Name of the organization
National Physical Laboratory

Name of the infrastructure / laboratory
Instrumented single cell PEMFC test stations

Address and country of the infrastructure / laboratory
National Physical Laboratory, Hampton Road, Teddington, Middlesex, TW11 0LW, United Kingdom

Person responsible of the access / Contact person
Gareth Hinds

Phone / Fax / Web / Email
+442089437147 / gareth.hinds@npl.co.uk

Main field of activity of the infrastructure / laboratory
- *PEMFC – in situ measurement and modeling*

Short description of the infrastructure / laboratory
NPL has a dedicated PEMFC research laboratory equipped with a range of novel in situ measurement techniques, with the principal focus on studying fuel cell degradation modes such as startup/shutdown and cell reversal. The facility contains two highly instrumented Hydrogenics single cell test stations, supported by a range of material and electrochemical characterisation techniques. Available techniques include unique capability for in situ measurement of relative humidity in PEMFC flowfield channels and localised current density measurement using a segmented electrode. Ground-breaking in situ reference electrode capability will be added during this project.

Main research area(s) of the infrastructure / laboratory
In situ measurement and modeling of PEMFCs

Instruments and tools available for the above mentioned research
Instrumented single cell PEMFC test stations, potentiostats, hydrogen generator.