

MINERAL DATA SHEET A  
 Winter J K, Ghose S  
 American Mineralogist 64 (1979) 573-586

CELL PARAMETERS: 7.7980 7.9031 5.5566 90.000 90.000 90.000

| INTENSITY | D-SPACING | H | K | L |
|-----------|-----------|---|---|---|
| 99.56     | 5.5508    | 1 | 1 | 0 |
| 69.89     | 4.5455    | 0 | 1 | 1 |
| 100.00    | 4.5253    | 1 | 0 | 1 |
| 3.26      | 3.9516    | 0 | 2 | 0 |
| 54.03     | 3.9271    | 1 | 1 | 1 |
| 4.41      | 3.8990    | 2 | 0 | 0 |
| 31.11     | 3.5248    | 1 | 2 | 0 |
| 25.21     | 3.4966    | 2 | 1 | 0 |
| 22.78     | 2.7783    | 0 | 0 | 2 |
| 71.82     | 2.7754    | 2 | 2 | 0 |
| 5.52      | 2.4958    | 1 | 3 | 0 |
| 33.15     | 2.4845    | 1 | 1 | 2 |
| 4.37      | 2.4829    | 2 | 2 | 1 |
| 24.18     | 2.4692    | 3 | 1 | 0 |
| 11.39     | 2.3804    | 0 | 3 | 1 |
| 10.56     | 2.3545    | 3 | 0 | 1 |
| 18.28     | 2.2767    | 1 | 3 | 1 |
| 37.12     | 2.2728    | 0 | 2 | 2 |
| 27.35     | 2.2564    | 3 | 1 | 1 |
| 26.13     | 2.1820    | 1 | 2 | 2 |
| 25.98     | 2.1752    | 2 | 1 | 2 |
| 32.00     | 2.1716    | 3 | 2 | 0 |
| 6.24      | 1.9758    | 0 | 4 | 0 |
| 3.68      | 1.9495    | 4 | 0 | 0 |
| 1.17      | 1.9153    | 1 | 4 | 0 |
| 5.00      | 1.8928    | 4 | 1 | 0 |
| 8.49      | 1.8567    | 1 | 3 | 2 |
| 6.87      | 1.8107    | 1 | 4 | 1 |
| 7.71      | 1.8033    | 0 | 1 | 3 |
| 3.70      | 1.8021    | 1 | 0 | 3 |
| 9.10      | 1.7917    | 4 | 1 | 1 |
| 1.99      | 1.7570    | 1 | 1 | 3 |
| 9.81      | 1.7555    | 3 | 3 | 1 |
| 3.11      | 1.7164    | 2 | 3 | 2 |
| 2.59      | 1.6799    | 2 | 4 | 1 |
| 4.38      | 1.6101    | 0 | 4 | 2 |
| 17.51     | 1.5958    | 4 | 0 | 2 |
| 3.45      | 1.5491    | 1 | 5 | 0 |
| 1.12      | 1.5406    | 2 | 2 | 3 |
| 20.71     | 1.5400    | 3 | 3 | 2 |
| 6.38      | 1.5301    | 5 | 1 | 0 |
| 1.32      | 1.5203    | 0 | 5 | 1 |
| 2.49      | 1.5152    | 0 | 3 | 3 |
| 3.26      | 1.5135    | 3 | 4 | 1 |
| 2.68      | 1.5084    | 3 | 0 | 3 |
| 3.76      | 1.5082    | 4 | 3 | 1 |
| 1.61      | 1.5016    | 5 | 0 | 1 |
| 11.88     | 1.4922    | 1 | 5 | 1 |
| 51.35     | 1.4882    | 2 | 4 | 2 |

MINERAL DATA SHEET A (continued)

| INTENSITY | D-SPACING | H | K | L |
|-----------|-----------|---|---|---|
| 6.49      | 1.4874    | 1 | 3 | 3 |
| 5.44      | 1.4817    | 3 | 1 | 3 |
| 13.73     | 1.4797    | 4 | 2 | 2 |
| 11.38     | 1.4752    | 5 | 1 | 1 |
| 4.47      | 1.4648    | 2 | 5 | 0 |
| 22.60     | 1.3892    | 0 | 0 | 4 |
| 12.40     | 1.3877    | 4 | 4 | 0 |
| 1.28      | 1.3530    | 1 | 5 | 2 |
| 2.01      | 1.3476    | 1 | 1 | 4 |
| 2.90      | 1.3403    | 5 | 1 | 2 |
| 2.90      | 1.3314    | 1 | 4 | 3 |
| 1.19      | 1.3238    | 4 | 1 | 3 |
| 3.90      | 1.3090    | 3 | 3 | 3 |
| 1.13      | 1.3045    | 5 | 3 | 1 |
| 1.92      | 1.2997    | 6 | 0 | 0 |
| 1.30      | 1.2988    | 1 | 6 | 0 |
| 8.56      | 1.2958    | 2 | 5 | 2 |
| 1.90      | 1.2924    | 1 | 2 | 4 |
| 1.83      | 1.2910    | 2 | 1 | 4 |
| 10.56     | 1.2859    | 5 | 2 | 2 |
| 1.21      | 1.2824    | 6 | 1 | 0 |
| 3.80      | 1.2479    | 2 | 6 | 0 |
| 9.36      | 1.2422    | 2 | 2 | 4 |
| 11.55     | 1.2415    | 4 | 4 | 2 |
| 4.67      | 1.2346    | 6 | 2 | 0 |
| 4.89      | 1.2146    | 3 | 5 | 2 |
| 1.69      | 1.2138    | 1 | 3 | 4 |
| 4.12      | 1.2107    | 3 | 1 | 4 |
| 1.67      | 1.1963    | 4 | 3 | 3 |
| 2.09      | 1.1955    | 5 | 4 | 1 |
| 1.19      | 1.1930    | 5 | 0 | 3 |
| 2.92      | 1.1902    | 0 | 6 | 2 |
| 6.66      | 1.1883    | 1 | 5 | 3 |
| 4.38      | 1.1796    | 5 | 1 | 3 |
| 4.98      | 1.1772    | 6 | 0 | 2 |
| 1.37      | 1.1749    | 3 | 6 | 0 |
| 2.87      | 1.1702    | 3 | 2 | 4 |
| 1.10      | 1.1174    | 1 | 7 | 0 |
| 1.21      | 1.1002    | 1 | 0 | 5 |
| 2.06      | 1.0954    | 1 | 7 | 1 |

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 For reference, see Downs et al. (1993) American Mineralogist 78, 1104-1107.

MINERAL DATA SHEET B  
Downs R T, Palmer D C

CELL PARAMETERS: 4.9717 4.9717 6.9223 90.000 90.000 90.000

| INTENSITY | D-SPACING | H | K | L |
|-----------|-----------|---|---|---|
| 100.00    | 4.0381    | 1 | 0 | 1 |
| 9.04      | 3.1345    | 1 | 1 | 1 |
| 11.28     | 2.8406    | 1 | 0 | 2 |
| 14.31     | 2.4859    | 2 | 0 | 0 |
| 4.24      | 2.4664    | 1 | 1 | 2 |
| 2.83      | 2.1169    | 2 | 1 | 1 |
| 2.51      | 2.0191    | 2 | 0 | 2 |
| 5.26      | 1.9290    | 1 | 1 | 3 |
| 5.40      | 1.8707    | 2 | 1 | 2 |
| 2.68      | 1.6912    | 2 | 0 | 3 |
| 4.19      | 1.6117    | 3 | 0 | 1 |
| 1.25      | 1.6011    | 2 | 1 | 3 |
| 2.77      | 1.5331    | 3 | 1 | 1 |
| 3.18      | 1.4947    | 3 | 0 | 2 |
| 2.35      | 1.4314    | 3 | 1 | 2 |
| 1.53      | 1.4203    | 2 | 0 | 4 |
| 1.49      | 1.3983    | 2 | 2 | 3 |
| 2.53      | 1.3657    | 2 | 1 | 4 |
| 1.12      | 1.3523    | 3 | 2 | 1 |
| 2.02      | 1.3337    | 1 | 0 | 5 |
| 2.49      | 1.2993    | 3 | 1 | 3 |
| 2.43      | 1.2810    | 3 | 2 | 2 |
| 1.24      | 1.2234    | 4 | 0 | 1 |
| 1.61      | 1.2058    | 4 | 1 | 0 |
| 1.44      | 1.1837    | 3 | 2 | 3 |
| 1.62      | 1.1752    | 2 | 1 | 5 |
| 1.14      | 1.0976    | 4 | 2 | 1 |
| 1.79      | 1.0962    | 1 | 1 | 6 |

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For reference, see Downs et al. (1993) American Mineralogist 78, 1104-1107.

