29 May 2018



Chemical Engineering Department

University of Patras

Patra, Greece

Email: kouzoudi@upatras.gr

Personal Status: Born in 1968. Married, one daughter.

# **Employment:**

#### **University of Patras**

Department of Chemical Engineering School of Engineering Rio, 26504 Patra, Greece

Associate Professor

September 2014 – Today

Conducted research on the microfabrication of zeolite films on magnetoelastic sensors by electron-beam lithography. Studied the effects of the gas adsorption on the internal stress of zeolite membranes. Developed a new model for the calculation of the impedance of magnetoelastic thin films under resonance conditions. Designed a high frequency magnetic field for the study of the effects of hyperthermia on cancer cells. Taught Physics Lab and Physics I (Mechanics & Waves) and Physics II (Electromagnetism & Optics) to Chemical Engineering students and Physics (Thermodynamics, Electromagnetism & Optics) to Civil Engineering students. Authored two academic books entitled "Physics I" and "Physics II"

# **Higher Colleges of Technology (sabbatical)**

**Engineering Technology Department** 

Al Ain Colleges 17258, Al Ain, United Arab Emirates

Assistant Professor

August 2012 – July 2014

Taught Math III for Engineers and Physics I and II courses (listed as EGEN N301 and Physics 1103 and 1203 correspondingly to the program of study). Developed and utilized various educational technology resources to ensure that effective and innovative instruction methodologies are employed. Applied strategies to ensure effective student learning is achieved within a second language environment, providing continuous feedback on student progress through a variety of assessment tools, including tests, projects, assignments and other evaluation instruments. Supported and mentored students during internships and work placements. Maintained regular office hours in order to advise and assist students. Provided input to program and course reviews and made recommendations based on consultations with colleagues and external agencies such as business, industry and schools.

## **University of Patras**

Department of Engineering Sciences School of Engineering Rio, 26504 Patra, Greece

Assistant Professor

September 2005 – August 2012

Conducted research on the design and the development of remote-query magnetoelastic sensors for monitoring of environmental / chem / bio parameters, such as gas concentration, small mass loads, pressure, flow velocity, humidity, and precipitation of biological salts in aqueous solutions, blood coagulation time, and glucose concentration. Worked on photolysis of water with titanium-oxide nanotubes. Taught Physics courses and laboratories to Engineering students.

Overall teacher evaluation rating  $\approx 3.8/4.0$ .

#### **University of Patras**

Department of Materials Science, Patra, Greece

Adjunct Professor

September 2003 – August 2004

Taught courses on Electronics and Semiconductor Materials to freshman and sophomore students of Dept. of Materials Science. Conducted research on properties of magneto-elastic sensors.

## **American College ACT**

School of Business, Thessaloniki, Greece

Adjunct Professor

September 2002 – August 2003

Taught computer courses to freshman students of Dept. of Economics. Supervised examinations, followed-up student projects, used electronic means and software such as MathCad and Mathematica for better comprehension of lectures from the students.

# Institute of Professional Training "Pythagoras"

Thessaloniki, Greece

Computer Trainer & System Administrator

September 2002 – August 2003

Taught courses on C/C++, Visual Basic 6.0, VBScript, and Web Development. Administered the Institute's TCP/IP Intranet consisted of approximately a hundred Windows 2000 nodes at the student labs. Set up an e-commerce ASP application on a educational IIS server.

## **Greek Military**

Greece

Mandatory Military Service

May 2001 – September 2002

#### **New Age Technologies**

Louisville, Kentucky, U.S.A.

Consultant

May 2000 – May 2001

Offered consulting services to Kindred HealthCare and Sprint Telecommunications for the maintenance and operation of a large data acquisition software for healthcare diagnostics.

# University of Kentucky, Electrical Engr. Dept

Lexington, Kentucky, U.S.A.

