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Creating a Multi-Capillary Furnace (MCF)

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The Multi-Capillary Furnace (MCF) is a novel furnace design with four independent furnace units for use on the Spectroscopy beamlines at Diamond Light Source. This furnace offers users the opportunity for improved experimental efficiency by permitting up to four different samples in a reaction (e.g. catalysis reactions) to occur concurrently, with remote operation to allow for moving the different samples into the beamline path. Thermal isolation between each furnace, required to achieve the performance within a compact envelope, is achieved with integrated water cooling and ceramic insulation. This paper details the design of the MCF and presents the results from commissioning.

Footnotes

Funding Agency

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