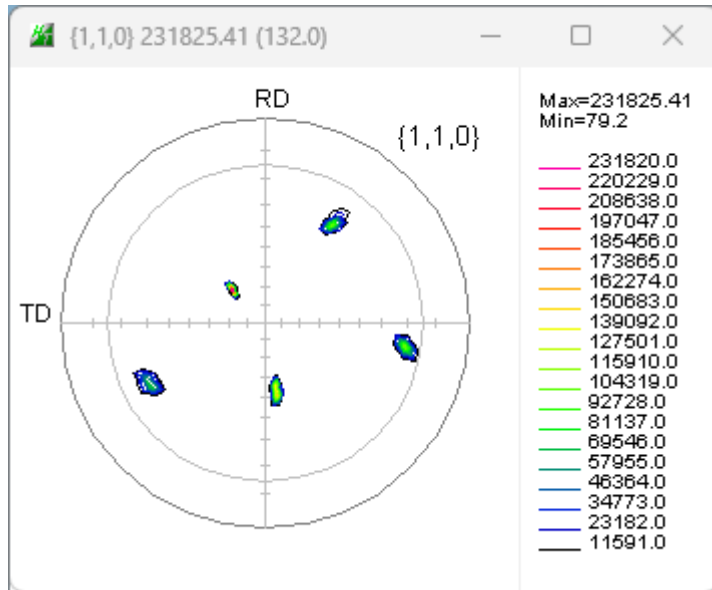
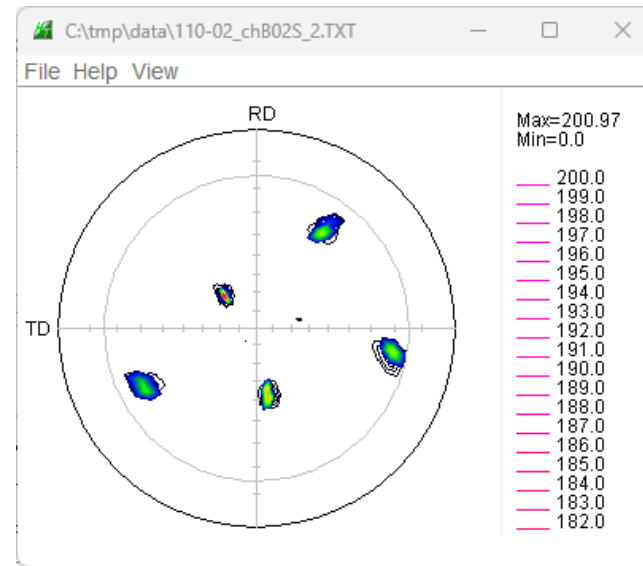


単結晶極点図からSchmid因子計算

測定データ



規格化データ



{011}極点図から{001},{011},{111}極点図を作成

規格化極点図($\alpha : 15 \rightarrow 90$)

File Help beta-3

PoleFigure

011 Center of gravity PoleFigure(TXT2) C:\tmp\data\110-02_chB02S_2.TXT

Alpha(center=0) 38.44 Beta(RD=180) 10.034 hkl 1 1 0
69.962 79.916 1 0 1

Calc PoleFigure

1 0 0
0 1 0
0 0 1
-1 0 0
0 -1 0
0 0 -1

001
Clear
Set
Append
All

calc U-mat... Calc PoleFig... FWHM 2 Max 100 Mini 0.1

chiangle
38.439812339807766
69.9624488384094
25.01192012329153
38.439812339807766
69.9624488384094
25.01192012329153

Alpha Beta
38.44 10.034 1 1 0
69.962 79.916 1 0 1

U-matrix
-0.07329044539243511
0.42780487532870997
0.9008948325197992

Direction Alpha
1 1 0 38.44
1 0 1 68.46
0 1 -1 65.41
1 -1 0 60.61
1 0 -1 24.92

File Help View

C:\tmp\data\110-02_chB02S_2.TXT

RD TD

Max=200.97
Min=0.0

200.0
199.0
198.0
197.0
196.0
195.0
194.0
193.0
192.0
191.0
190.0
189.0
188.0
187.0
186.0
185.0
184.0
183.0
182.0

