**Role of coke-bounded environmentally persistent free radicals in phenanthrene degradation by hydrogen peroxide**

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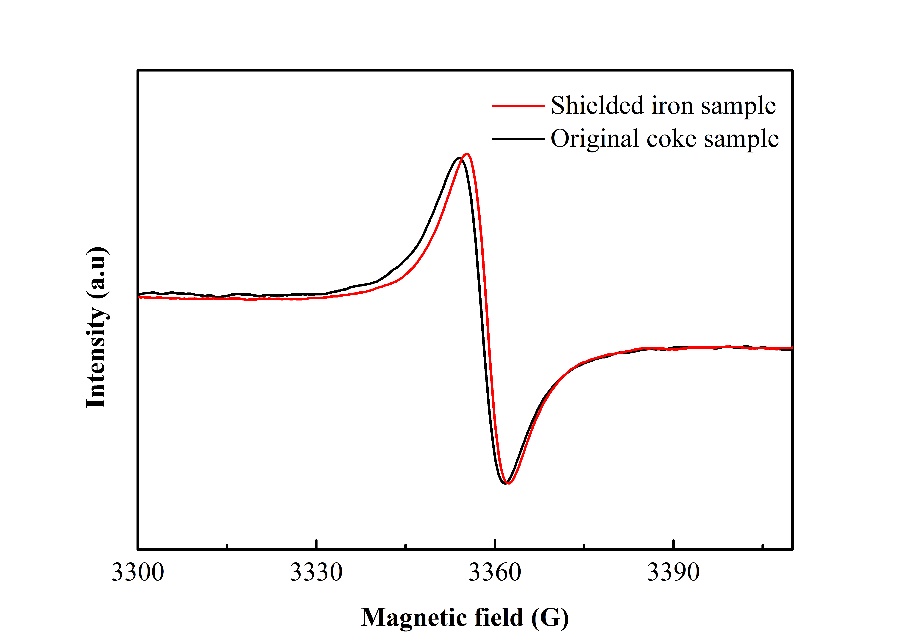


