

Research articles 2005-2009 (45)

2009 (13)

Andaluz S, Rodríguez-Celma J, Abadía A, Abadía J, López-Millán A-F (2009) Time course induction of several key enzymes in *Medicago truncatula* roots in response to Fe Deficiency. **Plant Physiol Biochem** 47, 1082-1088.

Fernández V, Orera I, Abadía J, Abadía A (2009) Foliar iron fertilisation of fruit trees: present and future perspectives. **J Hortic Sci Biotech** 84, 1-6.

Jiménez S, **Morales F, Abadía A, Abadía J**, Moreno MA, Gogorcena Y (2009) Elemental 2-D mapping and changes in leaf iron and chlorophyll in response to iron re-supply in iron-deficient GF 677 peach-almond hybrid. **Plant Soil** 315, 93-106.

López-Millán A-F, Morales F, Gogorcena Y, **Abadía A, Abadía J** (2009) Organic acid metabolism in iron deficient tomato plants. **J Plant Physiol** 166, 375-384.

López-Millán A-F, Sagardoy R, Solanas M, Abadía A, Abadía J (2009) Cadmium toxicity in tomato (*Lycopersicon esculentum*) plants grown in hydroponics. **Environ Exp Bot** 65, 376-385.

Martí MC, Camejo D, Fernández-García N, **Rellán-Álvarez R**, Marques S, Sevilla F, Jiménez A (2009), Effect of oil refinery sludges on the growth and antioxidant system of alfalfa plants. **J Hazard Mater** 171, 879-885.

Orera I, Abadía A, Abadía J, Álvarez-Fernández A (2009) Determination of o,oEDDHA -a xenobiotic chelating agent used in Fe-fertilizers- in plant tissues by liquid chromatography-electrospray mass spectrometry: overcoming matrix effects. **Rapid Commun Mass Sp** 23, 1694-1702

Orera I, Abadía J, Abadía A, Álvarez-Fernández A (2009) Analytical technologies to tackle the biological and environmental implications of iron fertilization with synthetic ferric chelates: the Fe(III)-EDDHA case.

J Hortic Sci Biotech 84, 7-12.

Pascual I, Azcona I, **Morales F**, Aguirreolea J, Sánchez-Díaz M (2009) Growth, yield and physiology of *Verticillium*-inoculated pepper plants treated with ATAD and composted sewage sludge. **Plant Soil** 319, 291-306.

Peguero-Pina JJ, Gil-Pelegrín E, **Morales F** (2009) Photosystem II efficiency of the palisade and spongy mesophyll in *Quercus coccifera* using adaxial/abaxial illumination and excitation light sources with wavelengths varying in penetration into the leaf tissue. **Photosynth Res** 99, 49-61.

Peguero-Pina JJ, Sancho-Knapik D, **Morales F**, Flexas J, Gil-Pelegrín E (2009) Differential photosynthetic performance and photoprotection mechanisms of three Mediterranean evergreen oaks under severe drought stress. **Funct Plant Biol** 36, 453-462.

Sagardoy R, Morales F, López-Millán A-F, Abadía A, Abadía J (2009) Effects of Zinc toxicity in sugar beet (*Beta vulgaris* L.) plants grown in hydroponics. **Plant Biol** 11, 339-350.

Zarco-Tejada PJ, Berni JAJ, Suárez L, Sepulcre-Cantó G, **Morales F**, Miller JR (2009) Imaging chlorophyll fluorescence with an airborne narrow-band multispectral camera for vegetation stress detection. **Remote Sens Environ** 113, 1262-1275.



2008 (9)

Aranjuelo I, Erice G, Nogués S, **Morales F**, Irigoyen JJ, Sánchez-Díaz M (2008) The mechanism(s) involved on the photoprotection of PSII at elevated CO₂ in nodulated alfalfa plants. **Environ Exp Bot** 64, 295-306.

Fernández V, Del Río V, Pumariño L, Igartua E, **Abadía J, Abadía A** (2008) Foliar fertilization of peach (*Prunus persica* L. Bastch) with different iron formulations: Effects on re-greening, iron concentration and mineral composition in treated and untreated leaf surfaces. **Sci Hortic** 117, 241-248.

Fernández V, Eichert T, **Del Río V**, López-Casado G, Heredia-Guerrero JA, **Abadía A**, Heredia A, **Abadía J** (2008) Leaf structural changes associated with iron deficiency chlorosis in field-grown pear and peach: physiological implications. **Plant Soil** 331, 161-172.

Jiménez S, Pinochet J, **Abadía A**, Moreno MA, Gogorcena Y (2008) Tolerance response to iron chlorosis of *Prunus* selections as rootstocks. **HortScience** 43, 304-309.

Kempeneers P, Zarco-Tejada PJ, North PRJ, de Backer S, Delalieux S, Sepulcre-Cantó G, **Morales F**, van Aardt J, **Sagardoy R**, Coppin P, Scheunders P (2008) Model inversion for chlorophyll estimation in open canopies from hyperspectral imagery. **Int J Remote Sens** 29, 5093-5111.

