

Instrumental parameters for X ray diffraction of ZnO QDs:

(Model: Bruker AXS D8 Focus P-XRD)

Starting position [2 Θ]:	10°
End position [2 Θ]:	80°
Step Size[2 Θ]:	0.04°
Scan Step Time:	14.3 s
Scan Type:	Continuous
PSD Mode:	Scanning
PSD Actual Two Theta [2 Θ]:	8.5421°
Offset [2 Θ]:	0.0000°
Measurement Temperature:	25 °C
Anode material:	Cu
K- α 1:	1.5406
K- α 2:	1.54439
K- α Average:	1.54184
K- α Ratio:	0.5
Generator setting:	40 mA, 40 kV
Goniometer Radius:	260 mm
Spinning:	Yes
AntiScattering Slit:	7.1
Detector Slit:	10.5
Divergence Slit:	0.6
Primary Soller Slit:	2.5
Second Soller Slit:	2.5
Slit Changer In:	9999
Divergence slit Type:	0.6
Detector Slit:	10.5
AntiScattering Slit:	7.1
Beta:	1.39222
Detector Slit:	10.5
Divergence Slit:	0.6

No.	d Spacing (Å)	Diffraction Angle (degrees)	Relative Intensity (%)	FWHM	Size (nm)
1	3.16	28.13	13.05	1.02	7.55
2	2.98	29.87	37.96	0.71	10.81
3	2.54	35.21	100	0.72	10.51
4	2.23	40.32	23.21	1.09	6.84
5	2.11	42.9	28.15	1.14	6.48
6	1.71	53.54	34.20	1.19	5.96
7	1.61	56.92	45.90	0.69	10.12
8	1.48	62.54	57.95	0.69	9.84
9	1.27	74.31	24.36	1.12	5.65
Average Crystallite Size = 8nm					
Standard deviation= 2					

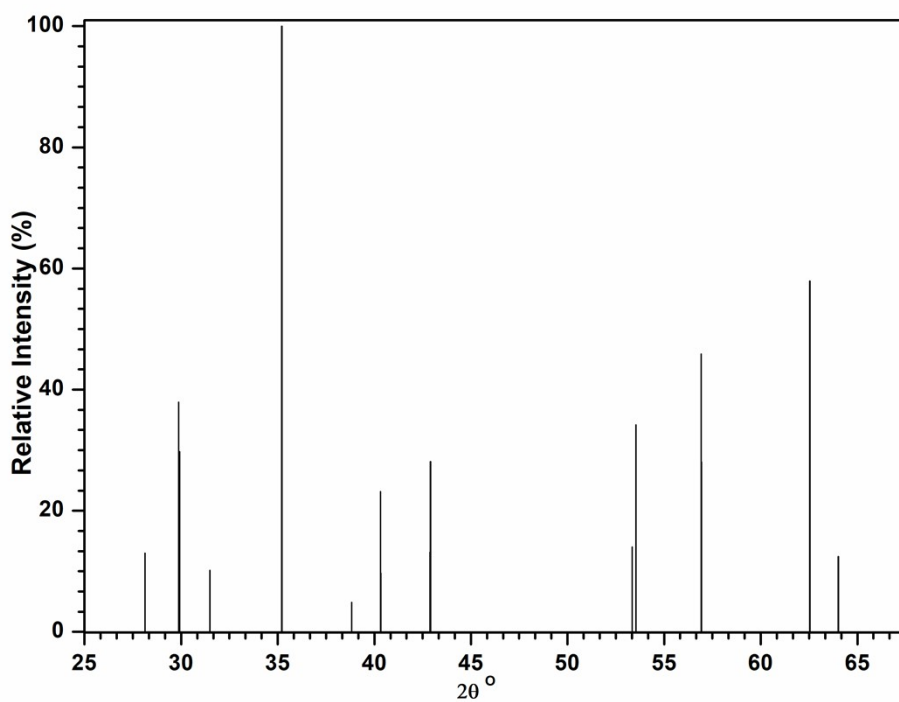


Figure 1 X ray diffraction relative intensity of ZnO QDs