

## Problem 1: linearization parameters are different

### Windows

The linearisation parameters of the phases BCC\_A2/FCC\_A1 are:

```
1008.2000 ..... ! ·T0 ·[K]
-14.992405 ..... ! ·dG ·[J/cm**3]
-6.05782562E-02 ..... ! ·dSf+ ·[J/cm**3K]
-0.45526580 ..... ! ·dSf- ·[J/cm**3K]
-579.12817 ..... ! ·dH ·[J/cm3]
7.83146060470077E-02 ..... ! ·c0 (C) /BCC_A2
3.1655900046138 ..... ! ·c0 (C) /FCC_A1
0.71001708528564 ..... ! ·c0 (MN) /BCC_A2
2.3098951511803 ..... ! ·c0 (MN) /FCC_A1
-7437.4606 ..... ! ·m(C) /BCC_A2
-32.850561 ..... ! ·m(C) /FCC_A1
-377.64338 ..... ! ·m(MN) /BCC_A2
-15.210879 ..... ! ·m(MN) /FCC_A1
6.06383799E-04 ..... ! ·dcdT (C) /BCC_A2
-1.94525794E-02 ..... ! ·dcdT (C) /FCC_A1
4.45177085E-03 ..... ! ·dcdT (MN) /BCC_A2
-1.50418498E-02 ..... ! ·dcdT (MN) /FCC_A1
```

The linearisation parameters of the phases FCC\_A1/CEMENTITE\_D011 are:

```
1008.2001 ..... ! ·T0 ·[K]
26.124155 ..... ! ·dG ·[J/cm**3]
1.1923044 ..... ! ·dSf+ ·[J/cm**3K]
1.4253208 ..... ! ·dSf- ·[J/cm**3K]
641.88102 ..... ! ·dH ·[J/cm3]
3.1655900046138 ..... ! ·c0 (C) /FCC_A1
25.000000000000 ..... ! ·c0 (C) /CEMENTITE_D011
2.7649480459788 ..... ! ·c0 (MN) /FCC_A1
6.1998610536024 ..... ! ·c0 (MN) /CEMENTITE_D011
91.975998 ..... ! ·m(C) /FCC_A1
-999.99900 ..... ! ·m(C) /CEMENTITE_D011
3.6652036 ..... ! ·m(MN) /FCC_A1
1.7774351 ..... ! ·m(MN) /CEMENTITE_D011
-1.38777878E-11 ..... ! ·dcdT (C) /FCC_A1
0.0000000 ..... ! ·dcdT (C) /CEMENTITE_D011
4.47855442E-03 ..... ! ·dcdT (MN) /FCC_A1
-9.38923465E-03 ..... ! ·dcdT (MN) /CEMENTITE_D011
Slopes of C in phase CEMENTITE_D011 cannot be calculated!
complete relinearisation!
```

### Linux

The linearisation parameters of the phases BCC\_A2/FCC\_A1 are:

