An experimental and numerical investigation of secondary char formation in hydrothermal carbonization: Revealing morphological changes via hydrodynamics

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Assumptions for measuring particle size

1) If the boundaries of merged particles are observable, then they were counted with the number of observed merged particles

2) If the boundaries of merged particles are not observable, then they are counted as one

3) If the particle is slightly hidden underneath some other particles, then it is counted, but its length is not measured

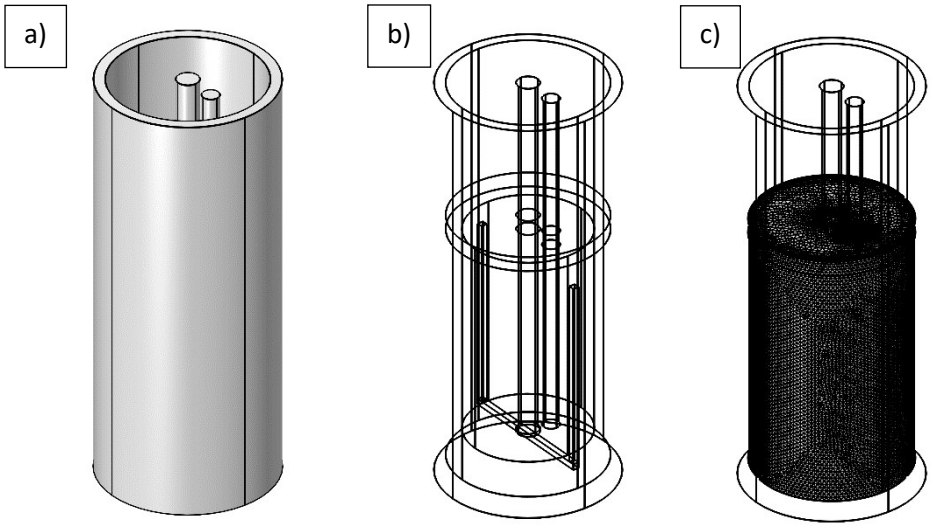

Figure 1 Mesh sketch of the reactor

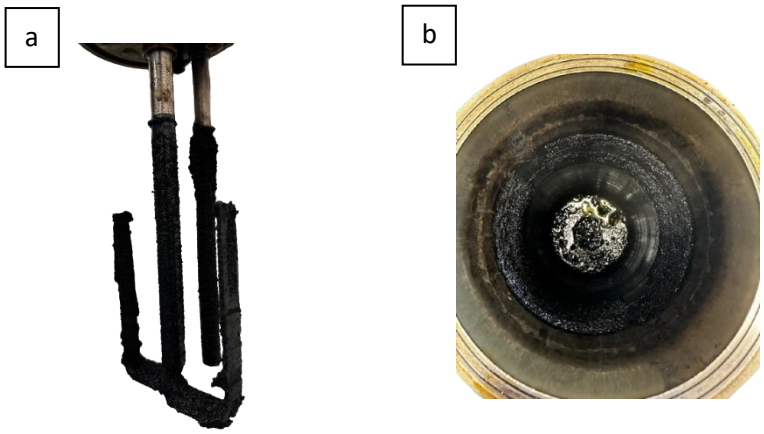

Figure 2 a) Hydrochar on the temperature probe, stirrer shaft, and impeller b) hydrochar on the reactor's vessels walls