Electronic Supplementary Information

**Fig. S1:** UV/Vis/nIR absorption spectrum normalized to the minimum of CoMoCAT-fraction 1 as indicated in figure 1 compared to the pristine material dispersed in I after addition of SDS ([SDS] = 0.1%)

**Fig. S2:** UV/Vis/nIR absorption spectrum normalized to the minimum of CoMoCAT-fraction 2 as indicated in figure 1 compared to the pristine material dispersed in SDS ([SDS] = 1%)

**Fig. S3:** UV/Vis/nIR absorption spectrum normalized to the minimum of HiPco-fraction 1 as indicated in figure 1 compared to the pristine material dispersed in I after addition of SDS ([SDS] = 0.1%)

**Fig. S4:** UV/Vis/nIR absorption spectrum normalized to the minimum of HiPco-fraction 2 as indicated in figure 1 compared to the pristine material dispersed in SDS ([SDS] = 1%)