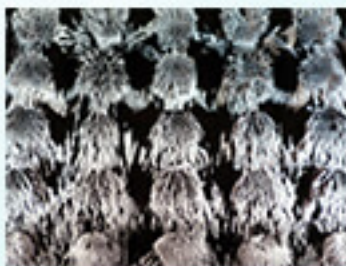




ΑΡΙΣΤΟΤΕΛΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΟΝΙΚΗΣ  
Διατμηματικό Πρόγραμμα Μεταπτυχιακών Σπουδών  
"Νανοεπιστήμες & Νανοτεχνολογίες - N&N"



ΔΙΑΛΕΞΗ - ΠΕΜΠΤΗ 14/12/2017 στις 15:00  
ΑΙΘ. ΣΥΝΕΔΡΙΑΣΕΩΝ ΤΜ. ΦΥΣΙΚΗΣ - 4ος ΟΡΟΦΟΣ



## Magnetically Hard Particles and Nanoclusters

*Prof. George C. Hadjipanayis, Dept. of Physics and Astronomy, University of Delaware*

### Abstract

For the past few years, our group has been studying the magnetic and structural properties of novel magnetic particles and clusters. Our program spans a wide range of interests from basic studies to technological applications that include permanent magnets, high density recording and biomedical. One of our major objectives is on nanometer-length-scale and real structure control of new or metastable structures as a means of materials with high magnetization, large magnetocrystalline anisotropy and high ordering temperatures using non-equilibrium fabrication techniques. In the last couple of years our work has been focused on nanoclusters made by the cluster beam deposition (Co<sub>2</sub>Ge, MnSSi<sub>3</sub>, FeSSi<sub>3</sub>, CoSSi<sub>3</sub>) [1], FePt (CoPt) made by chemical synthesis, submicron particles of R<sub>2</sub>Fe<sub>14</sub>B (R=Nd, Pr, Dy) and most recently Fe-O clusters for biomedical applications.

### Prof. G. Hadjipanayis short CV

George Hadjipanayis received the B.Sc. degree in Physics from the University of Athens (1969), and the M.Sc. and Ph.D. degrees in Physics from the University of Manitoba (Canada), in 1974 and 1979, respectively. Prof. Hadjipanayis was an assistant professor (1982-1985) and associate professor (1986-1988) in the Department of Physics at Kansas State University. In 1989 he joined the faculty of the University of Delaware as a full professor. In 1998, Prof. Hadjipanayis was a Humboldt Senior Fellow at the Max Planck Institute (Stuttgart, Germany). In 1999, he assumed the position of Richard B. Murray Distinguished Professor of Physics and Astronomy and since 2003 has been the Chair of the Department of Physics and Astronomy at the University of Delaware. He has been recognized for seminal advances in scholarship with the Francis Alison Award (2005) and by elevation to Fellow of the American Physical Society (2001).

Prof. Hadjipanayis' areas of interest span hard magnetic materials with a focus on high performance permanent magnets and magnetic nanoparticles for storage media and biomedical applications. He has published more than 500 technical articles in peer-reviewed science and engineering journals, including book chapters, review articles, and invited technical feature articles on the topical areas of rare earth magnetism, nanotechnology, and permanent magnet materials, among others.



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