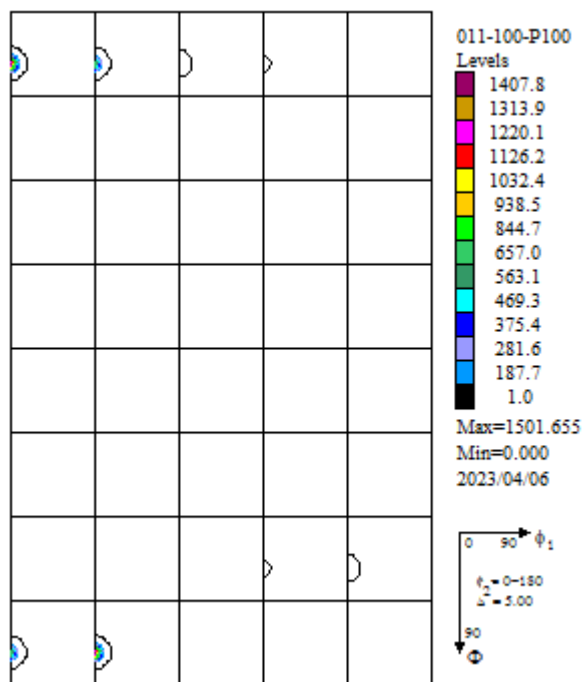


# Orthorhombic-Polyethyleneの配向関数

Polyethyleneであれば{110},{200}から計算可能  
 LaboTexで極点図を作成し配向関数を比較する  
 LaboTexのOrthorhombic扱い( $a < b < c$ )

PolyethyleneDISP Orthorhombic						PolyethyleneDISP Orthorhombic					
7.4		(1.0)				2.54		(1.0)			
4.93		(0.6662)				4.93		(1.9409)			
2.54		(0.3432)				7.4		(2.9134)			
90.0						90.0					
90.0						90.0					
90.0						90.0					
1.54056						1.54056					
9						9					
1	1	0	100.0	4.1029	21.642	0	1	1	100.0	4.1029	21.642
2	0	0	35.0	3.7	24.032	0	0	2	35.0	3.7	24.032
2	1	0	5.0	2.9593	30.175	0	1	2	5.0	2.9593	30.175
0	2	0	20.0	2.465	36.418	0	2	0	20.0	2.465	36.418
0	1	1	25.0	2.2579	39.893	1	1	0	25.0	2.2579	39.893
3	1	0	20.0	2.206	40.875	0	1	3	20.0	2.206	40.875
1	1	1	20.0	2.1596	41.792	1	1	1	20.0	2.1596	41.792
2	2	0	15.0	2.0514	44.109	0	2	2	15.0	2.0514	44.109
3	1	1	25.0	1.6655	55.095	1	1	3	25.0	1.6655	55.095

# {110}<001> Labo{011}<100>の計算



Calculation of Anisotropy Factors

Calculation for Hexagonal, Tetragonal and Orthorhombic Crystal Systems

Fraction of Basal Planes {001} in Sample Directions

LD	TD	ND
0.0402	0.6004	0.3594
f1	f2	f3

Angles between Basal Planes {001} and Sample Directions

LD	TD	ND
86.2	33.9	56.4
a	b	c

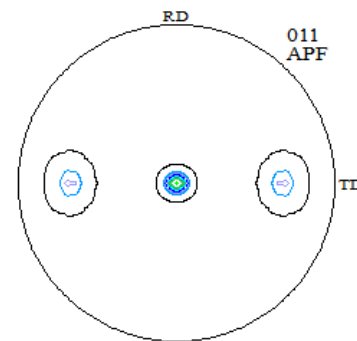
Kearns Factors (Fraction in Physical Property)

LD	TD	ND
0.0043	0.6895	0.3063
fL	fT	fN

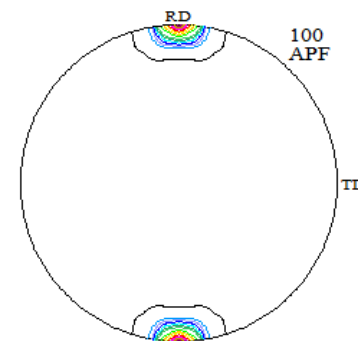
Texture Index (F2) (normalized) 0.99709  
("0" - Random. "1" - Monocrystal)

