

This is the simple example template containing only headers for each report item and the bookmarks. The invisible bookmarks are indicated by text between brackets.

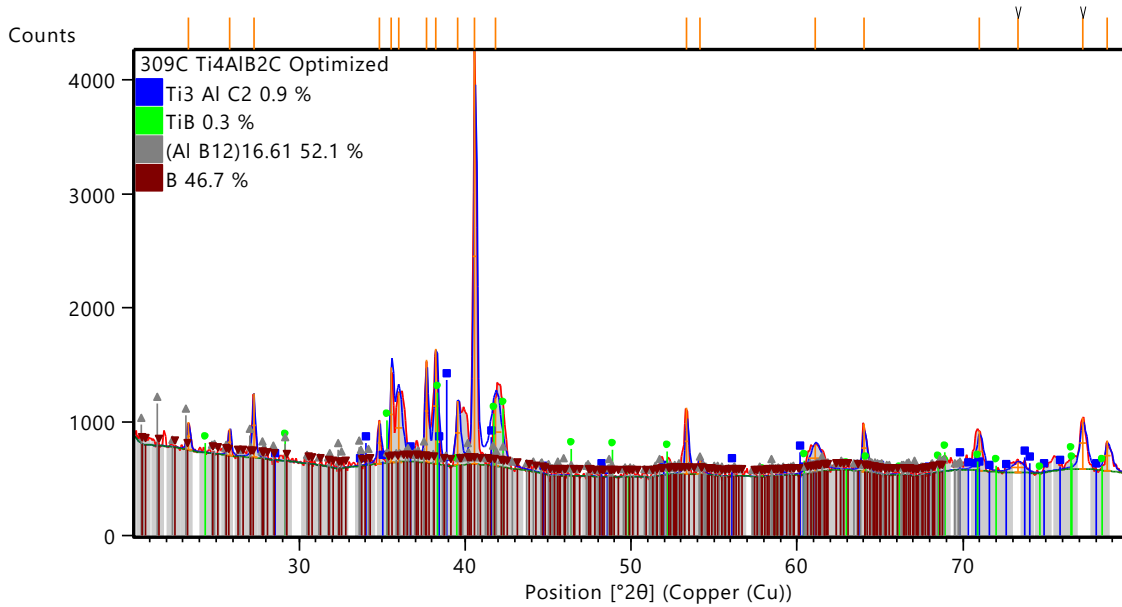
Modify it according to your own needs and standards.

**Measurement Conditions:** (Bookmark 1)

Dataset Name 309C Ti4AlB2C Optimized  
File name E:\XRD data files\New Analysis-Dr. Moynul-BAUET\5th slot-XRD (950 C)-04\309-C Ti4AlB2C-950 C\309C Ti4AlB2C Optimized.xrml  
Comment Configuration=Flat Sample Stage, Owner=pc, Creation date=11/22/2023 7:32:59 PM  
Goniometer=Theta/Theta; Minimum step size 2Theta:0.0001; Minimum step size Omega:0.0001  
Sample stage=Stage for flat samples/holders  
Diffractometer system=EMPYREAN  
Measurement program=C:\PANalytical\Data Collector\Programs\2B Ti3AlB2 Optimized.xrmp,  
Created identifier={1511DE26-B7FE-4D9E-AD02-FB0BF5A869E9}, Created by=pc,  
Id=WL:DESKTOP-BC0RBBD:pc, Creation date=1/18/2024 6:31:02 PM, Modified identifier={706E23D6-EF3A-4959-B077-79A506FC4E68}, Modified by=pc,  
Id=WL:DESKTOP-BC0RBBD:pc, Modification date=2/7/2024 9:05:13 PM  
PHD Lower Level = 4.02 (keV), PHD Upper Level = 16.10 (keV)  
Measurement Start Date/Time 2/9/2024 6:59:29 PM  
Operator pc  
Raw Data Origin XRD measurement (\*.XRDML)  
Scan Axis Gonio  
Start Position [ $^{\circ}2\theta$ ] 20.0348  
End Position [ $^{\circ}2\theta$ ] 79.9628  
Step Size [ $^{\circ}2\theta$ ] 0.0660  
Scan Step Time [s] 12.7500  
Scan Type Continuous  
PSD Mode Scanning  
PSD Length [ $^{\circ}2\theta$ ] 3.35  
Offset [ $^{\circ}2\theta$ ] 0.0000  
Divergence Slit Type Fixed  
Divergence Slit Size [ $^{\circ}$ ] 0.7197  
Specimen Length [mm] 10.00  
Measurement Temperature [ $^{\circ}\text{C}$ ] 25.00  
Anode Material Cu  
Intended Wavelength Type K- $\alpha$ 1  
K- $\alpha$ 1 [ $\text{\AA}$ ] 1.54060  
K- $\alpha$ 2 [ $\text{\AA}$ ] 1.54443  
K- $\beta$ 1 [ $\text{\AA}$ ] 1.39225  
K- $\beta$ 2 [ $\text{\AA}$ ] 1.38113  
K- $\beta$ 3 [ $\text{\AA}$ ] 1.39261  
K-A2 / K-A1 Ratio 0.50000  
K-Alpha2 Line Shift 0.00000  
K Absorption Edge 1.37868  
Generator Settings 40 mA, 45 kV  
Diffractometer Type 0000000011286122

