

Copper RD->TDSchmidFactor

F C C S c h m i d 因子の挙動

2021年10月21日

HelperTex Office

状況

FCCSchmidFactorCalc2ソフトウェアのデバッグでRD→TDプロファイルにピークが発生する。このデバッグを行った。

FCCSchmidFactorCalc2 2.01T[21/12/31] by CTR

File Help Text SlipProfile

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

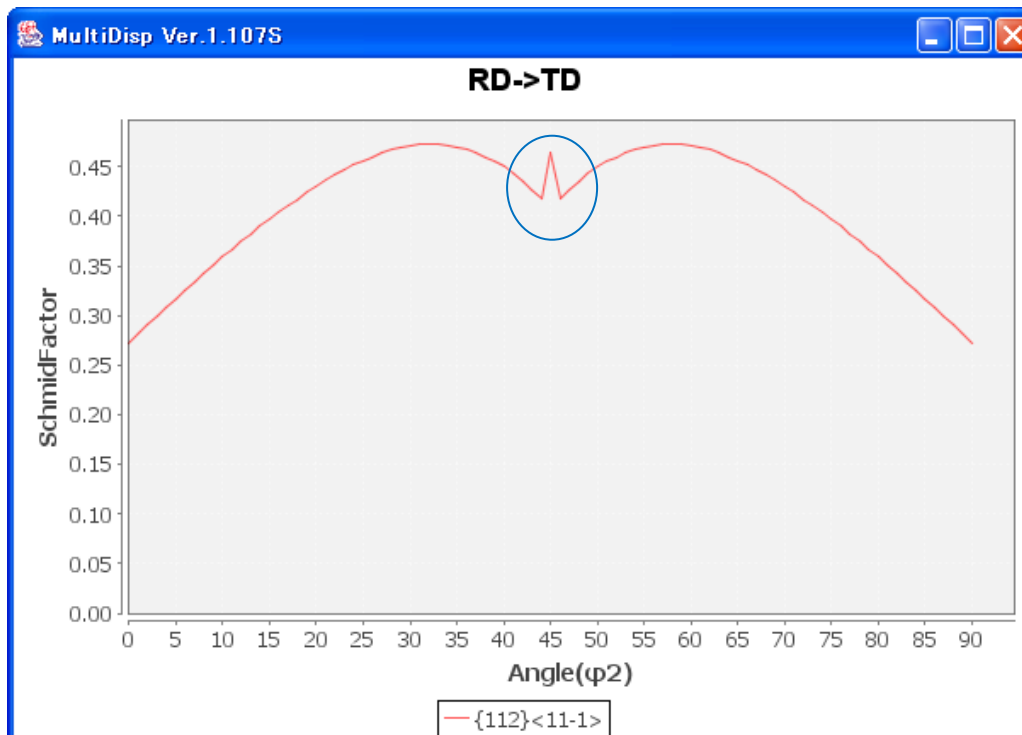
Data input
(h k l) or [h k l] {h k l}<u v w> phi1 PHI phi2
☐ ND Input Input Reop 5 Input

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

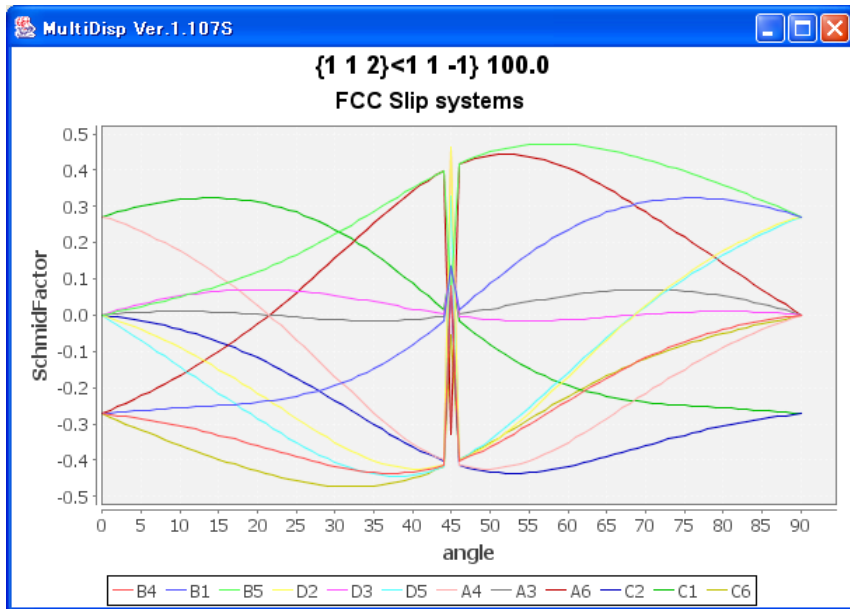
Calc Schmid's Factor
{112}<11-1> rotation (0.0,0.0,0.0)
B4 B1 B5 D2 D3
D5 A4 A3 A6
C2 C1 C6
-0.227 -0.227 0.0 -0.408 -0.408
0.0 -0.045 0.136 0.181
0.136 -0.045 0.181
rotation (0.0,0.0,0.0)
input VF% Schmid VF*Schmid%
{112}<11-1> 100.0 0.408 0.408
VFsum=100.0% VF*Schmidsum=0.408
SchmidFactor(SumVF)=0.408

