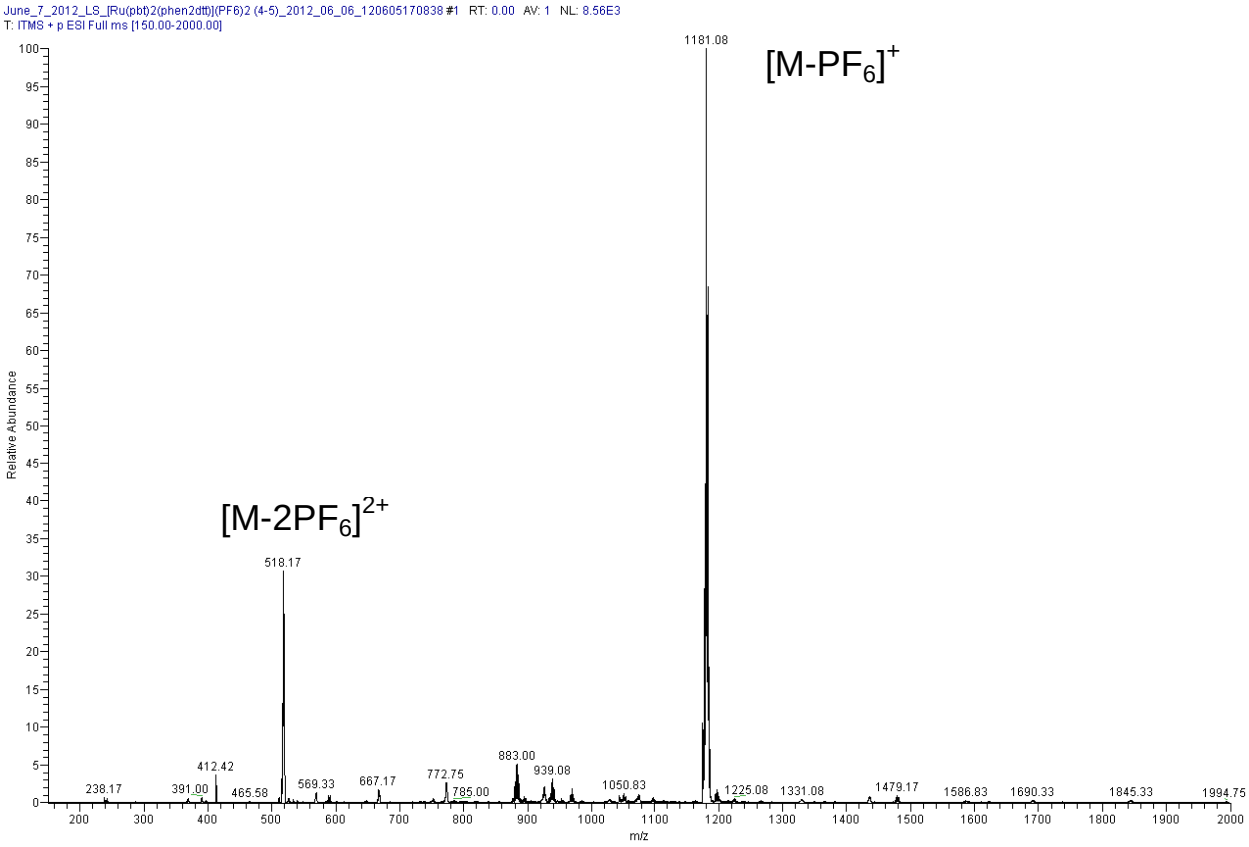
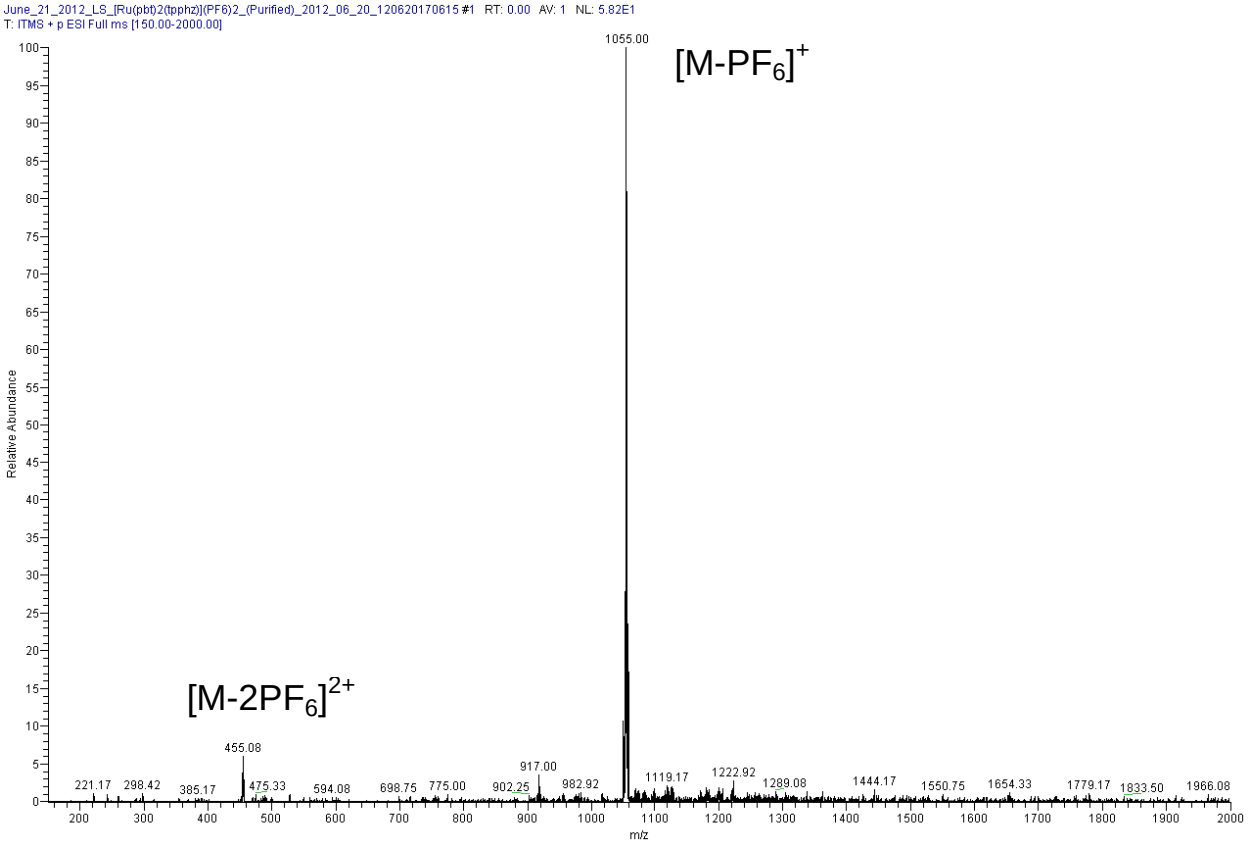
.1. ESI MS of complex **1** in acetonitrile.