MINERAL DATA SHEET C

Birle J D, Gibbs G V, Moore P B, Smith J V

CELL PARAMETERS: 4.8160 10.4690 6.0990 90.000 90.000 90.000

| INTENSITY | D-SPACING | H | K | L |
|-----------|-----------|---|---|---|
| 8.31      | 5.2345    | 0 | 2 | 0 |
| 9.06      | 4.3752    | 1 | 1 | 0 |
| 9.24      | 3.9721    | 0 | 2 | 1 |
| 4.38      | 3.7797    | 1 | 0 | 1 |
| 59.86     | 3.5551    | 1 | 1 | 1 |
| 5.43      | 3.5442    | 1 | 2 | 0 |
| 3.39      | 3.0643    | 1 | 2 | 1 |
| 6.03      | 3.0495    | 0 | 0 | 2 |
| 91.73     | 2.8258    | 1 | 3 | 0 |
| 32.60     | 2.6350    | 0 | 2 | 2 |
| 11.06     | 2.6172    | 0 | 4 | 0 |
| 64.92     | 2.5640    | 1 | 3 | 1 |
| 100.00    | 2.5018    | 1 | 1 | 2 |
| 15.35     | 2.4080    | 2 | 0 | 0 |
| 13.40     | 2.4051    | 0 | 4 | 1 |
| 6.38      | 2.3467    | 2 | 1 | 0 |
| 12.13     | 2.3116    | 1 | 2 | 2 |
| 11.60     | 2.2996    | 1 | 4 | 0 |
| 6.51      | 2.1902    | 2 | 1 | 1 |
| 6.05      | 2.0727    | 1 | 3 | 2 |
| 1.63      | 2.0592    | 2 | 2 | 1 |
| 2.31      | 1.9861    | 0 | 4 | 2 |
| 2.74      | 1.9202    | 1 | 5 | 0 |
| 10.53     | 1.8437    | 1 | 1 | 3 |
| 6.29      | 1.8315    | 1 | 5 | 1 |
| 72.02     | 1.7775    | 2 | 2 | 2 |
| 21.79     | 1.7721    | 2 | 4 | 0 |
| 2.22      | 1.7635    | 1 | 2 | 3 |
| 11.57     | 1.7017    | 2 | 4 | 1 |
| 12.38     | 1.6775    | 0 | 6 | 1 |
| 15.44     | 1.6503    | 1 | 3 | 3 |
| 17.40     | 1.6249    | 1 | 5 | 2 |
| 7.17      | 1.6055    | 0 | 4 | 3 |
| 4.18      | 1.5868    | 3 | 1 | 0 |
| 1.11      | 1.5366    | 2 | 1 | 3 |
| 5.70      | 1.5357    | 3 | 1 | 1 |
| 1.23      | 1.5348    | 3 | 2 | 0 |
| 3.39      | 1.5322    | 2 | 4 | 2 |
| 2.37      | 1.5295    | 2 | 5 | 1 |
| 20.92     | 1.5247    | 0 | 0 | 4 |
| 24.91     | 1.5145    | 0 | 6 | 2 |
| 1.13      | 1.4884    | 3 | 2 | 1 |
| 6.01      | 1.4584    | 3 | 3 | 0 |
| 13.44     | 1.4283    | 1 | 7 | 0 |
| 7.61      | 1.4184    | 3 | 3 | 1 |
| 10.15     | 1.4076    | 3 | 1 | 2 |
| 1.64      | 1.3960    | 1 | 5 | 3 |
| 3.25      | 1.3765    | 2 | 6 | 1 |
| 6.60      | 1.3709    | 3 | 2 | 2 |
| 1.44      | 1.3684    | 3 | 4 | 0 |

MINERAL DATA SHEET C (continued)

| <b>INTENSITY</b> | <b>D-SPACING</b> | <b>H</b> | <b>K</b> | <b>L</b> |
|------------------|------------------|----------|----------|----------|
| 13.28            | 1.3419           | 1        | 3        | 4        |
| 2.28             | 1.3358           | 2        | 4        | 3        |
| 2.60             | 1.3352           | 3        | 4        | 1        |
| 4.70             | 1.3240           | 0        | 6        | 3        |
| 2.66             | 1.3175           | 0        | 4        | 4        |
| 5.61             | 1.2882           | 2        | 0        | 4        |
| 4.92             | 1.2820           | 2        | 6        | 2        |
| 1.01             | 1.2786           | 2        | 1        | 4        |
| 1.43             | 1.2509           | 3        | 1        | 3        |
| 1.48             | 1.2476           | 2        | 5        | 3        |
| 4.46             | 1.2040           | 4        | 0        | 0        |
| 1.09             | 1.2026           | 0        | 8        | 2        |
| 1.17             | 1.1941           | 1        | 5        | 4        |
| 3.79             | 1.1850           | 3        | 3        | 3        |
| 7.90             | 1.1755           | 3        | 5        | 2        |
| 1.17             | 1.1750           | 1        | 1        | 5        |
| 1.36             | 1.1728           | 2        | 7        | 2        |
| 1.88             | 1.1602           | 2        | 6        | 3        |
| 7.09             | 1.1558           | 2        | 4        | 4        |
| 2.68             | 1.1498           | 2        | 8        | 0        |
| 2.04             | 1.1352           | 3        | 4        | 3        |
| 1.98             | 1.1299           | 2        | 8        | 1        |
| 3.87             | 1.1199           | 1        | 3        | 5        |
| 1.99             | 1.1135           | 4        | 1        | 2        |
| 1.66             | 1.0994           | 3        | 1        | 4        |
| 5.90             | 1.0951           | 4        | 2        | 2        |
| 4.99             | 1.0943           | 3        | 7        | 0        |
| 2.64             | 1.0938           | 4        | 4        | 0        |

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MINERAL DATA SHEET D

Birle J D, Gibbs G V, Moore P B, Smith J V

CELL PARAMETERS: 4.7620 10.2250 5.9940 90.000 90.000 90.000

| INTENSITY | D-SPACING | H | K | L |
|-----------|-----------|---|---|---|
| 19.24     | 5.1125    | 0 | 2 | 0 |
| 53.84     | 3.8898    | 0 | 2 | 1 |
| 18.46     | 3.7286    | 1 | 0 | 1 |
| 19.99     | 3.5029    | 1 | 1 | 1 |
| 12.81     | 3.4846    | 1 | 2 | 0 |
| 5.72      | 3.0125    | 1 | 2 | 1 |
| 15.56     | 2.9970    | 0 | 0 | 2 |
| 66.74     | 2.7716    | 1 | 3 | 0 |
| 2.62      | 2.5855    | 0 | 2 | 2 |
| 77.68     | 2.5157    | 1 | 3 | 1 |
| 100.00    | 2.4619    | 1 | 1 | 2 |
| 1.41      | 2.3810    | 2 | 0 | 0 |
| 12.51     | 2.3514    | 0 | 4 | 1 |
| 9.43      | 2.3190    | 2 | 1 | 0 |
| 37.15     | 2.2722    | 1 | 2 | 2 |
| 26.65     | 2.2523    | 1 | 4 | 0 |
| 17.26     | 2.1627    | 2 | 1 | 1 |
| 4.98      | 2.0348    | 1 | 3 | 2 |
| 2.64      | 1.9519    | 2 | 3 | 0 |
| 2.61      | 1.9449    | 0 | 4 | 2 |
| 6.07      | 1.8791    | 1 | 5 | 0 |
| 1.38      | 1.8643    | 2 | 0 | 2 |
| 4.40      | 1.8132    | 1 | 1 | 3 |
| 4.18      | 1.7930    | 1 | 5 | 1 |
| 68.17     | 1.7515    | 2 | 2 | 2 |
| 20.25     | 1.7423    | 2 | 4 | 0 |
| 4.30      | 1.7333    | 1 | 2 | 3 |
| 13.63     | 1.6730    | 2 | 4 | 1 |
| 13.39     | 1.6392    | 0 | 6 | 1 |
| 2.64      | 1.6356    | 2 | 3 | 2 |
| 18.93     | 1.6208    | 1 | 3 | 3 |
| 4.93      | 1.5920    | 1 | 5 | 2 |
| 9.39      | 1.5742    | 0 | 4 | 3 |
| 3.49      | 1.5685    | 3 | 1 | 0 |
| 1.37      | 1.5344    | 3 | 0 | 1 |
| 3.52      | 1.5174    | 3 | 1 | 1 |
| 2.40      | 1.5159    | 3 | 2 | 0 |
| 3.43      | 1.5137    | 2 | 1 | 3 |
| 4.76      | 1.5063    | 2 | 4 | 2 |
| 5.03      | 1.5019    | 2 | 5 | 1 |
| 27.84     | 1.4985    | 0 | 0 | 4 |
| 39.04     | 1.4814    | 0 | 6 | 2 |
| 1.28      | 1.4697    | 3 | 2 | 1 |
| 1.46      | 1.4662    | 2 | 2 | 3 |
| 3.46      | 1.4389    | 3 | 3 | 0 |
| 1.18      | 1.4380    | 0 | 2 | 4 |
| 7.76      | 1.3992    | 3 | 3 | 1 |
| 11.40     | 1.3965    | 1 | 7 | 0 |
| 8.26      | 1.3897    | 3 | 1 | 2 |
| 18.14     | 1.3527    | 3 | 2 | 2 |

