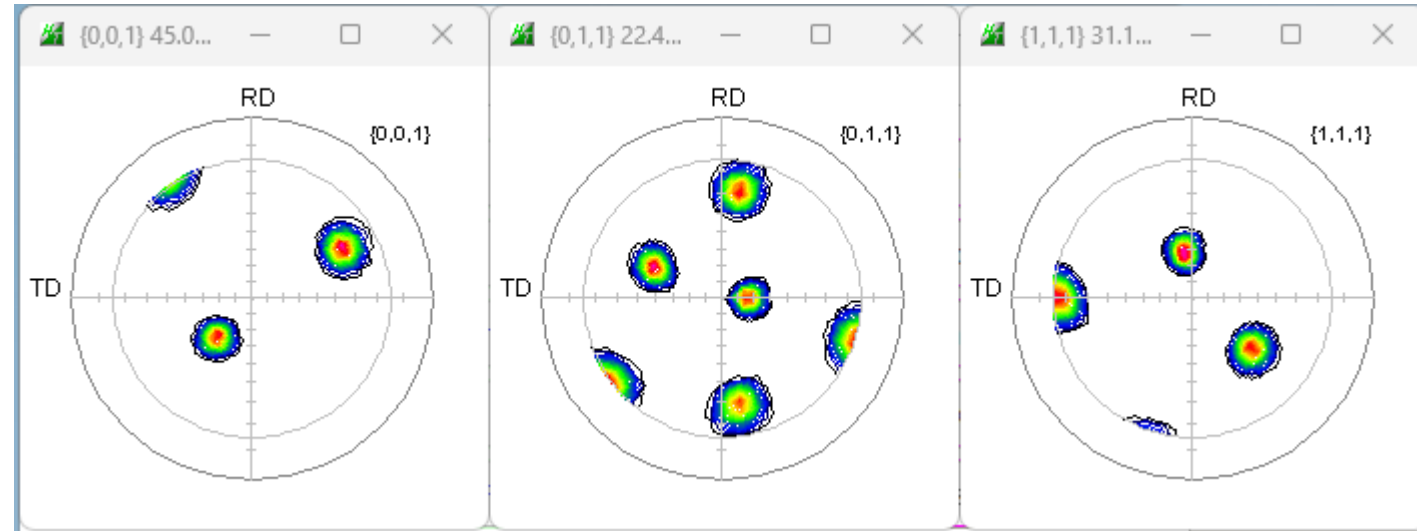
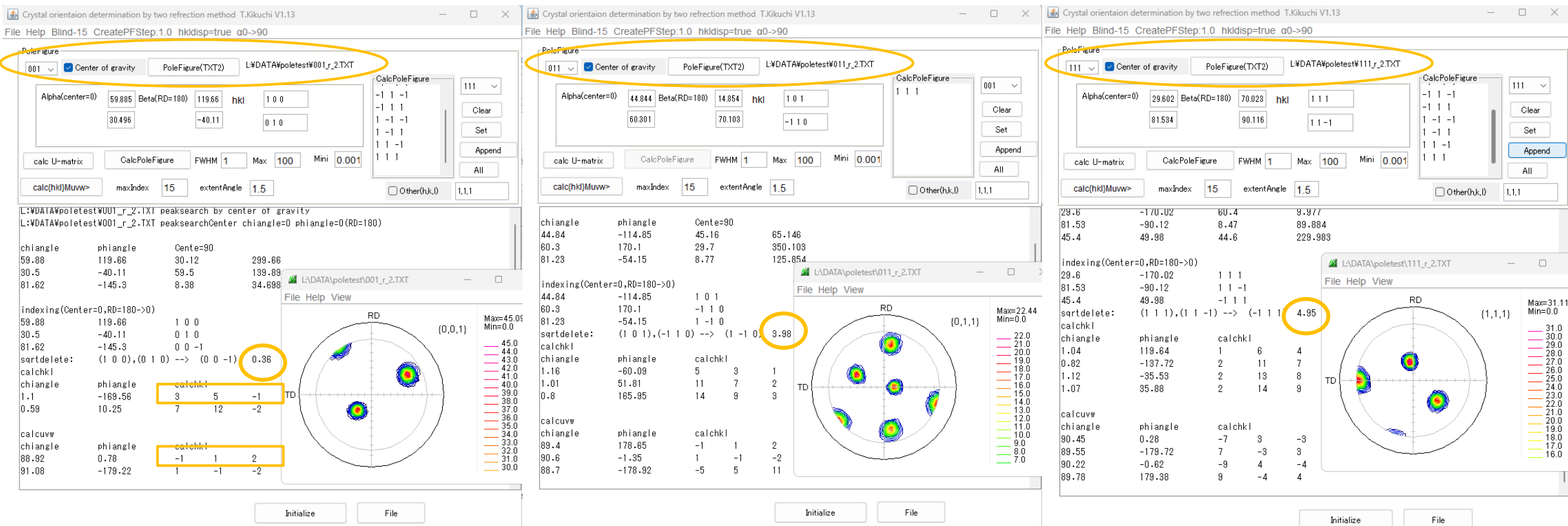


