

Theoretical and Physical Chemistry Institute National Hellenic Research Foundation Vass. Constantinou 48, Athens

ONLINE LECTURE

"Azobenzene switches, Boron aromatics and Cycloparaphenylenes – Tales from Physical

Organic Chemistry"

Prof. Dr. Hermann A. Wegner

Executive Director Institute of Organic Chemistry, Justus Liebig University, Giessen, Germany

Wednesday, October 12, 2022, 16:00

Link: <u>Click here to join the lecture</u> Passcode: 137464

Azobenzene switches, Boron aromatics and Cycloparaphenylenes – Tales from Physical Organic Chemistry

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The understanding of interactions on the molecular level provides the basis for all chemical phenomena, ranging from biology to materials applications. In my presentation I will highlight our approach to contribute to this understanding with three different stories in the areas of catalysis, molecular switches, supramolecular chemistry and energy storage. In the first one, I highlight our recent results in domino processes using a bidentate Lewis acid catalyst involving an inverse electron-demand Diels-Alder reaction. With this synthesis tool highly complex compounds can be efficiently assembled in just one step. In the next part I will share our efforts to improve azobenzene switches for molecular solar thermal (MOST) storage applications, and lastly, I will present some unpublished results on complexation studies of substituted cycloparaphenylenes with fullerenes.