

**Provisional program, June 2016
Durability of Marine Composites 2
Wednesday 24th August**

9.00-9.15 **Introduction, conference chairmen**

1. Fibres and Matrix in water

9.15-10.00

D. Penumadu (University Tennessee, USA)

Durability of US Naval Composites and Sandwich Structures: Science Framework
Considering Multi-Scale and Multi-Axial Response in Harsh Sea Environment

10.00-10.45

X. Colin (ENSAM Paris, F)

Non-Fickian water absorption induced by chemical ageing in epoxy-amine networks.
Presentation of the kinetic modeling tool

Coffee 10.45-11.15

2 The Durability of Fibre/Matrix Interfaces

11.15-12.00

L. Peters (3B Fibreglass, B)

Influence of Glass Fibre Sizing and Storage Conditions on Composites Properties

12.00-12.45

L. Carlsson, S. Du, (Florida Atlantic University, USA)

Water Uptake in Fiber Reinforced Polymer Matrix Composites with Voids in the Matrix and
Interfiber Voids

LUNCH 12.45-14.00

3 Modelling of aging and predictions

14.00-14.45 A. Clément, F. Jacquemin (Univ. Nantes, F)

Multiphysics modeling and characterization of the hygro-mechanical behavior of
heterogeneous materials: application to the durability of polymer matrix composites

14.45-15.30

Y. Miyano (Kanazawa Institute of Technology, Japan)

Statistical Long Term Creep Failure Time of Unidirectional CFRP

15.30-16:00

**P. Davies, P-Y Le Gac, M. Le Gall, M. Arhant (IFREMER, F/UK)
F/UK**

Marine aging behavior of new thermoset and thermoplastic composites

16.15 -17.30 Laboratory visit

19.00 RV Hotel Oceania (or directly at Azenor) for Evening meal (Brest Estuary cruise)

Durability of Marine Composites 2
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4. Offshore Oil & Gas requirements for composites

9.00-9.45 D. Melot (Total, F)

Present and future composite material requirements for the offshore oil and gas industry

9.45-10.30 A Echtermeyer (Univ. Trondheim, N)

Multiscale modelling of environmental degradation - first steps

Coffee 10.30-11.00

5. Composites for Renewable Marine Energy

11.00-11.45 M. Dawson (AEL/Airborne, UK)

Effects of conditioning parameters and test environment on composite materials for renewable marine energy applications

11.45-12.30 C. O'Bradaigh (University of Edinburgh, UK)

Design of composites for long term durability of tidal turbine blades

LUNCH 12.30-14.00

6. Reliability

14.00-14.45 R. Sheno, J. Blake, A. Sobey, (University of Southampton, UK)

Reliability of composite marine structures

7. Future Navy Requirements

14.45-15.30 Y. Rajapakse (ONR, USA)

Navy future requirements

15.30-16.00 Closing remarks