



Bioinspired Solar Energy Utilization

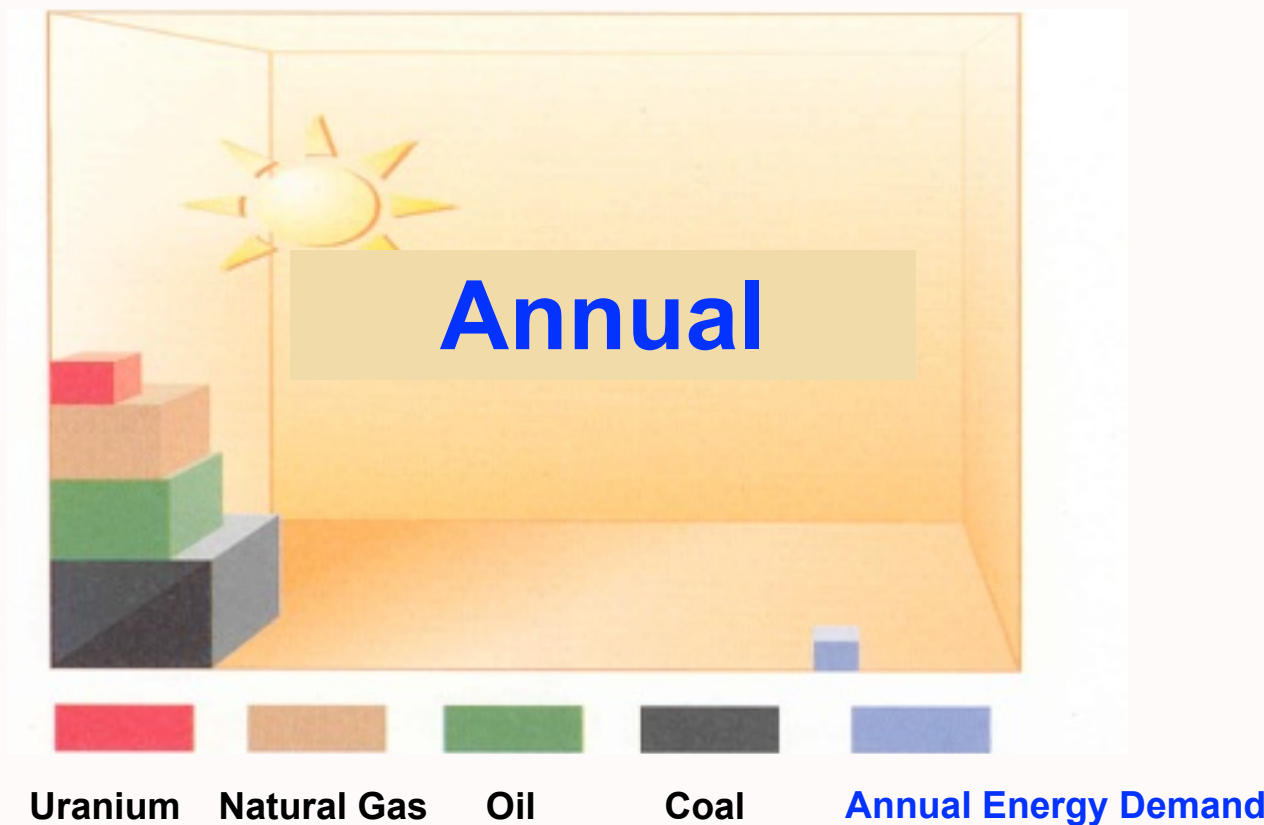






THE SOLAR CHALLENGE

Equivalent Stock of Energy
Source





University of Crete
Chemistry Department
Laboratory of Bioinorganic Chemistry

THE SOLAR CHALLENGE



www.biosolenuti.gr



University of Crete
Chemistry Department
Laboratory of Bioinorganic Chemistry

THE SOLAR CHALLENGE

Photovoltaic technology:



www.biosolenuti.gr



THE SOLAR CHALLENGE

Photovoltaic technology:

directly converts solar energy into electricity

no moving parts

no noise

no emissions - long lifetime





THE SOLAR CHALLENGE

Photovoltaic technology:

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no noise

no emissions - long lifetime

Large industrial potential - cost reductions needed





THE SOLAR CHALLENGE

Photovoltaic technology:

directly converts solar energy into electricity

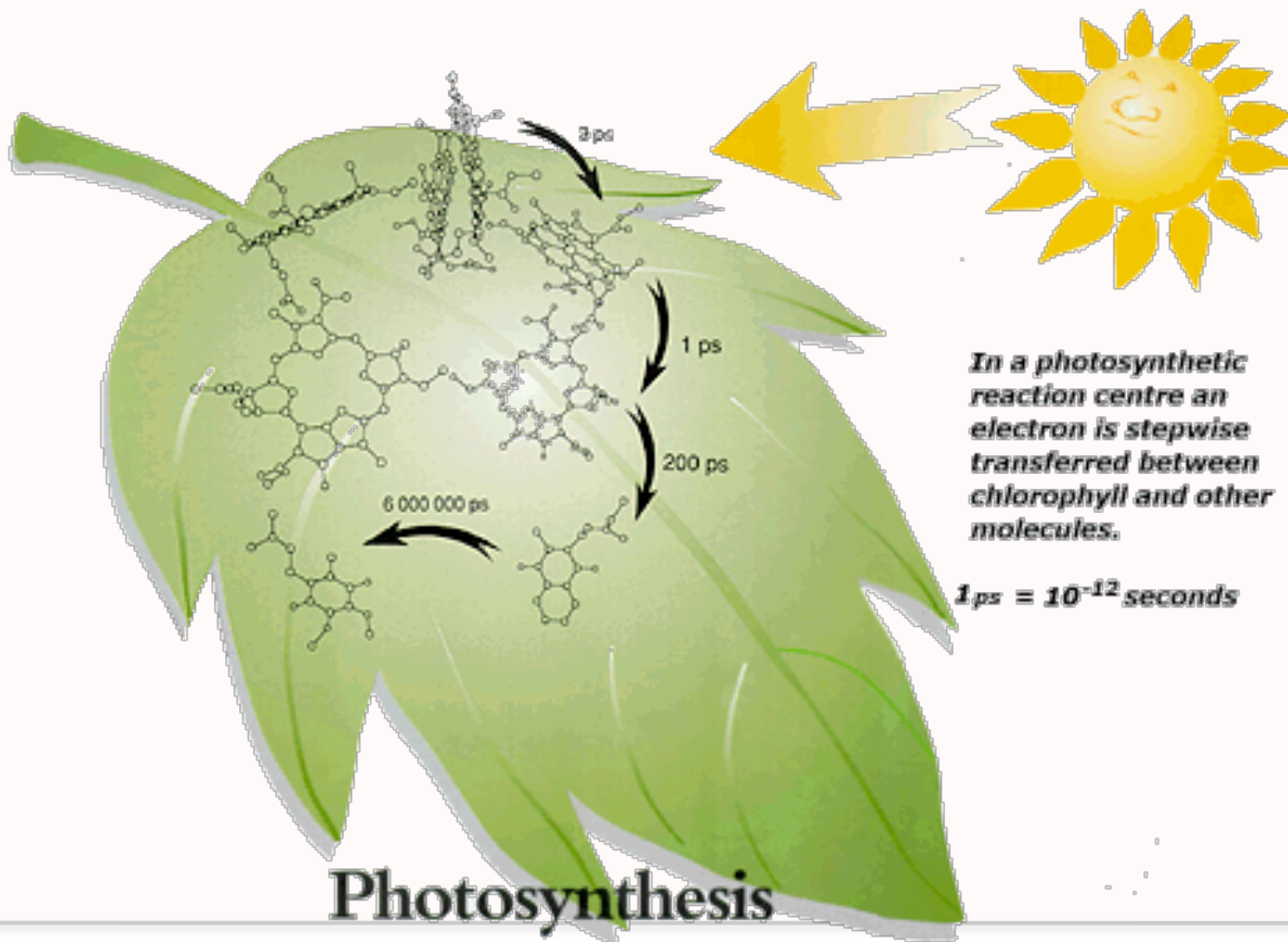
no moving parts

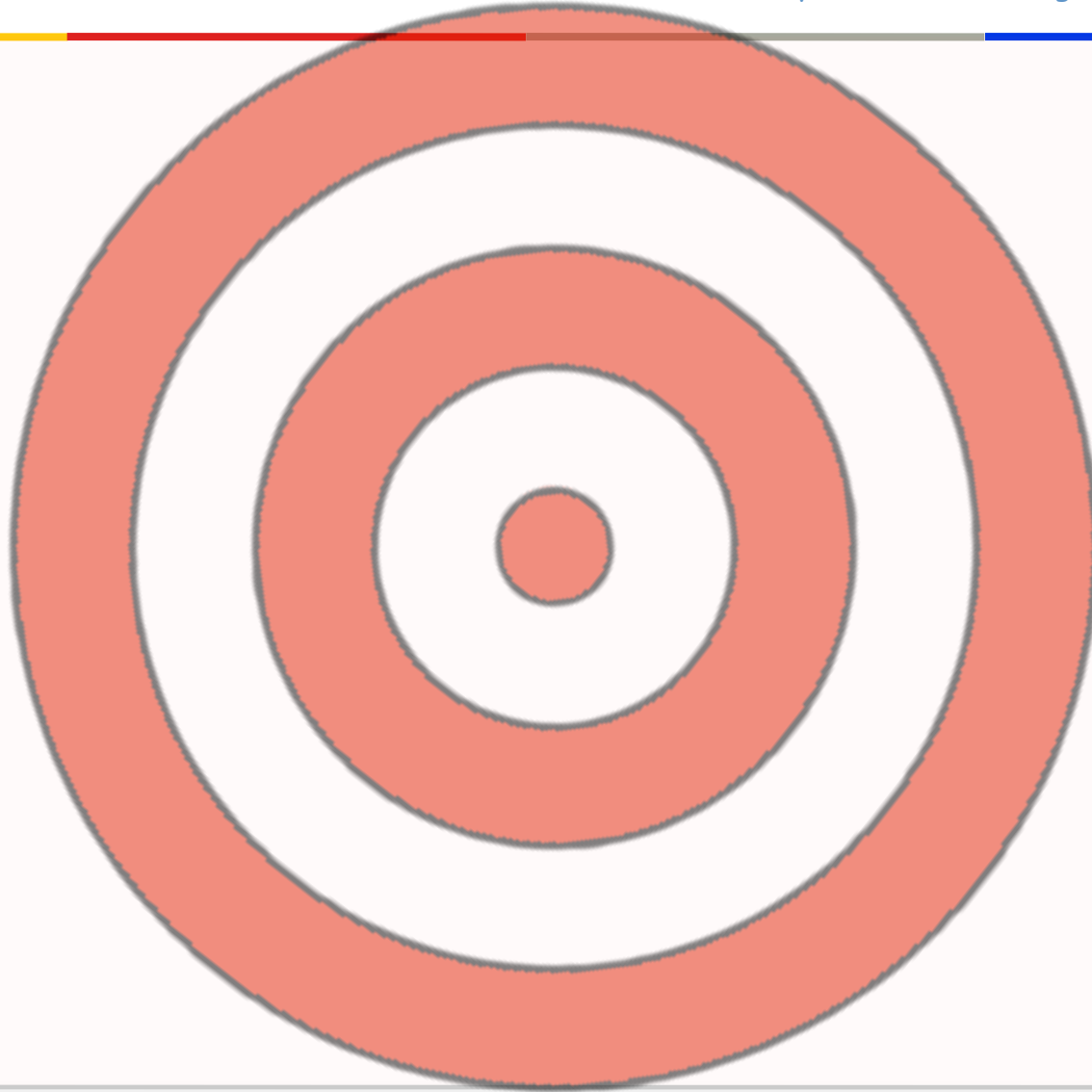
no noise

no emissions - long lifetime

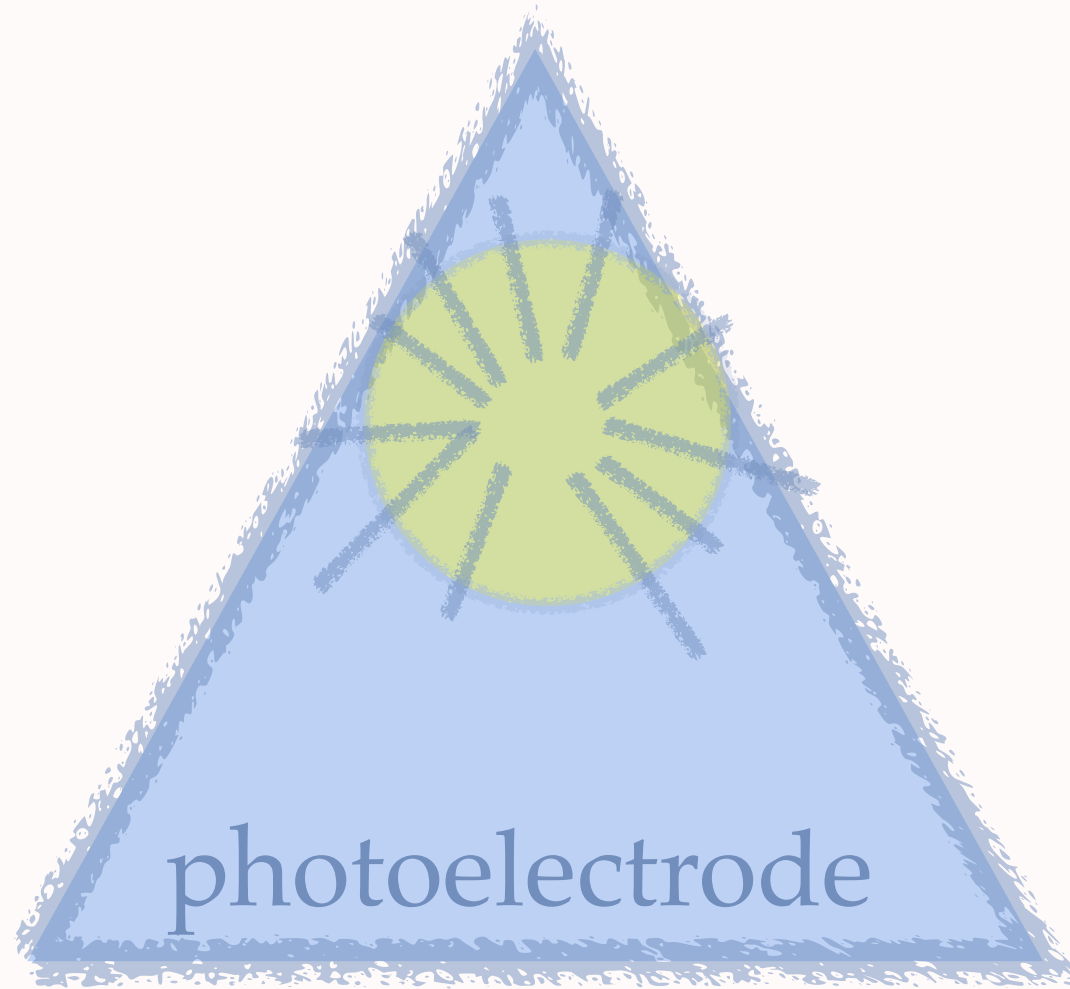
Large industrial potential - cost reductions needed





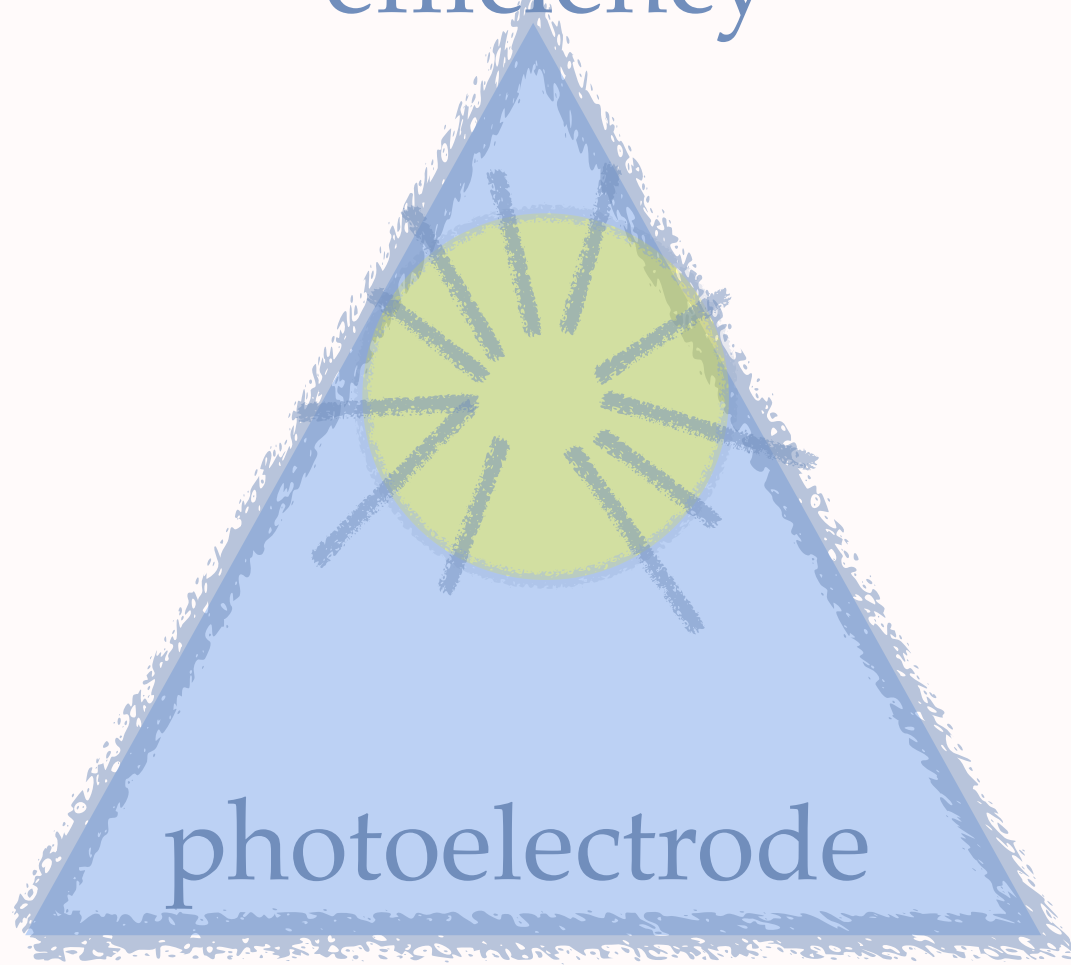








efficiency



photoelectrode

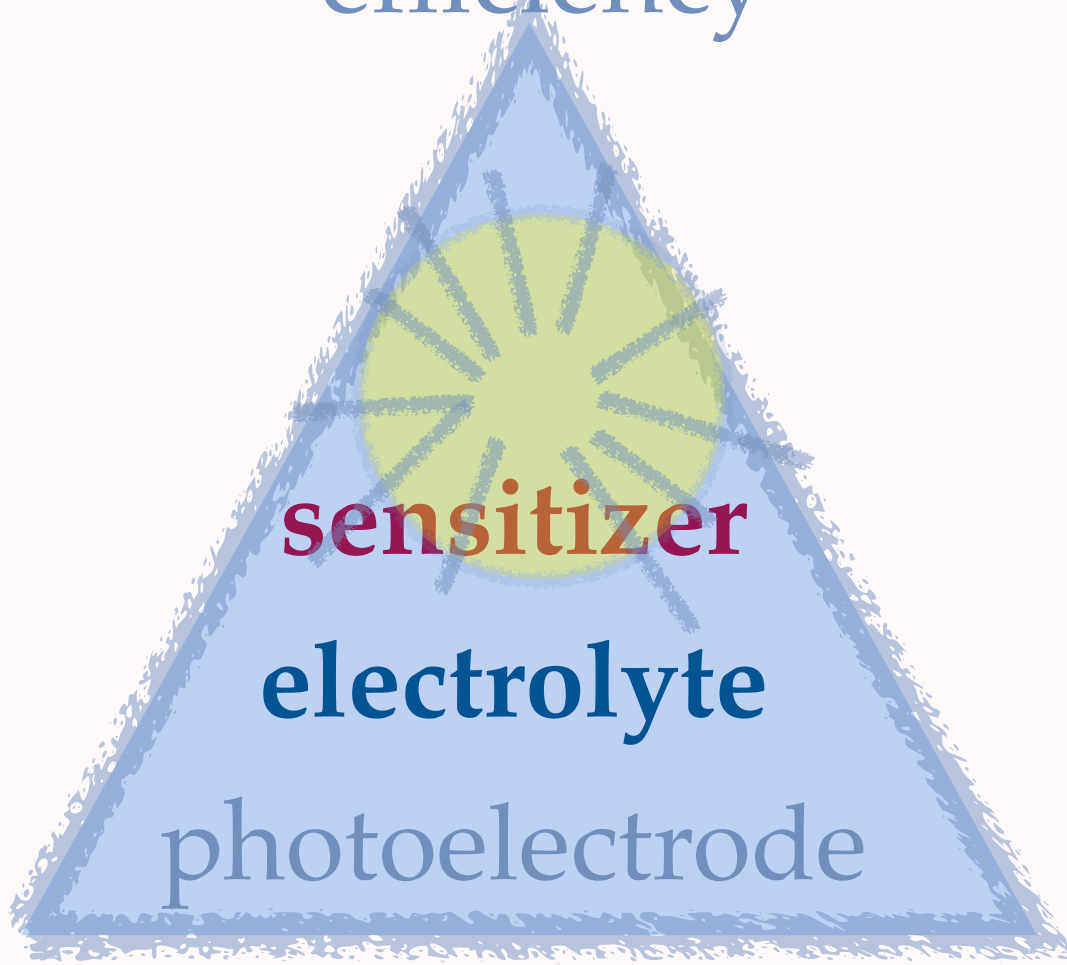
cost

size





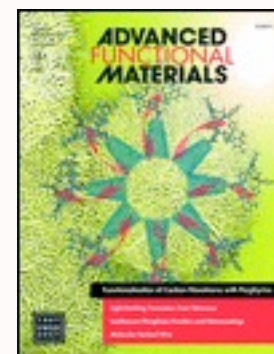
efficiency

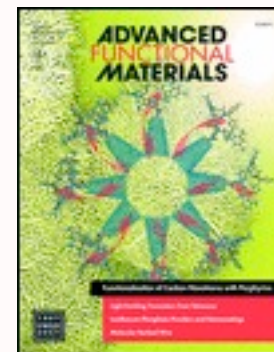
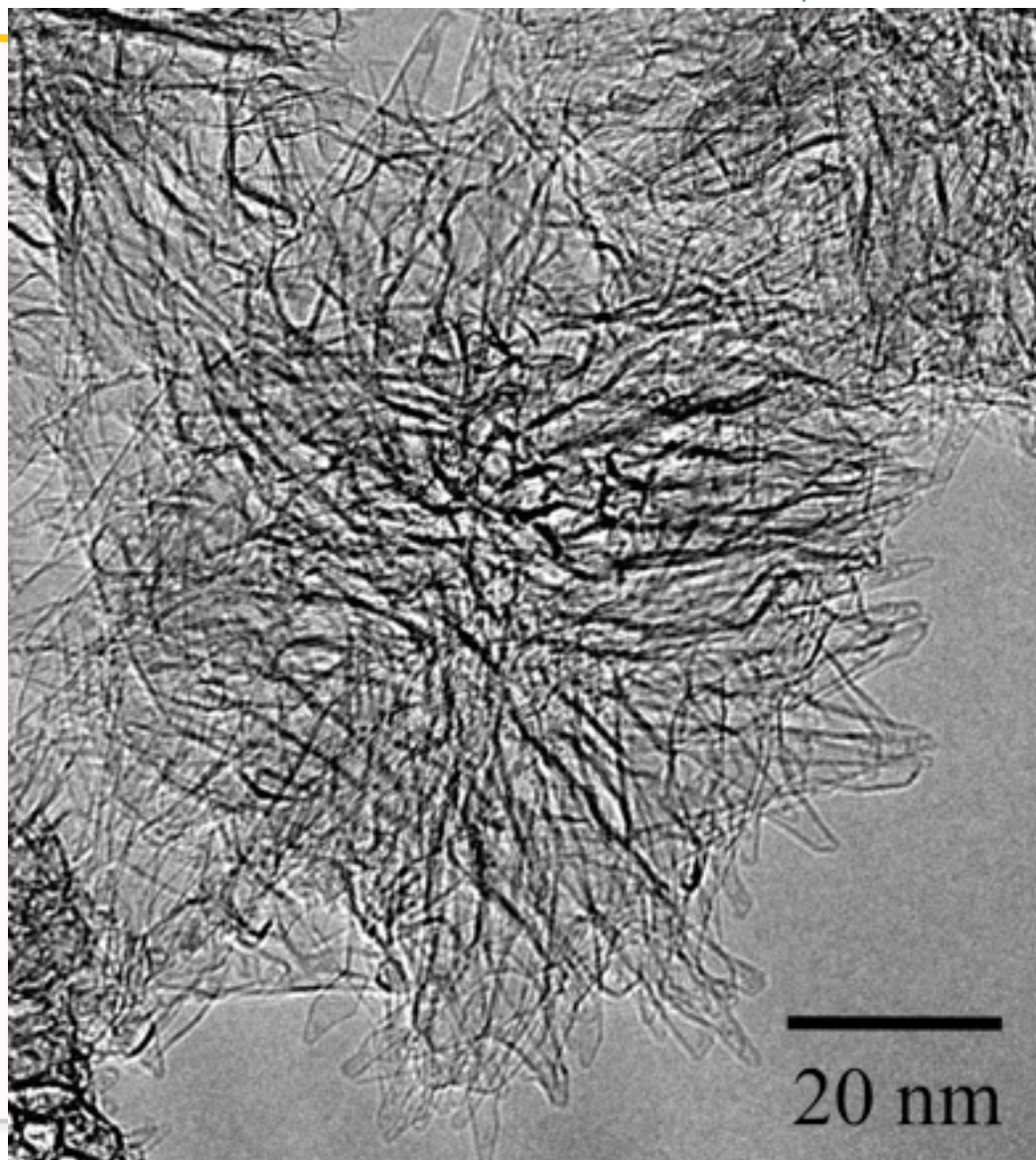


