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

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### Highlights

3 ➤ Compared to sterile water, biofilm in reclaimed water promoted corrosion process  
4 significantly.

5 ➤ Corrosion rate was accelerated by the biofilm in the first 7 days but was inhibited  
6 afterward.

7 ➤ There was an inverse correlation between the biofilm thickness and general  
8 corrosion rate.

9 ➤ Corrosion process was influenced by bacteria, EPS and corrosion products  
10 comprehensively.

11 ➤ The corrosion process can be divided into three different stages in our study.

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### 14 **Study of biofilm influenced corrosion on cast iron pipes** 15 **in reclaimed water**

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