

Table. S1 Electronic properties of pristine and defected MoS₂.

Data of band structures, DOS (eV)	MoS ₂	1S defect in MoS ₂	2S defect in MoS ₂	1Mo 2S defect in MoS ₂
E _f (Fermi Energy)	3.1637	2.8485	2.7394	2.4336
E _g (Bandgap Energy)	1.83	1.0257	0.9759	0.8687
E _t (Total Energy)	-4516.31683242	-4495.54378458	-4474.87910457	-4335.08260142

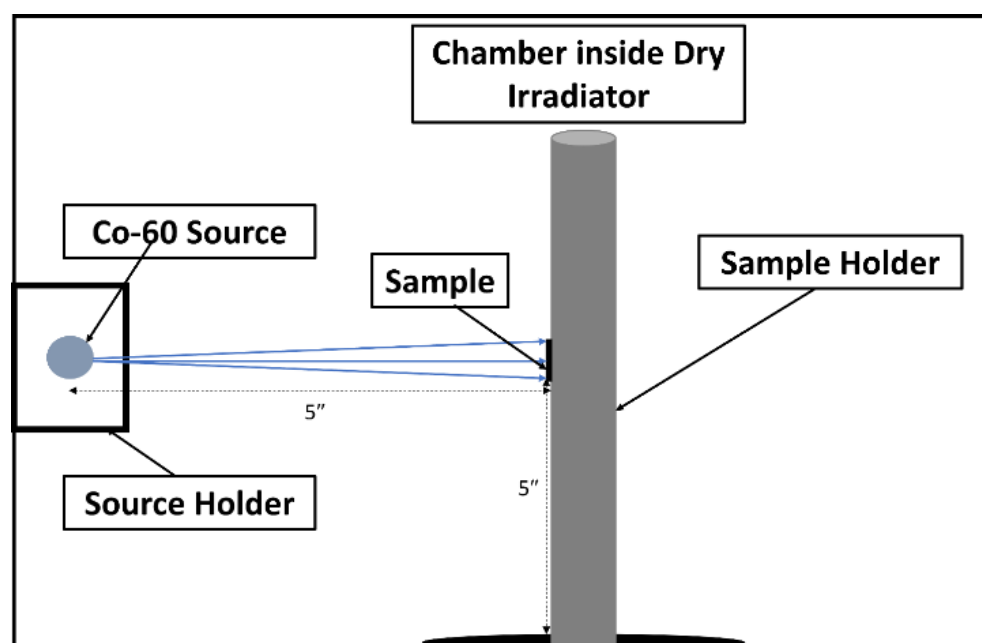


Fig. S1 Gamma irradiation experimental setup using ⁶⁰Co source inside irradiator.