



## CURRICULUM

Edilso Reguera

### Información Personal:

Sexo: Masculino

Fecha de Nacimiento. Enero 26 de  
1951

### Centro de Adscripción:

Centro de Investigación en Ciencia Aplicada y Tecnología Avanzada del IPN, Unidad Legaria, Legaria 694, Colonia Irrigación, Delegación Miguel Hidalgo, C.P. 11500, México DF: Tel. 57296000 ext. 67760. Email: [erequera@yahoo.com](mailto:erequera@yahoo.com)

**Dirección particular:** Edificio 71, Entrada A, Dpto 302, Unidad Loma Hermosa, Colonia Irrigación, Del M. Hidalgo, México DF, CP 11200-CR-11411, Tel: 55570830

### Formación académica:

- 1972-1977: Lic. En Física, Universidad de La Habana, Cuba  
*Título de la Tesis:* Distribution of carbon in welded unions of carbon steel
- 1977-1980: Estudios de Posgrado: Crystallography, University of Las Villas, Cuba
- 1984-1987: Doctorado en Ciencias Químicas, Centro Nacional de Investigaciones Científicas, La Habana, Cuba  
*Título de la Tesis:* Phase transformations in pyrito-polymetallic minerals  
Supervisores: Drs. V. Nikolaev and A. Dago
- 2009 Dr. in Sc. (Doctorado de 2do nivel), Universidad de La Habana, Enero 2010  
*Título de la Tesis:* Hexacyanometallates and Nitroprussides of Transition Metals: Physical Properties

### Empleos:

- 1977-1980: Graduated Instructor for Physics, Central University of Las Villas, Cuba
- 1980-1992: Assistant Researcher, National Center for Scientific Research, Havana, Cuba
- 1992-1995: Full Researcher, National Center for Scientific Research, Havana, Cuba;  
General Vice-Director and Director of the Chemistry Division, National Center for Scientific Research, Havana, Cuba.
- 1996- Full Researcher, Institute of Materials and Reagents, University of Havana, Cuba  
Head of the Scientific Council of the Faculty of Physics and Materials Institute, Havana University
- 1997-1999: CONACyT Patrimonial Position, Level II, Mexico
- 1999-2001: Full Professor, National Polytechnic Institute, CICATA-Unidad Legaria, Mexico
- 2005- Full Professor, National Polytechnic Institute, CICATA-Unidad Legaria, Mexico
- 2007- National Researcher Level III (SNI III), Mexico

### Idiomas:

	Reading	Writing	Speaking
Spanish:	native		
English:	3	3	2
Russian:	1	1	1

Scale: 1 (basic) to 3 (fluent)

### ***Aéreas de Investigación:***

- 1) Solid State Physics and Chemistry; Reactions, Structure and Properties
- 2) Development of Materials by Molecular Blocks Assembling
- 3) Functional Molecular Materials: Porous Structures, Molecular Magnets, Molecular Transducers
- 4) Nanotechnology of Molecular Materials
- 5) Materials for Hydrogen Technologies

### ***Técnicas:***

- 1) Mössbauer Spectroscopy and Related Structural Techniques (CPMAS NMR, ESR, ..)
- 2) Vibrational Spectroscopies (IR and Raman); XRD, EXAFS, XANES, SEM, TEM, ..
- 3) Crystal Structure and Surface Properties: XRD, Adsorption, NMR,...

### ***Experiencia docente:***

#### *Supervisor of B. Sc. Thesis:*

- Martha Martínez: *Thesis Title:* "Distribution Functions Calculation in Mössbauer Spectroscopy"; Univ. Havana, 1993.
- Jorge González: *Thesis Title:* "Numerical analysis Applications to Mössbauer Spectroscopy", Univ. Havana, 1994
- Karelia Ocegueda: *Thesis Title:* "On the iron state in SiO<sub>2</sub> glasses"; ESFM, IPN-Mexico, 2000.
- Gabriela Sánchez-Andrade: *Thesis Title:* "Inclusion compounds of amilose"; UNAM-Mexico, 2001

#### *b) Supervisor of M. Sc. Thesis:*

- Ariel Gómez: *Thesis title:* "Structural transformations in insoluble nitroprussides"; Univ. Havana, 1997
- Herlinda Montiel-Sánchez: *Thesis title:* "On the interactions of microwaves with transition metal complexes"; ESFM, IPN-Mexico, 1999.
- Juan E. García-Ramírez: *Thesis title:* "Phase Analysis in Corrosion Products of Carbon Steel in Seawater"; ESFM, IPN-Mexico, 2000
- Karelia Ocegueda-Hernández: *Thesis title:* "On the Calcium Interactions with the Corn Grain Components During the Nixtamalization Process"; ESFM, IPN-México, 2000.
- Jorge Balmaseda-Era: *Thesis title:* "Mössbauer Spectroscopy of Microporous Solids"; Univ. Havana, 1999
- Guerlin Quintana: *Thesis title:* "Solid state reactions during alkali halide pressed disk for Infrared Spectroscopy"; Univ. Havana, 1999
- Ricardo Martínez-García: *Thesis title:* "Synthesis and characterization of nano-structured ferrites"; Univ. Havana, 2000
- Jorge Roque de la Puente: *Thesis Title:* "Adsorption of vapors and gases in microporous cyanometallates"; Univ. of Havana, 2004
- Joelis Rodríguez Hernández: *Thesis Title:* "Applications of the Radial Distribution Function and of the pattern background in the Crystal Structure Determination from XRD powder patterns"; Univ. Havana, 2004
- Cristina Pérez Krap. *Thesis Title:* "Materials potentially useful for hydrogen storage". CICATA-IPN, Unidad Legaria, June 2007
- Manuel Avila Santos: *Thesis Title:* "Crystal Structure of Molecular Materials: Solution and Refinement from XRD powder patterns", CICATA-IPN, Unidad Legaria, November 2007
- Sofia Romero Vargas: *Thesis Title:* "Structural Study and Analysis of Mixed Valence States in Transition Metals Hexacyanoferrates (II,III)", ESFM-IPN, October 31, 2007
- Alvaro Gordillo Sol: *Thesis Title:* Behavior of Porous Nitroprussides and Prussian Blue Analogues from Mossbauer Spectra", ESFM-IPN, March 12, 2008
- Alejandro Alvarez Paneque: *Titulo de la Tesis: Síntesis and Characterization of Nanoferrites.* Univ. Havana, July 2008
- Johan Gonzalez Moya: *Thesis Title: Controlled Growth of CdS Quantum Dots.* Univ. Havana, July 2008
- Blanca Estela Zamora Reynoso: *Thesis Title: Oxygen and Nitrogen Separation by Porous Cyanometallates.* CICATA-IPN, December 2008

- *Juan Jimenez Gallegos: Thesis Title: Crystal Structures and Related Properties of Copper Hexacyanometallates.* ESFM, IPN, January 2009
- *Claudia Noemí Vargas Hernandez: Preparation of porous imidazolates using solvothermal techniques.* CICATA-IPN, July 2009
- *Ariane Sainz Vidal: Adsorption and Separation of volatile organics compounds using porous hexacyanometallates.* CICATA-IPN, Julio 2009
- *Maria del Carmen Tellez Juarez: Preparation and characterization of copper oxides nanostructures.* CICATA-IPN, January, 2010
- *Marlene Gonzalez Montiel: Thermal behavior of cobalt nanostructures.* CICATA-IPN, January, 2010
- *Viviana Figueroa Espí: Biological Applications of Functionalized Superparamagnetic Nanoparticles,* Univ. Habana, February, 2010
- *Osiry Hernandez Silva: Solution and refinement of crystal structures using powder X-ray diffraction data,* CICATA-IPN, January 2012.
- *Cindy Arianna Sámano Alonso: Study on gases and vapors separation by metal-organic frameworks using inverse gas chromatography,* CICATA-IPN, June 2012
- *Claudia Gpe. León Lara: Preparation of hybrid nanomaterials from silica and furfuryl alcohol;* CICATA-IPN, January 2012.
- *Rene Salvador Lopez Cabrera: Metal-Organic Frameworks: Study of their stability under cryogenic conditions using XRD data;* CICATA-IPN, January 2012.
- *Neil Torres Figueredo: Cu-BTC and Fe-BTC metal organic frameworks: Their applications for H<sub>2</sub>, CH<sub>4</sub> and CO<sub>2</sub> storage;* CICATA-IPN, December 2014
- *Arely Cano Martinez: Metal nitroprussides of atypical coordination;* CICATA-IPN, December 2014
- Juan Luis Silva
- Greter Ortega
- Frank Echevarria Castillo
- Giraldo Contreras Martinez
- Alejandro Rodriguez Rodríguez

c) *Supervisor of Ph. D. Thesis:*

- *Armando Paneque-Quevedo: Thesis title: "Synthesis and Characterization of Hemin Complexes";* Havana Univ., 2002.
- *Ariel González: Thesis title: "Crystal Structure Resolution from XRD Powder Patterns in Molecular Materials Based on Prussian Blue Analogues";* Havana Univ., 2002.
- *Alma Valor-Read: Thesis title: "Calcium Binding During Corn Nixtamalization: Study of calcium Salts Of Aliphatic Carboxylic Acids";* CICATA, IPN-México, 2002.
- *Jorge Balmaseda-Era: Thesis title: "Evaluation of the surface structure and adsorption potentials in molecular microporous materials Obtained from the Assembling of Molecular Blocks: [Fe(CN)<sub>6</sub>] and [Fe(CN)<sub>5</sub>NO]";* Havana Univ., 2003.
- *Julio Duque-Rodríguez: Thesis title: "Determination and Refinement of 1,4 dihydropyridine Analogues Crystal Structure: Conformational Studies";* Havana Univ., 2004.
- *Osvaldo Estévez-Hernández: Thesis Title: "Furoylthioureas: Nature of their complexes with CdCl<sub>2</sub> and HgCl<sub>2</sub> and Applications to Electrochemical Sensors";* University of Cádiz, Spain, 2006.
- *Ricardo Martínez-García: "Structural Refinement of Hexacyanometallates, Thermal Induced Phenomena, and Related Magnetic Properties";* University of Havana, 2006
- *Joelis Rodríguez-Hernández: Thesis Title: "Atypical Coordination in Hexacyanometallates and Nitroprussides. Implications in their Physical Properties";* University of Havana, 2007
- *Leslie Reguera Nunez: Thesis Title: "Hydrogen Storage in Porous Cyanometallates",* concluded January 7, University of Havana, 2009
- *Cristina Pérez Krap: Thesis Title: "Hydrogen Storage in Nanocavities",* concluded June 2010, CICATA-IPN, México
- *Pablo Colindres Bonilla: Thesis Title: "Wastewater Treatment for Water Reuse in Textil Industry",* concluded December 16, 2010, CICATA-IPN, México

