



cmos028fdsoi Technology

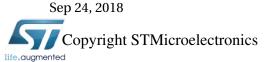
EG/EGLVT LLE LOD models

DK1.2_RF_mmW

Comparison with DK1.1_RF_mmW model(s)

LLE - EG/EGLVT LOD

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Technology R&D Crolles Site – TDP/TDS/SPICE Modeling





General information on EG/EGLVT LLE LOD models

- Maximum supply voltage is 1.8 V.
- Validity domain is defined as follows:
 - ✓ Drawn gate length varies from 150nm to 10um.
 - ✓ Drawn transistor width varies from 160nm to 10um.
 - ✓ Device temperature varies from -40 °C to 125 °C.





Output parameters definitions

- Model(s): eglvtnfet_acc, eglvtpfet_acc, egnfet_acc, egpfet_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 = 1.8V, 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 = 1.8V, Vds = 0.05V.
 - ✓ Logioff: log10(Ioffsat).







eglvtnfet_acc Electrical characteristics scaling







LOD effect (sa=sb) - Lscaling at W=2e-6

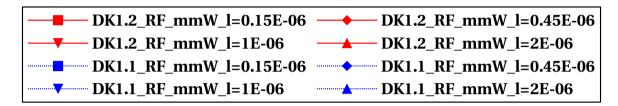


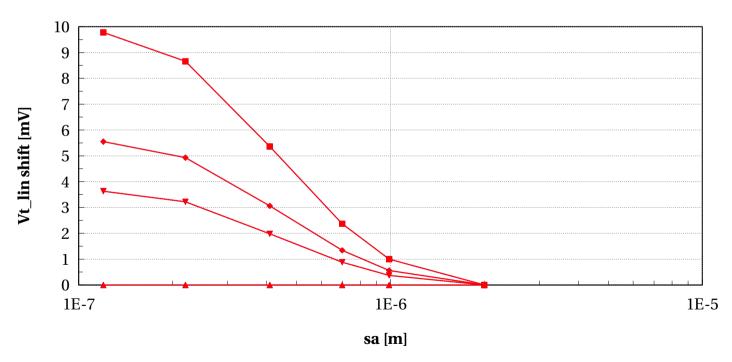




eglvtnfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and w==2e-6





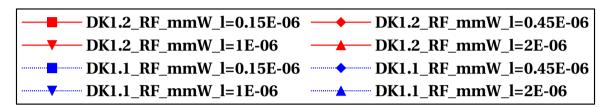


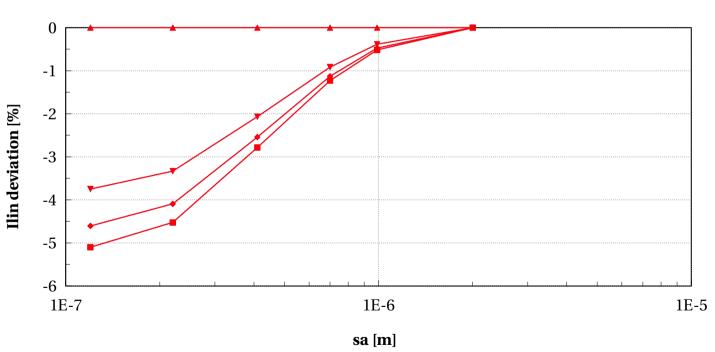




eglvtnfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and w==2e-6





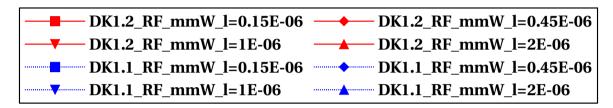


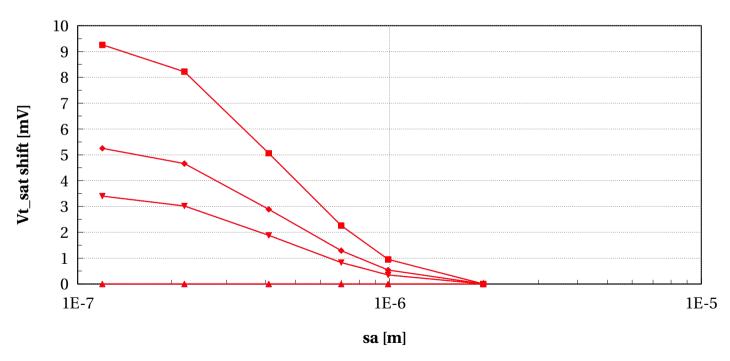




eglvtnfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==2e-6





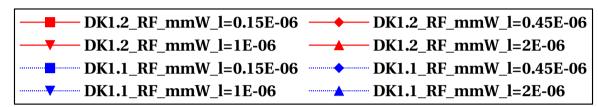


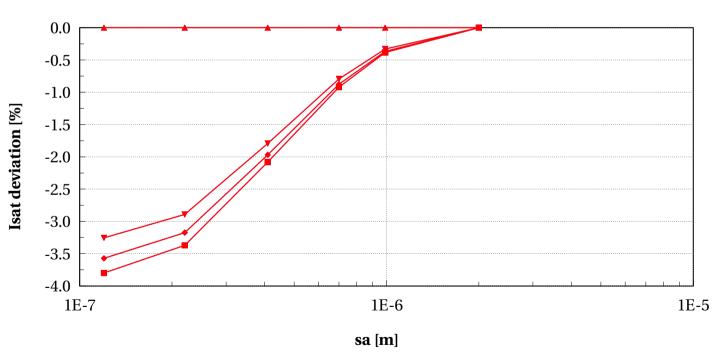




eglvtnfet_acc, Isat deviation [%] vs sa [m]

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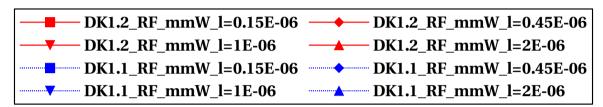


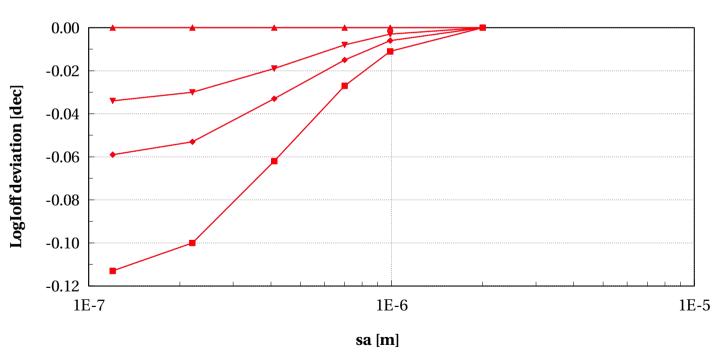




eglvtnfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and w==2e-6











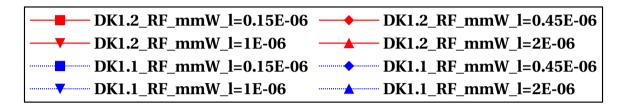
LOD effect (sa=sb) - Lscaling at W=0.5e-6

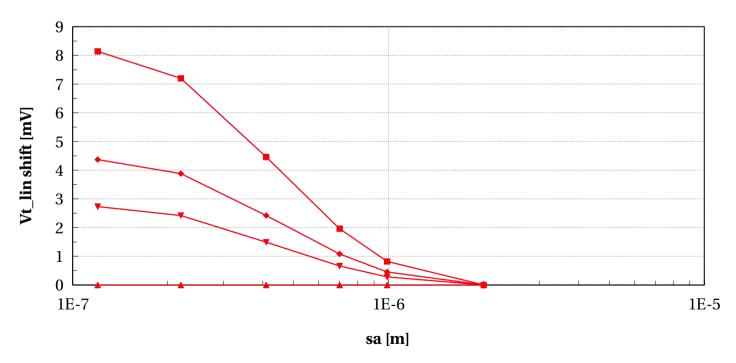






eglvtnfet_acc, Vt_lin shift [mV] vs sa [m]





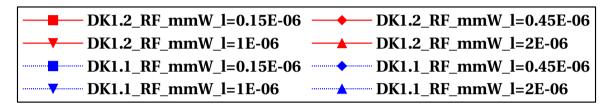


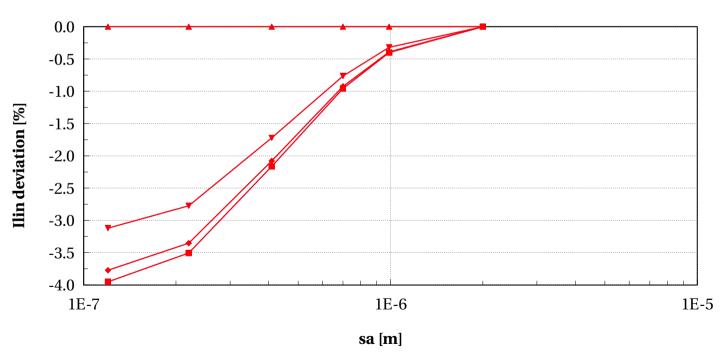




eglvtnfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and w==0.5e-6





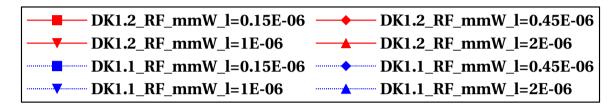


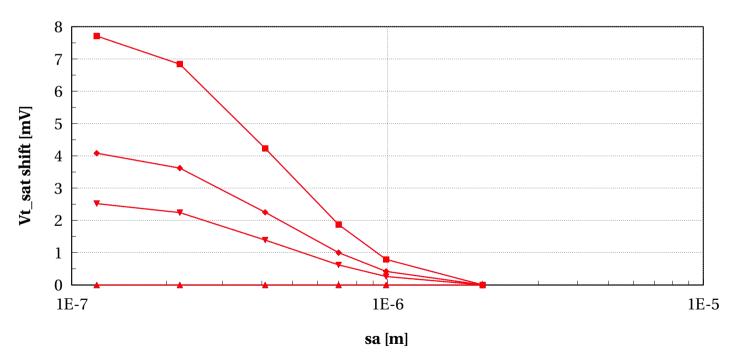




eglvtnfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==0.5e-6





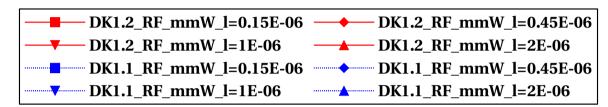


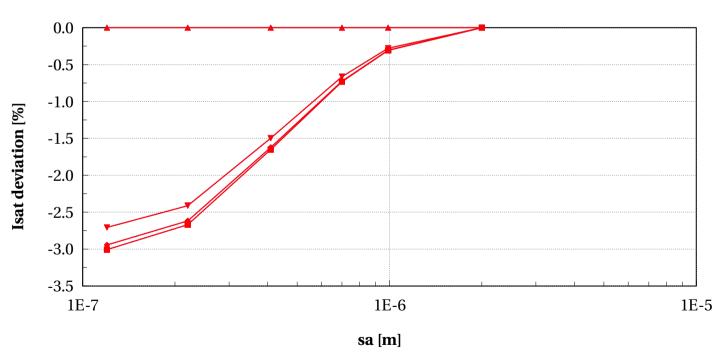




eglvtnfet_acc, Isat deviation [%] vs sa [m]

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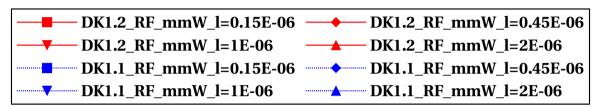


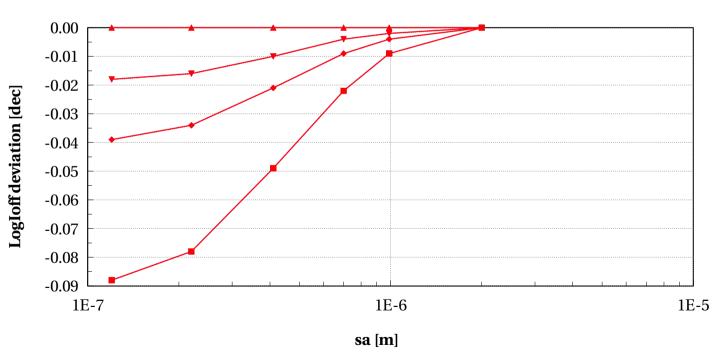




eglvtnfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and w==0.5e-6











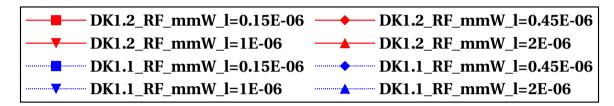
LOD effect (sa=sb) - Lscaling at W=0.16e-6

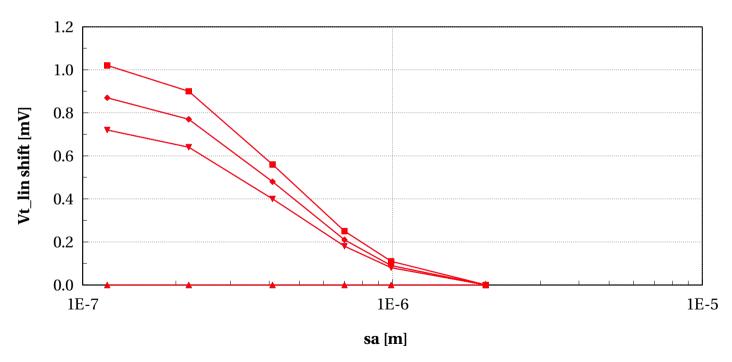




eglvtnfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and w==0.16e-6





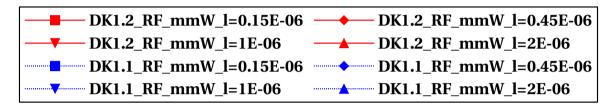


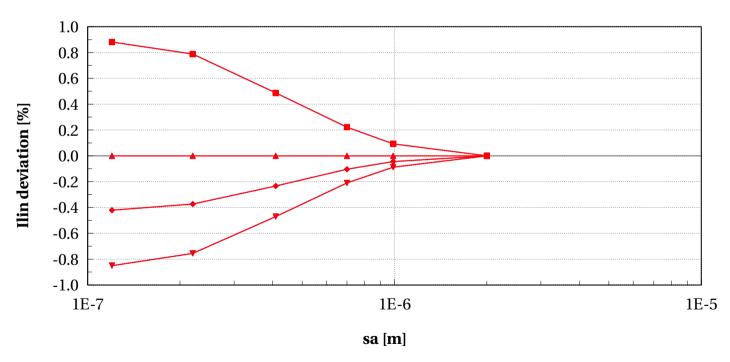




eglvtnfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and w==0.16e-6





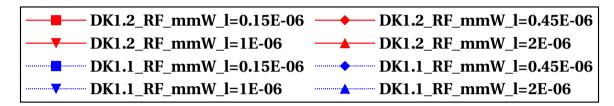


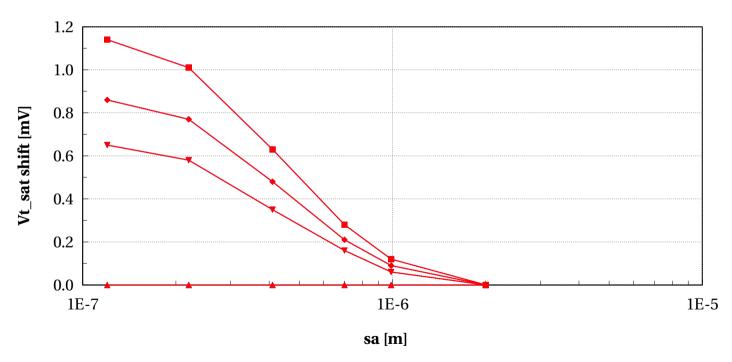




eglvtnfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==0.16e-6





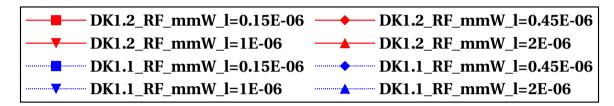


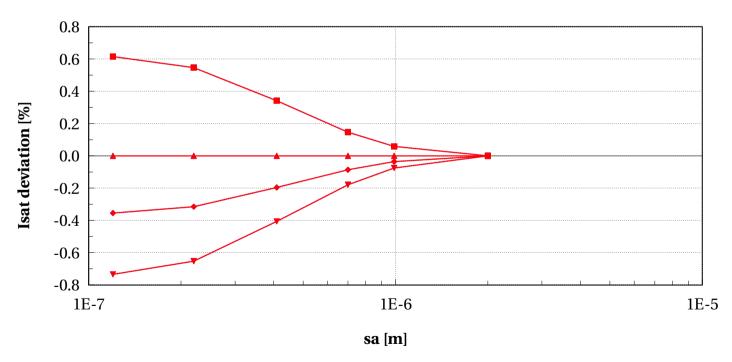




eglvtnfet_acc, Isat deviation [%] vs sa [m]

temp==25 and w==0.16e-6





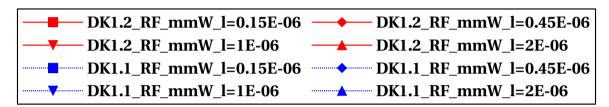


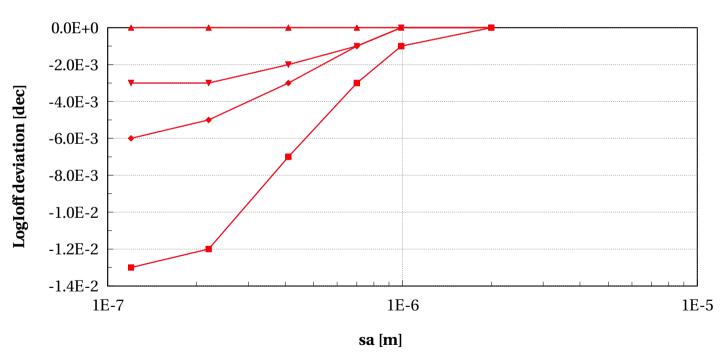




eglvtnfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and w==0.16e-6









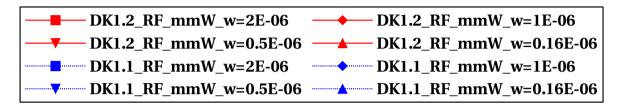


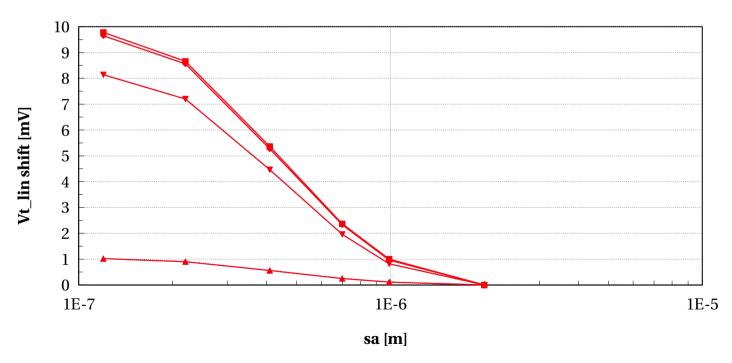
LOD effect (sa=sb) - Wscaling at L=0.15e-6





eglvtnfet_acc, Vt_lin shift [mV] vs sa [m]





