

### **Detail of Supporting Information's**

Number of pages- 6 page

Number of figures- 6 figures

Number of Tables- 0

## **Enhanced Osteogenesis by Molybdenum disulfide nanosheets reinforced hydroxyapatite nanocomposite scaffolds**

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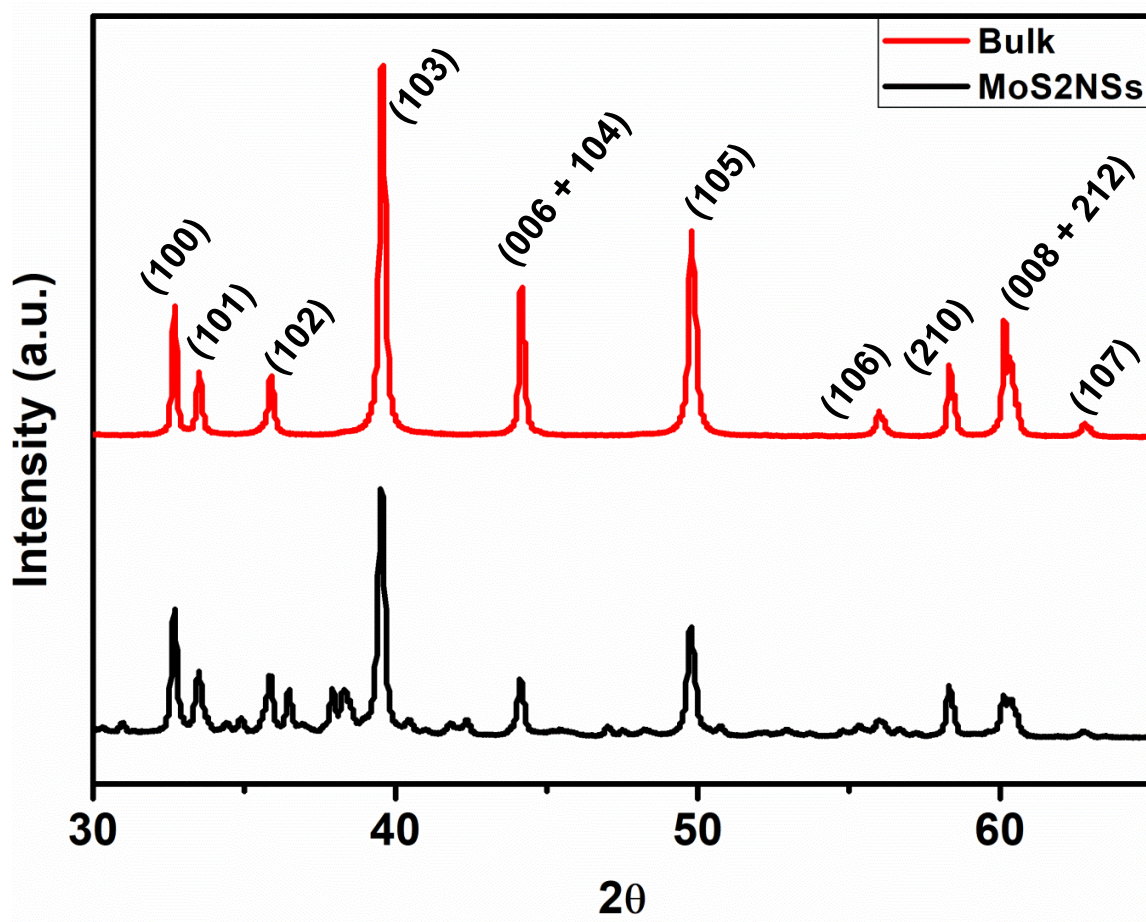
