

PERSONAL INFORMATION

LENA DELPECH



Born 11th April 1974

CEA CADARACHE 13108 SAINT PAUL LEZ DURANCE France

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Senior engineer with over 23 years of experience in fusion experimental devices and robust expertise in RF systems from design to operation. Strong expertise in operating a tokamak machine (several campaigns at JET, TORE SUPRA, WEST, KSTAR)

WORK EXPERIENCE

Jan 2014 to date

Responsible officer of a Radio Frequency system for Lower Hybrid (LH) Heating in fusion

- Coordination of the maintenance of the system (10 MW/CW of total RF power@3.7GHz)
- Leading a team of 5 for the modification and operation of the System and improving its reliability and maintainability
- Operating the system during WEST experimental campaigns
- Involved in international collaborations (China and Korea) requiring RF operator system expertise
- Engineer in charge of WEST tokamak safety during experimental sessions

Jul 2010 to Jan 2014

Responsible officer for a high power RF Generator

- In charge for the commissioning of sixteen klystrons 3.7GHz/700kW/CW manufactured by THALES and for providing the full power of the LH generator to WEST.
- Successfully lead the mechanical modifications of the two LH launchers : drafting specifications, production tracking, installation and commissioning

Jun 2003 to Jul 2010

Responsible officer of a high power RF test bed

- Managed modifications of a RF test bed for the qualification of RF components from the validation of prototypes to the commissioning of the series tubes
- Drafting specifications of the components
- Validation of high power RF components : 19 klystrons (THALES), water load prototype (SPINNER), 16 BeO high power RF windows, RF transmission lines
- Participation to JET experimental campaigns

Sep 2001 to Jun 2003

Training in Master Degree in Engineering (Physics)

- Two years in INSA engineering school, Toulouse (France)

Jul 1996 to Sep 2009

Technical responsible officer for Tore Supra Hard X Ray diagnostic

- In charge of the installation, commissioning and maintenance of the Hard X ray diagnostic composed by CdTe detectors
- Installation and commissioning of the diagnostic in tokamaks: TCV (Switzerland) and FTU (Italy) and on a Reversed Field Pinch torus (Madison , USA)

EDUCATION

2003

Master degree in Engineering : Physics

INSA, Toulouse France

1996

BTS Radiation protection technical degree

INSTN Cadarache, St Paul Lez Durance France

1995

DUT Physics Measurements technical degree

Paul Sabathier University, Toulouse France

PERSONAL SKILLS

Mother tongue	French
Other languages	English (Proficient user)
Communication skills	Publications & Poster (Annexes)

ANNEXE: PUBLICATIONS/CONFERENCES

- **The Tore Supra Lower Hybrid test bed : improvements and its particular applications (SOFT 2006)**
- **Validation of CW High power sources and RF components for the Tore Supra LHCD system (Poster RF topical-2009)**
- **Design and validation of a 700kW/CW water load for 3.7 GHz klystrons (SOFT 2010)** Delpéch L. et al
2011 *AIP Conf. Proc.* **1406** 145
- **Multi-Megawatt Lower Hybrid Technology in support of steady state operation (IAEA 2013 Oral contribution)**
- **Advances in multi-Megawatt Lower Hybrid technology in support of steady state tokamak operation (published in Nuclear Fusion 2014)** L. Delpéch et al., *Nucl. Fusion* **54**, 103004 (2014)
- **Evolution of the Tore Supra Lower Hybrid Current Drive System for WEST (SOFT 2014)** L. Delpéch et al., *Fusion Eng. Des.* **96-97**, 452 (2015)
- **Maintenance and preparation of the 3.7 Ghz LHCD system for WEST operation (Poster RF topical 2017)**