

Molecular dynamics approaches to the design and synthesis of PCB targeting molecularly imprinted polymers: interference to monomer-template interactions in imprinting of 1, 2, 3-trichlorobenzene

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Supplementary Data

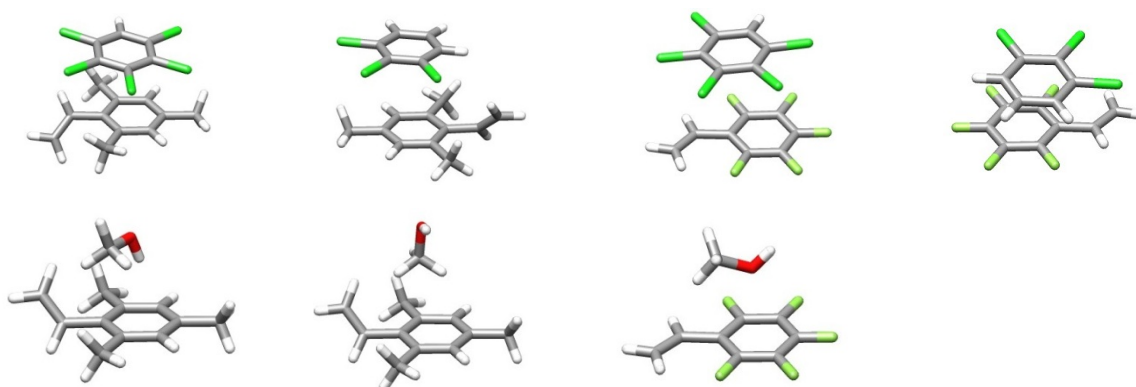


Figure S1. EFP energy optimised configurations and intermolecular separation of (A) TMS-1 in a π - π stacking interaction; 3.6 Å separation; (B) TMS-2 in a π - π stacking interaction; 3.6 Å separation; (C) PFS-1 in a π - π stacking interaction; 3.5 Å separation; (D) PFS-2 in a π - π stacking interaction; 3.5 Å separation; (E) TMS-MeOH in a hydrogen bond configuration; 2.5 Å separation MeOH_{H2}-TMS_{C1}; 3.4 Å separation MeOH_{O2}-TMS_{C1}; 3.8 Å separation MeOH_{C1}-TMS_{C1}; (F) TMS-MeOH in a perpendicular configuration; 3.5 Å separation MeOH_{C1}-TMS_{C1} and (G) PFS-MeOH in a lone pair- π orbital interaction; 3.1 Å separation MeOH_{O1}-PFS_{C1}. Atom colours; grey = carbon, white = hydrogen and green = chlorine.

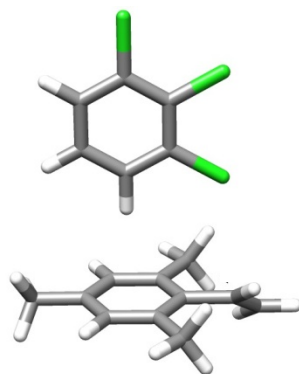


Figure S2: T-shape interaction between 2 and TMS.

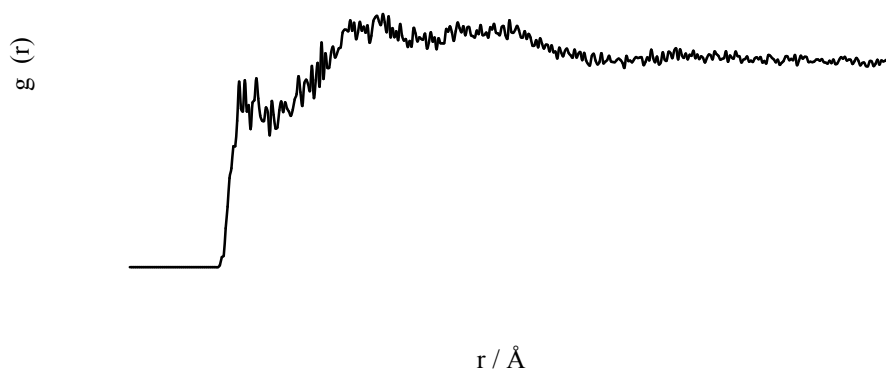


Figure S3: RDF showing the density of 2_{H1} as a function of the distance from TMS_{C1} during S2.

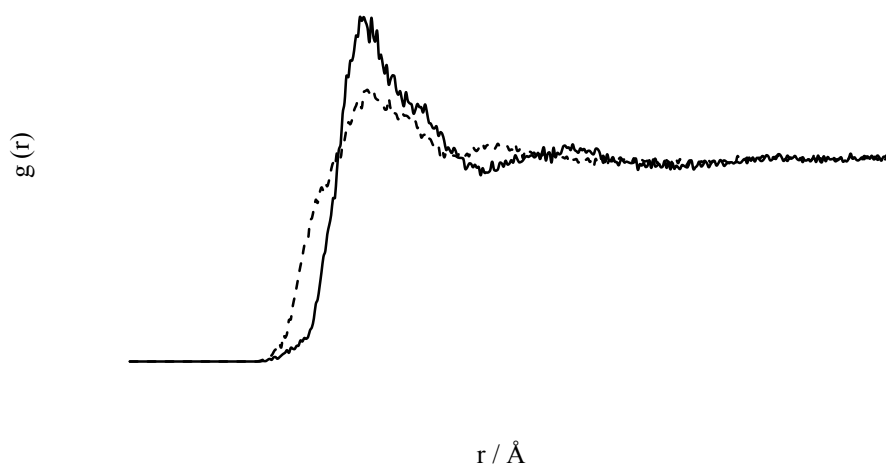


Figure S4: RDFs showing the density of TMS_{C1} as a function of the distance from TMS atoms during S2. $TMS_{C1} - TMS_{C4}$ (- -) and $TMS_{C1} - TMS_{C1}$ (—).