Research Scientist

January 1999 – May 2000

Conducted research on magneto-elastic sensor materials for monitoring different environmental conditions such as pressure, humidity, fluid-flow velocity, glucose concentration and phase transitions. Developed micro-scale patterns on sensors using microfabrication and clean room techniques. Measured the dielectric properties of carbon nanotube materials in the 0.5-5.5 GHz range. Developed programming codes for data modeling. Supervised a team of post-doctoral and graduate students. Operated, built and maintained laboratory equipment. Responsible for inventory management. Evaluated literature to gain insight on current methods as well as adapting these procedures to ongoing work. Wrote manuscripts for publication in peer reviewed journals.

## Ames Laboratory, US Department of Energy

Ames, Iowa, U.S.A.

Research Assistant - Employee

August 1994 – December 1998

Fabricated and processed new materials in thin films by DC/RF magnetron sputtering, thermal evaporation, and glow discharge oxidation. Operated Scanning Electron Microscope to study interfaces in superconducting materials. Performed electromagnetic and thermodynamic measurements on various physical systems. Designed a low temperature He cryostat. Troubleshot and repaired various experimental instruments and electronic devices. Programmed GPIB interfaces for remote data-acquisition Characterized materials using x-rays, JCPDF database, Electron Dispersive Spectroscopy, profilometry, electrical resistivity, and optical microscopy. Performed data fit on theoretical models.

#### **Physics Department**

Iowa State University, Ames, Iowa, U.S.A.

**Teaching Assistant** 

August 1992 – July 1994

Taught introductory physics courses. Graded homework, quizzes, and exams. Tutored students in help rooms.

#### National Research Institute "Democretos"

Athens, Greece

Graduate Student

May 1991 – July 1992

Attended graduate courses and worked as a lab assistant at the "Lab of Superconductivity and Magnetic Materials" of Professor D. Niarchos.

#### **Education:**

Iowa State University, USA

1998

Ph.D. on Physics

Title: "Influence of a perpendicular magnetic field on the thermal depinning of an Abrikosov vortex in a superconducting Josephson junction".

Iowa State University, USA

1994

M.S. on Physics/Materials Science

Title: "Recrystalization of high temperature superconducators".

University of Ioannina, Greece

1990

**B.S.** on Physics

## **Editing:**

Editor-in-chief, "Sensor Letters"

2008-2013 "Sensor Letters", a peer-review scientific journal, with impact factor 1.6 (2007 rating), which publishes state of the art research on the interdisciplinary field of sensors and sensor technology.

# **Diploma Thesis Supervision:**

2016-	Co-supervision of international Ph.D. thesis of Ariane Sagasti - University of the
today	Basque Country, Erasmus + visitor

2012- Ph.D. supervision of Vasiliki Tsoukala, Chem. Engineering Department

#### today

- 2015-17 <u>M.S.</u> (completed), Giorgos Samourganides, "Study of structural deformations on stationary and rotatin aluminum blades by the use of magnetoelastic sesnors" Chem. Engineering Department
- 2007-11 <u>Ph.D.</u> (completed), Thodoris Baibos, "Synthesis of zeolitic films on magnetoelastic ribbons, for the detection of volatile organic compounds (VOC's) and the determination of sorption-induced mechanical properties of the film", Chem. Engineering Department
- 2007-8 <u>Undergraduate thesis</u> (completed), Kapsalis Ioannins, "Study of Mechanical Properties of Aluminum Bars with the Help of magnetoelastic sesnors", Material Sciences Dept., University of Patras, Greece, parts 1 and 2.
- 2010-11 <u>Undergraduate thesis</u> (completed), Thanos Karavoulias, "Influence of high frequency magnetic fields on hypethermia of magnetic fluids with iron oxide nanoparticles", Physics Dept., University of Patras, Greece, parts 1 and 2.
- 2010-11 <u>Undergraduate thesis</u> (completed), Dimitris Zografos, "Sending commands and receiving data over a wired communication between an electromagnetic resonance experiment and a PC running Windows via programming language C", Dept. of Computer Engineering & Informatics, University of Patras, Greece.

