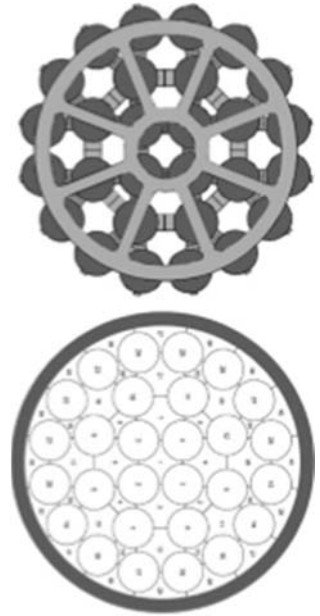


CANDU T-H (C-TH) Thermalhydraulic Benchmark



The OECD-NEA/CANDU Owners Group is pleased to sponsor a new nuclear thermalhydraulic benchmark to take place in 2018-2019.

Building on the success of the OECD-NEA/US-NRC sponsored BFBT and PSBT benchmarks McMaster University, in collaboration with North Carolina State University and N.I.N.E, will host a new thermalhydraulic benchmark. CANDU Owners Group (COG) will provide full-scale experimental data for a 28-element CANDU fuel assembly including pressure drop and detailed pin temperatures for single-phase and boiling conditions.

A unique aspect of these data are the traversing thermocouples which provide axial and azimuthal sheath temperatures along every fuel element for both pre and post-CHF conditions. A wide range of test conditions (inlet pressure, mass flows and inlet temperatures) will be provided to the participants along with the temperature scans, CHF location and power, and post-dryout sheath temperatures. Similar to the BFBT and PSBT benchmarks, the complete set of data will be made available to participants

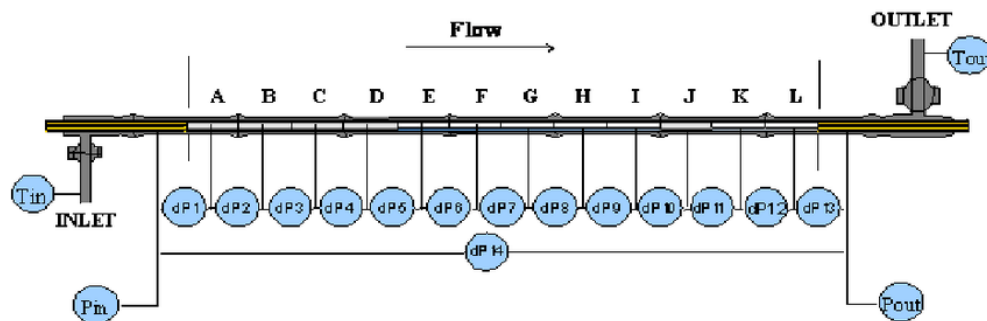
C-TH Benchmark Details and Schedule

Phase 1—Blind Benchmark (May 2018—Feb 2019). Participants will be provided all relevant geometrical, boundary, and inlet test conditions and will perform blind calculations of sheath temperature, Critical Heat Flux, pressure drop and post-dryout temperatures. Participants from all branches (system, subchannel and CFD) are encouraged to participate. A full set of experimental results will be released to the participants at the end of the Phase 1.

Phase 2— Open Benchmarks (March 2019—December 2019). An opportunity to update the final results will be provided after the release of the data.

At the end of the project participants are invited to submit their results to a special journal issue documenting the outcomes of this benchmark. Participation from OECD member countries and non-OECD countries is encouraged.

The kick off meeting for the C-TH benchmark will take place at BEPU-2018 in Lucca Italy, May 13-18, 2018.



For additional information
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