

13th December 2017

Dear Sir/Madam,

The following highlights are to be used for the paper entitled “Magnetic vortex effects on first-order reversal curve (FORC) diagrams for dispersions of greigite” submitted to the journal *Earth and Planetary Science Letters* with Dr. Adrian R. Muxworthy, Prof. Wyn Williams, Dr. Pádraig Ó Conbhuí, Dr. Lesleis Nagy, Prof. Andrew P. Roberts and Dr. David Heslop:

1. **Finite-element micromagnetic model of FORC diagrams**
2. **Magnetic vortex effects on FORC diagrams determined**
3. **Pure magnetic vortex FORC signal for grains ~80 nm**
4. **Pure single-domain FORC signal for grains <50 nm**
5. **Mixed FORC signal for grains >50nm, <80 nm**

Yours sincerely,



Miguel A. Valdez Grijalva