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DIRECCION EN BUENOS AIRES

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EDUCATION

1941 Maestro Normal, San Justo, Sta. Fe
1950 A. B. Instituto del Profesorado Secundario, Buenos Aires
1958 M. S. Universidad of Buenos Aires
1962 Doctorado, Universidad of Buenos Aires

EXPERIENCIA

1951-1958 Profesor of Matemáticas, Colegios Secundarios de Buenos Aires.
1957-1957 Profesor de "Mecanismos y Elementos de Maquinas", Escuela Municipal Raggio.
1955-1957 Ayudante de Primera, Facultad de Ciencias Exactas y Naturales, Buenos Aires.
1956-1958 Profesor of Física II, Escuela Superior Técnica del Ejército. Buenos Aires.
1958-1960 Instructor, Dedicación Exclusiva, Facultad de Ciencias Exactas y Naturales, Buenos Aires.
1961-1965 Profesor Asociado, Departamento de Física, Facultad de Farmacia y Bioquímica, Buenos Aires.
1963-1965 Research Associate, University of Toronto.
1965-1967 Profesor Asistente de Física, Universidad de Buenos Aires.
1967-1968 Visiting Professor of Physics, University of South Carolina.
1968-1973 Associate Professor of Physics, University of South Carolina.
1973-2006 Professor of Physics, University of South Carolina

1980-1998	Director of Graduate Studies, University of South Carolina
1980-1992	Assistant Chairman, Department of Physics and Astronomy, University of South Carolina
1992-2004	Associate Chairman, Department of Physics and Astronomy, University of South Carolina
2004 - presente	Distinguished Professor Emeritus, University of South Carolina.
2006 - presente	Profesor Invitado, Cátedra de Física, Facultad de Farmacia y Bioquímica, UBA.
2006 - presente	Miembro del Comité Científico del Consejo Argentino para las Relaciones Internacionales, CARI
2006-presente	Bajo contrato, Physics Department, University of South Carolina

HONORES

- 1977 Fellow, American Physical Society
- 1978 Russell Award in Science and Engineering, University of South Carolina
- 1980 Jesse W. Beams Medal, American Physical Society
- 1980 Fulbright-Hays Award
- 1986 Fulbright-Hays Award
- 1986 AMOCO Award for Outstanding Teaching
- 1988 Honorary Professor, Universidad Nacional de Colombia, Bogota, Colombia
- 1988 Honorable Guest of China, University of Taiyuan, China
- 1994 Board of Trustees Carolina Teaching Professorship
- 1995 Miembro, Academia Nacional de Ciencias (Argentina)
- 1996 Premio del Presidente: Distinguido Científico Argentino en el Extranjero
- 1996 Medalla Luis Federico Leloir
- 2002 Mungo Teaching Award
- 2003 Carolina Conference on the Physics of Spin in Condensed Matter Honoring the Contributions of Horacio Farach and Charles Poole, Jr. to the Field of Spin Resonance
- 2010 Doctor Honoris Causa, Universidad Nacional de San Martin, UNSAM
- 2011 Honorable Profesor, Universidad de Buenos Aires, UBA

GRANTS

NSF Electron Spin Resonance Seminar Workshop (1972)

NSF Electron Spin Resonance Seminar Workshop (1973)

NSF ISP-8011451 Instrumentation for Magnetic Resonance \$25,900.00 (1979)

NSF PCM-8320267 II Summer College of Biophysics Trieste, Italy \$4,500 (1984)

NSF DMR-8506690 New Techniques for the Study of Polarization Reversal of Ferroelectrics \$280,000 (1985)

NSF DMB-8715873 IV Summer College of Biophysics, Trieste, Italy \$8,000 (1988)

NIH SRC (Z) 1R13 CA52 841-01 International Conference on Medical Physics Trieste, Italy \$7,980 (1990)

NSF INT-9115051 International Conference on Biophysics, Trieste, Italy \$20,000 (1992)

NSF INT-9401669 International Conference on Biophysics, Trieste, Italy \$20,900 (1994)

RMH Research and Education Foundation - Evaluation of Hyperbaric Oxygen Therapy for the Attenuation of Reperfusion Injury in a Pedicle Flap Model \$5,000 (1994)

INVESTIGACIONES DE INTERES

Estudio de mezcla de cristales y vidrios conteniendo metales por medio de resonancia paramagnética electrónica (RPE) a temperaturas desde helio líquido hasta cientos de grados centígrados.

Calculo de campo efectivo en cristales paramagnéticos por medio de la técnica de Monte Carlo.

Estudio de ferro eléctricos.

Simulación por medio de la computadora del ruido de fondo en detectores de simetrías complejas.

Simulación por medio de la computadora de transición fase en sistemas fuera de equilibrio.

OTRAS ACTIVIDADES PROFESIONALES

Fellow of the American Physical Society

Member of the Solid State Division of the American Physical Society

Member of the Southeastern Section of the American Physical Society

Former Co-Editor of Superconductivity Review (Journal)

Former Co-Editor of Magnetic Resonance Review (Journal)

Member of the Advisory Screening Committee for Fulbright Senior Scholar Awards in Physics (1982-1985)

Co-Director Summer College in Biophysics, International Centre for Theoretical Physics, Trieste, Italy (1980 to 1997)

Co-Director Summer College in Medical Physics, International Centre for Theoretical Physics, Trieste, Italy (1982 to 1997)

EXPERIENCIA DOCENTE

1952-1958 Matemática en Escuelas Secundarias
1959-2007 Física en Universidades: Universidad de Buenos Aires, Universidad de Toronto
(Canadá), Universidad de Vancouver (Canadá) Universidad de South Carolina (USA)

CURSOS ENSEÑADO

Undergraduado: Introducción a la Física
Física del Estado Sólido
Óptica

Graduado: Física del Estado Sólido
Programación en computadoras
Resonancia Magnética
Física del Calor
Mecánica Clásica
Tópicos Avanzados
Introducción a la técnica de Monte Carlo

LIBROS

1. C. P. Poole, Jr. and H. A. Farach, Relaxation in Magnetic Resonance, Academic Press, New York, 1971.
2. C. P. Poole, Jr. and H. A. Farach, Theory of Magnetic Resonance, Wiley, NY 1972.
3. C. P. Poole, Jr. and H. A. Farach, Teoria de la Resonancia Magnetica, Editorial Reverte, S. A. (Spanish Translation), Madrid 1976.
4. F. J. Owens, C. P. Poole, Jr. and H. A. Farach, Magnetic Resonance Studies of Phase Transitions, Academic Press, NY 1979.
5. C. P. Poole, Jr. and H. A. Farach, Theory of Magnetic Resonance, Second Edition Wiley, NY 1985.
6. C. P. Poole, Jr., T. Datta and H. A. Farach, Copper Oxide Superconductors, Wiley, NY (1988).
7. R. J. Creswick, H. A. Farach and C. P. Poole, Jr. Introduction to Renormalization Group Methods in Physics, Wiley, NY (1991).
8. C. P. Poole and H. A. Farach, Electron Spin Resonance Handbook, American Institute of Physics (1994).
9. C. P. Poole, Jr., H. A. Farach, and R. J. Creswick, Superconductivity, Academic Press (1995).
10. C. P. Poole and H. A. Farach, EPR at 50, Ed. Gareth & Sandra Eaton, Oxford University Press (1998).
11. C. P. Poole and H. A. Farach, Electron Spin Resonance Handbook Vol. II, American Institute of Physics (1999).
12. A Chapter, “Entangle States and Quatum Computers” on the Handbook of Physics, C.P. Poole, second edition John Wiley (2007).
13. C.P. Poole, H.A. Farach, R. Creswick, and R. Prozorov, Superconductivity, second edition, Academic Press (2007).
14. “Problems for Qualifying Examination”. A continuation of The Handbook of Physics, H.A. Farach, C.P. Poole, and J. Safko, Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany
15. En preparation, ‘Matematics for Elementary Physics’

