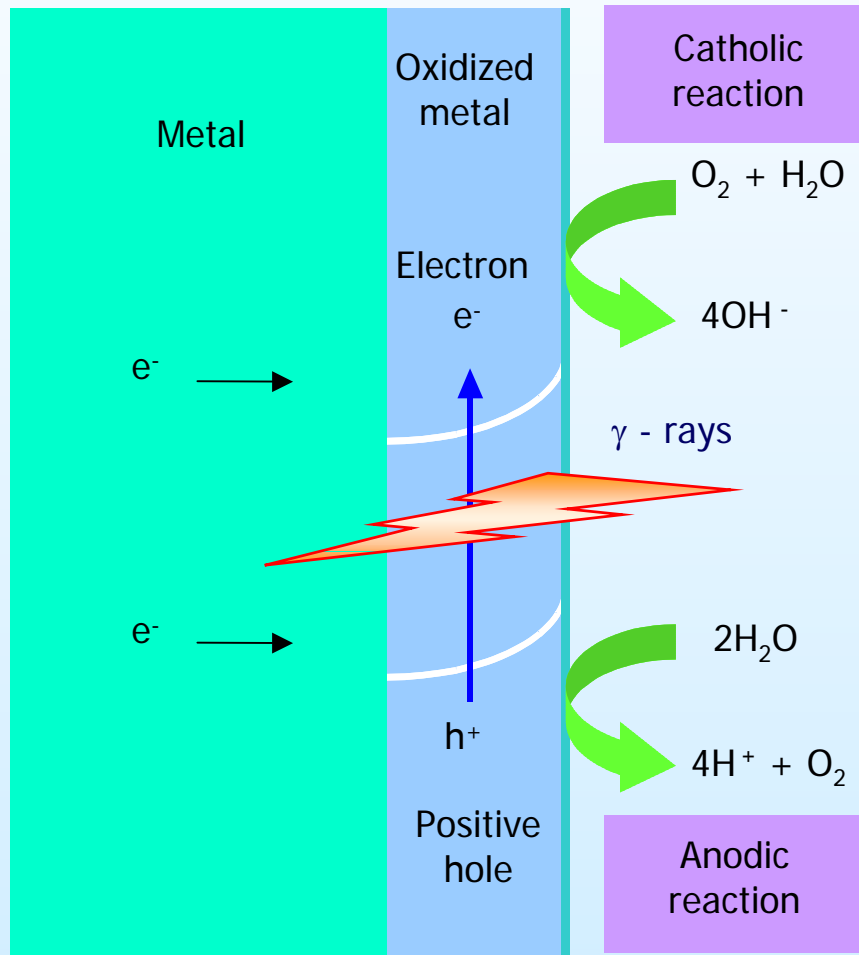


3) Corrosion control



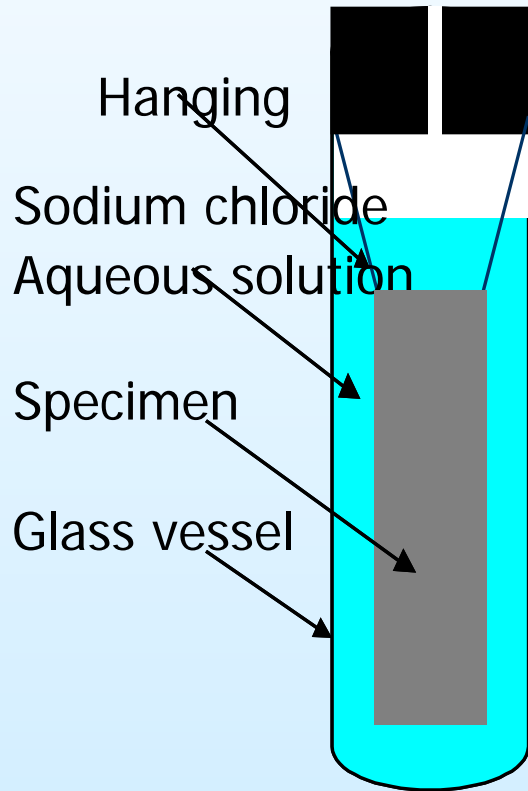
Cathodic and anodic reactions by surface irradiation of oxidized metal with radioactive rays.

