

Supplementary data (162517)

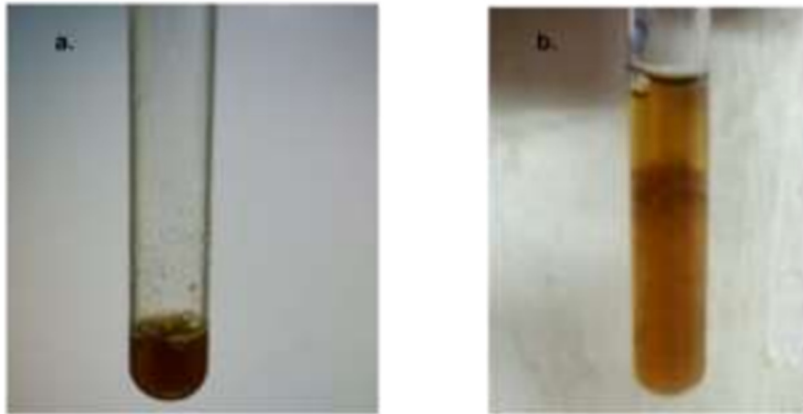
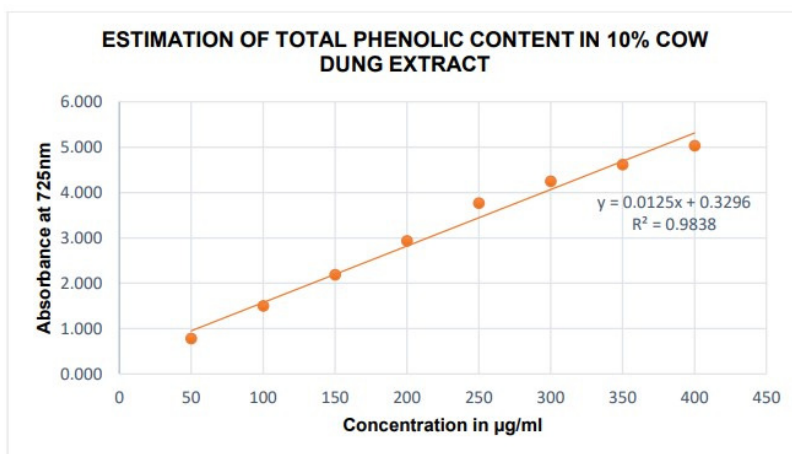


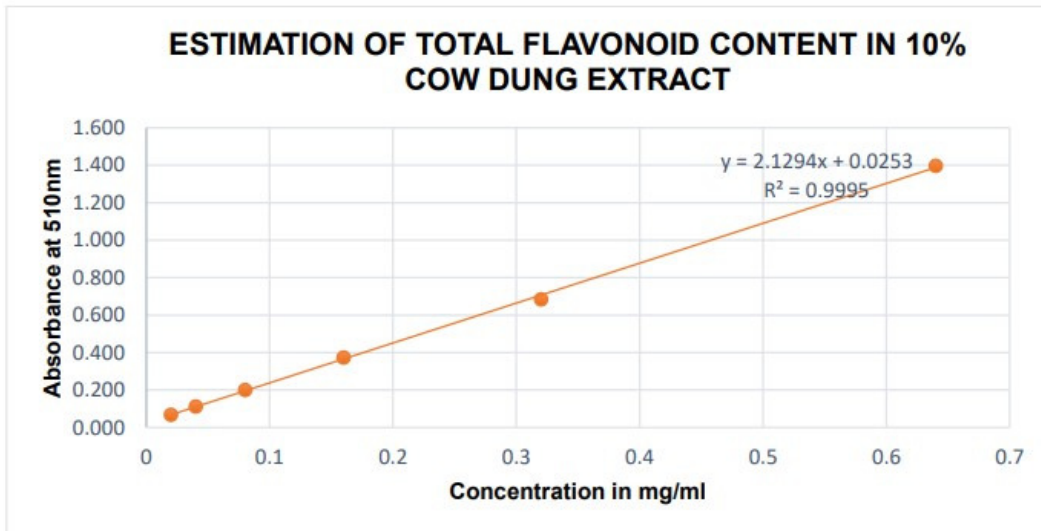
Fig. S1 a. Test for phenolics, b. Test for flavonoids



Standard	The concentration of the standard (µg/mL)	Absorbance at 725nm (Mean ± SD)
S1	400	5.029 ± 0.13
S2	350	4.617 ± 0.29
S3	300	4.245 ± 0.31
S4	250	3.767 ± 0.02
S5	200	2.932 ± 0.09
S6	150	2.185 ± 0.13
S7	100	1.502 ± 0.14
S8	50	0.782 ± 0.08

Graph. S1 Standard curve for Total phenolic estimation for 10 % cow dung using gallic acid.

