Figure S1: Distributions of (a) NMR porosity and (b) mean relaxation times of initial sand sample S0 (c).
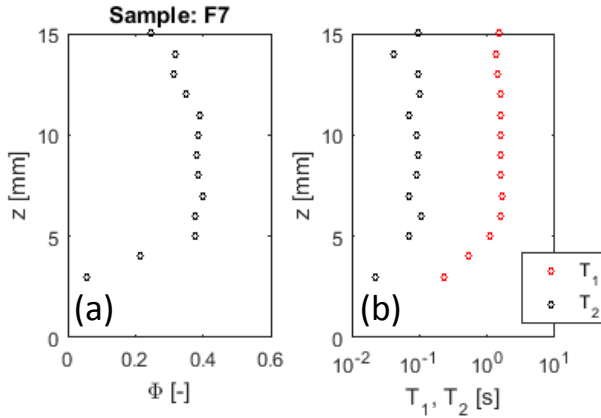
Figure S2: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F7 after precipitation of ferrihydrite (c).
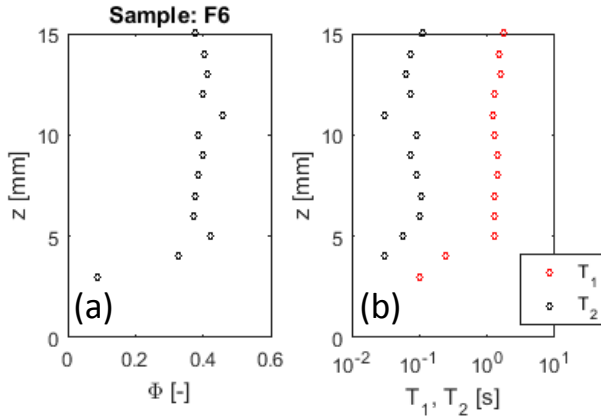
Figure S3: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F6 after precipitation of ferrihydrite (c).
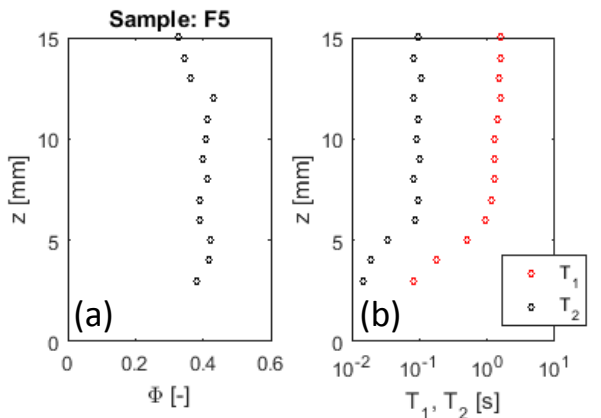
Figure S4: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F5 after precipitation of ferrihydrite (c).
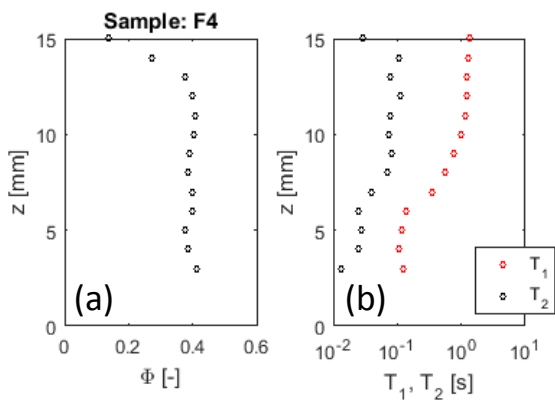
Figure S5: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F4 after precipitation of ferrihydrite (c).
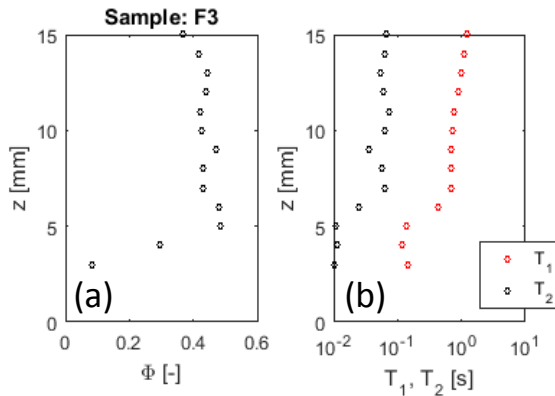
Figure S6: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F3 after precipitation of ferrihydrite (c).
