

Supporting Information for

Intrinsic Quantum Anomalous Hall Effect in Two-dimensional Anilato-based Lattice

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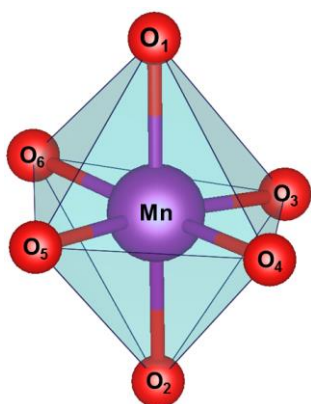
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This supporting information (SI) contains the supporting figures and tables.

Table S1 Bond lengths and selected angles for MnO₆.



Mn-O	Bond length (Å)	O-Mn-O	Angle (°)
-O1	1.98987	O1-Mn-O5	90.0864
-O2	1.98988	O3-Mn-O6	90.0859
-O3	1.98988	O2-Mn-O6	90.0859
-O4	1.98987	O1-Mn-O2	174.0122
-O5	1.98987	O1-Mn-O3	94.4597
-O6	1.98988	O2-Mn-O3	81.2822

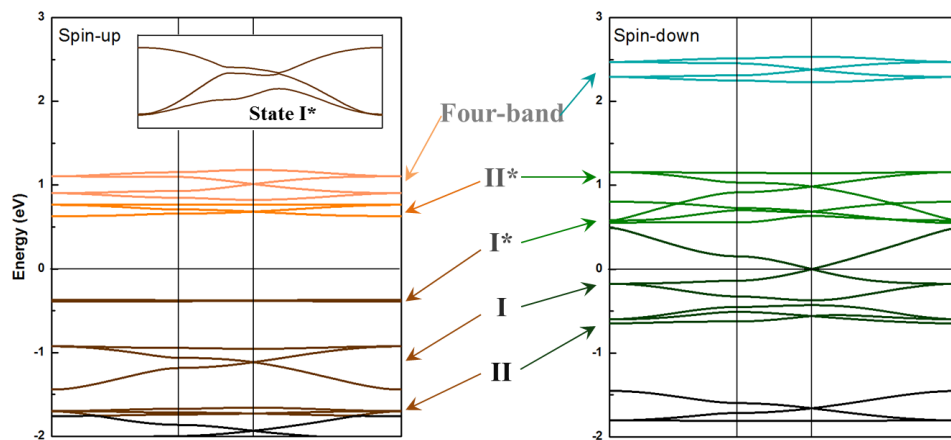


Fig. S1 Spin-up and -down bands with the corresponding states indicated in the middle.

