

Electronic Supplementary Information

Dynamic Cyclen-Metal Complexes for Molecular Sensing and Chirality Signaling

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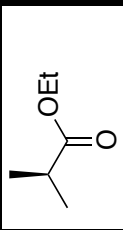
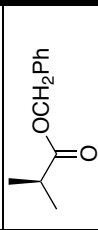
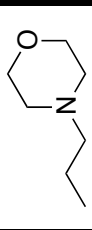
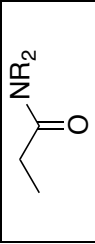
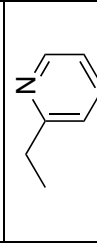
Content

Table S1. Crystal Structures of Typical Armed Cyclen–Metal Complexes

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Sidearm	R =					
			Na (BIVNEZ,ADIMLJ)	K (BIVNID) Na (XAFNAT)		La (H ₂ O, EKIZON) Pr (H ₂ O, IKIRAF) Nd (H ₂ O, AMITEV) Tb (H ₂ O, EKIZUT) Tb (MeOH, EKIZUT) Eu (H ₂ O, PIMWUD) Eu (H ₂ O, RUVJOI)
	Me		Cd (EKEGUW)	Na (ADIMOP) Cd (GUGVIN, IDIGAD) Pb (JADKEE) Bi (ZIJFAZ)		
	CH ₂ Ph		Zn (XEGJOJ)	Cd (XEGJID, XEGJUP,)		
	CH ₂ OPh			Cd (HOVNEL,HOVNAH, ODOMAV, ODOLOI, ODOLOU)		
			Ag ^I (NAXJIF)			
			Zn (KIKNAT) Ga ^{III} (NIYXID, DEVHIW, AMAJEE) Bi ^{III} (HADRAG) Mn ^{II} (HONYUF) Co ^{II} (NIYXOJ) Ni ^{II} (FEKTUK) Cu ^{II} (FEKVAS)	Fe ^{III} (LATKAS)	Ca (ZUGTAX) Sc (LU'QCId)	Sr (H ₂ O, GACFUM) Y (H ₂ O, LATKOG) Ce (H ₂ O, LUQBII) Pr (H ₂ O, LUQBOO) Nd (H ₂ O, LUQBUU) Eu (H ₂ O, CEKKUL) Gd (H ₂ O, JOPJIIH) Dy (H ₂ O, UNEFID) Ho (H ₂ O, GOGKOZ) Lu (H ₂ O, NOJYIU)
						Eu (H ₂ O, NUHMOS) Gd (H ₂ O, VEYQIZ) Tb (H ₂ O, VIFPAB)

	Et						Na (BEMQEP)		
	tBu						Na (POHLED)		
	9-fluorenyl						Na (CAHDUL)		
						Zn (ZAGLUO)	Ca (ZAGLOI) Cd (ZAGLIC) Hg (AYOSEM) Pb (HIXBEW, AYOSIQ) Mn ^{II} (HONYIT)		Ba (Cl, ARUXUG) La (EtOH, OTf, PIRSEO) Eu (H ₂ O, ZACXAC) Yb (H ₂ O, XOHVEV) Gd (H ₂ (O, EHOVAY) Gd (H ₂ O, SIRCAY, SIRCEC) Gd (H ₂ O, KEHZUT, KEJBAD) Pr (H ₂ O, KEJBEB) Tb (H ₂ O, TUSPUT)
							Na (RIRQAK)		
							Na (CEXQAX)		
									Ce (H ₂ O, UFIRUW) Pr (H ₂ O, UFISAD, EQOZAL) Nd (H ₂ O, EQOZEP) Sm (H ₂ O, EQOZIT) Eu (H ₂ O, TUQTII, TUQTOO, EQOZOZ) Gd (H ₂ O, UFISEH, UFIRAC, EQOZUF, SIRDED, SIRCUS, SIRCUM, SIRCIG, SIRDON) Tb (H ₂ O, UFIREG) Dy (H ₂ O, TUQTUUI, EQUBAT) Er (H ₂ O, UFISIL, UFIRIK) Yb (H ₂ O, FIBTTT, SIRDIIH, SIRDAAZ) Lu (H ₂ O, UFIROQ)

							Eu (H ₂ O, FIBFEB)	
							Tb (H ₂ O, RUZNUV)	
Me							Gd (H ₂ O, GEGCIE) Dy (H ₂ O, GOYBOL)	
Ph							Eu (H ₂ O, ABOFIG)	
4-NO ₂ -Ph							Eu (MeOH, ABOFOM) Lu (H ₂ O, ABOFUS)	
3-Py							Eu (H ₂ O, WALVEL)	
CH ₂ CO ₂ Et							Eu (H ₂ O, XIWPIC)	
CH ₂ C (O)Ph							Tb (H ₂ O, EFUMAT)	
							Na (FEXZOY)	
					Zn (EKEZIE)		Gd (H ₂ O, EKEZAW)	
Et							Na (NOTVEX)	
							Pr (Cl, UKUHAK) Nd (Cl, PEZYUP) Nd (OTf, PIBBAE, UKUGAd) Eu (Cl, CIZVEN, CIZVAJ, CIZVIR, PIBBEL) Eu (NO ₃ , PIBBUY) Eu (OTf, UKUHEO, PIBBOS) Gd (H ₂ O, UKUFOW) Tb (Cl, PIBBIM) Tb (CH ₃ CN, UKUGEN) Er (CH ₃ CN, UKUGOX) Yb (H ₂ O, UKUGIR)	
							La (OMe, CUQSIR)	

Entry ID (refcode) of Cambridge Structural Database and an extra ligand (X) is shown in the parenthesis.