- Carlos I. Aguirre Velez: Thesis Title: "Pigments Based on Colloidal Photonic Crystals", concluded January 14, 2011, CICATA-IPN, México
- Manuel Avila Santos: Crystal Structure of Molecular Materials: Solution and Refinements from X-ray Diffraction data, concluded June 29, 2011, CICATA-IPN, México
- Omar Reyes Martínez: Dehydration Process of Hoffman-Type Layered Solids, concluded January 7, 2013, CICATA-IPN, México
- Blanca E. Zamora Reynoso: Hydrogen storage in titanium nanotubes-Prussian blue analogues composites, concluded January 8, 2013, CICATA-IPN, México
- Juan Jimenez Gallegos: Crystal Structure of Prussian blue and Hydrogen Storage, concluded January 14, 2013, CICATA-IPN, México
- Claudia N. Vargas Hernández: Synthesis, Characterization and Evaluation of Molecular Nanoporous Solids, May 20, 2013, CICATA-IPN, Mexico
- Jorge Roque de la Puente: Adsorption of Supercritical Gases at High Pressures in Nanoporous Molecular Solids, June 2013, CICATA-IPN, Mexico
- Carmen Tellez Juarez: Hydrogen Storage in Activated Carbons; December 2013, CICATA-IPN, México
- Marlene González Montiel: Molecular Magnets; January 2014, CICATA-IPN, México
- Oscar Fernando Odio Chacón:
- Alma L. Garcia Ortiz:
- Osiry Hernandez Silva:

d) *Professor of Regular (undergraduated) Courses:*

- Professor of some Regular Courses of Physics at University of Las Villas (1977-1980), Cuba;
- Professor of Applied Physics at University of Havana (1997-2001), Cuba.

e) *Professor of M.Sc. and Ph. D. Courses:*

- Professor of Mat. Chemistry, Institute of Materials Science and Technology, Univ. of Havana, Cuba (1997-2005)
- Professor of Vibrational Spectrosc. and their Applications, Faculty of Physics, Univ. of Havana, Cuba (1997-2005)
- Professor of Mössbauer Spectroscopy and Related Techniques, ESFM,IPN-Mexico (1997-2001)
- Professor of Solid State Chemistry and Physics, CICATA, IPN, Mexico (2005- )
- Professor of Spectroscopies Applied to Solid State Chemistry and Physics, CICATA, IPN, Mexico (2005- )

***Premios al Trabajo Científicos:***

- Annual Award of Cuban Academy of Science, 2000, by the contribution to the Chemical Reactions in the Solid State".
- Annual Award of Havana University, 2002, to The Best Professor in the Research Activity.
- Annual Award of Havana University, 2002, to The Scientific Contribution of Highest Transcendence and Originality.
- Annual Award of the Havana University, 2002, to The Best Scientific Contribution in the Food and Biotechnology Branch.
- Annual Award of Cuban Academy of Science, 2003, by his contribution to the Development of Molecular Materials based on the Assembling of Transition Metals through CN Ligands.
- Annual Award of Havana University, 2003, to The Best Professor in the PhD Thesis Supervision Activity.
- Annual Award of Havana University, 2004, to The Circumstantial Result of Highest Transcendence.
- Annual Award of the Cuban Academy of Science, 2004, by his contribution to the Carbohydrates Interactions with Cations and Anions.
- Special Award of the Cuban Ministry for High Education, 2004, by his annual results in the postgraduated education and research activities.
- National Researcher Level III, CONACyT, Mexico.
- Annual Award of the Cuban Academy of Science, 2006, by his contribution to The Electron Microscopy Study of Nanocrystalline Magnetic Materials".

- Annual Award of Havana University, 2006, to The Best Professor in the Research Activity.
- Annual Award of Havana University, 2006, to The Scientific Contribution of Highest Transcendence and Originality.
- Annual Award “Havana University, 2006”, to Contribution to the Knowledge on the Structure and Properties of Several Families of Molecular Materials.
- Special Award of the Cuban Ministry for High Education, 2006, by his annual results in the postgraduated education and research activities.
- Annual Award of the Cuban Academy of Science, 2006, by his contribution to the Study of Molecular Porous Materials Based on Nitroprussides and Prussian Blue Analogues.
- Annual Award of Havana University, 2007, to The Scientific Contribution of Highest Transcendence and Originality: “New Contributions on the Study of Molecular Magnets Based on Prussian Blue Analogues ”
- Annual Award of Havana University, 2007, to The Best Professor in the Research Activity.
- Annual Award of the Cuban Academy of Science, 2007, by his contribution to “New Contributions on the Study of Molecular Magnets Based on Prussian Blue Analogues ”.
- Annual Award of the Cuban Academy of Science, 2007, by his contribution to “Substituted FuroylThioureas: Fundamentals for a Cadmium Sensor ”.
- Special Award of the Cuban Ministry for High Education, 2007, by his annual results in the postgraduated education and research activities.
- Annual Award of the Cuban Agency for Nuclear Energy and Advanced Technology, 2008, by the result entitled “Materials Characterization Using Photo-Acoustic Techniques”
- Annual Award of Havana University, 2008, to The Scientific Contribution of Highest Transcendence and Originality: “Hydrogen Storage in Nanocavities”
- Annual Award of Havana University, 2008, to The Best Professor in the Research Activity.
- Annual Award of the Cuban Academy of Science, 2008, by his contribution to “Hydrogen Storage in Nanocavities”.
- Annual Award of the Cuban Academy of Science, 2008, by his contribution to “Determination of Iron Species in Natural Cuban Clinoptilolite”.
- Annual Award 2009: To the Director of the best M.Sc. Thesis of IPN-Mexico in 2009
- Annual Award 2010: To the Director of the best Ph. D. Thesis of IPN-México in 2010
- Annual Award 2011: To the Director of the best Ph. D. Thesis of IPN-México in 2011
- Annual Award for Basic Research at IPN, 2012
- Annual Award 2011: To the Director of the best Ph. D. Thesis of IPN-México in 2013
- Quo –Discovery Annual Award 2013, Mexico
- Award to the Best Basic Research at IPN, 2013
- Annual Award 2011: To the Director of the best Ph. D. Thesis of IPN-México in 2014

## **Artículos publicados:**

### *(a) Papers Published in Journals of Scientific Divulgation*

- 1) *Physical Chemistry*, José Luis Carrillo, Edilso Reguera R., Hernani Yee-Madeira and, *Conversus*, May 2002, 30-33.
- 2) *Molecular Materials*, J. Carrillo, E. Reguera and H. Yee-Madeira, *Conversus*, August 2003, 38-40.
- 3) *Fotosíntesis Artificial: Imitando a la naturaleza?. Edilso Reguera, Eduardo Montes, Conversus, Dic. 2012, pags 12-16*
- 4) Tecnología de membranas con enrejados tipo zeolitas; J. Vega Moreno, E. Reguera, J. A. Díaz Gongora, A. A. Lemus-Santana; *Mundo Nano* 5 (2012)
- 5) Nanotecnología y Energías Renovables, *Conversus*, Julio 2014, pags 10-13

### *(b) Papers “in extenso” in Proceedings and LNLS (Brazil) Annual Reports*

- 6) *Tribochemical Synthesis and Reactions of Silver Hexacyanoferrates*, José Fernández-Bertrán, José Blanco, Edilso Reguera, Carlos Díaz Aguilera and Teresa Abrantes, Proc. V Ibero-American Congress on Inorganic Chemistry, Saltillo City, México, April 1995, 426-429.
- 7) *Synthesis and Characterization of Two Complexes of Lanthanum and Glycine*, J. Fernández-Bertrán, E. Reguera, A. Dago and C. López Hernández, Proc. V Ibero-American Congress on Inorganic Chemistry, Saltillo City, México, April 1995, 422-425.
- 8) Applications of the Mössbauer Spectroscopy to the Study of Iron Coordination Compounds, E. Reguera and J. Fernández, Proc. V Ibero-American Congress on Inorganic Chemistry, Saltillo city, México, April 1995, 505-08.
- 9) Characterization of Active Principles Derived from Natural Clinoptilolite Modified with Sodium Carbonate, Aramis Rivera, Gerardo Rodríguez, Edilso Reguera, Enelio Torres, Francisco Machado; Proc. Zeolite'97; 5<sup>th</sup> International Conference on the Occurrence, Properties, and Utilization of Natural Zeolites; Naples, Italy, Sept 21-29, 1997; 255-257.
- 10) *Characterization of Iron-Exchanged Forms of a Modified Clinoptilolite: A Solid State Multinuclear NMR Study*. G. Rodríguez, L.C. de Menorval, E. Reguera, F. Chávez, Proc. Zeolites'02, 6<sup>th</sup> International Conf. Occurrence, Properties and Utilization of Natural Zeolites, Thessalonik, Greece, June, 2002, 307-310.
- 11) From 2D to 3D in Hoffman Clatrates Using Hydrothermal Synthesis. Lemus Santana A.A., Basterrechea Rey M.J., Reguera E., Fregoso E. and del Castillo L.F.; Proceedings Tercer Encuentro de Química Inorganica, 2007, Guanajuato, Mexico, pag. 114-117
- 11) Materials for Hydrogen Storage: Use of the Pattern Background to Obtain Structural Information in Porous Solids; Rodríguez-Hernández J., Gomez A., Reguera E., LNLS Activity Report, 2008
- 12) Materials for Hydrogen Storage: Low temperature Structural Transformation in Pillared 2D Solids, T[Ni(CN)<sub>4</sub>]<sub>2</sub>pyz, T = Mn, Zn, Cd; Rodríguez-Hernández J., Lemus-Santana A. A., M. Ávila, Reguera E., LNLS Activity Report, 2008
- 13) Atypical Coordination in Transition Metal Hexacyanometallates; Rodríguez-Hernández J., M. Avila, Reguera E., LNLS Activity Report, 2008
- 14) Porous Transition Metal Hexacyanoferrates (II) with High Available Free Volume: Framework Stability; M. Avila, Rodríguez-Hernandez J., Reguera E., LNLS Activity Report, 2008
- 15) For Copper: A Unique Behaviour within Prussian Blue Analogues; Reguera E., Rodríguez-Hernández J.; LNLS Activity Report, 2008
- 16) Prussian Blue Analogues: Prototype of Porous Solids for H<sub>2</sub> Storage and of Tunable Molecular Magnets; Reguera E., Rodríguez-Hernández J., R. Martínez-García; LNLS Activity Report, 2008
- 17) Mixed Valence State Systems in Cobalt Iron Hexacyanides; Reguera, E., Knobel, M., and R. Martínez-García; LNLS Activity Report, 2008
- 18) Low Temperature Structural Transition in T[Ni(CN)<sub>4</sub>]-pyz with T = Co, Ni and pyz = pyrazine; E. Reguera, Rodríguez-Hernández J., Lemus-Santana A.A., M. Ávila; LNLS Activity Report, 2009
- 19) Materials for Hydrogen Storage: Behaviour of Transition Metals Nitroprussides on the Crystal Water Removal and Under Cryogenic Conditions; E. Reguera, J. Rodríguez-Hernández, M. Ávila; LNLS Activity Report, 2009
- 20) Room and Low Temperature Structures for T[Ni(CN)<sub>4</sub>]<sub>2</sub>pyz with T = Fe, Co, Ni and pyz = pyrazine; A. Lemus-Santana, Rodríguez-Hernández J., M. Ávila, E. Reguera; LNLS Activity Report, 2009
- 21) Porous Solids for Hydrogen Storage: Ti(3+) Hexacyanometallates (II); M. Ávila, O. Hernández-Silva, J. Roque, E. Reguera; LNLS Activity Report, 2009
- 22) Nature of the High Hydrogen Capacity for Copper in Prussian Blue Analogues, E. Reguera, Rodríguez-Hernández J., Jimenez J. A., Yee-Madeira H.; LNLS Activity Report, 2009
- 23) Materials for Hydrogen Storage: Cation Mobility in Zeolite-like Hexacyanometallates; M. Avila, J. Rodríguez-Hernández, E. Reguera; LNLS Activity Report, 2009
- 24) Materials for Hydrogen Storage: Behavior of Transition Metals Nitroprussides on the Water Removal and Under Cryogenic Conditions; E. Reguera, Rodríguez-Hernández J., M. Avila; LNLS Activity Report, 2009
- 25) Porous Solids for Hydrogen Storage: Behavior of Some Metal-Organic Framework under Vacuum and on Cooling. R. Cabrera, M. Avila, O. Hernández, C. Vargas, J. Roque and E. Reguera, LNLS Activity Report, 2009
- 26) Temperature Induced Spin Transition in Ni[Ni(CN)<sub>4</sub>]<sub>2</sub>Pyrazine; M. González Montiel, Lemus Santana A.A., Rodríguez-Hernandez J., O. Hernández, M. Avila, Knobel, and E. LNLS Activity Report, 2010
- 27) Porous Molecular Solids with Tunable Pore Functionality for Hydrogen Storage; L. Reguera, J. Roque, J. Hernandez, O. Hernández, E. Reguera; LNLS Activity Report, 2010