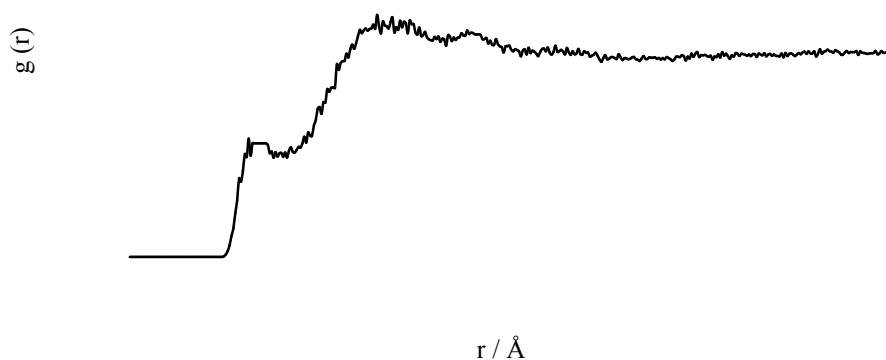


Figure S5: RDF showing the density of TMS_{H3} as a function of the distance from TMS_{C1} during S2.

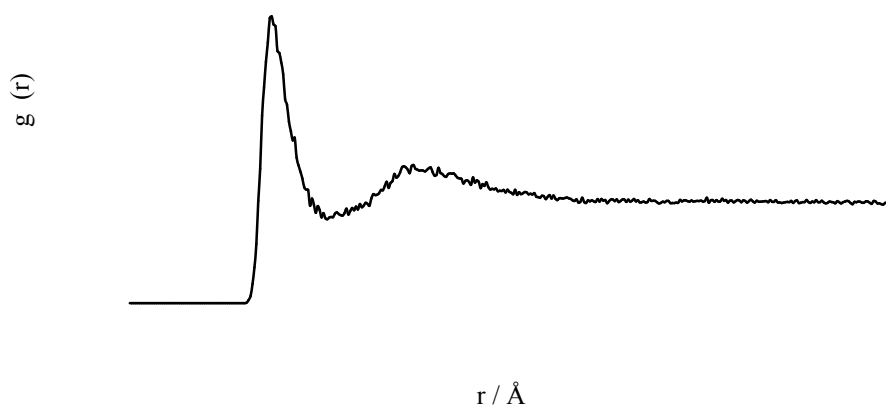


Figure S6: RDF showing the density of PFS_{C1} as a function of the distance from PFS_{C1} during S4.

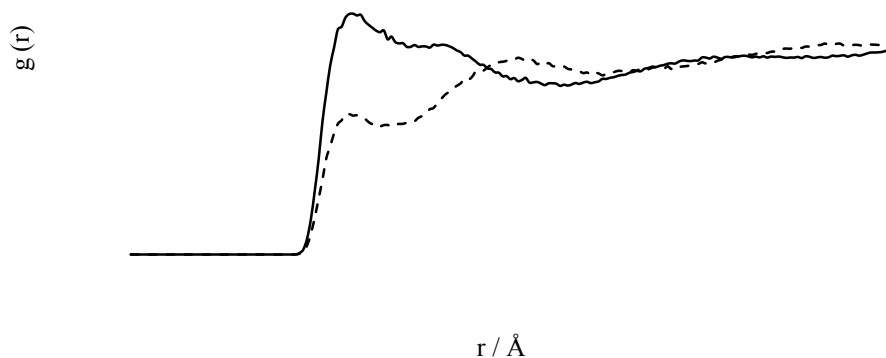


Figure S7: RDFs showing the density of EGDMA_{O5} atoms as a function of the distance from PFS atoms during S4. EGDMA_{O5} - PFS_{H5} (- - -) and EGDMA_{O5} - PFS_{H6} (—).

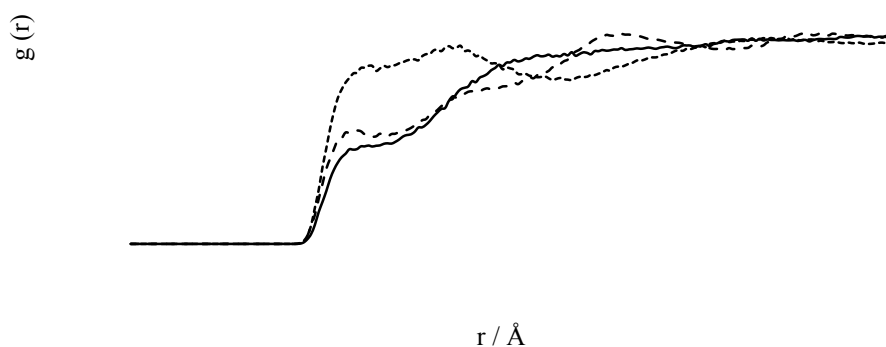


Figure S8: RDFs showing the density of EGDMA_{O5} atoms as a function of the distance from TMS atoms during S2. EGDMA_{O5} - TMS_{H3} (- - -), EGDMA_{O5} - TMS_{H5} (···) and EGDMA_{O5} - TMS_{H6} (—)