Curriculum Vitae

Personal information

Surname(s) / First name(s)	**Bramer Escamilla Werner**
Address(es)	Calle Antonio Ante con Matovelle EO5-17. Urcuquí
Telephone(s)	0997054200 (phone)
Email(s)	wbramer@gmail.com, wbramer@yachaytech.edu.ec
Nationality(-ies)	Venezuelan, German
Date of birth	November 21st, 1973
Gender	Male

Education

- $09/2001 - 01/2008$

  Ph.D. Physics
  Venezuelan Institute for Scientific Research (IVIC)
  Thesis: "Study of the Order Parameter in Centrosymmetric Superconductor $CePt_3Si$ using the Magnetic Penetration Length"
  Advisor: Dr. Ismardo Bonalde (Center for Physics - IVIC)

- $01/1996 - 07/2001$

  B.S. Physics
  Carabobo University (UC)
  Thesis: "Development of a Numerical Code to Solve the Equations of Gas Dynamics in One Dimension"
  Advisor: Dr. Leonardo Sigalotti (Center for Physics - IVIC)

Skills

Experimental	I have experience in superconductivity, specifically in magnetic penetration depth measurement (I design and built the magnetic penetration depth measurement apparatus) also I have expertise in operating 4K refrigerators and dilution refrigerators. I have worked in characterization of magnetic materials especially in magnetic nanoparticles of different types. The studies that I have carried out in this area are based on the characterization through measurements of the magnetization as a function of the applied field and studies in the use of magnetic nanoparticles in the hyperthermia technique. I built the vibrating sample magnetometer to perform the magnetization characterization experiments as a function of the applied field. I make some work in thin film thermal evaporation of semiconductors. I have also been involved in the development of capacitive measurement systems for measurements in discrete media, specifically in granular media. I have experience on instrumentation and automation of different assemblies also taking measurements as well analyzing the results in some areas of the physics of condensed matter.
Mother tongue(s)	**Spanish**
Other Languages	English, German Computer Literacy
Windows, Linux, Labview, Gnuplot, Fortran, Latex user at intermediate level	
Electronics	Analog and Digital (design and development of circuits for signal conditioners and data acquisition)
Mechanics	Micromechanical Design (development of simple pieces in lathe and milling)

Grants

• $09/2001 - 07/2005$	FONACIT Grant

Scientific work experiences

• $09/2017 -$ Present	Professor/Researcher School of Physical Science and Nanotechnology Yachay Tech
• $09/2015 - 05/2017$	Research Associate II-3 Laboratory of Condensed Matter Physics Center for Physics - IVIC
• $09/2013 - 09/2014$	Research Associate II-2 Laboratory of Condensed Matter Physics Center for Physics - IVIC
• $09/2012 - 09/2013$	Research Associate II-1 Laboratory of Condensed Matter Physics Center for Physics - IVIC
• $09/2011 - 09/2012$	Research Associate I-3 Laboratory of Condensed Matter Physics Center for Physics - IVIC
• $09/2010 - 09/2011$	Postdoctorante III Laboratory of Condensed Matter Physics Center for Physics - IVIC
• $09/2009 - 09/2010$	Postdoctorante II Laboratory of Condensed Matter Physics Center for Physics - IVIC

• $09/2008 - 09/2009$	Postdoctorante I Laboratory of Condensed Matter Physics Center for Physics - IVIC
• $08/2008 - 11/2008$	Professional in Training Laboratory of Condensed Matter Physics Center for Physics - IVIC
• $02/2008 - 08/2008$	Professional in Training Low Temperature Laboratory Center for Physics - IVIC
• $02/2008 - 06/2008$	Professional Services for the Investigator Dr. Ismardo Bonalde under the FONACIT project S1-2001000639 Low Temperature Laboratory Center for Physics - IVIC
• $09/2001 - 01/2008$	Ph.D. Graduate Student Low Temperature Laboratory Center for Physics - IVIC
• $01/2006 - 11/2006$	Professional Services for the Investigator Dr. Ismardo Bonalde under the FONACIT project S1-2001000639 Low Temperature Laboratory Center for Physics - IVIC

• $09/2000 - 06/2001$	Assistant Student Laboratory of Computational Physics Center for Physics - IVIC
• $06/2000 - 07/2000$	Student in Training Laboratory of Computational Physics Center for Physics - IVIC
• $05/1999$	Student in Training Laboratory of Optical and Transport Properties of Semiconductors Center for Physics - IVIC

