

MTEXソフトウェアにおける α 範囲と結晶方位密度

2019年02月02日

HelperTex Office

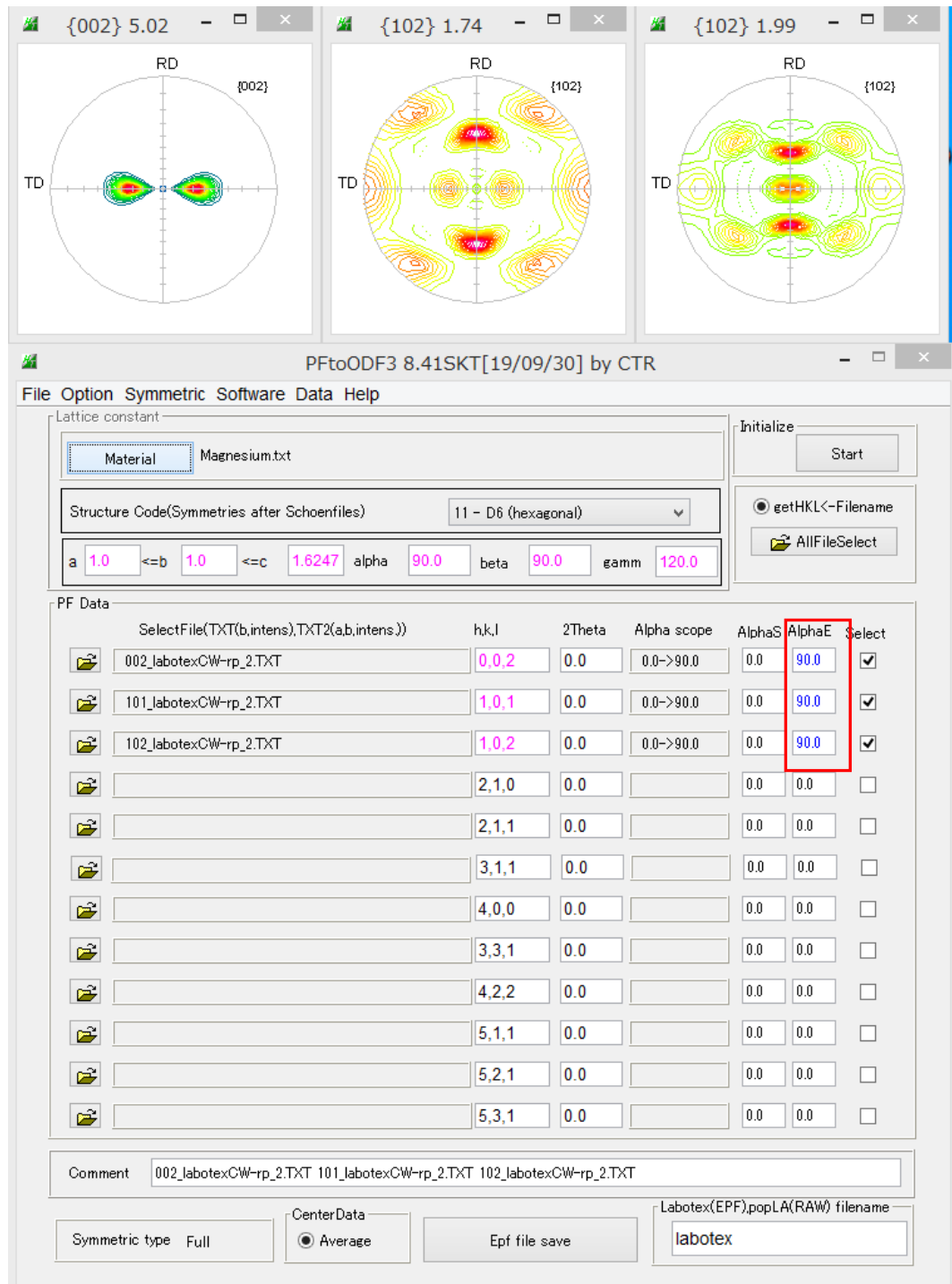
概要

同一データでもODF解析方法により計算される結晶方位密度は異なる。

資料 <http://helpertex.sakura.ne.jp/Soft/DOC3-MTEX/LaboTex-TextTools-MTEX-compare.pdf>

により、MTEXはHermonicの可能性が高い。もしHermonicの場合、StandardODFと同様に資料 <http://helpertex.sakura.ne.jp/Soft/DOC/StandardODF/StandardODF-PoleErea.pdf>の傾向の可能性があるので調査する。