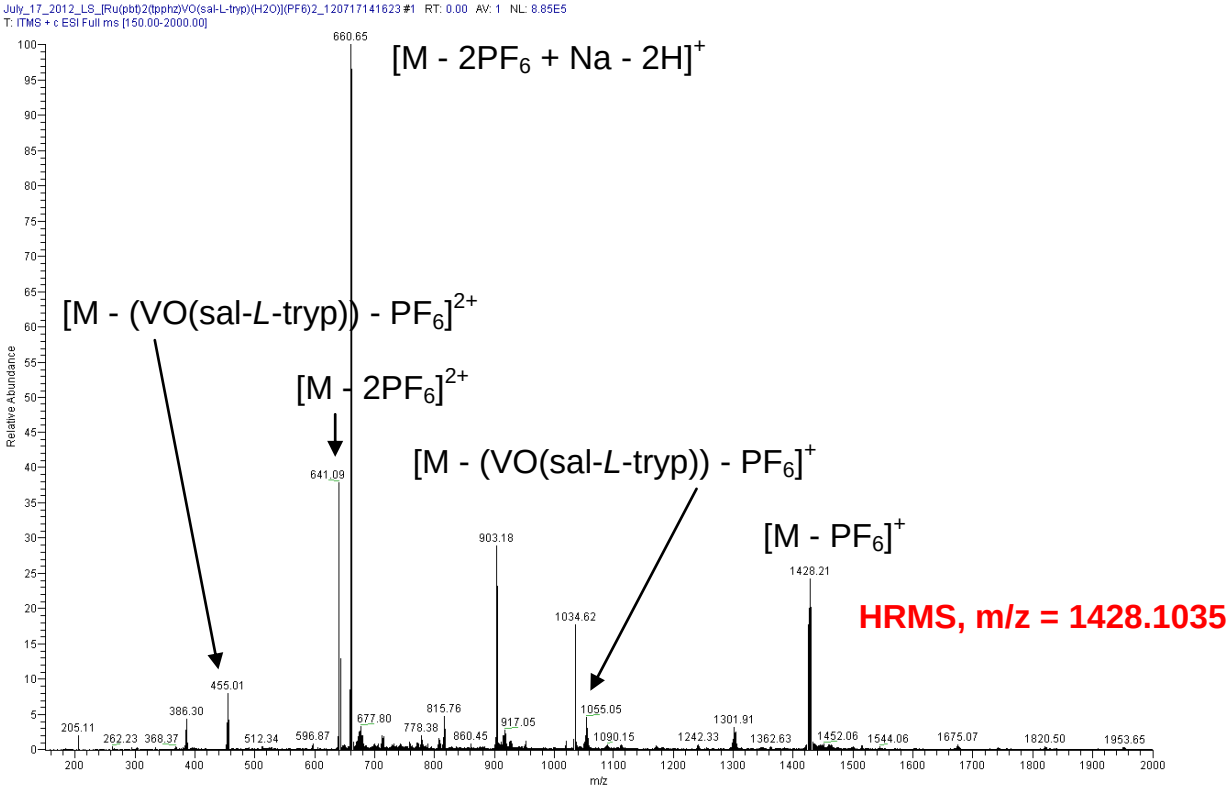


S2. ESI MS of complex **2** in acetonitrile.

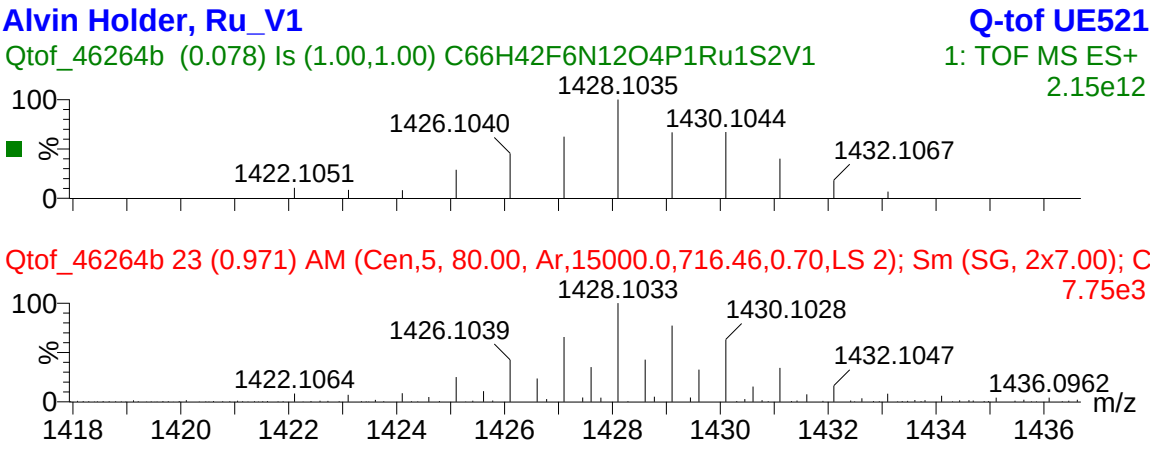


S3. ESI MS of complex **3** in acetonitrile.