Academic work experience

• $05/2008 - 07/2008$	Professor of Electromagnetism Department of Mathematics and Physics Pedagogical Institute of Caracas - UPEL
• $06/1997 - 02/2001$	Undergraduate Teaching Assistant of Mathematics I Mathematics Deparment - UC

Other experience

• $07/2013 - 07/2014$	Mechanic Garage Coordinator Center for Physics - IVIC
• $10/2009 - 04/2011$	Mechanic Garage Coordinator Center for Physics - IVIC
• $11/2008 - 10/2009$	Seminar Coordinator Center for Physics - IVIC

Design and Construction of a detection system capacitive density distribution for the characterization of refractory failure

Recognitions

• $2016-2017$	PEII Researcher B
• $2013-2015$	PEII Researcher A1
• $2011-2013$	PEII Researcher A
• 2012	AsoVAC. Recognition forthe best research Session: Physics and Mathematics
• $2006-2010$	Researcher Candidate in the Venezuela Foundation for Promotion of Research No. 7741
• 2001	UC. Recognition for Placing Among the top 4 Students in the 5th year
• 1997	UC. Recognition for Placing Among the top 4 Students in the 1st year

Scientific Meetings

• $12/2014$	VIII Congreso Nacional de Física 2014 J. A. Zabala, W. Brämer Escamilla, S. Briceño y P. Silva Tucacas, Venezuela

• 12/2014	VIII Congreso Nacional de Física 2014 W. Brämer Escamilla, P. Grima Gallardo y P. Silva Tucacas, Venezuela
• 12/2014	VIII Congreso Nacional de Física 2014 O. Alcalá, S. Briceño, W. Brämer Escamilla, F. Yucci, Y. Sánchez y P. Silva Tucacas, Venezuela
• 12/2014	VIII Congreso Nacional de Física 2014 M. Calderón, Suarez-Vargas, W. Brämer Escamilla, S. Briceño, I. Sánchez, P. Bolaños y C. Caputo Tucacas, Venezuela
• 12/2014	VIII Congreso Nacional de Física 2014 D. Lopéz, R. Urbina, K. Ascencio, W. Brämer Escamilla e I. Sánchez Tucacas, Venezuela
• 10/2014	Foro 2014 nanoSUR J. Zabala, W. Brämer Escamilla, S. Briceño y P. Silva Caracas, Venezuela
• 11/2012	JIFI-EAI 2012 F. Peña-Polo, Y. Trosel Arroyo, I. Sánchez y W. Brämer Escamilla Caracas, Venezuela
• 11/2012	JIFI-EAI 2012 Y. Sánchez, P. Silva, S. Briceño, W. Brämer Escamilla, G. E. Delgado, J. P. Rodrígeuz, J. Larionova y J. Long Caracas, Venezuela
• 11/2012	LXII Convención Anual de AsoVAC M. Calderón, J. Suarez, W Brämer Escamilla, S. Briceño y P. Bolaños Caracas, Venezuela

• 09/2012	IV International Seminar on Nanosciences and Nanotechnologies S. Briceño, Werner Brämer Escamilla y P. Silva La Habana, Cuba
• 07/2012	XV Venezuelan Congress on Microscopy and Microanalysis S. Briceño, Yeni Sanchez, Werner Brämer Escamilla, P. Silva y Eric Plaza Santa Ana de Coro, Venezuela
• 11/2011	XVIII Venezuelan Congress on Catalysis S. Briceño, Werner Brämer Escamilla y P. Silva Punto Fijo, Venezuela
• 12/2010	Conference on Research K. Ascencio, Werner Brämer e Iván Sánchez Caracas, Venezuela
• 05/2010	1st Conference of Basic and Applied Research in Granular Media K. Ascencio, Werner Brämer e Iván Sánchez Caracas, Venezuela
• 11/2009	Franco - Venezuelan School of Nanotechnology Choroní, Venezuela
• 11/2008	Workshop/School On Spin Manipulation and Spin-orbit Coupling: Semiconductors and Superconductors Choroní, Venezuela
• 11/2001	III Venezuelan Physics Meeting Caracas, Venezuela
• 11/2000	VI Hechicera School of Relativity, Fields and Astrophysics Mérida, Venezuela

• $11/1999$	V Hechicera School of Relativity, Fields and Astrophysics Mérida, Venezuela
• $07/1999$	Atmospheric Optical Thickness Werner Brämer y Clara Rojas Exhibition of Works of Investigation and Artistic Samples Valencia, Venezuela
• $11/1998$	IV Hechicera School of Relativity, Fields and Astrophysics Mérida, Venezuela
• $04/1996$	II Hechicera School of Relativity, Fields and Astrophysics Mérida, Venezuela

