

Conference Program Dec. 9-11th

Fukushima Research Conference on
Corrosion of Key Components of Fukushima Daiichi NPS

– Key Corrosion Issues to Maintain Structural Integrity for the Next Three Decades? –

1st Day : December 9th, Mon.

10:30-11:00

✧ **Opening Session**

Chair : Masahiro YAMAMOTO (JAEA, Japan)

- Opening remarks

Damien FÉRON (Conference Chair, CEA, France)

- Main discussion targets of FRC-Corrosion2019

Yutaka WATANABE(Tohoku Univ, Japan)

11:00-11:50

Invited Lecture : Status of Fukushima Daiichi NPS

Chair : Shunichi SUZUKI (Univ. Tokyo, Japan)

- “Fukushima Daiichi Decontamination and Decommissioning Current Status and Challenges”

Tomoyuki ARAI (TEPCO)

11:50-12:00

✧ **Photo Session**

12:00-13:10

✧ **Lunch**

13:10-14:10

✧ **Session 1 : General Corrosion of PCV materials (Carbon steel)**

Chair : Takayuki AOKI (Tohoku Univ., Japan)

- “Prediction of Joint Mechanical-Corrosion Failures of Carbon Steel Components and Structures”
Frazer KING (Integrity Corrosion Consulting Ltd., Canada)

- “A mechanism of the accelerated corrosion of carbon steel in the simulated condition of air-solution interface”
Kyohei OTANI (JAEA, Japan)

14:10-15:10

✧ **Session 2 : Microbially Induced Corrosion**

Chair : Hideki KATAYAMA (NIMS, Japan)

- “Microbiologically Influenced Corrosion (MIC) of Steels and Alloys in Seawaters”
Robert MELCHERS (Univ. of Newcastle, Australia)

- “MIC is infectious disease of metal materials”
Satoshi WAKAI (JAMSTEC, Japan)

15:10-15:30

✧ **Coffee Break**

15:30-16:30

✧ **Session 3 : Radiolysis Effect on Corrosion**

Chair : Shinichi YAMASHITA (Univ. Tokyo, Japan)

- “Radiolysis & irradiation influences on water-saturated corrosion of carbon steels at 80°C ”
Damien FÉRON (Conference Chair, CEA, France)

- TBD

Junichi TAKAGI (Toshiba ESS, Japan)

17:30-20:00

✧ **Evening Session**

- Working Dinner at Hotel HOJINKAN

※Participants of the Evening Session are required to move the venue. Bus ride for a several minutes.
Participation fee is required.

2nd Day : December 10th, Tue.

9:30-10:30

✧ **Session 3 : Radiolysis Effect on Corrosion** (Continued)

Chair : Yoshiyuki KAJI (JAEA, Japan)

- “Water Chemistry in the Core of a Boiling Water Reactor Experiencing a long-Term Shutdown”
Tsung-Kuang YEH (National Tsing Hua University, Taiwan)
- “Estimation of the Production of Oxidants from Radiolysis of Solutions Containing Ferrous Compounds”
Kuniki HATA (JAEA, Japan)

10:30-10:40

✧ **Coffee Break**

10:40-11:40

✧ **Session 3 : Radiolysis Effect on Corrosion** (Continued)

Chair : Satoshi HANAWA (JAEA, Japan)

- “Gamma Radiation Induced Corrosion of Candidate Alloys for Nuclear Waste Packages”
Young-Jin KIM (FNC Technology Co., Ltd., Korea)
- TBD
Hiroshi ABE (Tohoku Univ., Japan)

11:40-13:20

✧ **Poster Session and Lunch**

13:20-14:20

✧ **Session 4 : Passivation & localized corrosion**

Chair : Masatoshi SAKAIRI (Hokkaido Univ. Japan)

- TBD
Bernard NORMAND (INSA-Lyon, France)
- “Corrosion Behavior of Carbon Steel in Sodium Borate Solutions Containing NaCl under Gamma-ray Irradiation”
Eiji TADA (TITECH, Japan)

14:20-14:30

✧ **Coffee Break**

14:30-15:30

✧ **Session 5 : Corrosion of RC Structure in Radiation condition**

Chair : Chiaki KATO (JAEA, Japan)

- “Possible Synergies between the Effects of Irradiation and Corrosion on Reinforced Concrete”
Yann Le Pape (ORNL, USA)
- “Chloride Ion Penetration via Concrete Cracks and a Countermeasure”
Tomoya NISHIWAKI (Tohoku Univ., Japan)

15:30-16:10

✧ **Wrap-up Session**

Chair : Yutaka WATANABE (Tohoku Univ., Japan)

- General Discussion (Towards evaluation and measures for degradation in structural reliability)

- Concluding Remarks

Damien FÉRON (Conference Chair, CEA, France)

3rd Day : December 11th, Wed.

✧ **Tour of Fukushima Daiichi Nuclear Power Station**

9:30-13:20

Tour of Fukushima Daiichi Nuclear Power Station

13:40-16:00

Lunch at the cape "TENJIN-MISAKI"
and Shopping at the roadside rest area "MICHINOEKI-YOTSUKURA PORT"

16:40

Arrival at IWAKI Station.