Initialize File

作成された完全極点図 ($\alpha : 0 \rightarrow 90$) 極点図作成

C:\tmp\data\001_dsp_2.TXT

File Help View

RD TD

{0,0,1}

Max=46.98
Min=0.1

46.0
45.0
44.0
43.0
42.0
41.0
40.0
39.0
38.0
37.0
36.0
35.0
34.0
33.0
32.0
31.0
30.0
29.0
28.0

C:\tmp\data\011_dsp_2.TXT

File Help View

RD TD

{0,1,1}

Max=46.98
Min=0.1

46.0
45.0
44.0
43.0
42.0
41.0
40.0
39.0
38.0
37.0
36.0
35.0
34.0
33.0
32.0
31.0
30.0
29.0
28.0

C:\tmp\data\111_dsp_2.TXT

File Help View

RD TD

{1,1,1}

Max=46.98
Min=0.1

46.0
45.0
44.0
43.0
42.0
41.0
40.0
39.0
38.0
37.0
36.0
35.0
34.0
33.0
32.0
31.0
30.0
29.0
28.0

C:\tmp\data\Append_dsp_2.TXT

File Help View

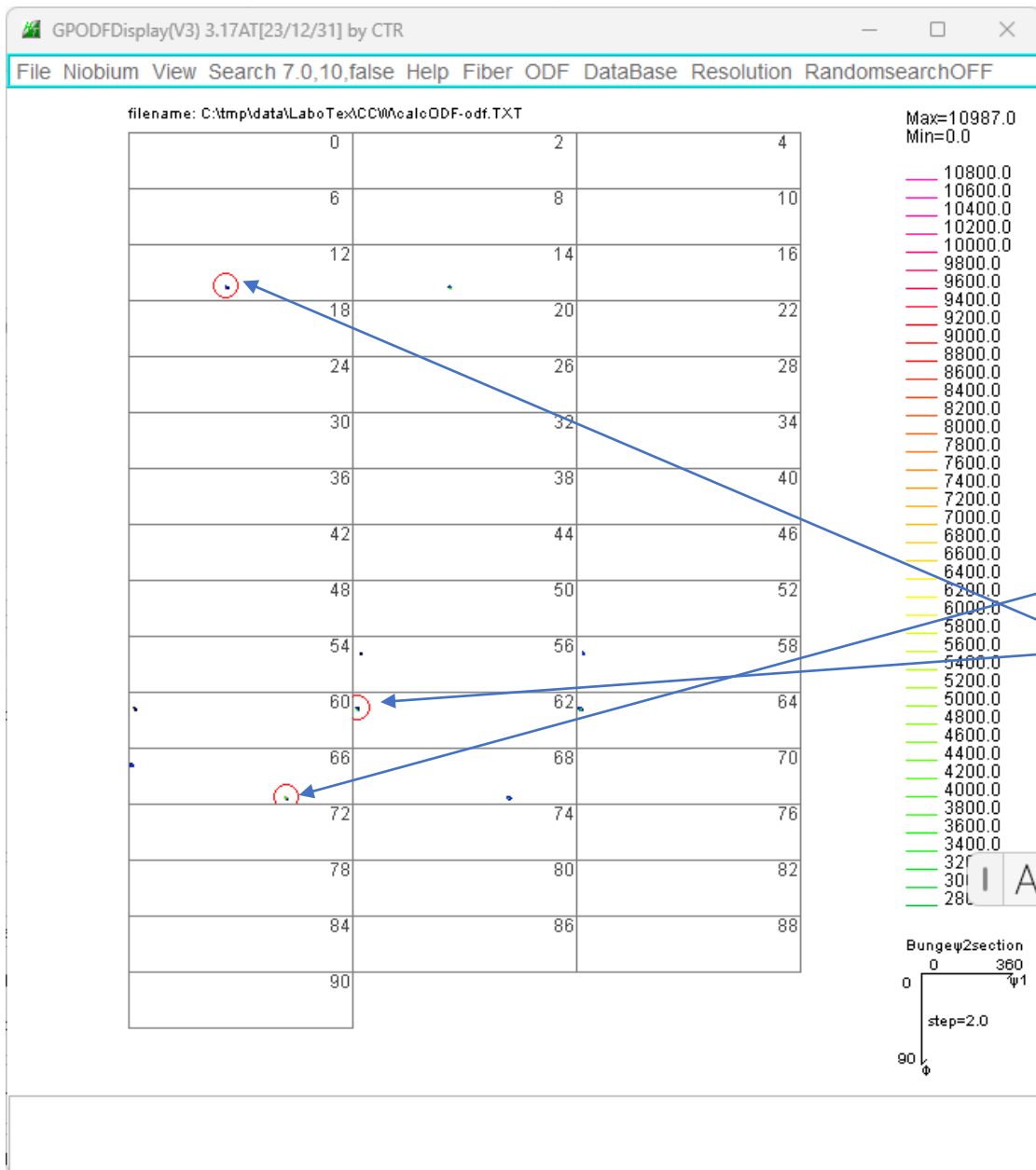
RD TD

Max=70.48
Min=0.1

70.0
69.0
68.0
67.0
66.0
65.0
64.0
63.0
62.0
61.0
60.0
59.0
58.0
57.0
56.0
55.0
54.0
53.0
52.0

ピークの指数付けを行い

極点図からODF解析を行い方位の決定



TextDisplay 1.14S C:\CTR\work\GPODFDisplay\CALCHKLUVW.TXT

File Help

f1	F	f2	ODF	calcF1	calcF	calcF2	ODF(real)	hkluvw	EqualDirection
