**PhD position**

**Experimental Condensed Matter Physics**  
*High-Temperature Superconductivity in Hydrogen Compounds*

**Project:** Applications are invited for a PhD studentship as part of a 5 year ERC research programme on high-temperature superconductors. This position offers to study recently discovered record high-temperature superconductors like H$_3$S with a transition temperature above 200 K as well as discovering new high-temperature superconductors.

The candidate will carry out cutting edge research and contribute to understanding high-temperature superconductors. You will gain experience in setting up diamond-anvil pressure cells and studies at high pressures and low temperatures including magnetic, and electrical resistance measurements.

**Requirements:** Candidates should hold a first degree in physics or a related subject, normally at a level equivalent to at least UK honours 2:1 level, or a relevant postgraduate Master’s qualification. Please see our [prospectus](#) for full details about international equivalents. A good background in solid state physics including superconductivity is desirable. Good oral and written skills in English language and strong motivation, the ability to work independently and in a team are required. Experience in experimental physics and manipulation of small samples is beneficial.

**Bristol:** The successful candidate will work in the Correlated Electrons Systems group at the University of Bristol which is world-leading in the field of superconductivity. Strong support for the PhD student is provided through postdocs and researchers with more than 10 years experience in high-pressure studies as well as through links with the Earth Sciences group at the University of Bristol. You will find it a stimulating environment covering a wide expertise from theory via sample synthesis to bulk measurements and microscopic probes as well as high-pressure. The University of Bristol is a research intensive elite university in the vibrant city of Bristol in the beautiful West of England.

**Starting Date:** The position is available to start September 2018 or soon after for a period of 3.5 years.

**Funding:** The studentship is open to Home/EU students and provides 3.5 years tuition fees, plus a living allowance at Research Council UK rates. For 2017/18 this is £14,553. Fee wavers and living allowance studentships are available to outstanding international candidates.

**Informal enquiries:** You are encouraged to contact Sven Friedemann for more details
Dr Sven Friedemann ([Sven.Friedemann@bristol.ac.uk](mailto:Sven.Friedemann@bristol.ac.uk))
Tel: +44 (0)117 928 8726
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**Application:** Applications are welcome through the University of Bristol Postgraduate admissions at [http://www.bristol.ac.uk/study/postgraduate/apply/](http://www.bristol.ac.uk/study/postgraduate/apply/). Please choose “Physics PhD” as course and mention “High-pressure Superconductivity” as corresponding studentship advert. The position will be open until a suitable candidate is found. Applications should include a Curriculum Vitae, contact information for two potential referees and a short letter outlining the applicant’s scientific interests and motivation to work on high-temperature superconductivity at high pressures.