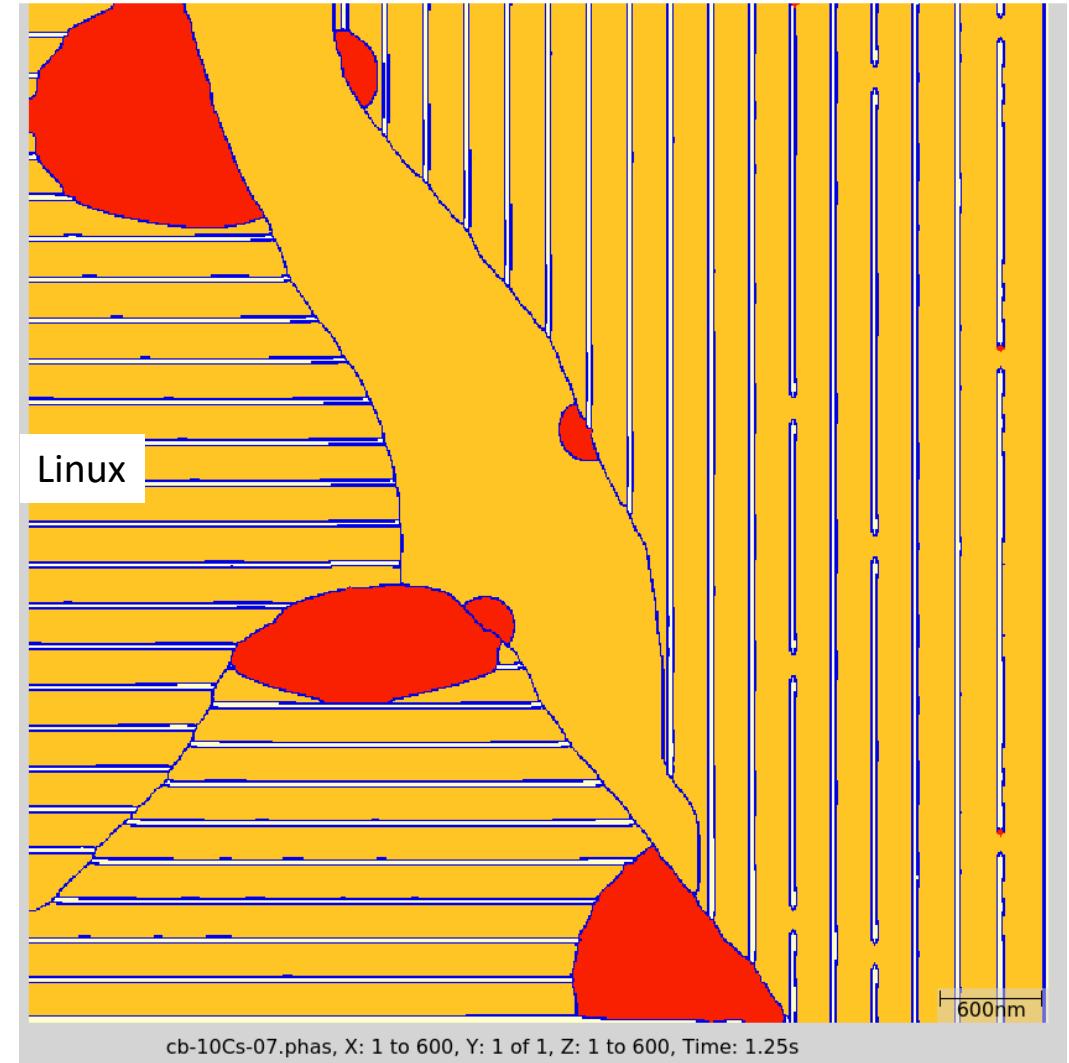
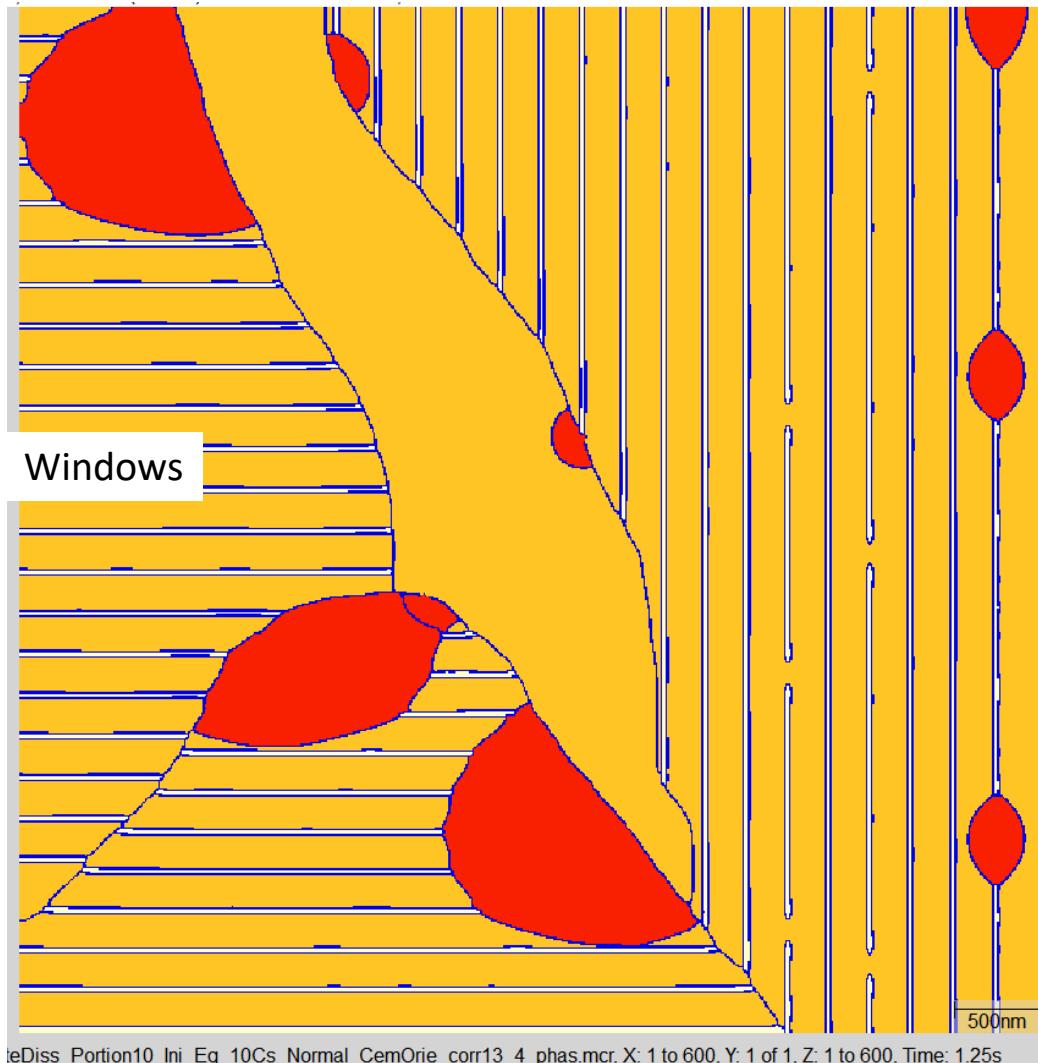
```
1008.2000 ..... ! ·T0 ·[K]
-15.016400 ..... ! ·dG ·[J/cm**3]
-6.04500936E-02 ..... ! ·dSf+ ·[J/cm**3K]
-0.45528337 ..... ! ·dSf- ·[J/cm**3K]
-579.17932 ..... ! ·dH ·[J/cm3]
7.83678676322512E-02 ..... ! ·c0 (C) /BCC_A2
3.1672157898659 ..... ! ·c0 (C) /FCC_A1
0.71001708133712 ..... ! ·c0 (MN) /BCC_A2
2.3100424156411 ..... ! ·c0 (MN) /FCC_A1
-7451.8605 ..... ! ·m(C) /BCC_A2
-32.854300 ..... ! ·m(C) /FCC_A1
-378.46367 ..... ! ·m(MN) /BCC_A2
-15.209027 ..... ! ·m(MN) /FCC_A1
6.06784881E-04 ..... ! ·dcdT (C) /BCC_A2
-1.94597934E-02 ..... ! ·dcdT (C) /FCC_A1
4.45187287E-03 ..... ! ·dcdT (MN) /BCC_A2
-1.50437664E-02 ..... ! ·dcdT (MN) /FCC_A1
```