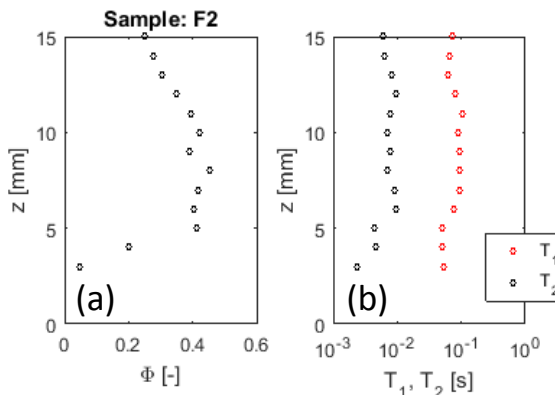
Figure S7: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F2 after precipitation of ferrihydrite (c). Please note the range of x-axis which differs from Fig. S0 – S6.
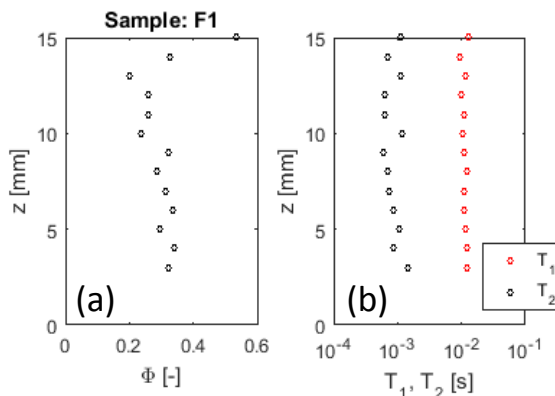
Figure S8: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F1 after precipitation of ferrihydrite (c). Please note the range of x-axis which differs from Fig. S0 – S7.
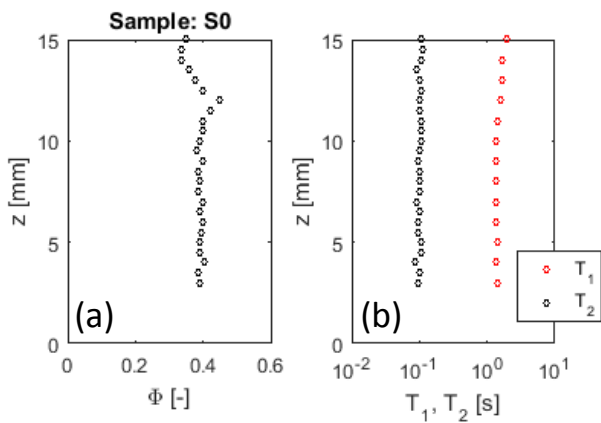
Figure S9: Distributions of (a) NMR porosity and (b) mean relaxation times of initial sand sample S0 (c).
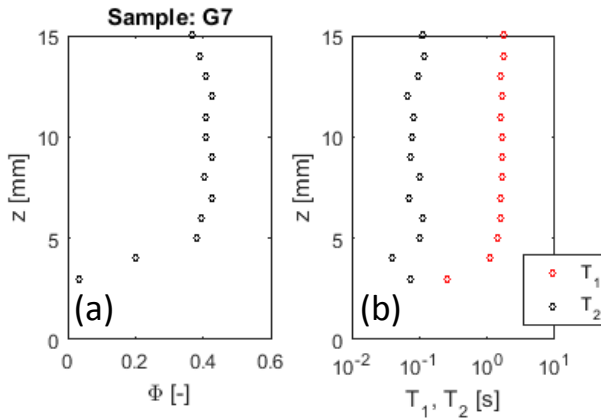
Figure S10: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G7 after precipitation of goethite (c).