Low resolution



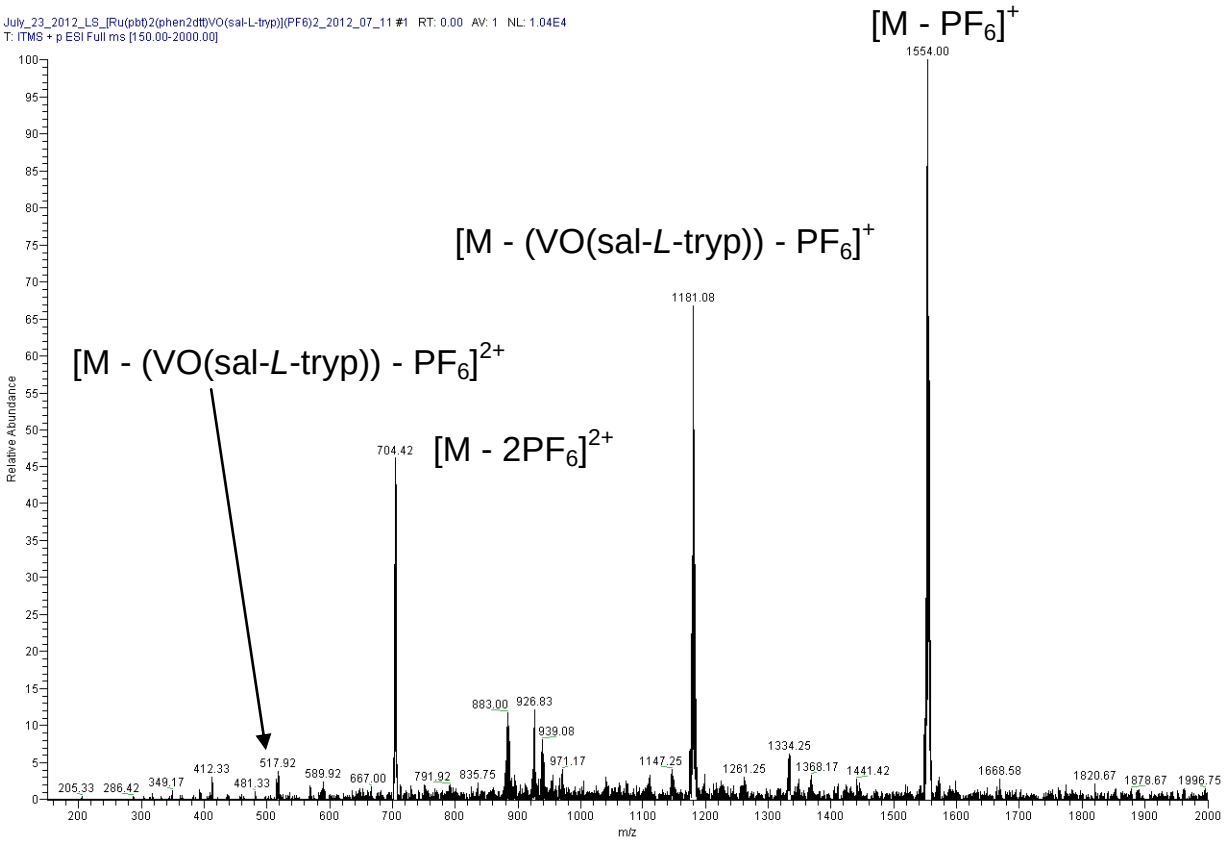
High resolution



S4. ESI MS of complex **4** in acetonitrile.

Low resolution

HRMS, m/z = 1554.1096

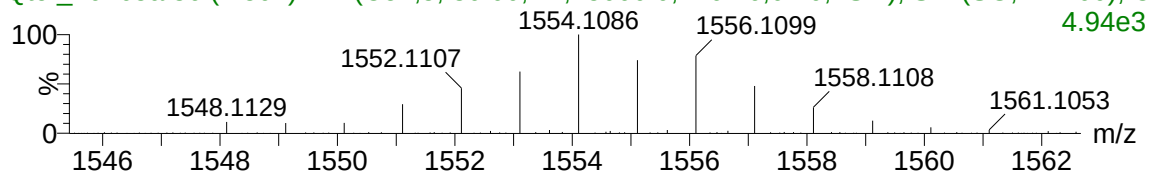


High resolution

Alvin Holder, Ru_V2 **Q-tof UE521**

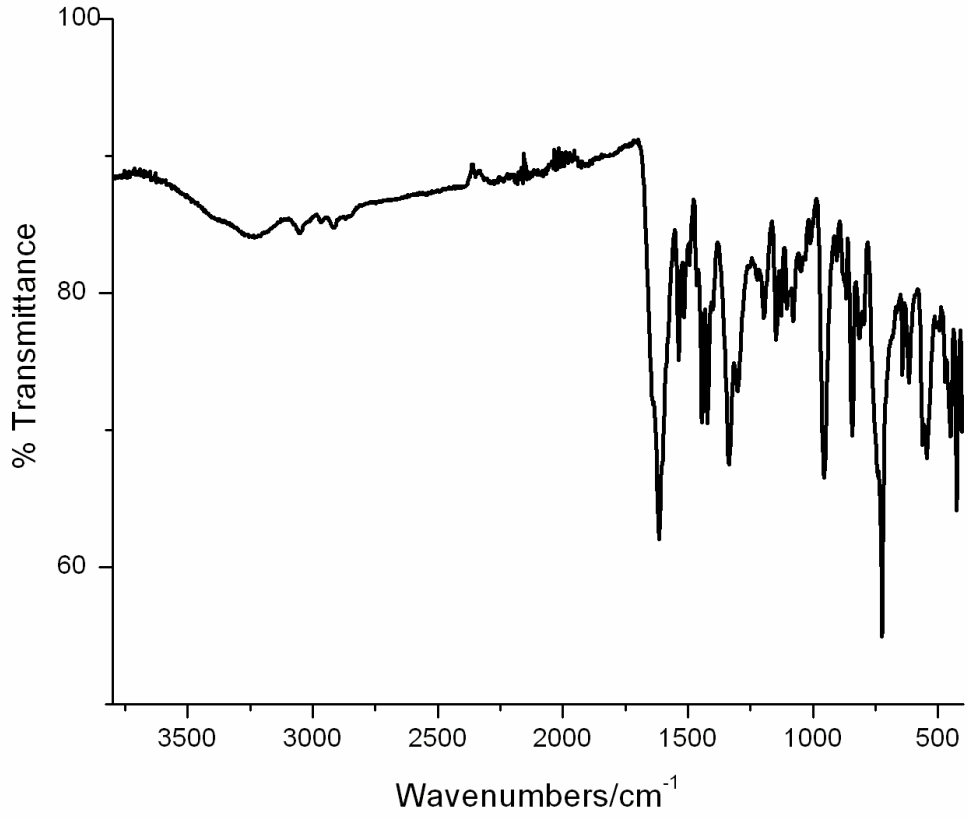
Qtof_46265a (0.078) Is (1.00,1.00) C70H52F6N10O6P1Ru1S4V1 1: TOF MS ES+ 2.01e12

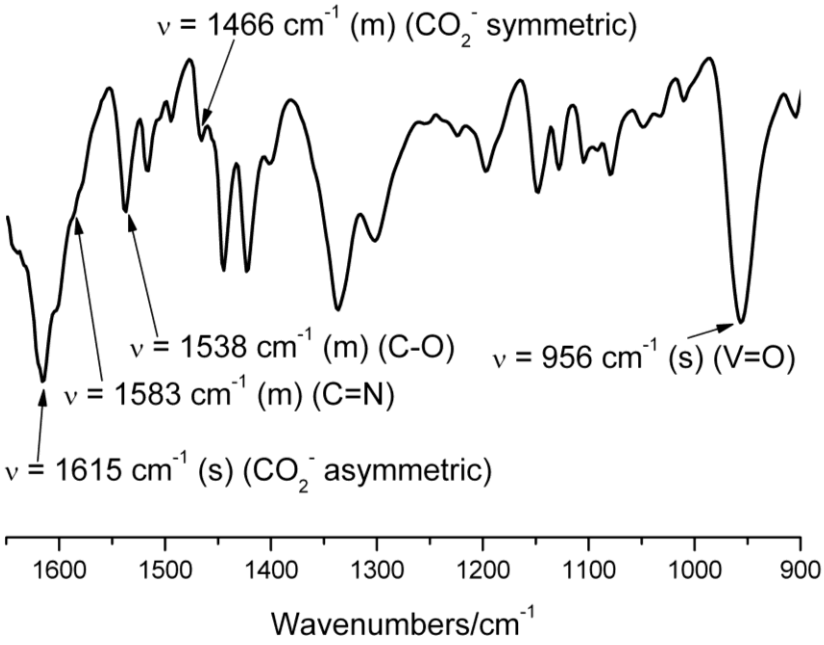
Qtof_46265a 36 (1.507) AM (Cen,5, 80.00, Ar,15000.0,716.46,0.70,LS 2); Sm (SG, 2x7.00); C 4.94e3