- 28) Structural stability of T(bipy)[Ni(CN)<sub>4</sub>].xbipy with T = Mn, Fe, Co, Ni; bipy= 4,4'-bipyridine under vacuum and cryogenic conditions. M. Avila. O. Hernández, Lemus-Santana A.A., J. Roque, E. Reguera; LNLS Activity Report, 2010

(c) *Contributions (Chapters) in Scientific Books*

- 29) *Evaluation of the Saturation Term in the Mössbauer Absorption Line Area and its Applications*; Edilso Reguera Ruíz, Carlos Diaz Aguila; Published in: *Mössbauer Effect Applications*, Edited by E. Baggio-Saitovitch et al.; World Scientific Publishing, Singapore, 1990, 282-285.
- 30) *On the State of Calcium in Nixtamalized Corn Grains*; E. Reguera, H. Yee-Madeira, J. Fernández and F. Sánchez-Sinencio; *Topics in Current Physics* (Edited by J.H. Heras and R.V. Jiménez, Monash Litho, Printed in Mexico, 2000), 220-238.
- 31) *Análogos del azul de Prusia y sólidos relacionados como prototipo de materiales porosos para almacenamiento de hidrógeno*, in: *Hidrógeno, producción y almacenamiento: Retos hacia su uso como vector energético sustentable* (2013, Spanish Edition), Published by: CreateSpace Independent Publishing Platform, Editors: J. Rodríguez Varela, R. G. González-Huerta, M. Oliver-Tolentino
- 32) *Nanoparticles: A Promise for Host Defense Peptide Therapeutics*, by C. López-Abarrategui, A. J. Otero-González, A. Alba-Menéndez, E. Reguera, and O. Luiz Franco, in *Biological and Pharmaceutical Applications of Nanomaterials*, Edited by Polina Prokopovich (CRC Press, 2015)

(d) *Publications in Periodical (Peer Reviewed) Non-JCR Journals.*

- 33) *Distribution of Carbon in Welded Steels*, A. Pérez Reyes, E. Reguera Ruíz, *Rev. CNIC, Phys. Sci.*, Vol. 10 (1979) 251-263.
- 34) *Determination by XRD of Small Amount of ZnS (Sphalerite) in Pyritic Minerals*, *Rev. CNIC*, 17 (1986) 147-148.
- 35) *An Analytical Expression for the Mössbauer Absorption Line Area. A Simple Derivation*. E. Reguera, *Rev. CNIC*, 17 (1986) 141-143.
- 36) *Applications of Information Theory to the Evaluation of Analytical Methods. I*, E. Reguera, I. Berdan and A. Tagle, *Rev. CNIC*, 17 (1986) 161-163.
- 37) *Applications of Information Theory to the Evaluation of Analytical Methods, II*, I. Berdan, E. Reguera and A. Tagle, *Rev. CNIC*, 18 (1987) 131-132.
- 38) *XRD Quantitative Analysis of the Main Phases in Sulfide Polymetallic Minerals Using Intensity Ratio as External Standard*, A. Dago, R. Hernández, E. Reguera and J. Duque; *Rev. CNIC*, 18 (1987) 136-138.
- 39) *Micro-Structural Study of Polymetallic Sulfide Minerals from the West of Cuba. Part I, Texture and Morphology of the Pyritic Matrix*. E. Reguera and A. Pérez, *Rev. Technol.*, 17 (1987) 22-27.
- 40) *Micro-Structural Study of Polymetallic Sulfide Minerals from the West of Cuba. Part II, Morphology, Distribution and Composition of Zn, Pb and Ba Bearings*. E. Reguera and A. Pérez, *Rev. Technol.*, 17 (1987) 28-32.
- 41) *The Pyrrhotinizing Roasting: An Option for Recovering of Valuable Components from Complex Pyrito-Polymetallic Minerals*, J. Castillo, E. Reguera, D. N. Abishev and N. Z. Baltynova; *Rev. CNIC*, 19 (1988) 69-70.
- 42) *Los efectos de saturación en línea de absorción Mössbauer*. E. Reguera and C. Diaz; *Rev. Cubana de Física*, 9 (1989) 13-19.
- 43) *Automatic System for the Chemical Water Control*, E. Alvarez, I. Vinardell, J. R. Fagundo, J. Vega and E. Reguera; *Rev. Geological Studies CSIC, Spain*, 46 (1990) 409-414.
- 44) *Computing Program for NMR Relaxation Time Calculation*. A. Alvarez, M. Díaz, M. Velez and E. Reguera; *Rev. CNIC, Chem. Sci.*, 22 (1991) 74-76.
- 45) *Mechanism of Ozone Decomposition During the Gas-Solid Interaction at Room Temperature*; E. Reguera, J. Molerio and C. Portilla, *Rev. CNIC, Ciencias Químicas*, 24 (1993) 24-27.
- 46) *Characterization of Pentacyanitrosylferrates of Mn, Cu and Fe using IE, EPR and MAMMAS*. H. Montiel-Sanchez, G. Alvarez-Lucio, R. Zamorano-Ulloa, E. Reguera, R. Valenzuela, *Revista Cubana de Física*, 19 (2002) 119-122
- 47) *Carbothermic reduction products at low temperatura from a refractory chromite: An alternative for the thermodiffusive treatment of steels*. Adrian Alujas Díaz, Rafael Quintana Puchol, Abel Arniella Orama, Carlos Díaz Aguila, Edilso Reguera, *Revista Latinoamericana de Metalurgia y Materiales (ISSN 0255-6952)* 23 (2003) 3-11

- 48) Synthesis and characterization of magnetic nanoparticles based on the  $MnFe_2O_4$  spinel type ferrite; A. Alvarez-Paneque, S. Díaz, P. Santiago-Jacinto, E. Reguera, *Rev. Cub. Fis.* 25 (2B) (2008) 117-122
- 49) CdS nanoparticles stabilized with mercaptopropionic acid: Hidrotermal síntesis and absorption-emision spectra. Johan R. González Moya, Viviana Figueroa Espí, Osvaldo Estévez Hernández, Edilso Reguera Ruíz, *Rev. Cub. Quim.* 20 (2008) 77-83
- 50) Hydrogen Storage in Nanocavities. E. Reguera; *Rev. Cub. Fis.* 26(2009) 3-14
- 51) Peroxidase activity of manganese ferrite,  $MnFe_2O_4$ , nanoparticles. V. Figueroa Espi, A. Alvarez-Paneque, A. J. Otero-González and E. Reguera; *Rev. Cub. Fis.* 26 (2009) 47-50
- 52) Difusión de Hidrógeno en Sólidos Nanoporosos con Sitios de Adsorción Fuertemente Localizados. Carlos Rodríguez, Edilso Reguera, Rene Cabrera; *Rev. Cubana de Física* 28 (2011) 37-41;
- 53) Tecnología de membrana con enrejados tipo zeolita, J. Vega Moreno, E. Reguera, J.A. I. Díaz Góngora, A. A. Lemus Santana, *Mundo Nano* 5 (2012) 77-80
- 54) A decade of Cuban presence in synchrotron light source facilities; A. Pentón-Madrigal, E. Estevez-Rams, E. Reguera, J. Rodríguez-Hernández, B. Concepción-Rosabal, Y. García-Basabe, R. García-Fernándezc A Talavera, E Moreno, *Rev. Cubana de Física* 30, 36 (2013)
- 55) Physical characterization of an extensive volcanic rock in México: "red tezontle" from Cerro de la Cruz, in Tlahuelilpan, Hidalgo; Brenda Ponce Lira, Araceli Ortiz Polo, Elena María Otazo Sánchez, Edilso Reguera Ruiz, Otilio Arturo Acevedo Sandoval, Francisco Prieto García, César Abelardo González Ramírez, *Acta Universitaria*, 23 (2013) 9-16

