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Thirteenth International Conference on

# Fusion Reactor Materials

December 10-14, 2007

Nice, France



Hosted by  
**Commissariat à l'Énergie Atomique, France**

<http://www-fusion-magnetique.cea.fr/icfrm13/>

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**December 10-14, 2007**

**Acropolis congress center  
Nice, France**

**Second  
Announcement**



The 13<sup>th</sup>  
International Conference on Fusion  
Reactor Materials  
Acropolis Conference Center, Nice,  
France  
from 10 to 14 December, 2007

### SCOPE

ICFRM is the major international forum for exchanging and archiving the growing knowledge relating to the development of materials for both near and long-term fusion energy systems. The critical role of materials science and engineering in overcoming the technological challenges to making fusion energy a practical reality will be an overarching theme of the conference.

### LIST OF TOPICS

1. Multiscale modeling for designing and predicting the performance of fusion materials and structures
2. Radiation effects
  - 2.1 Microstructural evolution
  - 2.2 Mechanical and physical property degradation (including fracture)
  - 2.3 He and H effects
3. All aspects of developing low activation and other fusion materials including fabrication and joining
  - 3.1 Ferritic/martensitic and ODS steels
  - 3.2 Refractory alloys (vanadium, tungsten, etc.)
  - 3.3 SiC/SiC and ceramic composites
  - 3.4 FCC metals and alloys (austenitic stainless steels, Cu alloys, etc.)
  - 3.5 Structural materials for high performance divertors
4. Chemical compatibility and coatings
5. Materials for plasma-facing components
  - 5.1 Armor materials
  - 5.2 Heat sink/structural materials, bonding technologies, testing
6. Materials issues in chamber technologies
  - 6.1 Tritium processing and control
  - 6.2 Safety and waste management
  - 6.3 Nuclear system design
  - 6.4 Repair and maintenance

7. Materials-design interface
  - 7.1 Materials selection and requirements
  - 7.2 Structural integrity and lifetime assessment
  - 7.3 Advanced multiphysics computational methods for systems design
  - 7.4 Impact of safety criteria and regulatory requirements for design and operation
8. Materials challenges in ITER/ITER-TBM
9. Cross cutting materials issues for fusion and fission nuclear power systems
10. Irradiation facilities (fission, spallation, IFMIF, charged particles) and innovative experimental methods
11. Functional materials
  - 11.1 Ceramic insulators
  - 11.2 Diagnostic materials
  - 11.3 Magnets
  - 11.4 Blanket materials
12. Materials for inertial fusion energy

### CALL FOR ABSTRACTS

On-line abstract submission will be available from mid **January 2007**. Abstracts of no more than **350** words must be submitted electronically by no later than **March 15, 2007**. Instructions and a MS Word template will be provided for on-line abstract submittal through the conference website at the following link:

<http://www-fusion-magnetique.cea.fr/icfrm13/index.html>

Acceptance of an abstract for oral or poster presentation will be based on a rigorous review, and authors will be notified by **May 15, 2007**. Abstracts that fall outside the scope of the Conference, or describe previously reported results, or do not demonstrate a high standard will be rejected.

### PUBLICATIONS

All papers presented at the conference and submitted in time in their final format will be peer reviewed to a high standard. The highest quality papers will be published in special volumes of the Journal of Nuclear Materials.

### CONFERENCE VENUE

All conference activities will be held at the Acropolis Conference Center in Nice, France, from the morning of Monday 10<sup>th</sup> to the evening of Friday 14<sup>th</sup>, December 2007. The site will also be open on Sunday 9<sup>th</sup> of December 2007 in the afternoon for registration. Several hotels are situated close to the conference center and the city has air, road and train connections. Tourist organizations will help with room reservation.

### SOCIAL ACTIVITIES

Social Activities will include a welcome reception and a banquet. A technical visit to CEA / Cadarache is planned for Wednesday afternoon. Due to limitation on the number of visitors who can at a given time visit the Tore Supra and ITER sites early registration is recommended. In case the number of requests exceeds the authorized limit, selection will be made according to the date of inscription.

### KEY DATES

- |                                |                        |
|--------------------------------|------------------------|
| - Abstract Submission Opening: | See the ICFRM web site |
| - Abstract Submission Closing: | March 16, 2007         |
| - Notification of acceptance:  | May 15, 2007           |
| - Third announcement:          | August 3, 2007         |
| - Final manuscript due:        | November 5, 2007       |
| - Conference                   | December 10-14, 2007   |

### SPECIAL NOTE TO INTERNATIONAL TRAVELLERS

The point of entry to the Schengen zone must be the country that issued the visa. A traveler with a Schengen visa issued e.g. by Germany, must first enter Germany and then continue the journey to France. A visa support letter will be sent after registration to international visitors requiring it.

### ADDITIONAL INFORMATION

Information regarding the conference, abstract and paper submission, registration, reservation, etc. will be posted on the ICFRM website.