Figure S1. Changes of EPFRs concentration and g value in coke samples with or without Fe removal

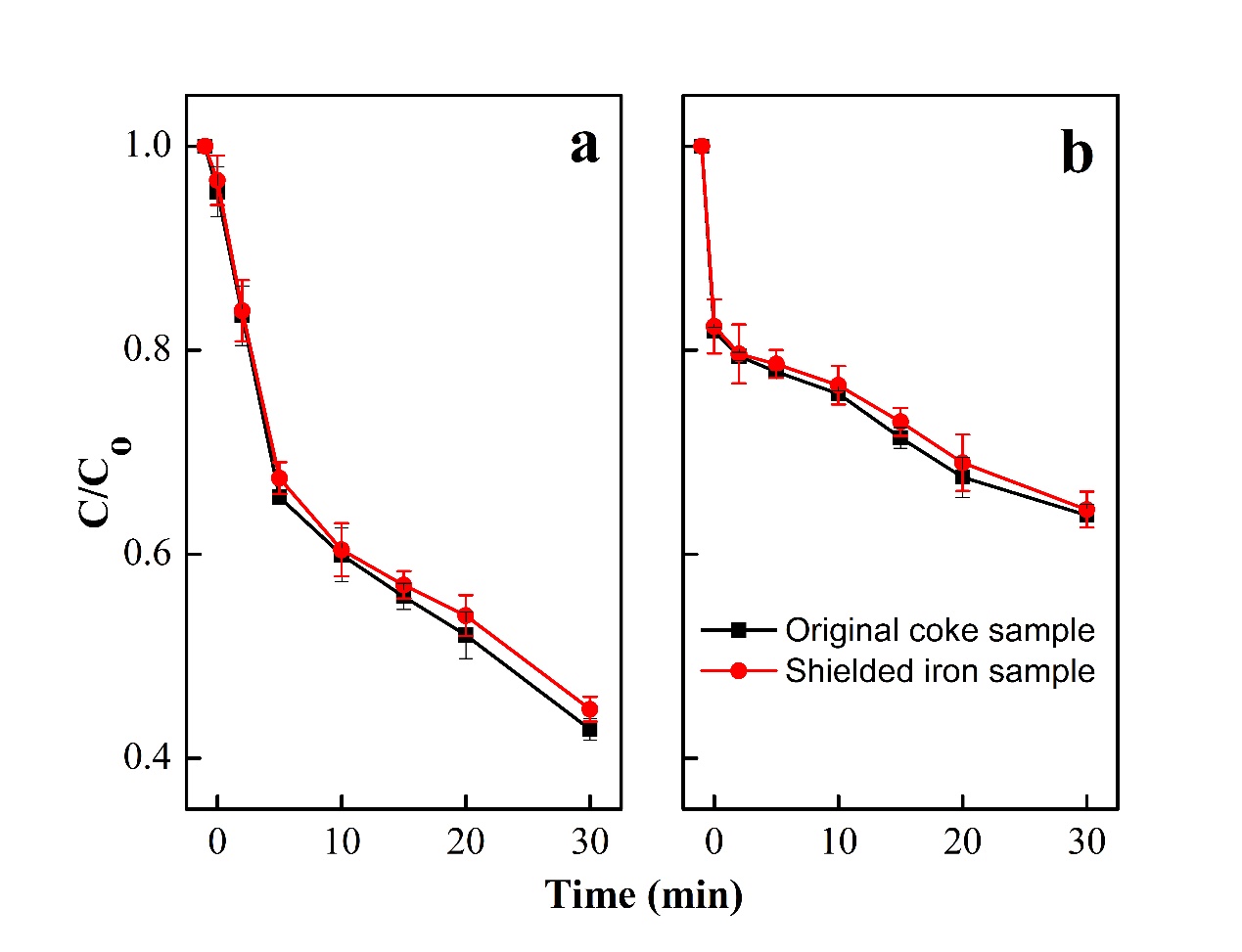
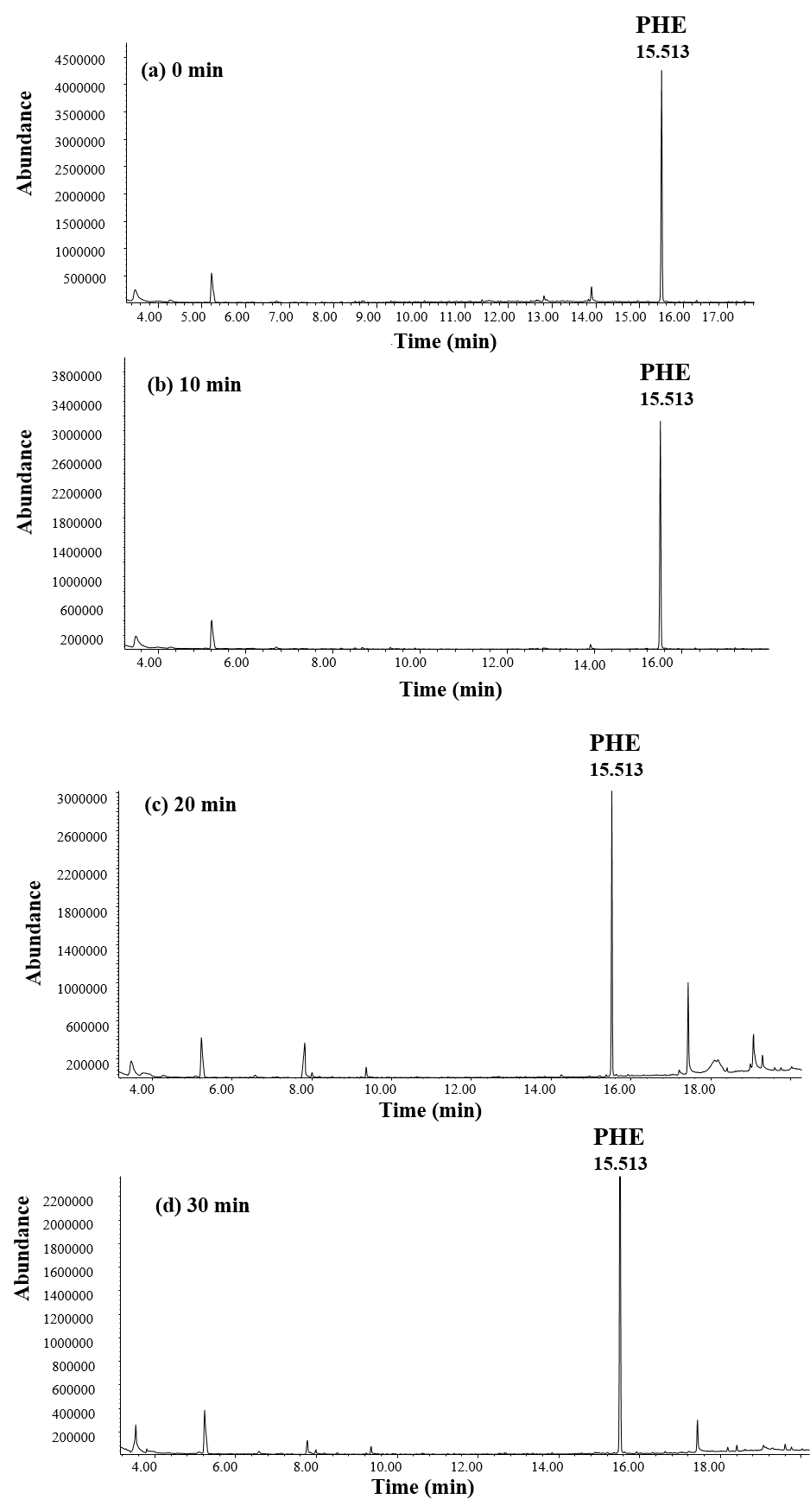