8.18	25.92	62.42	6879.3	8.89	24.09	63.43	5662.75	(2 1 5)[5 -15 1]	1
158.03	67.93	12.21	10987.0	156.54	71.44	12.34	9784.38	(7 32 11)[-115 9 47]	1
253.98	78.11	66.09	7940.8	253.72	78.06	66.45	7232.51	(39 17 9)[5 24 -67]	1

MAXODF= 10987.0 MINIODF= 0.0

Schmid因子

{215}<5-151>によるRD,TD方向のSchmid因子

BCCSchmidFactorCalc3 3.06T[23/12/31] by CTR

File Help Text SlipProfile SF

InputFile(TXT)

Data input [1 1 0]<-1 -2> 100.0

Slip Systems

{011}<11-1> {112}<11-1> {123}<11-1> FCC{111}<1-10> Inverse

Data input

ND {h k l} or {h k l} {h k l} or {h k l} {h k l} or {h k l}

{h k l}<u v w> phi1 PHI phi2

{2 1 5}	-0.421	0.113	0.308	-0.41
{7 32 11}	-0.023	-0.434	-0.169	0.104
{39 17 9}	0.065	-0.332	0.317	0.015
	-0.392	-0.435	0.032	0.191
	0.244	0.361	-0.353	-0.453
	-0.115	0.069	-0.384	-0.468
	-0.17	-0.161	-0.076	-0.127
	-0.034	-0.093	0.359	0.293
	0.273	0.349	0.056	-0.086

Input max SlipSystem

{2 1 5}	0.463	(132)[1-11]
{7 32 11}	0.461	(23-1)[-111]
{39 17 9}	0.375	(110)[1-11]

