Minli CHEN

Basic Information

Name: Minli CHEN
E-mail: chen-minli@qq.com
Nation: China
Age: 30 years old
School: Sun Yat-sen University
Major: Nuclear Energy and Nuclear Technology Engineering
Language: Chinese, English, French (DELF B2)

Education

Master of Engineering (Nuclear Energy and Nuclear Technology Engineering) 2016.09-2018.07
Institut Franco-Chinois de l'Energie Nucléaire, Sun Yat-sen University
Dissertation: "Development of fuel power radial distribution model in fuel performance analysis code"
Description: master the process of programming, unit testing and parameters sensitivity analysis, familiar with the reaction chain of Uranium and Plutonium isotopes, the burn-up equation and understand the key points in model development in a fuel performance analysis code.

Bachelor's degree (Nuclear Energy and Nuclear Technology Engineering) 2012.09-2016.07
Institut Franco-Chinois de l'Energie Nucléaire, Sun Yat-sen University
Major course: mathematics, physics & chemistry, structure programming and C language, physics experiment, chemistry experiment, heat transfer, engineering drawing, FEM, thermodynamics, interfaces, solution chemistry & electrochemistry, French

Work Experience

2023.12-present **IFP Energies Nouvelles**
Institut de Recherche de Chimie Paris
P.h.D student, thesis topic: Exploring gaseous hydrogen uptake in pipeline steel using a combined experimental-theoretical approach: the importance of surface state

2018.7- 2023.11 **Chinese Nuclear Power Research Institute, CGNPC**
Nuclear fuel material engineer (2019.01-2023.11), Nuclear Fuel and Material Research Department
Nuclear fuel rod performance analysis engineer (2018.07-2019.01), Nuclear Fuel and Material Research Department

Main projects:

- **Zirconium alloy research**
  - → Responsible for **microstructure analysis, mechanical test, out-of-pile corrosion experiment and hydrogen pick-up, creep experiment and modeling** etc.
  - → Alloy **composition design** and evaluation, influence of alloying elements, such as Sn, Nb, Fe, on cladding corrosion, creep and other performance.
  - → Study of loss of coolant accident (LOCA): alloying elements distribution in LOCA microstructure, as-received and hydrogen pre-charged cladding ductility, oxidation in high temperature steam
  - → Hydride Re-Orientation behavior of PWR fuel cladding and safety analysis in spent fuel dry storage.
- **Austenitic steel research**
  - → Composition design to increase the corrosion resistance in Pb-Be liquid environment
  - → Cladding tube fabrication process
  - → Ion irradiation experiment, Pb-Be liquid corrosion experiment, tensile test, creep rupture test etc.

Self Evaluation

1. Familiar with experiment design, conduction, experiment data analysis and project management
2. Good at teamwork and communicating with others
3. Honest, hardworking, motivated and responsible
4. Willing to learn and pay efforts to make improvement