ARTICULOS DE REVISTA

1. Solving the Spin Hamiltonian for the Electron Spin Resonance of Irradiated Organic Single Crystals, H. A. Farach and C. P. Poole, Jr., *Adv. in Mag. Res.* 5, 229-303 (1971).
2. Guide to the Magnetic Resonance Literature, H. A. Farach, and C. P. Poole, Jr., *Mag. Res. Rev.* 1, 3-32 (1972).
3. Electron Spin Resonance, C. P. Poole, Jr., and H. A. Farach, *CRC Handbook of Spectroscopy*, II, (1974).
4. ²⁷Al Nuclear Magnetic Resonance, C. P. Poole, Jr., and H. A. Farach, series of Experimental Polymer Science, in the volume *Mag. Res. in High Polymers, Japan*, (1975), pp. 353-365 (in Japanese).
5. Electron Spin Resonance of Minerals, Par 1 Non Silicates, C. P. Poole, Jr., H. A. Farach and T. Parker Bishop, *Mag. Res. Rev.* 4, 137 (1977).
6. Electron Spin Resonance of Minerals, Part II Silicates, C. P. Poole, Jr., H. A. Farach and T. Parker Bishop, *Mag. Res. Rev.* 5 225 (1978).
7. Electron Spin Resonance of Glasses, R. Nicklin, H. A. Farach and C. P. Poole, Jr., *Handbook of Spectroscopy*, Chem. Rubber. Co. (1978).
8. Magnetic Resonance as a Probe of Phase Transitions, Chapter II in the book *Magnetic Resonance Studies of Phase Transition*, C. P. Poole, Jr., and H. A. Farach, Academic Press, NY, pp. 26-78 (1979).
9. Lineshapes in Electron Spin Resonance, C. P. Poole, Jr., and H. A. Farach, *Bull. Mag. Res.*, Vol. 1, No. 4, 162-194 (1980).
10. Short Time Domain and Double Resonance Techniques in Electron Spin Resonance Spectroscopy, C.P. Poole, Jr. and H.A. Farach, *Appl. Spect. Rev.* 19(2), 167-258 (1983).
11. Electron Spin Resonance C.P. Poole, Jr. and H.A. Farach, *Metals Handbook*, Ninth Edition Volume 10, Materials Characterization (1986).
12. Electron Spin Resonance Chapter 8, C. P. Poole and H. A. Farach, *C. R. C. Handbook of Spectroscopy*, 649 (1991)
13. Electron Spin Resonance Spectrometers, C. P. Poole and H. A. Farach, *Encyclopedia of Scientific Instrumentation* (1997).
14. Preparing the Way for Paramagnetic Resonance, C. P. Poole, Jr. and H. A. Farach, Chapter on EPR at 50, Ed Gareth & Sandra Eaton, Oxford Univ. to be published in 1999.

15. C. P. Poole, Jr. and H. A. Farach, "The First Sequidecade of Paramagnetic Resonance", Chapter on EPR at 50, Ed Gareth & Sandra Eaton, Oxford Univ. to be published in 1999.
16. C P. Poole, Jr. and Horacio A. Farach, "Lineshapes", Chapter in Handbook of Electron Spin Resonance, Vol. 2 to be published in 1999.
17. C. P. Poole, Jr. and Horacio A. Farach, "Resonators", Chapter in Handbook of Electron Spin Resonance, Vol. 2 to be published in 1999.
18. G. A. Rinard, S. S. Eaton,
G. R. Eaton, C. P. Poole, Jr., and H. A. Farach, "Sensitivity of ESR Spectrometers: Signal, Noise, and Signal-to-Noise, "Chapter in Handbook of Electron Spin Resonance, Vol. 2 to be published in 1999.

ARTICULOS EN REVISTAS CON REFERI

1. J. Daniels and H. A. Farach, "Spin-Flip Narrowing Paramagnetic Lines", Canadian Journal of Physics 38, 151 (1960).
2. J. Daniels and H. A. Farach, "Automatic Frequency Control for a Klystron", The Review of Scientific Instruments 32, NO. 11, 1262 (1961).
3. O. Christie, J. Daniels and H. A. Farach, "The Pulse Height Distribution in N. E. 102 Scintillator for Monoenergetic Neutrons", Canadian Journal of Physics 42, 1676 (1964).
4. A. Zaninovich, H. A. Farach, C. Ezrin and R. Volpe, "Lack of Significant Binding of L-Triiodothyronine by Thyroxine-Binding Globuline in Vivo as Demonstrated by Acute Disappearance of ^{125}I -Labeled Triiodothyronine", Journal of Clinical Investigation, Vol. 45, 1290 (1966).
5. H. A. Farach and H. Teitelbaum, "Spectroscopic Line Analysis Using a Gaussian and Lorentzian Convolution Technique", Canadian Journal of Physics 45, 2913 (1967).
6. H. A. Farach, J. Chagalj and H. Panepucci, "Line Width in Magnetically Dilute Tuton's Salts", Journ. Chem. Phys. Solids 29, 2070 (1968).
7. H. A. Farach and C. P. Poole, Jr., "Atlas-Synthesis and Plotting of Hyperfine Patterns of Electron Spin Resonance Spectra", Quantum Chem. Program Exchange Newsletter 23, 14 (1968), Prog. No. 128.
8. C. P. Poole, Jr. and H. A. Farach, "Relationships between Mossbauer, Magnetic Resonance and Optical Spectroscopy", J. Magnetic Resonance 1, 551 (1969).
9. H. A. Farach, C. P. Poole, Jr., and J. M. Daniels, "Low Temperature Spin Orientation in Cobalt Tuton's Salt", Phys. Rev. 188, 864 (1969).
10. H. A. Farach, and C. P. Poole, Jr., "Solution to the Anderson Exchange Narrowing Model for $> 1/2$ ", J. Phys. Chem. Solids 31, 1491 (1970).
11. C. P. Poole, Jr. and H. A. Farach, "Satellite Lines in Electron Spin Resonance", Proc. of the XVIth Colloque Ampere, Bucharest, 1970.
12. C. P. Poole, Jr. and H. A. Farach, "Influence of the Nuclear Zeeman Term on Anisotropic Hyperfine Patterns in Electron Spin Resonance" J. Magn. Resonance 4, 312 (1970).
13. J. M. Diaz, H. A. Farach and C. P. Poole, Jr., "An Electron Spin Resonance and Optical Study of Turquoise", Rev. Col. de Fisica, Vol. 7, 47 (1971).
14. J. Diaz, H. A. Farach, and C. P. Poole, Jr., "An Electron Spin Resonance and Optical Study of Turquoise", Amer. Mineralogist 56, 773 (1971).
15. C. P. Poole, Jr. and H. A. Farach, "Allowed and Forbidden Transitions in Hyperfine Multiplets", J. Mag. Resonance 5, 3 (1971).

16. D. K. Gupta, C. P. Poole, Jr., and H. A. Farach, "Electron Spin Resonance of Benzo (ghi) Fluorathene and Fluorene Radial Ions", *Il Nuovo Cimento* 2, 20 (1971).
17. H. A. Farach and C. P. Poole, Jr., "The Spin Hamiltonian for Completely Anisotropic g-factor and Hyperfine Coupling Tensors", *Il Nuovo Cimento* 4B, 51 (1971).
18. E. F. Strother, H. A. Farach and C. P. Poole, Jr., "Electron Spin Resonance Study of High Concentration Manganese Nitrate Aqueous Solutions", *Phys. Rev.* A4, 2079 (1971).
19. R. C. Nicklin, H. A. Farach, and C. P. Poole, Jr., "The Single Crystal Electron Spin Resonance Spectra of X-Irradiated Potassium Hydrogen Malonate", *J. Chem. Phys.* 56, 1279 (1972).
20. M. P. Stombler, H. A. Farach, and C. P. Poole, Jr., "An Electron Spin Resonance Study of Manganese Substituted Spinel", *Phys. Rev.* B6, 40 (1972).
21. H. A. Farach and C. P. Poole, Jr., "Low Temperature Spin Orientation in Cobalt Tutton's Salts II", *Phys. Rev.* B5, 1870 (1972).
22. H. A. Farach and C. P. Poole, Jr., "A Unified Treatment of Magnetic Resonance", *Proc. Solid State Physics Conference, Bucaramanga, Colombia, July 1972, Sociedad Colombiana de Fisica.*
23. H. A. Farach, R. C. Nicklin, and C. P. Poole, Jr., "EPR of Mn^{2+} in As-S-I and As-Te-I Glasses", *J. Chem. Phys.* 58, 2579 (1972).
24. C. P. Poole, Jr., H. A. Farach and W. K. Jackson, "Standardization of Convention for Zero Field Splitting Parameters", *J. Chem. Phys.* 61, 2220 (1974).
25. H. Panepucci, R. Robert, H. A. Farach, and Milton de Souza, "Optical and EPR Observation of the F Center in KCN", *Solid State Communications*, 16, 1147 (1975).
26. H. A. Farach, C. P. Poole, Jr., and R. C. Nicklin, "Anomalous Temperature Dependence of Paramagnetic Resonance Line in $FeF_3 \cdot 2H_2O$ ", *Solid State Communications*, 17, 1393 (1975).
27. H. A. Farach, C. P. Poole, Jr., and R. C. Nicklin, "Antiferromagnetic Exchange in $FeF_3 \cdot 3H_2O$ ", *J. of Mag. Resonance* 23 221 (1976).
28. J. Shaffer, H. A. Farach and C. P. Poole, Jr., "Electron spin resonance Study of Manganese doped Spinel", *Phys. Rev. B* 13, 1869 (1976).
29. R. C. Nicklin, H. A. Farach, C. P. Poole, Jr., "EPR of Mn^{+2} , Fe^{+3} and Cu^{+2} in Glasses of the Systems $BaO-B_2O_3-Al_2O_3$ and $CaO-B_2O_3-Al_2O_3$ ", *J. Chem. Phys.* 65, 2998 (1976).
30. H. Panepucci and H. A. Farach, "Electron Spin Resonance Spectra of Quasi Randomly Oriented Centers: Application to Radiation Damage Centers in Bone", *Medical Physics*, Vol. 4, 46 (1977).
31. Y. Aharonov, H. A. Farach and C. P. Poole, Jr., "A Nonlinear Vector Product to Describe Rotations", *Am. J. Phys.*, 45, 451 (1977).