# **Teaching Graduate Courses:**

- 2008 "Special topics on Applied Physics: Theory of Superconductivity", Spring semester, University of Patras, Dept. of Engineering Sciences.
- 2017 "SEM microscopy principles", Fall Semester via Erasmus+ Staff Mobility for Teaching, University of the Basque Country UPV/EHU Department of Electricity & Electronics (weekly graduate course)

# **Lab Design and Built**

At University of Patras, I was part of a three-member team responsible for for the design, implementation, and oversight of the Electron Beam Nano-Lithography Lab in University of Patras. The team was consisting by D. Kouzoudis, P. Kounavis and C. Christides, all faculty of the Engineering Sciences Dept. The Laboratory Specifications are as follows:

- Scanning Electron Microscope (SEM) with source LaB<sub>6</sub>, complete with an electron beam lithography (EBL)
- SEM: accelerating voltage 30 kV, resolution 3 nm, magnification x 300.000, a beam current of 1 pA 1  $\mu$ A, with a 5-axis XYZRT base, with optional low vacuum observation of non-conductive samples.
- EBL: Generator nanostructures from PC with basic shapes, resolution 20 nm, recording speed 10 MHz, based laser 2 axles, cutoff time 25 nsec, maximum coverage of 100 x 100 mm, stitching error 10nm.
- Photoresist Spin Coater
- Gold sputtering

(please also check <a href="http://www.des.upatras.gr/Nanolab/welcome.html">http://www.des.upatras.gr/Nanolab/welcome.html</a>):

#### **Patents:**

- 2002 L. Bachas, G. Barrett, C. A. Grimes, **D. Kouzoudis**, S. Schmidt, "Magnetoelastic Sensor for Characterizing Properties of Thin-Film/Coatings." U.S. Patent No. 6688162, issued Feb. 10, 2004.
- 2004 C.A. Grimes, P.G. Stoyanov, **D. Kouzoudis**, U.S. Patent 6393921. "Magnetoelastic Sensing Apparatus and Method for Remote Pressure Query of an Environment".

# **Books:**

201	Authored academic book entitled "Physics I", publisher "Symmetria", Eudoxus code 50659840
201	Authored academic book entitled "Physics II", publisher "Symmetria", Eudoxus code 50659843
201	Authored academic notes entitled "Thermodynamics for Engineers", no publisher, Eudoxus code 13003965
201	Authored academic notes entitled "Physics Lab I", no publisher, Eudoxus code 12867810
201	Authored academic notes entitled "Physics Lab II", no publisher, Eudoxus code 12951260
200	Translation from US English to Greek: "Principles and Applications of Electrical Engineering", Rizzoni. 3rd edition

http://www.mhhe.com/engcs/electrical/rizzoni/

# **Invited Departmental Seminars:**

2015 University of the Basque Country, - Basque Center of Materials,

http://www.bcmaterials.net/prof-dimitris-kouzoudis-visited-bcmaterials

2006 University of Patras, Department of Materials Science

Title: "Magnetoelastic Sensors – technology and Applications"

Invited by: Professor D. Photinos

# **Funded Proposals:**

Joint Research and Technology Programs (Greece – Non-European countries), "Fabrication, characterization and testing of a nanostructured composite zeolite-metglas VOC/ odor sensor"

Duration: 2006-2008, Contribution: 60 k€

Partners: University of Minnesota, Department of Chemical Engineering & Materials Science

Role: Principal Investigator

FP6, Priority; CEU funded Specific Targeted Research Programme, "Design and Fabrication of

Room Temperature, Remote Query, Carbon Dioxide Sensors",

Duration: 2005-2008, Contribution: 100 k€

**Role: Participating Scientist** 

Greek Ministry of Education, Karatheodoris Program, "Study of the influence of gas

adsorption on the elastic properties of thin zeolite layers",

Duration: 2010-2012, Contribution: 33 k€

Role: Principal Investigator

Greek Ministry of Development, Competitiveness and Entrepreneurship Program, National Strategic Reference Framework, "Development of Innovative Nanocarrier ixabebiloni and study of its applicability in the Treatment of Breast Cancer",

Duration: 2011-2013, Contribution: 100 k€

**Role: Participating Scientist** 

# **Conference Co-Organizer:**

Eurosensors XXV, 4-7 September, 2011, Athens, Greece.

