

Electronic supplementary information (ESI)

Validation of Milner's visco-elastic theory of sintering for the generation of porous polymers with finely tuned morphology

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Supplementary information 1: Size distribution of paraffin spheres for various rotation speed

Paraffin spheres were generated according to the method already described in Section 3.1. Spheres obtained via emulsions whose rotation speed was fixed at 1200, 3200 and 4200 rpm respectively are shown in Figure S 1.

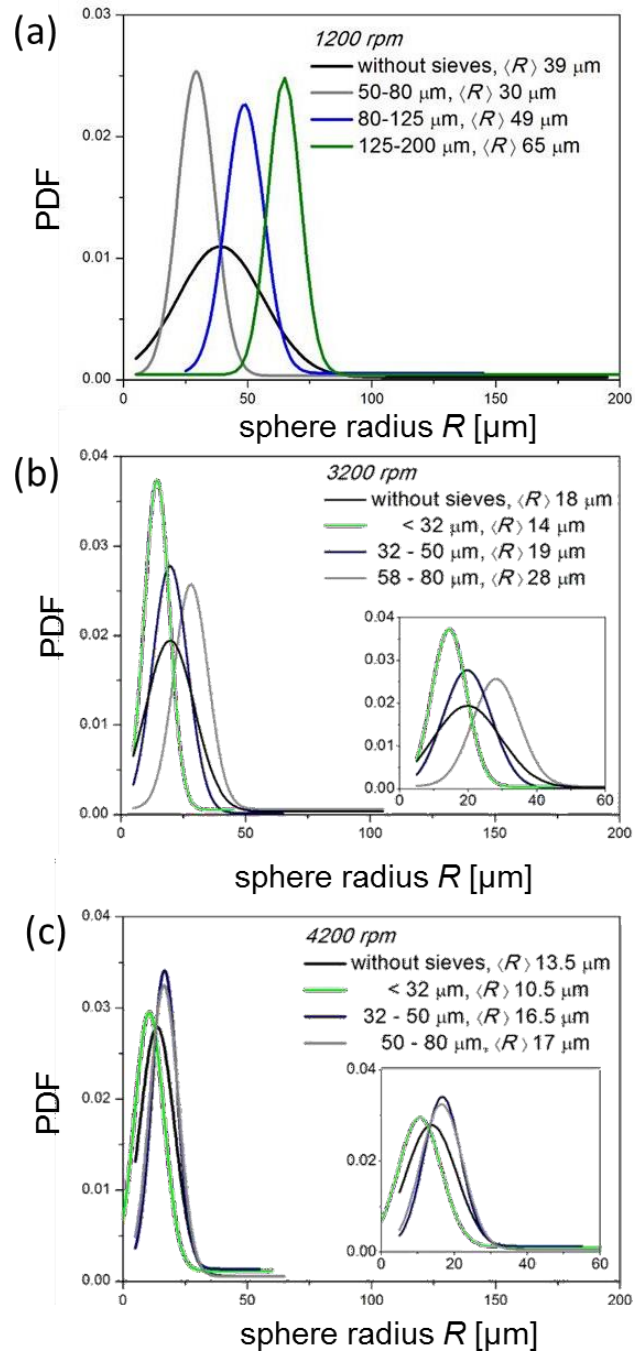


Figure S 1: Probability density function of paraffin spheres generated by an emulsion with rotation speed of 1200 rpm (a), 3200 rpm (b) and 4200 rpm (c).

Supplementary information 2: Mass yield of paraffin spheres according to the sieve in which they are harvested.

Paraffin spheres were sieved directly after being quenched as described in Section 3.1. The amount of paraffin trapped in each size range corresponding to the sieve meshes was weighted and expressed as percentage of the initial mass of paraffin added in the beaker. Results are summarized in Table S 1 for emulsions generated at several rotation speeds.

| rotation speed | sieve meshes [μm] | | | | | |
|----------------|--------------------------------|---------|----------|-----------|-----------|-----------|
| | 32 - 50 | 50 - 80 | 80 - 125 | 125 - 200 | 200 - 300 | 300 - 600 |
| 4200 rpm | 32.2 | 38.9 | | | | |
| 3200rpm | 17.7 | 75.8 | | | | |
| 1200rpm | | 12.2 | 43.9 | 23 | | |
| 950rpm | | 7.8 | 45.2 | 19.8 | | |
| 400rpm | | | | | 8.9 | 33.3 |

Table S 1: Evaluation of the yield of the amount of paraffin harvested in various sieves and for various rotation speed. Values are expressed as the percentage of the total mass of paraffin added in the emulsion