

Curriculum vitae

Name: Virgilio Correcher

Date: 21st February 2011

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Current position and Address

Position: Full time researcher

Centre: Centro de Investigaciones Energéticas Medioambientales and Tecnológicas (CIEMAT)

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Research area

Keywords: Luminescence, spectral emission, radiation physics, physics and chemistry of natural and ceramic materials, dosimetry.

Degree

Degree in Chemistry	Autonoma Univ. Madrid (U.A.M.)	1991
MSc in Chemistry	U.A.M.	1994
PhD in Physics	U.A.M	2003

R&D Projects and Contracts

1. Title of the project: Detection of irradiated food by thermoluminescence technique (1991-1994)

Code: CICYT. ALI 91-0203 Funds: 7.500.000

Participants: UAM

Head of the project: Dr. Tomas Calderon

Number of researchers: 4

2. Title of the project: Thermoluminescence of mineral phases. Application for the detection of irradiated spices (1991-1994)

Code: Comunidad Autónoma de Madrid. C 141/91 Funds: 6.000.000 ptas

Participants: UAM

Head of the project: Dr. Tomás Calderón

Number of researchers: 4

3. Title of the project: Dosimetry for food irradiation by means of luminescence methods (1993-1996)

Code: CICYT. ALI 93-0072 Funds: 8.700.000 ptas

Participants: CIEMAT

Head of the project: Dr. Antonio Delgado

Number of researchers: 4

4. Title of the project: Dose re-estimation by P TTL. Application to the quality control in personnel dosimetry (1994-1998)

Code: CIEMAT. 52D30 Funds:

Participants: CIEMAT

Head of the project: Dr. Antonio Delgado

Number of researchers: 3

5. Title of the project: Dose reconstruction. (1996-1999)

Code: EU. CEC F14P-CT95-0011 Funds: 50.000 ECU

Participants: Univ. Durham (UK), Univ. Helsinki (Finland), Riso (Denmark), GSF (Germany) and CIEMAT

Head of the project: Dr. Ian Bailiff (Univ. Durham).

Number of researchers: 7

6. Title of the contract: Retrospective dosimetry (DOSE) (1996-1999)
Code: CSN-CIEMAT 96/208 Funds: 10.000.000 ptas
Participants: CIEMAT
Head of the contract: Dr. Antonio Delgado
Number of researchers: 4

7. Title of the contract: Dose reconstruction (1996-1999)
Code: CIEMAT-ENRESA COD (I+D) 703604 Funds: 3.000.000 ptas
Participants: CIEMAT
Head of the contract: Dr. Antonio Delgado
Number of researchers: 4

8. Title of the project: Dose reconstruction for populations in areas contaminated by chernobyl fallout. (1996-1999)
Code: INCO-COPERNICO. IC1 5CT96-0315. Funds:
Participants: Univ. Durham (UK), Univ. Helsinki (Finland), Riso (Denmark), GSF (Germany), RAMS and MRRC (Russia), Ukraine Radiation Protection Institute de Kiev (Ukraine) and CIEMAT
Head of the project: Dr. Ian Bailiff (Univ. Durham).
Number of researchers: 12

9. Title of the project: Implications in the spectral luminescence emission of alkaline feldspars in: modification in granite, environmental dosimetry and geological dating. (1997-1999)
Code: CICYT. PB 95-0108 Funds: 3.000.000 ptas
Participants: CSIC and CIEMAT
Head of the project: Dr. Javier García-Guinea (CSIC)
Number of researchers: 4

10. Title of the project: Study of the mineralogical and petrological parameters to determine the industrial quality of roofing slates. (1998-2001)
Code: FEDER. 1FD97-0959-C03-01 Funds:
Participants: IGME, University of Oviedo, University of Salamanca, CSIC and CUPIDE-PADESA and SAMACA companies.
Head of the project: Dr. J. García-Guinea (CSIC)
Number of researchers:

11. Title of the project: UV emission centres in mineral interphases for geological and environmental applications. (2000-2002)
Code: DGICYT. PB 98-0501 Funds: 3.500.000 ptas
Participants: CSIC and CIEMAT
Head of the project: Dr. Javier García-Guinea (CSIC)
Number of researchers: 4

