

Sponge-like Chitosan Based Porous Monolith for Uraemic Toxins Sorption

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1. Characterization of Polycaprolactone/Chitosan Porous Monolith

1.1. TGA Analysis

The points of degradation of pure polycaprolactone (PCL) and pure chitosan (CS) used for the fabrication of PCL/CS porous monoliths were identified at 373 °C and 245 °C, respectively (Figure S1).

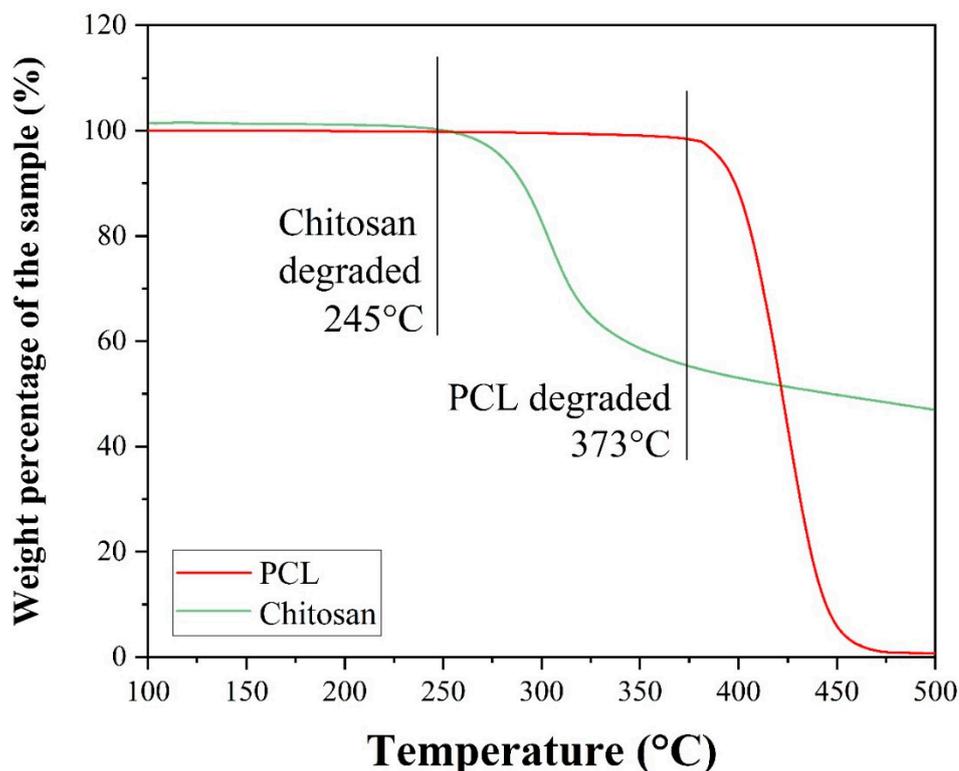


Figure S1. The TGA curve of pure chitosan and polycaprolactone (PCL).

1.2. Porosity Analysis

The half pore width distributions of the PCL/CS monoliths were modelled by the density-functional theory (DFT) method (Figure S2). It was found that there were two distinctive pore types: (1) structural pores resulted from cloth-like polymer layer folding, and (2) carbon surface pores. This pore distribution has indicated that the porous carbon particles were successfully distributed on the internal porous surface of the PCL/CS monolith.

