

**Name of the organization**

European Commission DG-JRC, Institute for Energy and Transport

Name of the infrastructure / laboratory

Hydrogen fuel and air Quality test Facility (H2QF)

Address and country of the infrastructure / laboratory

Westerduinweg 3, 1755 LE Petten, The Netherlands

Person responsible of the access / Contact person

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Main field of activity of the infrastructure / laboratory

- ▶ Stationary and Fuel Cells for Power and Heat Generation
- ▶ Transportation and Refueling Infrastructure
- ▶ Cross-cutting issues

Short description of the infrastructure / laboratory

The Hydrogen fuel and air Quality test Facility (H2QF) which is just commissioned by JRC, is composed of dedicated high purity gas supply lines connected to a 3 kW PEFC/DMFC test station combined with a dual (EI/IMR) mass spectroscopy gas analyzer to quantify and monitor FC feeds and emissions for the assessment of the effects of hydrogen fuel quality and air contaminants on the performance (and degradation) of single cells and short stacks. This includes the establishment of cross-contaminant effects which is a too least studied scientific issue to urgently identify tolerable fuel quality of hydrogen when produced by different production methods (electrolysis, reforming, gasification, fermentation, etc) and to refine hydrogen fuel specifications (for fuel cell use).

Main research area(s) of the infrastructure / laboratory

Testing of PEFC single cells and short stacks

Instruments and tools available for the above mentioned research

FC test station to simulate various test conditions.

