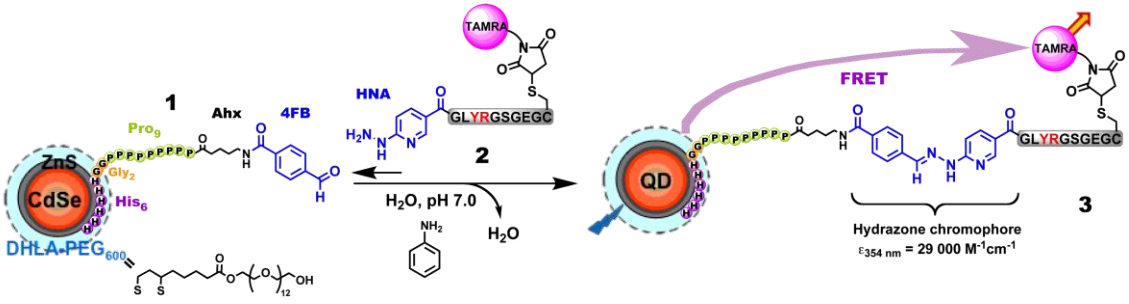

Scheme 1. General strategy followed for the ligation of peptides (**1** and **2** in this example) to PEGylated QDs. The highlighted R and Y residues inpeptide **2** are subsequently cleaved by trypsin or chymotrypsin.

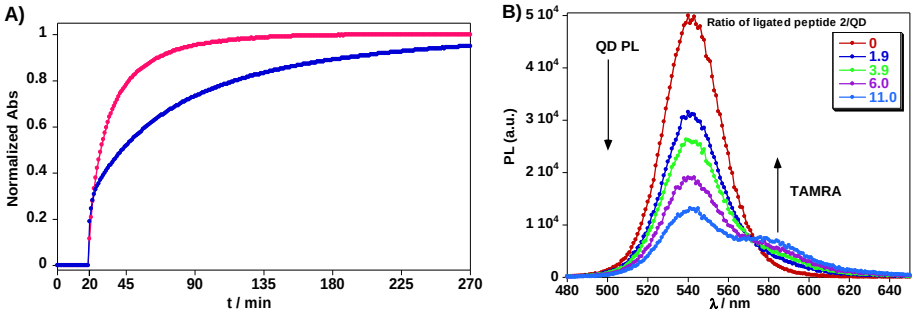

Figure 1. **A**) UV monitoring of the chemical ligations. (③): between **1** (21 μM) self-assembled to QDs (0.9 μM) and **2** (14 μM) in presence of ~100 mM of aniline. (③): **1** (22 μM) and **2** (14.9 μM) in presence of 100 mM of aniline and absence of QDs. Aniline added to reactions at 20 mins. **B**) Composite PL spectra of QD:TAMRA-hydrazine peptides **3** conjugates formed from reacting increasing numbers of **2** with QDs preassembled 15:1 with peptide **1**.

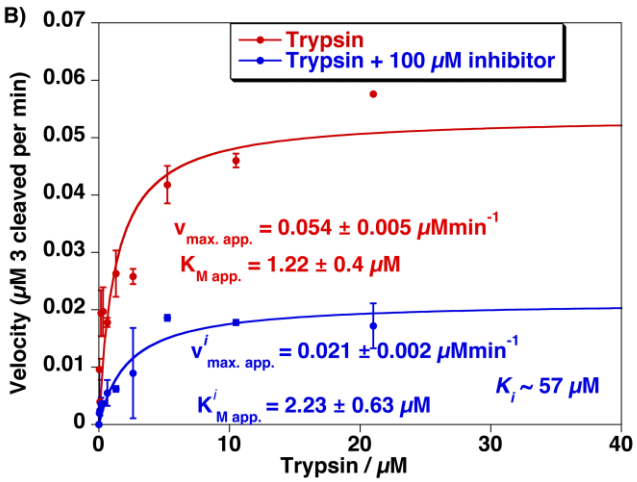

Figure 2. Proteolytic activity from assaying an increasing concentration of trypsin versus a constant amount of 537 nm QD-TAMRA substrate peptide **3** (0.1 μM QD) in the absence and presence of 100 μM ovomucoid trypsin inhibitor. *Ki* value of ~57 μM was estimated from the assay data in the presence of inhibitor.