

Supplementary Information for:

Optical Properties and Photoactivity of Carbon Nanodots Synthesized from Olive Solid Wastes at Different Carbonization Temperatures.

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Table S1: The proximate analysis at different carbonization temperatures .

Carbonation temperature °C	Moisture Content (%)	Volatile Matter (%)	Ash Content (%)	Fixed Carbon (%)
Virgin OSW	4.3	73.7	2.0	20.6
300	0.9	64.7	5.1	29.3
400	2.17	22.8	7.4	67.63
500	0.5	16.2	9.0	73.3
600	0.5	13.0	13.0	73.5
700	0.8	11.9	9.6	77.7
800	1.0	7.4	11.7	79.9
900	4.1	6.2	9.4	80.3

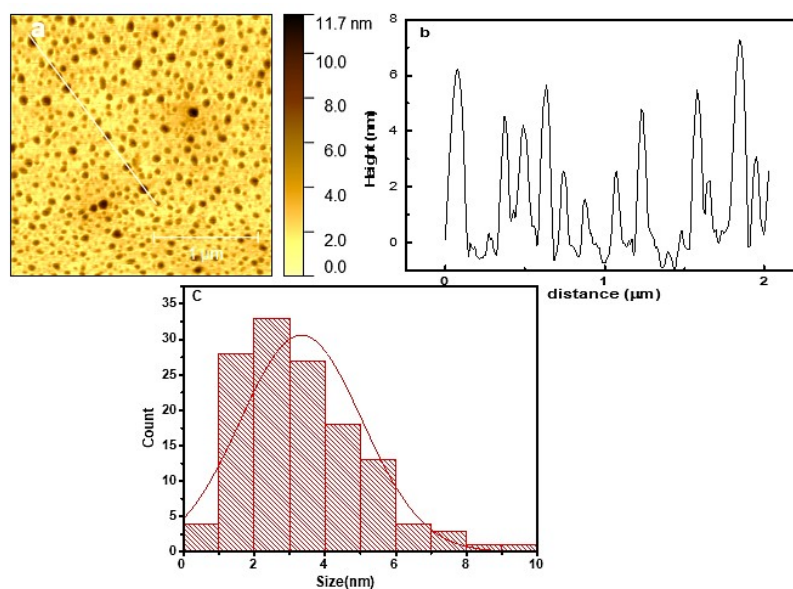


Fig.S1 (a) AEM image, (b) Height profile, (c) distribution hisdtogram of prepared CD400.

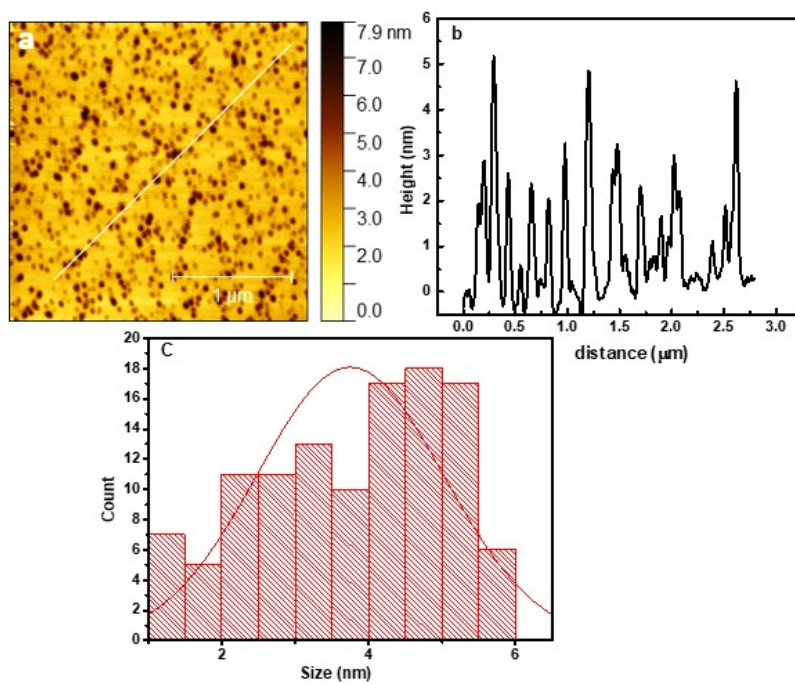


Fig. S2 (a) AEM image, (b) Height profile, (c) distribution histogram of prepared CD500.

