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INVITED BY

[LPMS](#) LABORATORY

LABORATORY OF PHYSICS OF MATERIALS
AND SURFACES

Demetrios Anglos is Associate Professor at the Department of Chemistry, University of Crete and Associated Researcher at IESL-FORTH. His research activities concentrate on the photophysics of molecules and nanoparticles and on the applications of laser spectroscopic techniques in the analysis of materials in works of art and archaeological objects with emphasis on the development of novel methodology and instrumentation.

CURRENT RESEARCH ACTIVITIES

- ▶ Analysis of complex materials with laser spectroscopic techniques. Methodology and instrumentation.
 - LIF-laser induced fluorescence, LIBS-laser induced breakdown spectroscopy, Raman microscopy. Applications in cultural heritage science.
 - Development and integration of mobile instrumentation for field analytical applications. Hybrid techniques (LIBS-LIF, LIBS-Raman).
 - Femtosecond LIBS. Mechanistic studies.
- ▶ Studies of photophysical and photochemical processes in the condensed phase.
 - Random lasing in nano-composite materials.
 - Photophysics of nano-structured materials (Zinc oxide, carbon dots). Energy and electron transfer.
 - Laser ablation of polymer substrates.

EDUCATION

- ▶ 1989-1994: Ph.D., Physical Chemistry, Cornell University, USA
Thesis: Photoinduced intrapeptide electron transfer involving novel donor and acceptor amino acids: A triplet state approach
- ▶ 1986-1989: M.Sc., Physical Chemistry, Cornell University, USA
- ▶ 1980-1985: B.Sc., Chemistry, University of Athens, Greece

SELECTED PUBLICATIONS IN PEER-REVIEWED JOURNALS

- ▶ "Laser spectroscopies for elemental and molecular analysis in art and archaeology" A. Nevin, G. Spoto, D. Anglos, *Appl. Phys. A* **106**, 339-361 (2012); doi: 10.1007/s00339-011-6699-z
- ▶ "Studying pigments on painted plaster in Minoan, Roman and Early Byzantine Crete. A multi-analytical technique approach" P. Westlake, P. Siozos, A. Philippidis, Ch. Apostolaki, B. Derham, A. Terlix, V. Perdikatsis, R. Jones, D. Anglos *Analytical Bioanalytical Chemistry*, **402**, 1413-1432 (2012); doi: 10.1007/s00216-011-5281-z
- ▶ "Effect of ambient conditions on ultraviolet femtosecond pulse laser induced breakdown spectra" M.P. Mateo, V. Piñon, D. Anglos, G. Nicolas, *Spectrochimica Acta Part B* **74-75**, 18-23 (2012); doi: 10.1016/j.sab.2012.06.031
- ▶ "The potential use of plume imaging for real-time monitoring of laser ablation cleaning of stonework" A. Khedr, V. Papadakis, P. Pouli, D. Anglos, M. A. Harith, *Appl. Physics B* **105**, 485-492 (2011); doi: 10.1007/s00340-011-4492-5
- ▶ "An ethanol vapor detection probe based on a ZnO nanorod coated optical fiber long period grating " M. Konstantaki, A. Klini, D. Anglos, S. Pisadakis *Optics Express*, **20**, 8472-8484 (2012); dx.doi.org/10.1364/OE.20.008472