32. H. A. Farach and C. P. Poole, Jr. and H. Panepucci, "Relaxation Times of the F Center in KCN", *Il Nuovo Cimento* 39, 123 (1977).
33. T. P. Bishop, C. P. Poole, Jr. and H. A. Farach, "Electron Spin Resonance Studies of Minerals", *Georgia Journal of Science* 35, 93 (1977).
34. C. O. Clark, C. P. Poole Jr., and H. A. Farach, "An Electron Spin Resonance Study of Copper (II) Tetraphenyl Porphyrins", *J. Phys. C. Solid State Physics* 11, 769 (1978).
35. A. O. Caride, S. I. Zanette and H. A. Farach, "Recursion Relations for the Group SU(2)", *Journal of Computational Physics* 29, 278 (1978).
36. H. A. Farach and C. P. Poole, Jr., "Low-Temperature Spin Orientation in Cobalt Tutton's Salt III", *Journal of Physics C: Solid State Physics* 11, 4547 (1978).
37. A. Tancredo, P. S. Pizani, C. Mendonca, H. A. Farach, and C. P. Poole, Jr., "Spin-Rotation Relaxation Times for Methyl Compounds with Hindrance Barriers at Different Temperatures", *J. of Mag. Resonance* 32, 227 (1978).
38. H. A. Farach, Y. Aharonov, C. P. Poole, Jr., and S. I. Zanette, "Application of the Nonlinear Vector Product to Lorentz Transformations", *Am. J. Phys.*, 43, 247 (1979).
39. C. O. Clark, C. P. Poole, Jr., and H. A. Farach, "Variable Temperature Electron Spin Resonance Study of Turquoise Samples", *Amer. Mineralogist* 64, 449 (1979).
40. R. D. Truesdale, H. A. Farach, and C. P. Poole, Jr., "Hysteresis Effects in X-irradiated KH_2PO_4 , KD_2PO_4 and RbH_2PO_4 Ferroelectric Single Crystals Observed with Electron Spin Resonance", *Phys. Rev.* 22B, 365 (1979).
41. P. S. Pizani, A. Tancredo, C. Mendonca, H. A. Farach, C. P. Poole, Jr., and P. D. Ellis, "Spin Rotation Relaxation Times for Methyl Compounds with Hindrance Barriers at 65° C", *Chem. Phys. Letters* 80, 112 (1980).
42. C. P. Poole, Jr., H. A. Farach, and Y. Aharonov, "A Vector Product Formulation of Special Relativity and Electromagnetism," *Found. Phys.* 10, 531 (1980).
43. C. J. Smith, H. A. Farach, and C. P. Poole, Jr. "ESR Kinetics Study of the Decay of Low Temperature Radicals in Glycine and β Alanine", *J. Chem. Phys.* 74, 993 (1980).
44. C. Mendonca, H. A. Farach, and C. P. Poole, Jr., "A Libration Model Calculation for ^{13}C Spin Rotation Time in Methyl Compounds", *J. Mag. Res.* 45 290 (1981).
45. A. C. Massabni, J.M.C. Bueno, A. Tancredo, H. A. Farach, and C. P. Poole, "Spectroscopic Measurements on Djencolic Acid Compounds", *Canad. J. Spect.* 26, 185 (1981).
46. C. P. Poole, Jr., and H. A. Farach, "Magnetic Phase Diagram of Spinel Spin-Glasses", *Zeit. Phys.* B47, 55 (1981).

47. C. Biscegli, H. Panepucci, H. A. Farach, and C. P. Poole, Jr., "Advanced Laboratory NMR Spectrometer with Applications," *Amer. J. Phys.* 50, 48 (1982).
48. J. E. R. Duran, H. Panepucci, H. A. Farach and C. P. Poole, Jr., "Electron Spin Resonance of the Radical Ion CNO^{2-} in Irradiated Single Crystals of KC" Doped with KCN," *J. Mag. Resonance*, 46, 374 (1982).
49. C. P. Poole, Jr., and H. A. Farach, "Pauli-Dirac Matrix Generators of Clifford Algebras", *Found. Phys.* 12, 719 (1982).
50. R. D. Truesdale, C. P. Poole, Jr., and H. A. Farach, "Low-Temperature Ferroelectric Polarization Reversal Monitored by Electron Spin Resonance of AsO_4^{4-} in X-irradiated KH_2PO_4 - KH_2AsO_4 Mixed Crystals", *Phys. Rev. B* 25, 474 (1982).
51. R. D. Truesdale, C. P. Poole, Jr., and H. A. Farach, "Switching Times of Ferroelectric Domains in X-ray Irradiated KD_2PO_4 - KH_2AsO_4 Monitored by ESR", *Phys. Rev.* B27, 4052 (1983).
52. J. F. Fernandez, H. A. Farach, C. P. Poole, Jr., and M. Puma, "Monte Carlo Study of Spin Glass Ordering of a Dilute Heisenberg Antiferromagnet on a fcc Lattice", *Phys. Rev. B*, 27, 4274 (1983).
53. R. D. Truesdale, H. A. Farach, and C. P. Poole, Jr., "Fast Switching Times of KD_2PO_4 - KH_2AsO_4 Ferroelectric Domains Monitored by ESR", *Phys. Rev. B* 28 (9), 5268 (1983).
54. D. D. Wheeler, H. A. Farach and C. P. Poole, Jr., "Electron Spin Relaxation of Irradiated Ferroelectric KDP: K_2SeO_4 ," *Phys. Lett.* 103A, 144 (1984).
55. C. Chagalj, T. C. P. de Paoli, A. A. Hager, L. A. Palaoro, E. Rubin de Celis, H. A. Farach, and C. P. Poole, Jr., "Spin Labeling of Human Erythrocytes with Nitroxide Radicals," *Il Nuovo Cimento* 4D, 245 (1984).
56. C. Chagalj, T. C. P. DePaoli, A. A. Hager, E. Rubin de Celis, H. A. Farach, and C. P. Poole, Jr., "Conformation of Bovine Serum Albumin for Various Degrees of Iodination Using Electron Spin Resonance," *Il Nuovo Cimento* 4D, 327 (1984).
57. H. A. Farach, R. J. Creswick, J. M. Knight, C. P. Poole, Jr. and J. F. Fernandez, "Instability Under Dilution of an Antiferromagnetic Ising Model on a FCC Lattice: a Monte Carlo Study," *Phys. Rev.* B31, 3188 (1985).
58. R. J. Creswick, H. A. Farach, C. P. Poole, Jr. and J. M. Knight, "Monte Carlo Study of the Local Field Distribution in the Dilute Antiferromagnetic Ising Model on the Triangular Lattice", *Phys. Rev.* B32, 5776 (1985).
59. P. S. Pizani, M. C. Terrile, H. A. Farach and C. P. Poole, Jr., "Color Centers in Sodalite", *Am. Mineralogist* 70, 1186 (1985).
60. J. M. Diaz, H. A. Farach, and C. P. Poole, Jr., "The Magnetic Properties of Metatorbernite," *Canadian Mineralogist*, 23, 643 (1985).

