

**Extended Data Figure 1.** Static stability of DES (A: DES synthesized by choline chloride and citric acid on the first day, B: DES synthesized by choline chloride and citric acid on day 100, C and D: DES synthesized by choline chloride and citric acid on day 100, E: DES synthesized by choline chloride and L-ascorbic acid on day 100, F: DES synthesized by betaine and proline on day 100, G: DES synthesized by betaine and maleic acid on day 100, H: DES synthesized by betaine and xylitol on day 100).