Courses

• $05/02/18 - 09/02/2018$	Labview training program. Duration: 40 horas Institute July 17
• $19/12/17 - 12/01/2018$	Investigation, Grants and Internalizations. Duration: 90 horas Yachay Tech University
• $19/11/17 - 02/01/2018$	Project Based Learning (ABP). Duration: 40 horas Online
• 1997	Physical Principles of Laser Holography Duration: 4 hours UC

Projects

• Development and characterization of different types of devices based on new materials for use in the field of applied research	2pt
0.5cm	
13/05/13-13/05/17 • PEII-201100446:	Design and Construction of a detection system capacitive density distribution for the characterization of refractory failure.
• PEII-2011001368:	Development of new alternative materials and their potential technological applications Venezuelan telecommunications industry.
• ECOS N○ V13PS01	Heat generation using ferrite nanoparticles for applications in the treatment of cancer.

Workshops, Schools and Conferences

• $09/2012$:	Organizer of the Second Summer Scientific School IVIC-UC.

Matters

1ro. 2018	Nanodevices and Sensors Laboratory
1ro. 2018	Modern Physics Laboratory
1ro. 2018	Physics I.
2do. 2017	Physics I.
1ro. $2016-2017$	Electromagnetic Theory.
2do. $2015-2016$	Introduction to Research I and II.
2do. $2013-2014$	Introduction to Research I and II.
1ro. $2013-2014$	Electromagnetic Theory.
1ro. $2011-2012$	Special Topics in Physics IV: Experimental Physics.
2do. $2010-2011$	Introduction to Research I and II.
1ro. $2010-2011$	Special Topics in Physics IV: Experimental Physics.
1ro. $2009-2010$	Introduction to Research II.

Directed thesis

• $2015-2018$	Yenni Sánchez, IVIC. Doctoral thesis. Developing.
• $2011-2018$	Yenni Sánchez, IVIC. Doctoral thesis. Developing.

• $2012 - 2016$	José Zabala, IVIC. Master thesis.
• $2010 - 2012$	Karol Asencio, IVIC. Master thesis.

Refereed Publications

• 2017

[23] Olgi Alcalá, Sarah Briceño, **Werner Brämer-Escamilla** and Pedro Silva. Toroidal cores of $Mn_xCo_{1-x}Fe_2O_4$/PAA nanocomposites with potential applications in antennas. *Materials Chemistry and Physics*, 192.

• 2016

[22] P. Grima-Gallardo, M. Salas, O. Contreras, Ch. Power, M. Quintero, H. Cabrera, Inti Zumeta-Dubé, A. Rogríguez, J. Aitken and **W. Brämer-Escamilla**. Cu_3TaSe_4 and Cu_3NbSe_4: X-ray diffraction, differential thermal analysis, optical absorption and Raman scattering. *Journal of Alloys and Compounds*, 658.

• 2015

[21] **W. Brämer-Escamilla**, P. Grima-Gallardo, M. Salas and P. Silva. Development and characterization of a p-n junction of Si–Cu_3NbSe_4. *Acta Científica Venezolana*, $66:3$.

[20] Olgi Alcalá, Sarah Briceño, **Werner Brämer-Escamilla** and Pedro Silva. Impedancia en bobinas con núcleos toroidales de $CoFe_2O_4$/PAA. *Acta Científica Venezolana*, $66:3$.

[19] José J. Suárez-Vargas, M. Calderón, **W. Brämer-Escamilla**, Sarah Briceño, I. Sánchez, P. Bolaños and C. Caputo. Electrical characterization and electrogenic cell stimulation using a conductive polymer composite based on PEDOT:PSS/PVA/EG. *Rev. LatinAm. Metal. Mat.*, 35.

[18] Sarah Briceño, Pedro Silva, **W. Brämer-Escamilla**, José Zabala, Olgi Alcala, Yannick Guari, Joulia Larionova and Jerome Long. Magnetic water-soluble rhamnose-coated $Mn_{1-X}Co_XFe_2O_4$ nanoparticles as potential heating agents for hyperthermia. *Biointerface Res. Appl. Chem.*, $5:910$.

[17] K. Asencio, **W. Brämer-Escamilla***, G. Gutiérrez and I. Sánchez. Electrical capacitance sensor array to measure density profiles of a vibrated granular bed. *Powder Technology.*, $270 : 10 - 19$.

• 2014

[16] F. Peña Polo, Y. Trosel, I. Sánchez and **W. Brämer-Escamilla***. Sensor capacitivo como dispositivo de medida del estado de orden de objetos discretos. *Revista de la Facultad de Ingeniería Universidad Central de Venezuela.*, $29 : 133 - 138$

[15] R. Urbina, K. Díaz,**W. Brämer-Escamilla**, I. Sánchez. A Granular Fountain. *Am. J. of Phys.*, 82.