12. Title of the project: Effect of dopant content in the luminescence emission of the quartz-beta-eucryptite ($\text{SiO}_2\text{-LiAlSiO}_4$) and the implication in retrospective dosimetry. (2000-2002)
Code: DGICYT. PB 98-0135 Funds: 3.000.000 ptas
Participants: CIEMAT and CSIC
Head of the project: Dr. Antonio Delgado (CIEMAT)
Number of researchers: 5

13. Title of the project: The developments of new techniques for retrospective luminescence dosimetry (LUMINATE). (2000-2003)
Code: EU. FIGD-CT2000-00094 Funds: 70.000 Euros
Participants: Univ. Durham (UK), Univ. Helsinki (Finland), Riso (Denmark), GSF (Germany) and CIEMAT
Head of the project: Dr. Ian Bailiff (Univ. Durham)
Number of researchers: 7

14. Title of the project: Effect of the UV radiation and the thermal treatments on the luminescence properties of white ceramics and on their components. Application to retrospective dosimetry (LUMCERA) (2003-2005)

Code: CICYT. BFM2002-00048 Funds: 46.138 Euros
Participants: CIEMAT and CSIC
Head of the project: Dr. Antonio Delgado
Number of researchers: 6

15. Title of the project: Changes in the colour and in the luminescence emission of feldspars due to the solar exposure: implication in dosimetry, dating and architectural heritage. (2005-2007)
Code: CICYT. CGL2004-03564/BTE Funds: 30.000 Euros
Participants: CSIC and CIEMAT
Head of the project: Dr. Javier García-Guinea
Number of researchers: 4

16. Title of the project: Synthesis and luminescence characterization of lithium aluminosilicates to be used as a new radiation dosimeter. (2005-2005)
Code: CAM. GR/MAT/0078/2004 funds: 6.900 Euros
Participants: CIEMAT and CSIC
Head of the project: Dr. Virgilio Correcher
Number of researchers: 3

17. Title of the contract: Evaluation of the potential exposure of ionizing radiation to the importing food (I). (2005-2005)
Code: MSC-CIEMAT (05/088) Funds: 30.000 Euros
Participants: CIEMAT-Spanish Health Department
Head of the contract: Dr. Antonio Delgado and Dr. Virgilio Correcher
Number of researchers: 2

18. Title of the contract: Evaluation of the potential exposure of ionizing radiation to the importing food (II) (2006-2006)
Code: MSC-CIEMAT (06/198) Funds: 30.000 Euros
Participants: CIEMAT-Spanish Health Department
Head of the contract: Dr. Virgilio Correcher
Number of researchers: 3

19. Title of the project: Durability and conservation of natural materials in architectural heritage. (2006-2010)
Code: CAM. S-0505/MAT/0094 Funds: 521.812,5 Euros
Participants: CSIC, UCM, IGME and CIEMAT
Head of the project: Dr. Rafael Fort (CSIC)
Number of researchers: 20

20. Title of the project: Emergency dosimetry in case of bad use of radioactive sources. (2007-2010)
Code: CICYT. FIS2007-61823/ Funds: 36.300 Euros
Participants: CIEMAT
Head of the project: Dr. Virgilio Correcher
Number of researchers: 3

21. Title of the contract: Evaluation of the potential exposure of ionizing radiation to the importing food (III) (2007-2007)
Code: MSC-CIEMAT (07/010) Funds: 30.000 Euros
Participants: CIEMAT-Spanish Health Department
Head of the contract: Dr. Virgilio Correcher
Number of researchers: 3

22. Title of the contract: Evaluation of the potential exposure of ionizing radiation to the importing food (IV) (2008-2008)
Code: MSC-CIEMAT (08/156) Funds: 30.000 Euros
Participants: CIEMAT-Spanish Health Department
Head of the contract: Dr. Virgilio Correcher
Number of researchers: 2

23. Title of the contract: Temporal variability of CO2 concentration in karst systems: mechanisms for subsurface-atmosphere interaction and implications for fluxes estimation in the global carbon balance (2010-2013)

