Linker	Original Linker Name	MOF	Original MOF Name	Parent Metal	Exchanged Metal	Additional Notes	Ref.
L1	BTT = 1,3,5-benzenetristetrazolate	1	$Mn_3[(Mn_4Cl)_3(BTT)_8(CH_3OH)_{10}]$	Mn^{2+}	-		31
		1·Cu (I)	-		Cu^{+}	*Near negligible exchange*	
		1·Li	$Li_{3.2}Mn_{1.4}[(Mn_4Cl)_3(BTT)_8]_2$×0.4 LiCl		Li^{+}	*Little exchange*	
		1·Co	$Co_3[(Mn_4Cl)_3(BTT)_8]_2$×1.7$CoCl_2$		Co^{2+}	*Guest cations exchanged only*	
		1·Fe	$Fe_3[(Mn_4Cl)_3(BTT)_8]_2$×$FeCl_2$		Fe^{2+}	*Guest cations exchanged only*	
		1·Ni	$Ni_{2.75}Mn_{0.25}[(Mn_4Cl)_3(BTT)_8]_2$		Ni^{2+}	*Guest cations exchanged only*	
		1·Cu (II)	$Cu_3[(Cu_{2.9}Mn_{1.1}Cl)_3(BTT)_8]_2$×2 $CuCl_2$		Cu^{2+}	*Partial node exchange*	
		1·Zn	$Zn_3[(Zn_{0.7}Mn_{3.3}Cl)_3(BTT)_8]_2$×2Z nCl_2		Zn^{2+}	*Partial node exchange*	
L2	(HETT = 5,5′,10,10′,15,15′-Hexaethayltruxene-2,7,12-tricarboxylate	2	$Cd_{1.5}(H_3O)_3[(Cd_4O)_3(HETT)_8]$× 6$H_2O$	Cd^{2+}			50
		2·Pb	$Pb(H_3O)[<Pb_4(\mu_4O)>_3(HETT)_8]$ ×6H_2O		Pb^{2+}	*Complete exchange 2 days Partial reverse exchange possible*	
L3	-$OOCClH_3C_6Fc$	3	$[Zn(OOCClH_3C_6Fc)_2(H_2O)_3]_n$	Zn^{2+}			25
					Cd^{2+}	*18% exchange max.*	
					Pb^{2+}	*26% exchange max.*	
L4	Bpy = 4,4'-bipyridine	4	$([Zn(bpy)_2(FcphSO_3)_2]_n$	Zn^{2+}			22
L6	$FcphSO_3^{-}$						
					Pb^{2+}	*Metal sorption only at low conc. of exchange solution*	
					Cd^{2+}	“	
					Cu^{2+}	“	
L5	Bpp=1,3-bis(pyridine-	5	$<[Cd(bpp)_2(O_3SFcSO_3)](CH_3O$	Cd^{2+}			48

	4-yl)propane		$H)_2>_n$				
L7	O_3SFcSO_3						
					Pb^{2+}	*Metal sorption only at low conc. of exchange solution*	
					Cu^{2+}	"	
L4	Bpy = 4,4'-bipyridine	6	$<[Cd(bpy)_2(O_3SFcSO_3)](CH_3OH)_4>_n$	Cd^{2+}			48
L7	O_3SFcSO_3						
					Pb^{2+}	*Metal sorption only at low conc. of exchange solution*	
					Cu^{2+}	"	
L8	*N*-phenyl-*N'*-phenyl bicyclo[2,2,2]oct-7-ene-2,3,5,6-tetracarboxydiimide tetracarboxylic acid	7	$[Zn_7(L1)_3(H_2O)_7]_n \times [Zn_5(\mathbf{L8})_3(H_2O)_5]_n$	Zn^{2+}			53
		7·Cu			Cu^{2+}	*87% exchange*	
L9	Bdc = 1,4-benzene dicarboxylate	8	MOF-5 $[Zn_4O(BDC)_3]$	Zn^{2+}			24
					Ni^{2+}	*25% nickel exchange per node*	
L10	bis(1H-1,2,3-triazolo-[4,5-b],[4`,5`-i])dibenzo-[1,4]-dioxin	9	MFU-4*l*	Zn^{2+}			23
					Co^{2+}	*Replaces only tetrahedral Zn, as opposed to octahedral*	
L9	Bdc = 1,4-benzene dicarboxylate	10	Al-MIL-53	Al^{3+}			54
					Fe^{3+}	*Particle to particle exchange*	
L9	Bdc = 1,4-benzene dicarboxylate	10	Fe-MIL-53	Fe^{3+}			54
					Al^{3+}	*Particle to particle exchange*	
L9	Bdc = 1,4-benzene dicarboxylate	11	UiO-66	Zr^{4+}			54