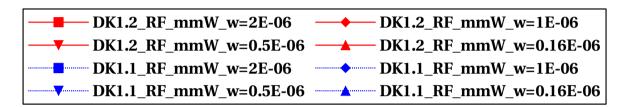


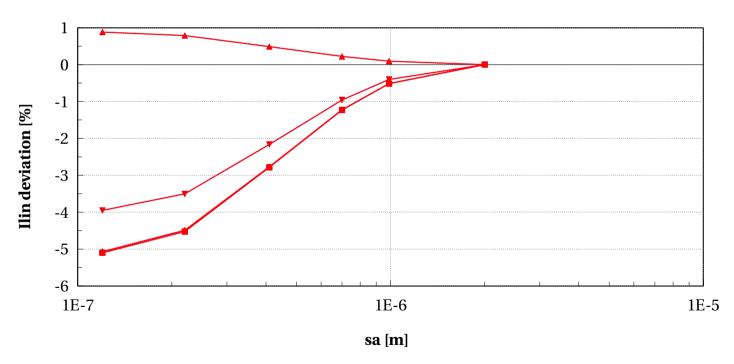




eglvtnfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and l=0.15e-6



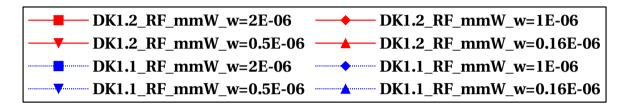


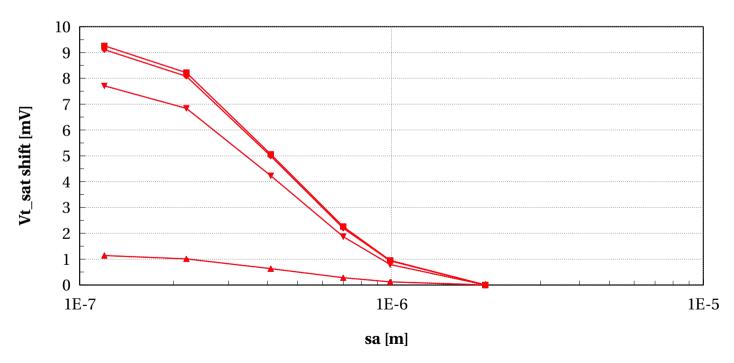






eglvtnfet_acc, Vt_sat shift [mV] vs sa [m]





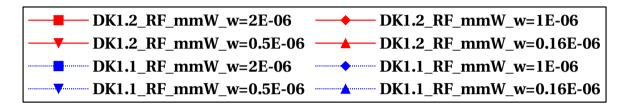


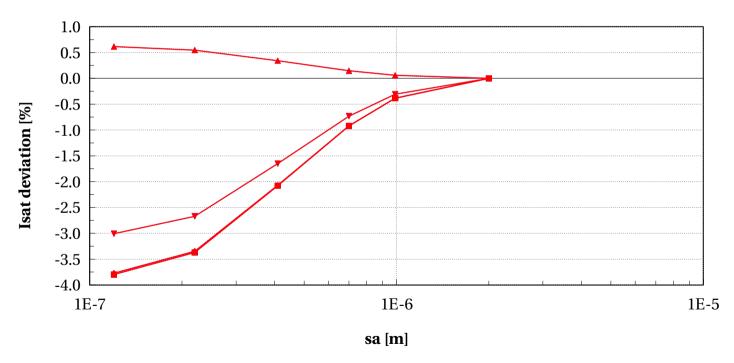


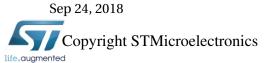


eglvtnfet_acc, Isat deviation [%] vs sa [m]

temp==25 and l=0.15e-6





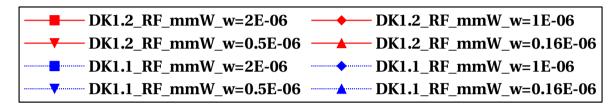


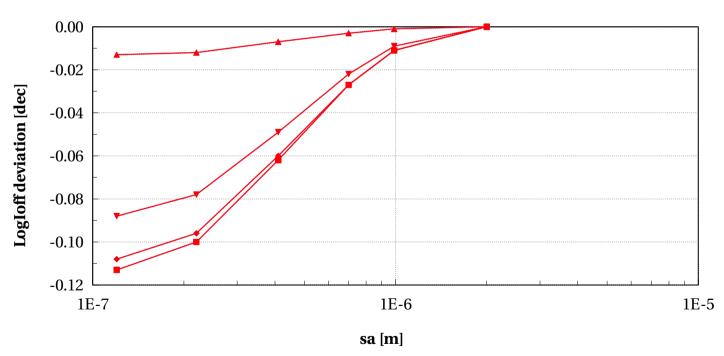




eglvtnfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and l=0.15e-6











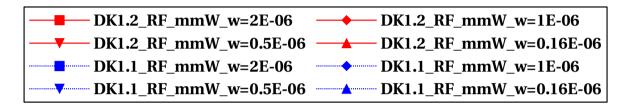
LOD effect (sa=sb) - Wscaling at L=0.45e-6

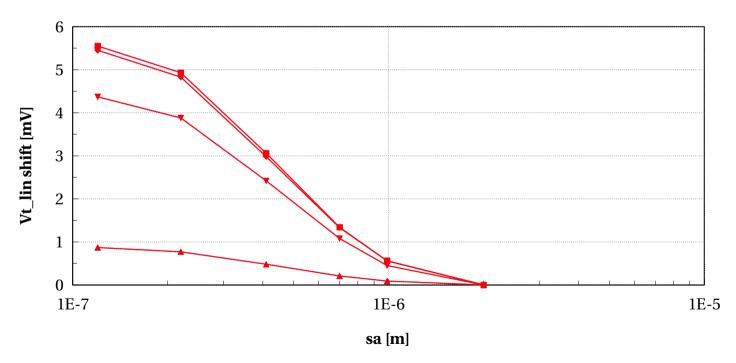






eglvtnfet_acc, Vt_lin shift [mV] vs sa [m]



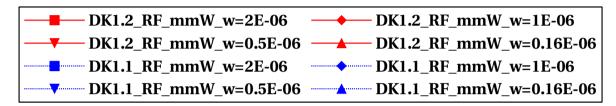


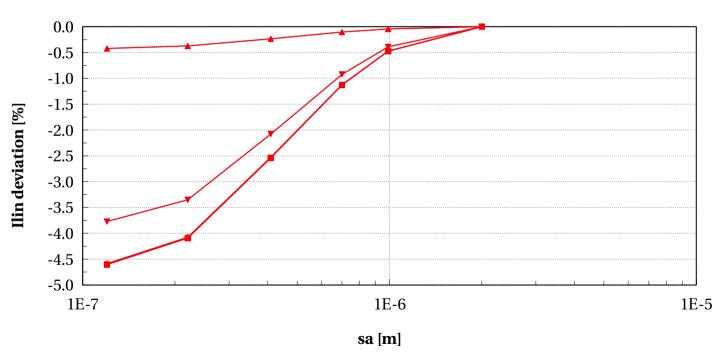






eglvtnfet_acc, Ilin deviation [%] vs sa [m]



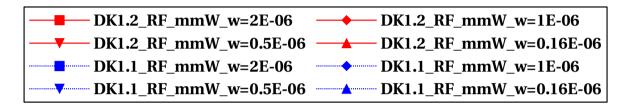


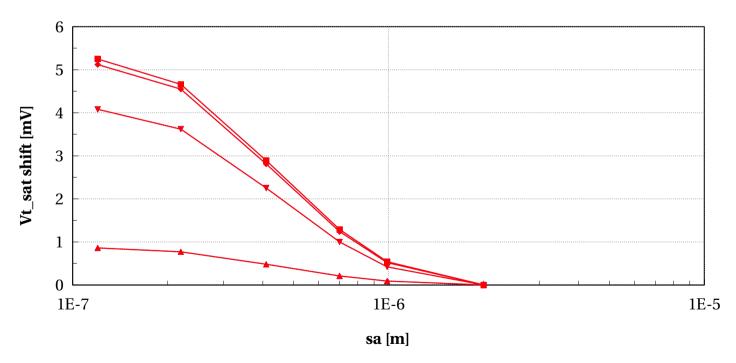






eglvtnfet_acc, Vt_sat shift [mV] vs sa [m]



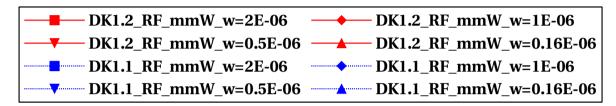


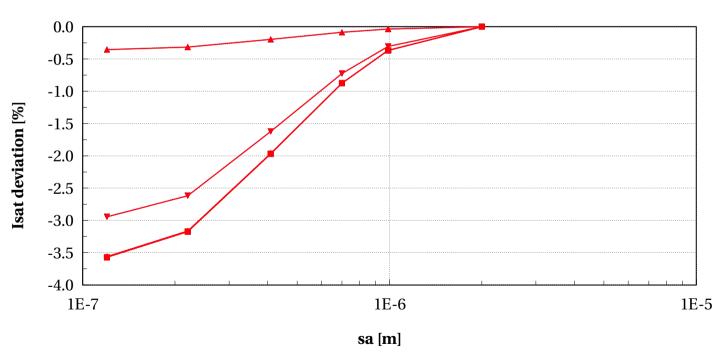






eglvtnfet_acc, Isat deviation [%] vs sa [m]





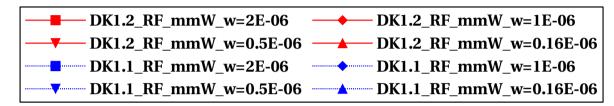


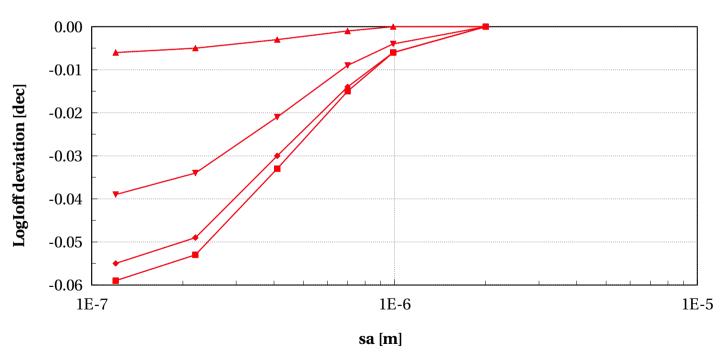




eglvtnfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and l==0.45e-6











LOD effect (sa=sb) - Wscaling at L=1e-6

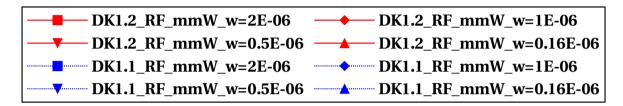


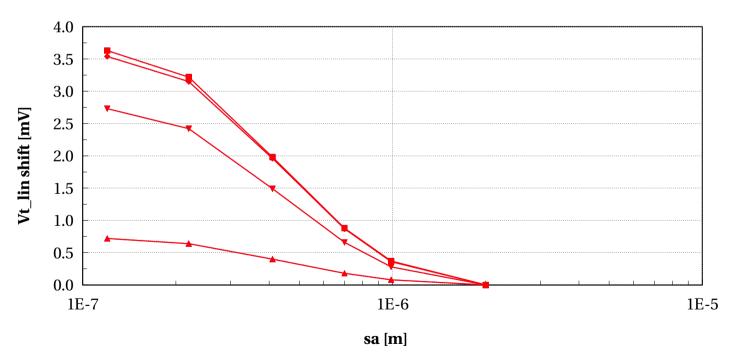




eglvtnfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and l=1.0e-6





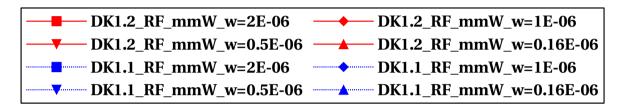


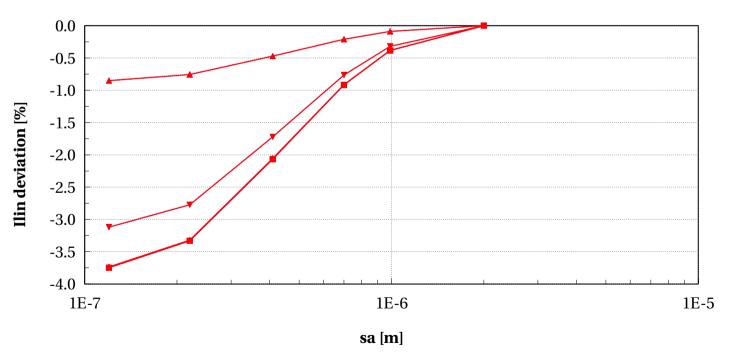




eglvtnfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and l=1.0e-6





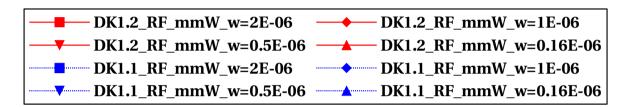


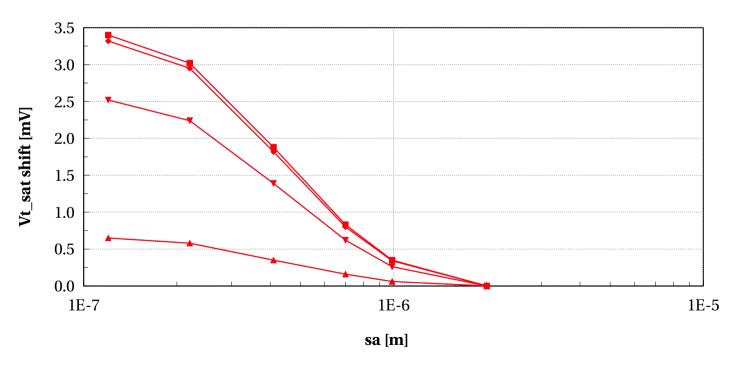




eglvtnfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and l=1.0e-6





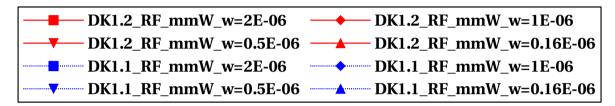


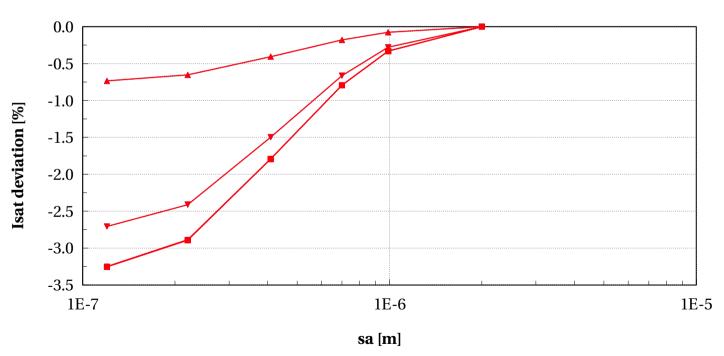




eglvtnfet_acc, Isat deviation [%] vs sa [m]

temp==25 and l=1.0e-6





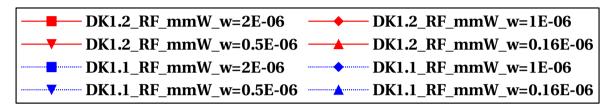


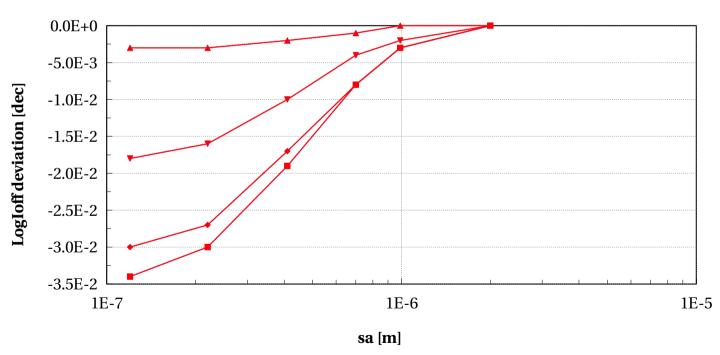




eglvtnfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and l=1.0e-6











eglvtpfet_acc Electrical characteristics scaling







LOD effect (sa=sb) - Lscaling at W=2e-6



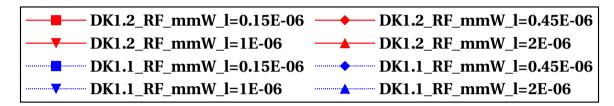


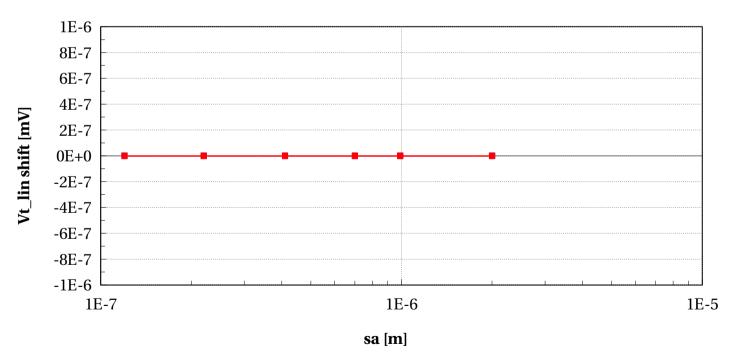
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eglvtpfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and w==2e-6