**(e) Publications in Regular (Peer Reviewed) JRC Journals.**

- 56) *The State of Iron in Natural Zeolites: A Mössbauer Study*; Rolando Roque-Malherbe, Carlos Diaz-Aguila, Edilso Reguera-Ruiz, Juan Fundora-Llitas, Lazaro López-Colado, and Manuel Hernandez-Vélez; *Zeolites*, 19 (1990) 685-689.
- 57) *Mössbauer and Infrared Spectroscopic Studies of Novel Mixed Valence States in Cobaltous Ferrocyanides and Ferricyanides*; E. Reguera, J. F. Bertrán, C. Díaz, J. Blanco, *Hyperfine Interactions*, 53 (1990) 391-396.
- 58) *The CN Stretch of Hexacyanomellates as a Sensor of Ligand Outer Cation Interactions. I. Ferricyanides and Cobalticyanides*; José Fernández Bertrán, José Blanco Pascual and Edilso Reguera Ruiz; *Spectrochimica Acta A*, 46 (1990) 685-689.
- 59) *The CN Stretch of Hexacyano metallates as a Sensor of Ligand-Outer Cation Interactions-II. Ferrocyanides*; José Fernández Bertrán, Edilso Reguera Ruiz, José Blanco Pascual; *Spectrochim. Acta A*, 46 (1990) 1679-1682.
- 60) *Mössbauer study of hydrothermal transformation of natural clinoptilolite into Y and P<sub>1</sub> zeolites*; Carlos de las Pozas-del Rio, Edilso Reguera-Ruiz, Carlos Díaz-Aguila, and Rolando Roque-Malherbe; *J. Solid State Chem.*, 94 (1991) 215-219.
- 61) *Magnetic Hyperfine Field Distribution in Pyrrhotites from Mössbauer Spectroscopy*". E. Reguera Ruiz, V. I. Nikolaev, and V. S. Rusakov\*; *J. of Radioanal. Nucl. Chem.*; 153 (1991) 423-429.
- 62) *Mössbauer Research of Magnetic Particles in Medicinal Ointments*; A. V. Bykov, V. I. Nikolaev, E. Reguera Ruiz, Yu. Ya. Kharitonov, O. G. Cherkasova and V. I. Shulgin; *Hyperfine Interactions*, 67 (1991) 603-605.
- 63) *Tribochemical Reactions of Erionite and Na-LTA Zeolites with Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>·5H<sub>2</sub>O: A Mössbauer Study*; J. de Oñate, C. Díaz, J. Fernández Bertrán, E. Reguera Ruiz, C. Portilla Vergara and R. Roque Malherbe; *Hyperfine Interactions*, 73 (1992) 371-375.
- 64) *Mössbauer Spectroscopic Study of Prussian Blue from Different Provenances*; E. Reguera, J. Fernández-Bertrán, A. Dago and C. Díaz; *Hyperfine Interactions*, 73 (1992) 295-308.
- 65) *Behaviour of Prussian Blue during its Interactions with Ozone*; E. Reguera, J. Fernández-Bertrán, C. Díaz, and J. Molerio; *Hyperfine Interactions*, 73 (1992) 285-294.
- 66) *Study of the Dependence of Mössbauer Parameters on the Outer Cation in Nitroprussides*; E. Reguera, J. F. Bertrán, J. Miranda, C. Portilla; *J. Radioanal. Nucl. Chem.*, 165 (1992) 191-201
- 67) *On the Structure and Mössbauer Spectra of Ferrous Nitroprusside*; E. Reguera, J. F. Bertrán, J. Miranda and A. Dago; *Hyperfine Interactions*, 77 (1993) 1-10.
- 68) *Study of the Nature of the Interaction of CH<sub>3</sub>CN with Lewis Acids*; José Fernández Bertrán and Edilso Reguera Ruiz; *Spectrochimica Acta A*, 49 (1993) 43-46.
- 69) *Pyrrrole Oligomerization within H-Fe-FAU Zeolite*; R. Roque, J. de Onate, E. Reguera; *J. of Mater. Sci.*, 28 (1993) 2321-2323.



- 70) *Effect of the Water of Crystallization on the Mössbauer Spectra of Hexacyanoferrates (II and III)*; E. Reguera and J. Fernández-Bertrán, *Hyperfine Interactions*, 88 (1994) 49-58.
- 71) *On the interactions of Ozone with Manganous Hexacyanoferrates*; E. Reguera, J. Fernández-Bertrán and J. Duque; *Polyhedron*, 13 (1994) 479-484.
- 72) *Study of the Linkage Isomerization Process in Hexacyanometallates*; E. Reguera, J. F. Bertrán and L. Nuñez; *Polyhedron*, 13 (1994) 1619-1624.
- 73) *Synthesis and Characterization of Ferric Nitroprusside*; E. Reguera, J. Fernández-Bertrán and A. Gómez; *Eur. J. Solid State and Inorg. Chem.*, 31 (1994) 979-984.
- 74) *Study of the Interaction of Ozone with Solid Ferrocyanides*; E. Reguera and J. Fernández-Bertrán; *Eur. J. of Solid State and Inorg. Chem.*, 31 (1994) 1021-1027.
- 75) *Tribochemical Synthesis and Study of Mixed Potassium-Ferrous Ferrocyanide and Its Ru<sup>II</sup> and Os<sup>II</sup> Analogs*; E. Reguera, J. Fernández-Bertrán and L. Nuñez; *Z. Naturforschung B*. 50B (1995) 1067-1070.
- 76) *The CN Stretch of Insoluble Metal Nitroprussides as a Sensor of Ligand-Outer Cation Interactions*; J. Fernandez-Bertrán and E. Reguera; *Spectroscopy Letters*, 28 (1995) 1015-1020.
- 77) *Role of the Water of Crystallization in the Mössbauer Spectra of Some Low-Spin Ferric and High-Spin Ferrous Compounds. Its Implications in Comparative Studies*; E. Reguera, J. Fernandez-Bertrán *J. Radioanal. Nucl. Chem.*, 200 (1995) 443-455.
- 78) *Aquoglycinecerium (III) Hexacyanoferrate (III) Monohydrate*; Santiago García Granada, Angel Dago Morales, Edilso Reguera Ruiz and José Fernández-Bertrán; *Acta Crystall. C*, 52 (1996) 1679-1681.
- 79) *Mechanochemical Transformations of Ag, Hg and Pb Cyanometallates in KBr Pressed Disks*; E. Reguera and J. Fernández-Bertrán; *Spectroscopy Letters*, 30 (1997) 89-98.
- 80) *Synthesis and Characterization of two Complexes of Glycine with Lanthanum Hexacyanoferrate (III) and Hexacyanocobaltate (III)*; J. Fernández-Bertrán, E. Reguera, A. Dago, and C. López-Hernández; *Polyhedron*, 15 (1996) 315-319.
- 81) *Aqua(hexacyanoferrate-N)bis( $\mu$ -glycine)-glycinecerium(III) monohydrate*, Santiago Garcia-Granda, Angel Dago morales, Edilso Reguera Ruiz, José Fernandez-Bertrán, *Acta Crystal. C* 52 (1996) 1679-1681
- 82) *Structural Changes in Insoluble Metal Nitroprussides on Ageing*; E. Reguera, A. Dago, A. Gómez and J. F. Bertrán; *Polyhedron*, 15 (1996) 3139-3145.
- 83) *Mechanochemical Reactions in Alkali Halide Pressed Disks*; J. Fernández-Bertrán and E. Reguera; *Solid State Ionics*, 93 (1997) 139-146.
- 84) *Comment on the Reported Linkage Isomerization in Silver Hexacyanocobaltate (III) Hexadecahydrate*; Edilso Reguera, G. Quintana, J. Fernández-Bertrán; *Transit. Met. Chem.*, 22 (1997), 527-528.
- 85) *Proton Transfer in Solid State: Reactions of Organic Acids and Amines*; José Fernández-Bertrán, Juan. C. Alvarez and E. Reguera; *Solid State Ionics*, 106 (1998) 129-135.
- 86) *Transformation of Cadmium Ferricyanide by Heating, Milling and Sonication*; E. Reguera, J. Balmaseda, G. Quintana, A Gómez and J. Fernández-Bertrán; *Polyhedron*, 17 (1998) 2353-2361.
- 87) *Proton Transfer in the Solid State: Mechanochemical Reactions of Fluorides with Acidic Substances*; J. Fernández-Bertrán and E. Reguera; *Solid State Ionics*, 112 (1998) 351-354.
- 88) *Mössbauer Spectra of Ferrous Salts of Transition Metal Cyanocomplexes. A Survey*; Edilso Reguera, Hernani Yee-Madeira, José Fernández-Bertrán, and Lourdes Nuñez; *Transition Metals Chemistry*, 24 (1999) 163-167.
- 89) *Powder DiX-ray diffraction Study of Disilver (1+) Pentacyanonitrosylferrate (2-)*; V. Venegas, A. Gómez and E. Reguera; *Powder Diffraction*, 14 (1999) 219-221.
- 90) *On the Interpretation of Fe Mössbauer Spectra from CdTe thin films with substitutions of Fe, In and Sb*; H. Yee-Madeira, E. Reguera, O. Zelaya-Angel, H. Montiel-Sánchez, F. Sánchez-Sinencio, and R.B. Scorcelli; *Thin Solid Films*, 340 (1999) 301-305.
- 91) *The Existence of Ferrous Ferricyanide*; Edilso Reguera, José Fernández-Bertrán and Jorge Balmaseda; *Transition Metal Chemistry*, 24 (1999) 648-654.
- 92) *Proton Transfer in Solid State: Mechanochemical Reactions of Imidazole with Metallic Oxides*; José Fernandez-Bertrán, Lila Castellanos-Serra, H. Yee-Madeira and Edilso Reguera; *J. Solid State Chem.*, 147 (1999) 561-564.
- 93) *Microstructural study of BaFe<sub>12</sub>O<sub>19</sub> fine particles obtained from a milled precursor*. R. Martínez García., E. Estevez Rams, E. Reguera Ruiz and R. Martínez Sánchez.; *Acta Microscopica*, 8 (2) (1999), 62-70
- 94) *Characterization and Production of Structural Ceramics in the systems Fe<sub>(1-x)</sub>O-Fe<sub>3</sub>O<sub>4</sub> and MgO-MgFe<sub>2</sub>O<sub>4</sub>*; A. Huerta, R. Ordóñez, H.A. Calderon, M. Umamoto, K- Tsuchiya, H. Balmori, E. Reguera and H. Yee Madeira; *Microsc. and Analysis*, 5(2) (1999), 810-811

