

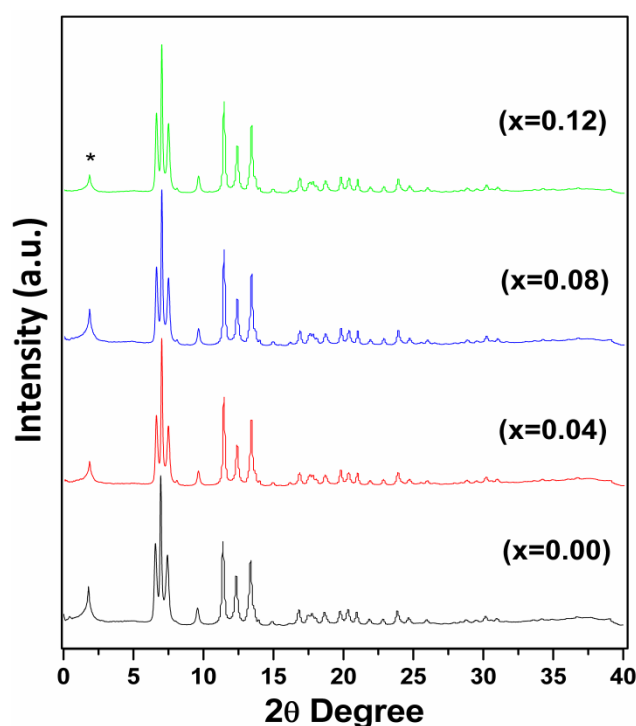
Synthesis, pair distribution function and diverse properties study on cobalt doped ZnS nanowires[†]

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Supplemental Fig. 1 Full scan synchrotron X-ray Diffraction patterns of pure and Co doped ZnS NWs.

Supplemental fig. 1 shows the full range of angle which was taken from synchrotron X-ray diffraction patterns. Also in fig. 1 star

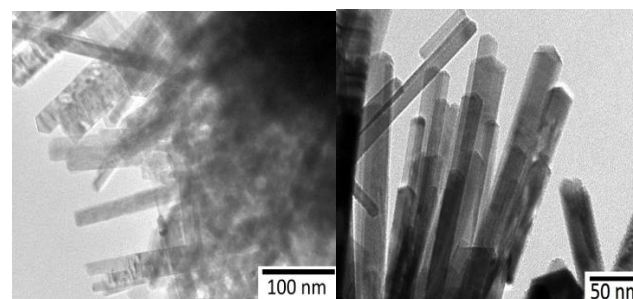
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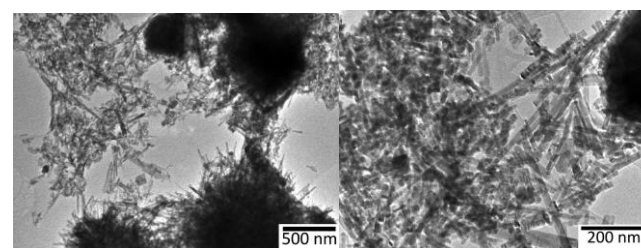
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[†] Electronic Supplementary Information (ESI) available: Supplemental Fig. 1 shows SXRD patterns, fig. 2, 3 shows TEM image of pure ZnS and 4% Co doped ZnS nanowires with different magnification and fig. 4 shows EDS spectra of samples. Table 1 gives the values of elemental concentration. See DOI: 10.1039/x0xx00000x

indicated the background observed while performing experiment at beamline.



Supplemental Fig. 2 TEM image of pure ZnS nanowires with different magnification.

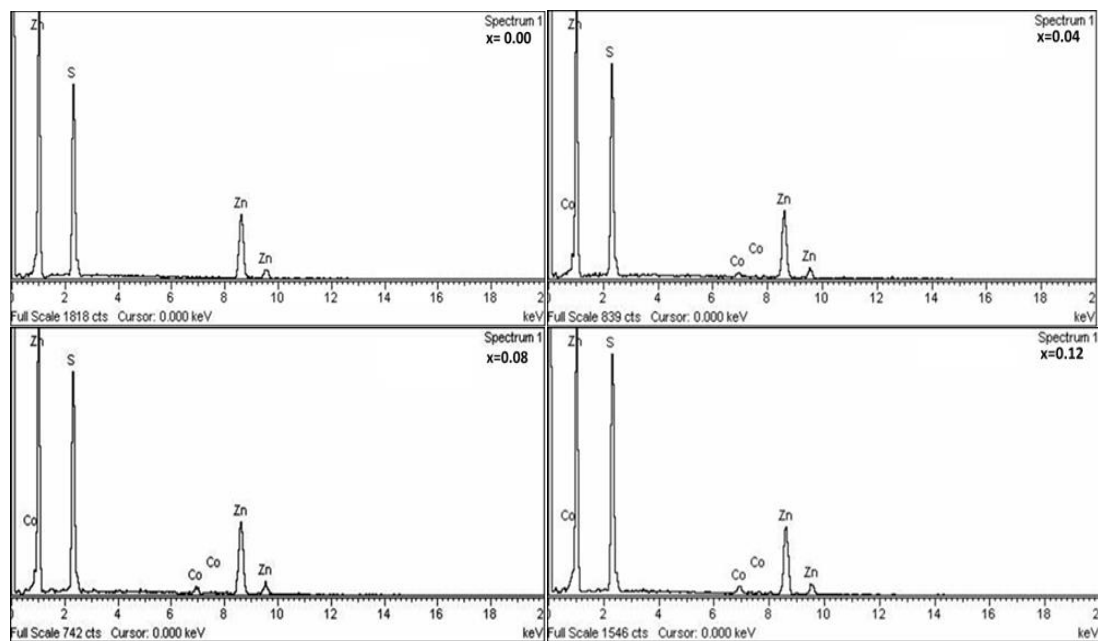


Supplemental Fig. 3 TEM image of 4% Co doped ZnS nanowires with different magnification.

The pure and 4% co doped ZnS nanowires shown in fig. 2 and 3 with different magnification respectively. The growth of nanowires clearly observed in TEM image.

Table 1 Weight and atomic percentage of pure and Co doped ZnS Nanowires.

Samples (x)	Weight %			Atomic %		
	Zn	Co	S	Zn	Co	S
0.00	69.18	0.00	30.82	52.40	0.00	47.60
0.04	67.90	1.97	30.13	51.63	1.66	46.71
0.08	66.95	2.90	30.16	50.85	2.44	46.70
0.12	63.91	3.68	32.41	47.67	3.05	49.29

**Supplemental Fig. 4** EDS spectra of pure and Co doped ZnS nanowires.