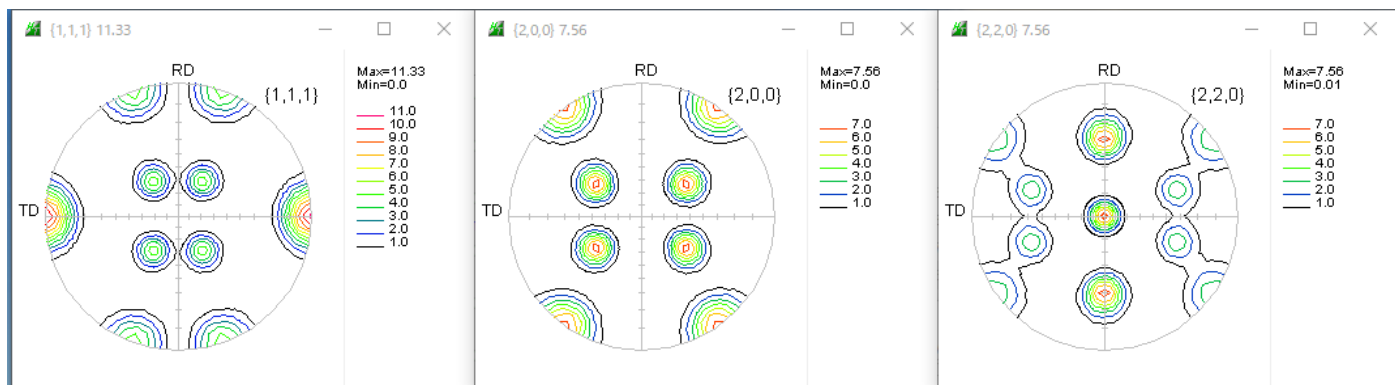
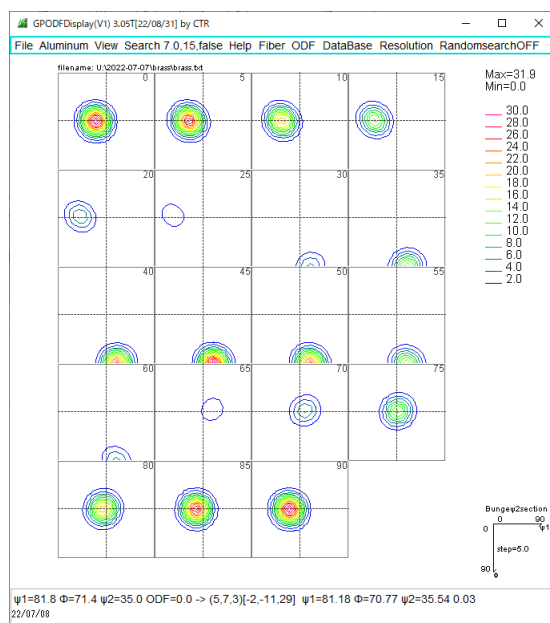


