

## Al – Se (Aluminum – Selenium)

### Crystal structure

The intermediate phase  $\text{Al}_2\text{Se}_3$  exists in three modifications (see Table 1). Range et al. [73 Ran] had prepared a cubic high pressure modification at 873 K and  $60 \cdot 10^8$  Pa.

**Table 1. Al–Se.** Crystallographic data of  $\text{Al}_2\text{Se}_3$  [Pearson].

| Structure  | Prototype                 | Lattice parameters [nm] |                        |          | Reference |
|------------|---------------------------|-------------------------|------------------------|----------|-----------|
|            |                           | <i>a</i>                | <i>b</i>               | <i>c</i> |           |
| cub<br>mon | $\text{Al}_2\text{MgO}_4$ | 1.045                   |                        |          | [73 Ran]  |
|            | $\text{Ga}_2\text{S}_3$   | 1.1680                  | 0.6733                 | 0.7329   | [66 Ste]  |
|            |                           |                         | $\beta = 121,12^\circ$ |          |           |
| hex        | ZnS                       | 0.3890                  |                        | 0.630    | [54 Sch]  |

### References

- [54 Sch] Schneider, A., Gattow, G.: Z. Anorg. Allg. Chem. **277** (1954) 49  
 [66 Ste] Steigmann, G.A., Goodyear, J.: Acta Cryst. **20** (1966) 617  
 [73 Ran] Range, K.J., Hübner, H.J.: Z. Naturforschg. **28b** (1973) 353  
 [Pearson] Pearson, W.B.: “Handbook of Lattice Spacings and Structure of Metals and Alloys”, Pergamon Press, New York, (1958), Vol. 1, (1967) Vol. 2