

# Experiments and questions on hyperconductivity and quodons

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Virtual Talk on September 27, 2019

**Closing Lecture:** Seminar G0.81, ETSII, at 12h

**JSLoc 2019: Japanese-Spanish Symposium on  
Energy Localization in Nonlinear Lattices.**

**Sevilla, September 23-28, 2019**



Mike Russell in his laboratory in 2011 when he celebrated his 80th birthday.

# Recent Publications

- **Rare cosmological events recorded in muscovite mica, FM Russell, [arXiv:1902.00354](#) [astro-ph.HE] (2019)**
- *Hyperconductivity in fluorphlogopite at 300 K and 1.1 T.* FM Russell, MW Russell, JFR Archilla. EPL 127,1 (2019) 16001
- *Transport Properties of Quodons in Muscovite and Prediction of Hyper-Conductivity,* FM Russell, in *Nonlinear Systems, Vol. 2.* Springer (2018) 241
- *Infinite charge mobility in muscovite at 300K.* FM Russell, JFR Archilla, F Frutos, S Medina-Carrasco. EPL 120 (2017) 46001
- *On the charge of quodons,* JFR Archilla and FM Russell, *Letters on Materials* 6 (2016) 3
- *Tracks in Mica, 50 Years Later: Review of Evidence for Recording the Tracks of Charged Particles and Mobile Lattice Excitations in Muscovite Mica.* FM Russell, *Springer Ser. Mater. Sci.* 221 (2015) 3
- *I Saw a Crystal: An Historical Account of the Deciphering of the Markings in Mica.* FM Russell, *Springer Ser. Mater. Sci.* 221 (2015) 475
- **Charge coupling to anharmonic lattice excitations in a layered crystal at 800K, FM Russell, [arXiv:1505.03185](#) [cond-mat.supr-con] (2015)**