

## NOMBRE: Vidal BARRÓN LÓPEZ DE TORRE

**Categoría Profesional:** Catedrático

**Departamento:** Agronomía

**Área de Conocimiento:** Producción Vegetal

**Teléfono:** 957218915

**Fax:**

**Correo Electrónico:** vidal@uco.es

**Web personal:**

### LÍNEAS DE INVESTIGACIÓN

- ❖ Dinámica del fósforo, hierro y zinc en suelos del área mediterránea
- ❖ Óxidos de hierro y propiedades magnéticas de los suelos

### PROYECTOS DE INVESTIGACIÓN

1. 2011-2013. Genesis, naturaleza y significado ambiental de los minerales ferrimagnéticos edáficos. I.R Vidal Barrón.
2. 2009-2014. Estudio y modelización del transporte de carbono y fósforo asociado a los flujos hidrológicos en olivar en ladera en función del tipo de suelo y sistema de manejo. I.R. José Alfonso Gómez Calero
3. 2010-2012. Estudio del Biocarbón como Sumidero de Carbono. Cálculo del potencial de eliminación de CO<sub>2</sub> atmosférico e impacto en el medio ambiente. I.R Rafael Villar
4. 2011-2015. Sustainable strategies for pest control based on the establishment of rhizosphere-competent and endophytic Entomopathogenic Fungi. I.R. Enrique Quesada Moraga
5. 2014 -2016. Factores edáficos que afectan a la fitodisponibilidad del cinc en relación con el estatus del fósforo del suelo. I.R. M<sup>a</sup> del Carmen del Campillo

### PUBLICACIONES

1. Fink, JR., Inda, AV., Bavaresco, J. Sánchez-Rodríguez, AR., Barrón, V., Torrent, J. Bayer, C. 2015. Diffusion and uptake of phosphorus, and root development of corn seedlings, in three contrasting subtropical soils under conventional tillage or no-tillage. *Biology and Fertility of Soils*. DOI 10.1007/s00374-015-1067-3
2. Guzmán, G., Laguna, A., Cañasveras, JC., Boulal, H., Barrón, V., Gómez-Macpherson, H., Giráldez, J.V., Gómez, J.A. 2015. Study of sediment movement in an irrigated maize-cotton system combining rainfall simulations, sediment tracers and soil erosion models. *Journal of Hydrology*. 524, 227 - 242.
3. Camargo, LA, Marqués Jr, J., Barrón, V., Alleoni, LRF., Barbosa, RB., Pereira, GP. 2015. Mapping of clay, iron oxide and adsorbed phosphate in Oxisols using diffuse reflectance spectroscopy. *Geoderma*. 251, 124 - 132.
4. Torrent, J., del Campillo, M.C. and Barrón, V. 2015. Predicting cation exchange capacity from hygroscopic moisture in agricultural soils of Western Europe. *Spanish Journal of Agricultural Research* 13(4), e11SC01.
5. Long, X.Y., Ji, J.F., Balsam, W., Barrón, V. and Torrent, J. 2015. Grain growth and transformation of pedogenic magnetic particles in red Ferralsols. *Geophysical Research Letters* 42:5762-5770.
6. Jiang, Z.X., Liu, Q.S. Dekkers M.J., Tauxe, L., Qin, H.F., Barrón, V. and Torrent, J. 2015. Acquisition of chemical remanent magnetization during experimental ferrihydrite-hematite conversion in Earth-like magnetic field-implications for paleomagnetic studies of red beds. *Earth and Planetary Science Letters* 428. Doi: 101016/j.epsl.2015.07.024.

7. Olmo, M, Albuquerque, J, Barrón, V, del Campillo, MC, Gallardo, A, Fuentes, M, Villar, R. 2014. Wheat growth and yield responses to biochar addition under Mediterranean climate conditions. *Biology and Fertility of Soils*. 50(8):1177-1187. DOI: 10.1007/s00374-014.
8. Cañasveras, J.C., Sánchez-Rodríguez, A.R., del Campillo, M.C. and Torrent, J. 2014. Lowering iron chlorosis of olive by soil application of iron sulfate or siderite. *Agronomy for Sustainable Development* 34:677–684.
9. Marques Jr., J., Siqueira, D.S., Camargo, L.A., Teixeira, D.D.B., Barrón, V. and Torrent, J. 2014. Magnetic susceptibility and diffuse reflectance spectroscopy to characterize the spatial variability of soil properties in a Brazilian Haplustalf. *Geoderma* 219–220:63–71.
10. Sánchez-Rodríguez, A.R., del Campillo, M.C. and Torrent, J. 2013. Phosphate aggravates iron chlorosis in sensitive plants grown on model calcium carbonate-iron oxide systems. *Plant and Soil* 373:31–42.
11. Sánchez-Rodríguez, A.R., Cañasveras, J.C, del Campillo, M.C., Barrón, V. and Torrent, J. 2013. Iron chlorosis in olive as affected by phosphorus fertilization. *European Journal of Agronomy* 51:101–107.
12. Albuquerque, J.A., Salazar, P., Barrón, V., Torrent, J. and del Campillo, M.C., Gallardo, A. and Villar, R. 2013. Enhanced wheat yield by biochar addition under different mineral fertilization levels. *Agronomy for Sustainable Development* 33:475–484.
13. Hu, P.X., Liu, Q.S., Torrent, J., Barrón, V. and Jin, C.S. 2013. Characterizing and quantifying iron oxides in Chinese loess/paleosols: Implications for pedogenesis. *Earth and Planetary Science Letters* 369–370:271–283. doi:10.1016/j.epsl.2013.03.033.
14. Inda, A.V., Torrent, J., Barrón, V., Bayer, C. and Fink, J.R. 2013. Iron oxides dynamics in a subtropical Brazilian Paleudult under long-term no-tillage management. *Scientia Agricola* 70:48–54.
- Cañasveras, J.C., Barrón, V., del Campillo, M.C., and Viscarra, R. 2012. Reflectance spectroscopy: a tool for predicting soil properties related to the incidence of Fe chlorosis. *Spanish Journal of Agricultural Research*. 10:1133-1142. DOI: 10.5424/sjar/2012104-681-11.
15. Cañasveras, J.C., Barrón, V., del Campillo, M.C., and Viscarra, R. 2012. Reflectance spectroscopy: a tool for predicting soil properties related to the incidence of Fe chlorosis. *Spanish Journal of Agricultural Research*. 10:1133-1142. DOI: 10.5424/sjar/2012104-681-11
16. Jiang, Z., Liu, Q., Barrón, V., Torrent, J. and Yu, Y. 2012. Magnetic discrimination between Al-substituted hematites synthesized by hydrothermal and thermal dehydration methods and its geological significance. *Journal of Geophysical Research* 111:B02102. Doi: 10.1029/2011JB008605.
17. Sánchez-Alcalá, I., Bellón, F., del Campillo, M.C., Barrón, V. and Torrent, J. 2012. Application of synthetic siderite (FeCO<sub>3</sub>) to the soil is capable of alleviating iron chlorosis in olive trees. *Scientia Horticulturae* 138:17–23.
18. Garrido-Jurado, I., Torrent, J., Barrón, V., Corpas, A. and Quesada-Moraga, E. 2011. Soil properties affect the availability, movement, and virulence of entomopathogenic fungi conidia against puparia of *Ceratitis capitata* (Diptera: Tephritidae). *Biological Control* 58:277–285.