Brass方位の特徴

Brassの極点図



ODF解析結果



2022年07月08日

HelperTex Office

概要

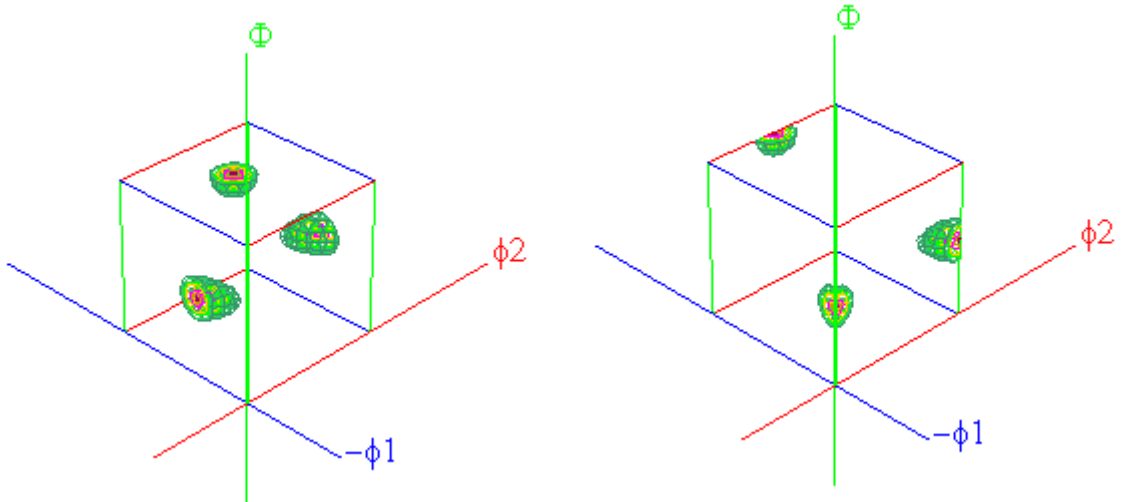
ODF解析結果の ϕ_2 断面を見ても、全体は判断し難い。

ODFの ϕ_2 断面を重ねると以下の3Dが得られる。

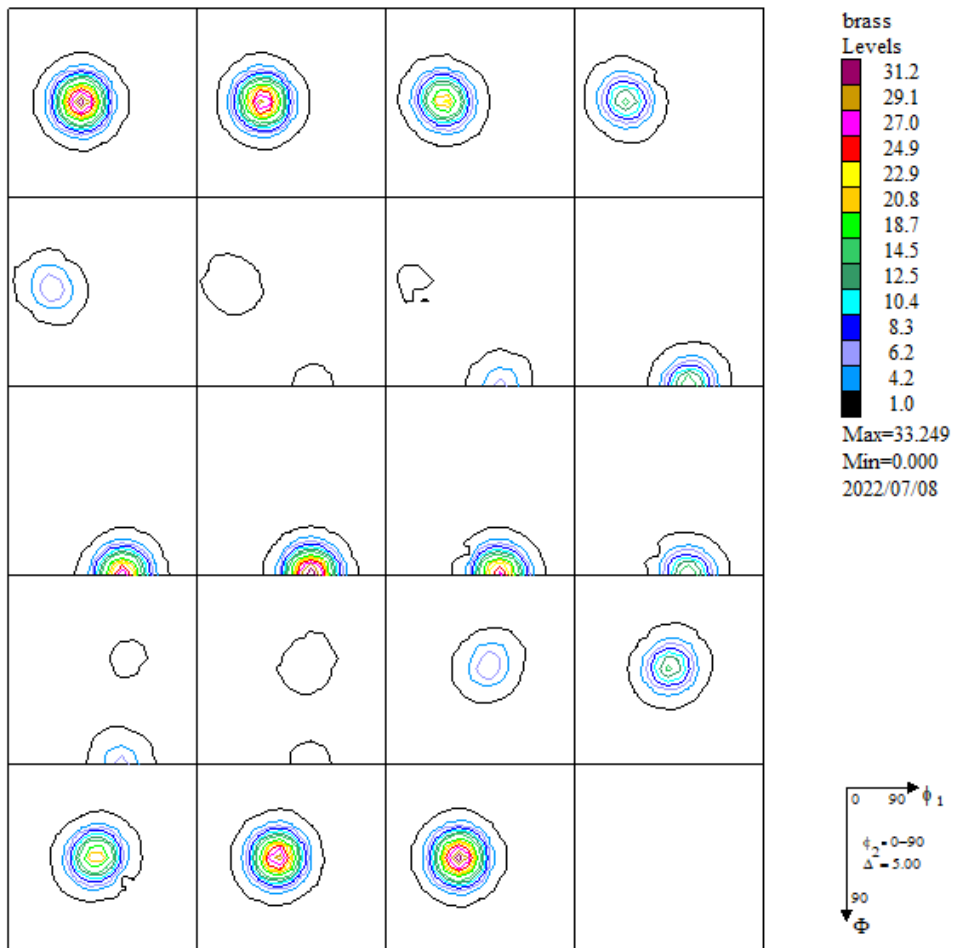
BrassはGossに似ています。

Brass

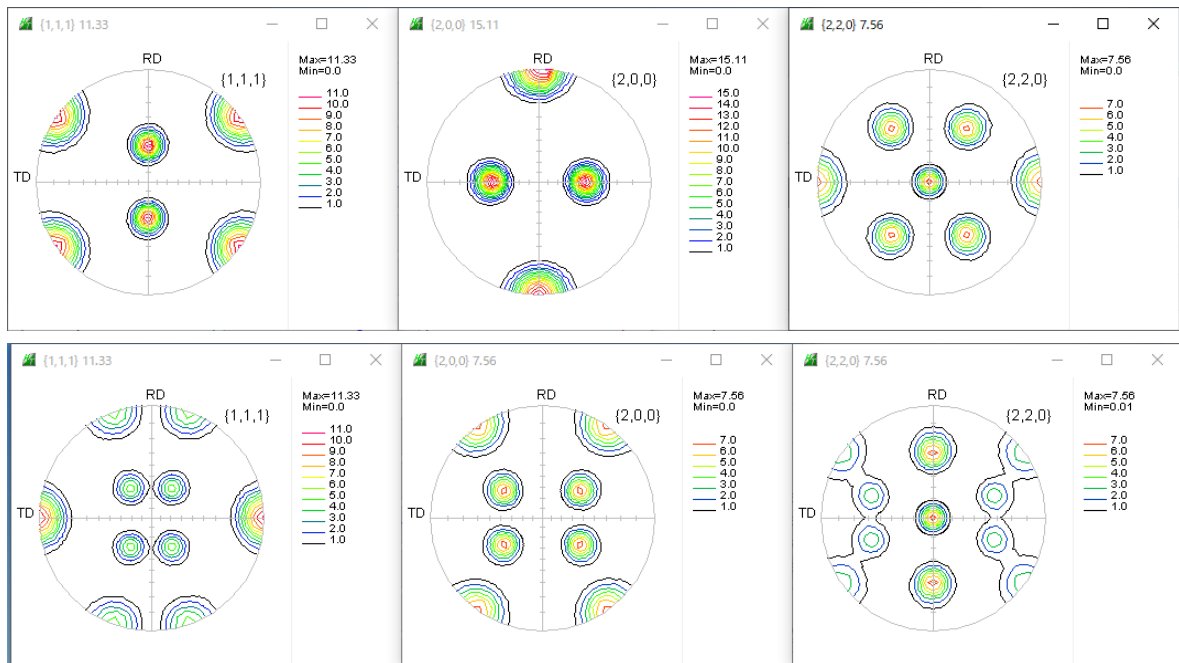
Goss



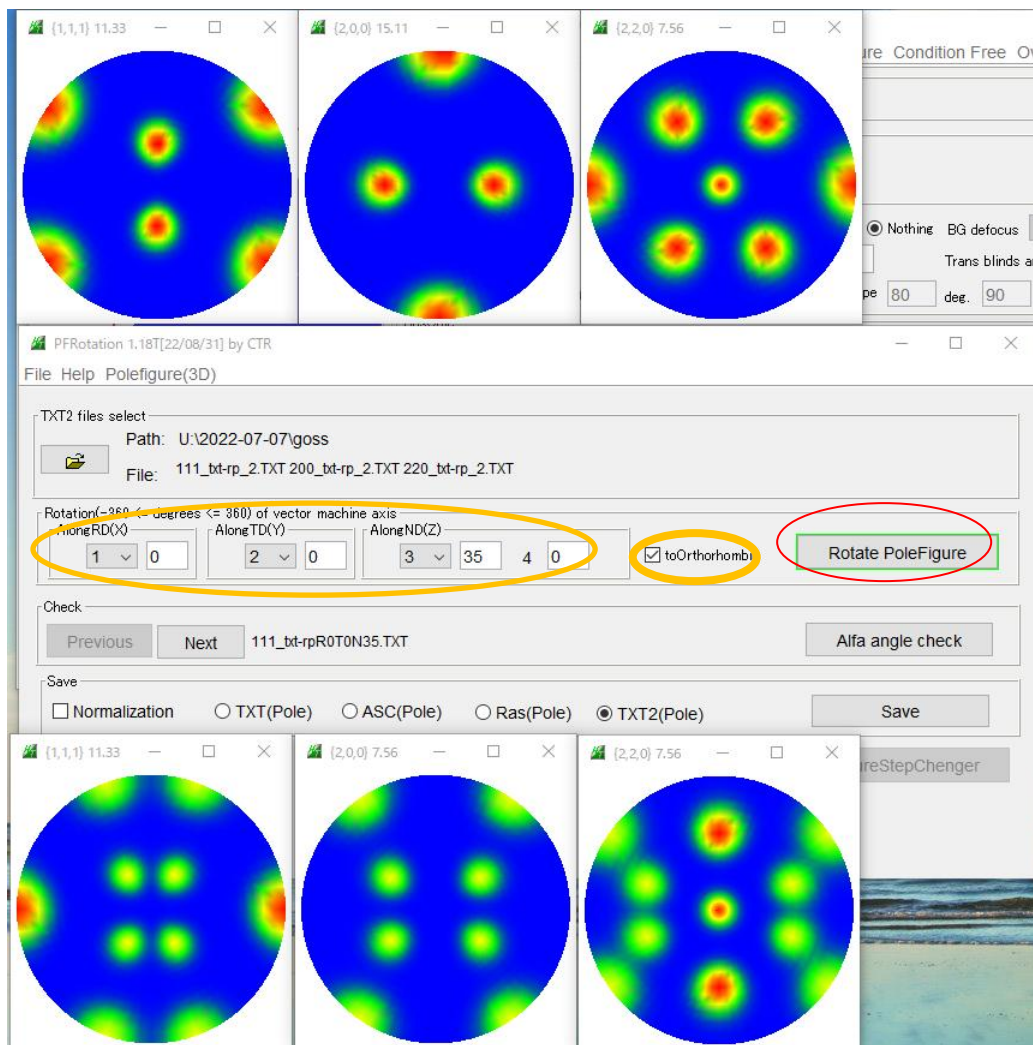
Brass ODF



極点図をGossと比較



Goss 方位からND軸 (Z) を35度回転で得られます。(Orthorhombic)



あるいは vector[001]を 35 度回転

CrystalRotation 1.04T[22/08/31] by CTR

File Help

Material

Material Cubic Aluminum

1.0 1.0 1.0 90.0 90.0 90.0

hkl|Kuvw>

0 1 1 1 0 0 Disp

Rotation vector of crystal axis

0 1 1 SET CTD