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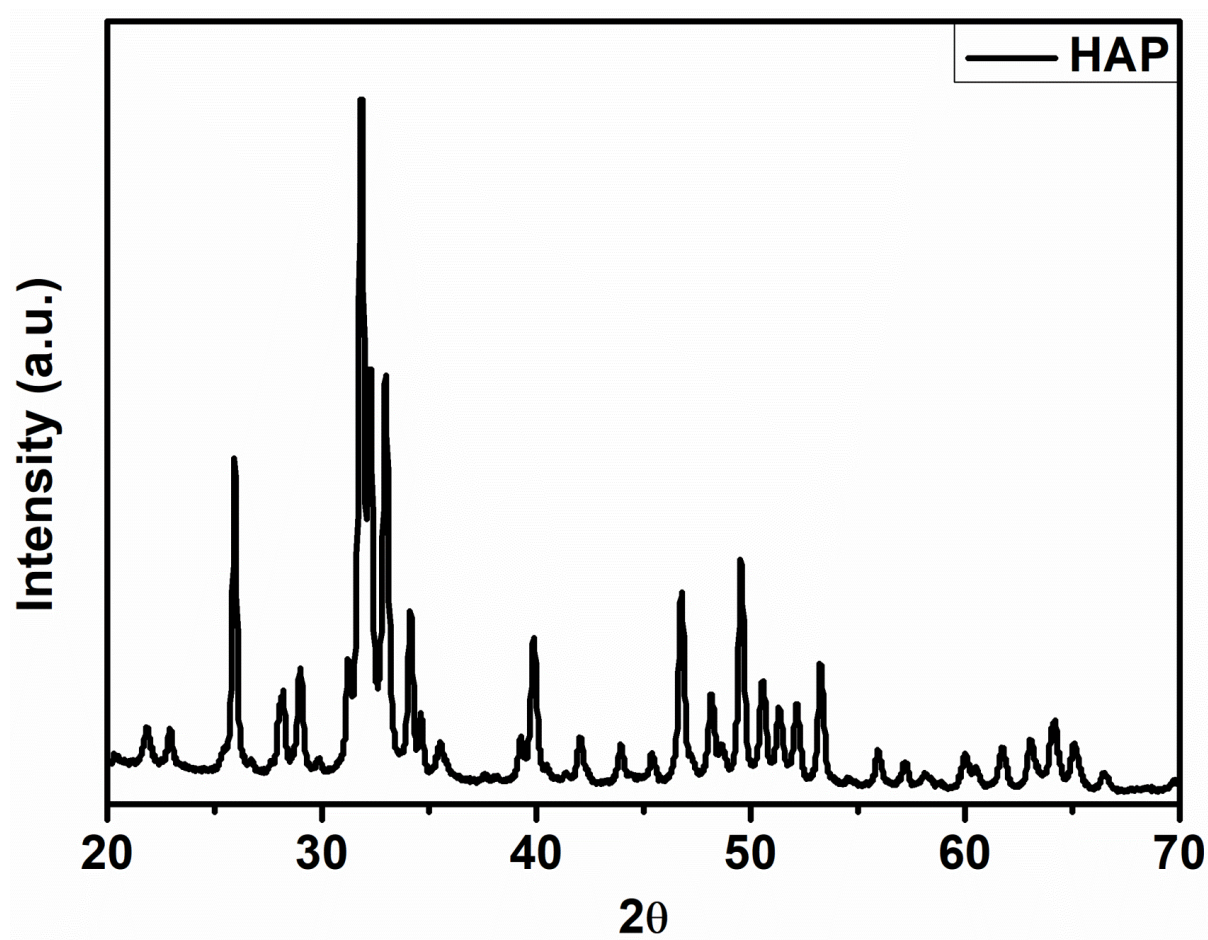
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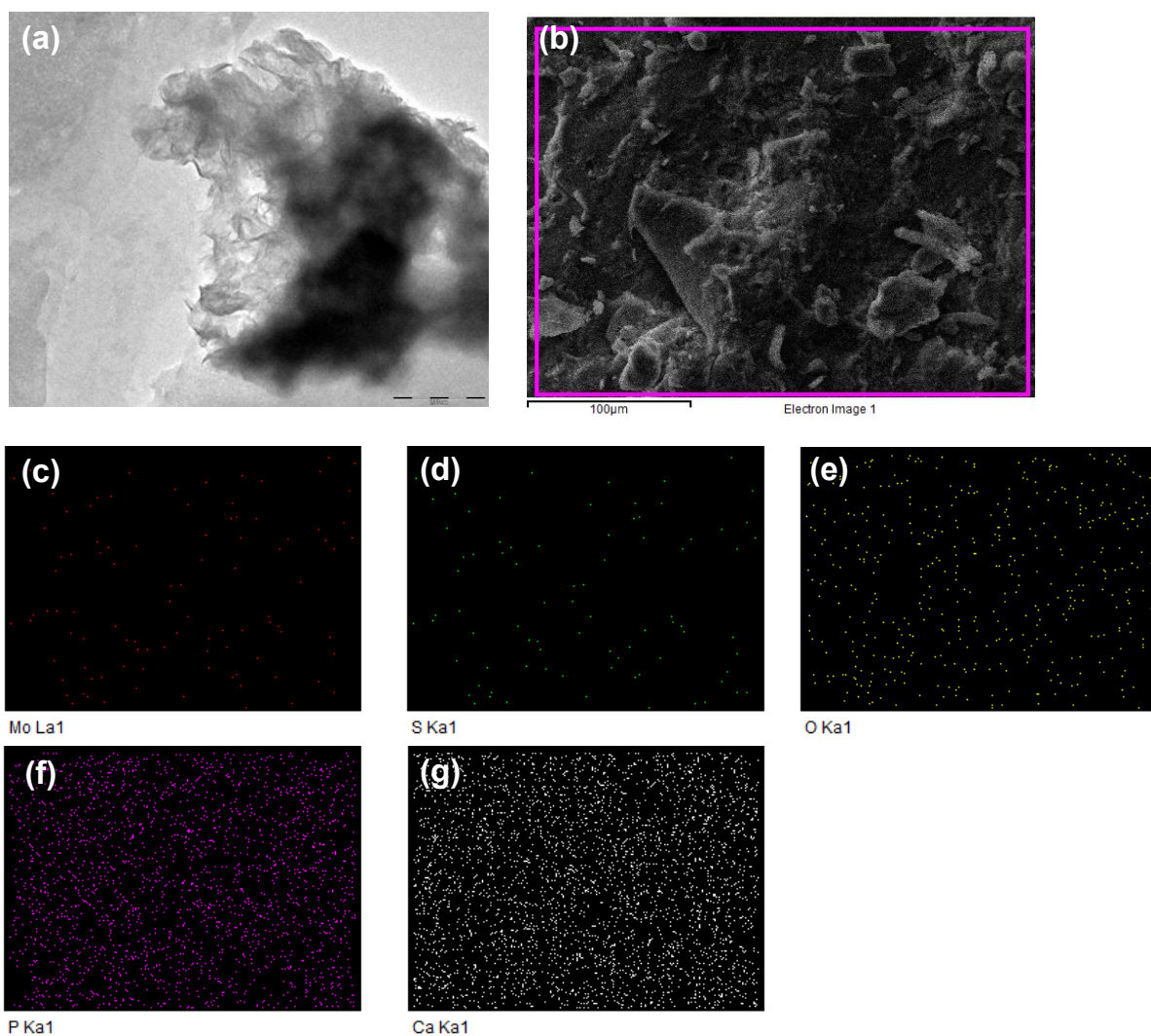
**Figure S1:** XRD Spectra of MoS<sub>2</sub>NSs and its bulk counterpart.