**5th International Zeolite Membrane Meeting** (IZMM 2010), May 23rd and 26th 2010, Loutraki-Greece

# Miscellaneous:

2017	"Thank you note" from "Sensors" journal for reviewer services, please see Sensors 2017, 17(1), 128; doi:10.3390/s17010128
2008	"Thank you note" from the "Journal of Physical Chemistry" for reviewer services.
2007	Best talk award in "1st Combined Hellenic – Austrian Congress in Foot and Ankle Disorders", Myconian Royal Hotel, Mykonos, Greece.
2002	Microsoft Certified Systems Engineer (MCSE).
2002	Cisco Certified Network Associate (CCNA).

# **Continuing Education On-Line Certificates:**

2013	University of Pittsburgh course: "A look at Nuclear Science and Technology".
2013	University of Michigan course: "Introduction to Thermodynamics".
2014	MIT course 16.101x: "Introduction to Aerodynamics".

# Referee to Scientific Journals (review date, journal, editor):

Feb 2017, Analytical Chemistry, Dr. Frances Ligler July 2016, Beilstein Journal of Nanotechnology, Thomas Schimmel

Jun 2016, Sensors, Caitlin Sheng

Nov 2015, Materials and Design, Arthur Geoffrey Gibson

Jul 2015, eXPRESS Polymer Letters, J. Karger-Kocsis

Jul 2015, Transactions on Magnetics – Conferences, Barbara Kaeswurm

Jan 2015, Sensors, Yanxin Zhang

Mar 2012, Radiation Measurements, Adrie J.J. Bos

Dec 2011, Int. Journal of Environmental Analytical Chemistry, Prof. Albaiges

Oct 2011, Int. Journal of Environmental Analytical Chemistry, Prof. Albaiges

Oct 2011, Energy & Fuels, Bob Weber

Sept 2011 - Oct 2011, Biosensors, Grace Lu

Jan 2011, Sensors (special issue: 10 Years Sensors), Ellen Lu,

Nov 2010, Sensors & Actuators: A. Physical, P.J. French

Aug 2010 Journal of Nanostructured Polymers and Nanocomposites, Prof. Galiotis

May 2010, Sensors & Actuators: B. Chemical, Ramaier Narayanaswamy

May 2010, Sensors & Actuators: A. Physical, P.J. French

Jan 2010, Biomaterials, Peggy O'Donnell

Jul 2009, Langmuir, Tejal A. Desai

Feb 2009, Electrochemistry Communications, Tomasz Gromelski

Feb 2009, ACS Applied Materials & Interfaces, Kirk S. Schanze

Jan 2009, Crystal Growth & Design, Allan S. Myerson

Dec 2008, Sensors, Kathy Lai

Nov 2008, Electrochemistry Communications, R. Compton

Oct 2008, Sensors & Actuators: B. Chemical, Ramaier Narayanaswamy

Nov 2008, Sensors & Actuators: B. Chemical, Zbigniew Brzozka

Sept. 2008, Journal of Materials Science, Amiee A. DeSouza

Jun 2008, Inorganic Chemistry, Kenneth R. Poeppelmeier

Jun 2008, Solar Energy Materials & Solar Cells, Greg P. Smestad

Mar 2008, Bioelectrochemistry, Rolando Guidelli

Mar 2008, The Journal of Physical Chemistry, Prashant Kamat