極点図のNDRDTD相関関係



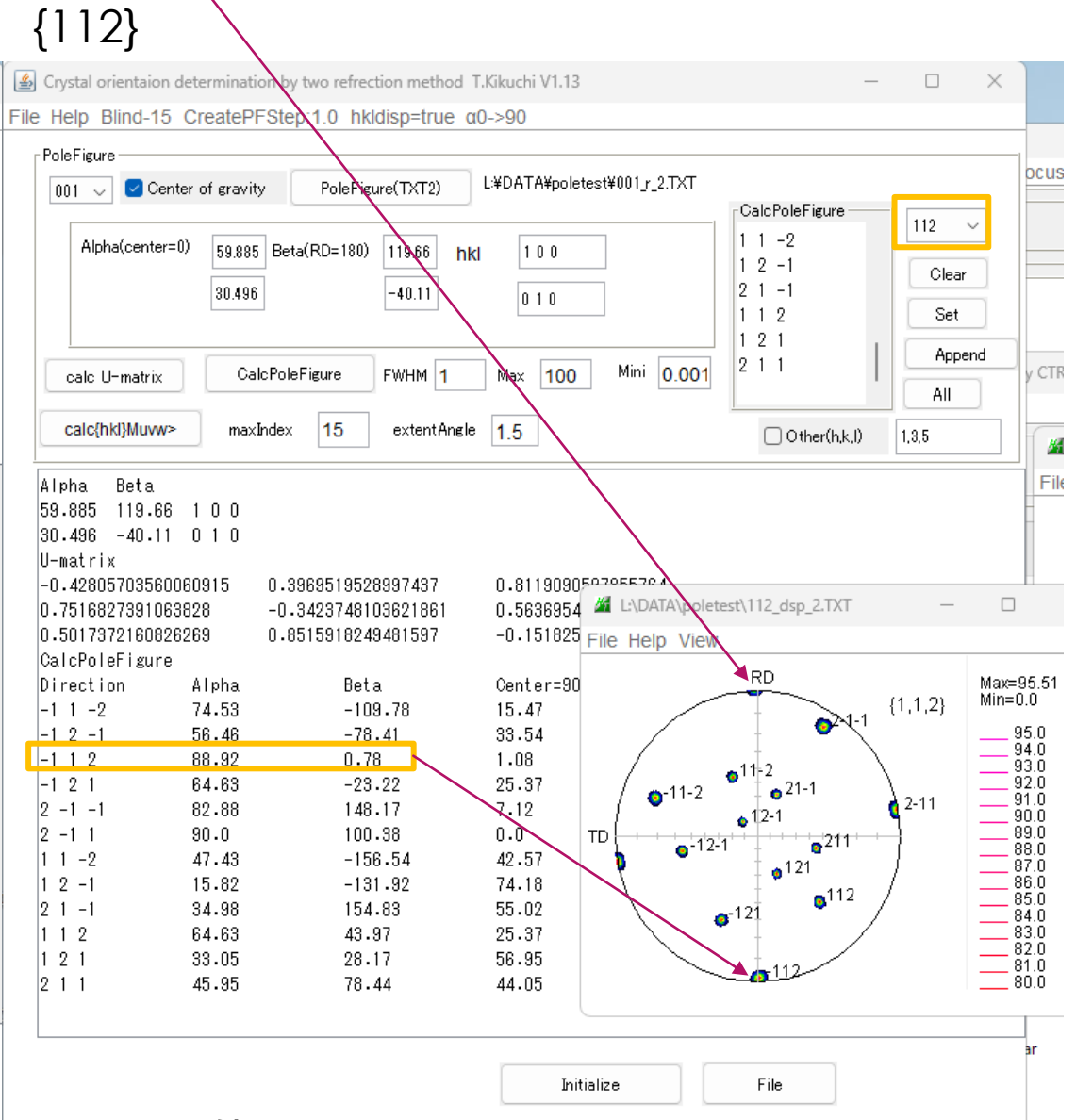
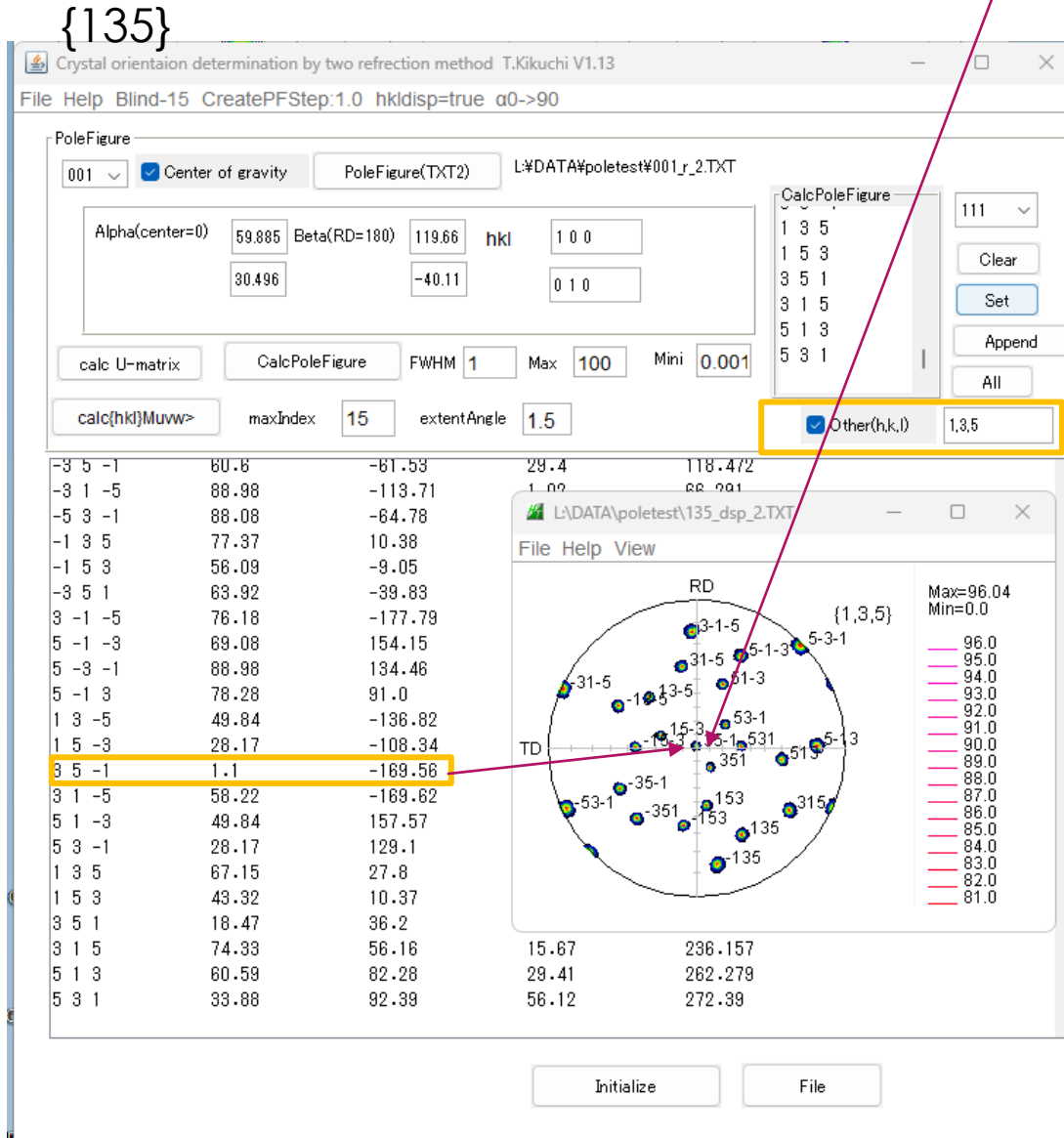
上記反射極点図から方位 $\{hkl\}\langle uvw \rangle$ を求める
 $\{hkl\}, \langle uvw \rangle$ 極点図を生成しND, RDの確認
RD方向の極点図、TD方向の極点図生成

