

TABLE 4

SUMMARY OF CRYSTAL FORMS OF KNOWN RARE EARTH SESQUISULFIDES

| | Sc | Y | La | Ce | Pr | Nd | Sm | Eu | Gd | Tb | Dy | Ho | Er | Tm | Yb | Lu |
|--------------------------------------|----|---|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|
| α A Ortho- rhom- bic | | | 26 | 26 | 26 | 26 | 26 | 20 | 26 | | 2 | | | | 21 | |
| β B Unknown | | | 2 | 2 | 2 | 2 | | | | | | | | | | |
| γ C Cubic | | * | 2 | 2 | 2 | 2 | 2 | | 2 | 6 | 2;* | * | * | * | * | * |
| δ D Monoclinic | | 2 | | | | | | | | | 2 | 6 | 2 | 6 | | |
| ϵ E Rhomb- hedral | | | | | | | | | | | | | | | 22 | 22 |
| ζ Ortho- rhom- bic | 27 | | | | | | | | | | | | | | | |

Note:

Numbers indicate prior synthesis (except for Eu_2S_3 which does not exist) and gives the reference as found in the List of References.

Asterisks indicate the structure was synthesized in the present work.