

Curriculum Vitae

Last name: Yoo / First name: Suk Jae

Date of Birth: May 29th, 1961

Nationality: Republic of Korea

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Education:

Jun. 1997 Ph.D, Plasma Physics, Karlsruhe Institute of Technology (KIT), Germany

Feb. 1989 M.S, Department of Nuclear Engineering, Seoul National University, Korea

Feb. 1987 B.S, Department of Nuclear Engineering, Seoul National University, Korea

Professional Experience:

- Nov.2014 – present Vice President,
National Fusion Research Institute (NFRI)
- Jan. 2010 - present Director of Plasma Technology Research Center,
National Fusion Research Institute (NFRI)
- Sep. 2013 - present Adjunct Professor,
Graduate school of plasma convergence engineering,
Gunsan National University
- 2015 - 2016 Chair,
Division of plasma and display of the Korean Vacuum Society
- 2014 – 2016 Director of the plasma industrial division, committee for
science and technology of Jeollabuk-do province
- 2011 – 2016 Member of board of directors of Korean Vacuum Society and
Korean Institute of Surface Engineering
- Sep. 2007 - Feb. 2008 Lecturer, Department of Nuclear Engineering,
Seoul National University
- Mar. 2004 – Feb. 2014 Adjunct Professor, Department of Fusion and Plasma,
University of Science and Technology (UST)
- Jan. 2003 - Jan. 2006 Project Leader, Diagnostic System Development of Korea
Superconducting Tokamak Advanced Research (KSTAR)
- Jul. 1993 - Jun. 1997 Researcher in Research Center Karlsruhe (FZK)

Research Areas:

- **Plasma diagnostics for nuclear fusion and low temperature plasmas**
 - Optical emission and absorption spectroscopy, BES, MSE, CES
 - Laser-assisted plasma diagnostics: Thomson scattering, LIF
- **Plasma applications to agriculture and food**
- **Generation and applications of low energy particle beams:**
 - Development of hyperthermal neutral beam sources
 - Hyperthermal neutral beam-assisted deposition
 - Low temperature epitaxial growth for GaN-based LED fabrication
 - Low energy particle beam-matter interaction in nanoscale
- **Development and applications of low temperature plasma sources**
 - Localized ECR source development
 - Fine-tunable sputtering source development
 - Bio-applicable plasma sources

Publications:

1. Dissertation: 'Spectroscopic Diagnostics of the Anode Plasma on Karlsruhe Light Ion Beam Facility (KALIF)'.
2. MS thesis: 'The Output Characteristics of TEA CO₂ Laser for Sulfur Isotope Separation'.
3. Over 40 SCI papers published.
4. Over 30 patents registered.