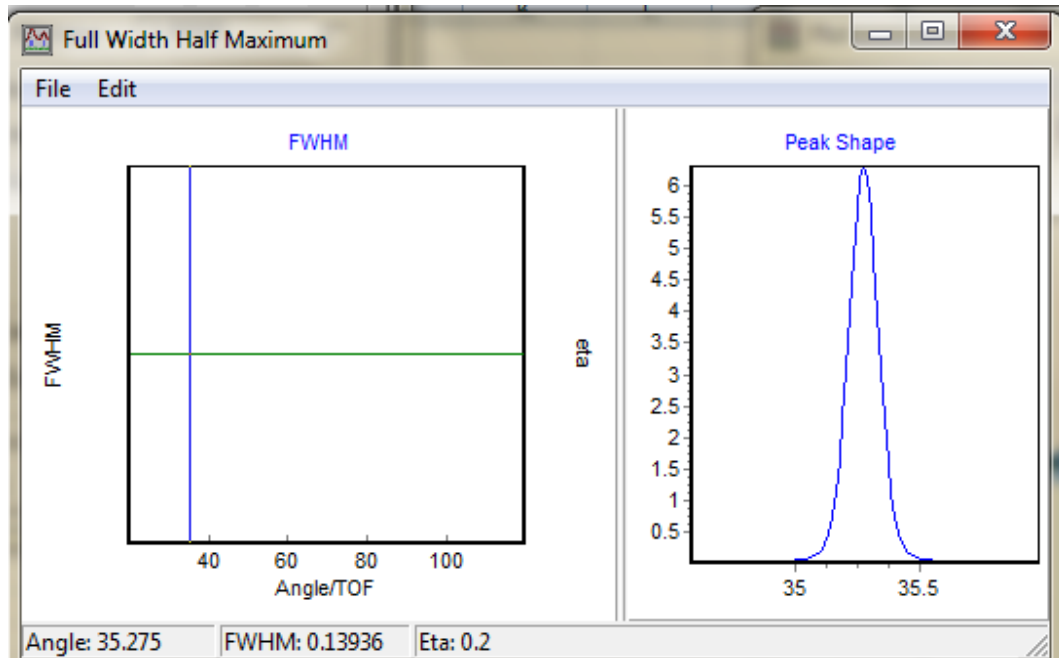


Lampiran 3. Estimasi Diameter Partikel

3.1 Estimasi Diameter Partikel Sampel 1 : 1



Perhitungan:

$$D = \frac{0,9\lambda}{B \cos \theta}$$

dimana

$$\lambda = 1,5406 \text{ \AA}$$

$$B = 0,13936^\circ$$

$$= \frac{0,13936^\circ}{2}$$

$$= 0,06968^\circ$$

$$= 0,06968^\circ \times \frac{\pi}{180}$$

$$= 0,06968^\circ \times 0,017444$$

$$B = 0,001216 \text{ rad}$$

$$\theta = 35,275$$

$$\cos \theta = 0,364514$$

$$D = \frac{0,9\lambda}{B \cos \theta}$$

$$D = \frac{0,9 \cdot 1,5406 \text{ \AA}}{0,001216 \cdot 0,364514}$$

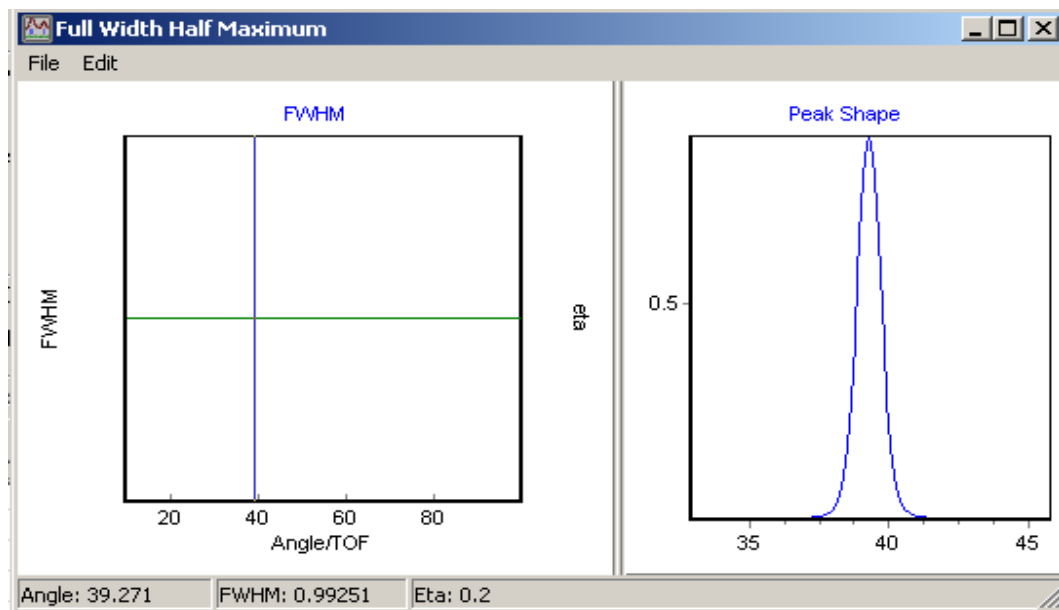
$$= \frac{13865,4}{0,000443}$$

$$= 3129,341 \text{ \AA}$$

$$D = 313 \text{ nm}$$

$$D = 31,2 \text{ }\mu\text{m}$$

3.2 Estimasi Diameter Partikel Sampel 1 : 8



Perhitungan:

$$D = \frac{0,9\lambda}{B \cos \theta}$$

dimana

$$\lambda = 1,5406 \text{ \AA}$$

$$B = 0,99251^\circ$$

$$= \frac{0,99251^\circ}{2}$$

$$= 0,496255^\circ$$

$$= 0,496255^\circ \times \frac{\pi}{180}$$

$$= 0,496255^\circ \times 0,017444$$

$$B = 0,008657 \text{ rad}$$

$$\theta = 39,0614$$

$$\cos \theta = 0,207001$$

$$D = \frac{0,9\lambda}{B \cos \theta}$$

$$D = \frac{0,9 \cdot 1,5406 \text{ \AA}}{0,008657 \cdot 0,207001}$$

$$= \frac{13865,4}{0,001792}$$

$$= 773,7466 \text{ \AA}$$

$$= 77,7466 \text{ nm}$$

$$D = 77 \text{ nm}$$

$$D = 0,0773 \text{ }\mu\text{m}$$