

타이로신을 포함하는 양친성분자의 자기 조립체와  
그 안테나 효과

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It is already known that self-assembly of bolaamphiphilic molecules have various application fields because of their structural and chemical properties. In this study, we synthesized a new bolaamphiphilic molecule which has seven alkyl backbone in the center and tyrosine functional groups at both sides of molecule. This molecule showed the antenna effect of photoluminescence induced by the tyrosine moiety. We examined the photoluminescence enhancement using lanthanide ions, photosensitizers and self-assembly of this bolaamphiphilic molecule in aqueous condition. Photoluminescence properties of lanthanide ions are enhanced almost twice by antenna effect of self-assembly structure. To find out the rationale of the enhanced photoluminescence, energy transfer mechanism was investigated, too. Result of this study will be applicable to diverse applications such as the light harvesting devices and sensor materials.