

Supporting information

Red Upconverter Nanocrystals Functionalized with Verteporfin for Photodynamic Therapy Triggered by Upconversion

Ivana Miletto ^{1,*}, Chiara Gionco ^{2,†}, Maria Cristina Paganini ², Erik Cerrato ^{2,†}, Leonardo Marchese ³ and Enrica Gianotti ^{4,*}

¹ Dipartimento di Scienze del Farmaco, Università del Piemonte Orientale, Largo Donegani 2/3, 28100 Novara, Italy

² Dipartimento di Chimica, Università degli Studi di Torino, Via Pietro Giuria 9, 10125 Torino, Italy; c.gionco@inrim.it (C.G.); mariacristina.paganini@unito.it (M.C.P.); e.cerrato@inrim.it (E.C.)

³ Dipartimento di Scienze ed Innovazione Tecnologica, Università del Piemonte Orientale, Viale Teresa Michel 11, 15121 Alessandria, Italy; leonardo.marchese@uniupo.it

⁴ Dipartimento per la Sostenibilità e la Transizione Ecologica, Università del Piemonte Orientale, Piazza Sant'Eusebio 5, 13100 Vercelli, Italy

* Correspondence: ivana.miletto@uniupo.it (I.M.); enrica.gianotti@uniupo.it (E.G.)

† Present address: INRiM – Istituto Nazionale di Ricerca Metrologica, Strada delle Cacce 91, 10135 Torino, Italy.

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Table S1 – Atomic percentage data obtained from EDX analysis of ZEY2, ZEY5 and ZEY10

Sample	Element line	Weight %	Atomic %	Atomic % on Zr+Er+Yb
ZEY2	O	25	0.66	
	Zr	71.3	0.33	97.35
	Yb	3	0.0073	2.15
	Er	0.7	0.0017	0.5
	total	100	1	100
ZEY5	O	25.4	0.67	
	Zr	66.1	0.31	93.63
	Yb	7.8	0.019	5.82
	Er	0.7	0.0017	0.54
	total	100	1	100
ZEY10	O	20.6	0.624	
	Zr	63.8	0.3303	88.58
	Yb	15.0	0.044	10.97
	Er	0.6	0.0017	0.45
	total	100	1	100