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

SlipDisp

Schmidcalc

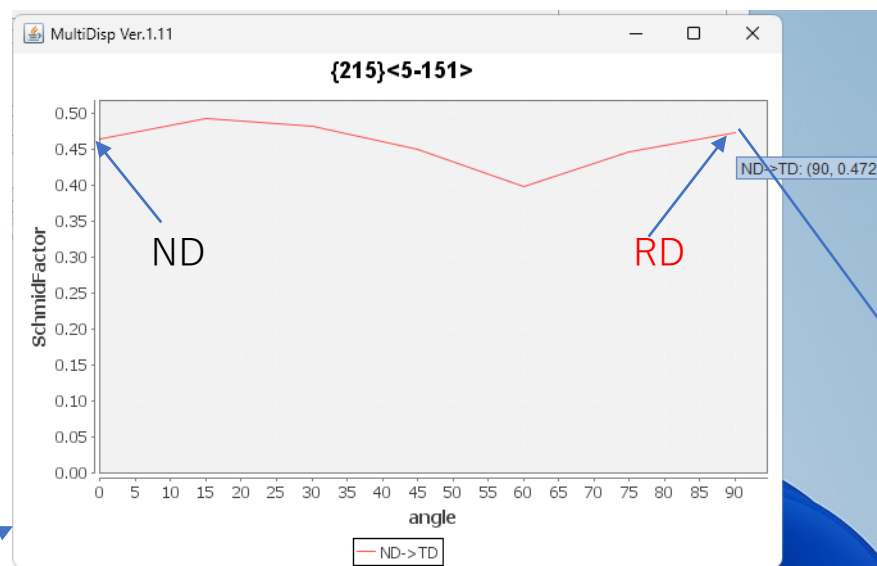
Symmetry SchmidCalc

SchmidFactorProfile

ND->RD all Step 1

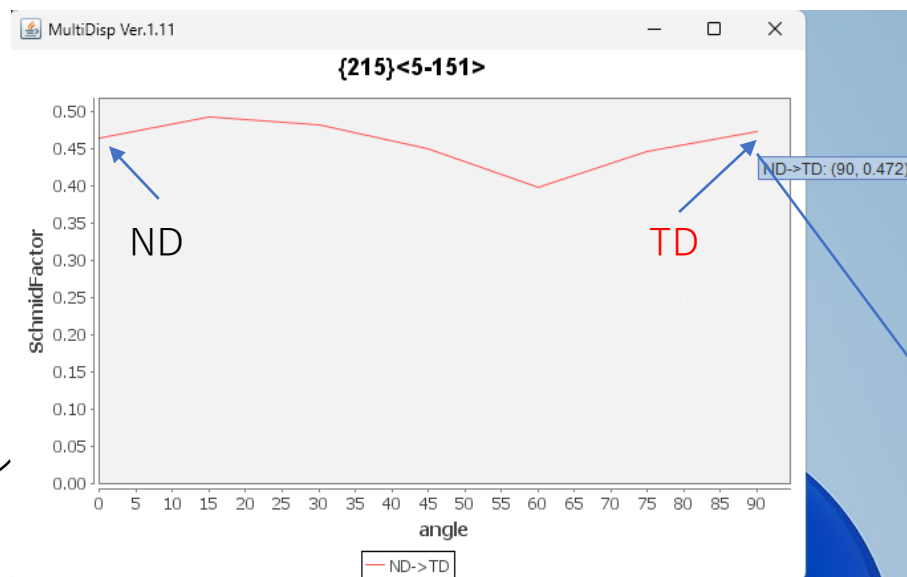
AXISRotation HKLDouble

ND方向の最大値



OBJFILE= {215}<5-151>
COMMENT
AXIS=angle ND->TD
DATA-NUMBER=7

0.0	0.4629
15.0	0.4922
30.0	0.4821
45.0	0.4491
60.0	0.3975
75.0	0.4449
90.0	0.4723



OBJFILE= {215}<5-151>
COMMENT
AXIS=angle ND->TD
DATA-NUMBER=7

0.0	0.4629
15.0	0.4922
30.0	0.4821
45.0	0.4491
60.0	0.3975
75.0	0.4449
90.0	0.4723

