# Article information:

Full article: Corrosion-fatigue: a review of damage tolerance models
<https://www.tandfonline.com/doi/full/10.1080/09506608.2017.1375644>

# Article summary:

1. Corrosion-fatigue is a major cause of premature failure in engineering structures and components.

2. This review considers the approaches which have been applied in allowing for some of the above-mentioned considerations when lifing components under CF conditions.

3. The range of applicability of the approaches reviewed in terms of mechanical, environmental and material-related parameters, and their accuracy for life prediction is discussed.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Corrosion-Fatigue: A Review of Damage Tolerance Models” provides an overview of corrosion fatigue models and their applications to various industries such as oil and gas, nuclear, aerospace, and wind energy. The article is well written and provides a comprehensive overview of the different stages of corrosion fatigue damage evolution, from surface film breakdown to pit growth to pit-to-crack transition to small crack (SC) and long crack (LC) growth. The article also discusses the influence of stress and strain states on pit growth rates, as well as the concept of pit growth-induced dynamic plastic strain proposed by Turnbull [Citation75].

The article is generally reliable in its content; however, there are some potential biases that should be noted. For example, while the article does discuss some counterarguments to certain points made throughout the text, it does not provide any evidence or sources for these counterarguments. Additionally, while the article does mention possible risks associated with corrosion fatigue damage evolution, it does not provide any detailed information on how these risks can be mitigated or avoided. Furthermore, while the article does provide a comprehensive overview of corrosion fatigue models and their applications to various industries, it does not explore any unexplored counterarguments or present both sides equally when discussing certain topics throughout the text.

In conclusion, this article provides a comprehensive overview of corrosion fatigue models and their applications to various industries; however, there are some potential biases that should be noted when reading this article such as lack of evidence for counterarguments presented throughout the text as well as lack of detail regarding possible risks associated with corrosion fatigue damage evolution.

# Topics for further research:

* Corrosion fatigue mitigation strategies
* Corrosion fatigue risk assessment
* Stress-strain effects on corrosion fatigue
* Corrosion fatigue in oil and gas industry
* Corrosion fatigue in nuclear industry
* Corrosion fatigue in aerospace industry

# Report location:

<https://www.fullpicture.app/item/90e8d0fb63cf936c80cbc3b37f0be39f>