Diffractometer Number 0  
 Goniometer Radius [mm] 240.00  
 Dist. Focus-Diverg. Slit [mm] 60.50  
 Incident Beam Monochromator No  
 Spinning No

**Main Graphics, Analyze View:** (Bookmark 2)



**Peak List:** (Bookmark 3)

| Pos. [°2θ] | Height [cts] | FWHM Left [°2θ] | d-spacing [Å] | Rel. Int. [%] |
|------------|--------------|-----------------|---------------|---------------|
| 23.3368    | 244.01       | 0.1948          | 3.80870       | 6.57          |
| 25.8169    | 235.95       | 0.1948          | 3.44817       | 6.35          |
| 27.2634    | 560.85       | 0.1948          | 3.26842       | 15.10         |
| 34.8245    | 373.23       | 0.1948          | 2.57415       | 10.05         |
| 35.5718    | 836.31       | 0.1948          | 2.52176       | 22.52         |
| 35.9832    | 607.97       | 0.4546          | 2.49386       | 16.37         |
| 37.6662    | 900.78       | 0.1948          | 2.38621       | 24.26         |
| 38.2506    | 1009.62      | 0.2598          | 2.35109       | 27.19         |
| 39.5696    | 562.36       | 0.2598          | 2.27570       | 15.14         |
| 40.5884    | 3713.41      | 0.1948          | 2.22090       | 100.00        |
| 41.8514    | 594.94       | 0.7144          | 2.15675       | 16.02         |
| 53.3437    | 578.22       | 0.1948          | 1.71605       | 15.57         |
| 54.1453    | 175.55       | 0.2598          | 1.69252       | 4.73          |
| 61.0908    | 240.52       | 0.7793          | 1.51568       | 6.48          |
| 64.0300    | 419.31       | 0.2598          | 1.45301       | 11.29         |
| 70.9688    | 346.03       | 0.3897          | 1.32700       | 9.32          |
| 73.2932    | 88.76        | 0.7793          | 1.29055       | 2.39          |
| 77.2009    | 451.31       | 0.3897          | 1.23468       | 12.15         |
| 78.6972    | 265.51       | 0.3897          | 1.21491       | 7.15          |

**Pattern List:** (Bookmark 4)

| Visible | Ref.Code    | Score                   | Compound Name | Displ.[°2θ] | Scale Fac. | Chem. Formula             |
|---------|-------------|-------------------------|---------------|-------------|------------|---------------------------|
| *       | 96-722-1325 | 2                       | Ti3 Al C2     | 0.000       | 0.177      | Ti6.00<br>C4.00<br>Al2.00 |
| *       | 96-900-8947 | 18                      | 9008946       | 0.000       | 0.147      | Ti4.00<br>B4.00           |
| *       | 96-152-4661 | 5                       | (Al B12)16.61 | 0.000       | 1.224      | B176.00<br>Al13.36        |
| *       | 96-151-1439 | No<br>Matching<br>Lines | 1511438       | 0.000       | 0.000      | B189.88                   |

**Document History:** (Bookmark 5)

ESD calculated from counts:

- Modification time = "2/14/2024 12:03:27 PM"
- Modification editor = "pc"

Insert Measurement:

- File name = "309C Ti4AlB2C Optimized.xrdml"
- Modification time = "2/14/2024 12:03:27 PM"
- Modification editor = "pc"

Default properties:

- Measurement step axis = "None"
- Internal wavelengths used from anode material: Copper (Cu)
- Original K-Alpha1 wavelength = "1.54060"
- Used K-Alpha1 wavelength = "1.54060"
- Original K-Alpha2 wavelength = "1.54443"
- Used K-Alpha2 wavelength = "1.54443"
- Original K-Beta wavelength = "1.39225"
- Used K-Beta wavelength = "1.39225"
- Irradiated length = "10.00000"
- Spinner used = "No"
- KBeta filter material = "Ni"
- KBeta filter thickness = "0.02000"
- Receiving slit size = "0.10000"
- Step axis value = "0.00000"
- Offset = "0.00000"
- Sample length = "10.00000"
- Modification time = "2/14/2024 12:03:27 PM"
- Modification editor = "pc"

Interpolate Step Size:

- Initial Scan Range = 7.03283 - 89.95060

- Initial Step Size = 0.06565
- Derived Step Size = 0.06600
- Use Derived Step Size = "Yes"
- Parameterset name = "Default"
- PANalytical factory default
- Modification time = "2/14/2024 12:03:27 PM"
- Modification editor = "pc"

#### Clip Range:

- Old/New start = "7.0328/20.0000"
- Old/New end = "89.9288/80.0000"
- Modification time = "2/14/2024 12:03:46 PM"
- Modification editor = "pc"

#### Determine Background:

- Add to net scan = "Nothing"
- User defined intensity = "-5"
- Correction method = "Automatic"
- Bending factor = "1"
- Minimum significance = "0.7"
- Minimum tip width = "0"
- Maximum tip width = "1"
- Peak base width = "2"
- Use smoothed input data = "Yes"
- Granularity = "10"
- Search window = "5"
- Spline type = "Linear"
- Parameterset name = "Untitled"
- Parameterset modification time = "2/9/2024 8:08:11 PM"
- Parameterset modification editor = "pc"
- Modification time = "2/14/2024 12:03:50 PM"
- Modification editor = "pc"

#### Search Peaks:

- Minimum significance = "2"
- Minimum tip width = "0.1"
- Maximum tip width = "1"
- Peak base width = "2"
- Method = "Minimum 2nd derivative"
- Parameterset name = "Untitled"
- Parameterset modification time = "2/13/2024 3:42:23 PM"
- Parameterset modification editor = "pc"
- Modification time = "2/14/2024 12:03:58 PM"
- Modification editor = "pc"

#### Search & Match:

- Allow pattern shift = "No"
- Auto residue = "Yes"
- Data source = "Profile and peak list"
- Demote unmatched strong = "Yes"
- Multi phase = "Yes"

- Restriction set = "Untitled"
- Restriction = "Restriction set"
- Subset name = ""
- Match intensity = "Yes"
- Two theta shift = "0"
- Identify = "No"
- Max. no. of accepted patterns = "5"
- Minimum score = "50"
- Min. new lines / total lines = "60"
- Search depth = "10"
- Minimum new lines = "5"
- Minimum scale factor = "0.1"
- Intensity threshold = "0"
- Use line clustering = "Yes"
- Line cluster range = "1.5"
- Search sensitivity = "1.8"
- Use adaptive smoothing = "Yes"
- Smoothing range = "1.5"
- Threshold factor = "3"
- Match Threshold = "0"
- N \* Esds = "-1"
- Raw Weight = "-1"
- Peak Shape = "-1"
- Accepted Shape = "-1"
- Peak Power = "-1"
- New Peak Power = "-1"
- Intensity Power = "-1"
- N Peaks Power = "-1"
- Parameterset name = "Untitled"
- Parameterset modification time = "2/14/2024 12:04:14 PM"
- Parameterset modification editor = "pc"
- Modification time = "2/14/2024 12:04:19 PM"
- Modification editor = "pc"

Convert Ref. Pattern to Phase:

- Modification time = "2/14/2024 12:05:40 PM"
- Modification editor = "pc"

Edit 9008946 Title:

- Old Value = "9008946"
- Modification time = "2/14/2024 12:06:00 PM"
- Modification editor = "pc"

Edit 1511438 Title:

- Old Value = "1511438"
- Modification time = "2/14/2024 12:06:10 PM"
- Modification editor = "pc"

**XRD Measurement Information:** (Bookmark 6)

More items... (Bookmark 7)

More items... (Bookmark 8)

More items... (Bookmark 9)

More items... (Bookmark 10)

More items... (Bookmark 11)

More items... (Bookmark 12)

More items... (Bookmark 13)

More items... (Bookmark 14)

More items... (Bookmark 15)