Jan 2008, Sensors & Actuators: B. Chemical, Ramaier Narayanaswamy

Oct 2006, Thin Solid Films, Brigitte Hayeur / Manon Fournier

Jul 2007, Journal of Physical Chemistry, Harriet Bradham

Apr 2007, Sensors & Actuators: B. Chemical, Ramaier Narayanaswamy

Mar 2007, Thin Solid Films, Brigitte Hayeur / Manon Fournier

Oct 2006, The Journal of Physical Chemistry, Svetla Tzvetkova

Sep 2006, Analytical Chemistry, Reinhard Niessner

Oct 2006, Sensors & Actuators: B. Chemical, J. Banjac

Aug 2006, Sensors & Actuators: A. Physical, L. Lin

Jul 2006, Journal of Physical Chemistry, Christa Trok

Jun 2006, Biosensors & Bioelectronics, Anthony P.F. Turner

Apr 2006, Journal of Materials Science, K. Chattopadhyay

Mar 2006, Biosensors & Bioelectronics, Anthony P F Turner / Alice X J Tang

Oct 2005, Thin Solid Films, Brigitte Hayeur, Manon Fournier

Nov 2005, Biosensors & Bioelectronics, Alice Tang Dec 2005, The Journal of Physical Chemistry, Arthur J. Nozik May 2005, Journal of Photochemistry and Photobiology A, Russ Schmehl Feb 2005, Biosensors & Bioelectronics, Alice Tang

# **International Conference Presentations**

1.	V. Tsukala, <b>D.Kouzoudis</b> , "Development of micro zeolite LTA sensors of LTA zeolite micro-membranes on a magnetoelastic substrate via Electron Beam Lithography", 10 <sup>th</sup> Panhellenic Conference of Chemical Engineering, Patra, Greece, June 4-6
2.	<b>D.Kouzoudis</b> , T.Baimpos, V.Nikolakis, <u>INVITED TALK</u> , "Zeolite Thin Films as Chemically Active Layers for Sensing Applications", International Conference on Management, Manufacturing and Materials Engineering (ICMMMMm 2011), Zhengzhou, China, December 9-11, 2011
3.	<b>D.Kouzoudis</b> , T.Baimpos, V.Nikolakis, "The selective detection of dangerous VOC's using zeolite/Metglas magnetoelastic sensors", Eurosensors XXV, Athens, Greece, 4-7 September, 2011.
4.	V.Nikolakis, <b>D.Kouzoudis</b> , T.Baimpos, <u>INVITED TALK</u> , "The use of zeolite/magneto-elastic sensors to detect Volatile Organic Compounds", International Conference for Material Application for Sensors and Transducers, IC-MAST 2011, Kos, Greece, 13-17 May 2011.
5.	V.Nikolakis, T.Baimpos, <b>D.Kouzoudis</b> , "Measuring the Adsorption Induced Strain of Zeolite Membranes Using Magnetoelastic Sensor", AlChe Annual Meeting Salt Palace Convention Center Salt Lake City, UT, 7-12 November, 2010.
6.	<b>D.Kouzoudis</b> , V.Nikolakis, T.Baimpos, "The use of magneto-elastic sensors to study the elastic properties of thin zeolite films", 8 <sup>th</sup> European Conference on Magnetic Sensors and Actuators, (EMSA), Bodrum, Turkey, 4-7 July, 2010.

