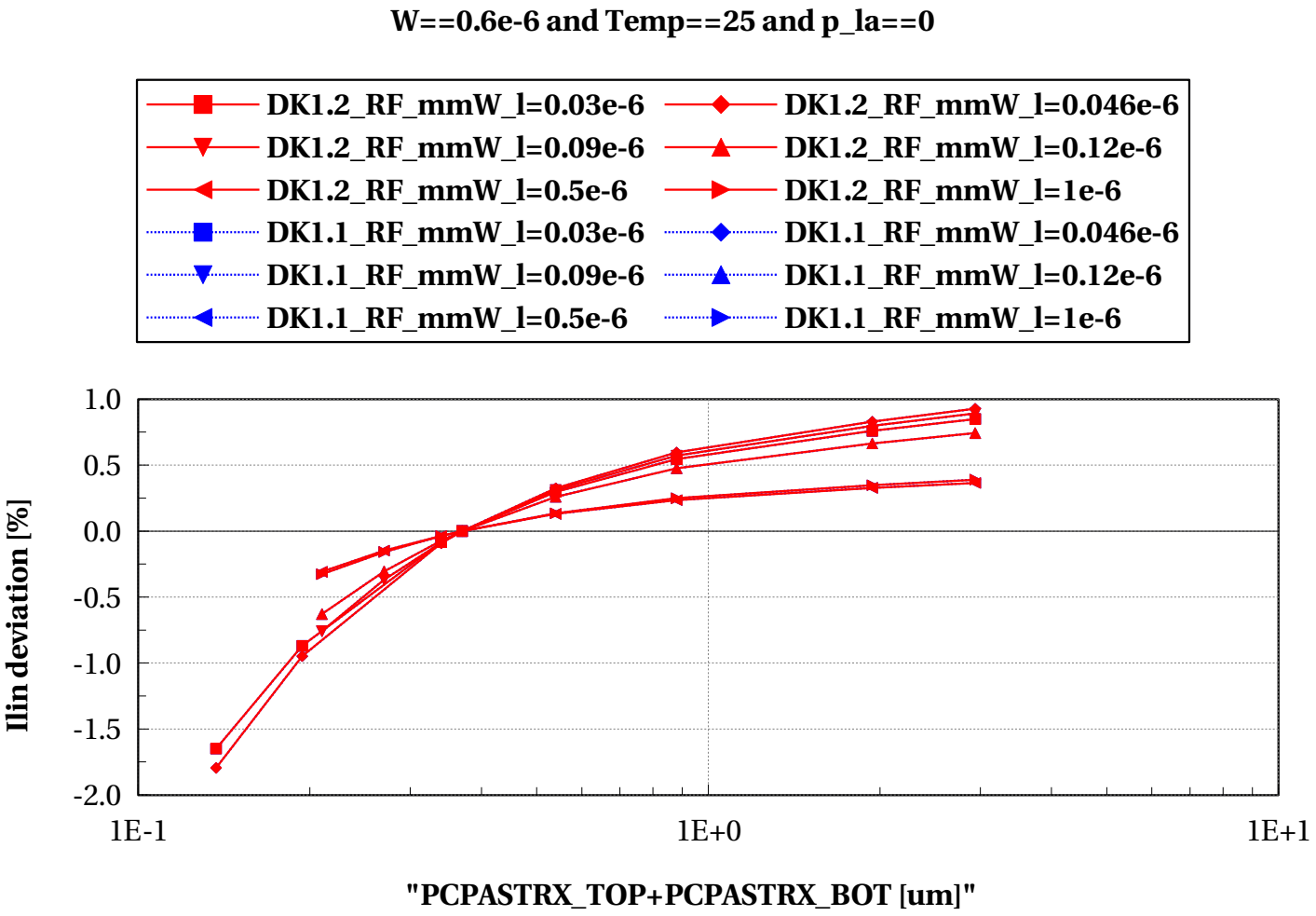


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling@W=0.6u

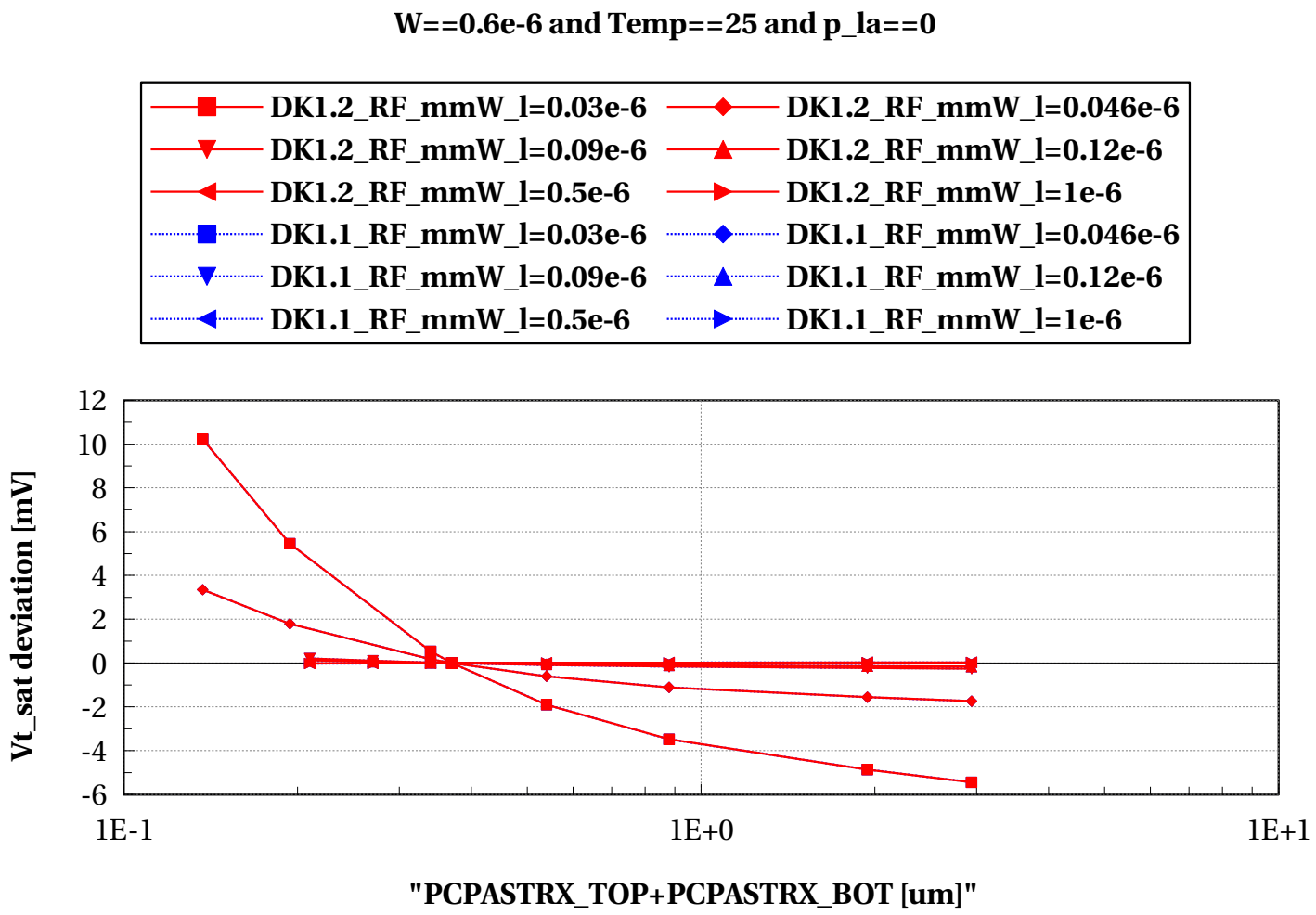
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



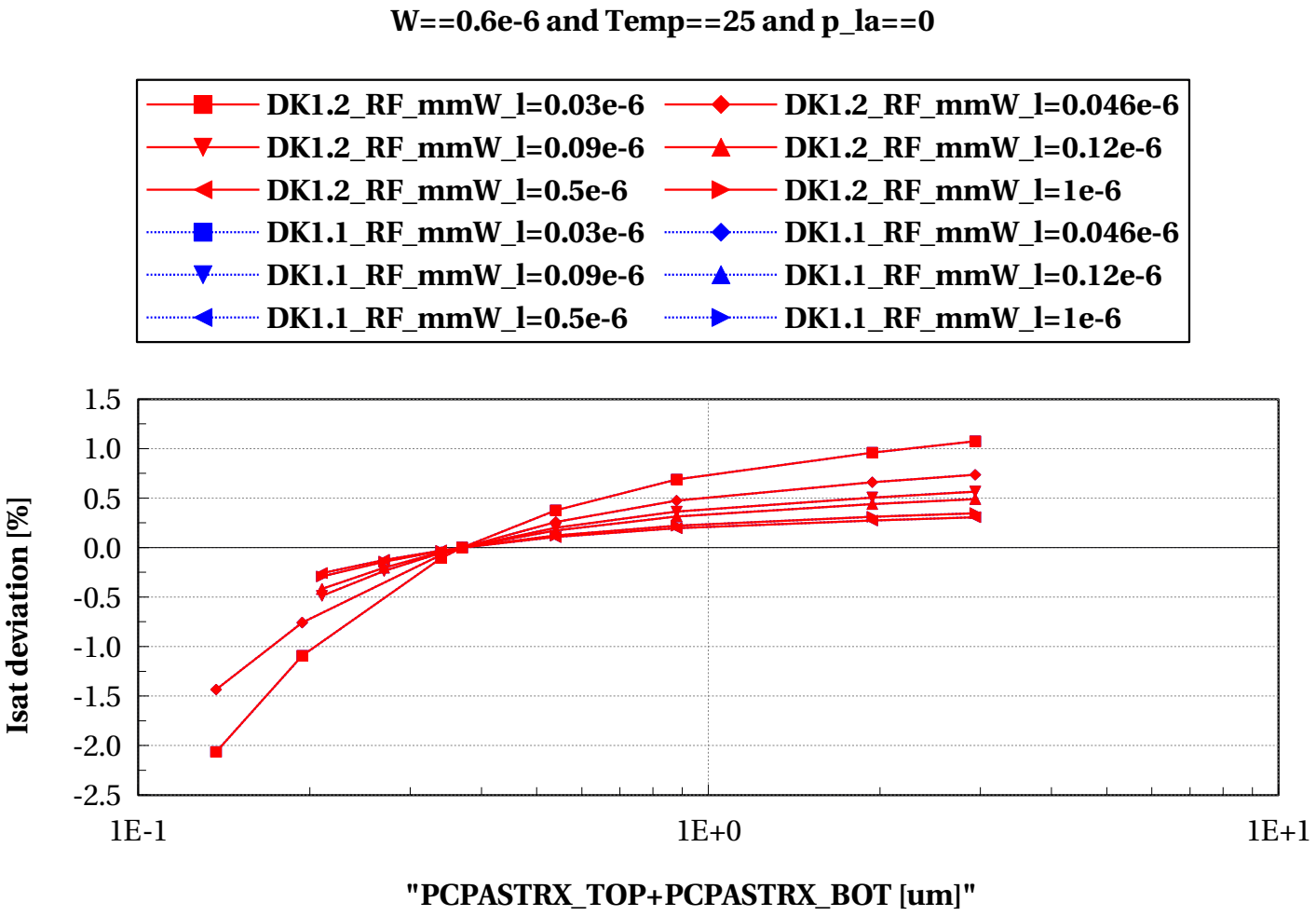
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



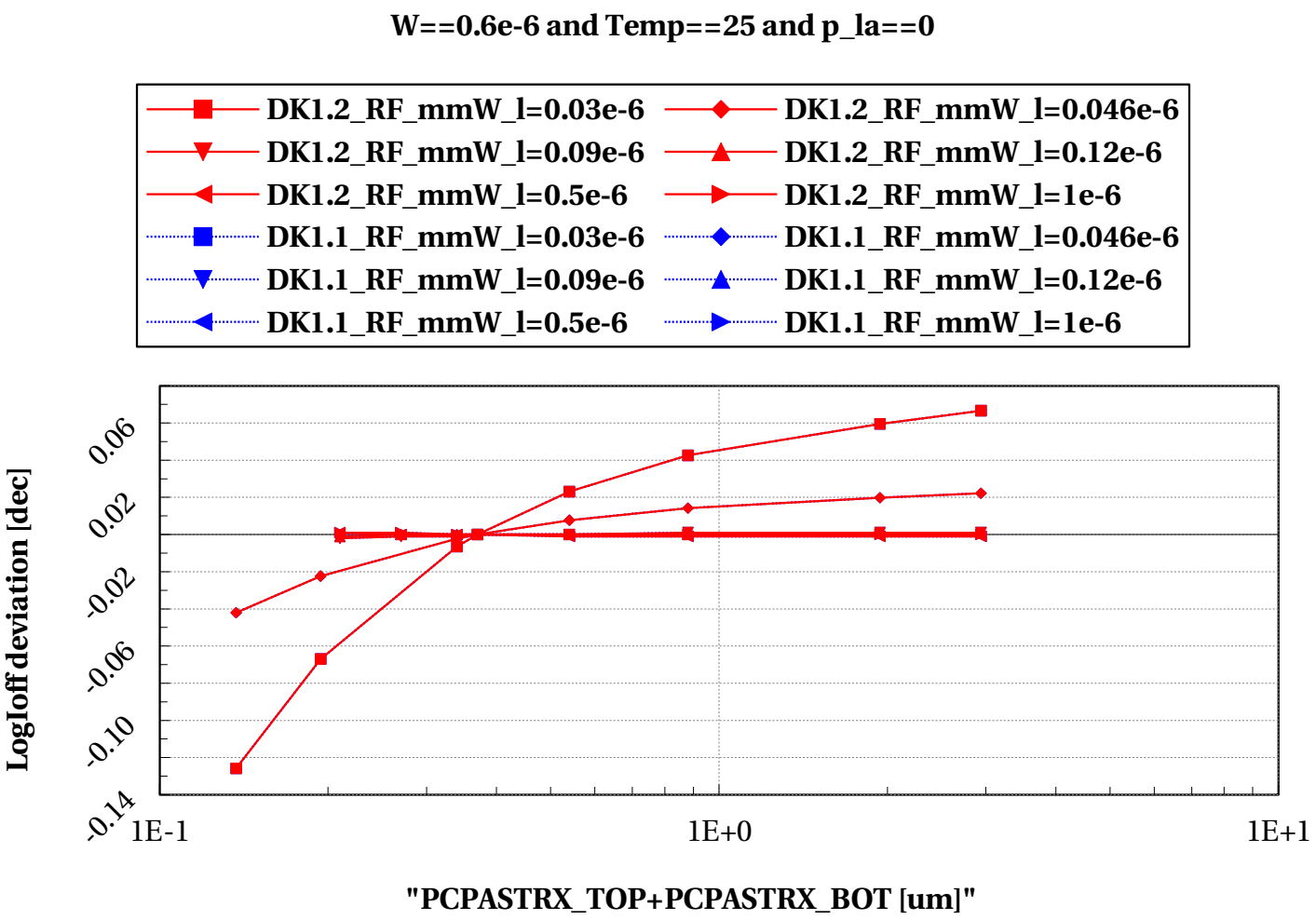
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

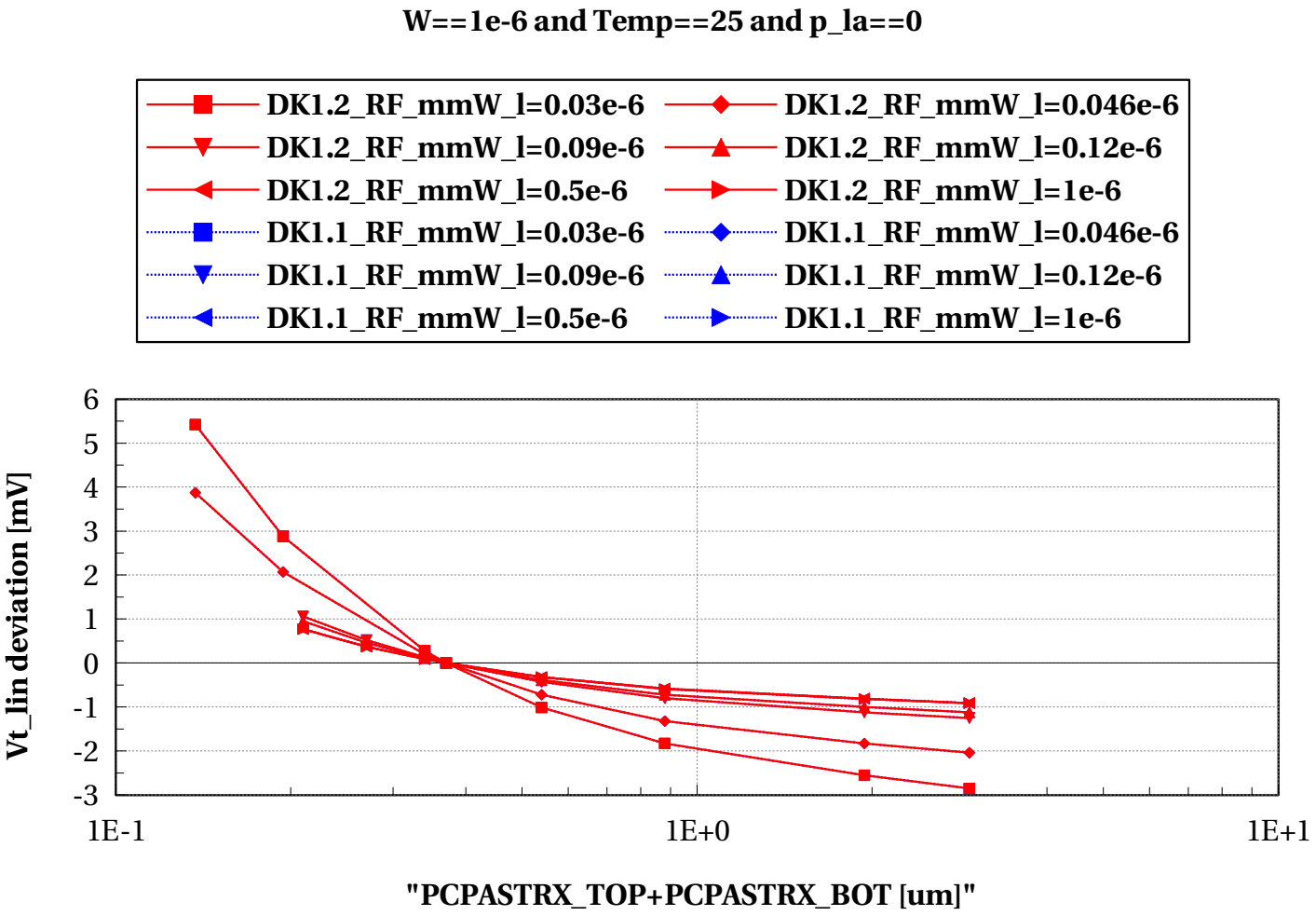


lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

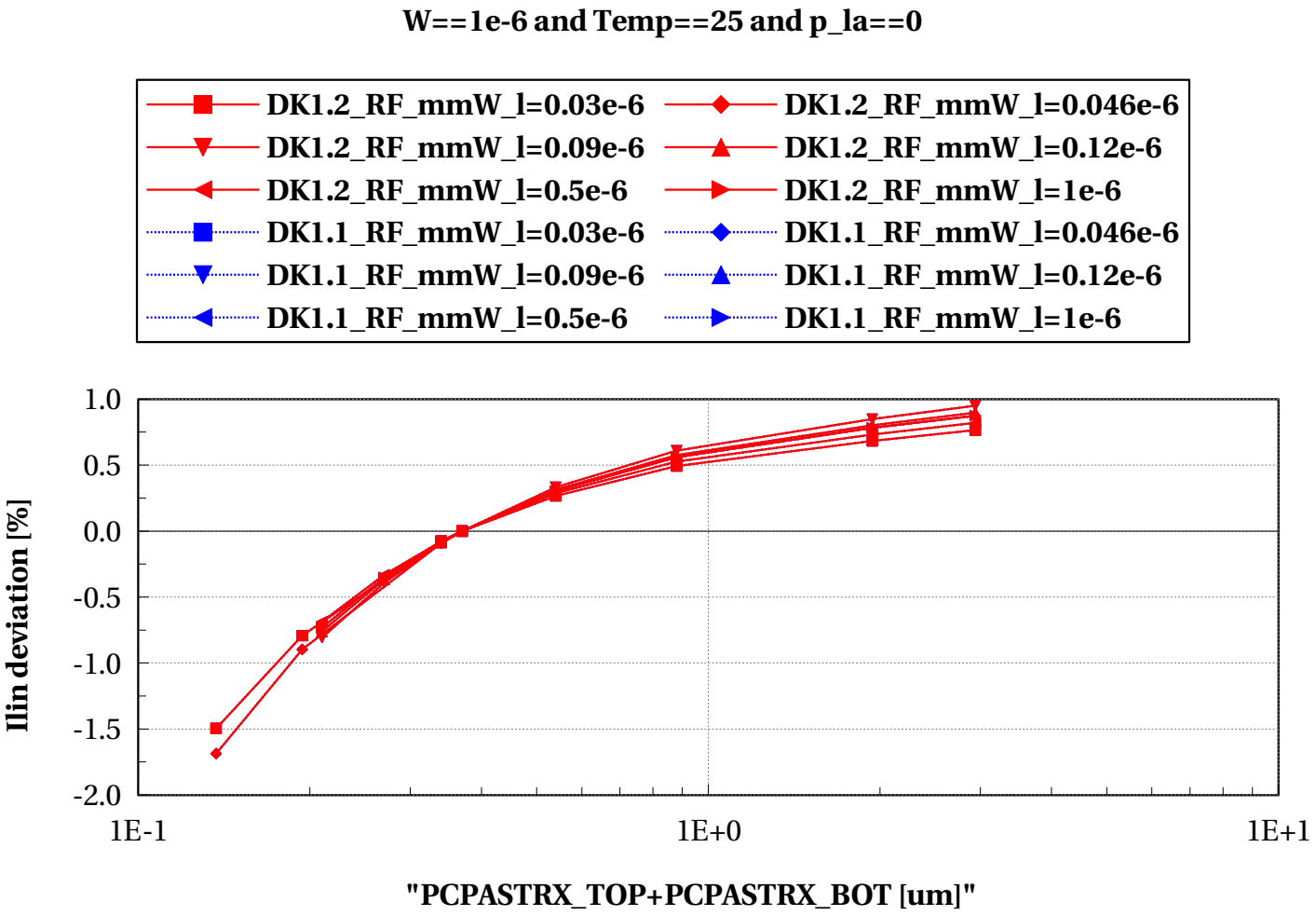


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=1u

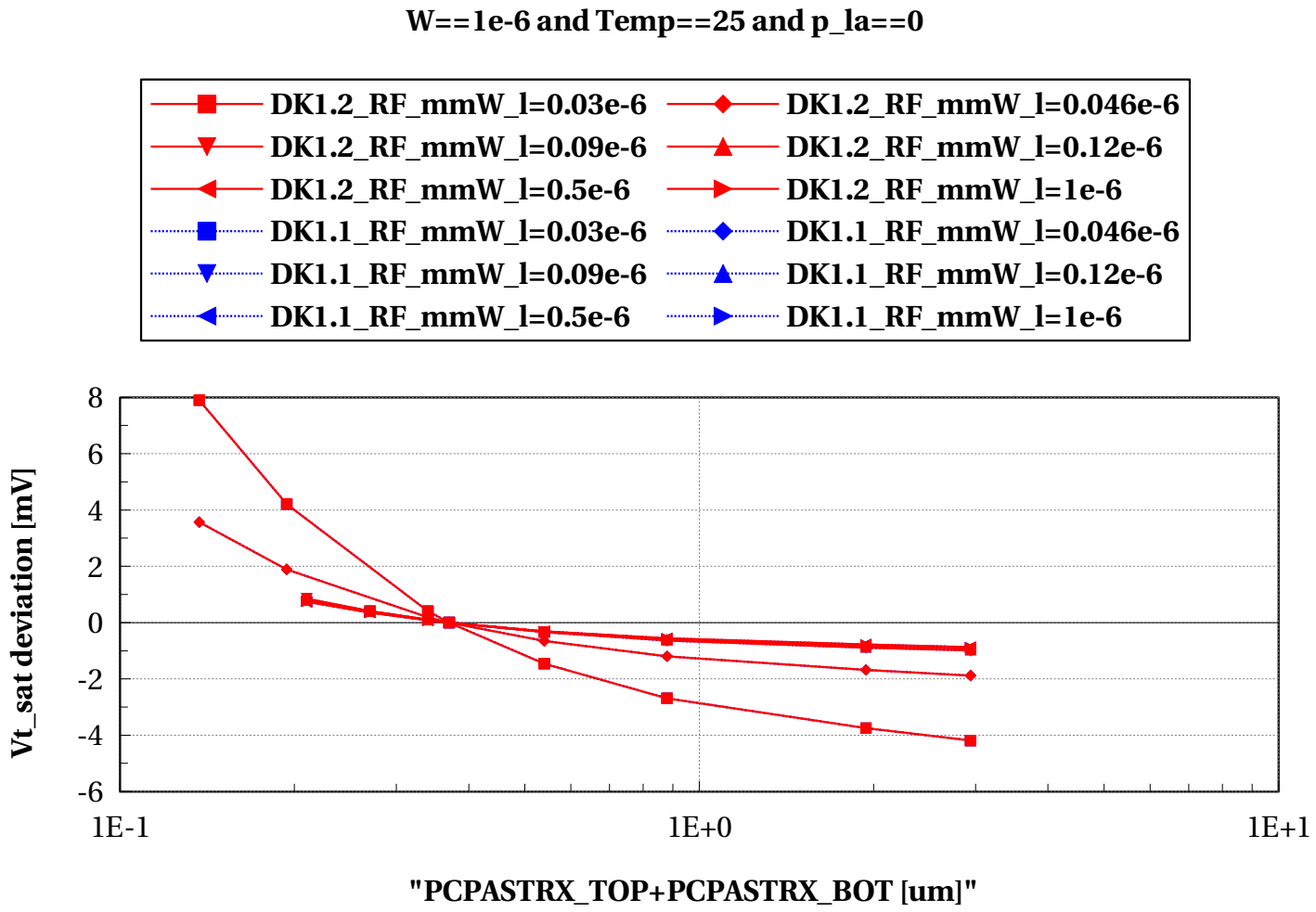
lvtnfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



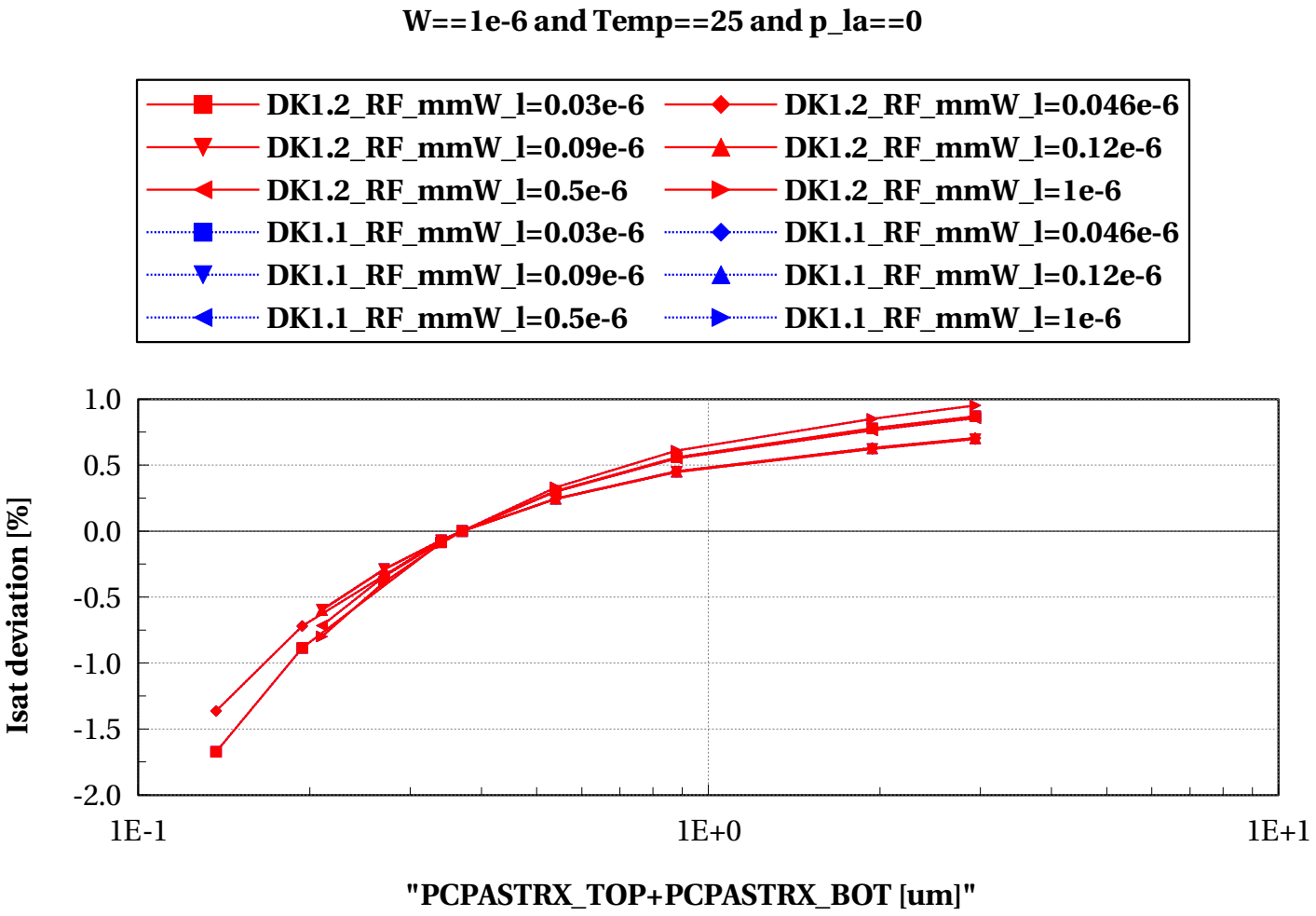
lvtnfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



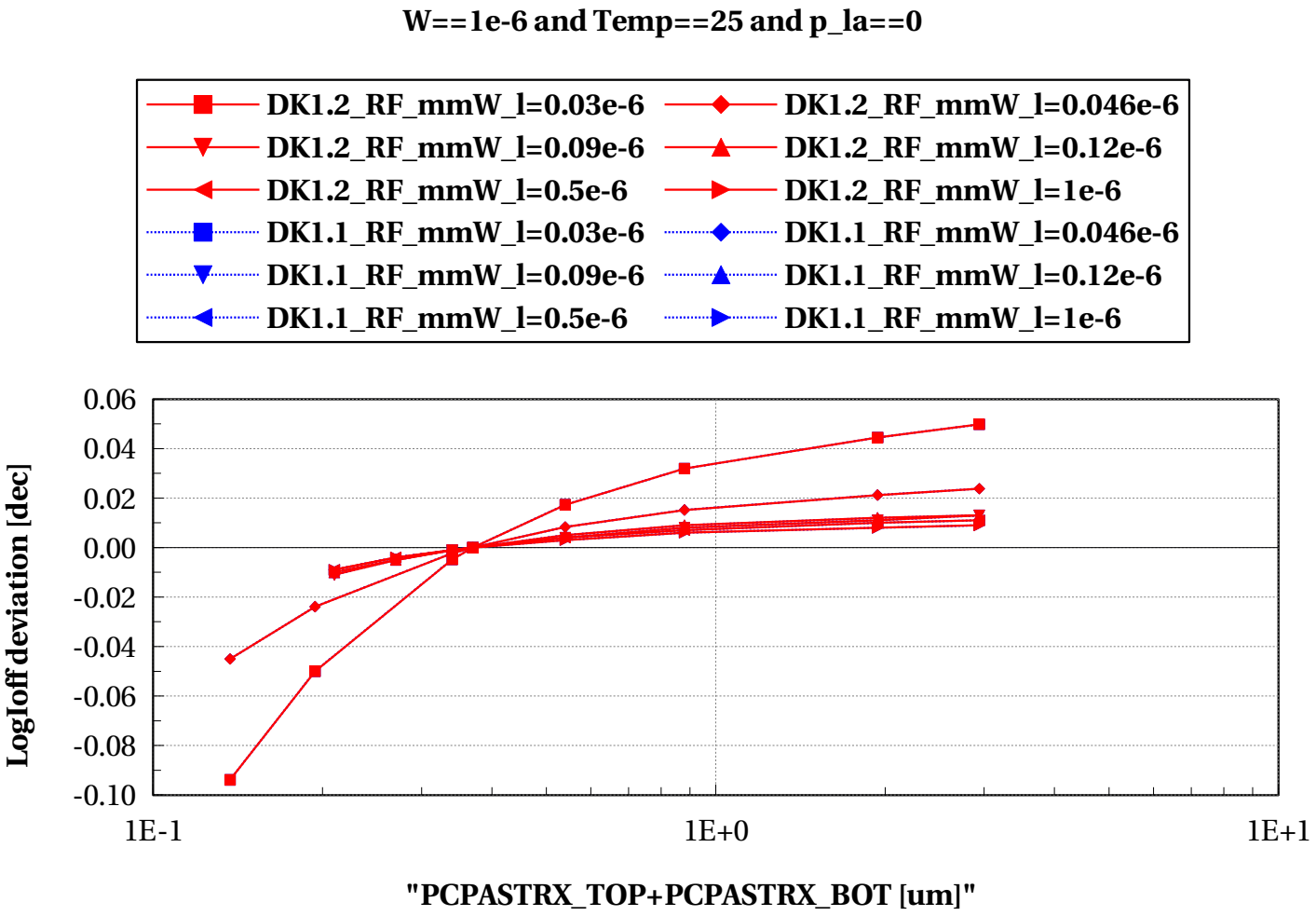
lvtnfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtnfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



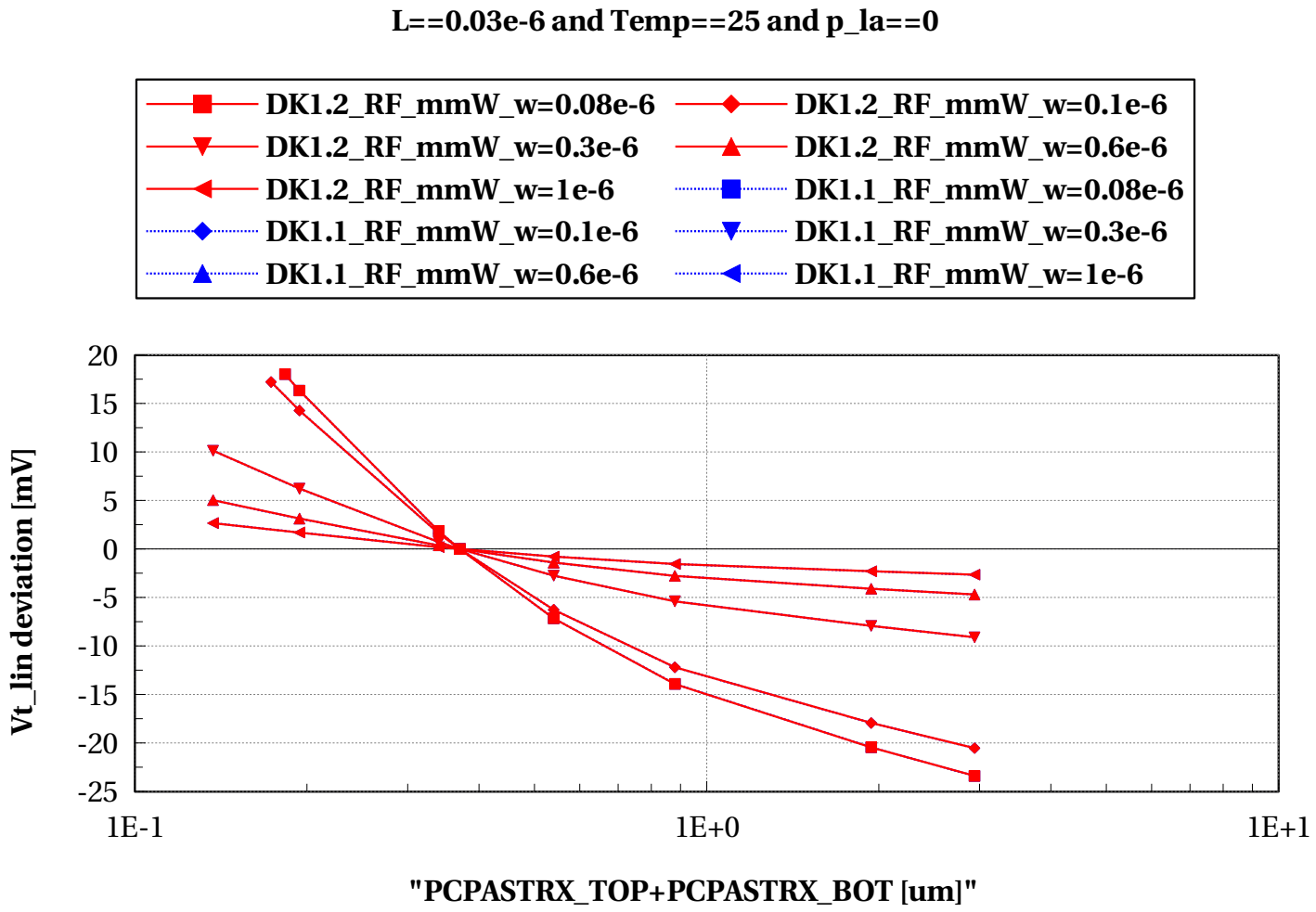
lvtnfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



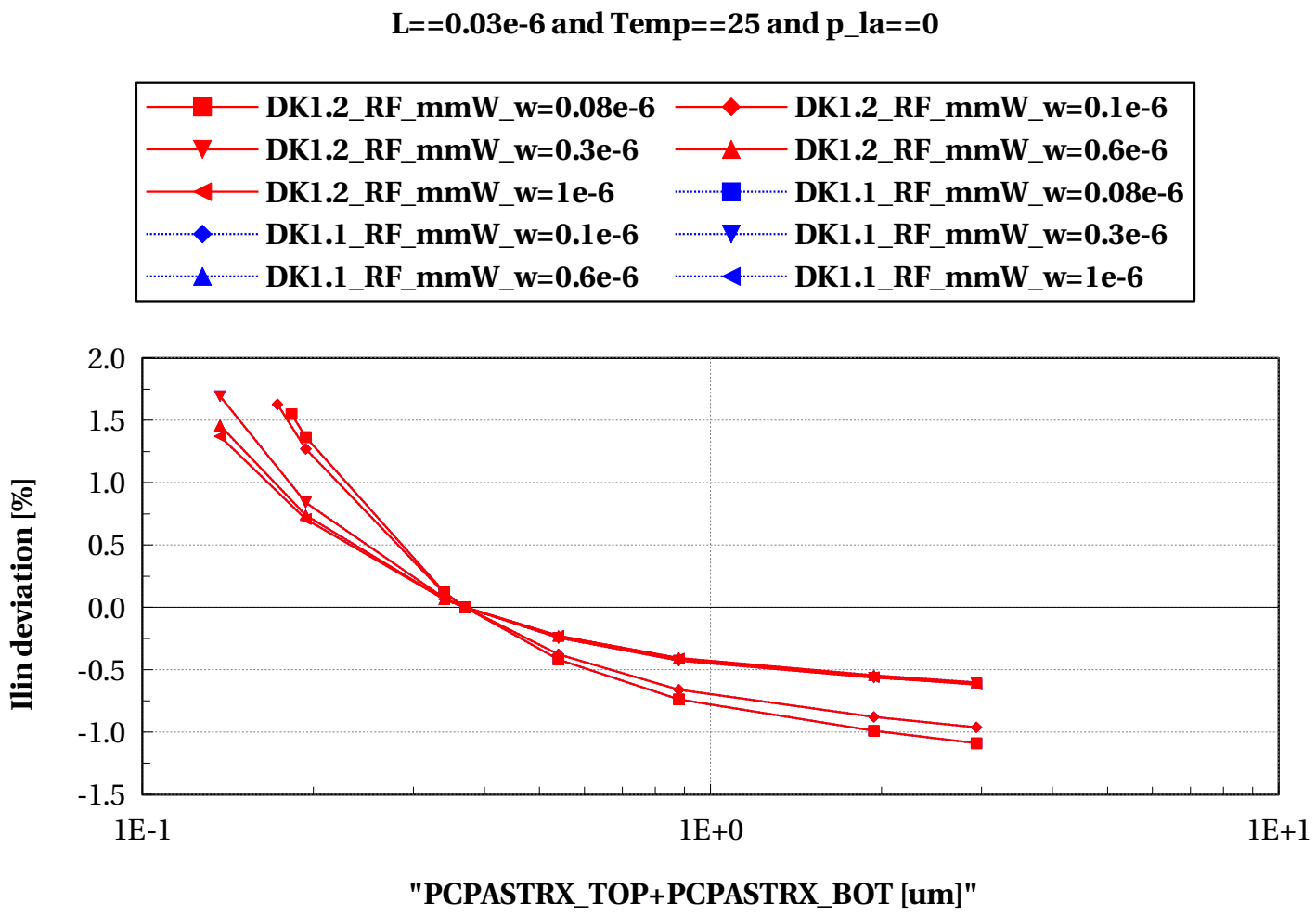
lvtpfet_acc
Electrical characteristics scaling

Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.03u

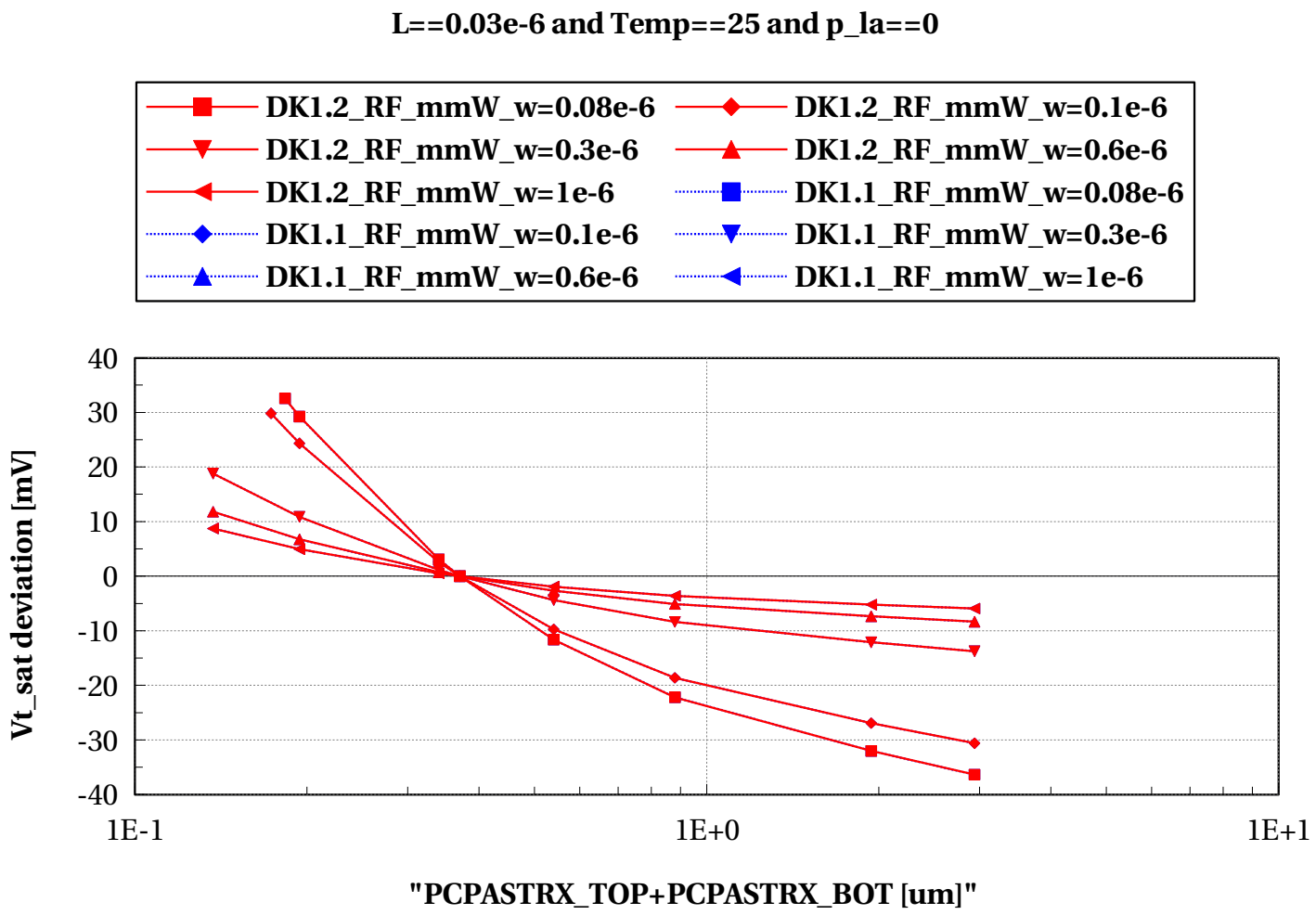
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



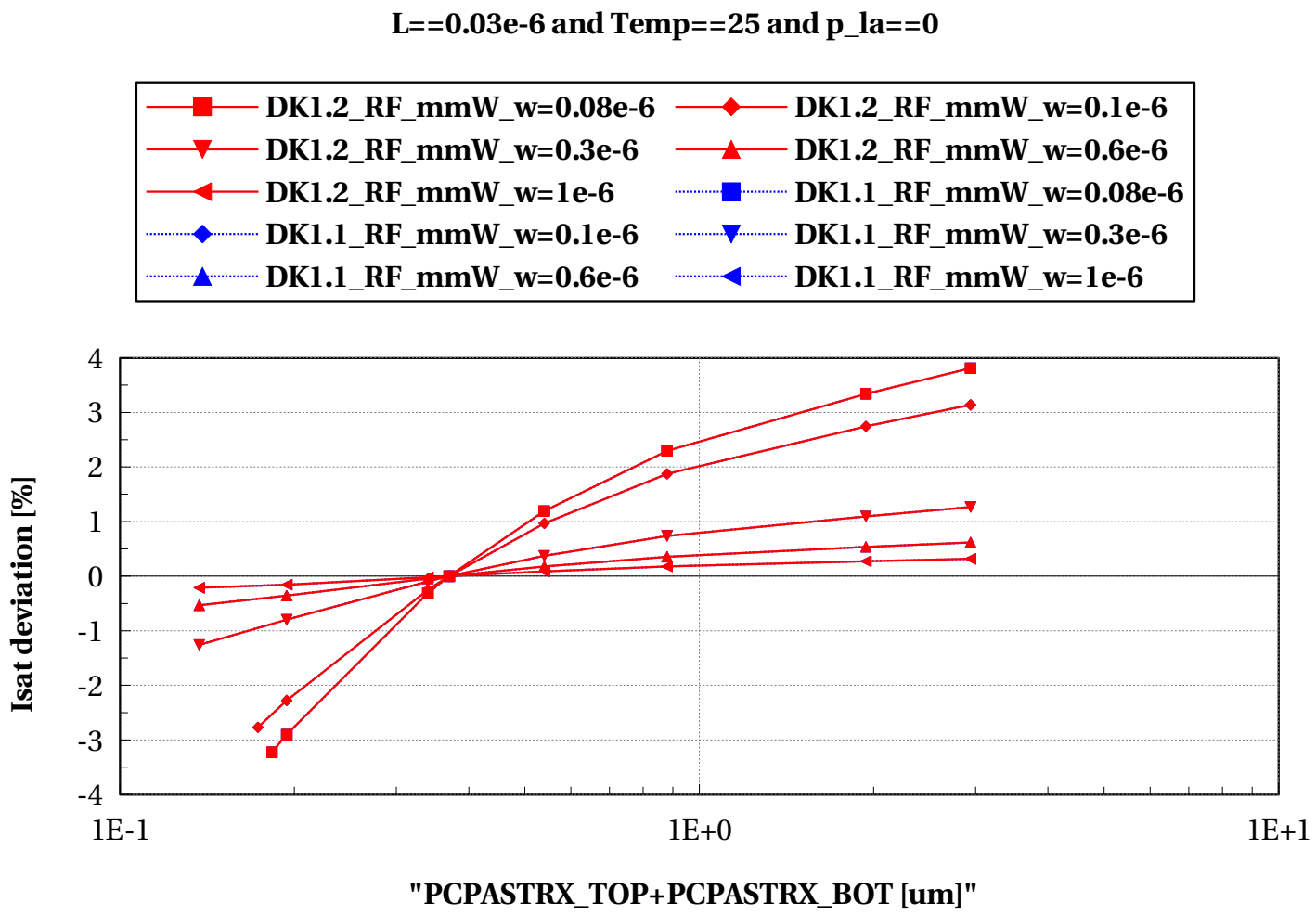
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



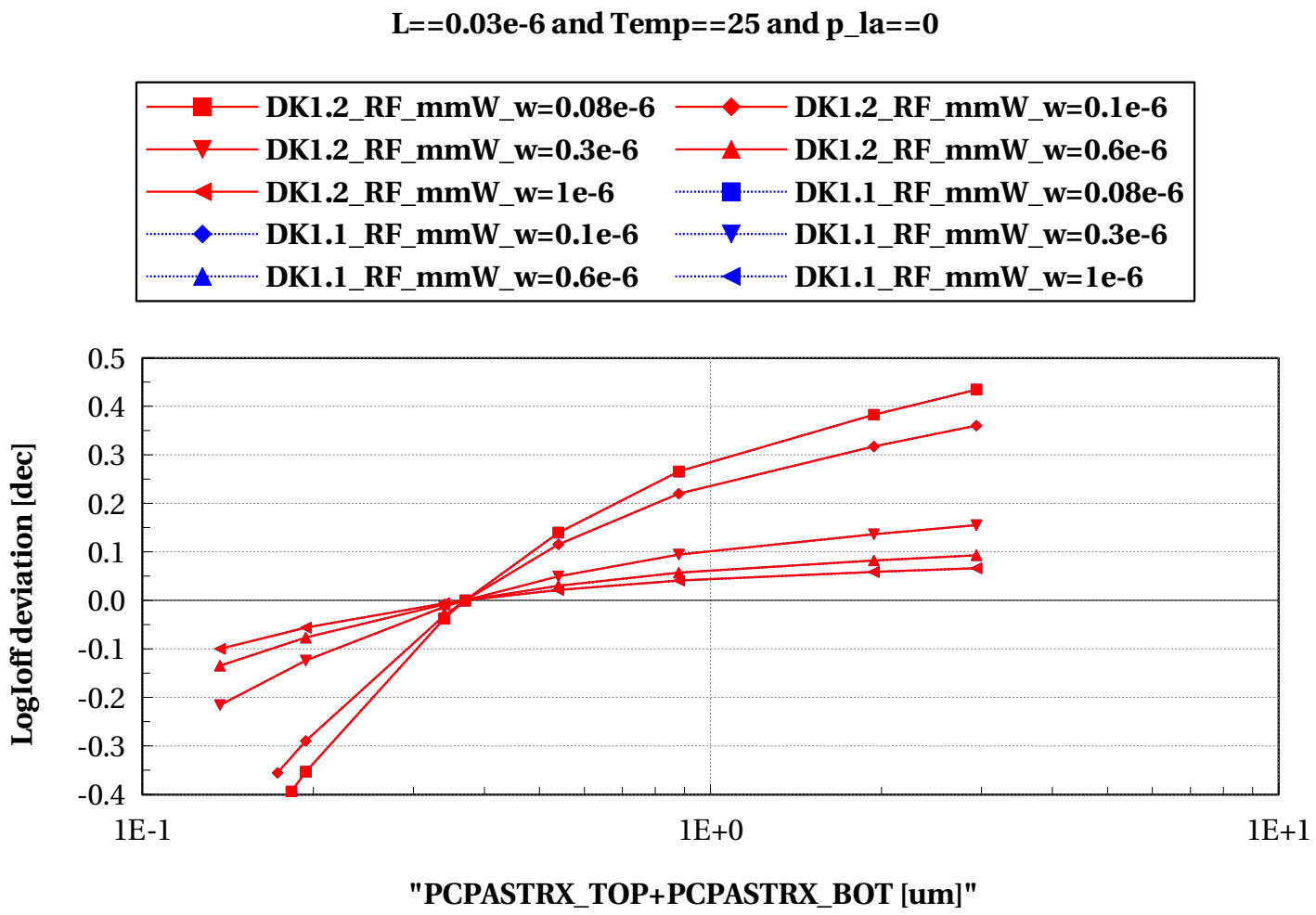
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

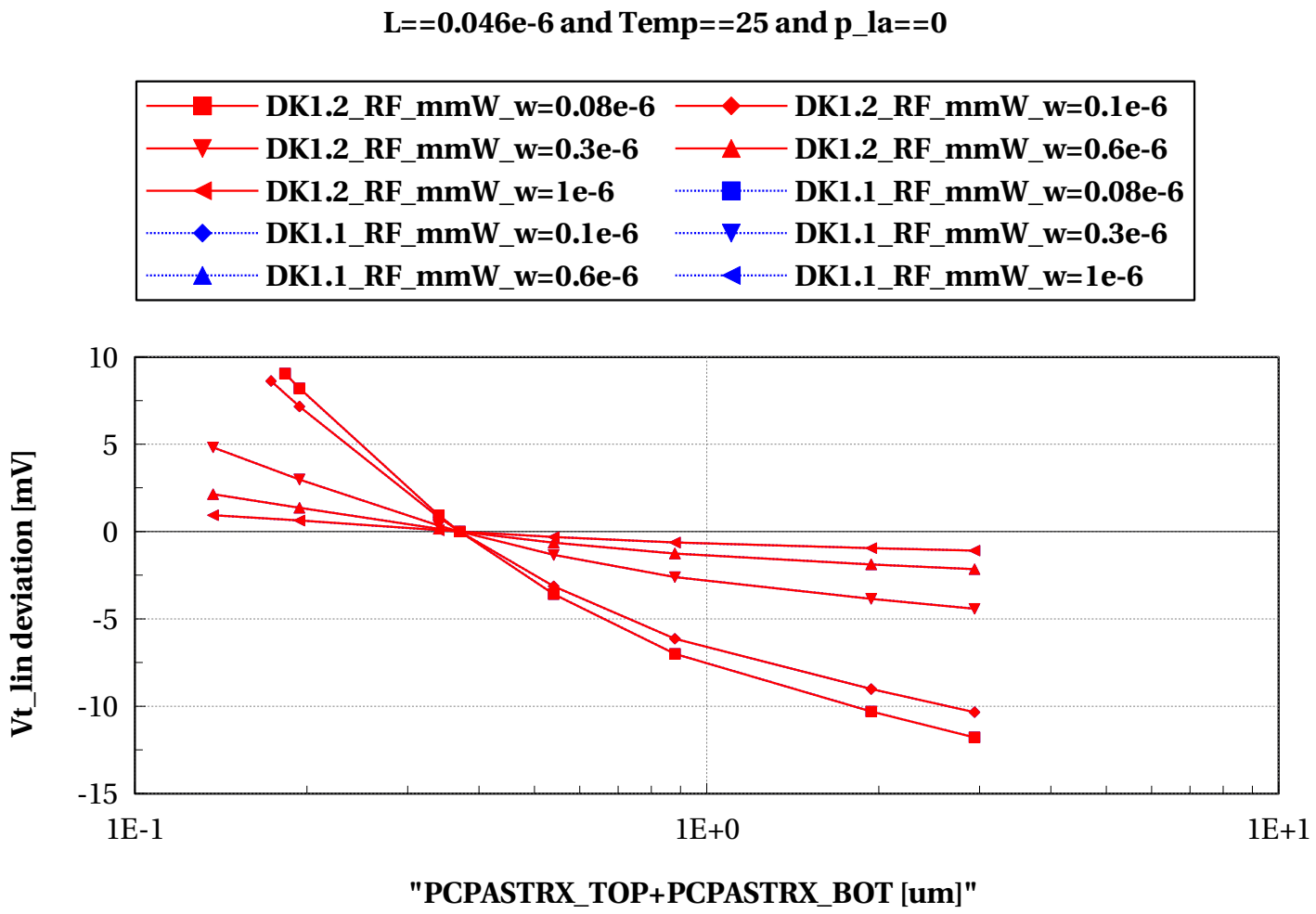


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

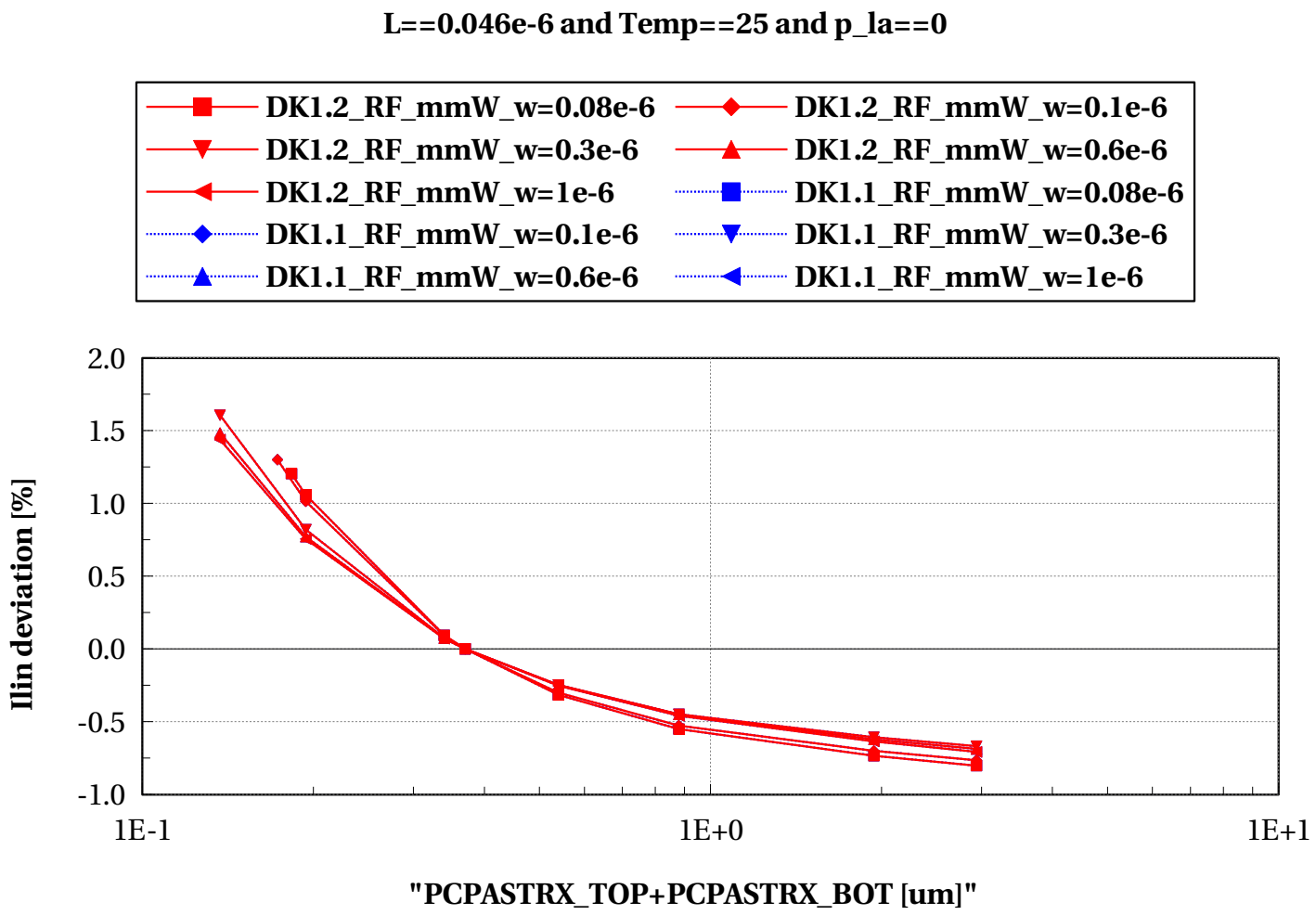


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.046u

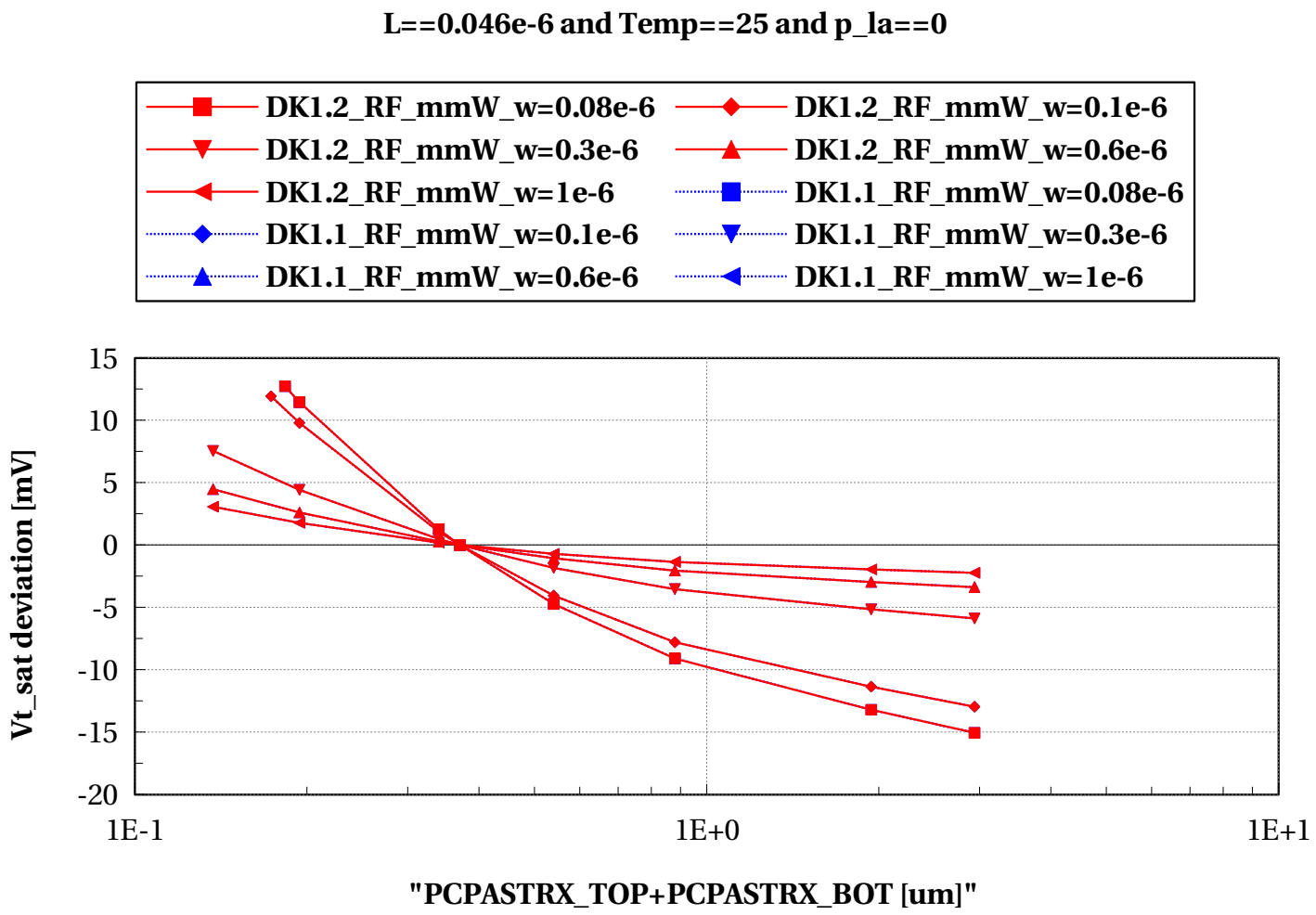
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



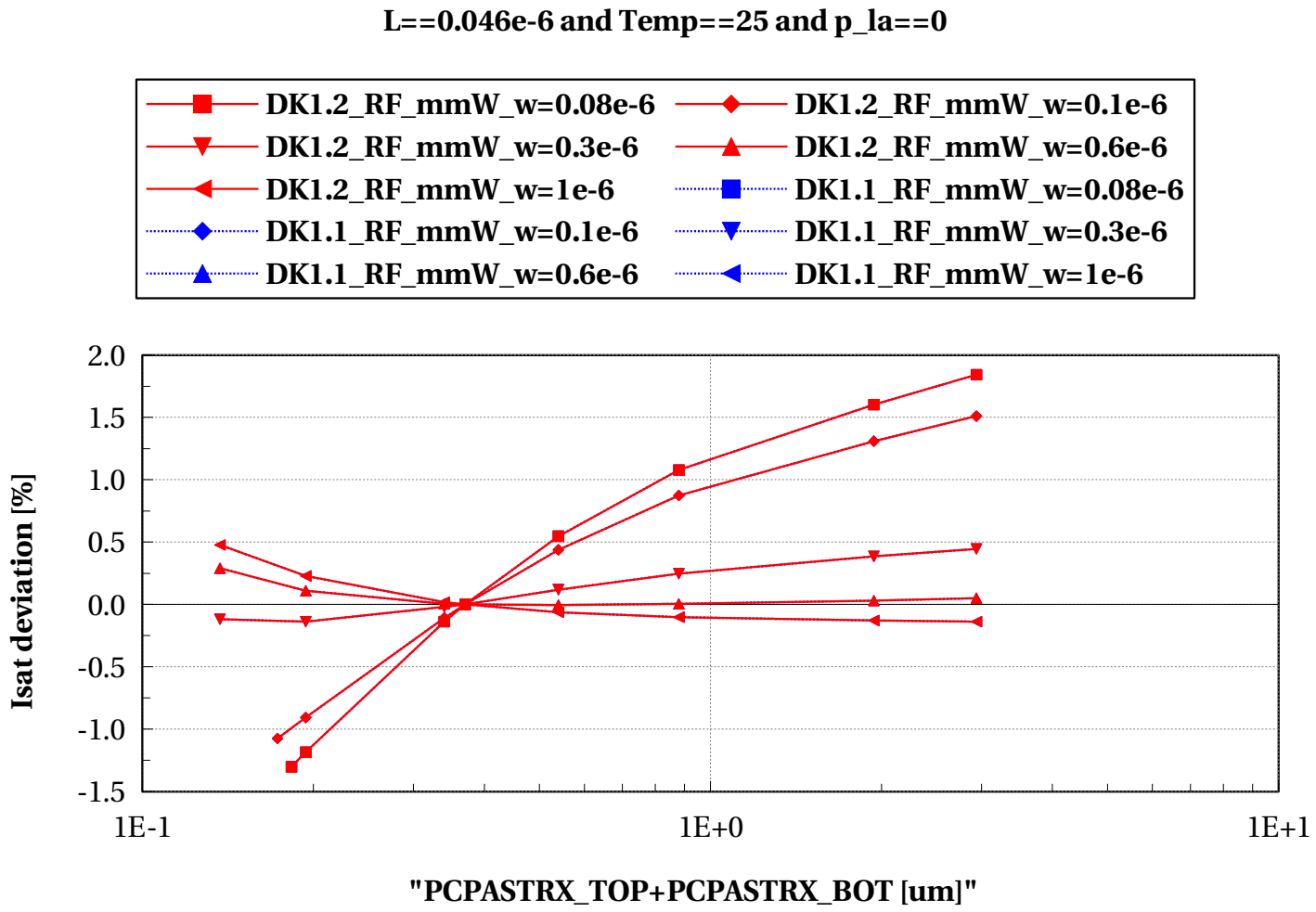
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



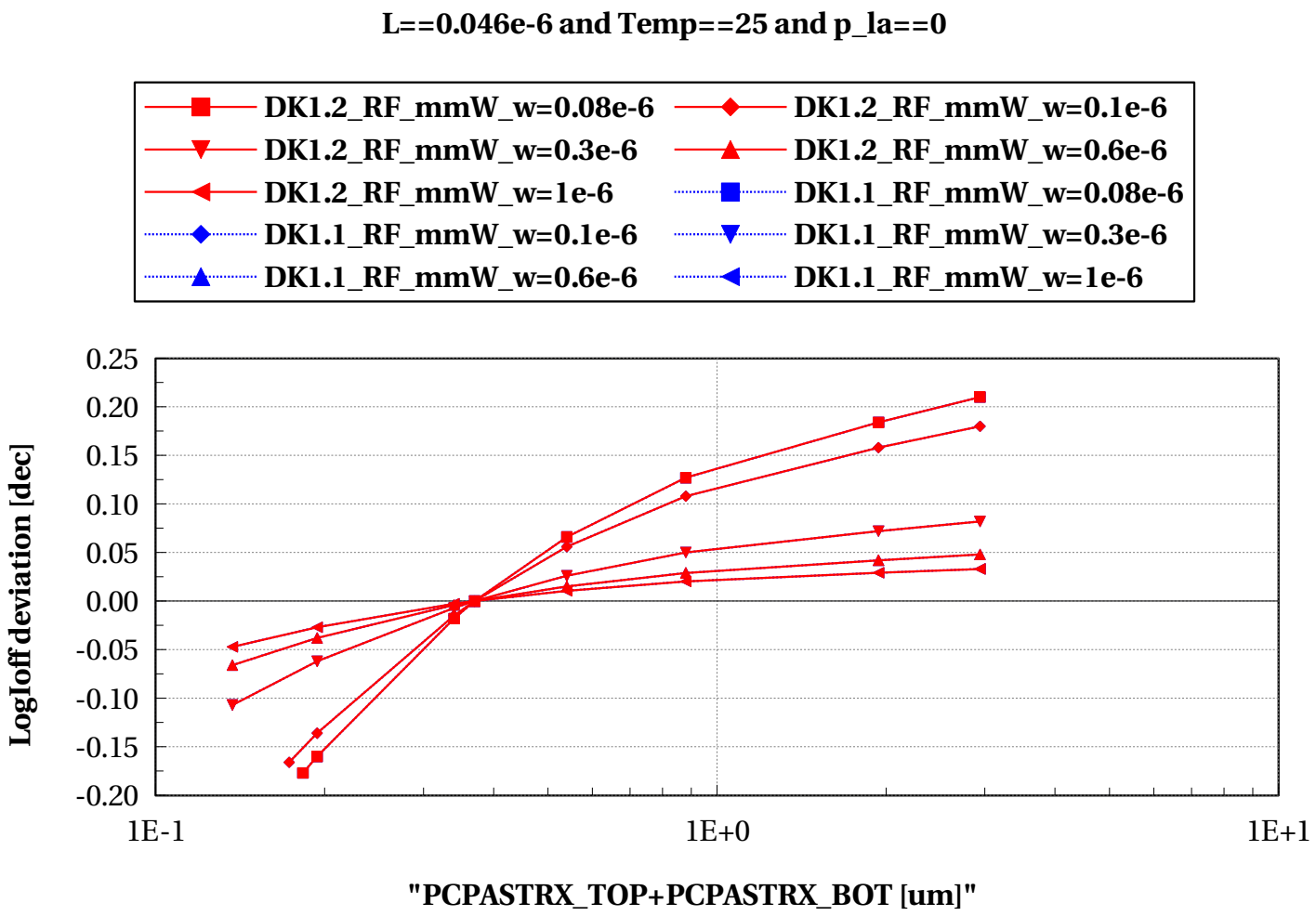
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

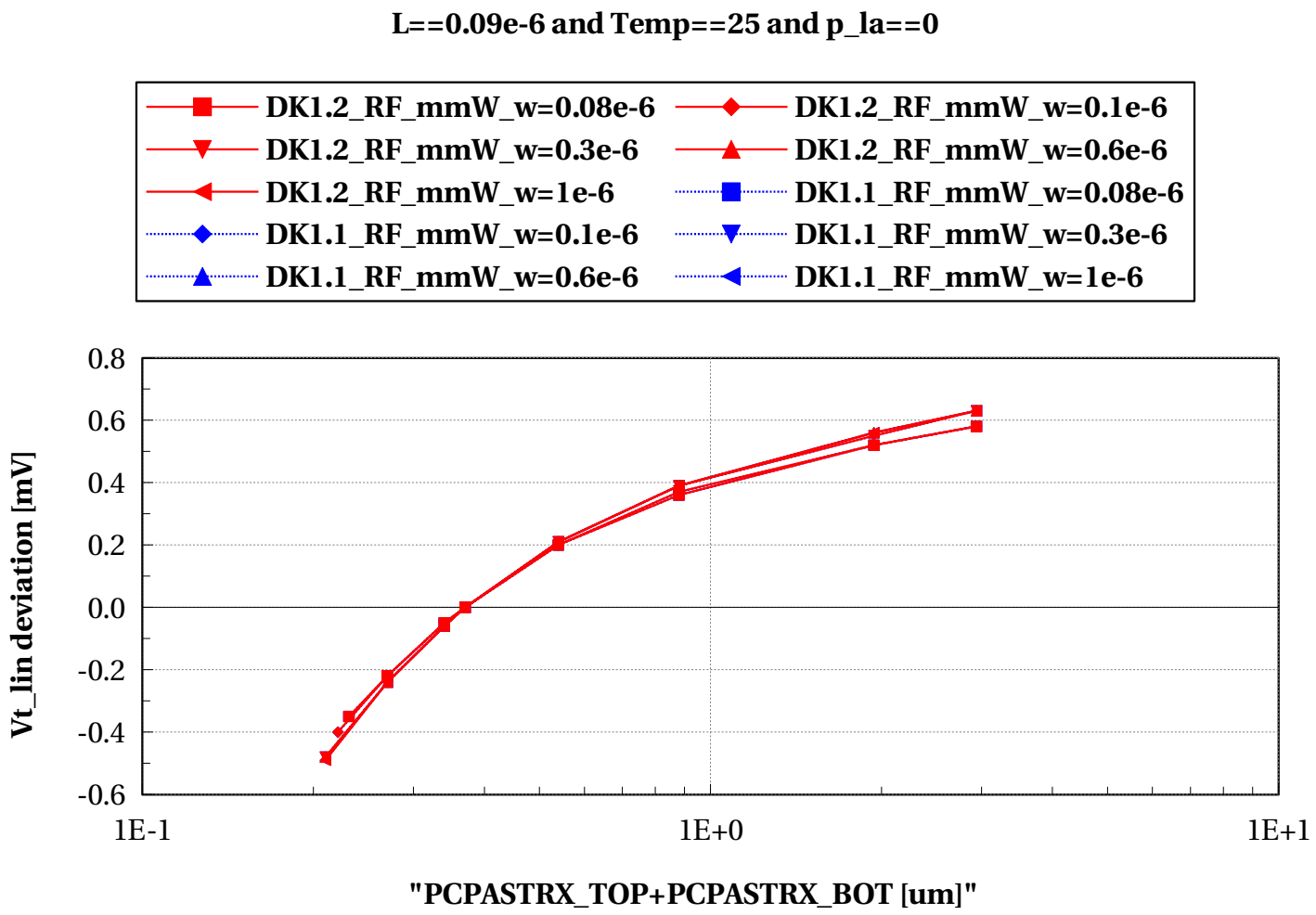


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

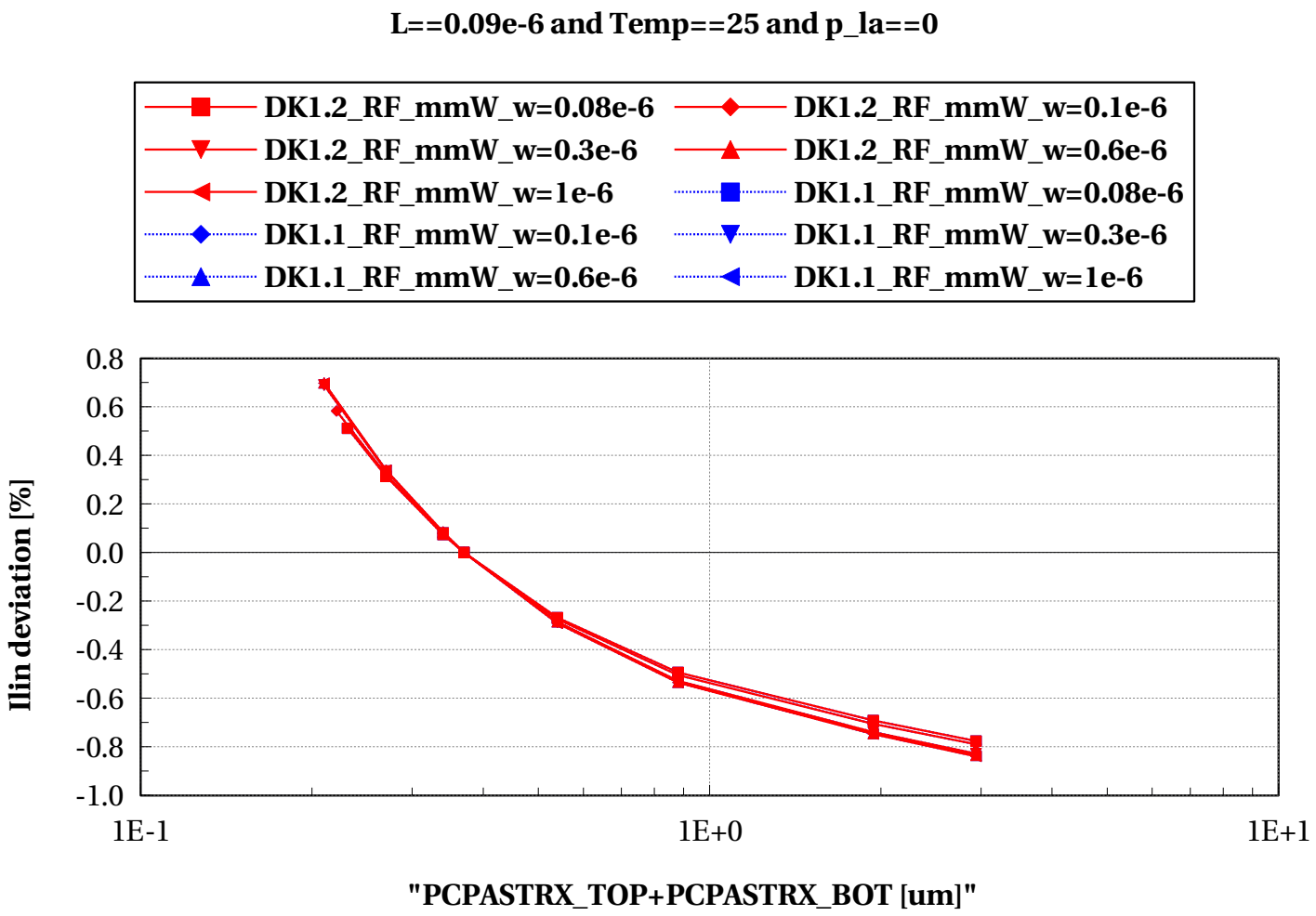


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.09u

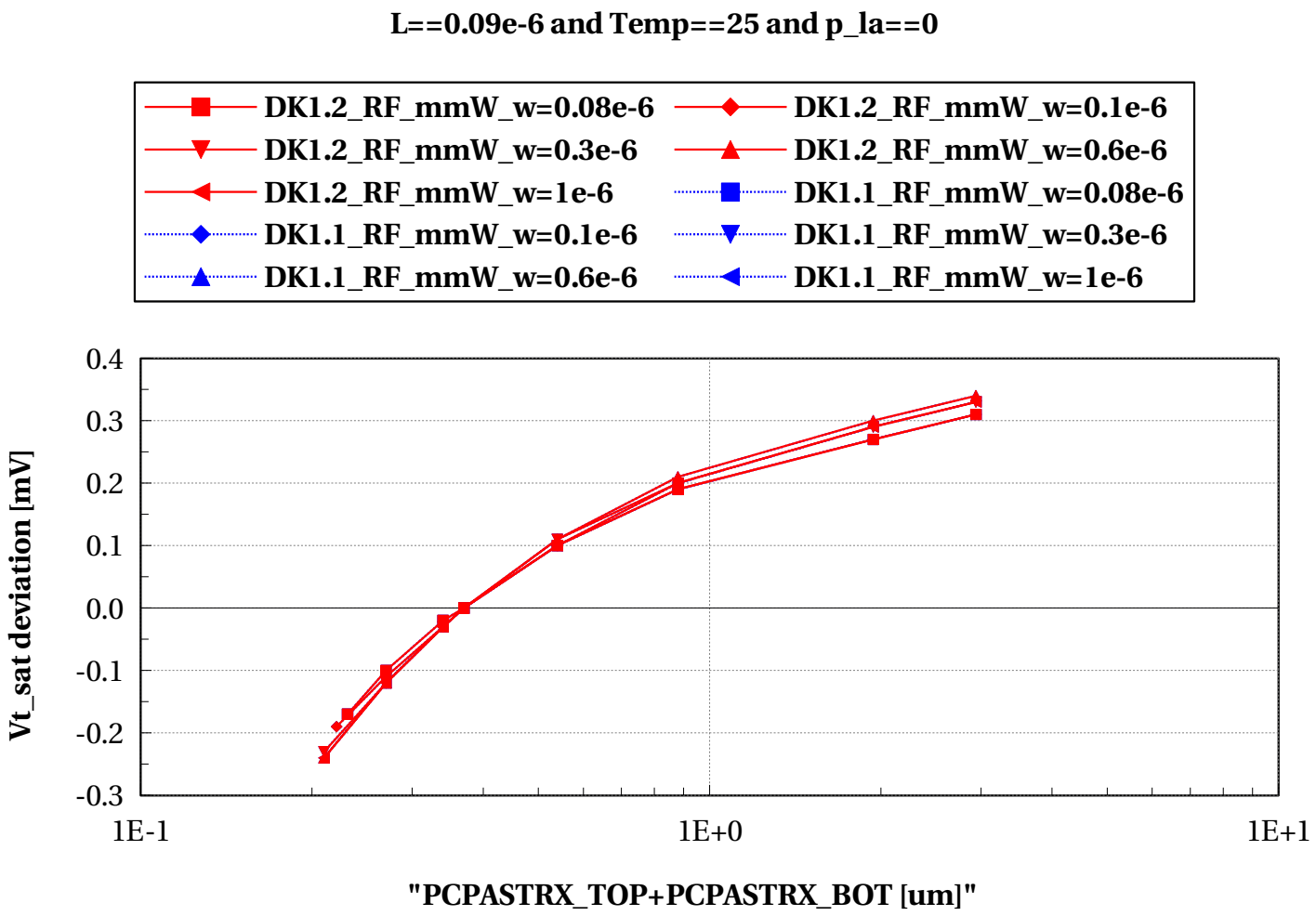
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



