

# CURRICULUM VITEA

## Mostafa Ragheb, Ph.D.



### Personal and contact information

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E-mail: [mostafa.ragheb@hotmail.fr](mailto:mostafa.ragheb@hotmail.fr) , [mostafa.ragheb@hotmail.com](mailto:mostafa.ragheb@hotmail.com)

Tel: (961).70.22.34.76

### Education and degrees

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2013-2014: **Post Doc position** at the institute of electronics and telecommunications Rennes.

**Thesis:** « *Modeling the properties of ferroelectric materials* »

2009-2013: **PhD in materials sciences** at the University of Nantes (FRANCE).

**Thesis:** « *Modeling properties of single-crystalline displacive ferroelectric materials* »

2008-2009: **MSc in physics** at the University of West Brittany - Brest (FRANCE).

**Report:** « *Physics of Sensors and Instrumentation co-accredited with Second-year Master's of Laser Optics and Physics of materials and complex media* ».

2007-2008: **MSc in science and technology** at the University of Blaise Pascal- Clermont ferrand (FRANCE).

**Report:** « *Electromagnetic compatibility (ECM)* ».

2002-2007: **BSc** in physics at the Faculty of Science, Tripoli (LEBANON).

### Professional experience

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2009-2011: - **Teaching from October 2009 to September 2011**

**in Electrical engineering** (2nd and 3rd year BSc. physics students)  
at the University of Nantes, FRANCE.

2008–2009: - **Four months training (MS. level)** at the Institute Néel, Grenoble FRANCE.

**Subject:** « *Contribution of soft X-ray magnetic resonant reflectivity to the study of Rh/Fe (FeCo)/Rh (001) complex magnetic configuration* » .

-**Two months training (MS. level)** at the Institute Néel ,Grenoble FRANCE.

**Subject:** « *Measurement of multilayered FeCo/Rh (001) magnetic reflectivity for the study of anisotropic exchange coupling between magnetic layers* » .

2007 – 2008: - **Four months training (MS. level)** at the laboratory of ISEN Brest, FRANCE.

**Subject:** « *Encrypting with light polarization, Modeling with Matlab* » .

- **Two months training (MS level)** at laboratory LASMEA Clermont-ferrand, FRANCE.

**Subject:** « *Signal processing and noise treatment with mathematical functions* »

*pertaining to power electronics (Fourier transforms, Wavelets...) »*

2006– 2007: **Two months training (BS. Level)** in a Lebanese university laboratory, Tripoli (LEBANON).

2002 – 2006: **Private teacher of maths and physics** (secondary class level).

## Computer science skills

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- **Programming languages:** C/C++, Matlab
- **Operating systems:** Dos, Windows.
- **Scientific Software:** Origin, Matlab, Labview, Reftool , PSPICE, SRIM, FitzPeaks, ISICS.
- **Ms- office and word processing:** Word, Power Point, Excel, Access and Latex.

## Languages and hobbies

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- **Languages:** Arabic, French and English
- **Hobbies:** swimming and cycling

## Publications

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- [JP1] J.-M. Tonnerre, M. Przybylski, **M. Ragheb**, F. Yildiz , H. C. N. Tolentino, L. Ortega, J. Kirschner « Probing complex magnetic configurations in perpendicular anisotropy interlayer exchange systems by soft x-ray resonant magnetic reflectivity ». Phys. Rev. B 84, 100407(R) (2011).
- [JP2] C. Borderon, R. Renoud, **M. Ragheb**, and H. W. Gundel « Description of the low field nonlinear dielectric properties of ferroelectric and multiferroic materials » Appl. Phys. Lett. 98, 112903 (2011).
- [JP3] C. Borderon, R. Renoud, **M. Ragheb**, and H. W. Gundel « Dielectric long time relaxation of domains walls in PbZrTiO<sub>3</sub> thin films » Appl. Phys. Lett. 104, 072902 (2014).
- [JP4] **M. Ragheb**, R. Renoud, C. Borderon, and H. W. Gundel « A modified of landau potential of BaTiO<sub>3</sub> single crystal » In progress
- [JP5] **M. Ragheb**, R. Renoud, C. Borderon, and H. W. Gundel « A correction function in the switching region for the ferroelectric materials » In progress
- [JP6] R. Renoud, **M. Ragheb**, C. Borderon, and H. W. Gundel « Relation between the domain wall density and the butterfly loop » In progress

## International conferences

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- [CP1] **M. Ragheb**, R. Renoud, C. Borderon, H.W. Gundel « Modeling of the properties of a ferroic single crystal based on the motion of domain walls » IEEE Conf. ISAF-ECAPD-PFM 2012 Aveiro Portugal, 9-13 july.

- [CP2] R. Renoud, C. Borderon, **M. Ragheb**, H.W. Gundel « Hyperbolic law of a ferroic single crystal at low applied constraint amplitudes » IEEE Conf. ISAF-ECAPD-PFM 2012 Aveiro Portugal, 9-13 july.
- [CP3] **M. Ragheb**, R. Renoud, C. Borderon, H.W. Gundel « Modeling of the relaxation time of a ferroic single crystal » IEEE Conf. ISAF-ECAPD-PFM 2012 Aveiro Portugal, 9-13 july.
- [CP4] **M. Ragheb**, R. Renoud, C. Borderon, H.W. Gundel « Modeling of the hysteresis loop of a ferroic single crystal » IEEE Conf. ISAF-ECAPD-PFM 2012 Aveiro Portugal, 9-13 july.
- [CP5] C. Borderon, R. Renoud, **M. Ragheb**, H.W. Gundel « Modeling of minor loops of a ferroic single crystal » IEEE Conf. ISAF-ECAPD-PFM 2012 Aveiro Portugal, 9-13 july.
- [CP6] R. Renoud, **M. Ragheb**, G. Dammame, C. Borderon, H.W. Gundel « Free energy of BaTiO<sub>3</sub> single crystal » IEEE Conf. IUS-ISAF-PFM-IFCS-EFTF 2013 Prague Czech Republic, 21-25 july.
- [CP7] **M. Ragheb**, R. Renoud, C. Borderon, H.W. Gundel « Response of a ferroelectric to an electric field: the Rayleigh law and its extensions » IEEE Conf. ECAPD 2014, Vilnius, Lithuania, 7-11 july.
- [IC 1] **M. Ragheb**, C. Borderon, H.W. Gundel, R. Renoud « Simulation du mouvement des parois de domaines dans BaTiO<sub>3</sub> » Matériaux 2010, 18-22/11/2010, Nantes, France.
- [IC 2] R. Renoud, C. Borderon, **M. Ragheb**, H.W. Gundel « Dielectric properties of PZT thin films under a low ac-electric field at different bias fields » ISIF 2011, 31 july - 04 august 2011, Cambridge, England
- [IC 3] R. Renoud, C. Borderon, **M. Ragheb**, H.W. Gundel « Matériaux ferroélectriques dans les dispositifs hyperfréquences : quelles caractérisations? » 12èmes Journées de Caractérisation Microondes et Matériaux Chambéry – 28-30 march 2012.