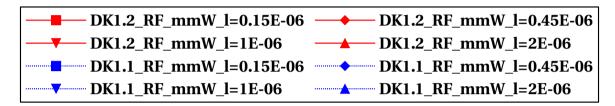


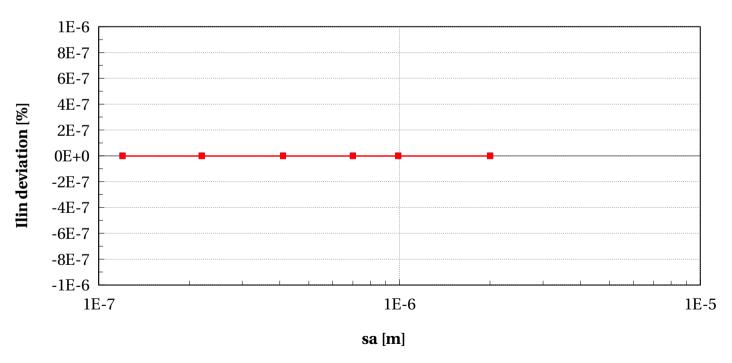




eglvtpfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and w==2e-6



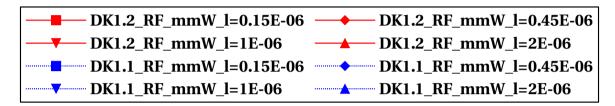


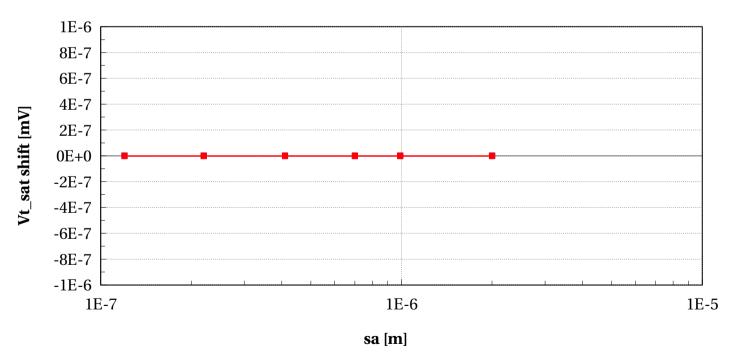


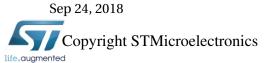


eglvtpfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==2e-6





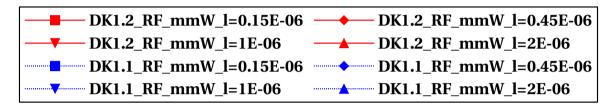


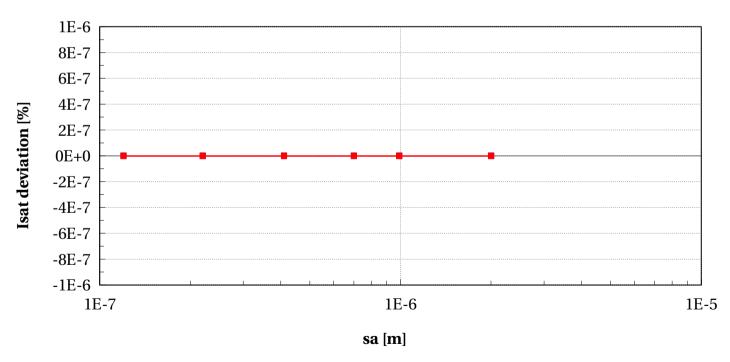




eglvtpfet_acc, Isat deviation [%] vs sa [m]

temp==25 and w==2e-6





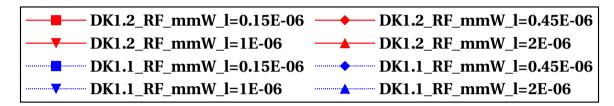


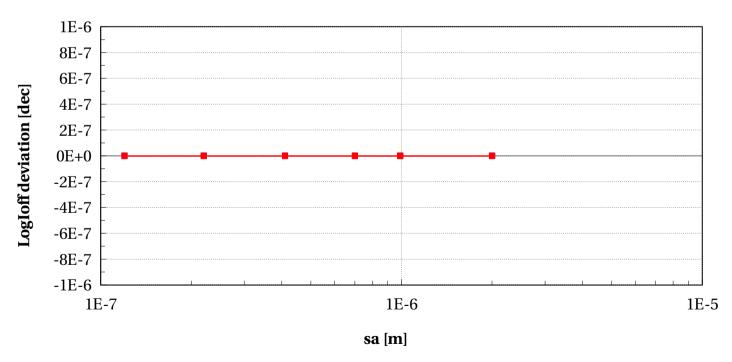




eglvtpfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and w==2e-6











LOD effect (sa=sb) - Lscaling at W=0.5e-6

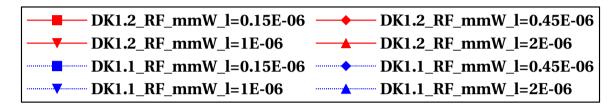


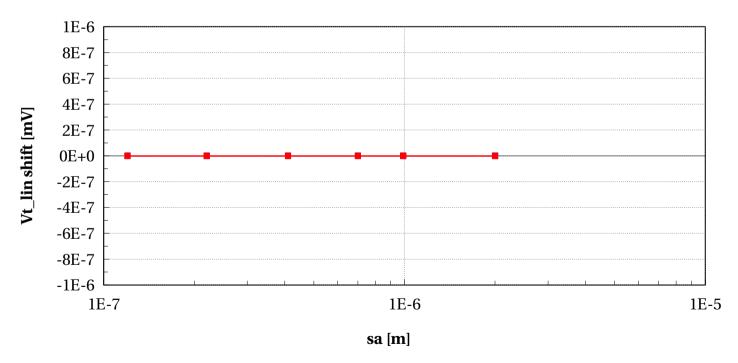




eglvtpfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and w==0.5e-6





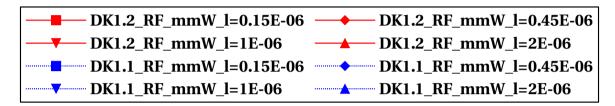


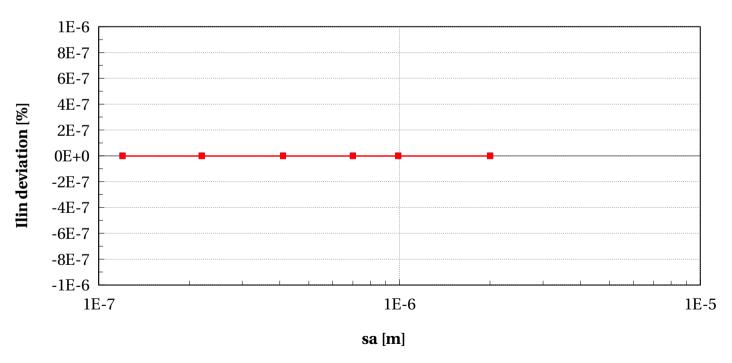




eglvtpfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and w==0.5e-6



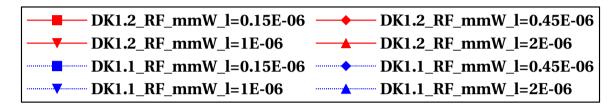


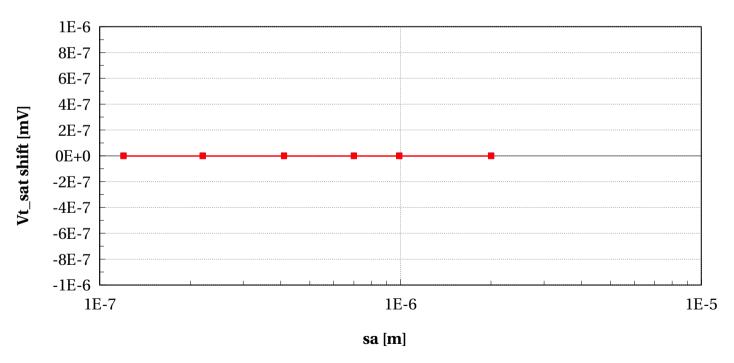


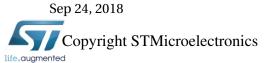


eglvtpfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==0.5e-6





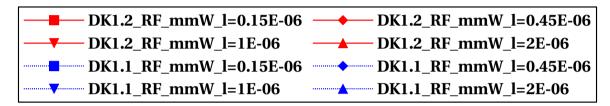


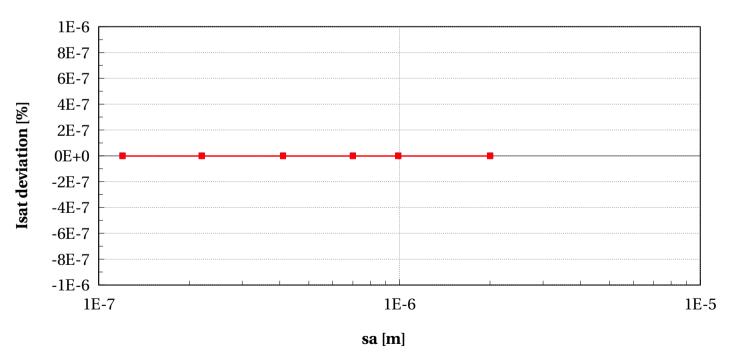




eglvtpfet_acc, Isat deviation [%] vs sa [m]

temp==25 and w==0.5e-6



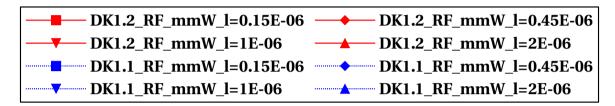


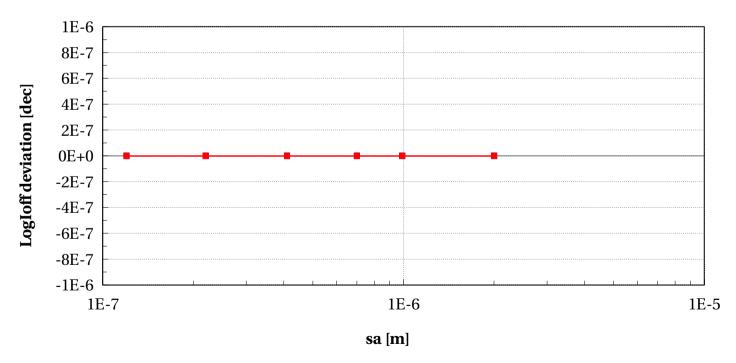




eglvtpfet_acc, LogIoff deviation [dec] vs sa [m]

temp = 25 and w = 0.5e-6











LOD effect (sa=sb) - Lscaling at W=0.16e-6



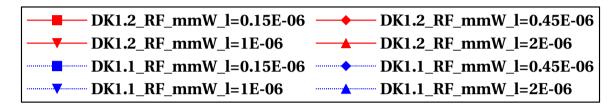


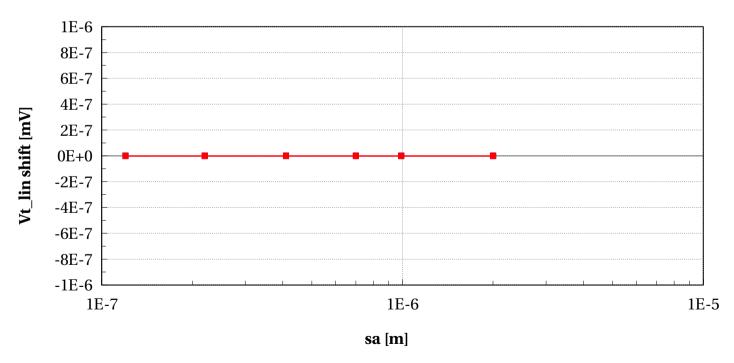
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eglvtpfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and w==0.16e-6





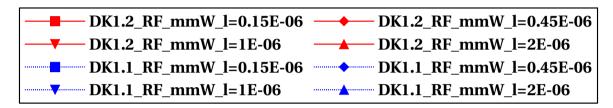


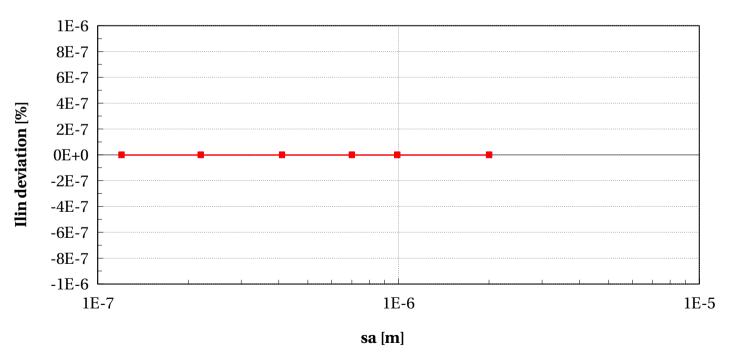




eglvtpfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and w==0.16e-6



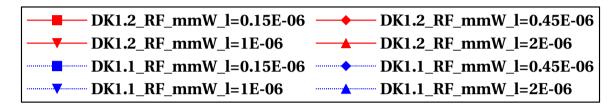


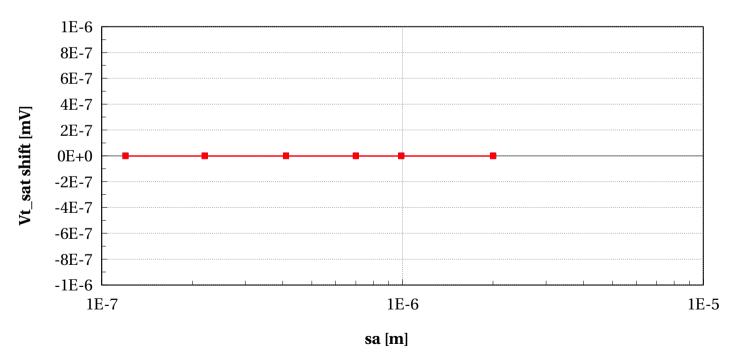




eglvtpfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==0.16e-6





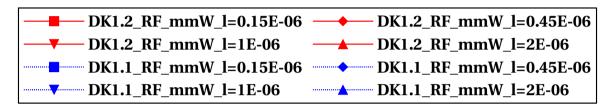


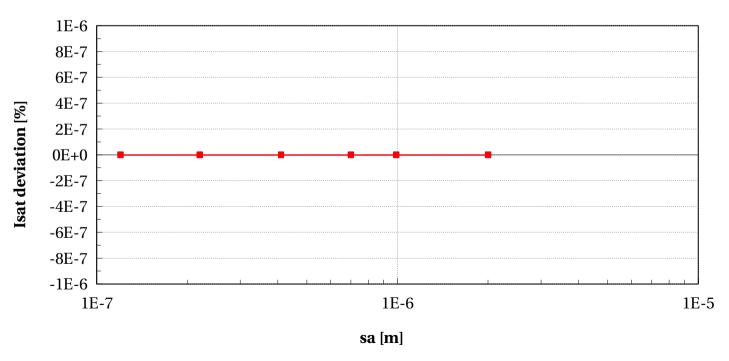




eglvtpfet_acc, Isat deviation [%] vs sa [m]

temp==25 and w==0.16e-6





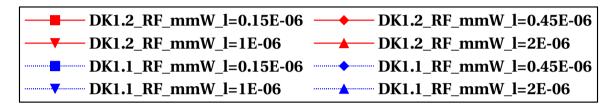


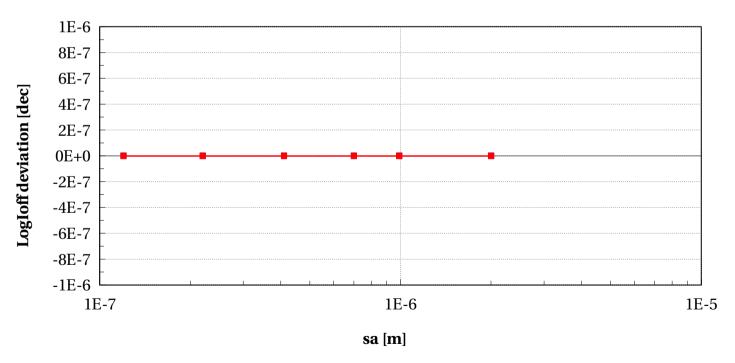




eglvtpfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and w==0.16e-6









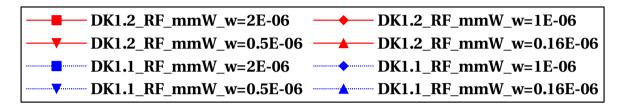


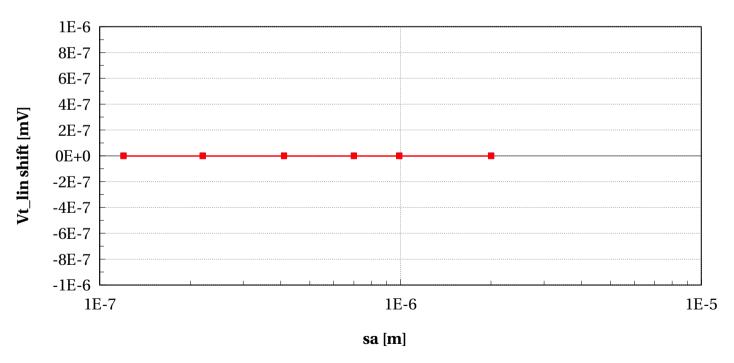
LOD effect (sa=sb) - Wscaling at L=0.15e-6





eglvtpfet_acc, Vt_lin shift [mV] vs sa [m]



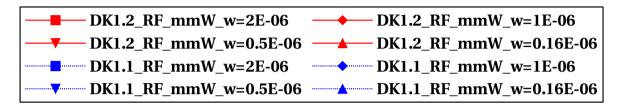


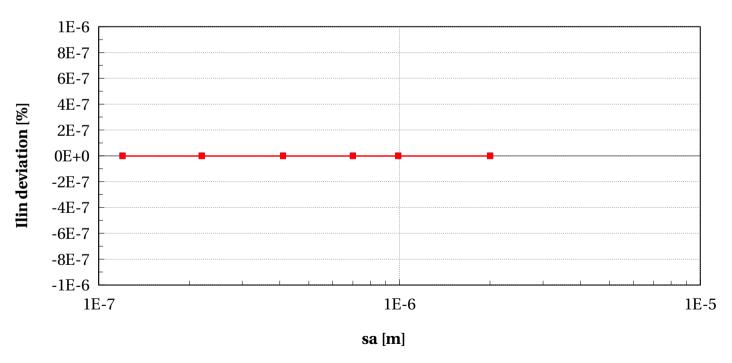






eglvtpfet_acc, Ilin deviation [%] vs sa [m]



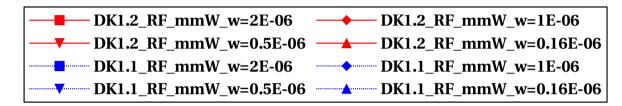


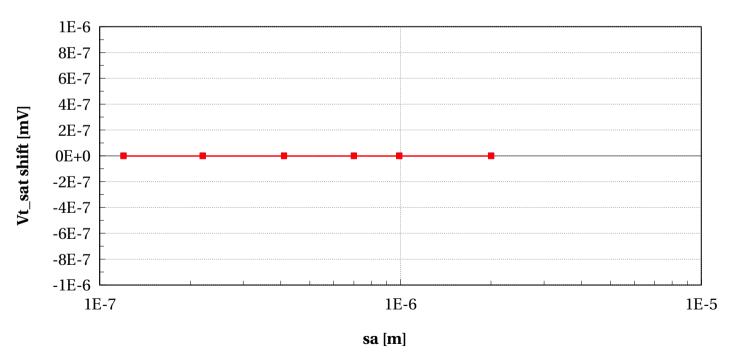






eglvtpfet_acc, Vt_sat shift [mV] vs sa [m]