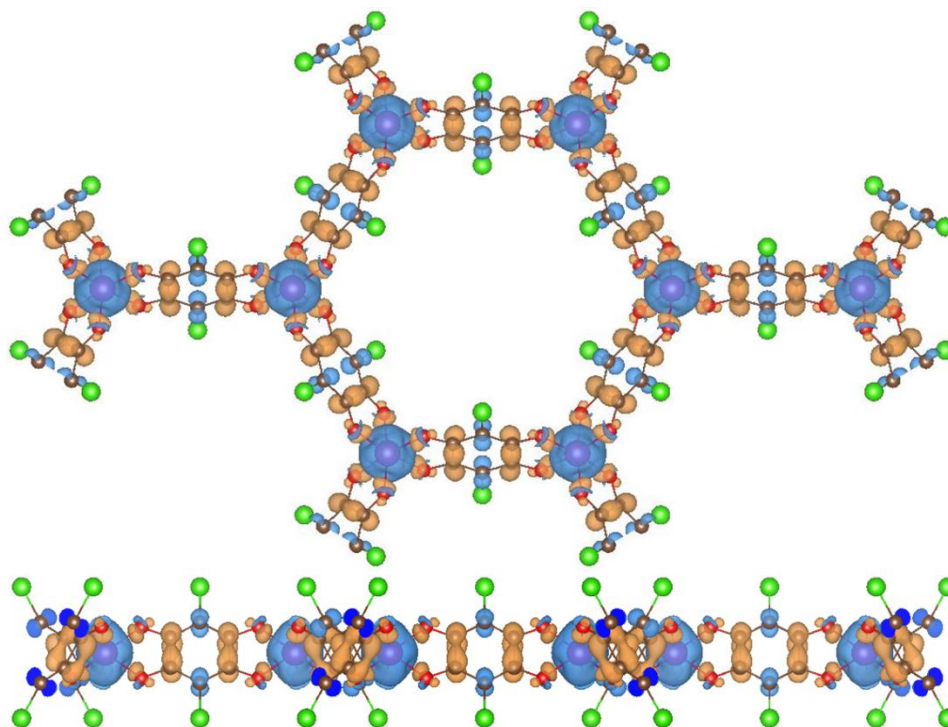


Fig. S2 Top and side views of magnetization density distribution in $\text{Mn}_2(\text{C}_6\text{O}_4\text{Cl}_2)_3$ lattice.

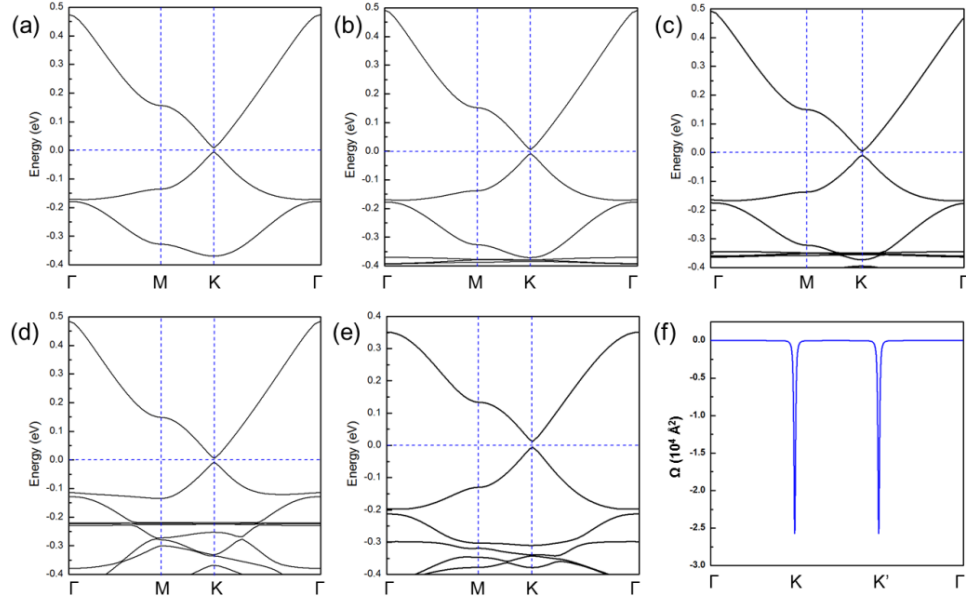


Fig. S3 Band structures of $M_2(C_6O_4X_2)_3$ lattice with SOC. (a) $Mn_2(C_6O_4F_2)_3$. (b) $Mn_2(C_6O_4Cl_2)_3$. (c) $Mn_2(C_6O_4Br_2)_3$. (d) $Mn_2(C_6O_4I_2)_3$. (e) DFT+U calculation for $Tc_2(C_6O_4Cl_2)_3$. (f) Berry curvature for the occupied bands along the high symmetry directions for $Tc_2(C_6O_4Cl_2)_3$.

Table S2 Lattice constant and energy gap for $M_2(C_6O_4X_2)_3$.

	(M = Mn) X =				(X = Cl) M =
	F	Cl	Br	I	Tc
Lattice Constant, Å	13.44	13.49	13.49	13.49	13.70
Energy Gap, meV	13.6	13.8	14.0	13.3	18.1