Table. S1 Standard curve data obtained to calculate total phenolic content in 10 % cow dung extract

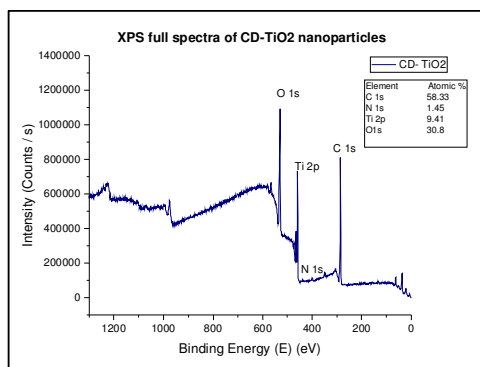


Standard	Concentration of standard (mg/mL)	Absorbance at 510nm (Mean ± SD)
S1	0.64	1.397± 0.31
S2	0.32	0.684±0.21
S3	0.16	0.373 ± 0.13
S4	0.08	0.201 ± 0.06
S5	0.04	0.112 ± 0.01
S6	0.02	0.068 ±0.001

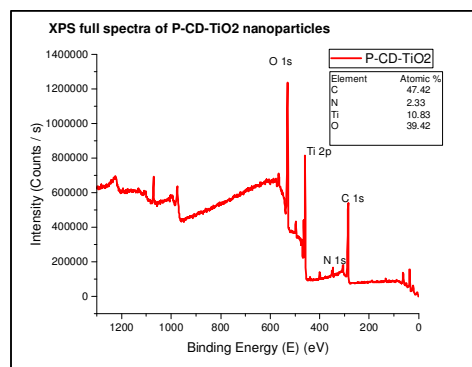
Graph. S2 Standard curve for total flavonoid content in 10 % cow dung extract using catechin hydrate.

Table. S2 Data for total flavonoid estimation in 10 % cow dung extract.

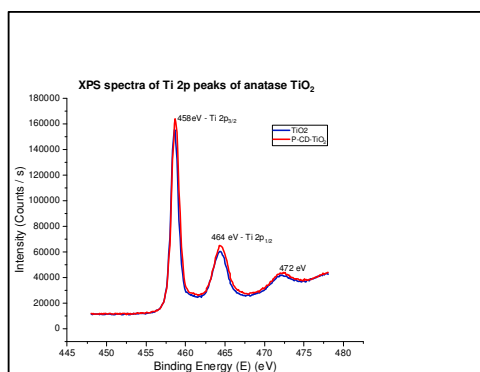
a



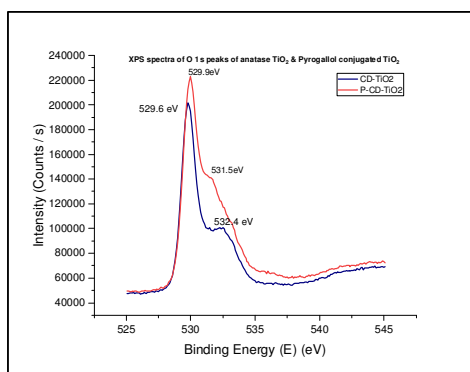
b



c



d



e

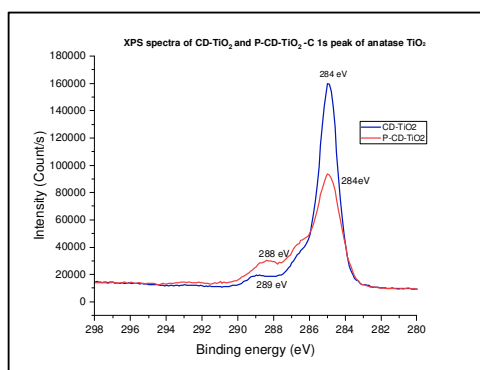


Fig. S2 a. XPS whole spectra of CD-TiO₂, b. XPS whole spectra of P-CD-TiO₂, c. Ti 2P peaks of CD-TiO₂ and P-CD-TiO₂, d. O 1s peaks of CD-TiO₂ and P-CD-TiO₂, e. C 1s peaks of CD-TiO₂ and P-CD-TiO₂