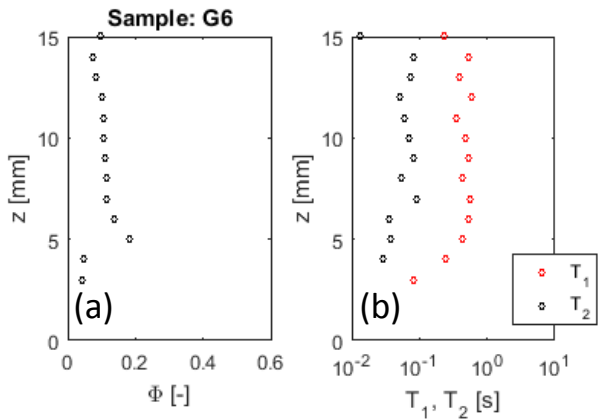
Figure S11: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G6 after precipitation of goethite (c). Please note that the sample almost dried out due to imperfect sealing.
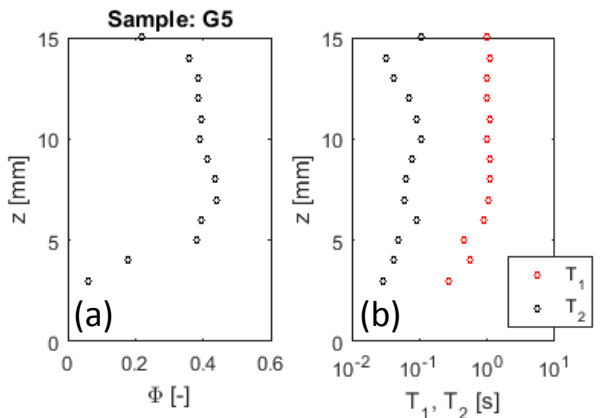
Figure S12: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G5 after precipitation of goethite (c).
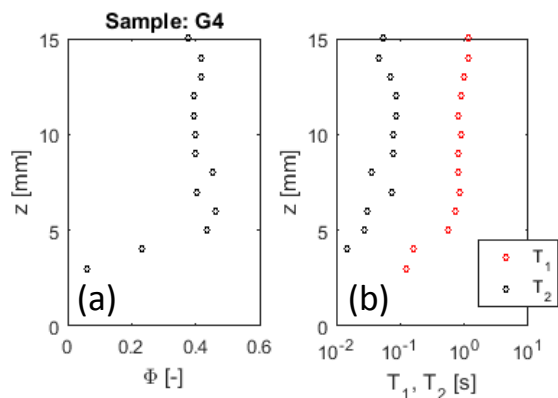
Figure S13: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G4 after precipitation of goethite (c).

Figure S14: Sample G3 after precipitation of goethite. Sample dried out completely due to imperfect sealing (reliable NMR measurements were possible after homogenisation only).
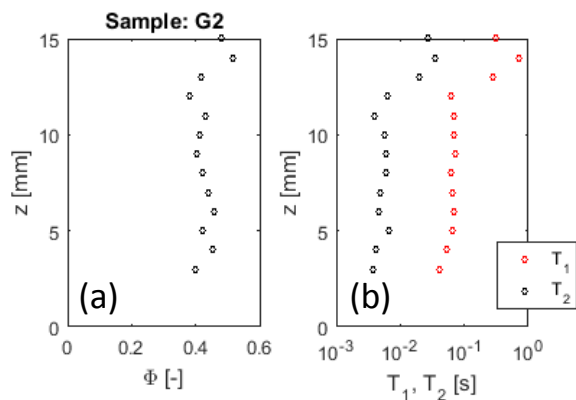
Figure S15: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G2 after precipitation of goethite (a photograph was not taken). Please note the range of x-axis which differs from Fig. S9 – S13.
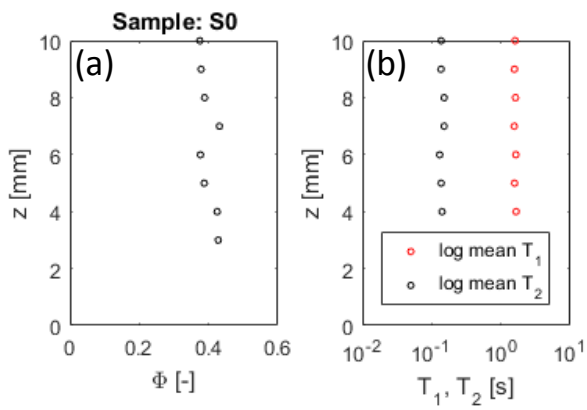
Figure S15: Distributions of (a) NMR porosity and (b) mean relaxation times of initial sand sample S0.