7.	T.Baimpos, <b>D.Kouzoudis</b> , L.Gora, V.Nikolakis, "Measuring the effect of adsorption on zeolite film mechanical properties using magnetoelastic sensors", 5th International Zeolite Membrane Meeting, Loutraki, Greece, 23-26 May, 2010.
8.	V.Nikolakis, T.Baimpos, <b>D.Kouzoudis</b> , "Detection of Volatile Organic Compounds (VOC's) using zeolite –Metglas composite sensors", 3rd International Symposium Advanced Micro and Mesoporous Materials, Albena resort, Bulgaria, 6-9 September, 2009.
9.	T.Baimpos, V.Nikolakis, <b>D.Kouzoudis</b> , "Measurement of the elastic properties of zeolite films using Metglas-zeolite composite sensors", Zeolites and Related Materials: Trends, Targets and Challenges Proceedings of 4th International FEZA Conference, Paris, France, 2-6 September, 2008.
10.	L.Góra, J.Kuhn, T.Baimpos, <b>D.Kouzoudis</b> , V.Nikolakis, F.Kapteijn, "Monocrystal-thin boriented silicalite-1 layer-Metglas assembly for selective sensor application", 10 <sup>th</sup> International Conference on Inorganic Membranes (ICIM10) Tokyo, Japan, 18-22 August, 2008.
11.	I.G.Giannakopoulos, T.Baimpos, <b>D.Kouzoudis</b> , V.Nikolakis, "Sensing of hydrocarbons and VOC's using zeolite –Metglas composite sensors", 4 <sup>th</sup> International Zeolite Membrane Meeting, Zaragoza, Spain, 23-27 July, 2007.
12.	<b>D. Kouzoudis</b> , E. Panagiotopoulos E., S. Marangos, C. Matzaroglou, "1st Combined Hellenic – Austrian Congress in Foot and Ankle Disorders", 21-23 Sept. 2007, Mykonos, Greece.
13.	I.G.Giannakopoulos, T.Baimpos, <b>D.Kouzoudis</b> , V.Nikolakis, "Synthesis of faujasite- Metglas composite films for gas sensing application", 9 <sup>th</sup> Int. Conf. On Inorganic Membranes, Lillehammer, Norway, 25-29 June, 2006.

# **Publication List:**

Publications: 38, Citations: 1093, h-index: 16 (Scopus)

1.	G. Samourgkanidis, <b>D. Kouzoudis</b> , "Experimental detection by magnetoelastic sensors and computationalanalysis with finite elements, of the bending modes of a cantilever beam with minor damage", (2018) Sensors and Actuators A: Physical, 276 (2018) 155–164
2.	A., Sagasti, N., Bouropoulos, <b>D.</b> , <b>Kouzoudis</b> , A., Panagiotopoulos, E., Topoglidis and J., Gutiérrez, "Nanostructured ZnO in a Metglas/ZnO/Hemoglobin Modified Electrode to Detect the Oxidation of the Hemoglobin Simultaneously by Cyclic Voltammetry and Magnetoelastic Resonance", Materials, Volume 10, Issue 8, July 2017, Page 849.
3.	<b>Kouzoudis, D</b> ., Nikolakis, V., "The use of a non-linear model for a more realistic calculation of the "ΔE effect" in magnetoelastic ribbons", Journal of Magnetism and Magnetic Materials, Volume 395, 24 July 2015, Pages 59-66
4.	Zoppellaro, G., Kolokithas-Ntoukas, A., Polakova, K., Tucek, J., Zboril, R., Loudos, G., Fragogeorgi, E., Diwoky, C, Tomankova, K, Avgoustakis, K, <b>Kouzoudis, D</b> , Bakandritsos, A., "Theranostics of epitaxially condensed colloidal nanocrystal clusters, through a soft biomineralization route", Chemistry of Materials, Volume 26, Issue 6, 25 March 2014, Pages 2062-2074
5.	Tsukala, V., <b>Kouzoudis, D.</b> , "Zeolite micromembrane fabrication on magnetoelastic material using electron beam lithography", Microporous and Mesoporous Materials, Volume 197, October 2014, Pages 213-220
6.	T. Baimpos, L. Gora, V. Nikolakis, and <b>D. Kouzoudis</b> , "Selective detection of hazardous VOCs using zeolite/Metglas composite sensors", Sensors and Actuators, A: Physical, Volume 186, October 2012, Pages 21-31.
7.	T. Baimpos, V. Tsukala, V. Nikolakis, and <b>D. Kouzoudis</b> , "A Modified Method for the Calculation of the Humidity Adsorption Stresses Inside Zeolite Films Using Magnetoelastic Sensors", Sensor Lett. 10, 878-884 (2012)
8.	T. Baimpos, V. Nikolakis, and <b>D. Kouzoudis</b> , "A new method for measuring the adsorption induced stresses of zeolite films using magnetoelastic sensors", Journal of Membrane Science, Volume 390-391, Pages 130-140 (2012)
9.	D. G. Dimogianopoulos, D. E. Mouzakis, <b>D. Kouzoudis</b> , "Statistical damage diagnosis in smart systems via contact-free MetGlas sensors and stochastic non-linear modelling of system output data", Int. J. Materials and Product Technology 41 (2011) 39-60

