Electronic Supplementary Information for

Highly Active Heterogeneous Fenton Catalyst Using Iron Oxide Nanoparticle Immbilized in Aluminum Coated Mesoporous Silica

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Fig. S1 Degradation of pCBA with (■) hematite, (□) magnetite, (●) FeSi, and (○) FeAlSi

The pCBA degradation experiments for Fig. S1 and S2 were conducted at 25 °C in the presence of 0.1 g/l of catalyst particles. The initial concentration of H₂O₂ was 5 mM. The solution pH was adjusted to 4.1 and kept within 0.2 pH units of this value with HClO₄ and NaOH during the experiments.
When the alumina content was low (Si/Al=8), the increasing Fe content from 3 to 24 wt % hardly affected the degradation rate for \( p\text{CBA} \). Considering the \( \text{H}_2\text{O}_2 \) decomposition result in Table 1, this data seems to support the effect of the association of alumina with iron oxide.