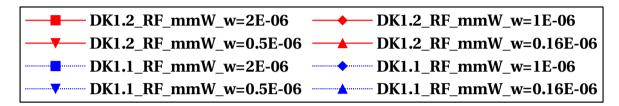


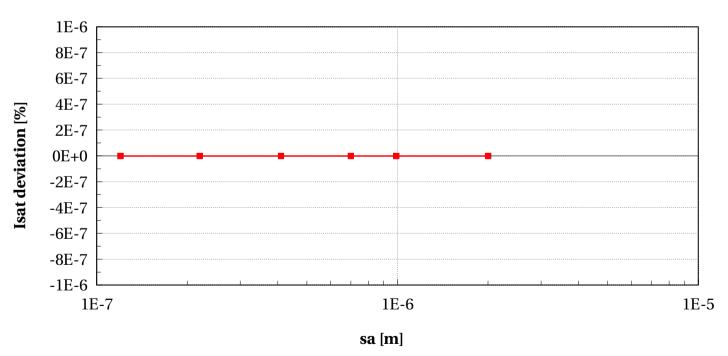






eglvtpfet_acc, Isat deviation [%] vs sa [m]



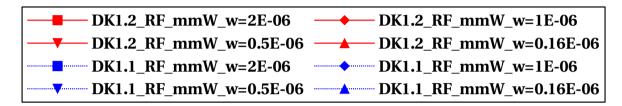


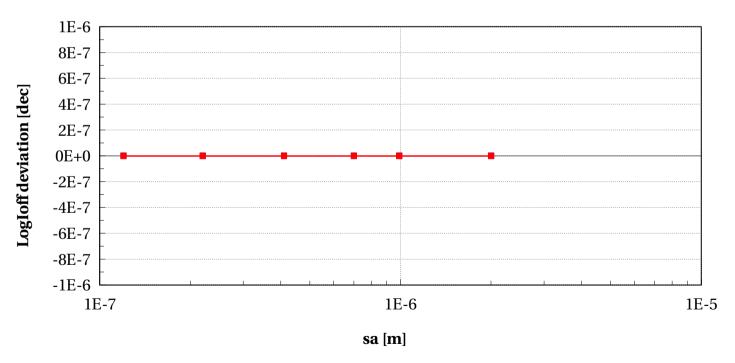






eglvtpfet_acc, LogIoff deviation [dec] vs sa [m]











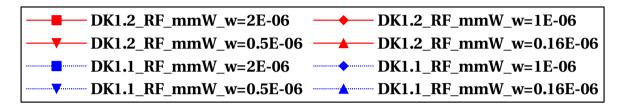
LOD effect (sa=sb) - Wscaling at L=0.45e-6

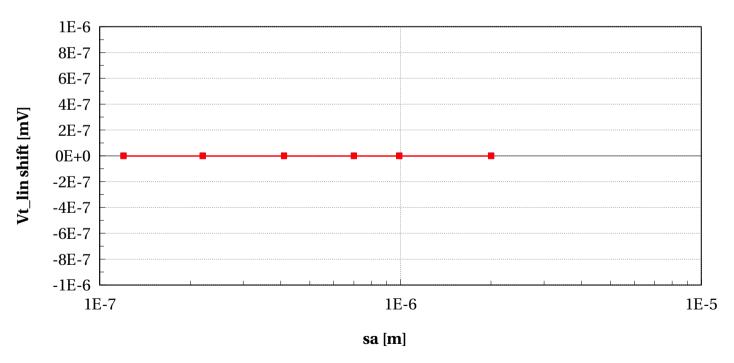




eglvtpfet_acc, Vt_lin shift [mV] vs sa [m]

temp = 25 and l = 0.45e-6



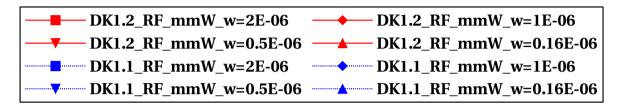


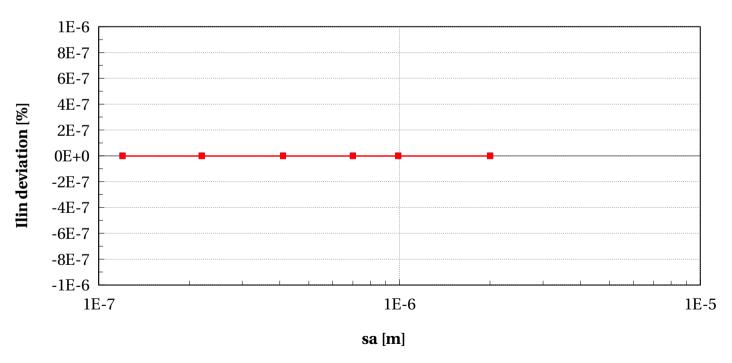






eglvtpfet_acc, Ilin deviation [%] vs sa [m]



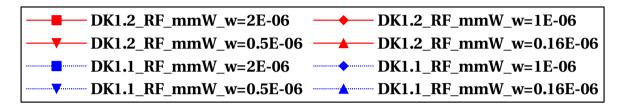


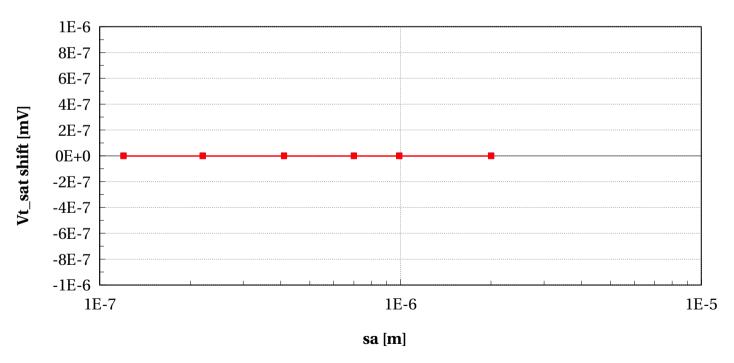






eglvtpfet_acc, Vt_sat shift [mV] vs sa [m]



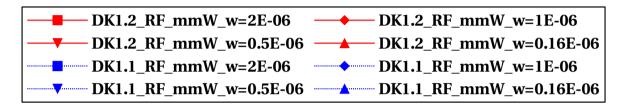


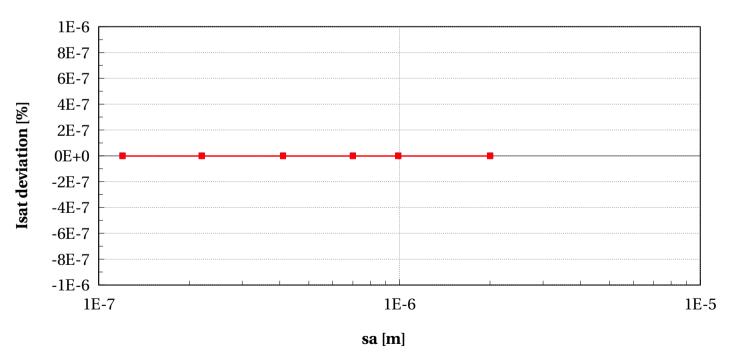






eglvtpfet_acc, Isat deviation [%] vs sa [m]



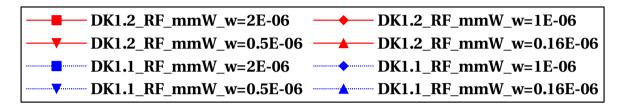


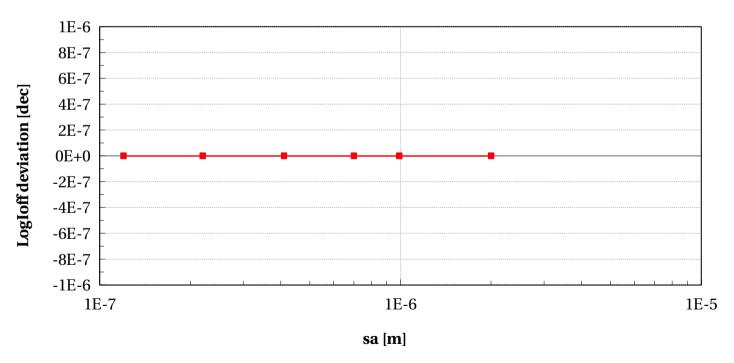






eglvtpfet_acc, LogIoff deviation [dec] vs sa [m]











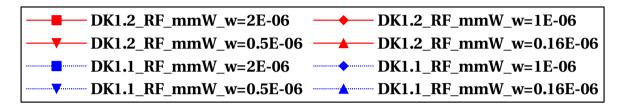
LOD effect (sa=sb) - Wscaling at L=1e-6

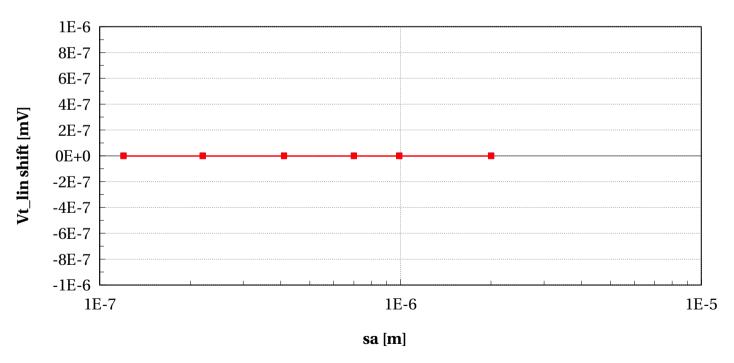




eglvtpfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and l=1.0e-6





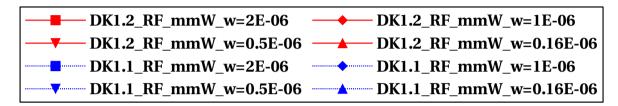


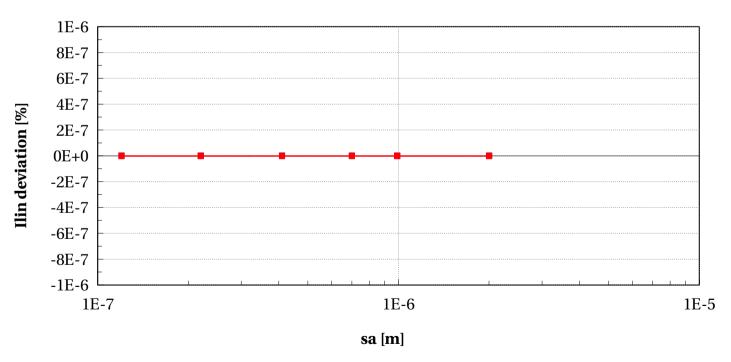




eglvtpfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and l=1.0e-6



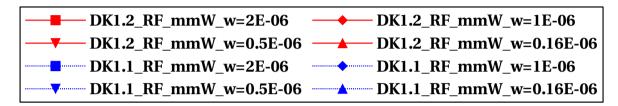


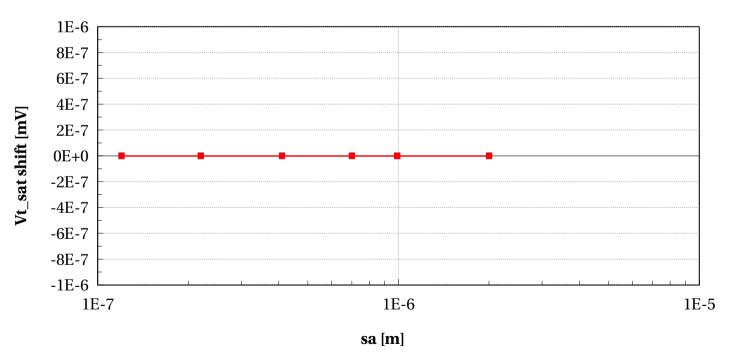




eglvtpfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and l=1.0e-6



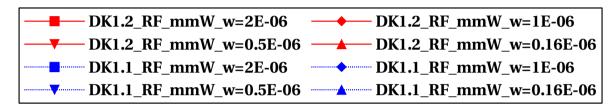


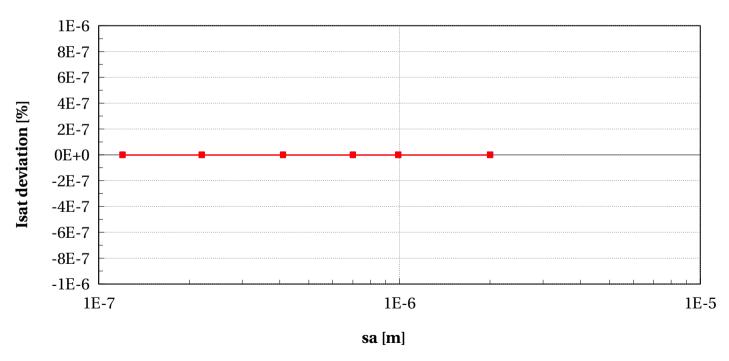




eglvtpfet_acc, Isat deviation [%] vs sa [m]

temp==25 and l=1.0e-6





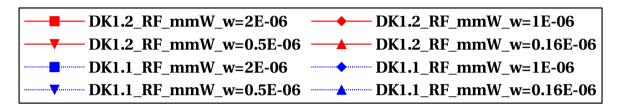


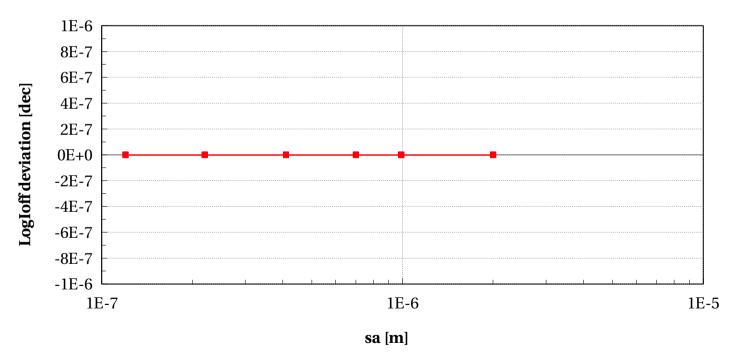




eglvtpfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and l=1.0e-6











egnfet_acc Electrical characteristics scaling







LOD effect (sa=sb) - Lscaling at W=2e-6



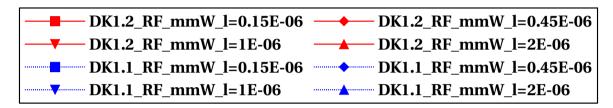


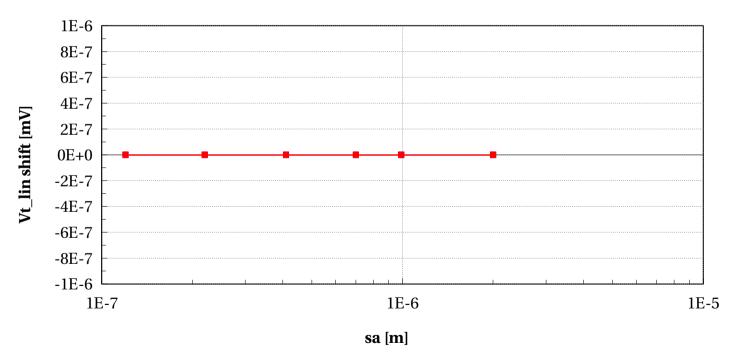
dormieub



egnfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and w==2e-6





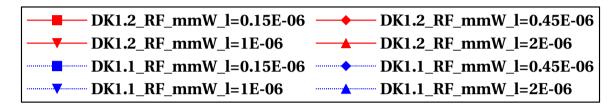


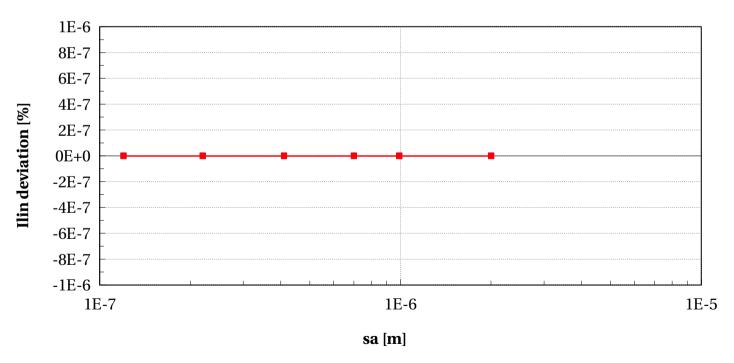


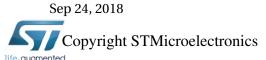


egnfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and w==2e-6





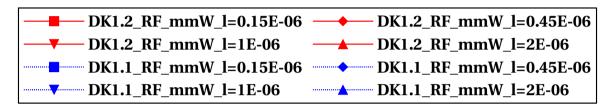


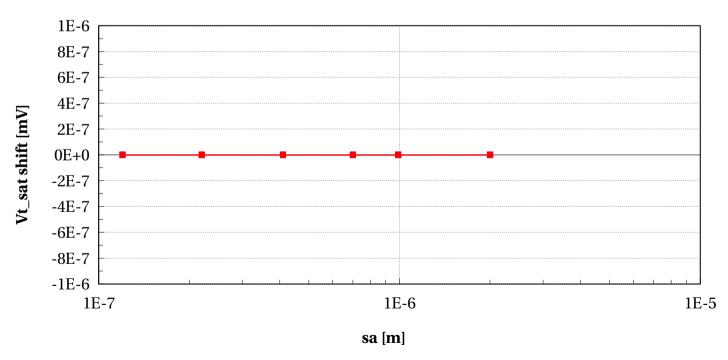




egnfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==2e-6





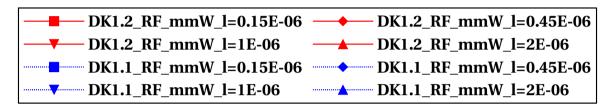


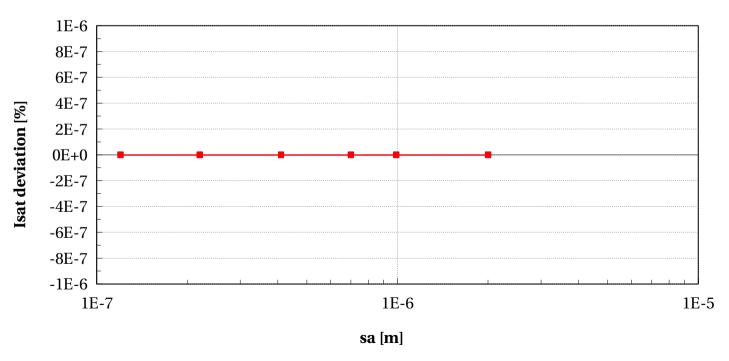




egnfet_acc, Isat deviation [%] vs sa [m]

temp==25 and w==2e-6





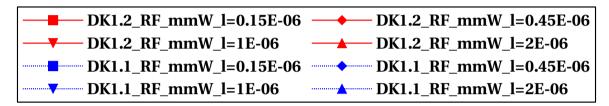


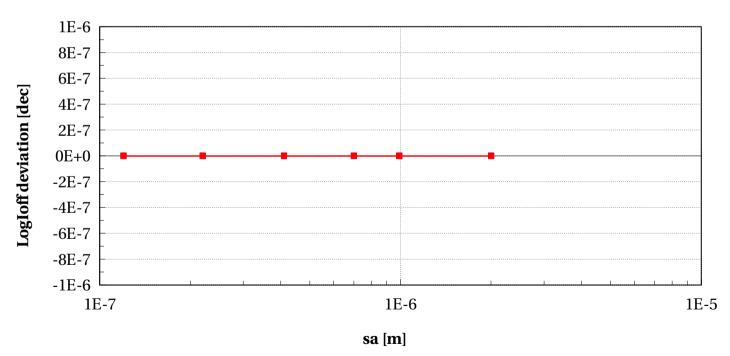




egnfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and w==2e-6











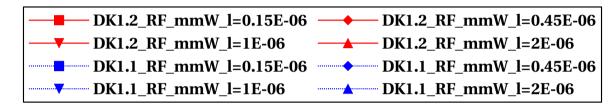
LOD effect (sa=sb) - Lscaling at W=0.5e-6

