MTEX5. 1. 1付属

titanium. txtの解析

| phi1 | Phi 3 00025 | phi2 | phase | ci 0 301 | iq 3160 6 | sem_signal | × | y | grainId↓ 11 |
|---------|----------------|-------------|--------|-------------|--------------|------------|------|---|----------------|
| 298 932 | 155 674 | 301 718 | 0 Ú | 0.031 | 3173 6 | 17605 | 12 | 0 | 71 |
| 298.03 | 155.571 | 301.047 | ŏ | 0.614 | 3147.5 | 17328 | 24 | ŏ | , 7↓ |
| 298.509 | 155.642 | 301.608 | Õ | 0.823 | 3305.9 | 17295 | 36 | Õ | 7↓ |
| 298.956 | 155.845 | 302.095 | 0 | 0.527 | 2912.5 | 19095 | 48 | 0 | 7↓ |
| 298.354 | 155.753 | 301.087 | 0 | 0.632 | 2976.8 | 17766 | 60 | 0 | 7↓ |
| 298.702 | 155.547 | 301.802 | 0 | 0.791 | 3143.4 | 18189 | 72 | 0 | 7↓ |
| 298.793 | 155.811 | 301.425 | 0 | 0.882 | 3411.8 | 18203 | 84 | 0 | 7↓ |
| 298.433 | 155.486 | 301.614 | 0 | 0.505 | 3304.9 | 16712 | 96 | 0 | 7↓ |
| 281.615 | 147.97 | 306.664 | 0 | 0.705 | 2687.6 | 18552 | 108 | 0 | 12↓ |
| 101.667 | 31.8822 | 113.202 | 0 | 0.664 | 2883.7 | 17457 | 120 | 0 | 12↓ |
| 281.73 | 147.869 | 306.537 | 0 | 0.427 | 3026.4 | 17895 | 132 | 0 | 12↓ |
| 109.473 | 36.6802 | 64.2372 | 0 | 0.455 | 2525.4 | 17837 | 144 | 0 | 8↓ |
| 109.77 | 36.9535 | 63.7118 | 0 | 0.609 | 3107.1 | 18330 | 156 | 0 | 8↓ |
| 110.016 | 36.8779 | 63.5227 | 0 | 0.773 | 3227.6 | 18165 | 168 | 0 | 8↓ |
| 109.318 | 36.7976 | 64.3191 | 0 | 0.314 | 3272 | 19169 | 180 | 0 | 8↓ |
| 109.564 | 36.7816 | 304.079 | 0 | 0.709 | 2832.2 | 17923 | 192 | 0 | 8↓ |
| 289.466 | 143.117 | 295.946 | 0 | 0.218 | 3067.9 | 18963 | 204 | 0 | 8↓ |
| | | 0 L 0 0 0 L | | | | 4 0 0 1 5 | 04.0 | | |

2022年07月03日

HelperTex Office

1. 概要

MTEXの初期バージョンには、解析用データが付属していたが、最新のMTEXには付属していない MTEX5.1.1付属titanium.txtをLaboTexで解析する手順を説明します。 又、EBSDのような離散データを直接法(ADC)であるLaboTexで解析する場合、 MTEXのような分散処理も行ってみます。

2. 処理手順

3. EBSDデータをLabotexで読み込むSORデータに変換

4. LaboTexで読み込む

EBSDデータはeuler角度であり、ODF上に加算される。

- 5. 分散処理
- 6. Triclinic->Orthorhombic
- 7. 極点図、逆極点図作成
- 8. 逆極点図をExportし、解析

ソフトウエア

EBSDtoODF EBSD測定データの変換 EBSDデータ処理 MTEX, LaboTex LaboTex解析結果のJob/ODFファイルの分散処理 GPODFDisplay 逆極点処理

