



ABSTRACT QUESTIONNAIRE

Please fill out all fields of this questionnaire accordingly to the requests
(Except the one for the Organizing Committee).

ABSTRACT Ref.:* _____

* Only for use by the Organizing Committee

Abstract Title:				
Presenting author:				
Are you up to the age of 30?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Are you interested in participating in the ICCMR11 EMS Best Presenting Awards?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

Conference Topics: (Please mark all the options that better fits your work)

1) Membrane reactors and chemical catalysis.

- a) Synthesis applications.
- b) Environmental applications.
- c) Energy applications.
- d) Others applications.

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

2) Ion-conducting membrane reactors.

- a) Mixed ionic and electronic conducting membranes.
- b) Pure ion conducting membrane reactors: fuel cells, electrolyzers and electrochemical synthesis.
- c) Others.

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

3) Photocatalytic and photoelectrochemical membrane reactors.

- a) For water and waste water treatment.
- b) For air and gas applications.
- c) Sensors.
- d) Others.

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

4) Membrane reactors and biocatalysis

- a) Membrane bioreactors - Enzymatic and microbial systems for water, food and biotechnological applications.
- b) Microbial hydrogen production - Energy applications.
- c) Microbial and enzymatic fuel-cells - Sensors and Biomedical applications.
- d) Biofouling - Monitoring and control of membrane bioreactors.
- e) Others.

<input type="checkbox"/>

5) New design and concepts

- a) Membrane and catalyst design.
- b) Reactor design (Contactors, Extractors and Distributors).
- c) Emerging applications.

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Does your work contain any modelling approach? (Mark only if Yes)

<input type="checkbox"/>



An abstract for ICCMR11, formatting & layout (style Title – Calibri 16). Please respect the left/right margins and convert to “pdf” before submitting.

A. Silva^{1*}, M. Madeira¹, J. Sousa^{1,2}, A. Mendes^{1**} (style Authors – Calibri 11; Presenting author underlined.)

¹ Laboratório de Engenharia de Processos, Ambiente e Energia (LEPAE), Faculdade de Engenharia do Porto, Rua Roberto Frias, 4200-465 Porto, Portugal

² Departamento de Química, Escola de Ciências da Vida e do Ambiente, Universidade de Trás-os-Montes e Alto Douro, Apartado 1013, 5001-801 - Vila Real Codex, Portugal (style Address – Calibri italic 9)

(*) Pres. author: a.silva@fe.up.pt (style – Calibri 9)

(**) Corresp. author: mendes@fe.up.pt (style – Calibri 9)

Keywords: PBMR, Hydrogen, Modelling, Simulation (style Keywords – Calibri 9)

1 Introduction (style – Calibri bold 10)

The Organizing Committee of the ICCMR11 - 11th International Conference on Catalysis in Membrane Reactors, has the pleasure to invite you to come to Porto (Portugal) to participate in this important scientific meeting, from July 7th to July 11th, 2013.

The ICCMR conference series started in 1994, in Lyon - France, and continued as a biannual event organized at different locations around the globe (Moscow 1996, Copenhagen 1998, Zaragoza 2000, Dalian 2002, Lahnstein 2004, Cetraro 2005, Kolkata 2007, Lyon 2009 and Saint-Petersburg 2011). This time, ICCMR11 has landed at the worldwide known "Port Wine" city, Porto, and we are sure that the event will live up to your expectations.

The ICCMR11 meeting aims to cover all the aspects related to membrane reactors, bringing together scientists from academic research, applied research and industry working in the fields of membranes, catalysis and process engineering. We strongly believe that all the participants will have ample opportunities to meet each other and exchange ideas.

The scientific program will feature four motivating plenary lectures by distinguished researchers, keynote lectures, oral presentations and poster sessions. The oral sessions will be organized according to the participation in the different topics, each one introduced by a specific keynote lecture.

To promote posters contributions, and encourage submissions, a specific organization is devoted to favour this type of scientific communication. A flash presentation will be organized and a continuous poster session will allow discussions throughout the conference. A number of awards will be attributed to the best student contributions, for students under 30 years old.

As usual in the ICCMR conference series, selected papers will be published in a special issue of Catalysis Today.

Finally, we are strongly committed to complement the scientific program with an appealing social programme, either for the delegates or for the accompanying persons, to provide you with a taste of the genuine Portuguese hospitality and make your stay in Porto a remarkable experience. (style – Calibri 10).

2 Experimental

2.1 Topics (style – Calibri italic 10)

It is our goal for this 11th edition of the ICCMR to offer an overview of the most advanced studies and recent trends in the field of the membrane reactors, highlighting the multidisciplinary approaches and the emerging areas; for example, engineering of catalysts and membranes at the nanoscale and microchannel reactors. Special attention will be also paid to new approaches to the modelling of membrane mass transport and to system integration. The conference will focus on the following topics:

1. Membrane reactors and chemical catalysis (Applications in synthesis; Environmental applications; Energy applications).
2. Ion-conducting membrane reactors (Mixed ionic and electronic conducting membranes; Pure ion conducting membrane reactors: fuel cells, electrolyzers and electrochemical synthesis).
3. Photocatalytic and photoelectrochemical membrane reactors (For water and waste water treatment; For air and gas applications; Sensors).
4. Membrane reactors and biocatalysis (Membrane bioreactors - Enzymatic and microbial systems for water, food and biotechnological applications; Microbial hydrogen production - Energy applications; Microbial and enzymatic fuel-cells - Sensors and Biomedical applications; Biofouling - Monitoring and control of membrane bioreactors).
5. New design and concepts (Membrane and catalyst design; Reactor design - Contactors, Extractors and Distributors; Emerging applications).

