

Supporting Information

Evaluation of anti- rheumatic properties of thymol using carbon dots as nanocarrier on CFA induced arthritic rats

Selvakumar Murugesan ^{a#}, Venkatesan Srinivasan ^{b#}, Dinesh Kumar Lakshmanan ^c,
Meenakshi R. Venkateswaran ^a, Sasidharan Jayabal ^a, MSA Muthukumar Nadar ^d,
Arunkumar Kathiravan ^e, Mariadoss Asha Jhonsi ^{b*}, Thilagar Sivasudha ^{c*},
Sureshkumar Periyasamy ^{a*}

^a Department of Biotechnology, Anna University, BIT-Campus, Tiruchirappalli 620 024, Tamil Nadu, India

^b Department of Chemistry, B. S. Abdur Rahman Crescent Institute of Science and Technology, Vandalur, Chennai – 600 048, Tamil Nadu, India.

^c Department of Environmental Biotechnology, Bharathidasan University, Tiruchirappalli, Tamil Nadu 620 024, India.

^d Department of Biotechnology, School of Biotechnology, School of agriculture and biosciences, Karunya institute of technology and sciences, Coimbatore 641 114, Tamil Nadu, India

^e Department of Chemistry, Vel Tech Rangarajan Dr Sagunthala R & D Institute of Science and Technology, Avadi, Chennai 600 062, Tamil Nadu, India

The authors are equally contributed to the manuscript work

* Corresponding authors (Equal contribution)

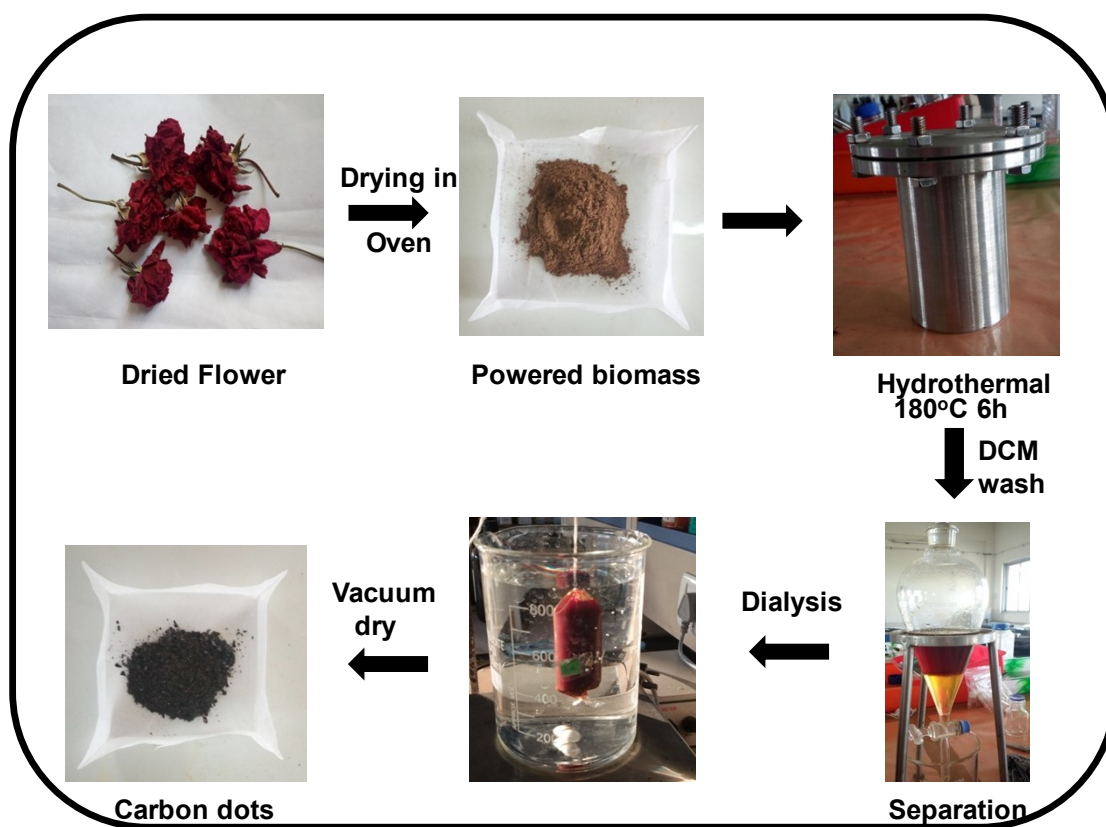
E-mail ID: sudha@bdu.ac.in (Dr. T. Sivasudha)