GPInverseDisplay

3. EBSDデータをLabotexで読み込むSORデータに変換

InputFile で titanium.txt を選択で表示される

| <u> </u> | EBSDtoC | DDF 1.02Ga | ussT[22/08 | /31] by | CTR | | | | | | | | | | | _ | | × |
|------------------|-----------|------------|------------|--------------------|---------|---------|-----------|-------|--------------|---------|---------|----------|-------|-------|------------|----------|-------|----------|
| File | Help | | | | | | | | | | | | | | | | | |
| _ Inp | outData- | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | _ | | | | | |
| | Inpu | utFile | C:\mte> | (-5.1.1 | \data\E | EBSD\Ti | \titaniun | n.txt | | | | | | Phase | e0 | | | \sim |
| | | | | | | | | | | | | | | | | | | |
| _ [^M | aterialDa | ata | | | | | | | | | | | | | | | | |
| | Mate | erial | cif | Т | Tciff | ile | | | | | | | | | | | | |
| 14 | mat | CITCH | - Cli | | | 10 | | | | | | | | | | | | |
| | | | | 1 | | | | _ | | | | | | | | | | |
| 0 | Group | P1 | ~ | S | ymmeti | ry(OIM) | 1 | | HKLCode | 1 | | Labo | оТехС | ode | 1 - C1 (tr | iclinic) | | ~ |
| | Agvie | 1 | Bavie | 1 | | Cavie | 1 | | alnha | 00 | | hota | 00 | | aamma | 90 | | |
| 1 | чаліз | - | Davis | | | Canis | | | aipha | 50 | | Deta | 30 | | yanna | 30 | | |
| | | | | | | | | | | | | | | | | | | |
| | | nhi1 | Dhi ph | i2 ph | 900 | ci ia | eem eion | al | × × × | rainId | | | | | | | | <u>^</u> |
| | 2: | 227 | 3.99925 3 | 43.998 | 0 | 0.391 | 3169.6 | 1 | | 1 | | | | | | | | |
| | 3: | 298.932 | 155.674 | 301.71 | 3 0 | 0.7 | 3173.6 | 17605 | 5 12 | 0 | 7 | | | | | | | |
| 4 | 4: | 298.03 | 155.571 | 301.047 | 0 | 0.614 | 3147.5 | 1732 | 8 24 | 0 | 7 | | | | | | | |
| 1 | 5 : | 298.509 | 155.642 | 301.60 | 3 0 | 0.823 | 3305.9 | 1729 | 95 36 | 0 | 7 | | | | | | | |
| 6 | 5 : | 298.956 | 155.845 | 302.09 | 5 0 | 0.527 | 2912.5 | 1909 | 95 48 | 0 | 7 | | | | | | | |
| 1 | 7: | 298.354 | 155.753 | 301.08 | 7 0 | 0.632 | 2976.8 | 1776 | 66 60 | 0 | 7 | | | | | | | |
| 8 | 3: | 298.702 | 155.547 | 301.802 | 2 0 | 0.791 | 3143.4 | 1818 | 39 72 | 0 | 7 | | | | | | | |
| 9 | 9: | 298.793 | 155.811 | 301.42 | 50 | 0.882 | 3411.8 | 1820 | 03 84 | 0 | 7 | | | | | | | |
| 1 | 0: | 298.433 | 155.486 | 301.61 | 4 0 | 0.505 | 3304.9 | 1671 | 12 96 | 0 | 7 | | | | | | | |
| 1 | 1: | 281.615 | 147.97 | 306.664 | 0 | 0.705 | 2687.6 | 1855 | 2 108 | 0 | 12 | | | | | | | |
| 1 | 2: | 101.667 | 31.8822 | 113.202 | 2 0 | 0.664 | 2883.7 | 174 | 57 120 | 0 | 12 | | | | | | | |
| | 3: | 281.73 | 147.869 | 306.537 | | 0.427 | 3026.4 | 1/89 | 5 132 | 0 | 12 | | | | | | | |
| | 4. E. | 109.473 | 30.0002 | 04.2377 63 7119 | 2 0 | 0.400 | 2020.4 | 1022 | 0 156 | 0 | ° | | | | | | | |
| | 5. 6. | 110.016 | 36 8779 | 63 522 | 7 0 | 0.003 | 3227.6 | 1816 | 5 168 | 0 | 8 | | | | | | | |
| | 7. | 109.318 | 36 7976 | 64 319 | i 0 | 0.314 | 3272 | 1916 | 9 180 | ő | 8 | | | | | | | |
| 1 | 8 : | 109.564 | 36.7816 | 304.079 | 9 0 | 0.709 | 2832.2 | 1792 | 23 192 | 0 | 8 | | | | | | | |
| 1 | 9: | 289.466 | 143.117 | 295.94 | 6 0 | 0.218 | 3067.9 | 1896 | 53 204 | 0 | 8 | | | | | | | ¥ |
| | | | | | | | | | | | | | | | | outfile | edisn | |
| | Makefile | | | | | | | | | | | | | | | outin | Jaiob | |
| | nakeme | | | | | | | | | _ | _ | | | _ | _ | | | |
| | DataSt | tartline | 2 Pha | asePot | ision | 4 S | electpha | ase (|) f 1 | 1 | F | 2 | f2 | 3 | Х | 8 | Y | 9 |
| | OIM-A | ing | ~ | ł | lolder | (| C:\mtex- | 5.1.1 | \data\EBS[| D\Ti\ti | taniumE | EtoO.ang | 9 | | | | | |
| | -SOR V | /ariance — | | | | | | | | | | | | | | | | |
| | | 15 dec | 1>= St | en 5 | 0 | F | ilemake | | | | | | | | | | | |
| | | 10 405 | . 01 | op [0. | - | | inormatic | | | _ | | | _ | _ | | | | |
| 1 | | | | | | | | | | | | | | | | | | |