Rotation vector of machine axis(Labo Tex. MTEX)

0 0 1 SET

Rotation angle

35 Calc Disp

Result

```
{011}<100> eulerangle:(0.0,45.0,0.0)
g(ψ1 Φ ψ2)=
  1.0 0.0 0.0
  0.0 0.7071 0.7071
  0.0 -0.7071 0.7071
Rotation [011] angle:35.0
Calc-d=(0.0,0.7071,0.7071)
a(011),35.0=
  0.8192 0.4056 -0.4056
 -0.4056 0.9096 0.0904
  0.4056 0.0904 0.9096
ag=
  0.8192 0.5736 0.0
 -0.4056 0.5792 0.7071
  0.4056 -0.5792 0.7071
Calc Miller indices
{0 1 1}<2 -1 1>
```

{0 1 1}<2 -1 1> set|hkl|Kuvw>

Rotation vector of crystal axis

0 1 1 SET CTD

Rotation vector of machine axis(LaboTex,MTEX) Rotation angle

0 0 1 SET 35 Calc より

LaboTex - 20220707 User

File Edit View Calculation Analysis Modelling Help

CPF RPF RPF INV ODF ϕ_1 ϕ_2 Φ

ODF Container's Info Close

Isolines/Levels for ODF

| Color No. | Value | Color No. | Value |
|-----------|-------|-----------|-------|
| 1 | 1.0 | 8 | 36.9 |
| 2 | 8.2 | 9 | 41.0 |
| 3 | 12.3 | 10 | 45.1 |
| 4 | 16.4 | 11 | 49.2 |

Goss Levels
61.5
57.4

ODF Transformation (Rotation)

Project: Demo Sample: Goss

Crystal Symmetry: ϕ_1 (Cubic) Sample Symmetry: Orthorhombic

Sample Frame Rotation Crystals/Planes Rotations

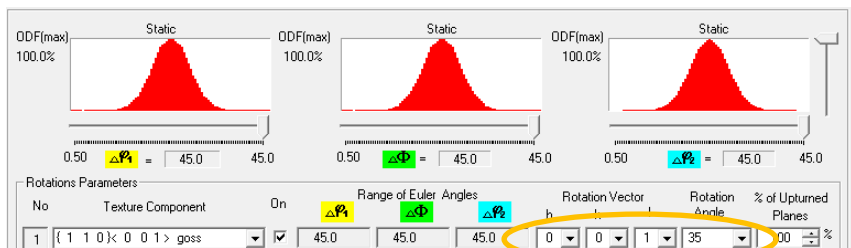
Euler Angles: ϕ_1 Φ ϕ_2
(-360 - 360) (-180 - 180) (-360 - 360)
0 0 0