Code: CICYT. CGL2010-17108 Funds: 117.000 Euros

Participants: CSIC, Univ. Alicante, UCM and CIEMAT

Head of the contract: Dr. Sergio Sanchez-Moral

Number of researchers: 7

24. Title of the contract: Actividad de evaluación y difusión de la calidad (2009-2014)

Code: ENAC-CIEMAT (09/425) Funds:

Participants: ENAC-CIEMAT

Head of the contract: D. José Abril (CIEMAT) and Carmen García (ENAC)

Number of researchers: 15

25. Title of the contract: Evaluation of the potential exposure of ionizing radiation to the importing food (V) (2010-2010)

Code: MSC-CIEMAT Funds: 30.000 Euros

Participants: CIEMAT-Spanish Health Department

Head of the contract: Dr. Virgilio Correcher

Number of researchers: 2

List of Publications

1. Beneitez, P.; Correcher, V.; Millan, A. and Calderon, T. Thermoluminescence analysis for testing the irradiation spices. *J. Radioanal. Nucl. Chem.* 185. 401-410(1994)
2. Calderon, T.; Correcher, V.; Millan, A.; Beneitez, P.; Rendell, H.M.; Larsson, M.; Townsend, P. and Wood, R.A. New data on thermoluminescence of inorganic dust from herbs and spices. *J. Phys. D: Appl. Phys.* 28. 415-423 (1995)
3. Delgado, A.; Unamuno, V.; Muñiz, J.L.; Correcher, V. and Gomez-Ros, J.M. A simple UV irradiator for low dose reassessment with LiF TLD-100. *Radiat. Prot. Dosim.* 67(4). 303-306 (1996)
4. Correcher, V.; Muñiz, J.L. and Gomez-Ros, J.M. Dose dependence and fading effect of the thermoluminescence intensities in gamma-irradiated paprika. *J. Sci. Food Agric.* 76. 149-155 (1998)
5. Correcher, V. and Delgado, A. On the use of natural quartz as transfer dosimeter in retrospective dosimetry. *Radiat. Meas.* 29. 411-414 (1998)
6. Jacob, P., Bauchinger, M., Goeksu, H.Y., Knehr, S., Meckbach, R., Proehl, G., Wieser, A., Bailiff, I.K., Petrov, S., Stoneham, D., Boetter-Jensen, L., Banerjee, D., Jungner, H., Natarjan, A.T., Darroudi, F., Santos, S., Meijers, C., Mueck, K., Savage, J., Figgitt, M., Griffin, C., Onori, S., Aragno, D., Fattibene, P., Pantelias, G.E., Sabani, C.D., Terzoudi, G.I., Delgado, A., **Correcher, V.**, Simmonds, J.R., Penfold, J.S.S., Tournette, C. and Fayers, C.A. Radiation fields, dosimetry, biokinetics and biophysical models of cancer induction by ionising radiation 1996-1999. Technical report. GSF-Ber. (12/98). 130-161 (1998). Ed. J. Ertel del GSF (Forschungszentrum) (ISSN 0721-1964). Neuherberg, Germany.