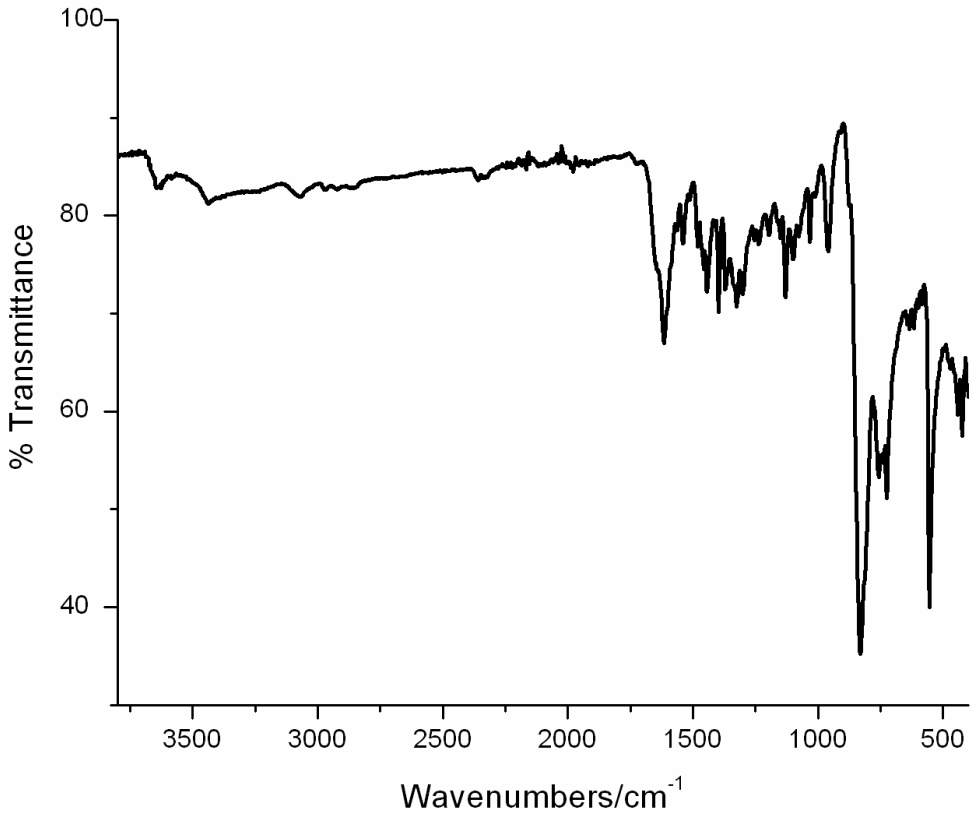
S5. FT IR spectra of [VO(sal-*L*-tryp)(phen)]•H_2O, complex **3**, and complex **4**.

