

TABLE 12

(CONTINUED)

| hkl           | Intensity | Observed d Values              |                                |                               |
|---------------|-----------|--------------------------------|--------------------------------|-------------------------------|
|               |           | Yb <sub>2</sub> S <sub>3</sub> | Lu <sub>2</sub> S <sub>3</sub> | Y <sub>2</sub> S <sub>3</sub> |
| 211           | VS        | 3.324                          | 3.311                          | 3.373                         |
| 220           | VVW       | 2.876                          |                                |                               |
| 310           | VVS       | 2.580                          | 2.575                          | 2.614                         |
| 321           | VS        | 2.187                          | 2.181                          | 2.212                         |
| 400           | VVW       | 2.046                          | 2.042                          |                               |
| 411,330       | VVW       | 1.933                          |                                |                               |
| 420           | m         | 1.834                          | 1.820                          | 1.852                         |
| 332           | W         | 1.743                          | 1.742                          | 1.767                         |
| 422           | VVW       | 1.672                          | 1.668                          | 1.692                         |
| 510,431       | S         | 1.611                          | 1.604                          | 1.626                         |
| 521           | VVW       | 1.497                          | 1.491                          | 1.514                         |
| 440           | VVW       | 1.450                          |                                |                               |
| 611,532       | S         | 1.331                          | 1.326                          | 1.345                         |
| 620           | VW        | 1.297                          |                                | 1.311                         |
| 541           | W         | 1.266                          | 1.261                          | 1.280                         |
| 631           | VVW       | 1.212                          |                                |                               |
| 444           | VW        | 1.186                          |                                | 1.197                         |
| 640           | VW        | 1.139                          |                                | 1.150                         |
| 721,633,552   | S         | 1.118                          | 1.113                          | 1.129                         |
| 642           | VVW       | 1.097                          | 1.093                          | 1.110                         |
| 732,651       | VVW       | 1.043                          | 1.038                          | 1.054                         |
| 800           | VVW       | 1.026                          |                                |                               |
| 653           | VW        | 0.982                          |                                |                               |
| 822,660       | VVW       | .970                           |                                |                               |
| 831,750,743   | VW        | .955                           | 0.951                          | 0.964                         |
| 752           | VW        | .930                           | .926                           |                               |
| 842           | VW        | .897                           |                                |                               |
| 921,761,655   | W         | .886                           | 0.882                          | .895                          |
| 930,851,754   | VW        | .867                           |                                | .875                          |
| 932,763       | VW        | .848                           |                                |                               |
| 10,11,772     | VW        | .814                           |                                |                               |
| 950,943       | VW        | .799                           |                                | 0.807                         |
| 10,31,952,765 | VW        | 0.784                          |                                |                               |