しかし、物質情報が読み込まれた txtに含まれていないでの cifを選択

| EBSDtoODF 1.02GaussT[22/08/31] by CTR | – 🗆 X | | | | | | | | | | |
|--|---------------------------------|--|--|--|--|--|--|--|--|--|--|
| File Help | | | | | | | | | | | |
| InputData | | | | | | | | | | | |
| InputFile C:\mtex-5.1.1\data\EBSD\Ti\titanium.txt Titanium v | | | | | | | | | | | |
| MaterialData | | | | | | | | | | | |
| Material cif C:\CTR\cif\Ti-Titanium-alpha.cif | | | | | | | | | | | |
| Group P63/mmc v Symmetry(OIM) 62 HKLCode 9 L | boTexCode 11 - D6 (hexagonal) ~ | | | | | | | | | | |
| Aaxis 2.95 Baxis 2.95 Caxis 4.686 alpha 90.0 bet | a 90.0 gamma 120.0 | | | | | | | | | | |

LaboTex向けSORフォーマットを選択

| 10. 19: | 289.466 | 143.117 | 295.946 | 0 | 0.218 | 2032.2 3067.9 | 18963 | 204 | 0 | 8 | | | | | | | ~ |
|-------------------|---------|---------|-------------|------|-------|------------------|------------------|---------|---------|-------|---------|----|---|---|------|--------|---|
| M-1 | | | | | | | | | | | | | | | outf | ledisp | |
| DataSta | artline | 2 Př | nasePotisio | on 4 | se | electpha | ise 1 | f1 | 1 | F | 2 | f2 | 3 | x | 8 | Y | 9 |
| LaboTe | ex-SOR | ~ | Hold | der | C | :\mtex- | 5. 1.1\da | ta\EBSD | \Ti\tit | anium | EtoO.SC | R | | | | | |
| OIM-An HKL-ctf | g | s | step 5.0 | | F | ilemake | | | | | | | | | | | |
| LaboTe | x-SOR | | | | | | | | | | | | | | | | |

