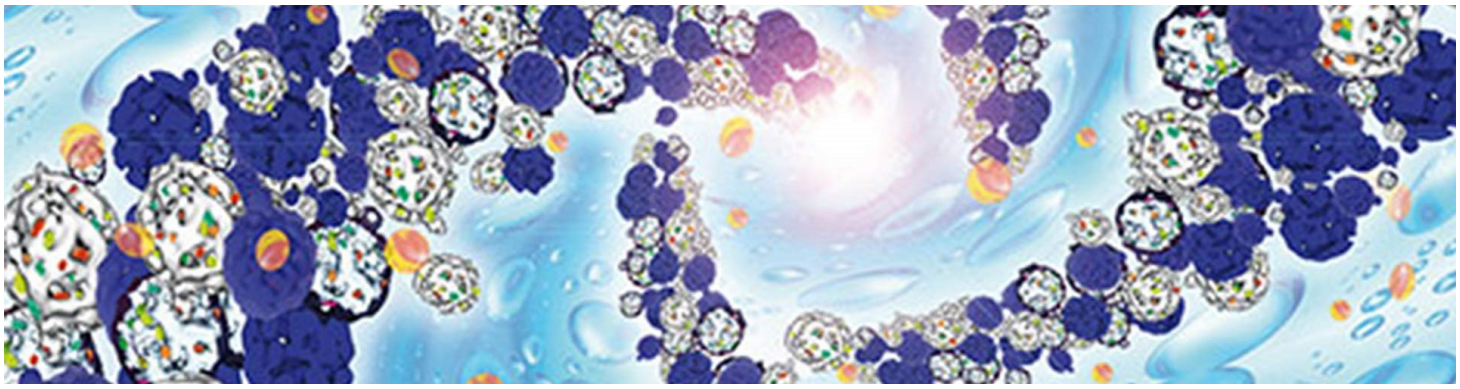

Written on 19 April 2019 2 minutes of reading

News

Fundamental Research

Physical chemistry | Electrochemistry and corrosion

The Fugacity fundamental research *Joint Industry Project* (JIP), led by IFPEN with the French Corrosion Institute (Saint-Étienne), has been launched in 2019 for a duration of 2 years, after the Oxygen JIP, with twelve partners : BP, Chevron, ConocoPhillips, NOV, Petrobras, Saudi Aramco, SZMF, Shell, TechnipFMC, Tenaris, Total, Vallourec.

This JIP is focused on the effect of high pressures (fugacity effects) on the penetration of hydrogen resulting from the steel corrosion process in the presence of CO_2 and H_2S. Once absorbed into the steel, hydrogen affects the mechanical properties, sometimes leading to failure during service. It is thus important to have a thorough understanding of this mechanism in order to secure oil and gas production and transport facilities.

JIPs enable IFPEN teams to develop and validate methodologies and technologies in line with concrete problems. For their part, partners benefit from IFPEN's expertise and recent technological advances, particularly, as here, in terms of the understanding of complex physical phenomena.

Are you interested in corrosion and degradation of materials in severe environments ? Please contact Jean Kittel, Materials and Corrosion Technical Advison, to discuss joining this JIP.

>> To find out more about fundamental research *JIP*

Contact

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Launch of the fugacity JIP on hydrogen penetration in steel
19 April 2019

Link to the web page :