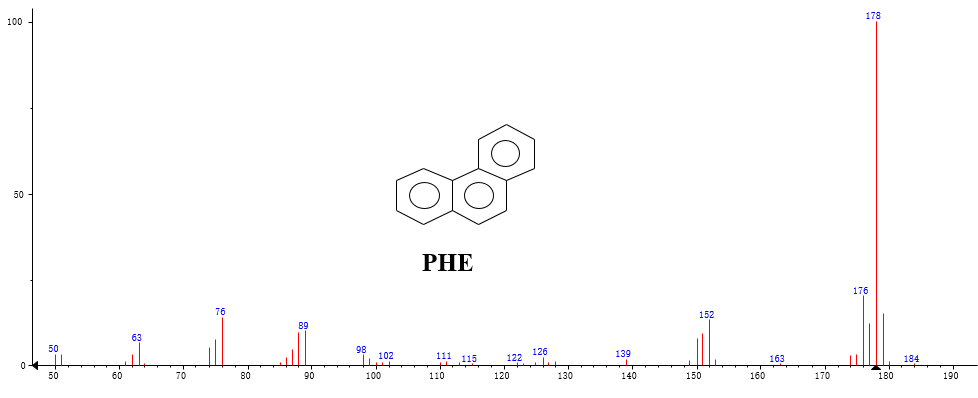
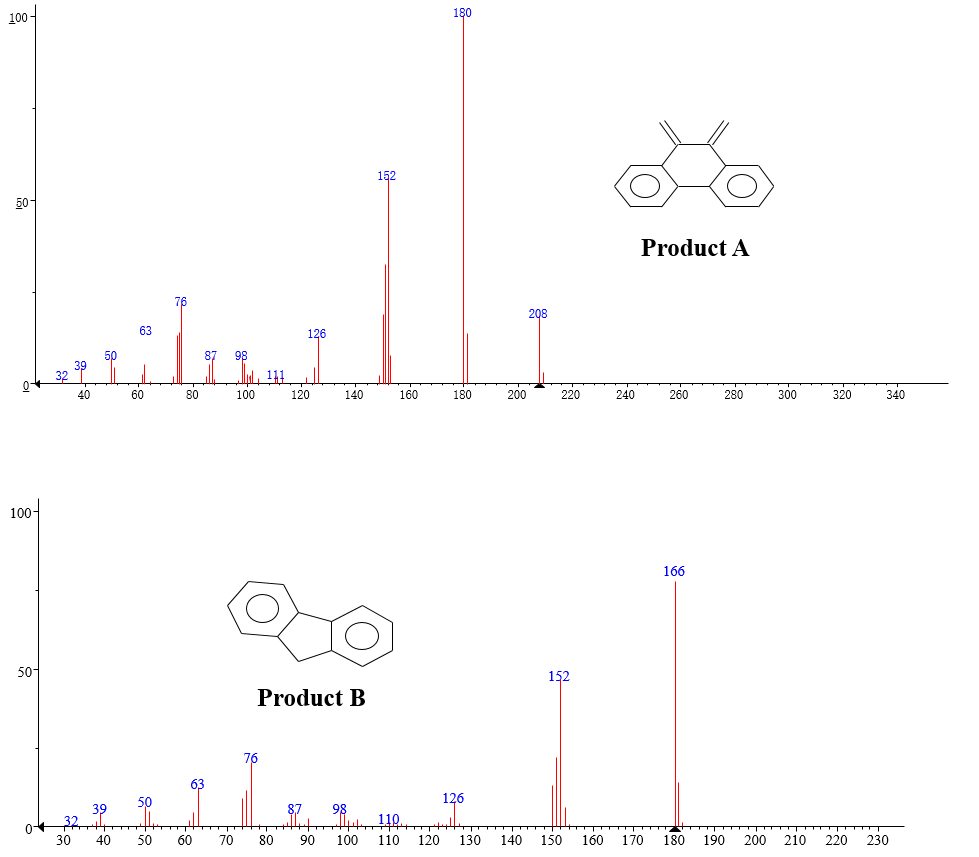


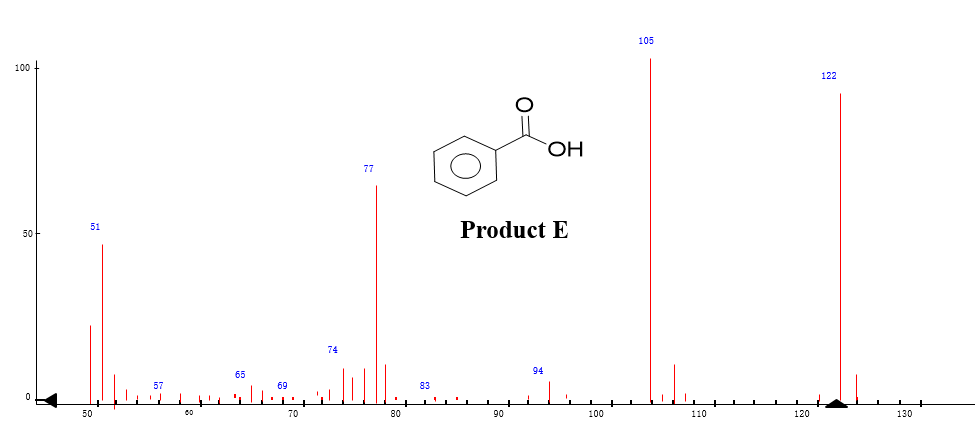
Figure S2. Evolution of PHE before and after coke treatment