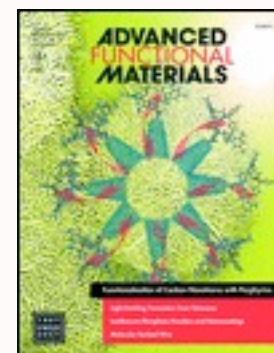
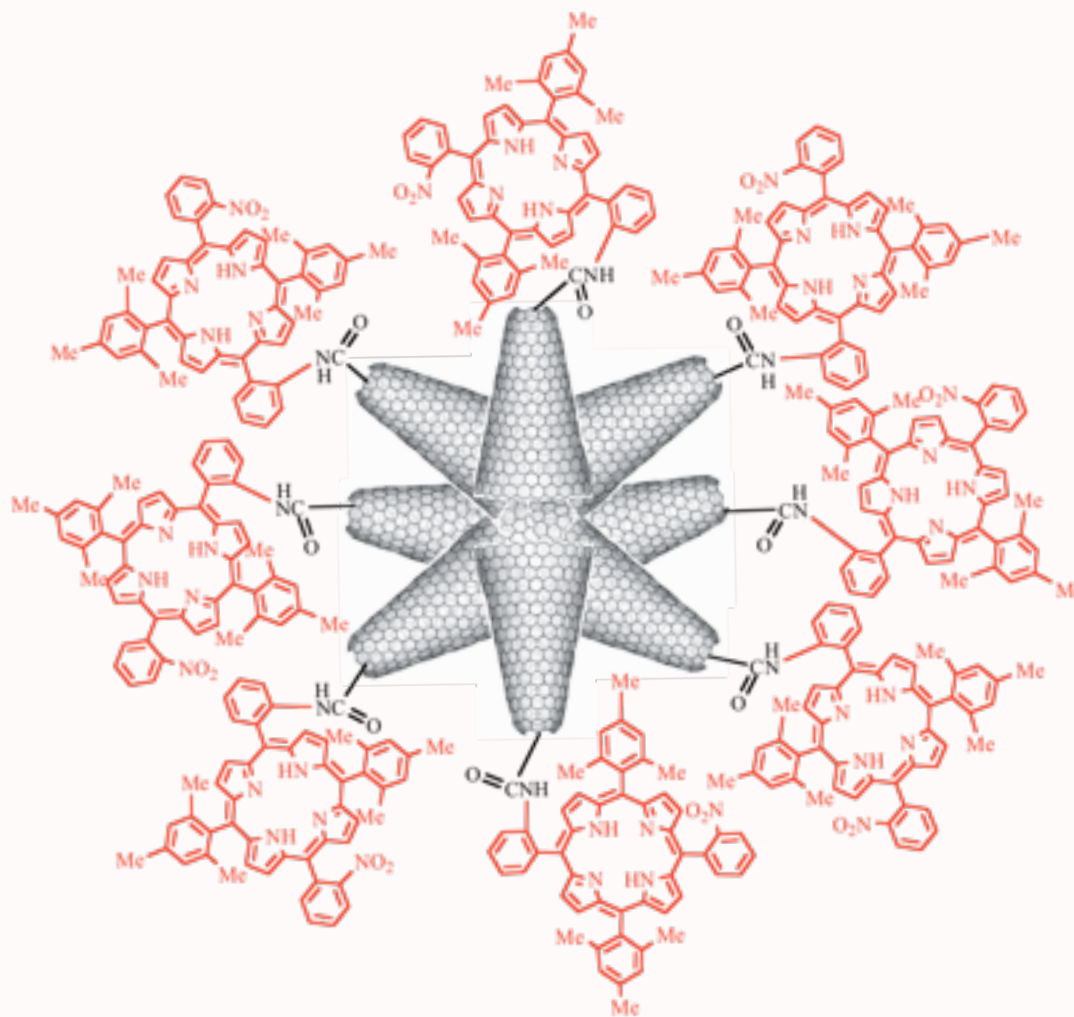
cost