反射極点図から方位{hkl}<uvw>を求める



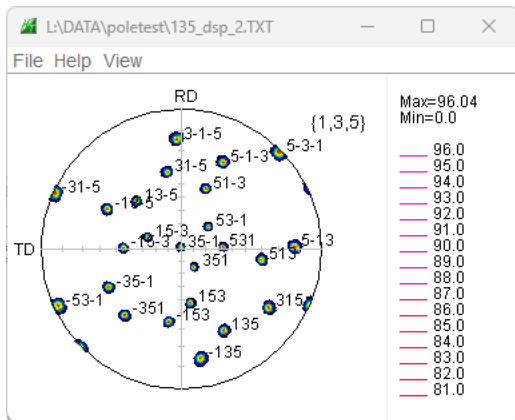
CrystalOrientationDソフトウェアは、3本の極に対し、一致度を判断している
 {111}の計算結果は、方位のずれが発生している。
 {153}<2-11>に決定

{135},{112}極点図を生成しND, RDの確認

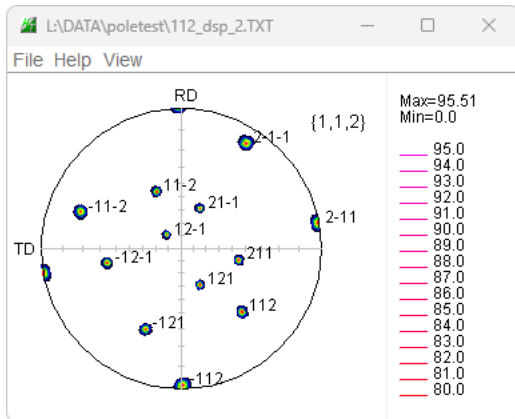
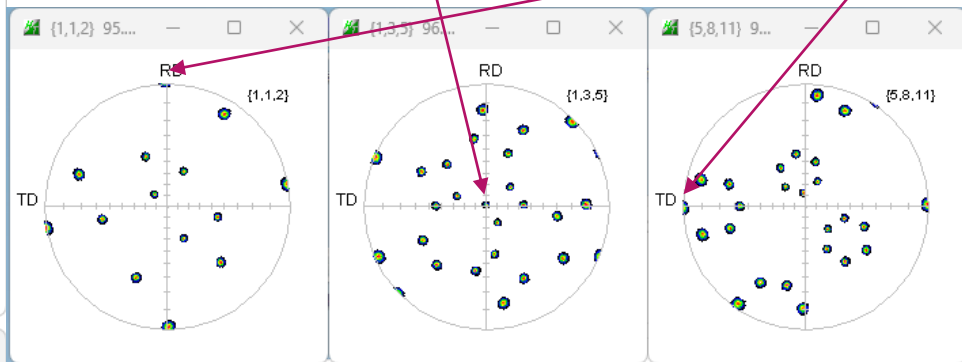


RDの近傍として-RD位置

RD(TD軸回転)方向の極点図、TD(RD軸回転)方向の極点図生成



ND方向極点図 ND:[135],RD:[112],TD:[5811]



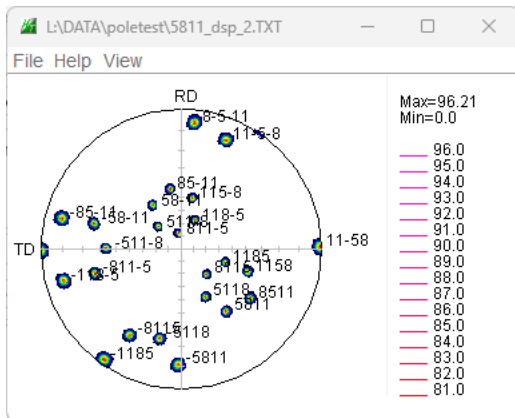
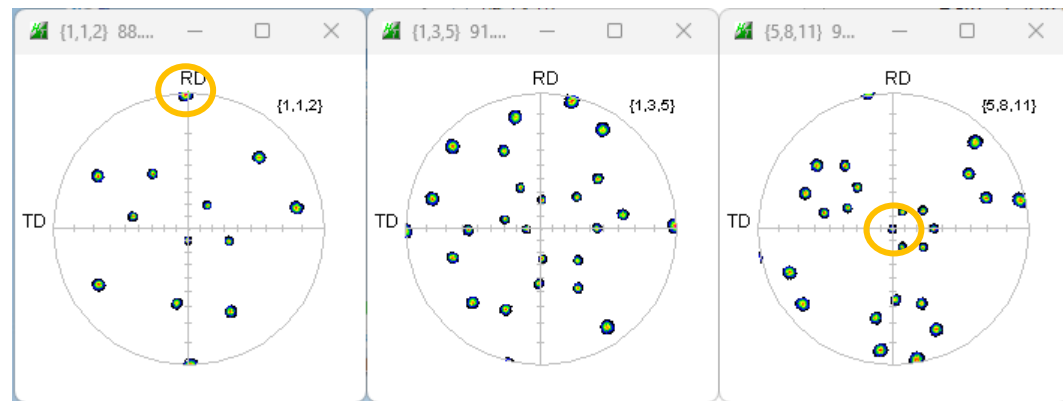
TD方向: (TD)[RD]

