



# CASE STUDIES IN ENGINEERING FAILURE ANALYSIS

## AUTHOR INFORMATION PACK

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### DESCRIPTION

*Case Studies in Engineering Failure Analysis* provides a forum for the rapid publication of short, structured Case Studies in **Engineering Failure Analysis** and related Short Communications, and will provide an essential compendium of case studies for practitioners in the field of engineering failure analysis and others who are interested in the ways in which components fail.

The journal will not only publish new and novel case studies, but will also provide a forum for the publication of high quality descriptions of classic failures. The journal will generally not publish design analyses, materials science studies or failures induced during laboratory testing. The scope of the journal will include case studies of **component failures** in the fields of mechanical, civil, aerospace, mining, oil and gas, medical, electrical, transportation, power generation, process and forensic engineering, although **failure of engineering components** in other areas will also be considered.

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Background

Circumstances of the failure

- Age of the equipment

- Type of equipment
- Timelines

#### Experimental

- Visual Examination
- Fractography
- Material property determination
  - oChemical analysis
  - oMechanical properties
  - oMicrostructural analysis
- Experimental Stress Analysis

#### Engineering Analysis

- Engineering Modeling
- Numerical Analysis

#### Description of the failure mechanism

#### Root Cause of the Failure

#### Recommendations

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