

# **Third International Symposium on Materials and Reliability in**

## **Nuclear Power Plants**

**Sept 14-17, 2013, Shenyang, China**

### **ORGANIZERS**

China Nuclear Energy Association  
Institute of Metal Research, Chinese Academy of Sciences

### **SPONSORS**

National Energy Administration  
National Natural Sciences Foundation of China (NSFC)  
Chinese Academy of Sciences  
Liaoning Province Government  
Shenyang Municipal Government  
Liaoning Key Laboratory for Safety and Assessment Technique of Nuclear Materials

### **ABOUT THE SYMPOSIUM**

Safety and reliability during the long-term, efficient operation of nuclear power plants (NPPs) have been of great concern of the society, in particular after the Fukushima Daiichi nuclear accident. Design, fabrication and performance of structural materials are key factors dominating the safety and reliability of NPPs. With the rapid development of nuclear power industry in China, design and fabrication of materials for manufacturing the key components have been more important due to the construction of a number of NPPs in the future and the demand for safe and reliable operation of NPPs. In the meantime, research on the environmental degradation of nuclear materials has been more pressing to support the ageing management of the key materials and components in the operating NPPs. The first International Symposium on Nuclear Materials---Degradation and Safety in Light Water Nuclear Power Plant, and the second International Symposium on Materials and Reliability in Nuclear Power Plants have been successfully held in Shenyang, China in 2009 and 2011, respectively. Both symposiums brought together more than one-hundred specialists, researchers and engineers from the academia and industry, and made a contribution to understand and remedy the material problems in construction, operation and lifetime-extension of NPPs. The symposium is intended to enhance the cooperation between the academia and industry, as well as to promote the research and development of nuclear materials in China and other countries, and it is held in a two-year series. The third symposium will have invited talks from academia and industry leaders and a panel to foster a general discussion of emergent material problems in NPPs. We expect the third symposium to

attain the following goals:

- Discuss on material problems in design, manufacture and operation of the key components in NPPs.
- Discuss on environmental degradation of the key structural materials raised by lifetime extension of NPPs.
- Exchange new ideas, concepts and progress in the research of environmental degradation of materials in NPPs.
- Promote further cooperation between the academia and industry, in efforts to support the operational safety and reliability of nearly one-hundred NPPs in China in the future.

We invite you to attend the symposium for exchanging your ideas with leaders of industry and academia from around the world.

## **TOPICS**

Topics of discussion at the symposium include (but are not restricted to) the following areas:

1. Material problems in research, design and manufacture of the key components in NPPs;
2. Field experience in materials degradation;
3. Behavior and mechanism of materials degradation in the key components;
4. Techniques for mitigating, preventing, monitoring and examining materials degradation in NPPs;
5. Evaluation of lifetime, safety and reliability of the key components in NPPs
6. Others relevant to fabrication and performance of nuclear materials.

## **SUBMISSION**

We invite authors to submit abstracts on original and unpublished work. Abstracts may be submitted to [qunjiapeng@imr.ac.cn](mailto:qunjiapeng@imr.ac.cn) or [snow@imr.ac.cn](mailto:snow@imr.ac.cn). Abstracts should be organized in the format shown in attachment 1, and should not exceed 500 words.

## **SYMPOSIUM CHAIRMAN**

Prof. En-Hou Han, Institute of Metal Research, Chinese Academy of Sciences

## **TIME AND VENUE**

**Time:** Sept 14-17, 2013

**Venue:** Lecture Hall, Institute of Metal Research

**Address:** 72 Wenhua Road, Shenyang City 110016, China.

## **LANGUAGE AND LENGTH OF TALKS**

The official language of the symposium is English. Lengths of plenary, keynote and common talks are 35 mins, 25 mins and 20 mins, respectively.

## **REGISTRATION**

For registration, please complete the registration form in attachment 2 and email it to qunjiapeng@imr.ac.cn, or fax it to +86-(0)24-23894149.

The registration fee is 300 USD per person (50% discount for students), covering welcome reception, coffee breaks, banquet, workshop programs and abstract brochure, etc.

Registration fee may be paid by cash at the registration desk, or by bank transfer to:

**Name of Account:** Institute of Metal Research, Chinese Academy of Sciences

**Account Number:** 830160016508094014 (for USD)

830160016508094038 (for EUR)

**Bank of Deposit:** Shenyang Branch, Bank of China

**SWIFT No.:** BKCHCNBJ82A

**Address of Bank:** 253 Shifu Road, Shenhe District, Shenyang 110013, China.

Please make a note of “registration fee for IMR -MRNPP Symposium” for your bank transfer.

## **IMPORTANT DATES**

Jun. 1, 2013	Second announcement
Aug. 31, 2013	Registration due
Sept. 7, 2013	Abstract due, final program
Sept. 14, 2013	Registration from 8:30 AM to 7:00 PM.

## **CONTACT US**

Institute of Metal Research, Chinese Academy of Sciences. 62 Wencui Road, Shenhe District, Shenyang City 110016, China.

Prof. Qunjia Peng, qunjiapeng@imr.ac.cn, +86-(0)24-23841676

Ms. Xue Ma, snow@imr.ac.cn, +86-(0)24-23998826

Dr. Shuyan Li, syli@imr.ac.cn, +86-(0)24-23971500

Fax, +86-(0)24-23894149