データは、比較的解析し易い半価幅の広く、VF%の低いデータを用い直接法LaboTexと比較する。
入力データ 半価幅 20deg、VF10%の極点図をLaboTexで作成しPFtoODF3を介して入力する。
調査結果は、方位密度が低い場合、Hermonicのような減衰は認められない。



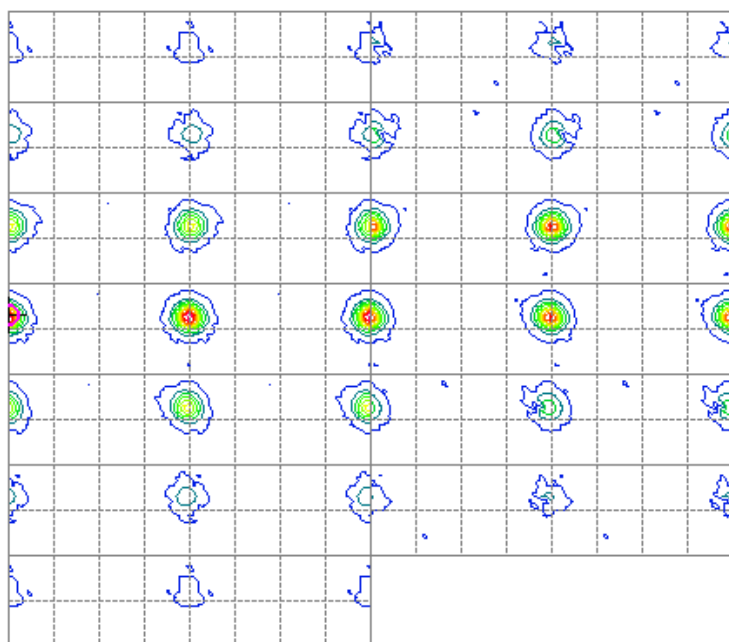
α 範囲を 60 → 90 とする。

各データを ODF で解析、データ Export、GPODFDisplay の hkluvlist で計算する。

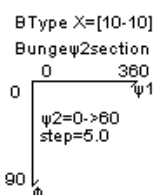
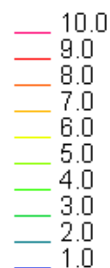
α 範囲が 0->90 の場合

LaboTex

filename: U:\TD-split20deg-10%\alpha-limit\LaboTex\CW\90.TXT



Max=10.85
Min=0.46

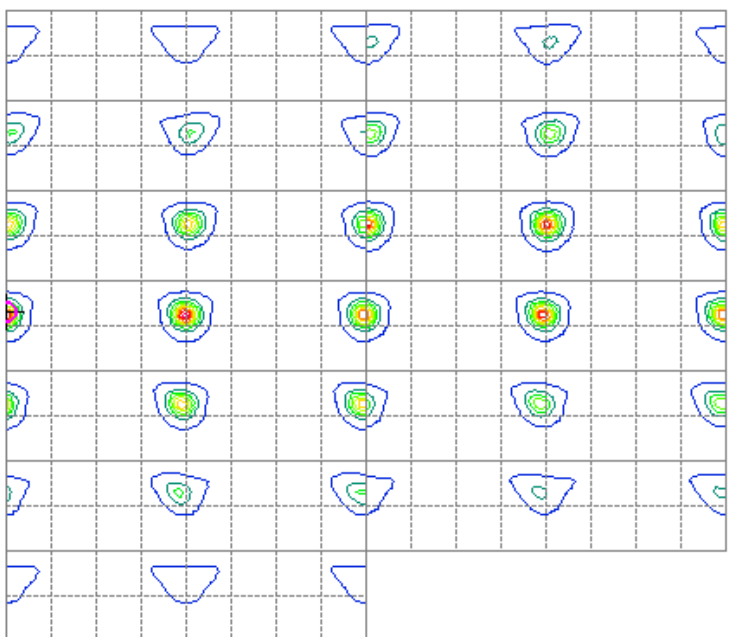


```
{hktl}<uvw>,labo90  
{0001}<10-10>,0.84  
{0001}<2-1-10>,0.88  
{-12-10}<10-10>,0.89  
{01-10}<2-1-10>,0.9  
{-12-10}<0001>,0.87  
{01-10}<0001>,0.91  
{-12-15}<10-10>,1.93  
{01-13}<2-1-10>,10.8  
{-12-14}<10-10>,1.7  
{02-25}<2-1-10>,10.4  
{-12-18}<4-843>,0.86  
{01-14}<0-221>,0.95  
{-12-16}<1-211>,0.76  
{01-13}<0-332>,0.96
```

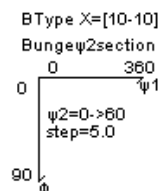
(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=10.85