Phaseは0のため、AllPhaseを選択し、Filemake

| 🔏 EBSDto | DODF 1.02Ga | ussT[22/0 | 8/31] by Cl | rr | | | | | | | | | | _ | | × |
|---------------|-------------|-----------|-------------|--------|-----------|-----------|---------|----------------|-----------|--------|--------|-------------|------------|---------|------|---|
| File Help | | | | | | | | | | | | | | | | |
| _ InputData | a | | | | | | | | | | | | | | | |
| In | outFile | C:\mte | w-5 1 1\d | ata\F | | \titaniun | n tyt | | | | | Titani | um | | | ~ |
| | puti lic | C. ante | .x-0.1.11u | | .030/11 | utanun | 1.1.11 | | | | | | um | | | _ |
| - Material | Data | | | | | | | | | | | Titanii | ım | | | |
| | | | | | | | | | | | | AllPha | se | | | |
| Ma | aterial | cif | C:\C | TR\cit | f\Ti-Tita | inium-al | pha.cif | i | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| Group | P63/ | mmc ~ | Syn | nmetr | y(OIM) | 62 | H | IKLCode | 9 | | Lab | oTexCode | 11 - D6 (h | exagor | nal) | ~ |
| Aaxis | 2.95 | Baxi | s 2.95 | | Caxis | 4.686 | | alpha | 90.0 | | beta | 90.0 | gamma | 120.0 | 0 | |
| <u> </u> | | | | | | | | | | | | | | | | |
| 402 - | 200 220 | 142 224 | 225 522 | 0 | 0.000 | 2256.2 | 10000 | 100 | 20.7040 | | | | | | | |
| 184 : | 209.328 | 36.8521 | 200.022 | 0 | 0.836 | 2861.1 | 17115 | 5 166 5 180 | 20.7846 | 8 | | | | | | ^ |
| 185 : | 109.41 | 36.5249 | 64.3615 | ŏ | 0.845 | 3118.7 | 18014 | 192 | 20.7846 | 8 | | | | | | |
| 186 : | 109.635 | 36.7369 | 64.075 | 0 | 0.886 | 3228.3 | 18797 | 204 | 20.7846 | 8 | | | | | | |
| 187 : | 109.707 | 36.5708 | 63.7559 | 0 | 0.741 | 3579.6 | 18438 | 216 | 20.7846 | 8 | | | | | | |
| 188 : | 109.507 | 36.6567 | 64.0876 | 0 | 0.855 | 3291.6 | 17693 | 228 | 20.7846 | 8 | | | | | | |
| 189 : | 289.5 | 143.154 | 356.019 | 0 | 0.309 | 3093.5 | 18634 | 240 2 | 0.7846 | 8 | | | | | | |
| 190 : | 109.815 | 36.5066 | 64.0704 | 0 | 0.823 | 2973.8 | 17203 | 252 | 20.7846 | 8 | | | | | | |
| 191 : | 289.298 | 143.465 | 295.048 | 0 | 0.673 | 3242.4 | 19188 | 264 | 20.7846 | 8 | | | | | | |
| 192 : | 109.323 | 36.5209 | 64.6829 | 0 | 0.845 | 3470.7 | 17452 | 276 | 20.7846 | 8 | | | | | | |
| 193 : | 110.343 | 36.506 | 303.658 | 0 | 0.091 | 3367.5 | 17576 | 288 | 20.7846 | 8 | | | | | | |
| 194 : | 109.967 | 36.8526 | 303.887 | 0 | 0.645 | 3567.2 | 19528 | 300 | 20.7846 | 8 | | | | | | |
| 195 : | 109.382 | 36.3811 | 304.488 | 0 | 0.795 | 3486.3 | 19564 | 312 | 20.7846 | 8 | | | | | | |
| 196 : | 289.485 | 143.494 | 295.255 | 0 | 0.595 | 3010.4 | 18104 | 324 | 20.7846 | 8 | | | | | | |
| 197 : | 141.522 | 119.335 | 238.836 | 0 | 0.327 | 2073.3 | 17913 | 336 | 20.7846 | 17 | | | | | | |
| 198 : | 321.116 | 60.5513 | 181.462 | 0 | 0.305 | 2035 | 18983 | 348 | 20.7846 | 17 | | | | | | |
| 199 : | 321.401 | 60.2419 | 1.26394 | 0 | 0.391 | 2197 | 17560 | 360 | 20.7846 | 17 | | | | | | |
| 200 : | 321.193 | 60.2104 | 181.401 | 0 | 0.482 | 1942.2 | 19458 | 372 | 20.7846 | 17 | | | | | | ~ |
| | | | | | | | | | | | | | _ | | | |
| | | | | | | | | | | | | | | outfile | disp | |
| Makefi | le | | | | | | | | | | | | | | | |
| Data | Startline | 2 Ph | asePotis | ion | 4 Se | electpha | ase 1 | f1 | 1 | F | 2 | f2 3 | Х | 8 | Y | 9 |
| Labo | Tex-SOR | ~ | Но | lder | C | C:\mtex- | 5.1.1\c | lata\EBS | D\Ti\tita | aniumE | toO.SC | R | | | | |
| -SOR | Variance | | | | | | | | | | | | | | |] |
| | 15 dec | n>= 9 | ten 50 | | F | ilemake | | | | | | | | | | |
| | 10 000 | y 3 | icp 0.0 | | F | iemake | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