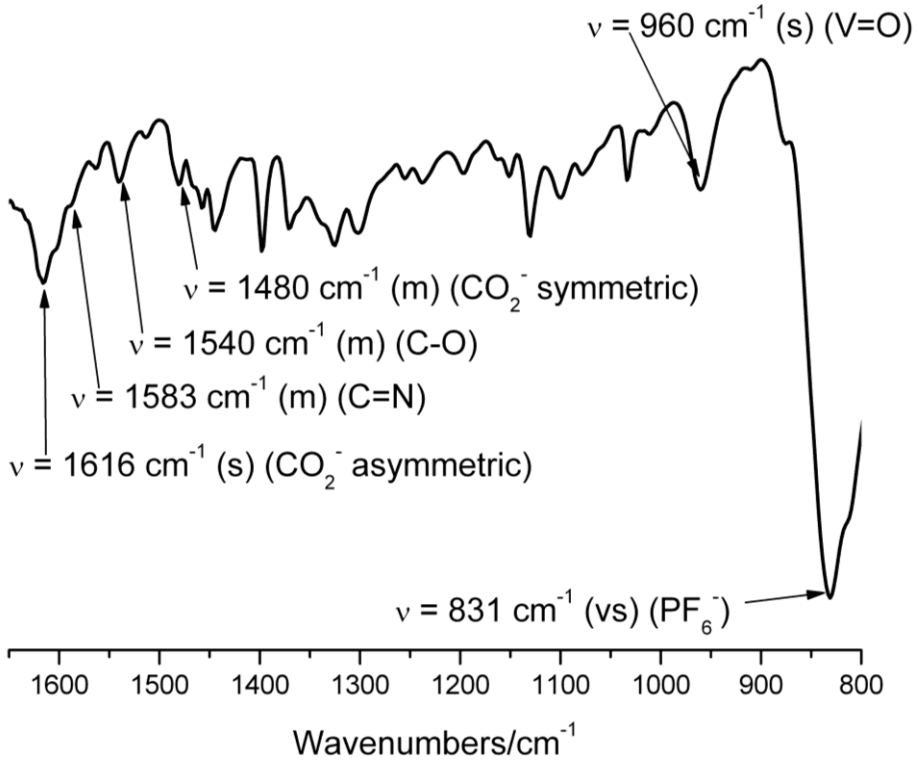
A. [VO(sal-*L*-tryp)(phen)]•H_2O



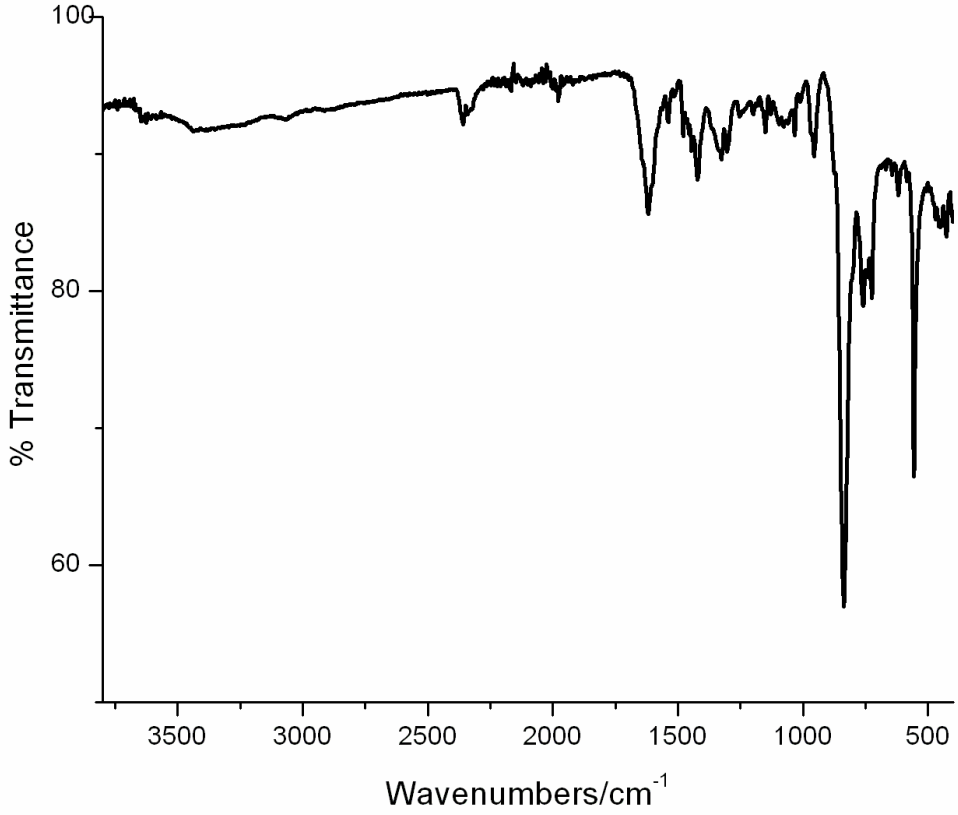


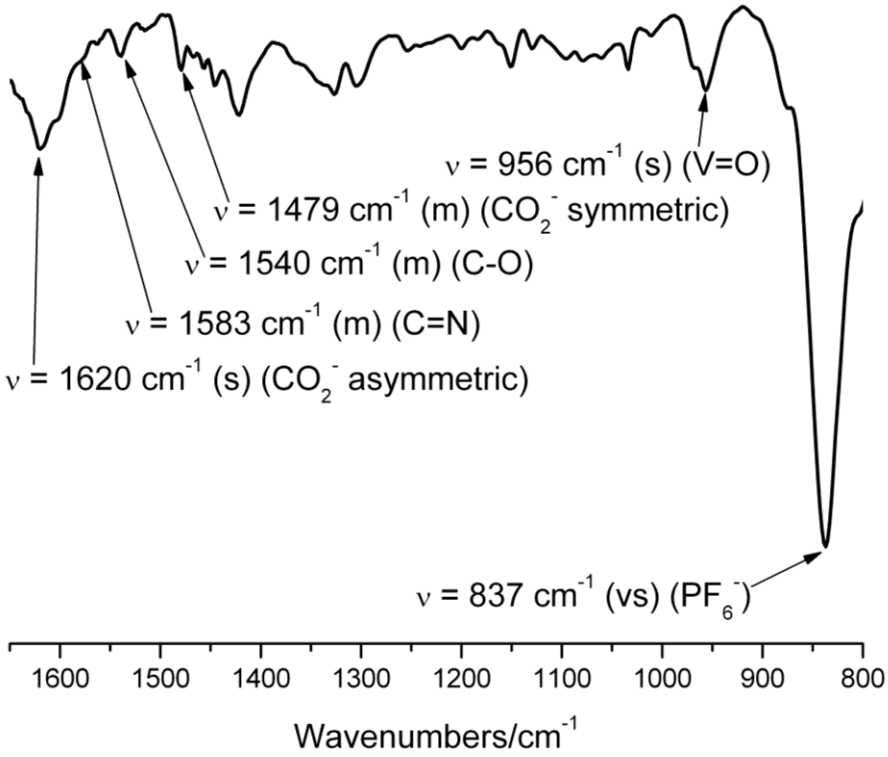
B. Complex 3



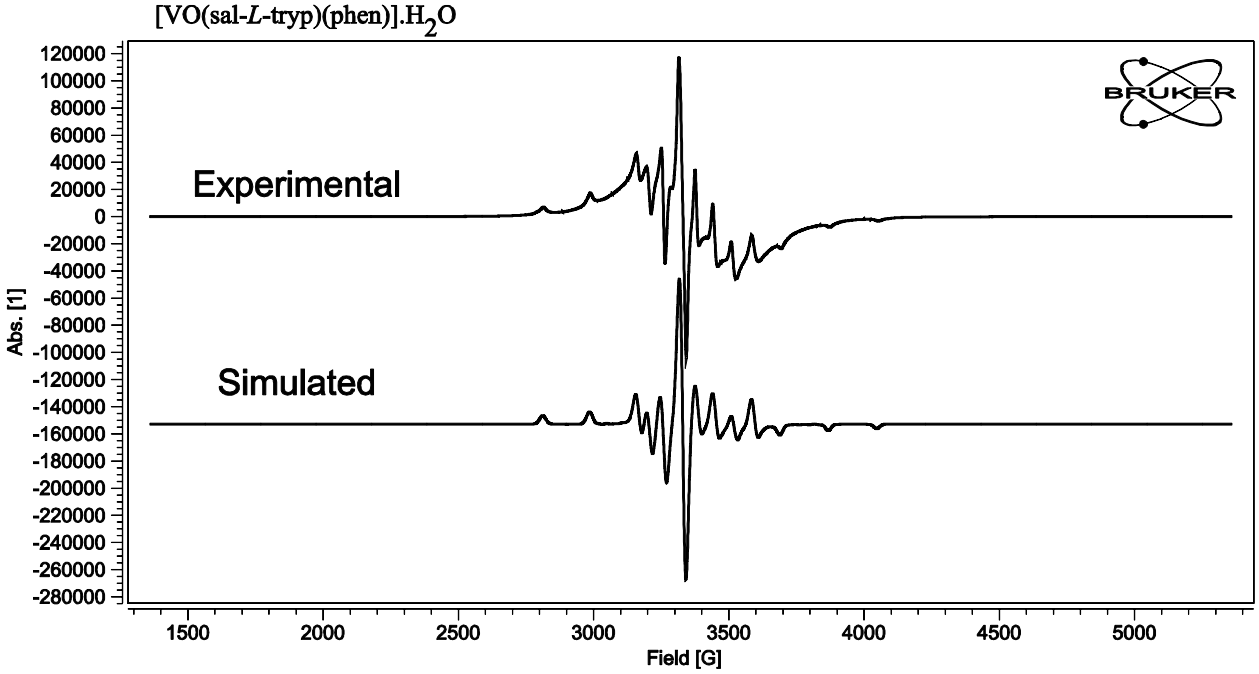


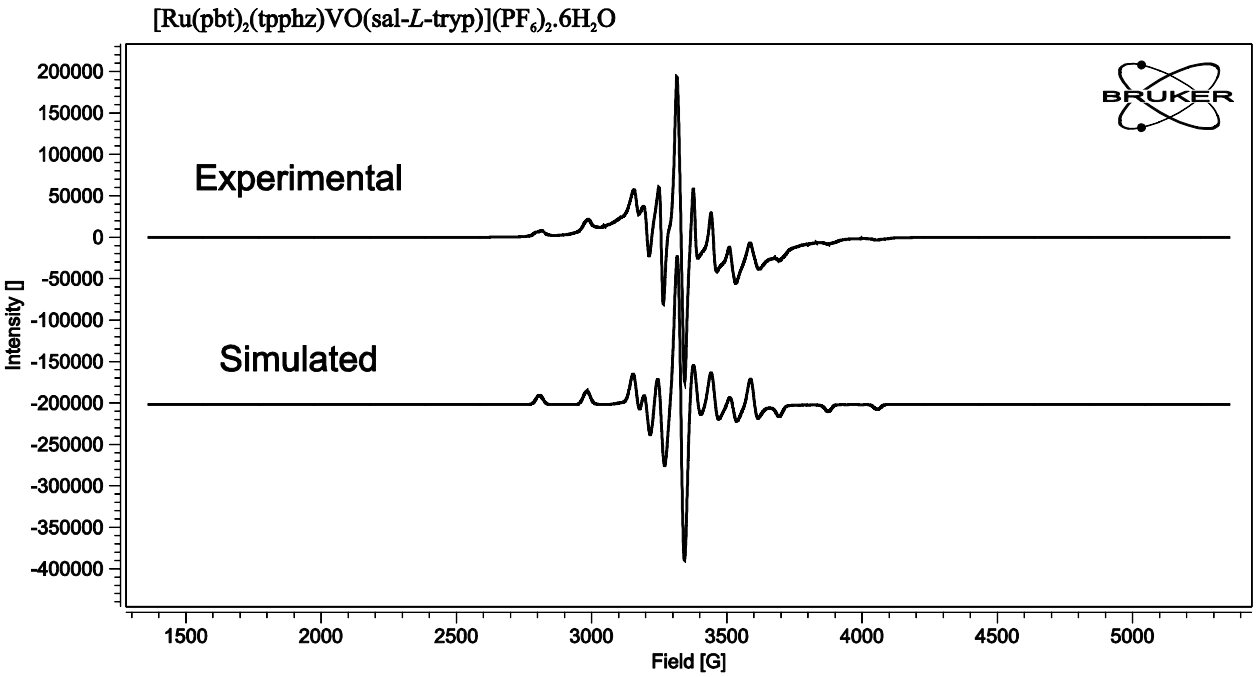
C. Complex 4