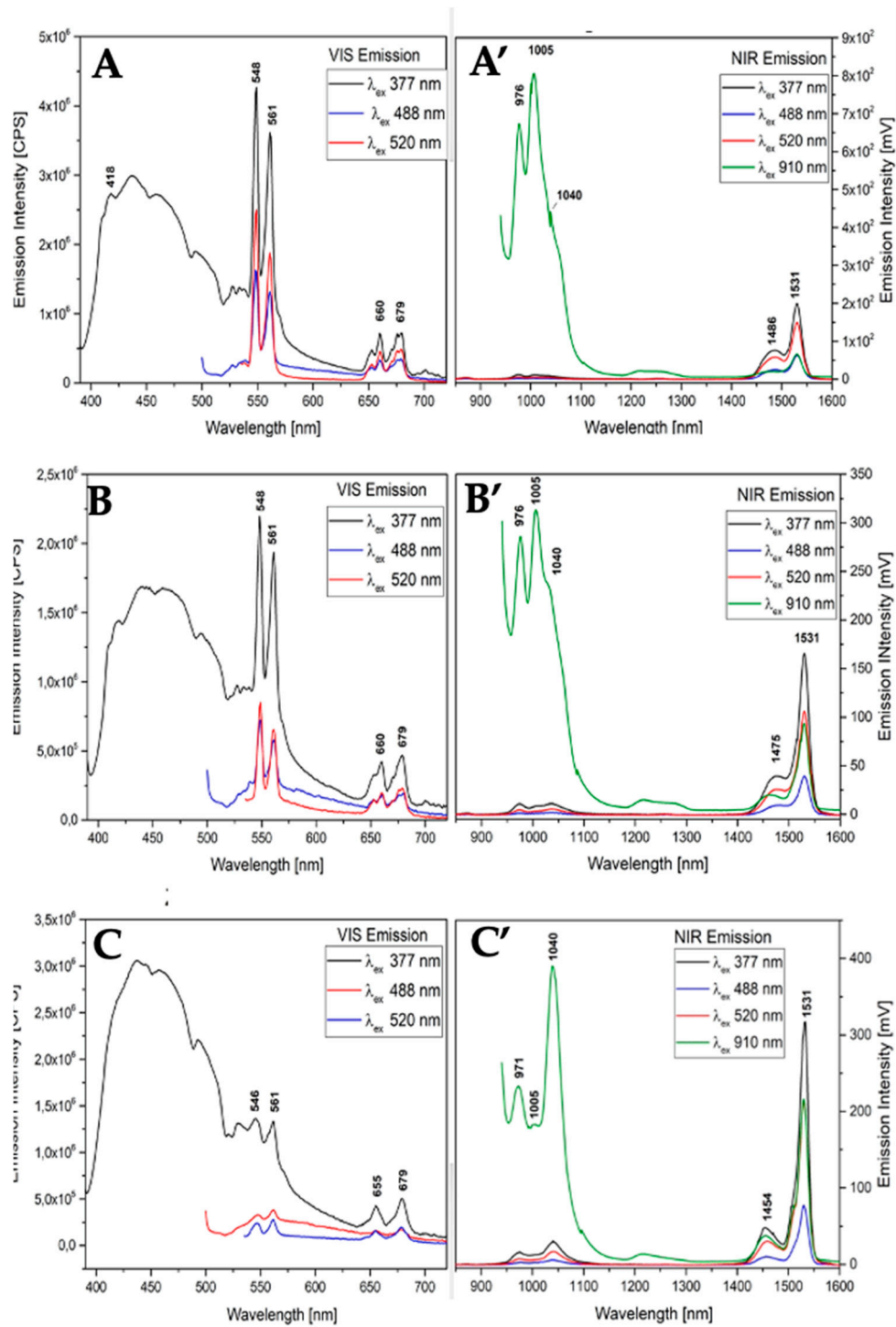


Figure S1 - Fluorescence emission spectra obtained by using different excitation wavelength: ZEY2 (A, A'); ZEY5 (B, B'), ZEY10 (C, C').