MTEX

filename: U:\TD-split20deg-10%\alpha-limit\MTEX\90\90.bt



Max=9.55
Min=0.82



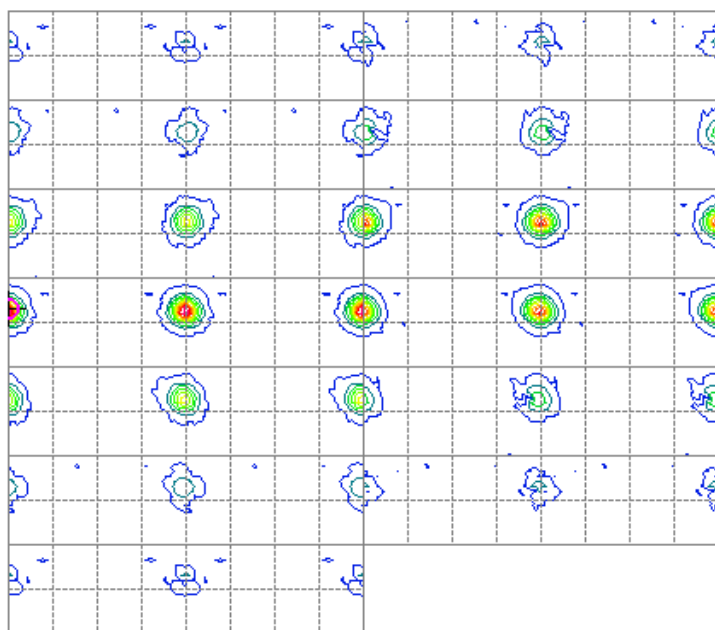
```
{hktl}<uvw>,mtex90  
{0001}<10-10>,0.82  
{0001}<2-1-10>,0.82  
{-12-10}<10-10>,0.84  
{01-10}<2-1-10>,0.92  
{-12-10}<0001>,0.84  
{01-10}<0001>,0.92  
{-12-15}<10-10>,1.82  
{01-13}<2-1-10>,8.74  
{-12-14}<10-10>,1.59  
{02-25}<2-1-10>,9.32  
{-12-18}<4-843>,1.26  
{01-14}<0-221>,0.89  
{-12-16}<1-211>,0.89  
{01-13}<0-332>,0.9
```

(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=8.74

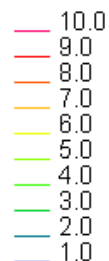
α 範囲が 0->85 の場合

LaboTex

filename: U:\TD-split-20deg-10%\alpha-limit\LaboTex\CW85.TXT



Max=10.56
Min=0.39



BType X=[10-10]
Bungeψ2section
0 360
ψ1
ψ2=0->60
step=5.0
90 φ

```
{hktl}<uvw>,labo85  
{0001}<10-10>,0.84  
{0001}<2-1-10>,0.87  
{-12-10}<10-10>,0.83  
{01-10}<2-1-10>,0.71  
{-12-10}<0001>,0.68  
{01-10}<0001>,0.78  
{-12-15}<10-10>,0.93  
{01-13}<2-1-10>,10.56  
{-12-14}<10-10>,0.95  
{02-25}<2-1-10>,10.51  
{-12-18}<4-843>,0.83  
{01-14}<0-221>,0.85  
{-12-16}<1-211>,0.84  
{01-13}<0-332>,0.91
```

(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=10.56

MTEX

filename: U:\TD-split-20deg-10%\alpha-limit\MTEX\85\85.bt



Max=9.75
Min=0.83



BType X=[10-10]
Bungeψ2section
0 360
ψ1
ψ2=0->60
step=5.0
90 φ

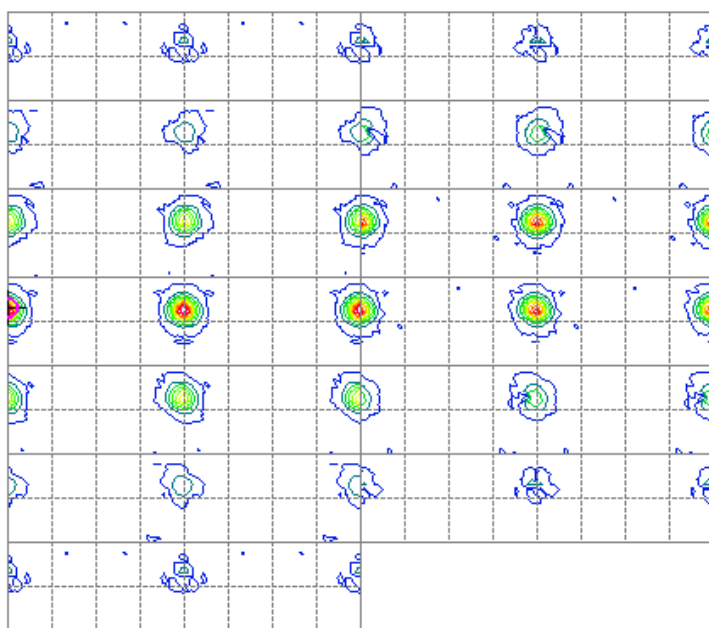
```
{hktl}<uvw>,mtex85  
{0001}<10-10>,0.83  
{0001}<2-1-10>,0.83  
{-12-10}<10-10>,0.85  
{01-10}<2-1-10>,0.94  
{-12-10}<0001>,0.84  
{01-10}<0001>,0.9  
{-12-15}<10-10>,1.87  
{01-13}<2-1-10>,9.2  
{-12-14}<10-10>,1.56  
{02-25}<2-1-10>,9.75  
{-12-18}<4-843>,1.24  
{01-14}<0-221>,0.89  
{-12-16}<1-211>,0.88  
{01-13}<0-332>,0.91
```