Calculate

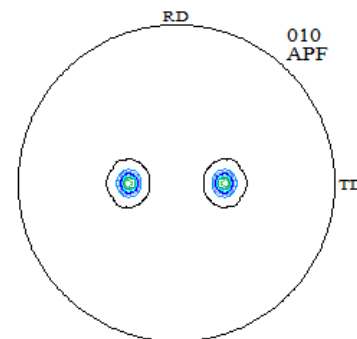
End



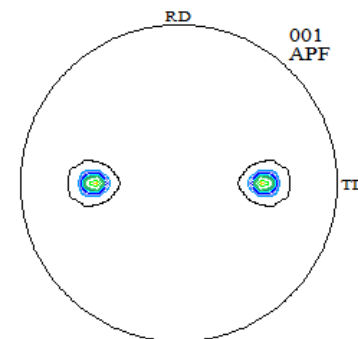
011-100-P100



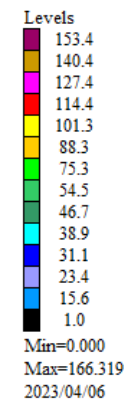
011-100-P100



011-100-P100

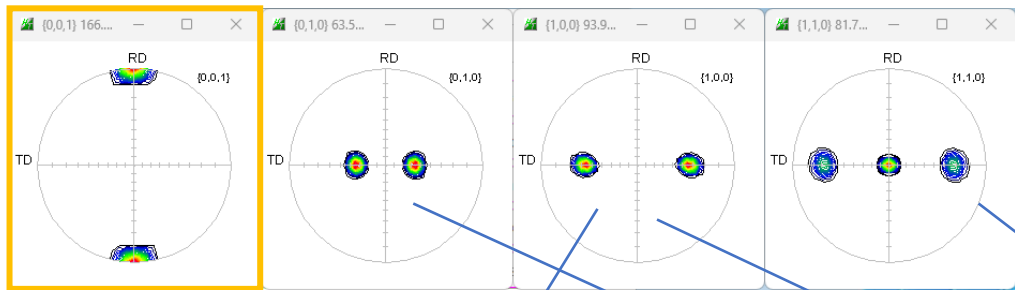


011-100-P100

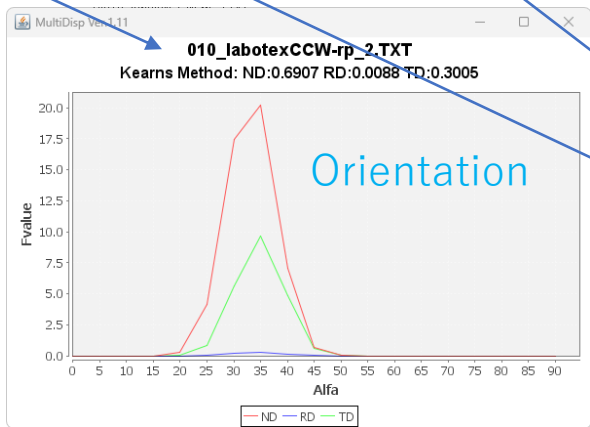
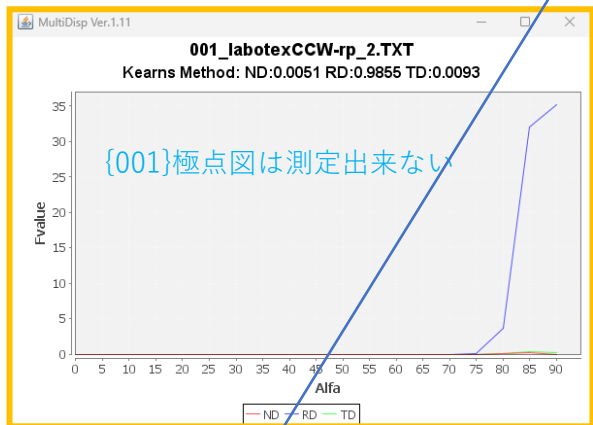