MINERAL DATA SHEET D (continued)

| INTENSITY | D-SPACING | H | K | L |
|-----------|-----------|---|---|---|
| 1.16      | 1.3502    | 2 | 6 | 1 |
| 6.38      | 1.3485    | 3 | 4 | 0 |
| 9.86      | 1.3182    | 1 | 3 | 4 |
| 4.44      | 1.3156    | 3 | 4 | 1 |
| 1.76      | 1.3131    | 2 | 4 | 3 |
| 4.73      | 1.2966    | 0 | 6 | 3 |
| 2.31      | 1.2682    | 2 | 0 | 4 |
| 1.57      | 1.2586    | 2 | 1 | 4 |
| 1.80      | 1.2578    | 2 | 6 | 2 |
| 1.15      | 1.2510    | 1 | 6 | 3 |
| 2.08      | 1.2476    | 1 | 4 | 4 |
| 2.36      | 1.2429    | 3 | 0 | 3 |
| 1.25      | 1.2297    | 3 | 4 | 2 |
| 2.96      | 1.2253    | 2 | 5 | 3 |
| 5.05      | 1.1905    | 4 | 0 | 0 |
| 1.05      | 1.1886    | 2 | 3 | 4 |
| 2.64      | 1.1716    | 1 | 5 | 4 |
| 3.90      | 1.1676    | 3 | 3 | 3 |
| 2.16      | 1.1671    | 0 | 2 | 5 |
| 1.29      | 1.1625    | 1 | 0 | 5 |
| 5.04      | 1.1568    | 3 | 5 | 2 |
| 2.62      | 1.1498    | 2 | 7 | 2 |
| 1.99      | 1.1414    | 1 | 8 | 2 |
| 3.09      | 1.1403    | 3 | 6 | 1 |
| 5.75      | 1.1361    | 2 | 4 | 4 |
| 3.13      | 1.1261    | 2 | 8 | 0 |
| 4.09      | 1.1177    | 3 | 4 | 3 |
| 5.04      | 1.1003    | 1 | 3 | 5 |
| 2.67      | 1.1000    | 4 | 1 | 2 |

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 For reference, see Downs et al. (1993) American Mineralogist 78, 1104-1107.

MINERAL DATA SHEET E  
 Winter J K, Ghose S  
 American Mineralogist 64 (1979) 573-586

CELL PARAMETERS: 7.1262 7.8520 5.5724 89.990 101.110 106.030

| INTENSITY | D-SPACING | H  | K  | L |
|-----------|-----------|----|----|---|
| 5.66      | 6.7101    | 1  | 0  | 0 |
| 4.28      | 5.9035    | -1 | 1  | 0 |
| 8.60      | 4.4301    | 1  | 1  | 0 |
| 22.48     | 4.3073    | 0  | 1  | 1 |
| 22.78     | 4.3019    | -1 | 1  | 1 |
| 10.43     | 3.7688    | -1 | 2  | 0 |
| 2.93      | 3.7674    | 1  | -1 | 1 |
| 9.77      | 3.7674    | 0  | 2  | 0 |
| 2.67      | 3.7574    | -1 | -1 | 1 |
| 7.63      | 3.4464    | -2 | 1  | 0 |
| 100.00    | 3.3551    | 2  | 0  | 0 |
| 57.93     | 3.1914    | 1  | 1  | 1 |
| 34.84     | 3.1865    | -1 | 2  | 1 |
| 43.46     | 3.1856    | 0  | -2 | 1 |
| 62.74     | 3.1848    | -2 | 1  | 1 |
| 12.77     | 3.0229    | 1  | -2 | 1 |
| 16.63     | 3.0223    | 0  | 2  | 1 |
| 13.78     | 2.9518    | -2 | 2  | 0 |
| 12.25     | 2.9498    | 1  | 2  | 0 |
| 1.97      | 2.7873    | 2  | 1  | 0 |
| 3.29      | 2.7297    | 0  | 0  | 2 |
| 3.48      | 2.7264    | -1 | 0  | 2 |
| 40.80     | 2.7027    | 2  | -1 | 1 |
| 38.07     | 2.6954    | -2 | -1 | 1 |
| 1.29      | 2.6327    | 2  | 0  | 1 |
| 4.25      | 2.6139    | 0  | -1 | 2 |
| 6.37      | 2.6128    | -1 | 1  | 2 |
| 5.73      | 2.6051    | -1 | 3  | 0 |
| 37.57     | 2.5214    | 0  | 1  | 2 |
| 24.34     | 2.5173    | -1 | -1 | 2 |
| 38.75     | 2.5116    | 0  | 3  | 0 |
| 5.59      | 2.4638    | 2  | -2 | 1 |
| 2.82      | 2.4626    | 1  | 2  | 1 |
| 10.01     | 2.3682    | 1  | 0  | 2 |
| 8.76      | 2.3618    | -2 | 0  | 2 |
| 29.92     | 2.3615    | 1  | -1 | 2 |
| 37.67     | 2.3564    | -2 | 1  | 2 |
| 31.83     | 2.3532    | -2 | 3  | 0 |
| 12.52     | 2.3336    | 1  | -3 | 1 |
| 12.70     | 2.3320    | 0  | -3 | 1 |
| 6.94      | 2.2723    | -1 | 2  | 2 |
| 4.73      | 2.2720    | 0  | -2 | 2 |
| 4.29      | 2.2367    | 3  | 0  | 0 |
| 4.79      | 2.2345    | 0  | 3  | 1 |
| 5.21      | 2.2336    | -2 | 3  | 1 |
| 9.58      | 2.2164    | -3 | 2  | 0 |
| 8.42      | 2.2150    | 2  | 2  | 0 |
| 5.60      | 2.1835    | -3 | 2  | 1 |
| 8.11      | 2.1821    | -2 | -2 | 1 |

## MINERAL DATA SHEET E (continued)

| INTENSITY | D-SPACING | H  | K  | L |
|-----------|-----------|----|----|---|
| 9.60      | 2.1692    | 1  | 1  | 2 |
| 15.44     | 2.1633    | -2 | -1 | 2 |
| 15.18     | 2.1610    | 1  | 3  | 0 |
| 1.24      | 2.1536    | 0  | 2  | 2 |
| 1.45      | 2.1509    | -2 | 2  | 2 |
| 10.80     | 2.0090    | 3  | -1 | 1 |
| 10.33     | 2.0045    | -3 | -1 | 1 |
| 4.38      | 1.9737    | 2  | -1 | 2 |
| 1.64      | 1.9683    | -3 | 1  | 2 |
| 1.93      | 1.9678    | -3 | 3  | 0 |
| 77.63     | 1.9630    | -1 | 4  | 0 |
| 2.53      | 1.9445    | 3  | -2 | 1 |
| 5.38      | 1.9436    | 2  | 2  | 1 |
| 76.14     | 1.9359    | 2  | 0  | 2 |
| 77.15     | 1.9301    | -3 | 0  | 2 |
| 2.41      | 1.8844    | -2 | 4  | 0 |
| 2.78      | 1.8837    | 0  | 4  | 0 |
| 2.86      | 1.8472    | -1 | 4  | 1 |
| 1.19      | 1.8472    | 1  | -4 | 1 |
| 15.52     | 1.7677    | 3  | 1  | 1 |
| 16.91     | 1.7651    | -4 | 1  | 1 |
| 1.72      | 1.7466    | 0  | 1  | 3 |
| 1.42      | 1.7442    | -2 | 1  | 3 |
| 3.56      | 1.6777    | 1  | -1 | 3 |
| 3.22      | 1.6761    | -1 | 2  | 3 |
| 6.56      | 1.6759    | 0  | -2 | 3 |
| 3.68      | 1.6741    | -2 | -1 | 3 |
| 1.66      | 1.6496    | -2 | 2  | 3 |
| 2.18      | 1.6492    | -1 | -2 | 3 |
| 7.01      | 1.6254    | 3  | -1 | 2 |
| 4.29      | 1.6216    | -4 | 3  | 0 |
| 5.22      | 1.6210    | -4 | 1  | 2 |
| 1.16      | 1.6082    | 1  | 3  | 2 |
| 4.14      | 1.5962    | 3  | -2 | 2 |
| 2.47      | 1.5957    | 2  | 2  | 2 |
| 6.15      | 1.5937    | -1 | 4  | 2 |
| 5.70      | 1.5937    | 1  | -4 | 2 |
| 6.25      | 1.5933    | -2 | 4  | 2 |
| 8.98      | 1.5932    | 1  | 1  | 3 |
| 5.35      | 1.5928    | 0  | -4 | 2 |
| 3.06      | 1.5924    | -4 | 2  | 2 |
| 3.59      | 1.5916    | -3 | -2 | 2 |
| 9.91      | 1.5895    | -3 | 1  | 3 |
| 2.01      | 1.5741    | 3  | -4 | 1 |
| 2.63      | 1.5733    | 1  | 4  | 1 |
| 1.51      | 1.5469    | -2 | 5  | 0 |
| 1.15      | 1.5367    | -3 | 2  | 3 |
| 1.16      | 1.5203    | 4  | 0  | 1 |
| 7.93      | 1.5070    | 0  | 5  | 0 |
| 2.24      | 1.5057    | -1 | 3  | 3 |
| 2.18      | 1.5050    | -2 | 3  | 3 |
| 7.16      | 1.5021    | -1 | 5  | 1 |
| 6.76      | 1.5021    | -2 | 5  | 1 |
| 7.54      | 1.4805    | 3  | 1  | 2 |

