

# R-TECH MATERIALS

## **Corrosion Mechanisms** in Stainless Steels

## Wednesday 15th January 10am – 4pm (GMT)

**ONLINE COURSE** 

Corrosion causes plant shutdowns, waste of valuable resources, loss or contamination of product, reduction in efficiency, costly maintenance, expensive over design and jeopardises safety. This course addresses the various corrosion mechanisms which can occur when using stainless steel materials in various industries.

Real-life case studies and solutions from our vast experience in Failure Analysis will be presented.

Course cost: £325 + VAT for members, £375 + VAT for non members



#### The course structure will include the following:

- 1. Introduction
- 2. An overview of stainless steel
- 3. Overview of corrosion
- 4. Sensitisation
- 5. Tea Staining
- 6. Rouging
- 7. General/uniform corrosion
- 8. Pitting corrosion
- 9. Selective attack
- 10. Chloride stress corrosion cracking
- 11. High temperature corrosion
- 12. Polythionic Acid stress corrosion cracking
- 13. Microbial corrosion
- 14. Crevice corrosion
- 15. Corrosion under insulation
- 16. Hydrogen Induced Stress Cracking
- 17. Galvanic corrosion
- 18. Caustic stress corrosion cracking
- 19. Erosion Corrosion
- 20. Corrosion Fatigue

### Each mechanism will include the following:

- A description of the failure mechanism and critical factors.
- How to identify the mechanism.
- Locations affected within the industry.
- Affected material types.
- Recommendations on how to prevent the damage mechanism. including inspection and monitoring.
- 1 or 2 case studies related to the mechanism.

