

M a t e r i a l D a t a ソフトウェア用データ作成

M a k e M y I C D D ソフトウェア

Ver1.29

2024年12月17日



*HelperTex Office*

- \*Version1.101 2010/09/15 結晶系によっては正しく変換出来なかった修正
- \* Version 1.104 2011/06/08 trigonal で gamma=120 は Hexagonal 登録
- \*version 1.21X 2012/06/11 新しい管理に移行
- \*version 1.22X 2013/03/07 波長を wavelength=から取得
- \*Version 1.23X 2013/10/02 日本結晶学会データに対応 (結晶系が明記されていない)
- \* Version 1.24X 2013/10/29 変換データDispが機能していない修正
- \* Version 1.25X 2013/11/02 物質名にカンマが入っている場合、アンダーバーに変換
- \*Version 1.26 2017/02/12 d-value を追加
- \*Version 1.27 2021/01/09 空間群に対応
- \*Version 1.29 2024/12/17 COD 対応,SpaceG の見直し

概要

MaterialDataソフトウェア用データをICDDテキストデータから変換するソフトウェア

入力データ

ICDDが表示されている画面でCopyとしてeditorに貼り付ける。

```

No: 00-004-0783
Name: Silver-3C, syn
Chemical Formula: Ag
Formula: Ag
Z value: 4
Space Group: Fm-3m(225)
Cell: 4.0862 4.0862 4.0862 90.000 90.000 90.000
Volume: 68.227
Crystal System: Cubic
Quality: I
RIR(I/Ic): 5.20
Subfile: Inorganic, Mineral, Alloy&Metal, Common Phase, Educational Pattern, Forensic, NBS Pattern
----- Experiment
Radiation: CuKalpha lambda: 1.54056
Reference: Swanson, Tatge. Natl. Bur. Stand. (U.S.), Circ. 539I(1953)23.
CAS: 7440-22-4
----- Physical
Dmeas: 10.500
Dcalc: 10.501
Melting Point: 1233.600----- Comment
Additional Patterns: See PDF 01-087-0597. Analysis: Spectrographic analysis indicated faint traces of Ca, Fe and Cu. Color:
Light gray metallic. General Comments: Purity >99.999%. Melting Point: 1233.6 K. Opaque Optical Data: Opaque mineral optical
data on specimen from Great Bear Lake, Canada: RR2Re=94.1, Disp.=16, VHN100=55-63, Color values .314, .321, 94.2, Ref.: IMA
Commission on Ore Microscopy QDF. Sample Source or Locality: Sample obtained from Johnson Matthey Company, Ltd. Temperature of
Data Collection: Pattern taken at 300 K. Unit Cell Data Source: Powder Diffraction.
----- d-I list (2theta are calculated with wavelength=1.54059)
2theta range: 38.12 - 134.89
  2theta    d      I      (hkl)
  38.12    2.359   100.0  (1,1,1)
  44.28    2.044    40.0  (2,0,0)
  64.43    1.445    25.0  (2,2,0)
  77.47    1.231    26.0  (3,1,1)
  81.54    1.180    12.0  (2,2,2)
  97.89    1.021     4.0  (4,0,0)
 110.50    0.938    15.0  (3,3,1)
 114.93    0.914    12.0  (4,2,0)
 134.89    0.834    13.0  (4,2,2)

```

変換出来なかった場合、入力データを点検して下さい。

区切り文字がおかしくありませんか

例えば、

```

Deleted Or Rejected By: Deleted by 00-04
Diffraction.%par
----- d-I list (2theta are ca
2theta range: 30.99 - 180.00%par
  2theta    d      I      (hkl)%par
  30.99    3.348   100.0  (0,0,2)%par
  49.74    2.127     3.0  (1,0,0)%par
  52.37    2.027    15.0  (1,0,1)%par
  59.78    1.795     3.0  (1,0,2)%par

