

Table S7. Statistic data of fitting by different mathematical models

	Fe ₃ O ₄				
	Lorenz function	Gauss function	Voigt function	Pseudo-Voigt function	PearsonVII function
R ²	0.90868	0.90211	0.90956	0.90989	0.90965
χ^2	11.54172	12.37203	11.43064	11.38935	11.41964
Fe ₃ O ₄ /APTES					
R ²	0.90834	0.91022	0.91136	0.91105	0.9116
χ^2	51.12376	50.77037	50.12376	50.3012	49.99087
Fe ₃ O ₄ /HA					
R ²	0.93461	0.93082	0.93592	0.93612	0.93606
χ^2	10.46463	11.07169	10.25538	10.22408	10.2392