(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=9.2

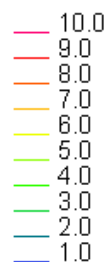
α 範囲が 0->80 の場合

LaboTex

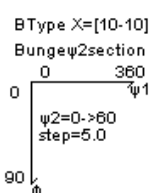
filename: U:\TD-split20deg-10%\w-limit\LaboTex\CW80.TXT



Max=10.85
Min=0.27



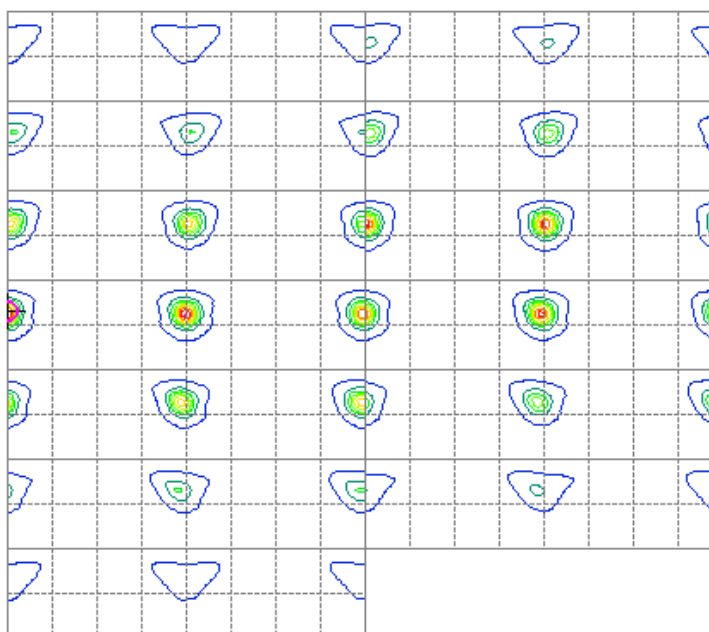
```
{hktl}<uvw>,labo80  
{0001}<10-10>,0.85  
{0001}<2-1-10>,0.87  
{-12-10}<10-10>,0.81  
{01-10}<2-1-10>,0.79  
{-12-10}<0001>,0.67  
{01-10}<0001>,0.7  
{-12-15}<10-10>,0.9  
{01-13}<2-1-10>,10.66  
{-12-14}<10-10>,0.95  
{02-25}<2-1-10>,10.85  
{-12-18}<4-843>,0.85  
{01-14}<0-221>,0.9  
{-12-16}<1-211>,0.88  
{01-13}<0-332>,0.88
```



(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=10.66

MTEX

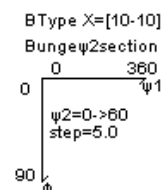
filename: U:\TD-split20deg-10%\w-limit\MTEX\80\80.bt



Max=9.25
Min=0.83



```
{hktl}<uvw>,mtex80  
{0001}<10-10>,0.83  
{0001}<2-1-10>,0.83  
{-12-10}<10-10>,0.88  
{01-10}<2-1-10>,0.97  
{-12-10}<0001>,0.86  
{01-10}<0001>,0.91  
{-12-15}<10-10>,1.82  
{01-13}<2-1-10>,8.87  
{-12-14}<10-10>,1.51  
{02-25}<2-1-10>,9.25  
{-12-18}<4-843>,1.29  
{01-14}<0-221>,0.91  
{-12-16}<1-211>,0.87  
{01-13}<0-332>,0.92
```

