

ORTHOGONAL PHOTOCHEMISTRY- ELECTROCHEMISTRY WITH MOLECULAR MACHINES

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ABSTRACT

In the context of green-organic physical-chemistry application the recent 2016 Nobel awarded as “the smallest built machines in the world” – the molecular machines are employed in an coupled photo-electro-chemical (“orthogonal”) transformations towards acquiring the closing cycle by which the photo-activated molecules become electronically activated and carriers which can be switched back through passing an electrochemical bath thereof; the mechanism for the total difference in Gibbs energy is proposed by means of coupling path integrals of partition functions by specific types of physical-chemical transformations undergone, while the molecular machines relationship with the perpetual mobile machines are also discussed in the view of obtaining green nano-chemical devices.

Keywords: molecular machines, light activated lights, partition functions, thermodynamically functions, path integrals.

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