



**HORIZON 2020**

# **HORIZON 2020 RESEARCH AND INNOVATION FRAMEWORK PROGRAMME OF THE EUROPEAN ATOMIC ENERGY COMMUNITY**

## **Nuclear Fission and Radiation Protection 2018 (NFRP-2018-4)**

Project acronym: **SANDA**

Project full title: **Solving Challenges in Nuclear Data for the Safety of European Nuclear facilities**

Grant Agreement no.: **H2020 Grant Agreement number: 847552**

Workpackages:

Identification N°: **MS2.7**

Type of document: **Milestones**

Title of milestone: Measurement of the  $^{239}\text{Pu}(n,f)$  cross section at n\_TOF


Dissemination Level: **PU**

Reference:

Status: **{ *Achived / Canceled* }**

Actual Dalivery date: **19 October 2022**

Comments:

	Name	Partner	Date	Signature
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The **S**pectrometer for **E**xotic **F**ission **F**ragments STEFF detects fission fragments (FF) along a primary axis, perpendicular to the beam, within which a start MCP detector and stop MWPC detector give the FF time-of-flight (TOF) and a gas ionization chamber gives the FF energy. A gate in FF energy and TOF serves to accurately tag fission events and the TOF is used to measure the time-of-fission to a precision of  $\sim 1$  ns. The central chamber containing the  $^{239}\text{Pu}$  is surrounded by an array of scintillators (NaI and LaBr<sub>3</sub>) giving an approximately 30% geometrical efficiency. The experiment was performed at the n\_TOF facility and the data are currently being analysed with the n\_TOF PSA routines and will be subject to the same analysis methodology as used for the  $^{235}\text{U}$  analysis.