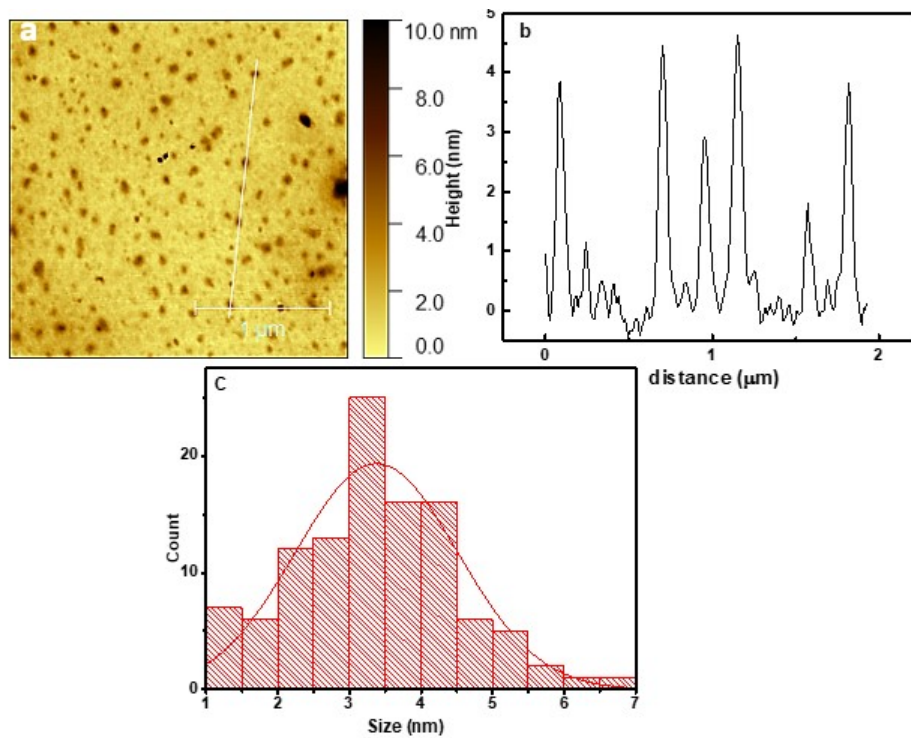


Fig. S3 (a) AEM image, (b) Height profile, (c) distribution histogram of prepared CD600.

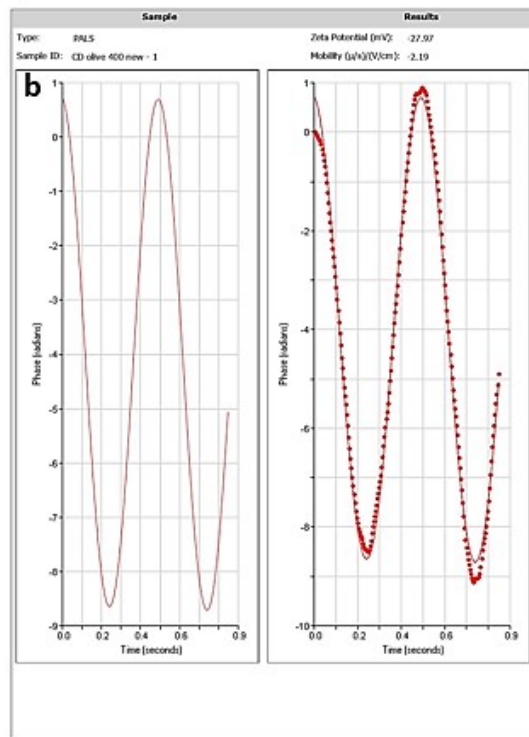
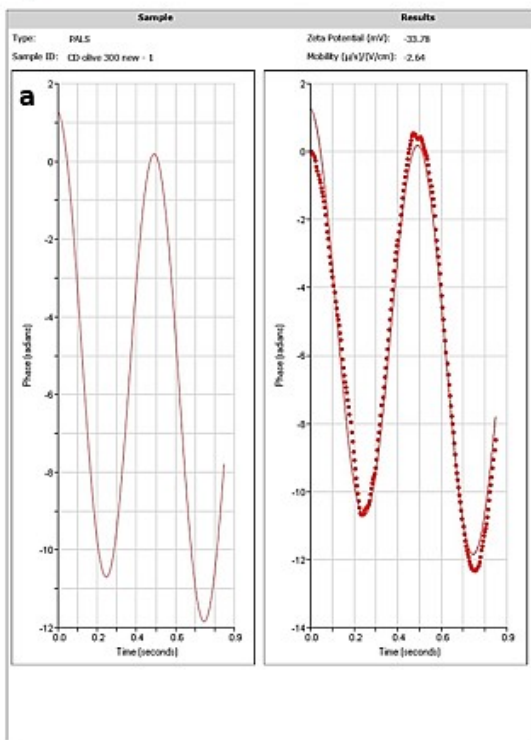