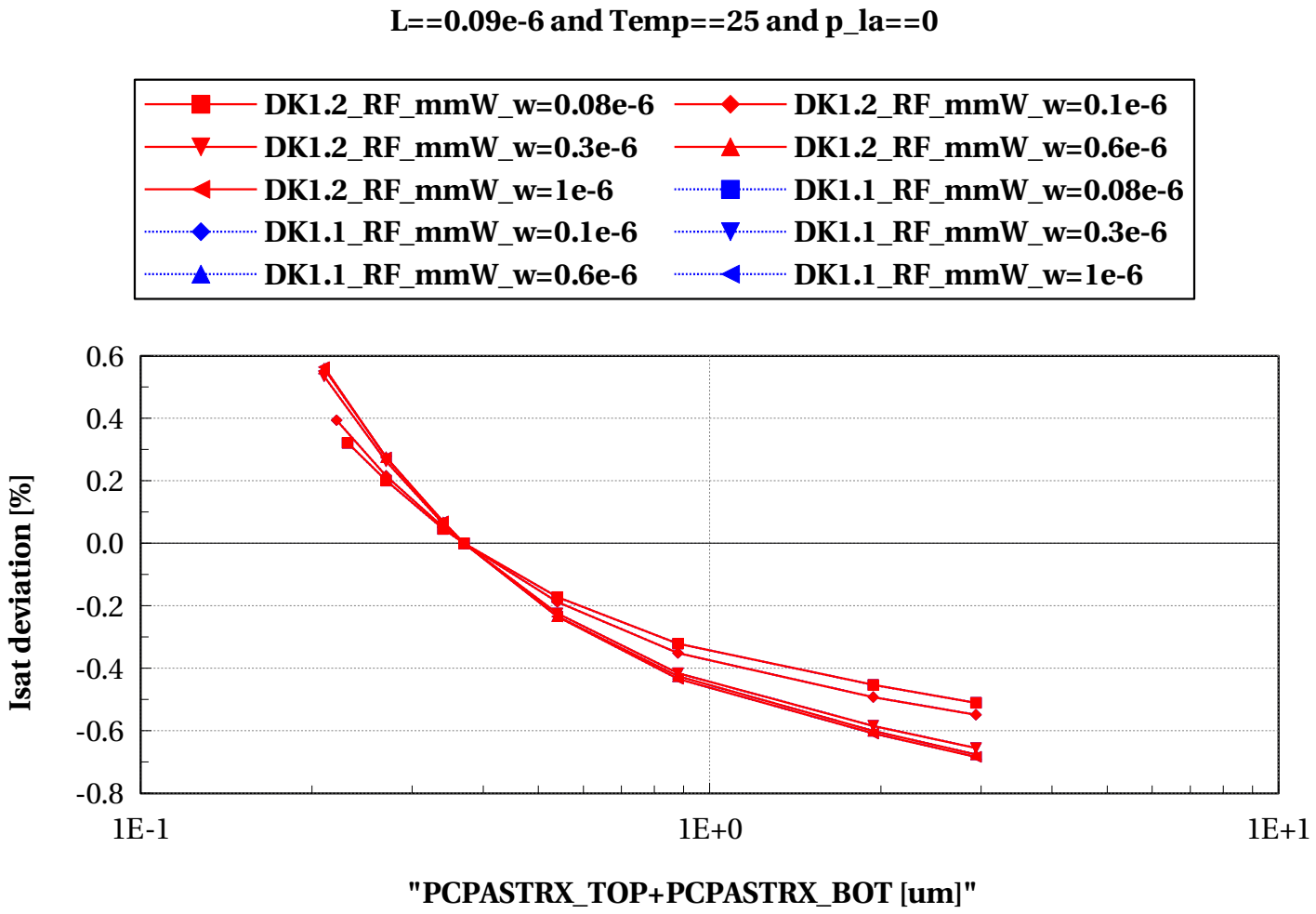
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



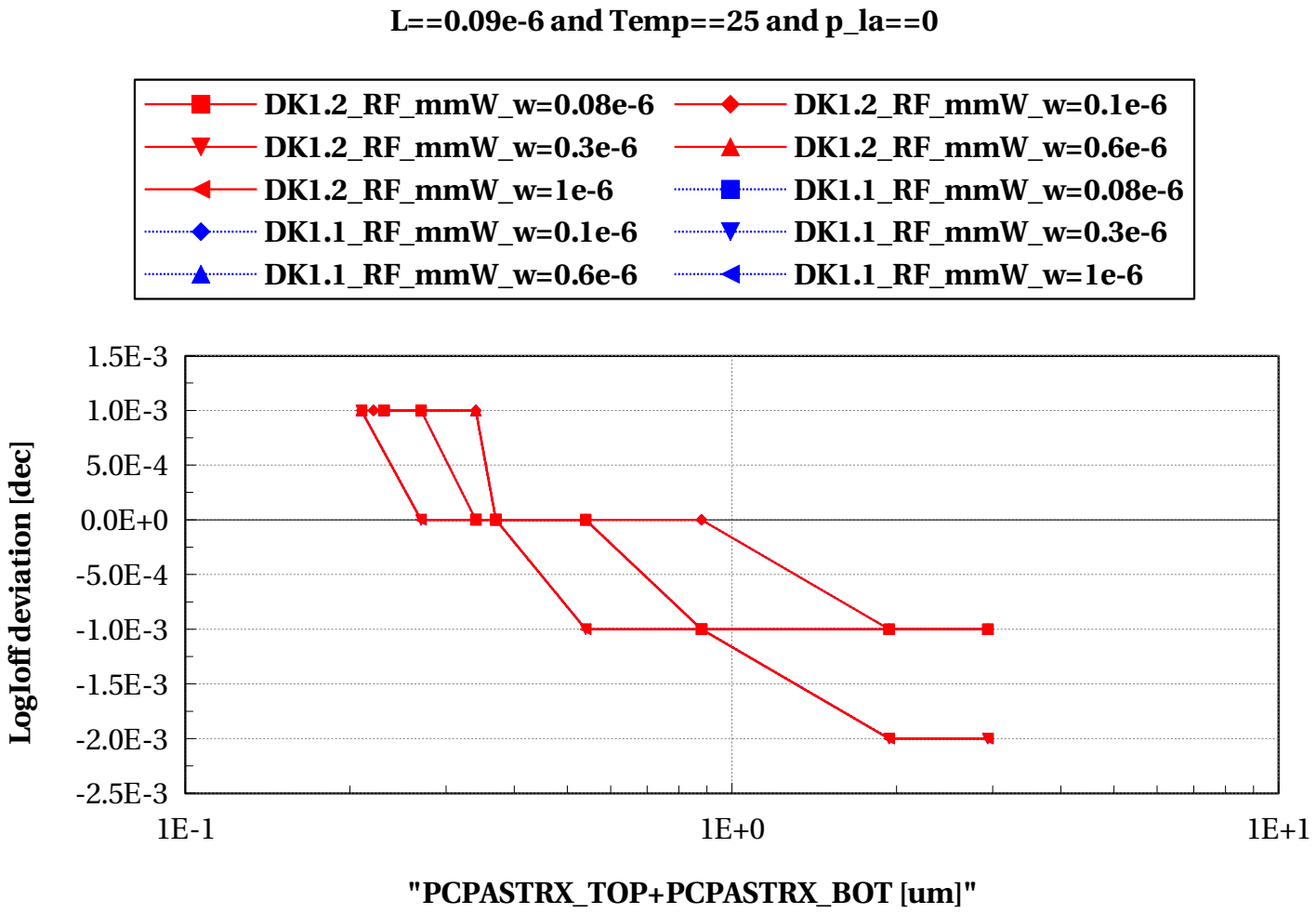
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

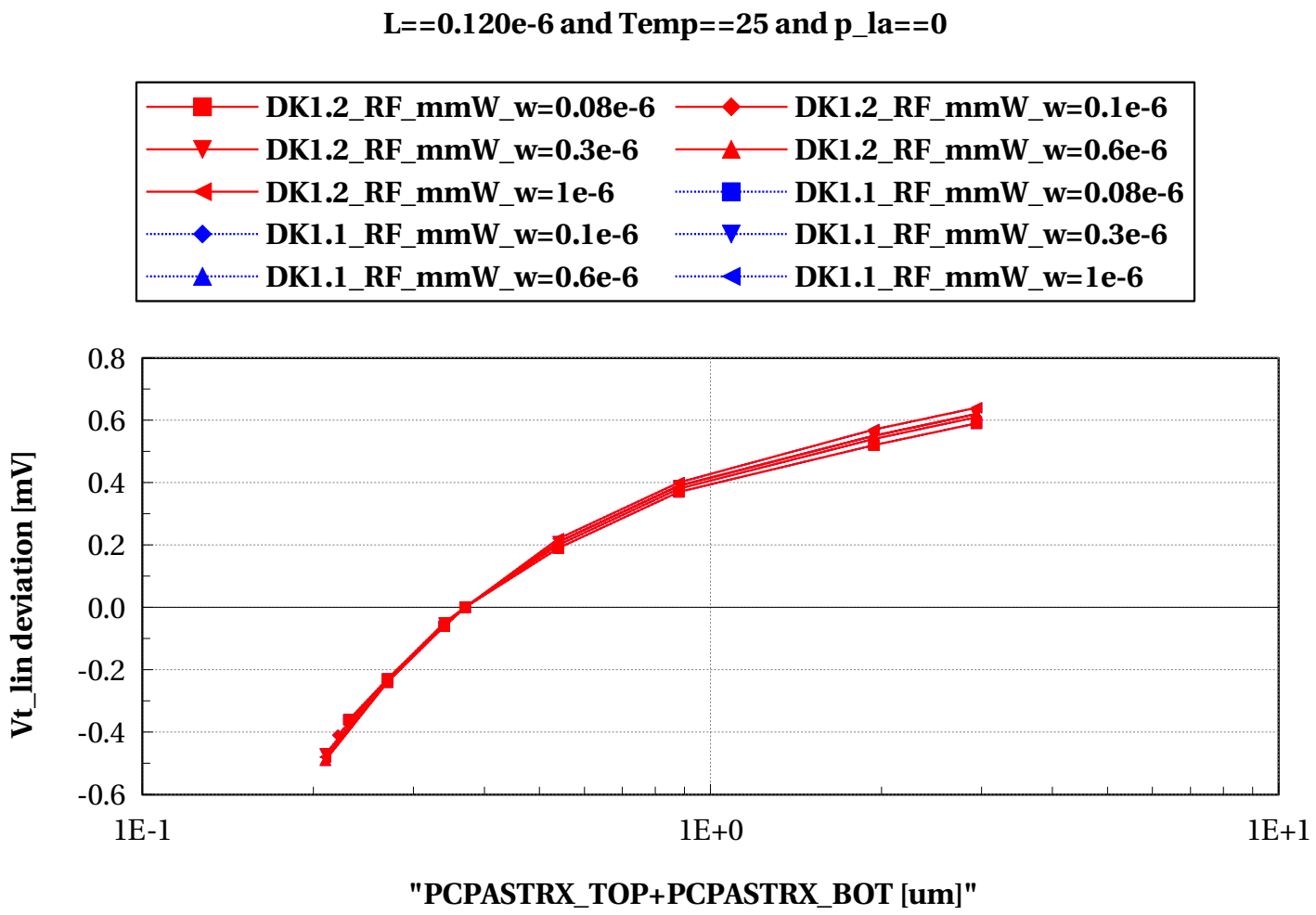


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

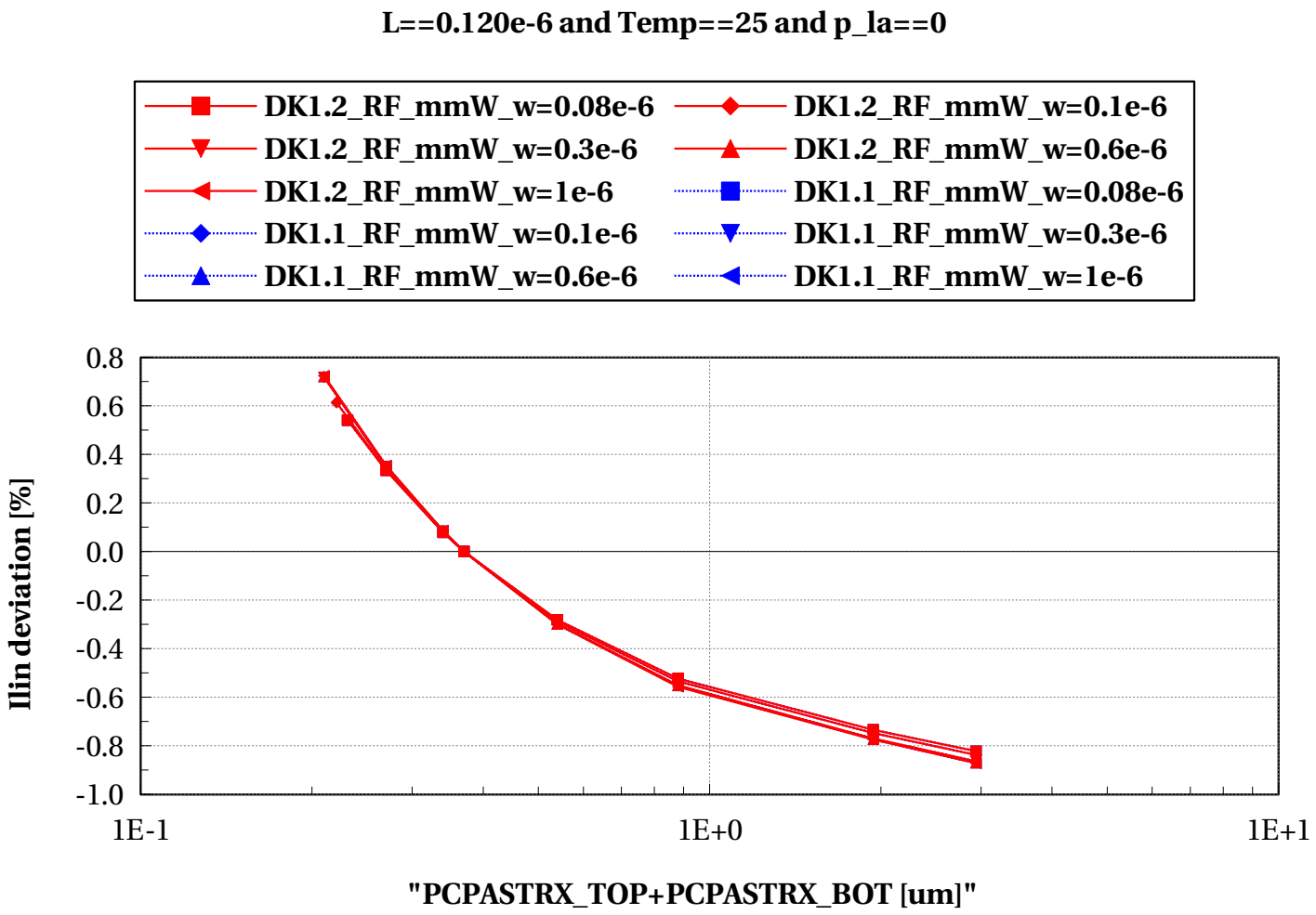


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.12u

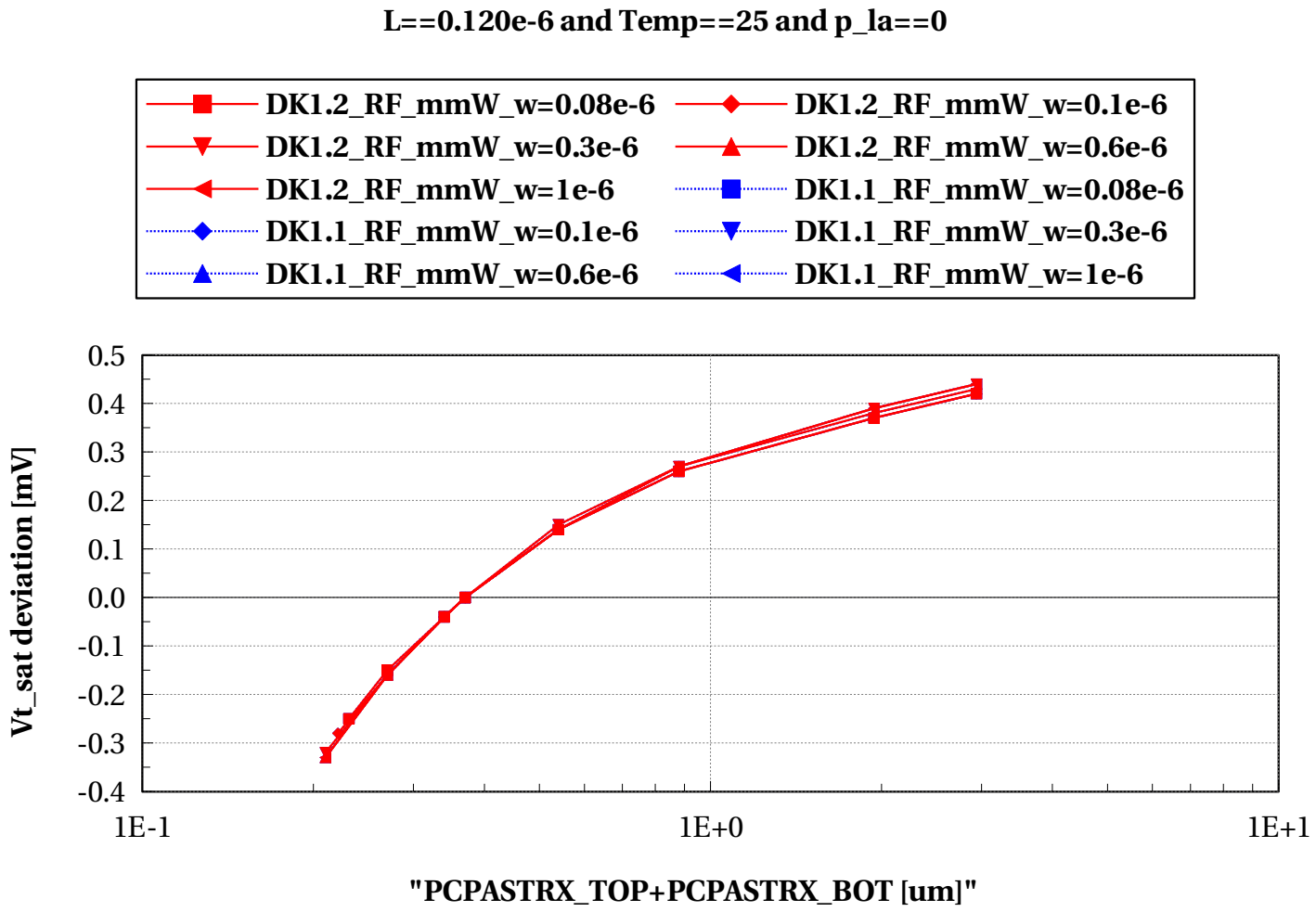
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



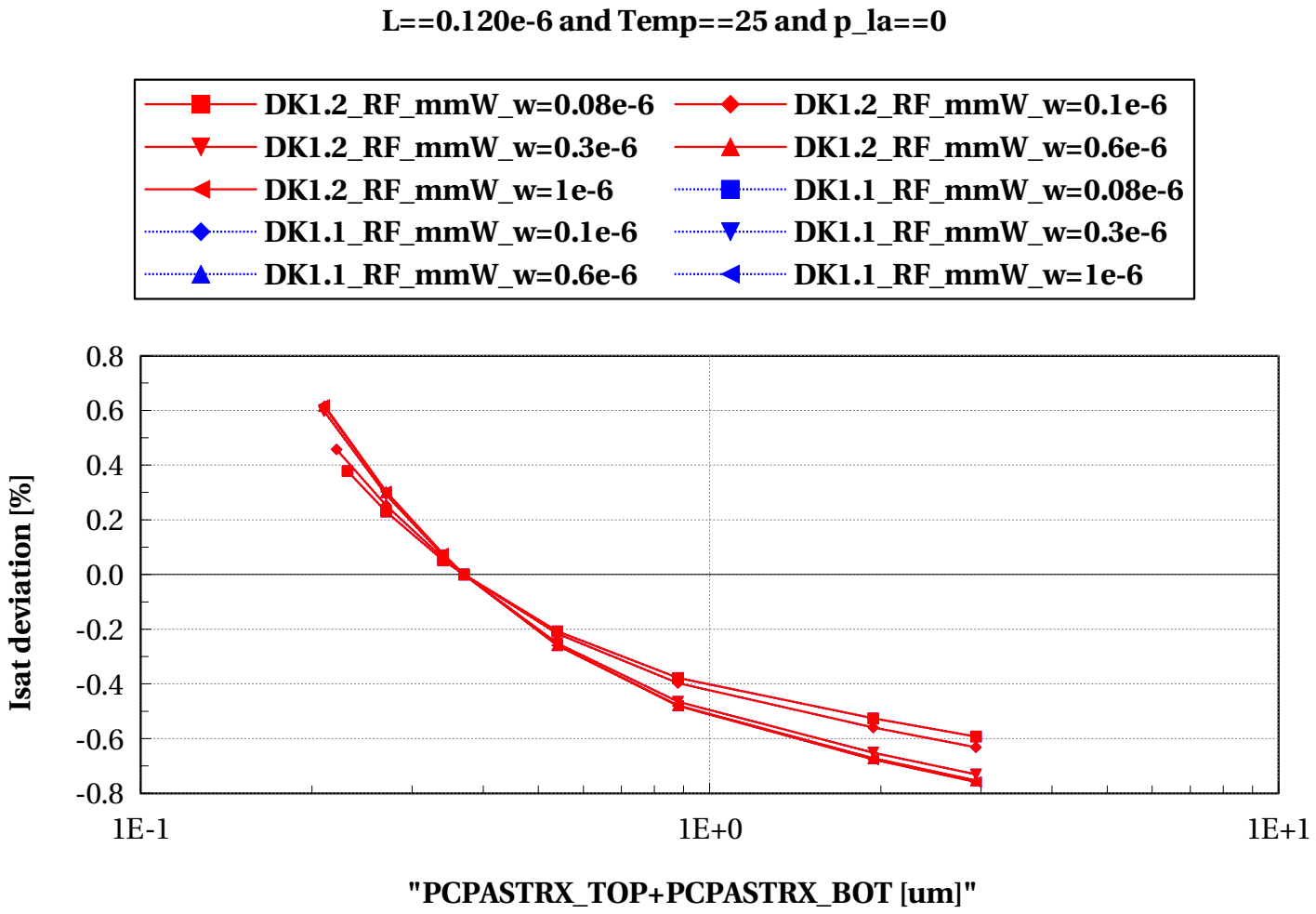
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



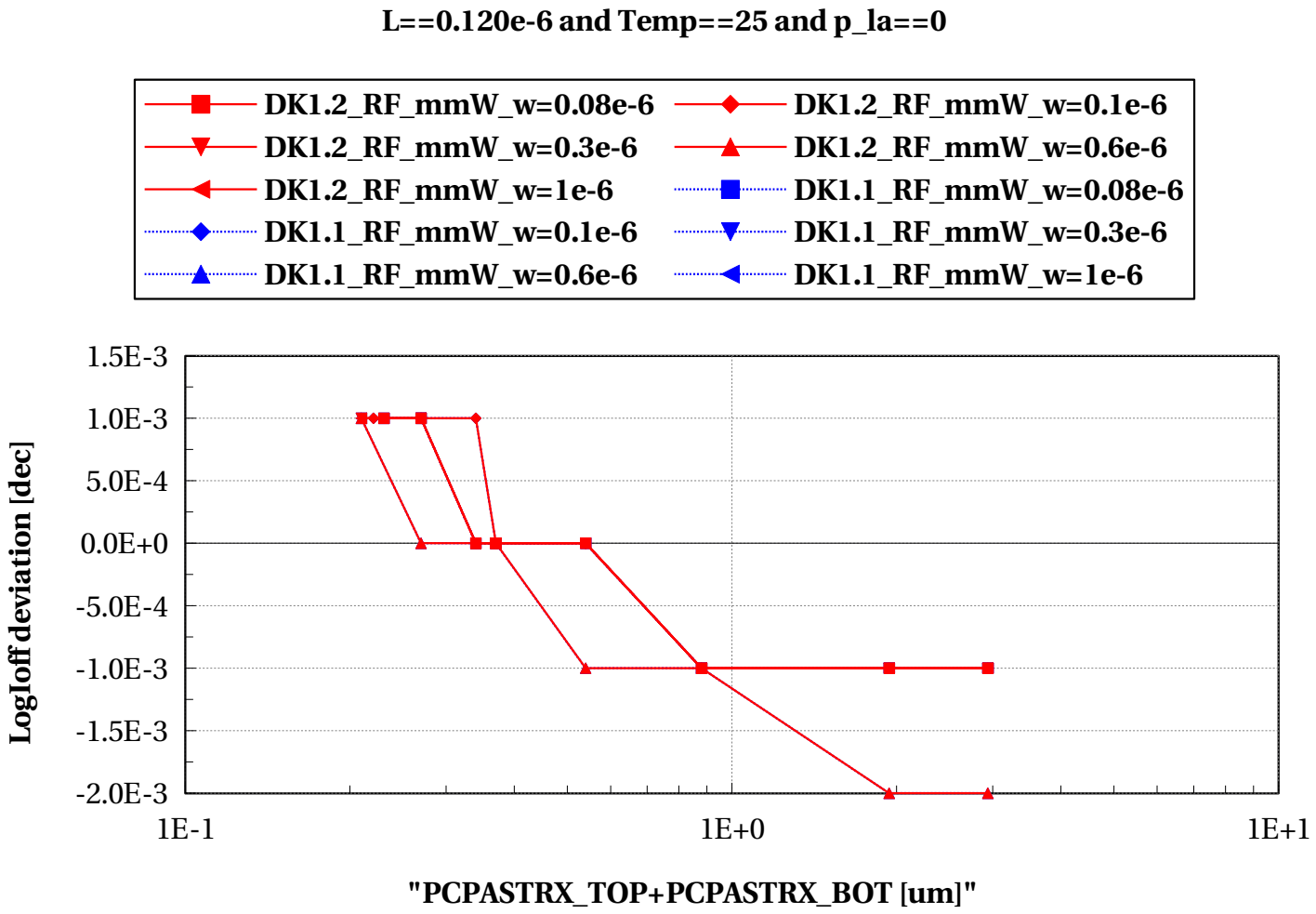
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

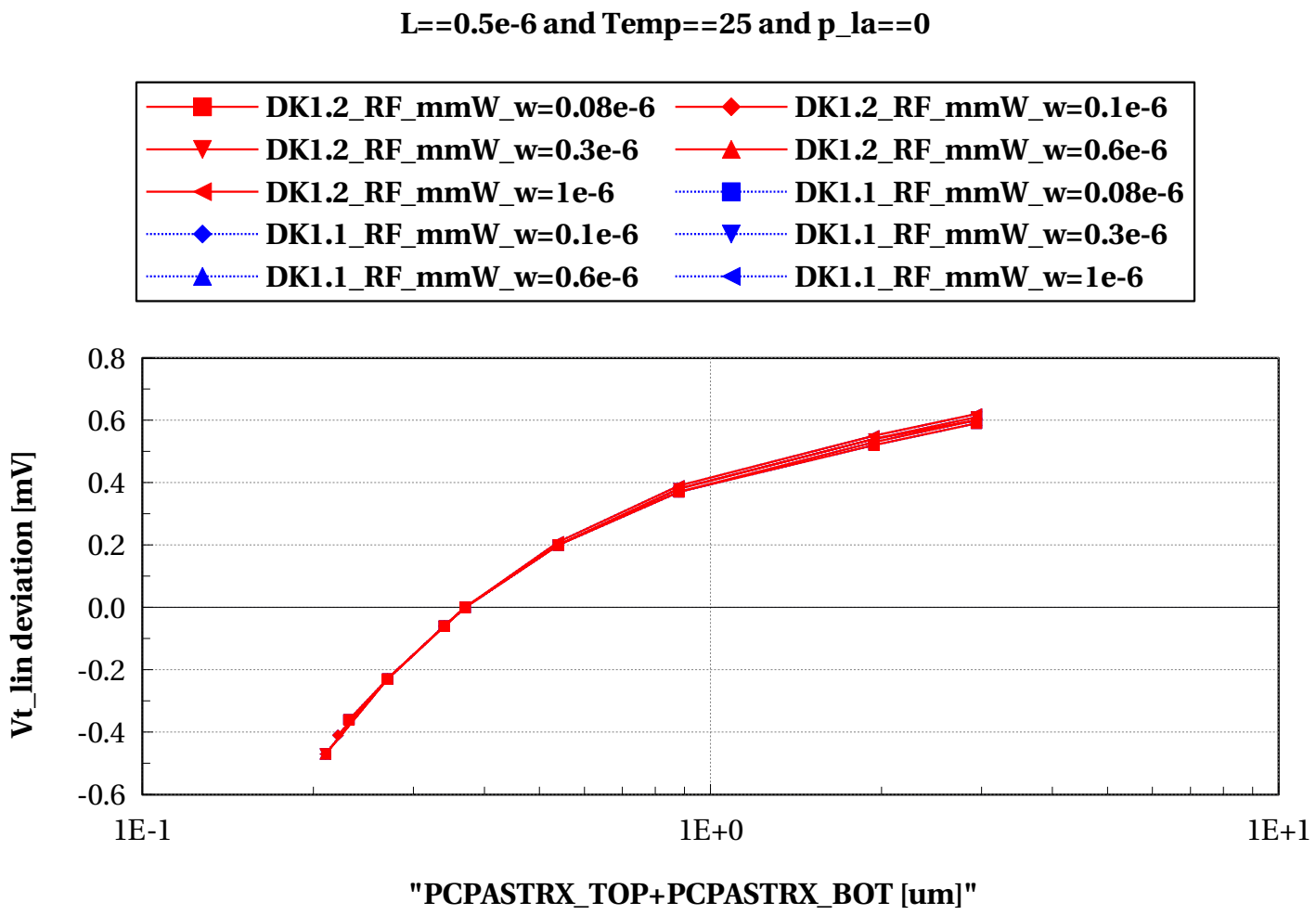


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

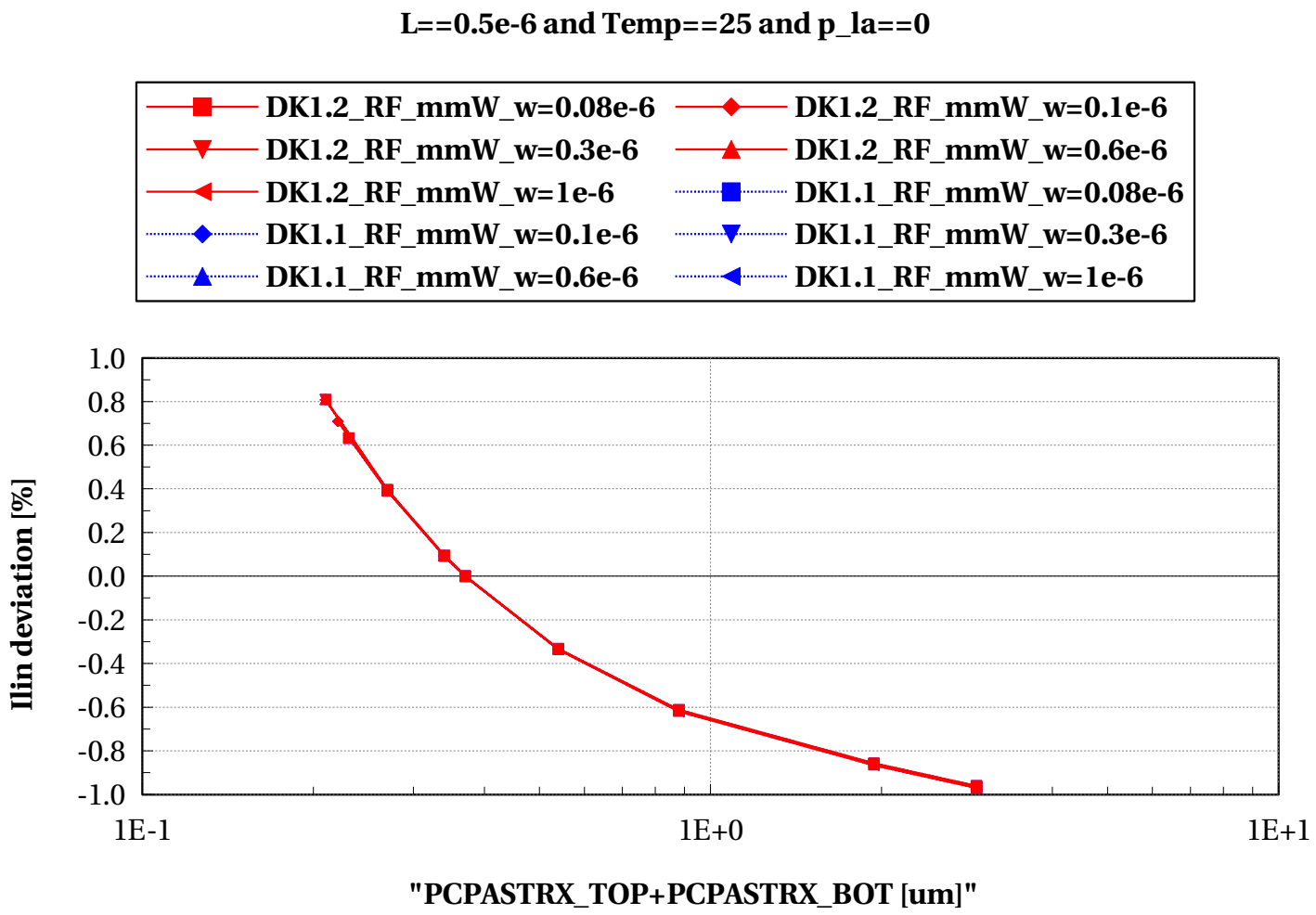


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.5u

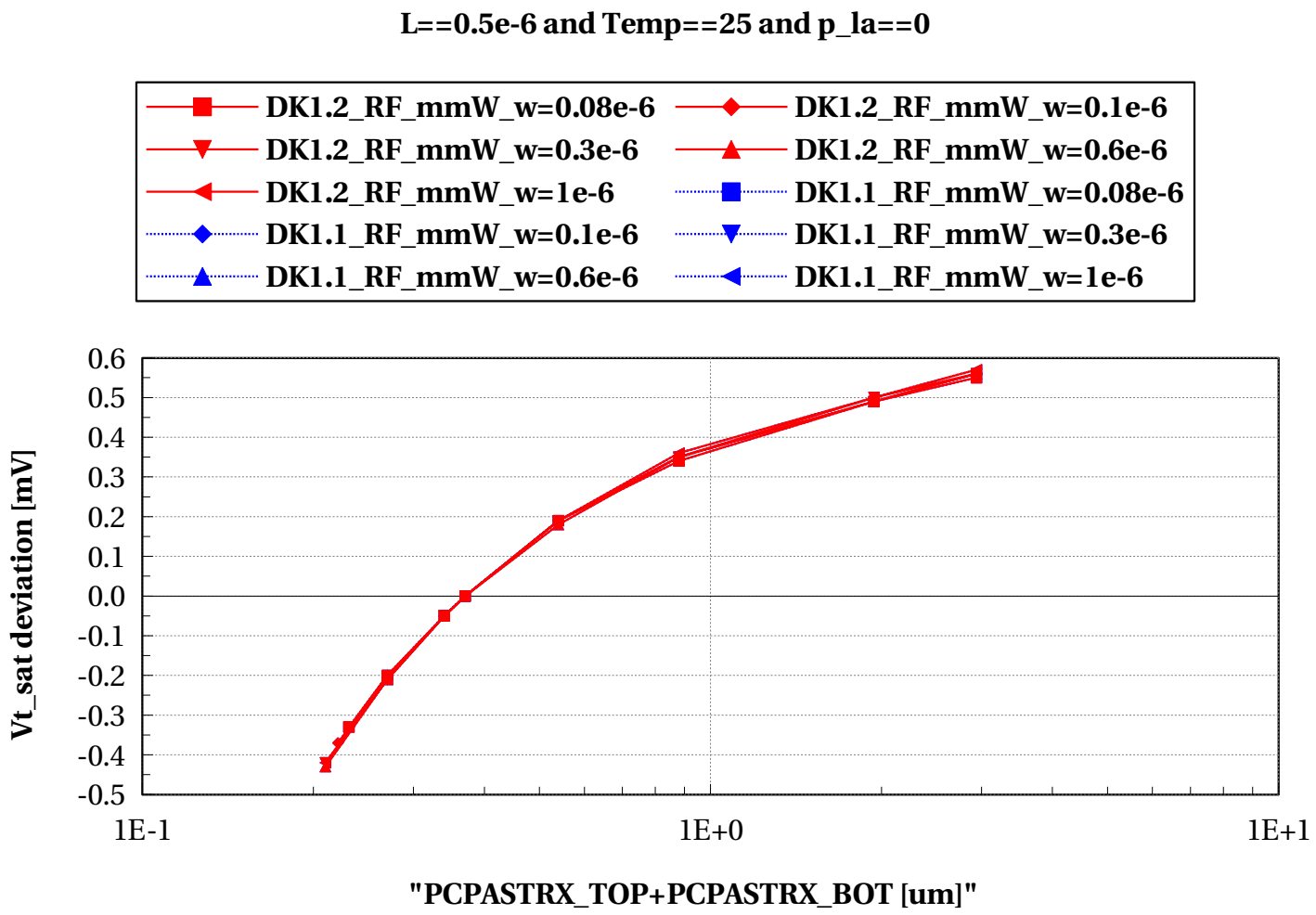
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



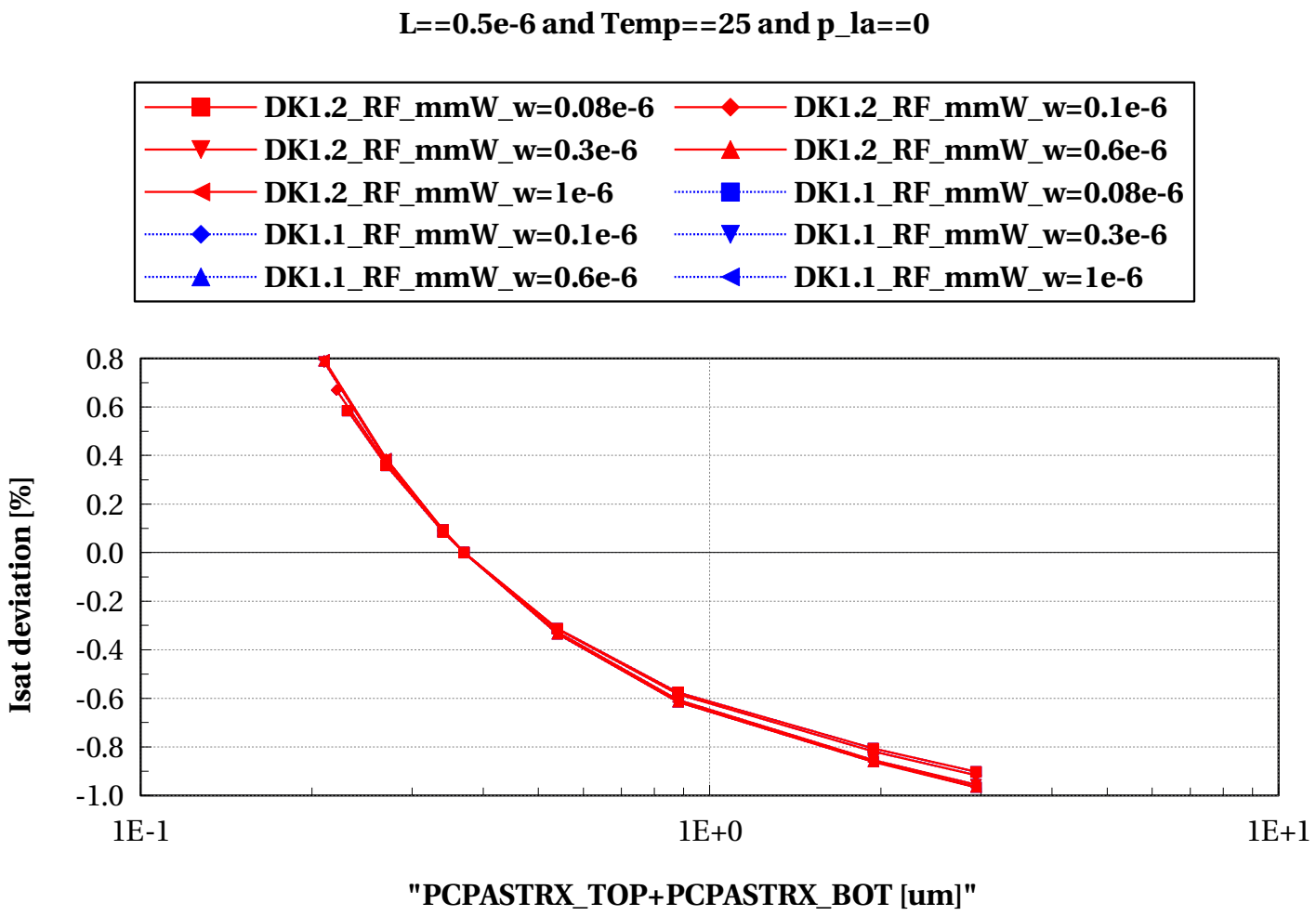
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



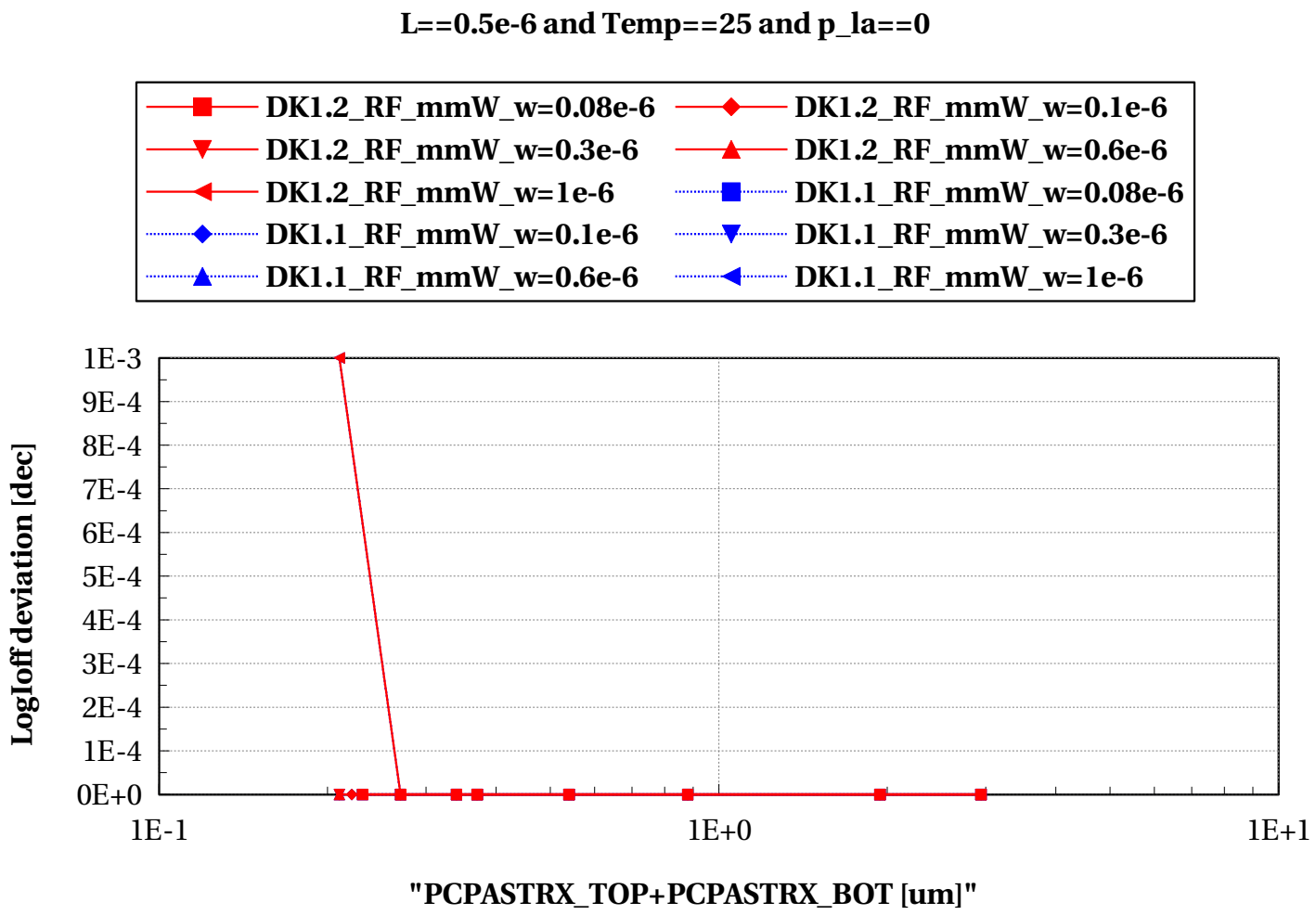
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

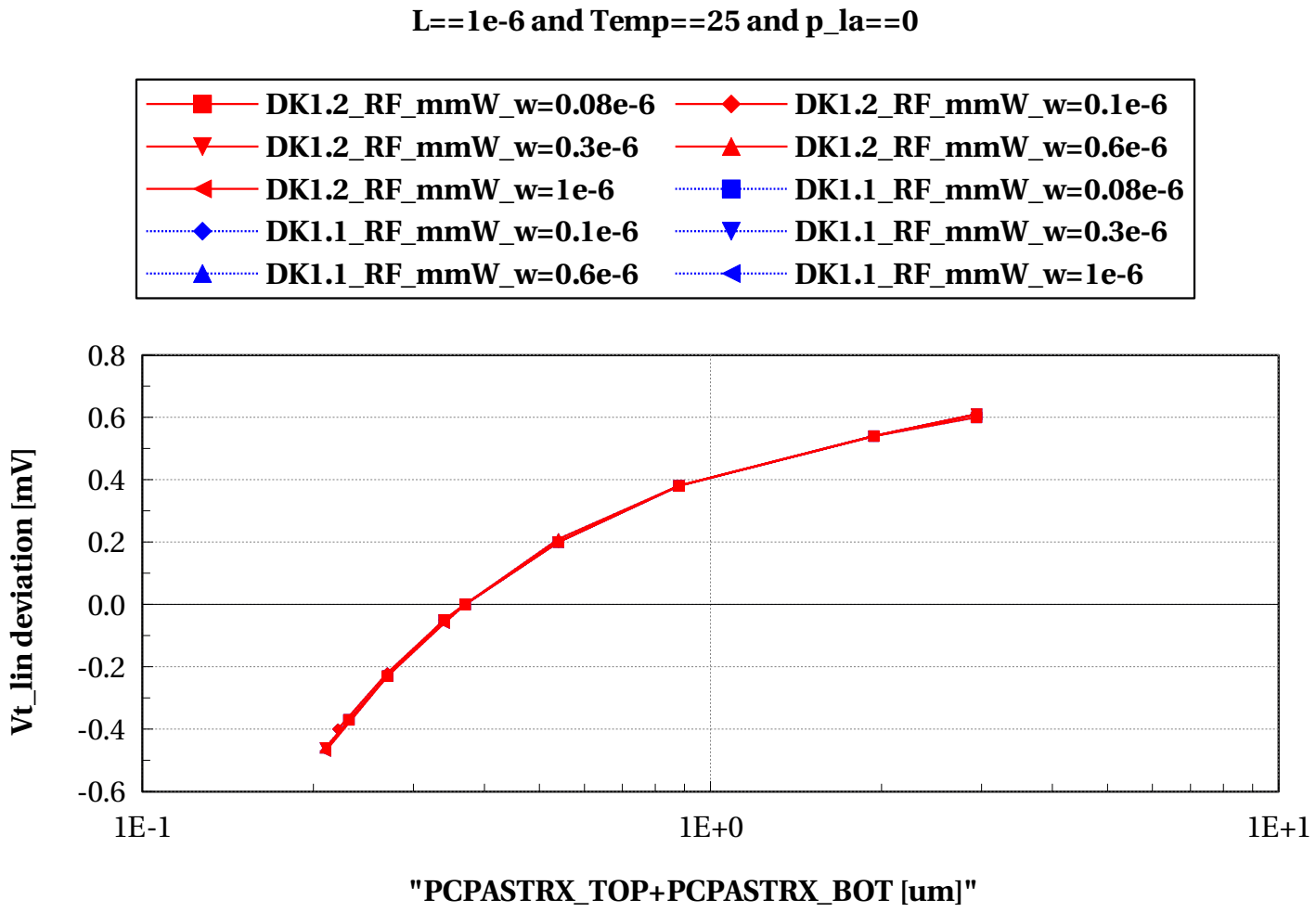


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

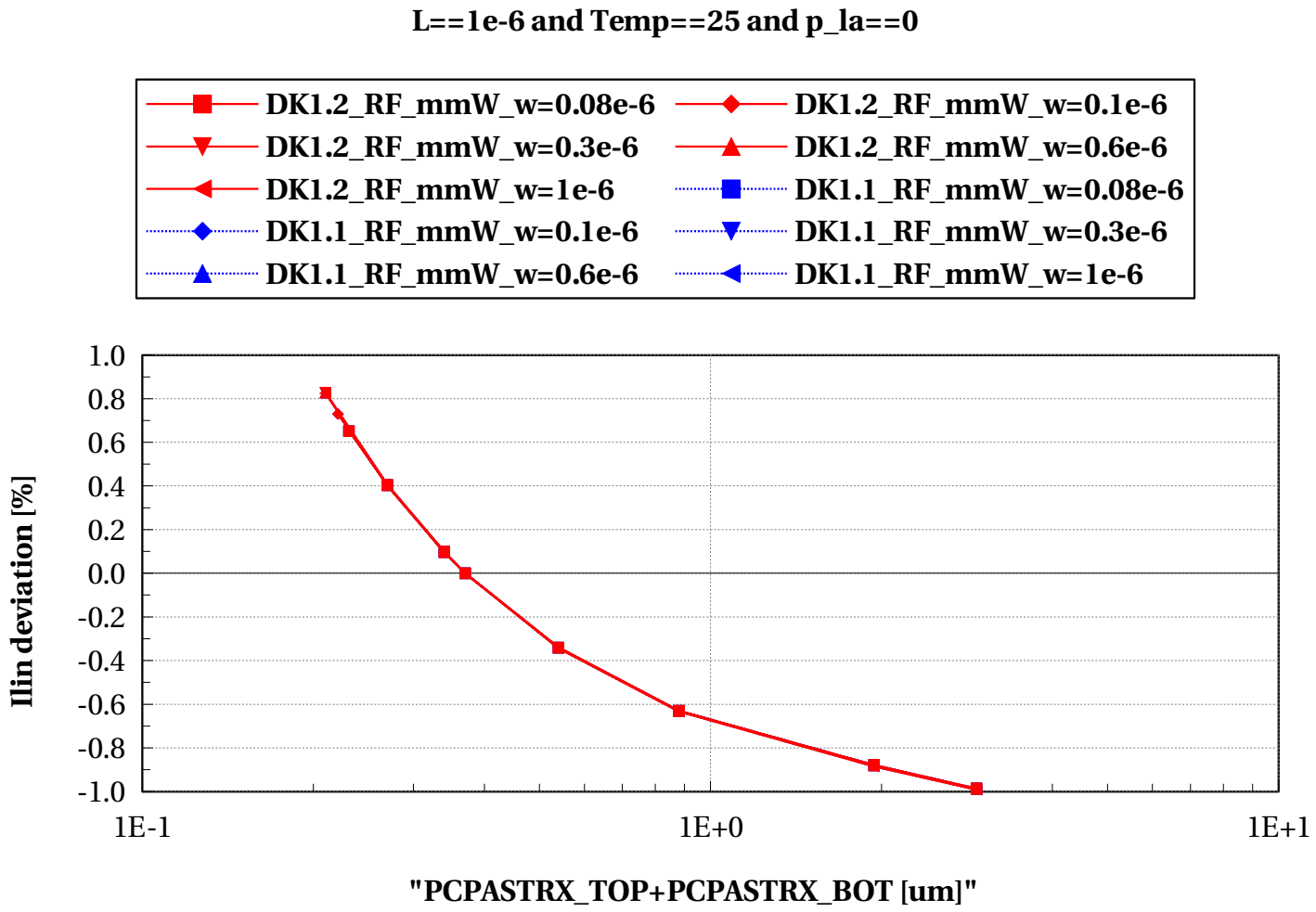


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=1u

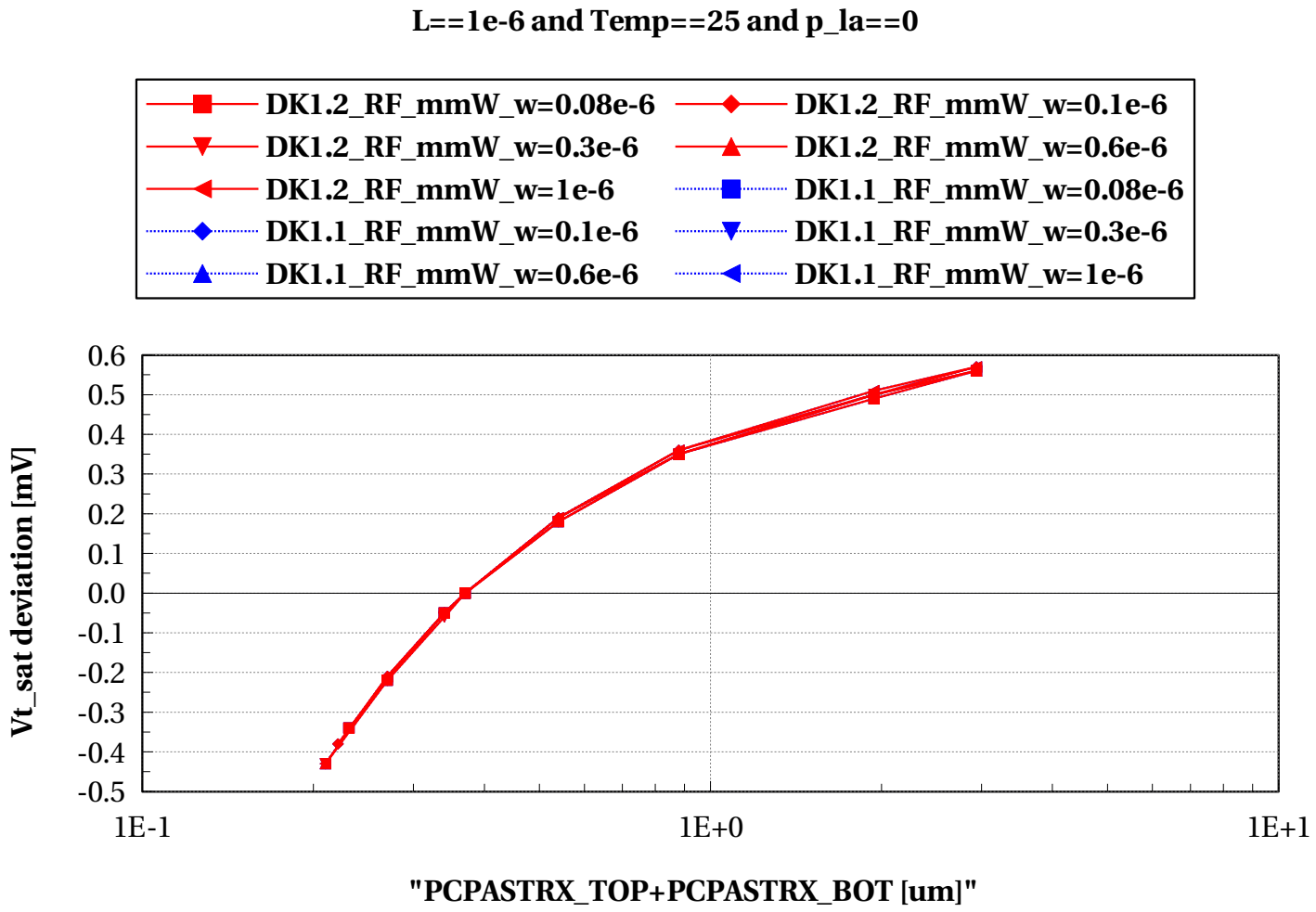
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



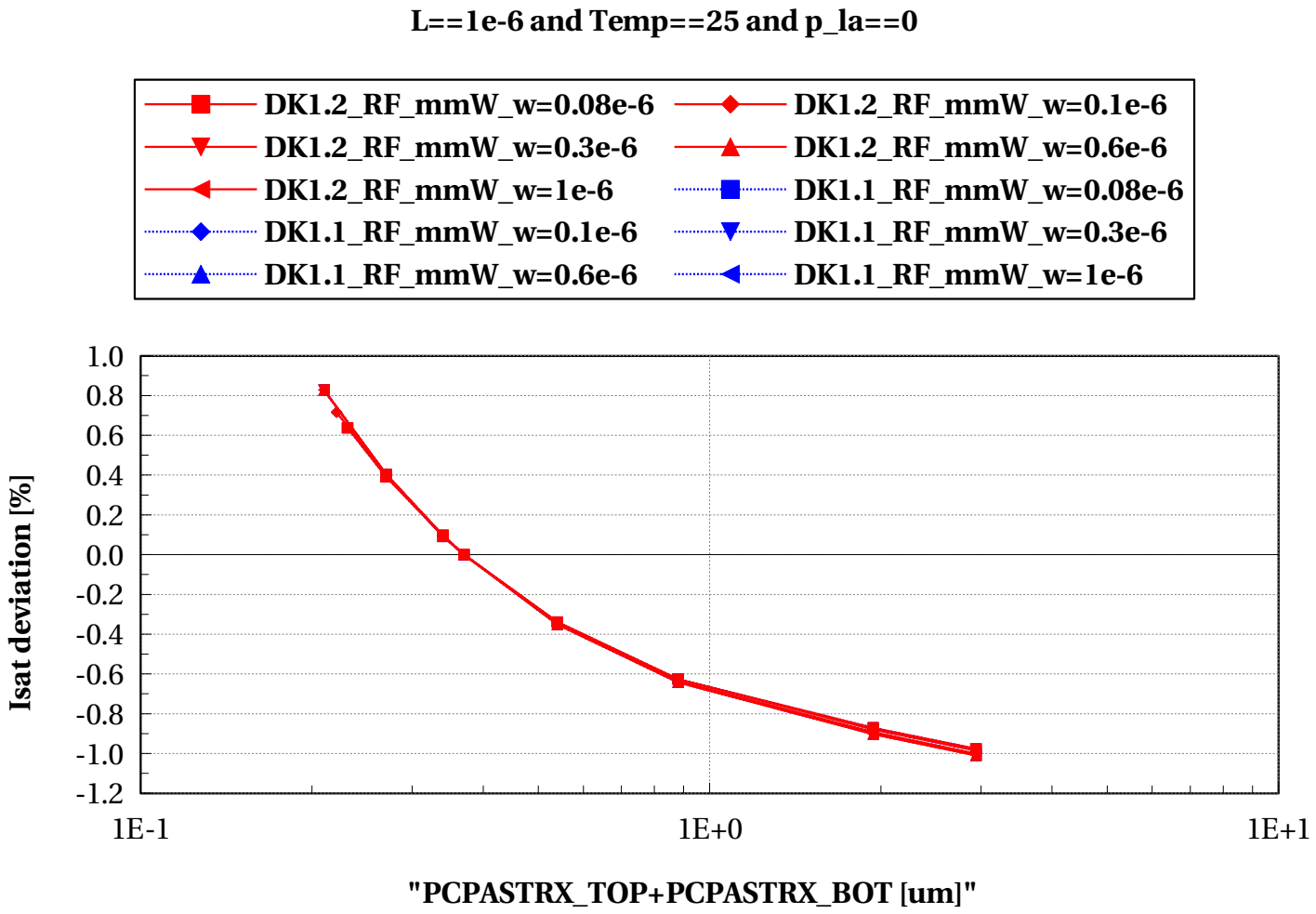
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



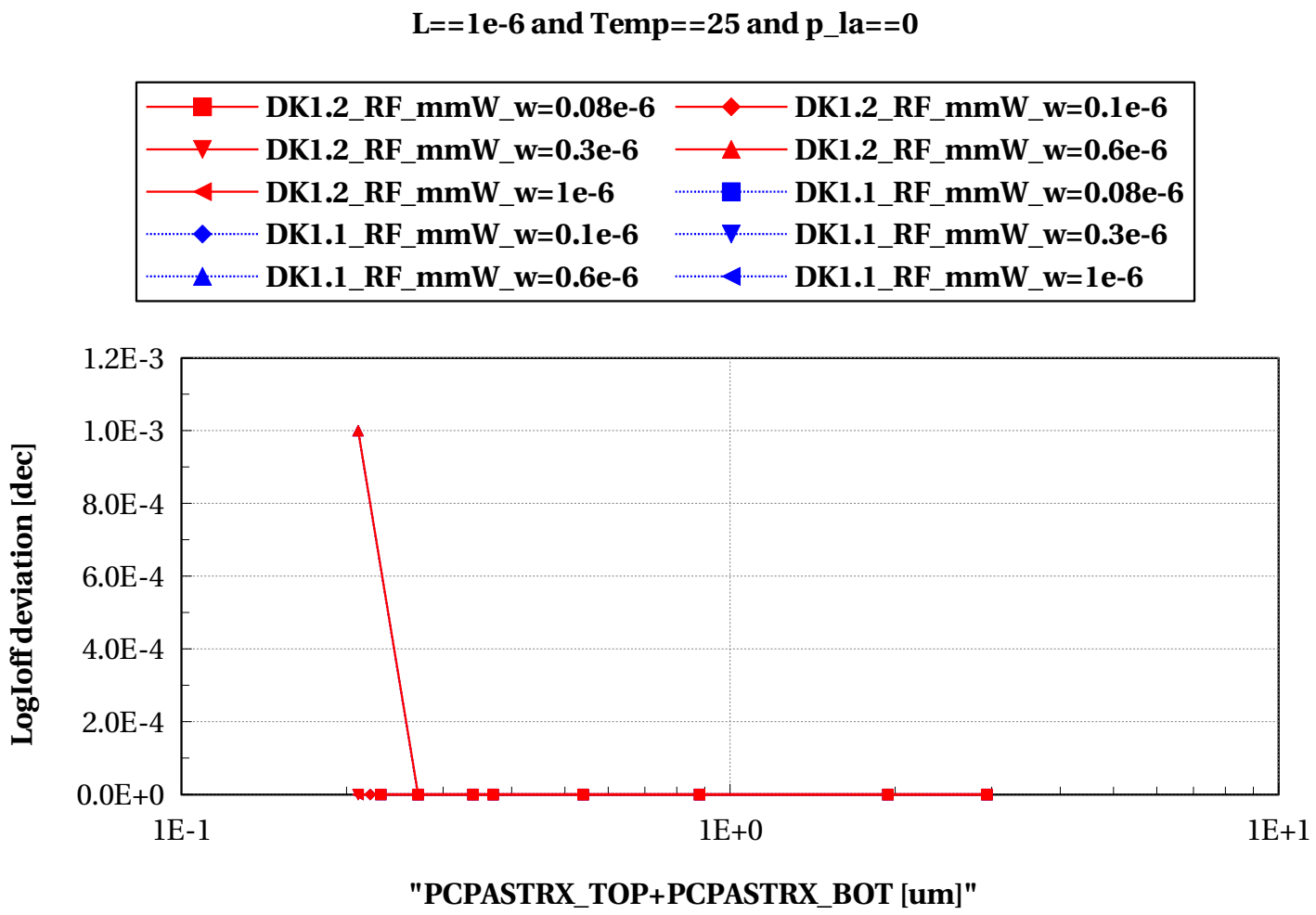
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

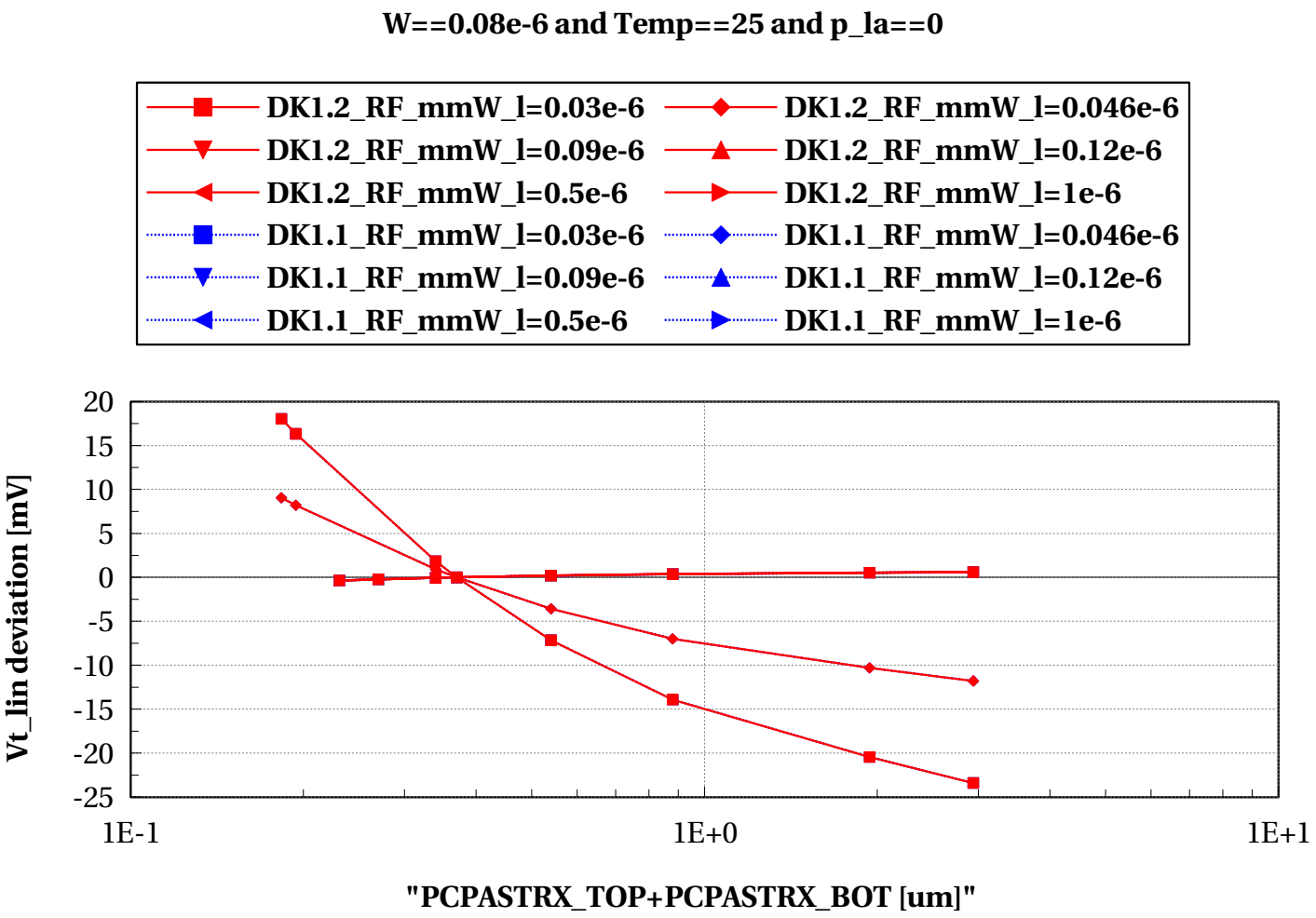


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

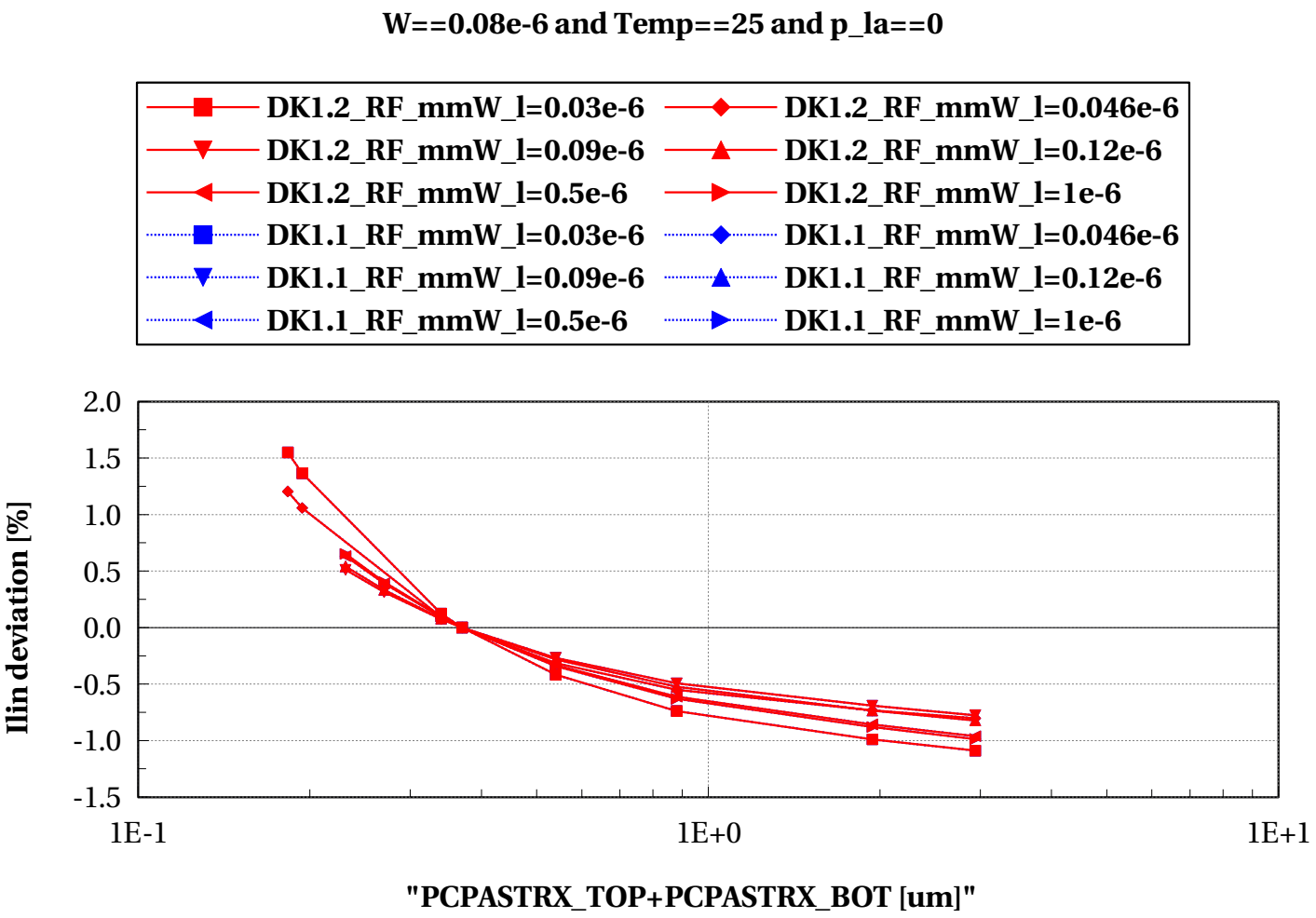


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=0.08u

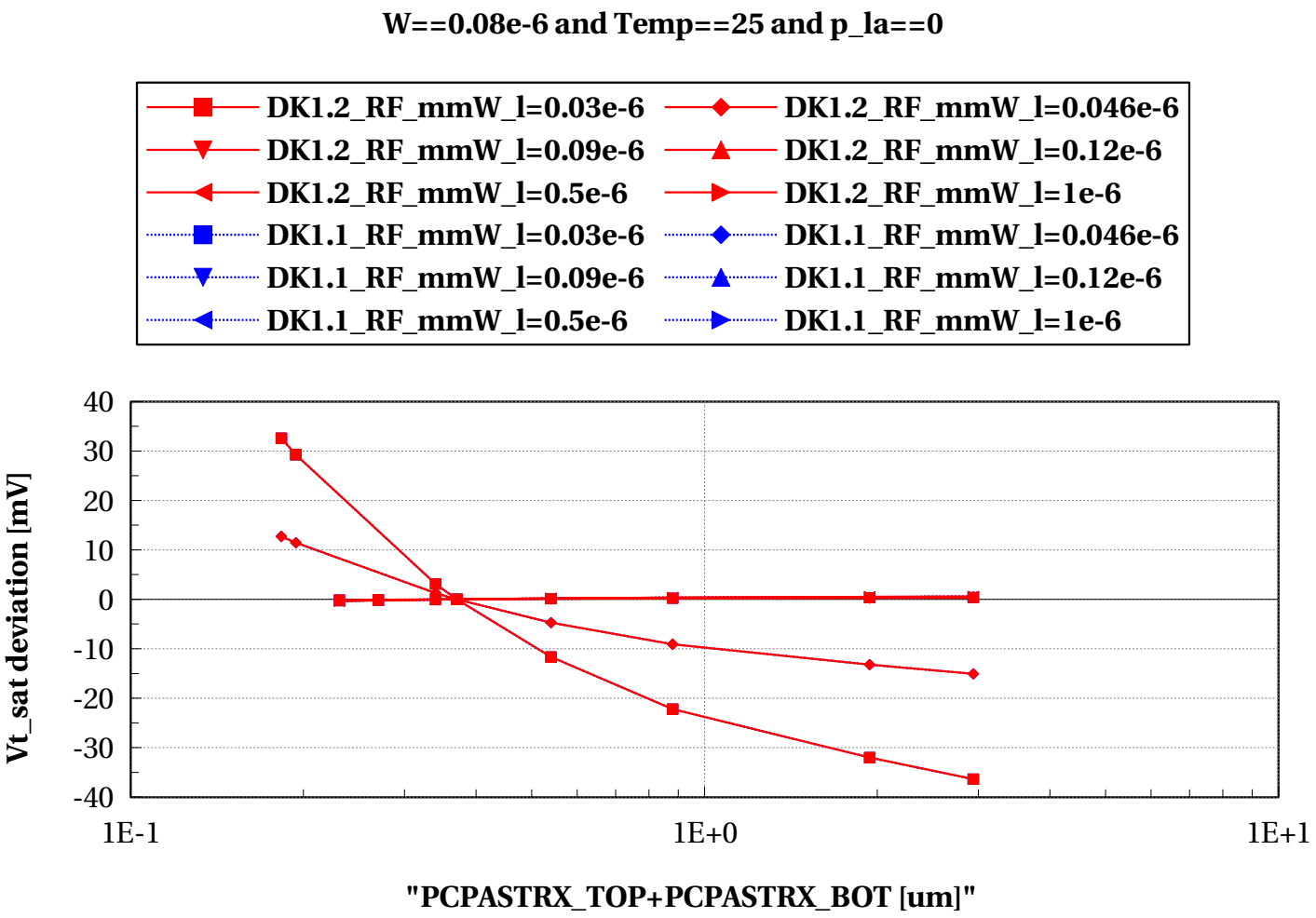
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



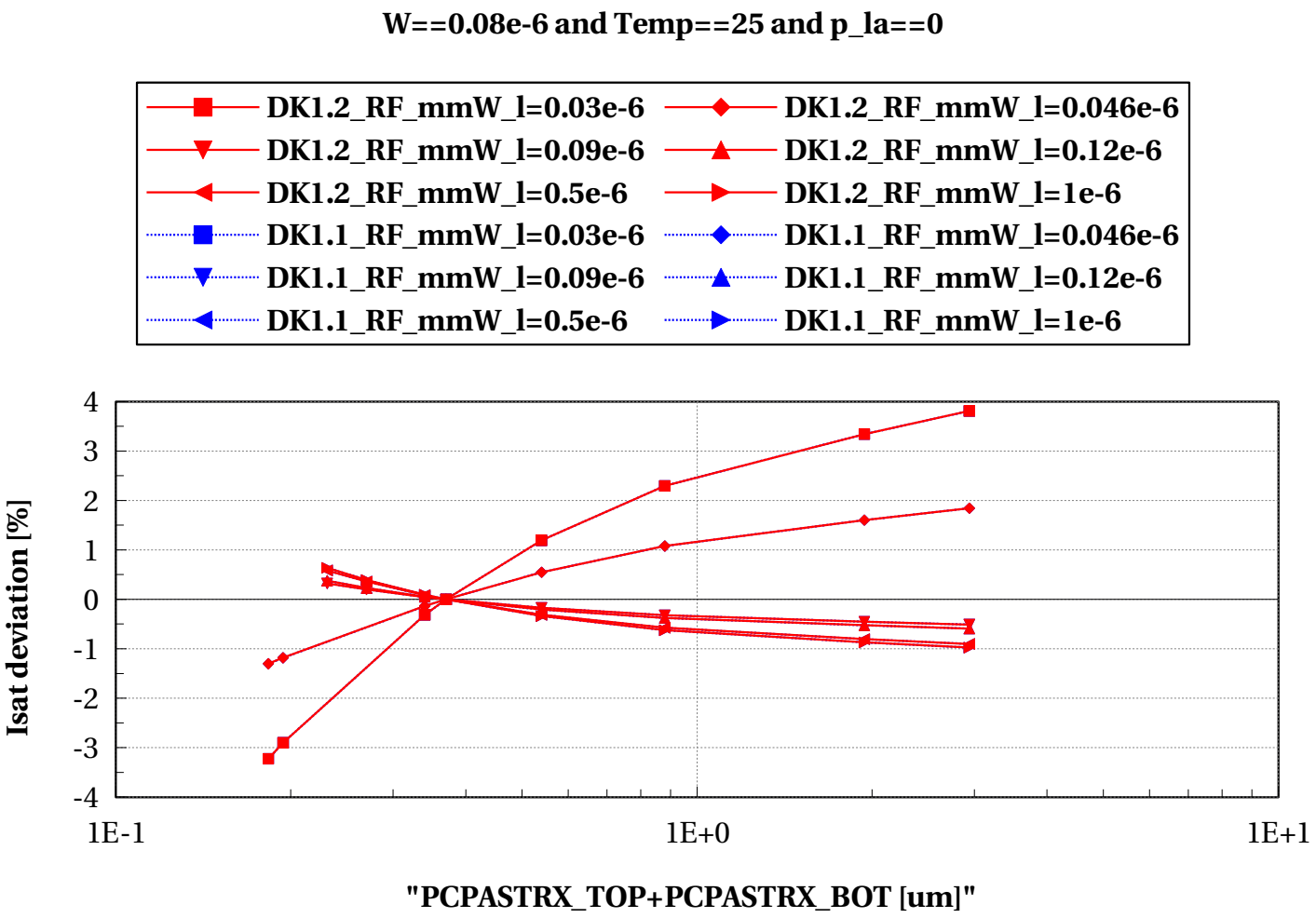
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



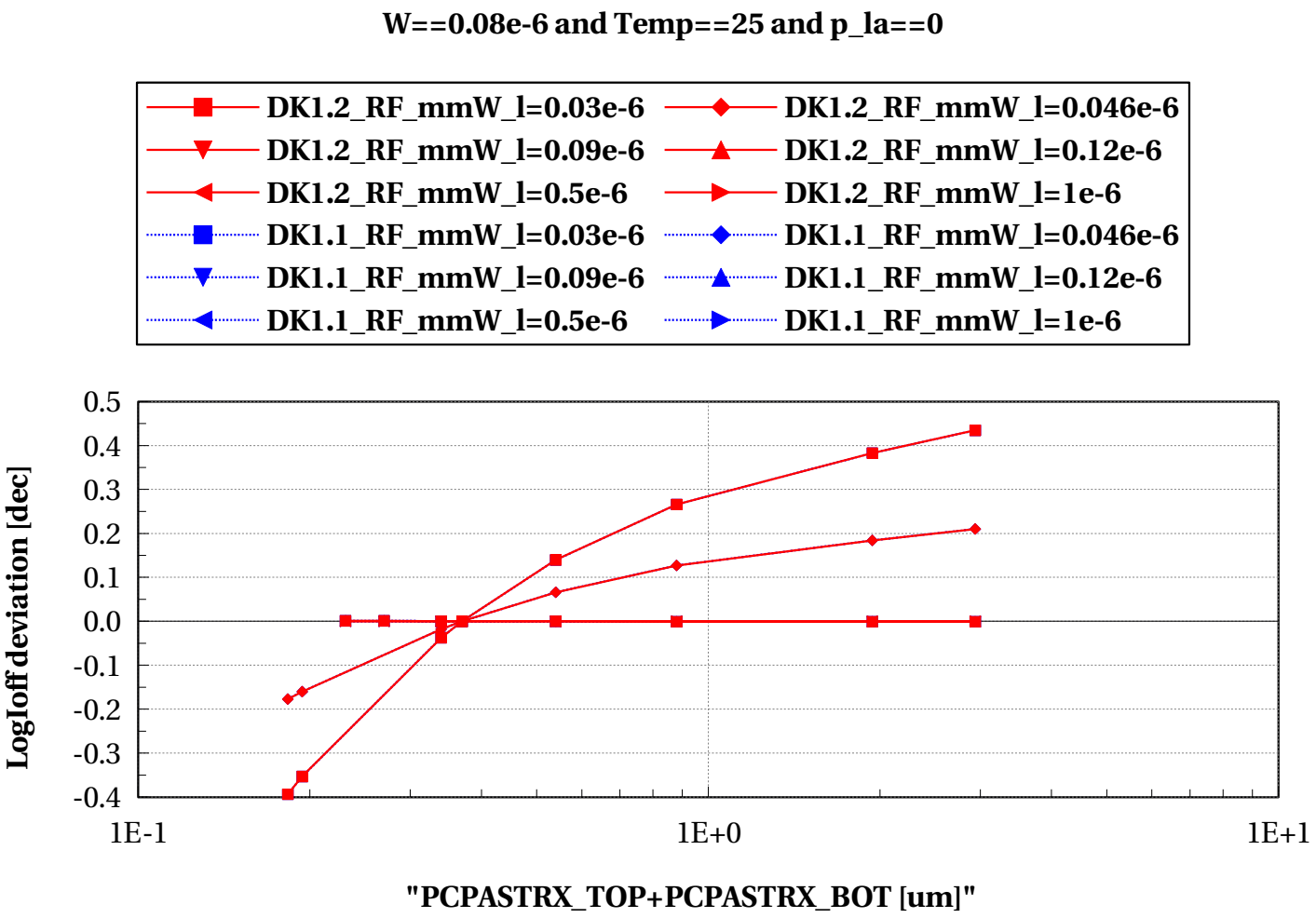
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

