3 Feb, 2010 TK

**Calibration for collection angle in the EFTEM diffraction mode**

Titan Analytical (DTU) at 300 kV

Sample used: Si [100], 220 reflection (i.e., 10.2 mrad)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Camera length (mm) | 1/nm / pixel(size 1024) | 1 mm (mrad) | 2.5 mm (mrad) | 5 mm (mrad) |
| 91 | 0.178102 | 55.1 | 135.8 | 270.4 |
| 115 | 0.140933 | 43.6 | 107.5 | 214.0 |
| 150 | 0.108048 | 33.4 | 82.4 | 164.0 |
| 195 | 0.083543 | 25.8 | 63.7 | 126.8 |
| 250 | 0.065352 | 20.2 | 49.8 | 99.2 |
| 310 | 0.051497 | 15.9 | 39.3 | 78.2 |
| 410 | 0.03961 | 12.3 | 30.2 | 60.1 |
| 510 | 0.03114 | 9.6 | 23.7 | 47.3 |
| 650 | 0.024319 | 7.5 | 18.5 | 36.9 |
| 840 | 0.01886 | 5.8 | 14.4 | 28.6 |
| 1050 | 0.015222 | 4.7 | 11.6 | 23.1 |
| 1300 | 0.011986 | 3.7 | 9.1 | 18.2 |
| 1700 | 0.009402 | 2.9 | 7.2 | 14.3 |
| 2150 | 0.00738 | 2.3 | 5.6 | 11.2 |
| 2700 | 0.005821 | 1.8 | 4.4 | 8.8 |

\*The collection angles are calculated at the radii of the entrance apertures.