極点図をExportし評価

# Exportされた極点図(laboTex->ICDD)から配向関数計算



{110},{200}極点図から計算



PEOrientation

File Help PP&PE&Polyimide&Hexagonal Orientation PrintScreen

Select TXT2

(110) L:\DATA\PP\110\_labotexCCW-rp\_2.TXT

{200} L:\DATA\PP\100\_labotexCCW-rp\_2.TXT

PEOrientation

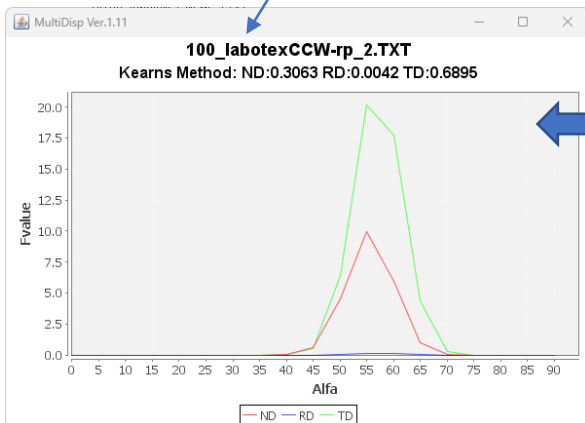
PoleDisp ContourDisp {110}Orientation {200}Orientation Calc

Hexagonal c/a= 2.7257

Result