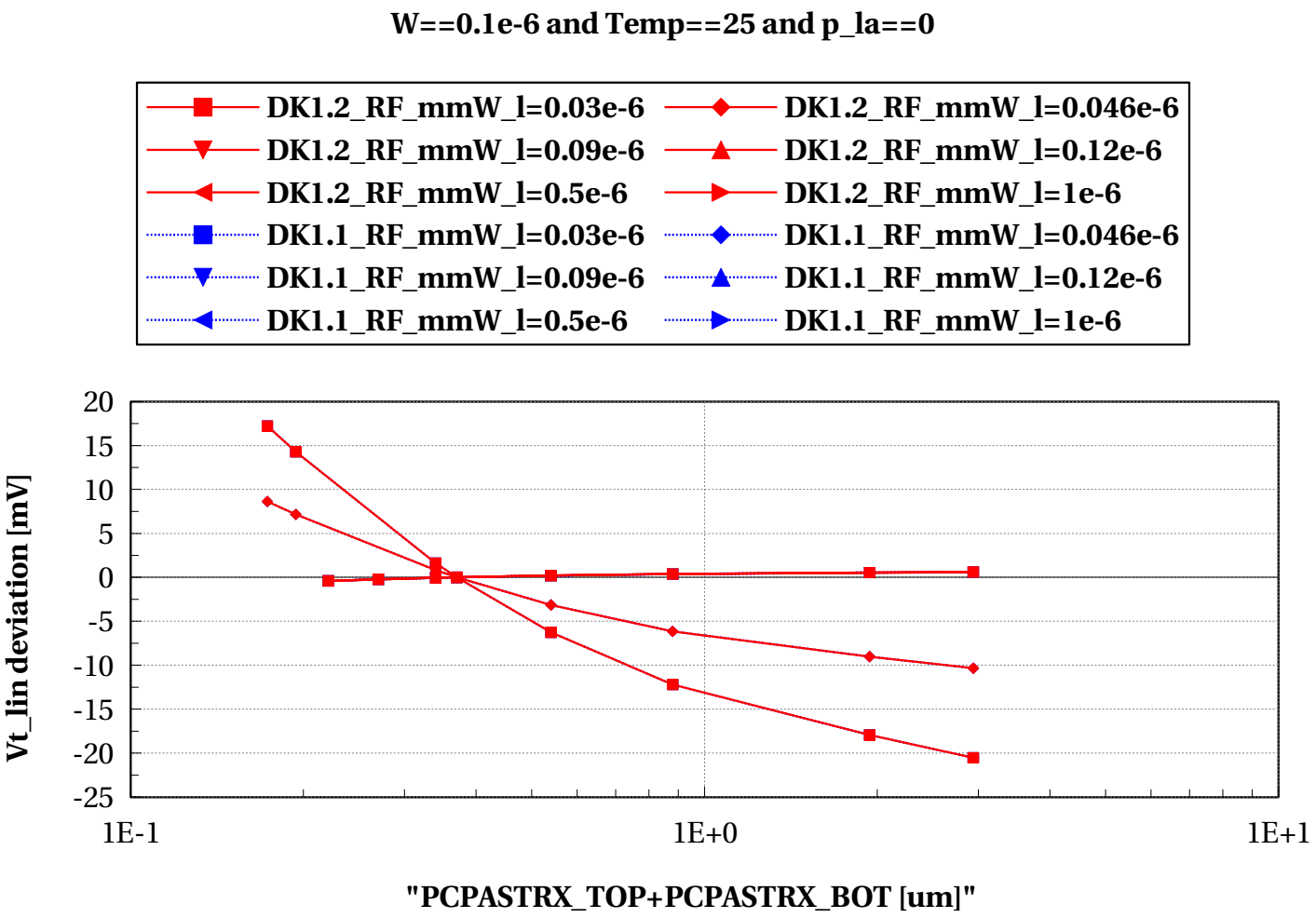


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

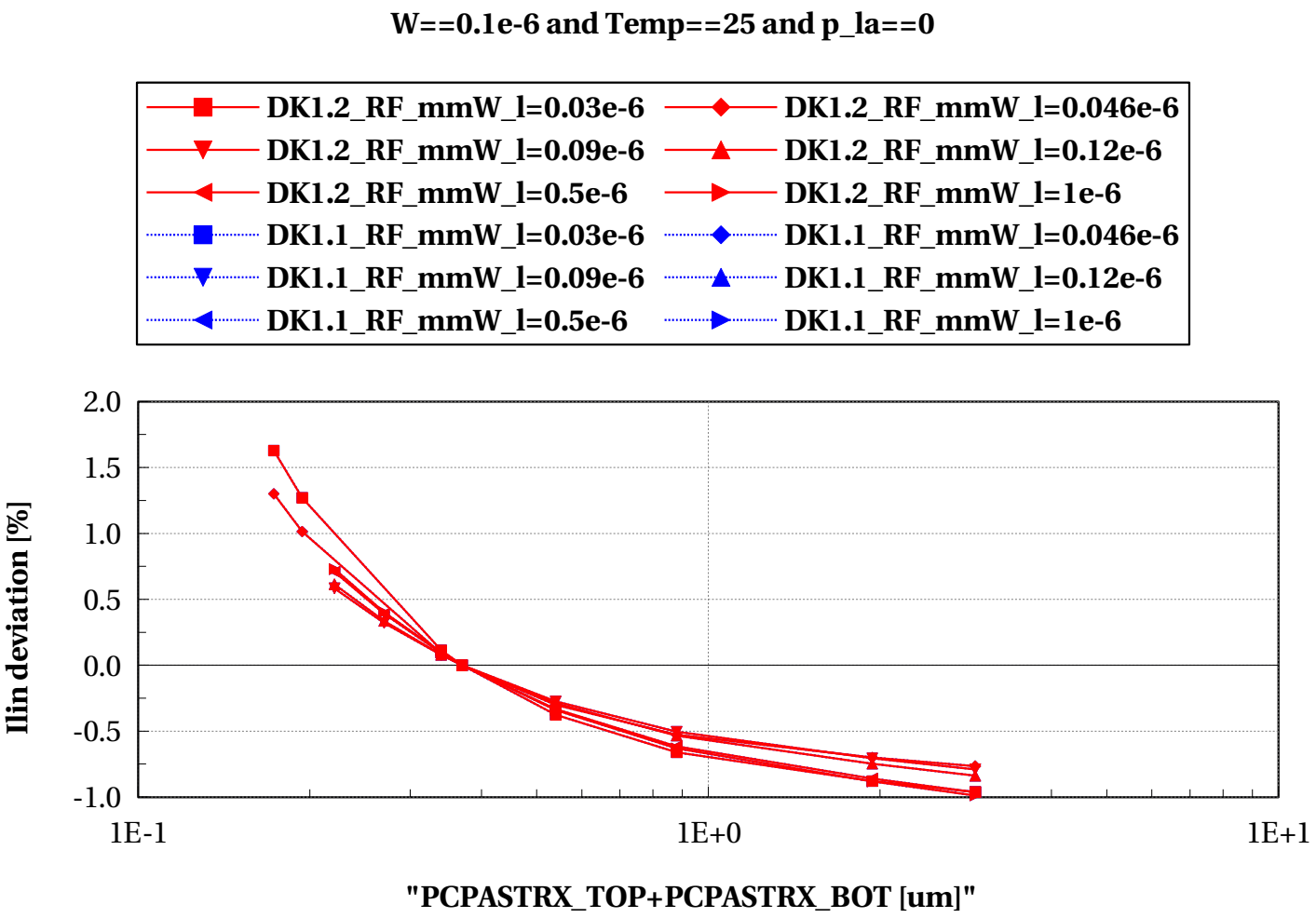


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=0.1u

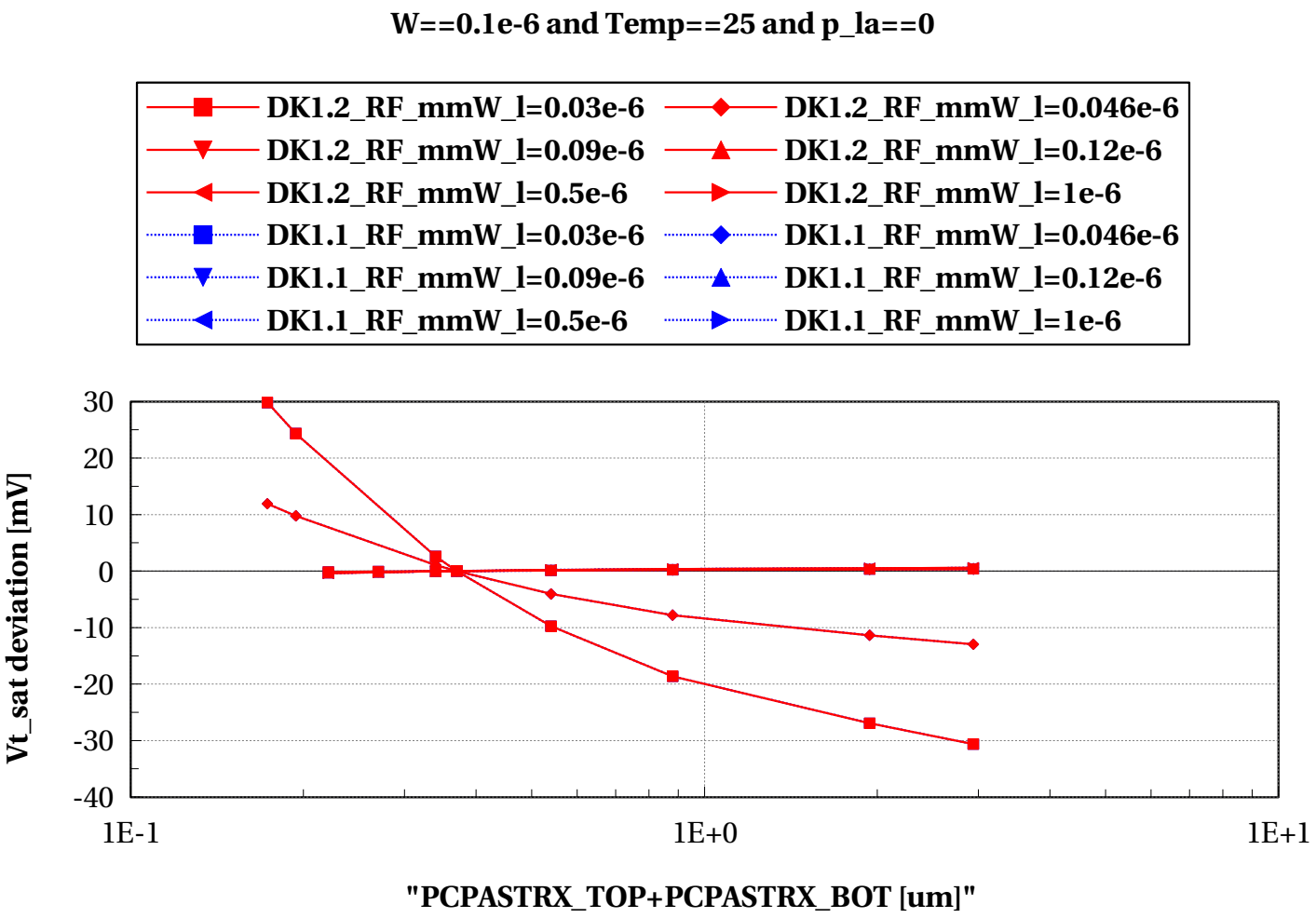
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



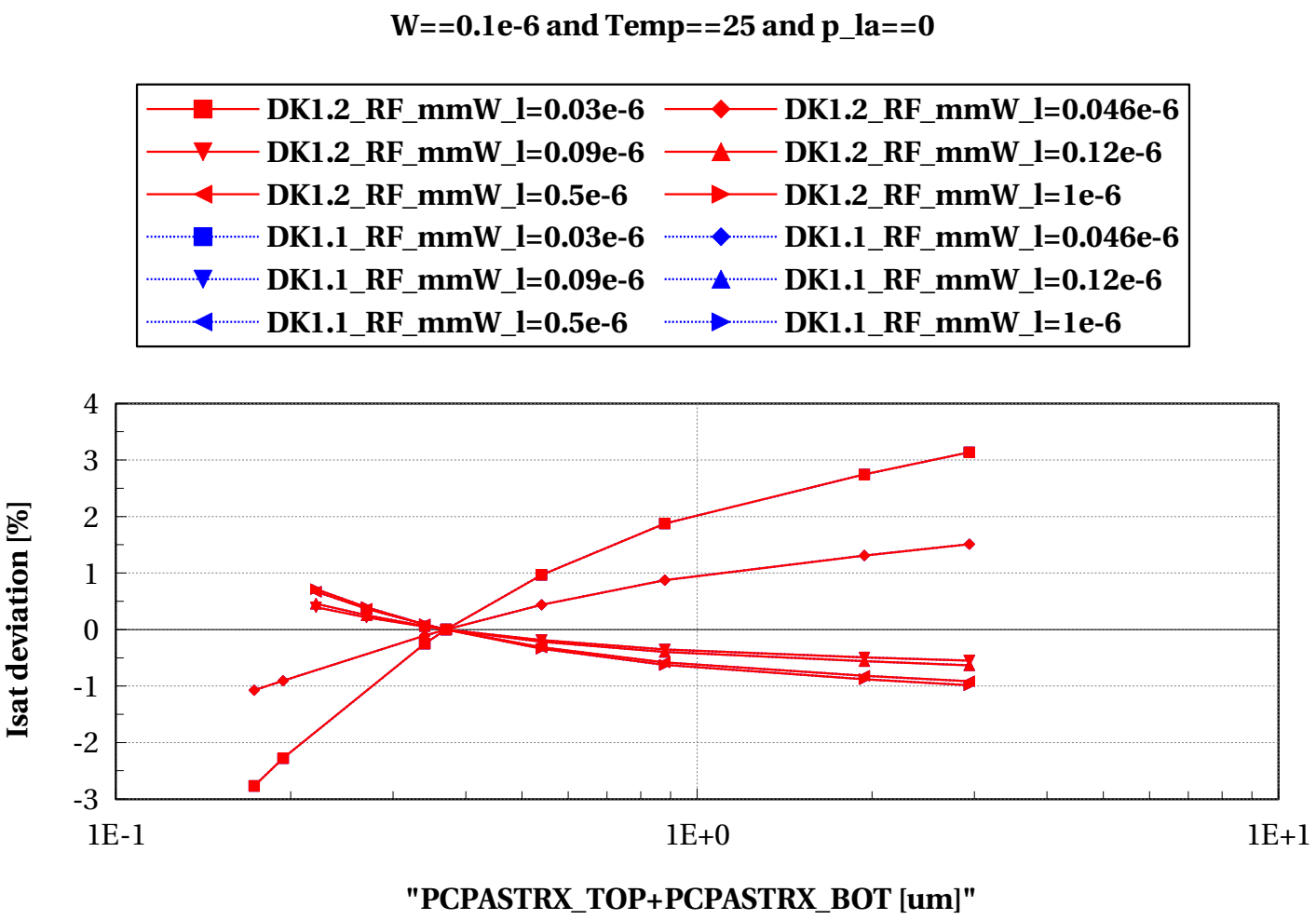
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



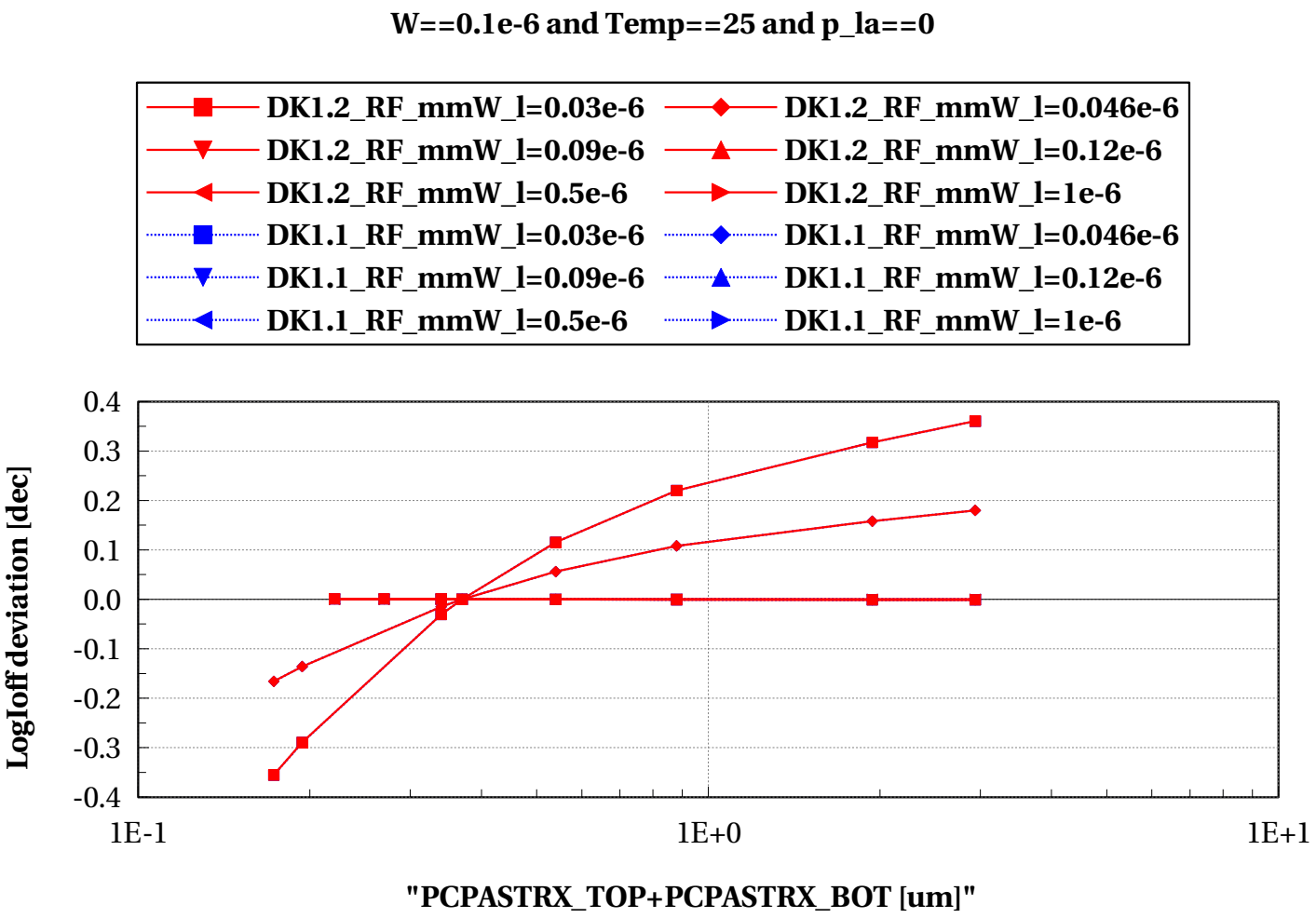
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

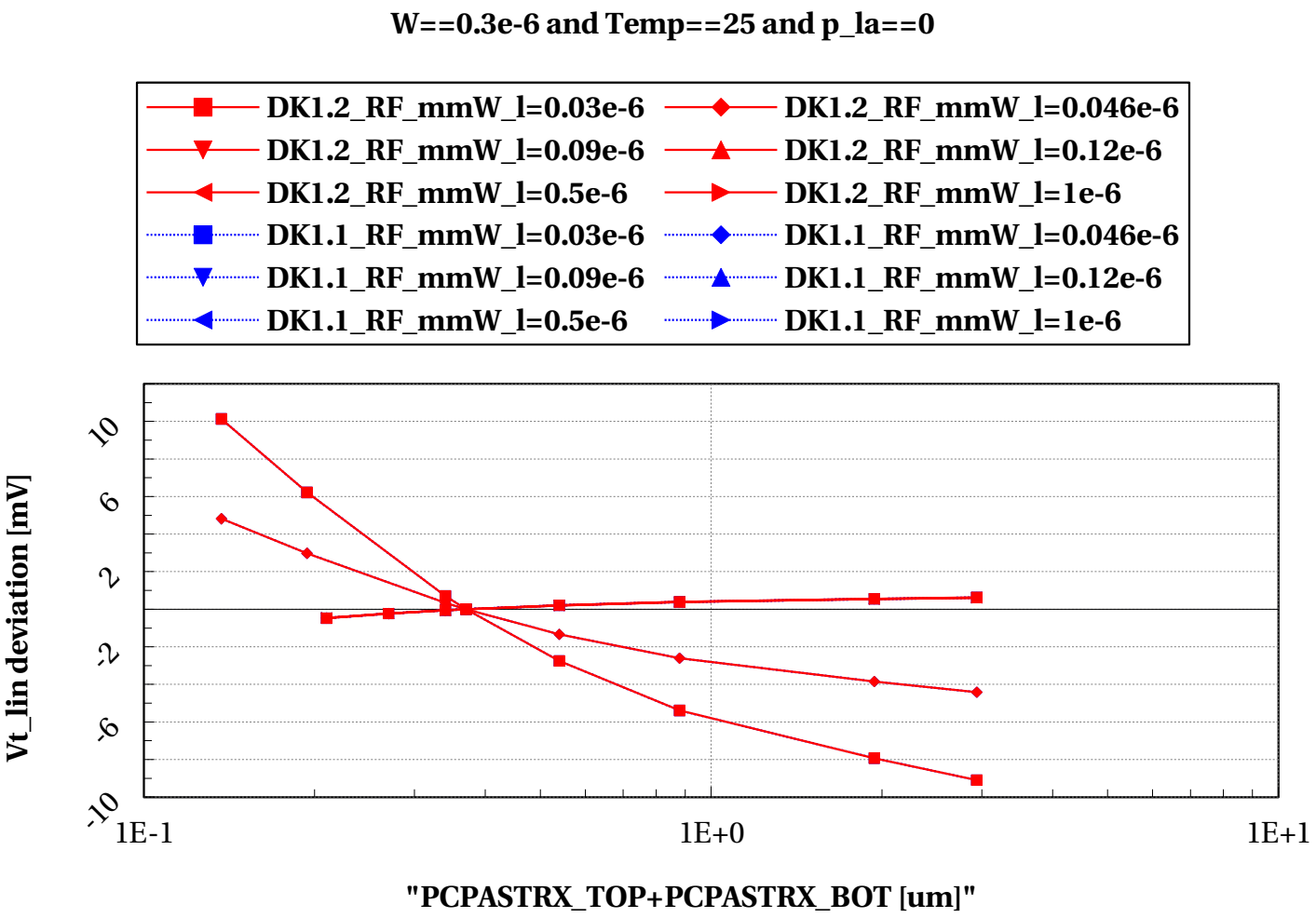


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

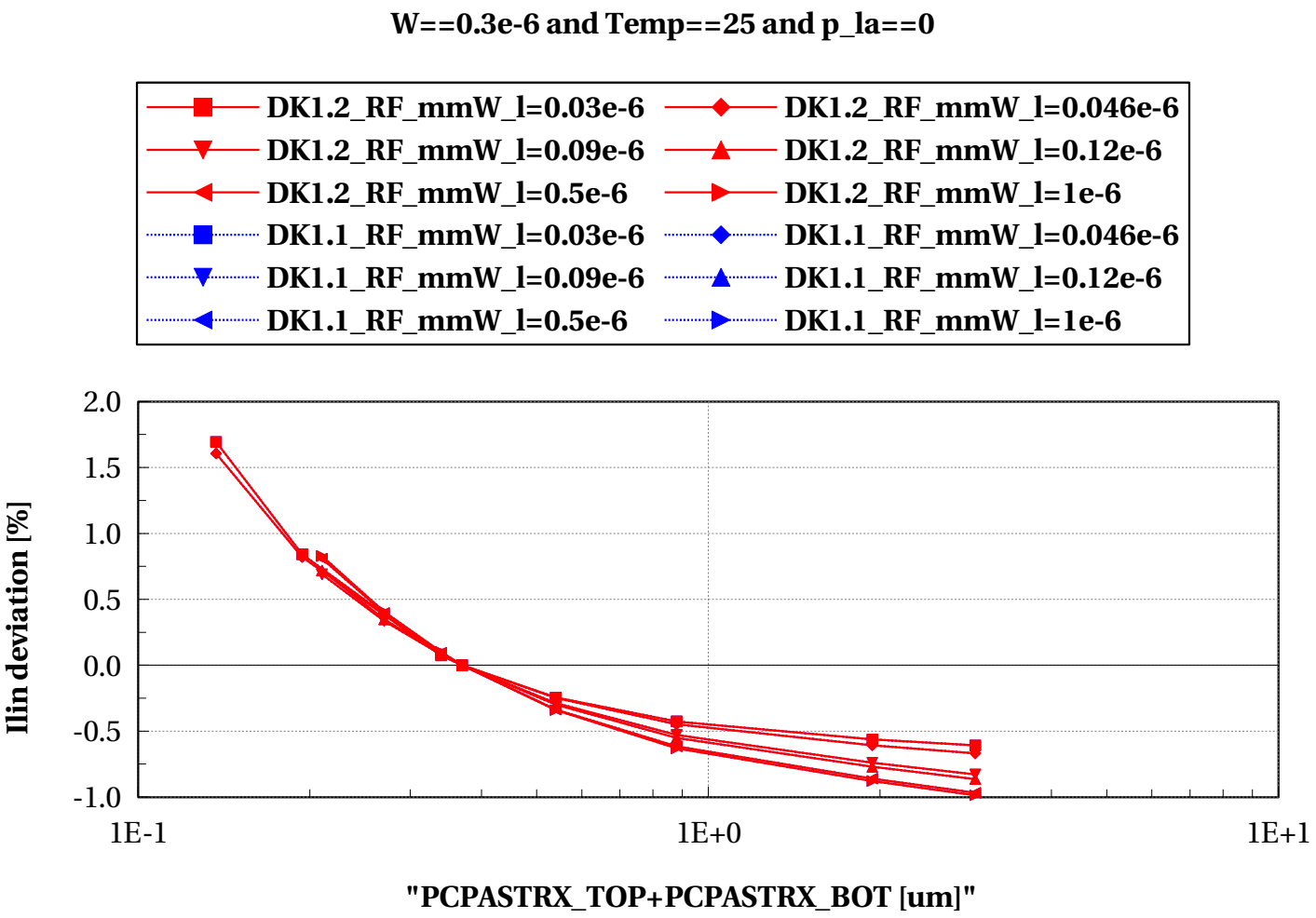


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling@W=0.3u

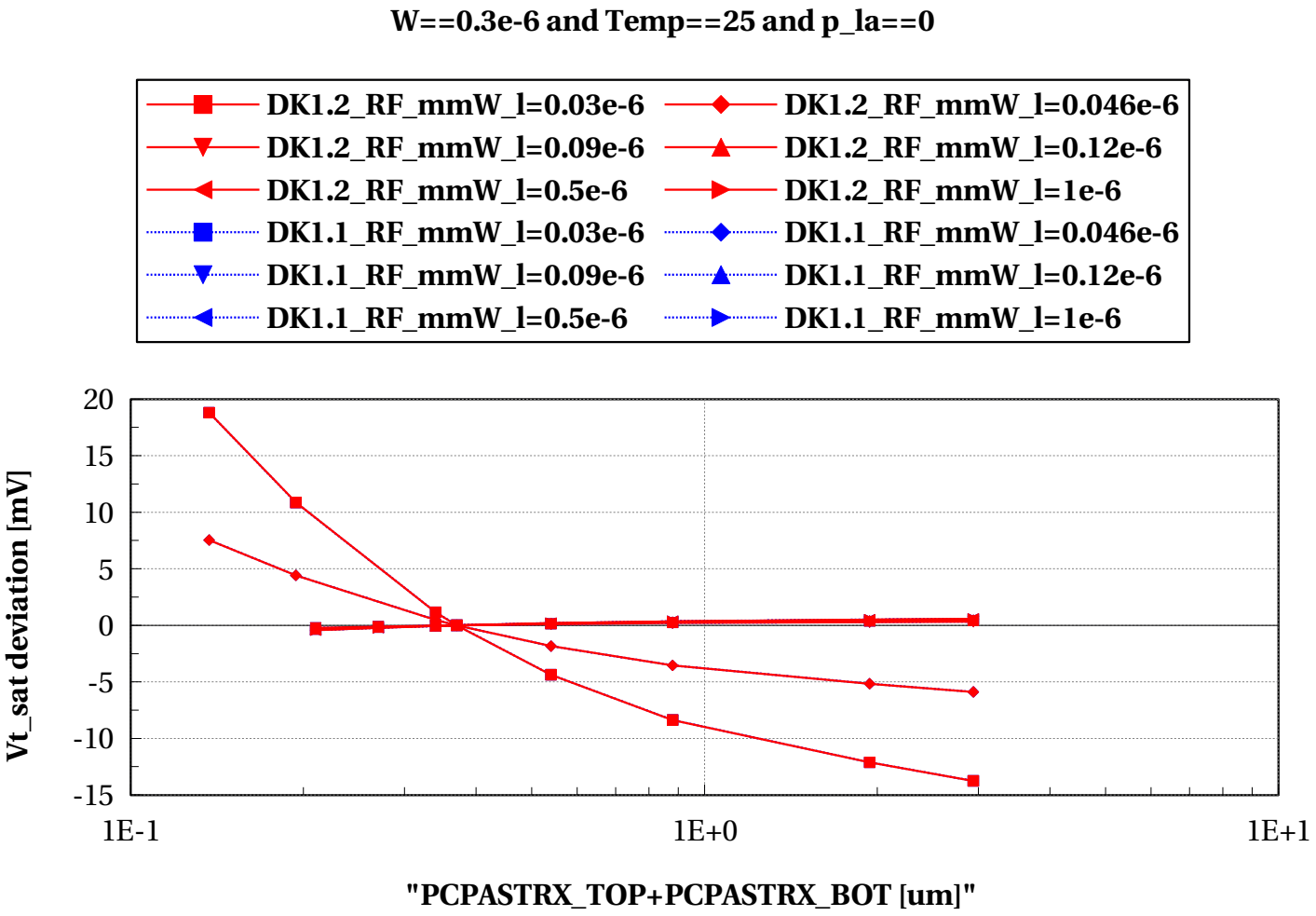
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



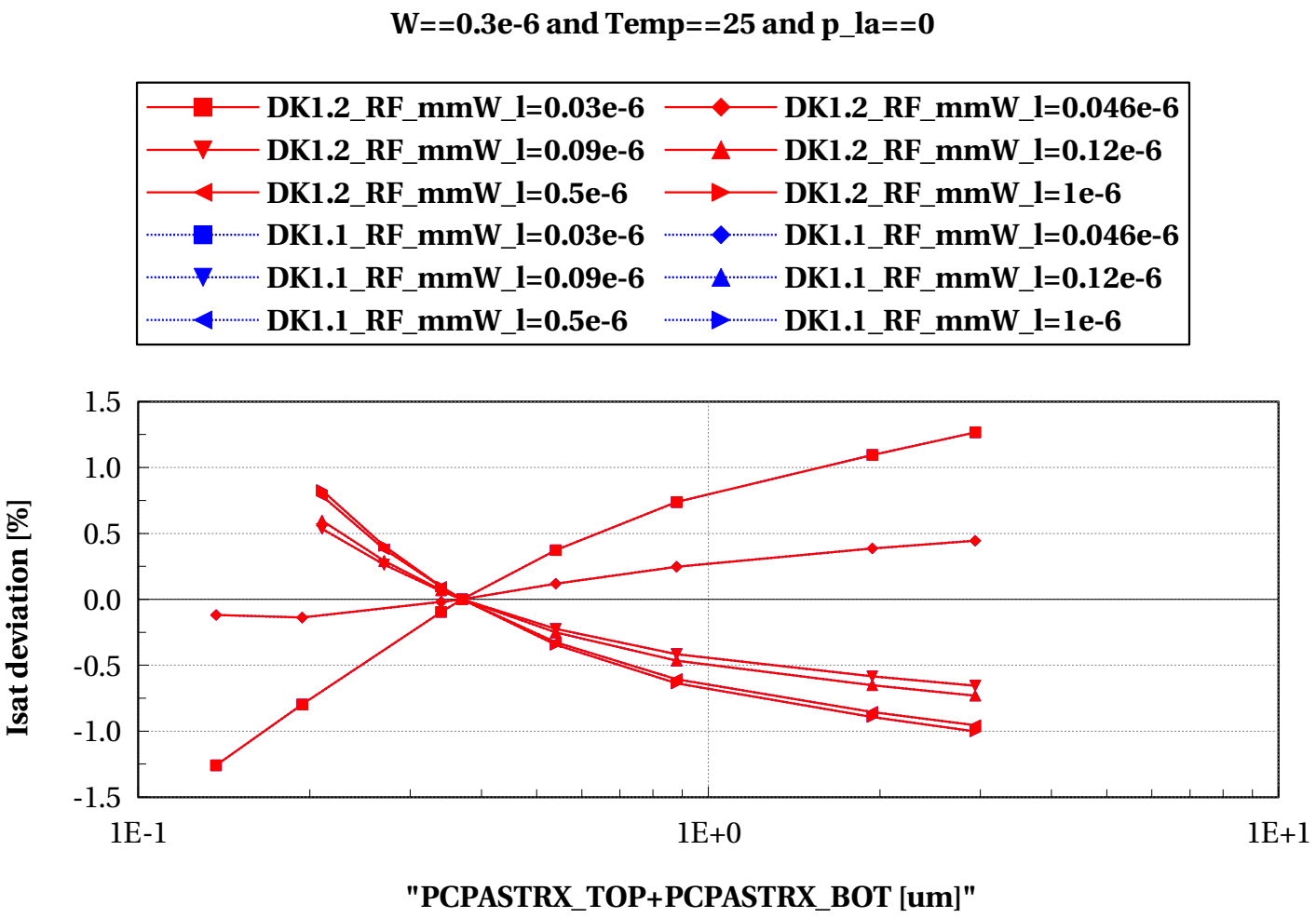
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



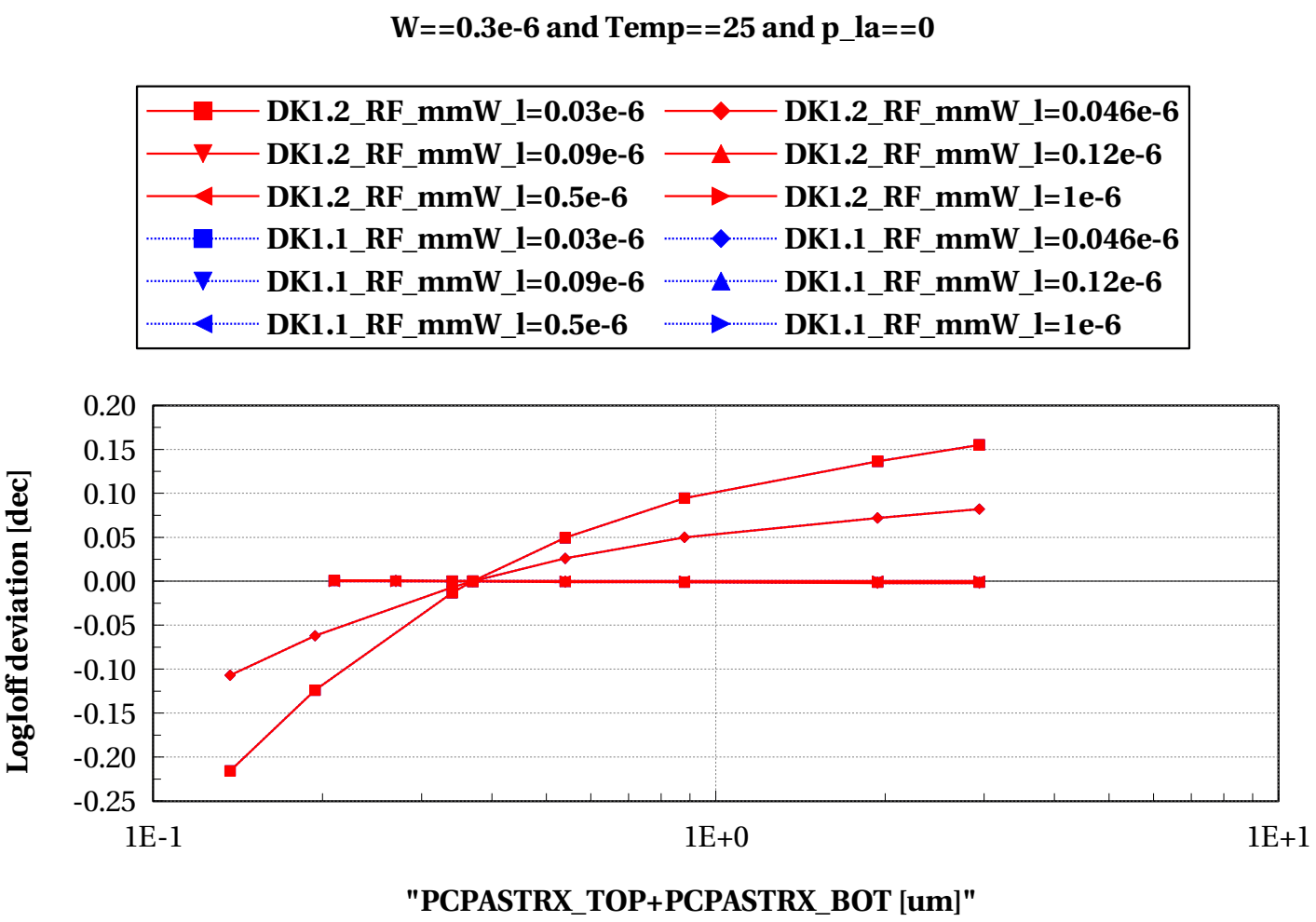
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

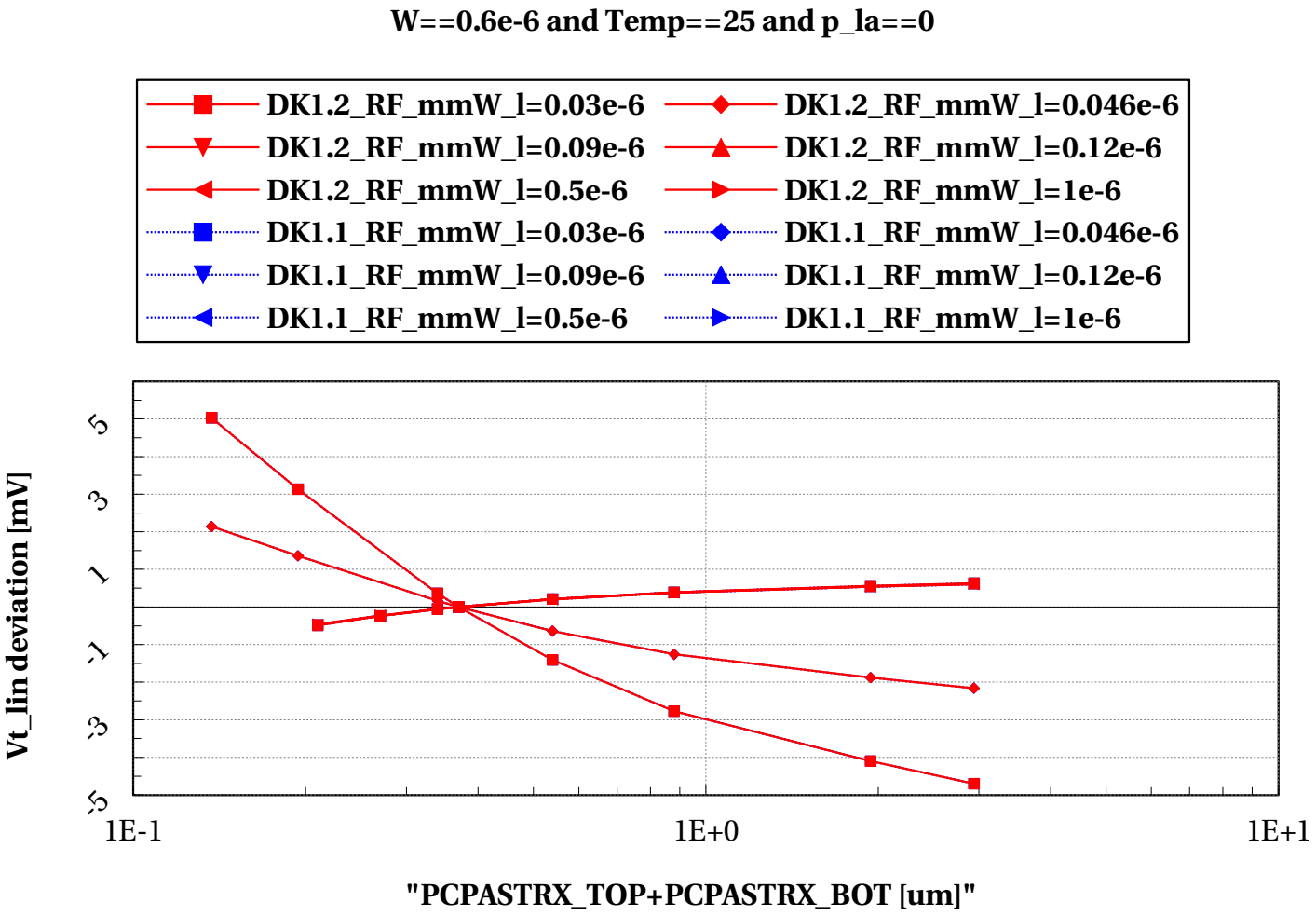


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

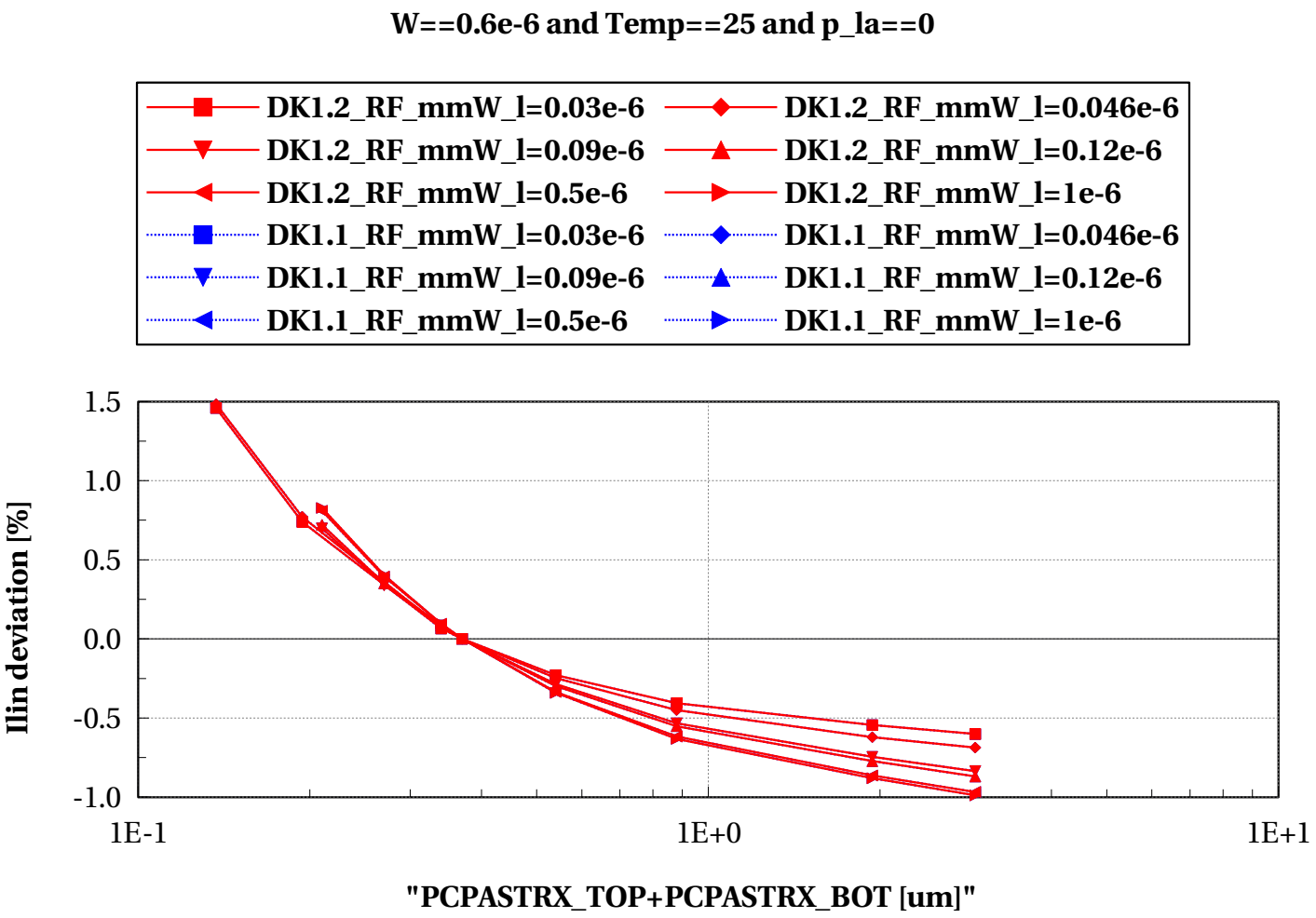


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling@W=0.6u

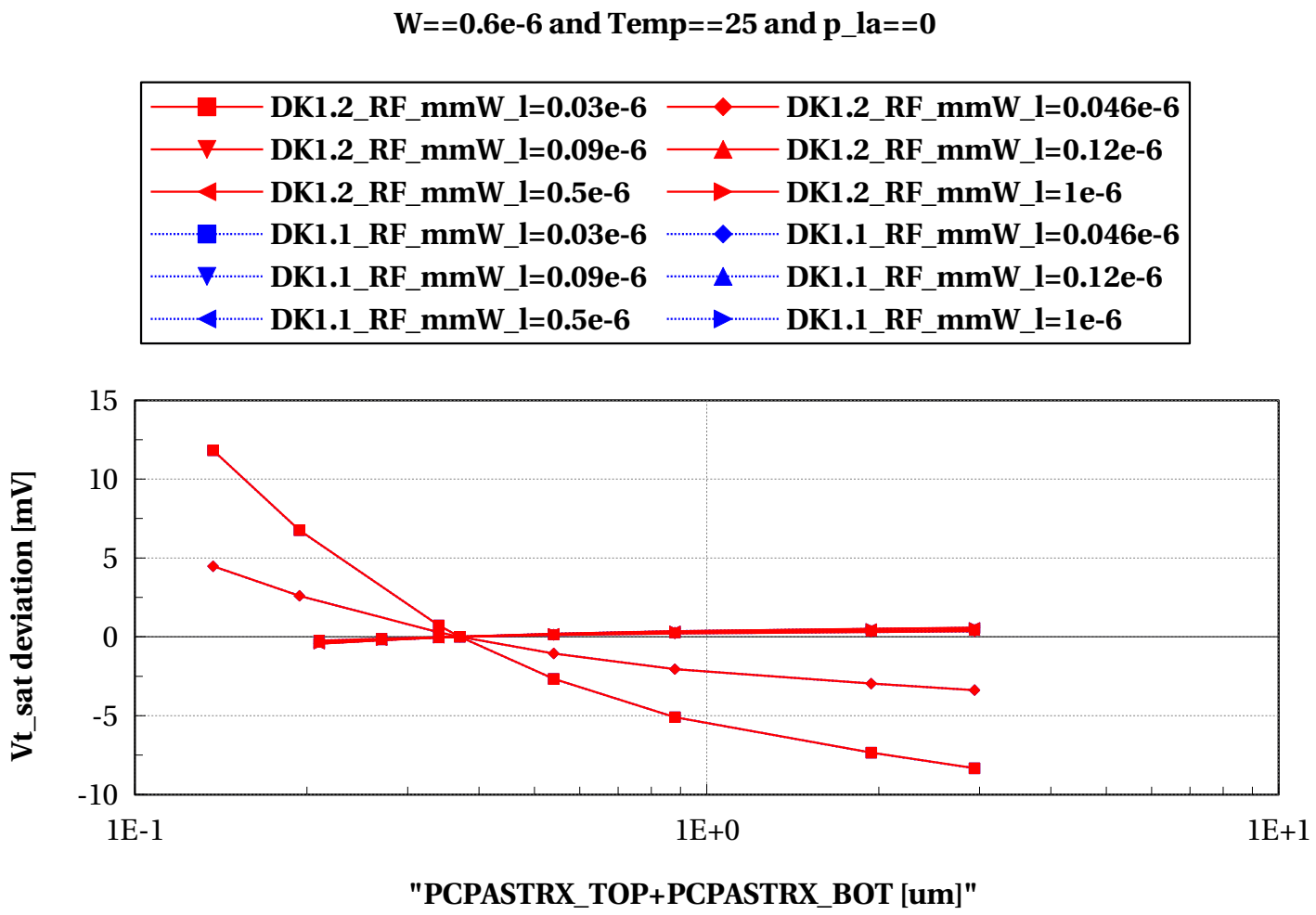
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



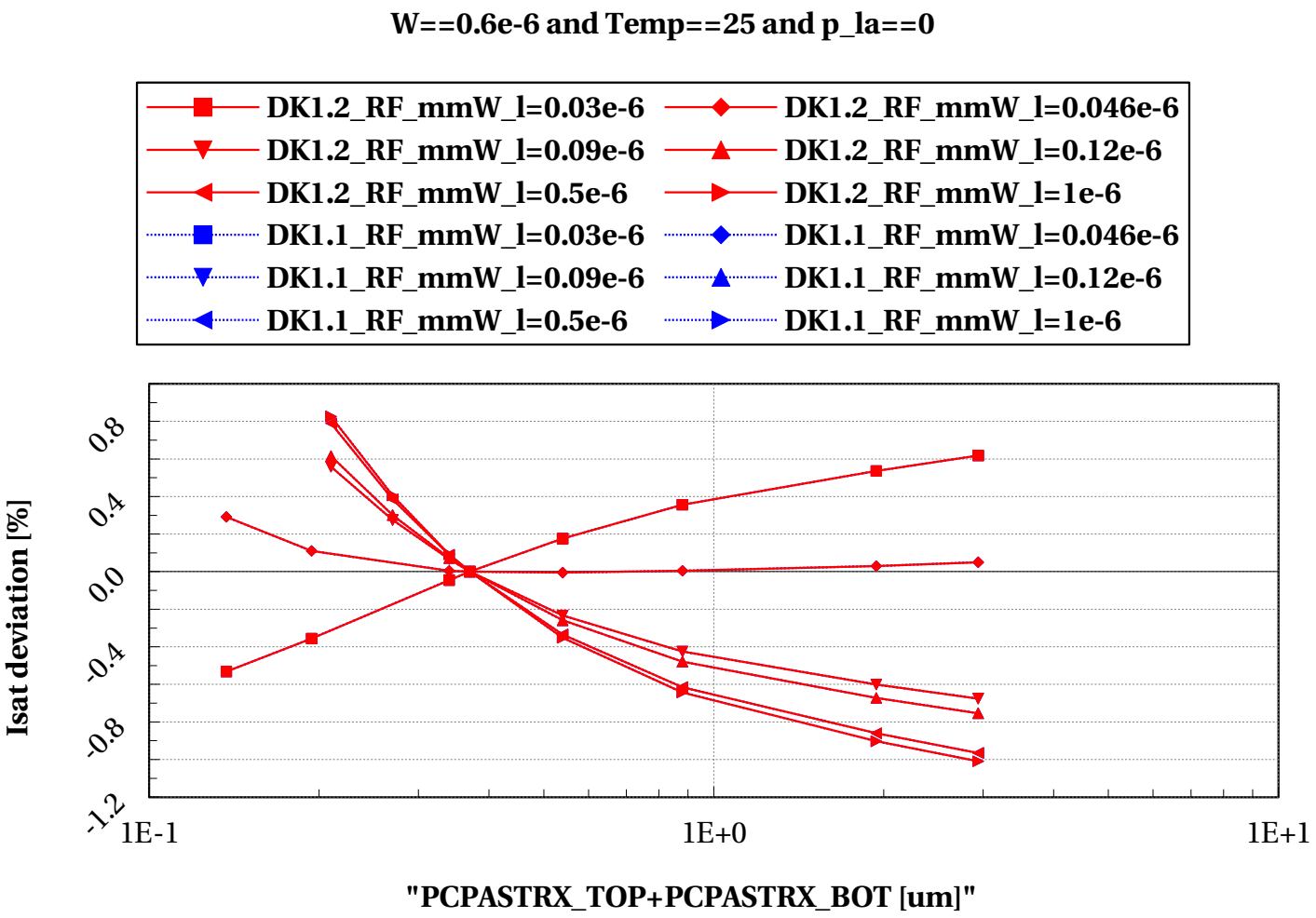
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



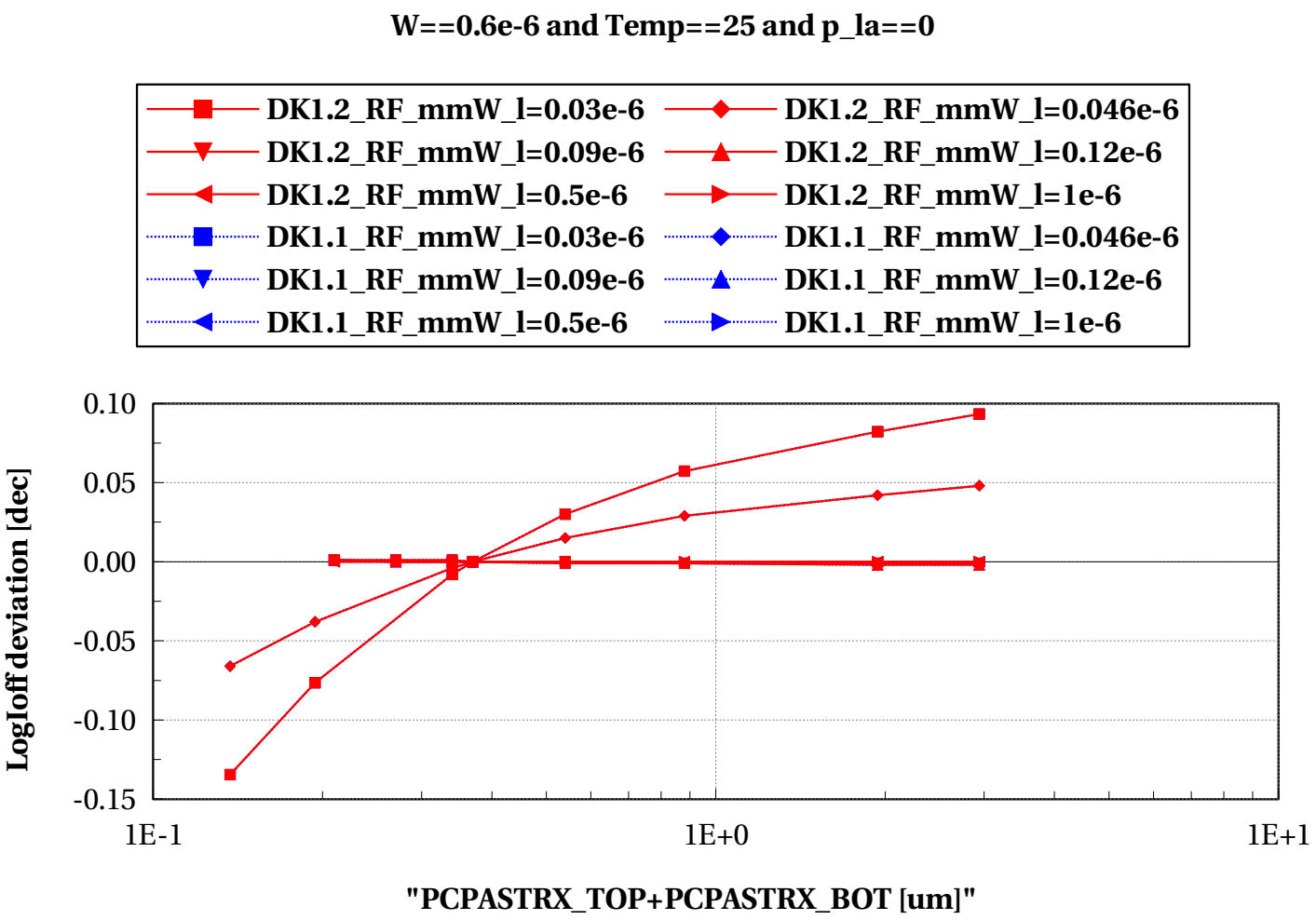
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

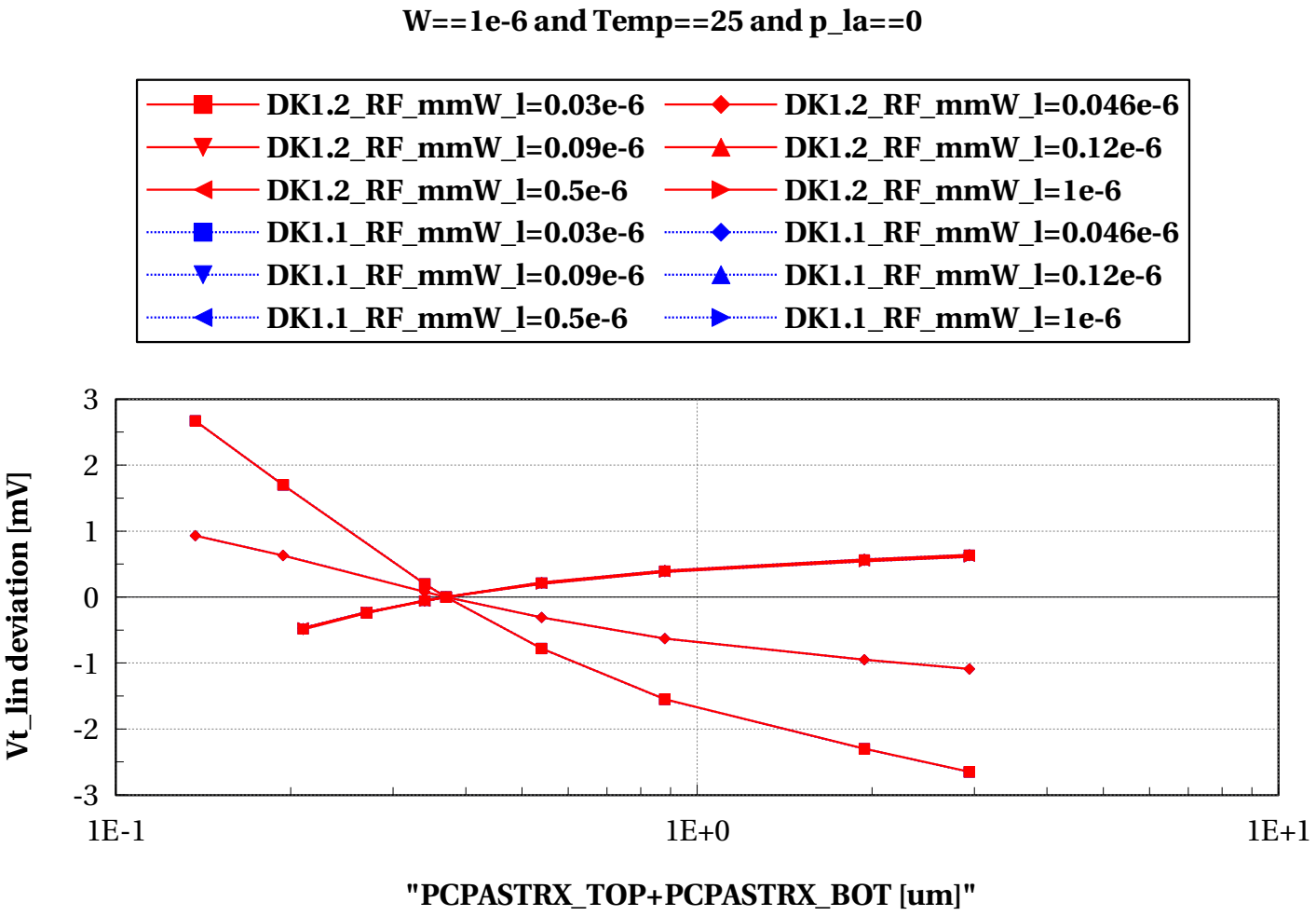


lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

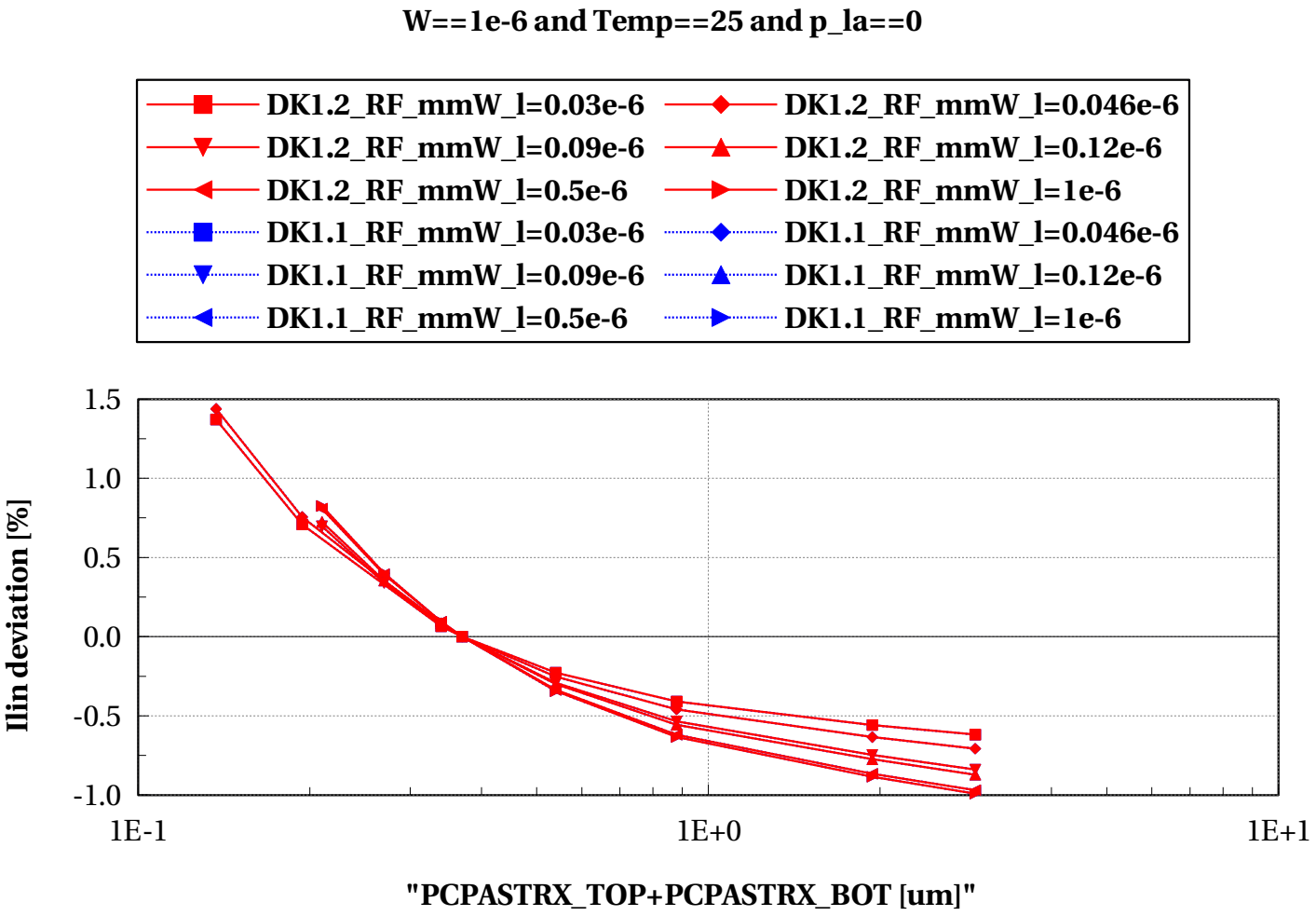


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=1u

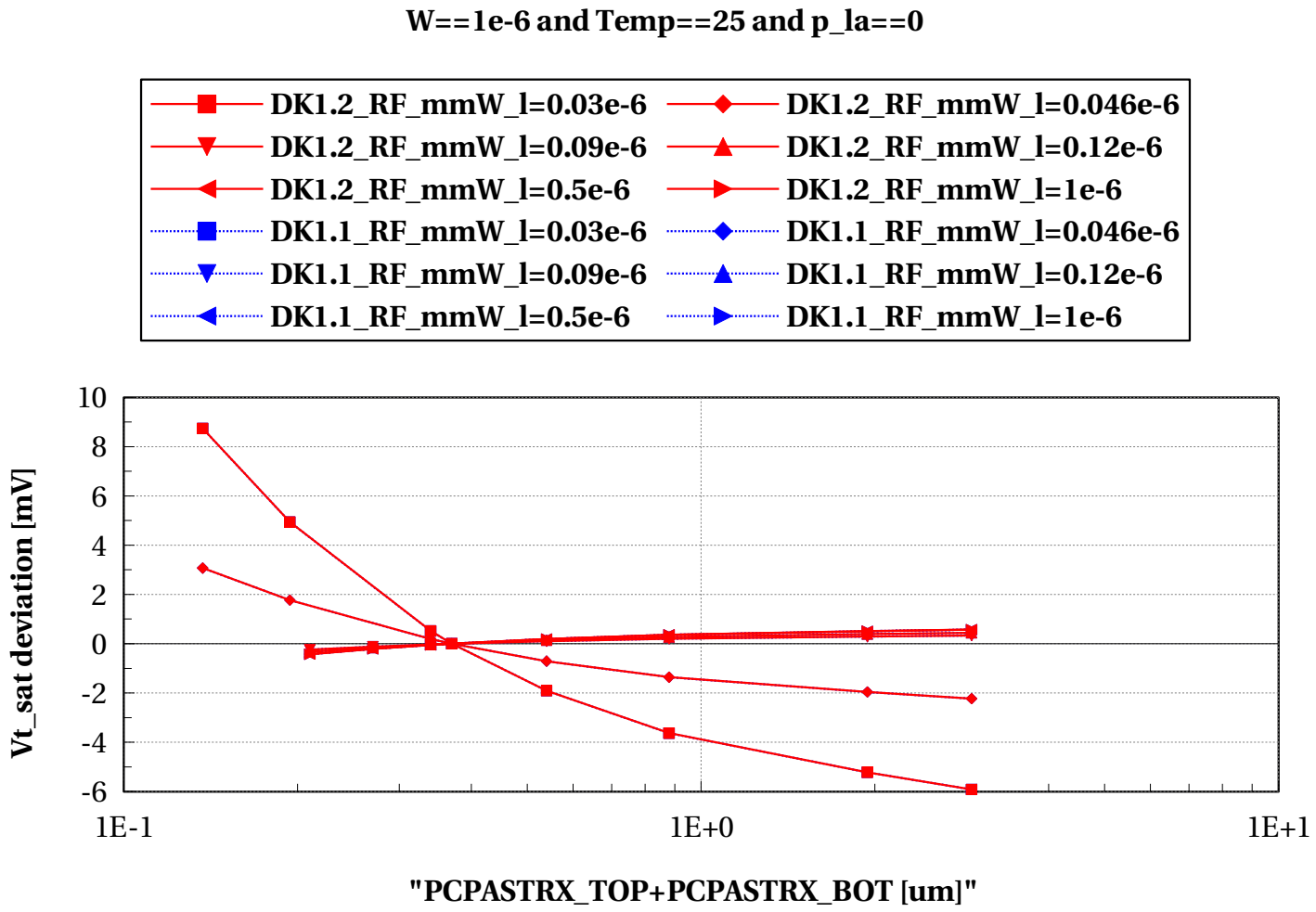
lvtpfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



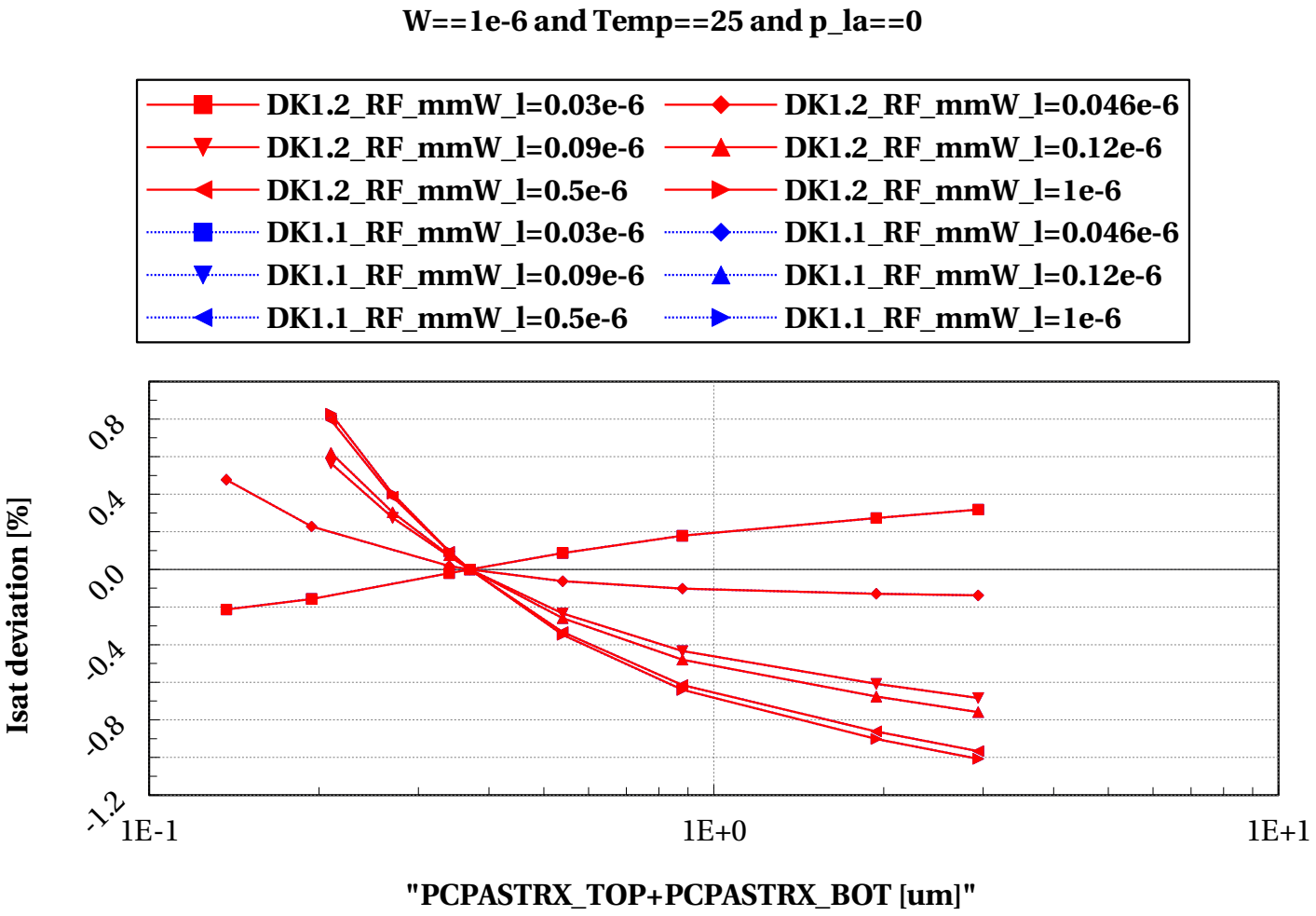
lvtpfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



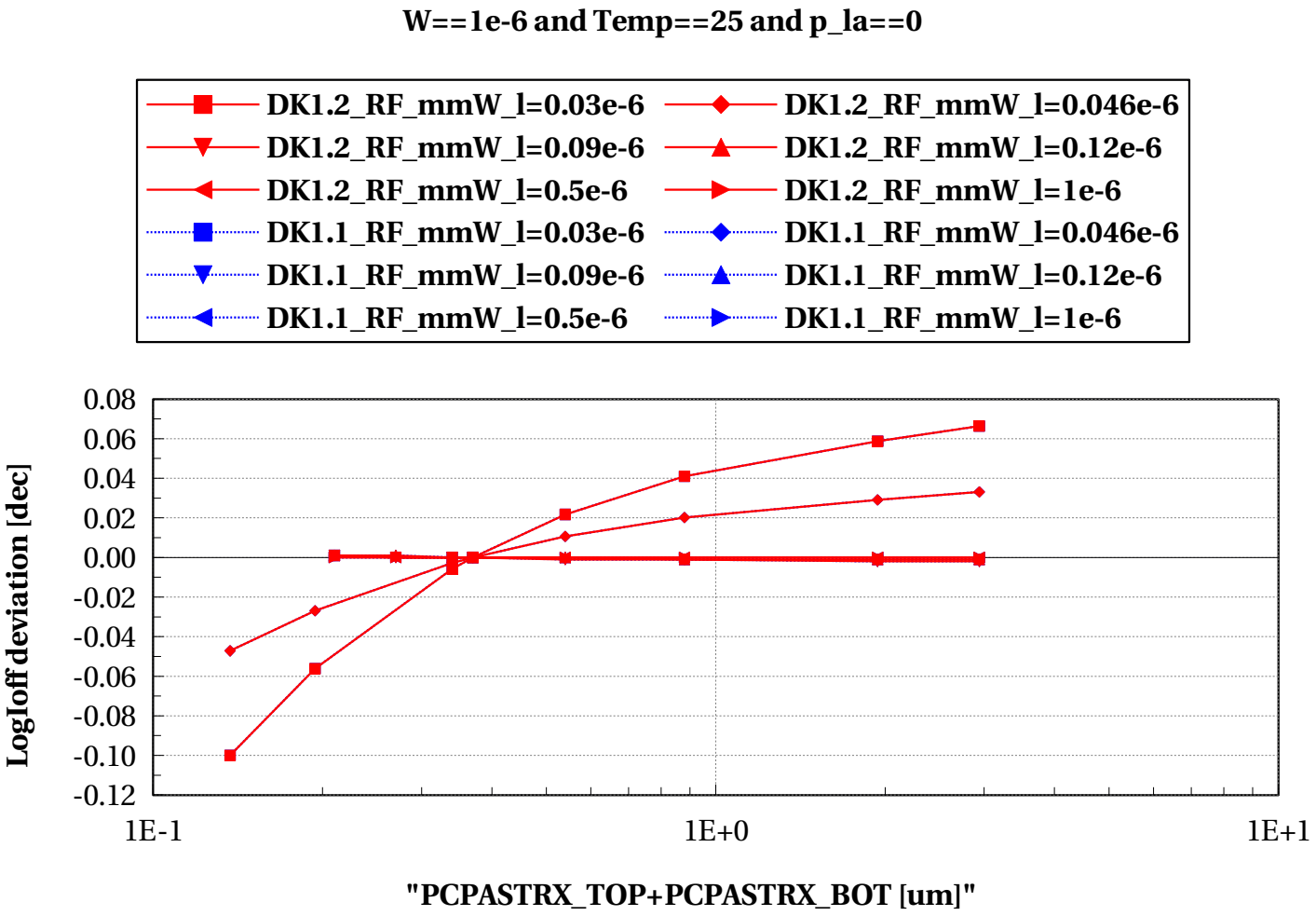
lvtpfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



lvtpfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



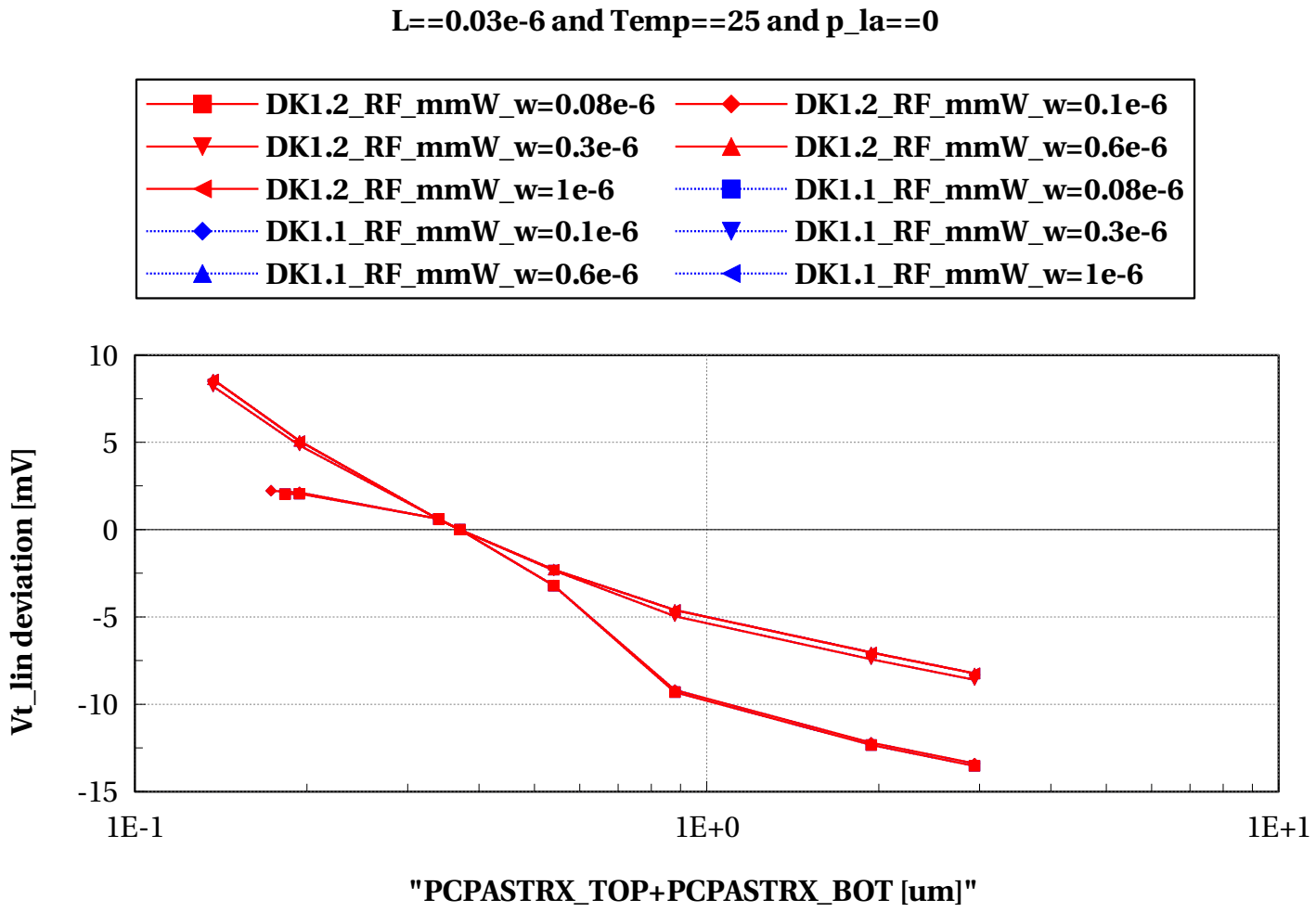
lvtpfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



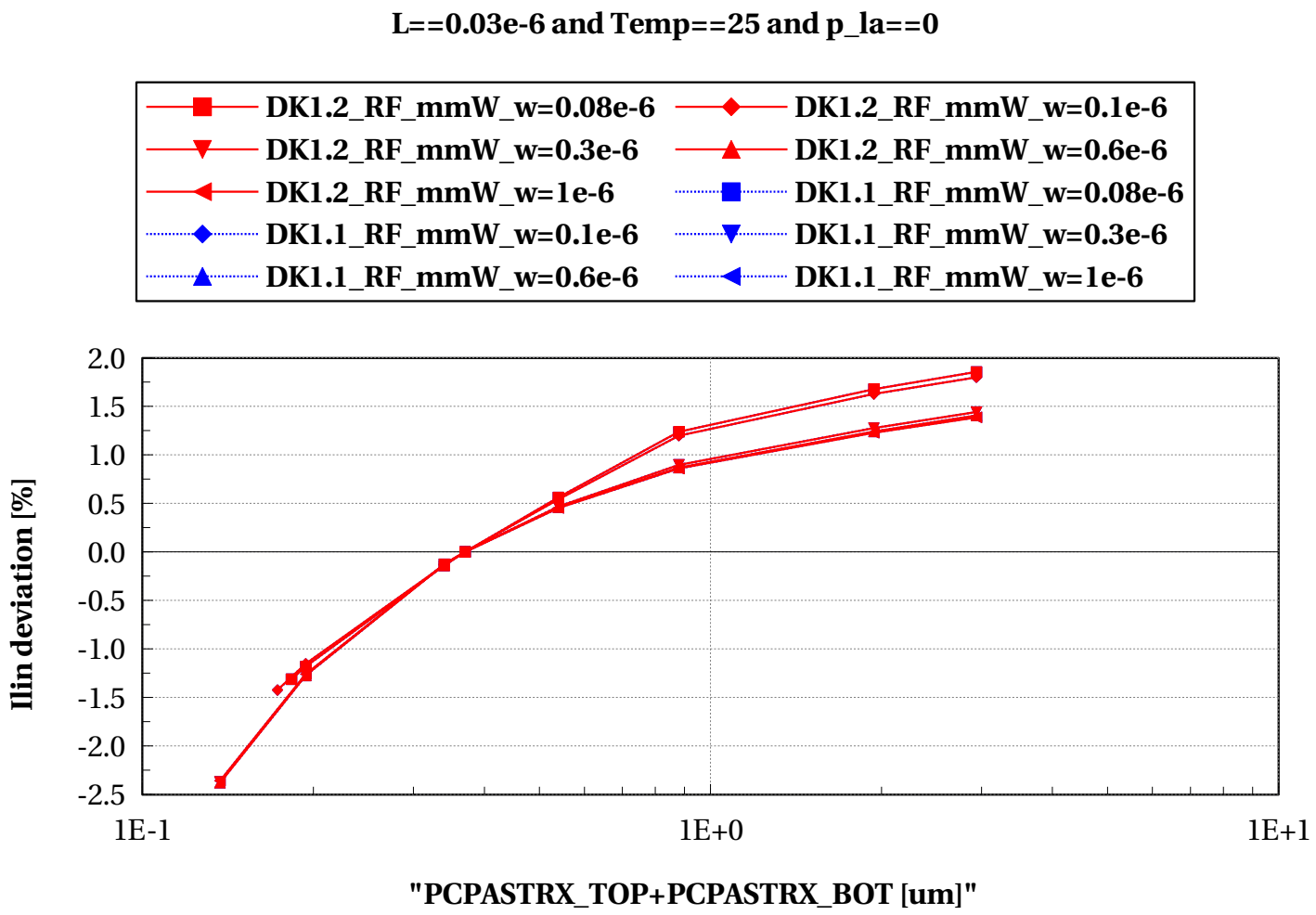
nfet_acc
Electrical characteristics scaling

Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.03u

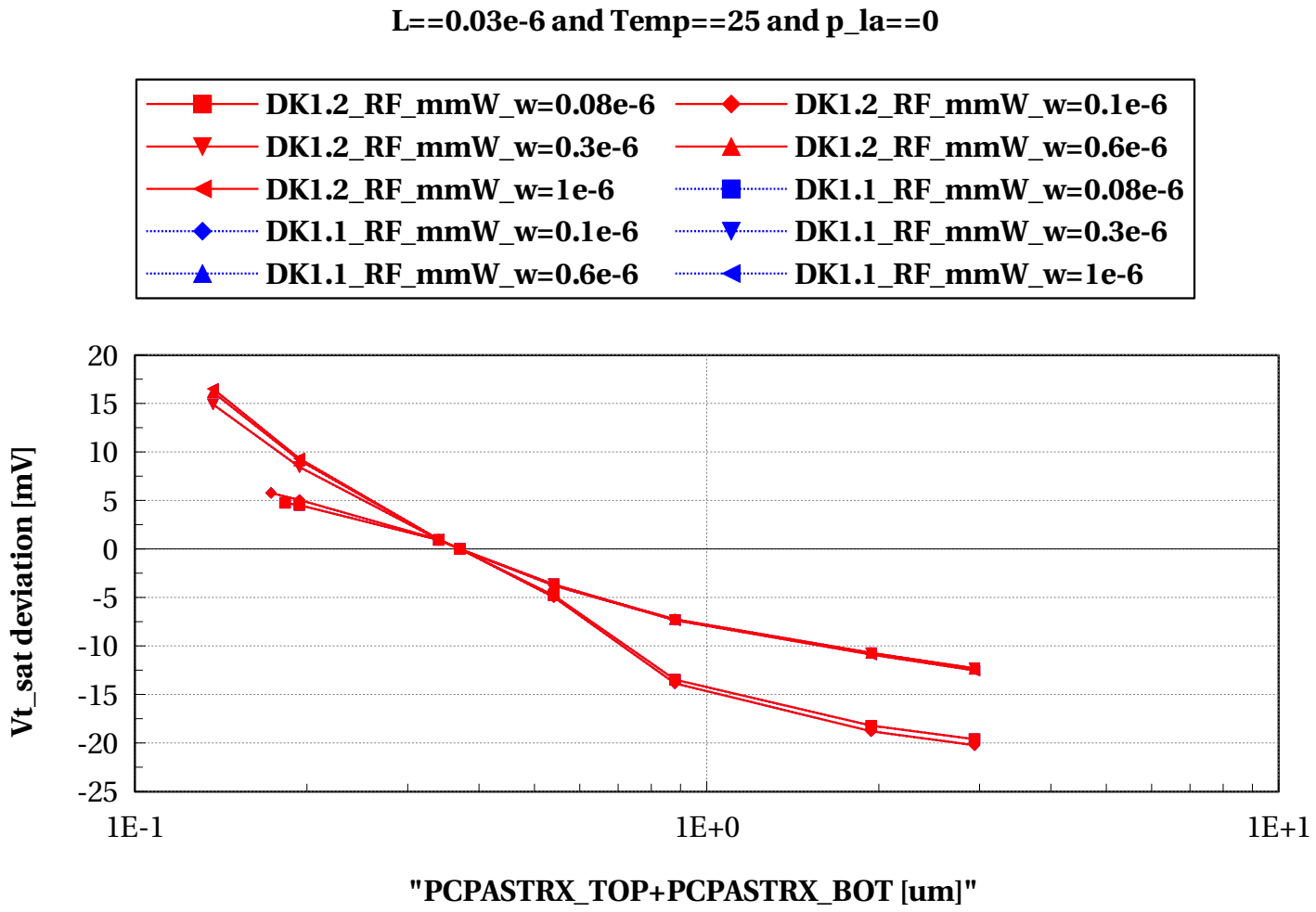
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



