

**Biocorrosion in the new millennium**  
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**Abstract:**

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An overall perspective on the advances in biocorrosion knowledge is made looking into the new millennium.

After an increased industrial awareness on the deleterious effects of biocorrosion in industrial systems during the '80s and a blooming of biocorrosion research in universities and research centers during the 90's considerable advances in the understanding on the subject were reached at the end of the last century. Significant improvements in analytical, microbiological, electrochemical and microscopy techniques and instrumentation have allowed the development of new methods for laboratory and field assessment of biocorrosion effects in industry. The new trends in research for the new millennium should be focused on bioelectrochemical phenomena at the metal surface in the presence of biofilms, on the development of real time monitoring devices and on efficient strategies to control corrosive effects through environmentally friendly approaches.

**Key-word:** biocorrosion, biofilms, bioelectrochemistry, real time monitoring.