CV

Dr Yanna K. Atanassova-Nikolaidou

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DEGREE TITLES:

Doctor of Philosophy in Physics, PhD 1995
Sofia University, Faculty of Physics, Sofia, Bulgaria

PhD thesis: " The effect of partial and full Cu substitution with Fe on the crystal structure and phonon states of Y-Ba-Cu-O ceramics."

Specialization: Material Science, Superconductivity (HTSC)**,**
Techniques used: Raman and IR Spectroscopy**,** X-ray diffraction, Mossbauer spectroscopy, SQUID and PPMS magnetic characterization.

M.Sc Physics, 1990
Sofia University, Faculty of Physics,
Sofia, Bulgaria

Fields of research:

Material Science, Optical spectroscopy, Crystallography, Technology and Physicochemical properties of materials.
Analytically: Molar and Atomic spectroscopy, micro Raman and IR spectroscopy, Kramers-Krönig Analysis. Phase transitions(structural or magnetic). Synthesis and characterization of HTSC superconductors. Synthesis and characterization of nanocomposite polymer bonded magnetic materials with environmental applications.

Languages:

German (German high scool & Lyceum)**, English ,Bulgarian, Greek**

Professional experience:	Since 1996, I have been teaching the undergraduate courses of : General Physics, Electromagnetism, Solid State Physics, (theory and the related laboratories) and doing research In parallel I was conducting research through my participation in various funded projects.
2018-today	LECTURER: Department of Civil Engineering, University of West Attica, Campus II
2013 – 2018	LECTURER: Department of Civil Engineering, TEI of Piraeus
1996 - 2013	**CONTRACT LECTURER,** Department of Physics Chemistry & Materials technology, TEI of Piraeus
1995 - 1996	**NATO scholarship (PostDoc)** Department of Applied Physics, National Technical University of Athens, Athens
1995	**Visiting Researcher**, Department of Applied Physics, National Technical University of Athens, Athens
1993 - 1994	**Visiting Researcher** Institute of Material Science, National Center for Scientific Research " DEMOKRITOS", Aghia Paraskevi, 15310, Athens

Experience in characterization techniques

Polarized Micro-Raman spectroscopy and FIR Fourier spectroscopy	Data acquisition with and study of polarized spectra of phonons with Laser and triple spectrometer (Microdil 28 and Joben Yvon) and CCD camera. \crystall structures of materials of the type YB(C/Fe)O.
Sample synthesis	Preparation of bulk superconductors $YBa_{2(}Cu_{1-x}Fe_x)_4O_8$ with solid state reaction
X-ray diffraction and Rietveld analysis	Study of polycrystalline materials. Finding crystal structure/lattice parameters.
TGA	Thermogravimetric analysis
PPMS9	Use of the Quntum Design magnetometer PPMS9 for characterization of: Magnetic properties, Electric properties, Hall effect, heat capacities. **Temperature range**: 1.6 – 400 K **Magnetic field**: 0-9 Tesla

Participation in research projects

Participation in the folooowing research projects (national or international)

Title **"properties of nano composite bonded magnets "**
Duration : 24 μήνες (1/5/96-1/5/98)
Funding : **G.S.R.T. (PENED95/1481)**

Title **Hi-Fi speakers of optimized performance based on the use of novel magnets with high energy product.**

Duration : 01-10-1997 / 31-01-1999
Co-funding : **Industrial research project PAVE 96**
ELINA S.A – & G.S.R.T.

Title: **" Pilot tests to certify the cleaning efficiency of the material CLEANMAG "**
Duration : 01-03-1997 / 31-12-1998
Funding : Greek Ministries of Mercantile Marine and of Environment

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Title : **"Demonstration & Large Scale Application of the new Magnetic Method CLEANMAG for the CleanUp of Waterborne Oil Spills"**

Duration : Από 01-10-1999 έως 5-2003
Co-funding : DG XI E.U. (LIFE99 ENV/GR/567), Greek government

Here my contribution was :

1) Writing part of the proposal and of all of the following technical reports
2) Design by using "Finite Element Analysis" of the magnetic drum installed on the cleaning boat conveyor belt (for the magnetic collection of the oil pollution).
3) **Substancial scientific support for the establishment of a "magnetics laboratory" for the magnetic materials development and characterization.**

Title :	**Coast line protection using CLEANMAG technology: Development of prototype vehicle for collection of oil pollution on land.**
Duration :	01-02-2002 / 31-12-2004
Co-funding :	Industrial project PAVET 00BE217-218, RAM EUROPE Ltd- G.S.R.T.

Title: **TOSCA (MED)** : Tracking Oil Spills and Coastal Awareness Network
Duration: 1/6/2010-31/5/2013
Co-funding: project (MED).
Greece (25%) ERDF(75%) (Europeqn Union)

Design and development of oil spill Drifters (tracking in the sea the oil spills, using GPS/GSM and GPS/SAT modems)

AWARDS

In particular the research team of one of the projects in which I participated, with had to do with the development and pilot tests of the magnetic technology for the clean up of waterborne oil spills (CLEANMAG) was many times awarded as follows:

1) Greek Empirikion Foundation 2000
2) OBI (Greek Patent Office) 2002
3) 2° PRIZE, 2005 (Dubai International Maritime Seatrade Awards) from IMO.
4) Award of excellence in academic innovation –Greek Ministry of Education (2013)

Media publications :
As a member of the CLEANMAG team I contributed also in the dissemination of the results in various press conferences (25) and TV projections (Greek ANT TV, ERT, MEGA, BBC World TV, CNN e.t.c.).