SORデータが作成される。

| Ма | terial | cif | C:\CTR\@ | cif\Ti-1 | Fitanium-a | lpha.cif | | | | | | |
|--|---|---|---|---|-----------------|-----------------|---------|------|----------|------------|------------|--|
| Group | P63/mn | nc ~ | Symme | try(Ol | M) 62 | HKLCode | 9 | Labo | oTexCode | 11 - D6 (h | nexagonal) | |
| Aaxis | 2.95 | Baxis | 2.95 | Ca | xis 4.68 | 6 alpha | 90.0 | beta | 90.0 | gamma | 120.0 | |
| | | | | | | | | | | | | |
| 1: | C:\mtex-5.1.1 | 1\data\EBSI | D\Ti\titanium.to | <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<> | | | | | | | | |
| 1: 2: | C:\mtex-5.1.1 | I\data\EBS[| D\Ti\titanium.b | <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<> | | | | | | | | |
| 1: 2: 3: | C:\mtex-5.1.1 Structure Co | l\data\EBS(de a | D\Ti\titanium.tx | kt alfa | beta gan | ıma | | | | | | |
| 1: 2: 3: 4: | C:\mtex-5.1.1 Structure Co | I\data\EBSI de a 11 | D\Ti\titanium.b b c 1.0 | kt alfa 1.0 | beta gar 1.5 | nma 385 90.0 | 90.0 12 | 20.0 | 5.0 | 1 1 | 0 | |
| 1: 2: 3: 4: 5: | C:\mtex-5.1.1 Structure Co 3.9619 | 1\data\EBSI de a 11 0.0698 | D\Ti\titanium.b b c 1.0 6.0039 | kt alfa 1.0 1 | beta gan 1.5 | ima 385 90.0 | 90.0 12 | 20.0 | 5.0 | 1 1 | 0 | |
| 1: 2: 3: 4: 5: 6: | C:\mtex-5.1.1 Structure Co 3.9619 5.2173 | I\data\EBSI de a 11 0.0698 2.7170 | D\Ti\titanium.b b c 1.0 6.0039 5.2660 | kt alfa 1.0 1 1 | beta gar 1.5 | nma 885 90.0 | 90.0 12 | 20.0 | 5.0 | 1 1 | 0 | |
| 1: 2: 3: 4: 5: 6: 7: | C:\mtex-5.1.1 Structure Co 3.9619 5.2173 5.2016 | I\data\EBSI de a 11 0.0698 2.7170 2.7152 | D\Ti\titanium.b b c 1.0 6.0039 5.2660 5.2543 | kt alfa 1.0 1 1 1 | beta gar 1.5 | 1ma 385 90.0 | 90.0 12 | 20.0 | 5.0 | 1 1 | 0 | |

4. LaboTexで読み込む(EBSDホルダを作成)

| Choose User or Register New Use | er X |
|-----------------------------------|-------------------------------|
| Choose User | Add New User |
| C 5182H18 6022H18 A16 AI | EBSD Instalation Progress |
| ОК | Cancel |

NewSample

| L | LaboTe | x - EBSI | D User | | | |
|------|--------|----------|-------------|----------|-----------|------|
| File | Edit | View | Calculation | Analysis | Modelling | Help |
| | New S | Sample/ | Project | | | SETE |
| | Open | Sample | | | | |

SOR ファイル指定

| New Sample | × |
|---|-----------------------------|
| Choose Experimental Data (LaboTex Single Orientations Files) | Crystal Symmetry |
| | Project Name |
| Path C:\mtex-5.1.1\data\EBSD\Ti\ titaniumEtoD.SI | |
| Info C:\mtex-5.1.1\data\EBSD\Ti\titanium.txt | Project Name : EBSD |
| Choose Defocussing Correction Correction (On/Off) Correction Data from File Correction Data from File Correction Data from File Cor(1x1).cor Cor(5x5).cor Path C:\LaboTex2\USER\EBSD.LAB\COR\ | Sample Name D6_Hexagonal |
| Info | Sample Name : titaniumEtoO |
| Cancel Create of ODF from Sir | ngle Orientations Data |