ND->RD,ND-TD連続Schmidプロファイル

ND{112}<11-1>のTD回転 {-110}<11-1>

CrystalRotation 1.04T[23/12/31] by CTR

File Help

Material Cubic Nickel-Cubic
1.0 1.0 1.0 90.0 90.0 90.0

Rotation vector of crystal axis
1 1 -1 SET CTD

Rotation vector of machine axis(LaboTex,MTEX) 1 0 0 SET
Rotation angle 90 Calc Disp

Result

{112}<11-1> eulerangle:(270.0,35.264,45.0)
g(ψ1 Φ ψ2)=
0.5774 -0.7071 0.4082
0.5774 0.0 0.4082
-0.5774 0.0 0.8165
Rotation [11-1] angle:90.0
Calc-d=(0.5774,0.5774,-0.5774)
a(11-1),90.0=
0.3333 -0.244 -0.9107
0.9107 0.3333 0.244
0.244 -0.9107 0.3333
ag=
0.5774 -0.2357 -0.7071
0.5774 -0.644 0.7071
-0.5774 -0.1725 0.0
Calc Miller indices
{-1 1 0}<1 1 -1>

機械軸から結晶回転軸を計算

{-1 1 0}<1 1 -1>

BCCSchmidFactorCalc3 3.07T[23/12/31] by CTR

File Help Text SlipProfile TD SF

InputFile(TXT)
LaboTex VolumeFraction(SumVFmode) {1 1 2}<1 1 -1> 100.0

Slip Systems
 {011}<11-1> {112}<11-1> {123}<11-1> FCC{111}<1-10> Inverse

Data input
 ND Input

{1 1 2}<1 1 -1> 100.0

Calc Schmid's Factor
{1.01.02.0}<1.01.0-1.0> rotation (2[90.0],1[0.0],0[0.0]3[0.0])
slip0 slip1 slip2 slip3 slip4
slip5 slip6 slip7 slip8
0.0 0.0 0.0 0.0 0.0
0.0 0.408 -0.408 0.0
0.408 -0.408 0.0
input VF% Schmid VF*Schmid%
{1.01.02.0}<1.01.0-1.0> 100.0 0.408 0.408
VFsum=100.0% VF*Schmidsum=0.408
SchmidFactor(SumVF)=0.408