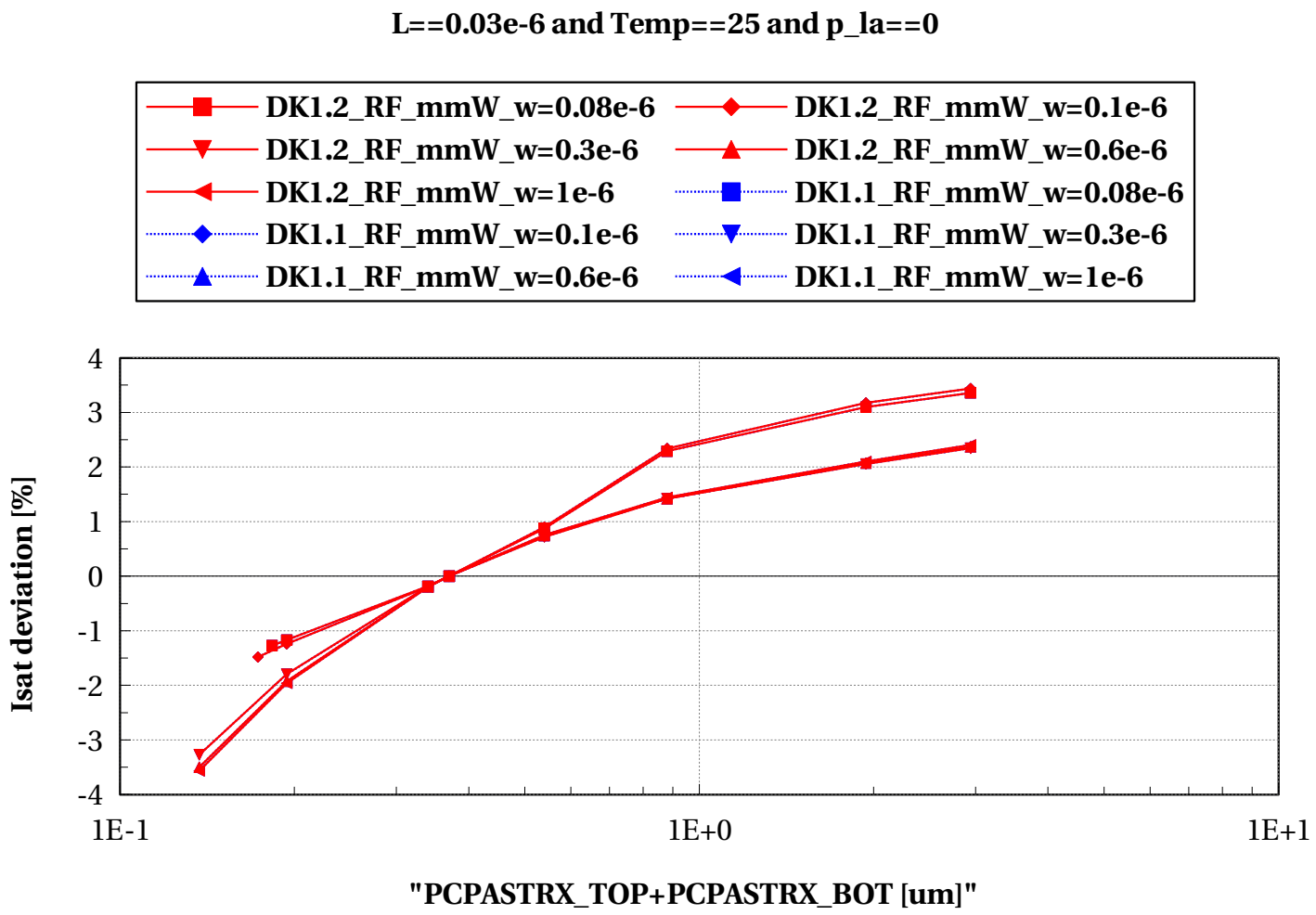
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



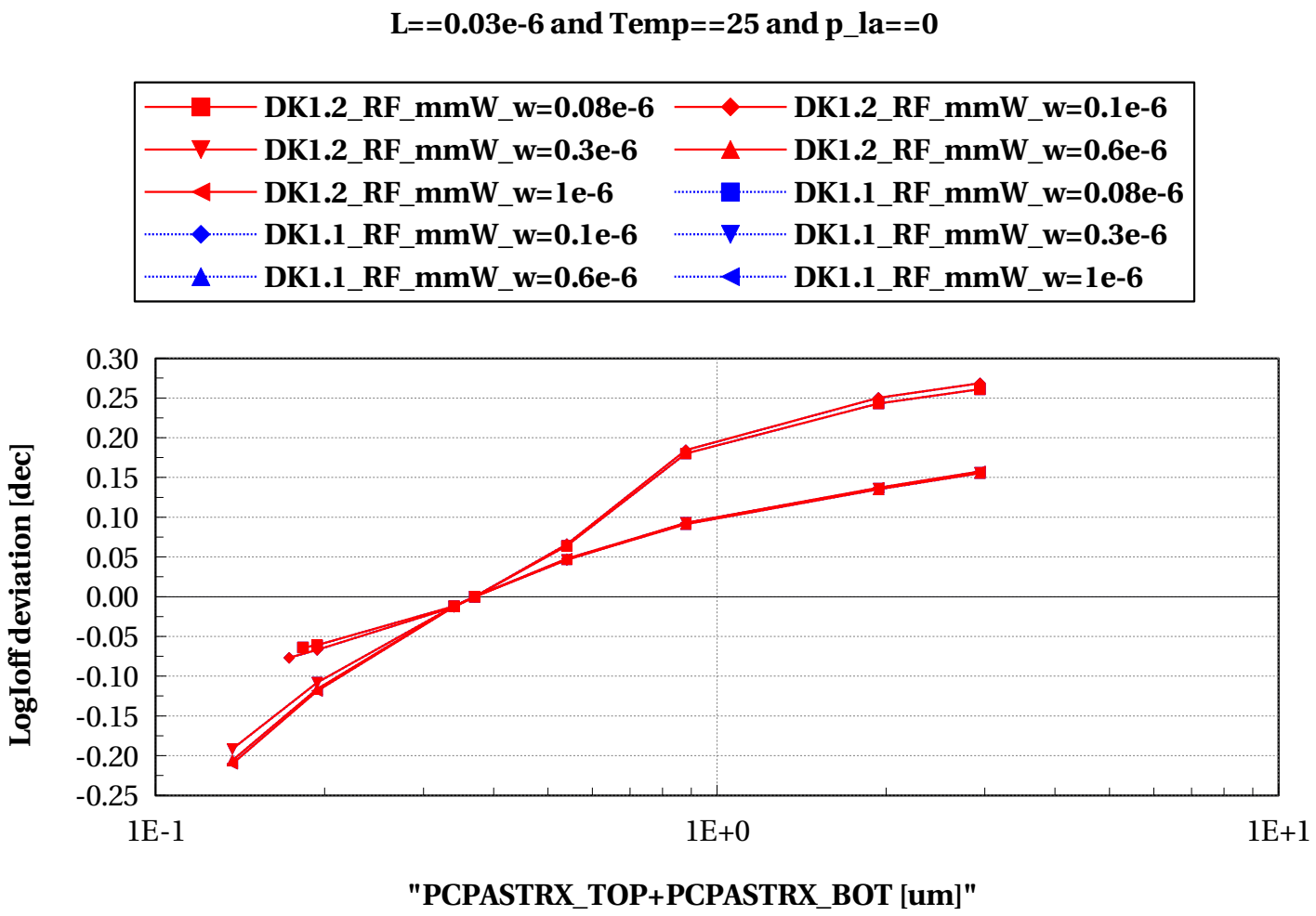
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

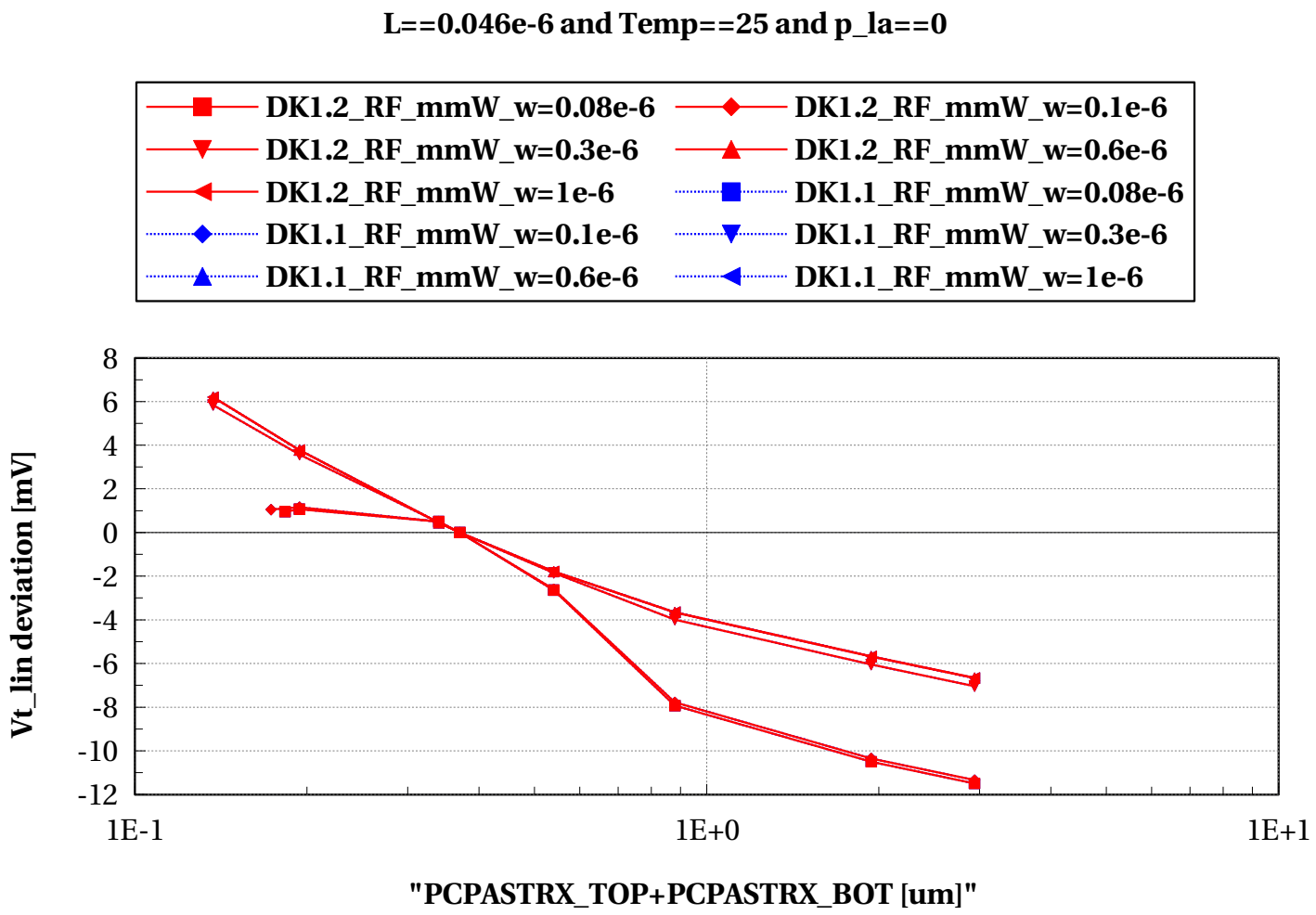


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

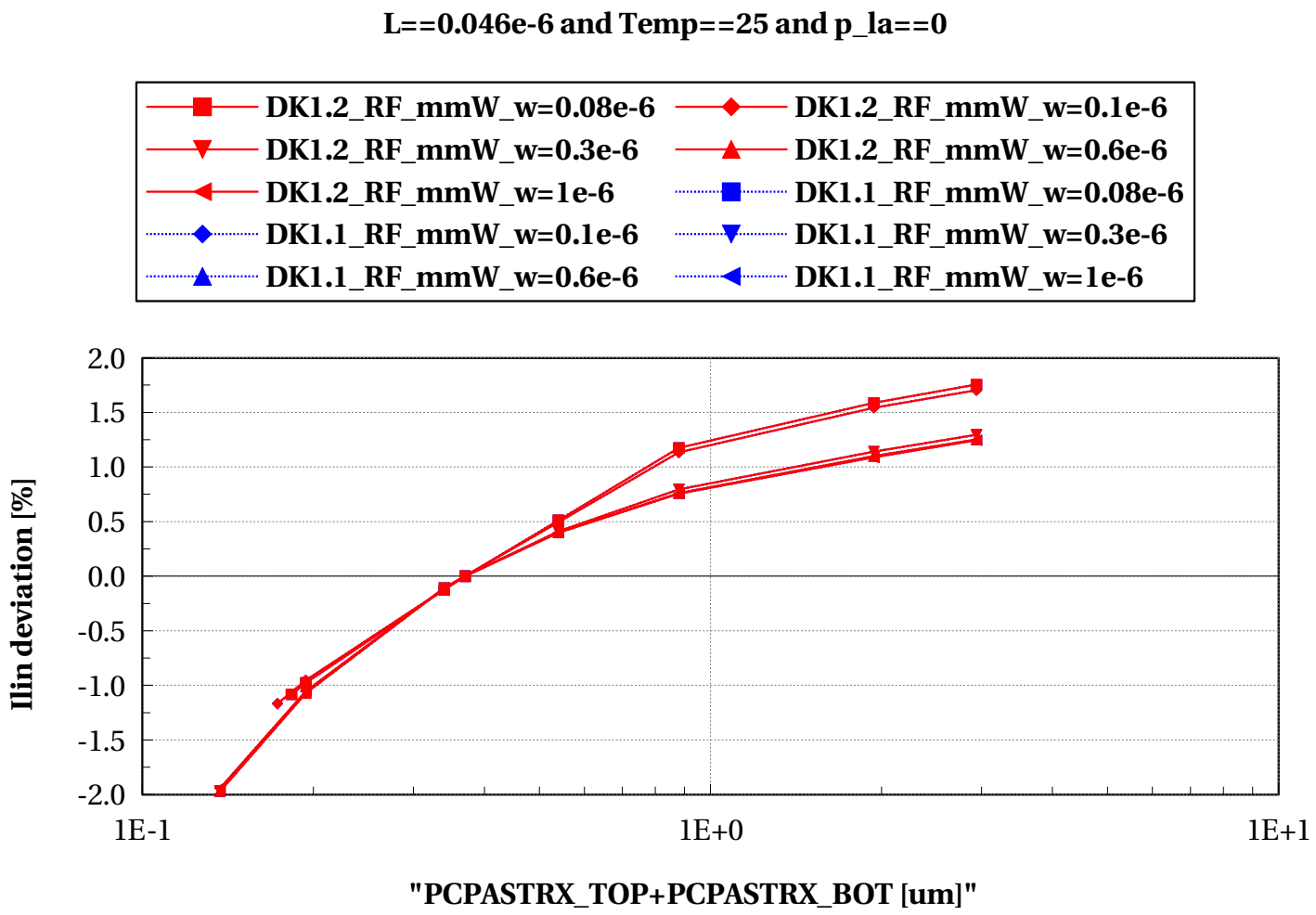


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.046u

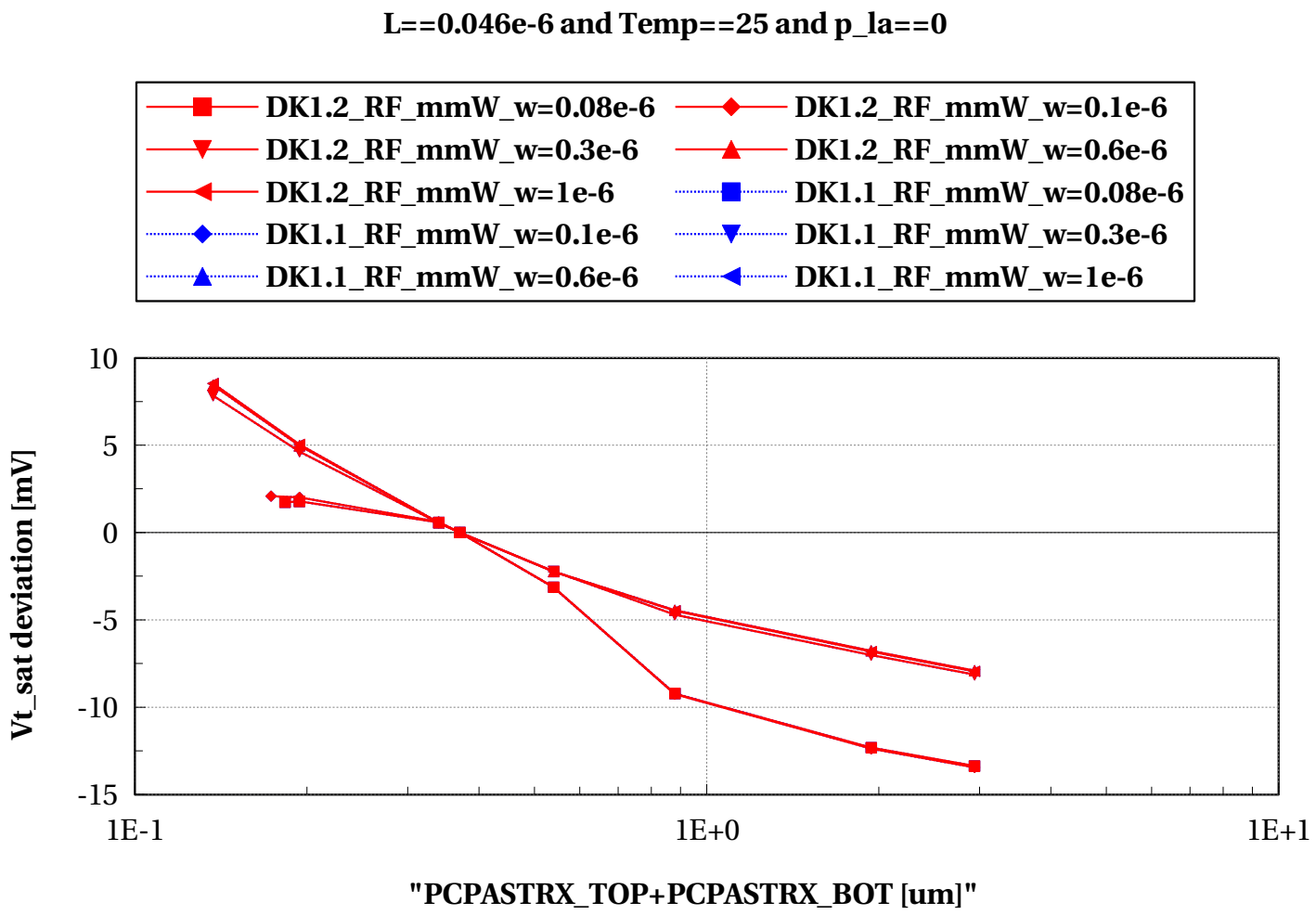
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



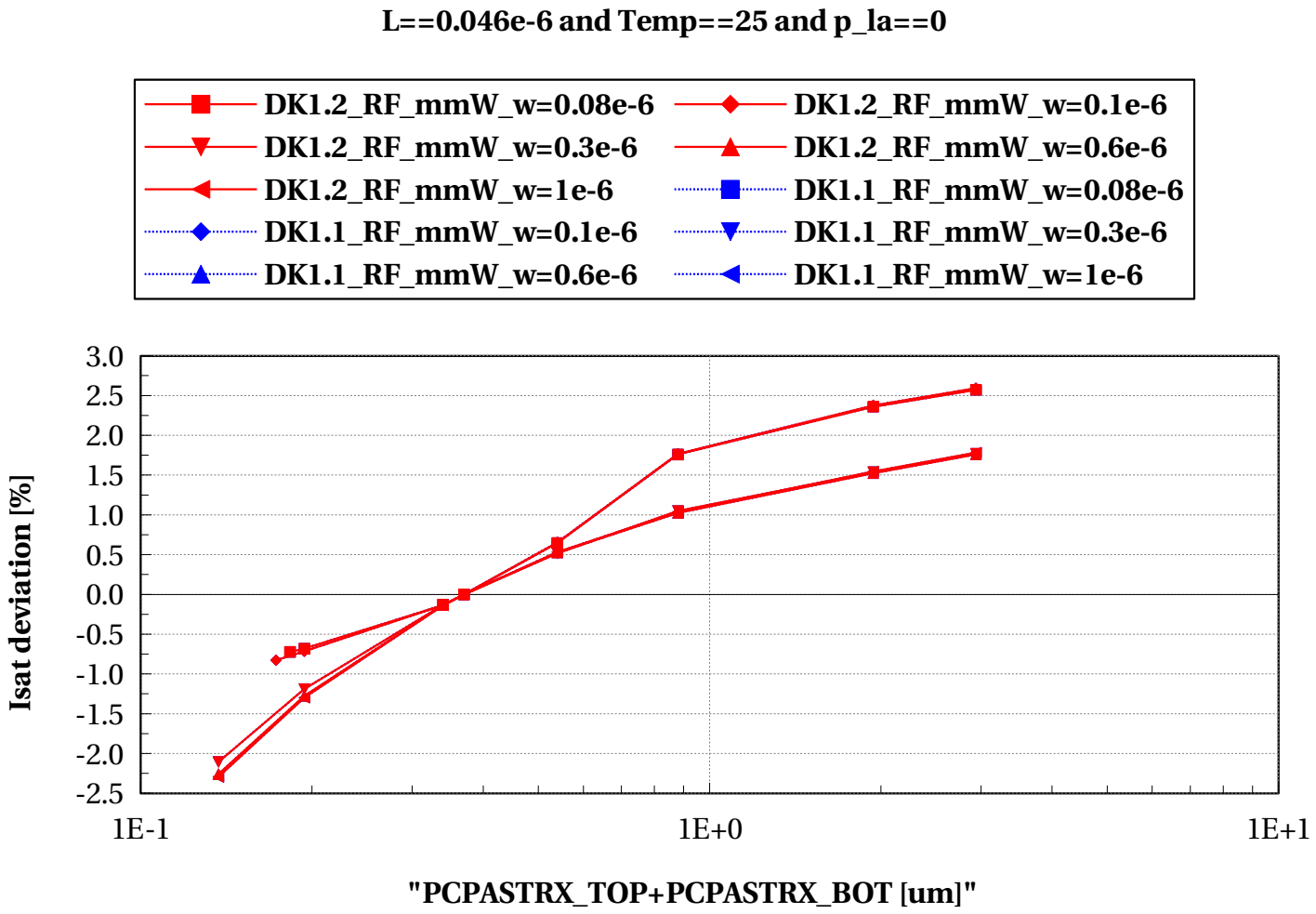
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



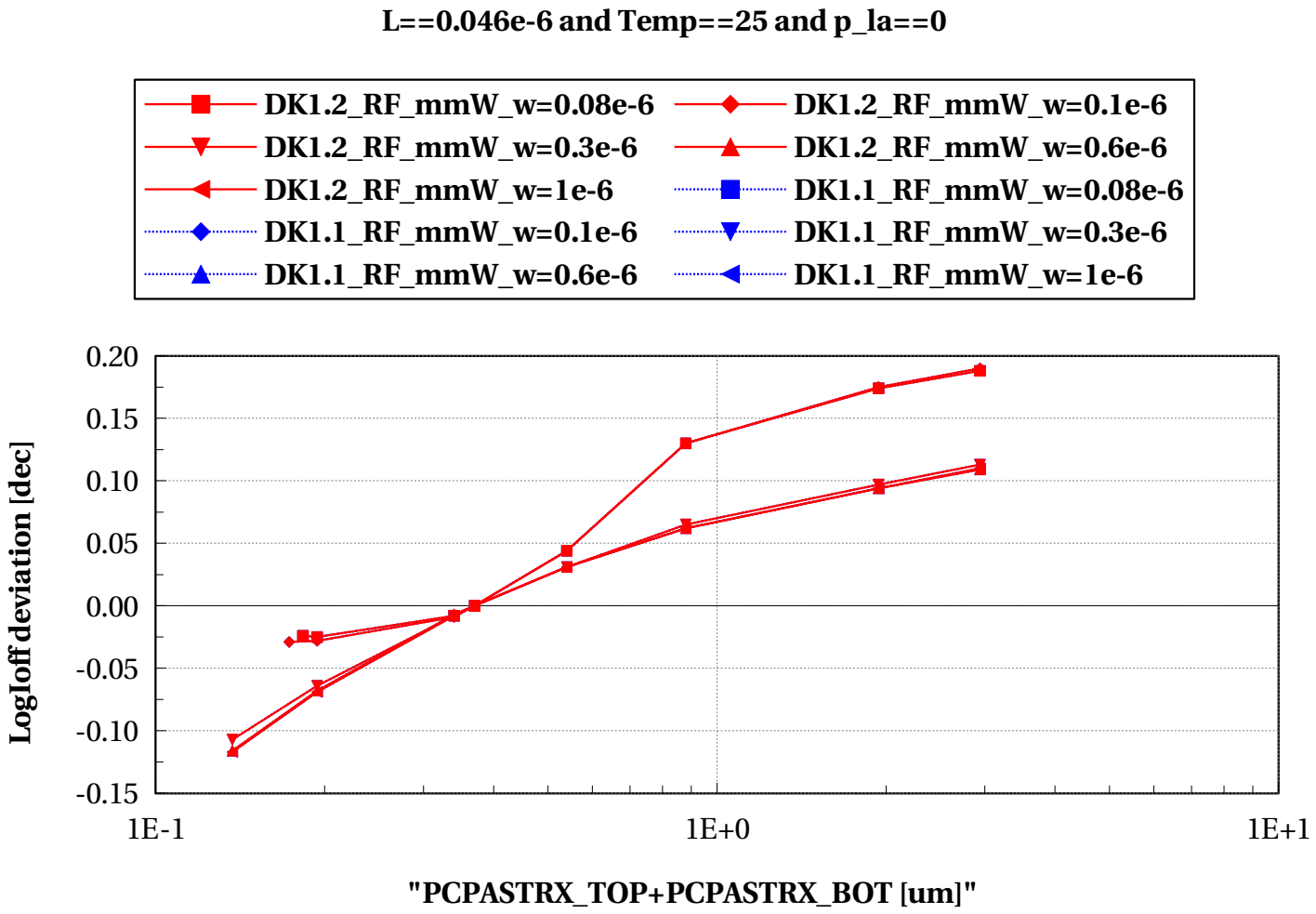
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

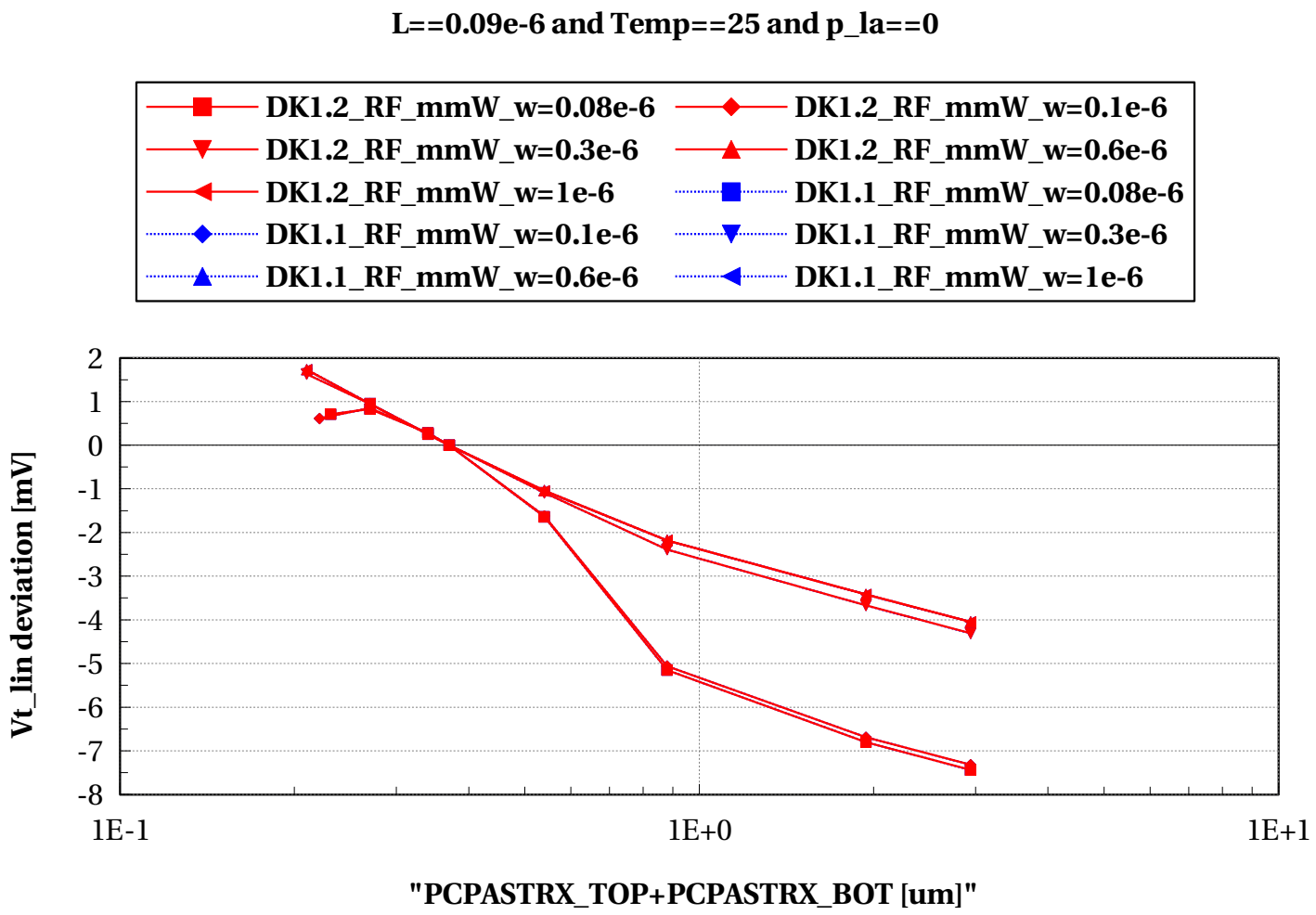


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

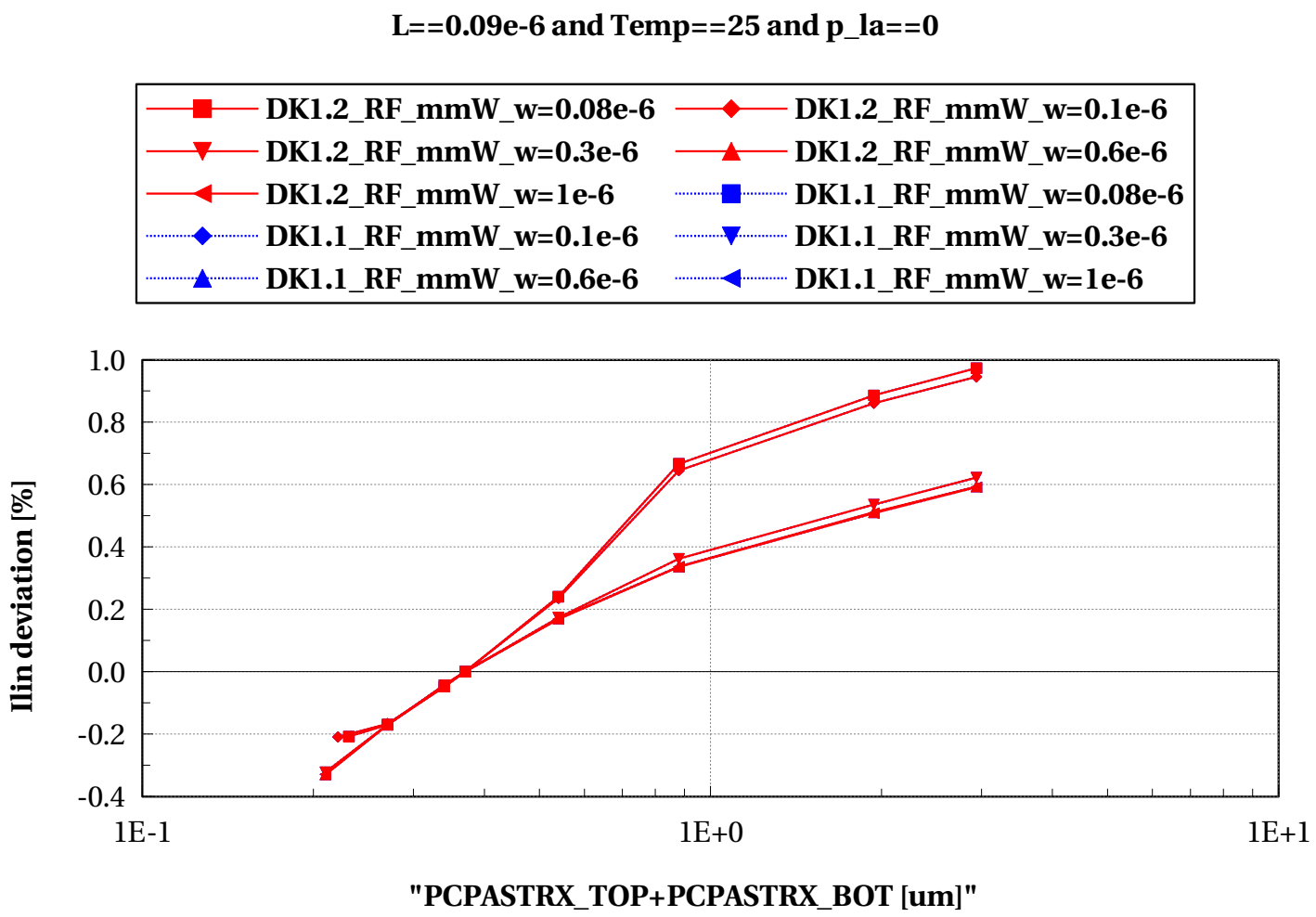


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.09u

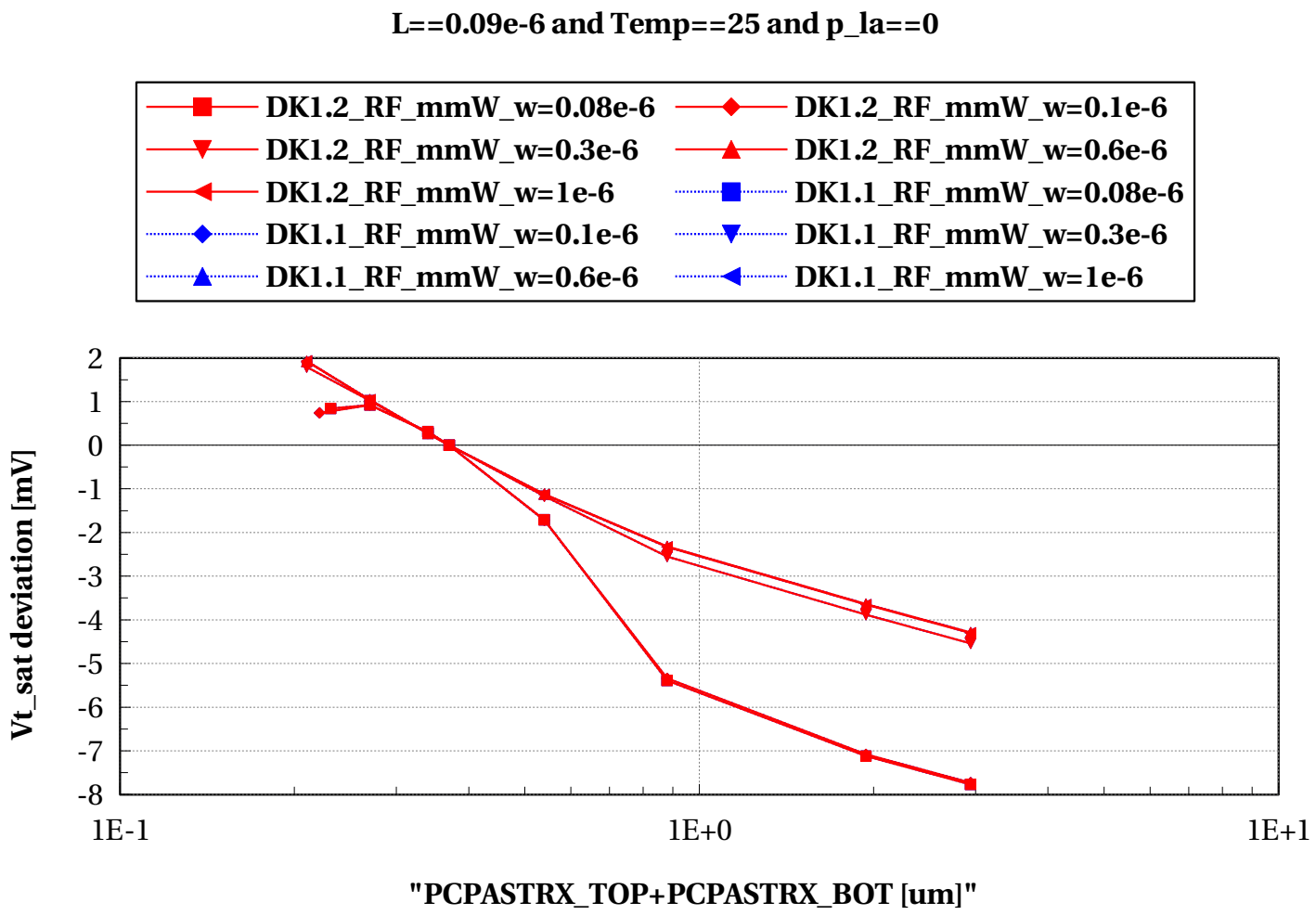
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



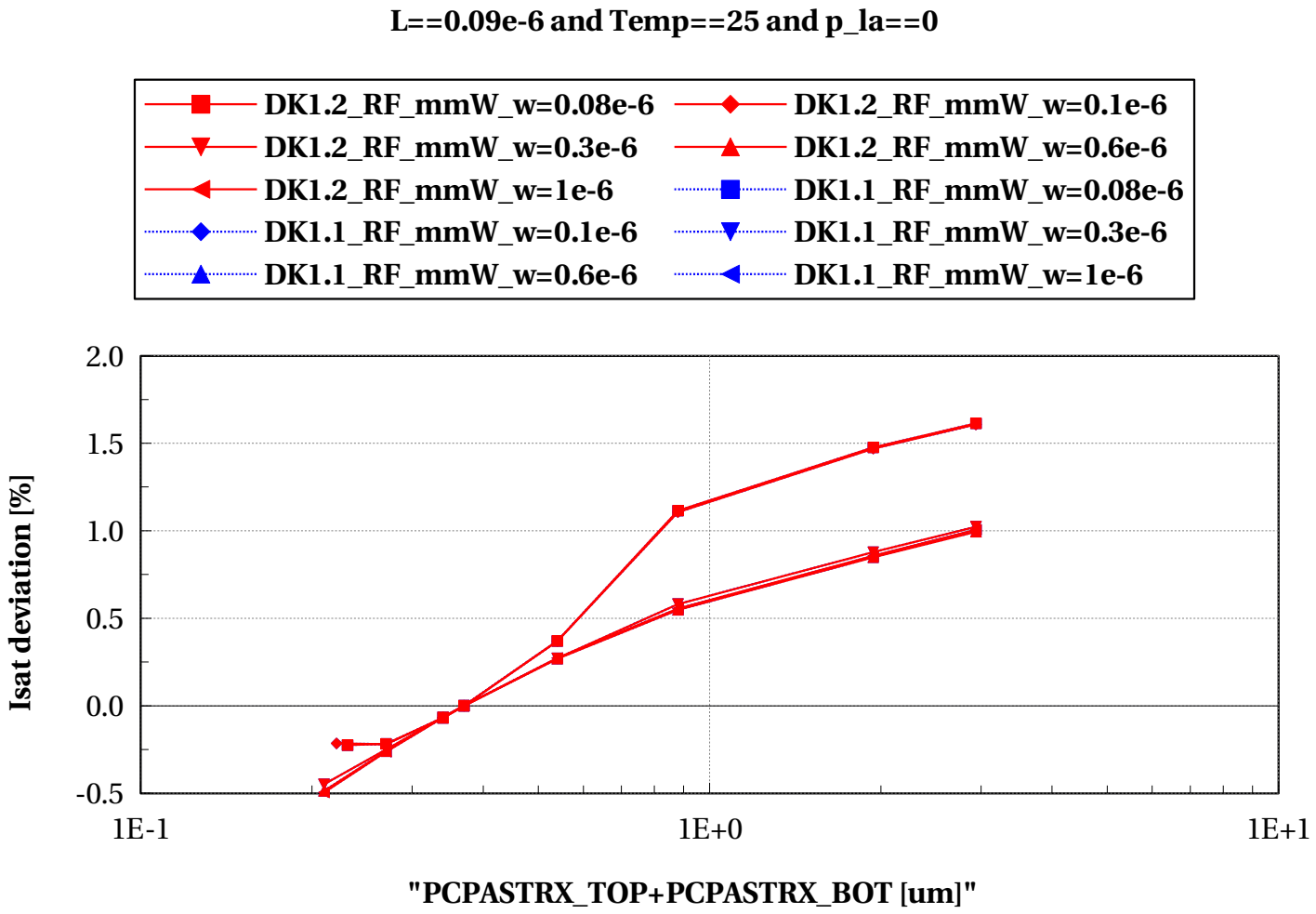
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



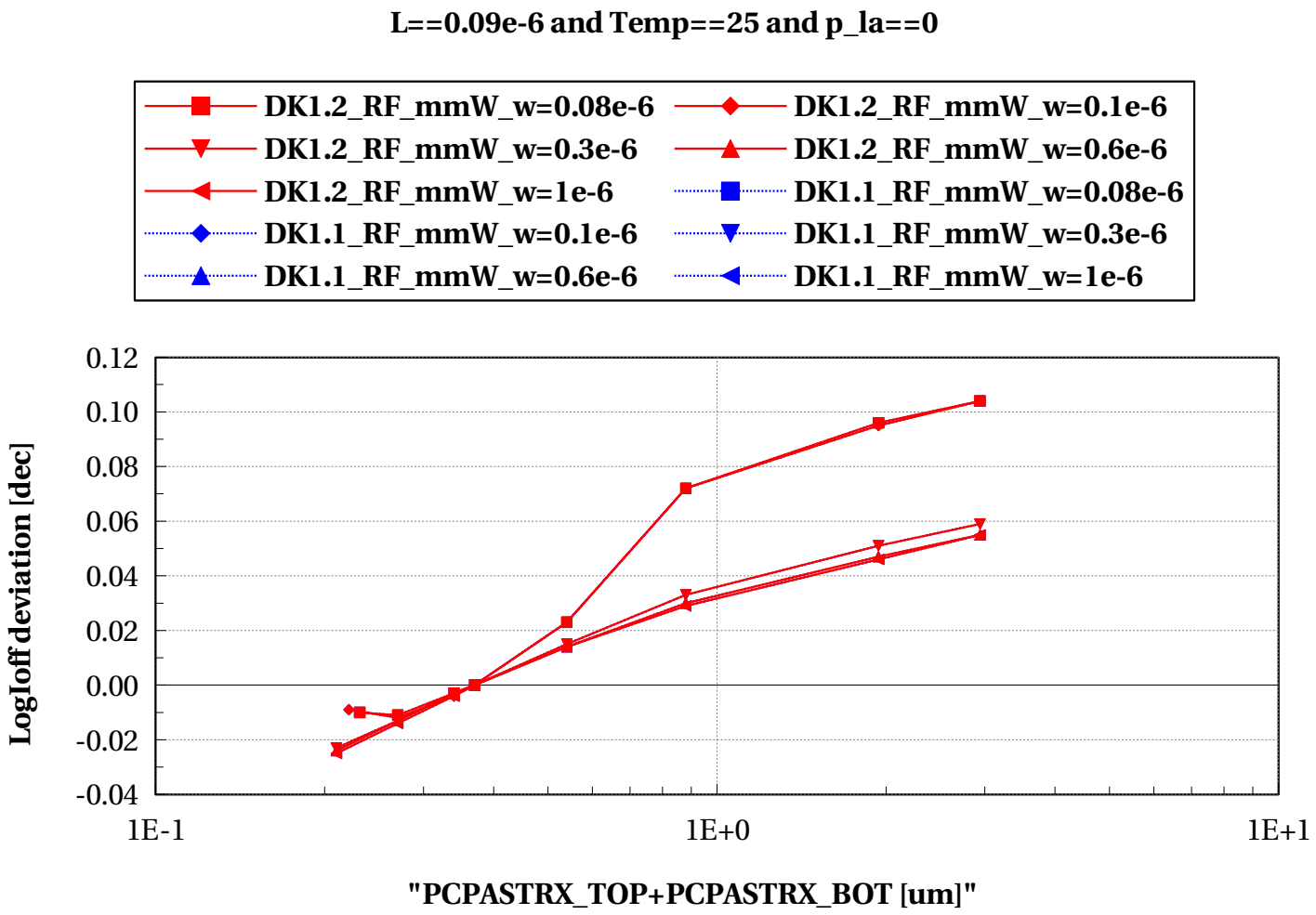
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

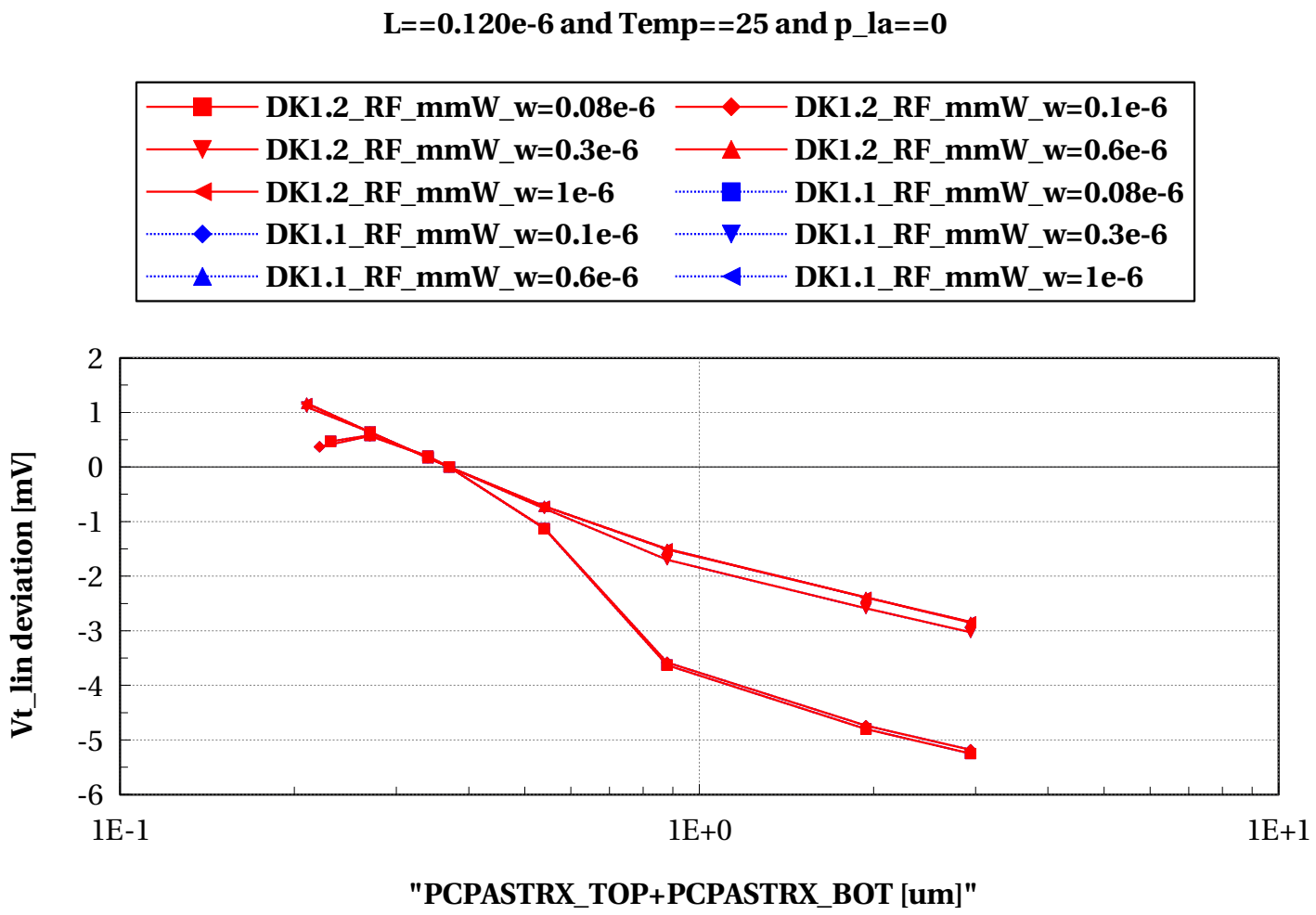


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

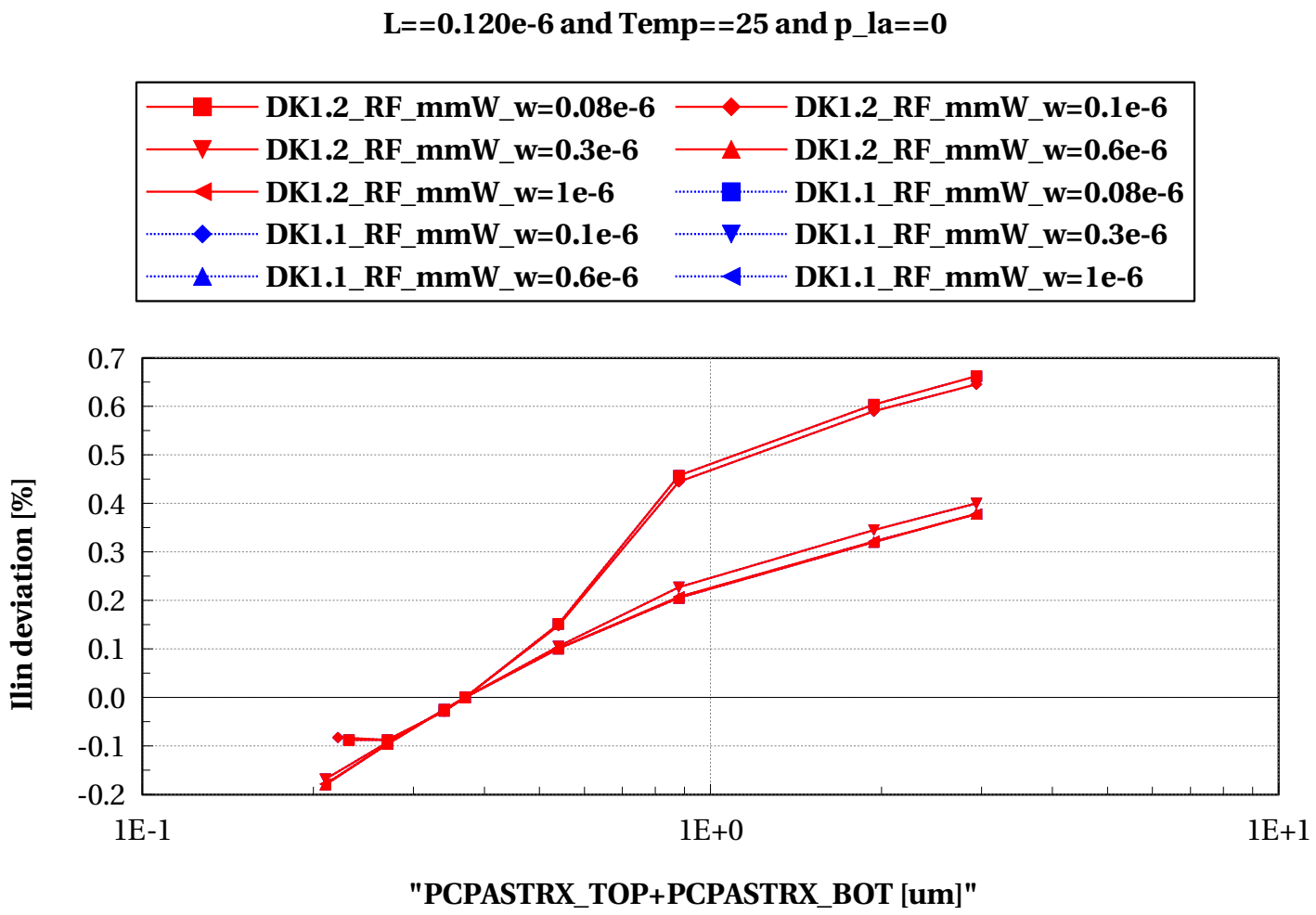


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.12u

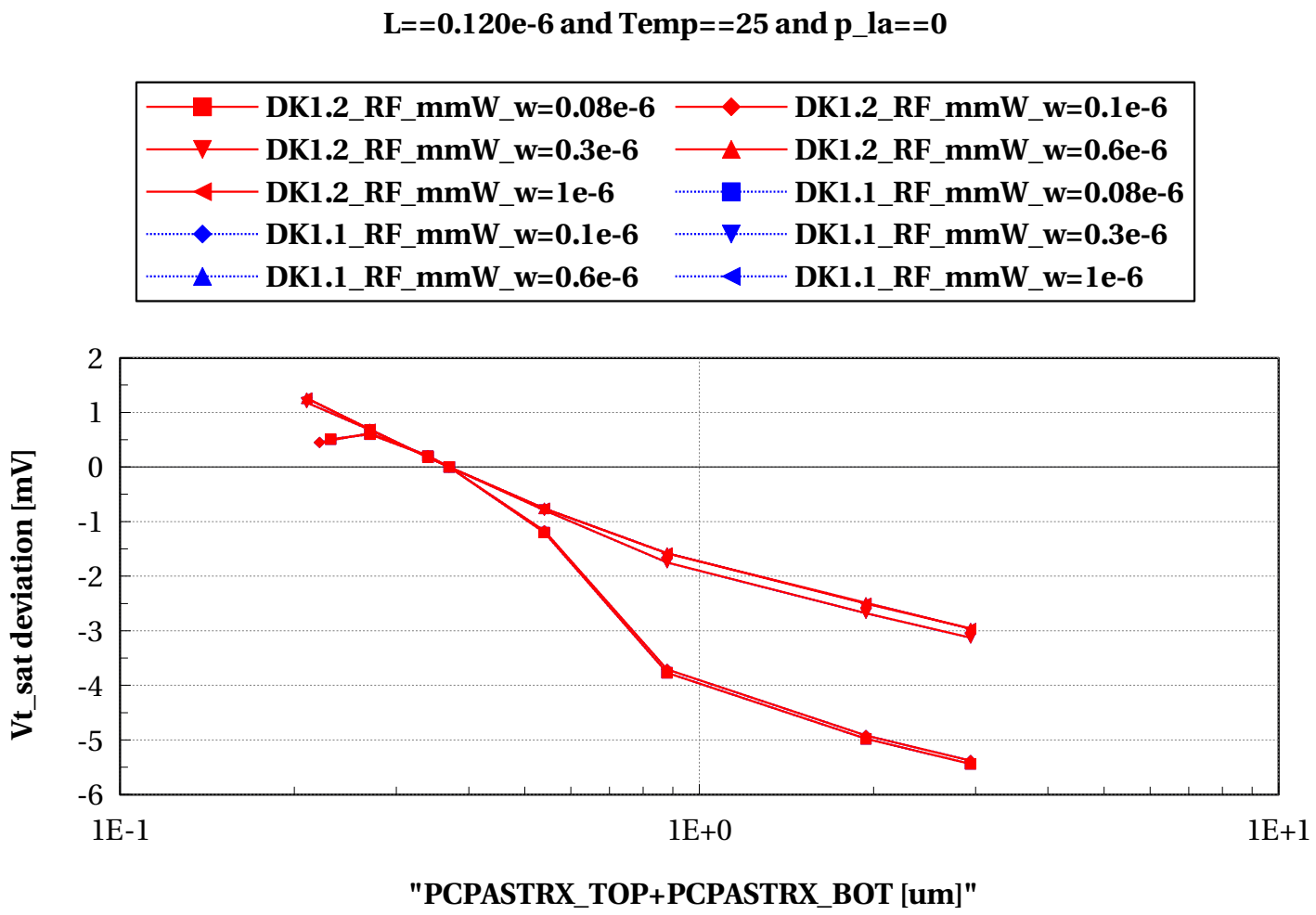
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



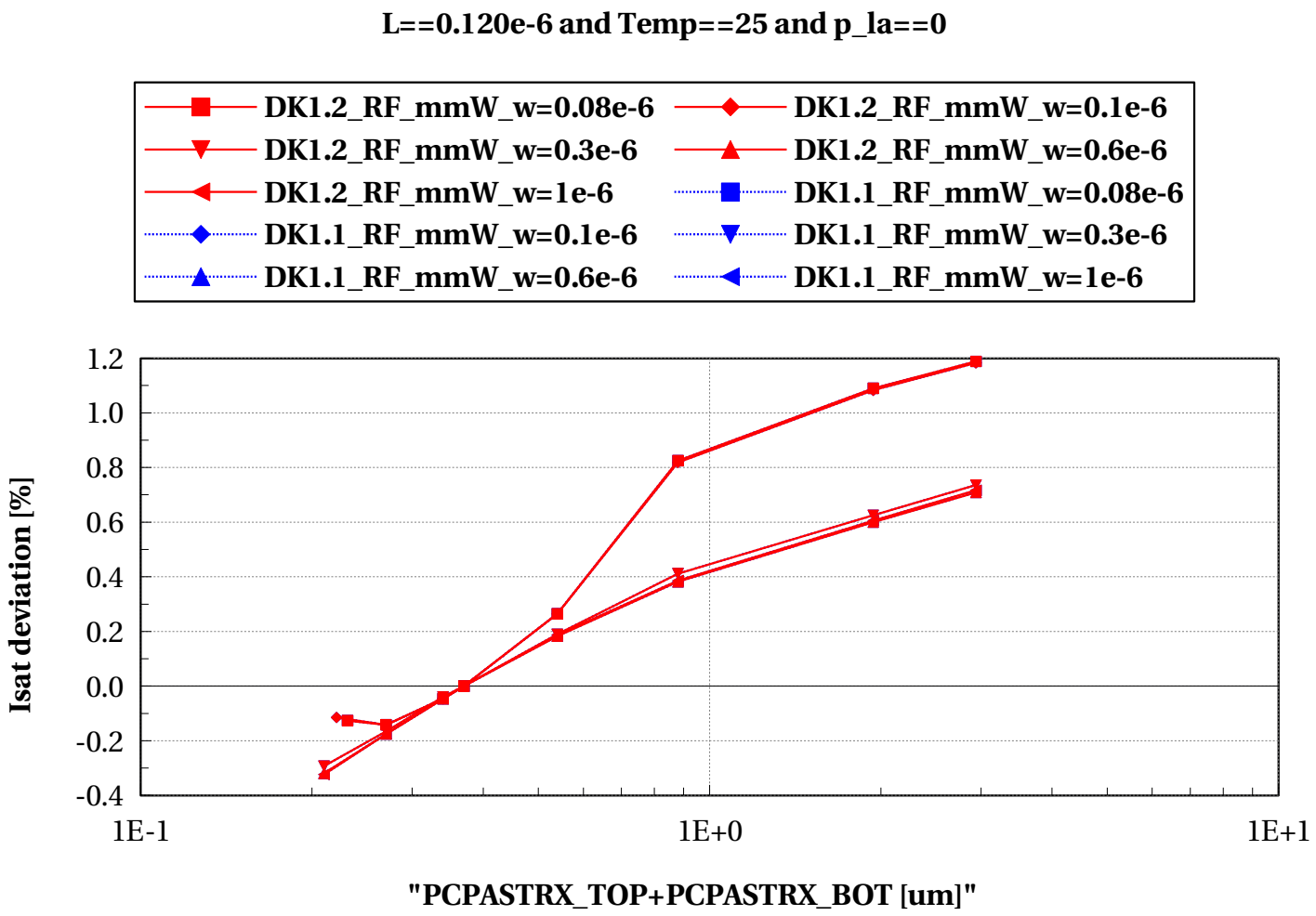
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



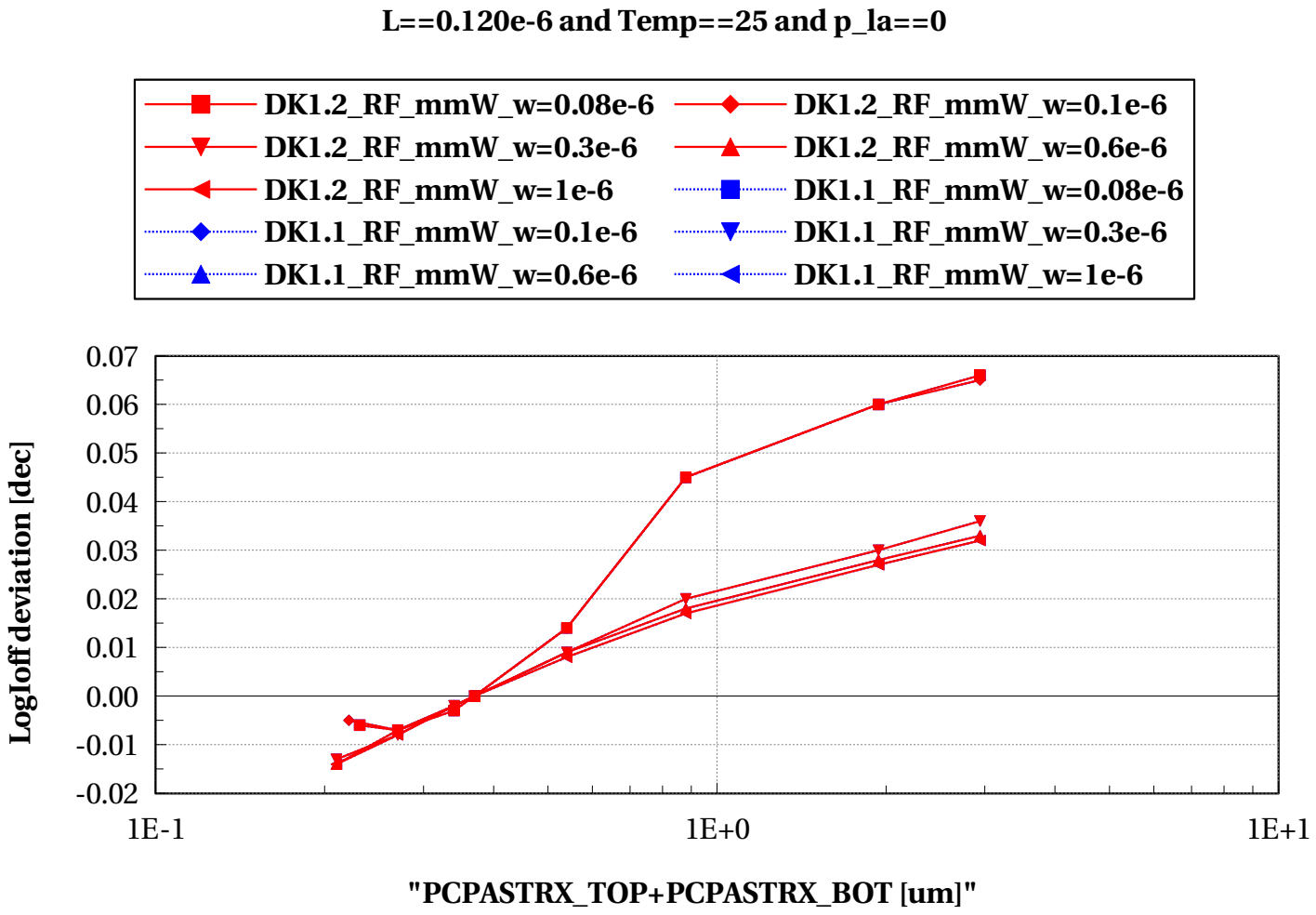
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

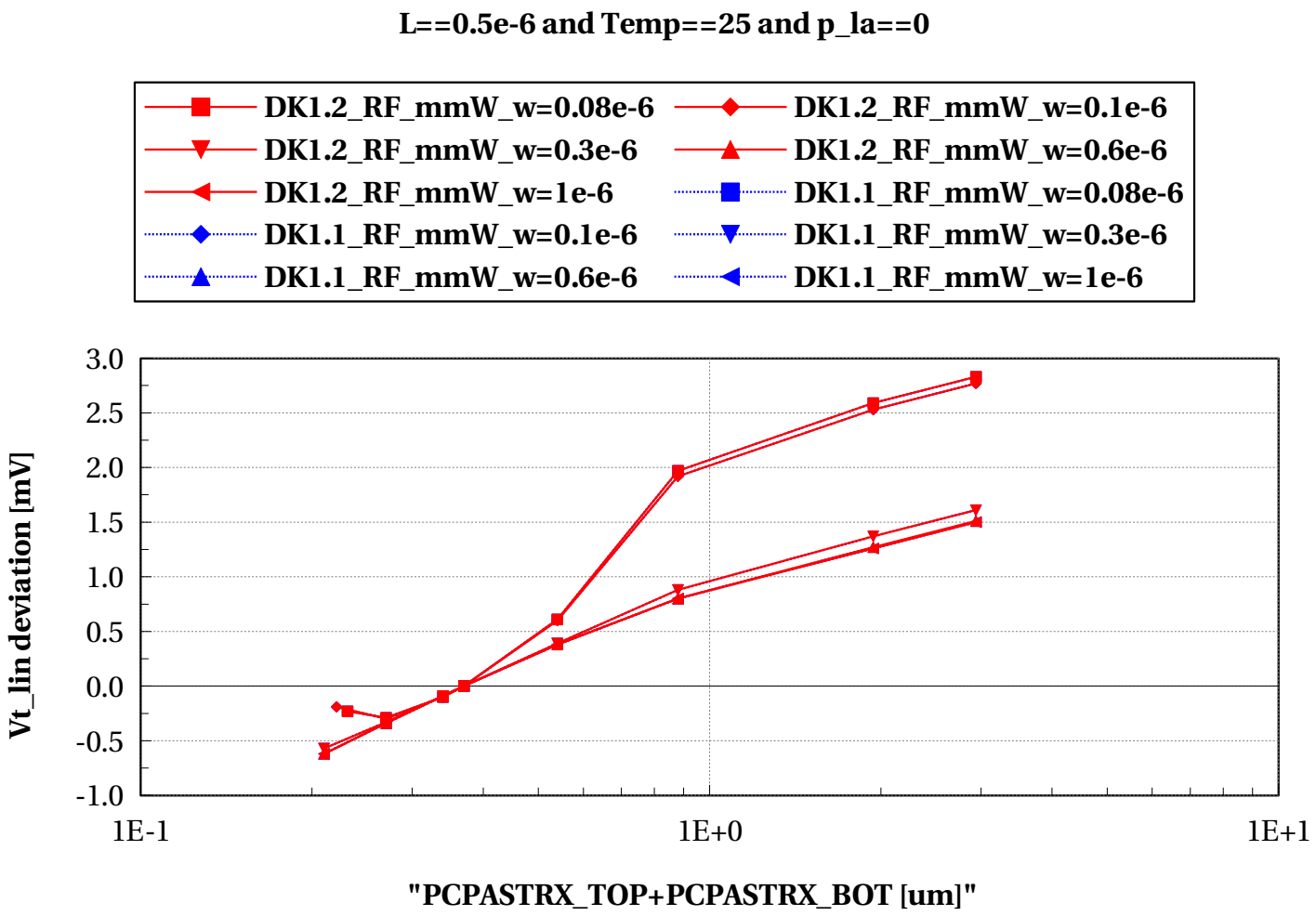


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

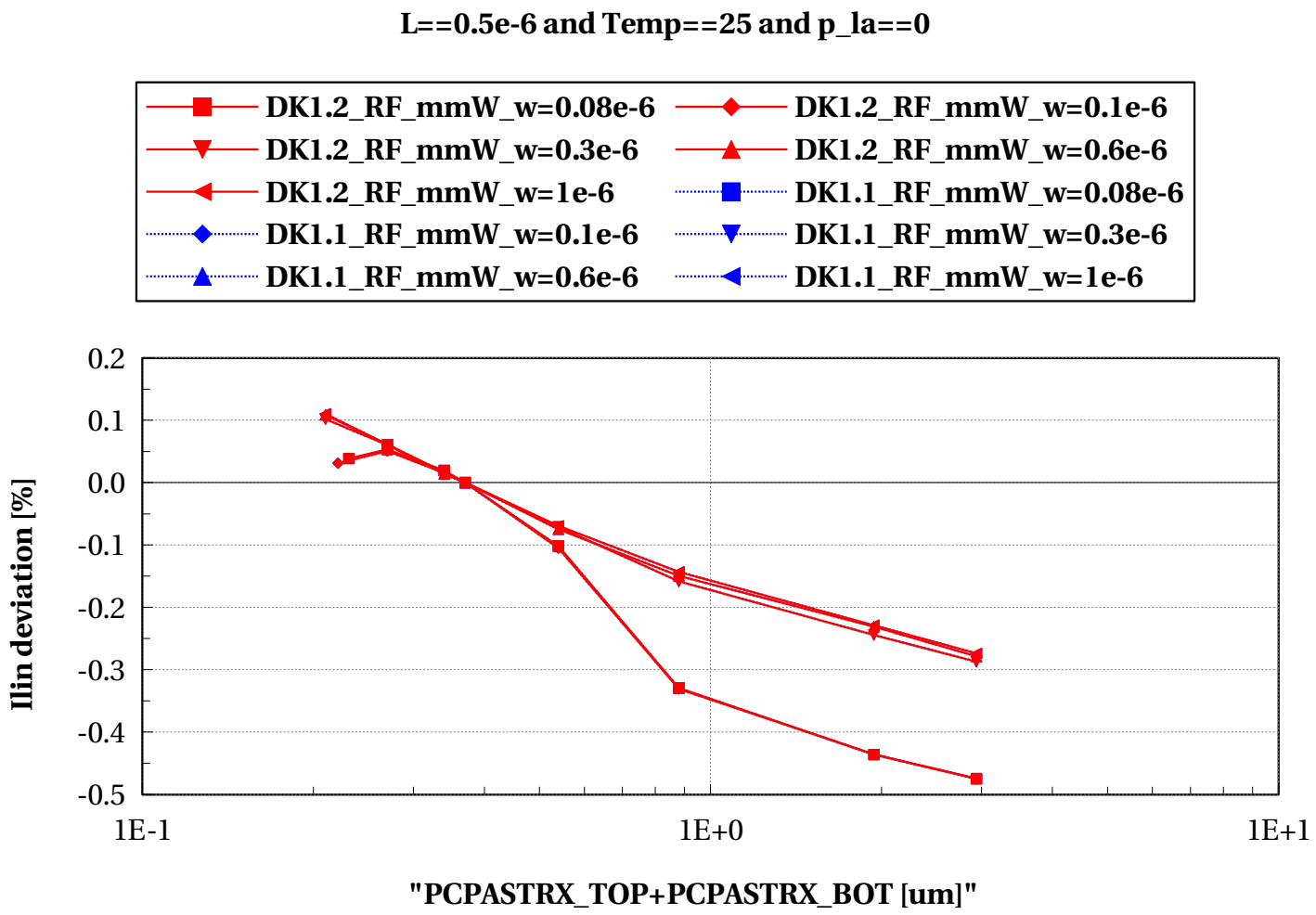


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.5u

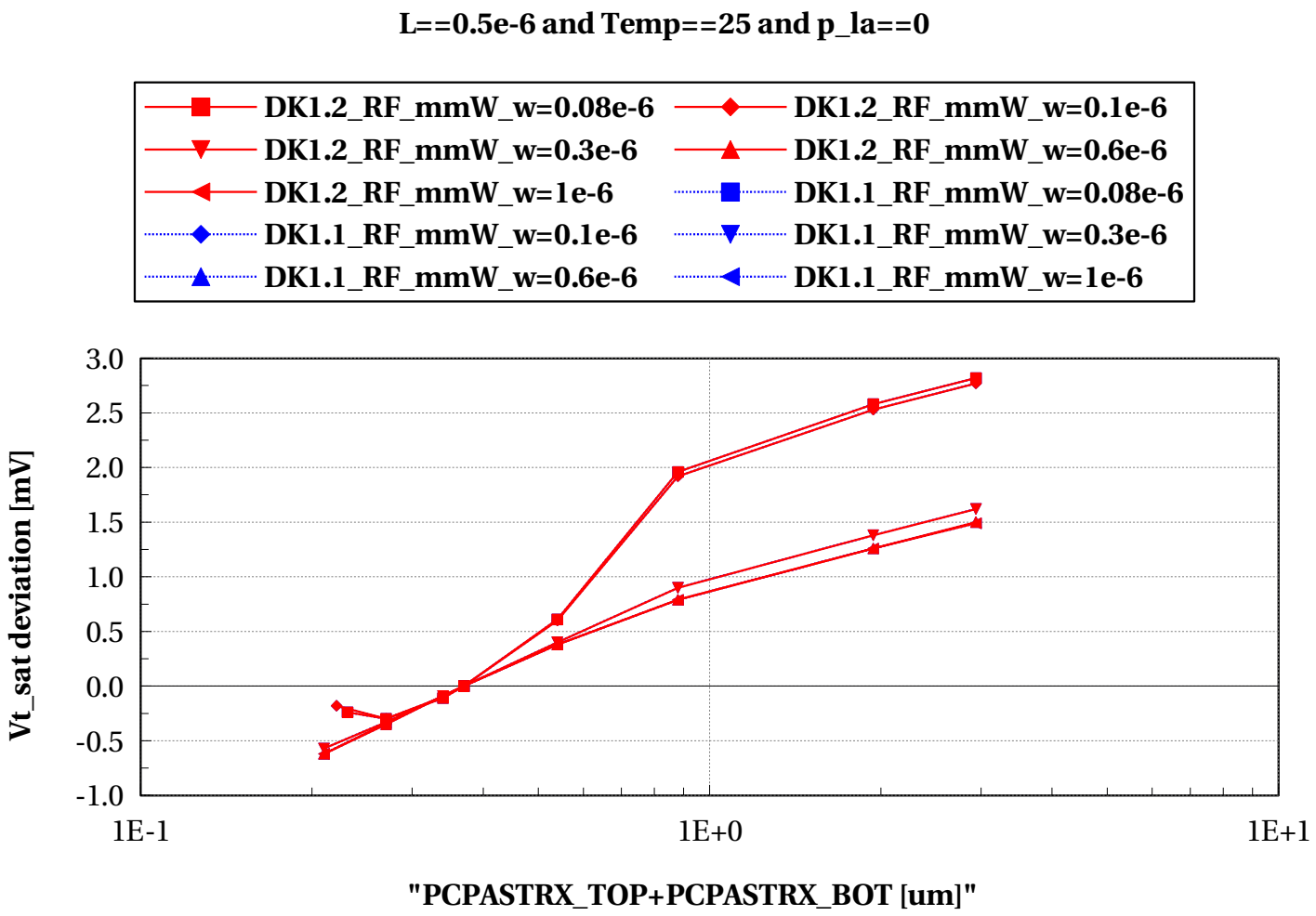
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



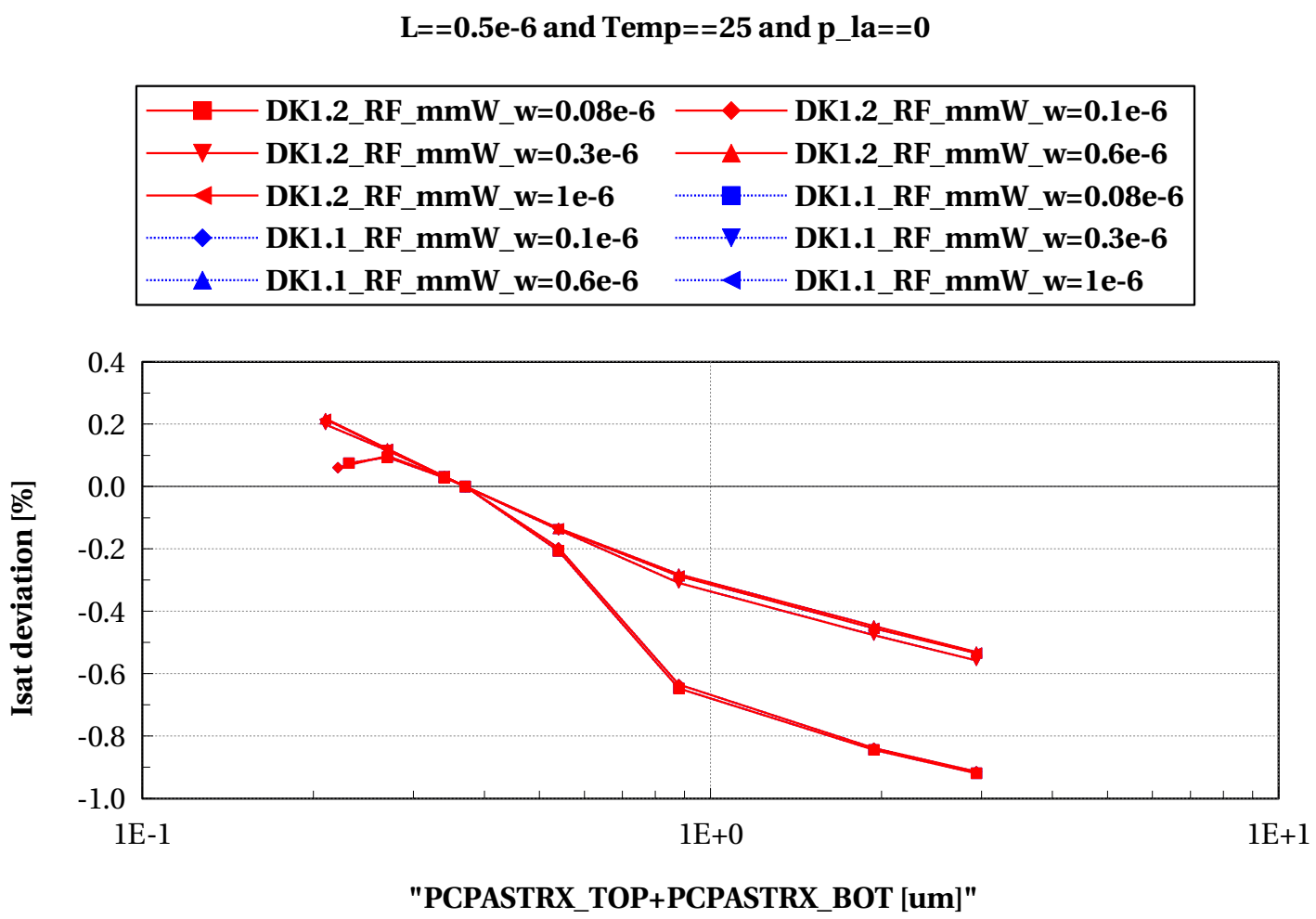
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



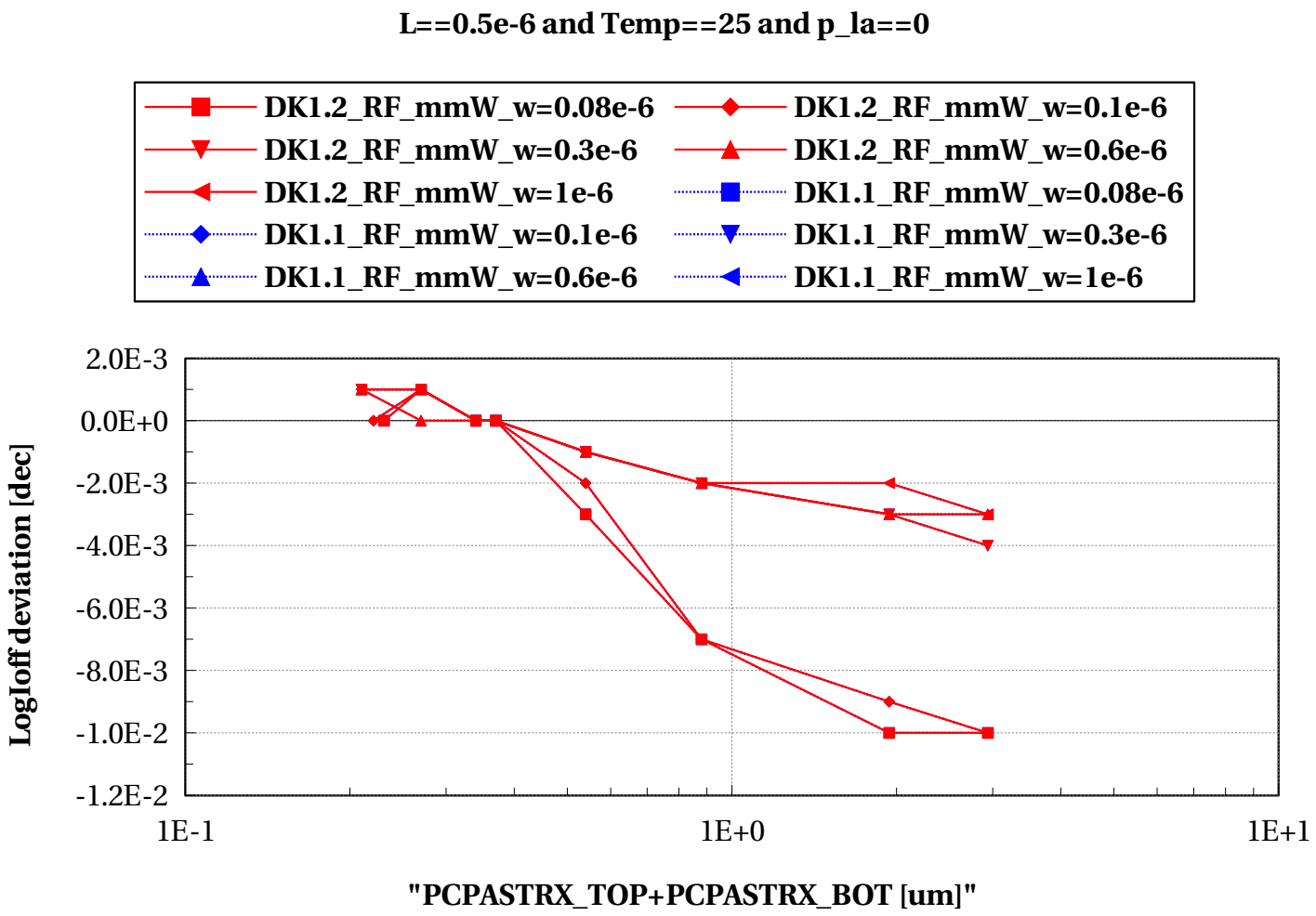
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