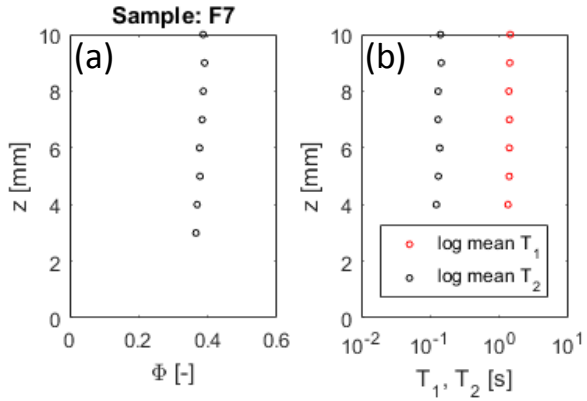
Figure S16: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F7 after precipitation of ferrihydrite and subsequent homogenisation.
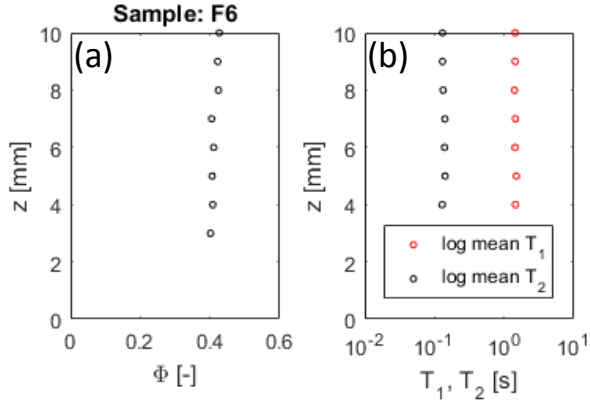
Figure S17: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F6 after precipitation of ferrihydrite and subsequent homogenisation.
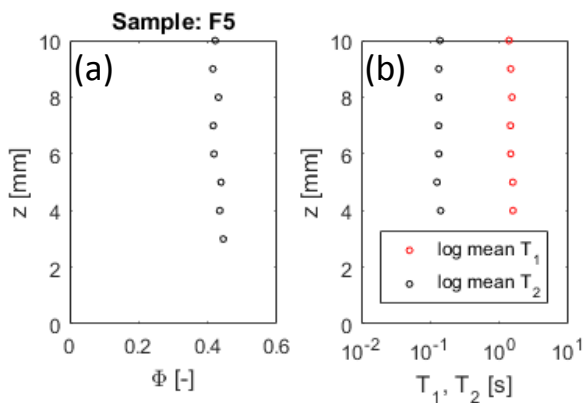
Figure S18: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F5 after precipitation of ferrihydrite and subsequent homogenisation.
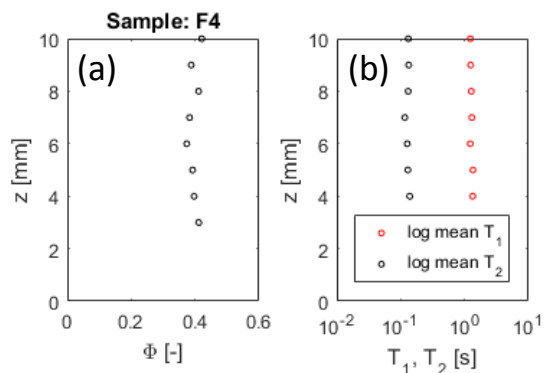
Figure S19: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F4 after precipitation of ferrihydrite and subsequent homogenisation.