61. C. P. Poole, Jr., and H. A. Farach, "Electron Spin Resonance Studies of Switching in Ferroelectrics" Proc. Ramis-85 Conference, Radio and Microwave Spectroscopy, Posuas, Poland (1985).
62. D. Li, C. P. Poole, Jr., and H. A. Farach, "A General Method of Generating and Classifying Clifford Algebras", J. Math. Phys. 27, 1173 (1986).
63. R.J. Creswick, H.A. Farach and C.P. Poole, Jr., "The Free Energy of Weakly Dilute Ising Models," Journ. of Appl. Phys. 61, 4407 (1987).
64. C.P. Poole, Jr., H.A. Farach and R.J. Creswick, "Systematic Variation of Ferroelectric Transition Temperature Within Related Isomorphic Series", Ferroelectrics, 71, 143 (1987).
65. R.J. Creswick, H.A. Farach and C.P. Poole, Jr., "Mean Field Theory of Local Freezing in the Ising Model", R.J. Creswick, H.A. Farach and C.P. Poole, Jr., Phys. Rev. B. 35, (1987).
66. H.A. Farach, R.J. Creswick, and C.P. Poole, Jr. "Exact Results for the Site-Dilute Antiferromagnetic Ising Model on Finite Triangular Lattices", Phys. Rev. B 37, 5615 (1988).
67. D.D. Wheeler, H.A. Farach, C.P. Poole, Jr. and R.J. Creswick, "Electron Spin Relaxation Times in Se-Doped Potassium Dihydrogen Ferroelectric Crystals", Phys. Rev. B. 37, 9703 (1988).
68. T. Datta, C.P. Poole, Jr., H.A. Farach, C. Almasan and J. Estrada, "New Approach to Characterizing the High Temperature Superconducting Transition", Phys. Rev. B37, 7843 (1988).
69. R.J. Creswick, H.A. Farach J.M. Knight and C.P. Poole, Jr., "Monte Carlo Method for the Ising Model in a Transverse Field", Phys. Rev. B. 38, 4712 (1988).
70. C. Almasan, J. Estrada, C.P. Poole, Jr., T. Datta, H.A. Farach, D.U. Gubser, S.A. Wolf and L.E. Toth, "Derivative Analysis of the High Temperature Superconducting Transition", Mat. Res. Soc. Symp. Proc. 99, 451 (1988).
71. C. P. Poole, Jr., and H. A. Farach, "Electron Spin Resonance of Superconductors", Proc. of the XXIVth Colloque Ampere, Poznan, 1988.
72. M.M. Rigney, H.A. Farach and C.P. Poole, Jr., "Average Copper Charge and Valence States of Superconducting Cooper Oxides", J. Phys. Chem. Solids 50, 9 (1989).
73. C.P. Poole, Jr., T. Datta and H.A. Farach, "Structural Commonalities of High Temperature Superconductors", J. of Superconductivity 2, 369, (1989).
74. H. A. Farach, E. Quagliata, T. Mzoughi, M. A. Mesa, C. P. Poole, Jr., and R. J. Creswick, "Electron-spin Resonance Determination of the Internal Field Within the Superconductor YBa₂Cu₃O₇", Phy. Rev. B 41 2046, (1990).
75. H.A. Farach, R.J. Creswick and C.P. Poole, Jr., "The Restricted Spin Model", Modern Physics Lett. 4, 1029 (1990).
76. J. M. Diaz, H. A. Farach, and C. P. Poole, Jr., "Electron-spin resonance study of Mn²⁺ in natural wollastonite", American Mineralogist, 75, 262 (1990).

77. D. Li, C. P. Poole, Jr., and H. A. Farach, "Extensions of the General Method of Generating Clifford Algebras and Comparisons with Various Existing Methods", *Int. Jour. of Theo. Phys.*, 29, 483 (1990).
78. T. D. Usher, C. P. Poole, Jr., and H. A. Farach, "Ferroelectric Polarization reversal in Potassium Dihydrogen Phosphate as Monitored by Switching Current", *Ferroelectrics* 110, 67 (1990).
79. T. D. Usher, C. P. Poole, Jr., and H. A. Farach, "Ferroelectric Polarization Reversal in Potassium Dideuterium Phosphate as Monitored by Switching Current", *Ferroelectrics* 120, 201 (1991).
80. H. A. Farach, M. A. Mesa, R. J. Creswick, C. P. Poole, Jr., and T. Mzoughi, "Symmetry Breaking Above T_c in Arsenic Doped KDP", *Ferroelectrics*, 117, 171 (1991).
81. H. A. Farach, M. A. Mesa, J. M. Knight, O. A. Lopez, C. P. Poole, Jr., and R. Creswick, "Incommensurate Phase in doped KH_2PO_4 from Electron-Spin-Resonance Measurements", *Phys. Rev.* B44, 7297 (1991).
82. H. A. Farach, J. M. Knight, C. P. Poole, and R. J. Creswick, "ESR Evidence for an Incommensurate Phase in Doped KH_2PO_4 and KD_2PO_4 ", *Ferroelectrics* 120, 49 (1991).
83. C. P. Poole, H. A. Farach, F. J. Owens and J. Pinto, "Compression Induced Aligned Radicals in Nitroanilines", *Shock Compression of Condensed Matter* 647 (1991).
84. M. A. Mesa, H. A. Farach, R. J. Creswick, C. P. Poole, Jr., and T. Mzoughi, "Ferroelectric EPR Line Splitting Above the Transition Temperature T_c in KH_2PO_4 ", *Modern Physics Letters B5* (1991).
85. T. Mzoughi, H. A. Farach, E. Quagliata, M. Mesa, C. P. Poole, Jr., and R. J. Creswick, "Effects of Field cooling on the low Field Microwave Absorption in Copper Oxide Superconductors", *Phys. Rev.* B46 1130 (1992).
86. D. Castellanos, H. A. Farach, R. Creswick and C. P. Poole, Jr., "A Monte Carlo Study of Surface Critical Behavior", *Phys. Rev.* B47 5037 (1993).
87. A. A. Hager, T. De Paoli, J. E. Ihlo, H. A. Farach, and C. P. Poole, Jr., "Stability Study of Lecithin Liposomes During Storage Using ESR," *Spectrochimica Acta* 49A, 1999, (1993).
88. O. A. Lopez, H. A. Farach, C. P. Poole, Jr., R. J. Creswick, "Switching Times of Domains in DKDP", *Ferroelectrics* 144, 119 (1993).
89. R. Costanzo, T. De Paoli, J. E. Ihlo, A. A. Hager, H. A. Farach, C. P. Poole, Jr., and J. M. Knight, "ESR Study of Order and Dynamics in Lecithin Liposomes with High Cholesterol Content", *Spectrochim. Acta.* 50A, 203 (1994).
90. J. M. Knight, H. A. Farach, and C. P. Poole, Jr., "Equilibrium Domain Configuration of KDP-Type Ferroelectrics", *Ferroelectrics*, 157, 51 (1994).
91. S. Aktas, C. P. Poole, Jr., and H. A. Farach, "A Numerical Study of Vortex Interactions for High Temperature Superconductors" *J. of Phys. Cond. Matter*, 6, 1 (1994).

92. M. Pencarinha, C. Poole, Jr., H. Farach, "Measurement of Flux Creep in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$ Using Electron Spin Resonance", *J. Phys. Chem. Solids* 56, 301 (1995).
93. A. Pertile, O. A. Lopez, H. A. Farach, R. J. Creswick, and C. P. Poole, Jr., "Model for Low-Field Microwave Absorption in Granular Type-II Superconductors", *Physical Review B* 52 15475 (1995).
94. Cristobal Corredor, Juan Diaz, José M. Diaz, Horacio A. Farach, and Charles P. Poole, Jr., "ESR Experiments with Egg Shells of Chickens", *Appl Magn. Reson.* 9, 309 (1995).
95. A. K. Goroncy, H. A. Farach, C. P. Poole, Jr., and F. Gonzalez, T. De Paoli, and A. Hager, "Glutathione Decay in Stored Blood Measured by Electron Spin Resonance", *Journal of Biological Systems*, 4, 39 (1996).
96. S. K. Misra, C. P. Poole, Jr., and H. A. Farach, "A Review of Spin Hamiltonian Forms for Various Point-Group Site Symmetries," *Appl. Magn. Reson.* 11, 29 (1996).
97. H. A. Farach, *Introducción a la Resonancia Paramagnética Electrónica. Algunas Aplicaciones.*, Anal Acad. Nac. Cs. Ex. Fís. y Nat. 41, Buenos Aires Argentina, tomo 48, 1996.
98. D. E. Di Gregorio, D. Abriola, F. T. Avignone III, R. L. Brodzinski, J. I. Collar, H. A. Farach, E. García, A. O. Gattone, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, A. Ortiz de Solórzano, J. Puimedón, J. H. Reeves, C. Sáenz, A. Salinas, M. L. Sarsa, D. Tomasi, I. Urteaga, and J. A. Villar, "Looking for Daily Modulation Effects of WIMP's in the Southern Hemisphere", *Nucl. Phys. B* 48, 56 (1996).
99. D. Abriola, F. T. Avignone III, R. L. Brodzinski, J. I. Collar, D. E. Di Gregorio, H. A. Farach, E. García, A. O. Gattone, F. Hasenbalg, H. Huckd, H. S. Miley, A. Morales, J. Morales, A. Ortiz de Solórzano, J. Puimedón, J. H. Reeves, C. Sáenz, A. Salinas, M. L. Sarsad, D. Tomasi, I. Urteaga, and J. A. Villar, "Searching for Cold Dark Matter in the Southern Hemisphere. The Experiment at Sierra Grande", *Astropart. Phys.* (1996).
100. A. K. Goroncy, H. A. Farach, C. P. Poole, Jr., M. F. Gonzalez, T. de Paoli, and A. Hager, "Determination of the Volume of the Blood of Rabbits and Pigs Using Electron Spin Resonance", *J. of Biolo. Systems* 5, 63 (1997).
101. Facorro G., Aguirre F., Florentin L., Diaz M., DePaoli T., Ihlo J. E., Hager A. A., Sanchez Avalos J. C., Farach H. A, and Poole C. P. Jr., "Oxidative Stress and Membrane Fluidity in Erythrocytes from Patients with Hemolytic Uremic Syndrome", *Acta Physiol. Pharmacol. Ther. Latinoam* 47, 137 (1997).
102. W. Lang, H. A. Farach, R. Crewick, and C. P. Poole, Jr., "ESR Study of Incommensurate Phase in Doped $(\text{NH}_4)_2\text{ZnCl}_4$ " *Phys. Rev.* 57 8155 (1998).
103. R. J. Creswick, F. T. Avignone III, H. A. Farach, J. I. Collar, A. O. Gattone, S. Nussinov, and K. Zioutas, "Theory for the Direct Detection of Solar Axions by Coherent Primakoff Conversion in Germanium Detectors," *Phys. Lett. B* 427 (1998) 235.