Rotation
☐ $\phi 1$ 0 Φ 0 $\phi 2$ 0 SchmidCalc Symmetry SchmidCalc SchmidFDisp

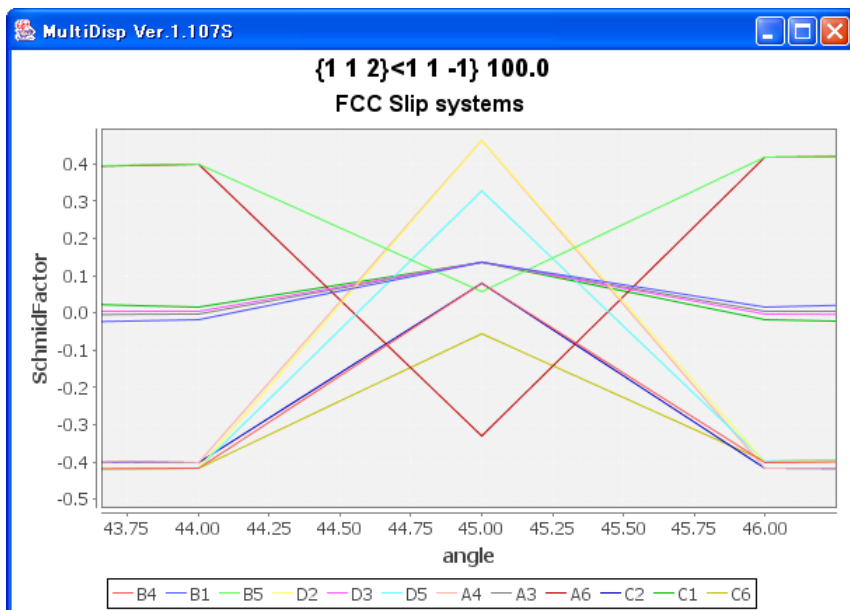
Stepcalc
RD→TD2 1 {1 1 2}<1 1 -1> 10... CalcText CalcGraph VFGraph