- 95) *Mechanochemical Synthesis of Urea Adducts with Long Chain Alkyl Derivatives*; José Fernandez-Bertrán, Luis M. Alfonso, Juan C. Alvarez and Edilso Reguera; *J. Inclusion Phen. & Macrocyclic Chem.* 37 (2000) 131-136.
- 96) *Structural Characterization of Dimercury (1+) Pentacyanonitrosylferrate(2-),  $Hg_2[Fe(CN)_5NO]$* ; V. Venegas, G. Rueda-Morales, E. Reguera and F. Caleyo; *Powder Diffraction*, 115 (2000) 193-195.
- 97) *Structural transformation with milling on sol-gel precursor for BaM Hexaferrite*; E. Estevez Rams, R. Martínez García, E. Reguera, H. Montiel Sánchez and H. Y. Madeira; *J. of Physics D: Applied Physics*, 33 (2000) 2708-2715
- 98) *Kinetic Approach to Nixtamalization of Corn Pericarp*; Ricardo Martínez, Silvia Mendoza, Edilso Reguera, Pedro Ortiz and José de la Luz Martínez; *Cereal Chemistry*, 78(2) (2001) 107-111
- 99) *X-Ray diffraction and Mössbauer characterization of Raney Fe-Ni Catalysts*. B.H. Zeifer, J. Salmones, J.A. Hernández, R. Reynoso, N. Nava, E. Reguera, J.G. Cabañas-Moreno and G. Aguilar Rios. *J. Radioanal. and Nuclear Chem.*, 245 (2000) 637-639.
- 100) *The structure of two orthorhombic nitroprussides:  $Cd[Fe(CN)_5NO] \cdot 2H_2O$  and  $Zn[Fe(CN)_5NO] \cdot 2H_2O$* ; A. Gomez, E. Reguera; *Polyhedron*, 20 (2001) 165-170
- 101) *Interactions of potassium fluoride with  $\alpha$ -D-Glucose*; Regino González, Pedro Ortiz, Edilso Reguera and José. F. Bertrán, *Journal of Fluorine Chemistry*, 110(1) (2001) 5-10.
- 102) *Effect of Precursor Milling on the Magnetic and structural Properties of  $BaFe_{12}O_{19}$  M-Ferrite*; R. Martínez García, E. Reguera Ruiz, E. Estevez Rams and R. Martínez Sánchez.; *Journal Magnetism and Magnetic Materials*, 223(2001) 133-137
- 103) *Structural characterization of cadmium hexacyanometallates (II) and Related Complexes*. E. Reguera, A. Gomez, J. Balmaseda, G. Contreras and A. Escamilla, *Structural Chemistry*, 12(1) (2001) 59-66.
- 104) *Mechanochemical synthesis of hemin-imidazole complexes*. Armando Paneque, José Fernandez Bertran, Hernani Yee-Madeira and Edilso Reguera; *Transition Metal Chemistry*, 26 (2001) 76-80.
- 105) *Structural characterization of low temperature synthesized  $SrFe_{12}O_{19}$* . R. Martínez García, E. Reguera Ruiz and E. Estevez Rams. *Materials Letters*, 50 (2001) 183-187.
- 106) *Spectroscopic study of the interactions of alkali fluorides with D- xylose*; José Fernandez Bertrán, Edilso Reguera and Pedro Ortiz, *Spectrochimica Acta Part A*, 57 (2001) 2607-2615.
- 107) *Petroleum solid adherence on tubing surface*; A. Cosultchi, E. Garciafigueroa ,A. García-Bórquez, E. Reguera, H. Yee-Madeira, V.H. Lara and P. Bosch; *Fuel*, 80 (2001) 1963-1968
- 108) *The Structure of cadmium hexacyanometallates (II):  $Cd_2[Fe(CN)_6] \cdot 8H_2O$ ,  $Cd_2[Ru(CN)_6] \cdot 8H_2O$  and  $Cd_2[Os(CN)_6] \cdot 8H_2O$* ; A. Gomez and E. Reguera; *International Journal of Inorganic Materials.*, 3 (2001) 1045-1051.
- 109) *Study of the interaction of KF with carbohydrates in DMSO- $d_6$  by  $^1H$  and  $^{13}C$  NMR spectroscopy*. Pedro Ortiz, Edilso Reguera and José Fernández Bertrán, *Journal Fluorine Chemistry*, 113 (2002) 7-12
- 110) *Mechanochemical reactions of telluric acid with alkaline fluorides*. José Fernandez-Bertran, Edilso Reguera, Armando Paneque, Hernani Yee-Madeira and Alvaro Gordillo Sol. *Journal Fluorine Chemistry*, 113 (2002) 93-95
- 111) *Mechanochemical reactions of fluorides with hemin*; Armando Paneque, Edilso Reguera, José Fernández-Bertrán and H. Yee-Madeira ; *Journal Fluorine Chemistry*, 113 (2002) 1-5.
- 112) *Synthesis and x-ray diffraction study of calcium salts of some carboxylic acids*; A. Valor, E. Reguera and F. Sánchez- Sinencio; *Powder Diffraction*, 17(1) (2002) 13-18.
- 113) *Evaluation of cadmium hexacyanoferrate (III) as a microporous material*. J. Balmaseda, E. Reguera, A. Gomez, B. Díaz, M. Autie; *Microporous and Mesoporous Materials*, 54 (2002) 285-292.
- 114) *Thermal decomposition of the calcium salts of several carboxylic acids*; Alma Valor, Edilso Reguera, Enelio Torres-García, Silvia Mendoza and Feliciano Sanchez-Sinencio; *Thermochemica. Acta*, 389 (2002) 133-139
- 115) *The structure of two manganese hexacyanometallates (II):  $Mn_2[Fe(CN)_6] \cdot 8H_2O$  and  $Mn_2[Os(CN)_6] \cdot 8H_2O$* ; A. Gomez, V.H. Lara, P. Boch and E. Reguera, *Powder Diffraction*, 17(2) (2002) 144-149.
- 116) *Formation of petroleum organic deposits on steel surfaces*; A. Cosultchi, A. García-Borquez, J. Aguilar-Hernandez, H. Yee-Madeira, E. Reguera, V.H. Lara and P. Bosch; *Surface and Interface Analysis.* , 34 (2002) 384-388
- 117) *Structural and thermal study of calcium undecanoate*; A. Valor, S. Kycia, E. Torres-García, E. Reguera, C. Vazquez-Ramos and F. Sanchez-Sinencio; *Journal Solid State Chemistry.* 172 (2003) 471-479
- 118) *Spectroscopic Characterization of Complexes Obtained by Mechanochemical Reactions of Hemin*; Armando Paneque, José Fernandez-Bertrán, Edilso Reguera and H. Yee-Madeira; *Spectroscopy Letters*, 36(1/2) (2003) 83-92

- 119) *Behavior of Prussian Blue-based materials in presence of ammonia*; J. Balmaseda, E. Reguera, J. Fernández, A. Gordillo and H. Yee-Madeira; *Journal Physics and Chemistry Solids*, 64 (2003) 685-693
- 120) *The Ca Binding to The Hull of nixtamalized corn grains as detected by Fe Mössbauer spectroscopy and related Techniques*; E. Reguera, H. Yee-Madeira, R. Gonzalez and F. Sanchez-Sinencio; *Hyperfine Interactions C5* (2003) 333-337
- 121) *Mechano-chemical synthesis and spectroscopic characterization of hemin complexes with some amino-acids*; Armando Paneque, José Fernandez Bertrán, Edilso Reguera and H. Yee-Madeira; *Synthesis and Reactivity in Inorganic and Metal-Organic Chemistry*, 33(8) (2003) 1405-1416
- 122) *Study of the influence of Nejayote and other additives on the cohesive strength and electric properties of carbon black agglomerates*; Regino Gonzalez, Edilso Reguera, JuanM. Figueroa, José de la Luz. Martinez; *Journal of Applied Polymers Science*, 90 (2003) 3965-3972
- 123) *On the microporous nature of transition metal nitroprussides*; J. Balmaseda, E. Reguera, A. Gomez, J. Roque, C. Vazquez and M. Autie; *J.Phys. Chem. B*, 107 (2003) 11360-11369
- 124) *Solid State Reactions of hemin with basic substances: Formation of Bis and Mixed Complexes*; Armando Paneque, José Fernandez-Bertrán, Edilso Reguera, H. Yee-Madeira, *Structural Chemistry*, 14 (6) (2003) 551-558
- 125) *The Condensation of furfural with urea*; A. Martinez-García, M. Ortiz, R. Martinez, P. Ortiz, E. Reguera; *Industrial Crops and Products*, 19 (2004), 99-106
- 126) *Mechanochemical reactions between the probe and the matrix: A possible source of errors when IR spectra of alkali acid bifluorides are recorded in alkali halide pressed disks*; E. Reguera, J. Fernandez-Bertrán, A. Paneque, H. Yee-Madeira, *Spectroscopy Letters*, 37(2) (2004) 191-199
- 127) *Complex formation of ferric protoporphyrin IX from the reaction of hemin with ammonia and small aliphatic amines*; Edilso Reguera, J. Balmaseda, J. Fernandez-Bertrán, A. Paneque, H. Yee-Madeira; *Transition Metal Chemistry*, 29(2004) 451-456
- 128) *Mechanically Induced Instability in Fe<sub>2</sub>Ti and Mechanical Alloying of Fe and Ti*; J. Guedea, H. Yee-Madeira, J.G. Cabañas, E. Reguera; *Journals of Materials Sciences*, 39 (2004) 2523-2528
- 129) *Determination of the thermal diffusivity of calcium salts of saturated carboxylic acids*. S. Stolik, A. Valor, S.A. Tomás, E. Reguera and F Sánchez. *International Journal of Thermophysics*. 25(2) (2004) 511-517
- 130) *On the crystal structures of some nickel hexacyanoferrates (II,III)*; R. Martinez-García, E. Reguera, J. Balmaseda, G. Ramos, H. Yee-Madeira, *Powder Diffraction* 19(3) (2004) 284-291
- 131) *Crystal structures of some manganese(II) and cadmium hexacyanoferrates (II, III) and structural transformations related to the sorption of Cesium*. R. Martínez-García, E. Reguera, J. Rodríguez, J. Balmaseda, J. Roque; *Powder Diffraction*, 19(3) (2004) 255-264
- 132) *Matrix effect on the IR spectra of sodium and potassium acid bifluorides in alkali halide pressed disks*; J. Fernandez-Bertrán and E. Reguera, *Canadian Journal Analytical Sciences and Spectroscopy*, 49(2) (2004) 95-98
- 133) *Physicochemical changes in the hull of the corn grains during their alkaline cooking*; Regino González, Edilso Reguera, Leobardo Mendoza, Juan Manuel Figueroa, Feliciano Sanchez-Sinencio, *J. Agric. Food Chem.* 52 (2004) 3831-3837
- 134) *Behavior of Microporous Nitroprussides in Presence of Ammonia*; E. Reguera, J. Balmaseda, J. Rodríguez-Hernández, M. Autie, A. Gordillo and H. Yee-Madeira; *Journal Porous Materials* 11 (2004) 219-228
- 135) *Unique coordination in metal nitroprussides: The structure of Cu[Fe(CN)<sub>5</sub>NO]·2H<sub>2</sub>O and Cu[Fe(CN)<sub>5</sub>NO]*. A. Gomez, J. Rodríguez-Hernández, E. Reguera; *Journal Chemical Crystallography* 34(12) (2004), 893-903
- 136) *On the nature of the Ca binding to the hull of nixtamalized corn grains*; R. González, E. Reguera, J.M. Figueroa, F. Sanchez-Sinencio, *Lebensm Wiss. U.Technol.* 38 (2005) 119-124
- 137) *Corrosion of copper in seawater and its aerosols in a tropical island*; L. Núñez, E. Reguera, F. Corvo, E. Gonzalez and C. Vazquez; *Corrosion Science*, 47(2) (2005) 461-484
- 138) *Role of the anion in the alkali halides interaction with D-Ribose: a<sup>1</sup>H and <sup>13</sup>C NMR spectroscopy study*; Pedro Ortiz, José Fernández-Bertrán, Edilso Reguera; *Spectrochimica Acta part A*, 61 (2005) 1977-1983
- 139) *Crystal structure of orthorhombic ferrous nitroprusside: Fe[Fe(CN)<sub>5</sub>NO]·2H<sub>2</sub>O*. J. Rodríguez-Hernández, E. Reguera and A. Gómez, *Powder Diffraction*, 20 (1) (2005) 27-32
- 140) *On the changes and reactions in metal oxides under microwave irradiation*. E. Reguera, C. Diaz-Aguila, and H. Yee-Madeira, *Journal of Materials Science*. 40(19) (2005) 5331-5334
- 141) *A Raman and infrared study of 1-furoyl-3-monosubstituted and 3,3-disubstituted thioureas*. O. Estevez-Hernández, E. Otazo-Sánchez, J.L.Hidalgo-Hidalgo de Cisneros, I. Naranjo-Rodríguez, E. Reguera; *Spectrochimica Acta Part A*, 62 (2005) 964-971

