Supporting Information

for

Facile synthesis of water-soluble carbon nano-onions under alkaline conditions

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Additional experimental data

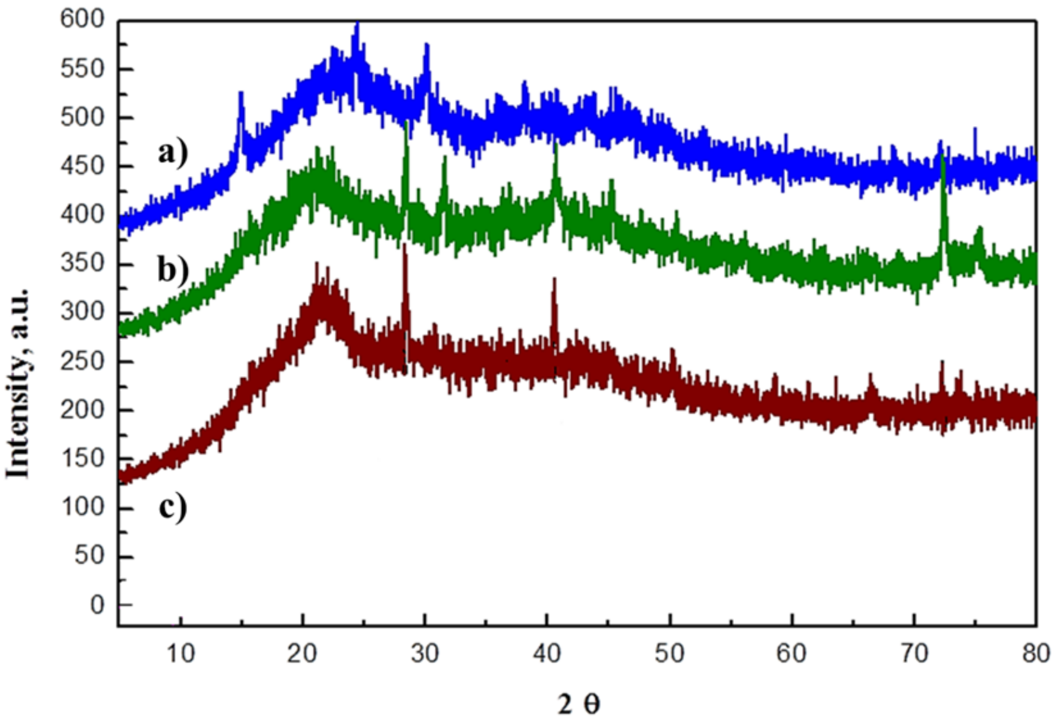

Figure S1: XRD spectra for C-dots obtained by one-pot carbonization of a) carrots, b) tree leaves and c) tomatoes in aqueous media.