```

或いは、最終行に空白がありませんか？

```
137.39  0.960  1.0  (2,0,3)¥par
180.00  0.872  1.0  (1,0,7)¥par
180.00  0.837  1.0  (0,0,8)¥par
180.00  0.833  1.0  (2,0,5)¥par
180.00  0.826  4.0  (1,1,6)¥par
180.00  0.798  2.0  (2,1,1)¥par
}
```

もしこれらの事があるならエディッタで編集して下さい。

```
129.20  0.990  4.0  (1,1,4)↓
137.39  0.960  1.0  (2,0,3)↓
180.00  0.872  1.0  (1,0,7)↓
180.00  0.837  1.0  (0,0,8)↓
180.00  0.833  1.0  (2,0,5)↓
180.00  0.826  4.0  (1,1,6)↓
180.00  0.798  2.0  (2,1,1)↓
```

[EOF]

が正常な入力データです。

このように編集すれば変換が可能になります。

```
Graphite, syn
4
2.456
2.456
6.696
90.0
90.0
120.0
1.54178
19
0      0      2      100.0  30.99
1      0      0       3.0    49.74
1      0      1      15.0   52.37
1      0      2       3.0    59.78
0      0      4       6.0    64.60
1      0      3       4.0    71.03
1      0      4       1.0    85.69
1      1      0       4.0    93.51
1      1      2       6.0   101.77
1      0      5       1.0   104.24
0      0      6       1.0   106.55
2      0      1       1.0   116.79
1      1      4       4.0   129.20
2      0      3       1.0   137.39
1      0      7       1.0   180.00
0      0      8       1.0   180.00
2      0      5       1.0   180.00
1      1      6       4.0   180.00
2      1      1       2.0   180.00
Graphite, syn
```

Formula: C

## 出力データ

Silver-3C, syn

```
0
4.0862
4.0862
4.0862
90.0
90.0
90.0
1.54056
9
1      1      1      100.0   38.12
2      0      0      40.0    44.28
2      2      0      25.0    64.43
3      1      1      26.0    77.47
2      2      2      12.0    81.54
4      0      0      4.0     97.89
3      3      1      15.0   110.50
4      2      0      12.0   114.93
4      2      2      13.0   134.89
00-004-0783
```

