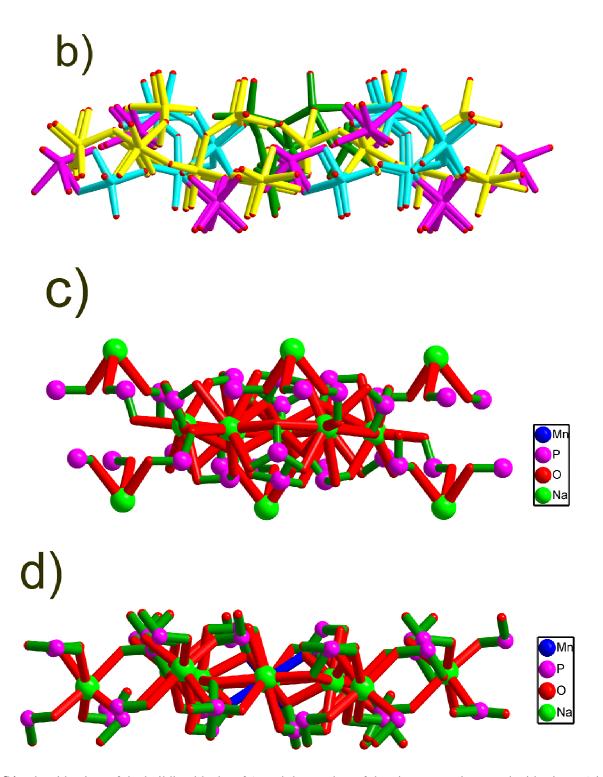
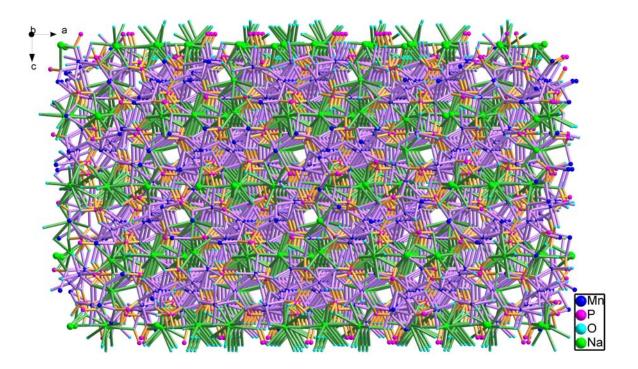
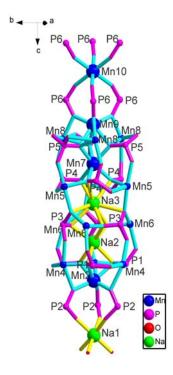
## **Supporting Information**



**Figure S1**. The side view of the building blocks of **1**, and the number of the pictures are in accord with Figure 1 in the article. (b) The aggregation mode of the Mn-chains, showing the same type of connection nodes (pink) are in a nearly linear array, at the same time all of them are in a zigzag array. (c) A side view of the  $\{Na(1)[Na(4)]_6P_{18}\}$  unit. (d) A side view of the  $\{Mn(10)[Na(5)]_6P_{12}\}$  unit.



**Figure S2.** The 3D network of the heterocluster  $[Na_{17}Mn^{II}_{43}(PO_4)_{36}]^{5}$ . Color code: Na-O: dark green; P-O: orange; M-O: purple.



**Figure S3.** View of the connection mode of the linkers  $(P_{1-6}, Na(2)-Na(3) \text{ group})$ , the wheel centers (Na(1), Mn(10)) and the connection nodes (Mn(2), Mn(7), Mn(9)) of the manganese clusters.