Rotation(-360 <= degrees <= 360) of vector machine axis

AlongRD(X)	AlongTD(Y)	AlongND(Z)	
1	2	3	4
90	0	0	0

{8511}<2-1-1>

Result {85-11}<2-11> toTriclinic {8511}<2-1-1> (321.16 40.62 57.99)



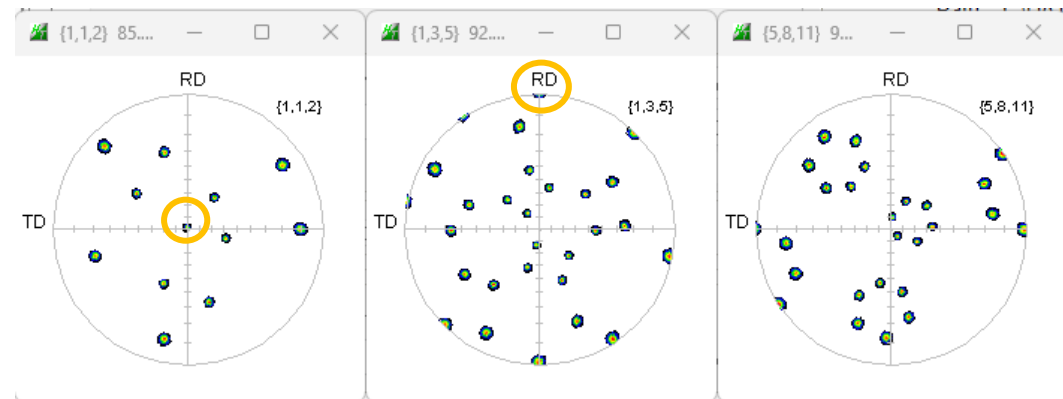
RD方向: (RD)[ND]

Rotation(-360 <= degrees <= 360) of vector machine axis

AlongRD(X)	AlongTD(Y)	AlongND(Z)	
1	2	3	4
0	-90	0	0

{211}<-15-3>

Result {-21-1}<153> toTriclinic {211}<-15-3> (213.74 65.91 63.43)



結晶軸による回転

CrystalRotation 1.09T[23/12/31] by CTR

File Help ND {hkl}<uvw> {110}<1-12> RV:Integer Triclinic

Material Cubic
1.0 1.0 1.0 90.0 90.0 90.0

{hkl|Kuvw}> 1 5 3 2 -1 1 Disp

Rotation vector of crystal axis
 1 5 3 SET CTD

Rotation vector of machine axis(LaboTex,MTEX)
 0 0 1 SET

Rotation angle
0 Calc Disp

Result

```
RD TD ND
2.0 -8.0 1.0
-1.0 -5.0 5.0
1.0 11.0 3.0
RDaxis [2 -1 1]
TDaxis [-8 -5 11]
NDaxis [1 5 3]
1.0 5.0 3.0 (1 5 3)
{153}<2-11> eulerangle:(28.273,59.53,11.31)
Eulerangle g(φ1 φ2)=
0.8165 0.5521 0.169
-0.4082 0.2652 0.8452
0.4082 -0.7591 0.5071
Rotation [1,5,3] angle:0.0
Calc-d=(0.169,0.8452,0.5071)
a(1.0,5.0,3.0),0.0
Rotated Euclerangle
1.0 0.0 0.0
0.0 1.0 0.0
0.0 0.0 1.0
Rotated RD TD ND
0.8165 0.5521 0.169
-0.4082 0.2652 0.8452
0.4082 -0.7591 0.5071
Calc Miller indices
{1.0 5.0 3.0}<2.0 -1.0 1.0>
{1 5 3}<2 -1 1> (28.27 59.53 11.31)
```

