

PDF#40-0403: QM=Indexed(I); d=Guinier; I=Film/Visual
Potassium Titanium Oxide
K2 Ti6 O13
Radiation=CuKa1 Lambda=1.5406 Filter=
Calibration=Internal(SiO2) 2T=11.484-66.708 I/Ic(RIR)=
Ref: Andersen, E., Andersen, I., Skou, E.
Solid State Ionics, v27 p181 (1988)
Monoclinic - Powder Diffraction, C2/m (12) Z=2 mp=
CELL: 15.593 x 3.796 x 9.108 <90.0 x 99.78 x 90.0> P.S=mC42 (?)
Density(c)=3.586 Density(m)=3.81A Mwt=573.59 Vol=531.28
F(28)=19.6(.0108,132/0)
Ref: Ibid.

Strong Lines: 7.70/X 3.05/X 1.90/X 6.40/7 3.69/7 2.98/7 2.96/7
2.80/3 2.10/3 2.08/3
NOTE: Prepared from reaction of K N O3 with Ti O2 (1:2).
To replace 00-013-0574.

| 2-Theta | d(?) | I(f) | (h k l) | Theta | 1/(2d) | 2pi/d | n^2 |
|---------|--------|-------|------------|--------|--------|--------|-----|
| 11.484 | 7.6990 | 100.0 | (2 0 0) | 5.742 | 0.0649 | 0.8161 | |
| 13.823 | 6.4010 | 67.0 | (2 0 -1) | 6.912 | 0.0781 | 0.9816 | |
| 19.734 | 4.4950 | 13.0 | (0 0 2) | 9.867 | 0.1112 | 1.3978 | |
| 24.111 | 3.6880 | 67.0 | (1 1 0) | 12.056 | 0.1356 | 1.7037 | |
| 29.257 | 3.0500 | 100.0 | (3 1 0) | 14.629 | 0.1639 | 2.0601 | |
| 29.940 | 2.9820 | 67.0 | (3 1 -1) | 14.970 | 0.1677 | 2.1070 | |
| 30.126 | 2.9640 | 67.0 | (2 0 -3) | 15.063 | 0.1687 | 2.1198 | |
| 30.753 | 2.9050 | 13.0 | (1 1 -2) | 15.376 | 0.1721 | 2.1629 | |
| 31.913 | 2.8020 | 33.0 | (3 1 1) | 15.956 | 0.1784 | 2.2424 | |
| 31.995 | 2.7950 | 33.0 | (1 1 2) | 15.997 | 0.1789 | 2.2480 | |
| 33.770 | 2.6520 | 7.0 | (3 1 -2) | 16.885 | 0.1885 | 2.3692 | |
| 34.728 | 2.5810 | 7.0 | (6 0 -1) | 17.364 | 0.1937 | 2.4344 | |
| 43.058 | 2.0990 | 33.0 | (4 0 -4) | 21.529 | 0.2382 | 2.9934 | |
| 43.516 | 2.0780 | 33.0 | (6 0 2) | 21.758 | 0.2406 | 3.0237 | |
| 44.484 | 2.0350 | 7.0 | (3 1 3) | 22.242 | 0.2457 | 3.0876 | |
| 45.305 | 2.0000 | 7.0 | (5 1 -3) | 22.652 | 0.2500 | 3.1416 | |
| 47.887 | 1.8980 | 100.0 | (0 2 0) | 23.944 | 0.2634 | 3.3104 | |
| 52.068 | 1.7550 | 7.0 | (5 1 -4) | 26.034 | 0.2849 | 3.5802 | |
| 55.150 | 1.6640 | 7.0 | (7 1 2) | 27.575 | 0.3005 | 3.7760 | |
| 57.636 | 1.5980 | 13.0 | (2 2 -3) | 28.818 | 0.3129 | 3.9319 | |
| 58.846 | 1.5680 | 7.0 | (7 1 -4) | 29.423 | 0.3189 | 4.0071 | |
| 59.471 | 1.5530 | 7.0 | (4 2 2) | 29.735 | 0.3220 | 4.0458 | |
| 60.197 | 1.5360 | 7.0 | (5 1 -5) | 30.098 | 0.3255 | 4.0906 | |
| 60.501 | 1.5290 | 7.0 | (6 2 -1) | 30.250 | 0.3270 | 4.1093 | |
| 61.981 | 1.4960 | 7.0 | (0 0 6) | 30.990 | 0.3342 | 4.2000 | |
| 65.494 | 1.4240 | 7.0 | (2 0 6) | 32.747 | 0.3511 | 4.4123 | |
| 66.333 | 1.4080 | 7.0 | (4 2 -4) | 33.166 | 0.3551 | 4.4625 | |
| 66.708 | 1.4010 | 7.0 | (6 2 2) | 33.354 | 0.3569 | 4.4848 | |