- 142) Photo-induced charge transfer in molecular materials based on Prussian blue analogs: A photoacoustic study. S. Stolik, E. Reguera, S.A. Tomas and F. Sánchez-Sinencio, *J. Phys. IV (France)* 125 (2005) 43-46
- 143) Novel CdCl<sub>2</sub> and HgCl<sub>2</sub> complexes with 3-monosubstituted and 3,3-disubstituted 1-furoylthioureas: IR and Raman spectra. O. EstevezHernández, E. Otazo-Sánchez, J.L.Hidalgo-Hidalgo de Cisneros, I. Naranjo-Rodríguez, E. Reguera; *Spectrochimica Acta part A*, 64 (2006) 961-971
- 144) Thermal-Induced Changes in Molecular Magnets Based on Prussian Blue Analogues; R. Martínez-García, M. Knobel, E. Reguera; *J. Phys. Chem. B*, 110 (2006) 7296-7303
- 145) On a probable catalytic interaction between magnetite (Fe<sub>3</sub>O<sub>4</sub>) and petroleum; A. Cosultchi, J. A. Ascencio-Gutiérrez, E. Reguera, B. Zeifert and H. Yee-Madeira; *Energy & Fuels*, 20 (2006) 1281-1286
- 146) Characterization of mechanochemically synthesized imidazolates of Ag<sup>+</sup>, Zn<sup>+2</sup>, Cd<sup>+2</sup>, and Hg<sup>+2</sup>: Solid state reactivity of nd<sup>10</sup> cations; J.F. Fernandez-Bertran, M.P. Hernandez, E. Reguera, H. Yee-Madeira, J. Rodriguez, A. Paneque, J.C. Llopiz; *Journal of Physics and Chemistry Solids*, 67 (2006) 1612-1617
- 147) Thermal evolution of microporous nitroprussides on their dehydration process. E. Torres-García, J. Balmaseda, L.F. del Castillo, E. Reguera; *Journal of Thermal Analysis Calorimetry.*, 86 (2) (2006) 371-377
- 148) Heat Induced Charge Transfer in Cobalt Iron Cyanide; R. Martínez-García, M. Knobel, G. Goya, M.C. Gimenez, F.M:Romero, E. Reguera; *Journal Physics and Chemistry of Solids*, 67 (2006) 2289-2299
- 149) On the complex formation of CdCl<sub>2</sub> with 1-furoylthioureas: Preconcentration and voltammetric behavior of Cd(II) at carbon paste electrodes modified with 3-monosubstituted and 3,3-disubstituted derivatives. O. Estevez-Hernandez, J.L Hidalgo-Hidalgo de Cisneros, E. Reguera, I. Naranjo-Rodríguez; *Sensors and Actuators B*, 120 (2007) 766-772
- 150) Behavior of transition metals ferricyanides as microporous materials. J. Balmaseda, E. Reguera, J. Rodríguez-Hernández, L. Reguera, M. Autie; *Microporous & Mesoporous Materials*, 96 (2006) 222-236
- 151) Evaluation of Carbon Paste Electrodes Modified with 1-furoylthioureas for the Analysis of Cadmium by Differential Pulse Anodic Stripping Voltametry. O. Estevez-Hernandez, I. Naranjo-Rodríguez, J.L. Hidalgo-Hidalgo de Cisneros, E. Reguera; *Sensors & Actuators B*, 123 (2007) 488-494
- 152) Unique Coordination for Copper in Hexacyanometallates. E. Reguera, J. Rodríguez-Hernández, A. Champi, J. G. Duque, E. Granado; C. Rettori; *Z. Phys. Chem.*, 220 (2006) 1609-1619
- 153) Modification of the Magnetic Properties in Molecular Magnets based on prussian blue analogues through Adsorbed Species. R. Martínez-García, M. Knobel, E. Reguera, *J. Phys.: Condensed Matter*, 18 (2006) 11243-11254
- 154) Mixed Valence States in Cobalt Iron Cyanide; R. Martínez-García, M. Knobel, J. Balmaseda, H. Yee-Madeira, E. Reguera; *Journal Physics and Chemistry of Solids*, 68 (2007) 290-298
- 155) Calcium carbonate scale inhibition using the "allotropic cell" device; E. López-Sandoval, C. Vázquez-López, B.E. Zendejas-Leal, G. Ramos, E. San Martín-Martínez, N. Muñoz Aguirre, E. Reguera; *Desalination* 217 (2007) 85-92
- 156) Photo-induced charge transfer in Prussian blue analogues as detected by photoacoustic spectroscopy. E. Reguera, E. Marin, A. Calderon, J. Rodríguez-Hernández; *Spectrochim. Acta A* 68(2007) 191-197
- 157) Crystal structures of three anhydrous nitroprussides: M[Fe(CN)<sub>5</sub>NO] (M = Mn, Zn, Cd), J. Rodríguez-Hernández, E. Reguera, M. Mir, Y. P. Mascarenhas; *Powder Diffraction*, 2007, 22(1) 40-46
- 158) Magnetic Interaction between manganese (2+) atoms through aquo bridges and bifurcated cyano groups. R. Martínez-García, L. Reguera, M. Knobel, E. Reguera, *J. Phys.: Condensed Matter*, 19 (2007) 056202 (11pp)
- 159) Porous hexacyanocobaltates (III): Role of the metal on the framework properties; J. Roque, E. Reguera, J. Balmaseda, J. Rodríguez-Hernández, L. Reguera, L.F. del Castillo; *Microporous & Mesoporous Materials*, 103 (2007) 57-71
- 160) <sup>129</sup>Xe NMR Spectroscopy Study of Porous Cyanometallates. E. Lima, J. Balmaseda, E. Reguera, *Langmuir*, 23 (2007) 5752-5756
- 161) Crystal structures of cubic nitroprussides: M[Fe(CN)<sub>5</sub>NO].xH<sub>2</sub>O (M = Fe, Co, Ni). Obtaining structural information from the background. A. Gomez, J. Rodríguez-Hernández and E. Reguera; *Powder Diffraction*, 22(1) (2007) 27-34
- 162) An Atypical Coordination in Hexacyanometallates. Structure and Properties of the Zinc Phases. J. Rodríguez-Hernández, E. Reguera, E. Lima, J. Balmaseda, R. Martínez-García, H. Yee-Madeira; *J. Phys. Chem. Solids*, 68 (2007) 1630-1642
- 163) Bifurcated CN group in hexacyanometallates, the case of Cd<sub>2</sub>[Fe(CN)<sub>6</sub>]. Structure determination from a combination of RDF and direct methods. A. Gomez, J. Rodríguez-Hernández, S. Kycia, E. Reguera, *Z. Physik. Chemie*, 221(2007) 1049-1060.
- 164) Crystal Structures of Hexacyanometallates with Bifurcated Cyano Groups. Joelis Rodríguez-Hernández, Ariel Gomez, Edilso. Reguera; *J. Physics D: Applied Physics*, 40 (2007) 6076-6082

- 165) *Solid state multinuclear NMR study of iron species in natural and modified clinoptilolite from Tasajera deposit (Cuba)*; G. Rodríguez-Fuentes, L.C. de Ménorval, E. Reguera, and F. Chavez-Rivas; *Microporous and Mesoporous Materials*, 111 (2008) 577-590.
- 166) *Hydrogen Storage in Porous Cyanometallates: Role of the Exchangeable Alkali Metal*, L. Reguera, J. Balmaseda, L.F. del Castillo, E. Reguera, *J. Phys. Chem. C*, 112 (2008) 5589-5597
- 167) *1-(2-Furoyl)-3-(L-naphtyl)-thiourea*. J. Duque, Osvaldo Estevez-Hernandez, Edilso Reguera, Rodrigo S. Correa, P. Gutierrez Maria, *Acta Crystall. E* 64 (2008) 1068
- 168) *Hydrogen Storage in Porous Transition Metal Nitroprussides*; L. Reguera, J. Balmaseda, C.P. Krap and E. Reguera; *J. Phys. Chem. C*, 112 (2008) 10490-10501.
- 169) *Hydrogen storage in copper Prussian blue analogues: Evidence of H<sub>2</sub> coordination to the copper atom*. L. Reguera, C.P. Krap, J. Balmaseda, E. Reguera, *J. Phys. Chem. C*. 112 (2008) 15893-15899
- 170) *Hydrogen storage in zeolite-like cyanometallates. Role of the building block*. L. Reguera, J. Balmaseda, C. P. Krap, M. Avila, E. Reguera, *J. Phys. Chem. C*, 112 (2008) 17443-17449
- 171) *Porous framework of T<sub>2</sub>[Fe(CN)<sub>6</sub>]<sub>x</sub>H<sub>2</sub>O with T = Co, Ni, Cu and Zn, and H<sub>2</sub> storage*. M. Avila, L. Reguera, J. Rodríguez-Hernández, J. Balmaseda, E. Reguera. *J. Solid State Chem.* 181 (2008) 2899-2907
- 172) *Instantaneous Synthesis of Stable Zerovalent Metal Nanoparticles under Standard Reaction Conditions*, Maiby Valle-Orta, David Diaz, Patricia Santiago-Jacinto, America Vazquez-Olmos, and Edilso Reguera, *J. Phys. Chem. B*, 112 (2008) 14427-14434
- 173) *Mixed Valences System in Cobalt Iron Cyanide. Microporous Structure Stability*; L. Reguera, E. Reguera, J. Balmaseda, J. Rodríguez-Hernández and H. Yee-Madeira; *J. Porous Mater.* 15 (2008) 719–729.
- 174) *Tetrahedral coordination for Zn in hexacyanometallates: Structure of Zn<sub>3</sub>A<sub>2</sub>[M(CN)<sub>6</sub>]<sub>2</sub>.xH<sub>2</sub>O with A = K, Rb, Cs and M = Ru, Os*. M. Avila, L. Reguera, C. Vargas, E. Reguera. *Journal Physics Chemistry Solids*, 70 (2009) 477-482
- 175) *Heat induced charge transfer in the solid solution Co<sub>3-x</sub>T<sub>x</sub>[Fe(CN)<sub>6</sub>]<sub>2</sub>.yH<sub>2</sub>O with T = Mn, Co, Ni, Cu, Zn, Cd*. S. Romero, H. Yee-Madeira, J. Jimenez-Gallegos, E. Reguera, *Z. Phys. Chemie*, 222 (2008) 1661-1678
- 176) *Unique coordination of pyrazine in T[Ni(CN)<sub>4</sub>]<sub>2</sub>.pyz with T = Mn, Zn, Cd*. A.A. Lemus-Santana, J. Rodríguez-Hernández, L. F. del Castillo, M. Basterrechea, E. Reguera; *J. Solid State Chem.* 182(2009) 757-766
- 177) *Stabilization of cubic and rhombohedral phases of zinc hexacyanocobaltate (III)*. C. P.Krap, B. Zamora, L. Reguera, E. Reguera. *Microporous and Mesoporous Materials*. 120 (2009) 414-420
- 178) *Nature of the observed Asymmetry in Mössbauer spectra of Iron (2+) hexacyanometallates (III)*; E. Reguera, H. Yee-Madeira, S- Demeshko, G. Eckold, and J. Jimenez-Gallegos, *Z. Phys. Chem.* 223 (2009) 701-712
- 179) *Controlled growth of CdS quantum dots*, J. González, P. Santiago-Jacinto, E. Reguera; *Science of Advanced Materials* 1 (2009) 1-8
- 180) *Synthesis, characterization and single crystal X-ray structure of the 1-furoyl-3-cyclohexylthiourea cadmium complex Cd[C<sub>4</sub>H<sub>3</sub>OC(O)NHC(S)NHC<sub>6</sub>H<sub>11</sub>]<sub>4</sub>Cl<sub>2</sub>*. J. Duque, O. Estévez-Hernández, E. Reguera, J. Ellena, Rodrigo S. Correa; *J. Coord. Chem.* 62 (2009) 2804-2813
- 181) *Adsorption and Separation of Light Alkane Hydrocarbons by Porous Hexacyanocobaltates (III)*. G. Autie-Castro, M. Autie, E. Reguera, J. Santamaría-González, R. Moreno- Tost, E. Rodríguez, and A. Jimenez-López; *Surface and Interface Analysis*, 41(2009) 730-734
- 182) *Materials for Hydrogen Storage in Nanocavities: Design Criteria*. E. Reguera, *International Journal of Hydrogen Energy*, 34 (2009) 9163-9167
- 183) *Low temperature structural transformation in T[Ni(CN)<sub>4</sub>]<sub>x</sub>.pyz with x = 1, 2; T = Mn, Co, Ni, Zn, Cd; pyz = pyrazine*; J. Rodríguez-Hernández, A. A. Lemus-Santana, J. Ortiz-López, S. Jiménez-Sandoval, E. Reguera, *Journal of Solid State Chemistry* 183(2010) 105-113
- 184) *Hydrogen storage in Prussian blue analogues: H<sub>2</sub> interaction with the metal found at the cavity surface*; C. P. Krap, J. Balmaseda, L. F. del Castillo, B. Zamora, E. Reguera; *Energy & Fuels* 24 (2010) 581-589
- 185) *Separation of oxygen and nitrogen by porous cyanometallates*; B. Zamora, M. Autie, J. L. Contreras, M. Centeno, E. Reguera; *Separation Science and Technology*, 45 (2010) 692–699
- 186) *Structure of porous copper Prussian blue analogues: Nature of their high H<sub>2</sub> storage capacity*. J. Jiménez-Gallegos, J. Rodríguez-Hernández, H. Yee-Madeira, E. Reguera, *J. Phys. Chem. C* 114 (2010) 5043–5048
- 187) *Lattice gas models for H<sub>2</sub> adsorption in nanoporous hexacyanometallates*; Carlos Rodríguez, Edilso Reguera and Manuel Avila, *J. Phys. Chem. C* 114 (2010) 9322–9327
- 188) *Removal of reactive black 5 from aqueous solution by ozone for water reuse in Textile Dyeing Processes*; P. Colindres, H. Yee-Madeira, E. Reguera. *Desalination* 258 (2010) 154–158
- 189) *On the low stability of molecular magnets based on transition metal hexacyanochromates (III)*; E. Reguera, J. Rodríguez-Hernández, C. Tellez, M. Centeno, *Z. Phys. Chem.* 224 (2010) 999-1018

