

## SEMINAIRE ISMO

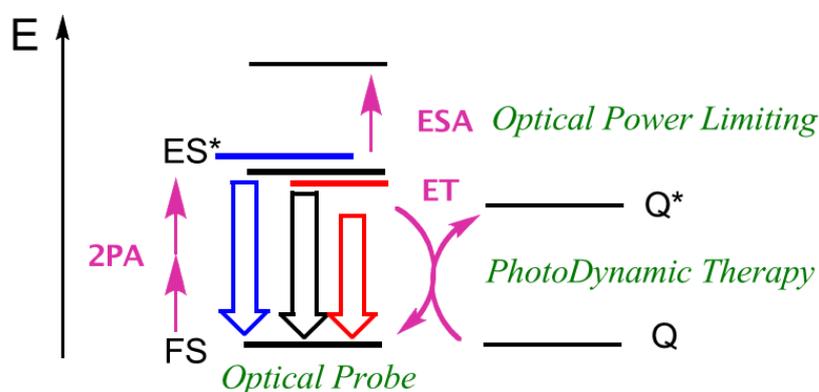
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### LINEAR AND TWO-PHOTON ABSORPTION ACCESS TO EMISSIVE EXCITED-STATES OF 1,10-PHENANTHROLINE DERIVATIVES AND RELATED Ru(II) (Nano)EDIFICES

Our research concerns fundamental aspect as well as potential applications of photo-physical properties, of new molecular and supra-molecular edifices. We will describe, *(i)* the luminescent characteristics of 5-substituted-1,10-phenanthroline derivatives. A huge solvatochromism gives these ligands interesting properties for applications as optical sensors.

One gives rise to an original solvent-tuned dual emission, *(ii)* fluorenyl Ru(II) complexes-based MLCT excited-states  $ES^*$  properties (absorption and lifetime) for applications such as two-photon excited luminescence or photodynamic therapy, optical power limiting, and *(iii)* multifunctional nano-edifices with novel properties. A switch from two-photon absorption for Ru(II) coordination complexes to saturable absorption for the related decorated-gold nanoparticles was recently published.



**Figure.** Excited-state engineering for potential applications

**Mardi 3 mai 2016 à 11h**

**Bât. 210 – Amphi 1 (2<sup>ème</sup> étage)**

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