Along RD(X) 3 90 Along TD(Y) X=0 2 0 Along ND(Z) 1 0 4 0

{-1.0 1.0 0.0}<1.0 1.0 -1.0> {-110}<11-1>

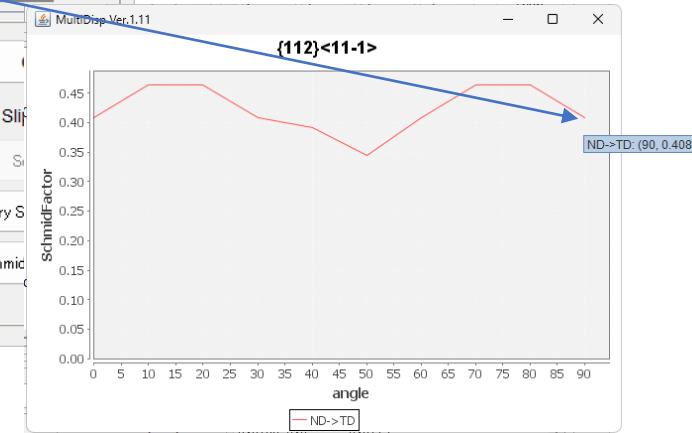
SchmidFactorProfile
 ND->RD all Step 1

AXISRotation HKLDouble

機械軸回転から得られる方位計算

ND SF	abs(SF)
on(Su	SF
	-SF

SFは引っ張り
-SFは圧縮



ND{112}<11-1>のRD回転 {11-1}<-1-1-2>

CrystalRotation 1.04T[23/12/31] by CTR

File Help

Material
 Material Cubic Nickel-Cubic
 1.0 1.0 1.0 90.0 90.0 90.0

hkl|Kuvw>
 1 1 2 1 1 -1 Disp

Rotation vector of crystal axis
 ND -1 1 0 SET CTD

Rotation vector of machine axis(LaboTex,MTEX)
 0 1 0 SET -90 Calc Disp

Rotation angle

Result

```

{112}<11-1> eulerangle: (270.0,35.284,45.0)
g(ψ1 φ ψ2)=
  0.5774 -0.7071 0.4082
  0.5774 0.0 0.4082
 -0.5774 0.0 0.8165
Rotation [-110] angle:-90.0
Calc-d=(-0.7071,0.7071,0.0)
a(-110),-90.0=
  0.5 -0.5 0.7071
 -0.5 0.5 0.7071
 -0.7071 -0.7071 0.0
ag=
 -0.4082 -0.3536 0.5774
 -0.4082 0.3536 0.5774
 -0.8165 0.5 -0.5774
Calc Miller indices
{1 1 -1}<-1 -1 -2>
  
```

{1 1 -1}<-1 -1 -2> set|hkl|Kuvw>

BCCSchmidFactorCalc 2.07T[23/12/31] by CTR

File Help Text SlipProfile RD SF

InputFile(TXT)
 LaboTex VolumeFraction(SumVFmode) {1 1 2}<1 1 -1> 100.0 Disp DISP

Slip Systems
 {011}<11-1> {112}<11-1> {123}<11-1> FCC{111}<1-10> Inverse

Data input
 ND Input Input Input

{1 1 2}<1 1 -1> 100.0

Calc Schmid's Factor
 {1.01.02.0}<1.01.0-1.0> rotation (2[0.0],1[-90.0],0[0.0]3[0.0])

slip0	slip1	slip2	slip3	slip4
0.272	-0.272	0.0	0.0	0.0
0.0	0.0	-0.272	0.0	0.272
0.0	0.0	0.272	-0.272	0.0

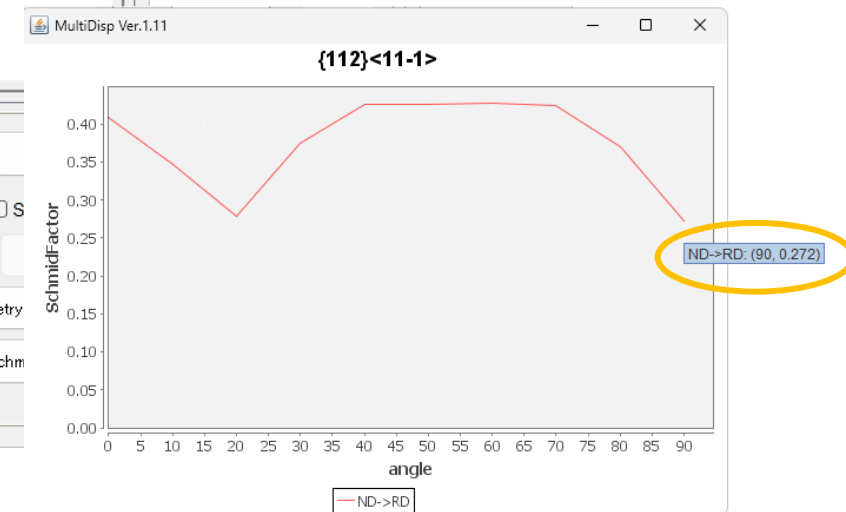
input VF% Schmid VF*Schmid%
 {1.01.02.0}<1.01.0-1.0> 100.0 0.272 0.272
 VFsum=100.0% VF*Schmidsum=0.272
 SchmidFactor(Sum VF)=0.272

