



**Hydrogen energy  
technologies – advancing  
the integration of hydrogen  
as an energy carrier**

# The International Partnership for the Hydrogen Economy (IPHE) has adopted a priority theme to accelerate the market penetration and early adoption of hydrogen and fuel cell technologies and supporting infrastructure.

## Expertise

IRL is the leading hydrogen energy research organisation in New Zealand and acts as a New Zealand technical expert for IPHE. IRL's hydrogen energy research spans the future production, storage and utilisation of hydrogen as an energy carrier.

- ▶ Materials – storage materials, separation membranes, electrodes
- ▶ Components – fuel cells, electrolyser, ethanol reformation
- ▶ Systems – hydrogen production, stationary and transport distribution and hydrogen use.

## Proven ability

- ▶ Partner in an IPHE endorsed chemical hydride storage research programme
- ▶ Pilot site demonstration of distributed generation PEM and alkaline fuel cell systems
- ▶ Development of a new electrolyser for remote hydrogen production.

## Services

- ▶ Modelling of hydrogen energy scenarios
- ▶ Field trials, technology evaluation and assessment.



*A flowmeter used in hydrogen fuel cell testing.*

## Business background

Industrial Research Limited is a world-class science innovation company, with the New Zealand Government as the sole shareholder. Our leading-edge capabilities generate customer solutions and business opportunities with applications across a range of industry sectors. We conduct both public good and commercial R&D and, working with business partners, aim to establish high-value industries. We are based in Wellington, and also have research centres in Auckland and Christchurch.

For all enquiries please contact the Industry Engagement team on 0508 CALL IRL (0508 225 5475). If calling from overseas phone +64 4 931 3000 or visit the *Contact Us* page on our website.

# www.irl.cri.nz

Industrial Research Limited, 69 Gracefield Road, PO Box 31-310, Lower Hutt 5040, New Zealand