10.	Bakandritsos A, Mattheolabakis G, Chatzikyriakos G, Szabo T, Tzitzios V, Kouzoudis <b>D</b> , Couris S, Avgoustakis K., "Doxorubicin Nanocarriers Based on Magnetic Colloids with a Biopolyelectrolyte Corona and High Non-linear Optical Response: Synthesis, Characterization, and Properties", Advanced Functional Materials 21 (2011: 1465-1475)
11.	T. Baimpos, <b>D. Kouzoudis</b> , V. Nikolakis, L. Gora, "Are Zeolite Films Flexible?", Chem. Mater., 2011, 23 (6), pp 1347–1349
12.	T. Baimpos, <b>D. Kouzoudis</b> , V. Nikolakis, "Use of a Zeolite LTA Film for the Selective Detection of Light Hydrocarbons", Sci. Adv. Mater. 2 (2010) 215-218
13.	T. Baimpos, P. Boutikos, V. Nikolakis, <b>D. Kouzoudis</b> , "A polymer-Metglas sensor used to detect volatile organic compounds", Sensors and Actuators A-Physical 158 (2010) 249-253
14.	<b>D. Kouzoudis</b> , "Proof of the phase coherence in the Bardeen–Cooper–Schrieffer theory of superconductivity from first principles", European Journal of Physics 31 (2010) 239–248
15.	C. Matzaroglou, P. Bougas, E. Panagiotopoulos, A. Saridis, M. Karanikolas, <b>D. Kouzoudis</b> , "Ninety-degree chevron osteotomy for correction of hallux valgus deformity: clinical data and finite element analysis". The Open Orthopaedics Journal 01 (2010) 4:152-6.
16.	T. Baimpos, V. Nikolakis, and <b>D. Kouzoudis</b> , "Measurement of the elastic properties of zeolite films using Metglas-zeolite composite sensors", Studies in Surface Science and Catalysis 174 (suppl. part A, 4th International FEZA Conference, 2-6 September 2008, Paris), pp. 665-668 (2008).
17.	S. C. Roy, J. R. Werner, <b>D. Kouzoudis</b> , and C. A. Grimes, "Use of Magnetoelastic Sensors for Quantifying Platelet Aggregation I: Whole Blood and Platelet Rich Plasma", Sensor Letters 6 (2008), 280–284
18.	V. Nikolakis, <b>D. Kouzoudis</b> , I. G. Giannakopoulos, and T. Baimpos, "The effect of gas adsorption on the elastic properties of faujasite films measured using magnetoelastic sensors", Chem. Mater., 20 (4), 1470–1475, (2008)
19.	S. Chen, M. Paulose, C. Ruan, G. K. Mor, O. K. Varghese, <b>D. Kouzoudis</b> , C. A. Grimes, "Electrochemically synthesized CdS nanoparticle-modified TiO2 nanotube-array photoelectrodes: Preparation, characterization, and application to photoelectrochemical cells", J. Photochem. Photobiol. B: Chem 177 (2006) 177–184
20.	<b>D. Kouzoudis</b> and D. E. Mouzakis, "A 2826 MB Metglas ribbon as a strain sensor for remote and dynamic mechanical measurements", Sensors and Actuators A: Physical