{1 5 3}<2 -1 1> set{hkl|Kuvw> ResultCreat

ND:{135}<2-11>

RD方向:[-8-511]軸回転

CrystalRotation 1.09T[23/12/31] by CTR

File Help RD(TDrotate) {uvw}<hkl> {110}<1-12> RV:Integer Triclinic

Material Cubic
1.0 1.0 1.0 90.0 90.0 90.0

{hkl|Kuvw}> 1 5 3 2 -1 1 Disp

Rotation vector of crystal axis
 -8 -5 11 SET CTD

Rotation vector of machine axis(LaboTex,MTEX)
 0 1 0 SET

Rotation angle
-90 Calc Disp

Result

```
RD TD ND
2.0 -8.0 1.0
-1.0 -5.0 5.0
1.0 11.0 3.0
RDaxis [2 -1 1]
TDaxis [-8 -5 11]
NDaxis [1 5 3]
-8.0 -5.0 11.0 (-8 -5 11)
{153}<2-11> eulerangle:(28.273,59.53,11.31)
Eulerangle g(φ1 φ2)=
0.8165 0.5521 0.169
-0.4082 0.2652 0.8452
0.4082 -0.7591 0.5071
Rotation [-8,-5,11] angle:-90.0
Calc-d=(-0.5521,-0.345,0.7591)
a(-8.0,-5.0,11.0),-90.0
Rotated Euclerangle
0.3048 -0.5686 -0.7641
0.9495 0.119 0.2901
-0.074 -0.814 0.5762
Rotated RD TD ND
0.169 0.5974 -0.8165
0.8452 0.3355 0.4082
0.5071 -0.6941 -0.4082
Calc Miller indices
{-2.0 1.0 -1.0}<1.0 5.0 3.0>
{2 1 1}<-1 5 -3> (213.74 65.91 63.43)
```

{2 1 1}<-1 5 -3> set{hkl|Kuvw> ResultCreat

Result: {-21-1}<153> toTriclinic {211}<-15-3> (213.74 65.91 63.43)

RD:{211}<-15-3>

TD方向:[2-11]軸回転

CrystalRotation 1.09T[23/12/31] by CTR

File Help TD(RDrotate) {TD}<uvw> {110}<1-12> RV:Integer Triclinic

Material Cubic
1.0 1.0 1.0 90.0 90.0 90.0

{hkl|Kuvw}> 1 5 3 2 -1 1 Disp

Rotation vector of crystal axis
 2 -1 1 SET CTD

Rotation vector of machine axis(LaboTex,MTEX)
 1 0 0 SET

Rotation angle
90 Calc Disp

Result

```
RD TD ND
2.0 -8.0 1.0
-1.0 -5.0 5.0
1.0 11.0 3.0
RDaxis [2 -1 1]
TDaxis [-8 -5 11]
NDaxis [1 5 3]
2.0 -1.0 1.0 (2 -1 1)
{153}<2-11> eulerangle:(28.273,59.53,11.31)
Eulerangle g(φ1 φ2)=
0.8165 0.5521 0.169
-0.4082 0.2652 0.8452
0.4082 -0.7591 0.5071
Rotation [2,-1,1] angle:90.0
Calc-d=(0.8165,-0.4082,0.4082)
a(2.0,-1.0,1.0),90.0
Rotated Euclerangle
0.6667 0.0749 0.7416
-0.7416 0.1667 0.6498
-0.0749 -0.9832 0.1667
Rotated RD TD ND
0.8165 -0.175 0.5521
-0.4082 -0.8585 0.345
0.4082 -0.4286 -0.7591
Calc Miller indices
{1.6 1.0 -2.2}<2.0 -1.0 1.0>
{8 5 11}<2 -1 -1> (321.16 40.62 57.99)
```

{8 5 11}<2 -1 -1> set{hkl|Kuvw> ResultCreat

Result: {85-11}<2-11> toTriclinic {8511}<2-1-1> (321.16 40.62 57.99)

TD:{8511}<2-1-1>