MINERAL DATA SHEET E (continued 2)

| INTENSITY | D-SPACING | H  | K  | L |
|-----------|-----------|----|----|---|
| 4.27      | 1.4784    | 1  | -3 | 3 |
| 5.37      | 1.4767    | 3  | 3  | 0 |
| 3.99      | 1.4766    | -1 | -3 | 3 |
| 6.87      | 1.4765    | -4 | -1 | 2 |
| 7.69      | 1.4750    | 2  | -5 | 1 |
| 1.78      | 1.4747    | -4 | 4  | 1 |
| 7.88      | 1.4740    | 0  | -5 | 1 |
| 3.22      | 1.4737    | -2 | -4 | 1 |
| 4.18      | 1.4647    | 1  | 2  | 3 |
| 7.66      | 1.4536    | -3 | 5  | 0 |
| 1.37      | 1.4358    | 0  | 3  | 3 |
| 1.21      | 1.4340    | -3 | 3  | 3 |
| 2.17      | 1.4177    | 4  | 1  | 1 |
| 2.31      | 1.4160    | -5 | 1  | 1 |
| 2.94      | 1.4154    | -4 | -2 | 1 |
| 2.59      | 1.4078    | 2  | 1  | 3 |
| 3.25      | 1.4040    | -4 | 1  | 3 |
| 51.24     | 1.3931    | -1 | 0  | 4 |
| 1.66      | 1.3891    | 1  | 5  | 0 |
| 1.44      | 1.3820    | 2  | -3 | 3 |
| 1.98      | 1.3817    | -4 | 2  | 3 |
| 1.04      | 1.3812    | -3 | -2 | 3 |
| 1.32      | 1.3790    | -2 | -3 | 3 |
| 1.39      | 1.3788    | 3  | -5 | 1 |
| 46.67     | 1.3786    | 3  | -4 | 2 |
| 42.58     | 1.3781    | 1  | 4  | 2 |
| 43.66     | 1.3767    | -4 | 4  | 2 |
| 46.91     | 1.3758    | -2 | -4 | 2 |
| 1.36      | 1.3695    | 3  | 3  | 1 |
| 1.24      | 1.3687    | -5 | 3  | 1 |
| 3.02      | 1.3549    | 4  | -1 | 2 |
| 2.03      | 1.3526    | -1 | 5  | 2 |
| 3.52      | 1.3523    | -5 | 3  | 0 |
| 1.57      | 1.3518    | 0  | -5 | 2 |
| 4.23      | 1.3515    | -5 | 1  | 2 |
| 1.43      | 1.3514    | 4  | -2 | 2 |
| 2.01      | 1.3509    | 3  | 2  | 2 |
| 1.88      | 1.3483    | -5 | 2  | 2 |
| 1.42      | 1.3477    | -4 | -2 | 2 |
| 39.89     | 1.3420    | 5  | 0  | 0 |
| 1.12      | 1.3262    | 2  | -5 | 2 |
| 2.93      | 1.3172    | 3  | -1 | 3 |
| 2.49      | 1.3131    | -4 | -1 | 3 |
| 3.51      | 1.2940    | 5  | -2 | 1 |
| 3.71      | 1.2880    | 1  | 0  | 4 |
| 3.69      | 1.2852    | -3 | 0  | 4 |
| 1.88      | 1.2757    | -5 | 4  | 0 |
| 1.31      | 1.2749    | 3  | 4  | 0 |
| 1.18      | 1.2726    | -2 | 6  | 1 |
| 2.17      | 1.2630    | 5  | -3 | 1 |
| 2.32      | 1.2609    | -4 | -3 | 1 |
| 4.54      | 1.2495    | 2  | 5  | 0 |
| 1.03      | 1.2454    | 4  | 1  | 2 |
| 1.19      | 1.2428    | 4  | 3  | 0 |

MINERAL DATA SHEET E (continued 3)

| INTENSITY | D-SPACING | H  | K  | L |
|-----------|-----------|----|----|---|
| 1.34      | 1.2279    | -2 | -4 | 3 |
| 3.80      | 1.2188    | -1 | 3  | 4 |
| 2.99      | 1.2177    | -1 | -3 | 4 |
| 1.41      | 1.2091    | 0  | 6  | 1 |
| 3.91      | 1.1994    | 1  | -3 | 4 |
| 2.92      | 1.1982    | -3 | 3  | 4 |
| 2.68      | 1.1946    | 1  | -5 | 3 |
| 3.10      | 1.1941    | 0  | -5 | 3 |
| 1.05      | 1.1870    | -6 | 2  | 1 |
| 1.12      | 1.1865    | -5 | -2 | 1 |
| 1.16      | 1.1817    | 1  | 4  | 3 |
| 4.77      | 1.1809    | -1 | 5  | 3 |
| 2.76      | 1.1807    | -5 | 5  | 0 |
| 4.50      | 1.1803    | -3 | 5  | 3 |
| 1.34      | 1.1719    | 0  | 3  | 4 |
| 1.73      | 1.1716    | -4 | 6  | 1 |
| 1.09      | 1.1710    | -1 | -6 | 1 |
| 2.17      | 1.1699    | -2 | -3 | 4 |
| 1.23      | 1.1648    | 5  | 2  | 0 |
| 1.38      | 1.1516    | 3  | 2  | 3 |
| 5.09      | 1.1362    | -2 | 4  | 4 |
| 7.91      | 1.1360    | 0  | -4 | 4 |
| 1.30      | 1.1299    | 4  | -6 | 1 |
| 1.83      | 1.1237    | 5  | -5 | 1 |
| 1.06      | 1.1226    | -4 | -3 | 3 |
| 1.33      | 1.1221    | -3 | -5 | 1 |
| 1.05      | 1.1163    | -6 | 0  | 2 |
| 5.17      | 1.1082    | -6 | 4  | 0 |
| 4.65      | 1.1075    | 4  | 4  | 0 |
| 2.66      | 1.0936    | 5  | -4 | 2 |
| 2.93      | 1.0930    | 3  | 4  | 2 |
| 2.63      | 1.0917    | -6 | 4  | 2 |
| 3.17      | 1.0910    | -4 | -4 | 2 |

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 For reference, see Downs et al. (1993) American Mineralogist 78, 1104-1107.

