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Electronic Supporting Information

Novels Anti-Diabetic and Luminescence Coordination Compounds based on Vanadium

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1. **Luminescence calculations.**
2. **Bond distances and angles.**

1. Luminescence calculations.

Table S1. Calculated absorption data for HBIC^{-1}, AMPICA^{-1} and complexes 1 and 2.

Compound	Max. λ(nm)	Calc. Transitions	Osc. Strength
Ligand HBIC^{-1}	296	H-2→ L+1	0.0015
	304	H-1→ L	0.0080
Ligand AMPICA^{-1}	345	H-2→ L+1	0.0001
	431	H-1→ L	0.0053
Complex 1	364	H→ L+2	0.0076
Complex 2	435	H-3→ L	0.0009
	580	H-5→ L	0.0001

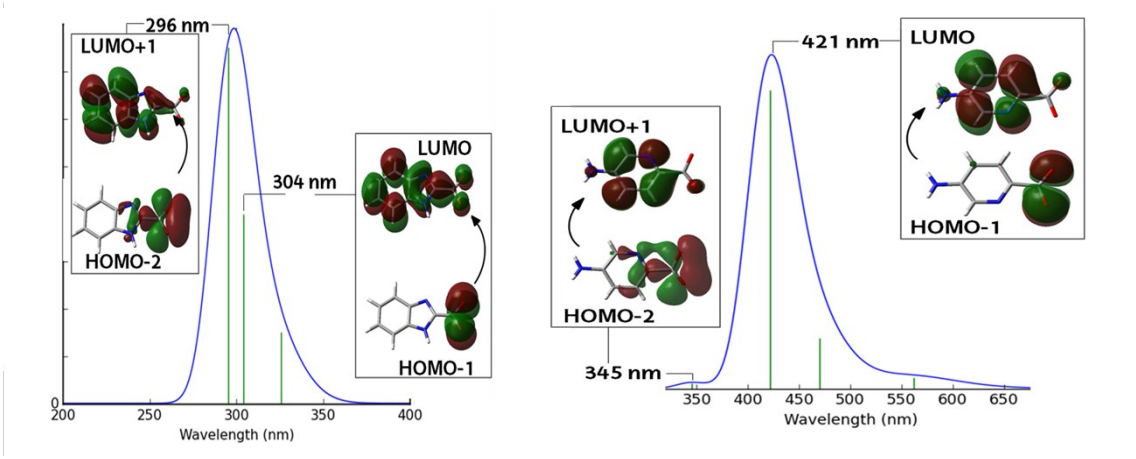

Figure S1. Calculated absorption spectra and representation of the molecular orbitals involved in the indicated electronic transitions, for ligand HBIC^{-1} (left) and ligand AMPICA^{-1} (right).

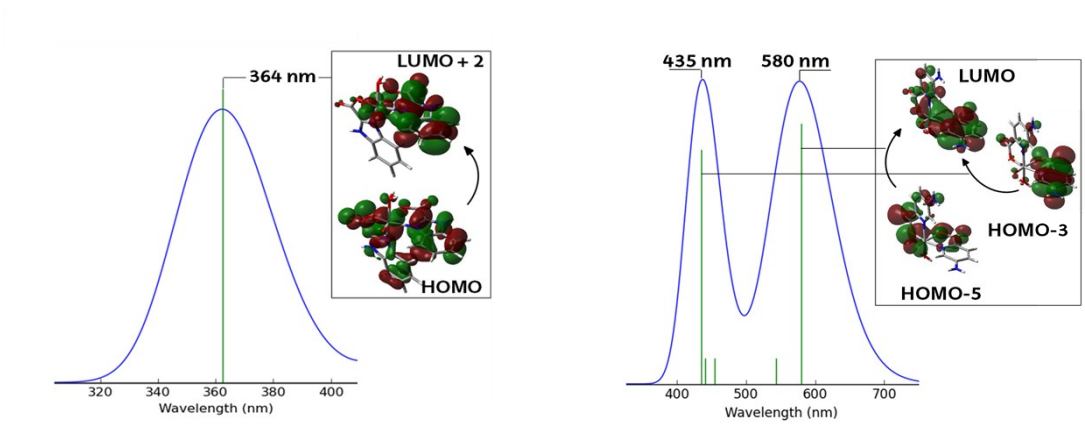

Figure S2. Calculated absorption spectra and representation of the molecular orbitals involved in the indicated electronic transitions, for ligand complex **1** (left) and complex **2** (right).