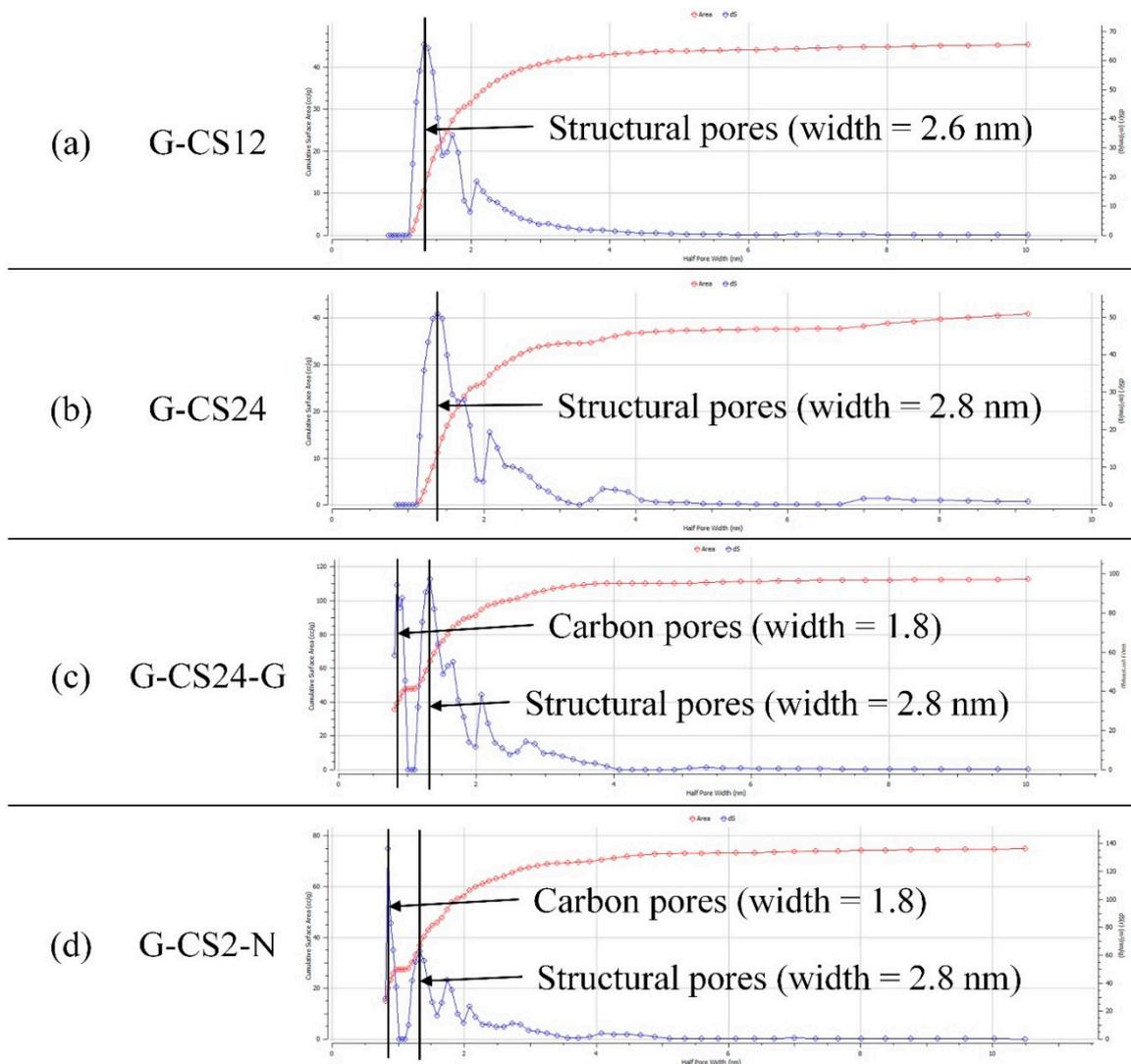


Figure S2. The half pore width distribution curve of the PCL/CS porous monoliths via DFT modelling: (a) G-CS12; (b) G-CS24; (c) G-CS24-G; (d) G-CS24-N.

Author Contributions: S.X.: Conceptualisation, Data curation, Formal analysis, Investigation, Methodology, Validation, Visualisation, Writing—original draft; Y.L.: Methodology, Visualisation; A.D.: Supervision, Writing—review and editing; K.L.C.: Conceptualisation, Funding acquisition, Methodology, Project administration, Resources, Supervision, Validation, Visualisation, Writing—review and editing. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by St Peter’s trust award 2016 (SPT 112) and UCL Therapeutic Acceleration Support (TAS) Fund 2018.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Acknowledgments: The partial financial support of Therapeutic Acceleration Support (TAS) Fund and St. Peter’s Trust Fund are gratefully acknowledged.

Conflicts of Interest: The authors declare no conflict of interest.