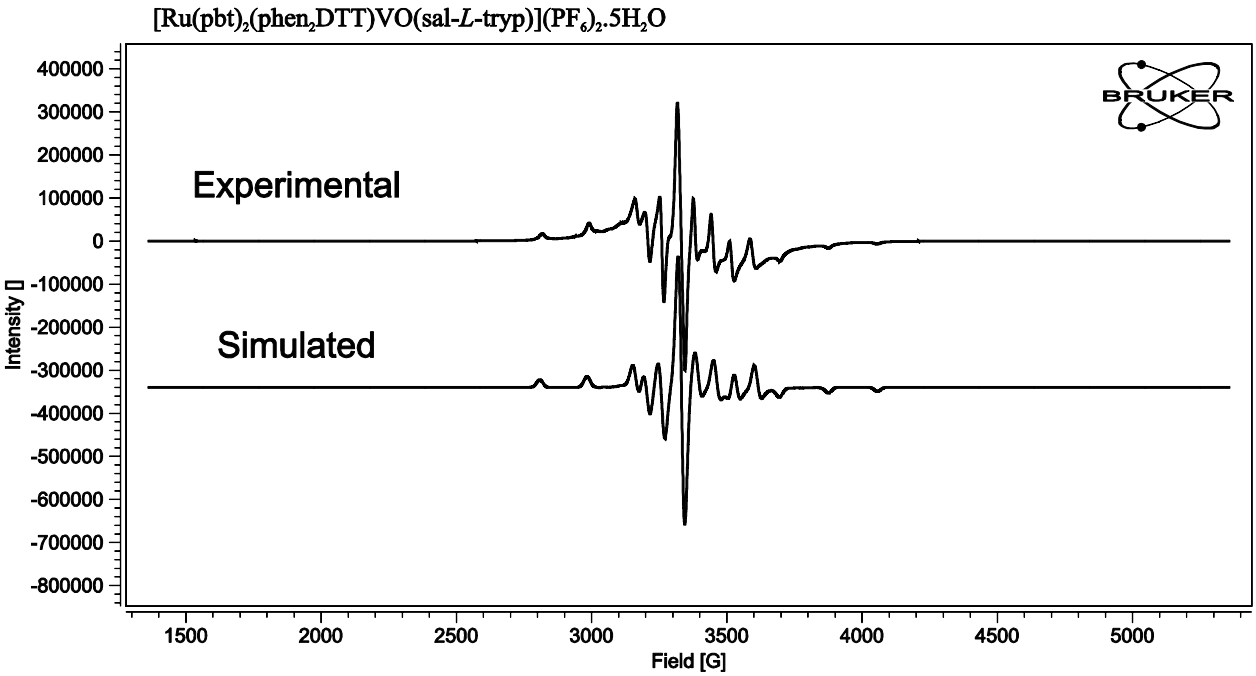




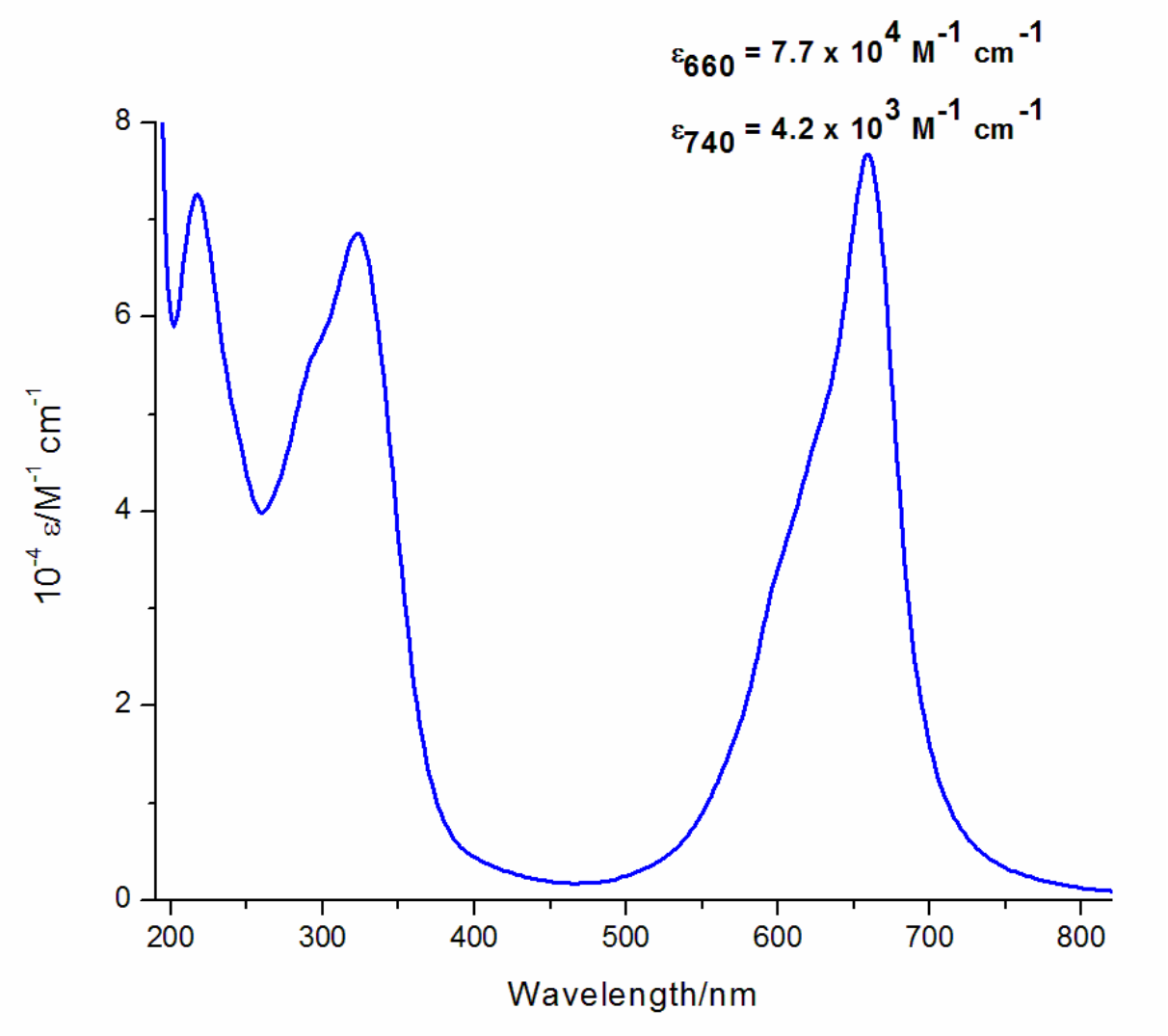
S6. Anisotropic axial ESR spectra of [VO(sal-*L*-tryp)(phen)]•H_2O, complex **3**, and complex **4** in DMSO at 10 K, along with the simulated spectra.





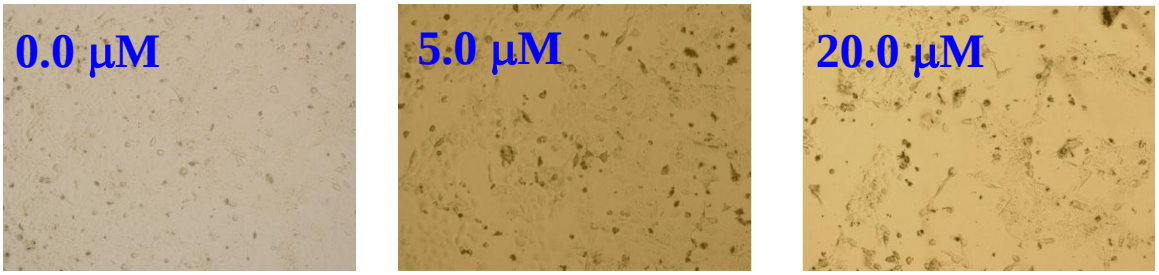