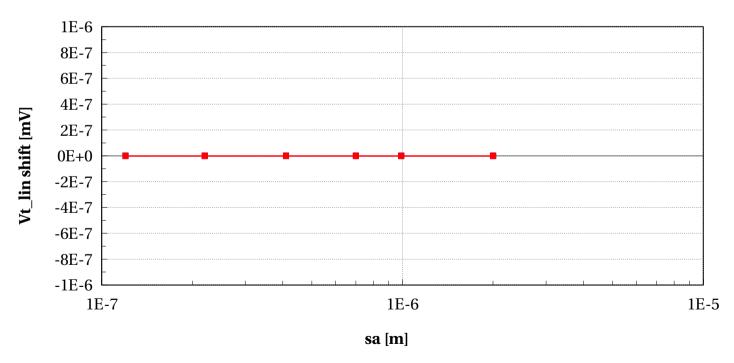






egnfet_acc, Vt_lin shift [mV] vs sa [m]



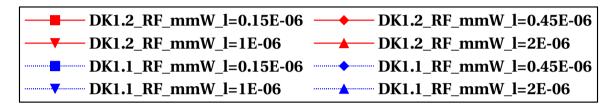


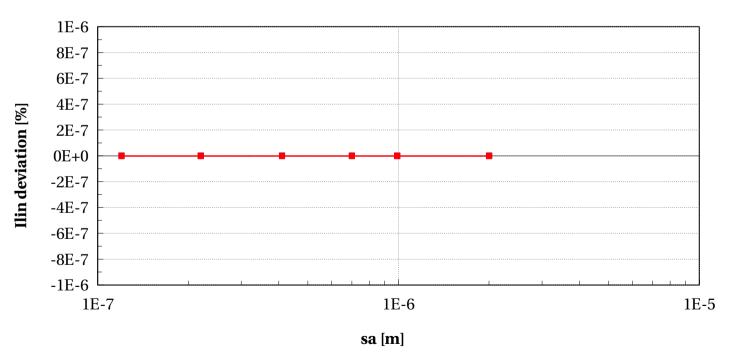






egnfet_acc, Ilin deviation [%] vs sa [m]



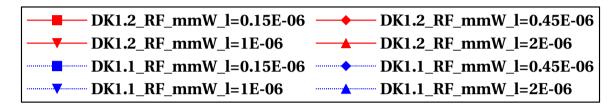


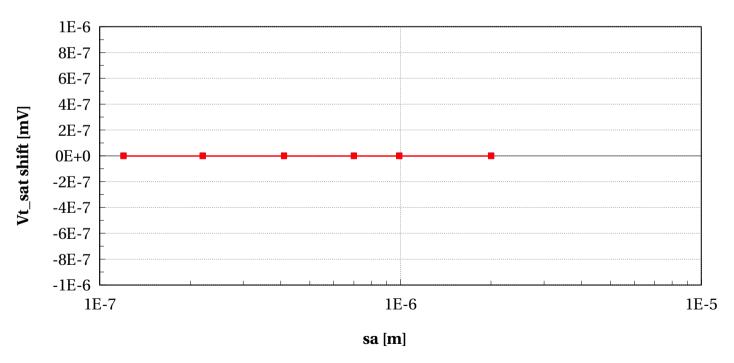


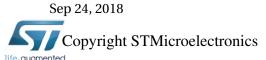




egnfet_acc, Vt_sat shift [mV] vs sa [m]





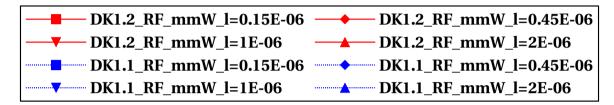


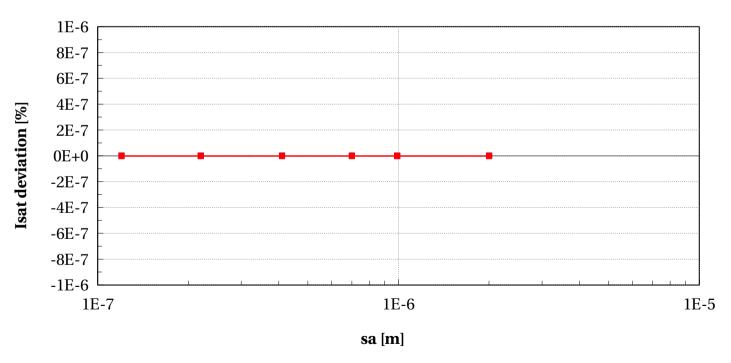




egnfet_acc, Isat deviation [%] vs sa [m]

temp==25 and w==0.5e-6



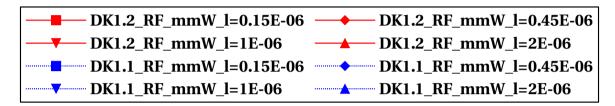


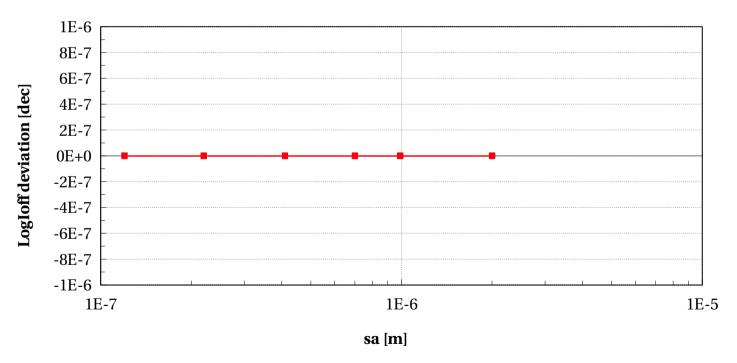






egnfet_acc, LogIoff deviation [dec] vs sa [m]











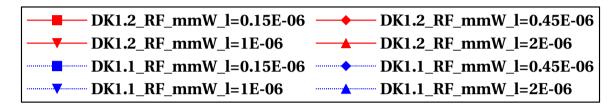
LOD effect (sa=sb) - Lscaling at W=0.16e-6

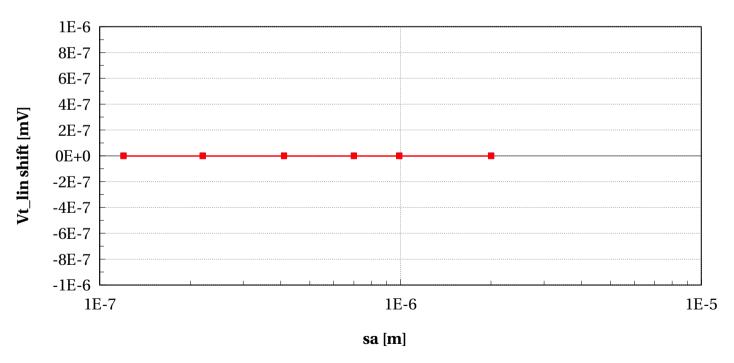






egnfet_acc, Vt_lin shift [mV] vs sa [m]



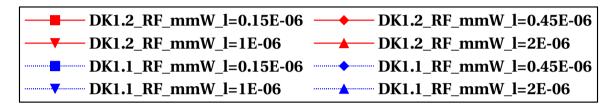


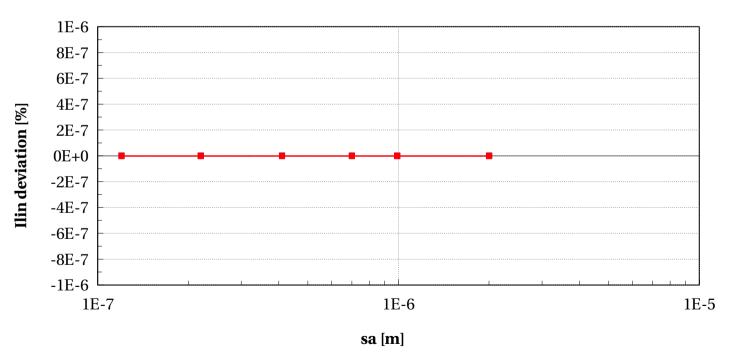






egnfet_acc, Ilin deviation [%] vs sa [m]



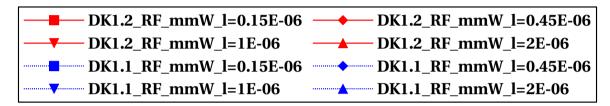


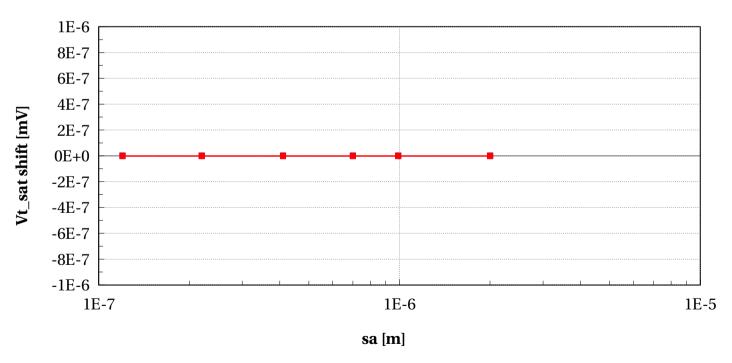






egnfet_acc, Vt_sat shift [mV] vs sa [m]



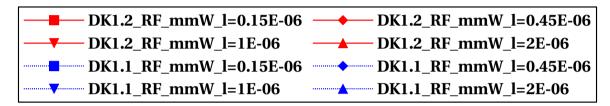


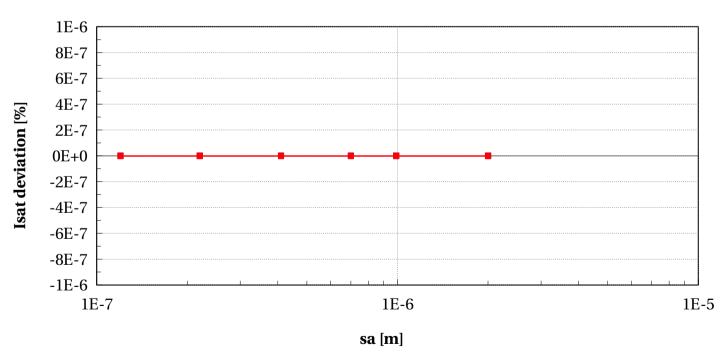






egnfet_acc, Isat deviation [%] vs sa [m]



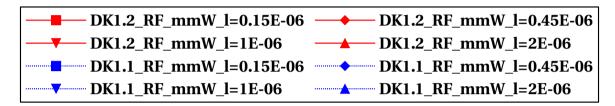


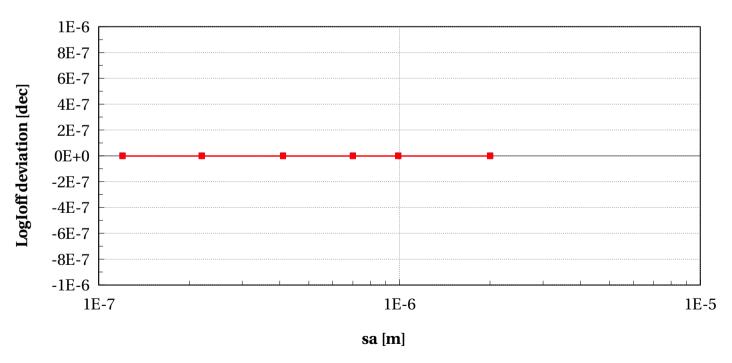






egnfet_acc, LogIoff deviation [dec] vs sa [m]











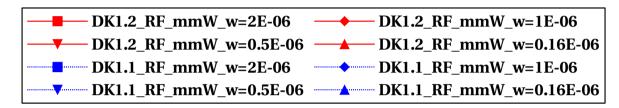
LOD effect (sa=sb) - Wscaling at L=0.15e-6

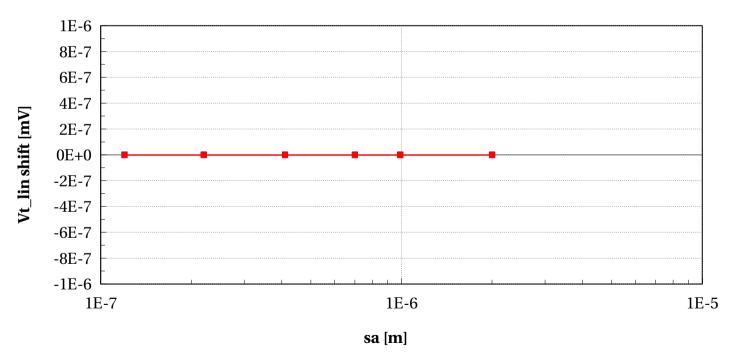


dormieub



egnfet_acc, Vt_lin shift [mV] vs sa [m]



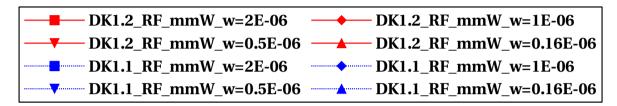


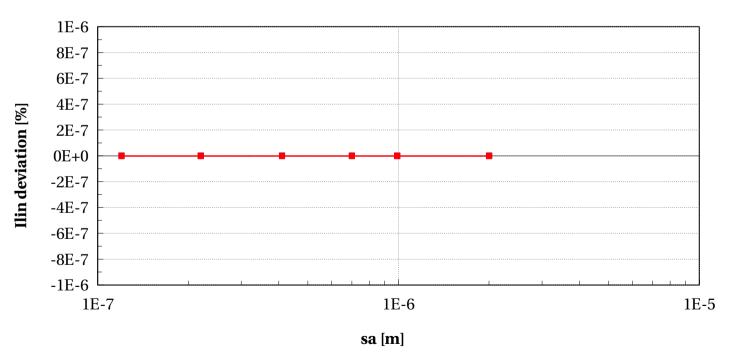






egnfet_acc, Ilin deviation [%] vs sa [m]



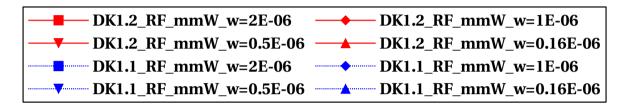


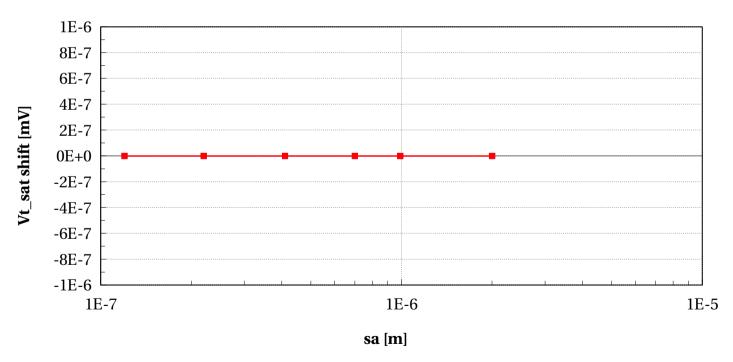


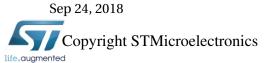




egnfet_acc, Vt_sat shift [mV] vs sa [m]





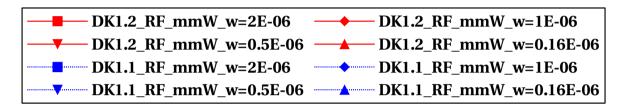


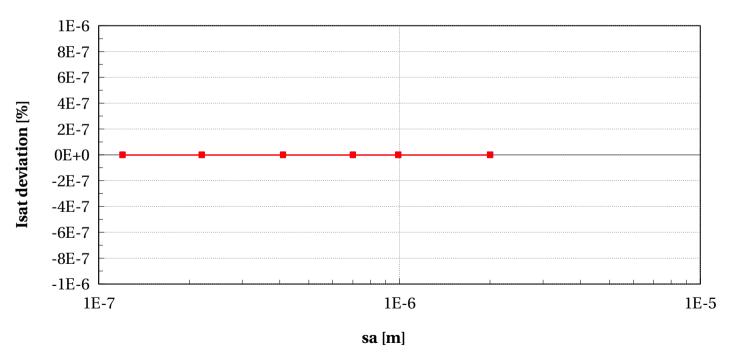




egnfet_acc, Isat deviation [%] vs sa [m]

temp = 25 and l = 0.15e-6



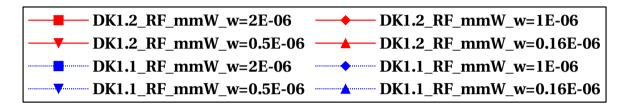


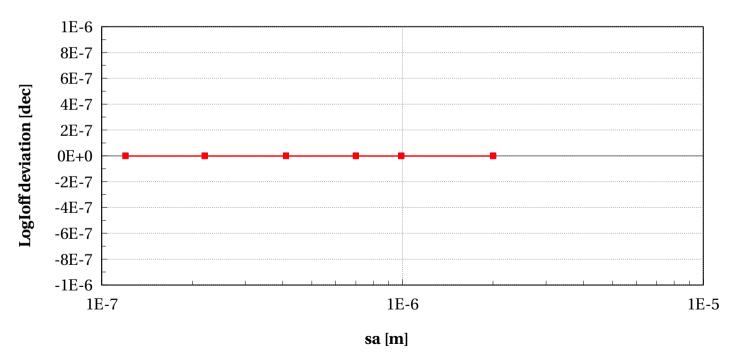






egnfet_acc, LogIoff deviation [dec] vs sa [m]











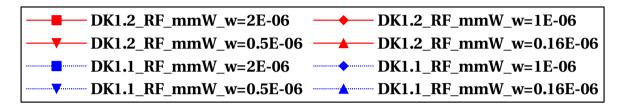
LOD effect (sa=sb) - Wscaling at L=0.45e-6