7. García-Guinea, J.; Correcher, V. and Delgado, A. The potential use of annealed high albite (AlSi₃O₈Na) as a UV radiation dosimeter. *J. Mat. Sci. Lett.* 18. 1263-1265 (1999)
8. Sánchez-Muñoz, L.; Correcher, V.; García-Guinea, J. and Delgado, A. Thermoluminescence of a lithium aluminium rich beta quartz for dosimetry purposes. *Radiat. Prot. Dosim.* 84 (1-4). 543-546 (1999)
9. Correcher, V.; García-Guinea, J.; Delgado, A. and Sánchez-Muñoz, L. Spectra thermoluminescence emissions and continuous trap distribution of a cross-hatch twinned low microcline. *Radiat. Prot. Dosim.* 84(1-4). 503-506 (1999).
10. Correcher, V.; Gómez-Ros, J.M. and Delgado, A. The use of albite as a dosimeter in accident dose reconstruction. *Radiat. Prot. Dosim.* 84(1-4). 547-549 (1999)
11. García-Guinea, J.; Correcher, V. and Valle-Fuentes, F.J. Thermoluminescence of kaolinite. *Radiat. Prot. Dosim.* 84(1-4). 507-510 (1999)
12. Muñiz, J.L.; Correcher, V. and Delgado, A. PTL dose reestimation applied to quality control in TLD-100 based personal dosimetry. *Radiat. Prot. Dosim.* 84(1-4). 63-66 (1999)
13. Furetta, C.; Laudadio, M.; Sanipoli, C.; Scacco, A.; Gomez-Ros, J.M. and Correcher, V. Thermoluminescence of OH-doped rubidium halides. *J. Phys. Chem. Sol.* 60. 957-963 (1999)
14. Garcia-Guinea, J. and Correcher, V. Luminescence spectra of alkali feldspars: influence of crushing on the ultraviolet emission band. *Spectrosc. Lett.* 33(1). 103-113 (2000)
15. García-Guinea, J.; Cardenas, V.; Correcher, V.; Delgado, A.; Lombardero, M. and Barros, J.C. Dehydroxylation and Ostwald ripening effects in roofing slates. *Bol. Soc. Esp. Cerám. V.* 39(3). 589-594 (2000) (In Spanish)
16. Bailiff, I.K., Bøtter-Jensen, L., Correcher, V., Delgado, A., Göksu, H.Y., Jungner, H. and Petrov, S.A. Absorbed dose evaluations in retrospective dosimetry: methodological developments using quartz. *Radiat. Meas.* 32(5-6). 609-613 (2000)
17. Correcher, V., García-Guinea, J. and Delgado, A. Influence of preheating treatment on the luminescence properties of adularia feldspar (KAlSi₃O₈). *Radiat. Meas.* 32 (5-6). 709-715 (2000)