Fig. S4: PALS curves of z-potential of (a) CD300, (b) CD400

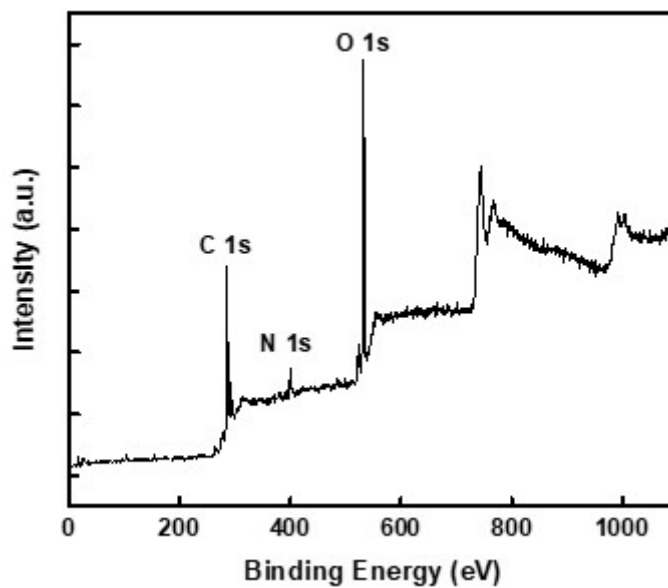


Fig. S5: XPS Spectrum Survey of CD300

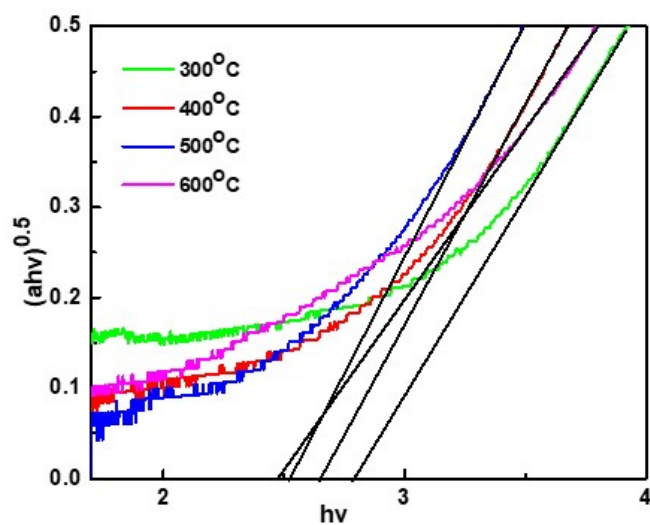


Fig. S6 Tauc plot of CD300, CD400, CD500, and CD600.

Table S2: Calculation of Quantum Yield (QY).

Temperature	Integrated Intensity	Absorbance	Intensity/Absorbance	QY%
300	11.01	0.075	146.83	5.17
400	10.61	0.086	123.37	4.34
500	9.39	0.087	107.98	3.80
600	6.33	0.063	100.59	3.54
700	5.36	0.059	90.85	3.20
800	3.66	0.053	69.06	2.43
Standard	151.45	0.097	1561.32	55.00