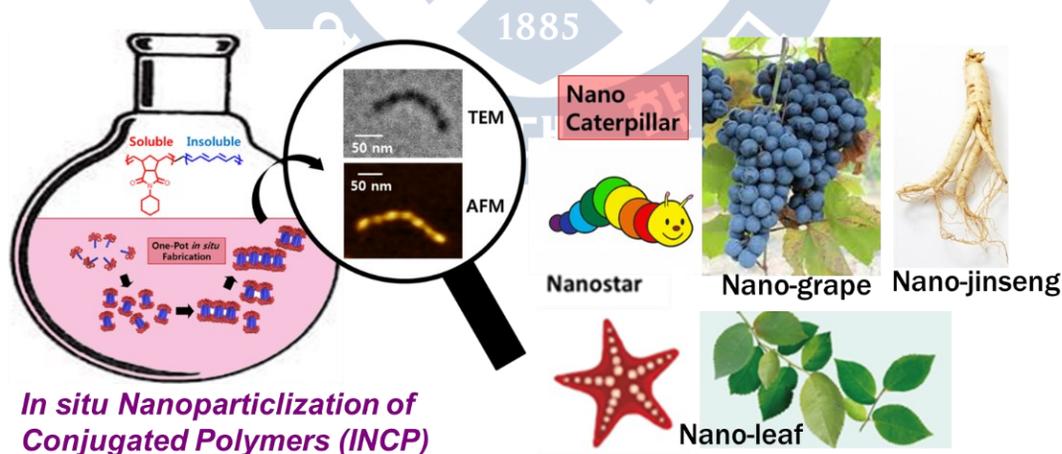


# 화학고 세미나

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## In Situ Self-Assembly of Conjugated Polymers

Conjugated polymers are attractive soft materials that have gained a lot of attentions due to their interesting optoelectronic properties. However, due to their high rigidity and crystallinity, controlling their morphologies are challenging. In this presentation, we will focus on the new strategies for the formation of nanostructures via self-assembly approach. We will introduce a concept of “in situ nano-particlization of conjugated polymers” (INCP) producing various supramolecules directly during the polymerization where no further post-modification is required. Here, we will show three polymerizations, ring-opening metathesis polymerization, cyclopolymerization, and catalyst-transfer polymerization to discuss how various nanostructures are formed in each case. The resulting nanostructures are characterized by UV-vis, IR, DLS, AFM, TEM, and optical microscopy to obtain the detailed structural information. Furthermore, we will introduce very simple one-shot polymerization to achieve INCP and this greatly simplifies the process getting to nanostructures. Lastly, we will finish this talk by combining the concept of crystallization-driven self-assembly in order to control their sizes.



*In situ Nanoparticlization of Conjugated Polymers (INCP)*

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