

Supplementary Table S2 Summary of the experimental parameters and fitted kinetic constants of pNPP hydrolysis (pH = 6.0) mediated by iron oxyhydroxide nanomaterials at varying initial pNPP concentrations

Exp. No.	Catalyst	C_pNPP (mg L ⁻¹)	pH	k_{obs}^a (h ⁻¹)	R^2
1-a	Goethite	3.2	6.0	2.09×10^{-2}	0.979
1-b	Akaganeite	3.2	6.0	1.06×10^{-2}	0.975
1-c	Lepidocrocite	3.2	6.0	6.53×10^{-2}	0.996
2-a	Goethite	4.3	6.0	1.90×10^{-2}	0.955
2-b	Akaganeite	4.3	6.0	1.00×10^{-2}	0.985
2-c	Lepidocrocite	4.3	6.0	6.00×10^{-2}	0.987
3-a	Goethite	6.0	6.0	1.24×10^{-2}	0.996
3-b	Akaganeite	6.0	6.0	9.03×10^{-3}	0.991
3-c	Lepidocrocite	6.0	6.0	3.82×10^{-2}	0.989
4-a	Goethite	9.7	6.0	1.01×10^{-2}	0.994
4-b	Akaganeite	9.7	6.0	6.00×10^{-3}	0.972
4-c	Lepidocrocite	9.7	6.0	3.21×10^{-2}	0.989
5-a	Goethite	13	6.0	8.00×10^{-3}	0.978
5-b	Akaganeite	13	6.0	4.79×10^{-3}	0.975
5-c	Lepidocrocite	13	6.0	2.57×10^{-2}	0.950
6-a	Goethite	16	6.0	6.00×10^{-3}	0.917
6-b	Akaganeite	16	6.0	3.84×10^{-3}	0.945
6-c	Lepidocrocite	16	6.0	1.92×10^{-2}	0.952

^a k_{obs} = pseudo-first-order kinetic constants.

^b SA_{BET} = surface area measured using the Brunauer-Emmett-Teller (BET) method.