Figure S1 shows the XRD pattern of MoS<sub>2</sub>NSs as well as its bulk counterpart. All the XRD peaks have been successfully indexed for the 2H phase of MoS<sub>2</sub> using JCPDS card no. 75-1539.



**Figure S2:** XRD spectra of HAP.

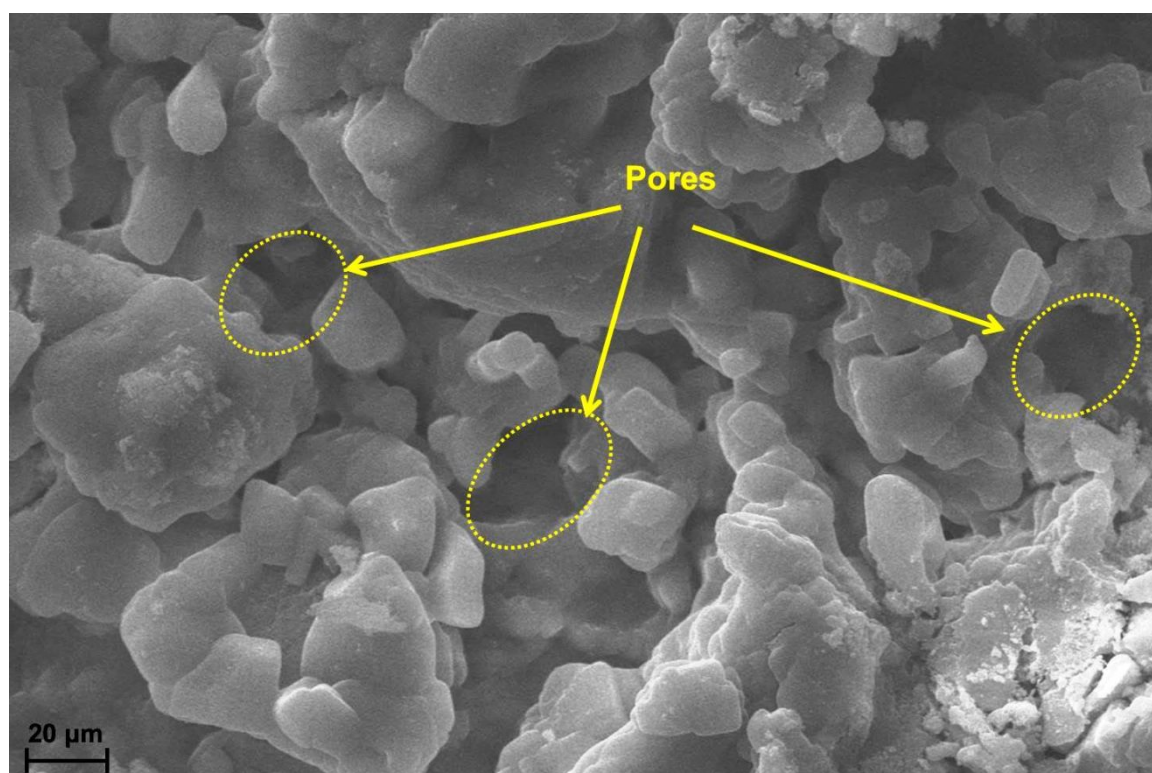
Figure S2 shows the XRD spectrum of HAP. All the peaks match well with ICDD standard (01-072-1243).