S7. UV-visible spectrum of $Na_4[Co(tspc)(H_2O)_2]$ in water.

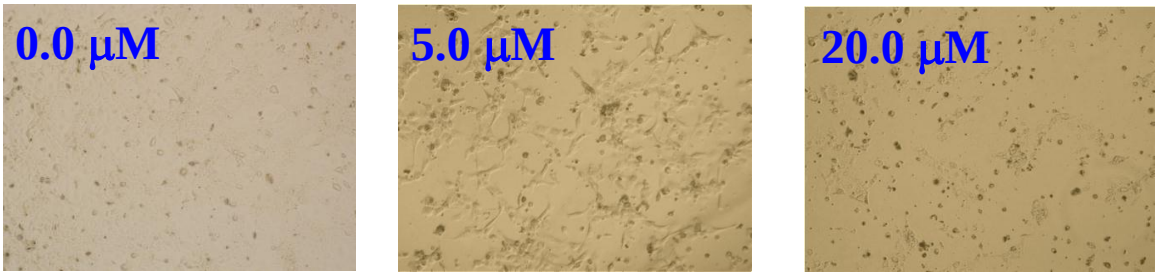


S8. Phase-contrast microscope images of A431, human epidermoid carcinoma cells and HFF, human skin fibroblast cells incubated in the dark for 24 hours. Magnification = 10x.