size

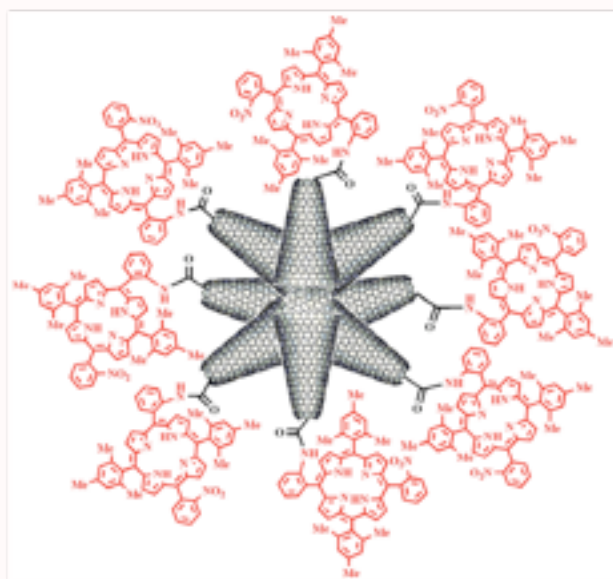








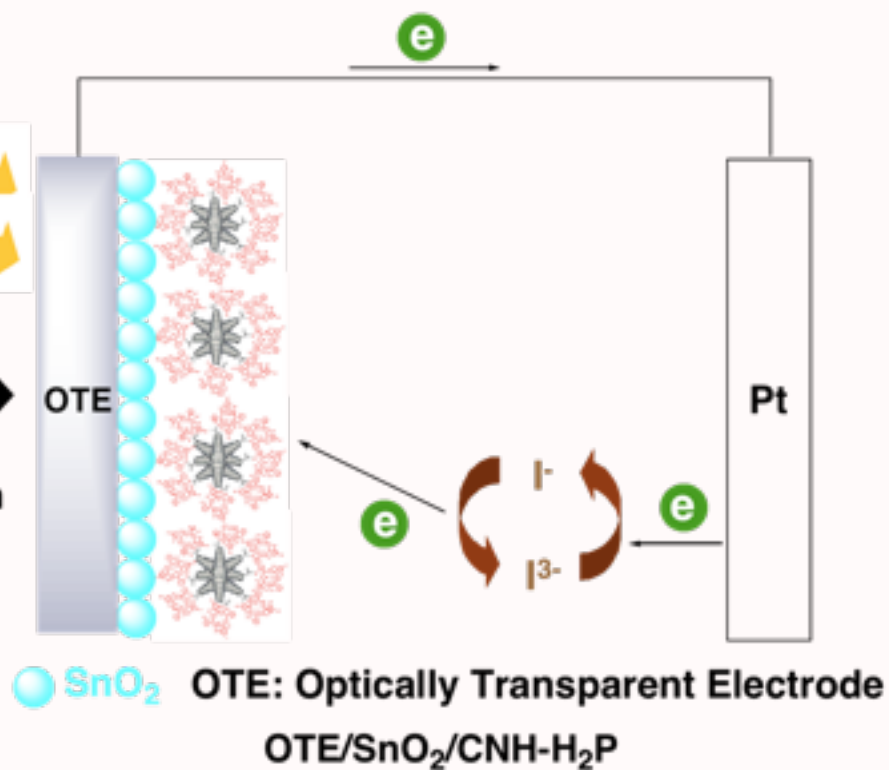


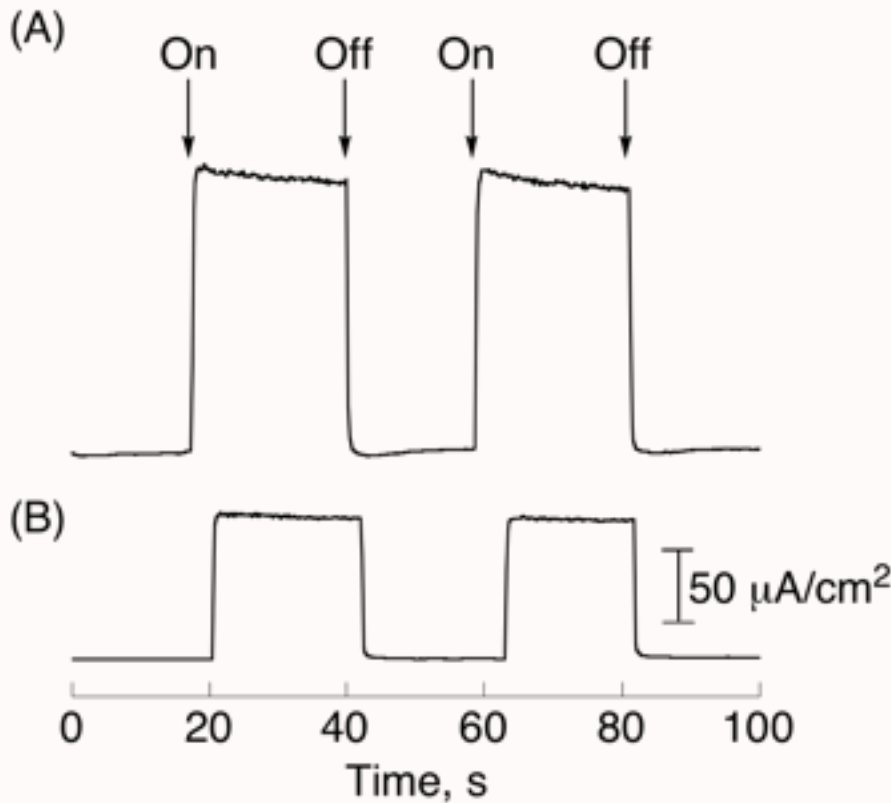


CNH-H₂P



Film
Deposition



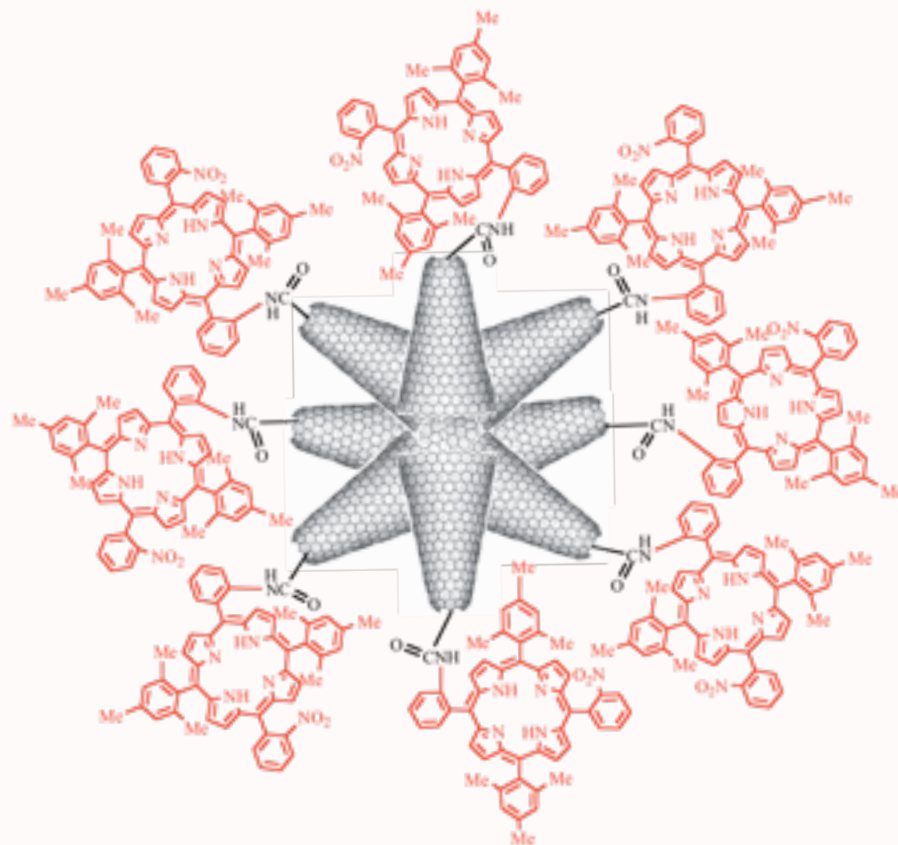


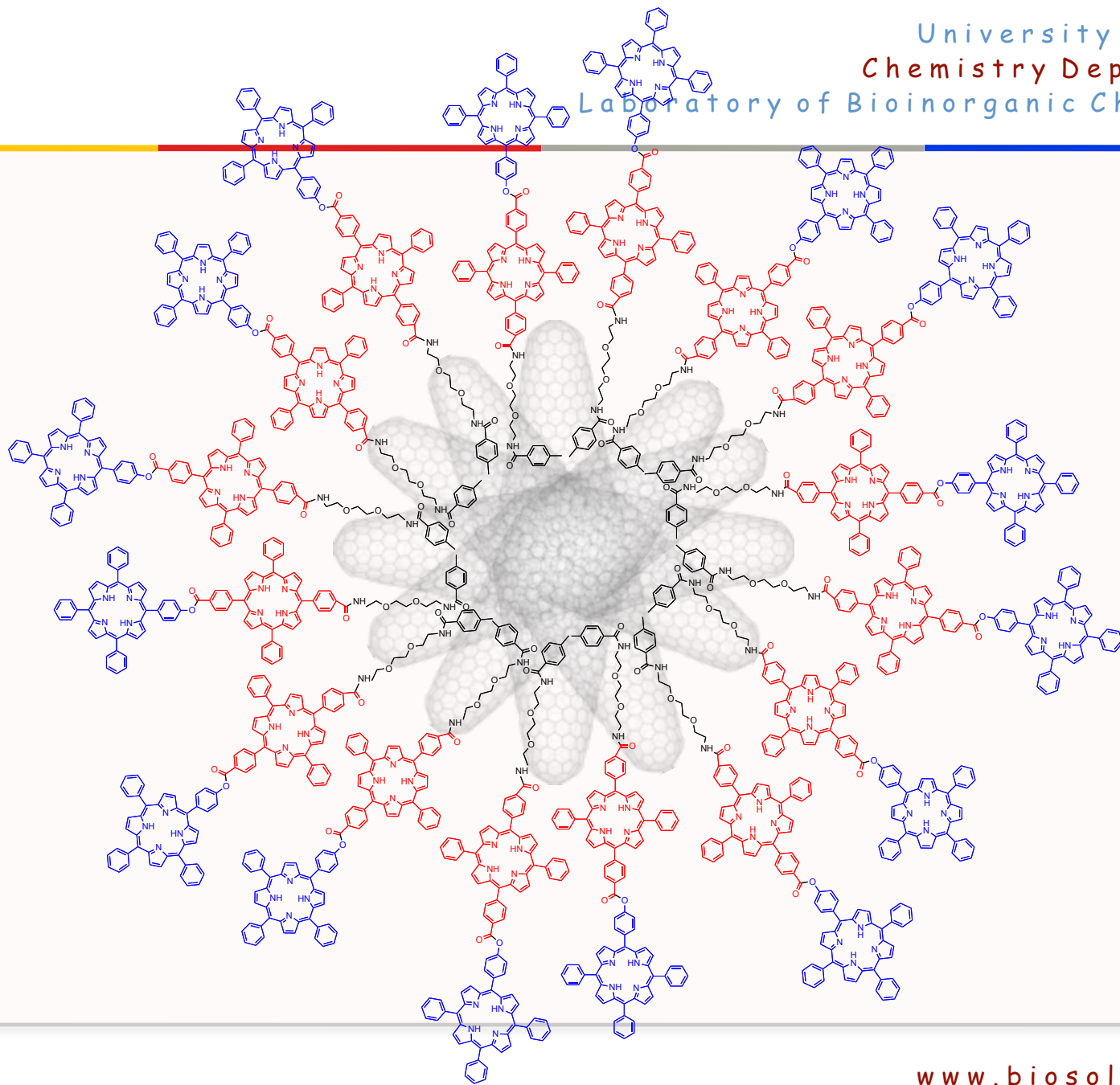
OTE/SnO₂/CNH-H₂P

OTE/SnO₂/CNH



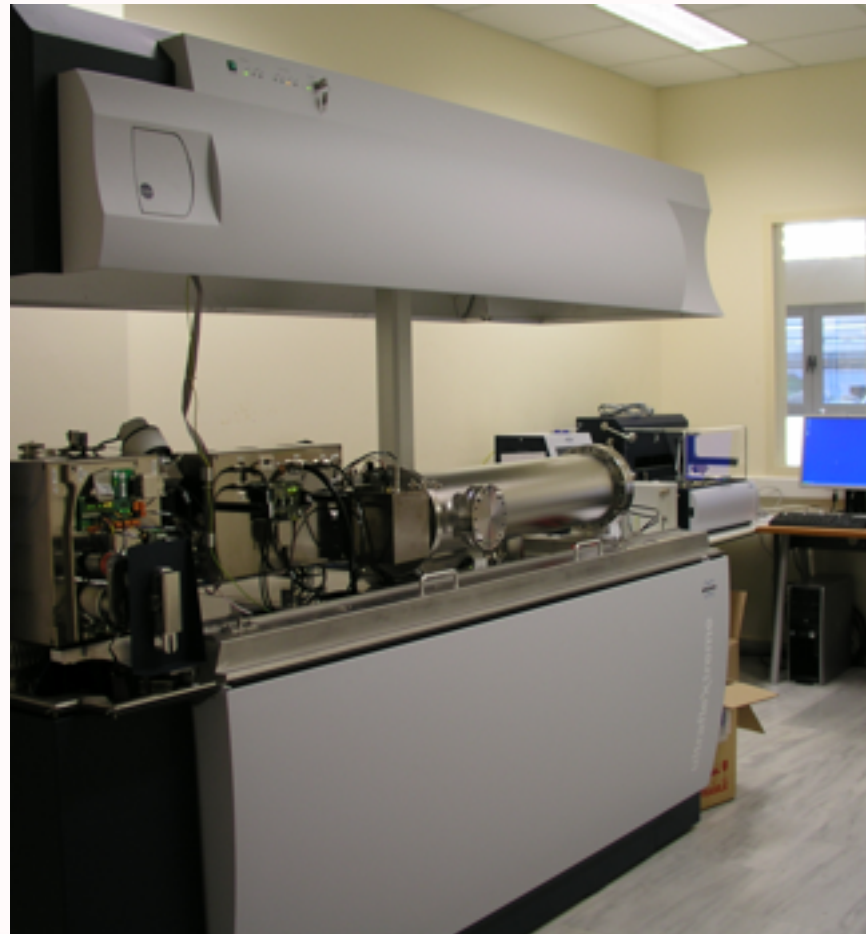








MALDI TOF TIME LIGHT





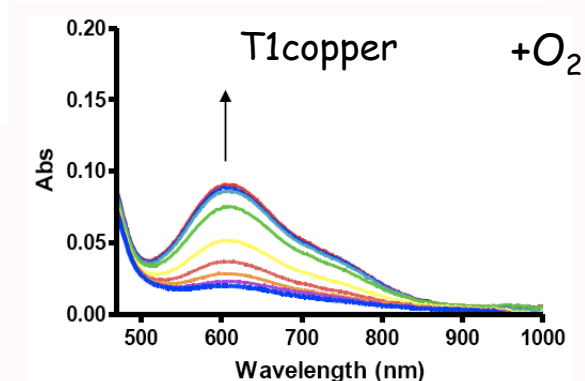
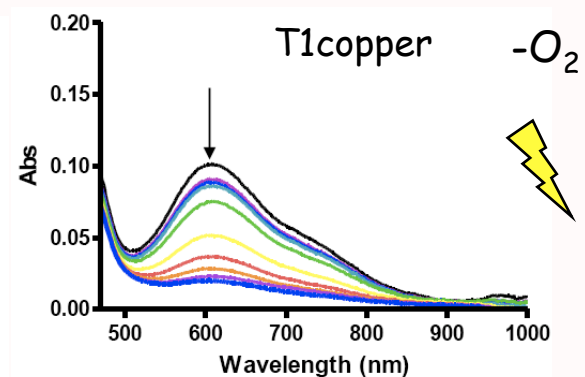
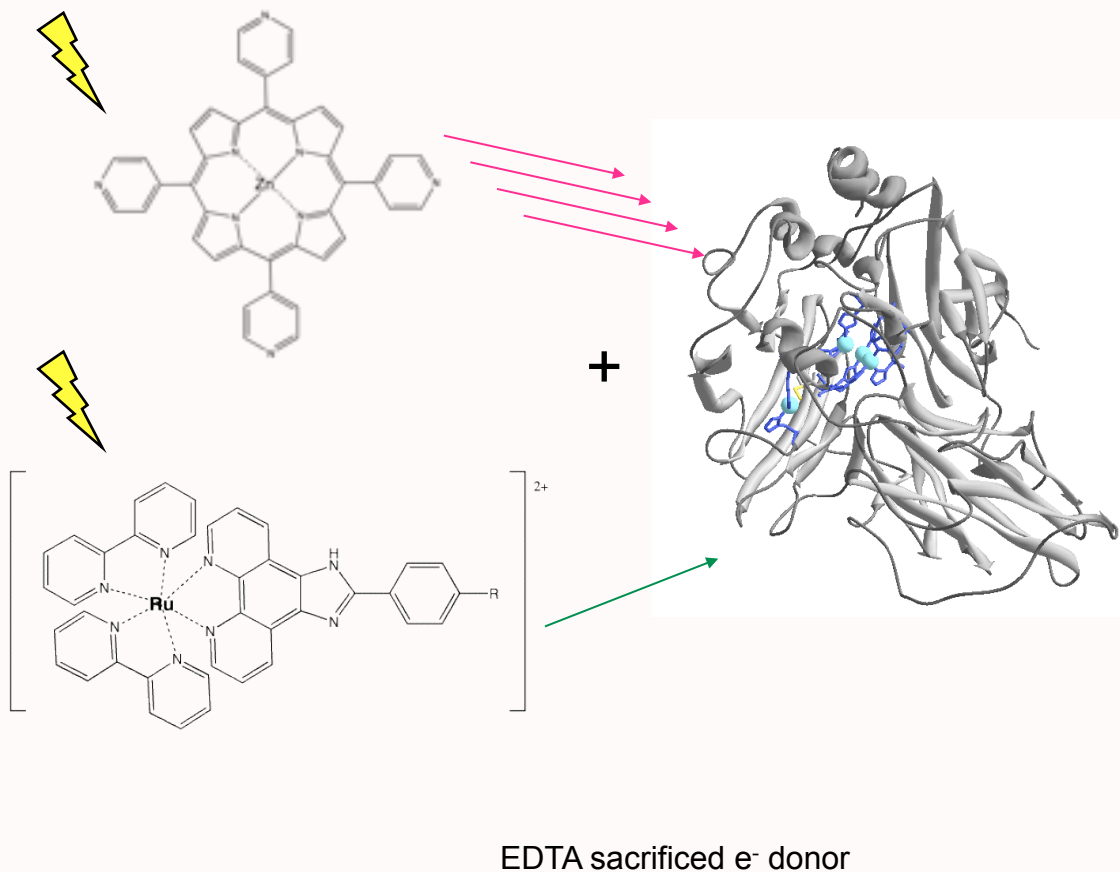
COLLABORATIONS





with
THIERRY TRON (UMR6263, UNIVERSITÉ PAUL
CÉZANNE)