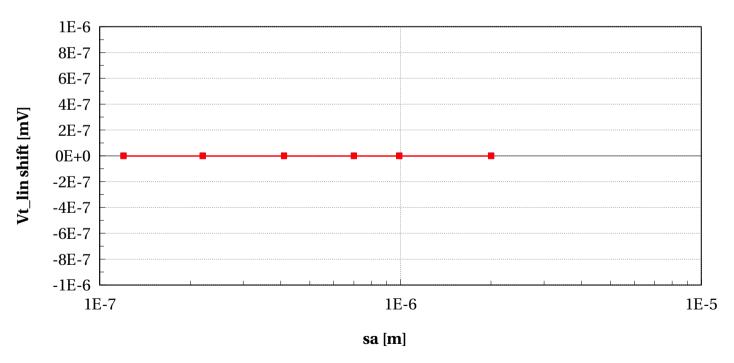


dormieub



egnfet_acc, Vt_lin shift [mV] vs sa [m]



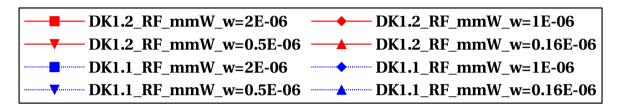


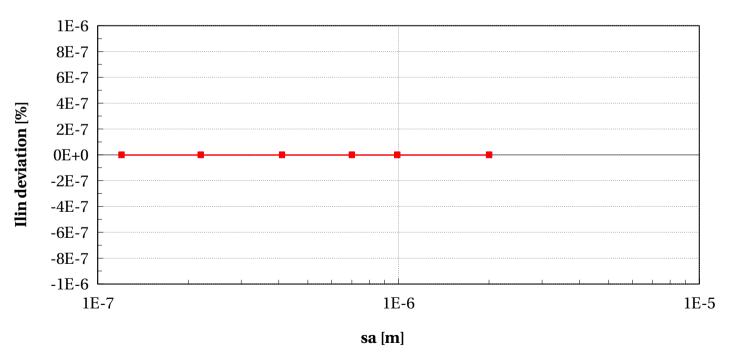






egnfet_acc, Ilin deviation [%] vs sa [m]

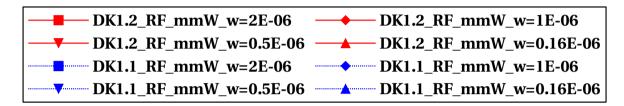


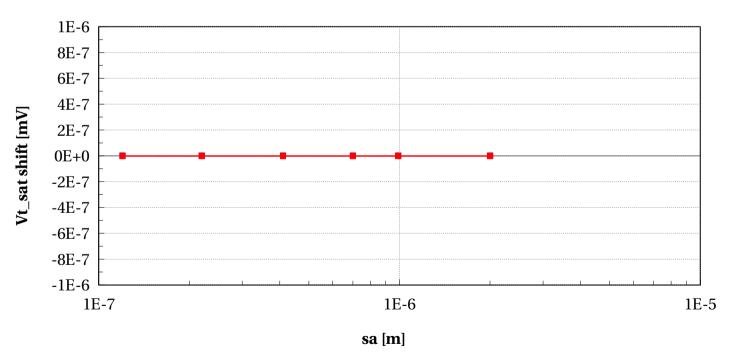






egnfet_acc, Vt_sat shift [mV] vs sa [m]



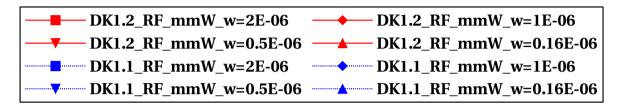


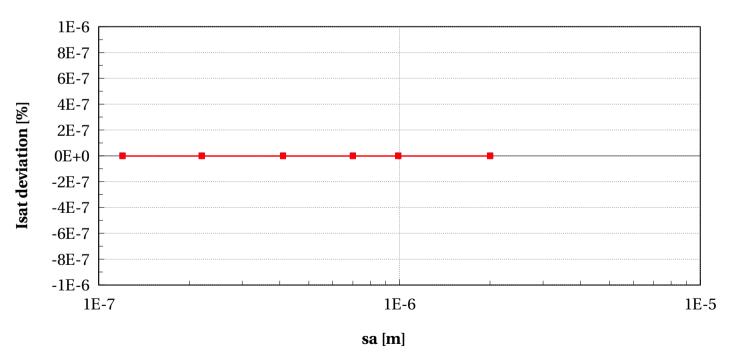






egnfet_acc, Isat deviation [%] vs sa [m]



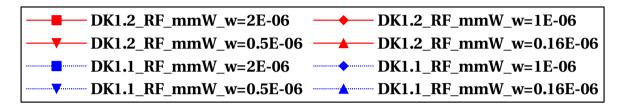


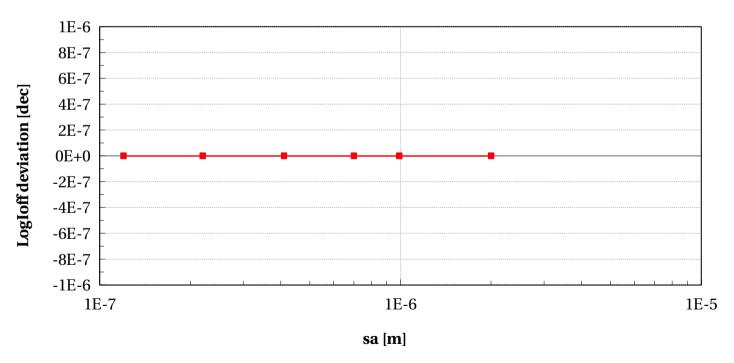






egnfet_acc, LogIoff deviation [dec] vs sa [m]









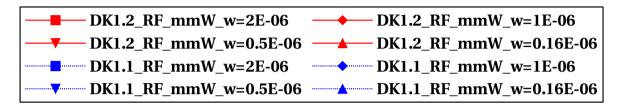


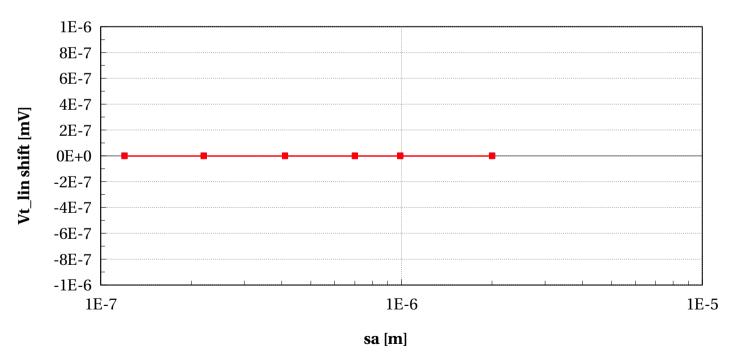
LOD effect (sa=sb) - Wscaling at L=1e-6



egnfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and l=1.0e-6



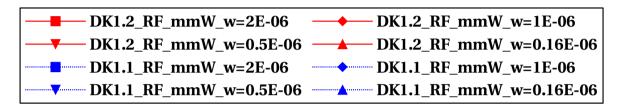


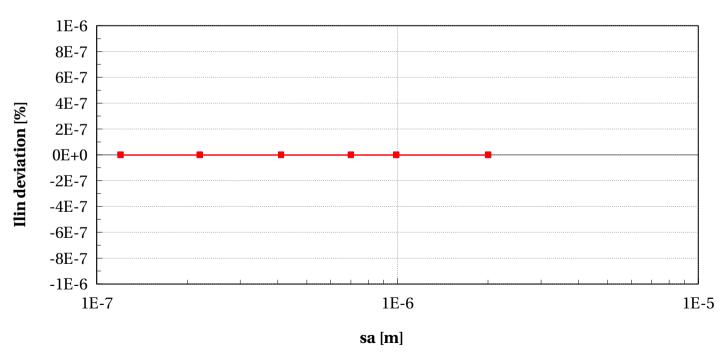




egnfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and l=1.0e-6





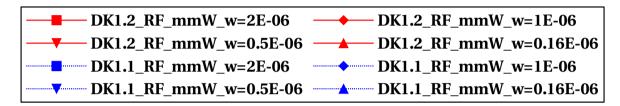


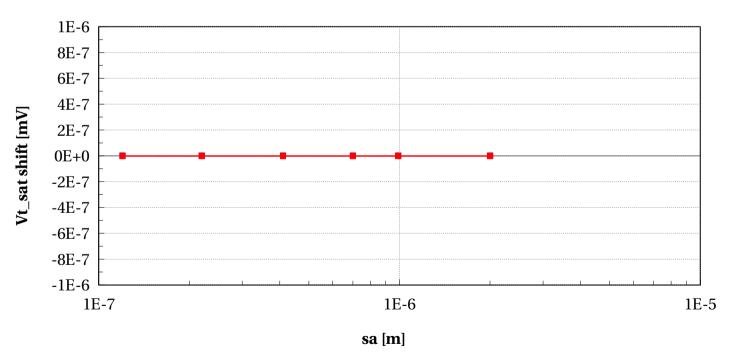




egnfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and l=1.0e-6



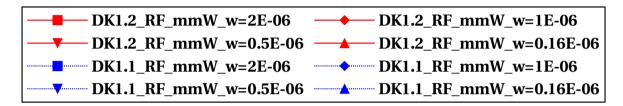


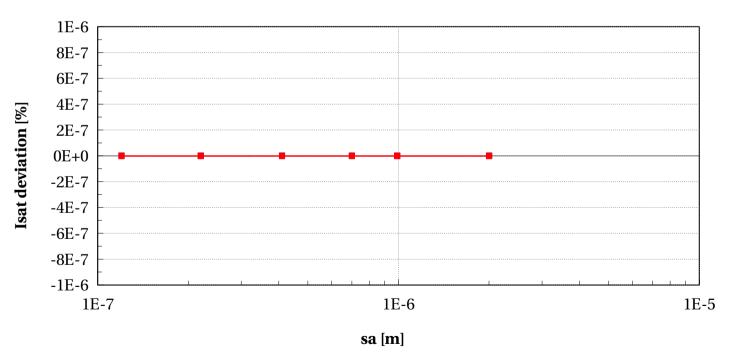




egnfet_acc, Isat deviation [%] vs sa [m]

temp==25 and l=1.0e-6



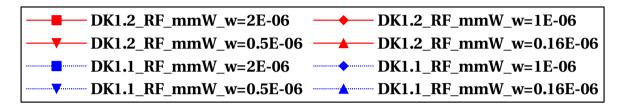


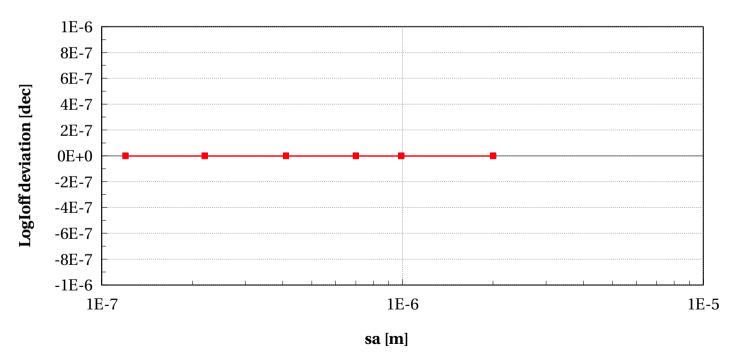




egnfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and l=1.0e-6









egpfet_acc Electrical characteristics scaling





dormieub



LOD effect (sa=sb) - Lscaling at W=2e-6



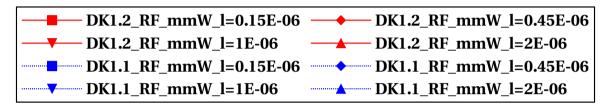


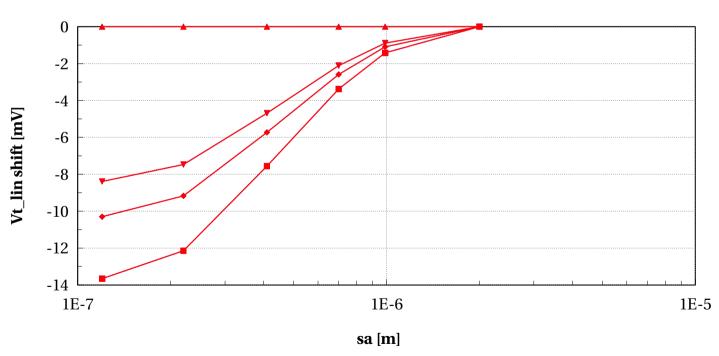
dormieub



egpfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and w==2e-6





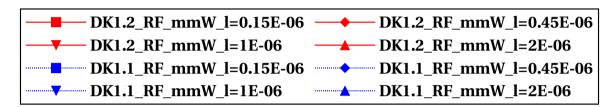


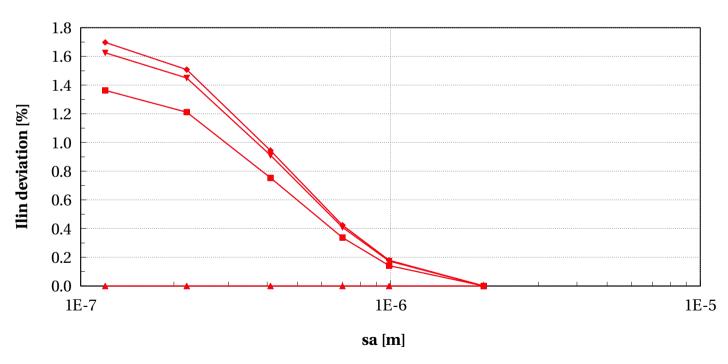




egpfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and w==2e-6





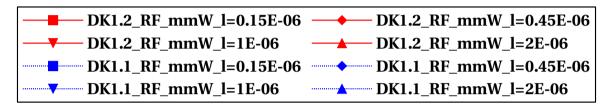


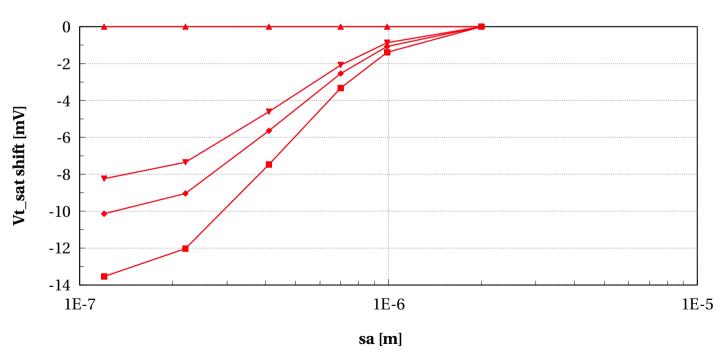




egpfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==2e-6





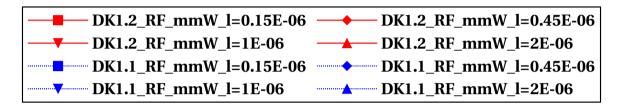


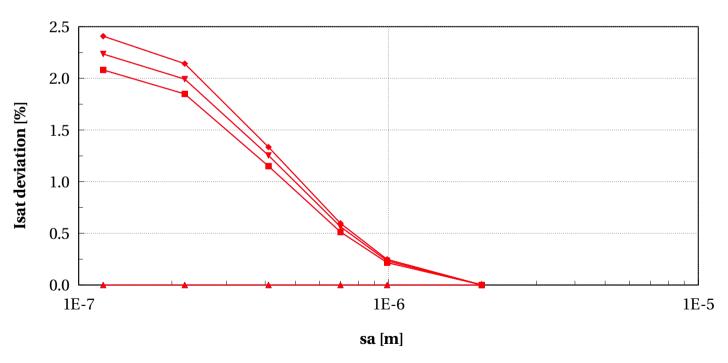




egpfet_acc, Isat deviation [%] vs sa [m]

temp==25 and w==2e-6

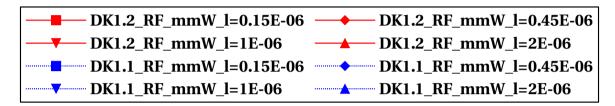


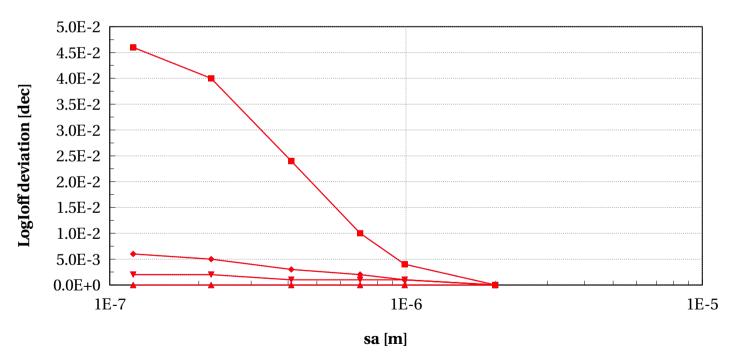




egpfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and w==2e-6









LOD effect (sa=sb) - Lscaling at W=0.5e-6

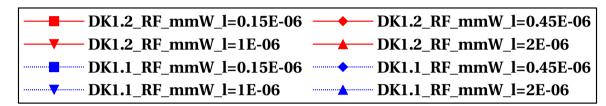


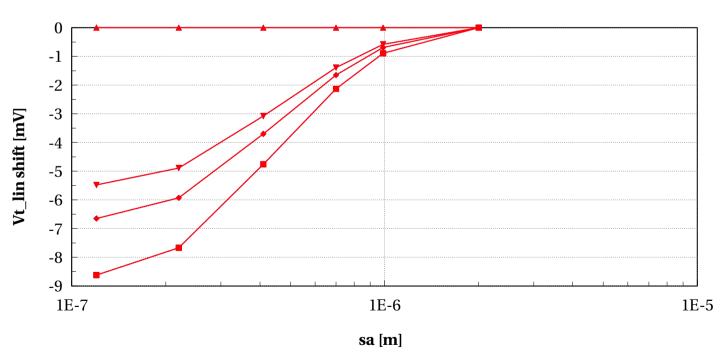


dormieub



egpfet_acc, Vt_lin shift [mV] vs sa [m]