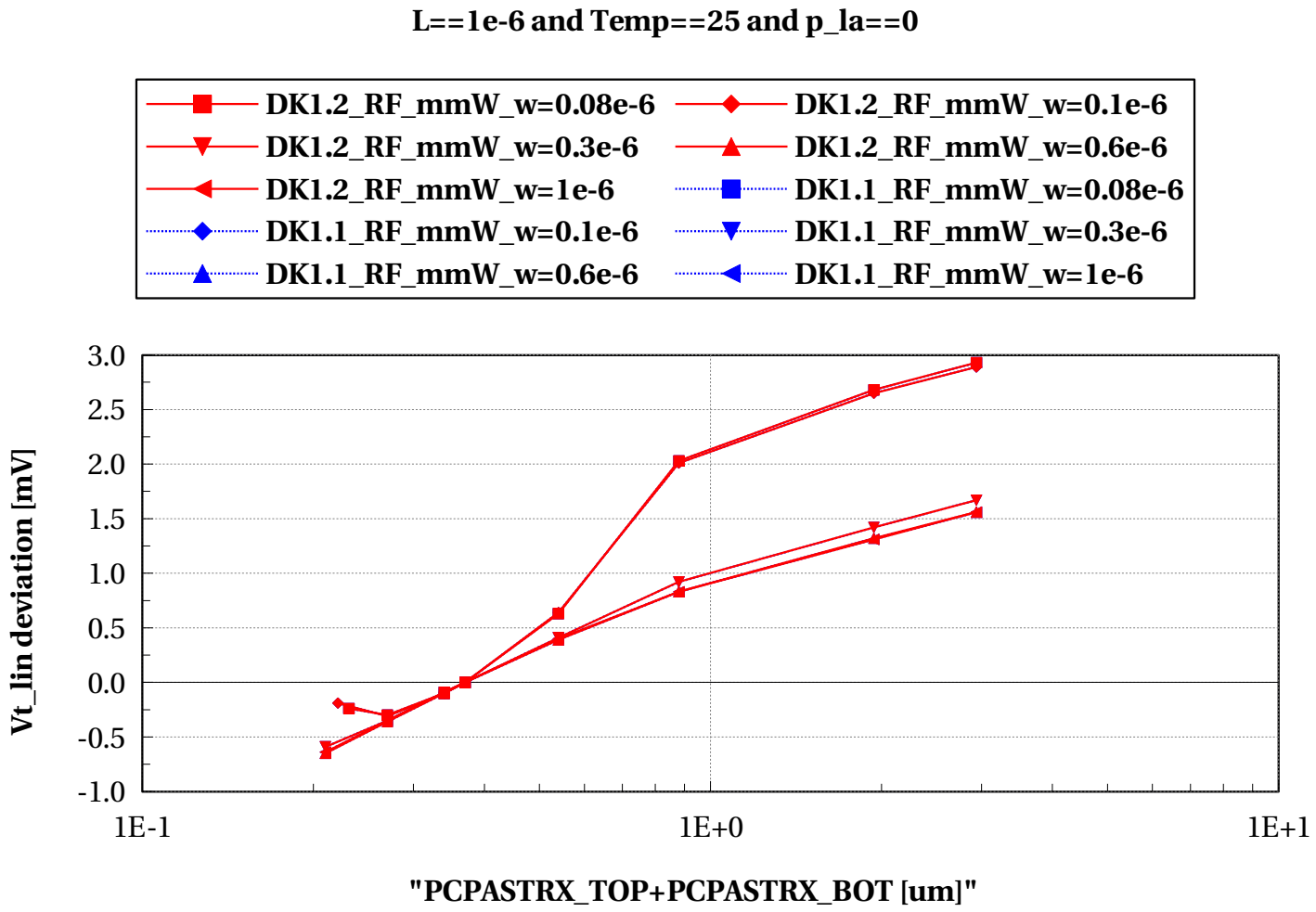


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

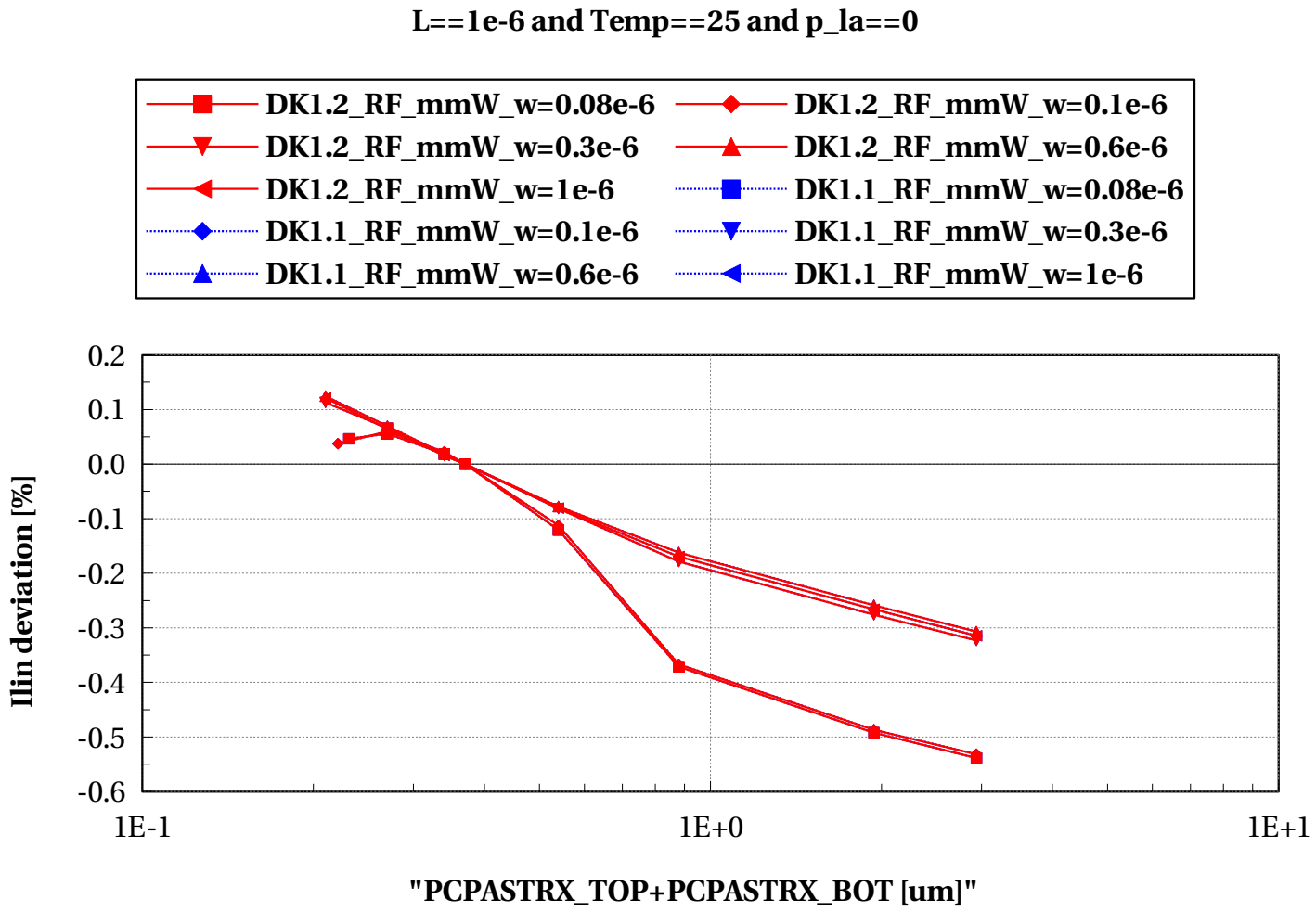


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=1u

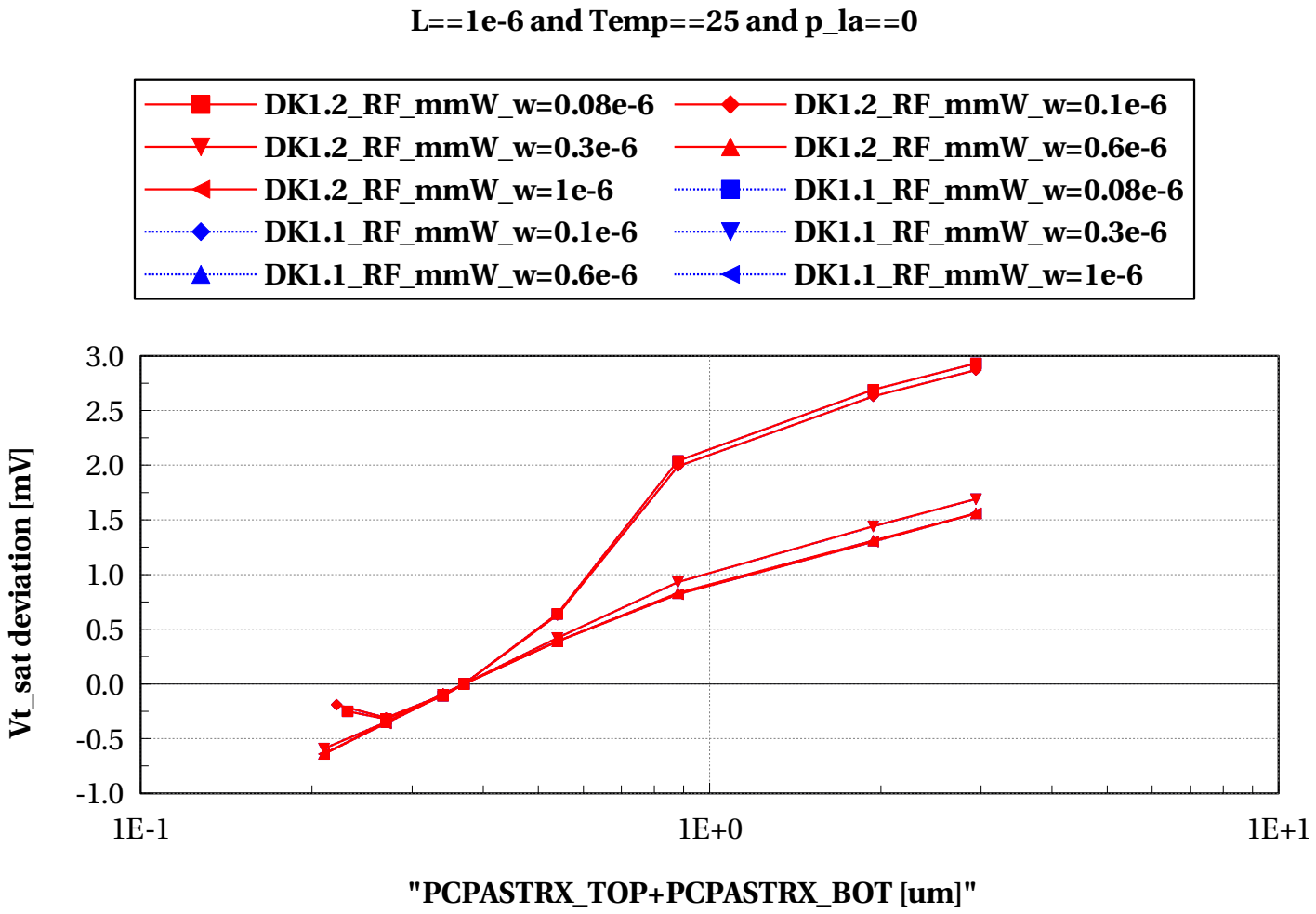
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



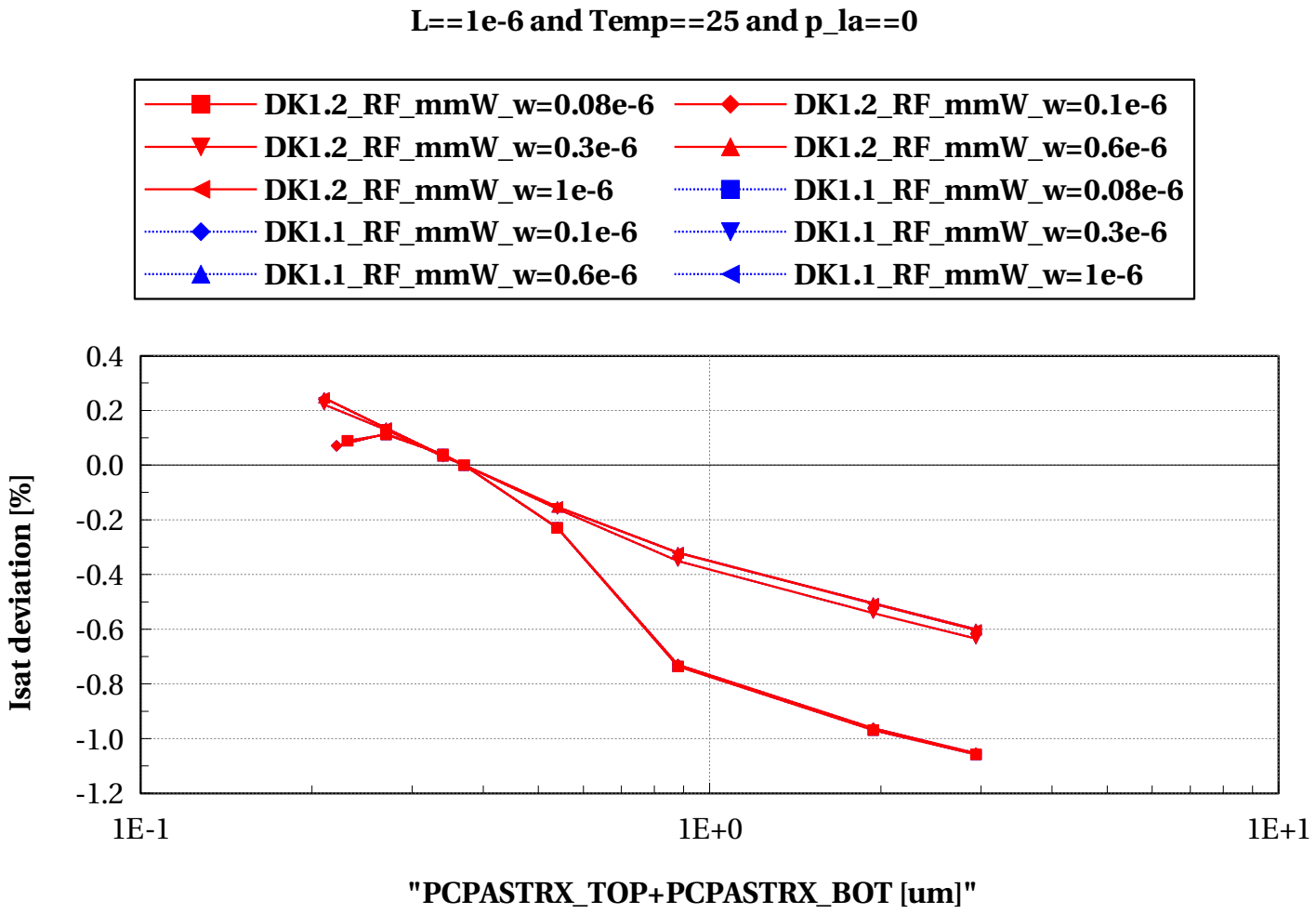
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



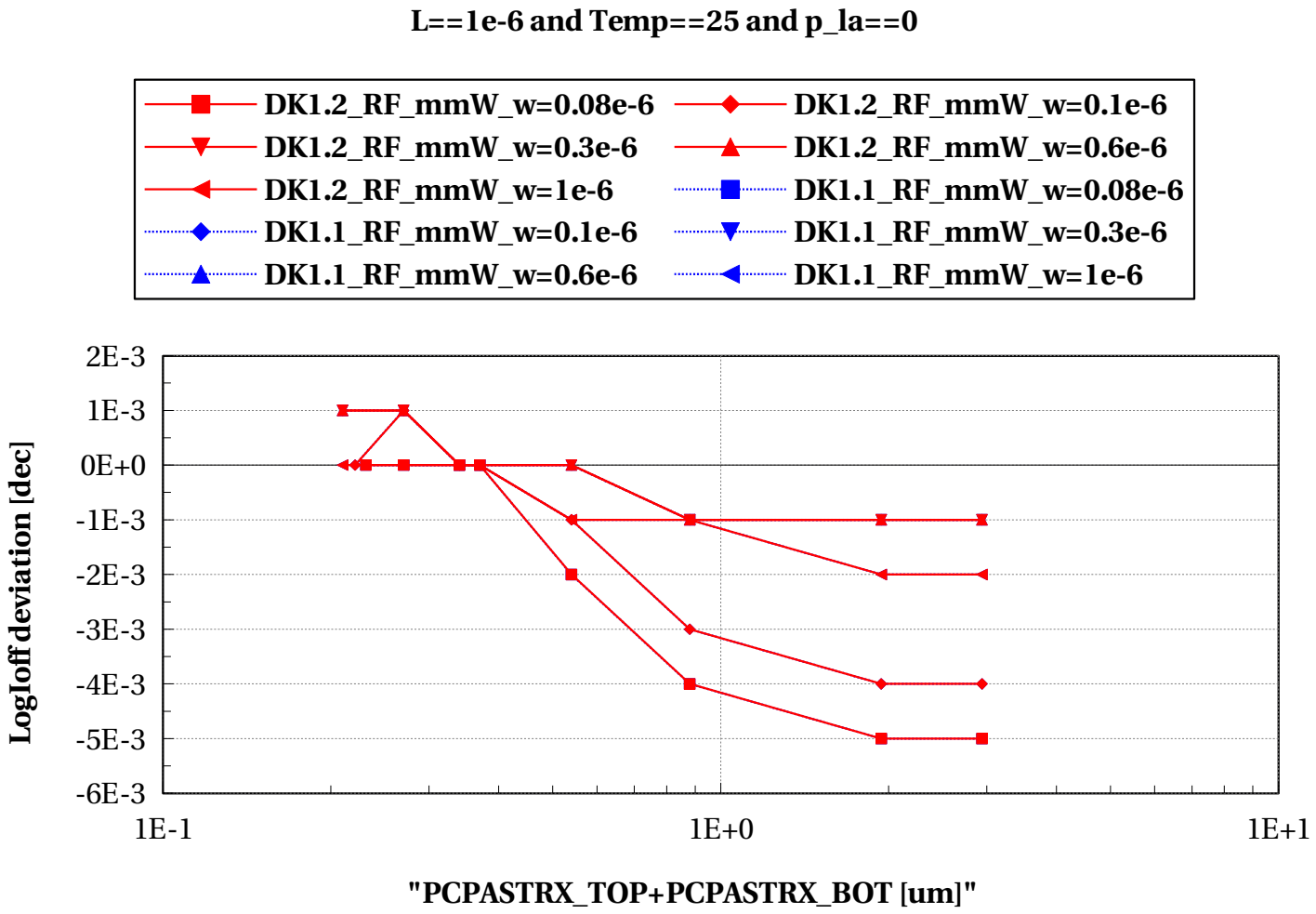
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

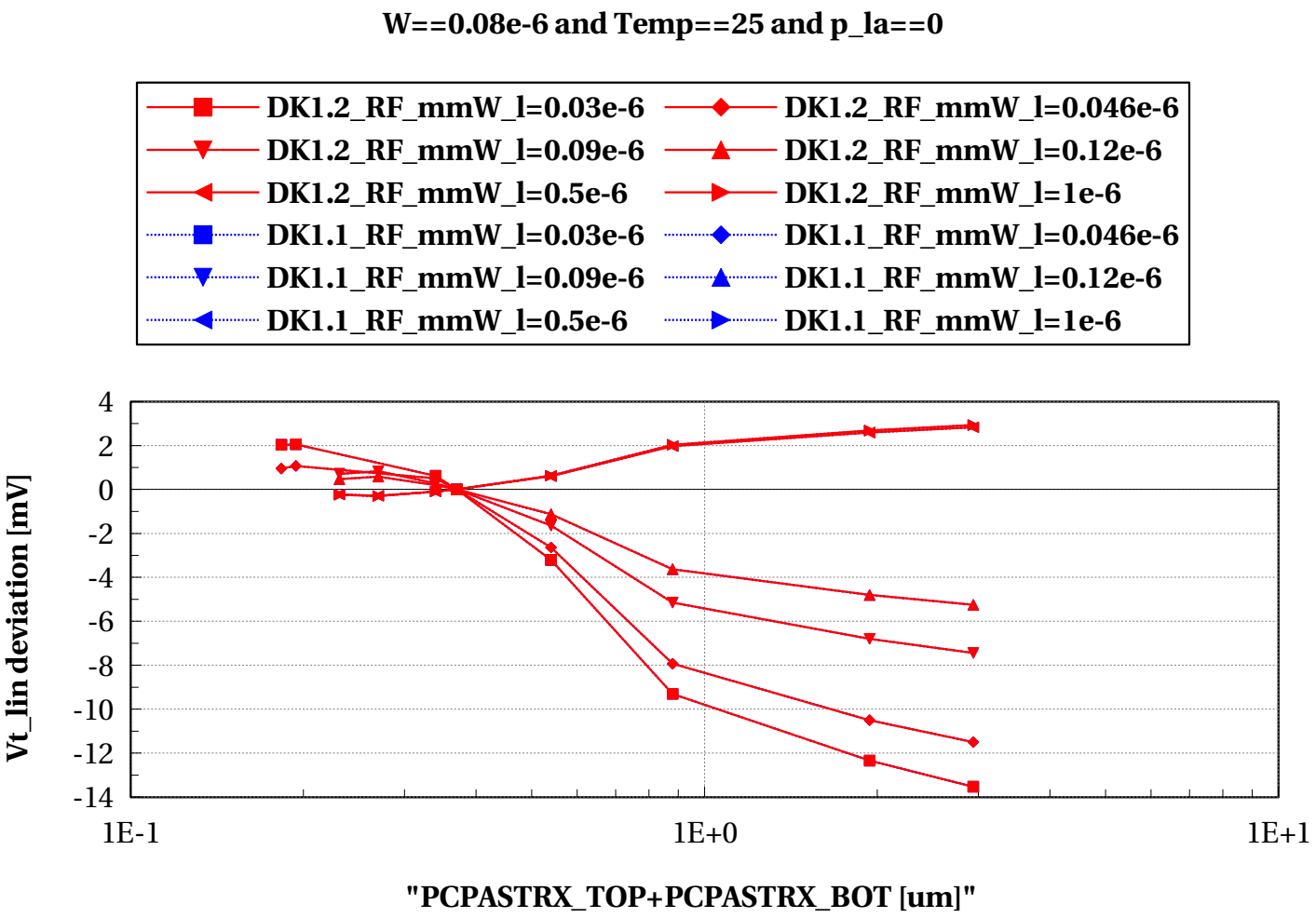


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

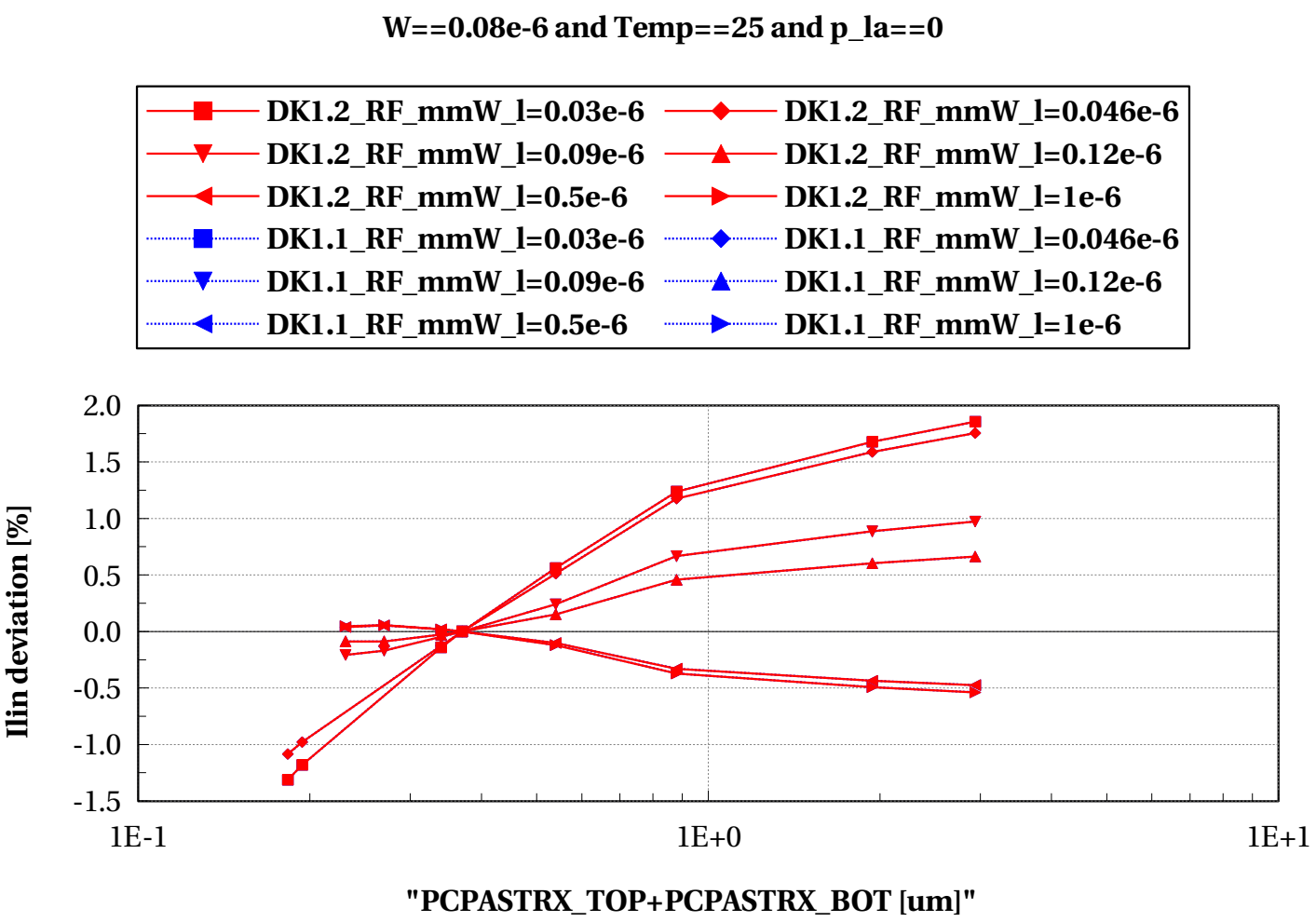


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=0.08u

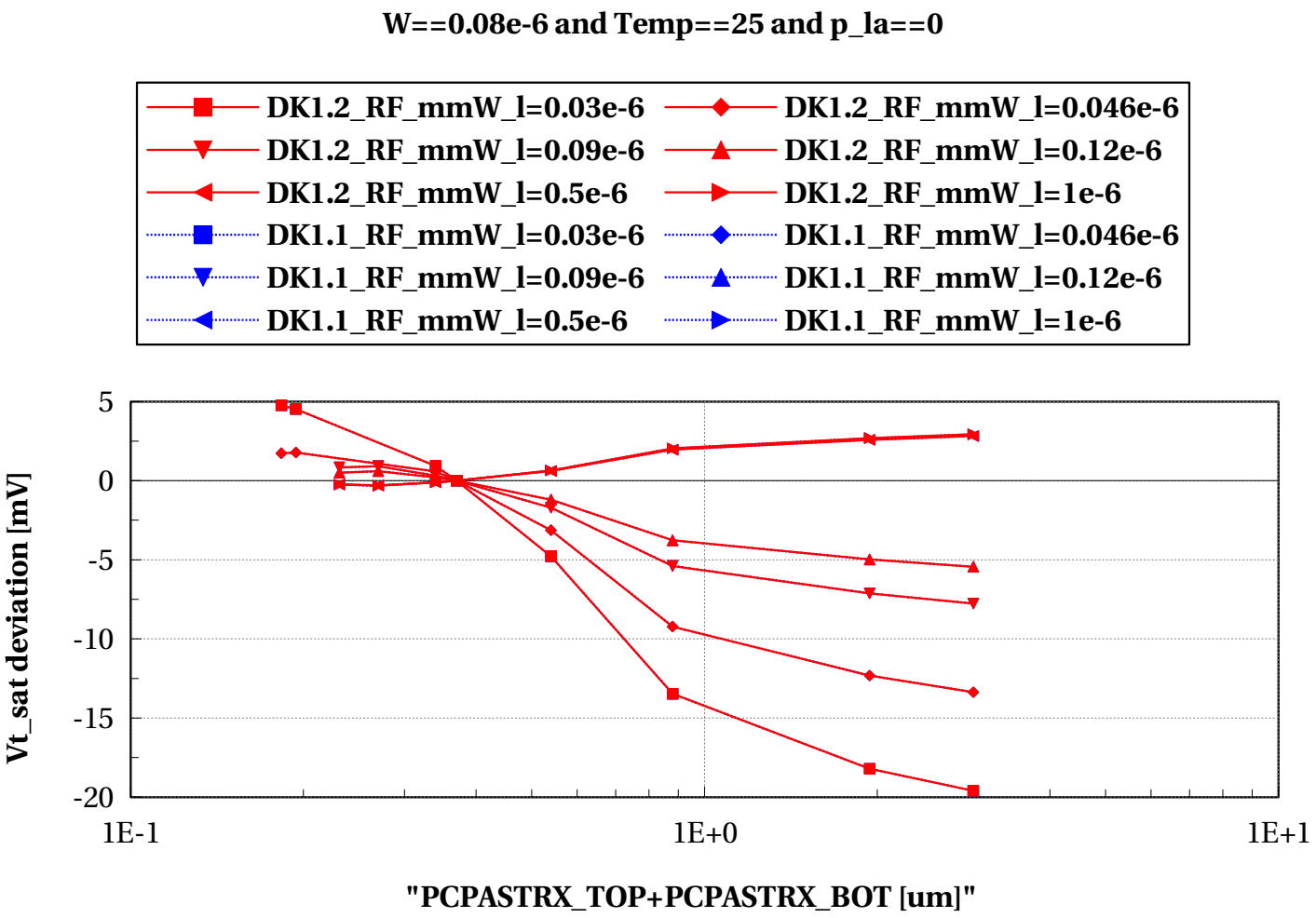
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



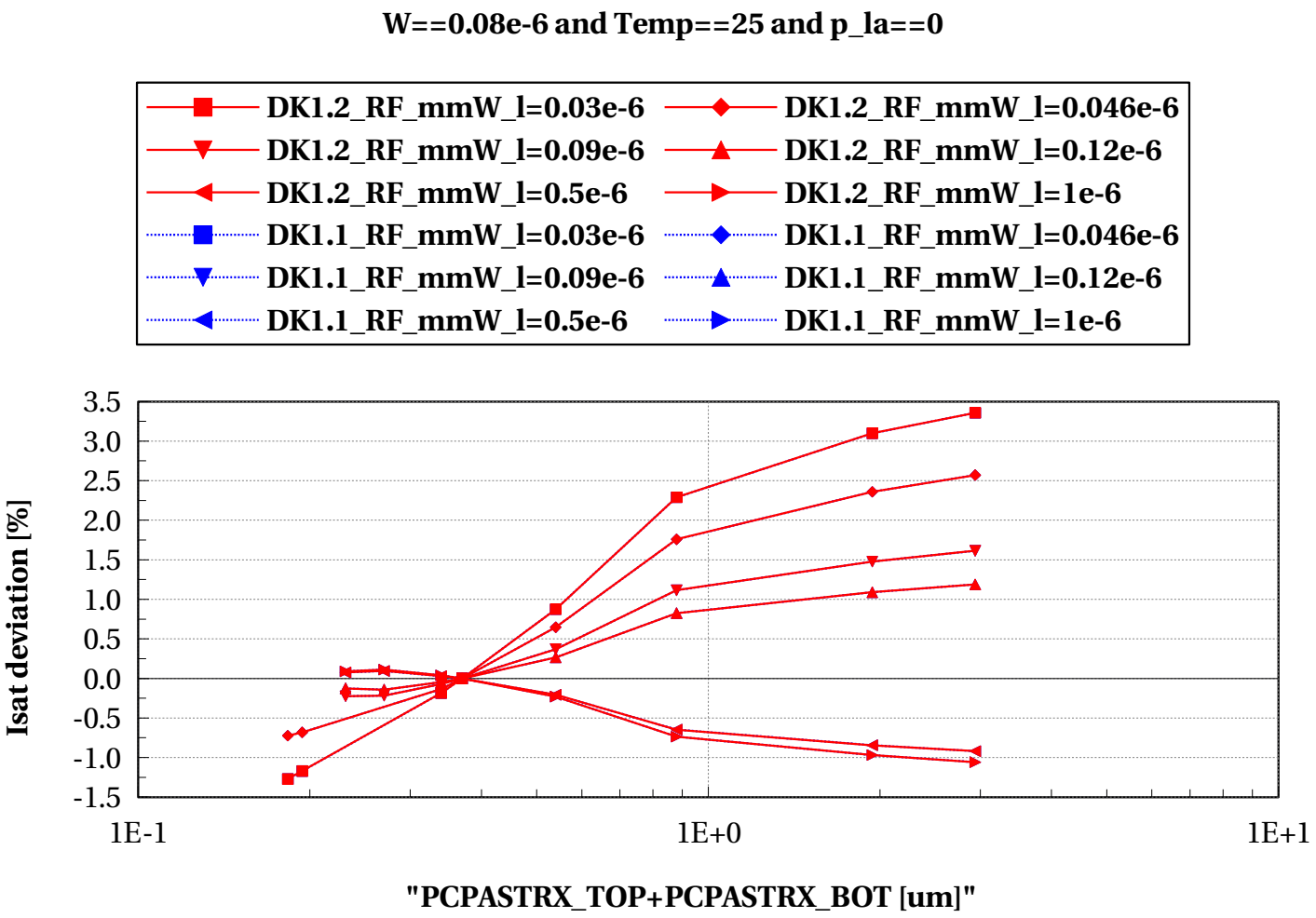
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



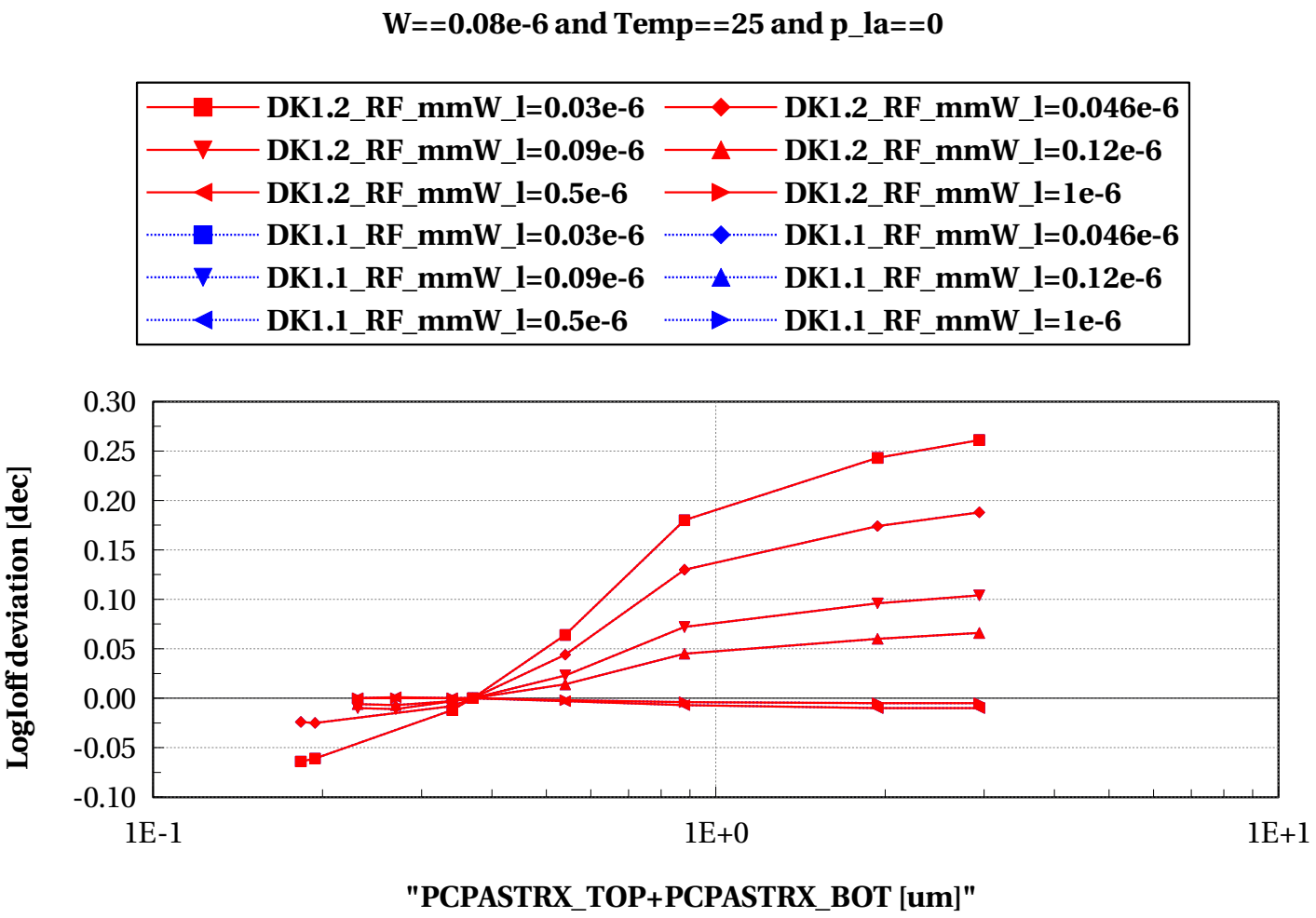
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

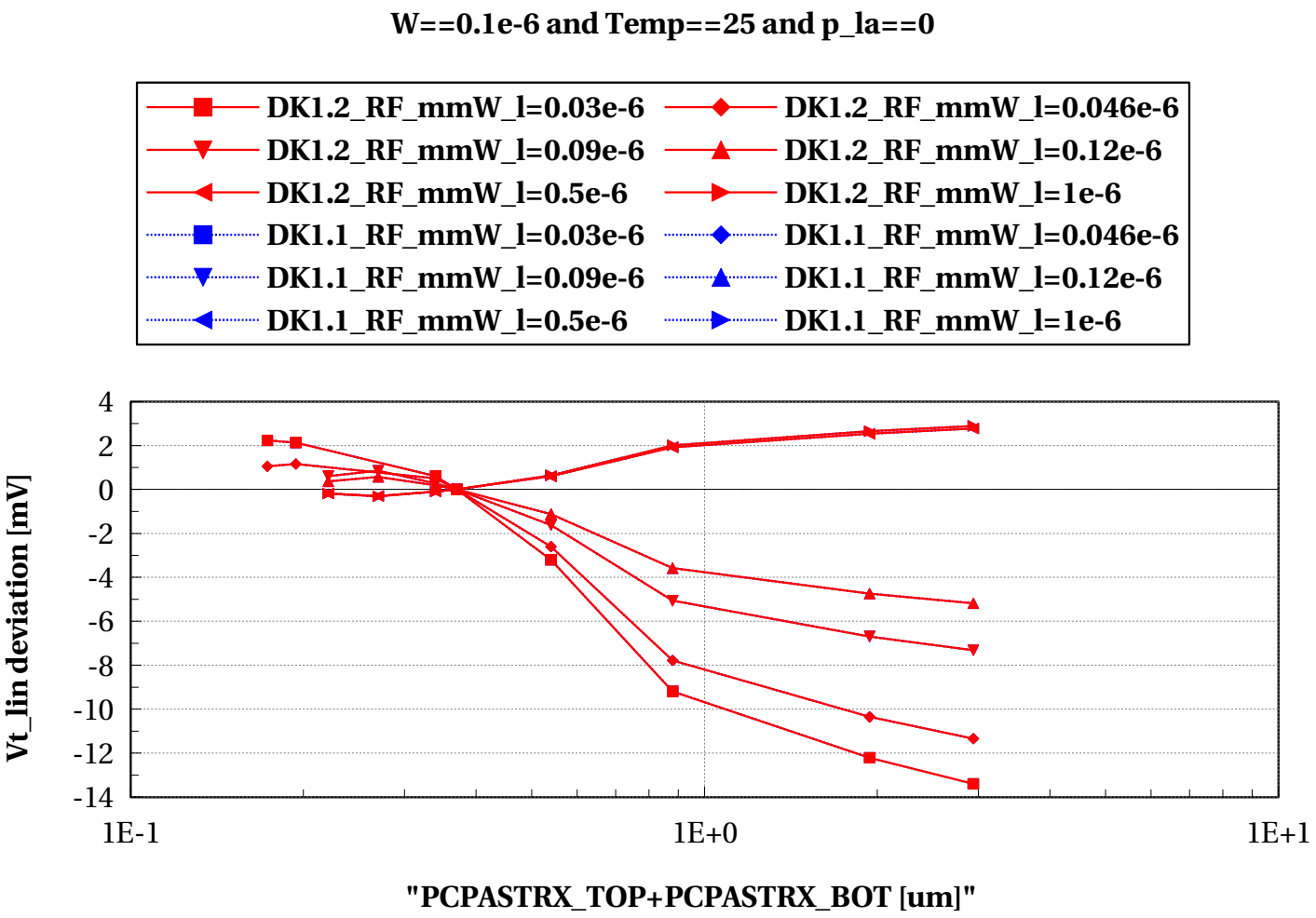


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

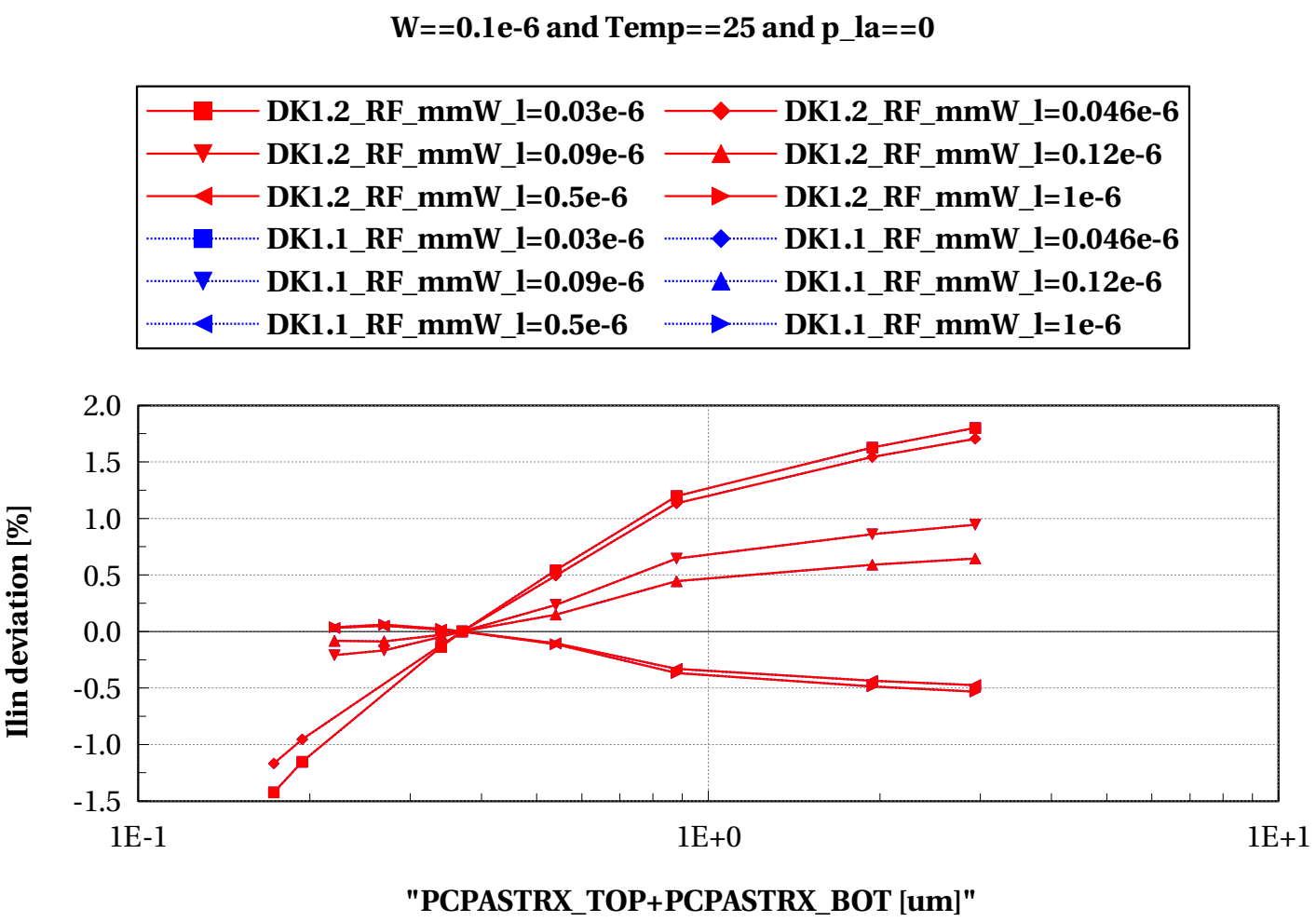


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=0.1u

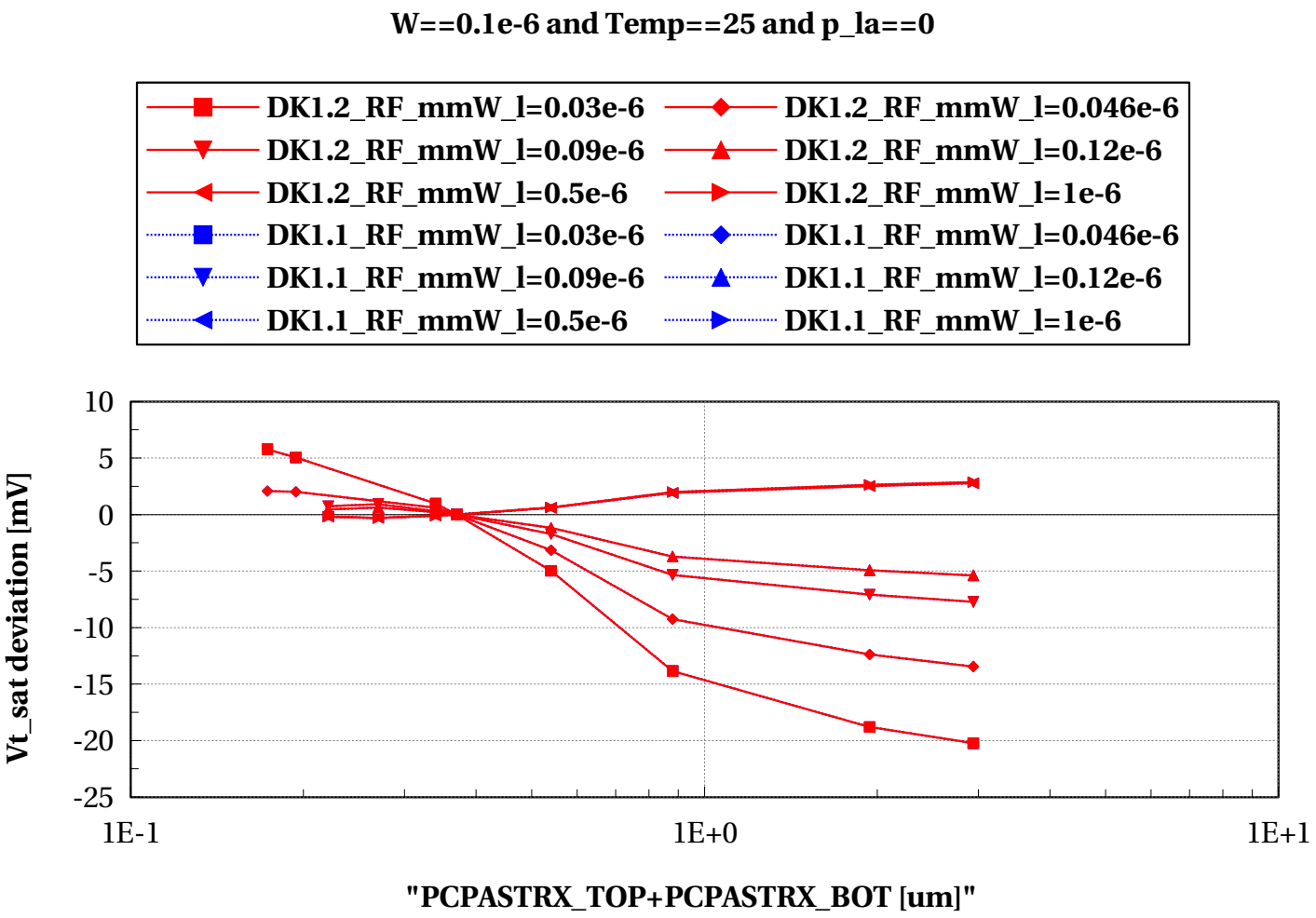
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



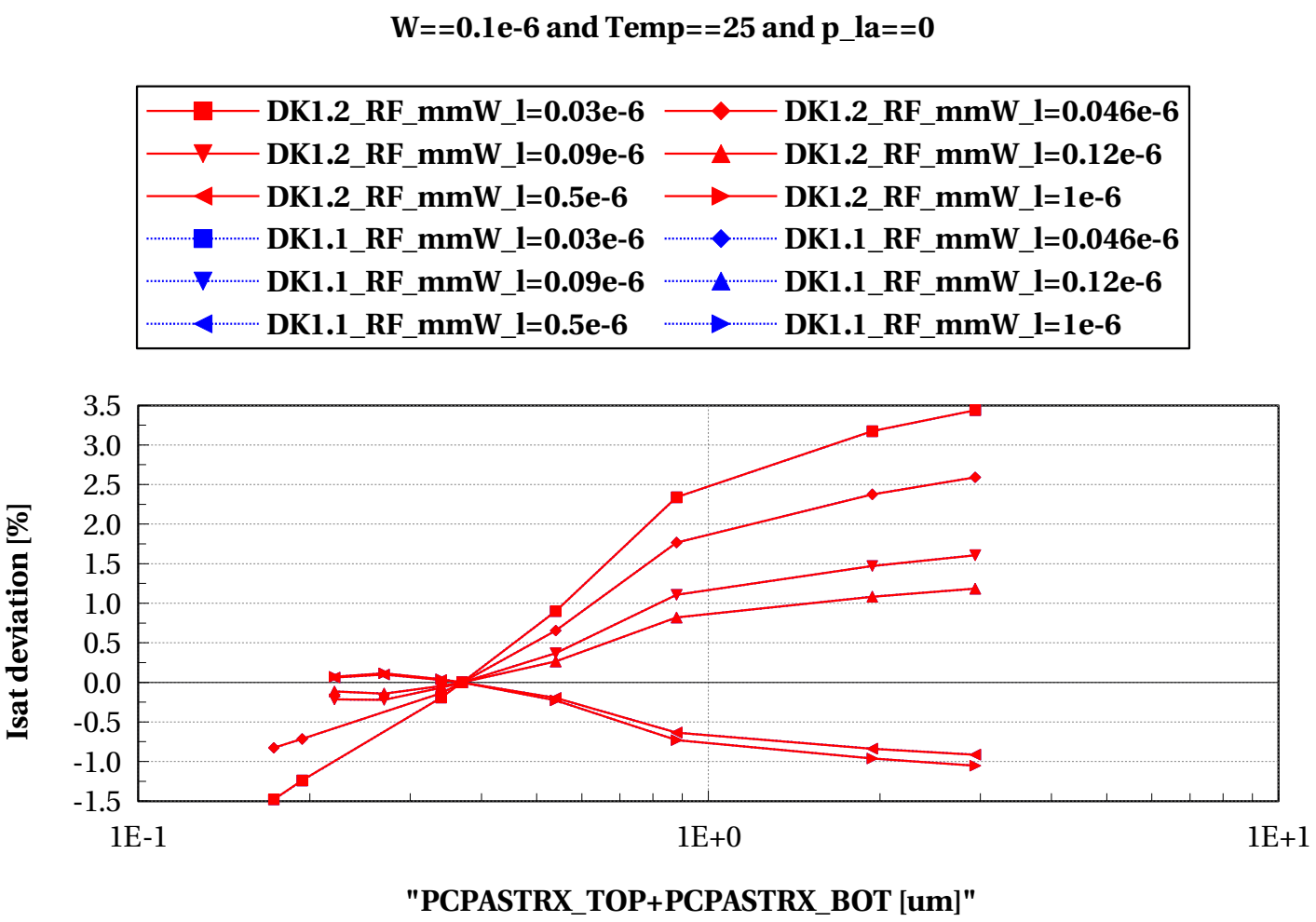
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



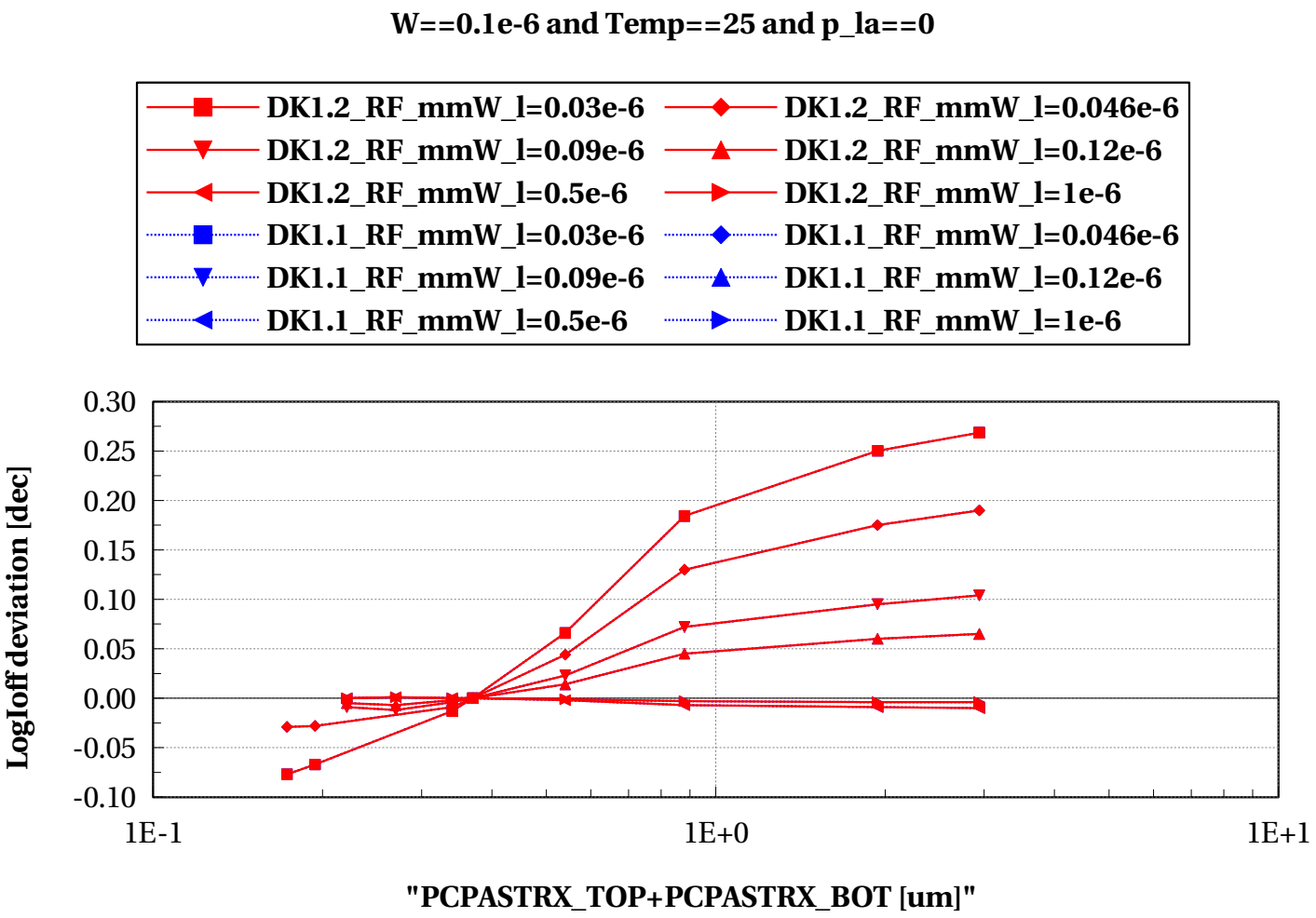
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

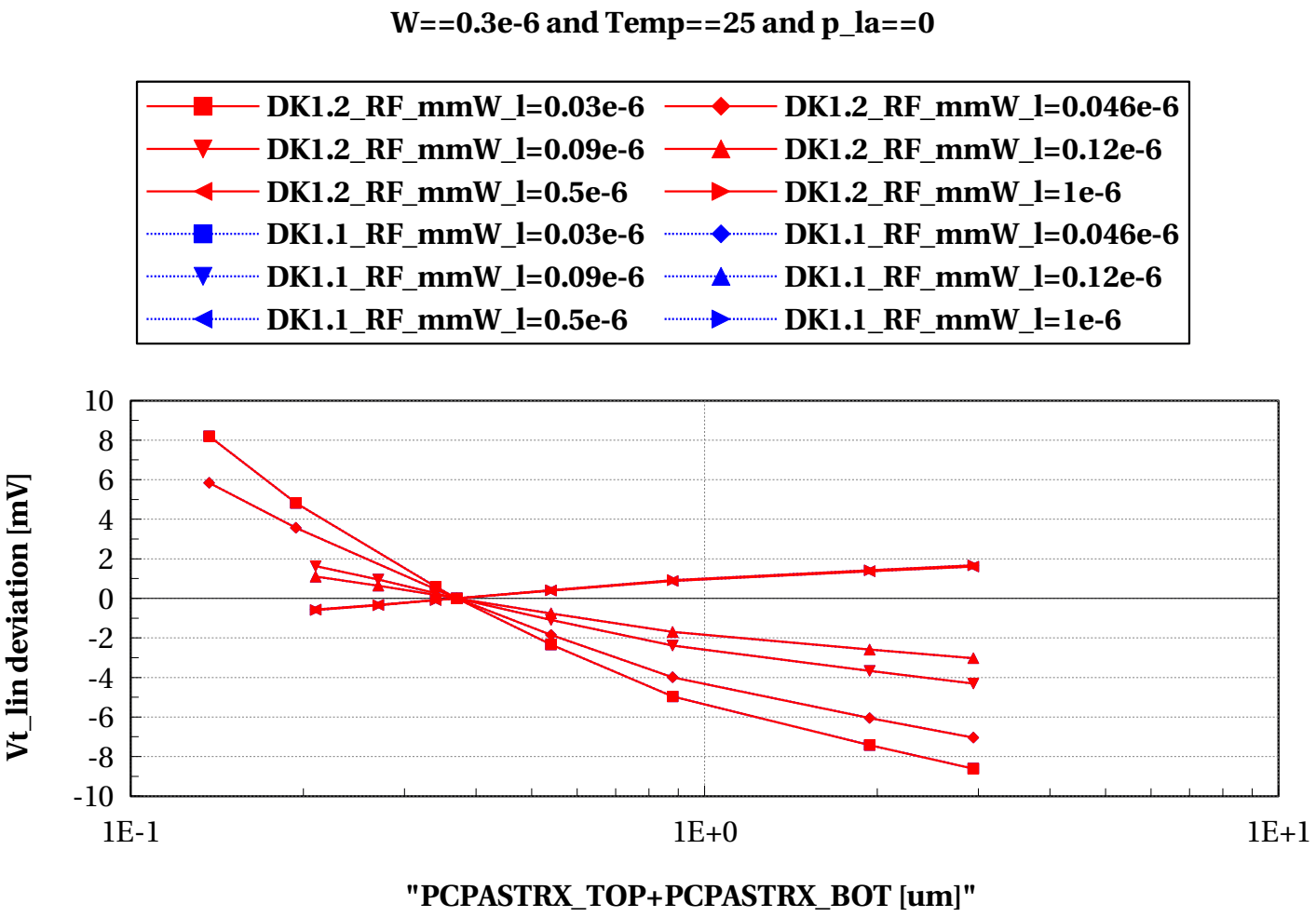


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

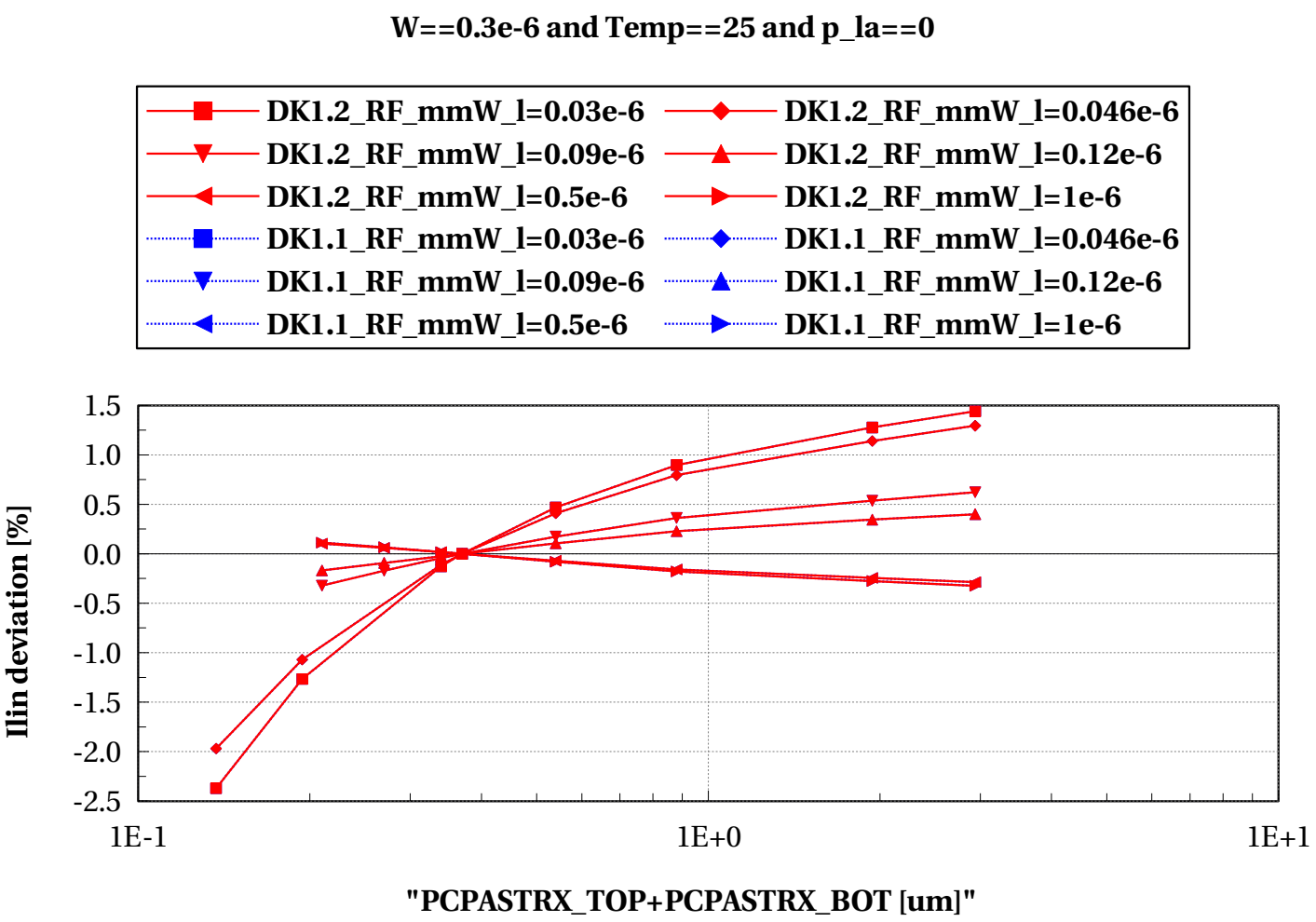


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling@W=0.3u

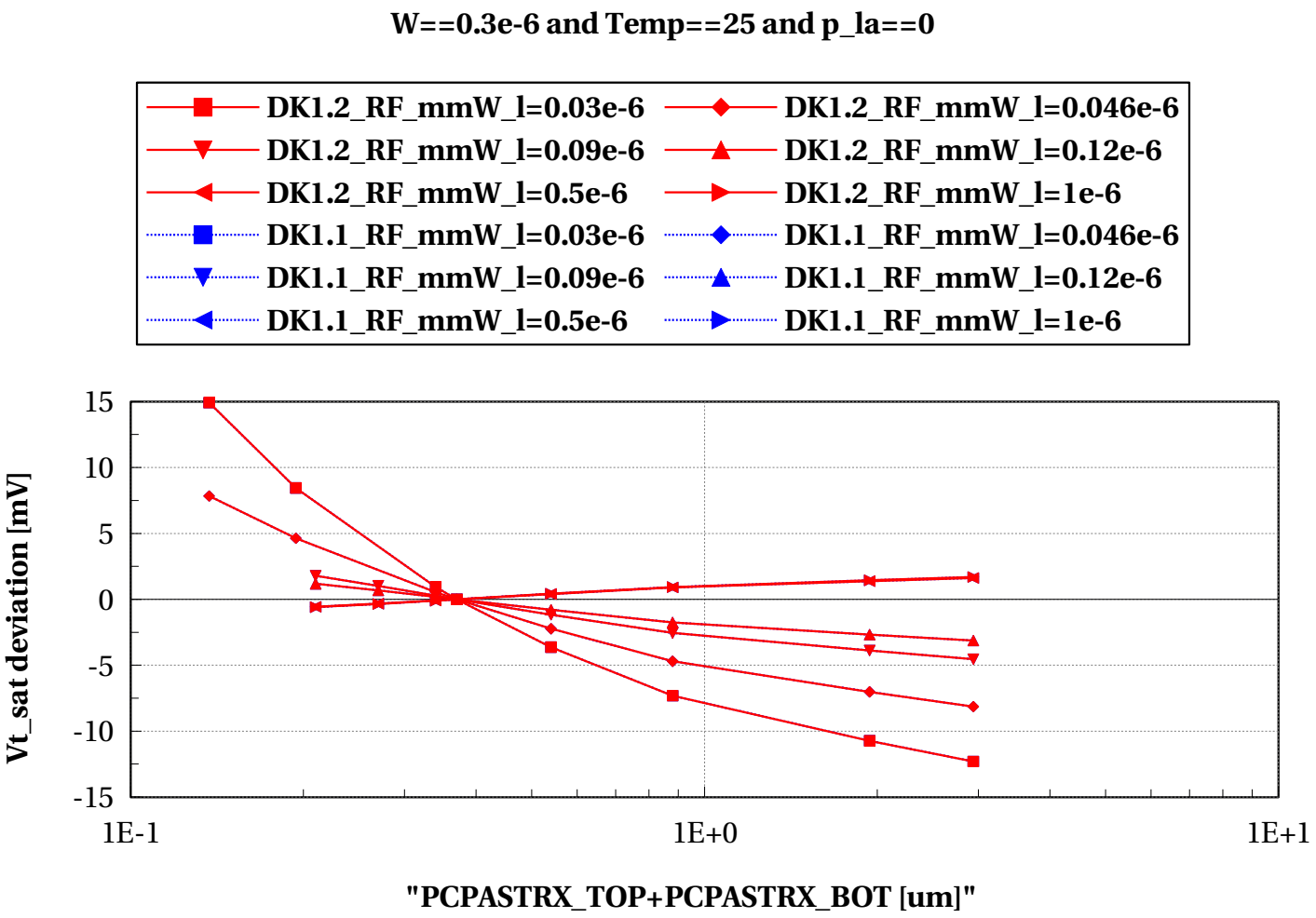
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



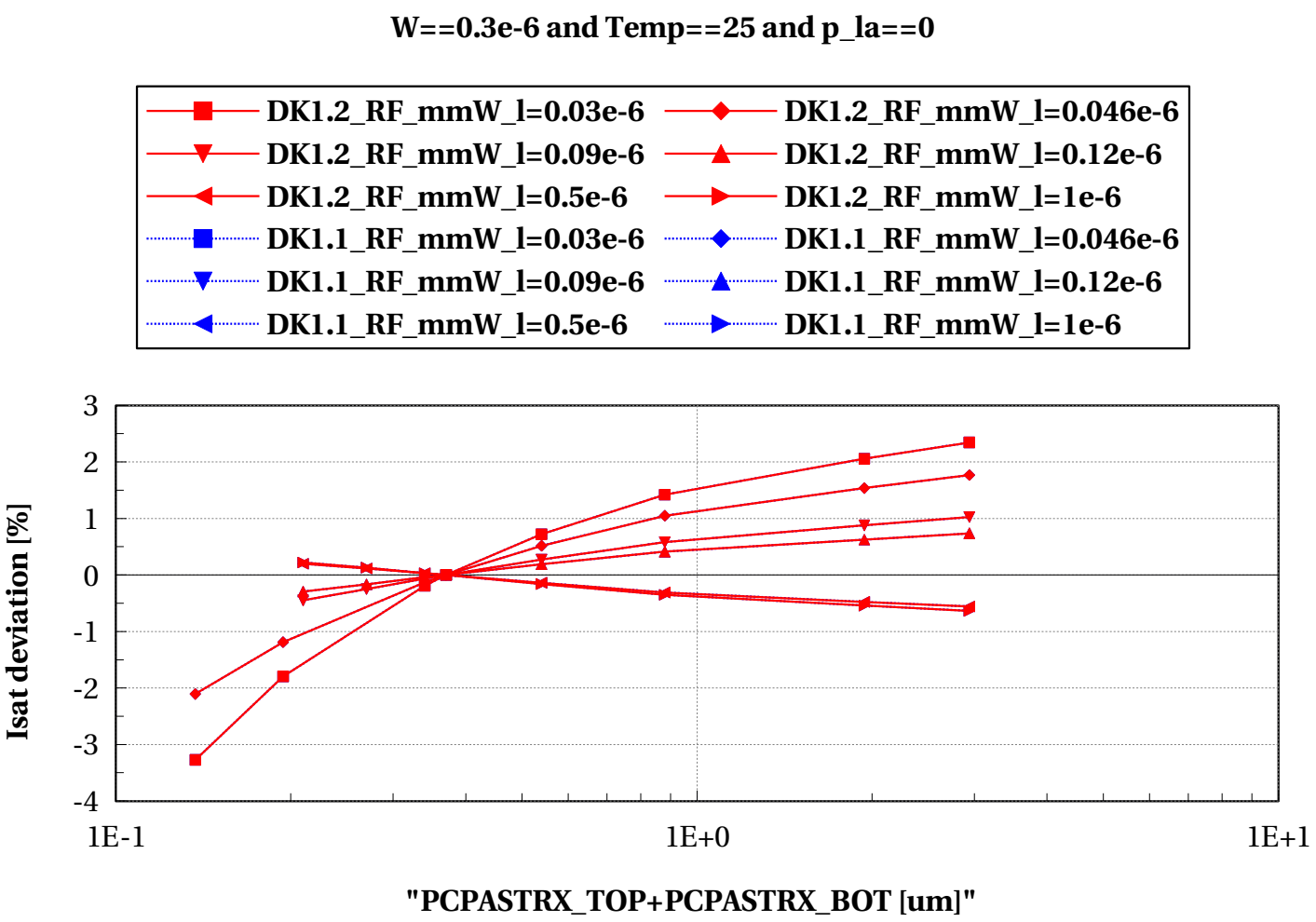
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



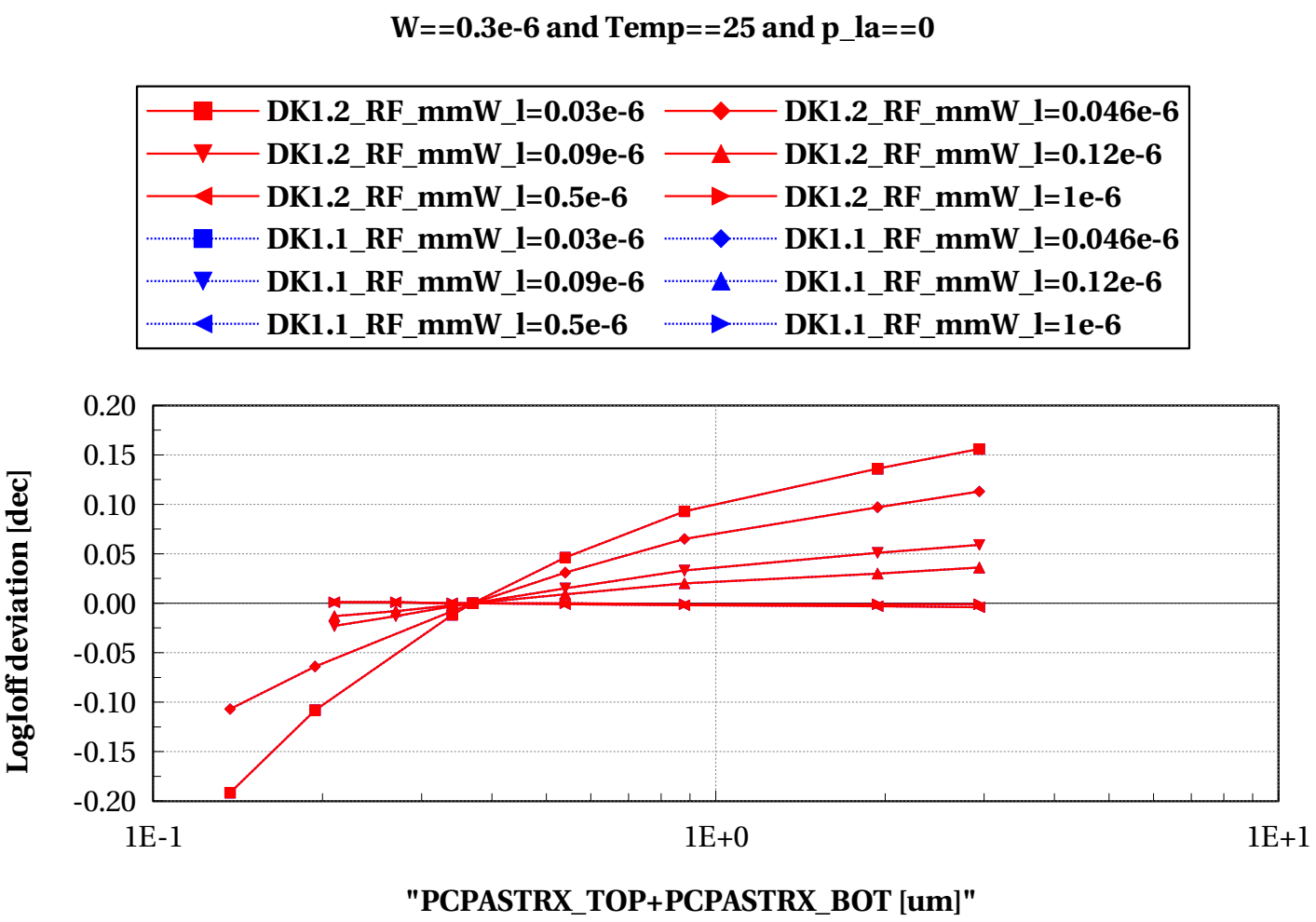
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

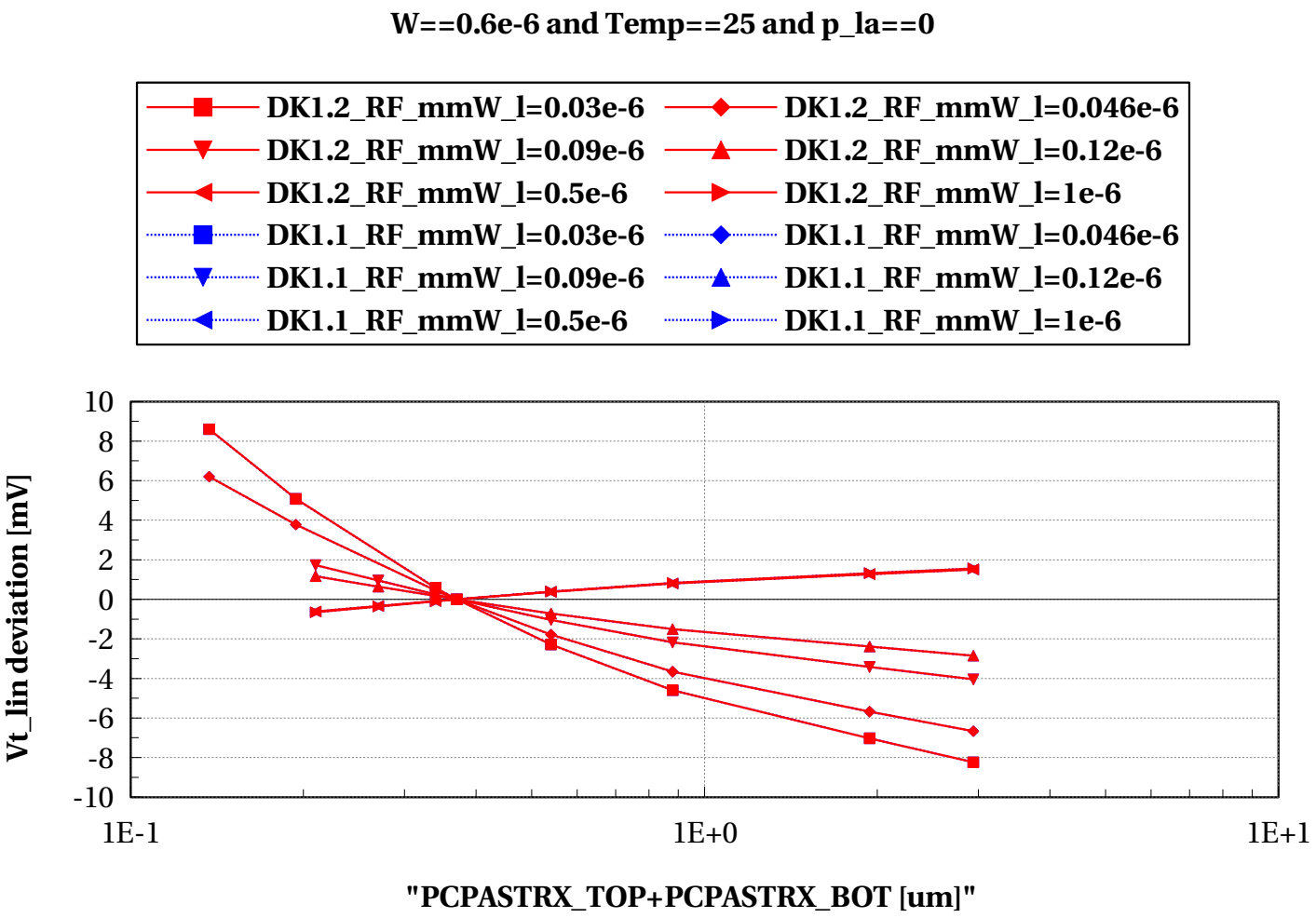


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

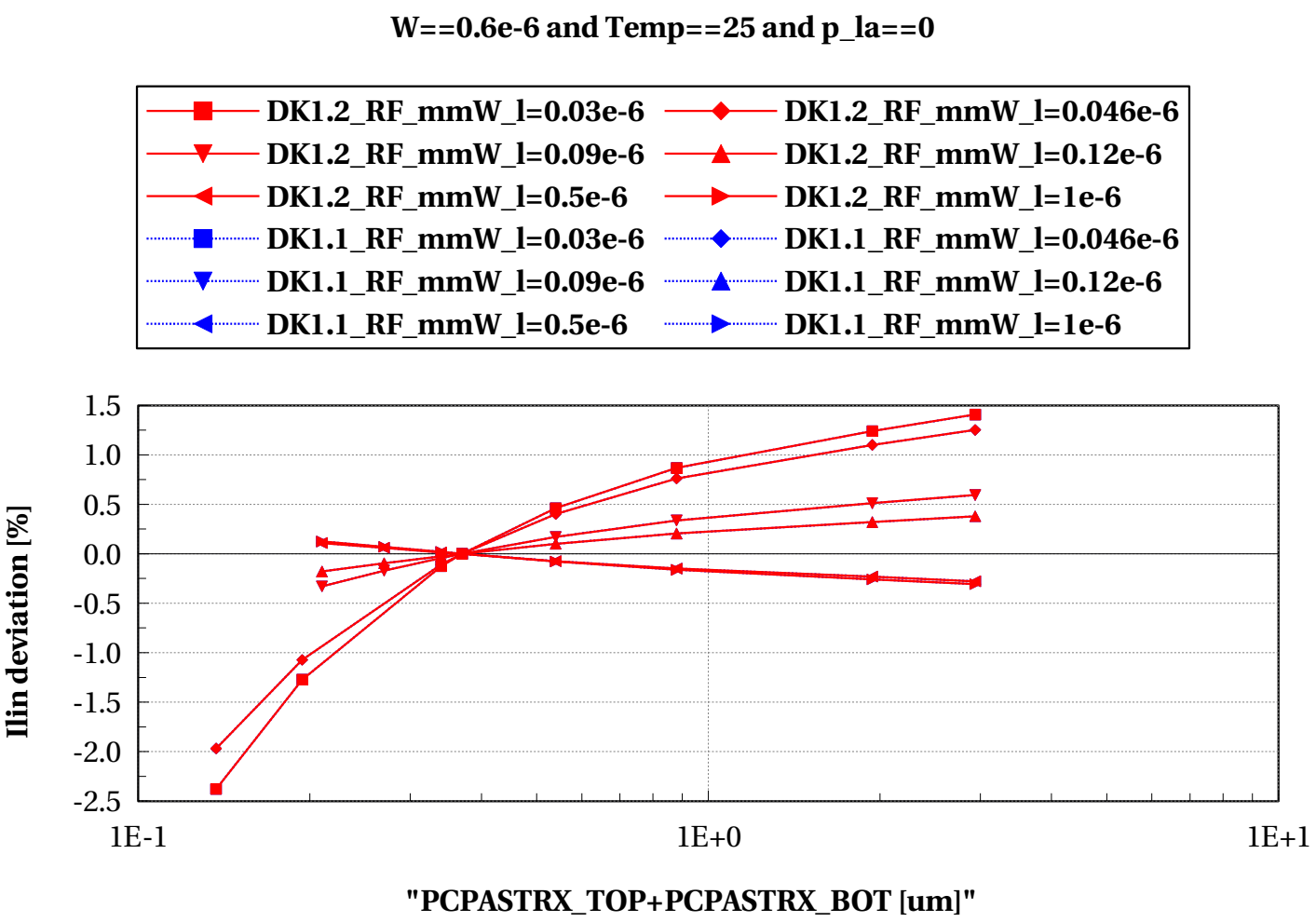


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling@W=0.6u

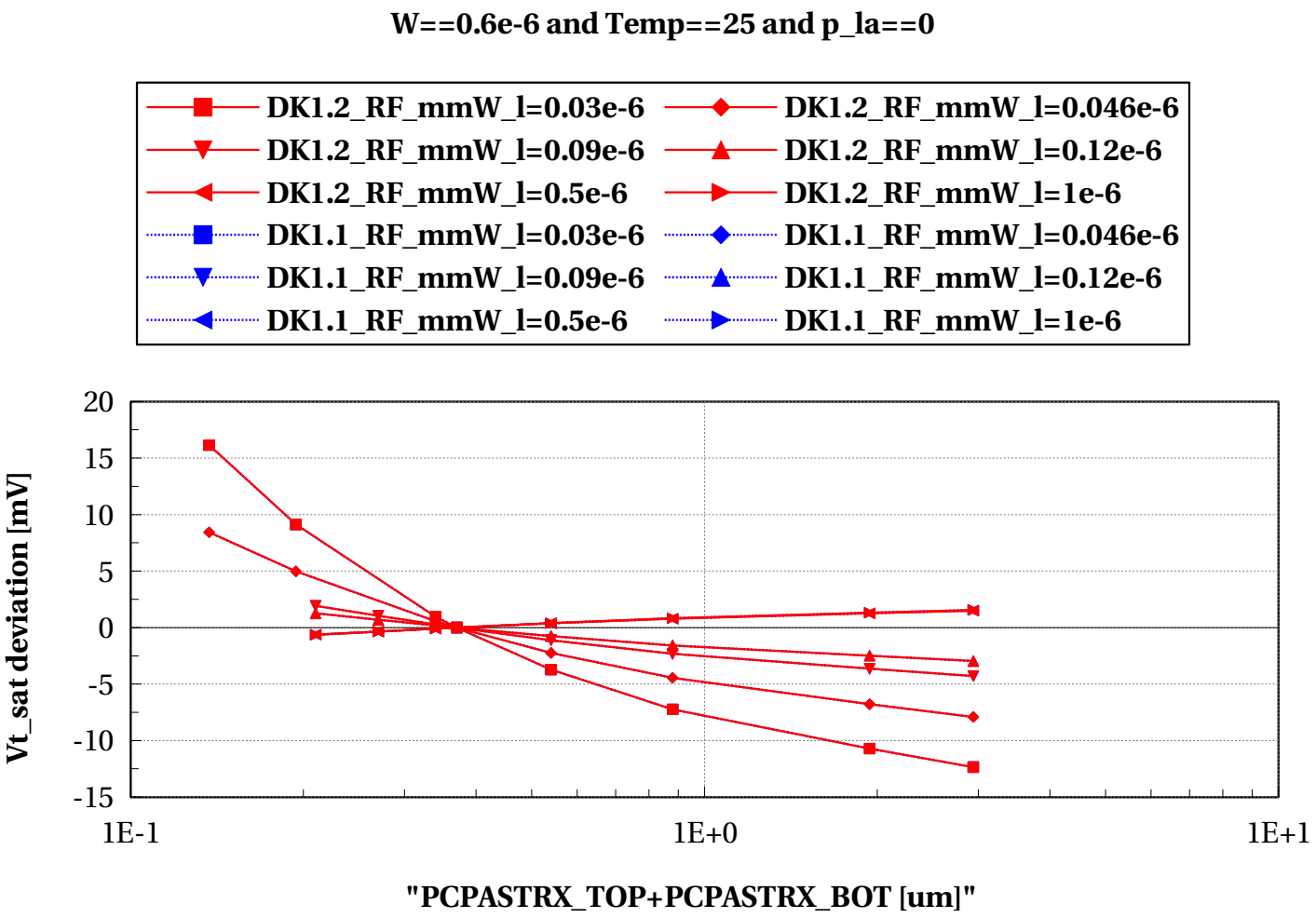
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