					Ti^{4+}	*38% exchange*	
					Hf^{4+}	*20% replacement*	
L11	Btb = 1,3,5-benzene tricarboxylate	12	$Zn_3(BTB)_2(H_2O)_2$	Zn^{2+}			47
					Cu^{2+}	*Partial exchange*	
L12	1,2,3-tris(3,5-dicarboxylphenylethynyl)benzene	13	PMOF-2 [Zn_{24}**L12**$_8(H_2O)_{12}$]	Zn^{2+}			47
					Cu^{2+}	*Full exchange*	
L11	Btb = 1,3,5-benzene tricarboxylate	14	$Zn_6(BTB)_4(Bpy)_3$	Zn^{2+}			8
L4	Bpy = 4,4'-bipyridine						
					Cu^{2+}	*Core/shell exchange*	
					Co^{2+}	*Core/shell exchange (reversible)*	
					Ni^{2+}	*Core/shell exchange*	
L11	Btb = 1,3,5-benzene tricarboxylate	15	$Cu_6(BTB)_4(Bpy)_3$	Cu^{2+}			8
L4	Bpy = 4,4'-bipyridine						
					Zn^{2+}	*No exchange*	
					Co^{2+}	*No exchange*	
					Ni^{2+}	*No exchange*	
L11	Btb = 1,3,5-benzene tricarboxylate	16	$Co_6(BTB)_4(Bpy)_3$	Co^{2+}			8
L4	Bpy = 4,4'-bipyridine						
					Zn^{2+}	*Core/shell exchage (reversible)*	
					Cu^{2+}	*Core/shell exchange*	
					Ni^{2+}	*Core/shell exchange*	
L11	Btb = 1,3,5-benzene tricarboxylate	17	$Zn_6(BTB)_4(Bpy)_3$	Ni^{2+}			8
L4	Bpy = 4,4'-bipyridine						
					Zn^{2+}	*No exchange*	

					Cu^{2+}	*Core/shell exchange*	
					Co^{2+}	*No exchange*	
L12	N,N'-bis(3,5-dicarboxyphenyl)pyromellitic diimide	18	<[Zn_2(BDCPPI)(DMF)$_3$]×6 DMF×4H_2O>$_n$, or, SNU-51	Zn^{2+}			28
					Cu^{2+}	*Exchange is irreversible, and solvent dependent, and preferential for Cu^{2+} over Cd^{2+}, Co^{2+}, Ni^{2+}*	
L12	N,N'-bis(3,5-dicarboxyphenyl)pyromellitic diimide	19	<[Zn_2(BDCPPI)(DMF)$_3$]×6 DMF×4H_2O>$_n$, or, SNU-51	Cu^{2+}			28
L11	Btb = 1,3,5-benzene tricarboxylate	20	$Zn_6(BTB)_4(Bpy)_3](Sol)_x$ or SUMOF-1-Zn, Sol = solvent	Zn^{2+}			29
L4	Bpy = 4,4'-bipyridine						
		20·Cu			Cu^{2+}	*50% exchange in 1 hour, 99% after 3 months, reverse exchange only proceeds to 38%*	
		20·Co			Co^{2+}	*35% exchange, reversible*	
		20·Ni			Ni^{2+}	*38% exchange, reversible*	
L13	benzene-1,3,5-triyltriisonicotinate.	21·Zn	<Zn(**L13**)$_2$(H_2O)$_2$]×2(PF_6)×pyrene×2(H_2O)>$_n$	Zn^{2+}			56
					Cu^{2+}	*Complete exchange, 6 hours, irreversible*	
L13	benzene-1,3,5-triyltriisonicotinate.	21·Cd	<[Cd(**L14**)$_2$(H_2O)$_2$]×2(PF_6)×pyrene×2(H_2O)>$_n$	Cd^{2+}			56
					Cu^{2+}	*Complete exchange, 8 hours, reversible to 53%*	
L14	BTX = 1,4-bis(triazol-1-ylmethyl)benzene	22·Cd	<[Cd_2(BTX)$_2$(BDC)$_2$]×H_2O>	Cd^{2+}			30
L9	Bdc = 1,4-benzene						