Choose Rotation Model: 001R

Options: Draft Medium Quality High Quality
 Reversed Spin Triclinic s.s. (Output ODF)

START Cancel

Transformation Progress: 0.00 %



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File Edit View Calculation Analysis Modelling Help

CPF RPF RPF INV ODF ϕ_1 ϕ_2 Φ

ODF Container's Info Close

Isolines/Levels for ODF

| Color No. | Value | Color No. | Value |
|-----------|-------|-----------|-------|
| 1 | 1.0 | 8 | 19.2 |
| 2 | 4.3 | 9 | 21.4 |
| 3 | 6.4 | 10 | 23.5 |
| 4 | 8.5 | 11 | 25.6 |
| 5 | 10.7 | 12 | 27.8 |
| 6 | 12.8 | 13 | 29.9 |
| 7 | 15.0 | 14 | 32.0 |

Dec. Digit: 1 None All Sort

Adjustment of Isolines (Automatic Mode)

Balance: _____

Fill: NORMAL Background Color: Isoline

AUTOMATIC ODF Isolines Mode / Load ODF Isolines

Color Value State Save ODF Isolines

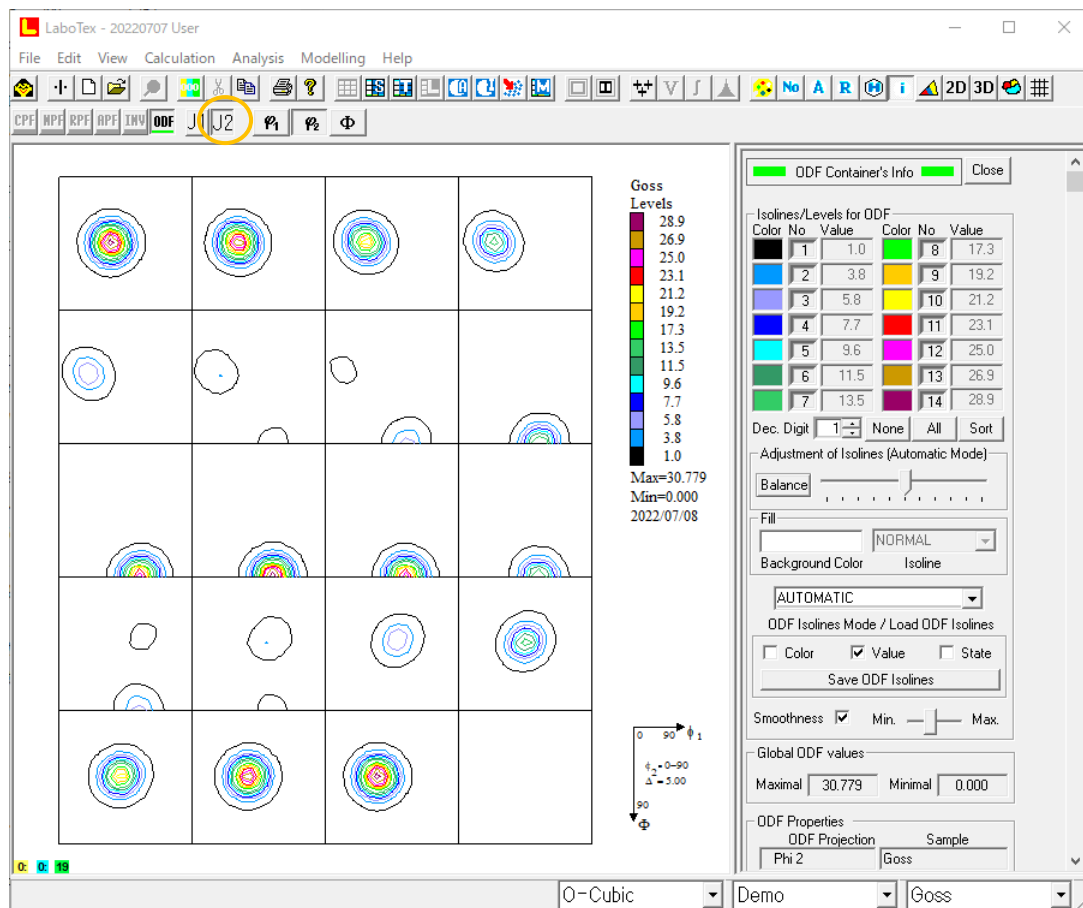
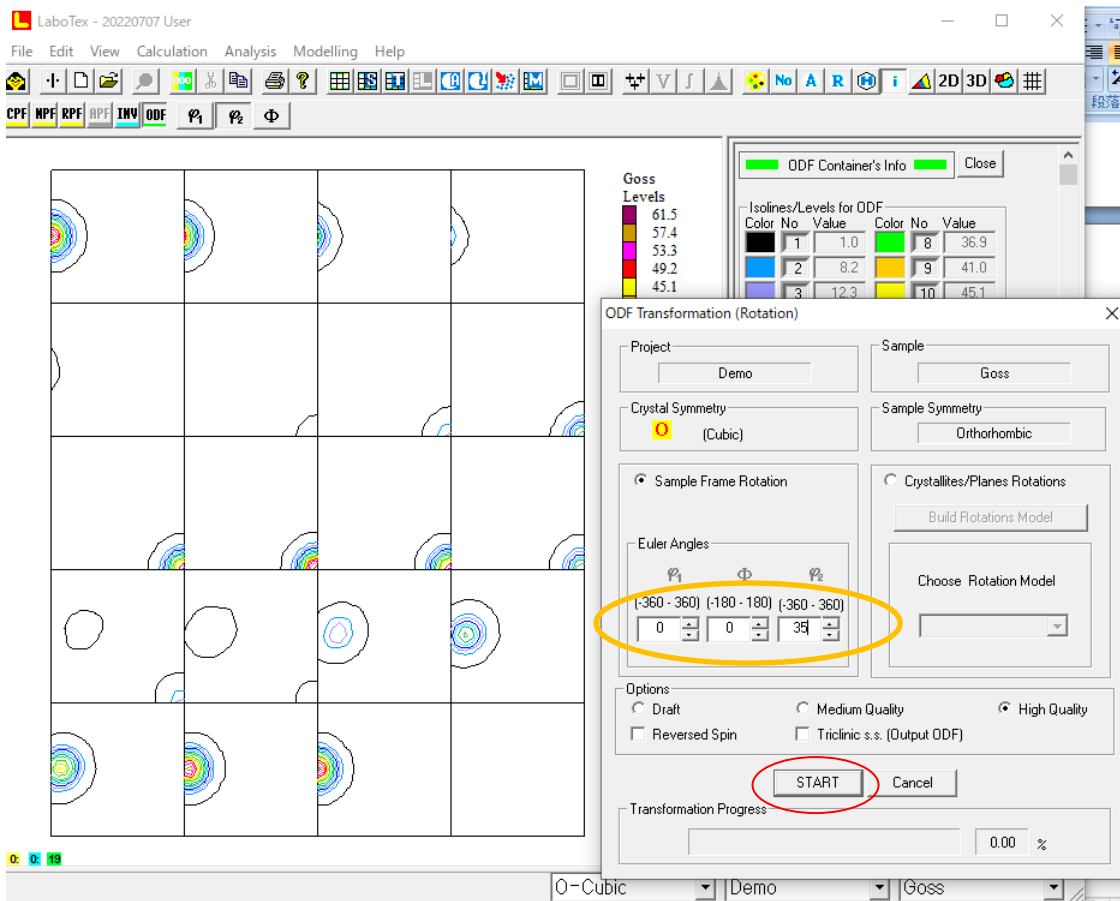
Smoothness Min. Max.