when the concentration of H2O2 are 250 mM (a) and 1000 mM (b), respectively.











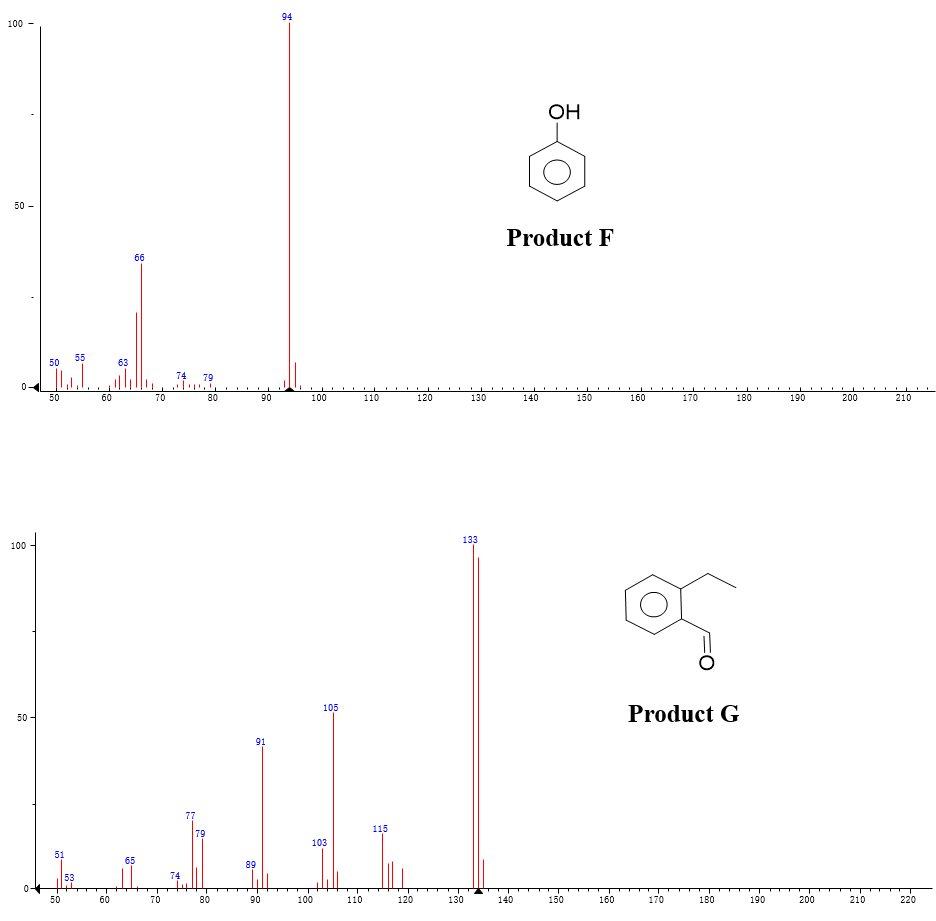


Figure S3. GC-MS chromatograms and mass spectra of products.