

## **Schiff-base macrocyclic Zn<sup>II</sup> complexes based upon flexible pendant-armed extended dialdehydes**

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**Supporting Information**

Table S1 The formulas of complexes 1–30.

1	$[\text{Zn}_2(\text{Hhpdd})_2(\text{H}_2\text{O})_2](\text{NO}_3)_2$	$[\text{Zn}_2(\text{C}_{24}\text{H}_{20}\text{Cl}_2\text{NO}_5)_2(\text{H}_2\text{O})_2](\text{NO}_3)_2$
2	$[\text{Zn}_2(\text{pdd})_2(\text{H}_2\text{O})_2]$	$[\text{Zn}_2(\text{C}_{24}\text{H}_{19}\text{Cl}_2\text{NO}_4)_2(\text{H}_2\text{O})_2]$
3	$[\text{Zn}_2(\text{H}_2\text{L}_a)](\text{NO}_3)_2$	$[\text{Zn}_2(\text{C}_{60}\text{H}_{64}\text{Cl}_4\text{N}_6\text{O}_{10})](\text{NO}_3)_2$
4	$[\text{Zn}_2(\text{H}_2\text{L}_b)(\text{NO}_3)](\text{NO}_3)$	$[\text{Zn}_2(\text{C}_{60}\text{H}_{64}\text{Cl}_4\text{N}_6\text{O}_8)(\text{NO}_3)](\text{NO}_3)$
5a	$[\text{Zn}_2(\text{H}_2\text{L}_c)(\text{NO}_3)](\text{NO}_3)$	$[\text{Zn}_2(\text{C}_{53}\text{H}_{50}\text{Cl}_4\text{N}_6\text{O}_6)(\text{NO}_3)](\text{NO}_3)$
5b	$[\text{Zn}_2(\text{H}_2\text{L}_d)(\text{NO}_3)](\text{NO}_3)$	$[\text{Zn}_2(\text{C}_{53}\text{H}_{50}\text{Cl}_4\text{N}_6\text{O}_4)(\text{NO}_3)](\text{NO}_3)$
6	$\text{PbL}_e$	$\text{PbC}_{27}\text{H}_{25}\text{Cl}_2\text{N}_3\text{O}_3$
7	$[\text{Pb}(\text{HL}_f)]_2(\text{NO}_3)_2$	$[\text{Pb}(\text{C}_{27}\text{H}_{26}\text{Cl}_2\text{N}_3\text{O}_2)]_2(\text{NO}_3)_2$
8	$[\text{ZnCl}_2(\text{H}_2\text{L}_g)]$	$[\text{ZnCl}_2(\text{C}_{27}\text{H}_{27}\text{Cl}_2\text{N}_3\text{O}_2)]$
9	$[\text{ZnBr}_2(\text{H}_2\text{L}_g)]$	$[\text{ZnBr}_2(\text{C}_{27}\text{H}_{27}\text{Cl}_2\text{N}_3\text{O}_2)]$
10	$[\text{Zn}_3\text{BrO}(\text{H}_2\text{L}_h)]\text{Br}$	$[\text{Zn}_3\text{BrO}(\text{C}_{54}\text{H}_{52}\text{Cl}_4\text{N}_6\text{O}_5)]\text{Br}$
11	$[\text{Zn}_3\text{IO}(\text{H}_2\text{L}_h)]\text{I}$	$[\text{Zn}_3\text{IO}(\text{C}_{54}\text{H}_{52}\text{Cl}_4\text{N}_6\text{O}_5)]\text{I}$
12	$[\text{Zn}_3\text{ClO}(\text{H}_2\text{L}_i)]\text{Cl}$	$[\text{Zn}_3\text{ClO}(\text{C}_{54}\text{H}_{52}\text{Cl}_4\text{N}_6\text{O}_7)]\text{Cl}$
13	$[\text{Zn}_3\text{BrO}(\text{H}_2\text{L}_i)]\text{Br}$	$[\text{Zn}_3\text{BrO}(\text{C}_{54}\text{H}_{52}\text{Cl}_4\text{N}_6\text{O}_7)]\text{Br}$
14	$[\text{Zn}_3\text{IO}(\text{H}_2\text{L}_i)]\text{I}$	$[\text{Zn}_3\text{IO}(\text{C}_{54}\text{H}_{52}\text{Cl}_4\text{N}_6\text{O}_7)]\text{I}$
15	$[\text{Zn}_4\text{Cl}_4(\text{H}_2\text{L}_j)]$	$[\text{Zn}_4\text{Cl}_4(\text{C}_{120}\text{H}_{120}\text{Cl}_8\text{N}_{12}\text{O}_{12})]$
16	$[\text{Zn}_2(\text{H}_2\text{L}_k)(\text{H}_2\text{O})_2](\text{NO}_3)_2$	$[\text{Zn}_2(\text{C}_{60}\text{H}_{60}\text{Cl}_4\text{N}_6\text{O}_4)(\text{H}_2\text{O})_2](\text{NO}_3)_2$