18. Garcia-Guinea, J, Correcher, V. and Rodriguez-Badiola, E. Analysis of luminescence spectra of leucite (KAlSiO₄). *The Analyst*. 126(6). 911-916 (2001)
19. Correcher, V. and García-Guinea, J. On the luminescence properties of adularia feldspar. *J. Lumin.* 93(4). 303-312 (2001)
20. Garcia-Guinea, J., Ortiz, R., Correcher, V., Laiglesia, A. and Martín-Ramos, J.D. Improvements to X-ray diffractometers: Heaters, hygrometry, and thermo-differential and spectra analyses. *Rev. Sci. Instrum.* 72(10). 4005-4007 (2001).
21. Garcia-Guinea, J., Rubio, J., Correcher, V. and Valle-Fuentes, F.J. Luminescence of alfa-Al₂O₃ and alfa-AIOOH natural mixtures. *Radiat. Meas.* 33(5). 653- 658 (2001)
22. Gómez-Ros, J.M., Correcher, V., García-Guinea, J. and Delgado, A. Kinetic parameters of lithium and aluminium doped quartz from thermoluminescence glow curves. *Radiat. Prot. Dosim.* 100(1-4). 399-402 (2002)
23. Bailiff, I.K., Correcher, V., Delgado, A., Göksu, Y. and Hübner, S. Luminescence characteristics of dental ceramics for retrospective dosimetry - a preliminary study. *Radiat. Prot. Dosim.* 101(1-4). 519-524 (2002)
24. Garcia-Guinea, J., Correcher, V., Delgado, A. and Sanchez-Muñoz, L. Cluster linkages between luminescence emission spectra and continuous trap distribution in a volcanic sanidine. *Radiat. Meas.* 37(4-5). 473-477 (2003)
25. Correcher, V., García-Guinea, J., Sánchez-Muñoz, L. and Delgado, A. Effect of dopants in the luminescent properties of synthetic quartz for dosimetric purposes. *J. Mater. Process.Tech.* 143-144C. 871-874 (2003)
26. Correcher, V., Molina, D. and Garcia-Guinea, J. Effect of radiation on thermoluminescent properties of lava. *Rev.Mex.Fis.* 49(3). 235-241 (2003) (In Spanish).
27. Correcher, V., Garcia-Guinea, J. and Valle-Fuentes, F.J. Recent results on the thermoluminescence properties of diaspre. *Geophys. Res. Lett.* 30(18). 1949 10.1029/2003GL018028 (2003).
28. Correcher, V. and Delgado, A. (invited). Cálculo de la dosis total absorbida por cuarzo en condiciones retrospectivas. *Radioprotección.* 37. 31-37 (2003) (In Spanish).
29. Correcher, V., Garcia-Guinea, J., López-Arce, P. and Gomez-Ros, J.M. Luminescence emission spectra in the temperature range of the structural phase-transitions of Na₂SO₄. *Spectrochim. Acta A.* 60(7). 1431-1438 (2004)
30. Garcia-Guinea, J., Pitalua, F., Correcher, V. and López-Arce, P. Observation of dehydration and retrenchment effects in a claystone by x ray diffraction and electron microscopy under control of temperature and relative humidity. *Bol. Soc. Esp. Ceram. V.* 43(1). 26-29 (2004) (In Spanish)
31. Correcher, V. Use of the thermoluminescence emission of natural and ceramic materials in dose reconstruction. (2003). Ed. CIEMAT. Madrid (Spain) 183 Pag. (ISBN: 84-7834-452-7; NIPO: 402-03-030-4). (In Spanish)
32. Correcher, V, Robredo, L.M., Valle-Fuentes, F.J., López-Arce, P. and Garcia-Guinea, J. Characterization of the thermoluminescence curve of zircon by radiative content and differential thermal analysis. *Bol. Soc. Esp. Ceram. V.* 42(6). 369-373 (2003) (In Spanish)
33. Correcher, V, Gomez-Ros, J.M. and Garcia-Guinea, J. Radiation effect on the 400nm-thermoluminescence emission of a potassium rich feldspar. *Radiat. Meas.* 38(4-6). 689-693 (2004)
34. Bailiff, I.K., Stepanenko, V. F., Göksu, H.Y., Bøtter-Jensen, L., Brodsky, L., Chumak, V., Correcher, V., Delgado, A., Golikov, V., Jungner, H., Khamidova, L.G., Kolizshenkov, T.V., Likhtarev, I., Meckbach, R., Petrov, S. A. and Sholom, S. Comparison of retrospective luminescence dosimetry with computational modelling in two highly contaminated settlements downwind of the Chernobyl NPP. *Health Phys.* 86(1). 25- 41 (2004)