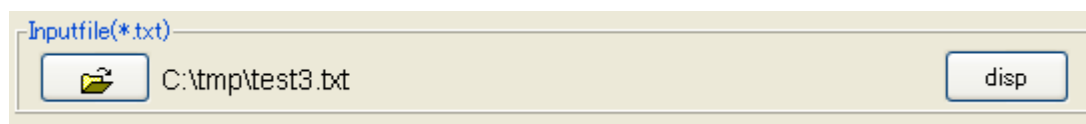
Silver-3C, syn

## 使い方

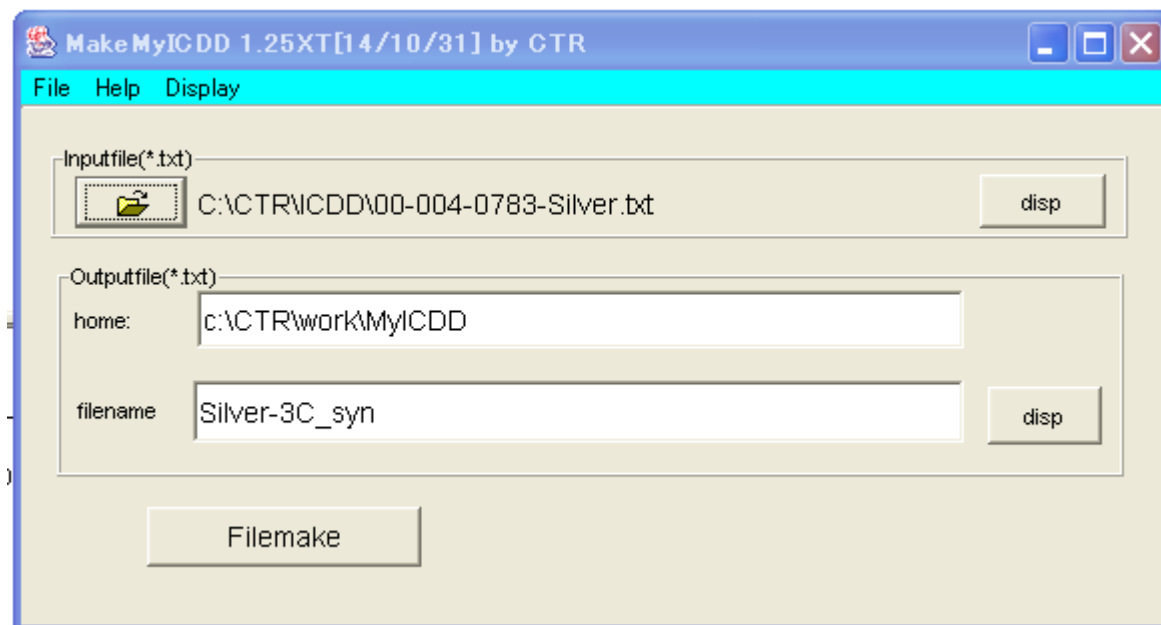
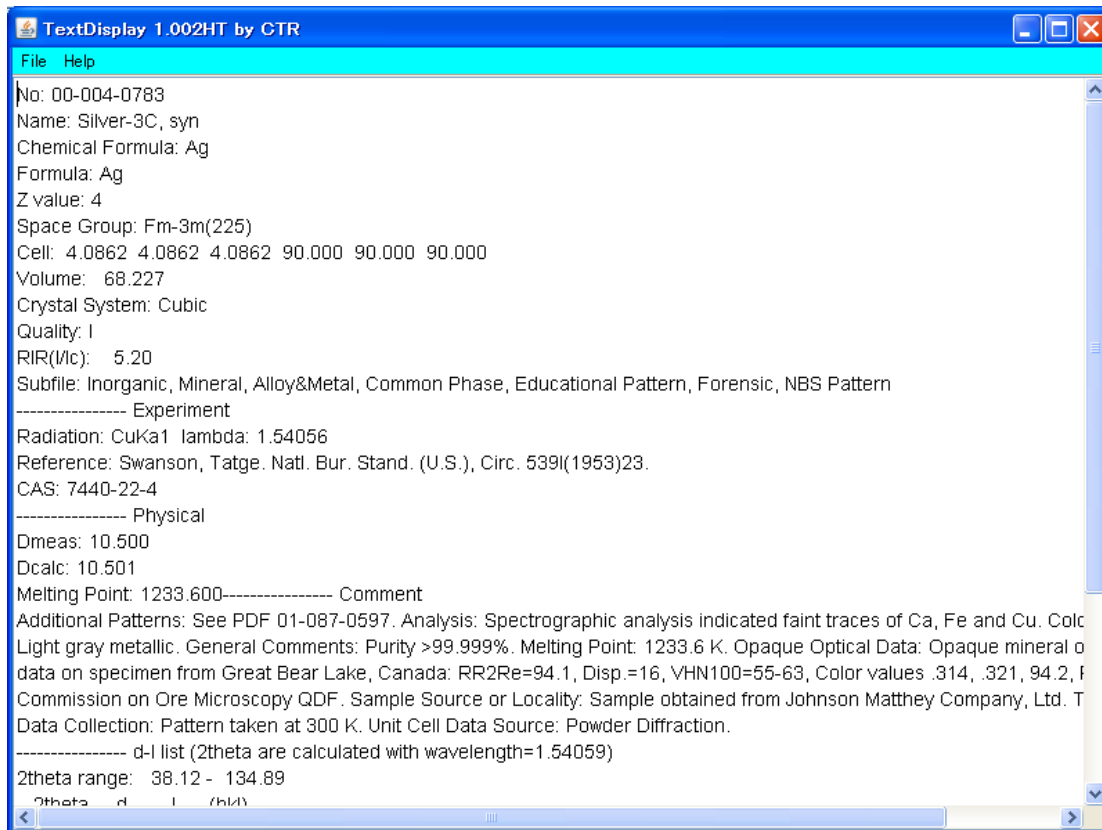
起動 c:\CTRY\bin\MakeMyICDD.jar