Peguero-Pina JJ, **Morales F**, Flexas J, Gil-Pelegrín E, Moya I (2008) Photochemistry, remotely-sensed physiological reflectance index (PRI) and de-epoxidation state of the xanthophyll cycle in *Quercus coccifera* under intense drought. **Oecologia** 156, 1-11.

Peguero-Pina JJ, **Morales F**, Gil-Pelegrín E (2008) Frost damage in *Pinus sylvestris* L. stems assessed by chlorophyll fluorescence in cortical bark chlorenchyma. **Ann Forest Sci** 65, 813.

Pineda M, Gáspár L, **Morales F**, Szigeti Z, Barón M (2008) Multicolour fluorescence imaging of leaves: a useful tool to visualise systemic viral infections in plants. **Photochem Photobiol** 84, 1048-1060.

Rellán-Álvarez R, Abadía J, Álvarez-Fernández A (2008) Metal-nicotianamine complexes formation as affected by pH, ligand exchange with citrate and metal exchange. A study by electrospray-time of flight mass spectrometry. **Rapid Commun Mass Sp** 22, 1553-1562.

2007 (6)

Álvarez-Fernández A, Orera I, Abadía J, Abadía A (2007) Determination of synthetic ferric chelates used as fertilizers by liquid chromatography-electrospray mass spectrometry in agricultural matrices. **J Am Soc Mass Spectrom** 18, 37-47.

Galmés J, **Abadía A**, Cifré J, Medrano H, Flexas J (2007) Photoprotection processes under water stress and recovery in Mediterranean plants with different growth forms and leaf habits. **Physiol Plant** 130, 495-510.

Galmés J, **Abadía A**, Medrano H, Flexas J (2007) Photosynthesis and photoprotection responses to water stress in the wild-extinct plant *Lysimachia minoricensis*. **Environ Exp Bot** 60, 308-317.

Garcés-Claver A, Gil-Ortega R, **Álvarez-Fernández A**, Arnedo-Andrés MS (2007) Inheritance of capsaicin and dihydrocapsaicin contents, determined by HPLC-ESI/MS, in an intraspecific cross of *Capsicum annuum* L. **J Agric Food Chem** 55, 6951-6957.

Ortega-Villasante C, Hernández LE, **Rellán-Álvarez R**, del Campo FF, Carpena-Ruiz RO (2007) Rapid alteration of cellular redox homeostasis upon exposure to cadmium and mercury in alfalfa seedlings. **New Phytol** 176, 96-107.



Peguero-Pina JJ, Camarero JJ, **Abadía A**, Martín E, González-Cascón R, **Morales F**, Gil-Pelegrín E (2007) Physiological performance of silver-fir (*Abies alba* Mill.) populations under contrasting climates near the south-western distribution limit of the species. **Flora** 202, 226-236.

2006 (8)

Andaluz S, López-Millán A-F, De las Rivas J, Aro E-M, **Abadía J, Abadía A** (2006) Proteomic profiles of thylakoid membranes and changes in response to iron deficiency. **Photosynth Res** 89, 141-155.

Fernández V, Del Río V, Abadía J, Abadía A (2006) Foliar iron fertilization of peach (*Prunus persica* (L.) Batsch): effects of iron compounds, surfactants and other adjuvants. **Plant Soil** 289, 239-252.

Garcés-Claver A, Arnedo-Andrés MS, **Abadía J**, Gil-Ortega R, **Álvarez-Fernández A** (2006) Determination of capsaicin and dihydrocapsaicin in Capsicum fruits by liquid chromatography-electrospray/time of flight mass spectrometry. **J Agric Food Chem** 54, 9303-9311.

Gáspár L, Sárvári É, **Morales F**, Szigeti Z (2006) Presence of 'PSI free' LHCl and monomeric LHClI and subsequent effects on fluorescence characteristics in lincomycin treated maize. **Planta** 223, 1047-1057.

Larbi A, Abadía A, Abadía J, Morales F (2006) Down co-regulation of light absorption, photochemistry and carboxylation in Fe-deficient plants growing in different environments. **Photosynth Res** 89, 113-126.

Rellán-Álvarez R, Hernández LE, **Abadía J, Álvarez-Fernández A** (2006) Direct and simultaneous determination of reduced and oxidized glutathione and homoglutathione by liquid chromatography-electrospray/mass spectrometry in plant tissue extracts. **Anal Biochem** 356, 254-264.

Rellán R, Ortega-Villasante C, **Álvarez-Fernández A**, del Campo F, Hernández L (2006) Stress responses of *Zea mays* to Cadmium and Mercury. **Plant Soil** 279, 41-50.

Zimmermann R, Bauermann U, **Morales F** (2006) Effects of growing site and nitrogen fertilization on biomass production and lignan content of linseed (*Linum usitatissimum* L.) **J Sci Food Agr** 86, 415-419.