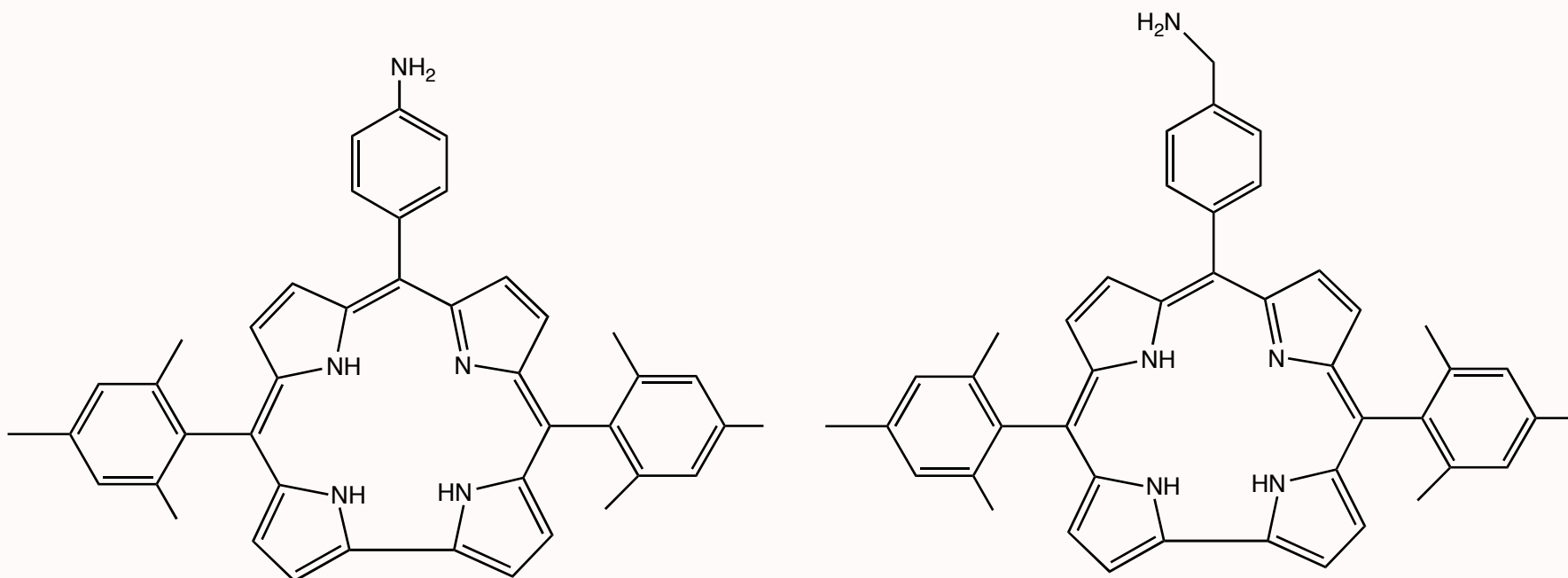




with

Jean Michel Barbe (Université de Bourgoigne)



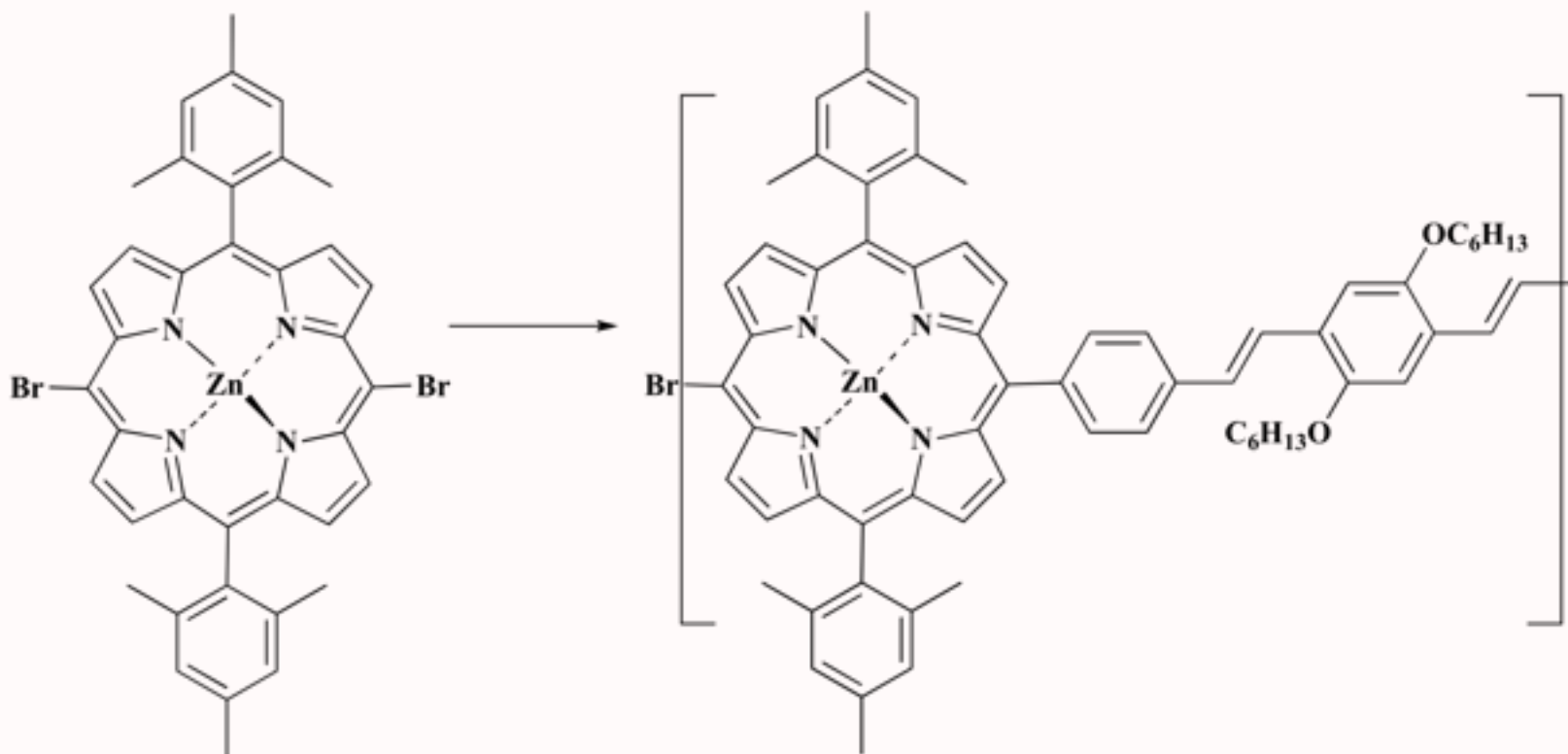




with

Giannis Mikroyiannidis (University of Patras)



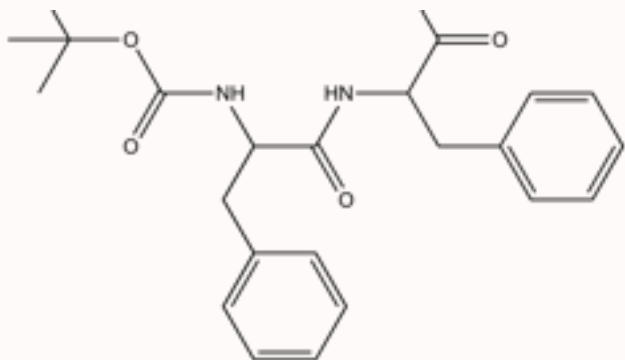


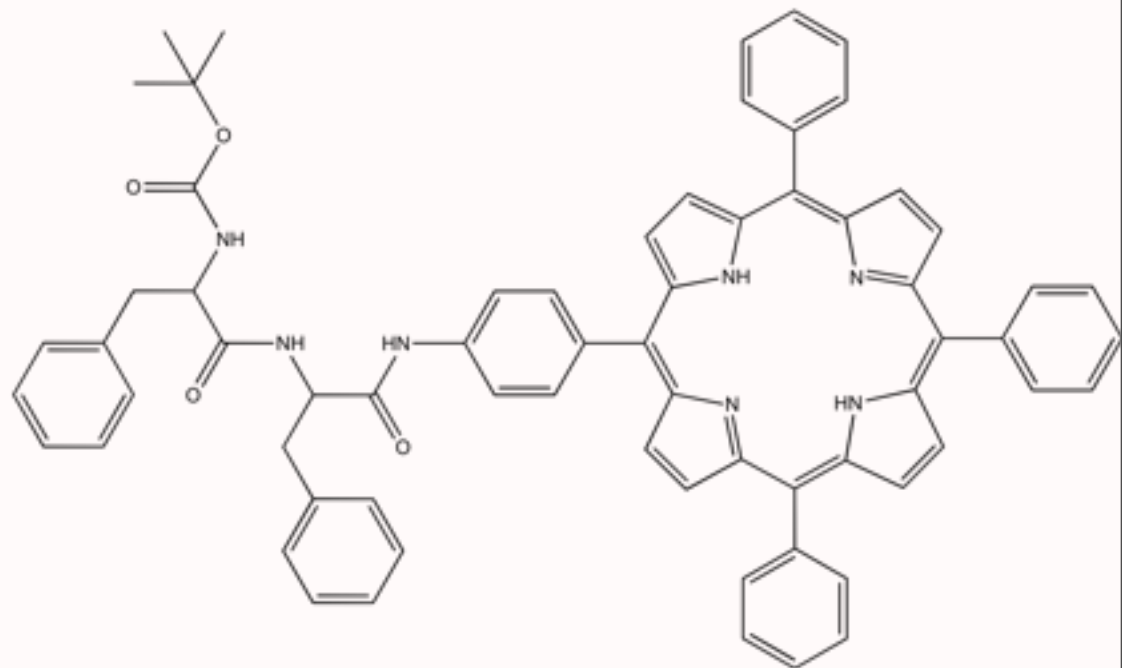
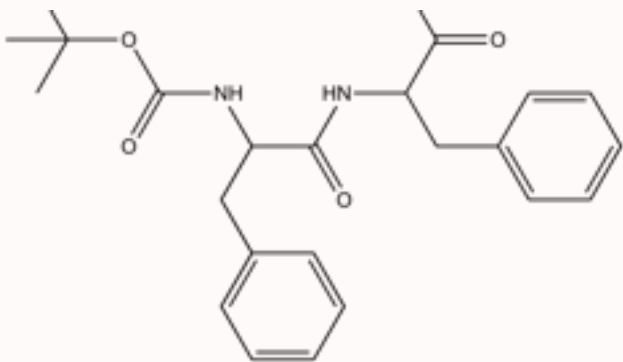