Research publications in refereed journals

1. M. N. Iliev, **Y. K. Atanassova**, L. Bozukov, J. Tihov, V. G. Hadjiev, E. Liarokapis, *"Raman and Mossbauer study of the pseudo-orthothombic-to-tetragonal phase transition in* $YBa_2(Cu_{1-x}Fe_x)_3O_{7-\delta}$ *(0.02≤ x≤0.15)"*;
   Physica C, vol. 191, p. 419 (1992**)**. Impact Factor: 1.489, Αναφορές: >14

2. **Y. K. Atanassova**, V. N. Popov, G. G. Bogachev, M. N. Iliev, C. Mitros, V. Psyharis, M. Pissas, *"Raman- and infrared-active phonons in* $YBaCuFeO_5$*: Experiment and lattice dynamics";*
   Phys. Rev. B, vol. 47, p. 15201 (1993). Impact Factor: 3.065, Αναφορές: >14

3. **Y. K. Atanassova**, V. G. Hadjiev, P. Karen, A. Kjekshus, *"Raman scattering from* $YBa_2Fe_3O_{8+\delta}$"*;*
   Phys. Rev. B, vol. 50, p. 586 (1994). Impact Factor: 3.065, Αναφορές:>5

4. **Y. K. Atanassova**, C. Mitros, G. Nicolaides, D. Niarchos and V. G. Hadjiev, *"Raman scattering of Fe doped* $YBa_2Cu_4O_8$"*;*
   Physica C, vol. 235-240, p. 1181 (1994). Impact Factor: 1.489, Αναφορές: >5

5. G.K. Nicolaides, **Y. K. Atanassova**, M.G. Ioannides, D.M. Tsamakis and H. Gamari-Seale, *"Performance of a fractional DC Motor equipped with plastic bonded* $Nd_2Fe_{14}B$ *stator poles";*
   J. Appl. Phys., vol. 81, p. 5100, (1997). Impact Factor: 2.180, Αναφορές: >5

6. I. G. Gorlova, G. Nikolaides, S. G. Zybtsev, D. Yarmis, V. Ya. Pokrovskii, **Y. K. Atanassova**, and S. K. Patapis, "The In-Plane Anisotropy of the Hall Anomaly in BSCCO Whiskers";
   Journal of Temperature Physics, Vol.139, Nos. ½, p.73 (April 2005).

7. A P Sazonov, I O Troyanchuk, H Gamari-Seale,V V Sikolenko, K L Stefanopoulos5, G K Nicolaides and **Y K Atanassova** «Neutron diffraction study and magnetic properties of La1−*x*Ba*x*CoO3 (*x* = 0.2and 0.3)», **J. Phys.: Condens. Matter 21** (2009) 000000 (9pp) (in press).

Publications in refereed conferences

1. M. N. Iliev, **Y. K. Atanassova**, L. Bozukov, J. Tihov, V. G. Hadjiev, E. Liarokapis, Ts. Leventuri: *" Raman, X-rays and Mossbauer study of the pseudo-orthothombic-to-tetragonal phase transition in* $YBa_2(Cu_{1-x}Fe_x)_3O_{7-\delta}$ *(0.02≤x≤0.15)";*

   1st General Conference of the Balkan Physical Union, September 26-28, 1991 Thessaloniki, GR. Proceedings, vol II, p. 817.

2. M. N. Iliev, G. A. Zlateva, **Y. K. Atanassova**: *"A possible effect of charge carriers on the Raman phonon line intensities of cation-substituted 123 compounds: the role of Ba-O planes";*
   XIII International Conference on Raman Spectroscopy-ICORS, 31 Aug.-4 Sept., Würzburg 1992, Proceedings, p. 883.

3. **Y. K. Atanassova**, C. Mitros, G. Nicolaides, D. Niarchos and V. G. Hadjiev: *"Raman scattering of Fe doped* $YBa_2Cu_4O_8$"*;*

   X Pan-Hellenic Conference in Solid State Physics, 18-21 Sept. 1994 Delphi, GR, Proceedings.

4. G.K. Nicolaides, *Y.K. Atanassova*, M.G. Ioannides, D.M. Tsamakis and H. Gamari-Seale; "Performance of a fractional DC electric motor equipped with $Nd_2Fe_{14}B$ plastic bonded stator poles";
Magnetism and Magnetic Materials 1996, Atlanta. USA.

5. G.K. Nicolaides, P. Skountzos, **Y.K.Atanassova** and K. Koutroumbas: "*CLEANMAG: Magnetic technique for Oil spill recovering from the sea and the environment";*
1st "Archipelagos Technologies" Conference, Piraeus, 22-24 October 1997, pp.55-64.

