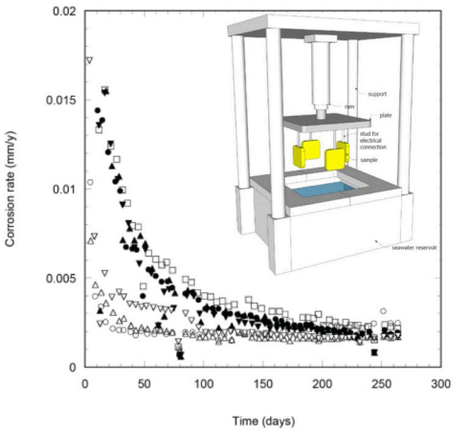
ADVANCED TESTING OF COATINGS IN MARINE ENVIRONMENTS

INNOVATIVE APPROACHES TO THE MITIGATION OF CORROSION IN MARINE ENVIRONMENTS USING THERMAL SPRAY AND COLD SPRAY COATINGS

Coating performance using advanced electrochemical techniques

- Coating life prediction using LPR to measure the corrosion rate of sacrificial coatings, such as thermally sprayed Al (TSA), AlMg, Zn and ZnAl
- EIS for assessment of barrier layers such as paints

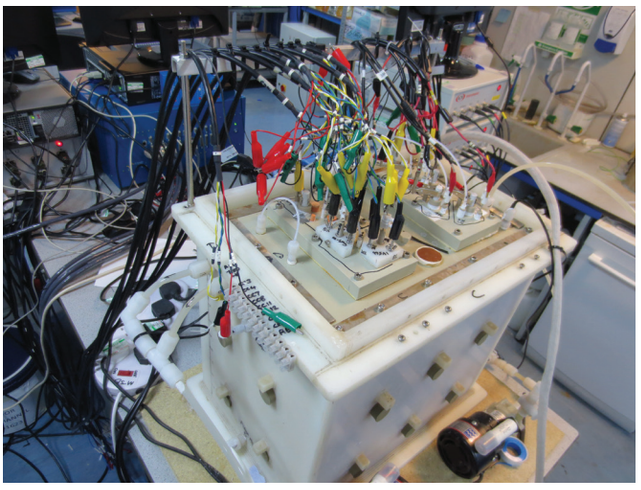


Detailed mechanistic understanding of TSA coating behaviour

- TSA performance as a distributed anode and protection of coating holidays
- Compatibility of sealants and anti-fouling paints with TSA
- Coating failure investigations

Performance of TSA coatings in simulated marine environments

- Alternate immersion or continuous immersion testing
- Compatibility and interaction of TSA with cathodic protection
- Performance at elevated temperature
- Aerobic and anaerobic conditions
- SCC testing of TSA-coated stainless steels and high strength alloys
- Susceptibility of TSA-coated alloys to hydrogen embrittlement
- Deep sea conditions (to 500bar)



Testing of wear-resistant coatings in marine and oil production environments

- Thermal spray, cold spray, electro-deposited, PVD and CVD coatings
- Effectiveness as a barrier to corrosion and susceptibility to galvanic corrosion
- Susceptibility to SSC

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