

## **Electronic Supplementary Material (ESM)**

### **Cyan color -emitting Nitrogen functionalized carbon nanodots (NFCNDs) from *Indigofera tinctoria* and their catalytic reduction of organic dyes and fluorescent ink applications**

Jothi VinothKumar<sup>a</sup>, Ganesan Kavitha<sup>a</sup>, Rajaram Arulmozhi<sup>a</sup>, Velusamy Arul<sup>b</sup>, and  
Natarajan Abirami<sup>a\*</sup>

<sup>a</sup>Department of Chemistry, Faculty of Engineering and Technology, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu-603 203, India.

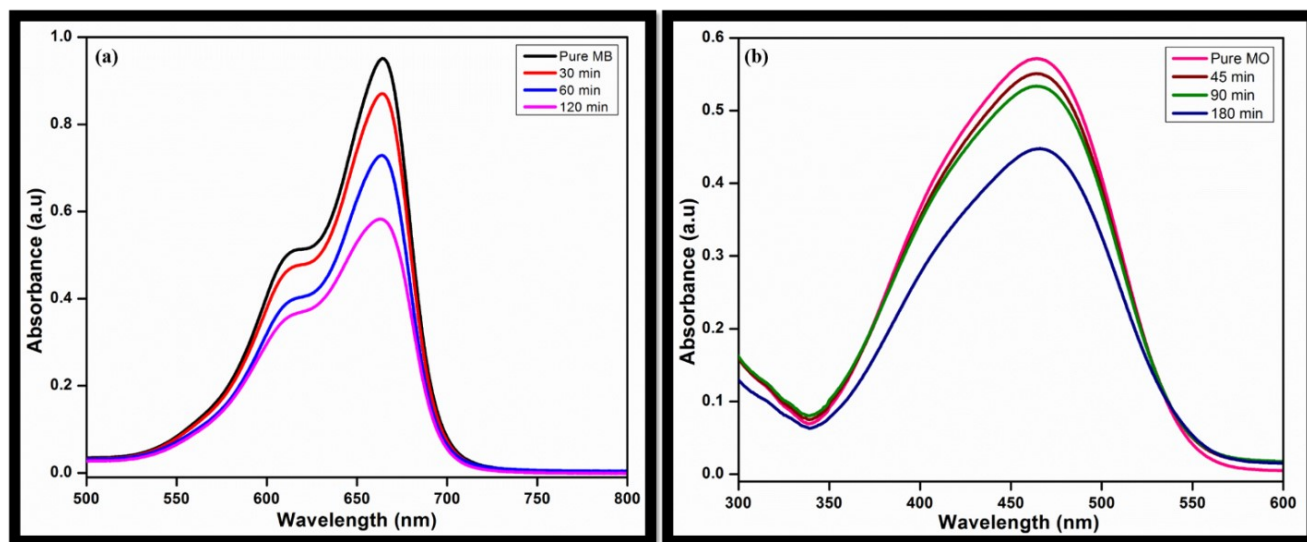
<sup>b</sup>Department of Science and Humanities, Sri Venkateswaraa College of Technology, Vadkkal, Sriperumbudur, Chennai-602 105, Tamil Nadu, India.

\*Corresponding Author: E-mail: abiramin@srmist.edu.in (Dr. N. Abirami)

**Table 1.** Comparison table on QY and fluorescence nature of NFCNDs with previous reports

<b>Precursor</b>	<b>Types of CDs</b>	<b>QY (%)</b>	<b>Fluorescence</b>	<b>Ref.</b>
Tamarind	FL- CDs	6.48	Green	1
Rice Bran	Pure CDs	7.4	Green	2
Apple	Pure CDs	4.27	Blue	3
Streptomycin	N-CDs	7.6	Blue	4
Carrot juice	Pure CDs	5.16	Blue	5
Gynostemma	Pure CDs	5.7	Green	6
Red cabbage	Pure CDs	8.3	Blue	7
<i>Zingiberis rhizoma</i>	Pure CDs	5.2	Green	8
White pepper	Pure CDs	10.4	Green	9
<i>Indigofera tinctoria</i>	N-CDs	12.6	Cyan blue	Present work

Note: FL- Fluorescence; CDs- Carbon dots; N-CDs – Nitrogen Carbon dots.



**Figure ESM 1.** (a) Undoped CNDs for MB (b) Undoped CNDs for MO

## References

- 1 M. A. Jhonsi and S. Thulasi, *Chem. Phys. Lett.*, 2016, **661**, 179–184.
- 2 V. K. Jothi, K. Ganesan, A. Natarajan and A. Rajaram, *J. Fluoresc.*, 2021, **31**, 427–436.
- 3 V. N. Mehta, S. Jha, H. Basu, R. K. Singhal and S. K. Kailasa, *Sens. Actuators, B*, 2015, **213**, 434–443.
- 4 J. Zhou, Z. Sheng, H. Han, M. Zou and C. Li, *Mater. Lett.*, 2012, **66**, 222–224.
- 5 Y. Liu, Y. Liu, M. Park, S. J. Park, Y. Zhang, M. R. Akanda, B. Y. Park and H. Y. Kim, *Carbon Letters*, 2017, **21**, 61–67.
- 6 X. Wei, L. Li, J. Liu, L. Yu, H. Li, F. Cheng, X. Yi, J. He and B. Li, *ACS Appl. Mater. Interfaces*, 2019, **11**, 9832–9840.
- 7 N. Sharma, G. S. Das and K. Yun, *Appl. Microbiol. Biotechnol.*, 2020, **104**, 7187–7200.
- 8 M. Zhang, J. Cheng, Y. Zhang, H. Kong, S. Wang, J. Luo, H. Qu and Y. Zhao, *Nanomedicine*, 2020, **15**, 851–869.
- 9 R. Long, Y. Guo, L. Xie, S. Shi, J. Xu, C. Tong, Q. Lin and T. Li, *Food Chem.*, 2020, **315**, 126171.