104. A. Cimato, G. Facorro, F. Aguirre, A. Hager, T. De Paoli, J. Ihlo, H. A. Farach, and C. P. Poole, Jr., "A Spectrophotometric Method for the Determination of Hydroperoxides in Liposomes," *Spectrochimica Acta*, A 54, 2001 (1998).
105. C. P. Poole, Jr. and H. A. Farach, "Preparing the Way for Paramagnetic Resonance," invited chapter in *Foundations of Modern EPR*, G. R. and S. S. Eaton, Editors, pp. 13-24 (1998).
106. C. P. Poole, Jr. and H. A. Farach, "The First Sesquidecade of Paramagnetic Resonance," invited chapter in *Foundations of Modern EPR*, G. R. and S. S. Eaton, Editors, pp. 63-83 (1998).
107. Aguirre F., Martin I., Grinson D., Ruiz M., Hager A., DePaoli T., Ihlo J., Farach H. A., and Poole C. P. Jr., "Oxidative Damage, Plasma Antioxidant Capacity and Glucemic Control in Elderly NIDDM Patients," *J. of Free Rad. Biol. and Med.* 24, 580 (1998).
108. F. T. Avignone III, D. Abriola, R. L. Brodzinski, J. I. Collar, R. J. Creswick, D. E. DiGregorio, H. A. Farach, A. O. Gattone, C. K. Guerard, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, S. Nussinov, A. Ortiz de Solórzano, J. H. Reeves, J. A. Villar, and K. Zioutas, "First Results for SOLAX: A New Technique to Detect Axions from the Sun", *Nuclear Physics: Russian Academy of Science* vol. 61, issue 7, 1237 (1998).
109. F. T. Avignone, III, D. Abriola, R. L. Brodzinski, J. I. Collar, R. J. Creswick, D. E. DiGregorio, H. A. Farach, A. O. Gattone, C. K. Guérard, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, S. Nussinov, Ortiz de Solórzano, Jes, J. A. Villar, and K. Zioutas, "Experimental Search for Solar Axions via Coherent Primakoff Conversion Germanium Spectrometer", *Phys. Rev. Lett.* 81 (1998) 5068.
110. D. Abriola, F. T. Avignone III, R. L. Brodzinski, J. I. Collar, D. E. Di Gregorio, H. A. Farach, E. Garcia, A. O. Gattone, C. K. Guerard, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, A. Ortiz de Solorzano, J. Puimedon, J. H. Reeves, A. Salinas, M. L. Sarsa, J. A. Villar, "Search for an annual modulation of dark-matter signals with a germanium spectrometer at the Sierra Grande Laboratory," *Astroparticle Physics*, Elsevier Science, B. V. (1999).
111. W. Lang, H. A. Farach, R. J. Creswick, and C. P. Poole, Jr., "Incommensurate Phase in M_n^{+2} Doped $(NH_4)_2ZnCl_4$ Studied by ESR", *Ferroelectrics* 226 1-4 (1999).
112. K. Zioutas, C. E. Aalseth, D. Abriola, F. T. Avignone III, R. L. Brodzinski, J. I. Collar, R. Creswick, D. E. Di Gregorio, H. Farach, A. O. Gattone, C. K. Guerard, F. Hasenbalg, M. Hasinoff, H. Huck, A. Liolios, H. S. Miley, A. Morales, J. Morales, D. Nikas, S. Nussinov, A. Ortiz, E. Savvidis, S. Scopel, P. Sievers, J. A. Villar, L. Walckiers, "A decommissioned LHC Model Magnet as an Axion Telescope," *Nuclear Instruments and Methods in Physics Research A* 425, Elsevier Science B. V. (1999).
113. F. T. Avignone III, D. Abriola, R. L. Brodzinski, J. I. Collar, R. J. Creswick, D. E. Di Gregorio, H. A. Farach, A. O. Gattone, C. K. Guerard, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, S. Nussinov, A. Ortiz de Solorzano, J. H. Reeves, J. A. Villar, and K. Zioutas, "Solar Axion Experiments Using Coherent Primakoff Conversion in Single Crystals," *Nuclear Physics B (Proc. Suppl.)*, Elsevier (1999).
114. C. P. Poole, Jr. and H. A. Farach, "Tabulations and Correlations of Transition Temperatures of Classical Superconductors," *Journal of Superconductivity: Incorporating Novel Magnetism*, Plenum Publishing Corporation 13 1 (2000).

115. M. Agirtmis, H. A. Farach, R. J. Creswick, and C. P. Poole, Jr., "A Study of the Incommensurate Phase of Rb_2ZnCl_4 by ESR," (to be published in Physical Review).
116. D. A. Sprouse, R. J. Creswick, H. A. Farach, O. Lopez, and C. P. Poole, Jr., "Low-Field Magnetoresistance and Fluxon Pinning in $\text{Ba}_2\text{Cu}_3\text{O}_7$," (to be published in Physical Review).
117. Aguirre, F., Grinson, D., Martin, I. H., Cimato, A., Ruiz, M., Nasswetter, G., Ihlo, J., De Paoli, T., Hager, A., Farach, H. A., Poole, C. P. Jr. "Erythrocyte Membrane Oxidative Damage and Plasma Antioxidant Potential in Diabetes Mellitus and Rheumatoid Arthritis," (submitted to: Redox Report).
118. Facorro, G., Biscigniano, L., Rendo, P., Diaz, A., Turconi, A., Barrado, D., Ruben de Celis, E., Ihlo, J., DePaoli, T., Cimato, A., Hager, A., Sanchez Avalos, J., Farach, H. A., Poole, C. P. Jr., "Hemorheological Aspects in Hemodialysis Pediatrics Patients," (submitted to: Southern Medical Journal).
119. D. Abriola, F. T. Avignone III, R. L. Brodzinski, J. I. Collar, D. E. DiGregorio, H. A. Farach, E. Garcia, A. O. Gattone, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, A. Ortiz de Solórzano, J. Puimedón, J. H. Reeves, C. Sáenz, A. Salinas, M. L. Sarsa, D. Tomasi, I. Urteaga, and J. A. Villar, "Searching for Cold Dark Matter in the Southern Hemisphere. The Experiment at Sierra Grande", *Astroparticle Phys.* **6**, 63 (1996).
120. R. J. Creswick, F. T. Avignone III, H. A. Farach, J. I. Collar, A. O. Gattone, S. Nussinov, and K. Zioutas, "Theory for Direct Detection of Solar Axions by Coherent Primakoff Conversion in Germanium Detectors," *Phys. Lett. B* **427** (1998) 235.
121. F. T. Avignone III, D. Abriola, R. L. Brodzinski, J. I. Collar, R. J. Creswick, D. E. DiGregorio, H. A. Farach, A. O. Gattone, C. K. Guerard, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, S. Nussinov, A. Ortiz de Solórzano, J. H. Reeves, J. A. Villar, and K. Zioutas, "Experimental Search for Solar Axions via Coherent Primakoff Conversion in a Germanium Detector," *Phys. Rev. Lett.* **81** (1998) 5068.
122. D. Abriola, F. T. Avignone, R. L. Brodzinski, J. I. Collar, D. E. DiGregorio, H. Farach, E. García, A. O. Gattone, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, A. Ortiz de Solórzano, J. Puimedón, J. H. Reeves, C. Sáenz, A. Salinas, M. L. Sarsa, D. Tomasi, I. Urteaga, J. A. Villar, "Search for Dark Matter Signals in the Southern Hemisphere," *Proc. First International Workshop on the Identification of Dark Matter*, 8-12 September, Sheffield UK, ed. Niel Spooner World Scientific 1997 pp. 403.
123. F. T. Avignone, D. Abriola, R. L. Brodzinski, J. I. Collar, R. J. Creswick, D. E. DiGregorio, H. A. Farach, A. O. Gattone, C. K. Guerard, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, S. Nussinov, A. Ortiz de Solórzano, J. H. Reeves, J. A. Villar and K. Zioutas, "First Results from SOLAX: A New Technique to Detect Axions from the Sun," *Proc. NANP-97, International Workshop on Non-Accelerator New Physics, Dubna Russia 7-11 July 1997*, *Nucl. Phys. of the Russian Academy of Science*, Vol. 61, issue 7, 1237 (1998).
124. F. T. Avignone III, D. Abriola, R. L. Brodzinski, J. I. Collar, R. J. Creswick, D. E. DiGregorio, H. A. Farach, A. O. Gattone, C. K. Guérard, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, S. Nussinov, A. Ortiz de Solórzano, J. H. Reeves, J. A. Villar, and K. Zioutas "Solar Axion Experiments with Large Arrays of Single Crystals", (The SOLAX Collaboration) *Proc. Int.*