Corrosion control

Furuya, et al.,
J. Marine Engineering
Vol.40, No.4, (2005).

Assumed mechanism behind RISA

General corrosion behavior of activated specimen (Alumina coating on iron plate)



After 24 hrs



(a) ^{60}Co - ray: 900Gy/h
RISA



(b) After neutron radiation
Self induced RISA
Surface dose : 20 $\mu\text{Gy/h}$



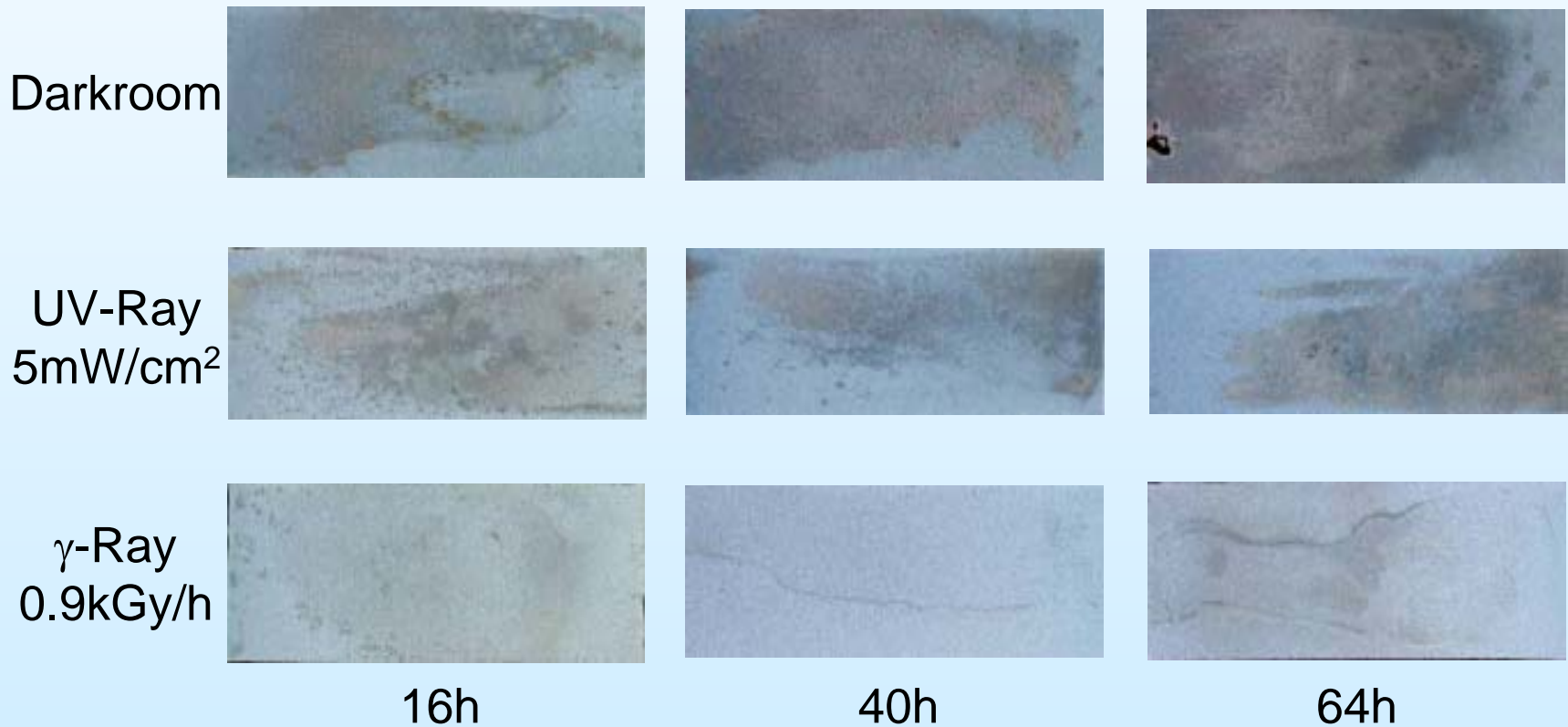
(c) UV illumination
5mW/cm²

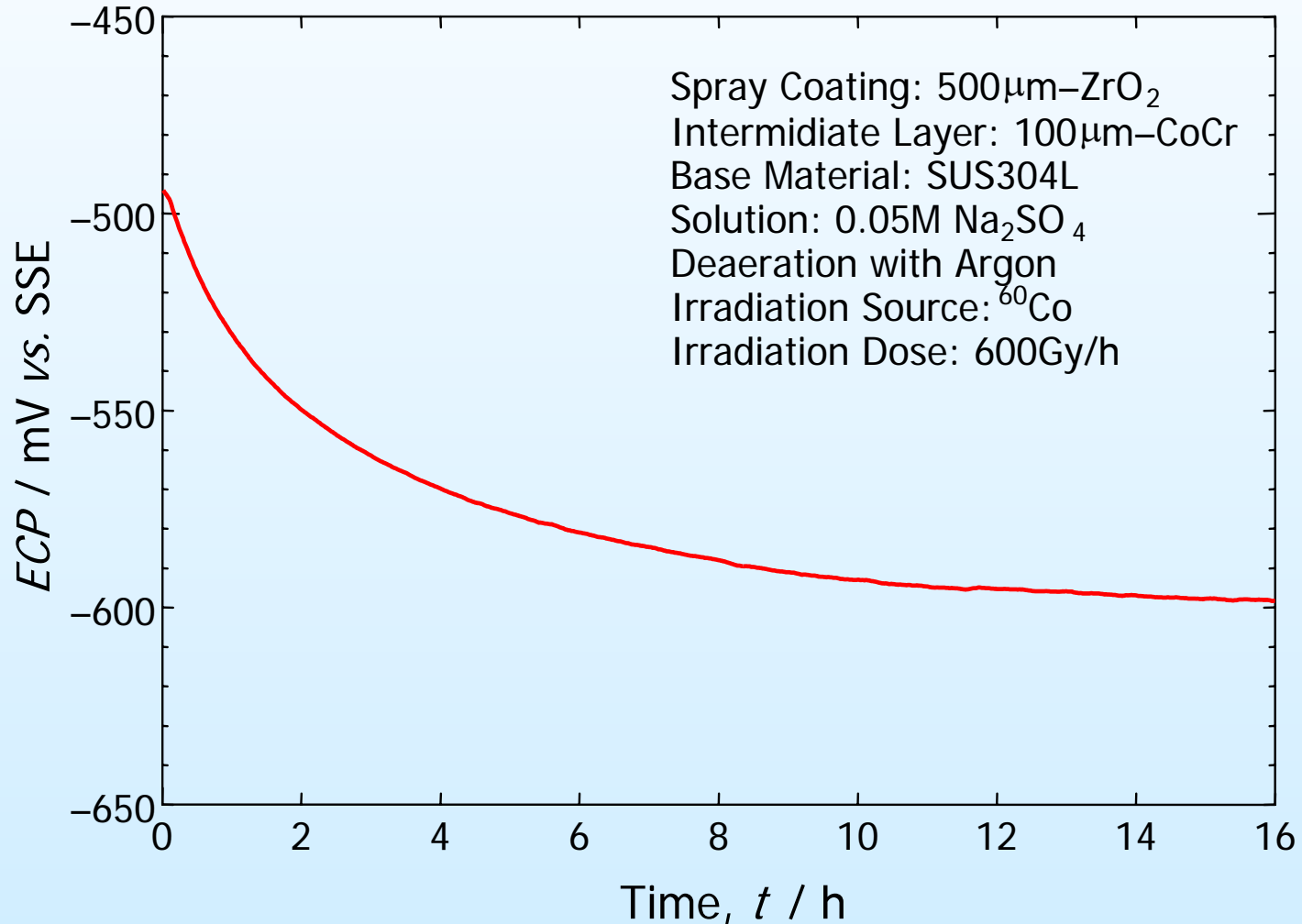


(d) Dark room

Effect of Immersion Duration

Immersed in a 3% sodium chloride aqueous solution for 16hours
thickness of the titanium oxide film is $220\mu\text{m}$





Corrosion Potential of SUS316L