	Volume 127, Issue 2, 13 March 2006, Pages 355-359
21.	I. G. Giannakopoulos, <b>D. Kouzoudis</b> , C. A. Grimes, and V. Nikolakis, "Synthesis and characterization of a composite zeolite-Metglas carbon dioxide sensor," Adv. Func. Mater. 15 (2005) 1165-1170
22.	N. Bouropoulos, <b>D. Kouzoudis</b> , and C. A. Grimes, "The real-time, in situ monitoring of calcium oxalate and brushite precipitation using magnetoelastic sensors," Sensors and Actuators B 109 (2005) 227-232
23.	L. G. Puckett, G. Barrett, <b>D. Kouzoudis</b> , C. A. Grimes, L. G. Bachas, "Monitoring blood coagulation with magnetoelastic sensors," Biosensors and Bioelectronics 18 (2003) 675-681
24.	<b>D. Kouzoudis</b> and C. A. Grimes, Invited Paper, "Remote query fluid-flow measurement using magnetoelastic thick-film sensors," J. Appl. Phys 87 (2000)
25.	<b>D. Kouzoudis</b> and C. A. Grimes, "The frequency response of magnetoelastic sensors to stress and atmospheric pressure," Smart Mater. Struct. 9 (2000) 1 – 5.
26.	<b>D. Kouzoudis</b> , "Exact analytical partition function and spin gap for a 2x3 quantum spin ladder," J. Magn. Magn. Mater. 214, 112-118 (2000).
27.	C. A. Grimes and <b>D. Kouzoudis</b> , "Remote query measurement of pressure, fluid-flow velocity, and humidity using magnetoelastic thick-film sensors," Sensors and Actuators 84 (2000) 205 - 212.
28.	C. A. Grimes, <b>D. Kouzoudis</b> , C. Mungle, "Simultaneous measurement of liquid density and viscosity using remote query magnetoelastic sensors", Rev. Sci. Instr. 71, 3822 (2000).
29.	C. A. Grimes and <b>D. Kouzoudis</b> , "Magnetoelastic sensors in combination with nanometer-scale honeycombed thin film ceramic TiO2 for remote query measurement of humidity," J. Appl. Phys 87 (2000).
30.	C. A. Grimes, P. G. Stoyanov, <b>D. Kouzoudis</b> , and K. G. Ong, "Remote query pressure measurement using magnetoelastic sensors," Rev. Sci. Instr. 70, 4711 (1999).
31.	C.A. Grimes, C. Mungle, <b>D. Kouzoudis</b> , S. Fang, P.C. Eklund, "The 500 MHz to 5.50 GHz Complex Permittivity Spectra of Single-Wall Carbon Nanotube-Loaded Polymer Composites", Chemical Physics Letters, vol. 319, Issue 5-6, pp. 460-464 (2000).

32.	C. A. Grimes, K. G. Ong, K. Loiselle, P. G. Stoyanov, <b>D. Kouzoudis</b> , Y. Liu, C. Tong, and F. Tefiku, "Magnetoelastic sensors for remote query environmental monitoring," J. Smart Mater. Struct. 8, 639 (1999).
33.	C. A. Grimes, <b>D. Kouzoudis</b> , K. G. Ong, and R. Crump, "Thin-film magnetoelastic microsensors for remote query biomedical monitoring", Biomedical Microdevices 2:1, 51-60 (1999).
34.	<b>D. Kouzoudis</b> , M. J. Breitwisch, and D. K. Finnemore, "Edge barrier pinning for a single superconducting vortex," Phys. Rev. B 60, 10508 (1999).
35.	<b>D. Kouzoudis</b> , "Exact analytical partition function and energy levels for a Heisenberg ring of N=6 spin 1/2 sites,"J. Magn. Magn. Mater. 189, 366-376 (1998).
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