



Glenn T. Seaborg Center Seminar

Sensitization and stability of Ln(III) complexes

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4:00 - 5:00 pm
Building 70A, Room 3377

For biological luminescence purposes which utilize coordination compounds, several parameters in building complexes have to be optimized. First, the complexes must demonstrate high stability with respect to metal ion dissociation in aqueous solution in order to avoid the release of potentially toxic free metal. For labeling purposes, the observed emission should be insensitive toward the environment, in particular upon attachment to bio-molecules or *via* interactions with other molecules in solution. Finally, the luminescence properties must be optimized in terms of the overall luminescence quantum yield and molar absorption coefficient, which are directly correlated to the 'brightness' of the compound in solution, herein defined as the product of the luminescence quantum yield and the molar absorption coefficient.

This seminar will discuss the advantage and limitation of some complexes based on isophthalamide or 1,2-hydroxypyridinone groups in term of sensitization efficiency, brightness and stability (thermodynamic and kinetic).