

Figure 1. a) Ultrasonic exfoliation and centrifugal separation process for MoS₂ nanocrystals, HRTEM images of MoS₂ nanocrystals with centrifugation distribution b) 2000 rpm, c) 4000 rpm d) 6000 rpm e) 8000 rpm f) HRTEM image of MoS₂ layer to show the lattice fringes with defect sites.

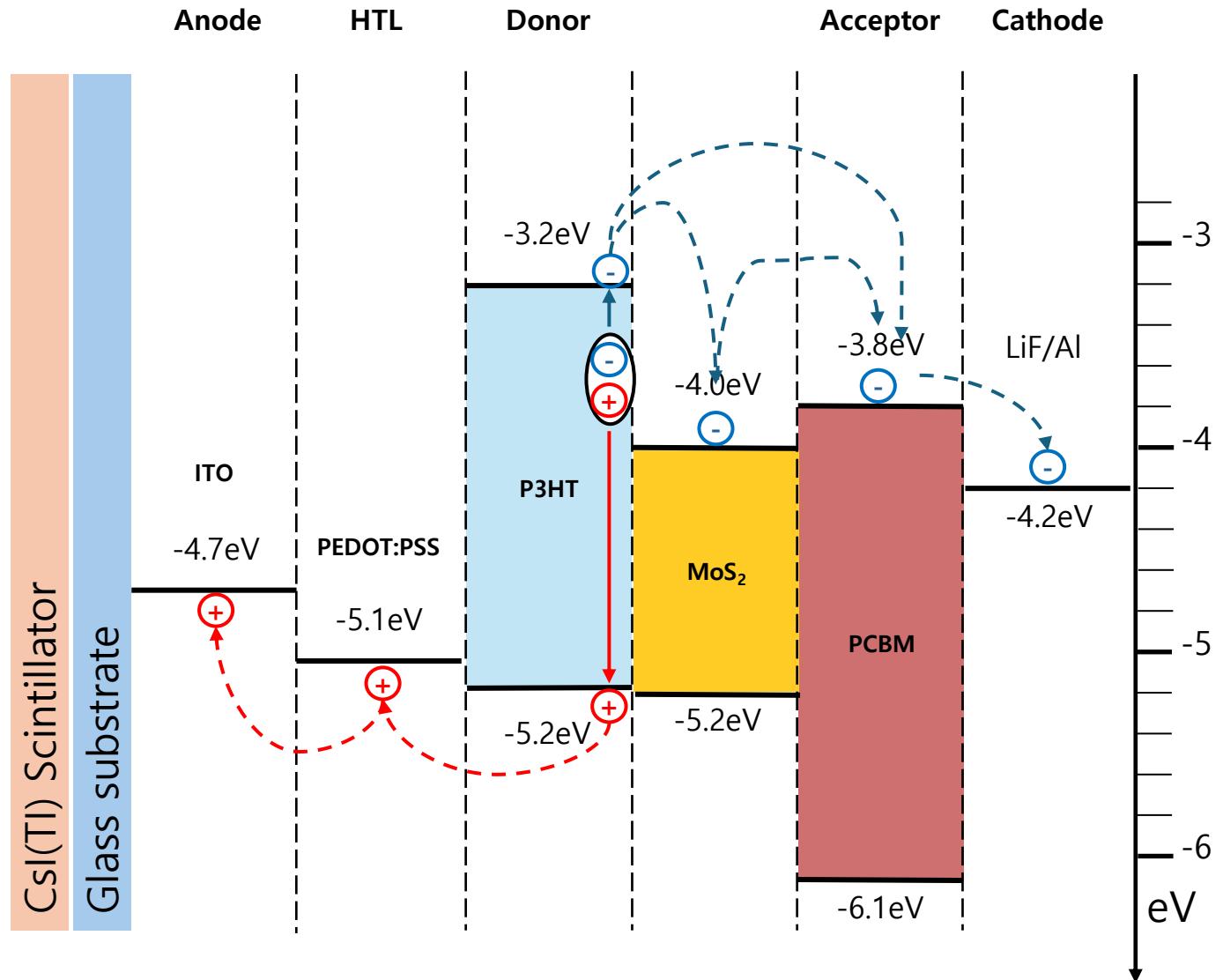


Figure. 2. The energy band diagram of the indirect X-ray detector

Sample	MoS₂ Size [nm]	DCD [nA/cm ²]	CCD [nA/cm ²]	Sensitivity [mA/Gy*cm ²]
a)	-	0.313	153.659	1.145
b)	90	0.328	180.263	1.345
c)	70	0.389	187.152	1.394
d)	35	0.455	195.56	1.456
e)	25	0.564	207.16	1.542

Table. 1. Parameters of developed X-ray detectors