Global ODF values: Maximal 34.181 Minimal 0.000

ODF Properties: ODF Projection: Phi 2 Sample: Goss

0-Cubic Demo Goss

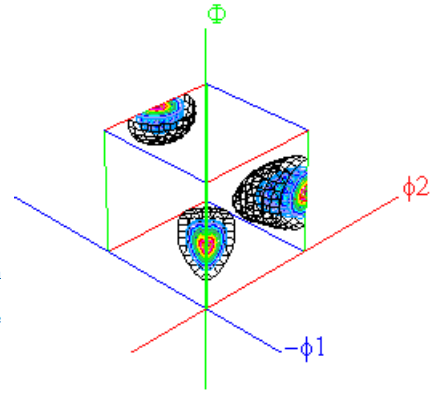
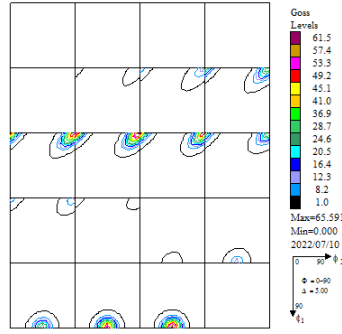
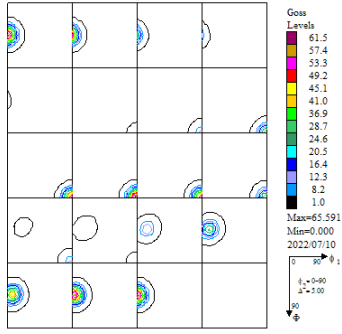
Goss ODFを ϕ 2 軸回転で得られます。



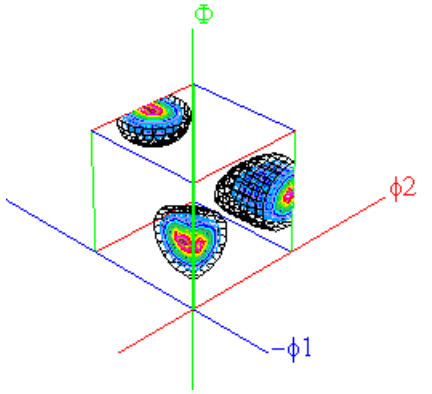
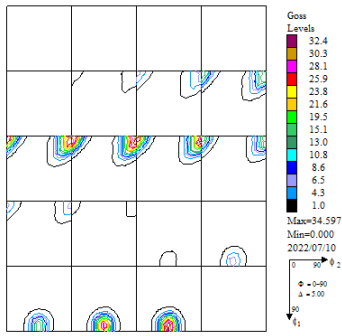
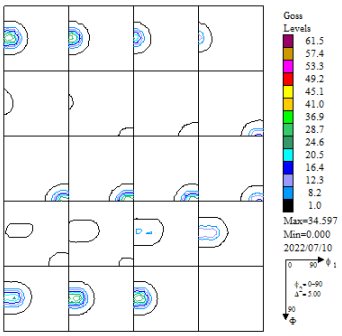
この回転は理解しやすい

G o s s ϕ 2 断面

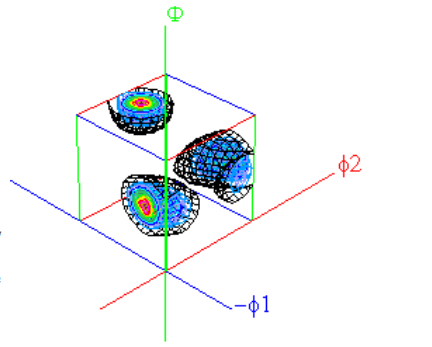
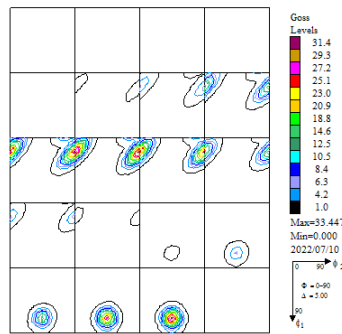
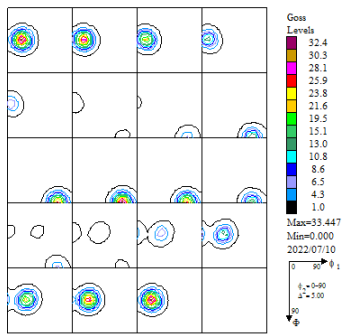
Φ 断面



G o s s ϕ_1 Φ ϕ_2
 (-360 - 360) (-180 - 180) (-360 - 360)
 0 0 10



G o s s ϕ_1 Φ ϕ_2
 (-360 - 360) (-180 - 180) (-360 - 360)
 0 0 20



G o s s ϕ_1 Φ ϕ_2
 (-360 - 360) (-180 - 180) (-360 - 360)
 0 0 35

B r a s s