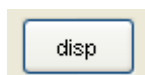
I CDDの出力ファイルを指定する



D i s p でファイルを表示



ファイル指定で、自動的にファイル名が作成される。



で作成予定のファイルが出力される。

```

TextDisplay 1.11S C:¥CTR¥work¥MYICDD¥disp.TXT
File Help
disp
0
4.0862
4.0862
4.0862
90.0
90.0
90.0
1.54059
9
1      1      1      100.0    38.12
2      0      0      40.0    44.28
2      2      0      25.0    64.43
3      1      1      26.0    77.47
2      2      2      12.0    81.54
4      0      0      4.0     97.89
3      3      1      15.0    110.50
4      2      0      12.0    114.93
4      2      2      13.0    134.89
00-004-0783      Silver-3C_ syn      Formula: Ag

```

Filemake

で所定の場所にファイルが作成される。

```

TextDisplay 1.002HT by CTR
File Help
Silver-3C, syn
0
4.0862
4.0862
4.0862
90.0
90.0
90.0
1.54056
9
1      1      1      100.0    38.12
2      0      0      40.0    44.28
2      2      0      25.0    64.43
3      1      1      26.0    77.47
2      2      2      12.0    81.54
4      0      0      4.0     97.89
3      3      1      15.0    110.50
4      2      0      12.0    114.93
4      2      2      13.0    134.89
00-004-0783      Silver-3C, syn      Formula: Ag