6. G.K. Nicolaides, H. Gamari-Seale and **Y.K.Atanassova**: "*Magnetic properties for $Nd_2Fe_{14}B$ anisotropic plastic permanetnt magnets";*
XIII Pan-Hellenic Solid State Physics Conference, Thessaloniki, GR, September 1997.

7. G.K. Nicolaides, P. Skountzos, **Y. K. Atanassova**, and K. S. Koutroumbas: "*MAGNETIC SORBENTS vs OIL SPILLS: An alternative to today's oil spill clean-up technologies*";
The 43rd Annual Conference on Magnetism & Magnetic Materials, Miami, Florida, November 9-12, 1998.

8. G.K. Nicolaides, P. Skountzos, **Y.K. Atanassova**, K. Koutroumbas : *"Cleanmag: The magnetic clean-up of waterborn oil spills- A new approach in the battle of oil spill cleanups"*;
EUROMAT 98, vol. 1 (709)1998.

9. G.K. Nicolaides, P. Skountzos, **Y.K. Atanassova**: *"CLEANMAG: Magnetism vs. Oil Spills*";
MEDOSC, Istambul, September 1998, Bogazichi University Proceedings, N02

10. G.K. Nicolaides, P. Skountzos, **Y.K. Atanassova**, K.S. Koutroumbas: *"Magnetic Sorbents vs Oil Spills: An alternative to today's oil spill clean up technlogies",* **43rd Intl Conf Magnetism and Magn. Materials, Miami,FL, November 1998; ABSTRACTS.**

11. G.K. Nicolaides, **Y.K. Atanassova** and A. Zisos: *"CLEANMAG®: The Magnetic Oil Sorbents in the Battle of Oil Spill Cleanups";*
FIM99-Frontiers in Magnetism, The Royal Institute of Technology-KTH, Stockholm, Sweden, August 12-15, 1999, ABSTRACTS.

12. G.K. Nicolaides, A. Zisos, P. Skountzos, **Y. K. Atanassova**, D. Salt, M. Willman and M. Clements: "M*edium Scale and in Almost Real Conditions Pilot Application of the New Magnetic Method 'CLEANMAG for oil spills cleanup";*
XII PanHellenic Physics Solid State Conference, 15-18 Nafplion, Greece, September 2000, Proceedings.

13. G.K. Nicolaides, A. Zisos, P. Skountzos, **Y. K. Atanassova**, D. Salt, M. Willman and M. Clements: "M*edium Scale Field Tests of the CLEANMAG ® Magnetic Method for the Waterborne Oil Spill Cleanups";*
2nd International Conference of Oil Spills in the Mediterranean and Black Sea Regions, MEDOSC, Institute of Manchester, UK, Istanbul, Turkey, 31st October – 3rd November 2000, Proceedings.

14. G.K. Nicolaides, **Y. K. Atanassova**, P. Skountzos, A. Papakitsos: "*CLEANMAG□: MAGNETIC SKIMMERS vs. OIL SPILLS ";* **2nd "Archipelagos Technologies" Conference, TEI OF PIRAEUS,/MINISTY OF MARINE MERCHANT, Piraeus, Greece, 25-26 April 2002.**

15. G.K. Nicolaides, P.Skountzos, Y.K. Atanasova and G. Hadjikonstantis : "Magnetic method for oil spill cleanup"*;* 4th International Conference for the Environmental Technologies, **"HELECO**

2003", Technical Chamber of Greece, 30 January-2 February 2003/ Athens/ Proceedings/Vol.A/496-503

16. I.G. Gorlova; S.G.Zybtsev; V.Ya. Pokrovskii ; D.Yarmis; G.Nicolaides; **Y.K.Atanassova**; and S.K.Patapis. "The anisotropy of the Hall effect in BSCCO whiskers", International Conference on Superconductivity, RIO DE JANEIRO, 2003

17. I.G. Gorlova, G. Nicolaides, S.G. Zybtsev, D. Yarmis, V. Ya Prokovskii, **Y.K. Atanassova** and S.K. Patapis " The in plane anisotropy of the Hall anomaly in BSCCO whiskers", NATO Workshop on Superconductivity, Yalta 2004

Publications in the Research Journal of TEI of Piraeus

1. **Y.K. Atanasova,** S. Kalogeropoulou, E. Fountoukidis, G. Nikolaidis, A. Fotopoulos, N. Theofilou, S. Tsitomeneas, P.Pissis, M.Kontou-Drougka: « Dielectric constant & ac conductivity of polymers with isotropic magnetic nano-inclusions»
   Research Journal of TEI of Piraeus, Vol XIII (1) (2008) (41) (ISSN 1106-4110)

2. G. Nikolaidis, E. Fountoukidis **Y.K. Atanasova,** S. Kalogeropoulou, A. Fotopoulos, N. Theofilou, S. Tsitomeneas, P.Pissis, M.Kontou-Drougka: « Magnetic properties of polymers with magnetic nano-inclusions (in isotropic and anisotropic forms)»
   Research Journal of TEI of Piraeus, Vol XIII (1) (2008) (131) (ISSN 1106-4110)

CITATIONS: > 200