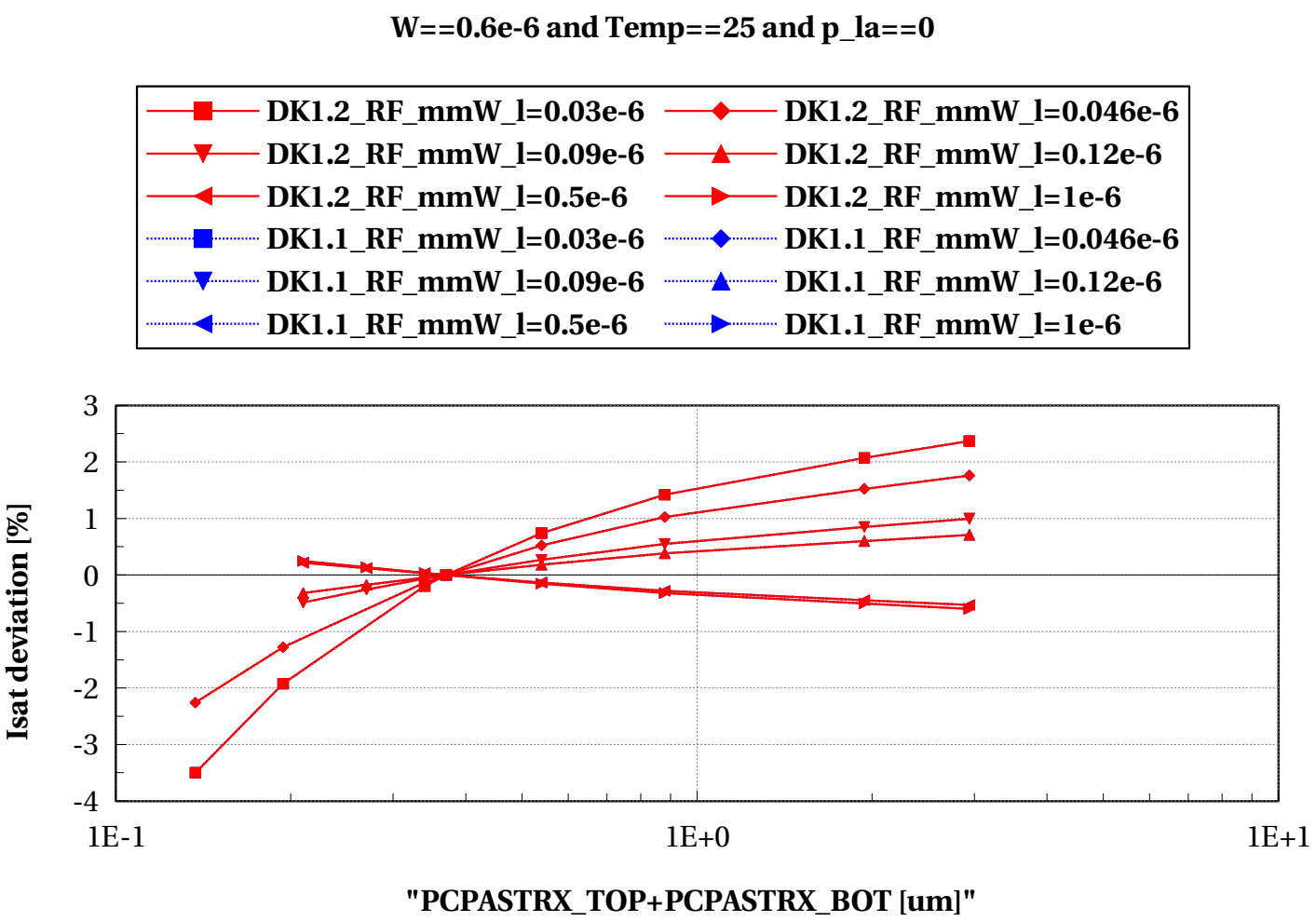
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



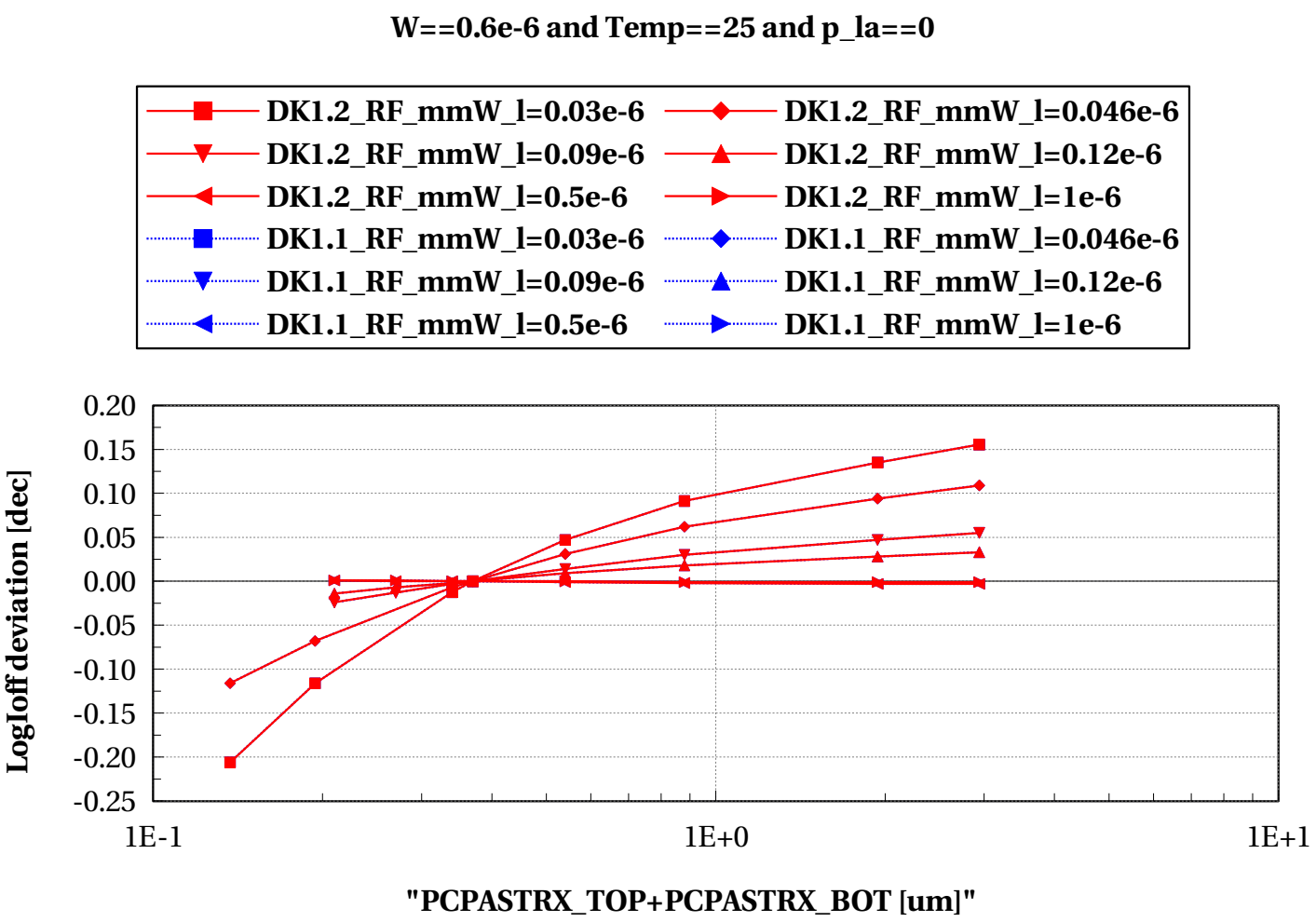
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

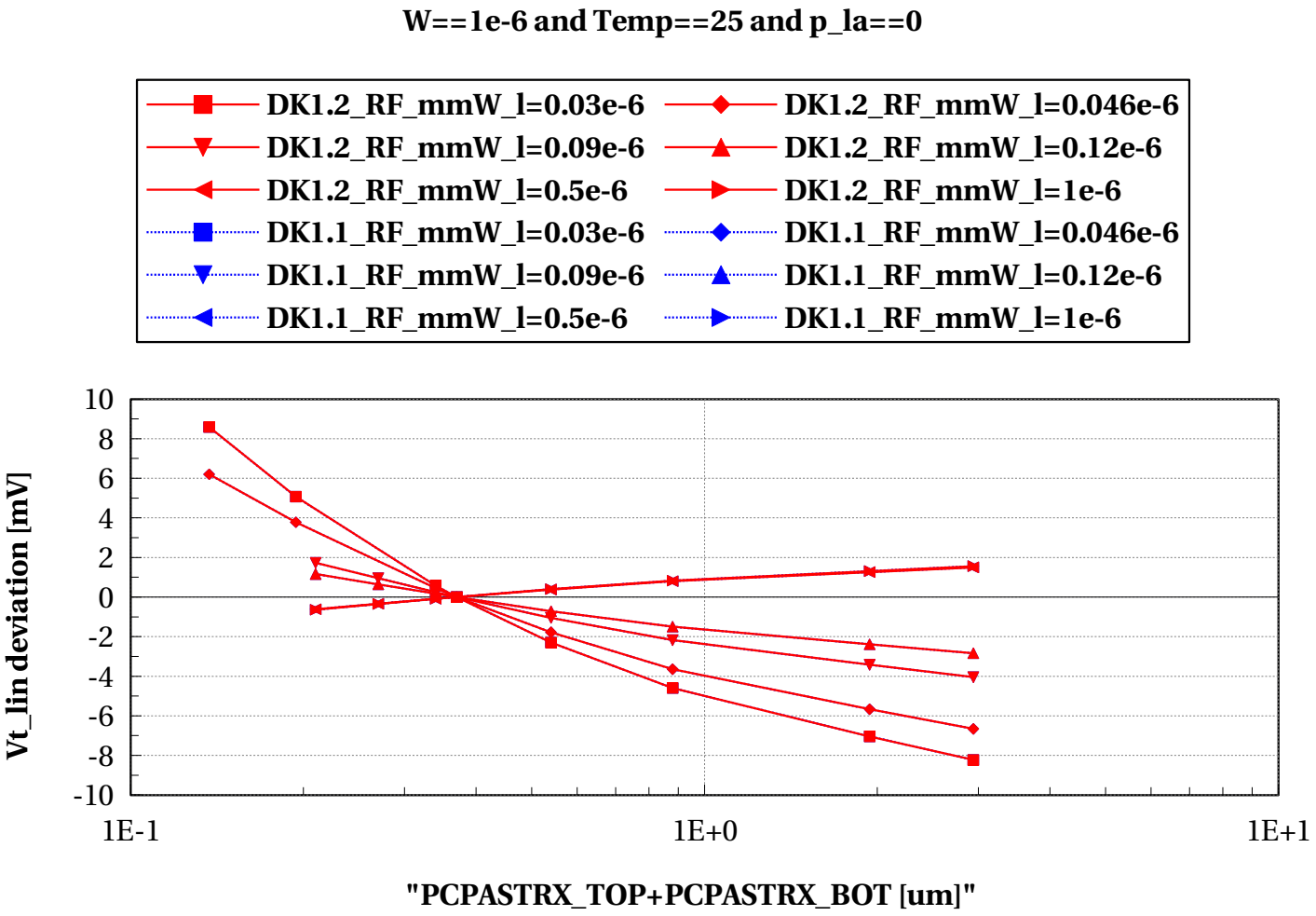


nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

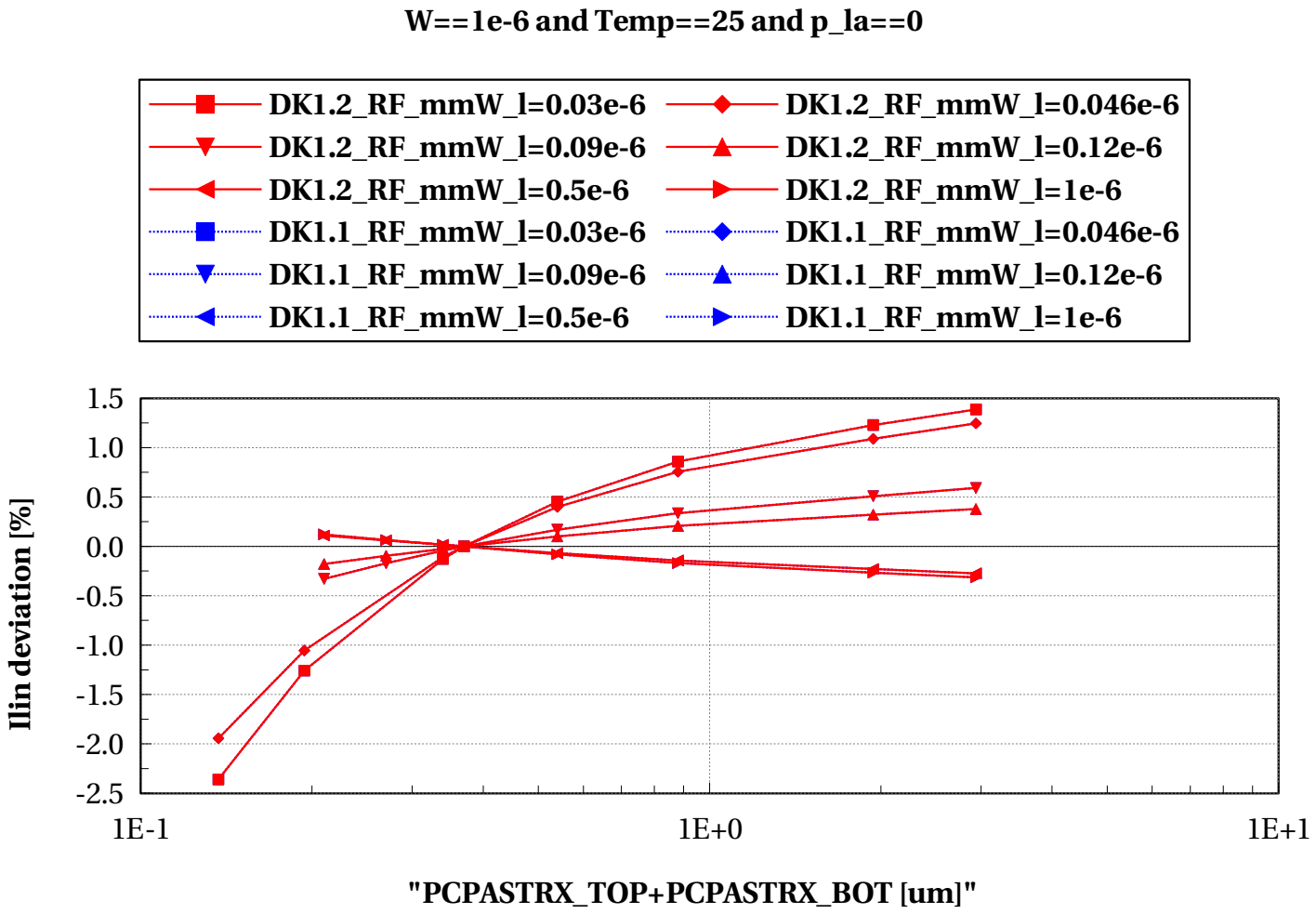


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=1u

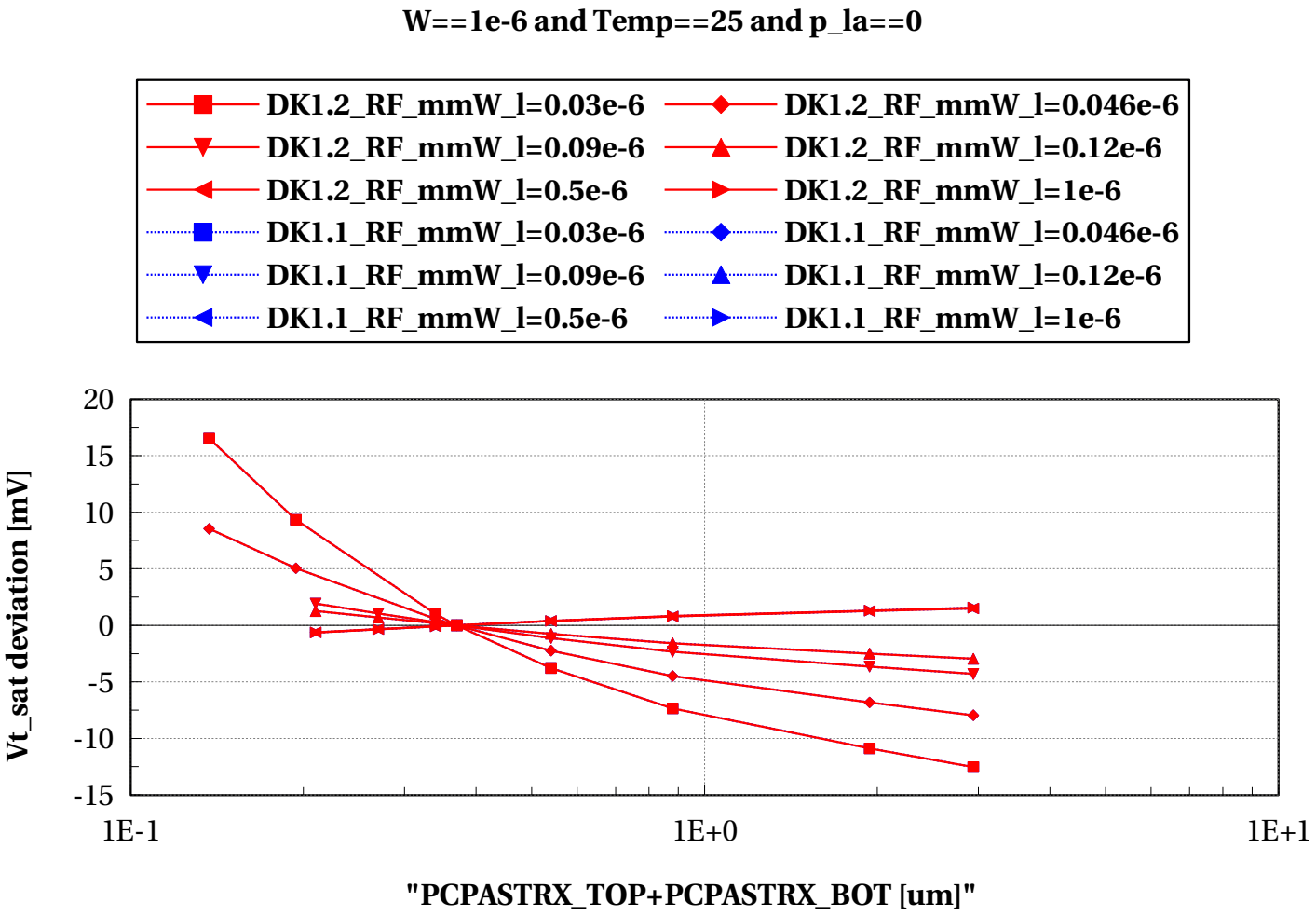
nfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



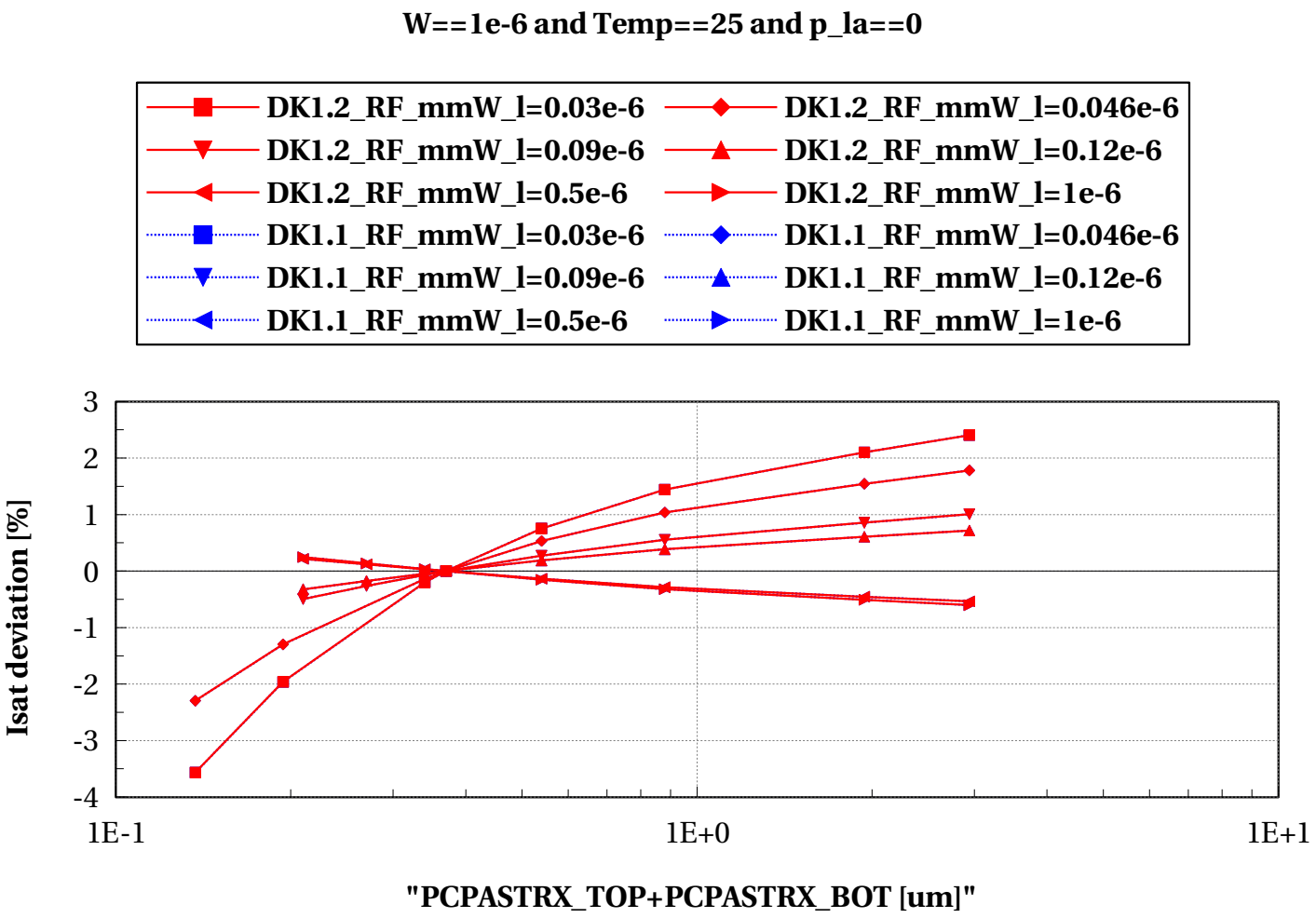
nfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



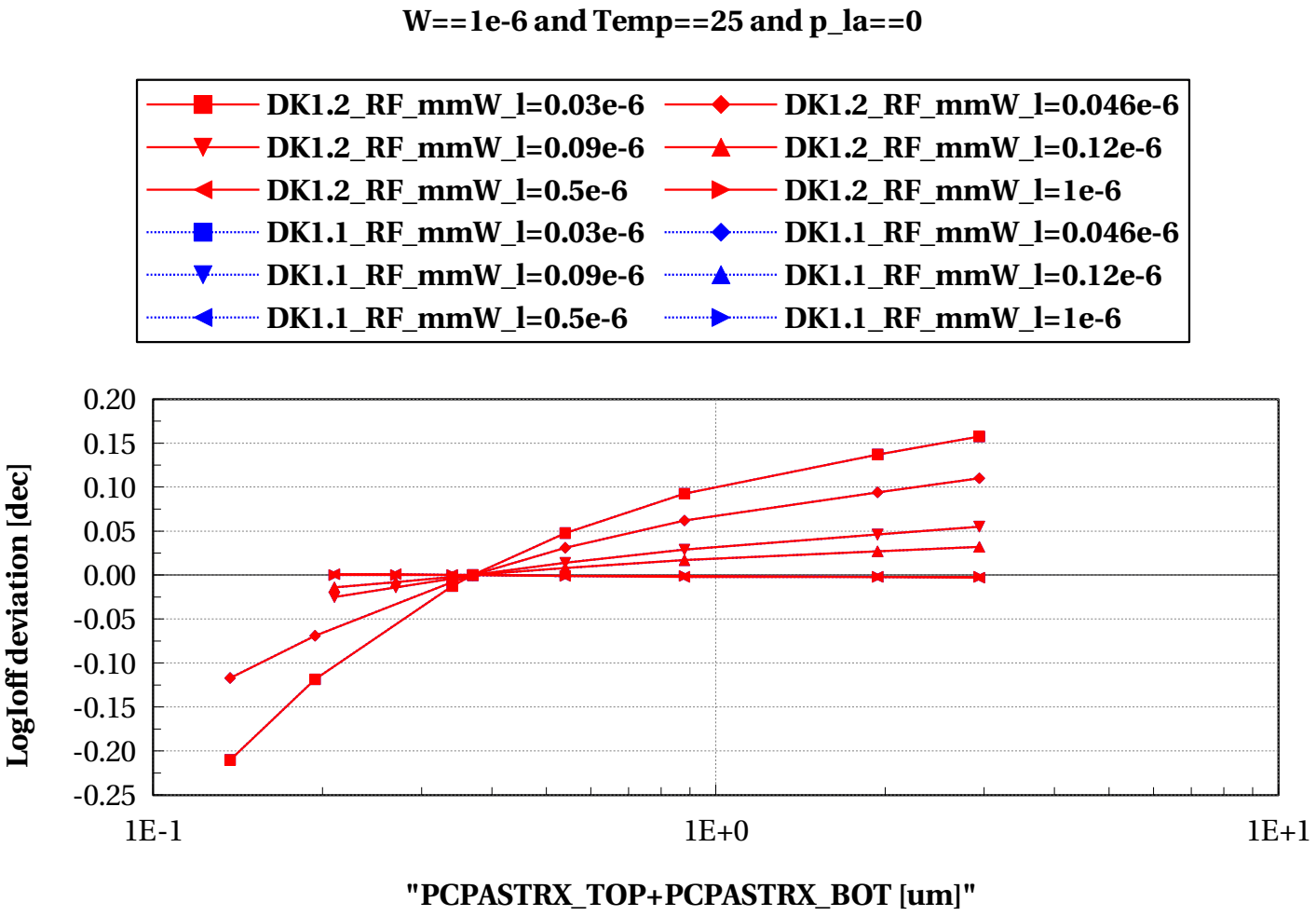
nfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



nfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



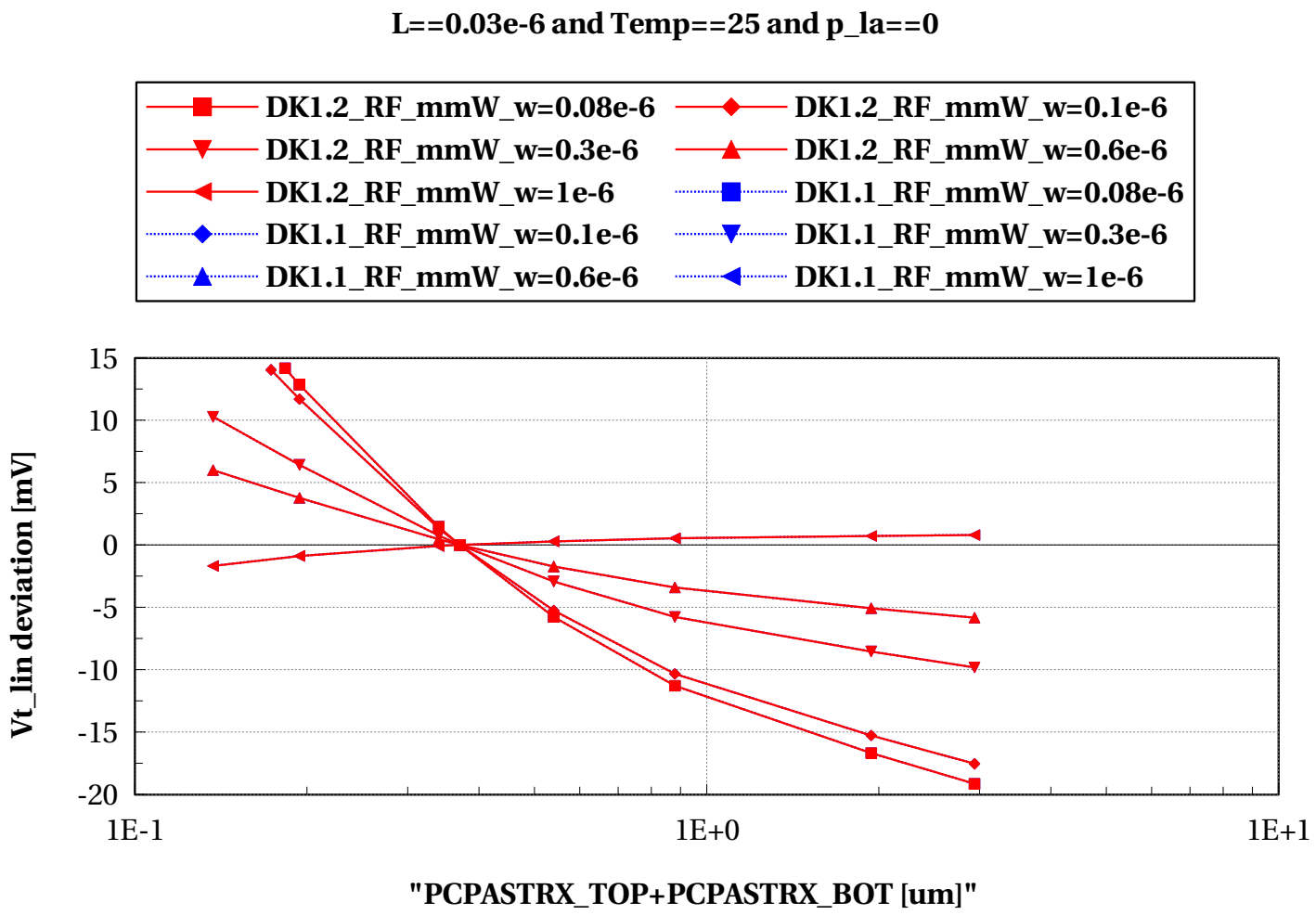
nfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



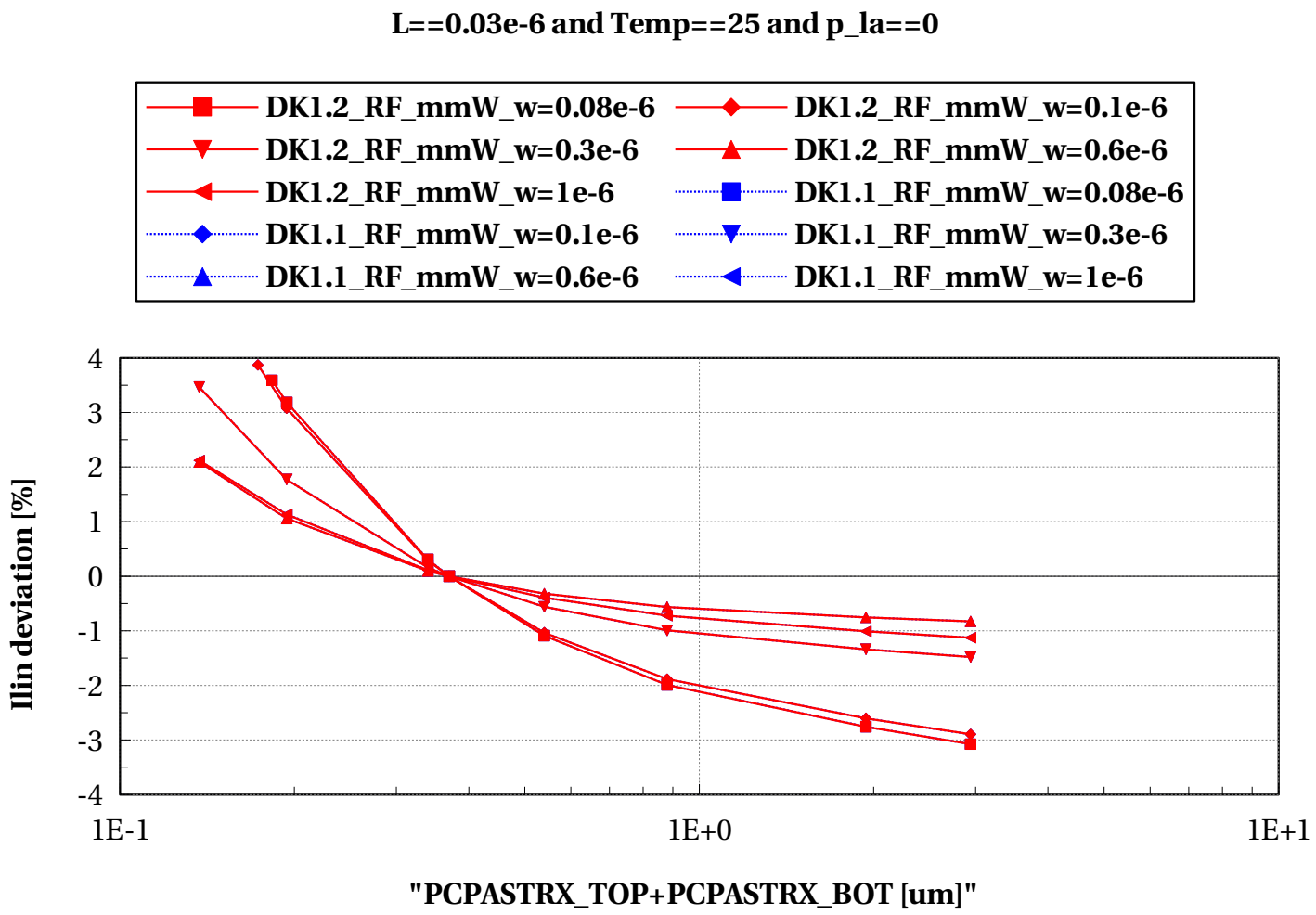
pfet_acc
Electrical characteristics scaling

Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.03u

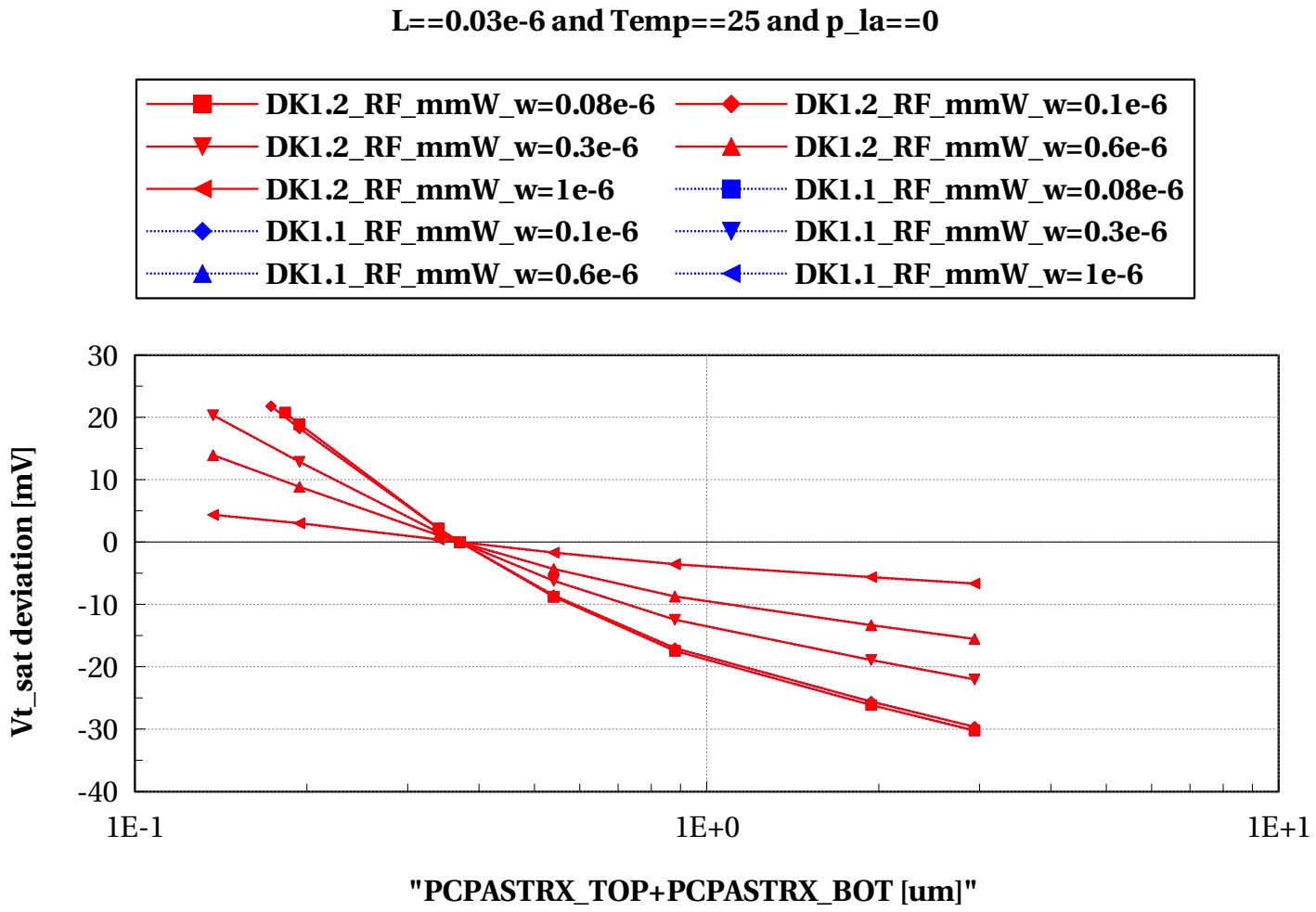
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



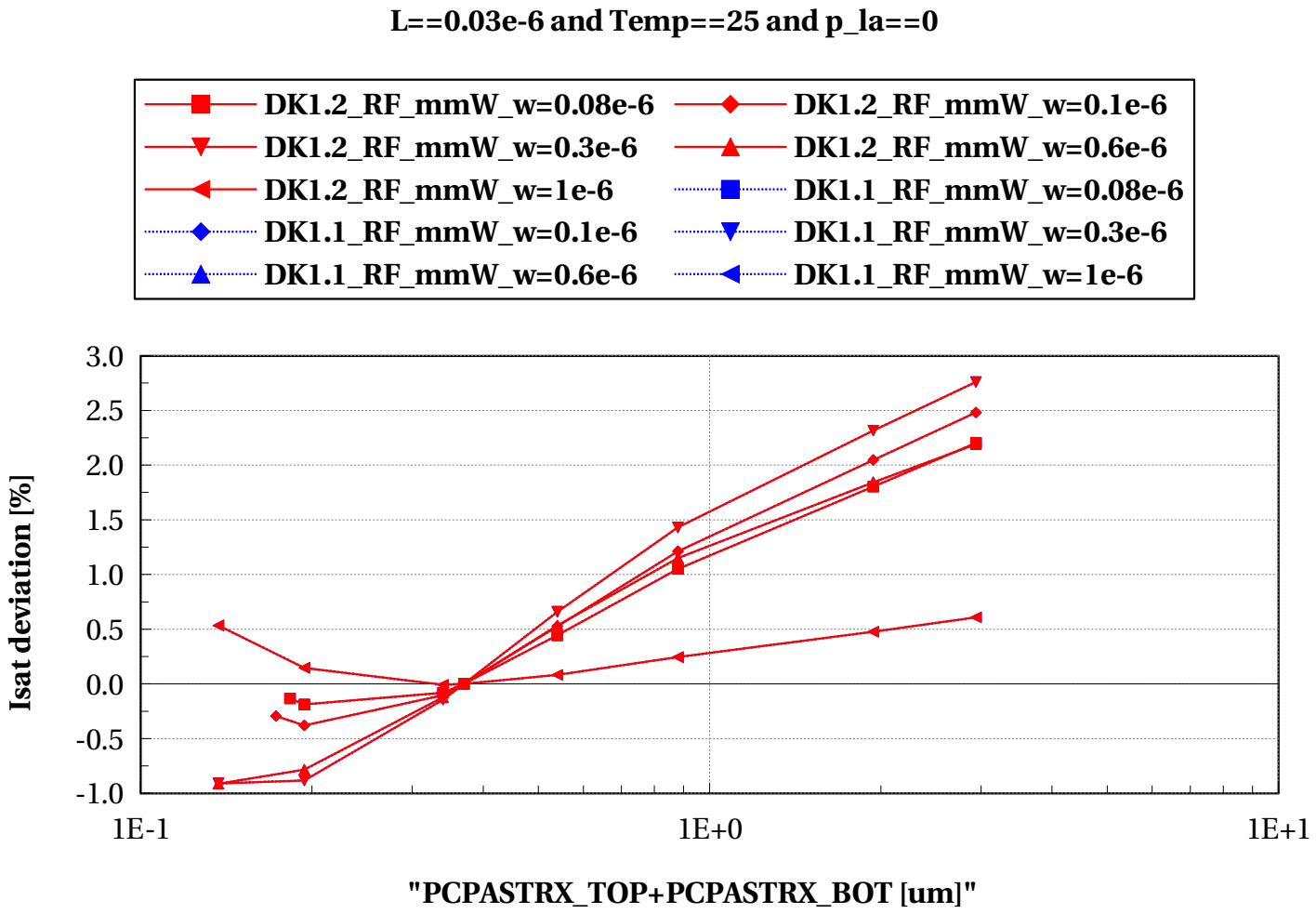
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



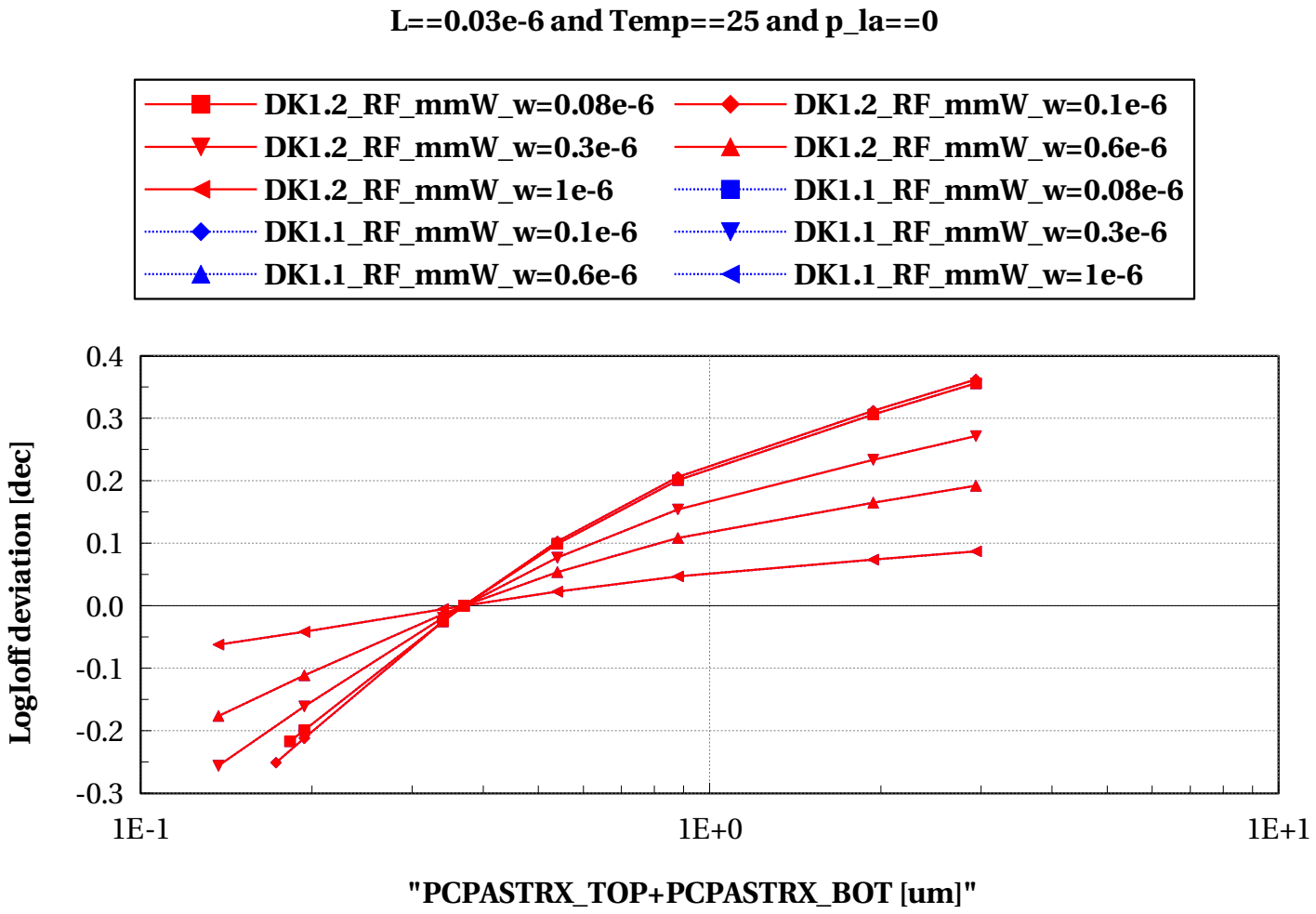
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

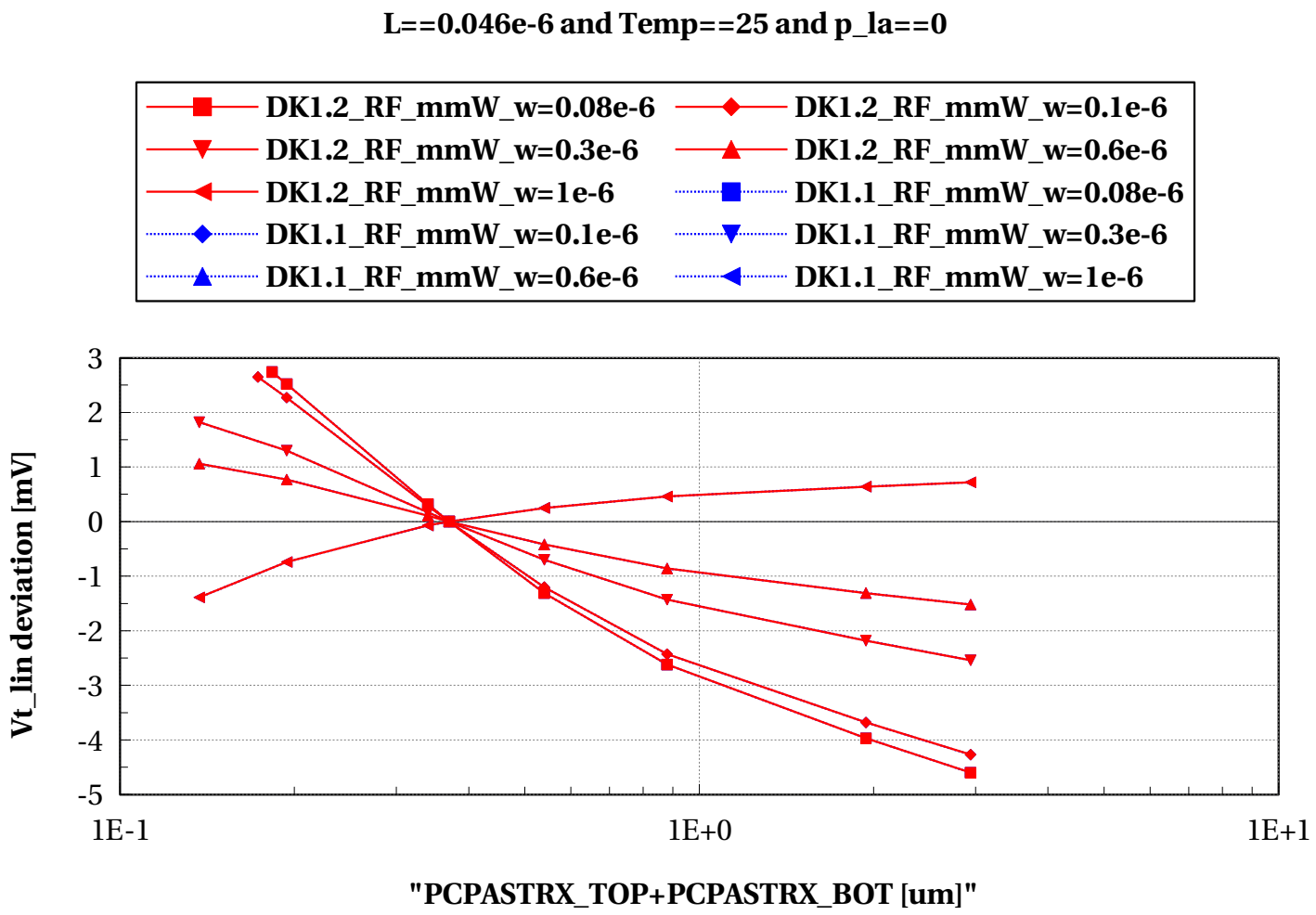


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

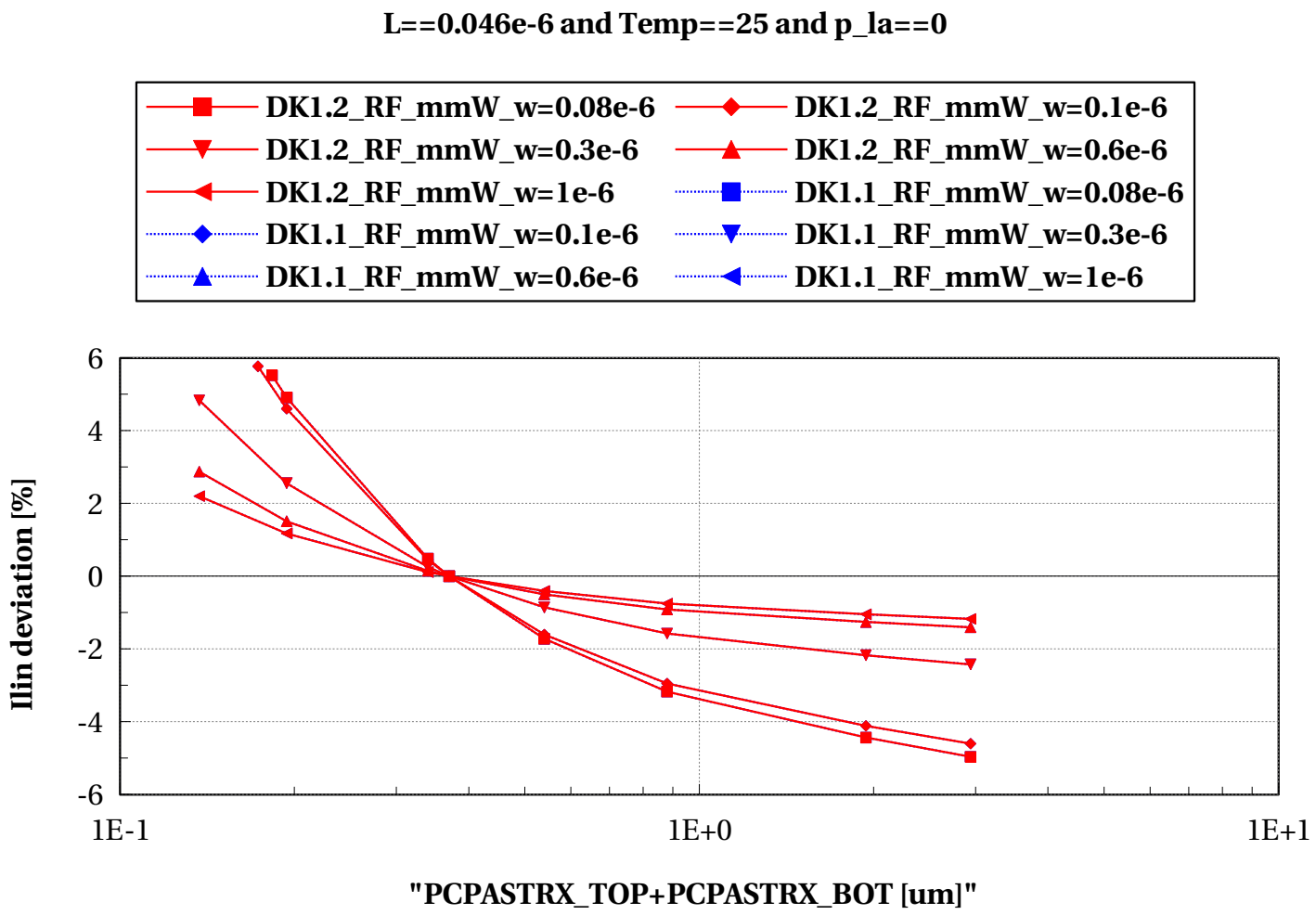


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.046u

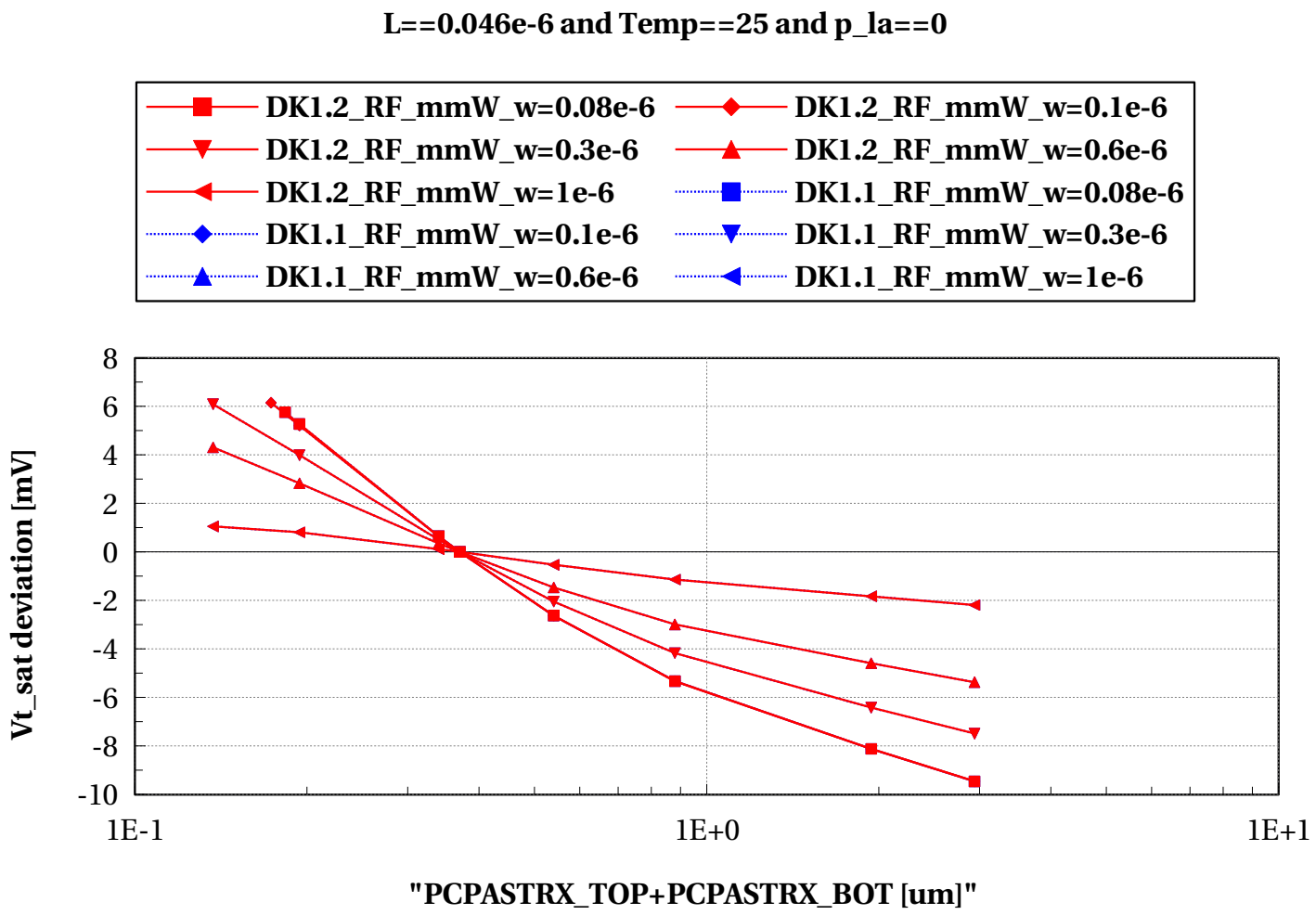
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



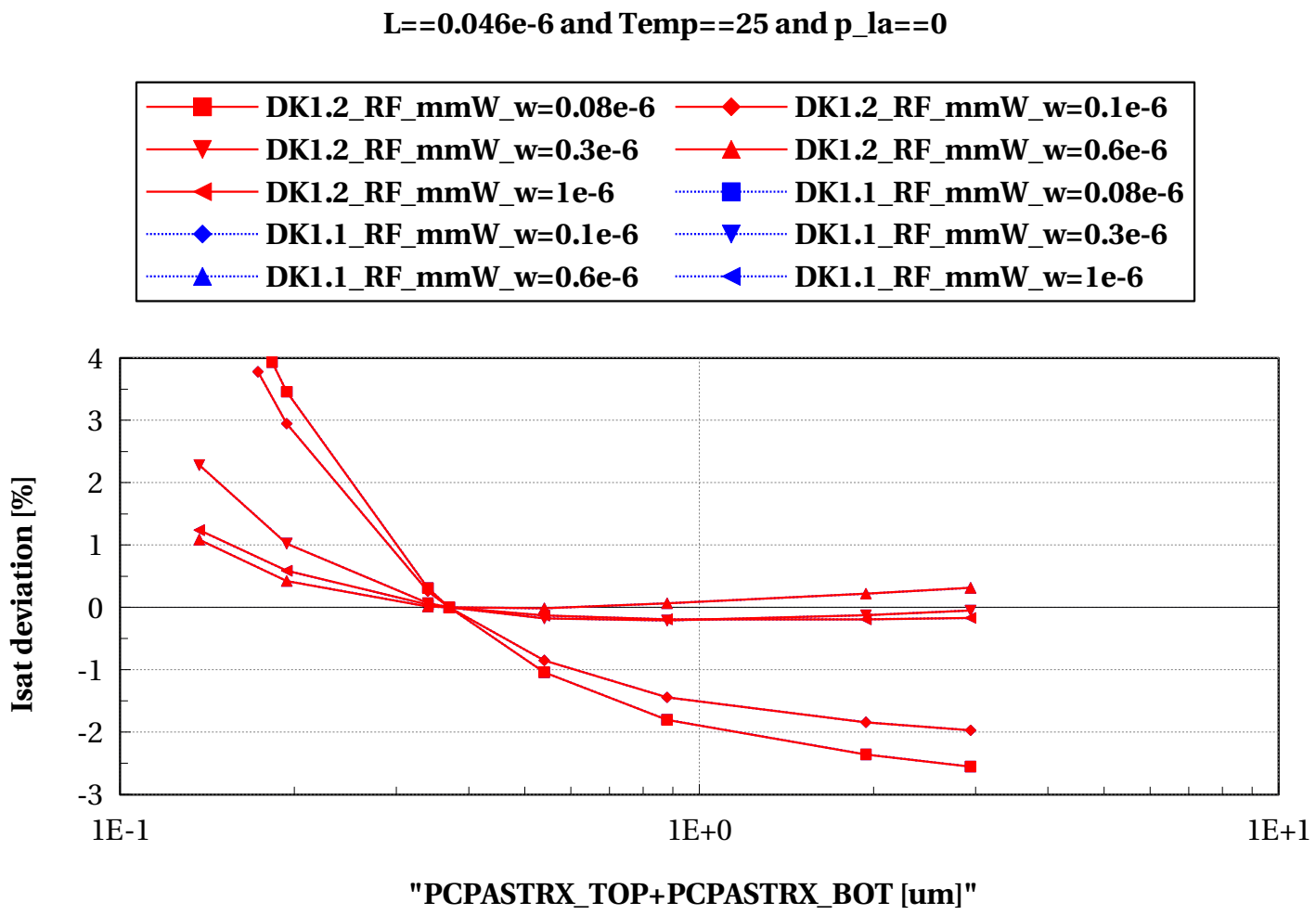
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



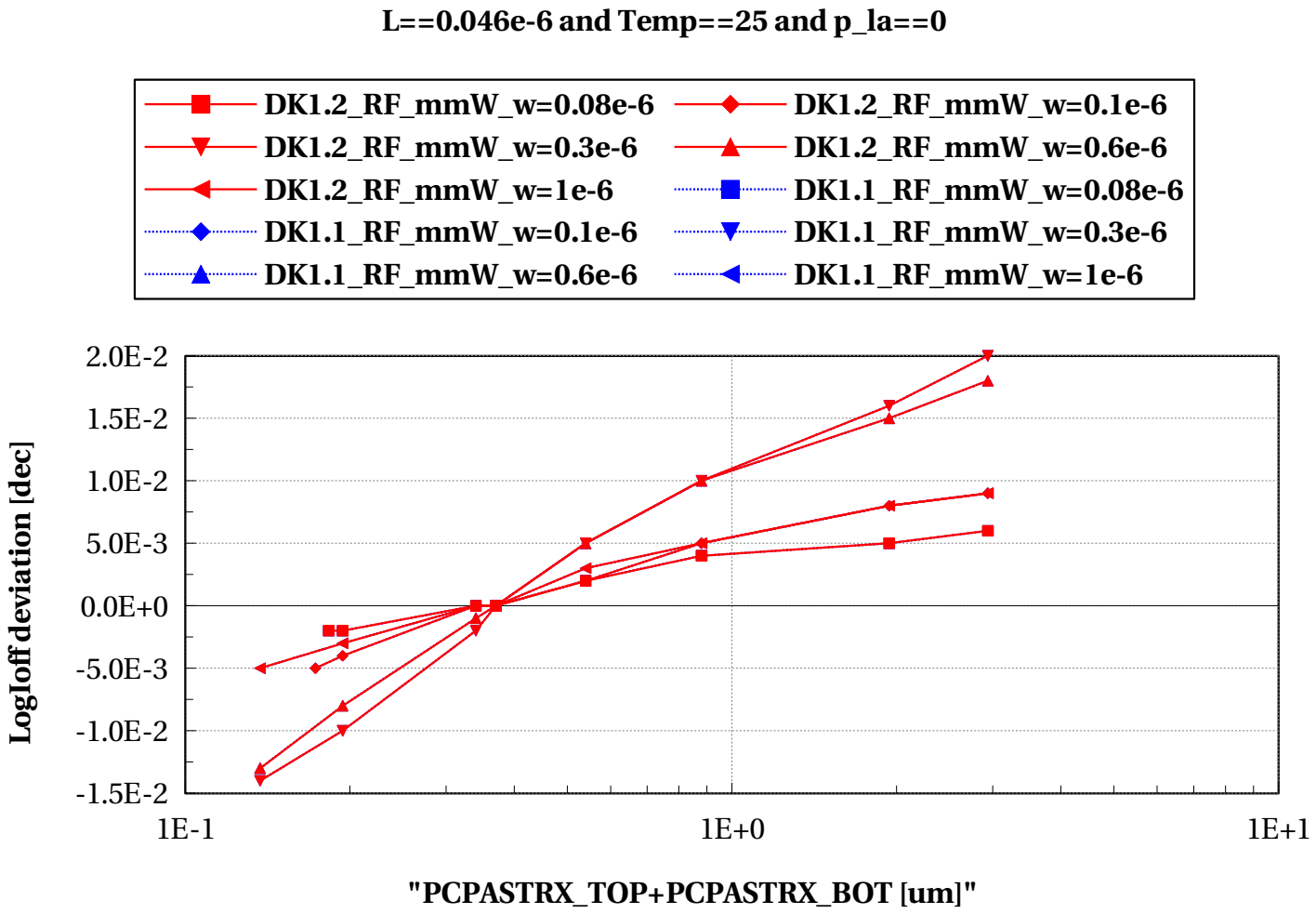
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

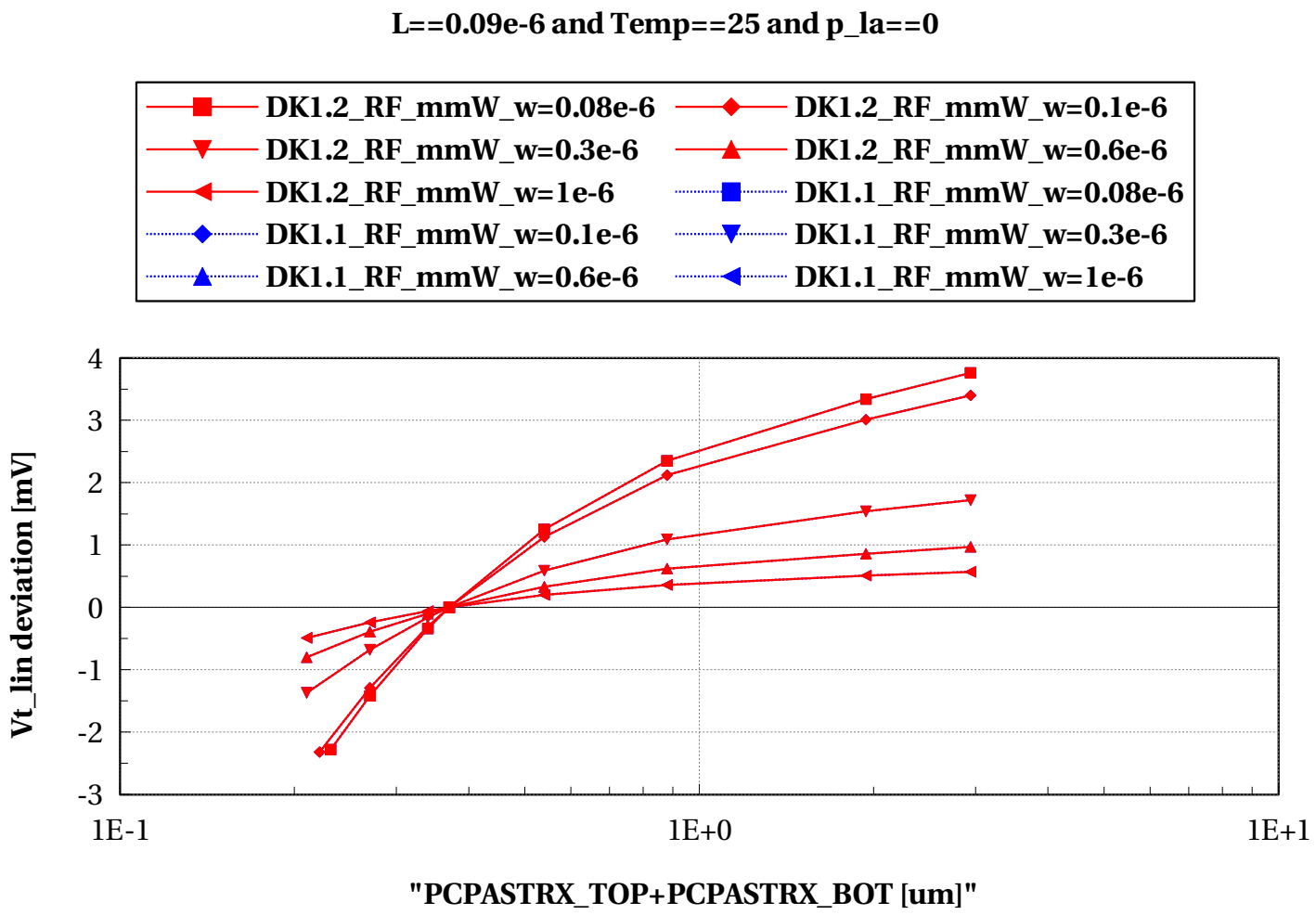


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

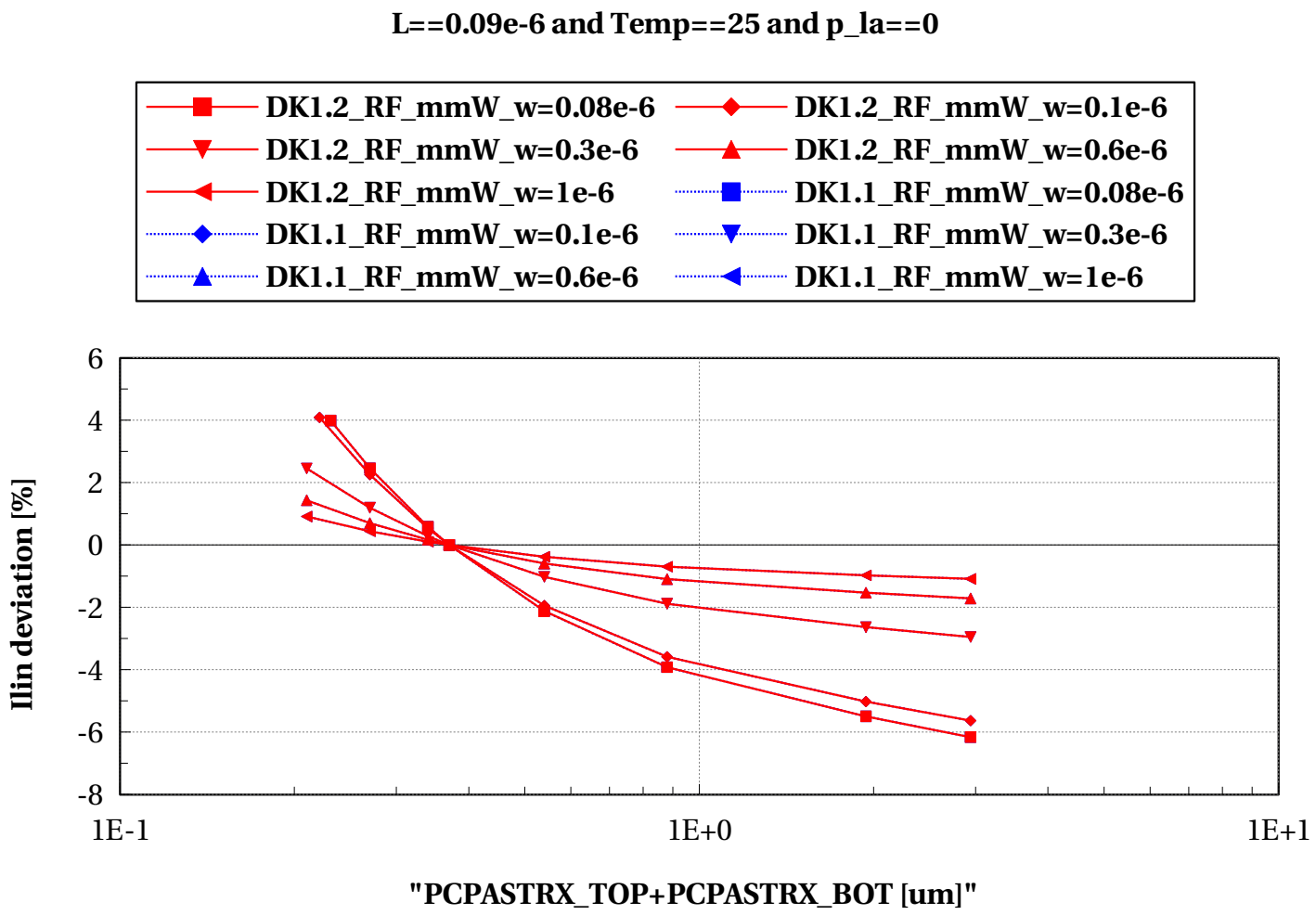


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.09u

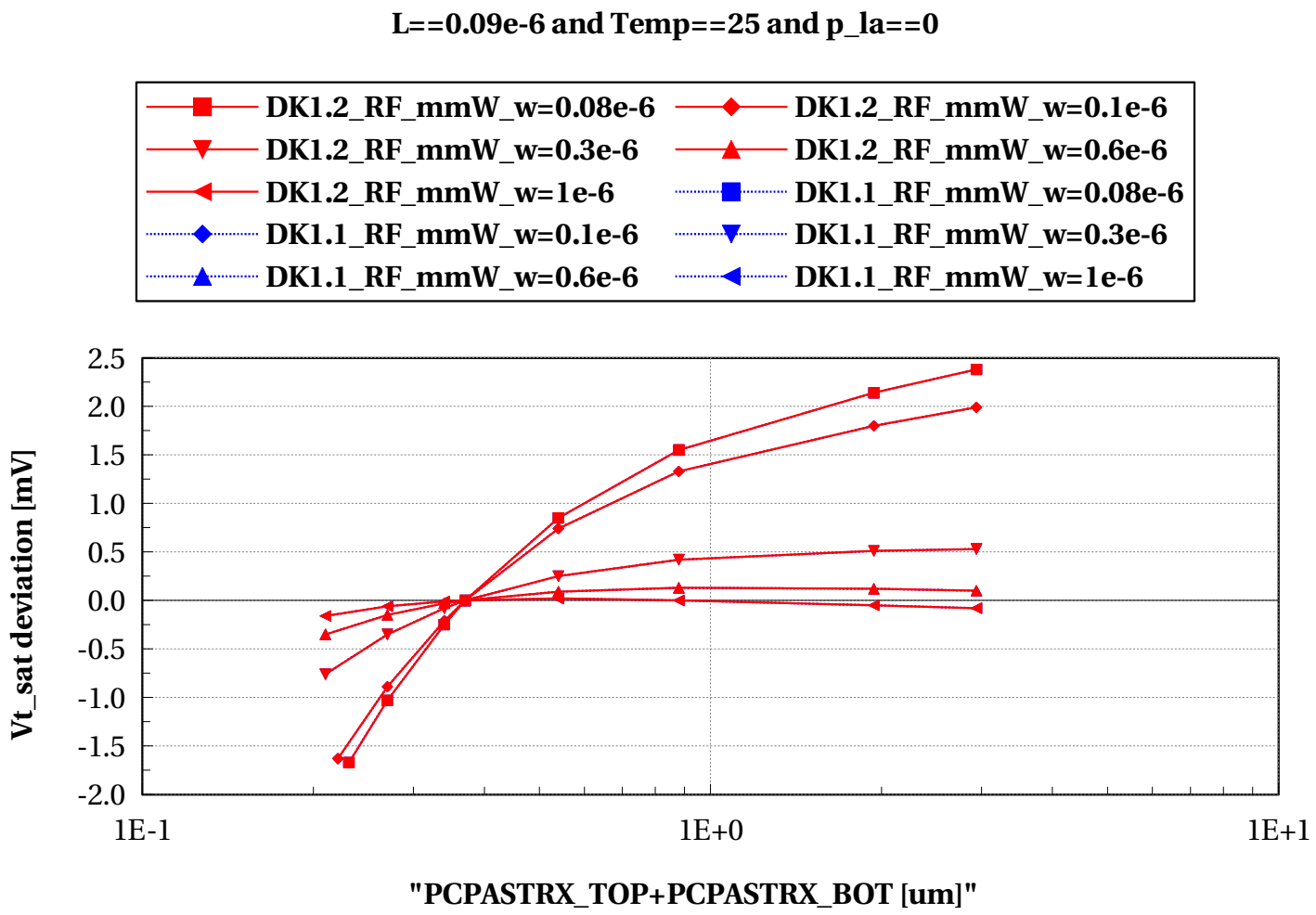
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



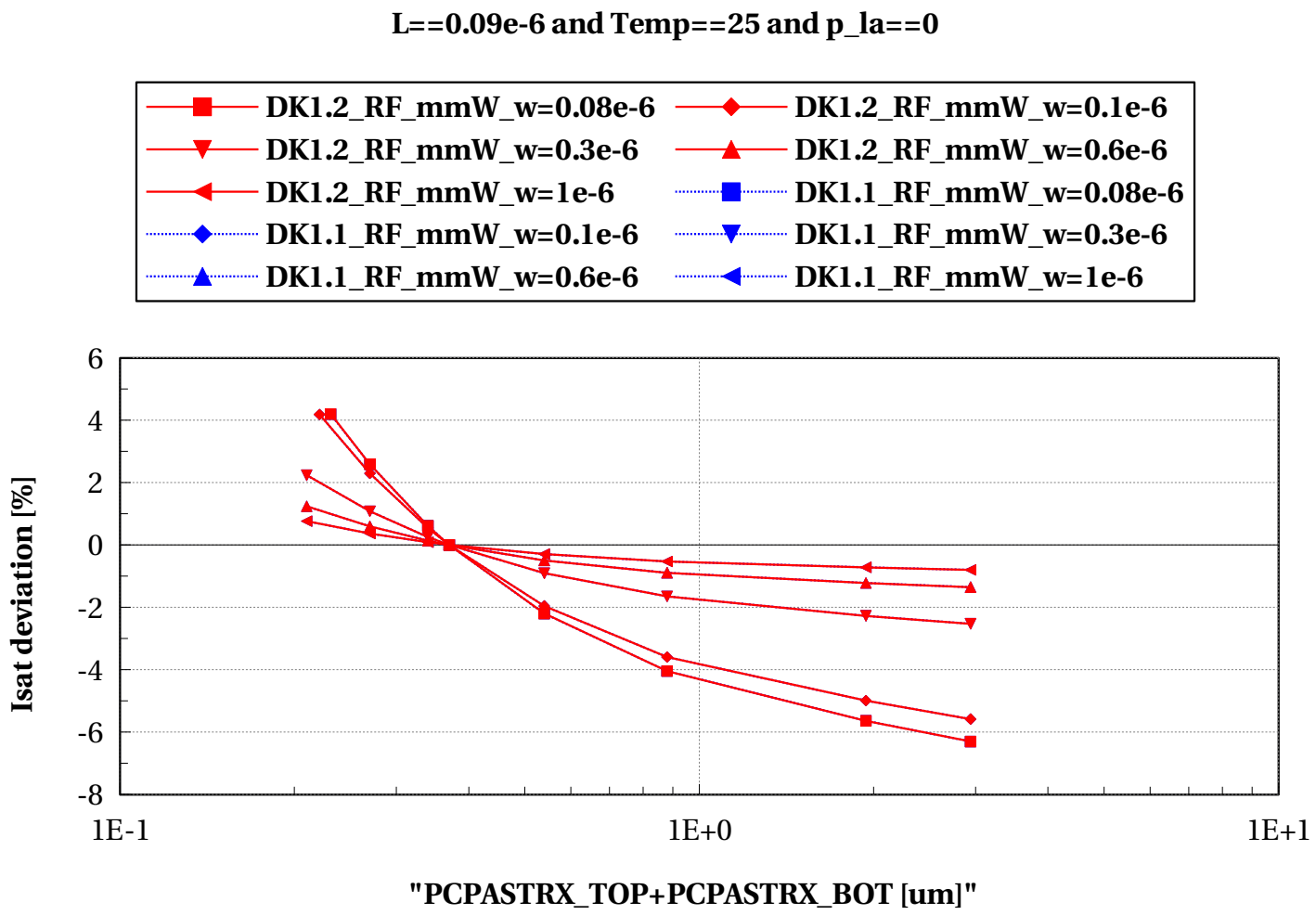
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