```

## CODデータに対応

CODでは、cifとdiffractionデータがdownload出来る。

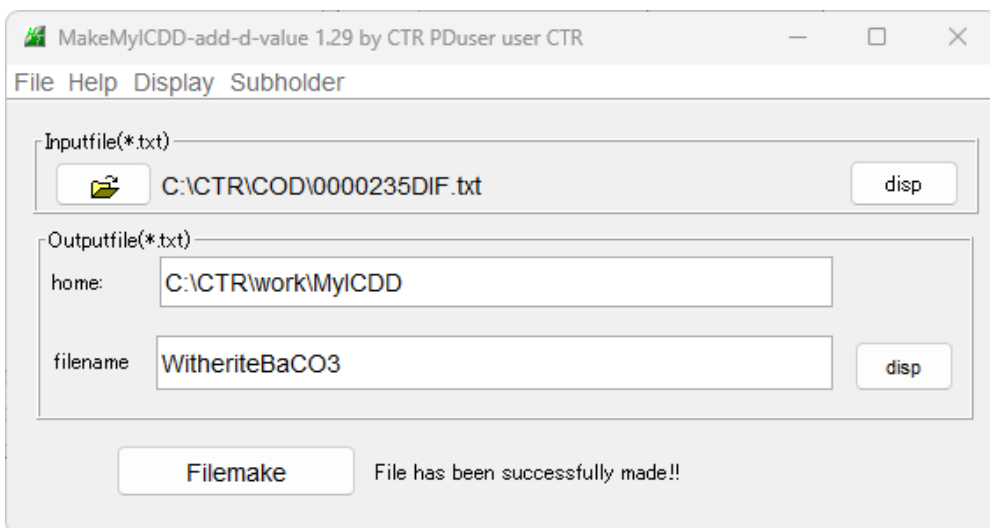
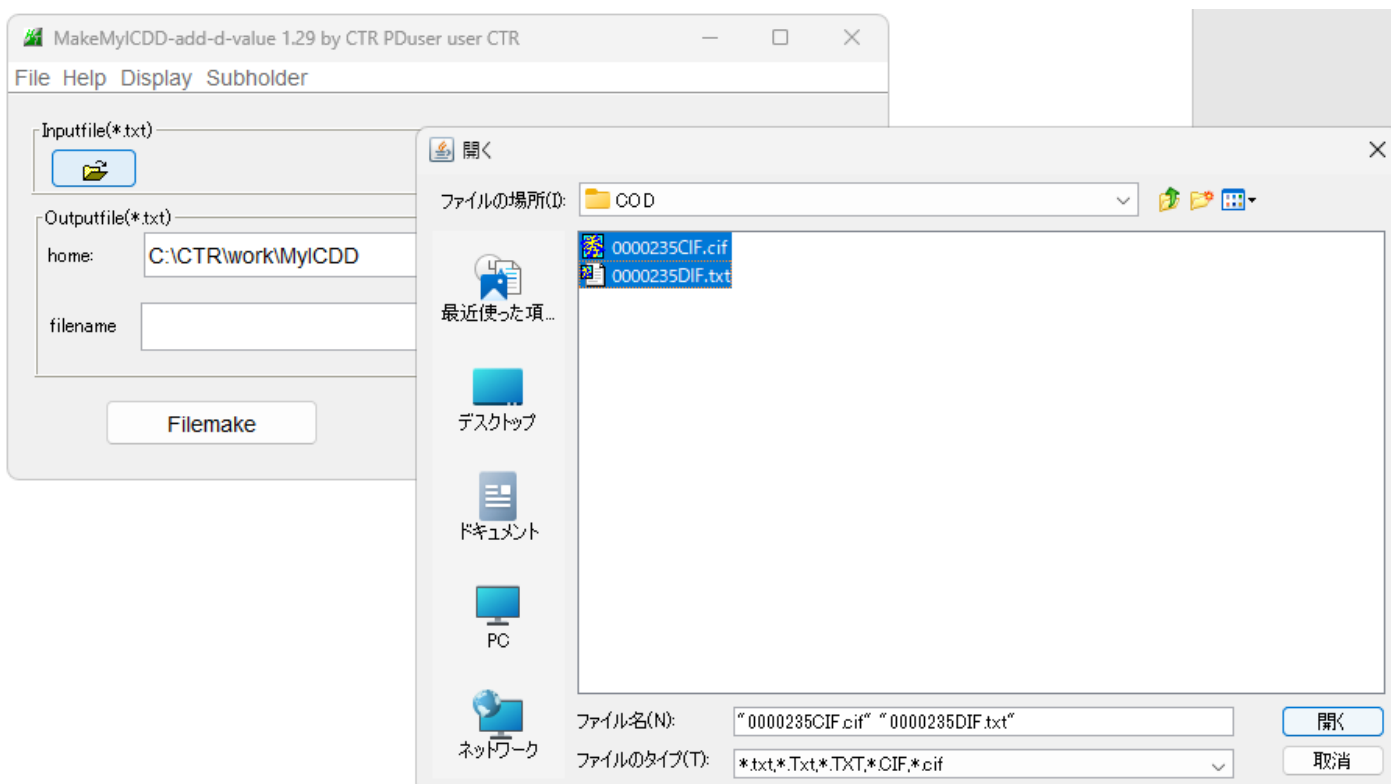
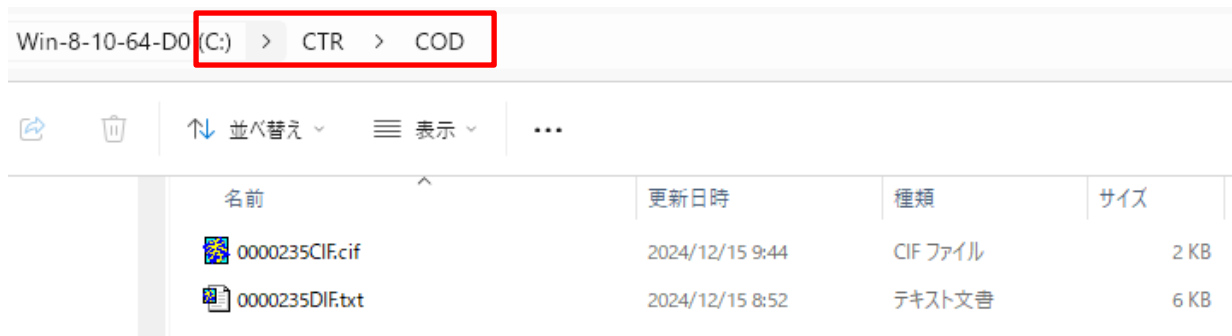
リガクicddデータと異なり、diffractionデータでは情報が少なく、