17	$[\text{Zn}_2(\text{H}_2\text{L}_l)(\text{H}_2\text{O})_2](\text{NO}_3)_2$	$[\text{Zn}_2(\text{C}_{60}\text{H}_{60}\text{Cl}_4\text{N}_6\text{O}_6)(\text{H}_2\text{O})_2](\text{NO}_3)_2$
18	$[\text{Zn}_2\text{Cl}_2(\text{H}_2\text{L}_m)]$	$[\text{Zn}_2\text{Cl}_2(\text{C}_{60}\text{H}_{60}\text{Cl}_4\text{N}_6\text{O}_4)]$
19	$\text{Zn}_3\text{L}_n$	$\text{Zn}_3(\text{C}_{57}\text{H}_{78}\text{N}_6\text{O}_3)$
20	$\text{Zn}_2\text{L}_o$	$\text{Zn}_2(\text{C}_{36}\text{H}_{46}\text{N}_4\text{O}_2)$
21	$[\text{Zn}_2(\text{H}_2\text{L}_p)(\text{NO}_3)](\text{NO}_3)$	$[\text{Zn}_2(\text{C}_{60}\text{H}_{64}\text{Cl}_4\text{N}_6\text{O}_8)(\text{NO}_3)](\text{NO}_3)$
22	$[\text{Zn}_2\text{Na}_2(\text{L}_q)(\text{OH})]_2[\text{N}(\text{CN})_2]_2$	$[\text{Zn}_2\text{Na}_2(\text{C}_{124}\text{H}_{132}\text{Cl}_8\text{N}_{14}\text{O}_{16})(\text{OH})]_2[\text{N}(\text{CN})_2]_2$
23a	$[\text{Zn}_2(\text{H}_2\text{L}_r)(\text{OH})]\text{Cl}$	$[\text{Zn}_2(\text{C}_{56}\text{H}_{68}\text{Cl}_4\text{N}_6\text{O}_8)(\text{OH})]\text{Cl}$
23b	$[\text{Zn}_2(\text{H}_2\text{L}_r)(\text{OH})]\text{Br}$	$[\text{Zn}_2(\text{C}_{56}\text{H}_{68}\text{Cl}_4\text{N}_6\text{O}_8)(\text{OH})]\text{Br}$
24a	$[\text{Cd}_2(\text{H}_2\text{L}_r)\text{Cl}]_2[\text{Cd}_2\text{Cl}_6]$	$[\text{Cd}_2(\text{C}_{56}\text{H}_{68}\text{Cl}_4\text{N}_6\text{O}_8)\text{Cl}]_2[\text{Cd}_2\text{Cl}_6]$
24b	$[\text{Cd}_2(\text{H}_2\text{L}_r)\text{Br}]_2[\text{Cd}_2\text{Br}_6]$	$[\text{Cd}_2(\text{C}_{56}\text{H}_{68}\text{Cl}_4\text{N}_6\text{O}_8)\text{Br}]_2[\text{Cd}_2\text{Br}_6]$
25a	$[\text{Cu}_2(\text{H}_2\text{L}_r)\text{Cl}]\text{Cl}$	$[\text{Cu}_2(\text{C}_{56}\text{H}_{68}\text{Cl}_4\text{N}_6\text{O}_8)\text{Cl}]\text{Cl}$
25b	$[\text{Cu}_2(\text{H}_2\text{L}_r)\text{Br}]\text{Br}$	$[\text{Cu}_2(\text{C}_{56}\text{H}_{68}\text{Cl}_4\text{N}_6\text{O}_8)\text{Br}]\text{Br}$
26a	$[\text{Cu}_2(\text{HL}_s)\text{Cl}_2]_2[\text{CuCl}_4]$	$[\text{Cu}_2(\text{C}_{28}\text{H}_{34}\text{Cl}_2\text{N}_3\text{O}_4)\text{Cl}_2]_2[\text{CuCl}_4]$
26b	$[\text{Cu}_2(\text{HL}_s)\text{Cl}_2]_2[\text{CdCl}_4]$	$[\text{Cu}_2(\text{C}_{28}\text{H}_{34}\text{Cl}_2\text{N}_3\text{O}_4)\text{Cl}_2]_2[\text{CdCl}_4]$
27	$[\text{Zn}_2\text{L}_t(\text{H}_2\text{O})_2](\text{ClO}_4)_2$	$[\text{Zn}_2(\text{C}_{24}\text{H}_{26}\text{N}_4\text{O}_2)(\text{H}_2\text{O})_2](\text{ClO}_4)_2$
28	$[\text{Zn}_2\text{L}_t(\text{py}-4\text{-SH})_2](\text{ClO}_4)_2$	$[\text{Zn}_2(\text{C}_{24}\text{H}_{26}\text{N}_4\text{O}_2)(\text{C}_5\text{H}_5\text{NS})_2](\text{ClO}_4)_2$
29	$[\text{Zn}_2\text{L}_u(\text{EtOH})(\text{H}_2\text{O})]$	$[\text{Zn}_2(\text{C}_{44}\text{H}_{28}\text{Cl}_4\text{N}_4\text{O}_4)(\text{EtOH})(\text{H}_2\text{O})]$
30	$[\text{Zn}_2\text{L}_v(\text{DMF})(\text{H}_2\text{O})]$	$[\text{Zn}_2(\text{C}_{44}\text{H}_{28}\text{Cl}_4\text{N}_4\text{O}_8)(\text{DMF})(\text{H}_2\text{O})]$