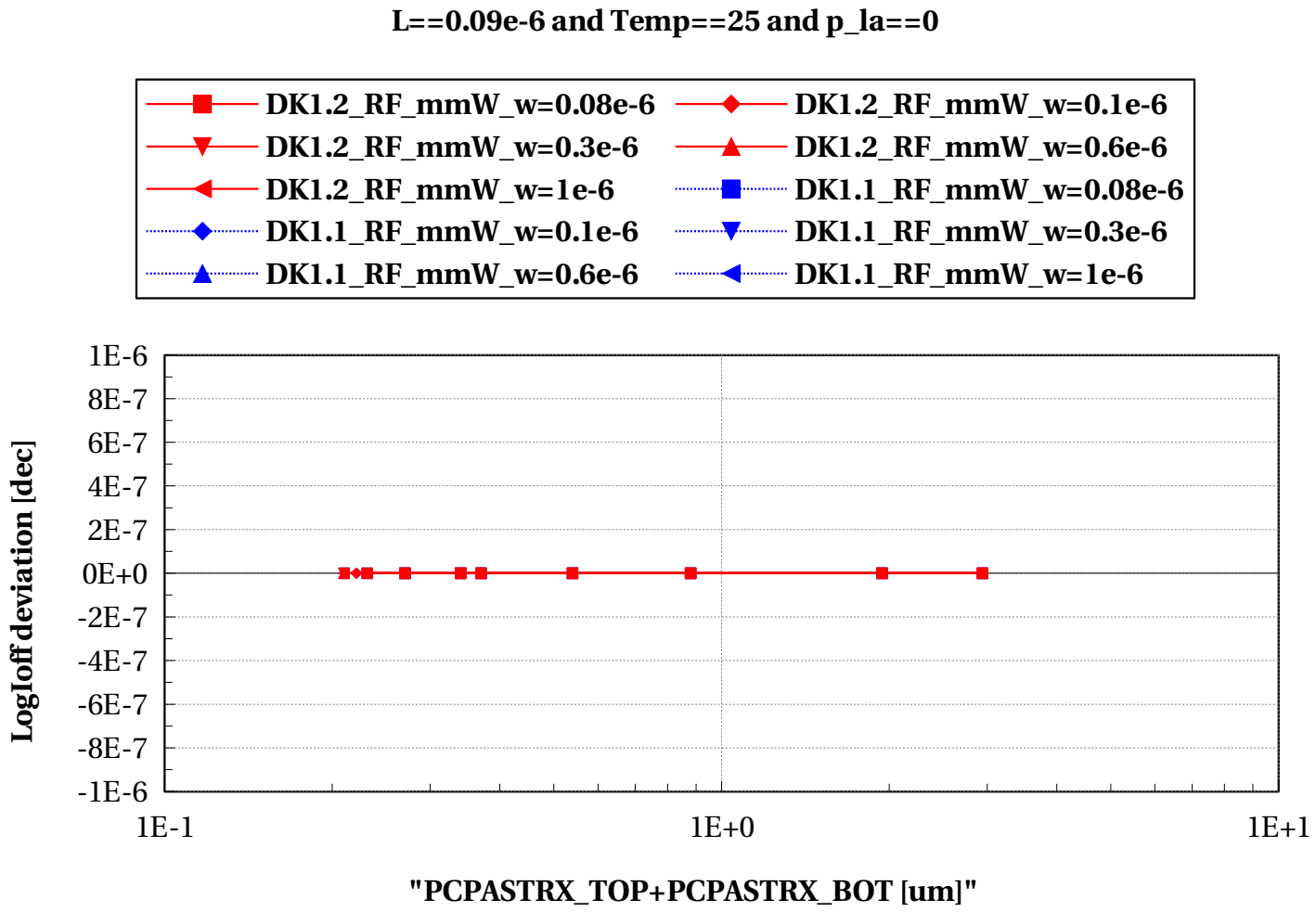
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

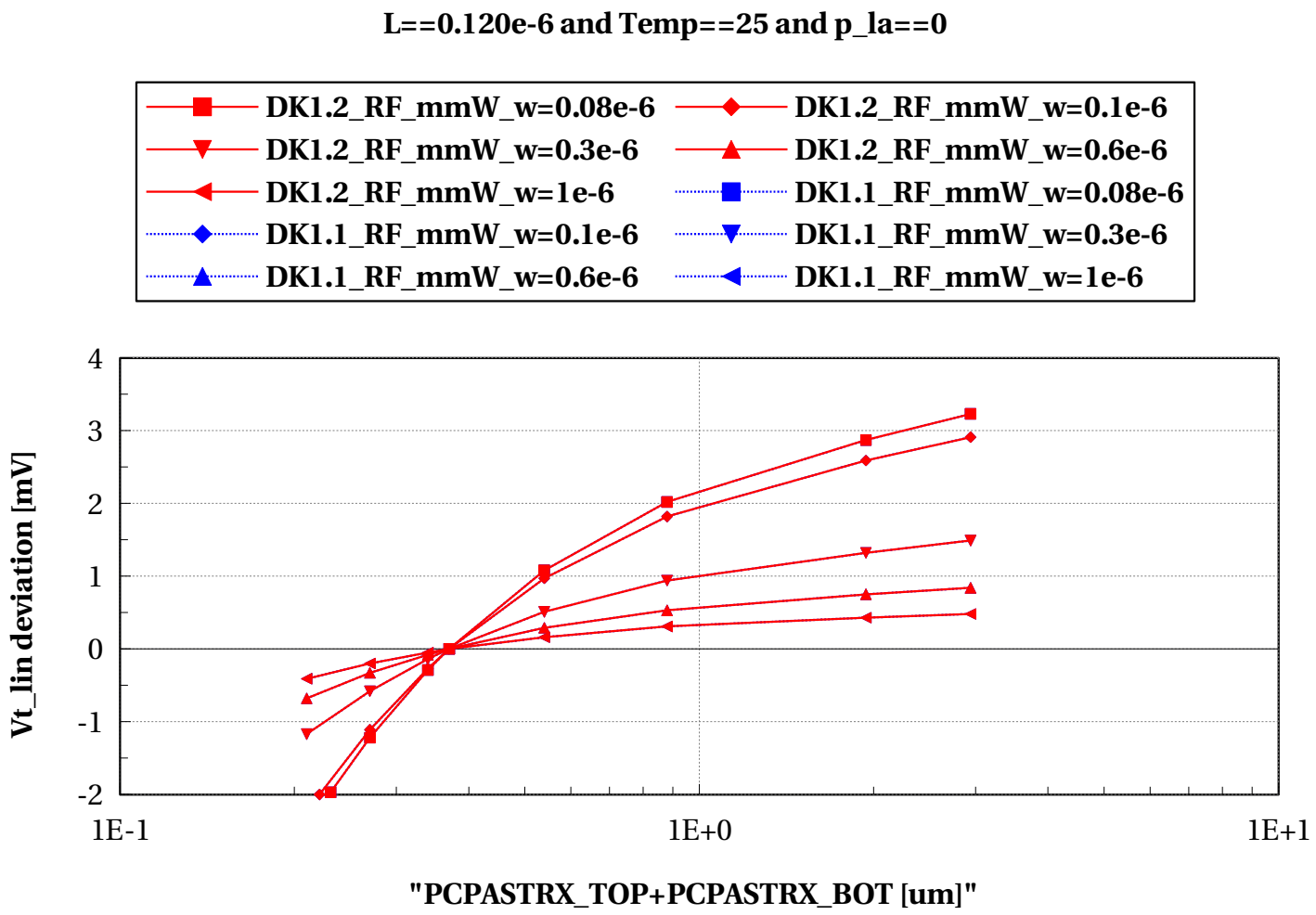


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

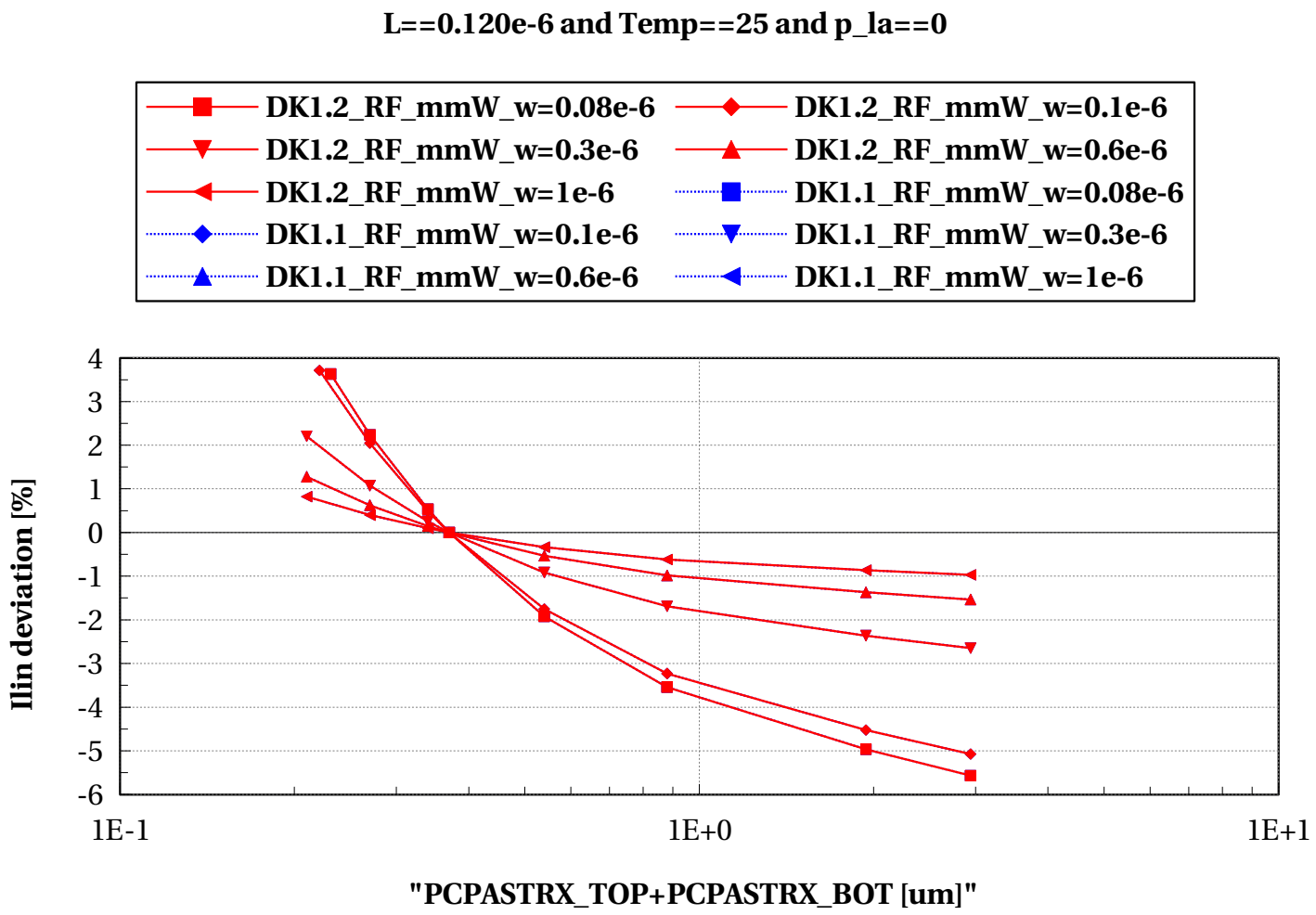


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.12u

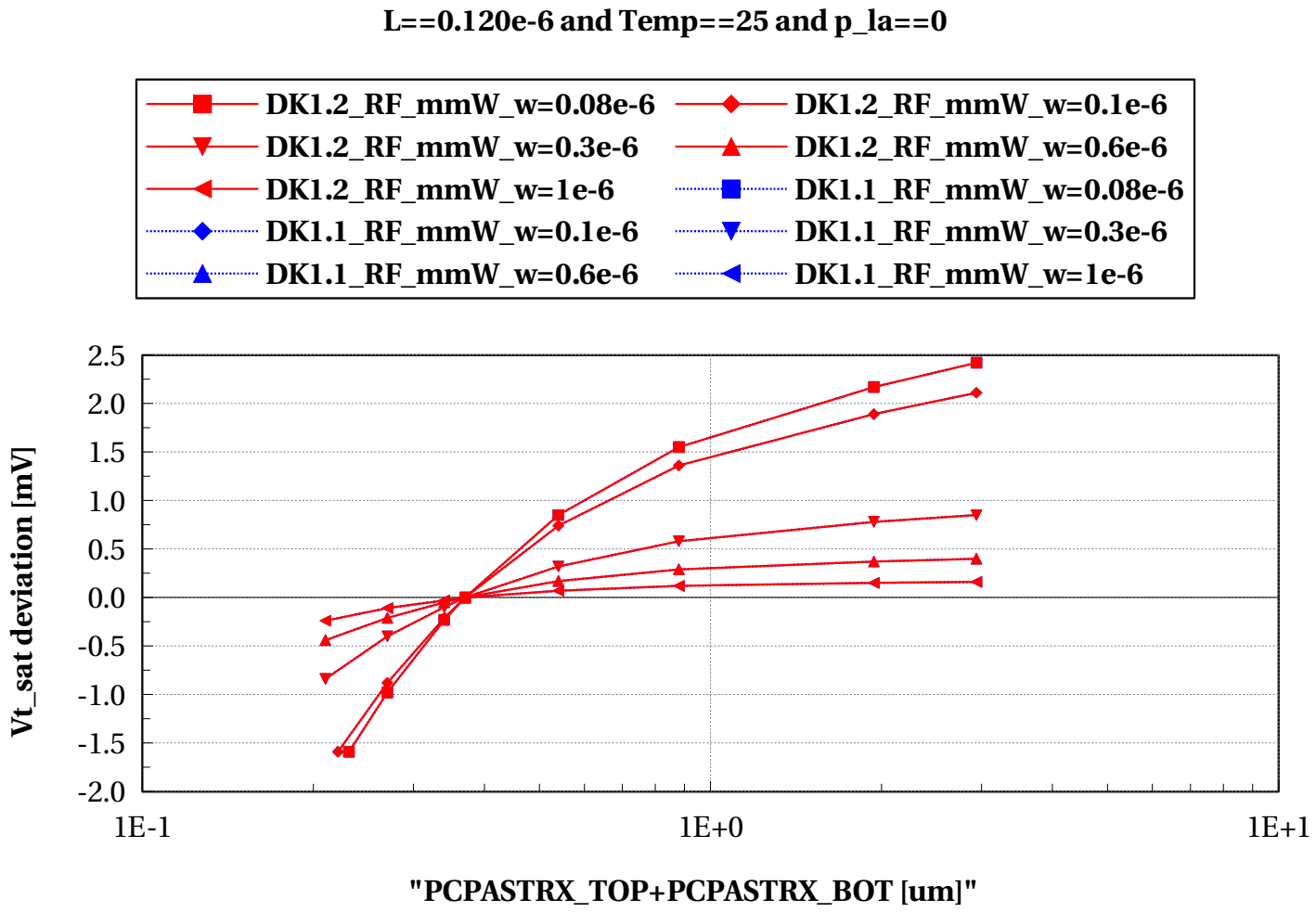
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



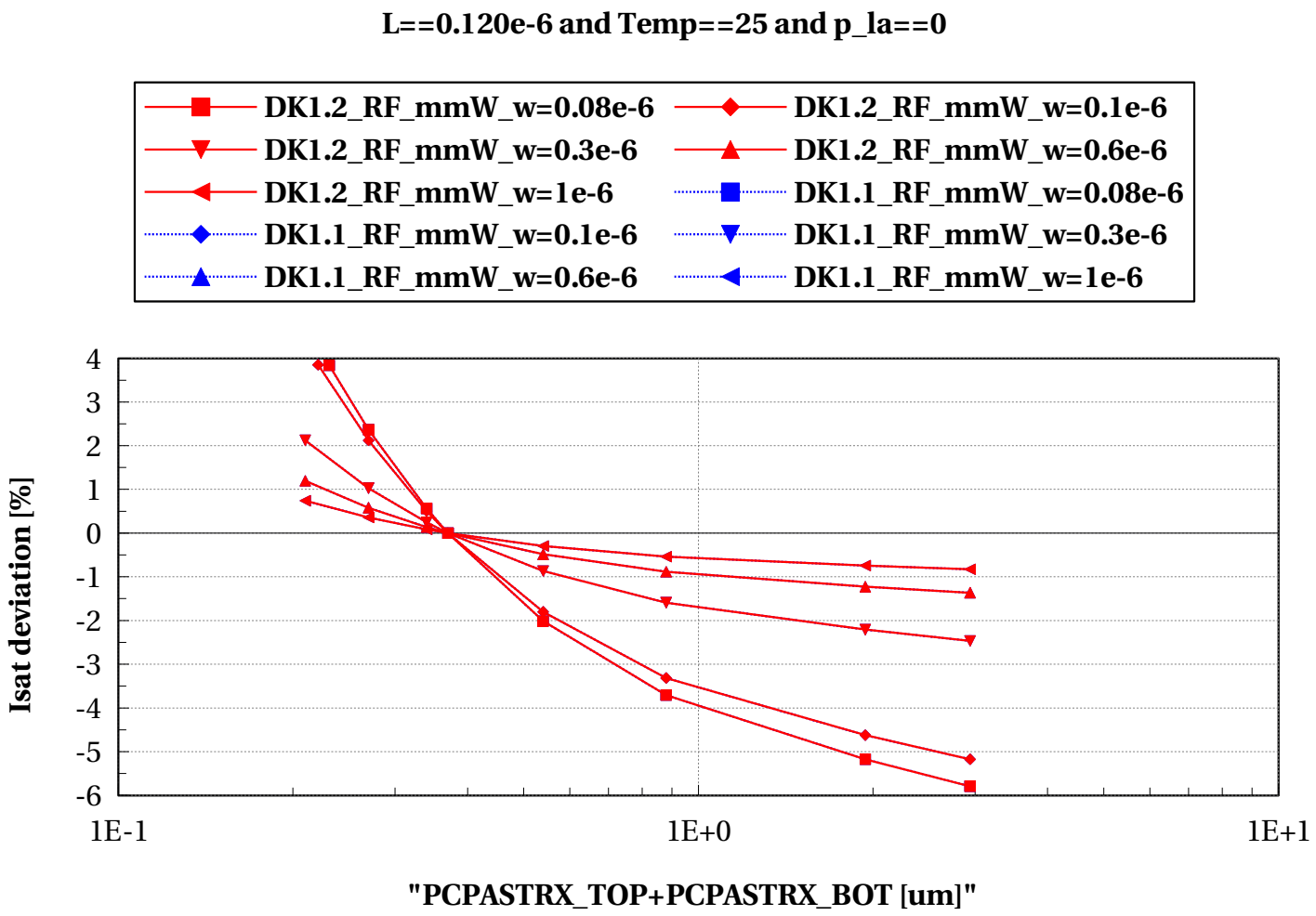
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



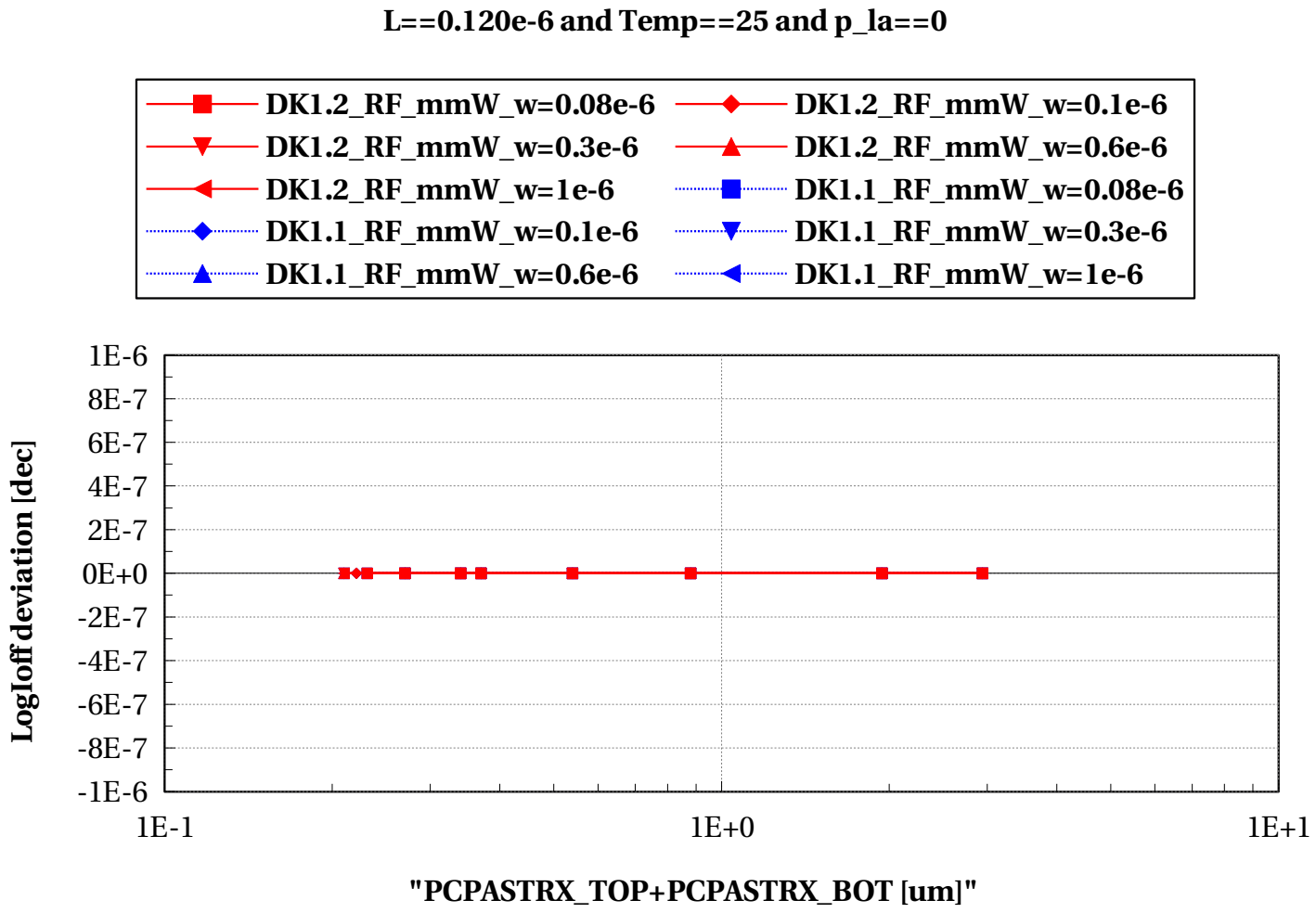
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

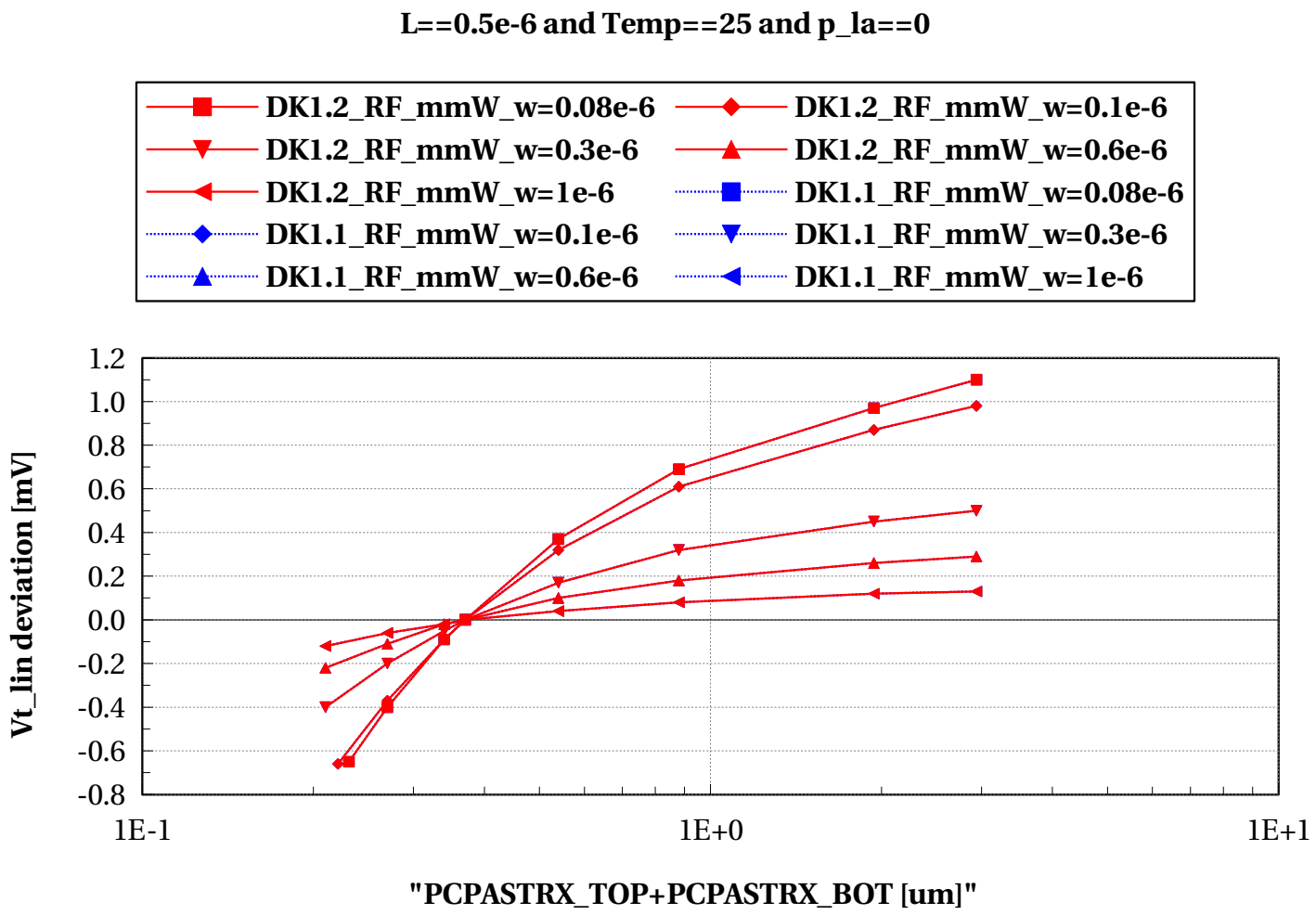


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

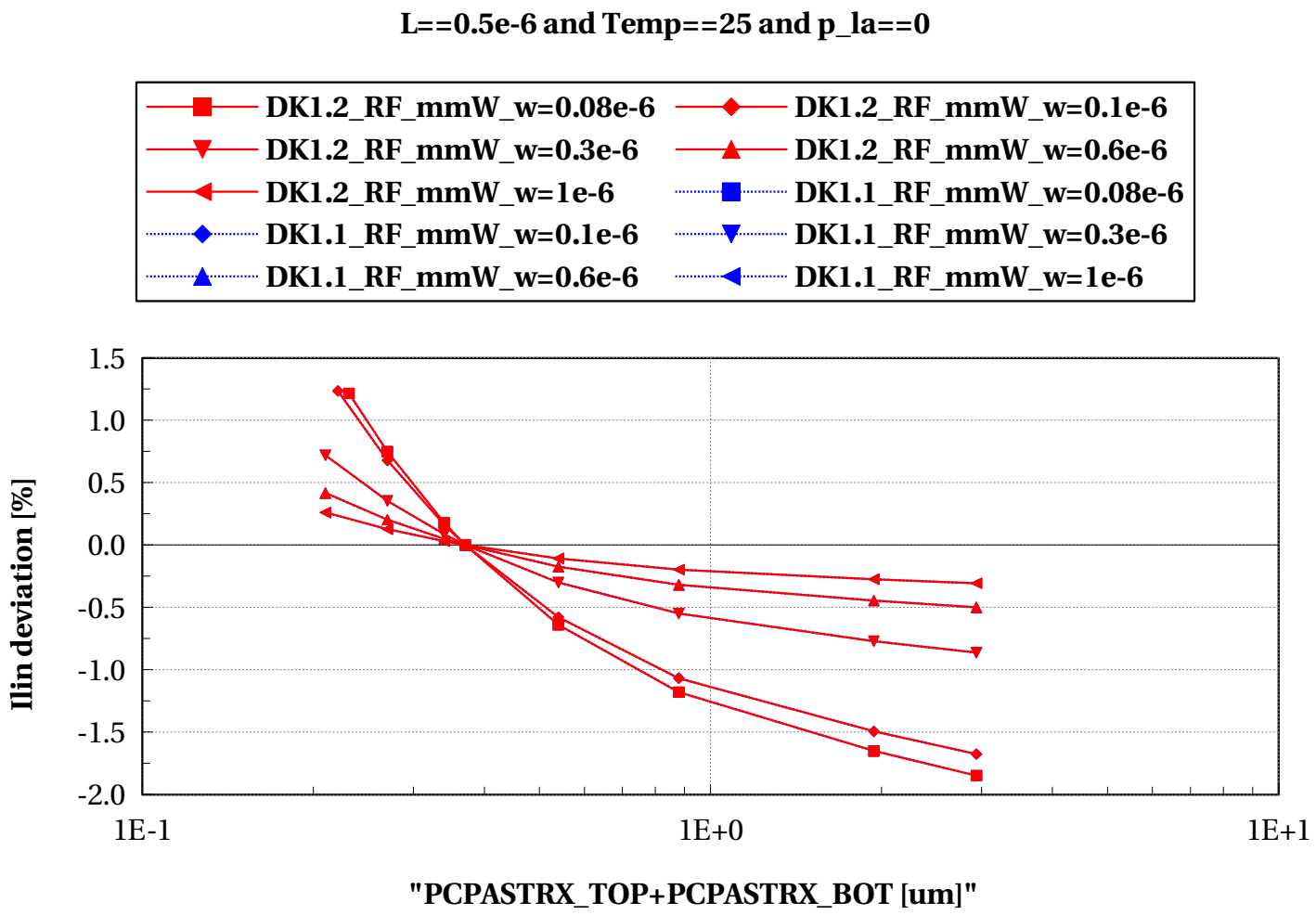


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=0.5u

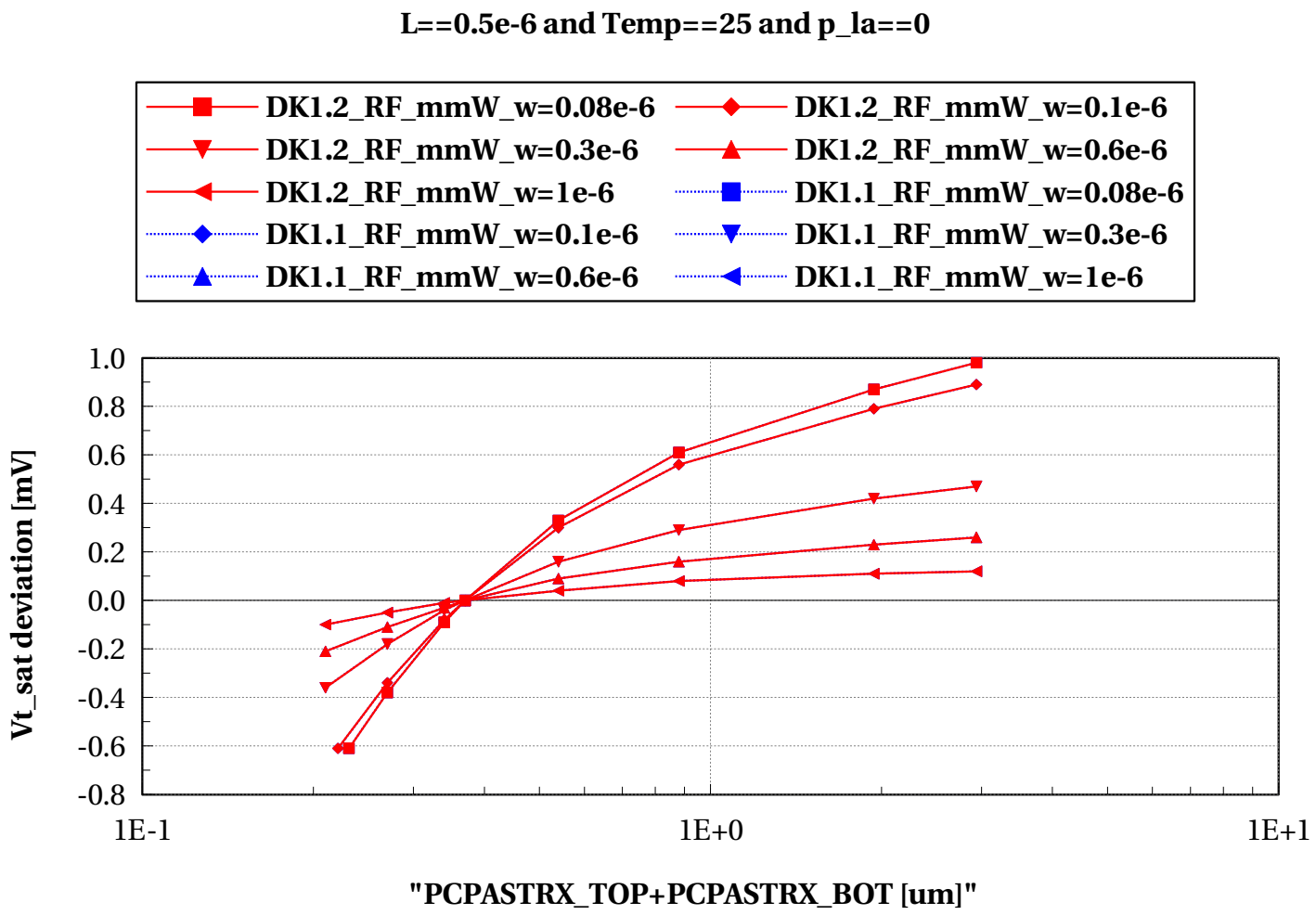
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



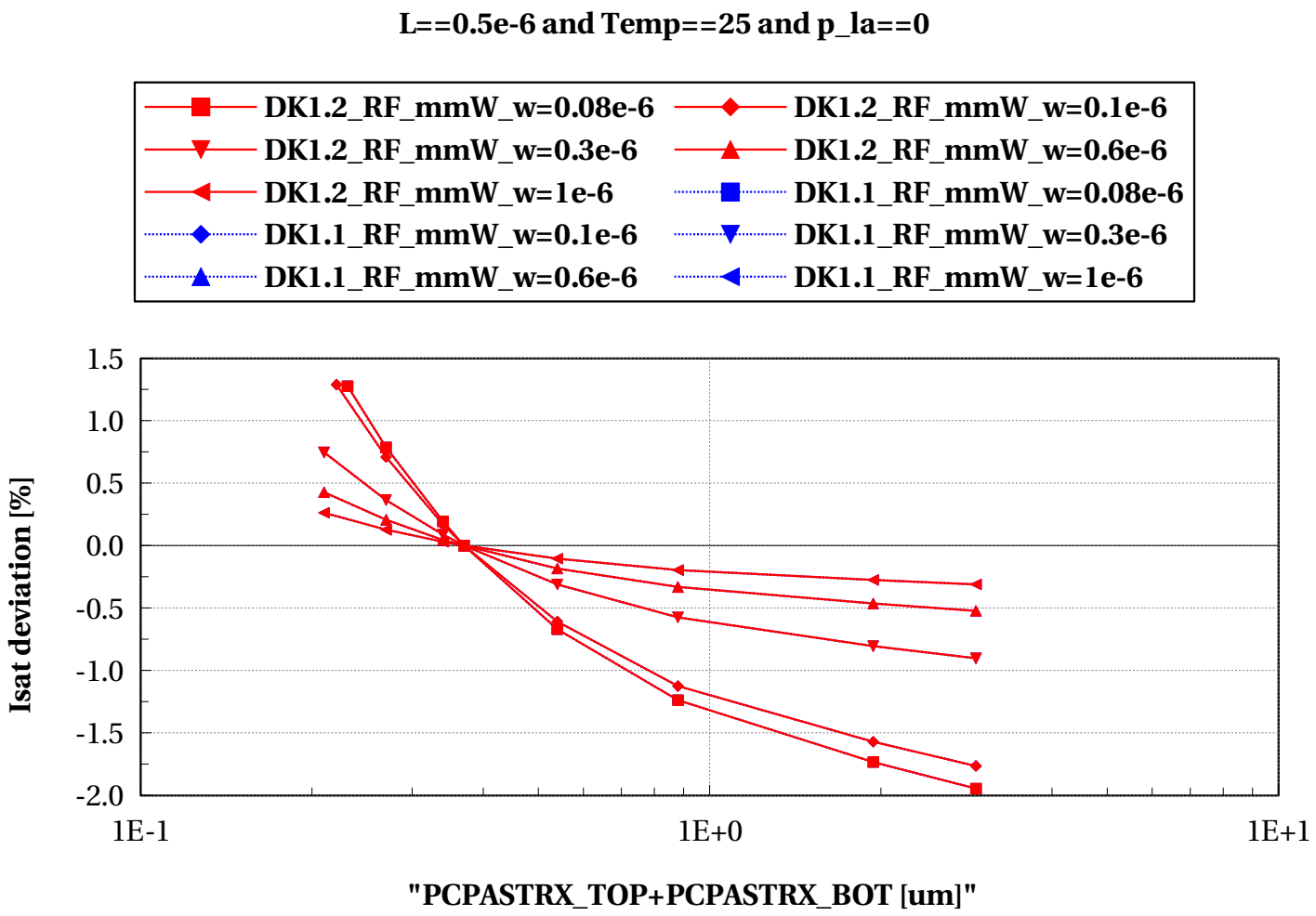
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



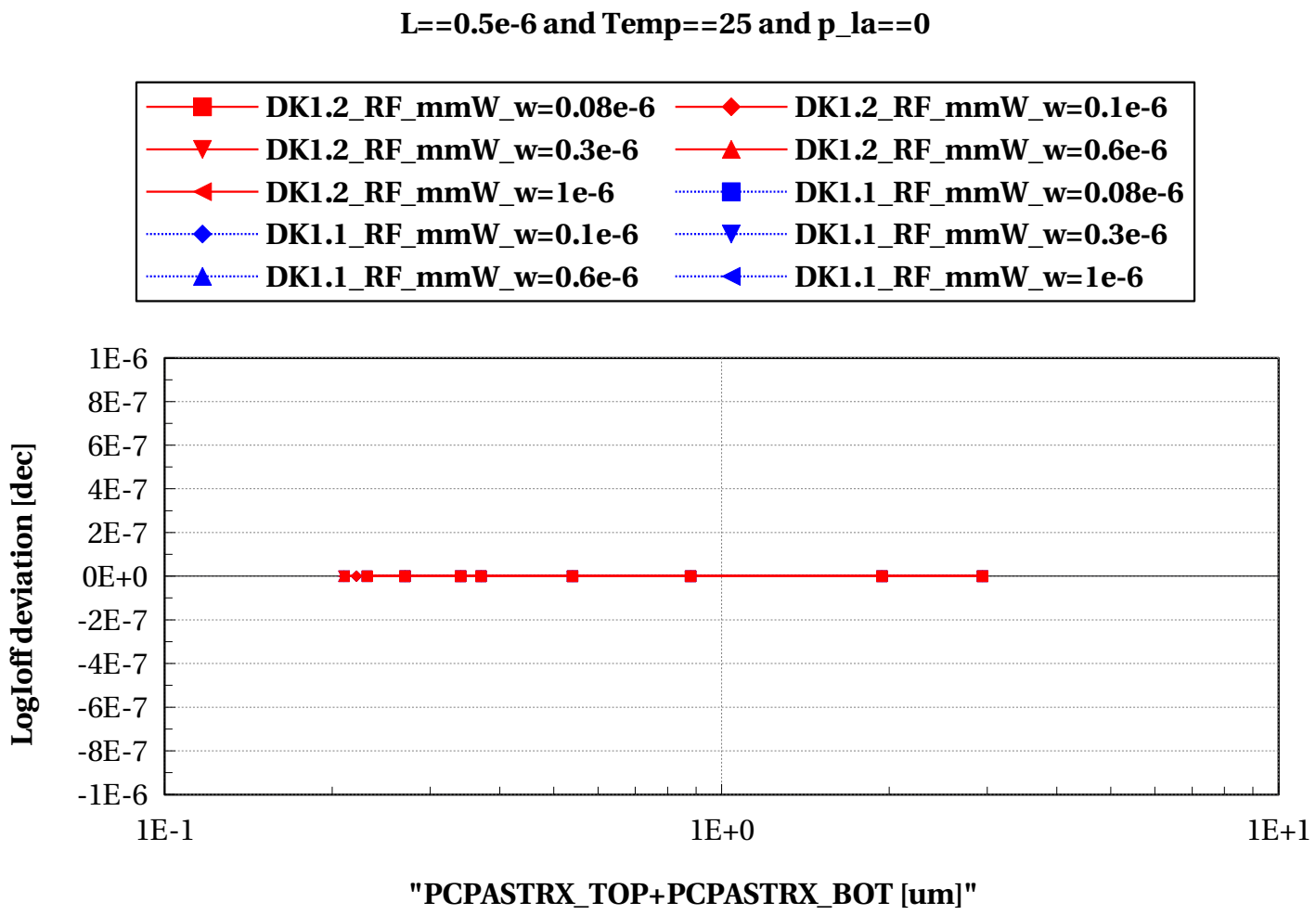
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

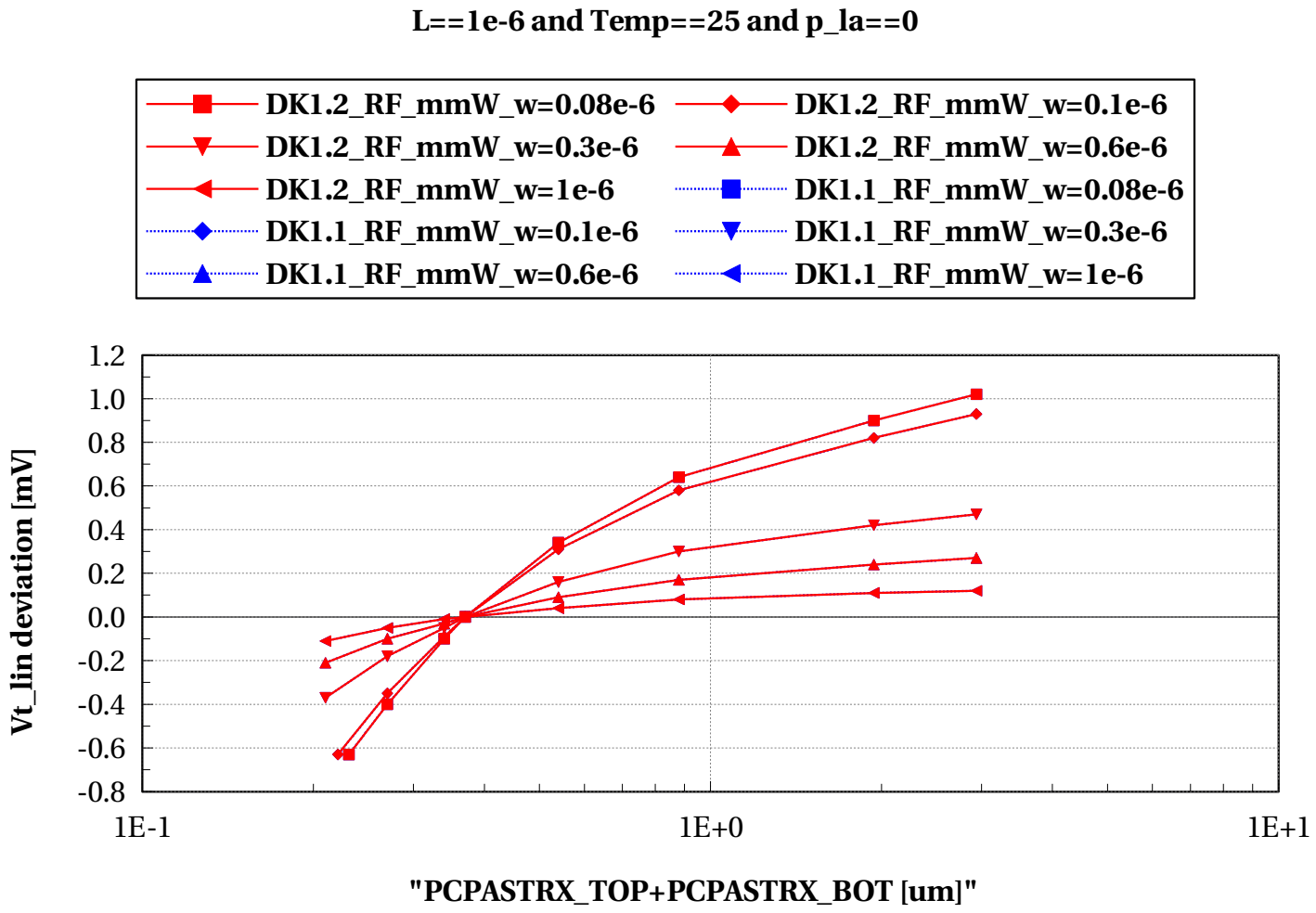


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

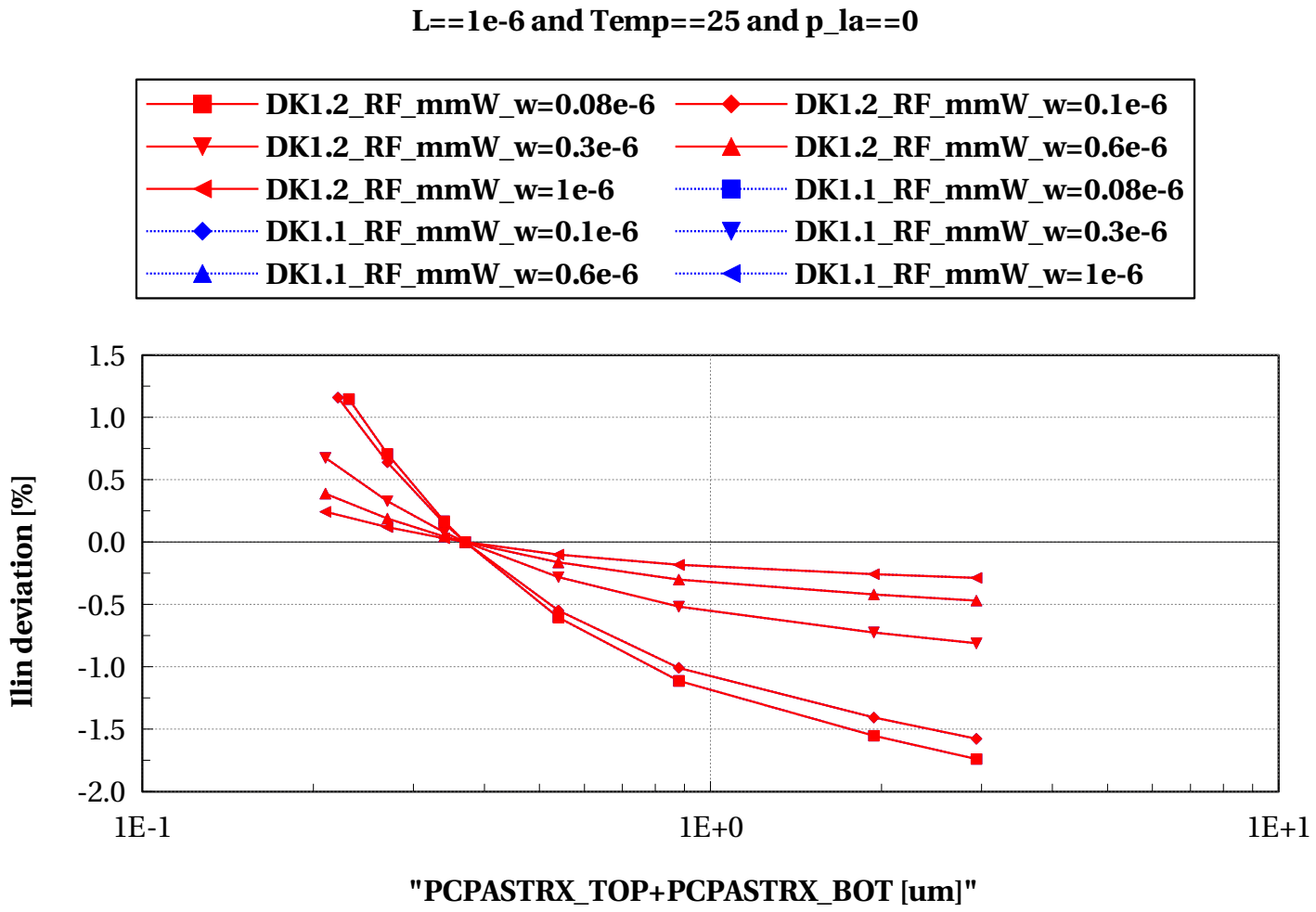


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Wscaling @ L=1u

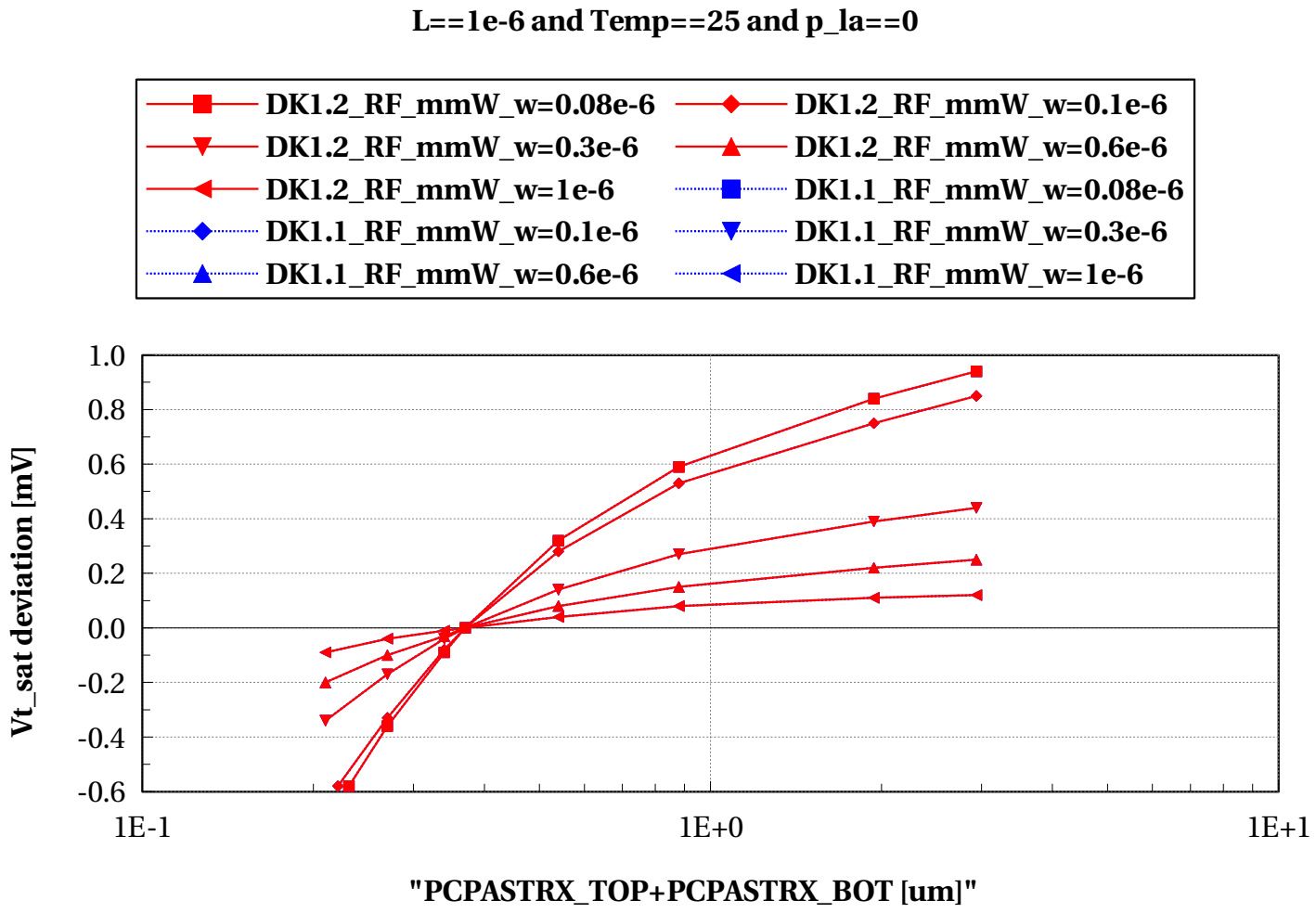
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



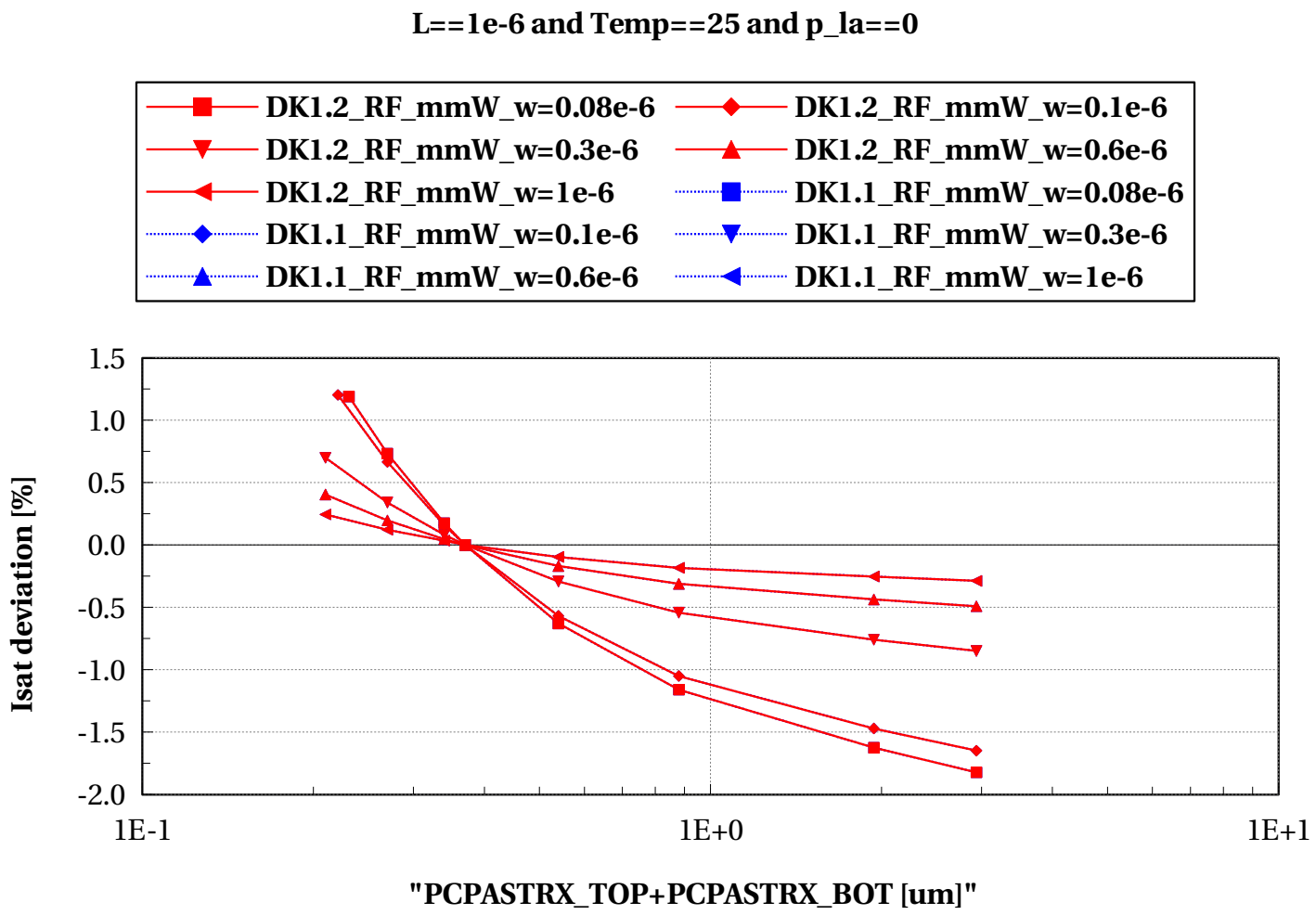
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



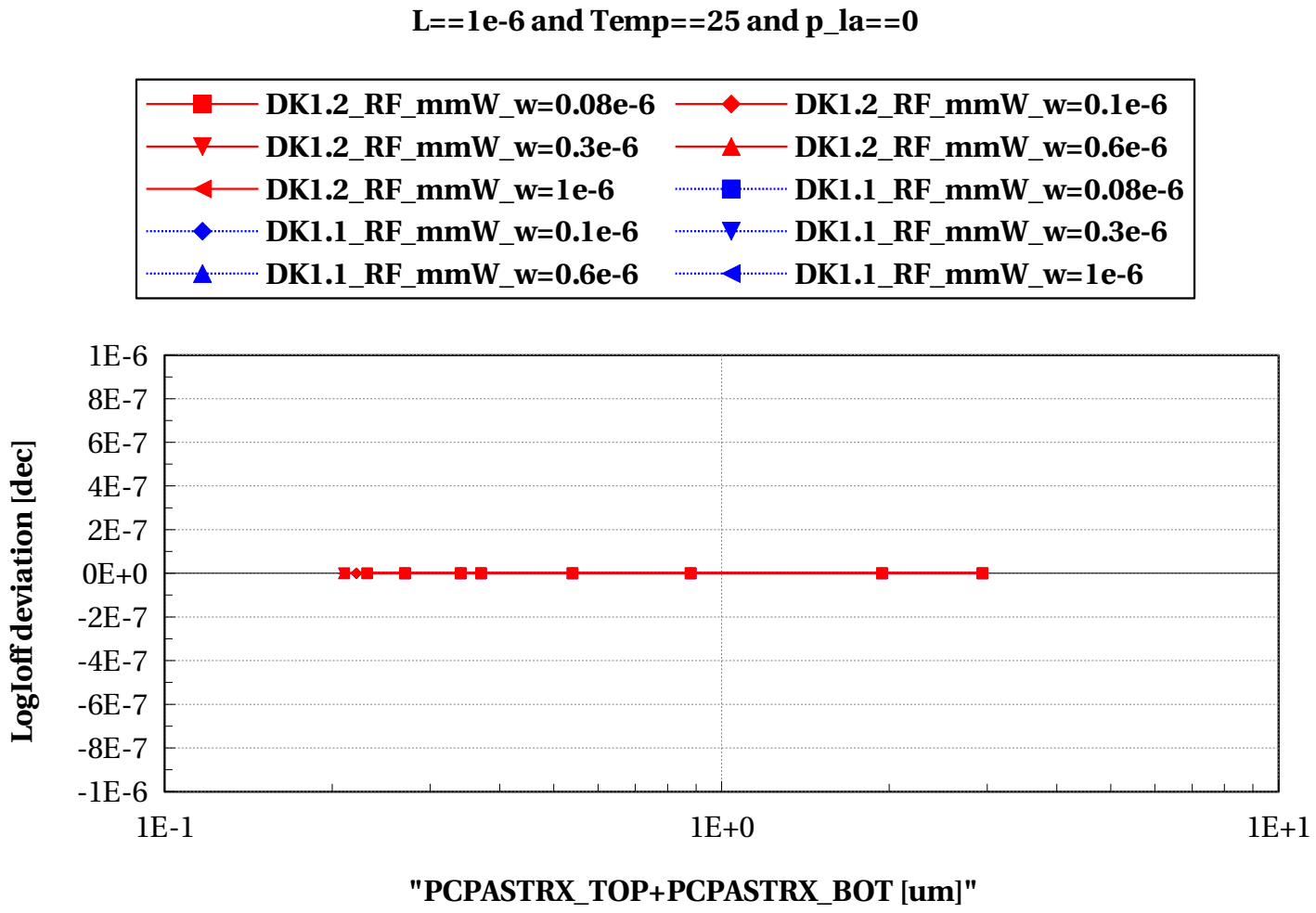
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

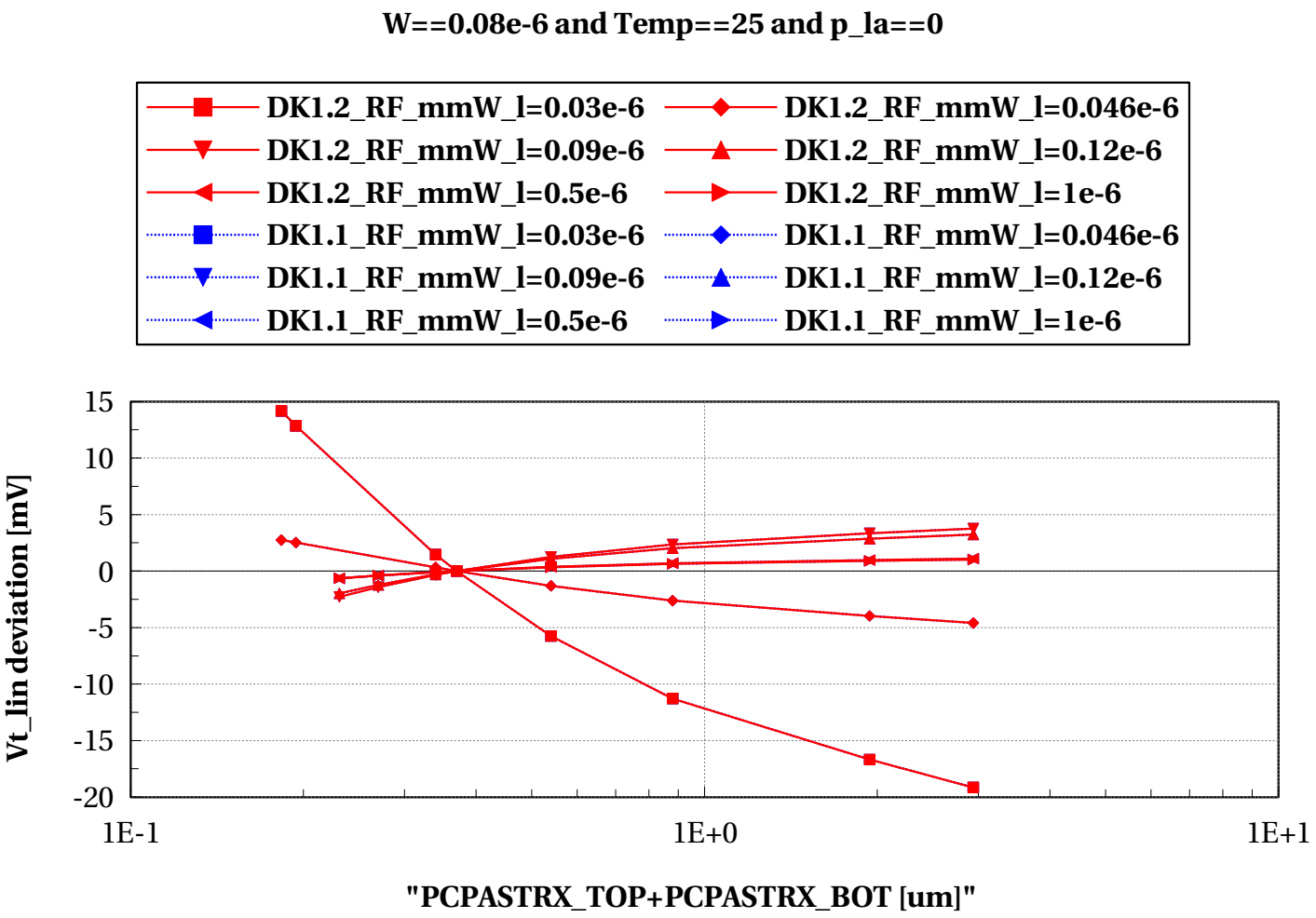


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

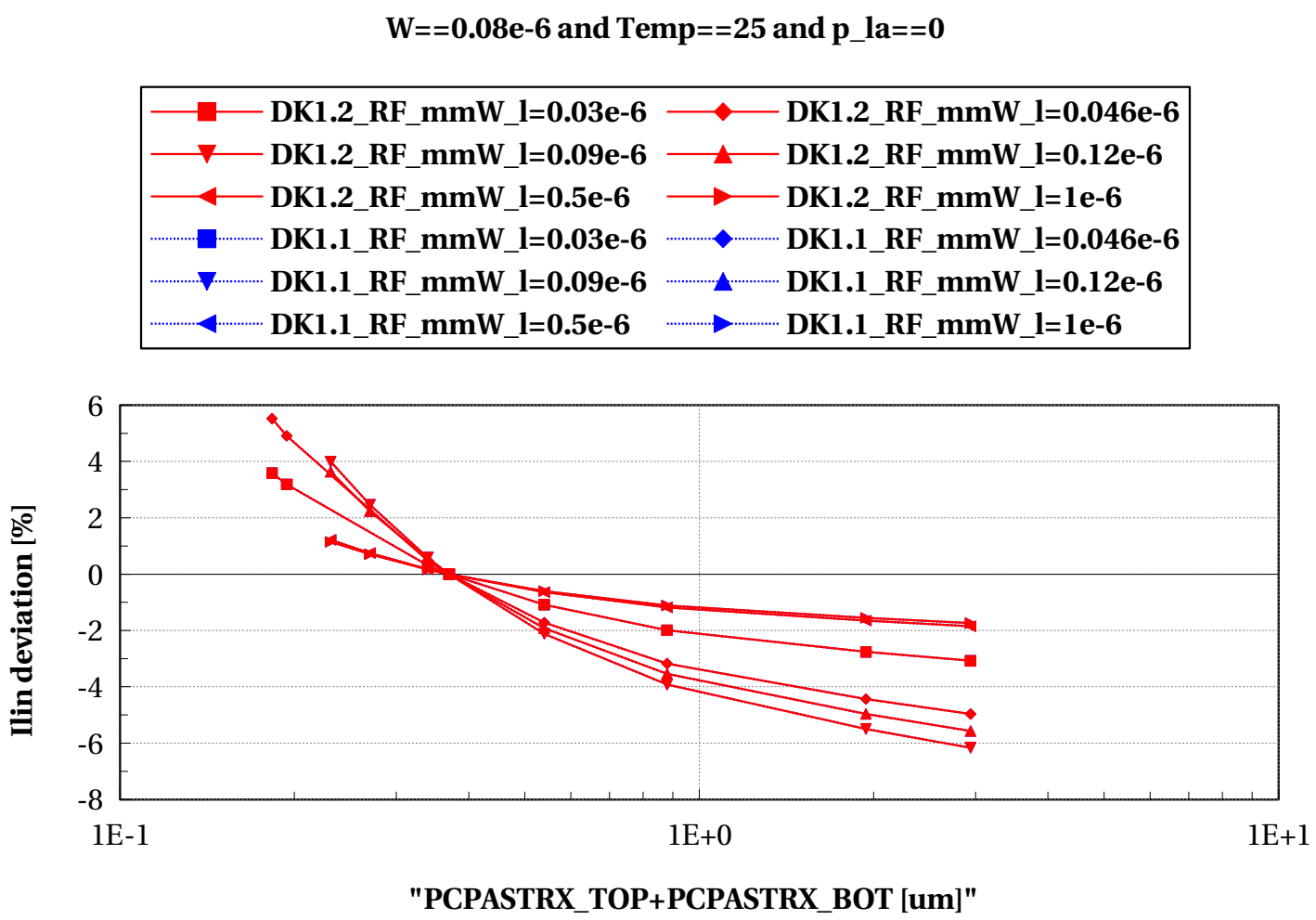


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=0.08u

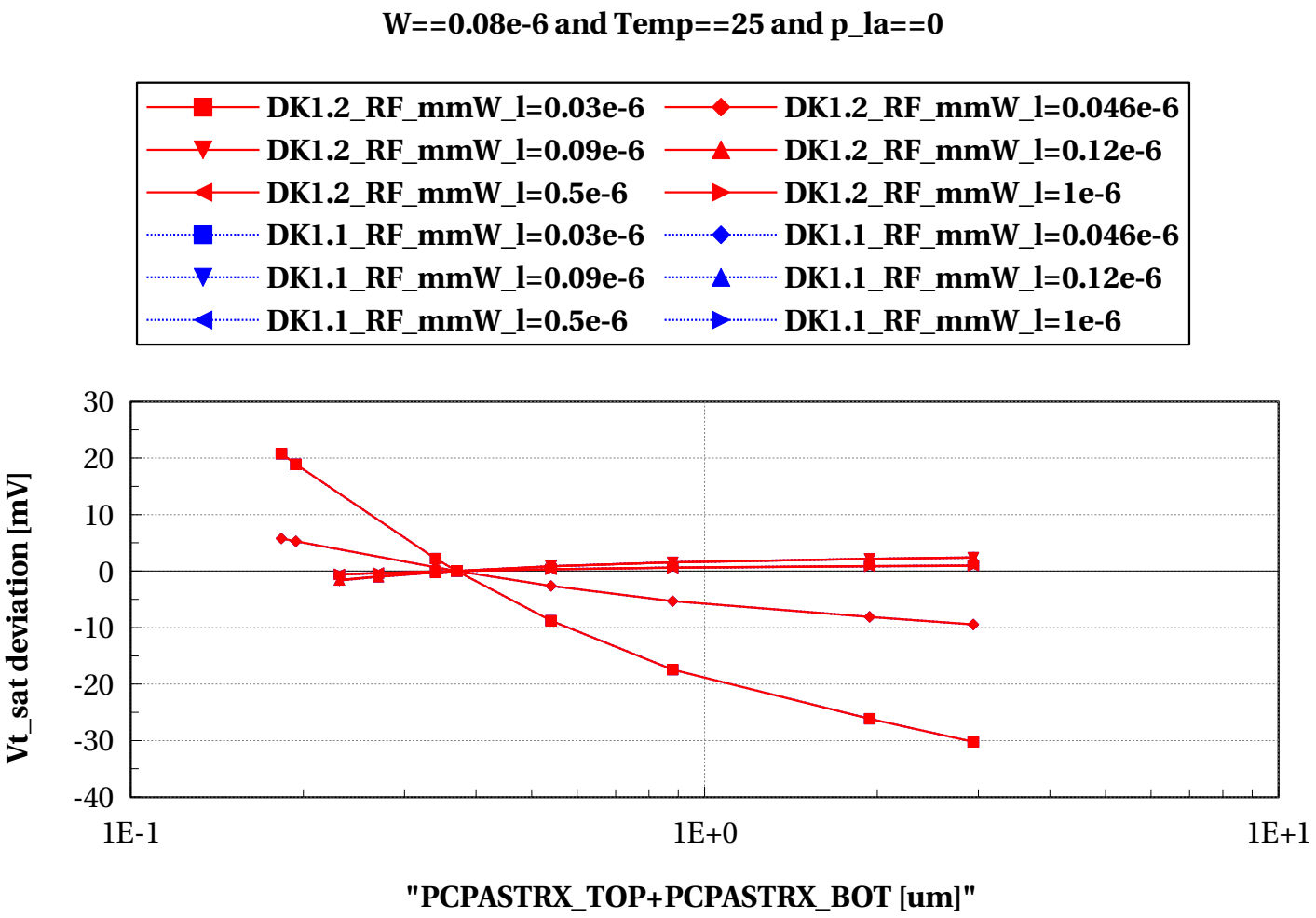
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



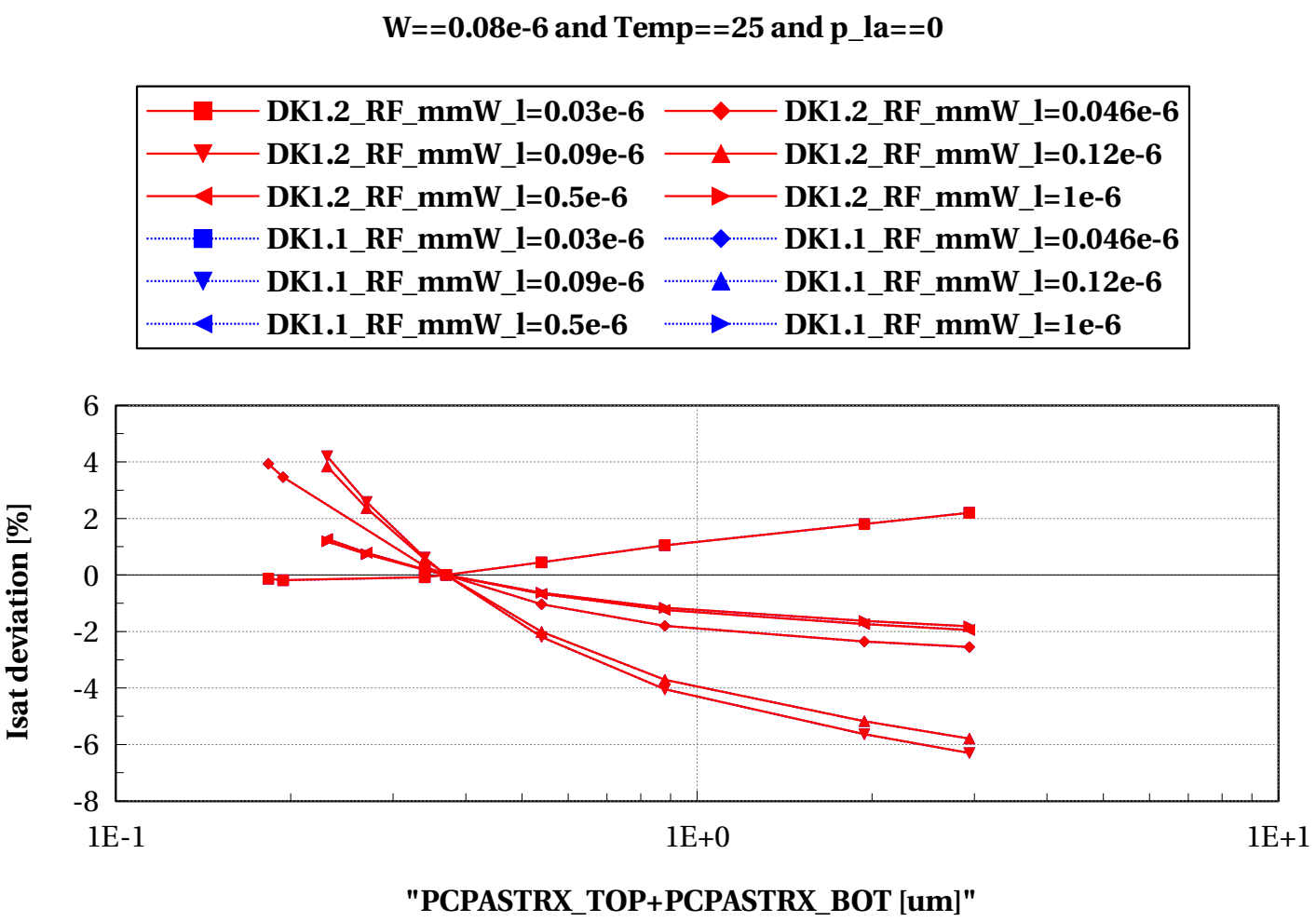
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



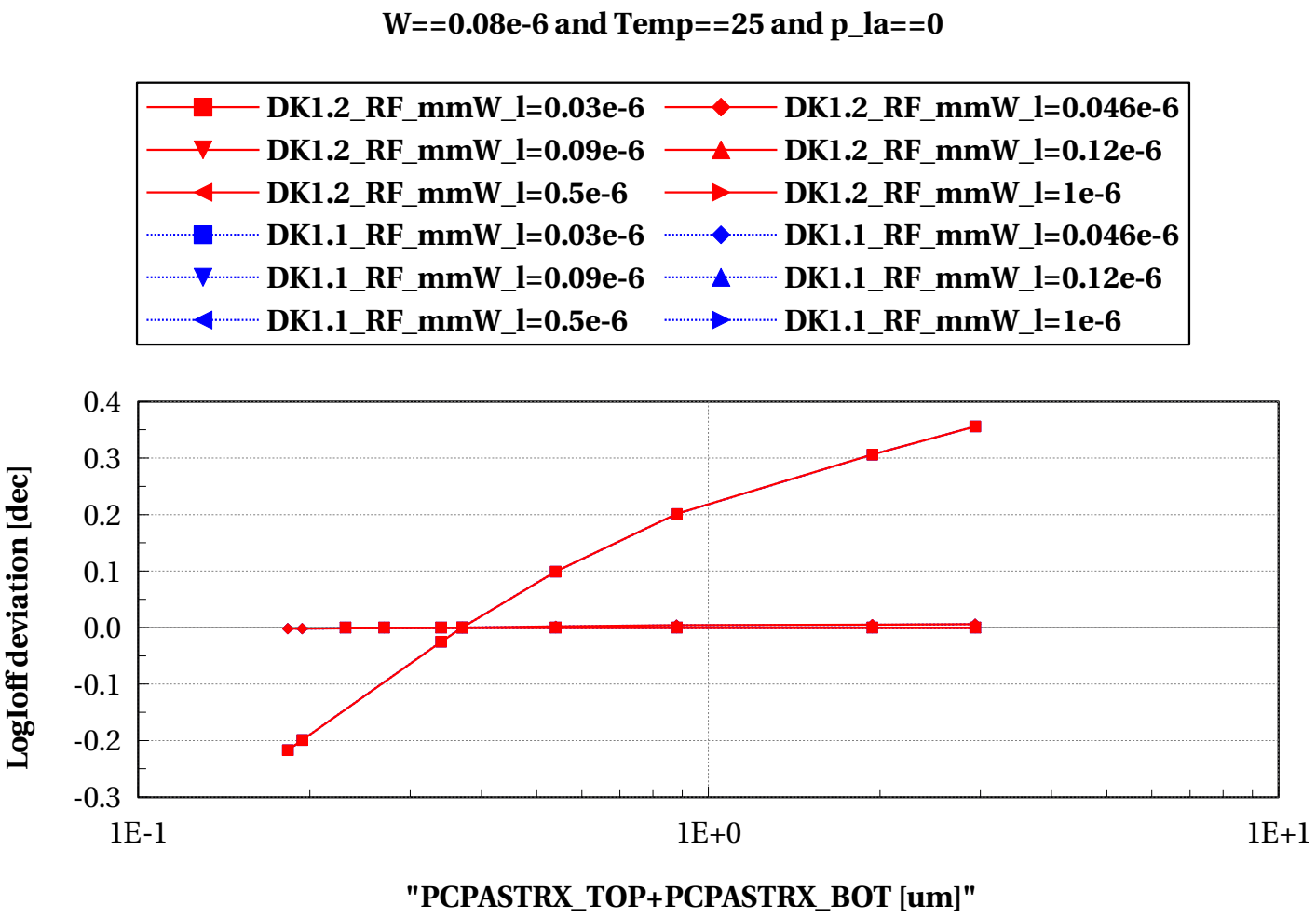
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