cifデータと共に読み込まないとMYICDDデータは完結しない。

MakeMyICDDソフトウェアにCODデータ読み込みを追加した。

CODデータのcifとdiffractionデータ(txt)をdownloadし

CTR¥CODホルダにcopyを行い読み込む





# CODでの処理

The screenshot shows the COD homepage with a sidebar on the left containing navigation links like 'COD Home', 'Accessing COD Data', 'Add Your Data', and 'Documentation'. The main content area features the COD logo, a description of the database as an open-access collection of crystal structures, and statistics such as '520425 entries in the COD' and 'Latest deposited structure: 1573472 on 2024-12-17 at 02:36:10 UTC'. A small 3D ball-and-stick model of a crystal structure is shown, with a red circle highlighting the text 'CIFs Donators' below it.

This page lists the main sources of CIF files. It features the logo of the International Union of Crystallography (IUCr) and a text block explaining that COD updates its archive from the IUCr website. Below this, the logo of 'The American Mineralogist Crystal Structure Database' is highlighted with a red circle, with a caption identifying it as 'The main source of COD mineral data.'

## American Mineralogist Crystal Structure Database

This site is an interface to a crystal structure database that includes every structure published in the American Mineralogist, The Canadian Mineralogist, European Journal of Mineralogy and Physics and Chemistry of Minerals, as well as selected datasets from other journals. The database is maintained under the care of the Mineralogical Society of America and the Mineralogical Association of Canada, and financed by the National Science Foundation.

<input type="text"/>	<a href="#">Mineral</a>
<input type="text"/>	<a href="#">Author</a>
<input type="text"/>	<a href="#">Chemistry Search</a>
<input "="" type="text" value="a=5to5.5 and b=8.8to9 and c=6to7 and alpha=90to90 and beta="/>	<a href="#">Cell Parameters and Symmetry</a>
<input type="text"/>	<a href="#">Diffraction Search</a>
<input type="text"/>	<a href="#">General Search</a>
	<a href="#">Search Tips</a>
<input type="button" value="Search"/> <input type="button" value="Reset"/>	

<b>Logic interface</b>	<input checked="" type="radio"/> AND <input type="radio"/> OR
<b>Viewing</b> (About <a href="#">File Formats</a> )	<input checked="" type="radio"/> amc long form <input type="radio"/> amc short form <input type="radio"/> cif
<b>Download</b>	<input type="radio"/> amc <input checked="" type="radio"/> cif <input type="radio"/> diffraction data


Searchを行い

## American Mineralogist Crystal Structure Database

21 matching records for this search.

**Witherite**

 de Villiers J P R

 American Mineralogist 56 (1971) 758-767

Crystal structures of aragonite, strontianite, and witherite

\_database\_code\_amcsd 0000235

5.3126 8.8958 6.4284 90 90 90 Pmcn

atom	x	y	z	B(1,1)	B(2,2)	B(3,3)	B(1,2)	B(1,3)	B(2,3)
Ba	.25	.41631	.7549	.00483	.00182	.0016	0	0	-.0001
C	.25	.7570	-.0810	.0051	.0023	.0124	0	0	.0016
O1	.25	.9011	-.0878	.0107	.0020	.0106	0	0	-.0005
O2	.4595	.6839	-.0790	.0072	.0027	.0081	.0007	-.0010	.0006

[Download AMC data \(View Text File\)](#)

[Download CIF data \(View Text File\)](#)

[Download diffraction data \(View Text File\)](#)

[View JMOL 3-D Structure \(permalink\)](#)

CIFデータとdiffractionデータを  
C:¥CTR¥CODにコピーを行う。