

Supporting Information

Electronic and structural characterisation of polycrystalline platinum disulfide thin films

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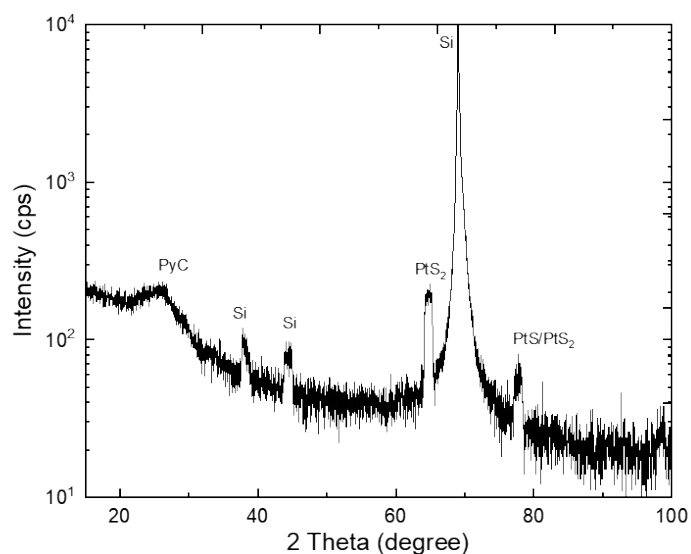


Figure S1: XRD of polycrystalline thin-film PtS₂ on PyC/SiO₂/Si substrate

As the PtS₂ was thin (initial thickness of 2nm Pt) the signal was quite weak, thus the XRD spectra was acquired by a 14 hour scan. Two peaks associated with Pt compounds can be distinguished: One more intense at ~63° attributable PtS₂ (103) and second less intense at ~78° which is likely a convolution of contributions from PtS₂ and PtS. The peaks associated with the Si substrate and conductive PyC layer are also evident. The peaks also indicate a degree of preferential orientation of the polycrystalline film, supported by the STM observations of the PtS₂.