From fundamentals to microbial power plants

European Parliament, Brussels

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Rue Wiertz, PHS Building

Room 7C 050

Ente per le Nuove tecnologie, l'Energia e l'Ambiente

In the scenario of a sustainable and optimized use of sources Microbial Fuel Cells could become a new, important way to make renewable carbon-neutral energy from wastes: bacteria are able to break down organic matter producing clean water and electric current.

The exciting discovery that microorganisms can generate electricity has been pointed out in these last years and since then, a growing number of scientists and engineers are working to improve the yield. Starting from the positive first exploitation of electric current generated by bacteria as signal for industrial bio-sensors, it is expected that new applications of "microbial-electricity" should be set up soon and they will allow men to open new avenues for energy technology and biotechnology progress.

The present event introduces the potentialities of "microbial" fuel cells to European academic, research, industrial organizations, trying to tickle the curiosity and the interest of potential future end-users and scientists.

The current state of the art on microbial fuel cells, the dream and the realistic visions of perspectives will be presented in the context of a sustainable European energy/source policy.

Some of the European "pioneers" in the field will show the microbiological, electrochemical and technological advancements of the knowledge already available and the bottleneck still to overcome to reach new technological goals. European delegates will suggest opportunities and supporting actions already available or that to build up all together, in order to promote cooperation of the European research in this specific field and creating new opportunities to increase the competitiveness of Europe's industries.

Agenda of the day

14.30 ***Registration of participants***

15.00 Welcome addresses:

- **Parliament Representatives, Vittorio Prodi**
- **Permanent Representation of Italy to the European Union, Vittorio De Crescenzo)**

15.30 Presentation of the European Research Council by ERC Scientific Officer, Christian Krassnig

15.45 Introduction to renewable energy trends – Marcello Garozzo, ENEA Italy

16.15 ***Buffet – coffee break***

16.45 Microbiology of the electrochemical active bacteria – Willy Verstraete, University of Gent, Belgium

17.15 Electrochemical aspect and an overview of results from the EA-Biofilms NESTproject – Alain Bergel, CNRS France

17.45 Technological aspects and perspectives of Microbial Fuel Cells – Roberto Farina ENEA, Pierangela Cristiani CESI RICERCA Italy

18.15 Conclusion – Andrea Tilche, EU DG Research

18.30 ***End of meeting***