- 190) Titanium (3+) hexacyanometallates (II): Preparation and porous frameworks. Manuel Avila, Claudia Vargas, Hernani Yee-Madeira, Edilso Reguera, *Z. Anorganisch. Allg. Chemie*, 636 (2010) 1968-1973
- 191) Tunable Color by Opals and Inverse Opal Photonic Crystals, Carlos I. Aguirre, E. Reguera, Andrea Stein, *Advanced Functional Materials*, 20 (2010) 2565–2578
- 192) Gold nanoparticles conjugated to benzoylmercaptoacetyltriglycine and L-cysteine methylester; O. Estevez-Hernández, E.M. Molina-Trinidad, P. Santiago-Jacinto, L. Rendón, E. Reguera; *Journal of Colloid and Interface Science* 350 (2010) 161–167
- 193) Methane Storage in Prussian Blue Analogues and Related Porous Solids: Nature of the Involved Adsorption Forces; Blanca Zamora, Jorge Roque, Jorge Balmaseda, Edilso Reguera; *Z. Anorganisch. Allg. Chemie*, 636(2010) 2574-2578;
- 194) Hydrogen storage in the iron series of porous Prussian blue analogues; C.P. Krap, J. Balmaseda, B. Zamora, E. Reguera; *International Journal of Hydrogen Energy* 35(2010) 10381-10386
- 195) High Density Hydrogen Storage in Nanocavities. Role of the Electrostatic Interaction; L. Reguera, J. Roque, J.Hernández, E. Reguera; *International Journal of Hydrogen Energy* 35 (2010) 12864-12869
- 196) Colloidal Photonic Crystal Pigments with Low Angle Dependence; Carlos I. Aguirre, Edilso Reguera, Andreas Stein; *ACS Applied Materials & Interfaces* 2(2010) 3257-3262
- 197) Adsorption and Separation of Propane and Propylene by Porous Hexacyanometallates; G. Autie-Castro, M. Autie, E. Reguera, R. Moreno-Tost, E. Rodríguez-Castellón, A. Jiménez-López, J. Santamaría-González; *Applied Surface Science* 257 (2011) 2461-2466
- 198) Structural features of 1-furoylthioureas 3-monosubstituted and 3,3-disubstituted: coordination to cadmium and analytical applications, O. Estevez-Hernández, J. Duque, E. Reguera, *J. Sulfur Chemistry* 32 (2011) 213–222
- 199) Photoinduced Charge Transfer in Molecular Materials Studied by Optical Absorption Using Photoacoustic Spectroscopy, S. Stolik, E. Reguera, S. A. Tomas, F. Sanchez-Sinencio, *Russ. J. Phys. Chemistry A*, 85 (2011) 702–705
- 200) Cation mobility and structural changes on the water removal in zeolite-like zinc hexacyanometallates (II); M. Avila, J. Rodríguez-Hernández, A. A. Lemus, E. Reguera; *J. Phys. Chem. Solids* 72(2011) 988-993
- 201) Synthesis and Thermal Behavior of Metallic Cobalt Micro and Nanostructures; Marlene Gonzalez Montiel, P. Santiago-Jacinto, J. A. I. Diaz Góngora, E. Reguera, Geonel Rodriguez-Gattorno; 3 (2011) 12-19
- 202) Synthesis and Characterization of T[Ni(CN)<sub>4</sub>]<sub>2</sub>pyz with T = Fe, Ni; pyz = pyrazine: Formation of T-pyz-Ni bridges; A. A. Lemus-Santana, J. Rodríguez-Hernández, S. Demeshko, M. Ávila, E. Reguera; *J. Solid State Chem.* 184 (2011) 2124–2130
- 203) Electronic and vibrational spectra of novel Lanreotide capped gold nanoparticles; E. M. Molina-Trinidad, O. Estévez-Hernández, L. Rendón, V. Garibay-Febles, E. Reguera; *Spectrochimica Acta Part A* 82 (2011) 283– 289
- 204) Conjugation of manganese ferrite nanoparticles to an anti Sticholysin monoclonal antibody and conjugate applications", V. Figueroa Espí, A. Alvarez-Paneque, M. Torrence, A. Otero-Gonzalez, E. Reguera, *Colloids and Surfaces A* 387 (2011) 118– 124
- 205) On the application of standard isotherms to hydrogen adsorption in microporous materials; A. Al-Hajjaj, B. Zamora, A.A. Shah, E. Reguera, D.V. Bavykin, F.C. Walsh, *Intern. J. Hydrogen Energy* 22 (2011) 14464-14476
- 206) Sorption of hydrogen onto titanate nanotubes decorated with a nanostructured Cd<sub>3</sub>[Fe(CN)<sub>6</sub>]<sub>2</sub> Prussian Blue analogue; A.A. Al-Hajjaj, B. Zamora, D.V. Bavykin·A.A. Shah, F.C. Walsh, E. Reguera; *Intern. J. Hydrogen Energy* 37 (2012) 318-326
- 207) Three structural modifications in the series of layered solids T(H<sub>2</sub>O)<sub>2</sub>[Ni(CN)<sub>4</sub>]<sub>x</sub>H<sub>2</sub>O with T = Mn, Co, Ni: Their Nature and Crystal Structures. J. Rodríguez-Hernández, A.A. Lemus-Santana, C.N. Vargas, E. Reguera, *Comptes Rendus Chimie* 15 (2012) 350–355
- 208) Mg<sub>3</sub>[M(CN)<sub>6</sub>]<sub>2</sub>·xH<sub>2</sub>O with M = Fe, Co: Synthesis, Crystal Structure and Hydrogen Sorption; Juan Jiménez-Gallegos, Jorge Roque, Hernani Yee-Madeira, Edilso Reguera; *Z. Anorganisch. Allg. Chemie* 638 (2012) 1-6
- 209) Preparation and study as positive electrode of Li<sub>0.33</sub>La<sub>0.56</sub>TiO<sub>3</sub>-PANI nanocomposite; C. R. Milian, Y. Mosqueda, P. Aranda, J. A. Varela, E. Reguera, M. A. Frutis, J. Santoyo, E. Perez-Cappe; *Advances in Applied Ceramics* 2012, DOI 10.1179/1743676112Y.0000000040
- 210) High conducting sepiolite–graphenelike carbon nanocomposite from sugar residual as carbon source; E. Danguillecourt Alvarez, Y. Mosqueda Laffita, E. Reguera Ruiz, M. Aguilar Frutis, E. Pérez Cappe; *Advances in Applied Ceramics* 2012, DOI 10.1179/1743676112Y.0000000036
- 211) Lead hexacyanoferrate(II) tetrahydrate: Crystal structure, FTIR spectroscopy and thermal decomposition studies; Diego M. Gil, Manuel Avila, Edilso Reguera, Silvina Pagola, M. Inés Gómez, Raúl E. Carbonio; *Polyhedron* 33 (2012) 450–455