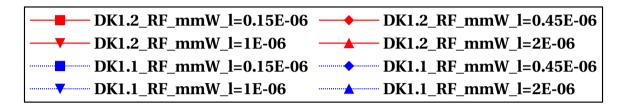


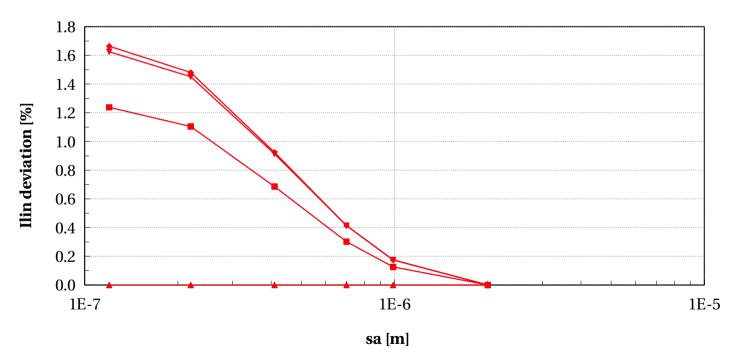




egpfet_acc, Ilin deviation [%] vs sa [m]

temp = 25 and w = 0.5e-6



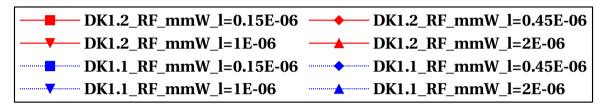


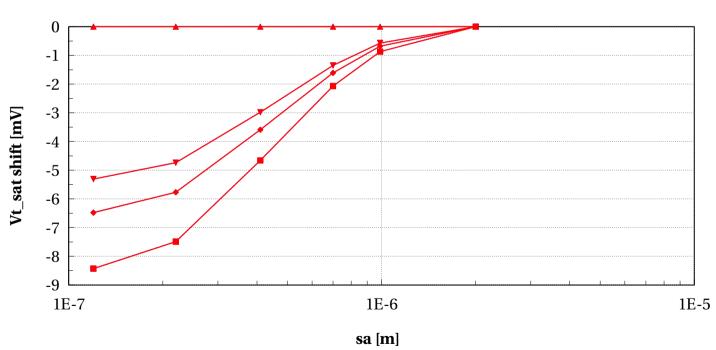




egpfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==0.5e-6





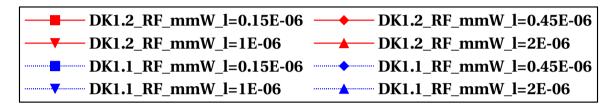


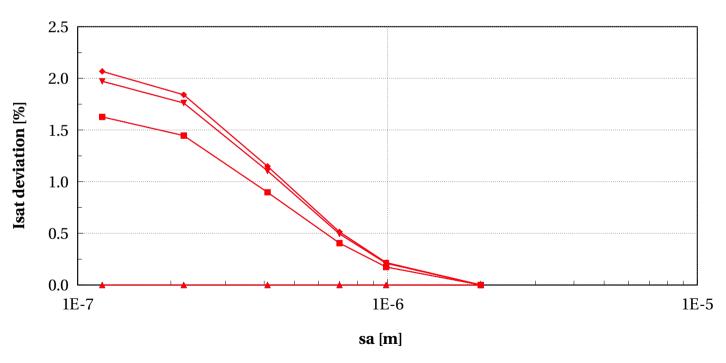




egpfet_acc, Isat deviation [%] vs sa [m]

temp==25 and w==0.5e-6

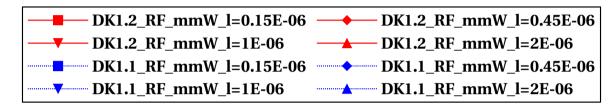


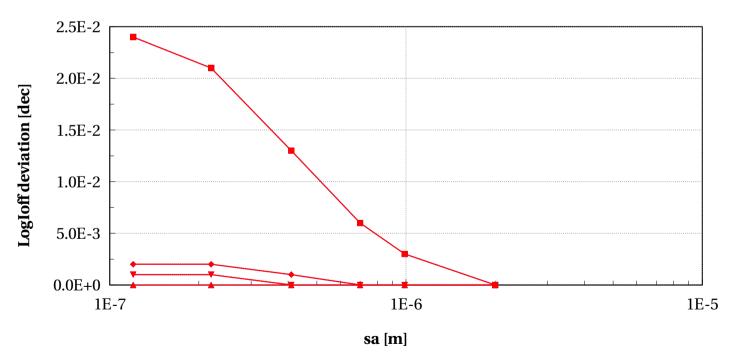






egpfet_acc, LogIoff deviation [dec] vs sa [m]











LOD effect (sa=sb) - Lscaling at W=0.16e-6

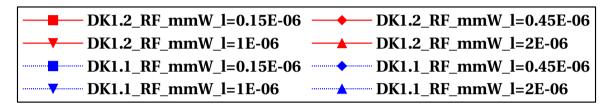


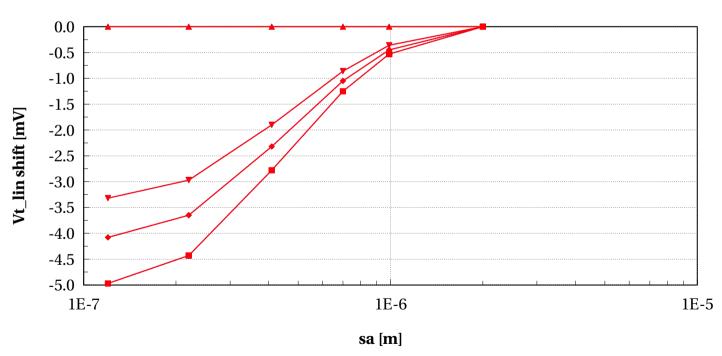
dormieub



egpfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and w==0.16e-6





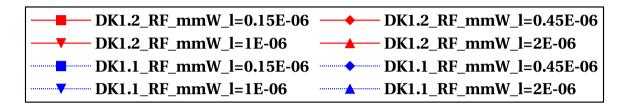


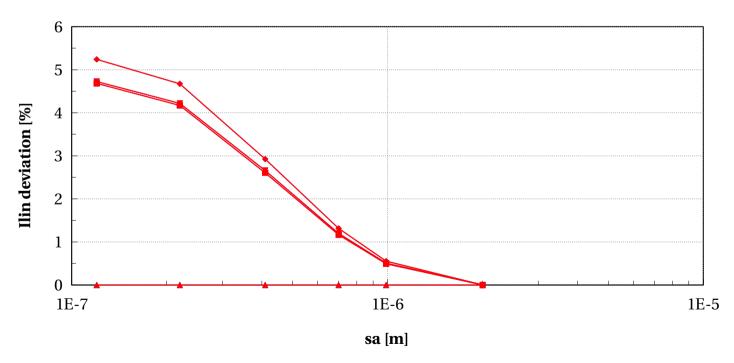




egpfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and w==0.16e-6





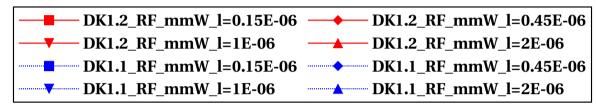


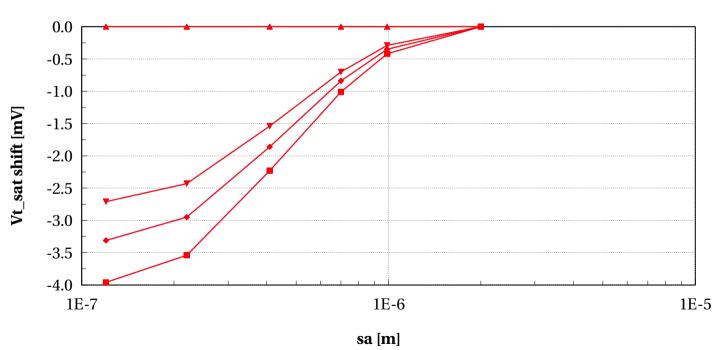




egpfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and w==0.16e-6





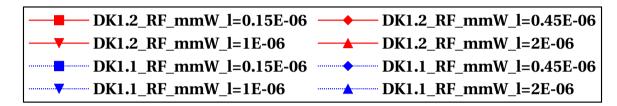


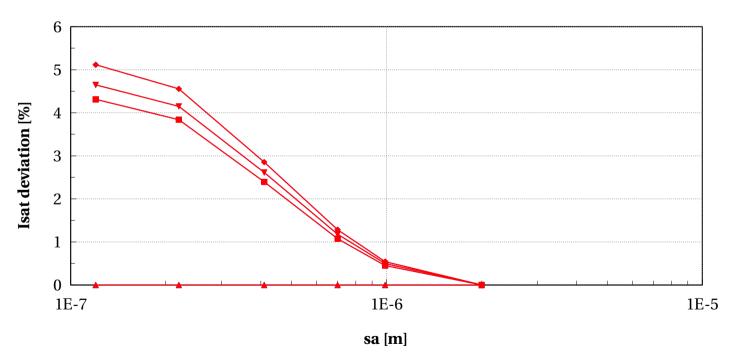




egpfet_acc, Isat deviation [%] vs sa [m]

temp==25 and w==0.16e-6





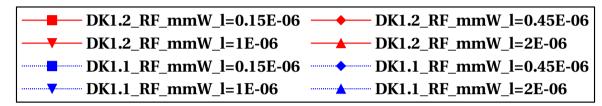


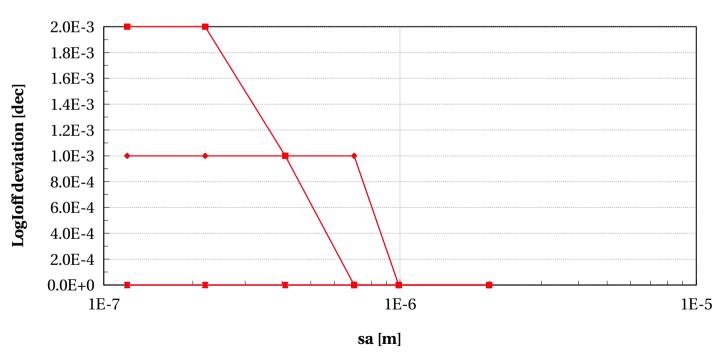




egpfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and w==0.16e-6









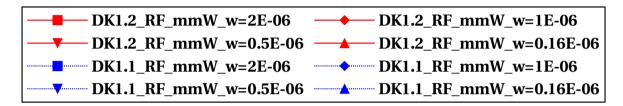


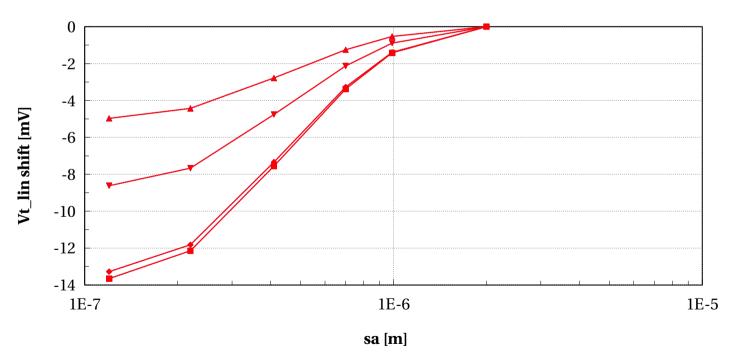
LOD effect (sa=sb) - Wscaling at L=0.15e-6





egpfet_acc, Vt_lin shift [mV] vs sa [m]



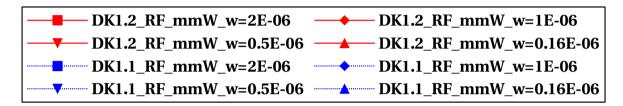


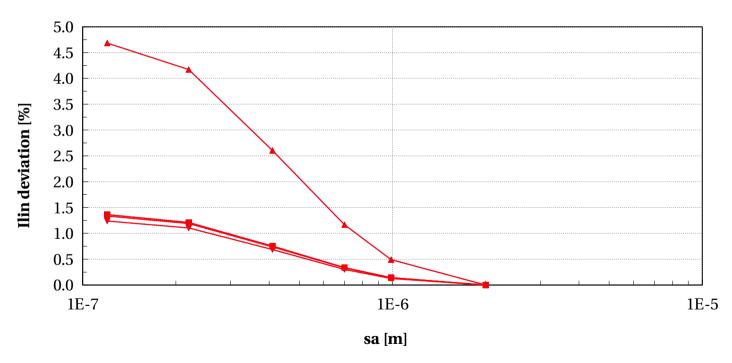






egpfet_acc, Ilin deviation [%] vs sa [m]





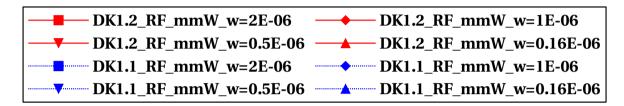


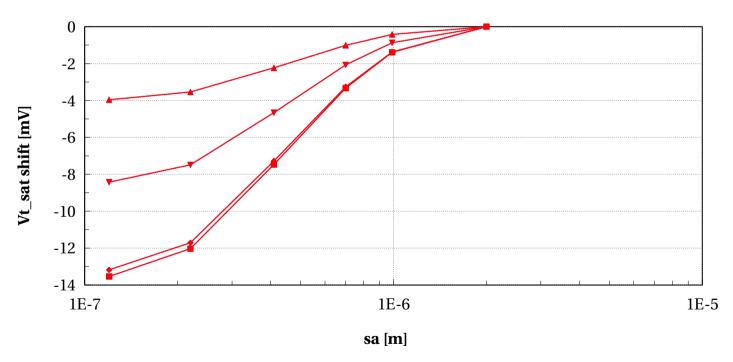




egpfet_acc, Vt_sat shift [mV] vs sa [m]

temp = 25 and l = 0.15e-6





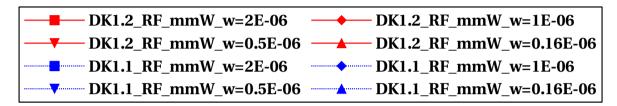


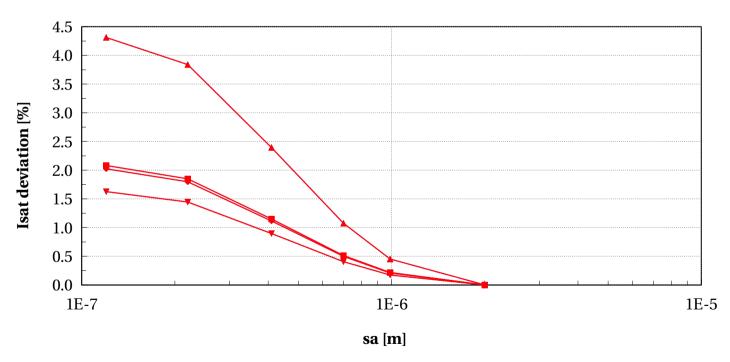




egpfet_acc, Isat deviation [%] vs sa [m]

temp = 25 and l = 0.15e-6



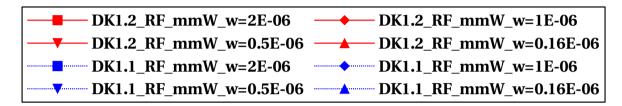


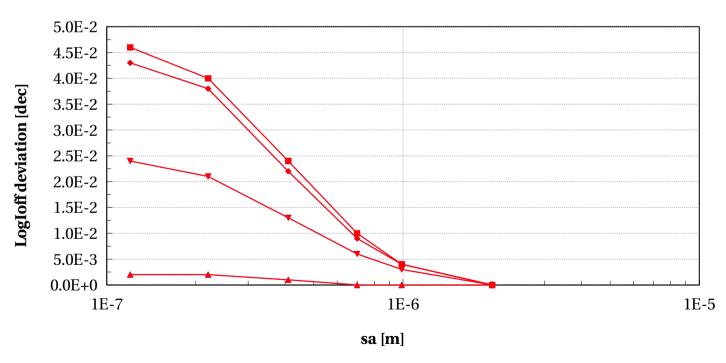






egpfet_acc, LogIoff deviation [dec] vs sa [m]









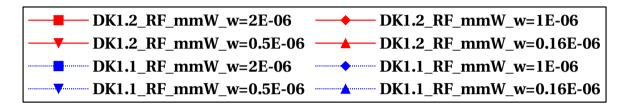


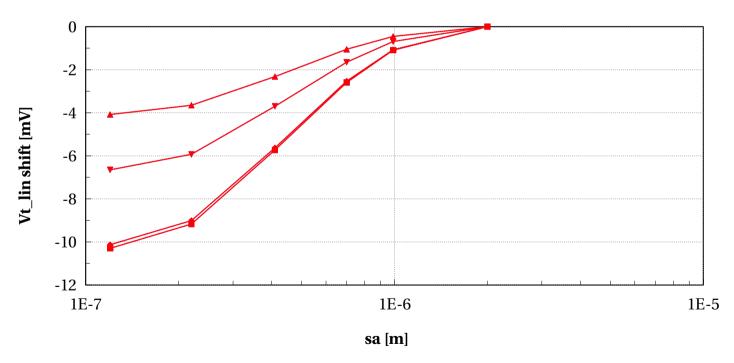
LOD effect (sa=sb) - Wscaling at L=0.45e-6





egpfet_acc, Vt_lin shift [mV] vs sa [m]



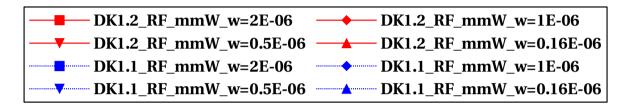


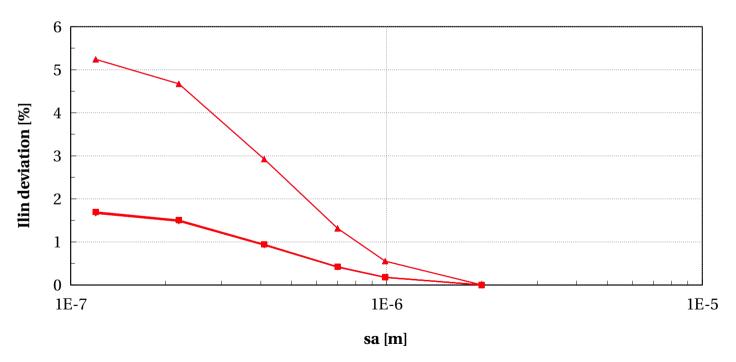






egpfet_acc, Ilin deviation [%] vs sa [m]



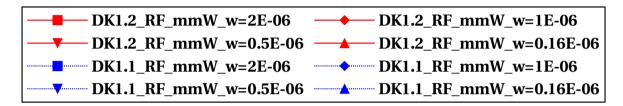


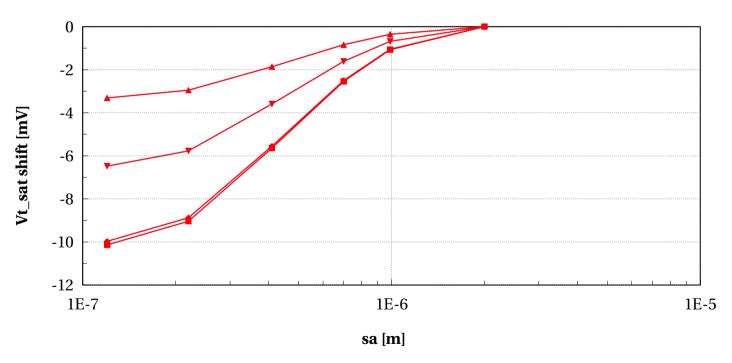




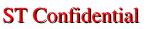


egpfet_acc, Vt_sat shift [mV] vs sa [m]