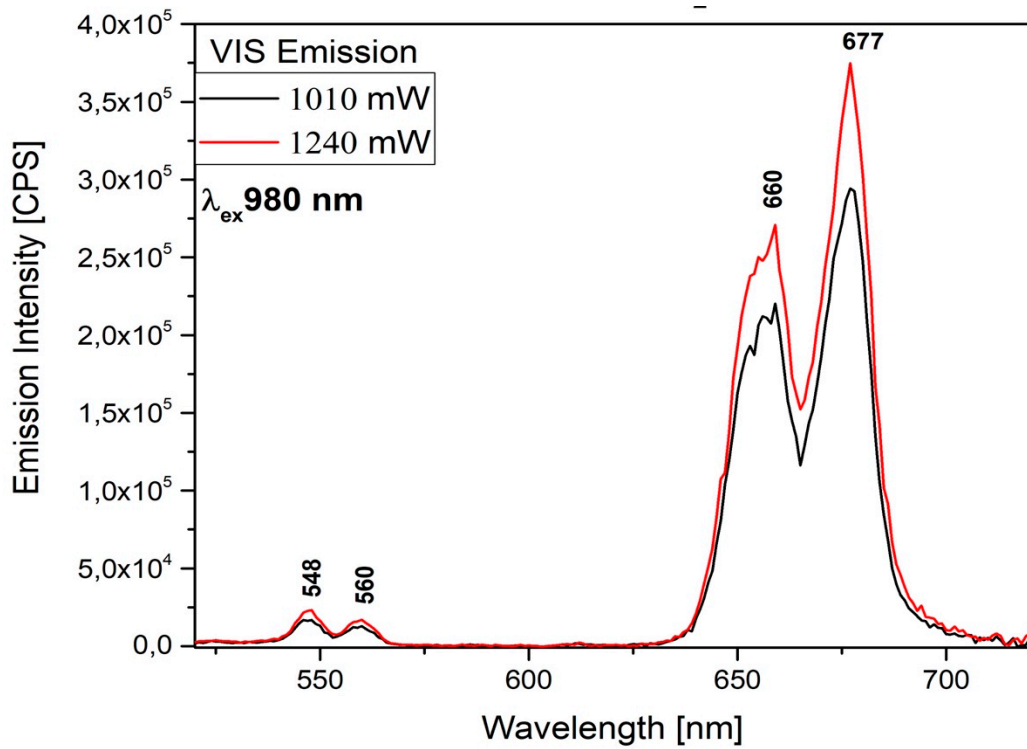


Figure S2 - UC spectra of ZEY2 obtained by using two different laser powers

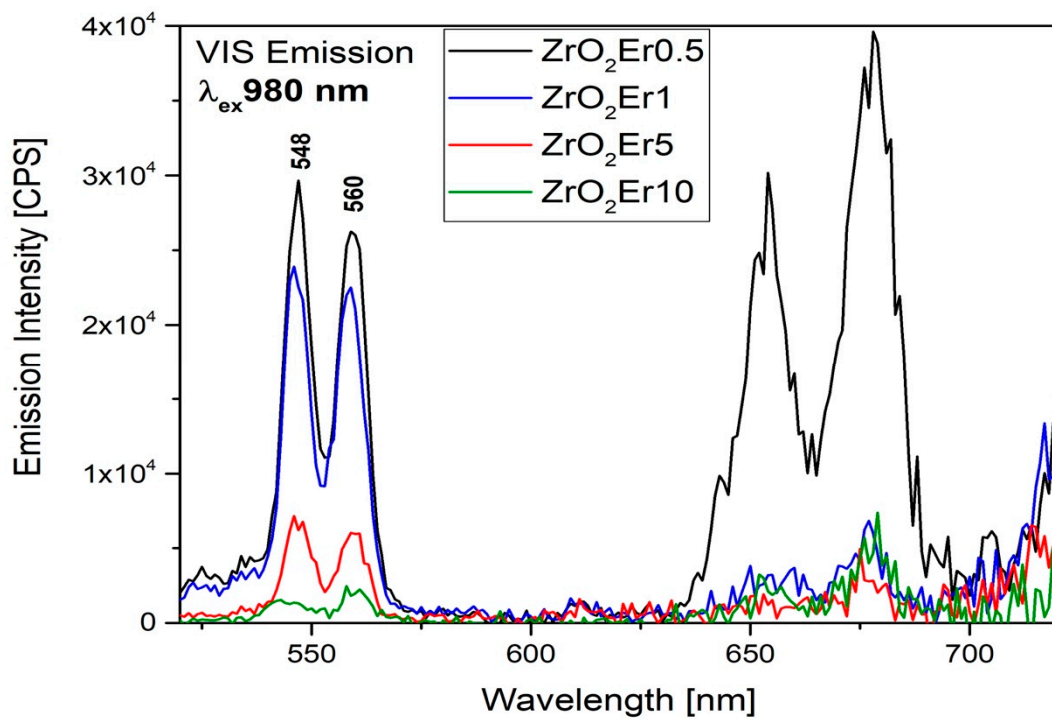


Figure S3 – Predominant Green UC in UC spectra of Er³⁺-doped ZrO₂

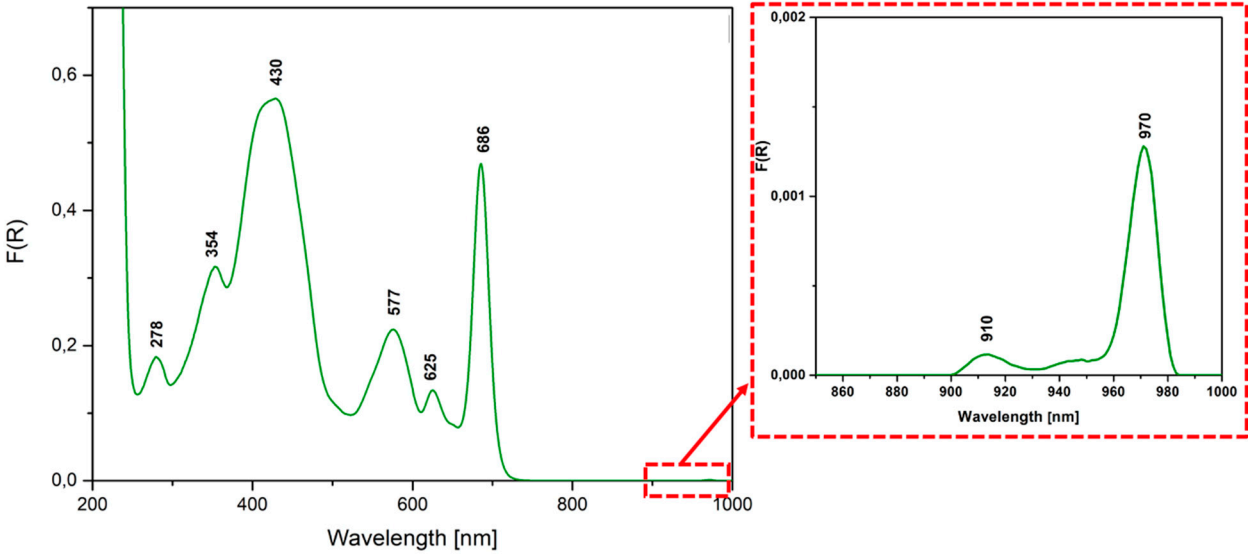


Figure S4 – DR UV-Vis spectrum of ZEY2-Ver