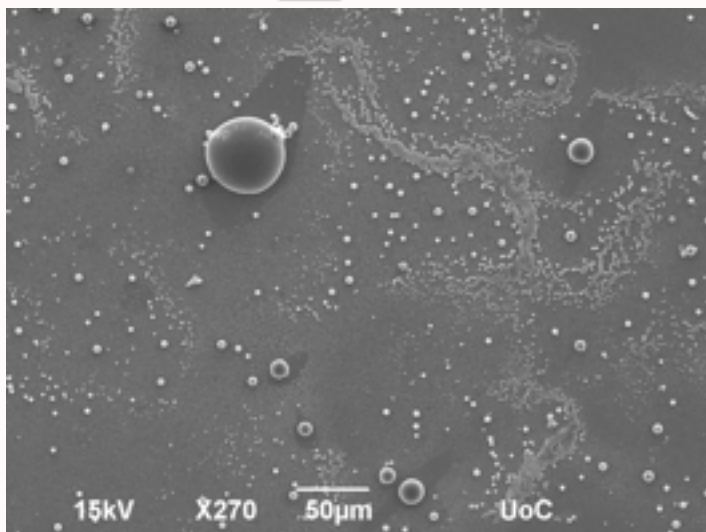
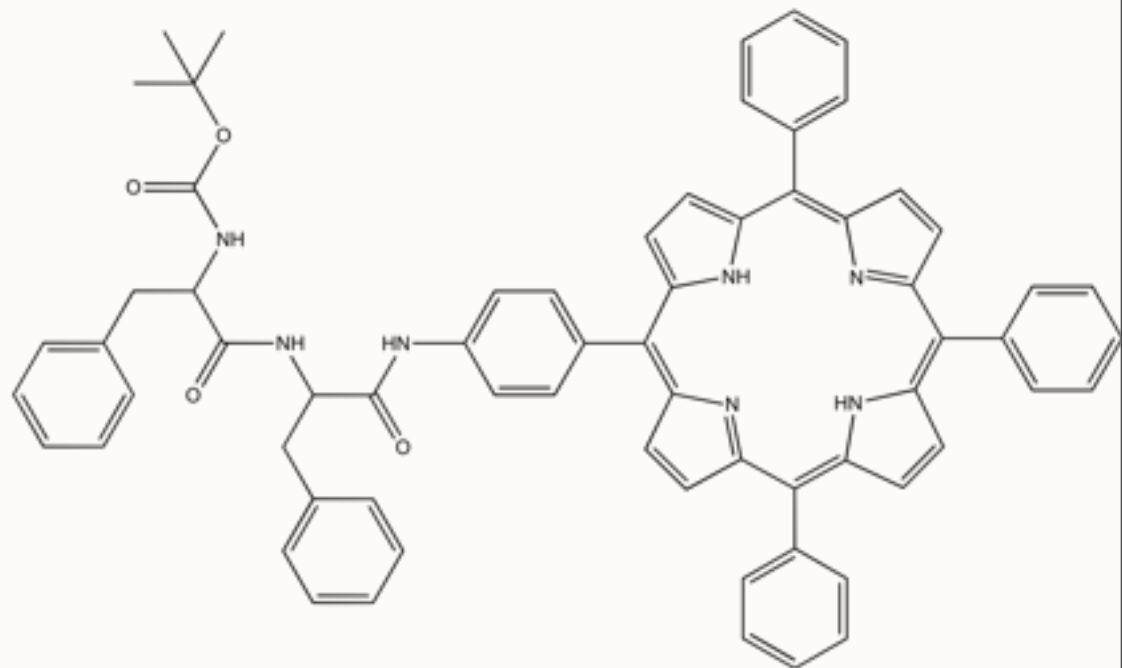
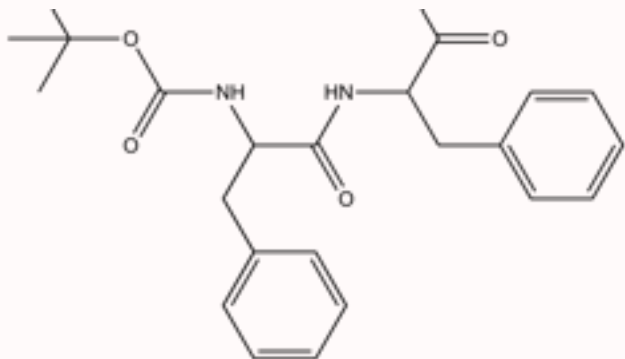
with
Anna Mitraki (University of Crete)

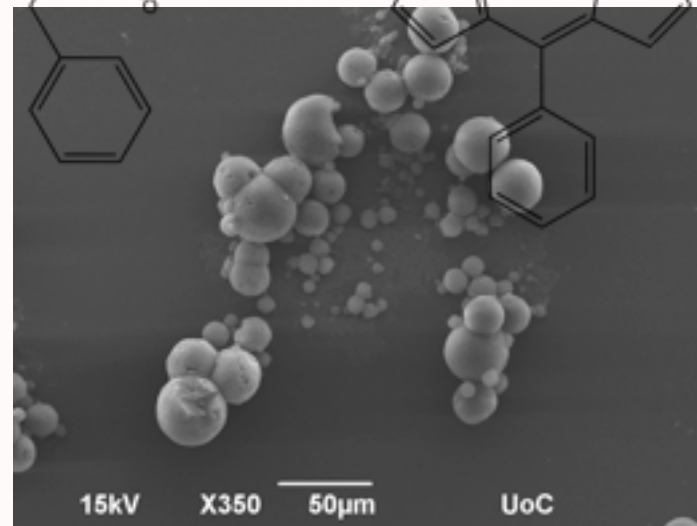
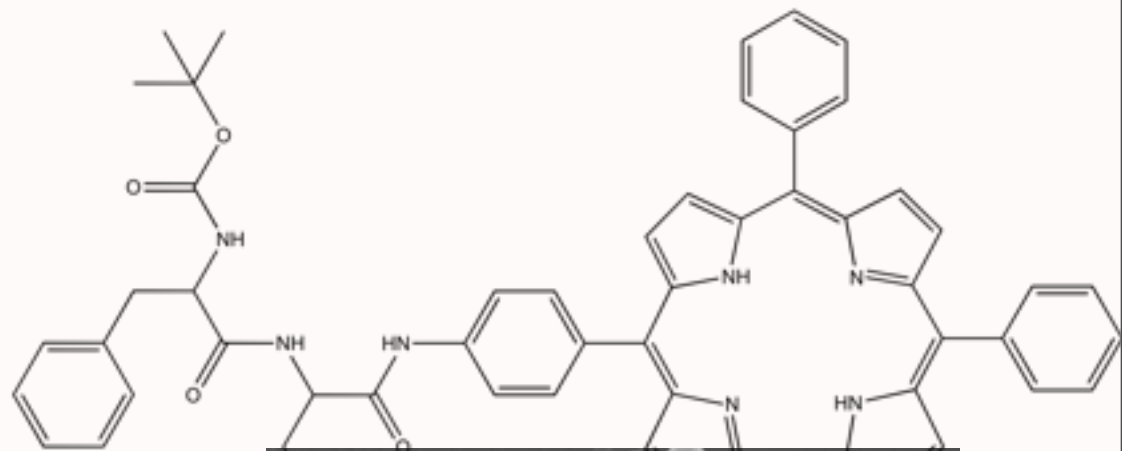
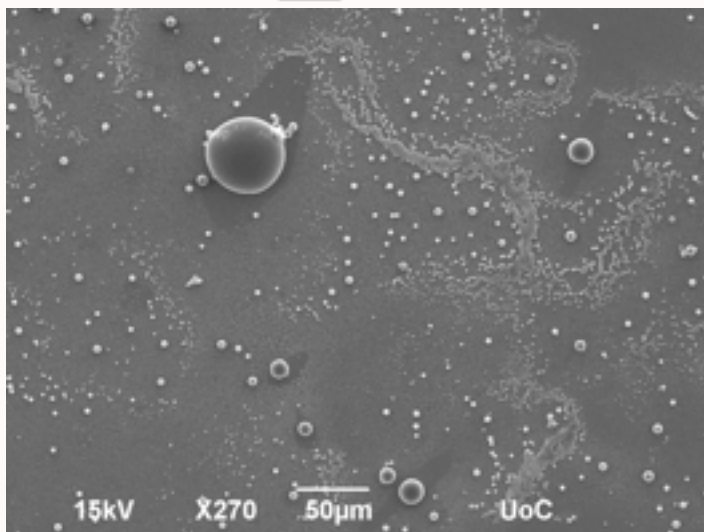
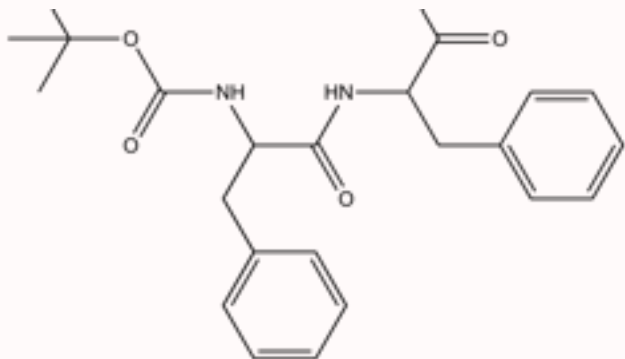


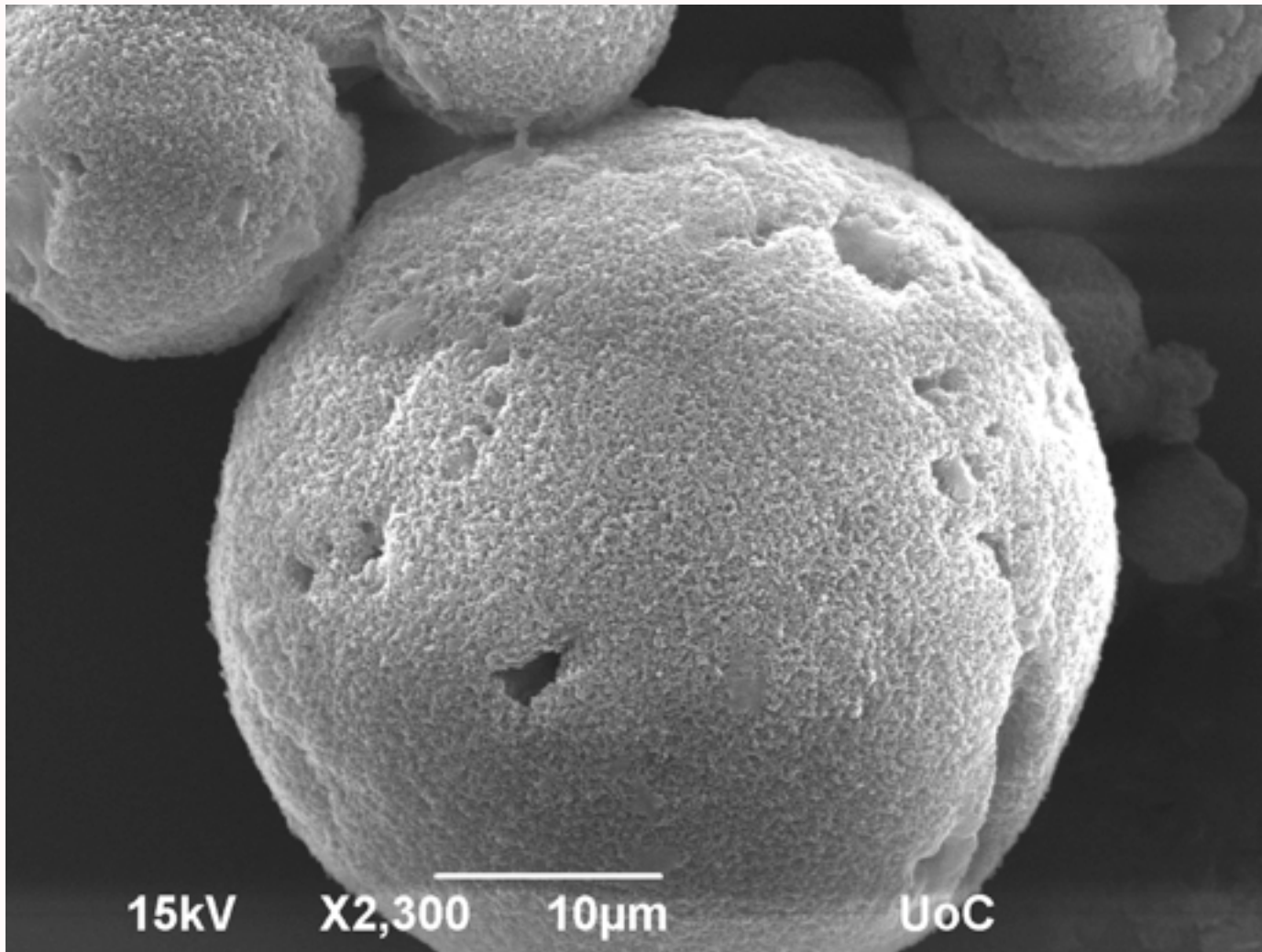














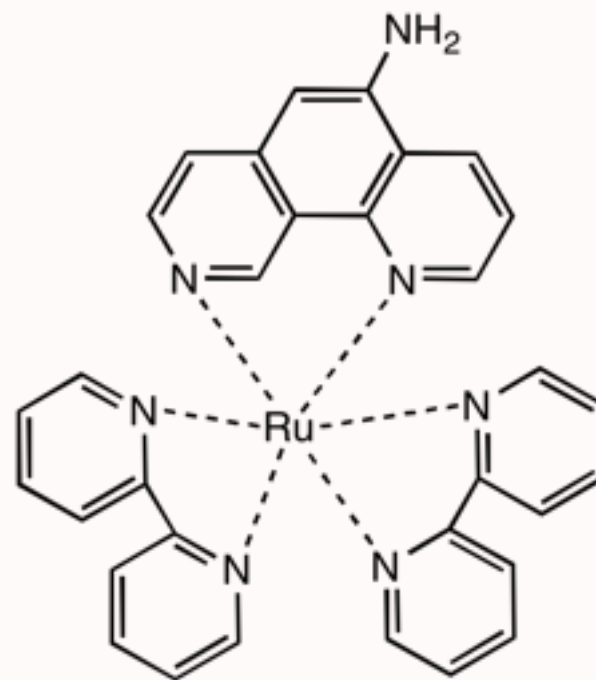
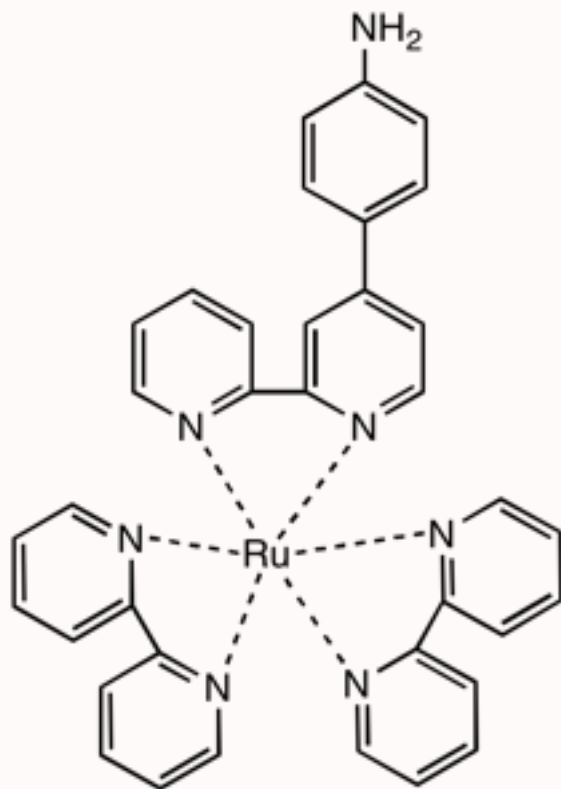
with
LIBERATO MANNA (ISTITUTO ITALIANO DI
TECNOLOGIA)





with
Francois Lampert (University of Paris VI)







with
Michael Grätzel (école polytechnique de Lausanne)