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

{1.0 1.0 -1.0}<-1.0 -1.0 -2.0> {11-1}<-1-1-2>

SchmidFactorProfile
 ND->RD all Step 1

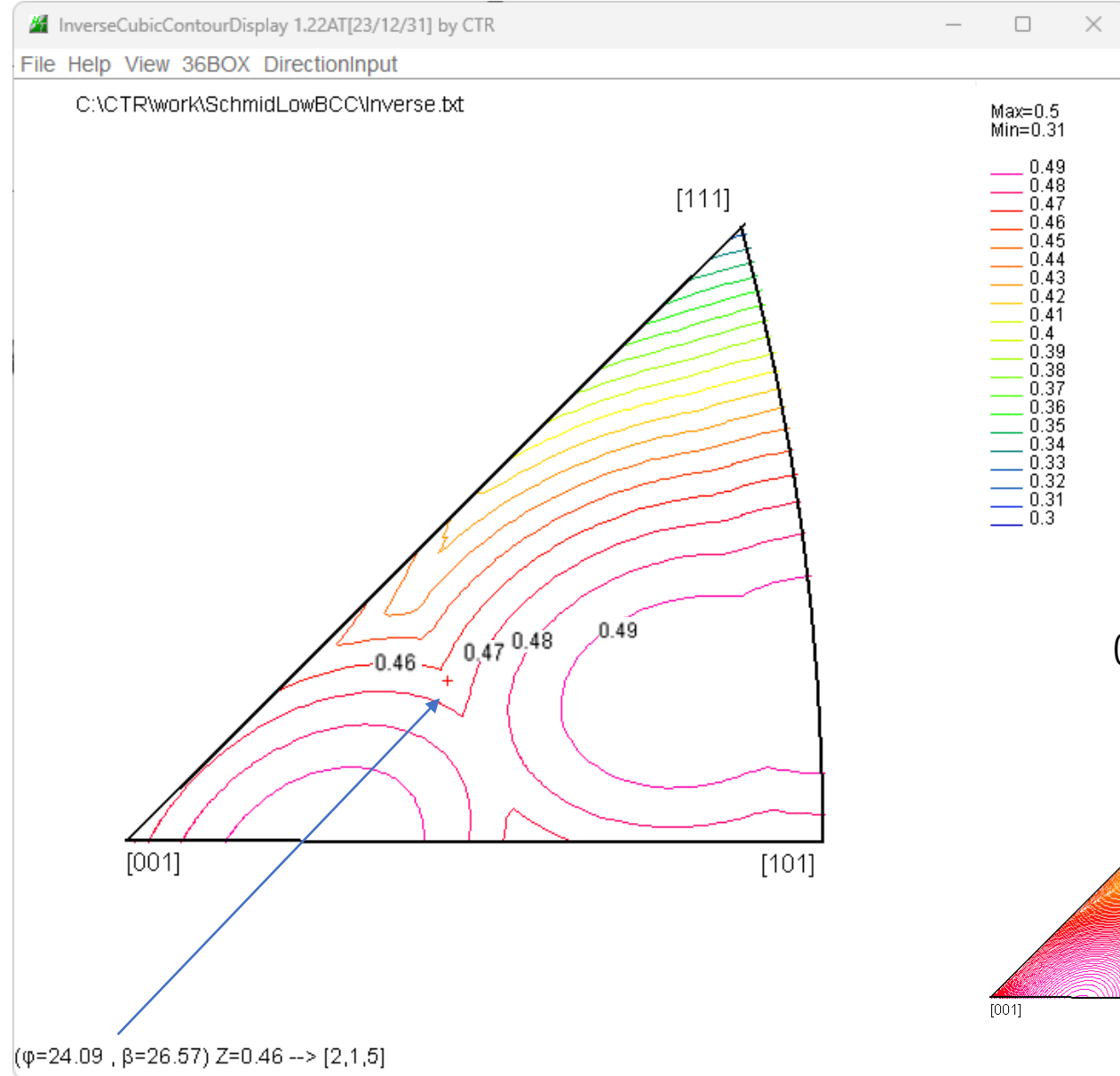
AXISRotation HKLDouble



TD方向[215]位置

Mini=0.31のため
0.3から+0.01間隔で表示

等高線上のレベル表示は
等高線リストからの切り貼り



0.001間隔表示