HexagonalのA-typeを指定

MTEXもA-Typeで解析されている。

| ODF Calculations from a Set of Sin | gle Orientations X |
|---|---|
| Project | Sample |
| Demo | titaniumE toO |
| Crystal Symmetry | Cell Parameters (Relative) |
| D6-Hexagonal 🚽 | a 1.0 b 1.0 c 1.5 |
| Angle Convention for Data | |
| Bunge 💌 | α 90.0 β 90.0 γ 120.1 |
| Grid Cells for Output ODF | le Unit Weight Phase |
| 5.0*5.0 - Rad | tians 🔻 Yes 💌 🛛 🗸 |
| Descriptions | |
| C:\mtex-5.1.1\data\EBSD\Ti\titar | nium. txt |
| Single Orientations Files | Calculations Progress |
| titaniumEtoO.SOR | Merge (files) |
| | No of single orien. |
| | |
| | |
| SOB' Output File Options | |
| Add {HKL} <uvw> Max.</uvw> | Value of Miller Indice = 15 📫 |
| Hexagonal Axis Convention of Dat | a (important only in Hexagonal C.S.) |
| (° 🗳 | ⊂ <u></u> |
| Warning: If your file contains non-inde | xed data, then you should use "EBSD Formal |
| - Defined by User'' (Menu ''E | dit", "LaboTex Options", "Data Formats") |
| In this format you can exclu | de non-indexed data from ODF calculation. |
| Non-indexed data can creat | e talse maximum on the ODF! contact the office@labosoft.com.pl |
| in case or problems, please | eenaer no onoor_naboon.com.pr |
| RUN | END |
| | |

А-Туре



ODF 解析結果が表示される

| LaboTex - EBSD User File Edit View Calculation Analysis Modelling Help | , | | - 🗆 X |
|---|-----|-------------------------------|---|
| <u> </u> | | № A R 🖗 i ⊿ 2D 3D 🧐 # | |
| ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° | | ° 8 0° ° | titaniumEtoO Levels 791.0 738.2 685.5 632.8 |
| | | | S80.0 527.3 474.6 369.1 316.4 263.7 210.9 158.2 105.5 1.0 |
| | | | Max=843.686 Min=0.000 2022/07/03 × 0 360 ∳ 1 |
| | | Current Hexagonal Axes Conven | tion ↓60 ↓ |
| o: 0; 13 | D6- | Hexagonal 🔹 EBSD 💽 | titaniumEtoO 💌 |

5. 分散処理

GPODFDisplayを使用して、ODF格子点データをgauss分布の畳み込みを行う データは

(C:) > LaboTex2 > USER > EBSD.LAB > D6-Hexagonal.LAB > EBSD.LAB > titaniumEtoO.LAB > Job01

| ^ | 名前 ^ | 更新日時 | 種類 | サイズ |
|---|------------------|-----------------|----------|-------|
| | ittaniumEtoO.ODF | 2022/07/03 7:39 | ODF ファイル | 69 KB |
| | titaniumEtoO.POD | 2022/07/03 7:39 | POD ファイル | 1 KB |

GPODFDisplayに読み込む

| 14 | GPODFDisplay(V1) 3.04T[22/08/31] by CTR | | - | | | × |
|------|--|---|-------------------------|-----|-------|-------|
| File | Titanium-alpha View Search 7.0,15, false Help Fiber OD | F | DataBase Resolution Ran | dor | msear | chOFF |
| | LaboTex ODF Export (PHI1 PHI2 PHI ODF)(Hexa:AorB) | > | (Hexa: AType) or Other | | | |
| | LaboTex(Triclinic->Orthorombic) | | (Hexa: BType) | | | |
| | TexTools ODF Export (Hexa:A-Type) | | | | | |
| | StandardODF (ODF15,ODF15.bin) | | | | | |
| | NewODF(f1 F f2 Value) | * | | | | |



