

Supporting information

**The reactivity and pathway of Fenton reactions
driven by hydroxybenzoic acids: the effect of
hydroxylation**

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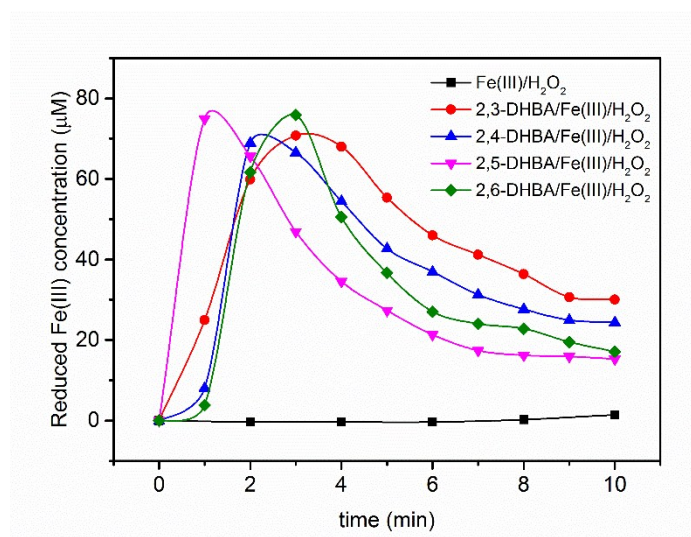
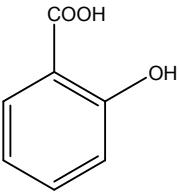
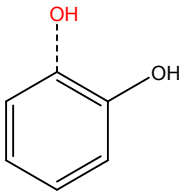
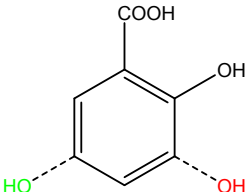
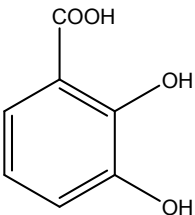
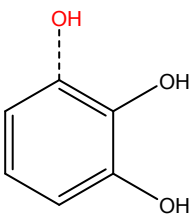
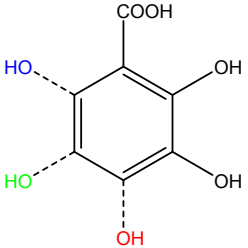
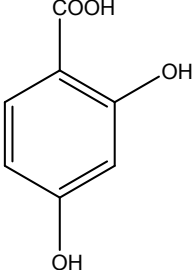
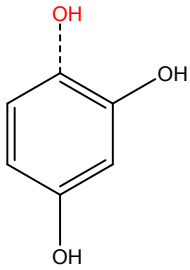
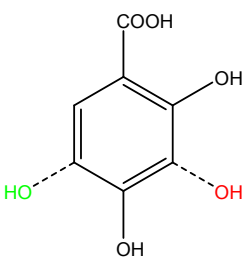
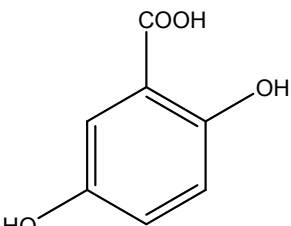
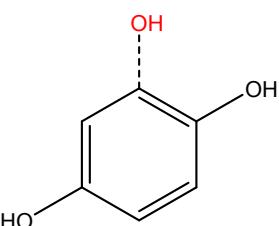
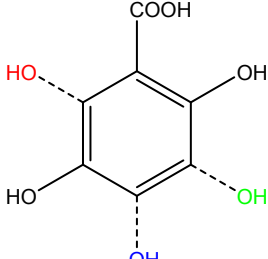
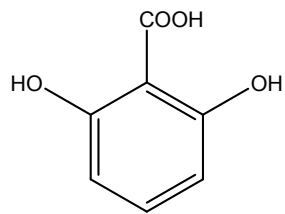


Fig. S1. Reduced Fe(III) concentration in the HBAs/Fenton system. The final concentration were HBAs 0.1 mM, FeCl₃ 0.1 mM, H₂O₂ 1 mM.

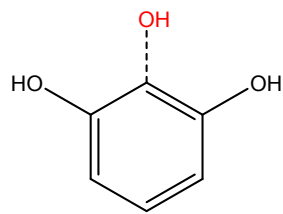
Scheme S1: primary products expected for each HBA

Compound	structure	decarboxylation	<i>para</i> -addition OR <i>ortho</i> -addition ^a
SA	 <chem>O=C(O)c1ccccc1O</chem> $m/z=137$	 <chem>Oc1ccccc1O</chem> $m/z=109$	 <chem>O=C(O)c1cc(O)ccc1O</chem> $m/z=153$
2,3-DHBA	 <chem>O=C(O)c1cc(O)c(O)cc1</chem> $m/z=153$	 <chem>Oc1cc(O)c(O)cc1</chem> $m/z=125$	 <chem>O=C(O)c1cc(O)c(O)c(O)c1</chem> $m/z=169$
2,4-DHBA	 <chem>O=C(O)c1cc(O)ccc1O</chem> $m/z=153$	 <chem>Oc1cc(O)ccc1O</chem> $m/z=125$	 <chem>O=C(O)c1cc(O)c(O)cc1</chem> $m/z=169$
2,5-DHBA	 <chem>O=C(O)c1cc(O)ccc1O</chem> $m/z=153$	 <chem>Oc1cc(O)ccc1O</chem> $m/z=125$	 <chem>O=C(O)c1cc(O)c(O)cc1</chem> $m/z=169$

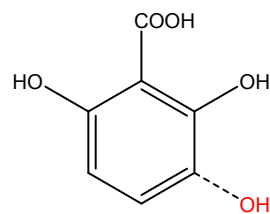
2,6-DHBA



m/z=153



m/z=125



m/z=169

^a -----OH, -----OH, -----OH means the possible addition sites of HO•