



**Figure S6.** Analyzed ROP profiles of anthraquinone in the pyrolysis and fuel-rich oxidation of anisole in a flow reactor at three temperatures, 1150 K, 1350 K, and 1550 K. Red- solid, blue- solid, black- solid, black- dashed, and green- solid lines represent R1, R2, R3a, R3b, and R4, respectively.