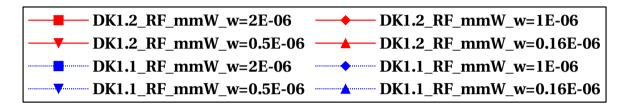


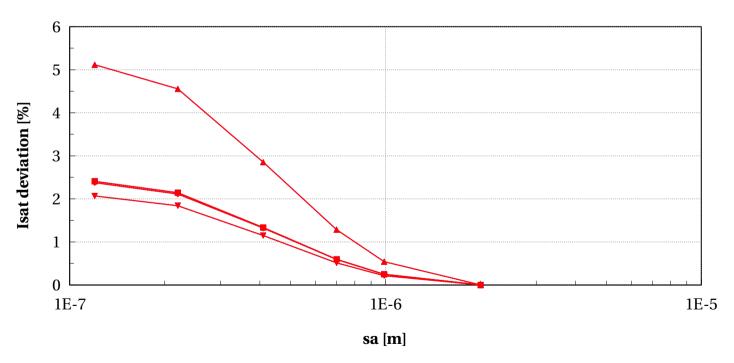




egpfet_acc, Isat deviation [%] vs sa [m]

temp==25 and l==0.45e-6





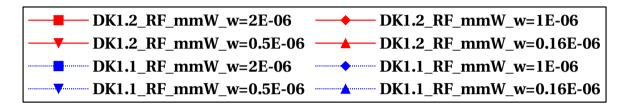


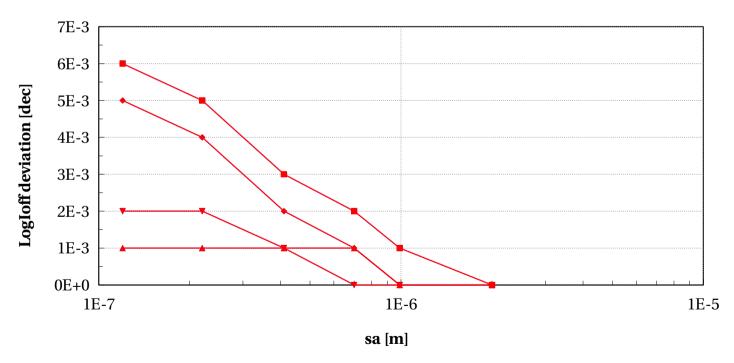




egpfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and l==0.45e-6











LOD effect (sa=sb) - Wscaling at L=1e-6



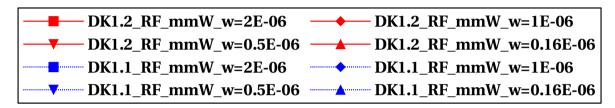


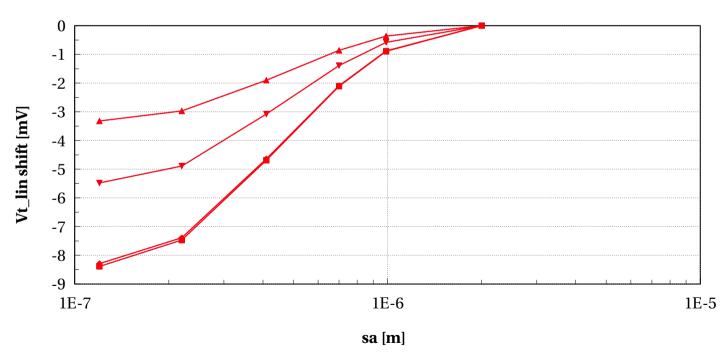
dormieub



egpfet_acc, Vt_lin shift [mV] vs sa [m]

temp==25 and l=1.0e-6





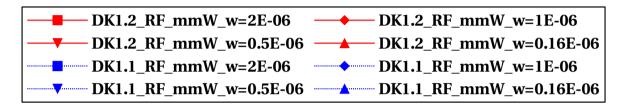


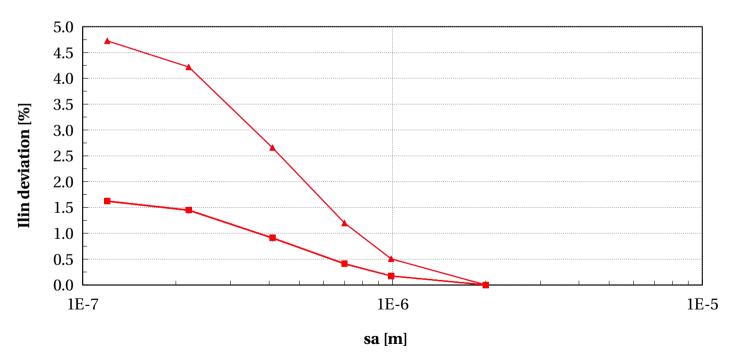




egpfet_acc, Ilin deviation [%] vs sa [m]

temp==25 and l==1.0e-6



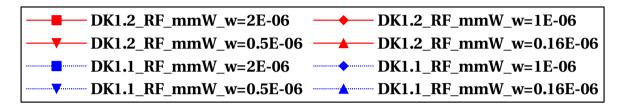


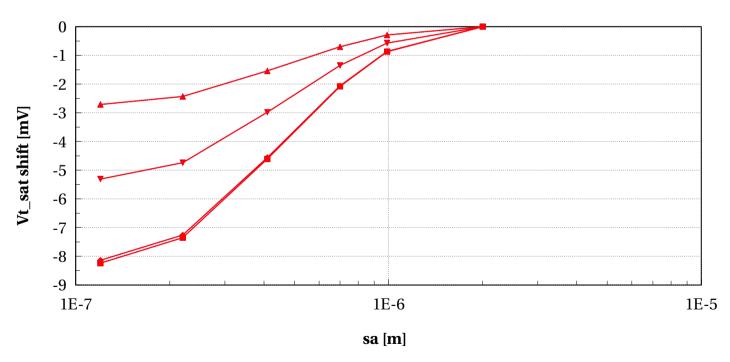




egpfet_acc, Vt_sat shift [mV] vs sa [m]

temp==25 and l=1.0e-6





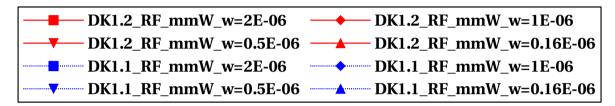


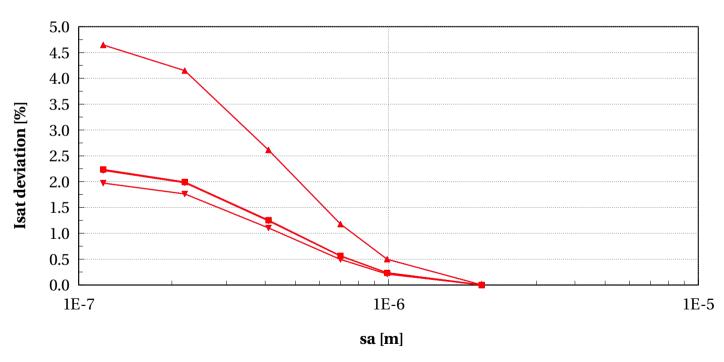




egpfet_acc, Isat deviation [%] vs sa [m]

temp==25 and l=1.0e-6





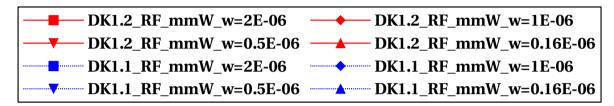


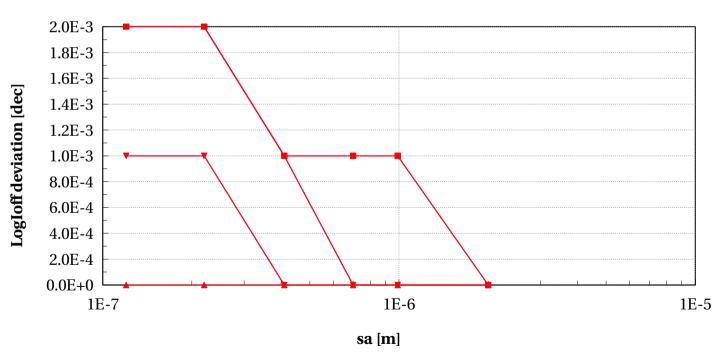




egpfet_acc, LogIoff deviation [dec] vs sa [m]

temp==25 and l=1.0e-6





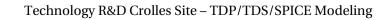






Annex







Conditions of simulations

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

- Model eglvtnfet_acc (DK1.2_RF_mmW)
 - ✓ Input Parameters
 - \times ivt = 300e-9 A
 - **x** mc_runs = 1000
 - \mathbf{x} vgs_stop = vdd V
 - **x** vds_off = vds_sat V
 - \mathbf{x} vgs_off = 0 V
 - \times temp = 25 °C
 - \times vgs_start = -0.5 V
 - \mathbf{x} mc_sens = 0
 - \times vds_lin = 0.05 V
 - **✗** sbenchlsf_release = Alpha
 - **✗** plashrink_ivt = 1
 - \mathbf{x} vbs = 0 V
 - \mathbf{x} ams_release = 2018.3
 - **✗** model_version = 1.2.e



Sep 24, 2018

- **x** mc_nsigma = 3
- \star ithslwi = 10e-9 A
- \times vstep_ivt = 0.005 V
- \times vds_sat = Vdd V
- **x** shrink_ivt = 1
- \times vdd = 1.8 V
- **✗** dlshrink_ivt = 0
- ✓ Sweep Parameters
- ✓ Extra parameters
 - \mathbf{x} eg_dev = 0
 - \mathbf{x} eglvt_dev = 0
 - **✗** gflag_noisedev_eg_cmos028fdsoi = 0
 - **✗** gflag_noisedev_eglvt_cmos028fdsoi = 0
- Model eglvtpfet_acc (DK1.2_RF_mmW)
 - ✓ Input Parameters
 - **x** ivt = 70e-9 A
 - **x** mc_runs = 1000
 - \times vgs_stop = vdd V
 - **x** vds_off = vds_sat V
 - \mathbf{x} vgs_off = 0 V
 - \times temp = 25 °C
 - \times vgs_start = -0.5 V
 - \mathbf{x} mc_sens = 0
 - \times vds lin = 0.05 V
 - **x** sbenchlsf_release = Alpha



- **✗** plashrink_ivt = 1
- \star vbs = 1.8 V
- \mathbf{x} ams_release = 2018.3
- **x** model_version = 1.2.e
- **x** mc_nsigma = 3
- \star ithslwi = 10e-9 A
- \times vstep_ivt = 0.005 V
- \times vds_sat = Vdd V
- **x** shrink_ivt = 1
- \times vdd = 1.8 V
- **✗** dlshrink_ivt = 0
- ✓ Sweep Parameters
- ✓ Extra parameters
 - \mathbf{x} eg_dev = 0
 - \mathbf{x} eglvt_dev = 0
 - **✗** gflag_noisedev_eg_cmos028fdsoi = 0
 - **✗** gflag_noisedev_eglvt_cmos028fdsoi = 0
- Model egnfet_acc (DK1.2_RF_mmW)
 - ✓ Input Parameters
 - \times ivt = 300e-9 A
 - **x** mc_runs = 1000
 - \mathbf{x} vgs_stop = vdd V
 - **x** vds_off = vds_sat V
 - \mathbf{x} vgs_off = 0 V
 - \times temp = 25 °C



- \times vgs_start = -0.5 V
- \mathbf{x} mc sens = 0
- \times vds_lin = 0.05 V
- **x** sbenchlsf_release = Alpha
- **x** plashrink_ivt = 1
- \mathbf{x} vbs = 0 V
- \times ams_release = 2018.3
- **✗** model_version = 1.2.c
- **x** mc_nsigma = 3
- \star ithslwi = 10e-9 A
- \mathbf{X} vstep_ivt = 0.005 V
- \times vds_sat = Vdd V
- **x** shrink_ivt = 1
- \times vdd = 1.8 V
- X dlshrink ivt = 0
- ✓ Sweep Parameters
- ✓ Extra parameters
 - \mathbf{x} eg_dev = 0
 - \mathbf{x} eglvt_dev = 0
 - **✗** gflag_noisedev_eg_cmos028fdsoi = 0
 - **✗** gflag_noisedev_eglvt_cmos028fdsoi = 0
- Model egpfet_acc (DK1.2_RF_mmW)
 - ✓ Input Parameters
 - **x** ivt = 70e-9 A
 - **x** mc_runs = 1000



- \times vgs_stop = vdd V
- **x** vds_off = vds_sat V
- \mathbf{x} vgs_off = 0 V
- \times temp = 25 °C
- \times vgs_start = -0.5 V
- \mathbf{x} mc_sens = 0
- \times vds_lin = 0.05 V
- **x** sbenchlsf_release = Alpha
- **✗** plashrink_ivt = 1
- \mathbf{x} vbs = 0 V
- \times ams_release = 2018.3
- **✗** model_version = 1.2.c
- **x** mc_nsigma = 3
- \star ithslwi = 10e-9 A
- \mathbf{X} vstep_ivt = 0.005 V
- \times vds_sat = Vdd V
- **x** shrink_ivt = 1
- \times vdd = 1.8 V
- X dlshrink ivt = 0
- ✓ Sweep Parameters
- ✓ Extra parameters
 - \mathbf{x} eg_dev = 0
 - \mathbf{x} eglvt_dev = 0
 - **✗** gflag_noisedev_eg_cmos028fdsoi = 0
 - **✗** gflag_noisedev_eglvt_cmos028fdsoi = 0



- Model eglvtnfet_acc (DK1.1_RF_mmW)
 - ✓ Input Parameters
 - **x** ivt = 300e-9 A
 - **x** mc_runs = 1000
 - \times vgs_stop = vdd V
 - **x** vds_off = vds_sat V
 - \times vgs_off = 0 V
 - \times temp = 25 °C
 - \times vgs_start = -0.5 V
 - \mathbf{x} mc_sens = 0
 - \times vds lin = 0.05 V
 - **✗** sbenchlsf_release = Alpha
 - **✗** plashrink_ivt = 1
 - \mathbf{x} vbs = 0 V
 - \mathbf{x} ams release = 2018.3
 - **✗** model_version = 1.2.d
 - **x** mc_nsigma = 3
 - \star ithslwi = 10e-9 A
 - \times vstep_ivt = 0.005 V
 - \times vds_sat = Vdd V
 - **x** shrink_ivt = 1
 - \times vdd = 1.8 V
 - X dlshrink ivt = 0
 - ✓ Sweep Parameters
 - ✓ Extra parameters



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- \mathbf{x} eg_dev = 0
- \mathbf{x} eglvt_dev = 0
- **x** gflag_noisedev_eg_cmos028fdsoi = 0
- **✗** gflag_noisedev_eglvt_cmos028fdsoi = 0
- Model eglvtpfet_acc (DK1.1_RF_mmW)
 - ✓ Input Parameters
 - **x** ivt = 70e-9 A
 - \times mc runs = 1000
 - \mathbf{x} vgs_stop = vdd V
 - **x** vds_off = vds_sat V
 - \mathbf{x} vgs_off = 0 V
 - \times temp = 25 °C
 - \times vgs_start = -0.5 V
 - \times mc_sens = 0
 - \times vds_lin = 0.05 V
 - **x** sbenchlsf_release = Alpha
 - **✗** plashrink_ivt = 1
 - **x** vbs = 1.8 V
 - \mathbf{x} ams_release = 2018.3
 - **✗** model_version = 1.2.d
 - **x** mc_nsigma = 3
 - \star ithslwi = 10e-9 A
 - \mathbf{X} vstep_ivt = 0.005 V
 - \times vds sat = Vdd V
 - **x** shrink_ivt = 1



Sep 24, 2018



- \times vdd = 1.8 V
- **✗** dlshrink_ivt = 0
- ✓ Sweep Parameters
- ✓ Extra parameters
 - \mathbf{x} eg_dev = 0
 - \mathbf{x} eglvt_dev = 0
 - **✗** gflag_noisedev_eg_cmos028fdsoi = 0
 - **✗** gflag_noisedev_eglvt_cmos028fdsoi = 0
- Model egnfet_acc (DK1.1_RF_mmW)
 - ✓ Input Parameters
 - \times ivt = 300e-9 A
 - **x** mc_runs = 1000
 - \mathbf{x} vgs_stop = vdd V
 - **x** vds_off = vds_sat V
 - \mathbf{x} vgs_off = 0 V
 - \times temp = 25 °C
 - \times vgs_start = -0.5 V
 - \mathbf{x} mc_sens = 0
 - \times vds lin = 0.05 V
 - **✗** sbenchlsf_release = Alpha
 - **✗** plashrink_ivt = 1
 - \mathbf{x} vbs = 0 V
 - \mathbf{x} ams_release = 2018.3
 - **✗** model_version = 1.2.b
 - **x** mc_nsigma = 3



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- \star ithslwi = 10e-9 A
- \mathbf{X} vstep_ivt = 0.005 V
- \times vds_sat = Vdd V
- **✗** shrink_ivt = 1
- \times vdd = 1.8 V
- **✗** dlshrink_ivt = 0
- ✓ Sweep Parameters
- ✓ Extra parameters
 - \mathbf{x} eg_dev = 0
 - \mathbf{x} eglvt_dev = 0
 - **✗** gflag_noisedev_eg_cmos028fdsoi = 0
 - **✗** gflag_noisedev_eglvt_cmos028fdsoi = 0
- Model egpfet_acc (DK1.1_RF_mmW)
 - ✓ Input Parameters
 - \times ivt = 70e-9 A
 - \times mc runs = 1000
 - \times vgs_stop = vdd V
 - **x** vds_off = vds_sat V
 - \mathbf{x} vgs_off = 0 V
 - \times temp = 25 °C
 - \times vgs_start = -0.5 V
 - \times mc_sens = 0
 - \times vds lin = 0.05 V
 - **x** sbenchlsf_release = Alpha
 - **✗** plashrink_ivt = 1



Sep 24, 2018



- \mathbf{x} vbs = 0 V
- \mathbf{X} ams release = 2018.3
- **x** model_version = 1.2.b
- **x** mc_nsigma = 3
- \star ithslwi = 10e-9 A
- \mathbf{X} vstep_ivt = 0.005 V
- \times vds_sat = Vdd V
- **x** shrink_ivt = 1
- \times vdd = 1.8 V
- **✗** dlshrink_ivt = 0
- ✓ Sweep Parameters
- ✓ Extra parameters
 - \mathbf{x} eg_dev = 0
 - \mathbf{x} eglvt_dev = 0
 - **✗** gflag_noisedev_eg_cmos028fdsoi = 0
 - **x** gflag_noisedev_eglvt_cmos028fdsoi = 0

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