[14] Sarah Briceño, **W. Brämer-Escamilla**, P. Silva, J. García, H. Del Castillo, M. Villarroel, J. P Rodríguez, M. A. Ramos, R. Morales abd Y. Díaz. $NiFe_2O_4$/activated carbon nanocomposite as magnetic material from petcoke. *J. of Mag. and Magnetic Mat.*, $360 : 67$.

• 2013

[13] S. Briceño, Y. Sáncez, **W. Brämer-Escamilla**, P. Silva and E. Plaza. Comparative study of methods for preparation of nanoparticles of $CoFe_2O_4$ ferrites. *Acta Microscópica*, $22 : 62$.

[12] S. Briceño, **W. Brämer-Escamilla**, P. Silva, G. Delgado, E. Plaza and J. Palacios. Effects of synthesis variables on the magnetic properties of $CoFe_2O_4$ nanoparticles. *J. of Mag. and Magnetic Mat.*, $324 : 2926$.

• 2012

[11] S. Briceño, **W. Brämer-Escamilla**, P. Silva, G. Delgado, Y. Díaz, E. Plaza and E. Cañizales. Synthesis, characterization and magnetic properties of $CoFe_2O_4$ nanoparticles using PEG as surfactant. *Rev. LatinAm. Metal. Mat.*, $33 : 156$.

[10] S. Briceño, H. del Castillo, V. Sagredo, **W. Brämer-Escamilla** and P. Silva. Control of the average size of ferrite nanoparticles of Cobalt $CoFe_2O_4$. *CATALISIS*, $1:130$.

[9] S. Briceño, **W. Brämer-Escamilla**, P. Silva, E. Cañizales and G. E. Delgado. Structural, catalytic and magnetic properties of $Cu_{1-x}Co_xFe_2O_4$. *Appl. Surf. Sci.*, $263:100$.

• 2009

[8] P. Silva, V. Sagredo, **W. Brämer**, E. Pérez and, F. Torres. Temperature dependence of the EPR spectra for the $Ni_{1-x}Co_xFe_2O_4$ nanoparticles. *J. Phys.: Conf. Ser.*, $200:082023$.

[7] I. Bonalde, R. L. Ribeiro, **W. Brämer-Escamilla**, C. Rojas, E. Bauer, A. Prokofiev, Y. Haga and T. Yasuda. Unusual Behaviours and Impurity Effects in the Noncentrosymmetric Superconductor $CePt_3Si$. *New J. of Phys.*, $11:055054$.

[6] I. Bonalde, R. L. Ribeiro, **W. Brämer-Escamilla**, G. Mu and H. H. Wen. Possible two-gap behavior in noncentrosymmetric superconductor $Mg_{10}Ir_{19}B_{16}$: A penetration depth study.*Phys. Rev. B*, $79:052506$.

• 2007

[5] I. Bonalde, **W. Brämer-Escamilla**, Y. Haga, E. Bauer, Y. Yasuda, and Y. Onuki. The anisotropy of the superfluid density in noncentrosymmetric $CePt_3Si$. *Physica C*, $460-462:659$.

[4] E. Bauer, H. Kaldarar, A. Prokofiev, E. Royanian, A. Amato, J. Seren, **W. Brämer-Escamilla**, and I. Bonalde. Heavy Fermion Superconductivity and Antiferromagnetic Ordering in $CePt_3Si$ without Inversion Symmetry. *J. Phys. Soc. Jpn.*, $76:051009$.

[3] I. Bonalde, R. Ribeiro, **W. Brämer-Escamilla**, Y. Yamaura, and Z. Hiroi. Isotropically Gapped Strong-Coupling Superconductivity in the β-Pyrochlore KOs_2O_6: Evidence from Penetration Depth Measurements. *Phys. Rev. Lett.*, $98:227003$.

• 2006	[2] I. Bonalde, **W. Brämer-Escamilla**, and E. Bauer. Lines of Nodes in the Superconducting Gap of Noncentrosymmetric $CePt_3Si$. *AIP Conf. Proc.*, $850 : 703$.
• 2005	[1] I. Bonalde, **W. Brämer-Escamilla**, and E. Bauer. Evidence for Line Nodes in the Superconducting Energy Gap of Noncentrosymmetric $CePt_3Si$ from Magnetic Penetration Depth Measurements. *Phys. Rev. Lett.*, $94 : 207002$.