INTRODUCTION TO BIOORGANIC CHEMISTRY

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Abstract:

The purpose of this lecture is to provide the basis for a deeper understanding of the structures of organic compounds and their applications based on the selected examples. The level is aimed at graduate and beginning PhD students. Our goals are to solidify the student's understanding of basic concepts provided by an introduction to bioorganic chemistry and to present more information and detail, including quantitative information, that can be presented in the first course in organic chemistry.
The following lecture aims to give an insight into the organophosphorus chemistry, modern industrial synthesis, supramolecular chemistry and nanotechnology. We believe that these topics can provide a level of preparation which will permit the student to assimilate and apply the primary and review literature of organic chemistry.
Over the last decade, self-assembled monolayers (SAMs) of thiols and disulfides on gold (and, to a lesser degree on Ag, Pt, Cu, Pd, Hg) have emerged as one of the most important classes of surface coatings. In particular, alkyl thiols (ATs) and disulfides (ADs) are widely used to prepare highly ordered monolayers whose properties can be adjusted by changing the chemical nature of the terminal groups. SAMs of alkyl thiols and disulfides are used in modern micro- and nano-fabrication, in biomaterials and biological assays, in molecular electronics, in analytical and sensory applications, and as molecular lubricants, protective coatings, or templates for crystal nucleation and growth. From this point of view it is recommended to take a look at the most recent applications in nanotechnology based on SAMs.
I hope that this lecture will continue to serve students in fostering an understanding of advanced organic chemistry.

Termin	Dzień tygodnia	Godzina	Miejsce
01.02.2022	**Wtorek**	**13.15 – 16.00**	**Luwr**
02.02.2022	**Środa**	**13.15 – 16.00**	**Luwr**
03.02.2022	**Czwartek**	**13.15 – 16.00**	**Luwr**
04.02.2022	**Piątek**	**13.15 – 16.00**	**Luwr**
07.02.2022	**Poniedziałek**	**13.15 – 16.00**	**Luwr**