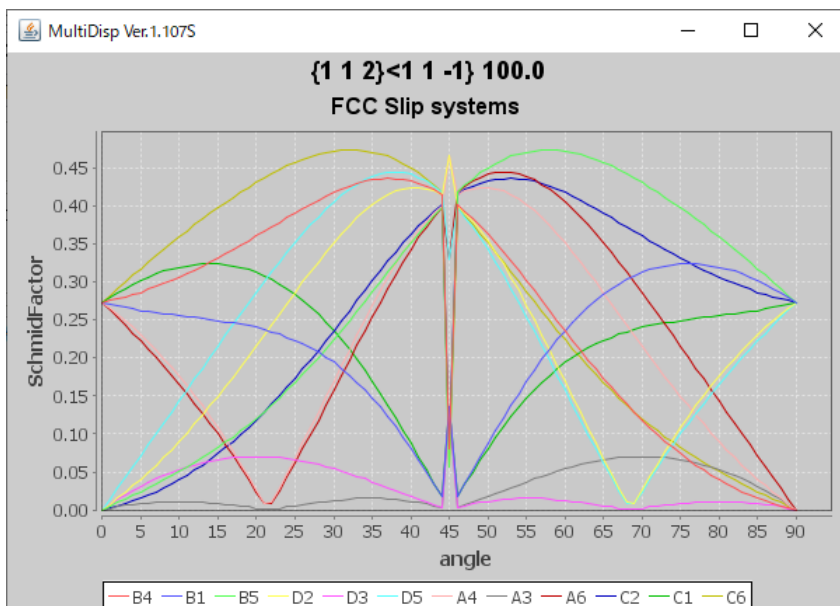
SlipSystem



拡大



絶対値で表示



c o p p e r に対し(0, 9 0, 4 4)、(0, 9 0, 4 5)、(0, 9 0, 4 6) の回転を行い
計算部分の数値を調べてみた。

F01	F02	F11	F12	F01/F02	F11/F12	F01/F02*F11/F12					
-40.224	70.208	41.516	57.325	-0.5729	0.7242	ans=-0.4149					
-40.224	70.208	1.707	57.325	-0.5729	0.0298	ans=-0.0171					
-40.224	70.208	-39.809	57.325	-0.5729	-0.6944	ans=0.3979					
42.224	70.208	-39.516	57.325	0.6014	-0.6893	ans=-0.4146					
42.224	70.208	0.293	57.325	0.6014	0.0051	ans=0.0031					
42.224	70.208	-39.809	57.325	0.6014	-0.6944	ans=-0.4176					
-38.809	70.208	41.516	57.325	-0.5528	0.7242	ans=-0.4003	(0, 9 0, 4 4)				
-38.809	70.208	0.293	57.325	-0.5528	0.0051	ans=-0.0028					
-38.809	70.208	-41.224	57.325	-0.5528	-0.7191	ans=0.3975					
40.809	70.208	-39.516	57.325	0.5813	-0.6893	ans=-0.4007					
40.809	70.208	1.707	57.325	0.5813	0.0298	ans=0.0173					
40.809	70.208	-41.224	57.325	0.5813	-0.7191	ans=-0.418					
-0.415	-0.017	0.398	-0.415	0.0030	-0.418	-0.4	-0.0030	0.398	-0.401	0.017	-0.418
0.293	2.121	1.0	1.732	0.1381	0.5774	ans=0.0797					
0.293	2.121	1.707	1.732	0.1381	0.9856	ans=0.1361					
0.293	2.121	0.707	1.732	0.1381	0.4082	ans=0.0564					
1.707	2.121	1.0	1.732	0.8047	0.5774	ans=0.4646					
1.707	2.121	0.293	1.732	0.8047	0.1691	ans=0.1361					
1.707	2.121	0.707	1.732	0.8047	0.4082	ans=0.3285	(0, 9 0, 4 5)				
1.707	2.121	1.0	1.732	0.8047	0.5774	ans=0.4646					
1.707	2.121	0.293	1.732	0.8047	0.1691	ans=0.1361					
1.707	2.121	-0.707	1.732	0.8047	-0.4082	ans=-0.3285					
0.293	2.121	1.0	1.732	0.1381	0.5774	ans=0.0797					
0.293	2.121	1.707	1.732	0.1381	0.9856	ans=0.1361					
0.293	2.121	-0.707	1.732	0.1381	-0.4082	ans=-0.0564					
0.08	0.136	0.056	0.465	0.136	0.329	0.465	0.136	-0.329	0.08	0.136	-0.056
1.007	1.733	-0.975	1.415	0.5813	-0.6893	ans=-0.4007					
1.007	1.733	0.042	1.415	0.5813	0.0298	ans=0.0173					
1.007	1.733	1.017	1.415	0.5813	0.7191	ans=0.418					
-0.958	1.733	1.025	1.415	-0.5528	0.7242	ans=-0.4003					
-0.958	1.733	0.0070	1.415	-0.5528	0.0051	ans=-0.0028					
-0.958	1.733	1.017	1.415	-0.5528	0.7191	ans=-0.3975	(0, 9 0, 4 6)				
1.042	1.733	-0.975	1.415	0.6014	-0.6893	ans=-0.4146					
1.042	1.733	0.0070	1.415	0.6014	0.0051	ans=0.0031					
1.042	1.733	0.983	1.415	0.6014	0.6944	ans=0.4176					
-0.993	1.733	1.025	1.415	-0.5729	0.7242	ans=-0.4149					
-0.993	1.733	0.042	1.415	-0.5729	0.0298	ans=-0.0171					
-0.993	1.733	0.983	1.415	-0.5729	0.6944	ans=-0.3979					
-0.401	0.017	0.418	-0.4	-0.0030	-0.398	-0.415	0.0030	0.418	-0.415	-0.017	-0.398

数値的には異常なし