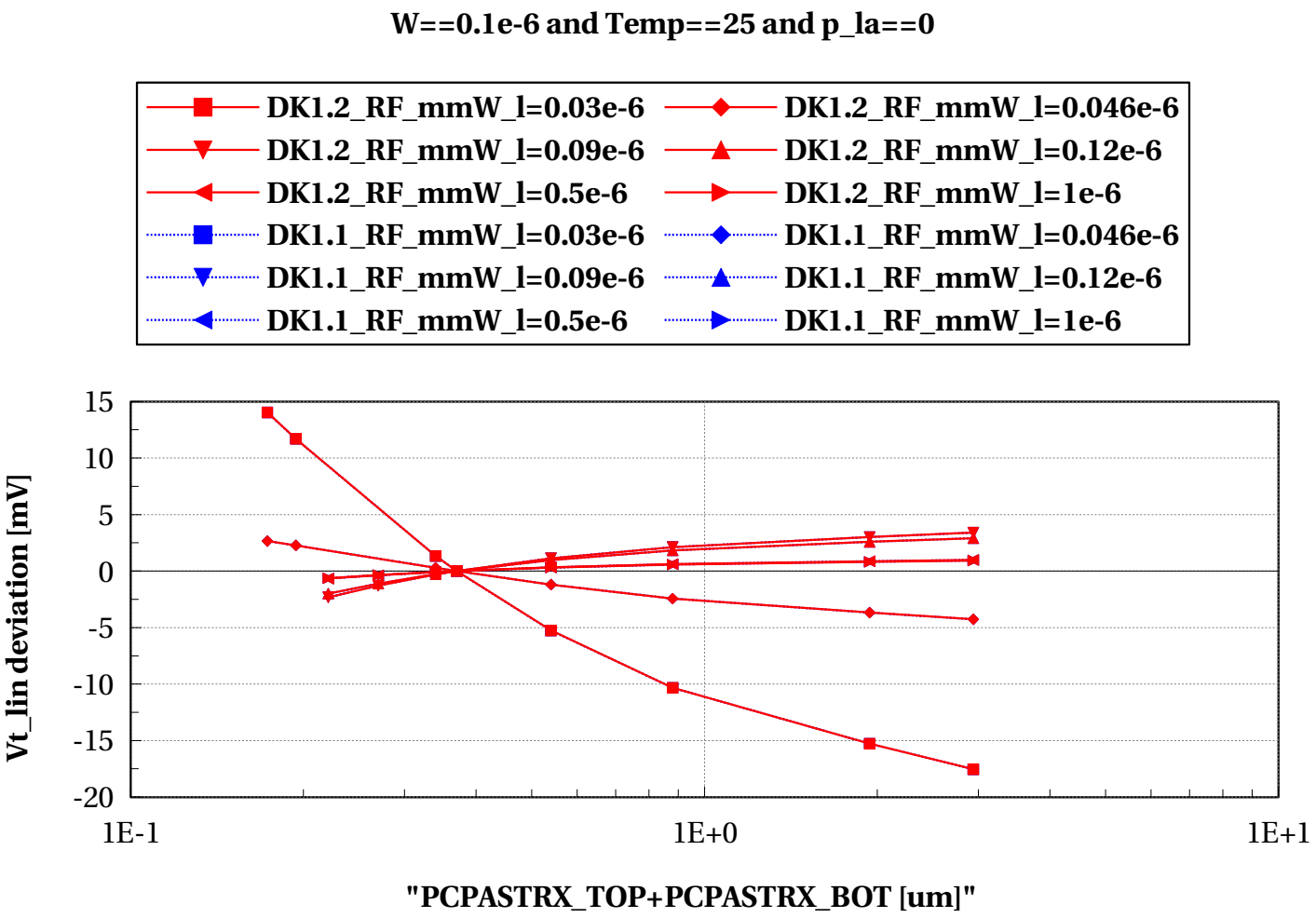


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

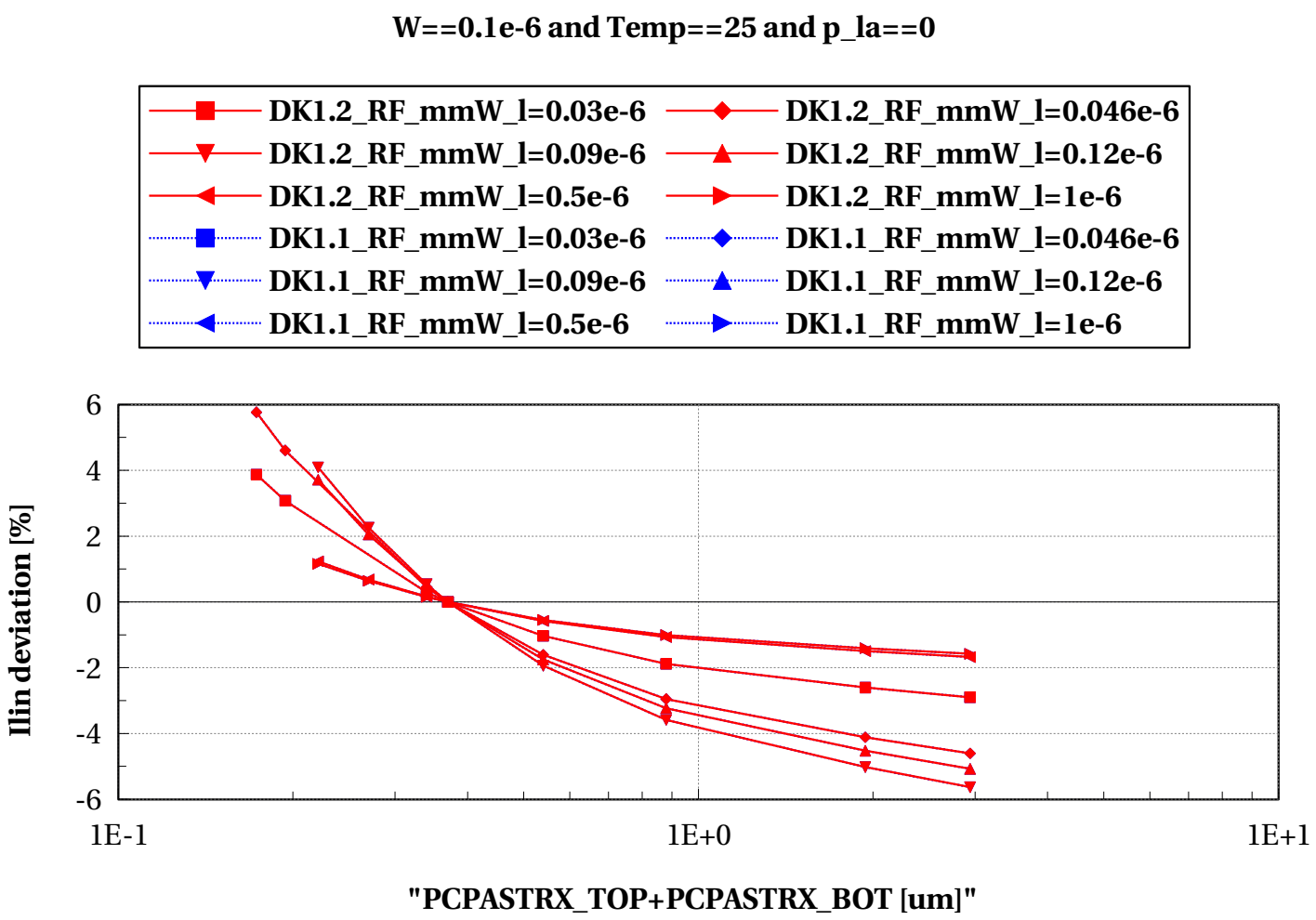


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=0.1u

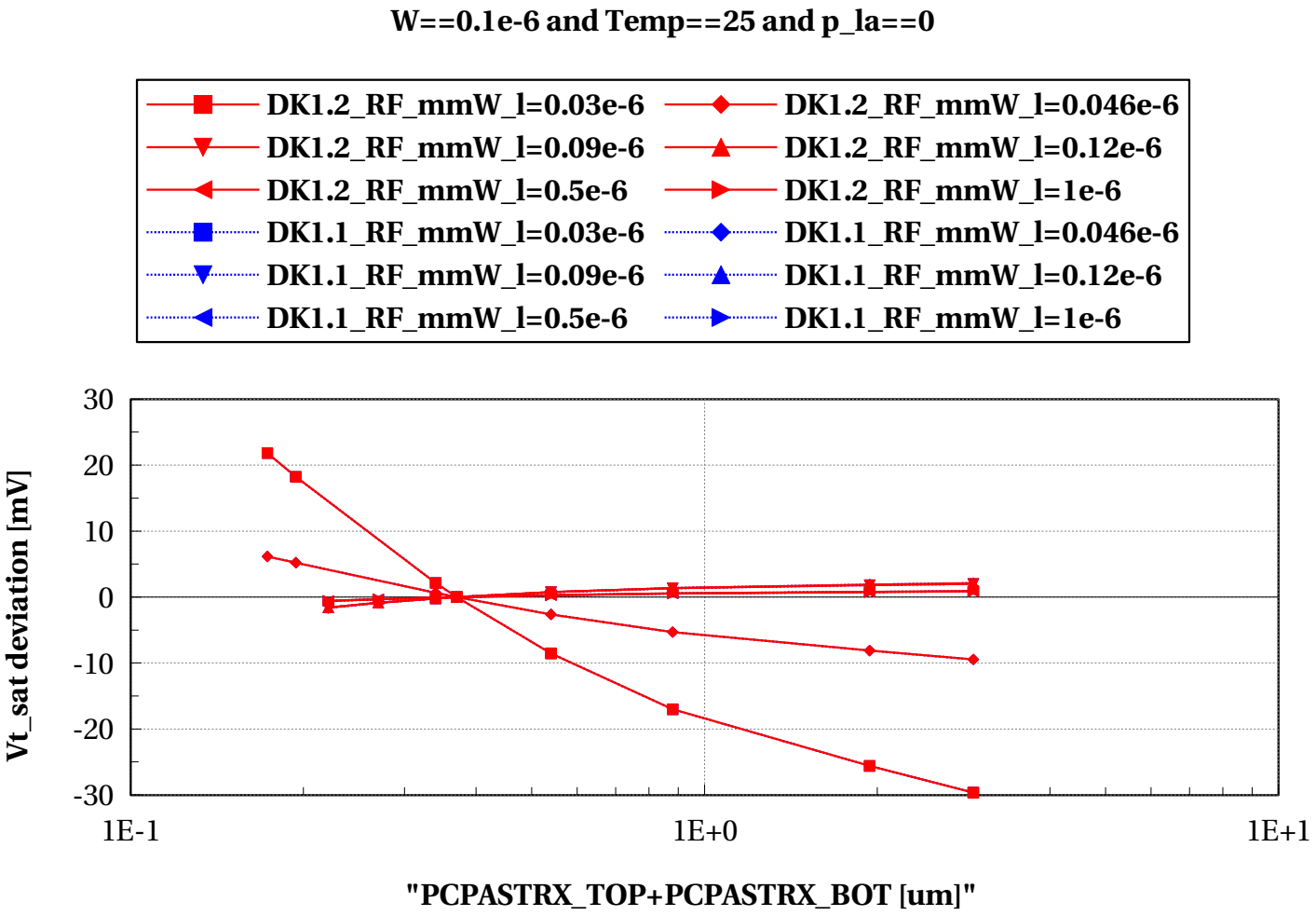
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



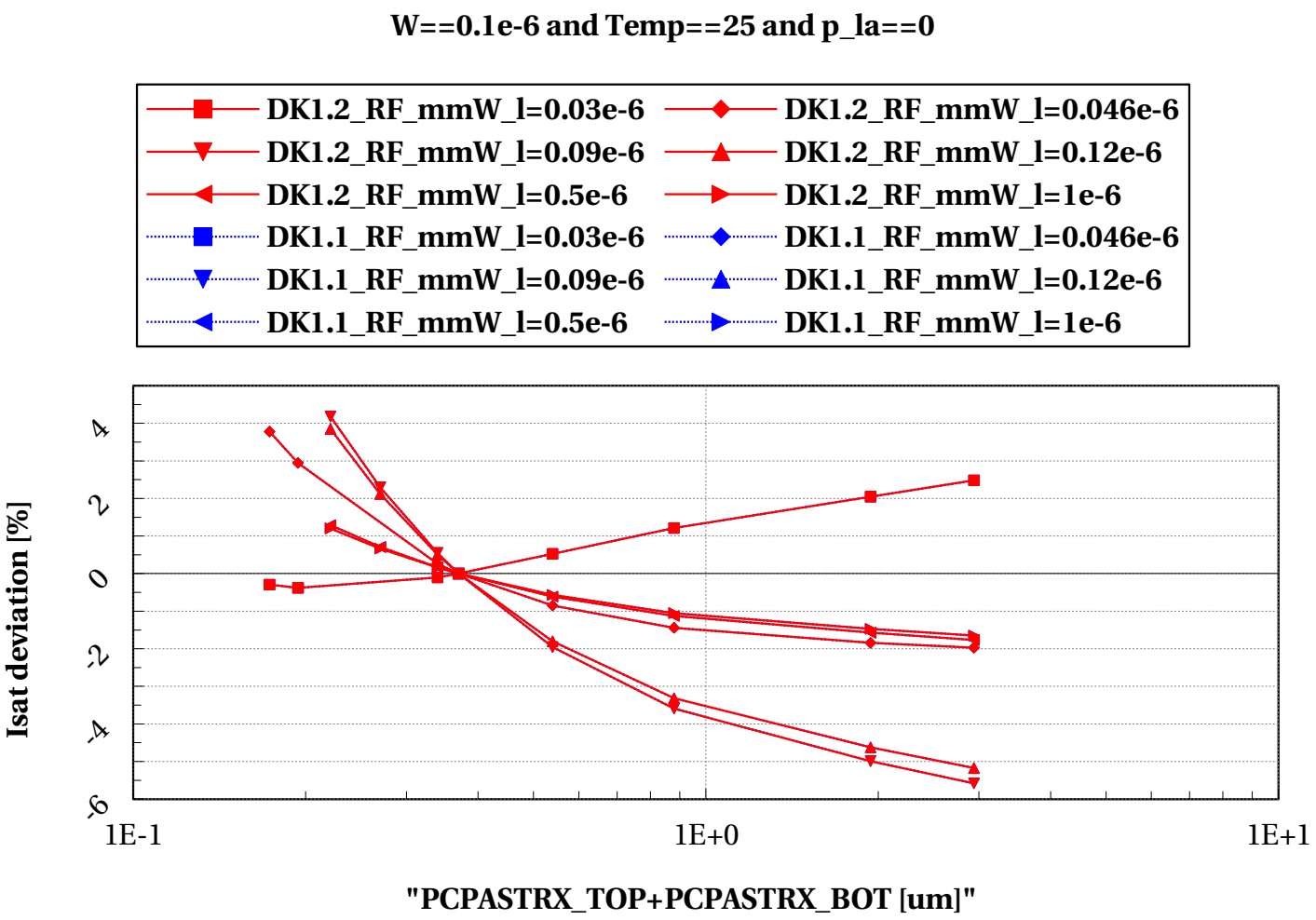
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



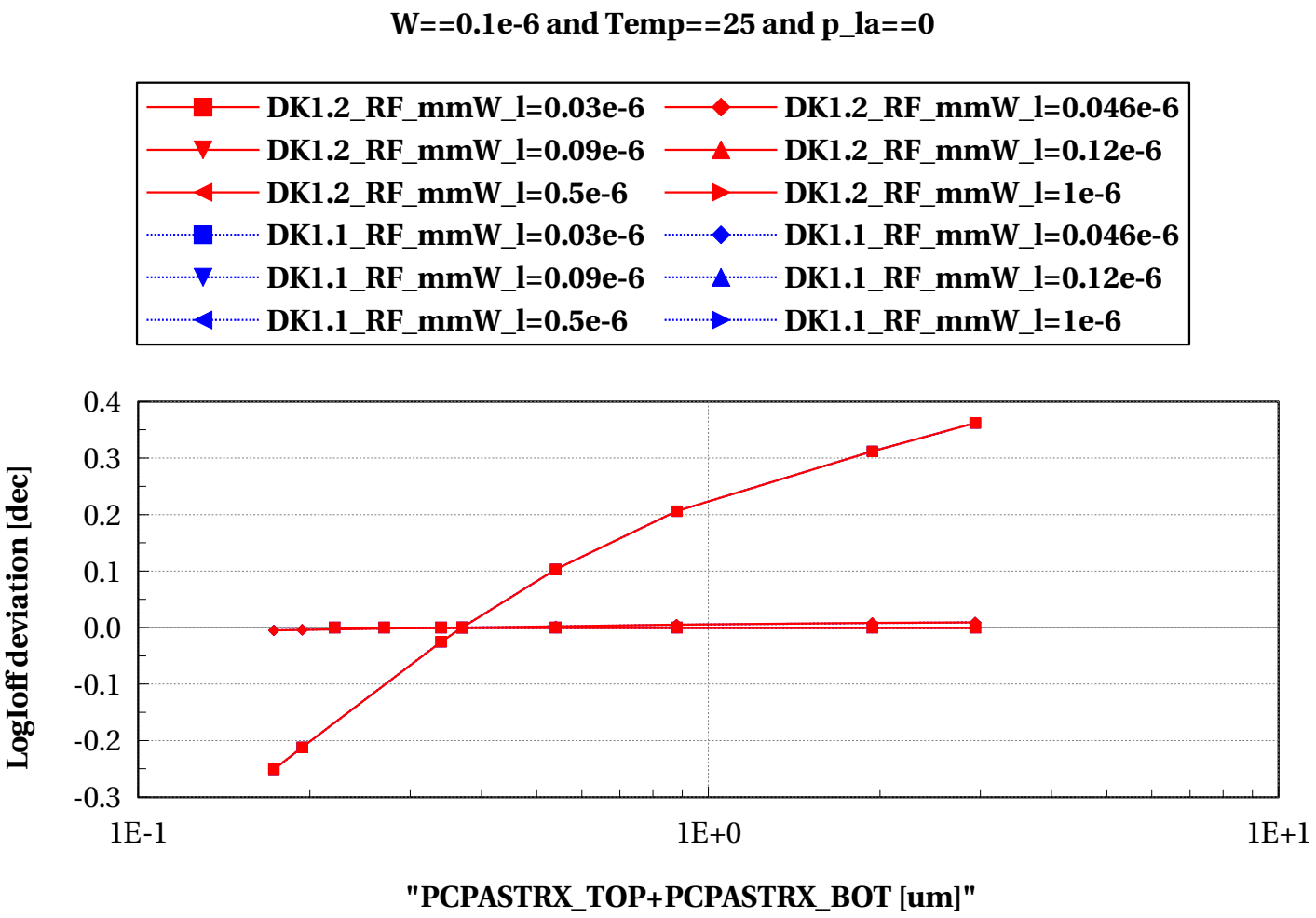
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

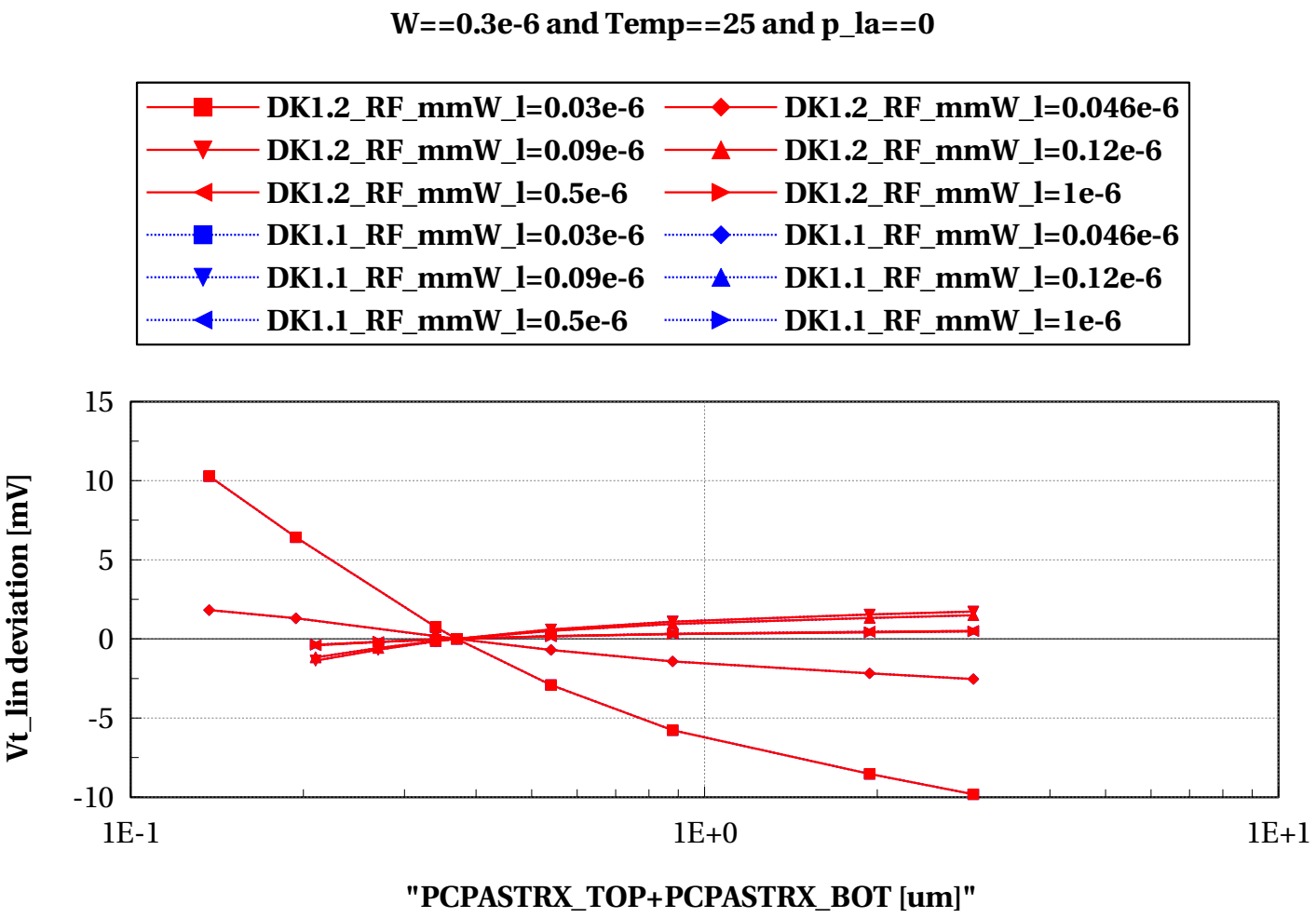


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

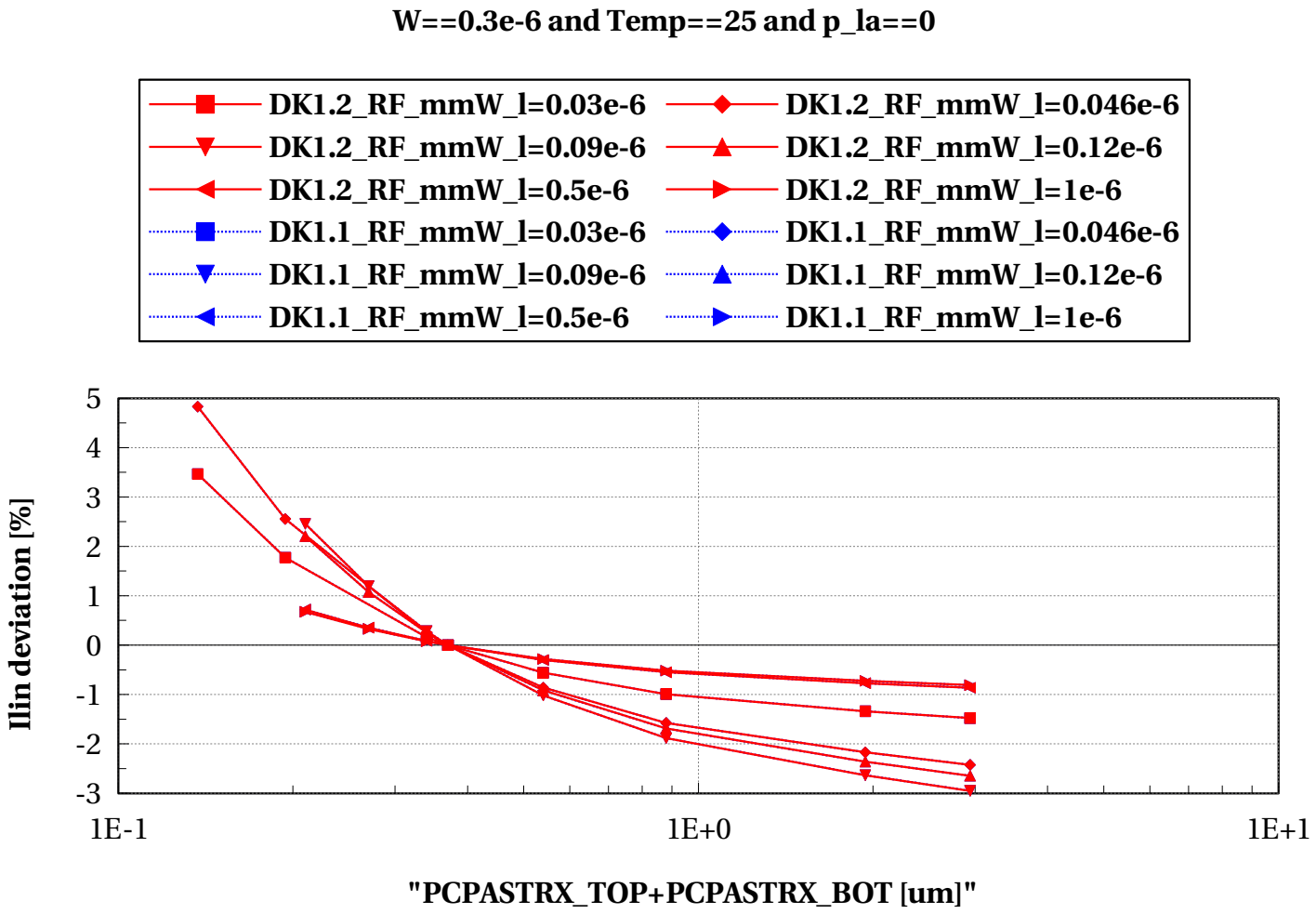


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling@W=0.3u

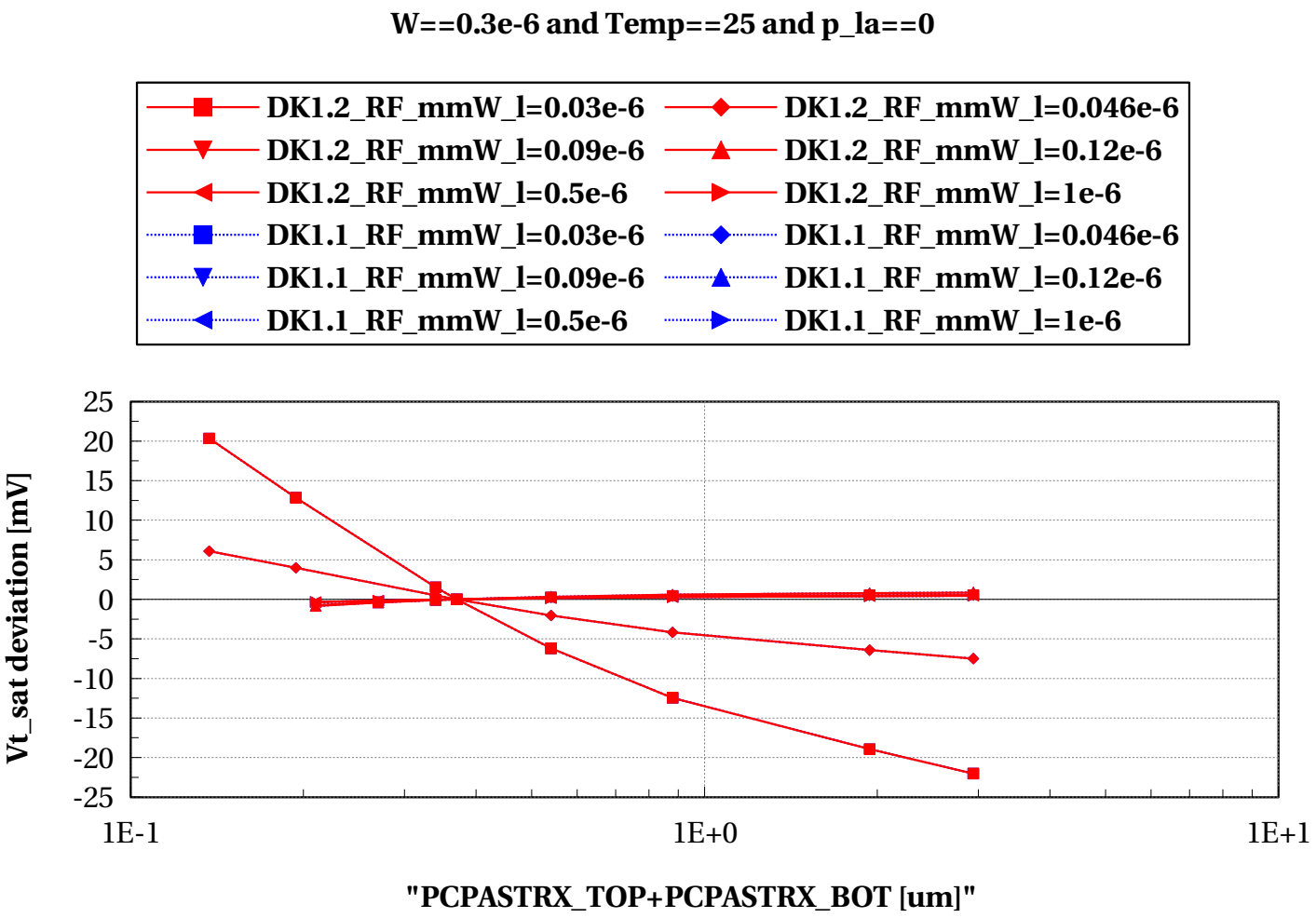
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



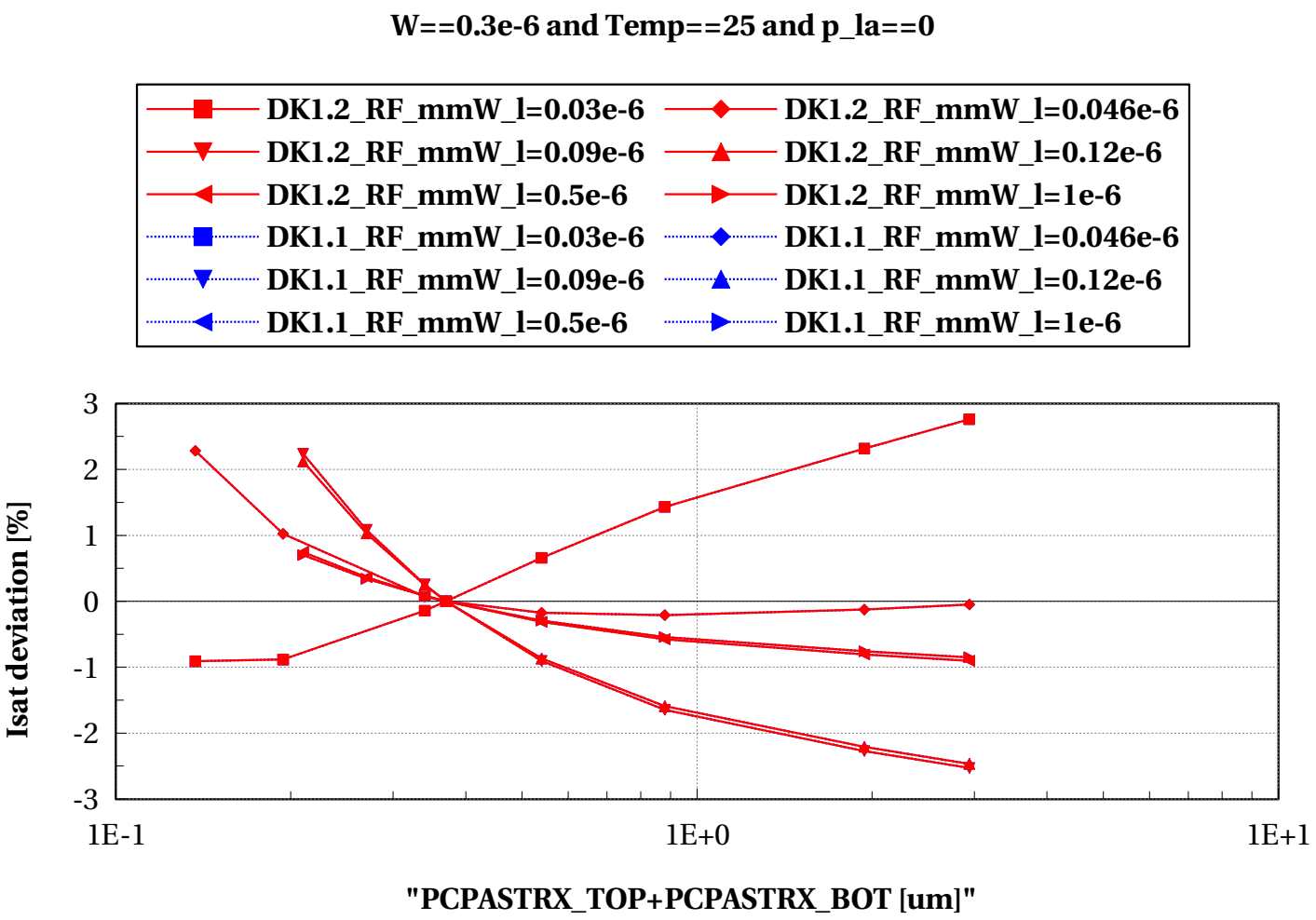
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



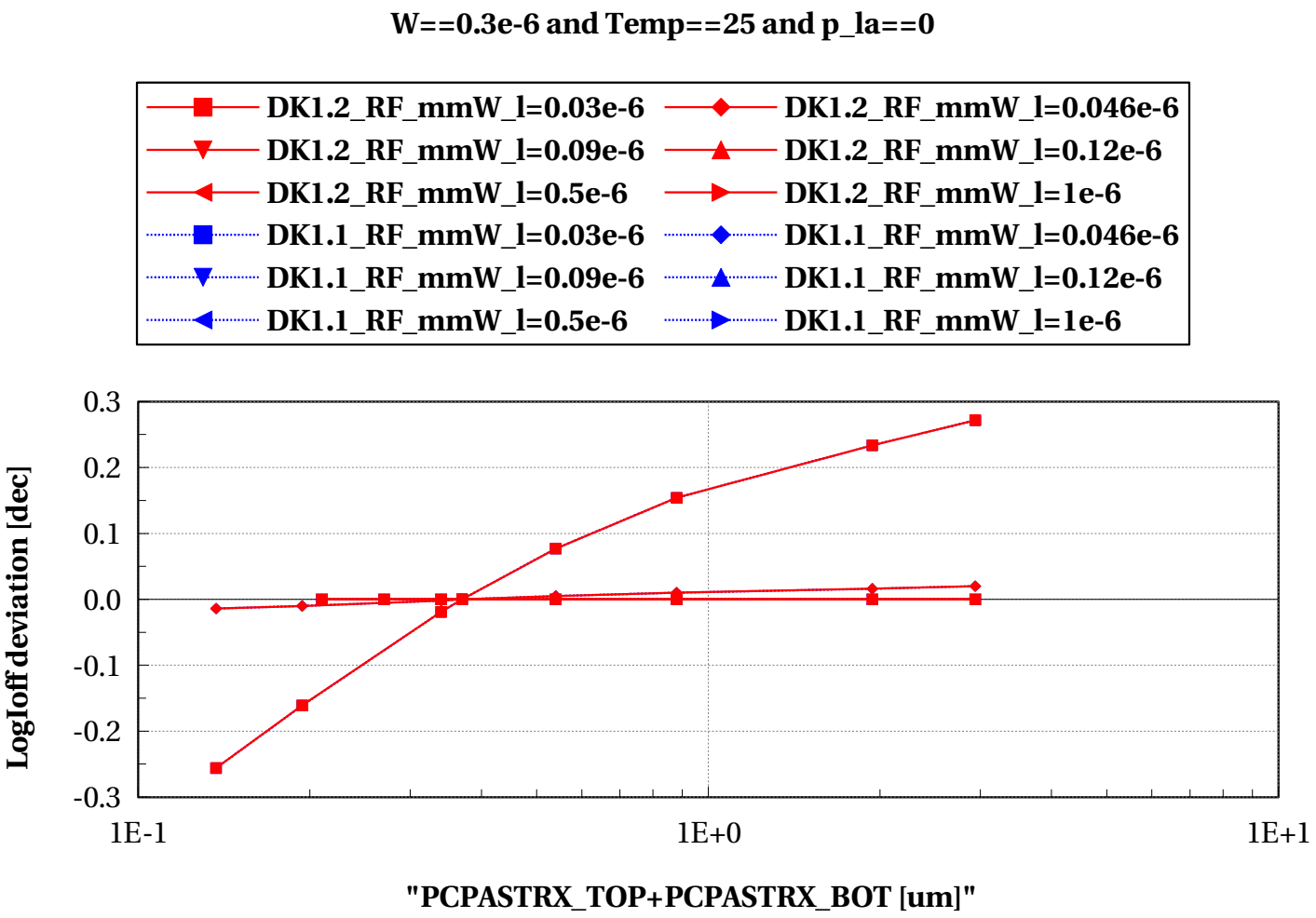
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

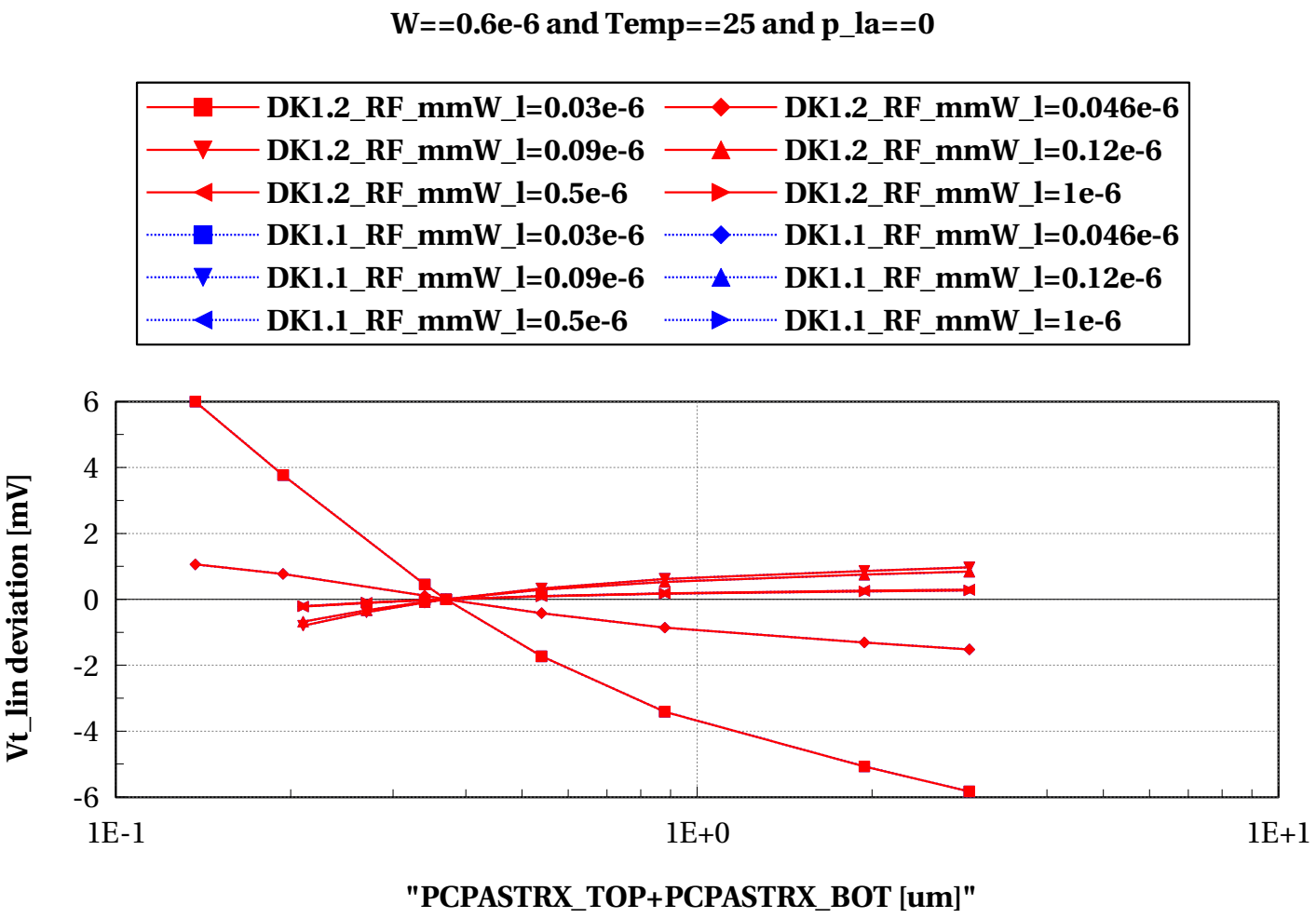


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

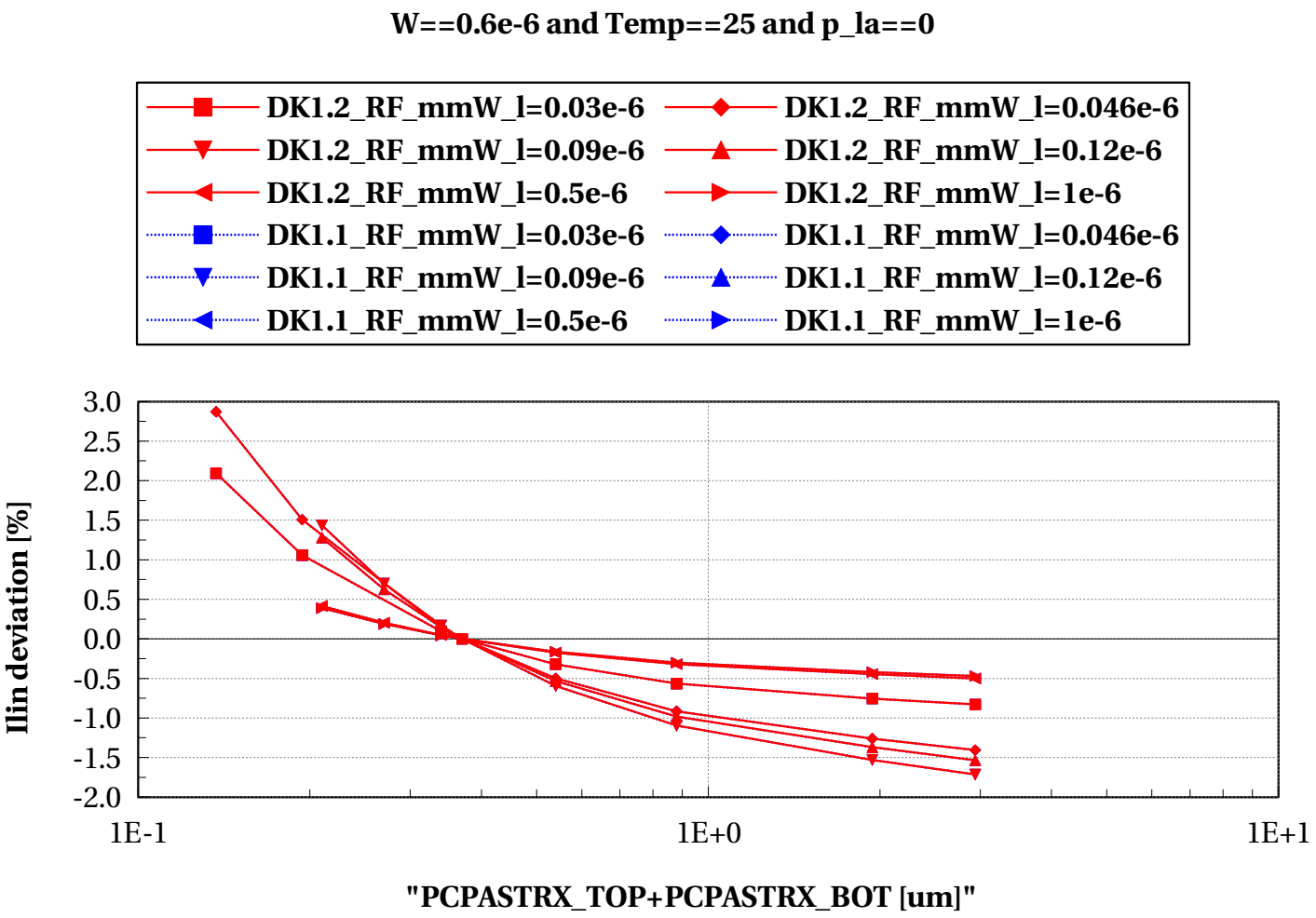


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling@W=0.6u

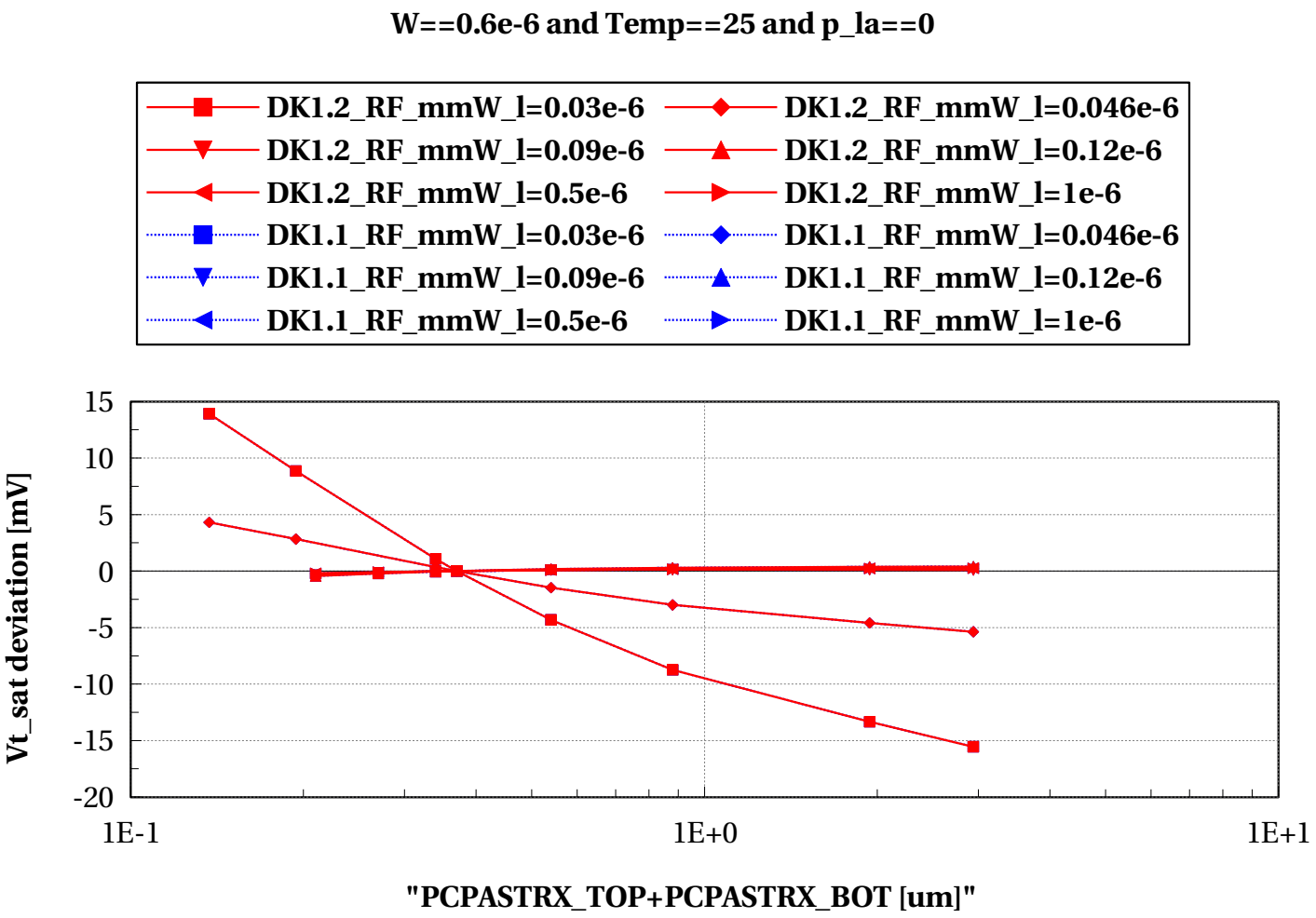
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



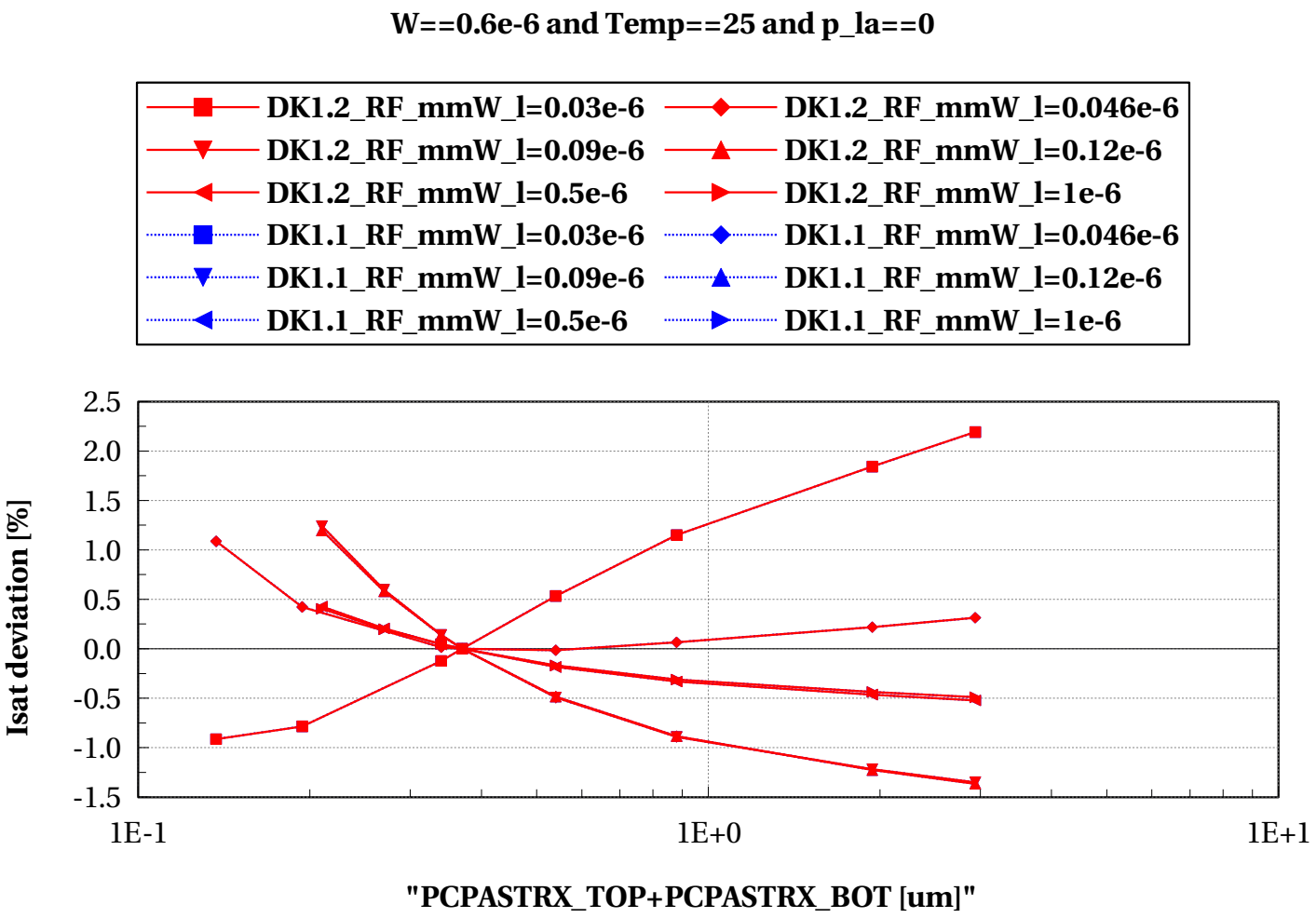
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



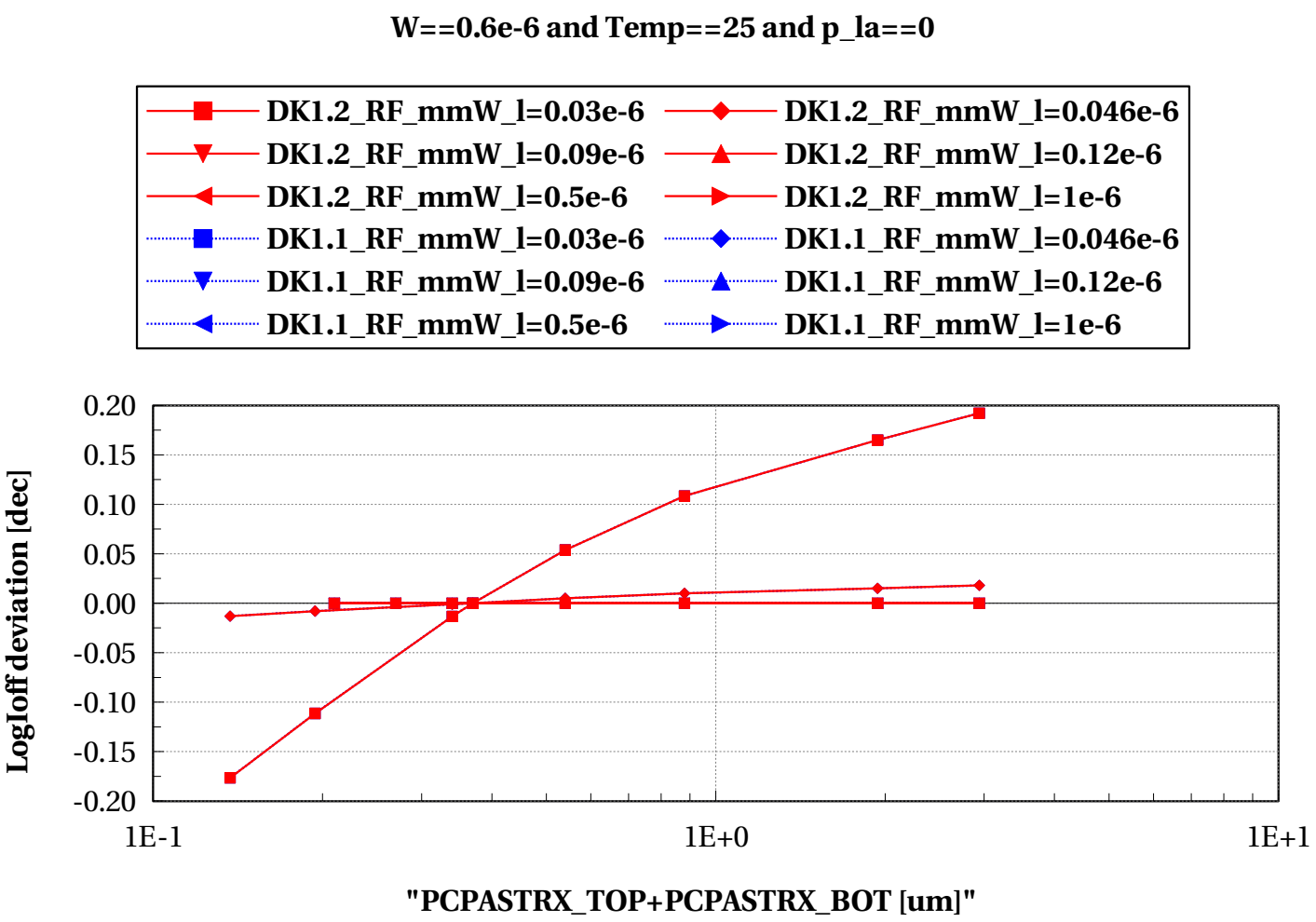
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

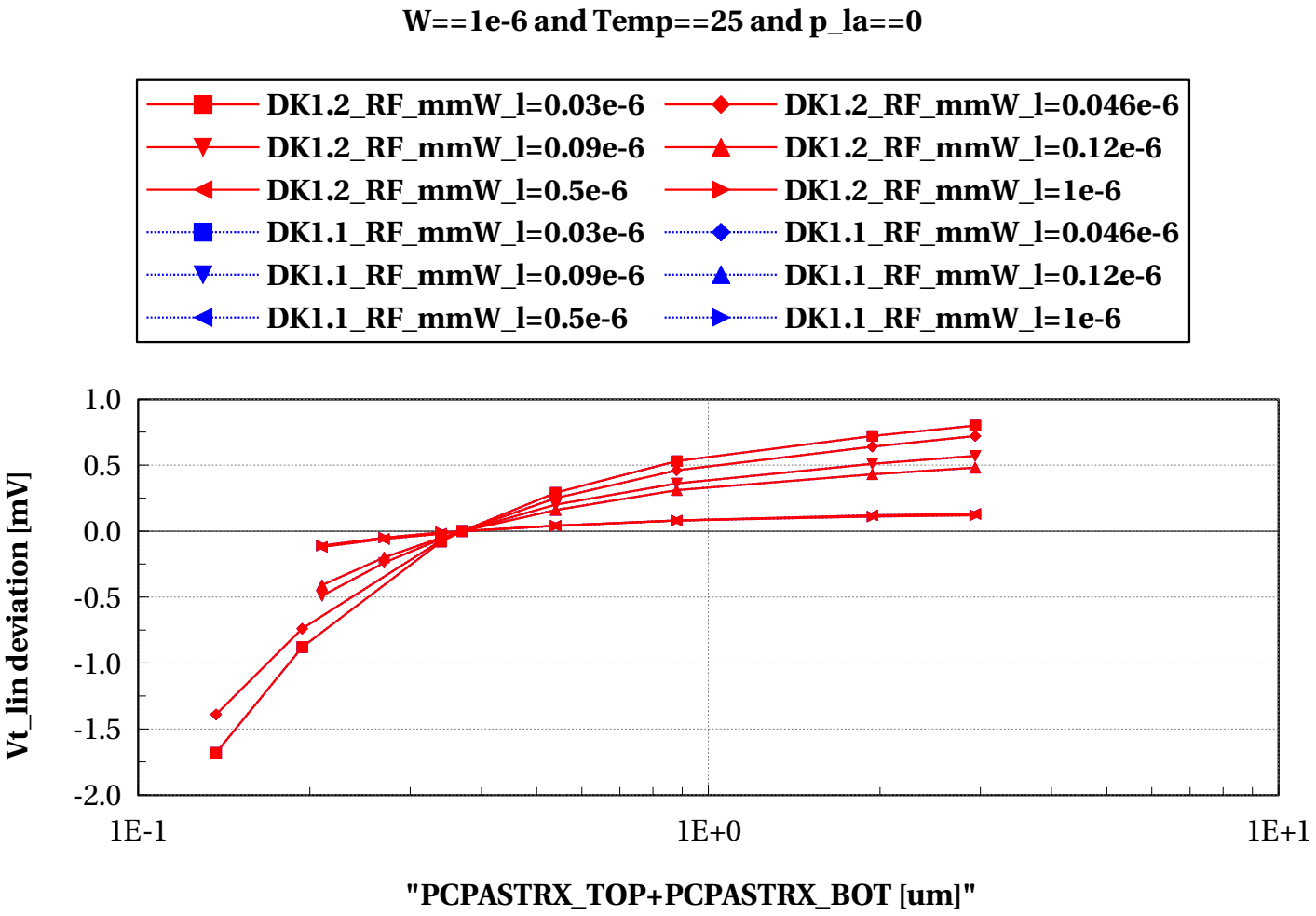


pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"

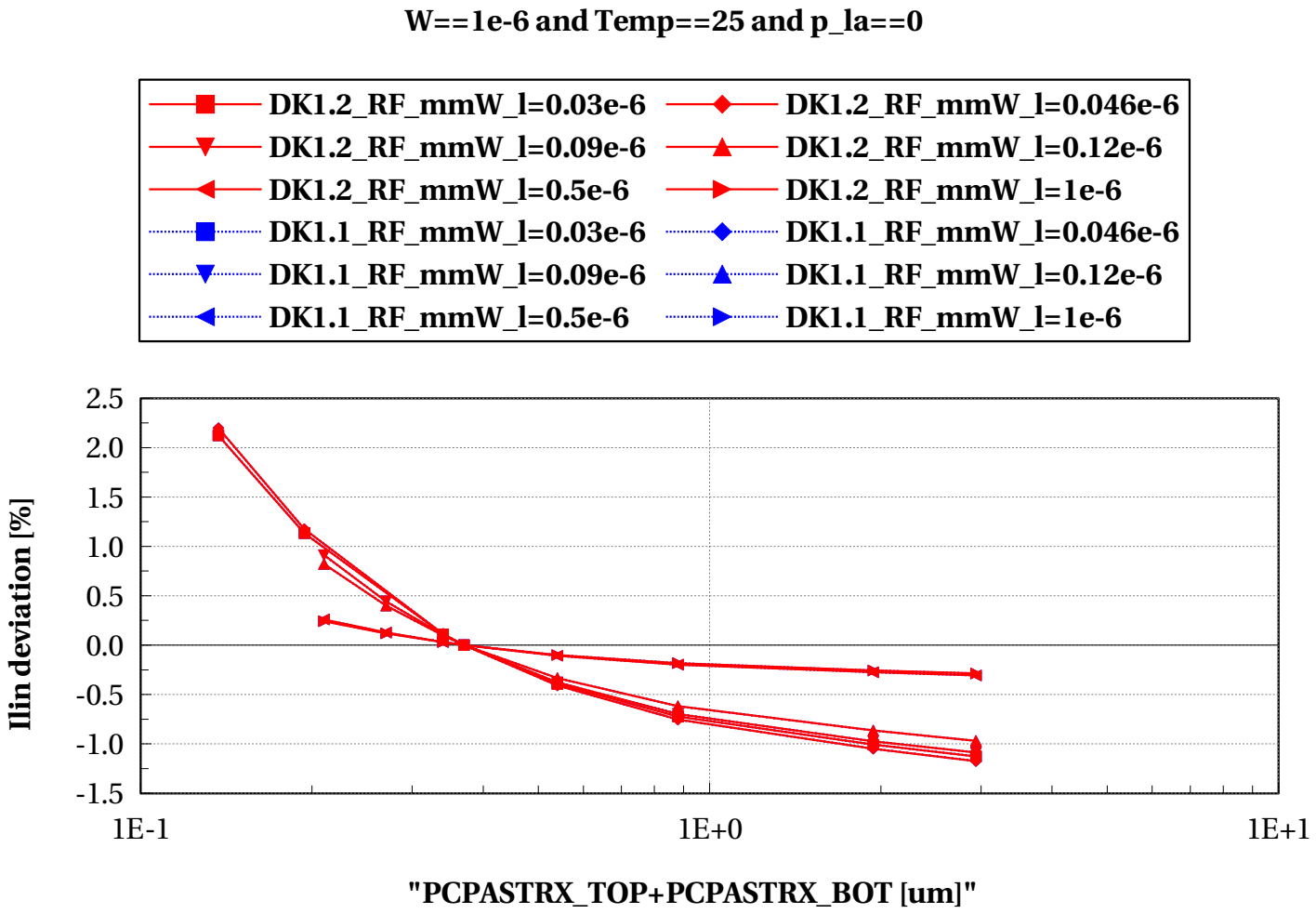


Normalized plots wrt.(PCPASTRX_TOP+PCPASTRX_BOT)=0.37u - Lscaling @ W=1u

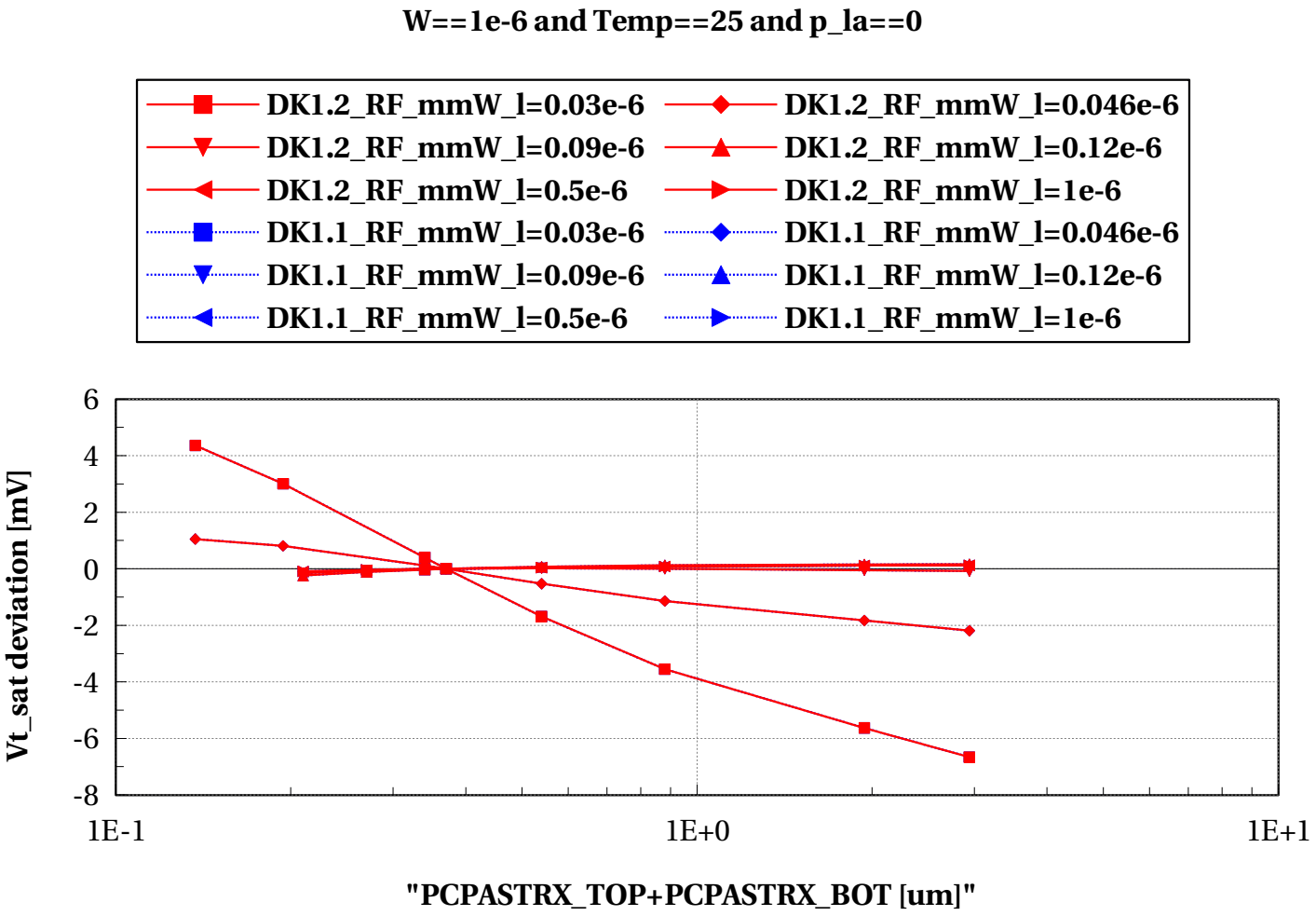
pfet_acc, Vt_lin deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



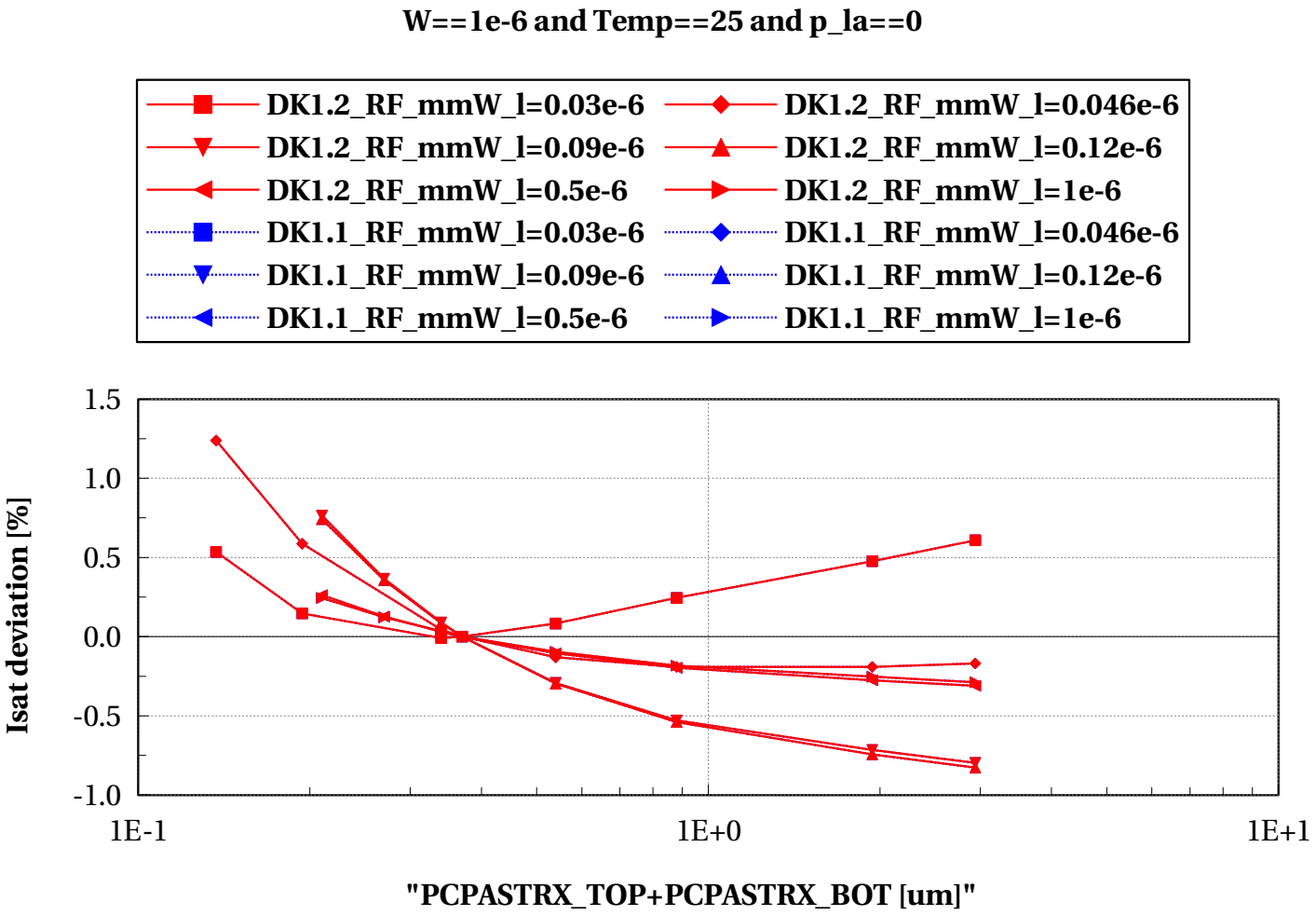
pfet_acc, Ilin deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



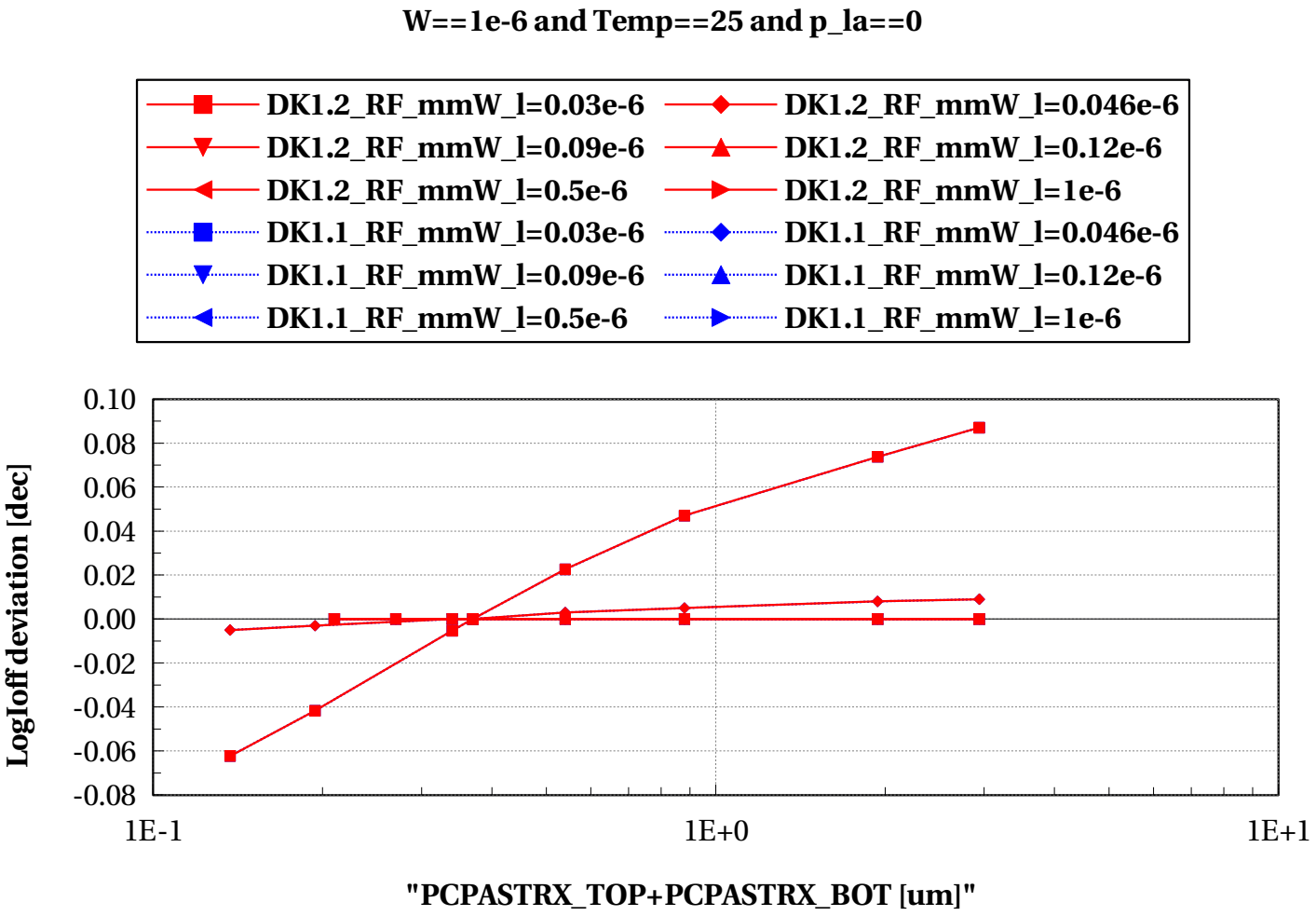
pfet_acc, Vt_sat deviation [mV] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, Isat deviation [%] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



pfet_acc, LogIoff deviation [dec] vs "PCPASTRX_TOP+PCPASTRX_BOT [um]"



Annex

Conditions of simulations

The simulations were done with SBenchLSF Alpha using Eldo simulator 2018.3.

- Model lvtnfet_acc (DK1.2_RF_mmW)
  - ✔ Input Parameters
    - ✘ vds_off = vds_sat V
    - ✘ vds_cgd = 0 V
    - ✘ vds_cgg = 0 V
    - ✘ mc_sens = 0
    - ✘ vds_lin = 0.05 V
    - ✘ ivt = 300e-9 A
    - ✘ model_version = 1.3.e
    - ✘ ams_release = 2018.3
    - ✘ vgs_stop = vdd V
    - ✘ dlshrink_ivt = 0
    - ✘ sbenchlsf_release = Alpha
    - ✘ vds_sat = Vdd V
    - ✘ mc_nsigma = 3
    - ✘ shrink_ivt = 1

- ✘ dlshrink_tinv = 3e-9
- ✘ vgs_start = -0.5 V
- ✘ plashrink_ivt = 1
- ✘ ithslwi = 10e-9 A
- ✘ vds_cbd = 0 V
- ✘ vddmax = vdd
- ✘ voffset = 0.2 V
- ✘ mc_runs = 1000
- ✘ vstep_ivt = 0.005 V
- ✘ vgs_off = 0 V
- ✘ temp = 25 °C
- ✘ f_ext = 100k Hz
- ✘ vbs = 0 V
- ✘ vdd = 1 V
- ✘ shrink_tinv = 0.9
- ✘ vds_gmgd = Vdd/2 V

✔ Sweep Parameters

✔ Extra parameters

- ✘ lvt_dev = 0
- ✘ gflag__noisedev__rvt__cmos028fdsoi = 0
- ✘ gflag__noisedev__lvt__cmos028fdsoi = 0
- ✘ rvt_dev = 0

● Model lvtpfet_acc (DK1.2_RF_mmW)

✔ Input Parameters

- ✘ vds_off = vds_sat V

- ✘ vds_cgd = 0 V
- ✘ vds_cgg = 0 V
- ✘ mc_sens = 0
- ✘ vds_lin = 0.05 V
- ✘ ivt = 70e-9 A
- ✘ model_version = 1.3.e
- ✘ ams_release = 2018.3
- ✘ vgs_stop = vdd V
- ✘ dlshrink_ivt = 0
- ✘ sbenchlsf_release = Alpha
- ✘ vds_sat = Vdd V
- ✘ mc_nsigma = 3
- ✘ shrink_ivt = 1
- ✘ dlshrink_tinv = 3e-9
- ✘ vgs_start = -0.5 V
- ✘ plashrink_ivt = 1
- ✘ ithslwi = 10e-9 A
- ✘ vds_cbd = 0 V
- ✘ vddmax = vdd
- ✘ voffset = 0.2 V
- ✘ mc_runs = 1000
- ✘ vstep_ivt = 0.005 V
- ✘ vgs_off = 0 V
- ✘ temp = 25 °C
- ✘ f_ext = 100k Hz

- ✘ vbs = 1 V
- ✘ vdd = 1 V
- ✘ shrink_tinv = 0.9
- ✘ vds_gmgd = Vdd/2 V

✔ Sweep Parameters

✔ Extra parameters

- ✘ lvt_dev = 0
- ✘ gflag__noisedev__rvt__cmos028fdsoi = 0
- ✘ gflag__noisedev__lvt__cmos028fdsoi = 0
- ✘ rvt_dev = 0

● Model nfet_acc (DK1.2_RF_mmW)

✔ Input Parameters

- ✘ vds_off = vds_sat V
- ✘ vds_cgd = 0 V
- ✘ vds_cgg = 0 V
- ✘ mc_sens = 0
- ✘ vds_lin = 0.05 V
- ✘ ivt = 300e-9 A
- ✘ model_version = 1.2.d
- ✘ ams_release = 2018.3
- ✘ vgs_stop = vdd V
- ✘ dlshrink_ivt = 0
- ✘ sbenchlsf_release = Alpha
- ✘ vds_sat = Vdd V
- ✘ mc_nsigma = 3

- ✘ shrink_ivt = 1
- ✘ dlshrink_tinv = 3e-9
- ✘ vgs_start = -0.5 V
- ✘ plashrink_ivt = 1
- ✘ ithslwi = 10e-9 A
- ✘ vds_cbd = 0 V
- ✘ vddmax = vdd
- ✘ voffset = 0.2 V
- ✘ mc_runs = 1000
- ✘ vstep_ivt = 0.005 V
- ✘ vgs_off = 0 V
- ✘ temp = 25 °C
- ✘ f_ext = 100k Hz
- ✘ vbs = 0 V
- ✘ vdd = 1 V
- ✘ shrink_tinv = 0.9
- ✘ vds_gmgd = Vdd/2 V

✔ Sweep Parameters

✔ Extra parameters

- ✘ lvt_dev = 0
- ✘ gflag__noisedev__rvt__cmos028fdsoi = 0
- ✘ gflag__noisedev__lvt__cmos028fdsoi = 0
- ✘ rvt_dev = 0

● Model pfet_acc (DK1.2_RF_mmW)

✔ Input Parameters

- ✘ vds_off = vds_sat V
- ✘ vds_cgd = 0 V
- ✘ vds_cgg = 0 V
- ✘ mc_sens = 0
- ✘ vds_lin = 0.05 V
- ✘ ivt = 70e-9 A
- ✘ model_version = 1.2.d
- ✘ ams_release = 2018.3
- ✘ vgs_stop = vdd V
- ✘ dlshrink_ivt = 0
- ✘ sbenchlsf_release = Alpha
- ✘ vds_sat = Vdd V
- ✘ mc_nsigma = 3
- ✘ shrink_ivt = 1
- ✘ dlshrink_tinv = 3e-9
- ✘ vgs_start = -0.5 V
- ✘ plashrink_ivt = 1
- ✘ ithslwi = 10e-9 A
- ✘ vds_cbd = 0 V
- ✘ vddmax = vdd
- ✘ voffset = 0.2 V
- ✘ mc_runs = 1000
- ✘ vstep_ivt = 0.005 V
- ✘ vgs_off = 0 V
- ✘ temp = 25 °C

- ✘ f_ext = 100k Hz
- ✘ vbs = 0 V
- ✘ vdd = 1 V
- ✘ shrink_tinv = 0.9
- ✘ vds_gmgd = Vdd/2 V

✔ Sweep Parameters

✔ Extra parameters

- ✘ lvt_dev = 0
- ✘ gflag__noisedev__rvt__cmos028fdsoi = 0
- ✘ gflag__noisedev__lvt__cmos028fdsoi = 0
- ✘ rvt_dev = 0

● Model lvtnfet_acc (DK1.1_RF_mmW)

✔ Input Parameters

- ✘ vds_off = vds_sat V
- ✘ vds_cgd = 0 V
- ✘ vds_cgg = 0 V
- ✘ mc_sens = 0
- ✘ vds_lin = 0.05 V
- ✘ ivt = 300e-9 A
- ✘ model_version = 1.3.d
- ✘ ams_release = 2018.3
- ✘ vgs_stop = vdd V
- ✘ dlshrink_ivt = 0
- ✘ sbenchlsf_release = Alpha
- ✘ vds_sat = Vdd V

- ✘ mc_nsigma = 3
- ✘ shrink_ivt = 1
- ✘ dlshrink_tinv = 3e-9
- ✘ vgs_start = -0.5 V
- ✘ plashrink_ivt = 1
- ✘ ithslwi = 10e-9 A
- ✘ vds_cbd = 0 V
- ✘ vddmax = vdd
- ✘ voffset = 0.2 V
- ✘ mc_runs = 1000
- ✘ vstep_ivt = 0.005 V
- ✘ vgs_off = 0 V
- ✘ temp = 25 °C
- ✘ f_ext = 100k Hz
- ✘ vbs = 0 V
- ✘ vdd = 1 V
- ✘ shrink_tinv = 0.9
- ✘ vds_gmgd = Vdd/2 V

✔ Sweep Parameters

✔ Extra parameters

- ✘ lvt_dev = 0
- ✘ gflag__noisedev__rvt__cmos028fdsoi = 0
- ✘ gflag__noisedev__lvt__cmos028fdsoi = 0
- ✘ rvt_dev = 0

● Model lvtpfet_acc (DK1.1_RF_mmW)

- ✔ Input Parameters
  - ✘ vds_off = vds_sat V
  - ✘ vds_cgd = 0 V
  - ✘ vds_cgg = 0 V
  - ✘ mc_sens = 0
  - ✘ vds_lin = 0.05 V
  - ✘ ivt = 70e-9 A
  - ✘ model_version = 1.3.d
  - ✘ ams_release = 2018.3
  - ✘ vgs_stop = vdd V
  - ✘ dlshrink_ivt = 0
  - ✘ sbenchlsf_release = Alpha
  - ✘ vds_sat = Vdd V
  - ✘ mc_nsigma = 3
  - ✘ shrink_ivt = 1
  - ✘ dlshrink_tinv = 3e-9
  - ✘ vgs_start = -0.5 V
  - ✘ plashrink_ivt = 1
  - ✘ ithslwi = 10e-9 A
  - ✘ vds_cbd = 0 V
  - ✘ vddmax = vdd
  - ✘ voffset = 0.2 V
  - ✘ mc_runs = 1000
  - ✘ vstep_ivt = 0.005 V
  - ✘ vgs_off = 0 V

- ✘ temp = 25 °C
- ✘ f_ext = 100k Hz
- ✘ vbs = 1 V
- ✘ vdd = 1 V
- ✘ shrink_tinv = 0.9
- ✘ vds_gmgd = Vdd/2 V

✔ Sweep Parameters

✔ Extra parameters

- ✘ lvt_dev = 0
- ✘ gflag__noisedev__rvt__cmos028fdsoi = 0
- ✘ gflag__noisedev__lvt__cmos028fdsoi = 0
- ✘ rvt_dev = 0

● Model nfet_acc (DK1.1_RF_mmW)

✔ Input Parameters

- ✘ vds_off = vds_sat V
- ✘ vds_cgd = 0 V
- ✘ vds_cgg = 0 V
- ✘ mc_sens = 0
- ✘ vds_lin = 0.05 V
- ✘ ivt = 300e-9 A
- ✘ model_version = 1.2.c
- ✘ ams_release = 2018.3
- ✘ vgs_stop = vdd V
- ✘ dlshrink_ivt = 0
- ✘ sbenchlsf_release = Alpha

- ✘ vds_sat = Vdd V
- ✘ mc_nsigma = 3
- ✘ shrink_ivt = 1
- ✘ dlshrink_tinv = 3e-9
- ✘ vgs_start = -0.5 V
- ✘ plashrink_ivt = 1
- ✘ ithslwi = 10e-9 A
- ✘ vds_cbd = 0 V
- ✘ vddmax = vdd
- ✘ voffset = 0.2 V
- ✘ mc_runs = 1000
- ✘ vstep_ivt = 0.005 V
- ✘ vgs_off = 0 V
- ✘ temp = 25 °C
- ✘ f_ext = 100k Hz
- ✘ vbs = 0 V
- ✘ vdd = 1 V
- ✘ shrink_tinv = 0.9
- ✘ vds_gmgd = Vdd/2 V

✔ Sweep Parameters

✔ Extra parameters

- ✘ lvt_dev = 0
- ✘ gflag__noisedev__rvt__cmos028fdsoi = 0
- ✘ gflag__noisedev__lvt__cmos028fdsoi = 0
- ✘ rvt_dev = 0

- Model pfet_acc (DK1.1_RF_mmW)
  - ✔ Input Parameters
    - ✘ vds_off = vds_sat V
    - ✘ vds_cgd = 0 V
    - ✘ vds_cgg = 0 V
    - ✘ mc_sens = 0
    - ✘ vds_lin = 0.05 V
    - ✘ ivt = 70e-9 A
    - ✘ model_version = 1.2.c
    - ✘ ams_release = 2018.3
    - ✘ vgs_stop = vdd V
    - ✘ dlshrink_ivt = 0
    - ✘ sbenchlsf_release = Alpha
    - ✘ vds_sat = Vdd V
    - ✘ mc_nsigma = 3
    - ✘ shrink_ivt = 1
    - ✘ dlshrink_tinv = 3e-9
    - ✘ vgs_start = -0.5 V
    - ✘ plashrink_ivt = 1
    - ✘ ithslwi = 10e-9 A
    - ✘ vds_cbd = 0 V
    - ✘ vddmax = vdd
    - ✘ voffset = 0.2 V
    - ✘ mc_runs = 1000
    - ✘ vstep_ivt = 0.005 V

- ✘ vgs_off = 0 V
- ✘ temp = 25 °C
- ✘ f_ext = 100k Hz
- ✘ vbs = 0 V
- ✘ vdd = 1 V
- ✘ shrink_tinv = 0.9
- ✘ vds_gmgd = Vdd/2 V

✔ Sweep Parameters

✔ Extra parameters

- ✘ lvt_dev = 0
- ✘ gflag__noisedev__rvt__cmos028fdsoi = 0
- ✘ gflag__noisedev__lvt__cmos028fdsoi = 0
- ✘ rvt_dev = 0