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Highlights

- Compared to sterile water, biofilm in reclaimed water promoted corrosion process significantly.
- Corrosion rate was accelerated by the biofilm in the first 7 days but was inhibited afterward.
- There was an inverse correlation between the biofilm thickness and general corrosion rate.
- Corrosion process was influenced by bacteria, EPS and corrosion products comprehensively.
- The corrosion process can be divided into three different stages in our study.

Study of biofilm influenced corrosion on cast iron pipes in reclaimed water

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