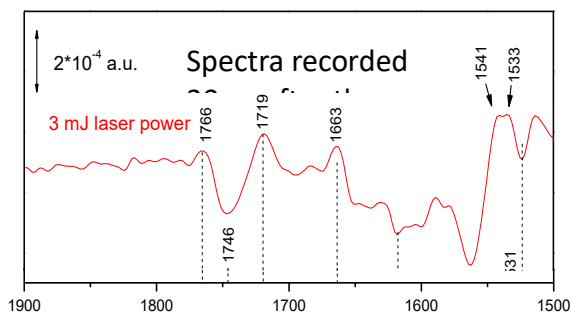


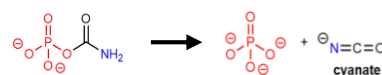
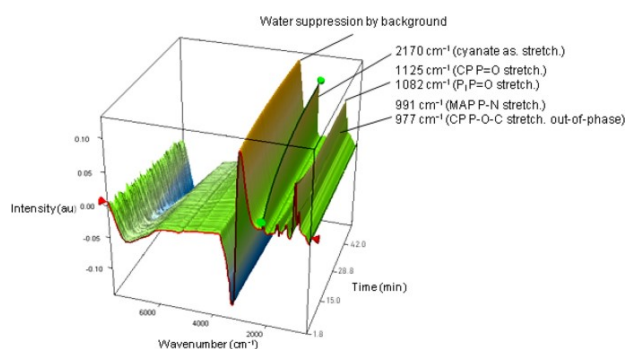
Alberto Mezzetti is Maître de Conférences HDR at Sorbonne University, Paris. He graduated summa cum laude in Physical Chemistry from the University of Padova in 1997 with a “laurea” thesis on EPR and ENDOR spectroscopies of amino acid radicals. After his National Service, he developed a PhD research between the University of Padova and the Research Center CEA-Saclay, under the joint supervision of Prof. Giacometti, Prof. Carbonera and Dr Leibl. During his PhD he assembled two instrumental set-ups for time-resolved FTIR spectroscopy and applied them to the study of photosynthetic reactions. After post-doctoral stays at Saclay, Kessler Foundation in Trento (Italy) and Université Pierre et Marie Curie (Paris), he got a permanent position in 2004 as lecturer at the University of Lille where he mainly studied flavonoid chemistry and photochemistry by molecular spectroscopy techniques. From 2009 up to 2015 he developed large part of his research in CEA-Saclay, using time-resolved FTIR to study photoprotective mechanisms in plants and bacteria. In 2015 he moved to Sorbonne University, Paris, where presently works on three main research lines: encapsulation of photoactive protein and biomolecules in inorganic mesoporous materials, prebiotic chemistry, and IR spectroscopy applied to reactions at the solid-liquid interface. During his career, he spent research periods at University of Pavia and University College London.

Time-resolved infrared spectroscopy: A valuable tool in the study of the mechanism of chemical reactions

Time-resolved IR spectroscopy is widely used in the study of reaction mechanisms in many fields of chemistry. This is related to recent developments of new instrumental approaches, as well as to the huge diffusion – in the last three decades – of commercial instruments capable of time-resolved measurements. Examples will show that some key results can be obtained with relatively cheap instrumentation.



Triplet formation in light-harvesting systems, Mezzetti et al. J Mol Struct 2015



Hydrolysis of carboamyl phosphate followed by rapid-scan FTIR. Ter-Ovanessian et al, Sci. Rep. 2022