Table S2. Calculated emission data for ligands HBIC^{-1} and AMPICA^{-1}

Emission Max. λ (nm)	λ(nm)	Calc. Transitions	Osc. Strength
Ligand HBIC^{-1}	415	H→L+3 (93%)	0.0086
	438	H-1→L (99%)	0.0085
Ligand AMPICA^{-1}	414	H-1→L+1 (94%)	0.0091
	421	H-1→ L (95%)	0.0088
	431	H-1→ L+1 (93%)	0.009

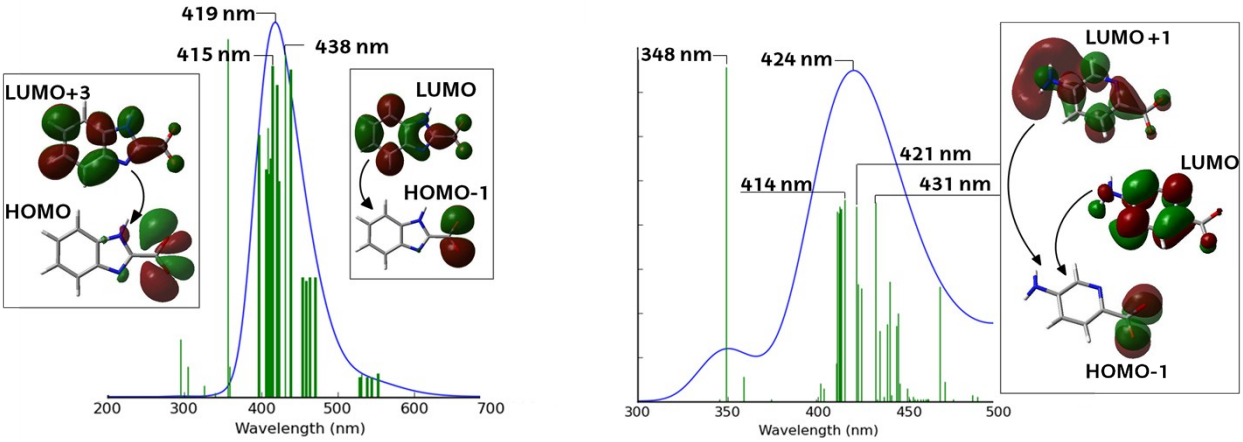

Figure S3. Calculated emission spectra and representation of the molecular orbitals involved in the indicated electronic transitions, for ligand $HBIC^{-1}$ (left) and ligand $AMPICA^{-1}$ (right).

2. Bond distances and angles.

Table S3. Selected Distances (Å) and Angles (º) for compounds **1** and **2**

V1 O1 1.5926(9)	V1 O1 1.6019(11)
V1 O1A 2.0219(9)	V1 O1A 1.9887(11)
V1 O1W 2.0622(9)	V1 O1W 2.0190(11)
V1 N1A 2.0852(11)	V1 N1A 2.1068(13)
V1 N1B 2.0957(10)	V1 N1B 2.1350(13)
V1 O1B 2.2404(9)	V1 O1B 2.1571(11)
O1 V1 O1A 108.21(4)	O1 V1 O1A 105.85(5)
O1 V1 O1W 95.23(4)	O1 V1 O1W 100.17(5)
O1A V1 O1W 88.07(4)	O1A V1 O1W 84.29(5)
O1 V1 N1A 100.63(5)	O1 V1 N1A 95.62(5)
O1A V1 N1A 78.89(4)	O1A V1 N1A 79.08(5)
O1W V1 N1A 161.96(4)	O1W V1 N1A 159.65(5)
O1 V1 N1B 96.50(4)	O1 V1 N1B 91.97(5)
O1A V1 N1B 154.28(4)	O1A V1 N1B 162.15(5)
O1W V1 N1B 96.88(4)	O1W V1 N1B 91.71(5)
N1A V1 N1B 89.85(4)	N1A V1 N1B 100.54(5)
O1 V1 O1B 169.12(4)	O1 V1 O1B 165.57(5)
O1A V1 O1B 81.53(3)	O1A V1 O1B 87.81(4)
O1W V1 O1B 79.98(4)	O1W V1 O1B 85.52(5)
N1A V1 O1B 85.77(4)	N1A V1 O1B 82.23(5)
N1B V1 O1B 74.57(4)	N1B V1 O1B 74.51(5)