35. Correcher, V. and Garcia-Guinea J. Variation in the luminescent properties of a potassium rich feldspar induced by thermal treatment and infrared exposure. *Bol. Soc. Esp. Ceram. V.* 43(1). 5- 7 (2004) (In Spanish)
36. Garcia-Guinea, J, Pitalua, F, Correcher, V., Sanchez-Muñoz, L., Valle-Fuentes, F.J. and López-Arce, P. Thermoluminescent properties of an albite from minas Geraes (Brazil). *Bol. Soc. Esp. Ceram. V.* 43(2). 109-112 (2004) (In Spanish)
37. Correcher, V., Garcia-Guinea, J. and Valle-Fuentes, F.J. Radioluminescence and thermoluminescence emission spectra of a leucite of Monte Somma (Italy). *Bol. Soc. Esp. Ceram. V.* 43(6). 919-924 (2004) (In Spanish).
38. Garcia-Guinea, J., Correcher, V., Lombardero, M. and Gonzalez-Martin, R. Study of the ultraviolet emission of the electrode coatings of arc welding. *Int. J. Environ. Heal. R.* 14(4). 285-294 (2004)
39. Correcher, V, Gomez-Ros, J.M. Garcia-Guinea, J. and Delgado, A. Thermoluminescence kinetic parameters of basaltic rock samples due to continuous trap distribution. *Nucl. Instrum. Meth. A.* 528(3). 717- 720 (2004)
40. Garcia-Guinea, J., Correcher, V., Quejido, A., Laiglesia A. and Can, N. The role of rare-earth elements and Mn²⁺ point defects on the luminescence of Bavenite. *Talanta.* 65(1). 54-61 (2005)
41. Garcia-Guinea, J., Hole, D., Finch, A., Correcher, V., Valle-Fuentes, F.J., Can, N. and Townsend, P.D. Ionoluminescence of silicates for ceramic uses at cryogenic temperatures. *Bol. Soc. Esp. Ceram. V.* 43(5). 877-882 (2004) (In Spanish)
42. Garcia-Guinea, J., Correcher, V., Rojas, R.M., Fierro, J.L.G., Fernández-Martin, C., López-Arce, P. and Rovira-Llorens, S. Chemical tracers in archaeological and natural gold: Aliseda tartessos treasure and new discovered nuggets (SW, Spain). *Gold Bull.* 38(1). 24-29 (2005)
43. Garcia-Guinea, J., Sánchez-Chillon, B., Mazo, A., Tormo, L., Gonzalez-Martin, R, Correcher, V. and Pardillo-Mayora, J.M. New data on the Getafe steel slag fallen down on a car in 1994. *Geogaceta.* 37. 159-162 (2005) (In Spanish)
44. Garcia-Guinea, J., Correcher, V., Rubio, J. and Valle-Fuentes, F.J. Effects of preheating on diaspore: modifications in colour centres, structure and light emission. *J. Phys. Chem. Solids.* 66. 1220-1227 (2005)
45. Bailiff, I.K., Stepanenko, V. F., Göksu, H.Y., Bøtter-Jensen, L., Correcher, V., Delgado, A., Jungner, H., Khamidova, L.G., Kolizshenkov, T.V., Meckbach, R., Petin, D.V., Orlov, M.Yu. and Petrov, S. A. Retrospective luminescence dosimetry: development of approaches to application in populated areas downwind of the Chernobyl NPP. *Health Phys.* 89(3). 233-246 (2005)
46. Correcher, V., García-Guinea, J., Castillejo, M., Oujja, M., Rebolgar, E. and Sánchez-Muñoz, L. Study of spectral emission of ulexite by thermoluminescence and laser induced fluorescence. *Can. J. Anal. Sci. Spect.* 50(4). 240-245 (2005)
47. García-Guinea, J., Correcher, V., Sánchez-Muñoz, L., and Cárdenas, V. Mosaicos de piedras tipo séctile: historia, técnicas, diseños, análisis and valoración. *Seminarios Soc. Esp. Miner.* 2. 217-246 (2005) (In Spanish)
48. Correcher, V., Garcia-Guinea, J. and Valle-Fuentes, F.J. Preliminary study of the thermally stimulated blue luminescence of ulexite. *J. Therm. Anal. Calorim.* 83(2). 439-444 (2006)
49. Correcher, V., Gómez-Ros, J.M., García-Guinea, J., Martin, P.L. and Delgado, A. Thermal stability of the thermoluminescence trap structure of bentonite. *Radiat. Prot. Dosim.* 119. 176-179 (2006)
50. Gómez-Ros, J.M., Correcher, V., García-Guinea, J. and Delgado, A. Evolution of the trapped charge distribution due to trap emptying processes in a natural aluminosilicates. *Radiat. Prot. Dosim.* 119. 93-97 (2006)
51. Gómez-Ros, J.M., Furetta, C. and Correcher, V. Simple methods to analyse thermoluminescence glow curves assuming arbitrary recombination-retrapping rates. *Radiat. Prot. Dosim.* 119. 339-343 (2006)
52. Correcher, V., Sánchez-Muñoz, L., García-Guinea, J., Gómez-Ros, J.M. and Delgado, A. On the blue thermoluminescence emission of synthetic Li-rich aluminosilicates. *Nucl. Instrum. Meth. A.* 562. 456-460 (2006)

