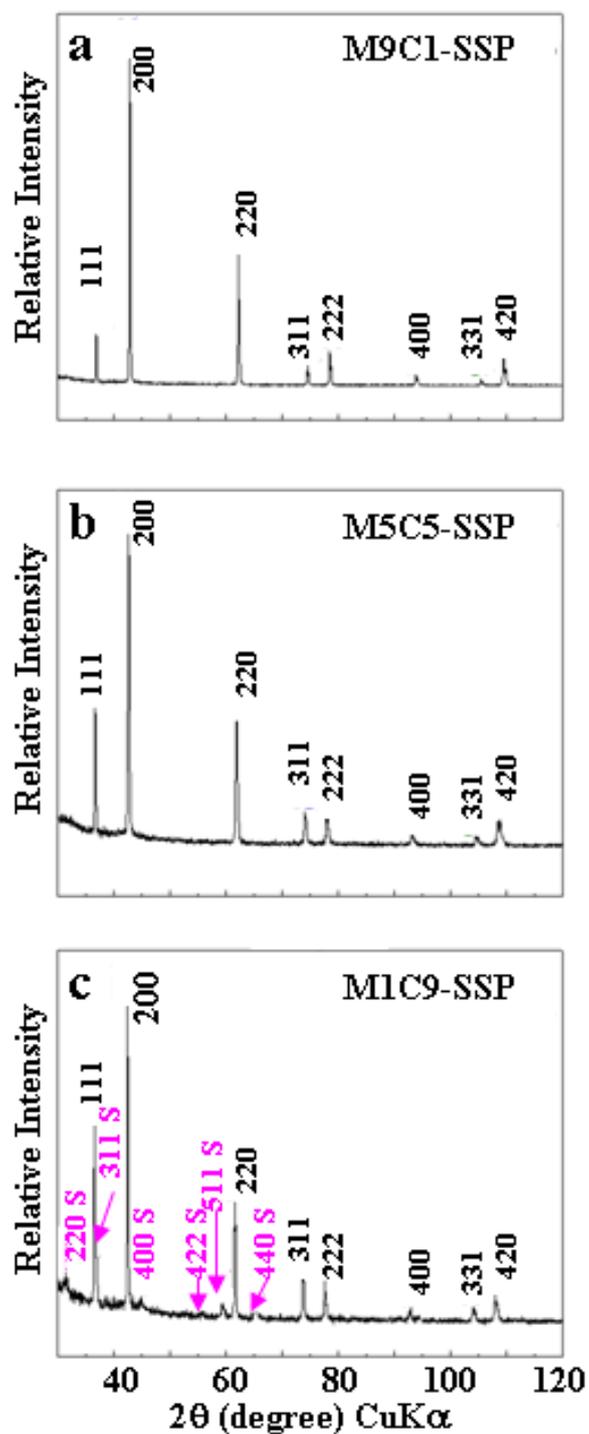
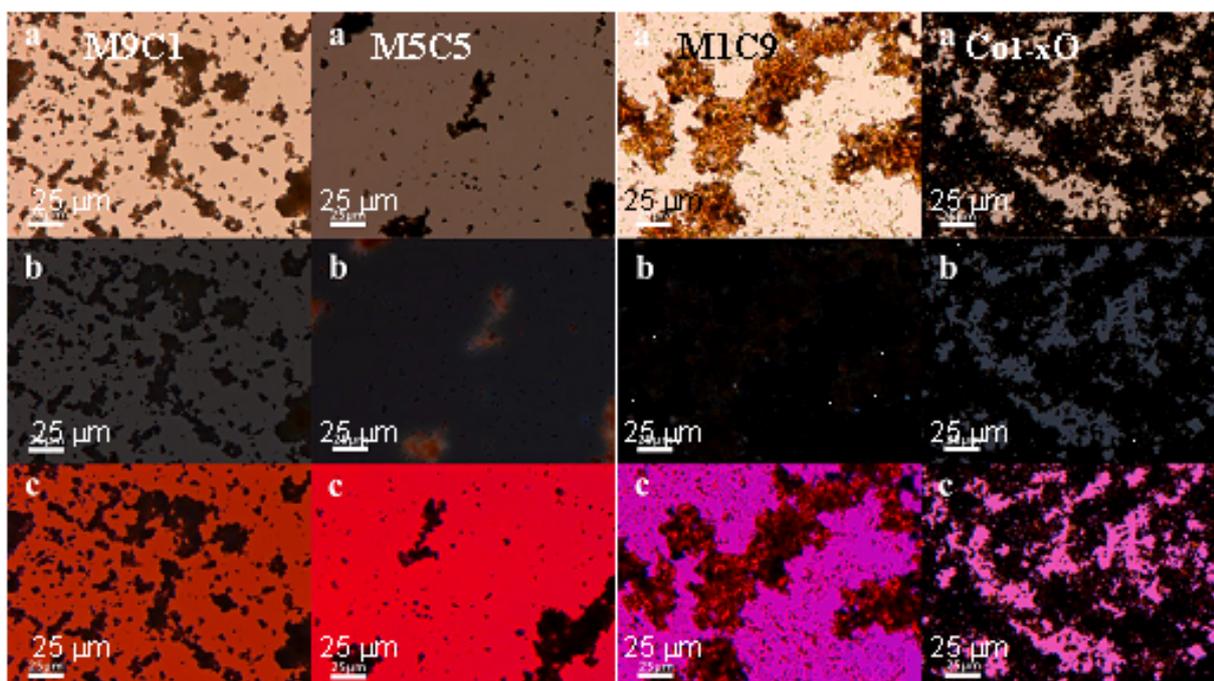


Supplement Figure 1. Photos of (a) M9C1, (b) M5C5 and (c) M1C9 solid solution powders (SSP) by reactive sintering at 1100°C for 3 h in air followed by grinding to be smaller than 100 μm in size (left panel) and then dispersion in water (middle panel) for PLA in water for 5 min (right panel). For comparison, the Co_{1-x}O powder of rocksalt-type structure (Aldrich, 325 mesh) was also subjected to PLA in water for 5 min as compiled in (d).



Supplement Figure 2. XRD traces of (a) M9C1, (b) M5C5 and (c) M1C9 solid solution powder with predominant rocksalt-type structure produced by a reactive sintering route (1100°C for 3 h in open air) followed by grinding with a mortar and pestle. Note weak peaks of minor Mg-doped $\text{Co}_{3-\delta}\text{O}_4$ spinel in (c).



Supplement Figure 3. Optical polarized micrographs of the assembled particulates and nanocondensates, taken under (a) single polarizer, (b) crossed polarizers, (c) crossed polarizers with additional λ plate for the samples M9C1, M5C5, M1C9 and Co_{1-x}O produced by PLA for 5 min in water showing brownish assembly and smaller sized individual particles with slight birefringence (cf. text). The scale bars, 25 μ m.