Roger Guilard
University of Bourgundy



Ivano Bertini
University of Firenze,
CERM Italy



Dirk Guildi
University
of Erlangen-Nurnberg



Daniel Gryko
Polish Academy of Sciences,
Warsaw



Antony Vlcek
School of Biological and Chemical Sciences
Queen Mary, University of London

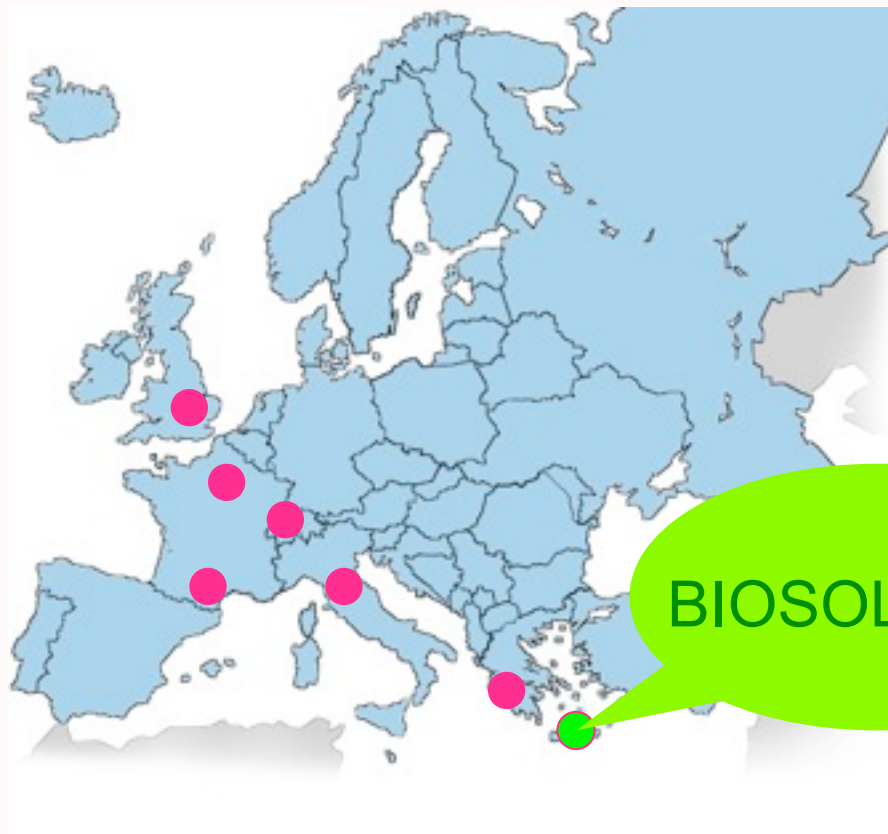


Panagiotis Argitis
Demokritos, Institute of Microelectronics,
Athens



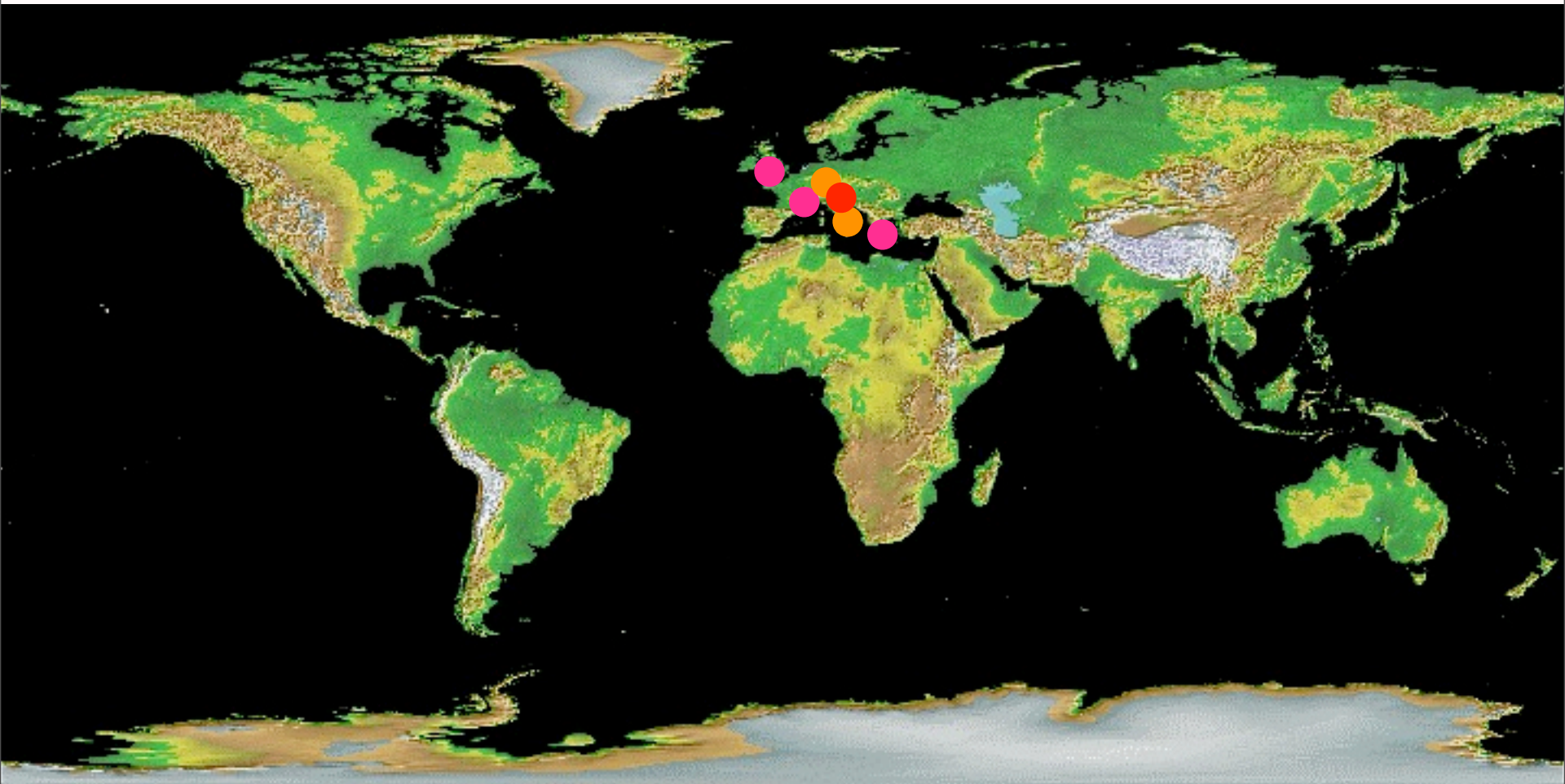
Nikos Tagmatarchis
National Research Center, Athens