direction	ND	RD	TD	fnd	frd	ftd
(110)	0.5682	0.0078	0.4238	0.3523	-0.4882	0.1358
{200}	0.3062	0.0042	0.6895	-0.0405	-0.4936	0.5342
a-axis	0.3062	0.0042	0.6895	-0.0405	-0.4936	0.5342
b-axis	0.6848	0.0094	0.3057	0.5272	-0.4857	-0.0414
c-axis	0.0089	0.9862	0.0048	-0.4866	0.9794	-0.4928

ResultFile

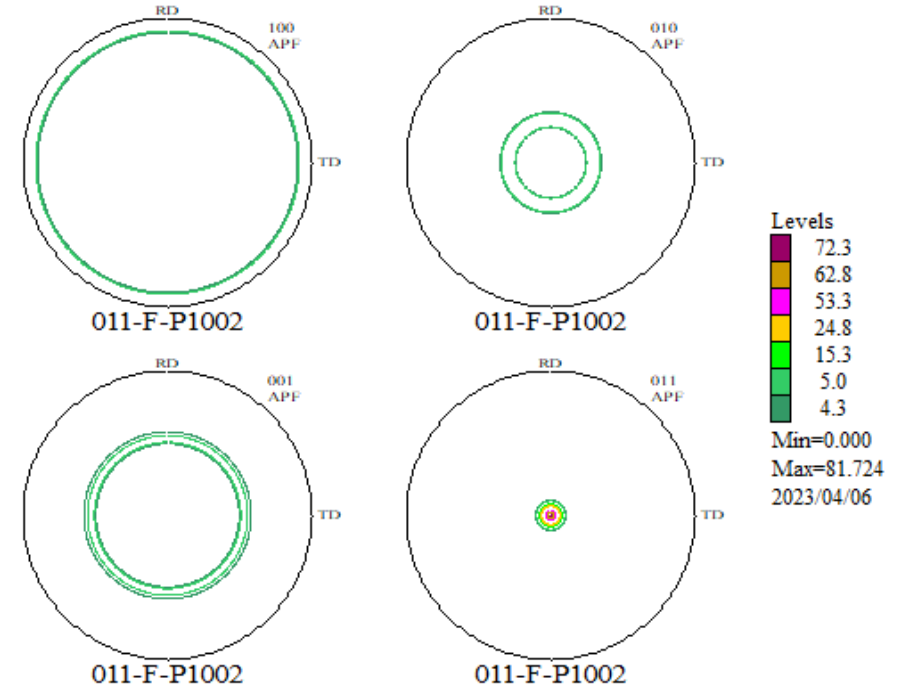
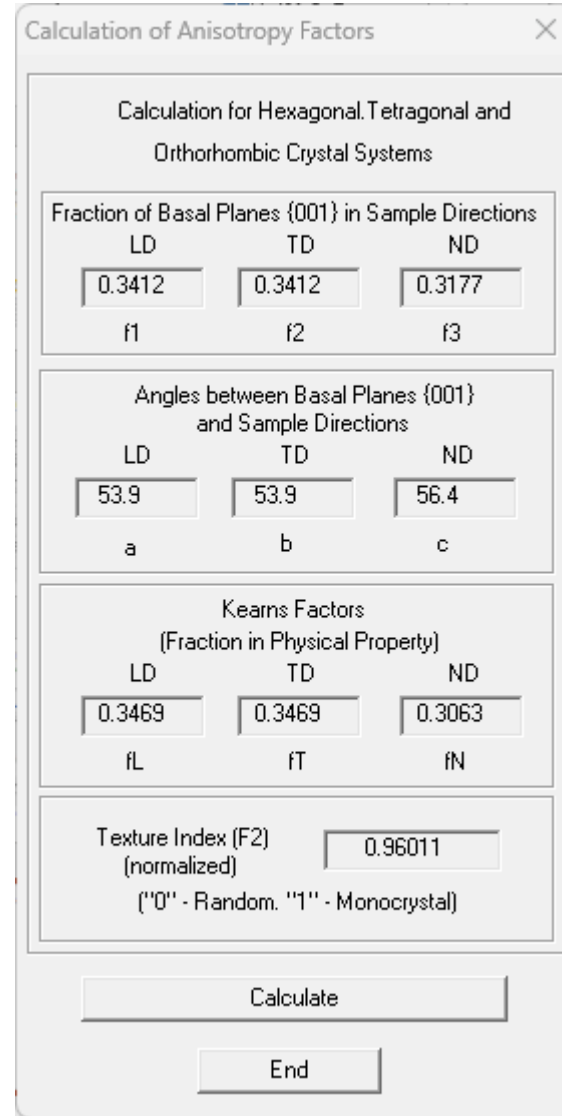
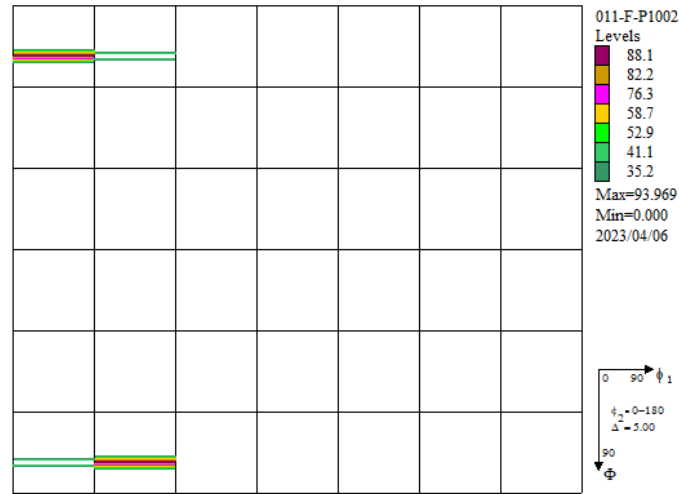