- Symposium on Dark Matter (DM-98) Sept. 7-11, 1998, Buxton, England, World Scientific,(1999) P. 454 .
- 125 F. T. Avignone, D. Abriola, R. L. Brodzinski, J. I. Collar, R. J. Creswick, D. E. DiGregorio, H. A. Farach, A. O. Gattone, C. K. Guerard, F. Hasenbalg, H. Huck, H. S. Miley, A. Morales, J. Morales, S. Nussinov, A. Ortiz de Solórzano, J. H. Reeves, J. A. Villar, and K. Zioutas, “Solar Axion Experiments Using Coherent Primakoff Conversion in Single Crystals”, Nucl. Phys. B (Proc. Suppl.) 72, 176 (1999).
- 126 K. Zioutas, C. E Aalseth, D.E. Abriola, F. T. Avignone III, R. L. Brodzinski, J. I. Collar, R. Creswick, D. E. Di Gregorio, H. Farach, A. O. Gattone, C. K. Guerard, F. Hasenbalg, M. Hasinoff, H. Huck, A. Liolios, H. S. Miley, A. Morales, J. Morales, D. Nikas, S. Nussinov, A. Ortiz, E. Savvidis, S. Scopel, J. A. Villar, “A decommissioned LHC model magnet as an axion telescope”, Nucl. Instrum. Meth. in Phys. Research A425, 480 (1999).
- 127 C. E. Aalseth, E. Adles, D. Anderson, F.T. Avignone III, A. Barabash, T. W. Bowyer, R. L. Brodzinski, V. Brudanin, A. Champagne, J. I. Collar, P. J. Doe, S. Egorov, S. R. Elliot, H. A. Farach, R. Gaitskell, D. Jordan, R. K. Jain, K. Kazkaz, G. King, III, O. Kochetov, S. Konovalov, R. Kouzes, H. S. Miley, L. E. Smith, V. Stekhanov, R. C. Thompson, W. Torno, V. Umatov, R. Warner, J. Webb, J. F. Wilkerson, and A. Young, “The Majorana ^{76}Ge neutrinoless double beta decay experiment: Prospects for next generation experiments,” (presented by F. T. Avignone, III Proceedings of the 5th International Symposium on Sources and Detection of Dark Matter and Dark Energy in the Universe, February 20-22, 2002, Marina Beach, California (in press).
- 128 F.T. Avignone III, R.J. Creswick and H.A. Farach, Proc. “Future Prospectives for Solar- Axion Experiments with Large Arrays of Single-Crystal Detectors”, of the 4th Int. Workshop on The dentification of Dark Matter, York,UK 2-6 September 2002, eds.,Neil J.C. Spooner and Vitaly Kudryavtsev, World Scientific, pp. 651(2003).
- 129 C. Arnaboldi, F.T. Avignone III, J. Beeman, M. Barucci, M. Balata, C. Brofferio, C. Bucci, S. Cebrian, R.J. Creswick, S.Capelli, L. Carbone, O. Cremonesi, A. de Ward, E. Fiorini, H.A. Farach, G. Frossati, A. Giuliani, P. Gorla, E.E. Haller, I.G. Irastorza, R.J. McDonald, A. Morales, E.B. Norman, A. Nucciotti, M.Pedretti, C. Pobes, V. Palmieri, M. Pavan, G. Pessina, S. Pirro, E. Previtali, C. Rosenfeld, S. Scopel, A.R. Smith, M. Sisti, C. Ventura and M. Vanzini, “Physics Potential and Prospects for the CUORICINO and CUORE Experiments”Preprint: arXiv:hep-ex/0302021 v1 16 Feb 2003, Particle Astrophysics, 20 (2003)91-110.
- 131 “The Majorana Neutrinoless Double-Beta Decay Experiment”, C.E. Aalseth, D. Anderson, R. Arthur, F.T. Avignone III, C. Baktash, T. Ball, A.S. Barabash, R.L. Brodzinski, V. Brudanin, W. Bugg, A.E.M.Champagne, Y-D. Chan, T.V. Cianciolo, J.I. Collar, R.W. Creswick, P.J. Doe, G. Dunham, S. Easterday, Yu. Efremenko, V. Egerov, H. Ejiri, S.R. Elliott, J. Ely, P. Fallon, H.A. Farach, R.J. Gaitskell, V. Gehman, R. Grzywacz, R. Hazama, H. Hime, T. Hossbach, D. Jordan, K. Kazkaz, J.Kephart, G.S. King III, O. Kochetov, S. Konovalov, R.T. Kouzes, K.T. Lesko, A.O. Macchiavelli, H.S. Miley, G.B. Mills, M. Nomachi, J.M. Palms, W.K. Pitts, A.W.P. Poon, D.C. Radford, J.H.Reeves, R.G.H. Robertson, R.M. Rohm, K. Rykaczewski, K. Saborov, Y. Sandukovsky, C. Shawley, V. Stekhanov, W. Tornow, R.G. van de Water, K. Vetter, R.A. Warner, J. Webb, J.F. Wilkerson, J.M. Wouters, A.R. Young, and V. Yumatov, Yad. Fiz.,Physics of Atomic Nuclei, Journal of the Russian Academy, 67, 2025 (2004).
- 132 C. Arnaboldi, F.T. Avignone III, J. Beeman, M. Barucci, M. Balata, C. Brofferio, C. Bucci, S.