	dicarboxylate						
					Cu^{2+}	*Complete exchange, 1 week*	
L14	BTX = 1,4-bis(triazol-1-ylmethyl)benzene	22·Co	<[Co_2(BTX)$_2$(BDC)$_2$]×H_2O>	Co^{2+}			30
L9	Bdc = 1,4-benzene dicarboxylate						
					Cd^{2+}	*Complete exchange, 1 week*	
L15	4′,4‴,4⁗,4′′′′′′-ethene-1,1,2,2-tetrayltetrakis([1,1′-biphenyl]-3,5-dicarboxylate) (H_8ETTB)	23	PCN-921 Zn_4(ETTB)·4DMF·*x*S	Zn^{2+}			57
		23·Cu	PCN-922, Cu_4(ETTB)·4DMF·*x*S		Cu^{2+}	*Complete exchange, 4 days*	
L16	(*R,R*)-(–)-1,2-cyclohexanediamino-*N,N'*-bis(3- *tert*-butyl-5-(4-pyridyl)salicylidene)Mn^{III}Cl	24		Mn^{3+}: salens Zn^{2+}: nodes			15
L17	tetrakis(4-carboxyphenyl)-benzene						
					Co^{2+}	*metalated salen after Mn^{3+} removal*	
					Zn^{2+}	*metalated salen after Mn^{3+} removal*	
					Mn^{2+}	*metalated salen after Mn^{3+} removal*	
					Ni^{2+}	*metalated salen after Mn^{3+} removal*	
					Cr^{2+}	*metalated salen after Mn^{3+} removal*	

					Cu^{2+}	*Partial exchange in nodes and metalated salen*	
L18	TMPyP = *meso*-tetra(*N*-methyl-4-pyridyl)porphyrine	25	$Cd_6(BPT)_4Cl_4(H_2O)_4]$, porph@MOM-10	Cd^{2+}: nodes and porphyrines			10
L19	Bpt = biphenyl tricarboxylate						
		25·Mn	Mn-porph@MOM-10		Mn^{2+}	*Full exchange in nodes and porphyrines, 1 week*	
		25·Cu	$Cu_4Cd_2(BPT)_4Cl_4(CH_3OH)_4]\cdot[C_{44}H_{36}N_8Cu$, Cuporph@MOM-10-CdCu		Cu^{2+}	*Partial exchange in nodes and porphyrines*	
L18	TMPyP = *meso*-tetra(*N*-methyl-4-pyridyl)porphyrine	26	porph@MOM-11	Cd^{2+}			11
L19	Bpt = biphenyl tricarboxylate						
		26·Ba	porph(Cl^-)@MOM-11(Ba^{2+}), $[Cd_4Ba_{0.5}(BPT)_4(Solvent)_3]$ $[Cd(C_{44}H_{36}N_8)(Cl)]$ [Solvent]		Ba^{2+}	*Sorption to metal nodes*	
		26·Na	porph(Cl^-)@MOM-11(Na^+) ($[Cd_4Na(BPT)_4(Solvent)_3]$ $[Cd(C_{44}H_{36}N_8)(Cl)]$ [Solvent]		Na^+	*Sorption to metal nodes*	
		26·Mn	porph(Cl^-)@MOM-11(Mn^{2+}) $[Cd_8Mn(BPT)_8(Solvent)_4]$ $2[Cd(C_{44}H_{36}N_8)(Cl)]$ [Solvent]		Mn^{2+}	*Partial node exchange*	
L20	tetracarboxyphenylporphyrin H_4-TCPP-H_2 = ($C_{48}H_{24}O_8N_4$).	27	$(Zr_6O_4(OH)_4(TCPP\text{-}H_2)_3$, MOF-525	Zr^{4+}			63
					Cu^{2+}	*Full porphyrin metalation*	
L20	tetracarboxyphenylpor	28	MOF-545,	Zr^{4+}			63

	phyrin H_4-TCPP-H_2 = ($C_{48}H_{24}O_8N_4$).		$[(Zr_6O_8(H_2O)_8(TCPP\text{-}H_2)_2]$				
					Cu^{2+}	*Full porphyrin metalation*	
					Fe^{2+}	*Full porphyrin metalation*	