分散処理

ODFの格子点データをGauss分散を行い、新たなODFデータを作成 以下の処理はFWHM=25degで、範囲を \pm 50degで打ち切る MTEXでは、EBSDデータに対しFWHM=25degが施されている。

| GPODFDisplay(V1) 3.04T[22/08/ | 31] by CTR | | _ | |
|-------------------------------|---------------------------------|------------------------------|---------------|----------------|
| File Titanium-alpha Atype Vie | w Search 7.0,15,false Help Fibe | r ODF DataBase Res | olution Rando | msearchOFF |
| filename: C:\LaboTe | Font size | > itaniumEtoO.LAB\JobO1\tita | aniumEtoO.ODF | Max=843.69 |
| • • | Contour grid width | > | <u>•</u> | Min=0.0 |
| | Static randomlevel | • | | 800.0 750.0 |
| | ODF Smoothness Point(Cycle) | > | 15 | 700.0 |
| | ODF Smoothness Weight | > | | 600.0 550.0 |
| | Gauss Fitting FWHM | > 0 | 25 | 500.0 450.0 |
| | Filename disp OFF | 5 (Extent: ±15) | | 400.0 350.0 |
| • | GraphicsSize | 10(Extent ±20) | 35 | 300.0 250.0 |
| | • | 15(Extent +30) | | 200.0 150.0 |
| | 40 24 3 | 20(Extent +40) | 45 | 100.0 50.0 |
| | | 20(Extent 140) | | |
| | 50 | 25(Extent ±50) | 55 | |
| | | * * <u></u> | | |

分散処理結果のsave



LaboTex管理下に Job02 を作成し

| (C:) > LaboTex2 > USER > EBSD.LAB > D6-Hexagonal.LAB > EBSD.LAB > titaniumEtoO.LAB | | | | | | | |
|--|---|--------------------------------------|--------|--|--|--|--|
| ^ 名前 ^ | 更新日時 | 種類 | サイズ | | | | |
| Job01 Job02 ititaniumEtoO.SOR | 2022/07/03 7:39 2022/07/03 7:54 2022/07/03 7:39 | ファイル フォルダー ファイル フォルダー SOR ファイル | 349 KB | | | | |

分散処理結果の ODF ファイルを作成

| $(C \cdot)$ | | LaboTev2 | LISER | | D6-Hevagonal I AB | | FRSDIAR | | titaniumEtoO I A B | | lob02 |
|-------------|---|------------|--------|------------|-------------------|---|----------|---|---------------------|---|-------|
| (C) | ~ | Labolex2 / | USER 4 | EDSD,LAD / | Do-nexagonal.LAD | ~ | ED3D,LAD | * | UITATIIUTTELOO, LAD | ~ | 10002 |

| ^ | 名前 | ^ | 更新日時 | 種類 | サイズ | |
|---|-------------------|---|-----------------|----------|-------|--|
| | 🧾 titaniumEtoO.OD | F | 2022/07/03 7:54 | ODF ファイル | 69 KB | |

6. Triclinic->Orthorhombic

LaboTexを再起動し、結晶系をHexa選択(DF6-Hexa) Job2ODFデータの対称処理を行う



OrthorombicはJob3に登録されている



7. 極点図、逆極点図作成

[100]

[001]

[001]



[100]

[001]

2.0 1.5 1.3 1.1 0.9 0.7 0.4 0.2 Min=0.020

Max=3.373 2022/07/04

[100]

8. 逆極点図をExportし、解析

| GPInverseDisplay 1.45T[22/08/31] by CTR | – 🗆 🗙 |
|---|----------------------|
| File Help Symmetry | |
| Material | |
| Image: Titanium-alpha.TXT a 2.95 b 2.95 c 4.686 α 90.0 β 90.0 | γ 120.0 |
| ODF | |
| LaboTex popLA StnadredODF TexTools TXT(b,f,I) MTEX | |
| Method Plane max index | Direction max index- |
| Plane Miller Nortation(3 Axis Nortation) 15 | 15 |
| Inverse data select | |
| C:\mtex-5.1.1\data\EBSD\Ti\titaniumEtoO-Inv.TPF | ND ~ |
| Inverse Display | |
| 3 20 apple 22 st 0 window size - smooting | at 0 v |
| | IL 9 ~ |
| Peak data Other font size InverseData | |
| Disp Font size 12 v Filename 12 v Base 12 v Full Inverse disp | nverse data |
| _ Display | |
| Level 1 Peak serach ContourDisplay O Center[001] MaxFix 10 | Inverse Disp |
| | |
| | |