53. Sánchez-Muñoz, L., Guinea, J.G., Correcher, V. and Sanz, J. Static and dynamic regimes in the structural evolution of perthitic microclines. *Bol. Soc. Esp. Ceram. V.* 45. 289-299 (2006) (In Spanish)
54. Sánchez-Muñoz, L., García-Guinea, J., Sanz, J., Correcher, V. and Delgado, A. Ultraviolet luminescence from defect complexes in the twin boundaries of K-feldspar. *Chem. Mater.* 18. 3336-3342 (2006)
55. Correcher, V., García-Guinea, J., Castillejo, M., Oujja, M., Rebollar, E. and López-Arce, P. Laser-induced fluorescence and thermoluminescence response of a Na-Ca rich silicate. *Radiat. Meas.* 41. 971-975 (2006)
56. Sánchez-Muñoz, L., Correcher, V., Turrero, M.J., Cremades, A. and García-Guinea, J. Visualization of elastic strain fields by the spatial distribution of the blue luminescence in a twinned microcline crystal. *Phys. Chem. Minerals.* 33(8-9). 639-650 (2006)
57. García-Guinea, J., Martín-Escorza, C., Fernández-Hernán, Sánchez-Muñoz, L., Correcher, V., Sánchez-Chillón, B. and Tormo, L. Spanish meteorites in the Natural Science Museum. *Estudios Geológicos.* 62(1). 11-30 (2006) (In Spanish)
58. Valle-Fuentes, F.J., García-Guinea, J., Cremades, A., Correcher, V., Sánchez-Moral, S., Gonzalez-Martin, R., Sanchez-Muñoz, L. and López-Arce, P. Low-magnesium uranium-calcite with high degree of crystallinity and gigantic luminescence emission. *Appl. Radiat. Isotopes.* 65. 147-154 (2007)
59. Gomez-Ros, J.M., Correcher, V., Sánchez-Muñoz, L., García-Guinea, J. and Delgado, A. Thermoluminescence dosimetric properties of LiAlSiO_4 and $\text{LiAlSi}_{10}\text{O}_{22}$ synthesized by sol-gel method. *Phys. Stat. Sol. A.* 204(3). 861-866 (2007)
60. Sánchez-Muñoz, L., García-Guinea, J., Correcher, V. and Delgado, A. Thermally stimulated power law relaxation of radiation-induced defects in K-feldspar. *J. Phys.: Condens. Matter.* 19. Art. Number: 046202 (11 pp) (2007)
61. Correcher, V., Sánchez-Muñoz, L. and Delgado, A. Detección de especias irradiadas por métodos luminiscentes. Aplicación de la norma EN1788. *Alimentaria.* 382. 90-92 (2007)
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63. Correcher, V., Sánchez-Muñoz, L., García-Guinea, J., Benavente, D. and Delgado, A. Comparison of UV-IR radioluminescence and cathodoluminescence spectra of a potassium feldspar. *Radiat. Meas.* 42. 780-783 (2007)
64. García-Guinea, J., Correcher, V., Sanchez-Muñoz, L., Finch, A.A., Hole, D.E. and Townsend, P.D. On the luminescence emission band at 340 nm of stressed tectosilicate lattices. *Nucl. Instrum. Meth. A.* 580. 648-651 (2007)
65. Sánchez-Muñoz, L., Correcher, V., García-Guinea, J. and Delgado, A. Luminescence at 400 and 440 nm in sanidine feldspar from original and x-ray induced defects. *Nucl. Instrum. Meth. A.* 580. 679-682 (2007)
66. Correcher, V., Sánchez-Muñoz, L., García-Guinea, J. and Delgado, A. Natural blue thermoluminescence emission of the recently fallen meteorite in Villalbeto de la Peña (Spain). *Nucl. Instrum. Meth. A.* 580. 637-640 (2007)
67. Correcher, V., García-Guinea, J., Sánchez-Muñoz, L. and Rivera, T. Luminescence characterization of a sodium rich feldspar. *Radiat. Eff. Defects Sol.* 162. 709-714 (2007)
68. García-Guinea, J., Correcher, V., Sánchez-Muñoz, L., López-Arce, P., Townsend, P.D. and Hole D.E. Radiation damage of variscite in historic crafts: solarization, decolouration, structural changes and spectra from ionoluminescence. *Radiat. Phys. Chem.* 77(1). 18-22 (2008)
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Congresses