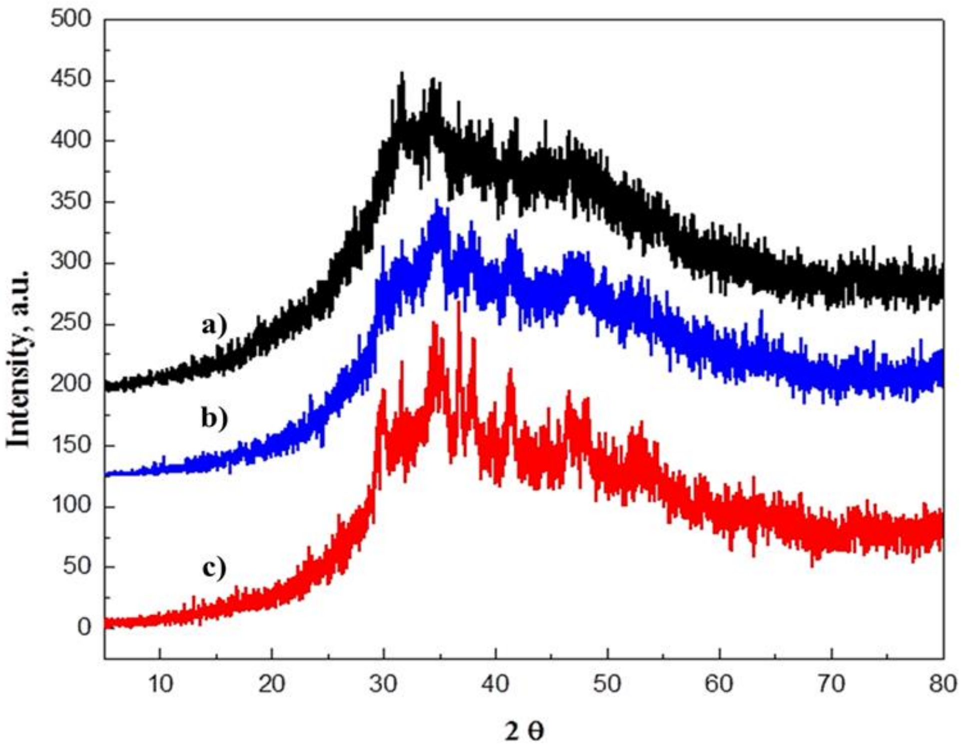

Figure S2: XRD spectra for C-NPs obtained by one-pot carbonization of a) tomatoes, b) tree leaves and c) carrots in NaOH 30% (w/v) media.

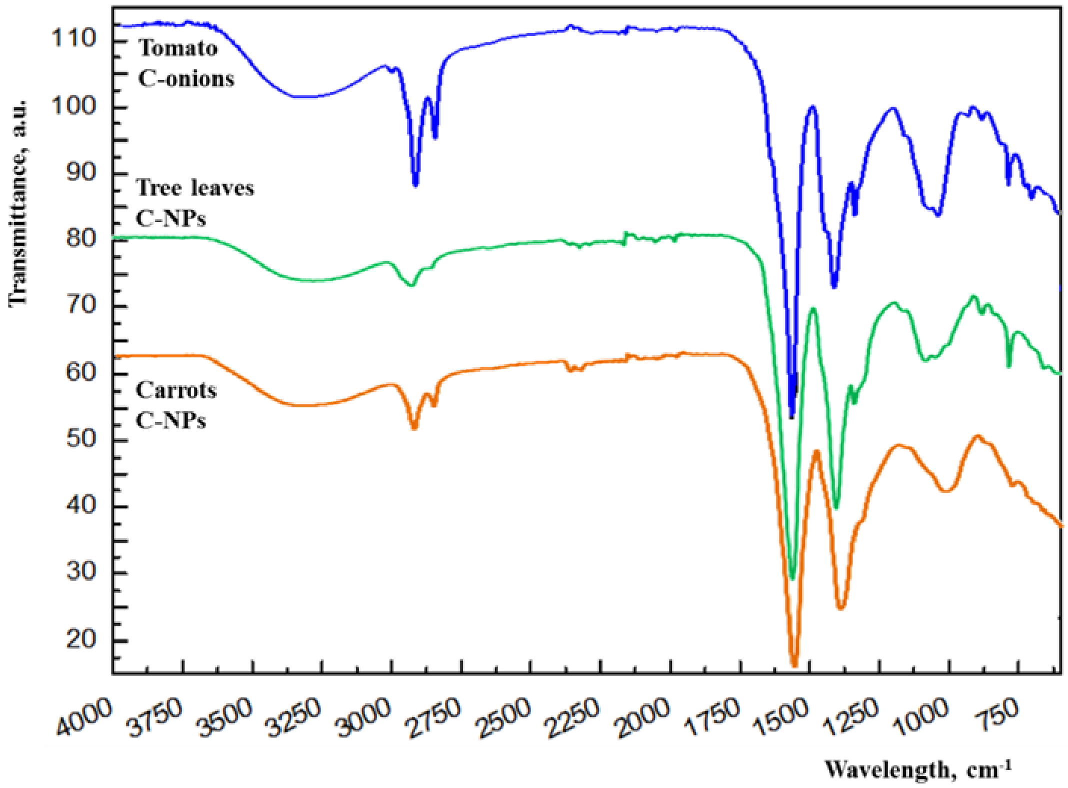

Figure S3: FTIR spectra of C-NPs obtained from tomatoes, tree leaves and carrots by carbonization in NaOH 30% (w/v).