2.2 Organising Committee

José M. Sousa (Chair), University of Trás-os-Montes e Alto Douro (Portugal); Adélio Mendes, University of Porto (Portugal); Miguel Madeira, University of Porto (Portugal); Lúcia Brandão, University of Porto (Portugal); Joana Cabral, University of Porto (Portugal); Carlos Miguel, University of Porto (Portugal).



2.3 International Scientific Committee

Andreas Seidel Morgenstern (Otto-von-Guericke Univ., Germany); Andrew Livingston (Imperial College, UK); Angelo Basile (ITM-CNR, Italy); Anne Giroir-Fendler (UCBL1, France); Anne Julbe (IEM, France); Antoni Morawski (West Pomeranian Univ. of Tech., Poland); Chung-Hak Lee (Seoul National Univ., Korea); Corinne Cabassud (INSA, France); David Farrusseng (IRCELYON, France); Detlev Fritsch (Fraunhofer IAP, Germany); Eduardo Lombardo (INCAPE, Argentina); Efrem Curcio (Univ. Calabria, Italy); Enrico Drioli (ITM - CNR, Italy); Freek Kapteijn (TU Delft, NL); Gerald Pourcelly (Univ. Montpellier, France); Gilbert Rios (Univ. Montpellier); Giuseppe Barbieri (ITM-CNR, Italy); Guoxing Xiong (DICP, China); Henny Bouwmeester (Twente University, NL); Ian Metcalfe (Newcastle University, UK); Ivo Vankelecom (KU Leuven, Belgium); Jerry Lin (Arizona State University, USA); Jesus Santamaria (Zaragoza University, Spain); Jianhua Tong, Colorado School of Mines, USA; João Crespo (Univ. Nova Lisboa, Portugal); Jose Sanchez Marciano (IEM, Montpellier, France); Jürgen Caro (Hannover University, Germany); Kang Li (Imperial College, UK); Kew-Ho Lee (Korea Research Institute of Chemical Technology); Leiknes Tor Ove, Norwegian Univ Sci & Technol; Lidietta Giorno (ITM-CNR, Italy); Loredana De Bartolo (ITM-CNR, Italy); Masahiko Matsukata (Waseda University, Japan); Nagy Endre (Univ. Pannonia, Hungary); ...

3 Results

3.1 Further information

For Payments and Invoices questions, please contact *Sociedade Portuguesa de Química (Portuguese Chemical Society)*, Av. República n°45, 3° Esq, 1050-187 Lisboa, Portugal, E-mail: eventos@spq.pt

For all the other questions, please contact *ICCMR11 Conference Secretariat, Chemical Engineering Department, Faculty of Engineering of University of Porto, Rua Roberto Frias, s/n, 4200-465 Porto, Portugal*, E-mail: iccmr11@fe.up.pt

3.2 Important dates

Important dates are indicated in Table 1.

Table 1. Tables are presented as usual in papers (style Table caption – Calibri 9).

Date	Event (style table cell – Calibri 9)
January 8 th 12	Call for Abstracts and Registration Open.
March 1 st 12	Deadline for Abstracts Online Submission.
April 7 th 12	Notification of Abstract Acceptance.
May 1 st 12	Early Registration Deadline.
July 31 st 12	Deadline for Manuscript Submission for Catalysis Today.

4 Discussion

4.1 Porto: A World Heritage

Porto (or Oporto), also known as "Cidade Invicta", meaning "unvanquished city", is worldwide known by its Port Wine. Porto, located along the mouth of the Douro river in northern Portugal, is the second largest Portuguese

city with 300 thousand inhabitants and is the heart of a metropolitan area of great vitality, with a population of 1.7 million.

The social and trade relations that Porto has developed over time with Northern Europe, Mediterranean region, Africa, South America (Brazil) and Asia (India, China and Japan) are reflected in the city's rich cultural heritage. From the remains of Visigothic and Celtic villages, Roman roads, bridges and Castros to Romanesque and Gothic churches and cathedrals built during the Medieval Age, centuries of mankind-built heritage are to be discovered in and around Porto.

The recognition of Porto's Historical Centre by UNESCO in 1996 as a World Heritage City, and the nomination as European Capital of Culture in 2001, are undoubtedly a tribute to its wealth of over two thousand years of history.



Fig. 1. A glass of Port Wine.

Bitmap pictures should be at least 200 dpi (i.e., 8 d/mm) to appear crisp and sharp. This means at least 640-pixel wide. Figures are inserted into the text with their own paragraph style, before fig. caption. (style Figure caption – Calibri 9)

5 Conclusions

The friendly welcoming nature of the Portuguese people, highly professional and cost-effective services are a guarantee of a successful sojourn and will give you something more than pictures and memories to cherish.

6 Acknowledgements

The Organizing Committee would like to acknowledge the time you spent in reading the instructions. Feel free to contact us for any further information (iccmr11@fe.up.pt).

7 References

- [1] X. Author, Y. Author, Z. Author, How to submit an abstract for ICCMR11, *Journal of Instruction*, 20 (2011) 537-545. (style References – Calibri 9)