Joint Workshop

WP 17 Automotive Corrosion & WP 22 Corrosion Control in Aerospace On

Multi-materials in hybrid structures for Automotive and Aerospace Applications: Corrosion prevention, materials, joining methods and design

The Automotive and Aerospace industries are both facing the challenges of providing lightweight designs at reasonable costs in order to satisfy current requirements for improving fuel efficiency and reducing environmental footprint. Vehicles in both sectors have a major impact on the environment in terms of air quality, greenhouse gases, water quality, use of natural resources and noise emissions.

The design of advanced lightweight structures are another important factor for the electro-mobility of automobiles and future aircraft in order to balance out the additional weight added by electric components and energy storage systems.

In this joint workshop the corrosion behaviour and corrosion protection challenges arising from the assembly of lightweight hybrid and mixed material land and air vehicles shall be addressed. It will include aspects like the use of materials such as Mg alloys or Titanium, galvanic corrosion protection measures and the corrosion behaviour of various joining as applicable to both industries.

Theo Hack, chairman WP 22 Fouzia Hannour, chairman WP17