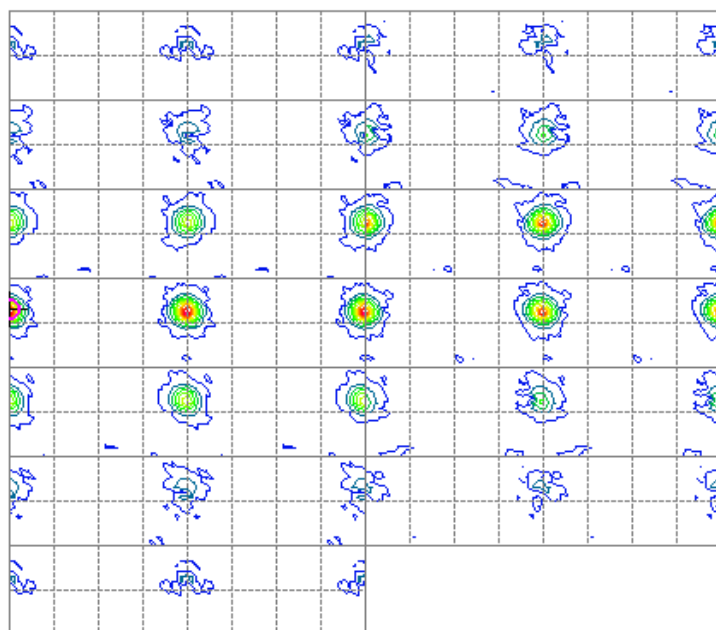


(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=8.87

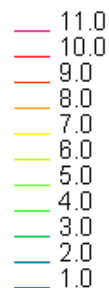
α 範囲が 0->75 の場合

LaboTex

filename: U:\TD-split-20deg-10%\alpha-limit\LaboTex\CW75.TXT



Max=11.43
Min=0.22



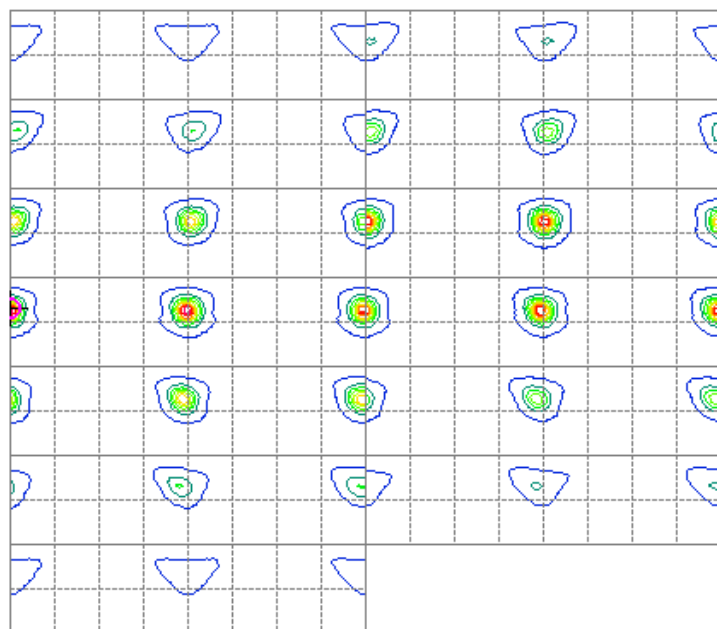
BType X=[10-10]
Bungeψ2section
0 360
ψ1
ψ2=0->60
step=5.0
90
ψ

```
{hktl}<uvw>,labo75  
{0001}<10-10>,0.85  
{0001}<2-1-10>,0.87  
{-12-10}<10-10>,0.81  
{01-10}<2-1-10>,0.6  
{-12-10}<0001>,0.65  
{01-10}<0001>,0.68  
{-12-15}<10-10>,0.93  
{01-13}<2-1-10>,10.13  
{-12-14}<10-10>,0.78  
{02-25}<2-1-10>,11.43  
{-12-18}<4-843>,0.93  
{01-14}<0-221>,0.9  
{-12-16}<1-211>,0.9  
{01-13}<0-332>,0.9
```