Kearns Factors  
(Fraction in Physical Property)

	LD	TD	ND
	0.0043	0.6895	0.3063
	fL	fT	fN

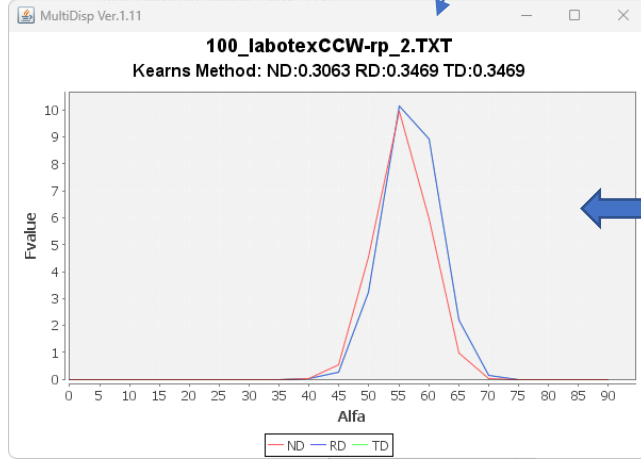
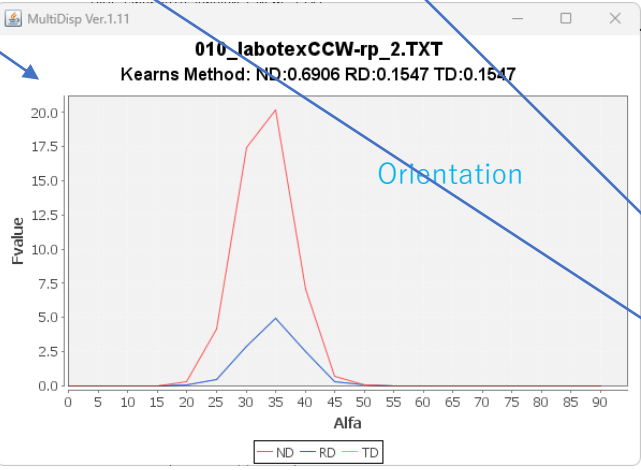
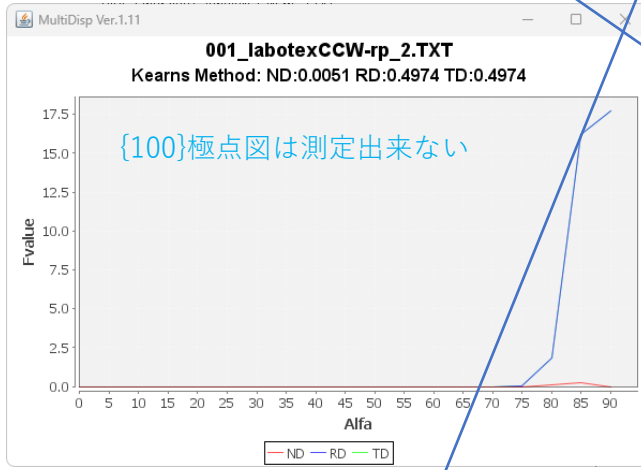
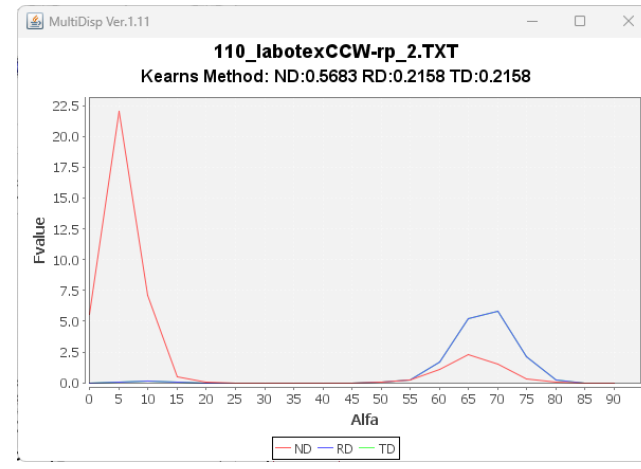
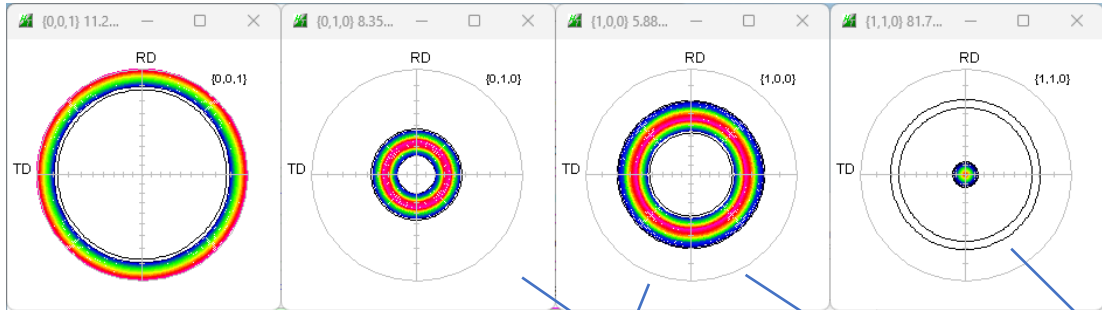
LaboTex

# <110>Fiber LaboTex<011>Fiberの計算



極点図をExportし評価

# Exportされた極点図(laboTex->ICDD)から配向関数計算



PEOrientation window showing the calculation of orientation factors. The window includes a table of results for the (110) and {200} planes.

PEOrientation

Select TXT2

(110) L:\DATA\PP\PE-Fiber2\110\_labotexCCW-rp\_2.TXT

{200} L:\DATA\PP\PE-Fiber2\100\_labotexCCW-rp\_2.TXT

PoleDisp ContourDisp {110}Orientation {200}Orientation Calc

Hexagonal c/a= 2.7257

direction	ND	RD	TD	fnd	frd	ftd
(110)	0.5683	0.2158	0.2158	0.3525	-0.1762	-0.1762
{200}	0.3062	0.3468	0.3468	-0.0405	0.0202	0.0202
a-axis	0.3062	0.3468	0.3468	-0.0405	0.0202	0.0202
b-axis	0.6849	0.1575	0.1575	0.5274	-0.2637	-0.2637
c-axis	0.0087	0.4956	0.4956	-0.4868	0.2434	0.2434

ResultFile

Kearns Factors (Fraction in Physical Property)

	LD	TD	ND
	0.3469	0.3469	0.3063
	fL	fT	fN

LaboTex