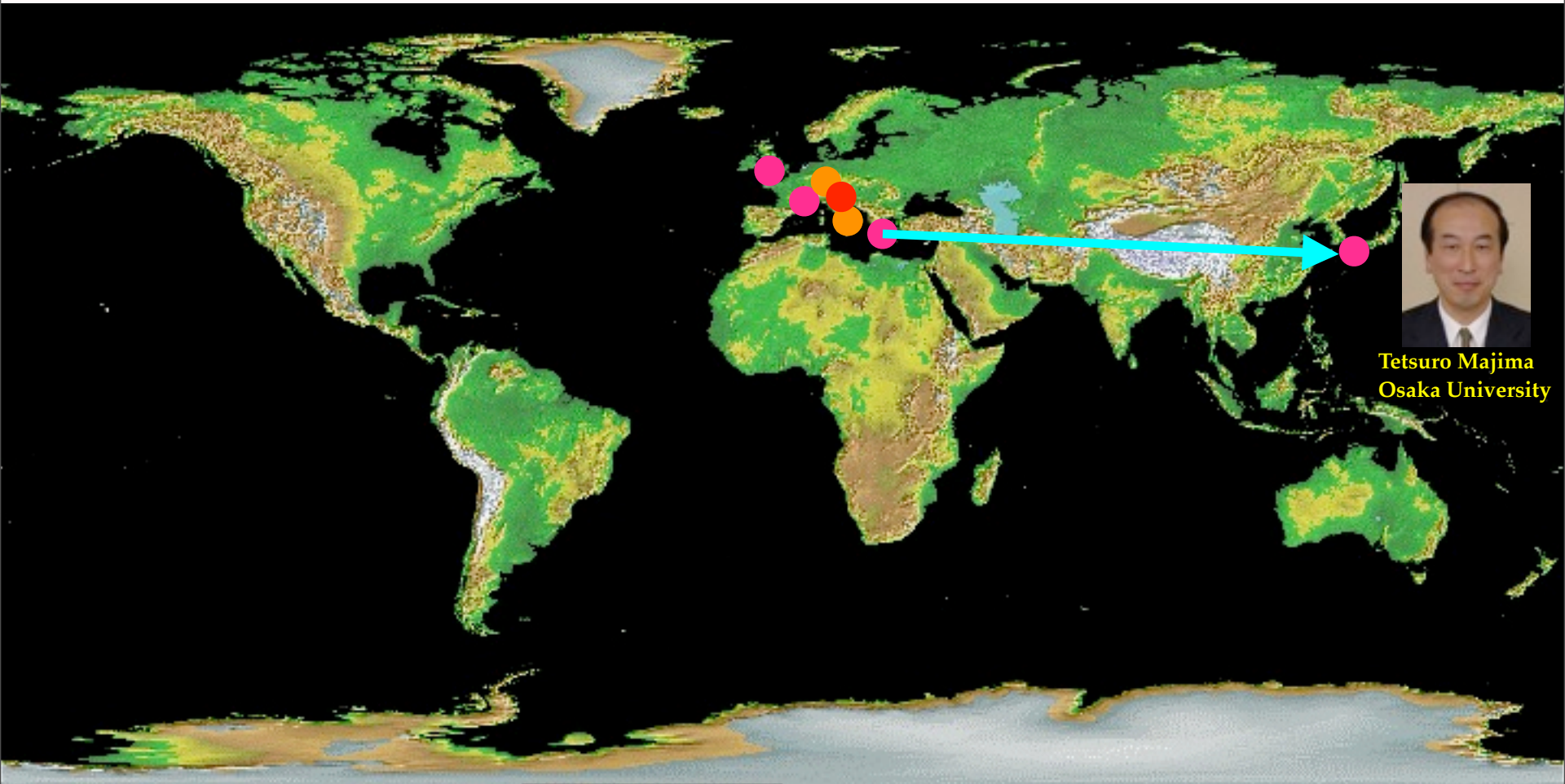




BIOSOLENUTI

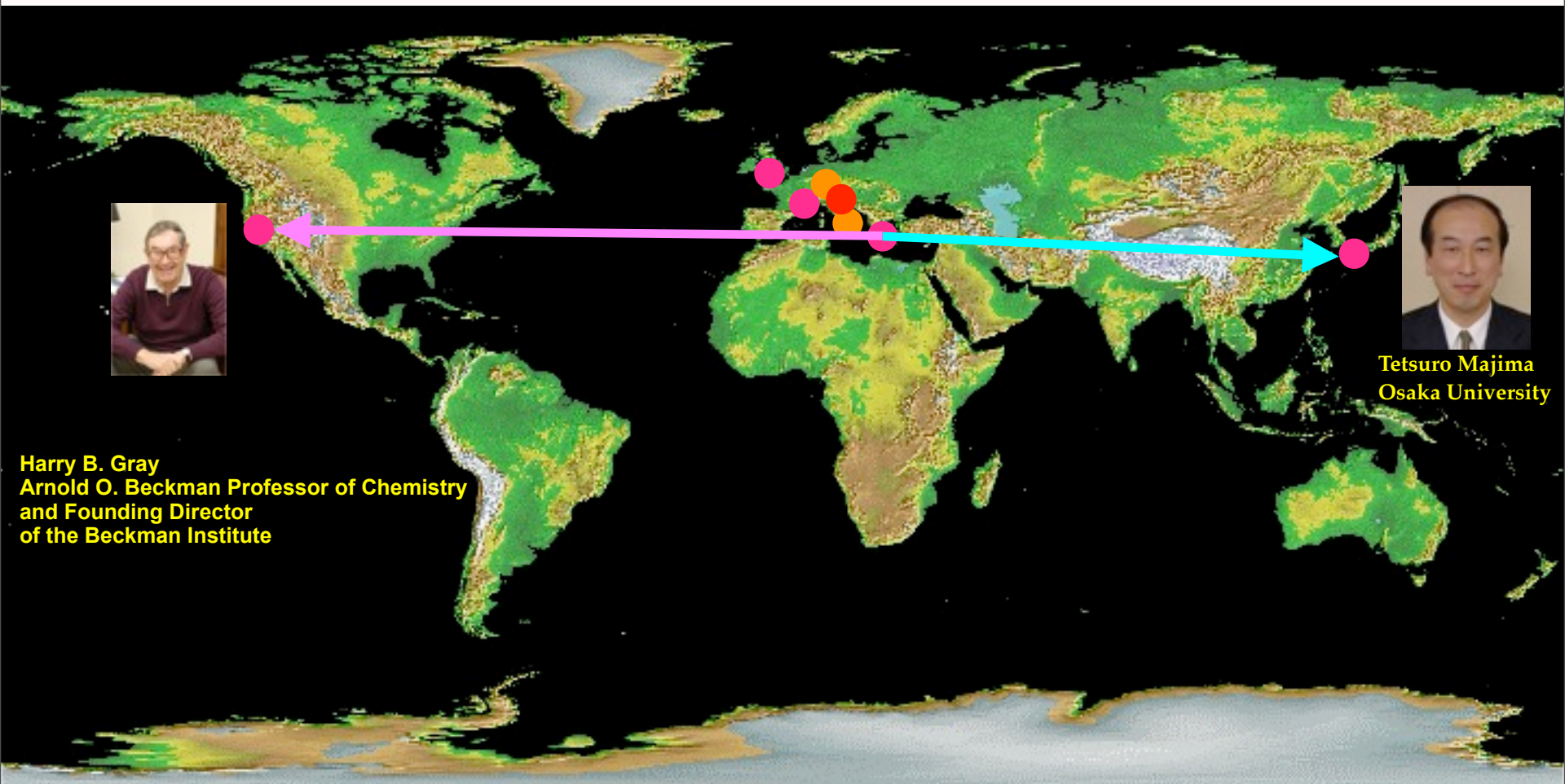






Tetsuro Majima
Osaka University





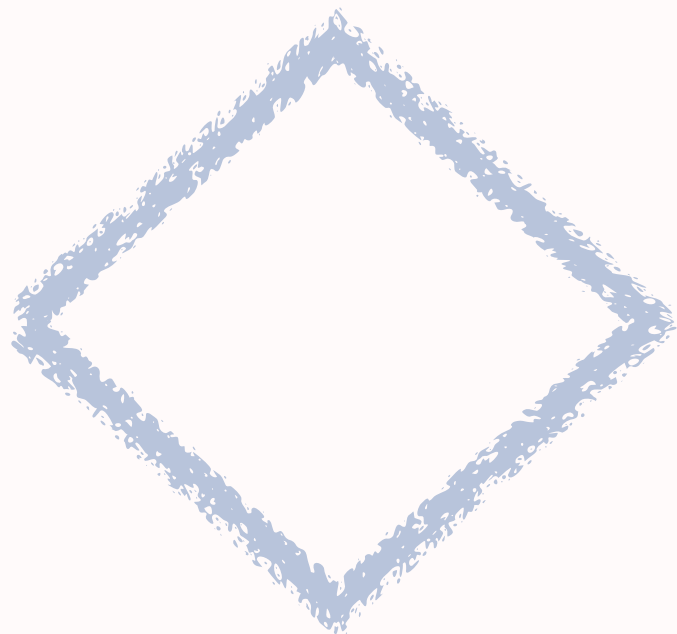
Tetsuro Majima
Osaka University

Harry B. Gray
Arnold O. Beckman Professor of Chemistry
and Founding Director
of the Beckman Institute



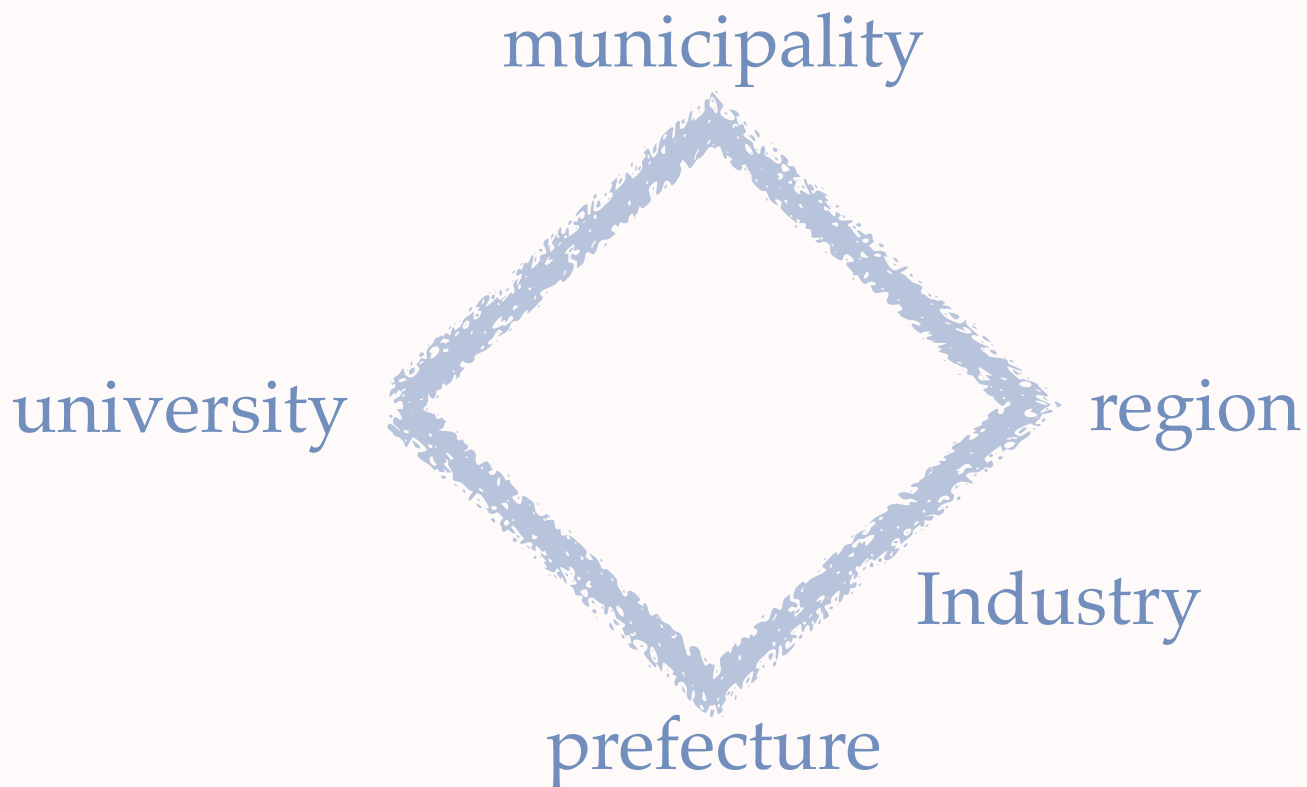


LOCAL ALL...IN ONE!



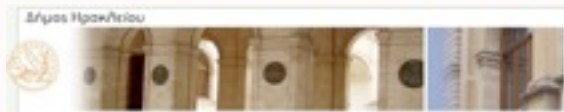


LOCAL ALL...IN ONE!





LOCAL ALL...IN ONE!



municipality

university



region

Industry

prefecture





LOCAL ALL...IN ONE!



Industry





LOCAL ALL...IN ONE!





LOCAL ALL .IN ONE!



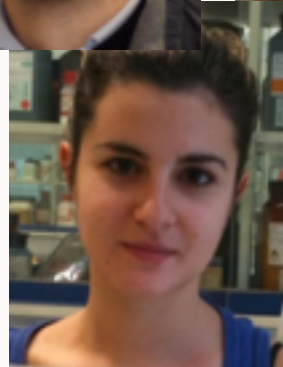
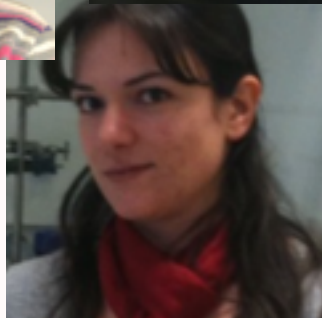
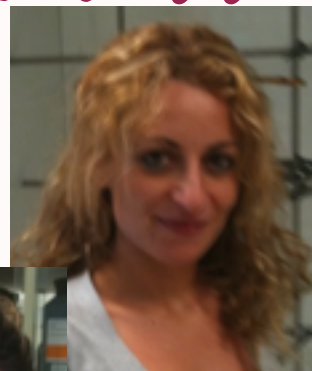
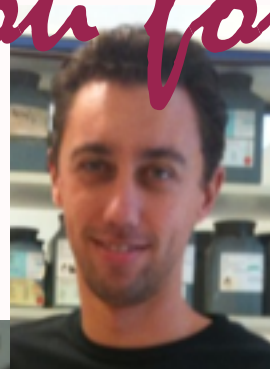


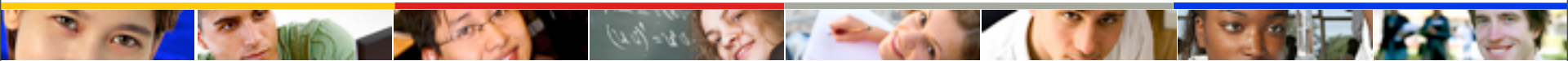
Thank you for your attention



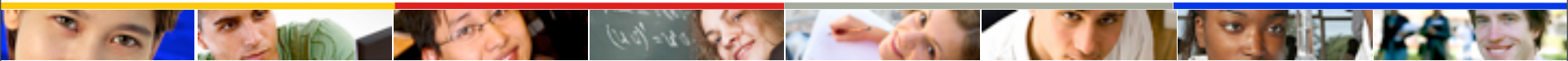


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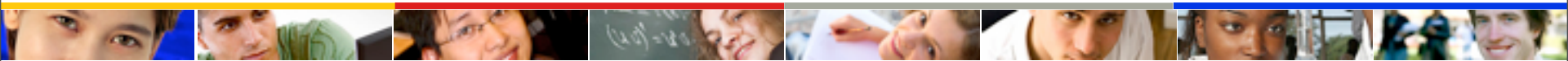
Definition et Objectifs



Definition et Objectifs

Objectifs :

- favoriser un enseignement de spécialités dans un contexte plurinational et échanger des points de vue et des pratiques pédagogiques.
- Encourager un enseignement efficace et international dans des matières spécialisées qui ne seraient pas ou peu enseignées sans ce programme
- Permettre aux étudiants et aux enseignants de travailler ensemble en groupes multinationaux
- Permettre aux enseignants d'échanger leurs points de vue sur le contenu des cours et sur les nouvelles approches des programmes éducatifs, et de mettre à l'épreuve leurs méthodes pédagogiques dans un environnement international



Innovation & valeur ajoutée



Innovation & valeur ajoutée

Principes:

- Positionnement sur une thématique européenne et non sur l'accumulation de pratiques locales
- Sujet nécessitant la combinaison des meilleures compétences à l'échelle européenne, produit nouveau et apport significatif pour les participants
- Pour les participants: *apprendre et acquérir quelque chose d'unique, participer à une expérience originale*
- Harmonisation entre partenaires