(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=10.13

MTEX

filename: U:\TD-split-20deg-10%\alpha-limit\MTEX\75\75.bt



Max=9.96
Min=0.83



BType X=[10-10]
Bungeψ2section
0 360
ψ1
ψ2=0->60
step=5.0
90
ψ

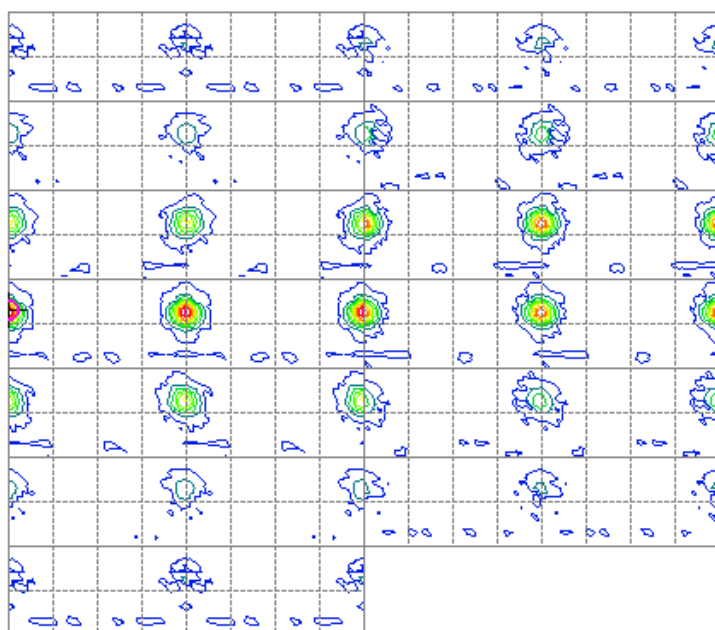
```
{hktl}<uvw>,mtex75  
{0001}<10-10>,0.83  
{0001}<2-1-10>,0.83  
{-12-10}<10-10>,0.87  
{01-10}<2-1-10>,0.97  
{-12-10}<0001>,0.86  
{01-10}<0001>,0.92  
{-12-15}<10-10>,1.75  
{01-13}<2-1-10>,9.52  
{-12-14}<10-10>,1.46  
{02-25}<2-1-10>,9.96  
{-12-18}<4-843>,1.25  
{01-14}<0-221>,0.89  
{-12-16}<1-211>,0.86  
{01-13}<0-332>,0.91
```

(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=9.52

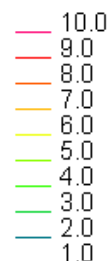
α 範囲が 0->70 の場合

LaboTex

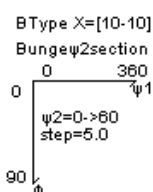
filename: U:\TD-split20deg-10%\alpha-limit\LaboTex\CW70.TXT



Max=10.49
Min=0.05



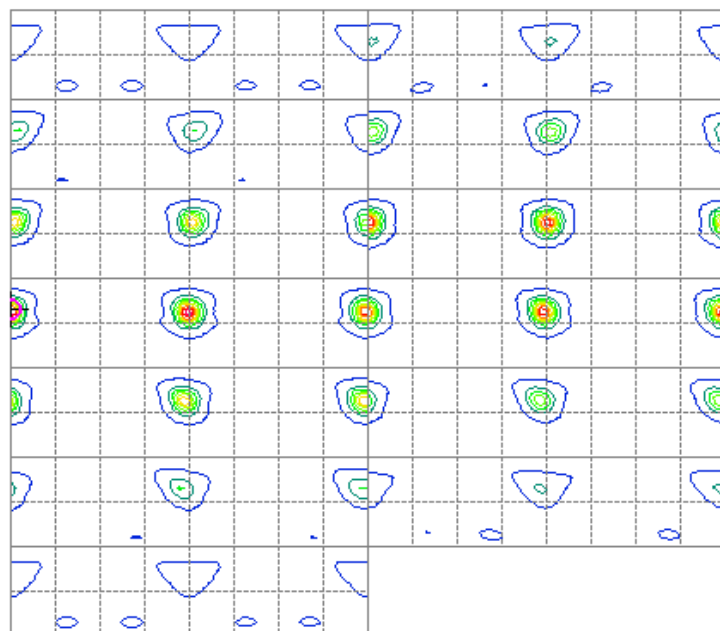
```
{hktl}<uvw>,labo70
{0001}<10-10>,0.82
{0001}<2-1-10>,0.88
{-12-10}<10-10>,0.81
{01-10}<2-1-10>,0.85
{-12-10}<0001>,0.64
{01-10}<0001>,0.66
{-12-15}<10-10>,2.23
{01-13}<2-1-10>,10.49
{-12-14}<10-10>,0.91
{02-25}<2-1-10>,10.04
{-12-18}<4-843>,0.92
{01-14}<0-221>,0.9
{-12-16}<1-211>,0.9
{01-13}<0-332>,0.9
```



(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=10.49

MTEX

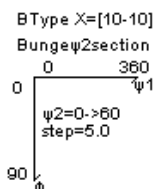
filename: U:\TD-split20deg-10%\alpha-limit\MTEX\I70\70.bt



