補正された極点図から方位解析

2020年6月29日 *HelperTex Office*

MeasureData¥アルミニウム方位解析¥TEST¥RolingAl-VolumeFraction.pdf

1. 概要

XTRによる方位解析では、ODF解析を行う前に、バックグランド除去やdefocus補正などの 極点図処理が行われる。

本資料ではこのような前段処理が行われたASCデータから方位解析を行う手順を説明します。



2. 入力データ(極点処理結果)

各種測定データをODFPoleFigure2ソフトウエアで処理した結果



3. ODFPoleFigure2で極点処理結果を読み込む

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L a b o T e x 入力データを作成

5. LaboTexで読み込む

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ODF解析のRp%(Error)が表示される。





ODF図を表示





入力極点図と ODF 解析後の極点図を比較

PF NPF RPF INV ODF 111 200 220



上段が入力極点図

下段が ODF 解析後の極点図

本来、ODF後の極点図は入力極点図と一致するが入力極点図にErrorがあると一致しない このErrorがRp%



6. ODF図から VolumeFraction を計算する。

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VolumeFraction を計算する。

計算結果

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7. VolumeFraction結果の評価

7.1 ODF図比較



7. 2 再計算局点図と VolumeFraction から計算した極点図比較



上段:入力局点図、中段:ODF 解析結果極点図、下段:VoluneFraction から計算した極点図

ODF 解析結果極点図と VolumeFraction 結果極点図からR p %を計算

ODF 解析結果極点図 Export

Job No :	ЈоБ01
Sample :	Altest
Select Data to Export :	
Altest - CPF - 111 Altest - CPF - 200 Altest - CPF - 220 Altest - NPF - 111 Altest - NPF - 220 Altest - NPF - 220 Altest - RPF - 220 Altest - RPF - 220 Altest - RPF - 220 Altest - INV - 100 Altest - INV - 010 Altest - INV - 001	
OK	Cancel

VolumeFraction 結果の Export

F Export as Text file		×
Job No :	ЈоБО2	
Sample :	Altest	
Select Data to Export :		
Altest - APF - 111 Altest - APF - 200		
Altest - APF - 220		
1		
ОК	Cancel	

1	ValueODFVF 2.34T[20/	(10/31]	by CTR								-			×
File	Help Resolusion	n:5.0	Equal/	Angle	TextDis	play	Folder	Disp	Polefig	guredis	p Aluminum ICDD			
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Р

Rp%は0.7%であり、正確に VolumeFraction が計算されています。

測定データを正確に極点処理が行われていれば、ODF 図から VolumeFraction(体積分率)が 計算できます。

ただし、VolumeFractionは1回に最大10個の方位解析に限られます。

又、測定データに e r r o r が含まれる場合、ODF解析結果のR p %が小さくならない事もあります。

最新のCTRソフトウエアでは、最小化Rp%をサポートしています。

ぜひ、最新のCTRソフトウエアをお使いください。

納品時のコンピュータであれば、無償でupdate可能です。

http://helpertex.sakura.ne.jp/Soft/DOC2/CTRSoftware-Conversion2.pdf