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)** Delpech 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. Delpech et al., *Nucl. Fusion* **54**, 103004 (2014)
- **Evolution of the Tore Supra Lower Hybrid Current Drive System for WEST (SOFT 2014)** L. Delpech 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)**