- Cebrian, R.J. Creswick, S. Capelli, L. Carbone, O. Cremonesi, A. de Ward, E. Fiorini, H.A. Farach, G. Frossati, A. Giuliani, P. Gorla, E.E.Haller, I.G. Irastorza, R.J. McDonald, A. Morales, E.B. Norman, P. Negri, A. Nucciotti, M. Pedretti, C. Obes, V. Palmieri, M. Pavan, G. Pessina, S. Pirro, E. Previtali, C. Rosenfeld, S. Scopel, A.R. Smith, M. Sisti, C. Ventura and M. Vanzini, L. Zanotti, "CUORE: a Cryogenic Underground Observatory for Rare Events", Nucl. Instr. And Meth. A 518 (2004) 775-798.
- 133 "The CERN Axion Telescope (CAST): Status and Prospects", I.G. Irastorza, S. Andriamonje, E. Arik, D. Autiero, F.T. Avignone III, K. Barth, E. Bingol, H. Brauning, R.L. Brodzinski, J. Carmona, E. Chesi, S. Cebrian, S. Cetin, J. Collar, R.J. Creswick, T. Dafni, R. De Oliveira, S. Dedoussis, A. Delbart, L. Di Della, C. Eleftheriadis, G. Fanourakis, H.A. Farach, H. Fischer, F. Formenti, T. Gerasis, I. Giomataris, S. Gninenko, N. Golubev, R. Hartmann, M. Hasinoff, D. Hoffmann, J. Jakoby, D. Kang, K. Konigsmann, R. Kotthaus, M. Kremar, M. Kuster, B. Lakic, A. Liolios, A. Ljubicic, G. Lutz, G. Luzon, H.S. Miley, A. Morales, J. Morales, M. Mutterer, A. Nikolaidis, A. Ortiz, T. Papaevangelou, A. Pacci, G. Raffelt, H. Riege, M. Sarsa, I. Savvidis, R. Schopper, I. Semertzidis, C. Spano, J.A. Villar, B. Vullierme, L. Walkiers, K. Zachariadou and K. Zioutas, Proc. 4th Int. Workshop on "The entification of Dark Matter", 2-6 Sept. 2002, York, UK, eds. Neil J.C. Spooner and Vitaly Krudryavtsev, World Scientific (2003) pp-402
- 134 M. Pavan, C. Arnaboldi, D.R. Artusa, F.T. Avignone III, M. Balata, I. Bandac, M. Barucci, J. Beeman, C. Brofferio, C. Bucci, S. Capelli, L. Carbone, S. Cebrian, O. Cremonesi, R.J. Creswick, A. de Waard, H.A. Farach, A. Facilla, E. Fiorini, G. Frossati, A. Giuliani, P. Gorla, E.E. Haller, I.G. Irastorza, R.J. McDonald, A. Morales, E.B. Norman, A. Nucciotti, E. Olivieri, V. Palmieri, E. Pasca, M. Pedretti, G. Pessina, S. Pirro, E. Previtali, C. Pobes, M. Pyle, L. Risegari, C. Rosenfeld, M. Sisti, A.R. Smith, L. Torres and G. Ventura, "First Results of the CUORICINO experiment and Perspectives for CUORE", Proc. of the First Yamada Int. Symposium. on Neutrinos and Dark Matter, 9-15, June 2003, ed. H Ejiri, <http://ndm03.phys.sci.osaka-u.ac.jp/proc/index.htm>.
- 135 "Preliminary results on the search for the neutrinoless double-beta decay of ¹³⁰Te with the CUORICINO experiment", A. Nucciotti, C. Arnaboldi, D.R. Artusa, F.T. Avignone III, M. Balata, I. Bandac, M. Barucci, J. Beeman, C. Brofferio, C. Bucci, S. Capelli, F. Capozzi, L. Carbone, S. Cebrian, O. Cremonesi, R.J. Creswick, A. de Ward, H.A. Farach, A. Fascilla, E. Fiorini, G. Frossati, A. Giuliani, P. Gorla, E.E. Haller, I.G. Irastorza, R.J. McDonald, A. Morales, E.B. Norman, E. Olivieri, V. Palmieri, E. Pasca, M. Pavan, M. Pedretti, G. Pessina, S. Pirro, C. Pobes, E. Previtali, M. Pyle, L. Risegari, C. Rosenfeld, M. Sisti, A.R. Smith, L. Torres, and G. Ventura, Proc. Int. Conf. on High Energy Physics: EPS-HEP 2003, 17-23 July 2003, Aachen, Germany, European Journal of Physics (in press).
- 136 "First results on neutrinoless double beta decay of ¹³⁰Te with the calorimetric CUORICINO experiment", C. Arnaboldi, D.R. Artusa, F.T. Avignone III, M. Balata, I. Bandac, M. Barucci, J.W. Beeman, C. Brofferio, C. Bucci, S. Capelli, F. Capozzi, L. Carbone, S. Cebrian, O. Cremonesi, R.J. Creswick, A. de Waard, H.A. Farach, A. Fascilla, E. Fiorini, G. Frossati, A. Giuliani, P. Gorla, E.E. Haller, R.J. McDonald, A. Morales, E.B. Norman, A. Nucciotti, E. Olivieri, E. Palmieri, E. Pasca, M. Pavan, M. Pedretti, G. Pessina, S. Pirro, C. Pobes, E. Previtali, M. Pyle, L. Risegari, C. Rosenfeld, S. Sangiorgio, M. Sisti, A.R. Smith, L. Torres, G. Ventura, Phys. Lett. B 584, (2004) 260.
- 137 "Orbits of Central Force Law Potentials" C.P. Poole Jr. J.L. Safko and H.A. Farach, Am. J. Phys. 73 (1), 40-44 (2005).

- 138 “The Proposed Majorana ^{76}Ge Double-Beta Decay Experiment”, C.E. Aalseth, D. Anderson, R.Arthur, F.T. AvignoneIII, C. Baktash, T.Ball, A.S. Barabash, F. Bertrand, R.L. Brodzinski, V. Brudanin, W. ugg, A.E. Champagne, Y-D. Chan, T.V. Cianciolo, J.I. Collar, R.W. Creswick, M. Descovich, M.Di Marco, P.J. Doe, G. Dunham, Yu. Efremenko, V. Egerov, H. Ejiri, S.R. Elliott, A. Emanuel, P.Fallon, H.A. Farach, R.J. Gaitskell, V. Gehman, R. Grzywacz, A. Hallin, R. Hazma, R. Henning, A.Hime, T. Hossbach, D. Jordan, K. Kazlaz, J. Kephart, G.S. King III, O. Kochetov, S. Konovalov, R.T.Kouzes, K.T. Lesko, P. Luke, M. Luzum, A.O. Macchiavelli, A. McDonald, D. Mei, H.S. Miley, G.B. Mills, A. Mokhtarani, M. Nomachi, J.L. Orrell, J.M. Palms, A.W.P. Poon, D.C. Radford, J.H.Reeves, R.G.H. Robertson, R. Runkle, K. Rykaczewski, K. Saburov, Y. Sandukovsky, A. Sonnenschein, W. Tornow, C. Tull, R.G. van de Water, I. Vanushin, K. Vetter, R.A. Warner, J.F.Wilkerson, J.M. Wouters, A.R. Young, and V. Yumatov, Proceedings of the Eighth International Workshop on “ Topics in Astrophysical and Underground Physics” (TAUP-2003), Nuc. Phys.B (Proc. Suppl.) 138, 217, (2005).
139. Erratum: “Orbits of Central Force Law Potentials”, C.P.Poole Jr. J.L.Safko and H.A.Farach, Am. J. Phys. 73 (11), 1081 (2005).
140. “New CUORICINO Results and the CUORE Project” O. Cremonesi, R. Ardito, C. Arniboldi, D.R. Artusa, F.T. Avignone, M. Balata, I. Bandac, M. Barucci, J. Beeman, C. Brofferio, C. Bucci, S. Capelli, F. Capozzi, L. Carbone, C. Cebrian, R.J. Creswick, A. de Ward, M. Dolinski, H.A. Farach, F. Feroni, G. Frossati, C. Gargiulo, A. Giuliani, P. Gorla, E. Guardincelli, T. Gutierrez, E.E. Haller, I.G. Irastorza, E. Longo, G. Maier, S. Morganti, R. Maruyama, R.J. McDonald, A. Morales, E.B. Norman, S. Nisi, A. Nucciotti, E. Olivieri, P. Ottonello, M. Pallavicini, V.Palmieri, E. Pasca, M. Pavan, M. edretti, G. Pessina, S. Pirro, E. Previtali, B. Quiter, L. Risegari, C. Rosenfeld, S. Sangiorgio, M. Sisti, A.R. Smith, L. Torres, G. Ventura, and N. Xu., Proceedings of the Fifth International Workshop on NEUTRINO OSCILLATIONS and their ORIGIN (NOON 2004) 11-15 February 2004, Tokyo, Japan, Edited by Y. Suzuki, M Nakahata, S. Moriyama, and Y. Koshio, World Scientific Publishing (ISBN- 981-256-362-8) (2005) pp 272-279.
141. “New Limits on the $\beta\beta$ -decay of ^{130}Te ”, C.Arnaboldi, D.R.Artusa, F.T. Avignone III, M. Balata, I.Bandac, M. Barucci, J.W. Beeman, C. Brofferio, C. Bucci, S. Capelli, F. Capozzi, L. Carbone, S.Cebrian O. Cremonesi, R.J. Creswick, A. de Waard, H.A. Farach, E. Fiorini, G. Frosati, A. Giuliani,E. Guardincerri, P. Gorla, E.E. Haller, R.J. McDonald, A. Morales, E.B. Norman, A. Nuceotti, E. Olivieri, E. Palmieri, E. Pasca, M. Pavan, M. Pedretti, G. Pessina, S. Pirro, E. Previtali, M. Pyle, L. Risegari, C. Rosenfeld, S. Sangiorgio, M. Sisti, A.R. Smith, L. Torres, and G. Ventura, Phys. Rev. Lett. 95, 142501 (2005).
- 142 “The First Results from the CERN Axion Solar Telescope” K. Zioutas, S. Andriamonje, V.Arsov, S.Aune, T. Aune, F.T.Avignone III, K Barth, A. Belov, B. Beltran, H. Brauninger, J. Carmona, S. Cebrian, E. Chesi, G. Cipolla, J. Collar, R.J. Creswick, D. Dafni, M. Davenport, S. Dedousis, M. Delattre, A. Delbart, R. DeOliveira, L. DiLella, C. Eleftheriadis, J. Engelhauser, G. Fanourrakis, H.A.Farach, E. Ferrer, H. Fischer, F. Formenti, J. Franz, P. Friedrich, T. Geralis, I. Giomataris,S. Gninenko, N. Golubov, R. Haartmann, M. Hasinoff, F-H. Heinsius, D.H.H. Hoffmann,I. Irastorza, J. Jacoby, J-N. Joux, D. Kang, K. Konigsmann, R. Kotthaus, M. Krmar, M. Kuster, B. Lakic, C. Lasseur, A. Lolios, A. Lippitch, A. Ljubicic, G. Lutz, G. Luzon, A. Morales, J. Morales, M. Mutterer, A. Nikolaidis, A. Ortiz de Solorzano, T. Papaevangelou, A. Placci, G. Raffelt, P. Rammos, J.P. Robert, J. Ruz, M. Sarsa, C. Schill, W. Serber, Y. Semertzidis, J.Vieira, J. Villar, B. Vullierme, L. Walckiers, and K. Zachariadou, Phys. Rev. Lett. 94, 121301 (2005).