Max=9.8
Min=0.83



```
{hktl}<uvw>,mtex70
{0001}<10-10>,0.83
{0001}<2-1-10>,0.83
{-12-10}<10-10>,0.87
{01-10}<2-1-10>,0.97
{-12-10}<0001>,0.86
{01-10}<0001>,0.93
{-12-15}<10-10>,1.79
{01-13}<2-1-10>,9.26
{-12-14}<10-10>,1.51
{02-25}<2-1-10>,9.8
{-12-18}<4-843>,1.26
{01-14}<0-221>,0.89
{-12-16}<1-211>,0.86
{01-13}<0-332>,0.9
```

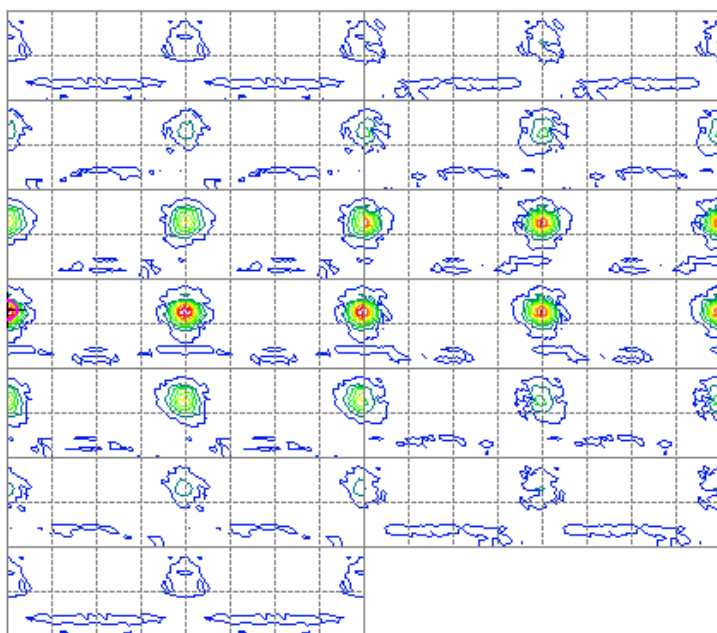


(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=9.26

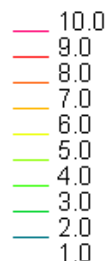
α 範囲が 0->65 の場合

LaboTex

filename: U:\TD-split20deg-10%\alpha-limit\LaboTex\CW65.TXT



Max=10.63
Min=0.24



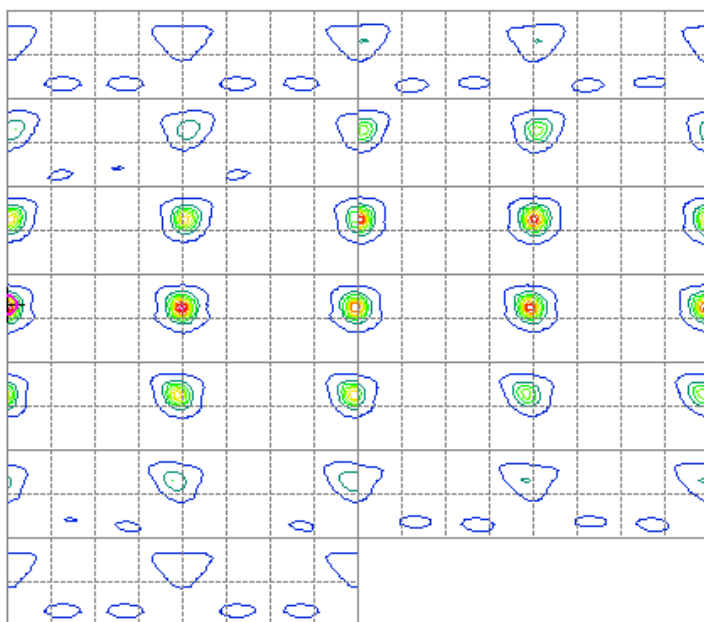
```
{hktl}<uvw>,labo65
{0001}<10-10>,0.78
{0001}<2-1-10>,0.89
{-12-10}<10-10>,0.91
{01-10}<2-1-10>,0.88
{-12-10}<0001>,0.64
{01-10}<0001>,0.73
{-12-15}<10-10>,1.92
{01-13}<2-1-10>,10.63
{-12-14}<10-10>,1.82
{02-25}<2-1-10>,10.36
{-12-18}<4-843>,1.62
{01-14}<0-221>,0.87
{-12-16}<1-211>,0.9
{01-13}<0-332>,0.87
```

