



ΔΙΑΛΕΞΕΙΣ ΤΜΗΜΑΤΟΣ ΧΗΜΕΙΑΣ 2015

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Θέμα: Supramolecular Architectures and Molecular Machines: Self-Assembly vs Constructs

Τόπος: Αίθουσα Σεμιναρίων Τμήματος Χημείας

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Abstract

What is **Supramolecular Chemistry** good for?

Does it provide the toolbox to develop and design **molecular machines**?

What defines a molecular machine and to what extent serves biology or more precisely **molecular cell biology** as plentiful source of information how molecular machines should be designed and how they perform?

While **self-organization** of molecular entities has received much interest among academics, the processes to achieve defined **molecular constructs** are more promising. Examples will be shown and discussed. The ultimate goal – as is intimately connected to the design of machines – is to achieve directed motion of molecular defined entities over distances on the micrometer scale or larger in non-biogenic environment. Unless this can be achieved, molecular machines will remain a utopic desire. The whole discussion is also basic to the concepts put forward by the emerging field of **Synthetic Biology**.