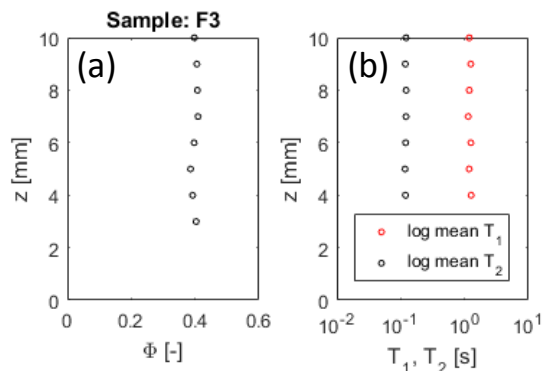
Figure S20: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F3 after precipitation of ferrihydrite and subsequent homogenisation.
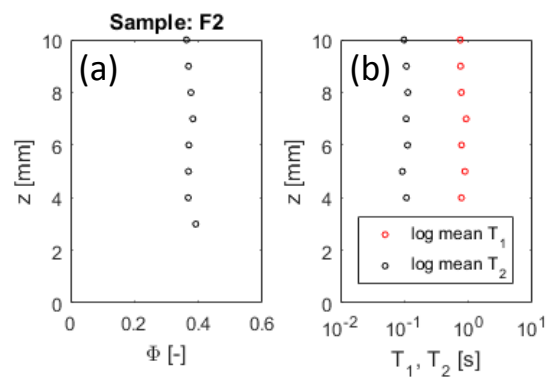
Figure S21: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F2 after precipitation of ferrihydrite and subsequent homogenisation.
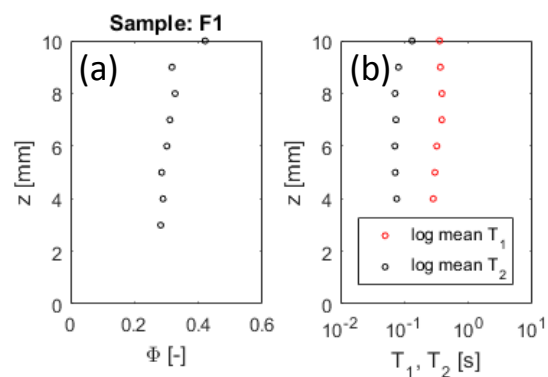
Figure S22: Distributions of (a) NMR porosity and (b) mean relaxation times of sample F1 after precipitation of ferrihydrite and subsequent homogenisation.
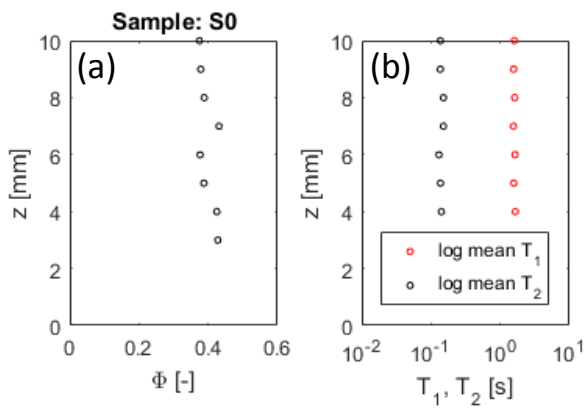
Figure S23: Distributions of (a) NMR porosity and (b) mean relaxation times of initial sand sample S0.
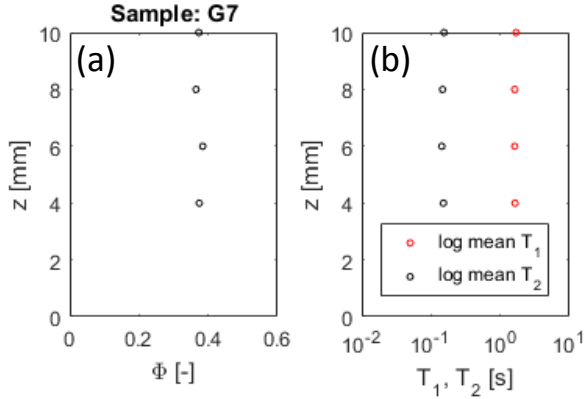
Figure S24: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G7 after precipitation of goethite and subsequent homogenisation.