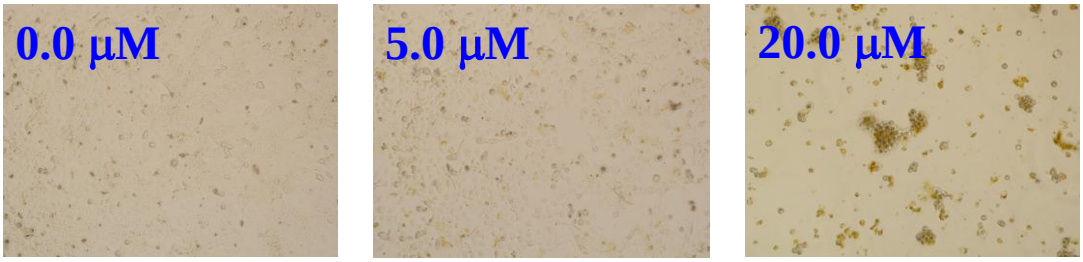
$Na_4[Co(tspc)(H_2O)_2]$/A431



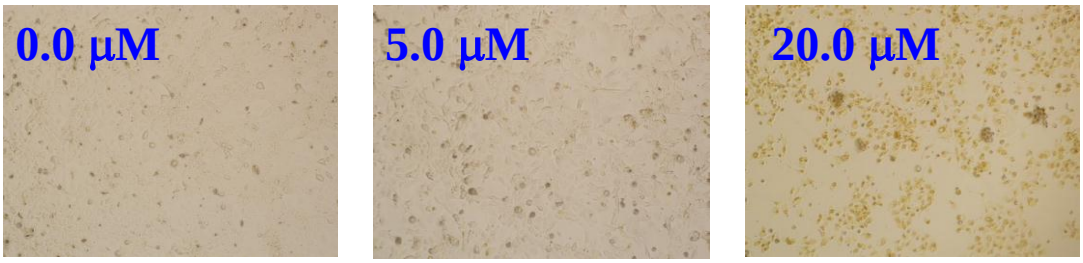
[VO(sal-*L*-tryp)(phen)]•H_2O/A431



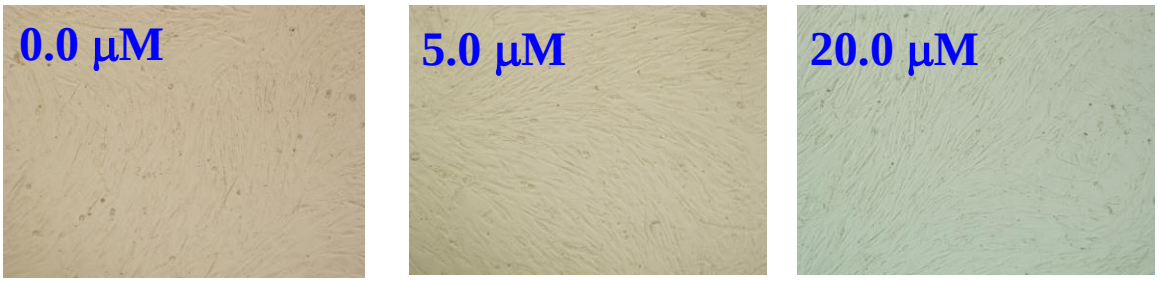
[Ru(pbt)$_2$(phen$_2$DTT)VO(sal-*L*-tryp)]Cl$_2$/A431



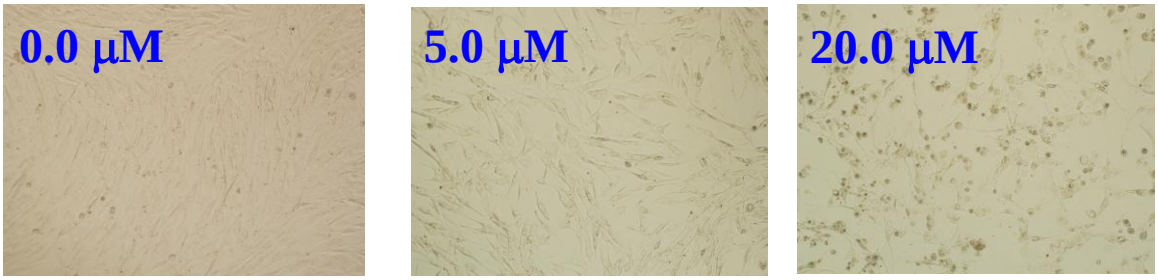
[Ru(pbt)$_2$(tpphz)VO(sal-*L*-tryp)]Cl$_2$/A431



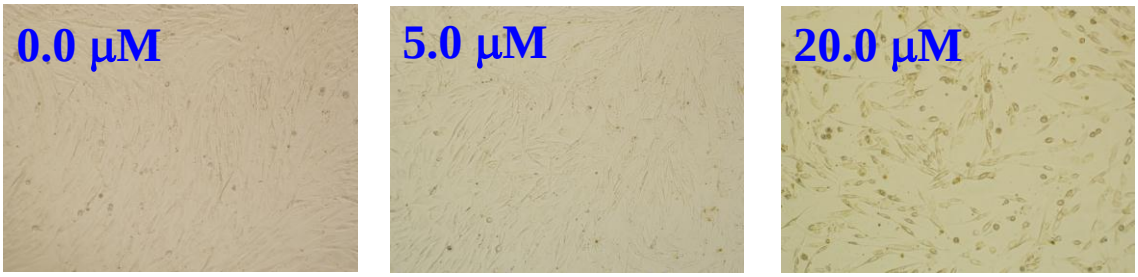
Na$_4$[Co(tspc)(H$_2$O)$_2$]/HFF



[VO(sal-*L*-tryp)(phen)]•H$_2$O/HFF



[Ru(pbt)$_2$(phen$_2$DTT)VO(sal-*L*-tryp)]Cl$_2$/HFF



[Ru(pbt)$_2$(tpphz)VO(sal-*L*-tryp)]Cl$_2$/HFF

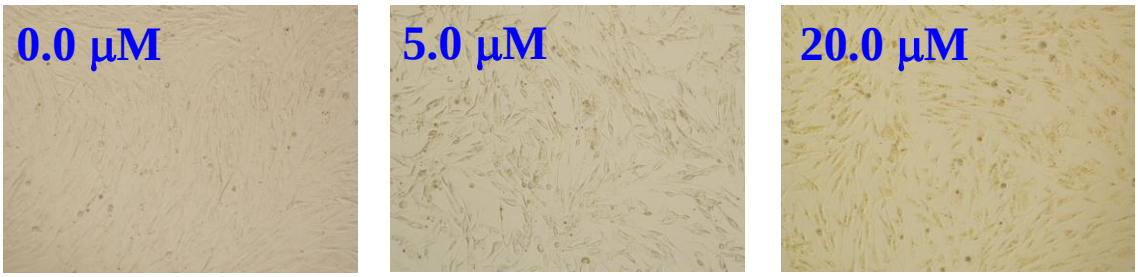


Table 1. FT IR data for the complexes.

Complex	indolic ν(NH)/cm^{-1}	ν(C-O)/cm^{-1}	$\nu_s(CO_2^-)$/cm^{-1}	$\nu_{as}(CO_2^-)$, /cm^{-1}	sal-*L*-tryp, ν(C=N)/cm^{-1}	ν(V=O)/cm^{-1}	ν(OH)/cm^{-1}
[VO(sal-*L*-tryp)(H_2O)] [a]	3478 (m)	1540 (m)	1490 (m)	1597 (s)	1600 (m)	997 (s)	3014 (br)
[VO(sal-*L*-tryp)(phen)]•H_2O	—	1538 (m)	1466 (m)	1615 (s)	1583 (m)	956 (s)	3233 (br)
[Zn(sal-*L*-tryp)(H_2O)]• 0.25H_2O [b]	3405 (m)	1551 (m)	1473 (m)	1597 (s)	1581 (m)	—	3256 (br)
3	3438 (m)	1540 (m)	1480 (m)	1616 (s)	1583 (m)	960 (s)	—
4	3437 (m)	1540 (m)	1479 (m)	1620 (s)	1583 (m)	956 (s)	—

[a] Reference 54.
[b] Reference 55.

Electronic Supplementary Material (ESI) for Dalton Transactions