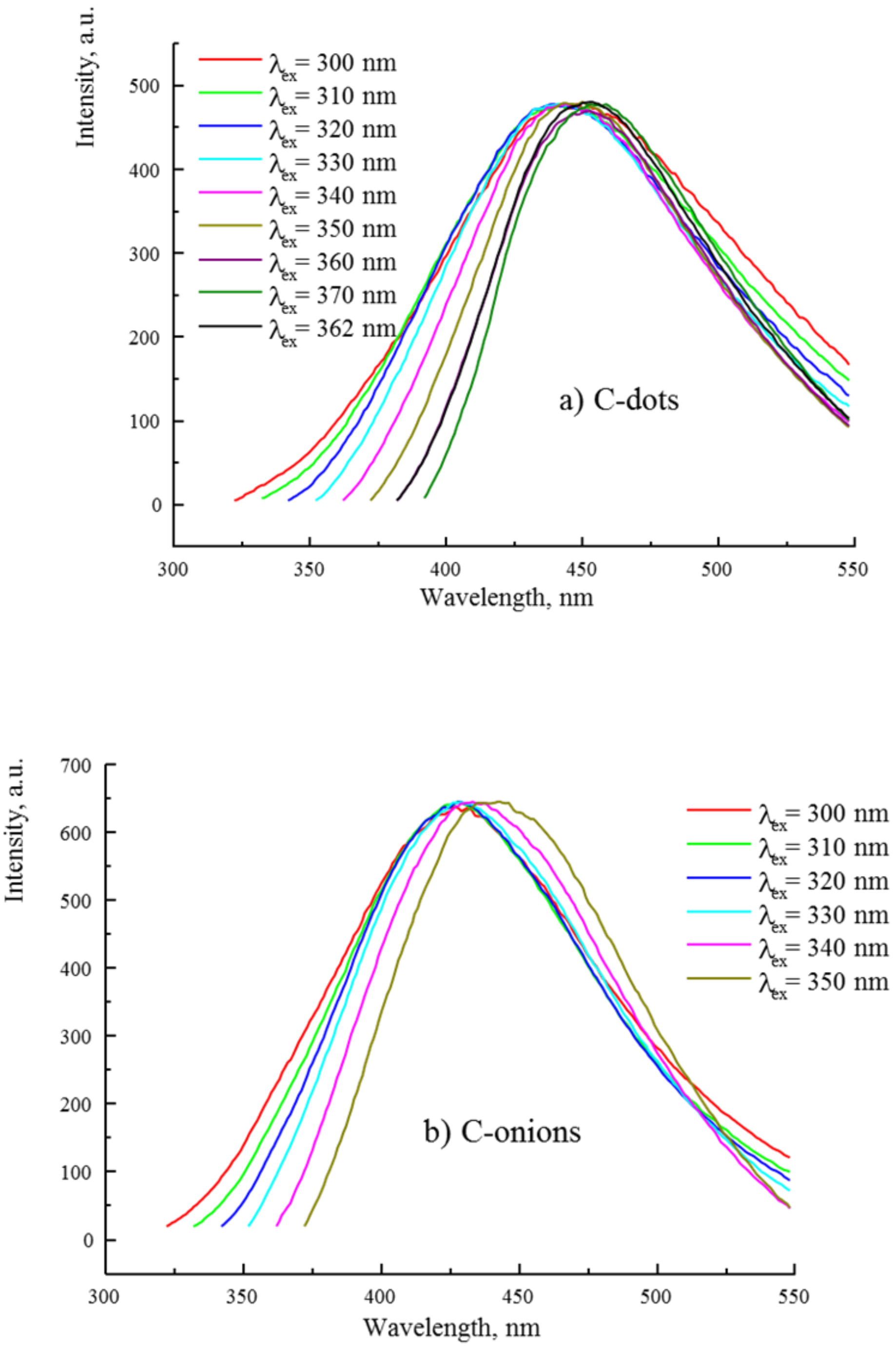

Figure S4: The emission PL spectra of C-NPs obtained from tomatoes under different excitation wavelengths (inset data). a) C-dots obtained in aqueous solution, b) C-onions obtained in 30% (w/v) NaOH. The slit widths of emission and excitation were both 10.

Table S1: Literature values for carbon nanodots and carbon onions obtained from different precursors.

	precursors	quantum yield, ϕ	Ref.
C-dots	citric acid + diethylenetriamine	0.64	[1]
	citric acid + diethylenetriamine + boric acid	0.39	[1]
	citric acid + diethylenetriamine + phosphoric acid	0.70	[1]
	lamp black	0.0087	[2]
	(3-aminopropyl)polyethylene glycol 1500	0.0124	[2]
	tomatoes	0.0132	this work
C-onions	functionalized with BODIPY	0.17	[3]
	functionalized with azomethine ylide	0.08	[4]
	obtained from camphor (burning in low oxygen atmosphere)	0.015	[5]
	obtained from polystyrene foam (burning in low oxygen atmosphere)	0.0165	[5]
	tomatoes + 30% (w/v) NaOH	0.0163	this work

References

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