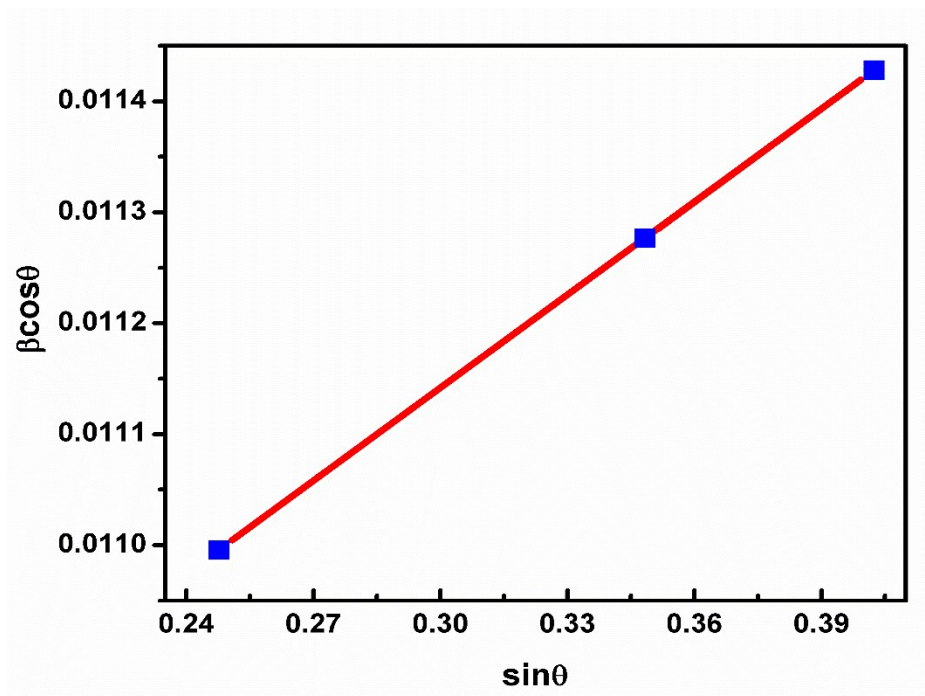


## Preferentially Grown Nanostructured Iron Disulfide (FeS<sub>2</sub>) for Removal of Industrial Pollutants

Gurpreet Kaur<sup>a</sup>, Bikramjeet Singh<sup>a</sup>, Paviter Singh<sup>a</sup>, Manpreet Kaur<sup>a</sup>, Kulwinder Singh<sup>a</sup>, Karmjeet Kaur Buttar<sup>b</sup>, Anup Thakur<sup>c</sup>, Rajni Bala<sup>d</sup>, Manjeet Kumar<sup>e</sup>, Akshay Kumar<sup>a\*</sup>

### Supporting Information



**Fig. S1.** Plot between  $\sin\theta$  versus  $\beta\cos\theta$  for calculation of particle size and strain in crystal lattice of as obtained FeS<sub>2</sub>.

S.No.	Plane (h,k,l)	Calculated Texture coefficient	Crystallite size (nm)
1.	(200)	1.1243	13
2.	(210)	0.9920	13.2
3.	(111)	1.1344	12.6
4.	(220)	1.0479	12.1
5.	(211)	0.7012	12.3

**Table S1.** Calculated Texture coefficient and crystallite size for particular planes of FeS<sub>2</sub> (from XRD pattern).

<b>Atom</b>	<b>Wyckoff Position</b>	<b>Parameter (x)</b>
Fe	(4a)	0.000
S	(8c)	0.38484

**Table S2:** Crystal structure parameters used to generate crystal structure of FeS<sub>2</sub> (figure 3).