MINERAL DATA SHEET F

Tait K T, Sokolova E V, Hawthorne F C, Khomyakov A P  
 The Canadian Mineralogist 41 (2003) 61-70

CELL PARAMETERS: 9.9979 9.9979 8.3852 90.000 90.000 120.000

| INTENSITY | D-SPACING | H | K | L |
|-----------|-----------|---|---|---|
| 3.35      | 4.9990    | 1 | 1 | 0 |
| 10.83     | 4.3292    | 2 | 0 | 0 |
| 7.25      | 4.2938    | 1 | 1 | 1 |
| 42.21     | 4.1926    | 0 | 0 | 2 |
| 72.75     | 3.8468    | 2 | 0 | 1 |
| 6.70      | 3.7735    | 1 | 0 | 2 |
| 37.10     | 3.2726    | 1 | 2 | 0 |
| 11.81     | 3.2726    | 2 | 1 | 0 |
| 1.56      | 3.0486    | 1 | 2 | 1 |
| 9.08      | 3.0486    | 2 | 1 | 1 |
| 100.00    | 3.0118    | 2 | 0 | 2 |
| 46.03     | 2.8861    | 3 | 0 | 0 |
| 1.12      | 2.6599    | 1 | 0 | 3 |
| 22.65     | 2.5797    | 1 | 2 | 2 |
| 2.60      | 2.5797    | 2 | 1 | 2 |
| 17.47     | 2.4995    | 2 | 2 | 0 |
| 1.99      | 2.4396    | 1 | 1 | 3 |
| 2.28      | 2.4014    | 1 | 3 | 0 |
| 11.54     | 2.4014    | 3 | 1 | 0 |
| 2.50      | 2.3953    | 2 | 2 | 1 |
| 2.56      | 2.3773    | 3 | 0 | 2 |
| 41.47     | 2.3482    | 2 | 0 | 3 |
| 15.37     | 2.3086    | 1 | 3 | 1 |
| 9.35      | 2.3086    | 3 | 1 | 1 |
| 4.73      | 2.1646    | 4 | 0 | 0 |
| 1.62      | 2.1469    | 2 | 2 | 2 |
| 3.21      | 2.1254    | 1 | 2 | 3 |
| 4.51      | 2.1254    | 2 | 1 | 3 |
| 13.16     | 2.0963    | 0 | 0 | 4 |
| 1.12      | 2.0959    | 4 | 0 | 1 |
| 1.41      | 2.0838    | 3 | 1 | 2 |
| 3.95      | 2.0838    | 1 | 3 | 2 |
| 2.64      | 1.9864    | 2 | 3 | 0 |
| 1.68      | 1.9329    | 2 | 3 | 1 |
| 8.00      | 1.9329    | 3 | 2 | 1 |
| 5.53      | 1.9234    | 4 | 0 | 2 |
| 3.30      | 1.8894    | 1 | 4 | 0 |
| 4.78      | 1.8867    | 2 | 0 | 4 |
| 2.16      | 1.8432    | 4 | 1 | 1 |
| 7.24      | 1.7951    | 2 | 3 | 2 |
| 1.33      | 1.7652    | 2 | 1 | 4 |
| 1.16      | 1.7317    | 5 | 0 | 0 |
| 1.01      | 1.7226    | 1 | 4 | 2 |
| 2.88      | 1.7114    | 4 | 0 | 3 |
| 2.04      | 1.6961    | 3 | 0 | 4 |
| 5.49      | 1.6959    | 5 | 0 | 1 |
| 3.19      | 1.6363    | 2 | 4 | 0 |
| 2.11      | 1.6363    | 4 | 2 | 0 |
| 1.91      | 1.6191    | 2 | 3 | 3 |

MINERAL DATA SHEET F (continued)

| INTENSITY | D-SPACING | H | K | L |
|-----------|-----------|---|---|---|
| 9.33      | 1.6191    | 3 | 2 | 3 |
| 1.82      | 1.6060    | 4 | 2 | 1 |
| 6.37      | 1.6005    | 5 | 0 | 2 |
| 1.16      | 1.5900    | 1 | 1 | 5 |
| 1.24      | 1.5792    | 1 | 3 | 4 |
| 5.64      | 1.5653    | 1 | 4 | 3 |
| 3.01      | 1.5653    | 4 | 1 | 3 |
| 15.50     | 1.5638    | 2 | 0 | 5 |
| 2.88      | 1.5551    | 5 | 1 | 0 |
| 2.15      | 1.5485    | 3 | 3 | 2 |
| 1.29      | 1.5290    | 5 | 1 | 1 |
| 4.46      | 1.5243    | 4 | 2 | 2 |
| 1.31      | 1.5059    | 4 | 0 | 4 |
| 6.93      | 1.4721    | 5 | 0 | 3 |
| 2.59      | 1.4580    | 5 | 1 | 2 |
| 1.15      | 1.4419    | 3 | 2 | 4 |
| 10.17     | 1.4313    | 3 | 3 | 3 |
| 3.39      | 1.3975    | 0 | 0 | 6 |
| 6.24      | 1.3865    | 2 | 5 | 0 |
| 14.20     | 1.3865    | 5 | 2 | 0 |
| 4.21      | 1.3749    | 1 | 3 | 5 |
| 2.35      | 1.3749    | 3 | 1 | 5 |
| 1.39      | 1.3479    | 3 | 4 | 2 |
| 1.18      | 1.3479    | 4 | 3 | 2 |
| 1.36      | 1.3257    | 4 | 0 | 5 |
| 4.23      | 1.3164    | 5 | 2 | 2 |
| 1.62      | 1.2814    | 2 | 3 | 5 |
| 6.39      | 1.2814    | 3 | 2 | 5 |
| 3.00      | 1.2684    | 3 | 4 | 3 |
| 3.73      | 1.2578    | 3 | 0 | 6 |
| 3.54      | 1.2198    | 2 | 2 | 6 |
| 1.05      | 1.2079    | 1 | 3 | 6 |
| 2.10      | 1.2079    | 3 | 1 | 6 |
| 5.60      | 1.2047    | 5 | 0 | 5 |
| 1.56      | 1.1887    | 6 | 0 | 4 |
| 6.05      | 1.1864    | 7 | 0 | 2 |
| 1.04      | 1.1776    | 3 | 4 | 4 |
| 1.19      | 1.1564    | 5 | 2 | 4 |
| 1.18      | 1.1409    | 4 | 4 | 3 |
| 1.07      | 1.1403    | 5 | 1 | 5 |
| 3.29      | 1.1311    | 7 | 0 | 3 |

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 For reference, see Downs et al. (1993) American Mineralogist 78, 1104-1107.

MINERAL DATA SHEET G  
 Colville, Ribbe (1966)  
 GSA Memoir 122 (1969) 640

CELL PARAMETERS: 8.169 12.851 7.124 93.63 116.40 89.46

| INTENSITY | D-SPACING | H  | K  | L |
|-----------|-----------|----|----|---|
| 13.80     | 6.412     | -1 | 1  | 0 |
|           | 6.411     | 0  | 2  | 0 |
| 14.05     | 6.298     | 1  | 1  | 0 |
| 15.12     | 5.856     | -1 | -1 | 1 |
| 15.72     | 5.634     | -1 | 1  | 1 |
| 18.98     | 4.675     | 0  | -2 | 1 |
| 21.98     | 4.042     | -2 | 0  | 1 |
| 22.92     | 3.879     | 1  | -1 | 1 |
| 23.62     | 3.763     | 1  | 1  | 1 |
| 23.88     | 3.725     | -1 | 3  | 0 |
| 24.32     | 3.657     | 1  | 3  | 0 |
| 25.56     | 3.483     | -1 | -1 | 2 |
|           | 3.482     | -1 | 3  | 1 |
| 25.82     | 3.449     | -2 | -2 | 1 |
| 26.42     | 3.371     | -1 | 1  | 2 |
| 27.80     | 3.211     | -2 | 0  | 2 |
|           | 3.206     | -2 | 2  | 0 |
|           | 3.206     | 0  | 4  | 0 |
| 28.00     | 3.184     | 0  | 0  | 2 |
| 28.32     | 3.149     | 2  | 2  | 0 |
| 29.74     | 3.001     | 1  | -3 | 1 |
| 30.36     | 2.942     | 0  | -4 | 1 |
| 30.50     | 2.929     | 0  | -2 | 2 |
|           | 2.928     | -2 | -2 | 2 |
| 31.40     | 2.847     | 1  | 3  | 1 |
| 31.68     | 2.823     | -1 | -3 | 2 |
| 33.78     | 2.651     | -1 | 3  | 2 |
| 35.38     | 2.535     | -2 | -4 | 1 |
| 35.46     | 2.529     | -3 | -1 | 2 |
|           | 2.524     | 2  | -2 | 1 |
| 36.06     | 2.489     | -2 | 4  | 1 |
| 36.70     | 2.447     | 2  | 2  | 1 |
| 36.86     | 2.436     | -2 | 4  | 0 |
|           | 2.436     | -1 | 5  | 0 |
| 37.08     | 2.422     | -1 | -5 | 1 |
| 37.36     | 2.405     | -3 | 1  | 0 |
| 37.66     | 2.386     | 3  | 1  | 0 |
|           | 2.386     | 2  | 4  | 0 |
| 38.38     | 2.343     | -1 | 5  | 1 |
| 38.70     | 2.325     | -1 | -1 | 3 |
| 39.18     | 2.298     | -3 | -3 | 1 |
| 39.34     | 2.288     | -3 | 3  | 1 |
| 39.64     | 2.271     | -1 | 1  | 3 |
| 40.22     | 3.240     | 1  | -3 | 2 |
| 40.42     | 2.229     | -3 | -3 | 2 |
| 40.74     | 2.216     | -2 | 4  | 2 |
|           | 2.213     | 1  | -5 | 1 |
| 41.22     | 2.188     | 0  | 4  | 2 |