**Figure S3:** (a) TEM image of MoS<sub>2</sub>NSs. (b) shows the SEM image of the sample area used for elemental mapping. (c), (d), (e), (f) and (g) show the elemental mapping of the scaffolds corresponding to Mo, S, O, P and Ca respectively.

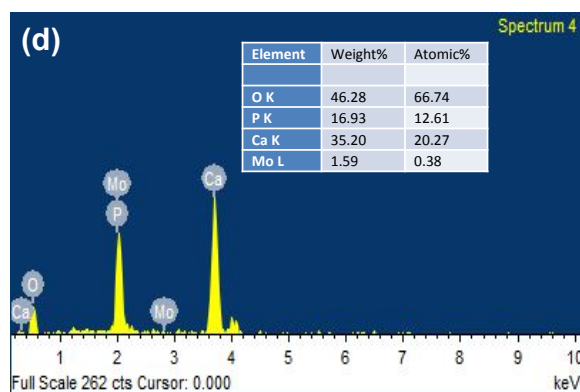
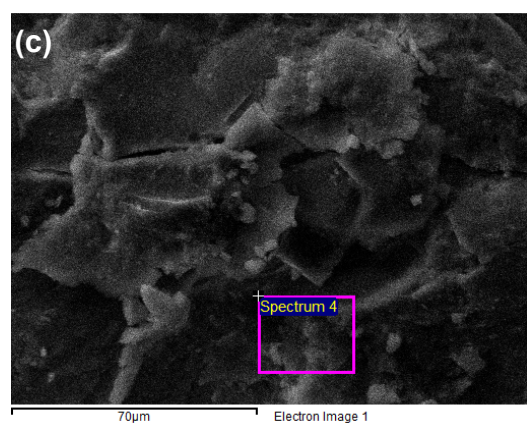
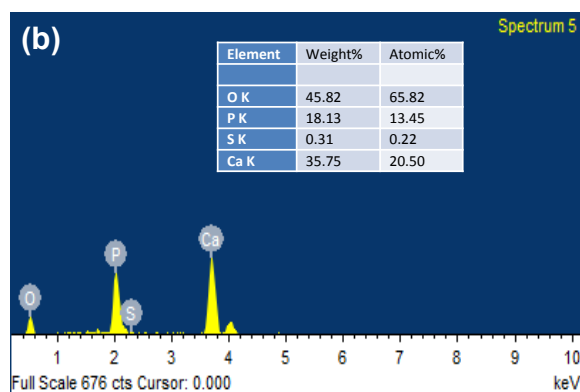
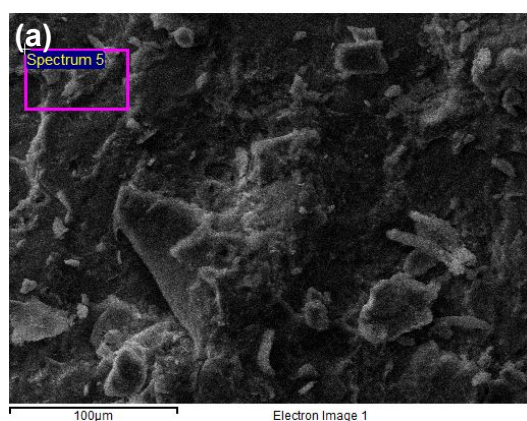


**Figure S4:** Macroscopic image of scaffold



**Figure S5:** (a) SEM image of HAP-Gel nanocomposite scaffolds showing various pores with variable pore size.





**Figure S6:** (a) and (c) shows the SEM image of the sample with marking region used for EDAX. (b) and (d) represent the EDAX color image and with element percentage.