BType X=[10-10]
Bungeψ2section
0 360
ψ1
ψ2=0->60
step=5.0
90 0

(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=10.63

MTEX

filename: U:\TD-split20deg-10%\alpha-limit\MTEX\65\65.bt



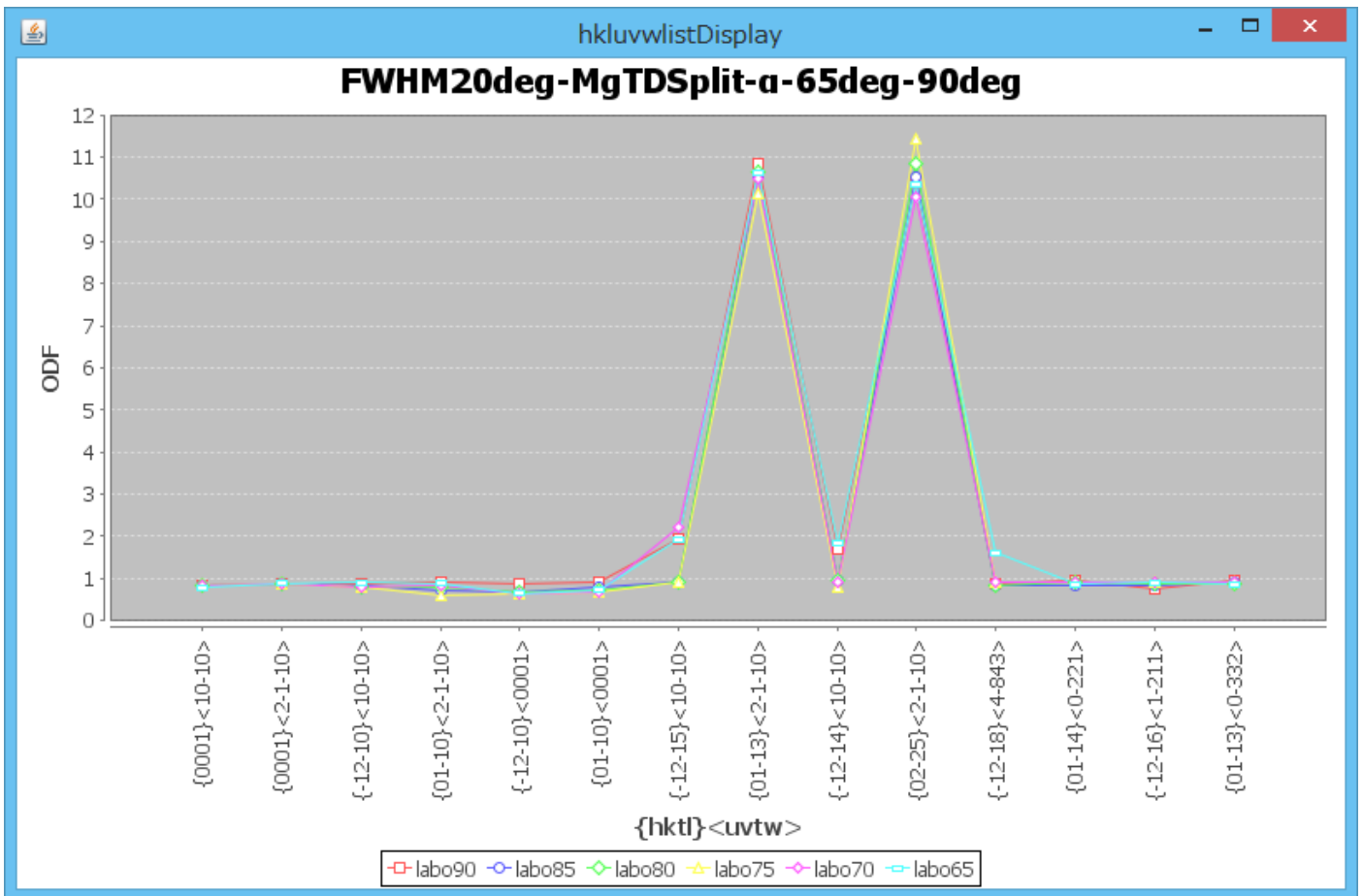
Max=9.68
Min=0.82



```
{hktl}<uvw>,mtex65
{0001}<10-10>,0.83
{0001}<2-1-10>,0.82
{-12-10}<10-10>,0.86
{01-10}<2-1-10>,0.96
{-12-10}<0001>,0.86
{01-10}<0001>,0.93
{-12-15}<10-10>,1.72
{01-13}<2-1-10>,9.17
{-12-14}<10-10>,1.51
{02-25}<2-1-10>,9.68
{-12-18}<4-843>,1.26
{01-14}<0-221>,0.88
{-12-16}<1-211>,0.86
{01-13}<0-332>,0.89
```

BType X=[10-10]
Bungeψ2section
0 360
ψ1
ψ2=0->60
step=5.0
90 0

(0,1,3)[1,0,0]f1=0.0,F=32.0,f2=30.0 ODF=9.17



M T E X

