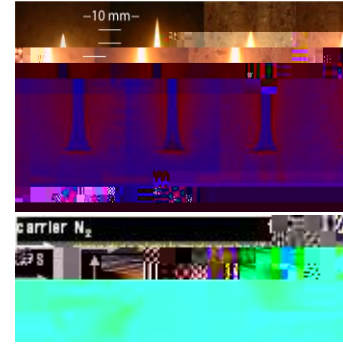




Updated Communique for

ISF7

Seventh International Workshop on the measurement and computation of reacting flows with carbon nanoparticles



The Joint Committee s of the ISF Workshop are pleased to invite original research contributions to, and participation in, the ISF -7 Workshop .

1. Dates: ISF -7 will held on Saturday 20th - Sunday 21st July 2024 as a joint forum together with the other satellite Workshops of The 40th International Symposium ± Emphasizing Energy Transition . It is anticipated that registration will be undertaken via the website of the Symposium which, together with details of the venue, will be made available in the next few months.
2. Call for contributions : Researchers active in this field are invited to contact the relevant Program Leaders , listed below, and contribute original research to address current challenges identified herein associated with both the advancement of understanding and in the development and validation of predictive models for reacting flows containing carbon nano particles in environments of practical relevance .
3. New framework for model development and comparisons: A new open -source framework is being developed for presentation and discussion at ISF -7 to allow direct and transparent comparison of the output of calculations employing alternative types of models for the evolution of

Inception: Further understanding is needed of the processes with which carbon nanomaterials first form from the gas phase , and what determines the preferential growth of different morphologies, to allow improved prediction of these processes that are robust to differences i n operating conditions and relevant to a range of regimes of practical significance;

- o Morphology: New ways are needed to characterise and model :
 - f the key classes of morphology of carbon nanoparticles , and
 - f the key chemical and environmental pathways that trigger each;
- o Influence of volume fraction: New understanding is needed of influence of volume fraction on the evolution of carbon nanomaterials, which applies where volume fraction is high. This regime is different from combustion environments , where most previous data has been obtained , and where the influence of volume fraction is typically negligible ;
- o Sub -grid -scale modelling: Advances in the development and application of sub -grid -scale models for application to LES methods;