The linearisation parameters of the phases FCC\_A1/CEMENTITE\_D011 are:

```
1008.2001 ..... ! ·T0 ·[K]
25.945156 ..... ! ·dG ·[J/cm**3]
1.1921539 ..... ! ·dSf+ ·[J/cm**3K]
1.4251214 ..... ! ·dSf- ·[J/cm**3K]
641.93719 ..... ! ·dH ·[J/cm3]
3.1672157898659 ..... ! ·c0 (C) /FCC_A1
25.000000000000 ..... ! ·c0 (C) /CEMENTITE_D011
2.7651194339626 ..... ! ·c0 (MN) /FCC_A1
6.1998369300791 ..... ! ·c0 (MN) /CEMENTITE_D011
91.947241 ..... ! ·m(C) /FCC_A1
-999.99900 ..... ! ·m(C) /CEMENTITE_D011
3.6645640 ..... ! ·m(MN) /FCC_A1
1.7772305 ..... ! ·m(MN) /CEMENTITE_D011
0.0000000 ..... ! ·dcdT (C) /FCC_A1
0.0000000 ..... ! ·dcdT (C) /CEMENTITE_D011
4.47850152E-03 ..... ! ·dcdT (MN) /FCC_A1
-9.38853673E-03 ..... ! ·dcdT (MN) /CEMENTITE_D011
Slopes of C in phase CEMENTITE_D011 cannot be calculated!
complete relinearisation!
```

## Problem 2:

Nucleation at different position but that's not the main issue because it is supposed to be random



### Problem 3:

Some nuclei only grow much later in Linux while the same type of seed grows earlier in Windows

