**Lampiran 1**

**Data-data kristal sebagai *file input* dalam Rietveld.**

- **Fasa Zirkonium *Baddeleyite***

Fasa : Zirkonium *Baddeleyit*e ($ZrO_2$)
*Symmetri* : *monoclinic*
*Space group* : P 1 21/c 1
*Parameter cell* : a = 5.145 (Å) α = 90.0°
b = 5.207 (Å) β = 99.2°
c = 5.311 (Å) γ = 90.0°
Total atom per *cell* : 14

Tabel 1.1 Data fasa Zirkonium *Baddeleyite*.

| Atom | Wyck | x | y | z | Occ |
|---|---|---|---|---|---|
| Zr | 4e | 0.2758 | 0.0411 | 0.2082 | 1 |
| O | 4e | 0.0703 | 0.3359 | 0.3406 | 1 |
| O | 4e | 0.4423 | 0.7549 | 0.4789 | 1 |

Referensi : Smith, D. K and Newkirk, H.K. 1965. Crystal Structure of Baddeleyite (Monoclinic $ZrO_2$) and it's Relation to The Polymorphism of $ZrO_2$. *Acta Crystallography*. Vol.18. Page. 982.

- **Fasa *Tenorite***

Fasa : *Tenorite* (CuO)
*Symmetri* : *monoclinic*
*Space group* : C2/c
*Parameter cell* : a = 4.6530 (Å) α = 90.0°
b = 3.4100 (Å) β = 99.480°
c = 5.1080 (Å) γ = 90.0°
Total atom per *cell* : 8

Tabel 1.2 Data fasa *Tenorite*.

| Atom | Wyck | x | y | z | Occ |
|---|---|---|---|---|---|
| Cu | 4c | 0.2500 | 0.2500 | 0.0000 | 0.5 |
| O | 4c | 0.0000 | 0.9160 | 0.2500 | 0.5 |

Referensi : Tunell, E.G., Ponsjak, C.J. and Ksanda, Z. 1935. Identification of The Copper Ore Minerals by Means of X-Rays Powder Diffraction Pattern. *Zeit Krist.* Vol.90. Page.138-139.