

**Name of the organization**

Commissariat à l'énergie atomique et aux énergies alternatives (CEA)

Name of the infrastructure / laboratory

LEIFT/FLOREAL

Address and country of the infrastructure / laboratory

CEA SACLAY 91191 GIF SUR YVETTE FRANCE

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Main field of activity of the infrastructure / laboratory

► Hydrogen Production & Distribution

Short description of the infrastructure / laboratory

At CEA Saclay, Around 7 persons are working on the experimental platform. 3 main infrastructures : GARAGE (a more than 30 sq.m garage room, with a 3D helium concentration sensors mesh, GAMELAN and grand GAMELAN a 1 sq.m and a 2 sq.m box with helium concentration sensors located on 3 vertical lines of 5 sensors, and mistra a more than 100 sq.m able to withstand pressure load). Our main activity consists in performing experiments of helium release in various cavity with very well controlled experimental conditions (temperatures, leakage etc...). We are able to deal with closed or opened (with apertures) cavities, with or without forced ventilation. We mainly measure concentrations distributions of helium vs. time. We are also capable of measuring the velocity with 3D velocity components PIV systems and also to visualize the flow with boss techniques.

Main research area(s) of the infrastructure / laboratory

Experiments and modeling of gaz dispersion after release in air.

Instruments and tools available for the above mentioned research

Concentration sensors, PIV measuring system with 3-velocity-components capability, Boss visualization system + an experimental facility (industrial hall with bridge-craigs etc...).