

1. What specifications are provided in your case study?
  - (a) Aluminum alloy conforming to indian standards IS:733-1983
2. What characterization methods were used, and what information did each method provide?
  - (a) Visual macro images showing corrosion
  - (b) micrograph of transverse section showing pitting and intergranular corrosion
3. What was the failure mode, and what evidence supports this conclusion?
  - (a) intergranular cracking
  - (b) (pitting and intergranular)corrosion
4. What was the root cause of fracture? Explain.
  - (a) Manufacturing - Heat treatment -Inadequate solution treatment caused
    - i. Improve protocols during heat treatment. Avoid delay that affects rate of cooling

5. What recommendations would you make to prevent this type of failure from occurring again?

Significance of chemical composition of delay tube  
what is unetched condition?  
Keller's reagent?