MINERAL DATA SHEET G (continued)

| <b>INTENSITY</b> | <b>D-SPACING</b> | <b>H</b> | <b>K</b> | <b>L</b> |
|------------------|------------------|----------|----------|----------|
| 41.62            | 2.169            | -3       | 3        | 2        |
| 41.78            | 2.160            | -2       | 2        | 3        |
| 42.26            | 2.137            | -3       | 3        | 0        |
|                  | 2.137            | 0        | 6        | 0        |
| 42.84            | 2.109            | 1        | 5        | 1        |
|                  | 2.109            | 2        | -4       | 1        |
| 42.94            | 2.099            | 3        | 3        | 0        |
| 43.14            | 2.095            | -3       | 1        | 3        |
| 44.82            | 2.021            | -4       | 0        | 2        |
|                  | 2.020            | 2        | 4        | 1        |
|                  | 2.020            | -1       | 5        | 2        |
| 45.04            | 2.011            | -4       | 0        | 1        |
| 45.30            | 2.001            | 2        | 0        | 2        |
| 45.44            | 1.9947           | -1       | 3        | 3        |

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MINERAL DATA SHEET H  
 Colville A A, Ribbe P H  
 American Mineralogist 53 (1968) 25-37

CELL PARAMETERS: 8.5540 12.9700 7.2070 90.000 116.010 90.000

| INTENSITY | D-SPACING | H  | K | L |
|-----------|-----------|----|---|---|
| 5.49      | 6.6132    | 1  | 1 | 0 |
| 5.23      | 6.4850    | 0  | 2 | 0 |
| 2.80      | 6.4771    | 0  | 0 | 1 |
| 8.99      | 5.8633    | -1 | 1 | 1 |
| 2.00      | 4.5828    | 0  | 2 | 1 |
| 62.55     | 4.2148    | -2 | 0 | 1 |
| 20.36     | 3.9431    | 1  | 1 | 1 |
| 4.86      | 3.8438    | 2  | 0 | 0 |
| 74.87     | 3.7683    | 1  | 3 | 0 |
| 15.73     | 3.6121    | -1 | 3 | 1 |
| 10.68     | 3.5340    | -2 | 2 | 1 |
| 52.49     | 3.4714    | -1 | 1 | 2 |
| 100.00    | 3.3066    | 2  | 2 | 0 |
| 59.35     | 3.2867    | -2 | 0 | 2 |
| 30.60     | 3.2425    | 0  | 4 | 0 |
| 78.31     | 3.2385    | 0  | 0 | 2 |
| 57.01     | 2.9898    | 1  | 3 | 1 |
| 8.00      | 2.9317    | -2 | 2 | 2 |
| 25.27     | 2.8995    | 0  | 4 | 1 |
| 10.55     | 2.8973    | 0  | 2 | 2 |
| 20.72     | 2.7678    | -1 | 3 | 2 |
| 19.55     | 2.6003    | -3 | 1 | 2 |
| 3.18      | 2.5775    | 2  | 2 | 1 |
| 37.41     | 2.5700    | -2 | 4 | 1 |
| 9.35      | 2.5529    | 1  | 1 | 2 |
| 9.44      | 2.5139    | 3  | 1 | 0 |
| 3.76      | 2.4784    | 2  | 4 | 0 |
| 8.96      | 2.4129    | -1 | 5 | 1 |
| 11.04     | 2.3784    | -3 | 3 | 1 |
| 6.00      | 2.3278    | -1 | 1 | 3 |
| 2.10      | 2.2620    | -3 | 3 | 2 |
| 1.06      | 2.2344    | -2 | 2 | 3 |
| 4.57      | 2.1980    | 1  | 5 | 1 |
| 22.85     | 2.1617    | 0  | 6 | 0 |
| 10.53     | 2.1231    | 2  | 4 | 1 |
| 3.01      | 2.1124    | -4 | 0 | 1 |
| 4.93      | 2.1074    | -4 | 0 | 2 |
| 2.11      | 2.0695    | 2  | 0 | 2 |
| 2.41      | 2.0632    | 3  | 1 | 1 |
| 4.94      | 2.0505    | 0  | 6 | 1 |
| 13.14     | 2.0042    | -4 | 2 | 2 |
| 11.50     | 1.9716    | 2  | 2 | 2 |
| 3.04      | 1.9544    | -3 | 3 | 3 |
| 10.65     | 1.9219    | 4  | 0 | 0 |
| 3.10      | 1.9178    | -3 | 5 | 1 |
| 6.07      | 1.9108    | -4 | 0 | 3 |
| 2.60      | 1.8842    | 2  | 6 | 0 |
| 1.60      | 1.8816    | 3  | 3 | 1 |
| 6.98      | 1.8562    | 1  | 1 | 3 |

MINERAL DATA SHEET H (continued)

| INTENSITY | D-SPACING | H  | K  | L |
|-----------|-----------|----|----|---|
| 2.27      | 1.8427    | 4  | 2  | 0 |
| 1.74      | 1.8377    | 1  | 5  | 2 |
| 1.32      | 1.8329    | -4 | 2  | 3 |
| 3.21      | 1.8230    | 3  | 5  | 0 |
| 4.21      | 1.8061    | -2 | 6  | 2 |
| 22.06     | 1.8014    | -2 | 0  | 4 |
| 9.04      | 1.7979    | 0  | 6  | 2 |
| 9.21      | 1.7971    | 0  | 4  | 3 |
| 6.24      | 1.7699    | -4 | 4  | 1 |
| 2.80      | 1.7670    | -4 | 4  | 2 |
| 4.02      | 1.7445    | 2  | 4  | 2 |
| 1.46      | 1.7206    | 1  | 3  | 3 |
| 1.86      | 1.6948    | -5 | 1  | 2 |
| 5.72      | 1.6739    | -3 | 5  | 3 |
| 3.15      | 1.6477    | -1 | 7  | 2 |
| 6.53      | 1.6274    | 3  | 5  | 1 |
| 1.36      | 1.6238    | -5 | 1  | 3 |
| 2.10      | 1.6213    | 0  | 8  | 0 |
| 5.97      | 1.5930    | -4 | 2  | 4 |
| 5.82      | 1.5710    | 0  | 2  | 4 |
| 1.29      | 1.5586    | 2  | 2  | 3 |
| 7.16      | 1.5306    | -5 | 3  | 3 |
| 1.96      | 1.5276    | 0  | 6  | 3 |
| 7.12      | 1.5108    | -4 | 6  | 1 |
| 20.78     | 1.4938    | 2  | 8  | 0 |
| 3.31      | 1.4775    | -5 | 1  | 4 |
| 2.51      | 1.4588    | -1 | 7  | 3 |
| 3.81      | 1.4514    | 1  | 1  | 4 |
| 1.27      | 1.4497    | 0  | 8  | 2 |
| 2.87      | 1.4486    | 5  | 3  | 0 |
| 8.39      | 1.4389    | 2  | 4  | 3 |
| 1.95      | 1.4363    | 4  | 6  | 0 |
| 1.94      | 1.4316    | -4 | 6  | 3 |
| 2.35      | 1.4274    | -5 | 5  | 2 |
| 6.46      | 1.4240    | -6 | 0  | 2 |
| 1.53      | 1.4164    | 1  | 9  | 0 |
| 6.53      | 1.4044    | 4  | 0  | 2 |
| 2.63      | 1.3943    | -4 | 0  | 5 |
| 2.26      | 1.3842    | -5 | 5  | 3 |
| 3.16      | 1.3839    | -2 | 6  | 4 |
| 1.58      | 1.3837    | 1  | 3  | 4 |
| 1.11      | 1.3731    | -6 | 2  | 3 |
| 1.34      | 1.3727    | -1 | 1  | 5 |
| 1.98      | 1.3632    | -4 | 2  | 5 |
| 2.41      | 1.3471    | -6 | 2  | 1 |
| 5.18      | 1.3380    | -1 | 9  | 2 |
| 2.26      | 1.3271    | -6 | 0  | 4 |
| 1.02      | 1.3226    | 5  | 5  | 0 |
| 5.38      | 1.3150    | -1 | 3  | 5 |
| 1.74      | 1.3102    | -2 | 4  | 5 |
| 1.51      | 1.3080    | -5 | 1  | 5 |
| 1.91      | 1.3036    | 5  | 3  | 1 |
| 2.53      | 1.3019    | 2  | 0  | 4 |
| 1.48      | 1.2970    | 0  | 10 | 0 |