2005 (9)

Álvarez-Fernández A, García-Marco S, Lucena JJ (2005) Evaluation of synthetic iron(III)-chelates (EDDHA/Fe³⁺, EDDHMA/Fe³⁺ and EDDHSA/Fe³⁺) to correct iron chlorosis. **Eur J Agron** 22, 119-130.

Corcuera L, **Morales F, Abadía A**, Gil-Pelegrín E (2005) The effect of low temperatures on the photosynthetic apparatus of *Quercus ilex* subsp. *ballota* at its lower and upper altitudinal limits in the Iberian peninsula and during a single freezing-thawing cycle. **Trees** 19, 99-108.

Corcuera L, **Morales F, Abadía A**, Gil-Pelegrín E (2005) Photosynthesis and photoprotection in a *Quercus ilex* subs. *Ballota* woodland located in its upper limit in the Iberian Peninsula. **Tree Physiol** 25, 599-608.

Fernández V, Ebert G (2005) Foliar iron fertilisation – A critical review. **J Plant Nutr** 28, 2113-2114.

Fodor F, Gáspár L, **Morales F, Gogorcena Y**, Lucena JJ, Cseh E, Kröpfel K, **Abadía J**, Sárvári É (2005) Effects of two iron sources on iron and cadmium allocation in poplar (*Populus alba* L.) plants exposed to cadmium. **Tree Physiol** 25, 1173-1180.



López-Millán AF, Ellis DR, Grusak MA (2005) Effect of zinc and manganese supply on the activities of superoxide dismutase and carbonic anhydrase in *Medicago truncatula* wild type and raz mutant plants. **Plant Sci** 168, 1015-1022.

Morales F, Cartelat A, **Álvarez-Fernández A**, Moya I, Cerovic ZG (2005) Time-resolved spectral studies of blue-green fluorescence of artichoke (*Cynara cardunculus* L. var. scolymus) leaves: identification of chlorogenic acid as one of the major fluorophores and age-mediated changes. **J Agric Food Chem** 53, 9668-9678.

Pestana M, de Varennes A, **Abadía J**, Fariá EA (2005) Differential tolerance to iron deficiency of citrus rootstocks grown in nutrient solution. **Sci Hortic** 104, 25-36.

Rombolà AD, **Gogorcena Y**, **Larbi A**, **Morales F**, Baldi E, Marangoni B, Tagliavini M, **Abadía J** (2005) Iron deficiency-induced changes in carbon fixation and leaf elemental composition of sugar beet (*Beta vulgaris*) plants. **Plant Soil** 271, 39-45.

Book chapters (3)

Álvarez-Fernández A (2006) Application of stable isotopes in plant iron research. *In: Iron Nutrition in Plants and Rhizospheric Microorganisms*, LL Barton, **J Abadía** eds, pp 437-448. **Springer**, Dordrecht, The Netherlands. ISBN-10 1-4020-4742-8.

Álvarez-Fernández A, **Abadía J**, **Abadía A** (2006) Iron deficiency, fruit yield and fruit quality. *In: Iron Nutrition in Plants and Rhizospheric Microorganisms*, LL Barton, **J Abadía** eds, pp 85-101. **Springer**, Dordrecht, The Netherlands. ISBN-10 1-4020-4742-8.

Morales F, **Abadía A**, **Abadía J** (2006) Photoinhibition and photoprotection under nutrient deficiencies, drought, and salinity. *In: Photoinhibition*, B Demmig-Adams, WW Adams III, AK Matoo eds, *Advances in Photosynthesis and Respiration, Vol. 21*, pp 65-85. **Springer**, Dordrecht, The Netherlands. ISBN-10 1-4020-3564-0.

Dissemination articles (5)

Álvarez-Fernández A, **Abadía J**, **Abadía A** (2006) Evaluación química y agronómica de quelatos de hierro sintéticos. **Vida Rural** 227, 20-22 y 44-45.

González V, **Abadía A**, **Abadía J**, Vivas A, Prieto MH (2006) Estado nutricional de ciruelo japonés (*Prunus salicina*) en las Vegas del Guadiana (Extremadura). **Vida Rural** 222, 34-38.

González V, **Abadía A**, **Abadía J**, Vivas A, Prieto MH (2006) Estado nutricional de melocotonero (*Prunus persica*) en las Vegas del Guadiana (Extremadura). **Vida Rural** 223, 78-82.

Álvarez-Fernández A, **Abadía J**, **Abadía A** (2006) Valutazione chimica ed agronomica dei chelate di ferro sintetici. **Italus Hortus** 13, 17-23.

Grasa R, **Clavería I**, **Paniagua MP**, **Abadía J**, **Abadía A** (2006) Impact of iron chlorosis on macro- and micro-nutrient budgets in peach. **Acta Hortic** 721, in press.

