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Title: CFD modeling of catalytic reactions in open-cell foam substrates

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Highlights:

- We describe the implementation of a CFD model for the simulation of reacting flows through catalyzed porous substrates.
- We validate the model on the basis of previous experimental works available in the literature.
- The numerical model has been applied to investigate the physical phenomena occurring at the micro-scale of open-cell foams.
- Light-off curve for CO combustion was computed in case of foam-type reactor under different operating conditions.

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