Pos. [°2Th.]	Height [cts]	FWHM [°2Th.]	d-spacing [Å]	Rel. Int. [%]	D [nm]
24.8820	152.30	0.1920	3.57557	100.00	42.5
37.3800	32.77	0.2880	2.40382	21.51	29.2
47.6323	57.77	0.1920	1.90761	37.93	45.3
53.4906	36.23	0.1440	1.71168	23.79	61.9
54.7153	25.91	0.2880	1.67623	17.01	31.1
62.2806	17.84	0.2880	1.48955	11.72	32.3

Table. S3 XRD Data showing crystalline size of CD-TiO₂

Pos. [°2Th.]	Height [cts]	FWHM [°2Th.]	d-spacing [Å]	Rel. Int. [%]	D[nm]
24.6046	161.73	0.2880	3.61525	100.00	28.2
37.1482	39.82	0.3360	2.41829	24.62	24.9
47.4066	63.86	0.1440	1.91617	39.49	60.2
53.2437	33.76	0.3840	1.71903	20.87	23.1
54.4137	26.03	0.3840	1.68480	16.10	23.2
62.0604	24.75	0.2880	1.49430	15.30	32.1

Table. S4 XRD Data showing crystalline size of P-CD-TiO₂ nanoparticles

Concentration of Nanoparticles ($\mu\text{g}/\text{ml}$)	% Hemolytic activity (Mean \pm SD)	
	CD -TiO ₂	Pyrogallol- Conjugated CD-TiO ₂
800	2.709 \pm 0.039	2.684 \pm 0.089
400	2.444 \pm 0.13	2.411 \pm 0.108
200	2.393 \pm 0.218	2.033 \pm 0.212
100	2.011 \pm 0.178	1.599 \pm 0.419
50	1.523 \pm 0.288	1.427 \pm 0.286
25	1.09 \pm 0.228	1.205 \pm 0.193
12.5	0.769 \pm 0.371	1.07 \pm 0.403
6.25	0.708 \pm 0.431	0.49 \pm 0.182
3.125	0.382 \pm 0.108	0.33 \pm 0.178
1.5625	0.163 \pm 0.008	0.166 \pm 0.174

Table. S5 Hemolytic activity of green synthesized CD-TiO₂ & P- CD-TiO₂ nanoparticles using chicken RBC.

Concentration of sample ($\mu\text{g/ ml}$)	% Ferric reducing activity (Mean \pm SD)		
	CD -TiO ₂	Pyrogallol- Conjugated CD- TiO ₂	Cow dung extract
100	57.94 \pm 3.91	93.75 \pm 3.05	23.56 \pm 1.19
50	45.96 \pm 1.37	60.28 \pm 5.61	20.31 \pm 1.03
25	32.94 \pm 1.96	41.01 \pm 5.10	11.8 \pm 1.84
12.5	20.31 \pm 1.03	25 \pm 1.79	6.25 \pm 2.43
6.25	7.42 \pm 2.17	20.44 \pm 2.17	2.34 \pm 0.390

Table. S6 Mean \pm SD values of percentage ferric reducing power activity of CD-TiO₂, P-conjugated CD-TiO₂, and cow dung extract

Concentration of Nanoparticles ($\mu\text{g/ ml}$)	% Viability (Mean \pm SD)	
	CD -TiO ₂	Pyrogallol- Conjugated CD-TiO ₂
400	34.60 \pm 2.02	37.69 \pm 0.599
200	49.12 \pm 1.84	40.55 \pm 1.80
100	63.96 \pm 9.17	47.85 \pm 0.47
50	72.06 \pm 7.02	54.92 \pm 1.80
25	73.17 \pm 4.32	60.31 \pm 1.19
12.5	81.11 \pm 11.42	71.66 \pm 0.629

Table. S7 Mean \pm SD values of CD TiO₂ and Pyrogallol conjugated CD-TiO₂ – MTT assay.