MINERAL DATA SHEET H (continued 2)

| INTENSITY | D-SPACING | H  | K  | L |
|-----------|-----------|----|----|---|
| 1.61      | 1.2964    | 0  | 8  | 3 |
| 1.47      | 1.2960    | 0  | 6  | 4 |
| 1.30      | 1.2887    | 4  | 4  | 2 |
| 1.33      | 1.2861    | -4 | 8  | 1 |
| 10.02     | 1.2850    | -4 | 8  | 2 |
| 2.12      | 1.2813    | 6  | 0  | 0 |
| 2.31      | 1.2809    | -4 | 4  | 5 |
| 10.14     | 1.2763    | 2  | 8  | 2 |
| 2.77      | 1.2675    | -6 | 4  | 1 |
| 2.01      | 1.2665    | -3 | 9  | 2 |
| 2.88      | 1.2578    | -5 | 3  | 5 |
| 3.21      | 1.2573    | -3 | 5  | 5 |
| 1.30      | 1.2181    | 3  | 5  | 3 |
| 1.03      | 1.2095    | 5  | 5  | 1 |
| 1.62      | 1.2065    | -2 | 10 | 2 |
| 1.18      | 1.2040    | 0  | 10 | 2 |
| 1.24      | 1.1940    | -2 | 6  | 5 |
| 3.96      | 1.1541    | -4 | 8  | 4 |
| 4.02      | 1.1457    | 0  | 8  | 4 |
| 3.23      | 1.1239    | 4  | 4  | 3 |
| 1.45      | 1.1116    | -1 | 9  | 4 |
| 1.42      | 1.0952    | 6  | 4  | 1 |
| 1.67      | 1.0943    | 7  | 1  | 0 |

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 For reference, see Downs et al. (1993) American Mineralogist 78, 1104-1107.

MINERAL DATA SHEET I  
 Winter J K, Ghose S  
 American Mineralogist 64 (1979) 573-586

CELL PARAMETERS: 7.4883 7.6808 5.7774 90.000 90.000 90.000

| INTENSITY | D-SPACING | H | K | L |
|-----------|-----------|---|---|---|
| 19.05     | 5.3618    | 1 | 1 | 0 |
| 3.30      | 4.5742    | 1 | 0 | 1 |
| 1.25      | 3.8404    | 0 | 2 | 0 |
| 7.27      | 3.7441    | 2 | 0 | 0 |
| 79.65     | 3.4172    | 1 | 2 | 0 |
| 100.00    | 3.3656    | 2 | 1 | 0 |
| 17.39     | 2.8887    | 0 | 0 | 2 |
| 27.14     | 2.6809    | 2 | 2 | 0 |
| 49.66     | 2.5431    | 1 | 1 | 2 |
| 11.49     | 2.4226    | 1 | 3 | 0 |
| 1.24      | 2.3739    | 3 | 1 | 0 |
| 1.71      | 2.3085    | 0 | 2 | 2 |
| 9.35      | 2.2871    | 2 | 0 | 2 |
| 67.37     | 2.2061    | 1 | 2 | 2 |
| 14.48     | 2.1134    | 2 | 3 | 0 |
| 3.03      | 2.0929    | 3 | 2 | 0 |
| 1.48      | 1.9848    | 2 | 3 | 1 |
| 1.05      | 1.9650    | 2 | 2 | 2 |
| 8.65      | 1.8721    | 4 | 0 | 0 |
| 7.75      | 1.8340    | 3 | 1 | 2 |
| 1.48      | 1.8188    | 4 | 1 | 0 |
| 3.01      | 1.7873    | 3 | 3 | 0 |
| 8.64      | 1.7086    | 2 | 4 | 0 |
| 7.38      | 1.6948    | 3 | 2 | 2 |
| 14.12     | 1.6828    | 4 | 2 | 0 |
| 16.92     | 1.5991    | 0 | 4 | 2 |
| 8.58      | 1.5710    | 4 | 0 | 2 |
| 3.04      | 1.5639    | 1 | 4 | 2 |
| 1.69      | 1.5391    | 4 | 1 | 2 |
| 41.88     | 1.5199    | 3 | 3 | 2 |
| 4.40      | 1.4541    | 4 | 2 | 2 |
| 17.91     | 1.4444    | 0 | 0 | 4 |
| 3.94      | 1.4212    | 2 | 5 | 0 |
| 6.18      | 1.3953    | 5 | 2 | 0 |
| 4.38      | 1.3404    | 4 | 4 | 0 |
| 12.66     | 1.3346    | 1 | 5 | 2 |
| 6.58      | 1.3304    | 1 | 2 | 4 |
| 7.78      | 1.3273    | 2 | 1 | 4 |
| 3.14      | 1.3101    | 5 | 1 | 2 |
| 1.18      | 1.3083    | 3 | 5 | 0 |
| 1.80      | 1.2801    | 0 | 6 | 0 |
| 14.21     | 1.2752    | 2 | 5 | 2 |
| 3.72      | 1.2716    | 2 | 2 | 4 |
| 11.38     | 1.2564    | 5 | 2 | 2 |
| 3.97      | 1.2480    | 6 | 0 | 0 |
| 3.60      | 1.2406    | 1 | 3 | 4 |
| 1.18      | 1.2339    | 3 | 1 | 4 |
| 1.84      | 1.2319    | 6 | 1 | 0 |
| 2.85      | 1.2159    | 4 | 4 | 2 |

MINERAL DATA SHEET I (continued)

| <b>INTENSITY</b> | <b>D-SPACING</b> | <b>H</b> | <b>K</b> | <b>L</b> |
|------------------|------------------|----------|----------|----------|
| 1.69             | 1.1925           | 2        | 3        | 4        |
| 3.61             | 1.1800           | 5        | 3        | 2        |
| 2.03             | 1.1436           | 4        | 0        | 4        |
| 1.12             | 1.1234           | 3        | 3        | 4        |
| 1.09             | 1.1171           | 2        | 6        | 2        |
| 3.19             | 1.1030           | 2        | 4        | 4        |
| 1.53             | 1.0983           | 4        | 5        | 2        |
| 1.18             | 1.0979           | 6        | 2        | 2        |
| 5.08             | 1.0960           | 4        | 2        | 4        |
| 1.22             | 1.0931           | 5        | 4        | 2        |

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MINERAL DATA SHEET J  
 Ribbe, Megaw (1962)  
 GSA Memoir 122 (1969) 649

CELL PARAMETERS: 8.1815 12.8733 14.776 93.21 115.835 91.137

| INTENSITY | D-SPACING | H  | K  | L |
|-----------|-----------|----|----|---|
| 9.42      | 9.382     | 0  | -1 | 1 |
| 13.58     | 6.522     | -1 | 1  | 0 |
| 13.80     | 6.419     | 0  | 2  | 0 |
| 17.70     | 5.006     | -1 | -2 | 1 |
| 18.90     | 4.691     | 0  | -2 | 0 |
| 20.72     | 4.286     | 1  | -2 | 1 |
| 21.98     | 4.041     | -2 | 0  | 2 |
| 22.68     | 3.918     | 1  | -1 | 2 |
| 23.02     | 3.861     | -1 | -2 | 3 |
| 23.52     | 3.780     | -1 | 3  | 0 |
| 23.64     | 3.760     | 1  | 1  | 2 |
| 24.18     | 3.690     | -1 | 2  | 3 |
|           | 3.677     | 2  | 0  | 0 |
| 24.56     | 3.622     | 1  | 3  | 0 |
| 25.18     | 3.535     | -2 | 1  | 3 |
| 25.36     | 3.509     | -1 | 3  | 2 |
| 25.72     | 3.462     | -1 | -1 | 4 |
| 25.92     | 3.433     | -1 | 2  | 2 |
| 26.14     | 3.407     | -2 | -2 | 2 |
| 26.48     | 3.363     | -1 | 1  | 4 |
| 27.34     | 3.261     | -2 | 2  | 0 |
| 27.90     | 3.196     | -2 | 0  | 4 |
| 28.00     | 3.182     | 0  | 0  | 4 |
| 28.54     | 3.125     | 2  | 2  | 0 |
| 29.34     | 3.042     | 1  | -3 | 2 |
| 30.26     | 2.952     | 0  | -4 | 2 |
| 30.42     | 2.936     | 0  | -2 | 4 |
| 30.86     | 2.895     | -2 | -2 | 4 |
| 31.60     | 2.830     | 1  | 3  | 2 |
| 31.88     | 2.806     | -1 | -3 | 4 |
| 33.46     | 2.676     | -3 | 1  | 2 |
| 33.74     | 2.655     | -1 | 3  | 4 |
| 35.02     | 2.560     | 2  | -2 | 2 |
| 35.54     | 2.530     | 1  | -1 | 4 |
|           | 2.524     | -2 | 4  | 2 |
| 35.84     | 2.505     | -3 | 1  | 4 |
|           | 2.503     | -2 | -4 | 2 |
| 36.20     | 2.479     | -2 | 4  | 0 |
| 36.46     | 2.462     | -1 | 5  | 0 |
| 36.82     | 2.440     | 2  | 2  | 2 |
| 36.94     | 2.430     | -3 | 1  | 0 |
| 37.32     | 2.407     | -1 | -5 | 2 |
| 37.55     | 2.388     | 1  | 5  | 0 |
|           | 2.387     | 3  | 1  | 0 |
| 38.12     | 2.361     | 2  | 4  | 0 |
|           | 2.359     | -1 | 5  | 2 |
| 38.74     | 2.322     | -3 | 3  | 2 |
| 28.84     | 2.316     | -1 | -1 | 6 |
| 39.16     | 2.299     | -2 | -2 | 4 |