95 contributions in 49 Conferences (16 Spanish and 33 International) from 1992-present.

R&D Organization events

Title: 12th International Conference on Solid State Dosimetry. 5-10 July 1998

Title: Advanced course on the spectroscopy techniques. 1-5 december 2008.

Title: Course on the analytical spectroscopic techniques. 25-29 May 2009.

Title: Advanced course on the inorganic analysis by spectroscopic techniques. 19-23 October 2009.

Title: Conference on Micro-Raman and Luminescence in Earth and Space Sciences (CORALS II). 18-20 May 2011.

Stays & Invitations

- Invitation from the Russian Academy of Medical Sciences (RAMS), Medical Radiological Research Center (MRRC) in Obninsk (Russia) and the Ukraine Radiation Protection Institute de Kiev (Ukraine) for the exploration and study of areas affected by the Chernobyl radiological accident. (1997 and 1998). Linked to INCO-COPERNICO (IC15CT96-0315) project.
- Stay with Dr. D.C.W. Sanderson. (29 Julio-14 Agosto 1993) head of the luminescence laboratories in the Scottish Universities Research & Reactor Centre (S.U.R.R.C.) in Glasgow (Scotland). Linked to CICYT (ALI91-203) and CAM (C141/91) projects.

Referee

- Usual reviewer of papers in: Am. Mineral., Appl. Radiat. Isotopes, IEEE T Nucl Sci, J. Alloy Compd., J. Am. Ceram. Soc., J. Anal. Appl. Pyrol., J. Appl. Phys., J. Environ. Radioactiv., J. Lumin., J. Mater. Process. Tech., J. Phys. Condens. Mat., J. Phys. D: Appl. Phys., J. Sol-Gel Sci. Techn., Mater. Sci. Appl., Meteorit. Planet. Sci., Miner. Petrol., Nanotechnology, Nucl. Instrum. Meth. B, Nucl. Instrum. Meth. A, Opt. Mater., Phys. Chem. Miner., Phys. Scripta, Phys. Stat. Sol., Quat. Geochronol., Radiat. Eff. Def. Solids and Radiat. Meas.
- Evaluation of the Project "New look on applications of photochemistry" for the *Foundation for Polish Science (Team Programme)*, supported by European Structural Funds.
- Evaluation of the INNPACTO projects for the Spanish Department of Science and Innovation.

Awards/Honors

- Spanish national award *Fundación Ramón Areces I 2003* by the Royal Academy of Spanish Doctors to the Thesis: Use of the thermoluminescence emission of natural and ceramic materials in dose reconstruction.
- Mention of *Economic Geology* to the *Geophysical Research Letter* paper as interesting paper in other journals in 2003 (Publ. 27)
- *Gold Bulletin* award in the year 2005. (Publ. 42)
- Award to the best poster in the 7th International Conference on Luminescent Detectors and Transformers of Ionizing Radiation (LUMDETR 09) held in Krakow (Poland) 12-17 July 2009.

Invited talks

- 'A meteorite in *Montes de Palencia*: analysis and luminescence results' (11 March 2004, in CIEMAT).
- 'Isotopic geochemistry and Geochronology' (22 June 2004 and 8 June 2005, in the geological department of the Complutense Univ. of Madrid, Spain).
- 'Luminescence Dosimetry for food irradiation' (29 September and 16 November 2005, in the Spanish Health Department).
- 'Thermoluminescence dosimetry of quartz: application to geological and archaeological dating and meteorites' (18 February 2005, in the Optical, atomic and theoretical Physics department of the Univ. of Valladolid, Spain).
- 'Thermoluminescence sensitivity of daily use materials' (26 September 2007, in the X International Symposium/XX National Congress on Solid State Dosimetry in Puebla, Mexico).
- 'Processing, regulations and quality control of irradiated food' (18 november 2008, in the 2008 NDP-IFT/EFFoST Joint Workshop on Nonthermal Food Processing Technologies. Pre-workshop Intensive course. Madrid, Spain).

- 'Processing Irradiation as a non-thermal food technology. An overview of techniques for the detection of irradiated food'. (19-22 november 2008, in 2008 NDP-IFT/EFFoST Joint Workshop on Nonthermal Food Processing Technologies. Madrid, Spain):

Others

- Examiner of the thesis 'Mineral characterisation, quality assessment, thermal behaviour and dosimetric characteristics of some natural carbonate materials' authored by **J. Hemalatha** in the Physics department of the Annamalai Univ. in Tamil Nadu, India (2005).

- Examiner of the thesis 'Luminescence behaviour of $\text{KBr}_{1-x}\text{:Ti}^+$ and $\text{RbBr}_{1-x}\text{:Ti}^+$ mixed crystals' authored by **P. Eswaran** in the Department of Physics in the Pondicherry Univ. in Puducherry, India (2008).

- Advisor of five post-doc students.

- Member of the Editorial Board of *Current Chemical Research*