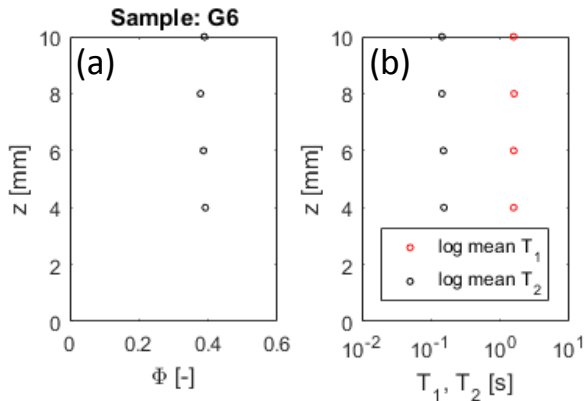
Figure S25: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G6 after precipitation of goethite and subsequent homogenisation.
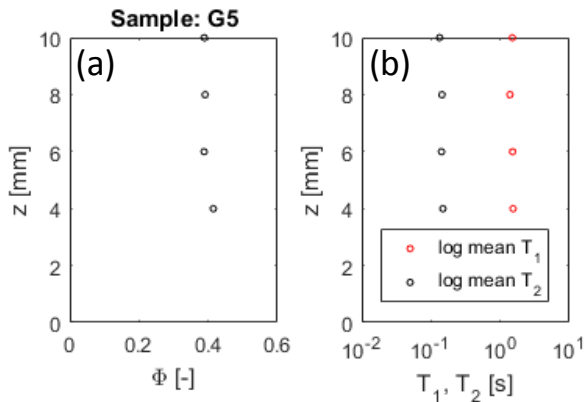
Figure S26: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G5 after precipitation of goethite and subsequent homogenisation.
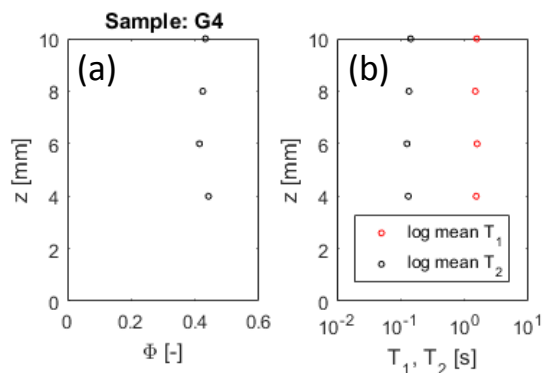
Figure S27: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G4 after precipitation of goethite and subsequent homogenisation.
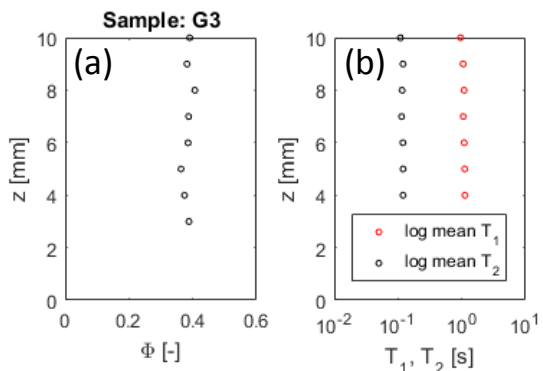
Figure S28: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G3 after precipitation of goethite and subsequent homogenisation.
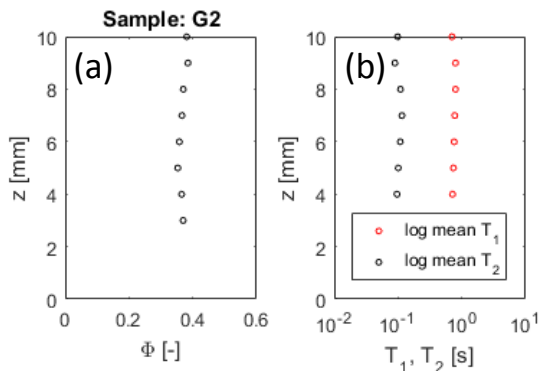
Figure S29: Distributions of (a) NMR porosity and (b) mean relaxation times of sample G2 after precipitation of goethite and subsequent homogenisation.