MINERAL DATA SHEET J (continued)

| INTENSITY | D-SPACING | H  | K  | L |
|-----------|-----------|----|----|---|
| 39.64     | 2.272     | -3 | -3 | 2 |
| 39.76     | 2.265     | -1 | 1  | 6 |
|           | 2.261     | 1  | -3 | 4 |
| 40.26     | 2.238     | 1  | -5 | 2 |
| 40.36     | 2.232     | -2 | 4  | 4 |
| 40.98     | 2.201     | -3 | -3 | 4 |
| 41.22     | 2.189     | -3 | 3  | 4 |
| 41.32     | 2.183     | 0  | 4  | 4 |
| 41.50     | 2.174     | -3 | 3  | 0 |
| 41.82     | 2.159     | -2 | 2  | 6 |
| 41.14     | 2.143     | 2  | -4 | 2 |
| 42.20     | 2.140     | 0  | 6  | 0 |
|           | 2.136     | -1 | -5 | 4 |
| 42.64     | 2.118     | 1  | 3  | 4 |
| 43.12     | 2.096     | 1  | 5  | 2 |
| 43.22     | 2.092     | -3 | 1  | 6 |
| 44.88     | 2.021     | -4 | 0  | 4 |
|           | 2.018     | -4 | 0  | 2 |
| 45.14     | 2.007     | 3  | -1 | 2 |
| 45.50     | 1.9923    | -1 | 3  | 6 |
| 45.64     | 1.9854    | 0  | 6  | 2 |

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MINERAL DATA SHEET K  
 Dollase W A, Baur W H  
 American Mineralogist 61 (1976) 971-978

CELL PARAMETERS: 18.5240 5.0032 23.8100 90.000 105.820 90.000

| INTENSITY | D-SPACING | H  | K | L  |
|-----------|-----------|----|---|----|
| 2.39      | 4.5975    | -4 | 0 | 2  |
| 1.06      | 4.5621    | -1 | 1 | 2  |
| 100.00    | 4.3278    | 1  | 1 | 2  |
| 56.45     | 4.3127    | 2  | 0 | 4  |
| 1.65      | 4.2167    | -1 | 1 | 3  |
| 82.51     | 4.0998    | -4 | 0 | 4  |
| 1.27      | 3.8871    | -3 | 1 | 1  |
| 27.04     | 3.8280    | -1 | 1 | 4  |
| 26.78     | 3.8269    | 3  | 1 | 0  |
| 15.71     | 3.8180    | 0  | 0 | 6  |
| 15.03     | 3.8159    | 4  | 0 | 2  |
| 3.06      | 3.6712    | 3  | 1 | 1  |
| 2.49      | 3.4520    | 3  | 1 | 2  |
| 2.30      | 3.4491    | -1 | 1 | 5  |
| 4.50      | 3.3919    | -4 | 0 | 6  |
| 3.50      | 3.2293    | -3 | 1 | 5  |
| 1.51      | 3.2072    | 2  | 0 | 6  |
| 1.32      | 3.2040    | 1  | 1 | 5  |
| 1.10      | 3.0870    | -6 | 0 | 2  |
| 6.08      | 2.9769    | -3 | 1 | 6  |
| 7.32      | 2.9758    | -5 | 1 | 2  |
| 4.48      | 2.9724    | -2 | 0 | 8  |
| 5.05      | 2.9704    | 6  | 0 | 0  |
| 2.08      | 2.9514    | 3  | 1 | 4  |
| 2.12      | 2.9390    | -5 | 1 | 3  |
| 1.94      | 2.8034    | 5  | 1 | 1  |
| 5.52      | 2.7779    | -4 | 0 | 8  |
| 1.23      | 2.7358    | -3 | 1 | 7  |
| 4.07      | 2.6188    | 1  | 1 | 7  |
| 2.64      | 2.6065    | -5 | 1 | 6  |
| 1.11      | 2.5732    | 4  | 0 | 6  |
| 3.44      | 2.5332    | 5  | 1 | 3  |
| 20.91     | 2.5016    | 0  | 2 | 0  |
| 10.97     | 2.4928    | 3  | 1 | 6  |
| 1.81      | 2.3113    | -5 | 1 | 8  |
| 4.62      | 2.3106    | -7 | 1 | 4  |
| 2.30      | 2.3093    | -4 | 0 | 10 |
| 6.72      | 2.3079    | -8 | 0 | 2  |
| 2.26      | 2.2379    | 5  | 1 | 5  |
| 1.63      | 2.1850    | 1  | 1 | 9  |
| 2.41      | 2.1355    | -4 | 2 | 4  |
| 1.88      | 2.1210    | 3  | 1 | 8  |
| 3.03      | 2.0925    | 0  | 2 | 6  |
| 2.69      | 2.0921    | 4  | 2 | 2  |
| 1.98      | 2.0858    | 2  | 0 | 10 |
| 1.33      | 2.0851    | 6  | 0 | 6  |
| 2.55      | 2.0499    | -8 | 0 | 8  |
| 1.23      | 1.9447    | -7 | 1 | 9  |
| 1.12      | 1.8276    | 6  | 0 | 8  |

MINERAL DATA SHEET K (continued)

| INTENSITY | D-SPACING | H   | K | L  |
|-----------|-----------|-----|---|----|
| 1.05      | 1.6969    | -4  | 2 | 10 |
| 1.75      | 1.6963    | -8  | 2 | 2  |
| 1.79      | 1.6959    | -8  | 0 | 12 |
| 2.39      | 1.6935    | -2  | 0 | 14 |
| 1.92      | 1.6923    | 10  | 0 | 2  |
| 1.58      | 1.6545    | -9  | 1 | 10 |
| 3.49      | 1.6374    | 1   | 3 | 2  |
| 1.67      | 1.6309    | 5   | 1 | 10 |
| 1.17      | 1.6057    | -1  | 3 | 4  |
| 1.40      | 1.6057    | 3   | 3 | 0  |
| 1.38      | 1.5337    | -9  | 1 | 12 |
| 1.85      | 1.5333    | -11 | 1 | 8  |
| 1.67      | 1.5325    | -12 | 0 | 6  |
| 1.26      | 1.4658    | 1   | 3 | 7  |
| 1.01      | 1.4503    | 5   | 3 | 3  |
| 2.49      | 1.4426    | 3   | 3 | 6  |
| 1.77      | 1.4376    | 6   | 0 | 12 |
| 1.20      | 1.4024    | -2  | 2 | 14 |
| 2.60      | 1.4009    | -1  | 1 | 16 |
| 1.25      | 1.4001    | 11  | 1 | 4  |
| 1.27      | 1.3058    | -6  | 0 | 18 |
| 1.17      | 1.2466    | -12 | 2 | 10 |
| 1.92      | 1.2464    | 6   | 2 | 12 |
| 1.09      | 1.2394    | -2  | 4 | 1  |
| 1.30      | 1.1990    | 5   | 3 | 10 |
| 1.76      | 1.1964    | -15 | 1 | 4  |
| 1.08      | 1.1927    | 2   | 2 | 16 |
| 1.07      | 1.1576    | -6  | 2 | 18 |
| 1.36      | 1.1568    | -5  | 1 | 20 |

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 For reference, see Downs et al. (1993) American Mineralogist 78, 1104-1107.