- 143 “Experimental Search for Solar Axions via Coherent Primakoff Conversion in a Germanium Spectrometer”, F.T. Avignone III, D. Abriola, J.I. Collar, R.W. Creswick, D. Di Gregorio, H.A. Farach, C.K. Guerard, F. Hasenbalg, H. Huck, H.S. Miley, G.B. Mills, A. Mokhtarani, M. Nomachi, J.L. Orrell, J.M. Palms, A.W.P. Poon, D.C. Radford, J.H. Reeves, R.G.H. Robertson, R. Runkle, K. Rykaczewski, K. Saburov, Y. Sandukovsky, A. Sonnenschein, W. Tornow, C. Tull, R.G. van de Water, I. Vanushin, K. Vetter, R.A. Warner, J.F. Wilkerson, J.M. Wouters, A.R. Young, and V. Yumatov, Proceedings of the Eighth International Workshop on “Topics in Astrophysical and Underground Physics” (TAUP-2003), Nuc. Phys. B (Proc. Suppl.) 138, 217, (2005).
- 144 “Results from the CUORICINO $0\nu\beta\beta$ -experiment”, C. Arnaboldi, D.R. Artusa, F.T. Avignone III, M. Balata, I. Bandac, M. Barucci, J.W. Beeman, C. Brofferio, C. Bucci, S. Capelli, F. Capozzi, L. Carbone, S. Cebrian O. Cremonesi, R.J. Creswick, A. de Waard, H.A. Farach, E. Fiorini, G. Frosati, A. Giuliani, E. Guardincerri, P. Gorla, E.E. Haller, R.J. McDonald, A. Morales, E.B. Norman, A. Nucciotti, E. Olivieri, E. Palmieri, E. Pasca, M. Pavan, M. Pedretti, G. Pessina, S. Pirro, E. Previtali, M. Pyle, L. Risegari, C. Rosenfeld, S. Sangiorgio, M. Sisti, A.R. Smith, L. Torres, and G. Ventura, Phys. Rev. C (in preparation 2006).
- 145 “CUORICINO and CUORE detectors: developing big arrays of large mass bolometers for rare events” P. Gorla, R. Ardito, C. Arnaboldi, D.R. Artusa, F.T. Avignone III, M. Balata, I. Bandac, M. Barucci, J.W. Beeman, C. Brofferio, C. Bucci, S. Capelli, F. Capozzi, L. Carbone, S. Cebrian O. Cremonesi, R. J. Creswick, A. de Waard, H.A. Farach, E. Fiorini, G. Frosati, A. Giuliani, E. Guardincerri, E.E. Haller, R.J. McDonald, A. Morales, E.B. Norman, A. Nucciotti, E. Olivieri, E. Palmieri, E. Pasca, M. Pavan, M. Pedretti, G. Pessina, S. Pirro, E. Previtali, M. Pyle, L. Risegari, C. Rosenfeld, S. Sangiorgio, M. Sisti, A.R. Smith, L. Torres, and G. Ventura, Nucl. Phys. B (Proc. Suppl.) 150, 214 (2006).
- 146 “Search for the $2\nu\beta\beta$ -Decay of ^{130}Te to the first 0^+ Excited State at 1793.5 keV in ^{130}Xe with the CUORICINO Cryogenic Detector”, C. Arnaboldi, D.R. Artusa, F.T. Avignone III, M. Balata, I. Bandac, M. Barucci, J.W. Beeman, C. Brofferio, C. Bucci, S. Capelli, F. Capozzi, L. Carbone, S. Cebrian O. Cremonesi, R.J. Creswick, A. de Waard, H.A. Farach, E. Fiorini, G. Frosati, A. Giuliani, E. Guardincerri, P. Gorla, E.E. Haller, R.J. McDonald, A. Morales, E.B. Norman, A. Nucciotti, E. Olivieri, E. Palmieri, E. Pasca, M. Pavan, M. Pedretti, G. Pessina, S. Pirro, E. Previtali, M. Pyle, L. Risegari, C. Rosenfeld, S. Sangiorgio, M. Sisti, A.R. Smith, L. Torres, and G. Ventura, Phys. Rev. C (in preparation 2006).
- 147 “Results from a Search for the $0\nu\beta\beta$ Decay of ^{130}Te ”, C. Arnaboldi, D.R. Artusa, F. T. Avignone III, M. Balata, I. Bandac, M. Barucci, W. Beeman, F. Bellini, C. Brofferio, C. Bucci, S. Capelli, L. Carbone, S. Cebrian, M. Clemenza, O. Cremonesi, R. J. Creswick, A. de Waard, S. Diomizio, IO, M. J. Dolinski, H. A. Farach, E. Fiorini, G. Frosati, A. Giachero, A. Giuliani, P. Gorla, E. Guardincerri, T. D. Gutierrez, E. E. Haller, R. H. Maruyama, R. I. McDonald, S. Nisi, C. Nones, E. B. Norman, A. Nucciotti, E. Olivieri, M. Pllavicini, IO, E. Palmieri, E. Pasca, M. Pavan, M. Pedretti, G. Pessina, S. Pirro, E. Previtali, L. Risegari, C. Rosenfeld, S. Sangiorgio, M. Sisti, A. R. Smith, L. Torres, G. Ventura, and M. Vignati, Physical Review C 78, 035502 (2008).
- 148 “Oxidative Damage and Antioxidant Status in Diabetes Mellitus and Rheumatoid Arthritis: A Comparative Study”. Alejandra N. Cimato, Graciela B. Facorro, Lidia L. Piehl, María M.

Martínez Sarrasague , Diana Grinspon , Horacio A. Farach and Emilio Rubin de Celis, The Open Clinical Chemistry Journal, 2008, 1, 92-98

149. Graciela B. Facorro, María Martínez Sarrasague , Lidia L. Piehl, Alejandra N. Cimato, Horacio A. Farach and Emilio Rubin de Celis, “rHuEPO Treatment the Quality of the Erythrocytes in Haemodialysis Pediatric pacientes”.
In Preparation, to be send to The Open Clinical Chemistry Journal
150. “¹³⁰Te Neutrinoless Double -Beta Decay with CUORICINO”, E.Andreotti, C.Arnaboldi, F.T. Avignone III, M. Balata, I.Bandac, M. Barucci, J.W. Beeman, F.Bellini,C. Brofferio, A.Bryant, C. Bucci, L.Canonica,S. Capelli,L. Carbone,M.Carretttoni,M.Clemeza,O. Cremonesi, R.J. Creswick, S.Di Dominizio,M.J.Dolinski,L.Ejzak,,R.Faccini,H.A. Farach, E.Ferri,E. Fiorini, L.Foggetta,A.Giachero,L.Gironi,A.Giulani, P.Gorla, E.Guardincerri,T.D.Gutierrez,E.E. Haller, K.Kazkaz,S.Fraft,L.Kloger,C.Maiano,R.H.Maruyama,C.Martinez,S.Newman,S.Nisi,C.Nones, E.B. Norman,F.Orio,M.Pallavicini,E. Palmieri,L.Pattavina, M. Pavan, M. Pedretti, G. Pessina, S. Pirro, E. Previtali, L. Risegari, C. Rosenfeld, C,Rusconi,C.Salvioni,S. Sangiorgio, D.Schaeffer,N.D.Scielzo,M. Sisti, A.R. Smith, C.Tomei, G. Ventura, M.Vignati. *Astroparticle Physics* 34 (2011) 833-831.
151. “Isotopic analysis of germanium by thermal ionization mass spectrometry” Eduardo Gautier¹, Ricardo Garavaglia¹, Alfredo Lobo¹, Mauricio Fernández¹ and Horacio Farach^{2,3}.
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