- 212) Mercaptopropionic Acid Capped CdS@ZnS Nanocomposites: Interface Structure and Related Optical Properties; O. Estévez-Hernández, J. González, J. Guzmán, P. Santiago-Jacinto, L. Rendón, E. Montes, and E. Reguera; *Science of Advanced Materials* 4 (2012) 771-779
- 213) Cation mobility in a series of zeolite-like coordination polymers; E. Perez-Cappe, M. Aguilar-Frutis, N. Chavez, J. Ribalta, E. Reguera; *Microporous and Mesoporous Materials* 163 (2012) 326–333
- 214) Pi-Pi Interactions and Magnetic Properties in a Series of Hybrid Inorganic-Organic Crystals; M. González, A. A. Lemus-Santana, J. Rodríguez-Hernández, M. Knobel, E. Reguera; *J. Solid State Chem.* 197 (2013) 317–322
- 215) 1-Methyl-2-pyrrolidone: From exfoliating solvent to a paramagnetic ligand; A. A. Lemus-Santana, M. González, J. Rodríguez-Hernández, M. Knobel, E. Reguera; *J. Phys. Chem. A* 117 (2013) 2400-2407.
- 216) Dehydration Process of Hofmann-Type Layered Solids; Omar Reyes-Martinez, Enelio Torres-García, Geonel Rodríguez-Gattorno, Edilso Reguera; *Materials* 6 (2013) 1452-1466
- 217) Kinetic and thermodynamic studies of hydrogen adsorption on titanate nanotubes decorated with a Prussian blue analogue, B. Zamora, A.A. Al-Hajjaj, A.A. Shah, D.V. Bavykin, E. Reguera, *Intern. J. Hydrog. Energy* 38 (2013) 6406-6416.
- 218) Intermolecular interactions between imidazole derivatives intercalated in layered solids. Role of the substituent group. M. González, A. A. Lemus-Santana, J. Rodríguez-Hernández, C. I. Aguirre-Velez, M. Knobel, E. Reguera; *J. Solid State Chem.* 204 (2013) 128-135
- 219) One Step Chemical Synthesis of Ag-Fe O<sub>4</sub> Heterodimer Nanoparticles: Optical, Structure, and Magnetic Properties; Diego Muraca, Oscar F. Odio, Edilso Reguera, Kleber Roberto Pirota, *IEEE Transact. Magnet.* 49 (2013) 4606-4650
- 220) Magnetic nanoparticles: New players in antimicrobial peptide therapeutics. López-Abarrategui, C., Figueroa-Espí, V., Reyes-Acosta, O., Reguera, E., Otero-González, AJ; *Current. Proteins & Peptides Science* 14 (2013) 595-606
- 221) Preparation of Cu-Mordenite by ionic exchange reaction under milling: A favorable route to form the mono-(μ-oxo) dicopper active species, Ariane Sainz-Vidal, Jorge Balmaseda, Luis Lartundo-Rojas, Edilso Reguera, *Microporous and Mesoporous Materials* 185 (2014) 113 - 120
- 222) Easy Preparative Route for ZnO Nanoparticles Using Tetrabutylammonium Bromide Assisted Ultrasonic Irradiation, O. Estévez-Hernández, P. Santiago-Jacinto, E. Reguera, *Materials Focus* 2(2013) 1-5; doi: 10.1166/mat.2013.1120
- 218) Mixed (Fe<sup>2+</sup> and Cu<sup>2+</sup>) double metal hexacyanocobaltates as solid catalyst for the aerobic oxidation of oximes to carbonyl compounds; Alma García-Ortiz, Abdessamad Griirane, Edilso Reguera, Hermenegildo García; *J. Catalysis* 311 (2014) 386 -392
- 219) Sorption of Gold by Naked and Thiol-Capped Magnetite Nanoparticles. An XPS Approach. O. F. Odio, L. Lartundo-Rojas, P. Santiago-Jacinto, R. Martínez, E. Reguera; *J. Phys. Chem. C* 118 (2014) 2776 – 2791
- 220) Hydrogen storage in activated carbon produced from coals of different ranks: Effect of oxygen content; M. C. Tellez-Juarez, V. Fierro, W. Zhao, N. Fernandez Huerta, M. T. Izquierdo, E. Reguera, A. Celzard; *Int. J. Hyd. Energy* 39 (2014) 4996 – 5002
- 221) Copper Dimer with Acetate-2-Ethylimidazole as Ligands; J. Hernández, M. Ávila, H. A. Jiménez-Vázquez, J. Duque, E. Reguera; *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry* 45 (2014) 342-345
- 222) Development of a selective low cost absorbing surface based on soot for solar thermal applications; F. Correa, M. Gonzalez, H. Servin, F. Marquez, J. G. Rutiaga, A. A. Lemus, E. Reguera, V. Alonso, *Energy Procedia* 57 (2014) 1565 -1572
- 223) Mercury(I) nitroprusside: A 2D structure supported on homometallic interactions, H. Osiry, A. Cano, L. Reguera, A.A. Lemus-Santana, E. Reguera, *Journal of Solid State Chemistry* 221 (2015) 79–84
- 224) Mercury (II) Nitroprusside: A framework with an unusual topology, H. Osiry, A. Cano, L. Reguera, A. Lemus, E. Reguera, *Journal of Solid State Chemistry* 225(2015) 315–320
- 225) Silver Nitroprusside: An atypical coordination within the metal nitroprussides series, J. Rodríguez Hernández, L. Reguera, A. A. Lemus, E. Reguera; *Inorganica Chimica Acta* 428 (2015) 51–56
- 226) Two 1-(2-Furoyl)-3-phenylthiourea Derivatives: Synthesis, Characterization and Structural Study from X-ray Powder Diffraction Using Simulated Annealing; O. Estevez-Hernandez • J. Rodriguez-Hernandez, E. Reguera, J. Duque; *J. Chem. Crystall.* 45 (2015) 51-60
- 227) Intercalation of thiazole in layered solids. A 3D framework supported in dipolar and quadrupolar intermolecular interactions; F. Echevarría, A.A. Lemus-Santana, M. González, J. Rodríguez-Hernández, E. Reguera, *Polyhedron* 95 (2015) 75–80
- 228) Quantum chemical studies on molecular structure, spectroscopic (IR, Raman, UV–Vis), NBO and Homo–Lumo analysis of 1-benzyl-3-(2-furoyl) thiourea; Diego M. Gil, M.E. Defonsi Lestard, O. Estevez-Hernandez, J. Duque, E. Reguera; *Spectrochimica Acta A* 145 (2015) 553–562

- 229) Dinuclear and polymeric Hg(II) complexes with 1-(2-furoyl)thiourea derivatives: Their crystal structure and related properties; O. Estevez-Hernandez, J. Duque, J. Rodriguez-Hernandez, E. Reguera, *Polyhedron* 97 (2015) 148–156
- 230) Cu-BTC and Fe-BTC metal-organic frameworks: Role of the materials structural features on their performance for volatile hydrocarbons separation; G. Autie-Castro, M.A. Autie, E. Rodríguez-Castellón, C. Aguirre, E. Reguera, *Colloids and Surfaces A: Physicochem. Eng. Aspects* 481 (2015) 351–357
- 231) Effect of thickness in hematite films produced by spray pyrolysis towards water photo-oxidation in neutral media, T. Mariño-Otero, M. A. Oliver-Tolentino, M. A. Aguilar-Frutis, G. Contreras-Martinez, E. Perez-Cappe, E. Reguera, *Intern. J. Hydrogen Energy* 40 (2015)5831-5836
- 232) Intercalation of organic molecules in 2D copper nitroprusside: Intermolecular interactions and magnetic properties. H. Osiry, A. Cano, A. Rodriguez, A. Lemus, R. Carbonio, E. Reguera, *J. Solid State Chem.* 230 (2015) 374 – 380
- 233) 3-mercaptopropionic acid surface modification of Cu-doped ZnO nanoparticles: Their properties and peroxidase conjugation; conjugation. L. Jiménez-Hernández, O. Estévez-Hernández, M. Hernández-Sánchez, J.A. Díaz, M. Fariás- Sánchez, E. Reguera; *Colloids and Surfaces A: Physicochem. Eng. Aspects* 489 (2016) 351–359
- 234) Layered Transition Metal Nitroprussides: Their Preparation, Crystal Structures, and Magnetic Properties. D. M Gil, H. Osiry, A. Rodriguez, A. A. Lemus-Santana, R. Carbonio, E. Reguera, *European Journal of Inorganic Chemistry* 2016, 1690-1696
- 235) Layered vanadyl (IV) nitroprusside: Magnetic interaction through a network of hydrogen bonds, D.M. Gil, H. Osiry, F. Pomiro, E. L. Varetti, R. E. Carbonio, R. R. Alejandro, A. Ben Altabef, E. Reguera, *J. Solid State Chem.* 239(2016)159–164
- 236) Tuning the adsorption potential. Separation of aromatic hydrocarbons by cobalt and zinc zeolitic imidazolate frameworks, C. Sámano-Alonso, J. Hernández-Obregón, R. Cabrera, J.A.I. Díaz-Góngora, E. Reguera, *Colloids and Surfaces A: Physicochem. Eng. Aspects* 506 (2016) 50–55
- 237) The intrinsic antimicrobial activity of citric acid-coated manganese ferrite nanoparticles is enhanced after conjugation with the antifungal peptide Cm-p5; Carlos Lopez-Abarrategui, Viviana Figueroa-Espi, Maria B Lugo-Alvarez, Caroline D Pereira, Hilda Garay, João ARG Barbosa, Rosana Falcão, Linnavel Jiménez-Hernández, Osvaldo Estévez-Hernández, Edilso Reguera, Octavio L Franco, Simoni C Dias, Anselmo J Otero-Gonzalez, *Intern. J. Nanomedicine* 11 (2016)11 3849–3857
- 238) Synthesis of a novel poly-thiolated magnetic nano-platform for heavy metal adsorption. Role of thiol and carboxyl functions; Oscar F. Odio, Luis Lartundo-Rojas, Elia Guadalupe Palacios, Ricardo Martínez, Edilso Reguera, *Applied Surface Science* 386 (2016) 160–177
- 239) Separation of H<sub>2</sub>-CO<sub>2</sub> and CH<sub>4</sub>-CO<sub>2</sub> binary mixtures by zeolite-like imidazolate frameworks, C. Sámano-Alonso, René Cabrera, J. Hernández-Obregón, A. A. Lemus-Santana, E. Reguera; *Surfaces and Interfaces* 5 (2016) 55–61
- 240) Immobilization of dengue specific IgM antibodies on magnetite nanoparticles by using facile conjugation strategies; G. A. Ortega, J. C. Zuaznabar-Gardona, O. Morales-Tarre and E. Reguera; *RSC Adv.*, 6 (2016) 98457
- 241) On the bromination of aromatics, alkenes and alkynes using alkylammonium bromide: Towards the mimic of bromoperoxidases reactivity, F. Mendoza, R. Ruíz-Guerrero, C. Hernández-Fuentes, P. Molina, M. Norzagaray-Campos, E. Reguera, *Tetrahedron Lett.* 57 (2016) 5644–5648
- 242) On the state of Mn in Mn<sub>x</sub>Zn<sub>1-x</sub>O nanoparticles and their surface modification with isonipecotic acid; L. Jiménez-Hernández, O. Estévez-Hernández, M.P. Hernández, J.A. Díaz, M.F. Fariás, E. Reguera; *J. Solid State Chem.* 247 (2017) 43-52

### **Edited or Published Books:**

- 1) Co-Editor of: “*Applications of the Mössbauer Effect*”, Baltzer AG Scientific Publishing Co. (Switzerland), 1991, 744 pages.



- 2) Fijación del Calcio en la Nixtamalización: Estudio de las Sales de Calcio de Ácidos Carboxílicos Alifáticos (Spanish Edition) by Alma Valor Reed, Edilso Reguera, Feliciano Sánchez S. (Mar 29, 2012); Publisher: Editorial Académica Española (March 29, 2012); ISBN-10: 3848458187; ISBN-13: 978-3848458189

**Patents:**

- “*Catalyst for Ozone Decomposition*”; E. Reguera (40%) et al.; Code: 22-286-94.
- “*A method for BaFe<sub>12</sub>O<sub>19</sub> M type ferrite preparation*”; Code: 22 817-02: Patent Cuban Office.

Last Update: December 2015