E-mail ID: drsureshbiotech2003@gmail.com (Dr. P. Sureshkumar)

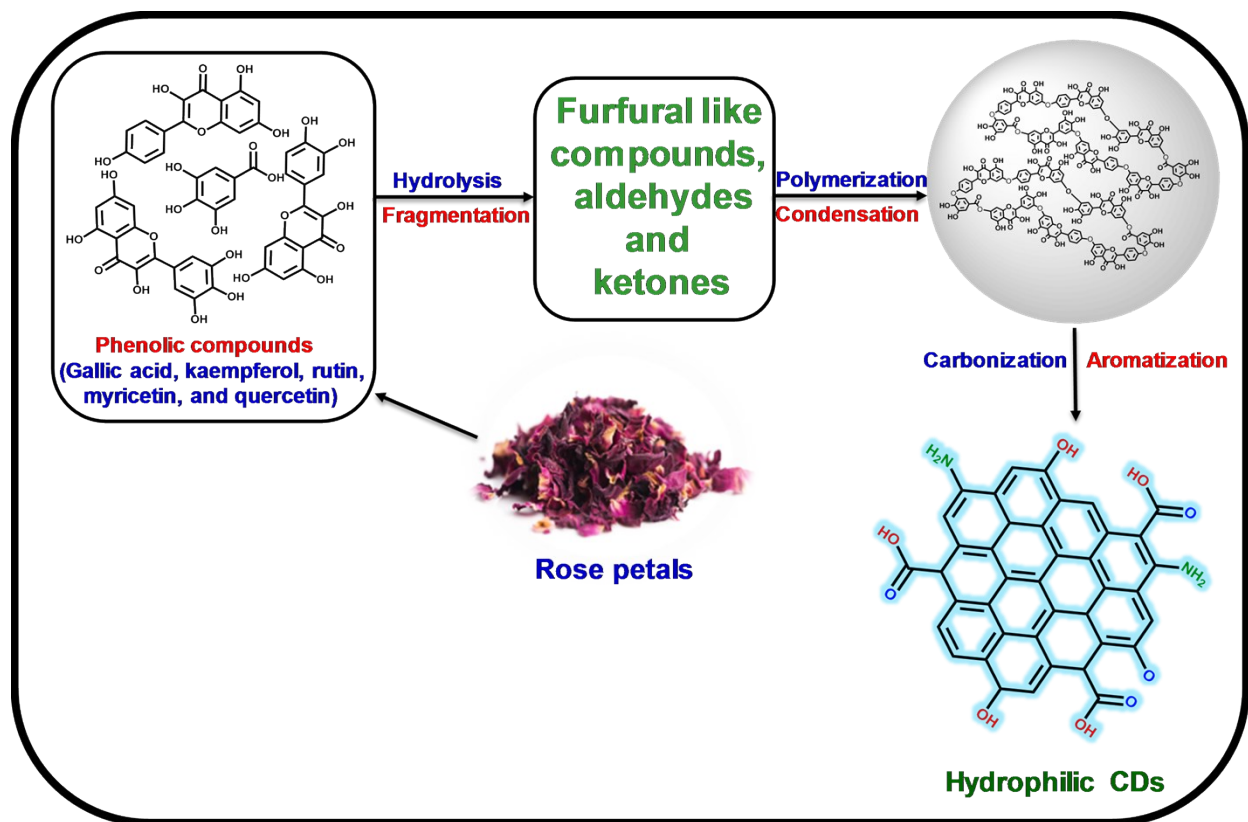
E-mail ID: jhonsiasha@gmail.com (Dr. M. Asha Jhonsi)

Materials

The waste rose petals were collected from the nearby flower market Chennai, India. Thymol was purchased from Sigma and used as such without any further purification. Other chemicals and solvents were of analytical grade and purchased from LOBA Chemicals (India). Milli-Q water was used to prepare the samples for spectral measurements.



Scheme S1: Synthesis of carbon dots.



Scheme S2: Proposed mechanism of carbon dots formation.

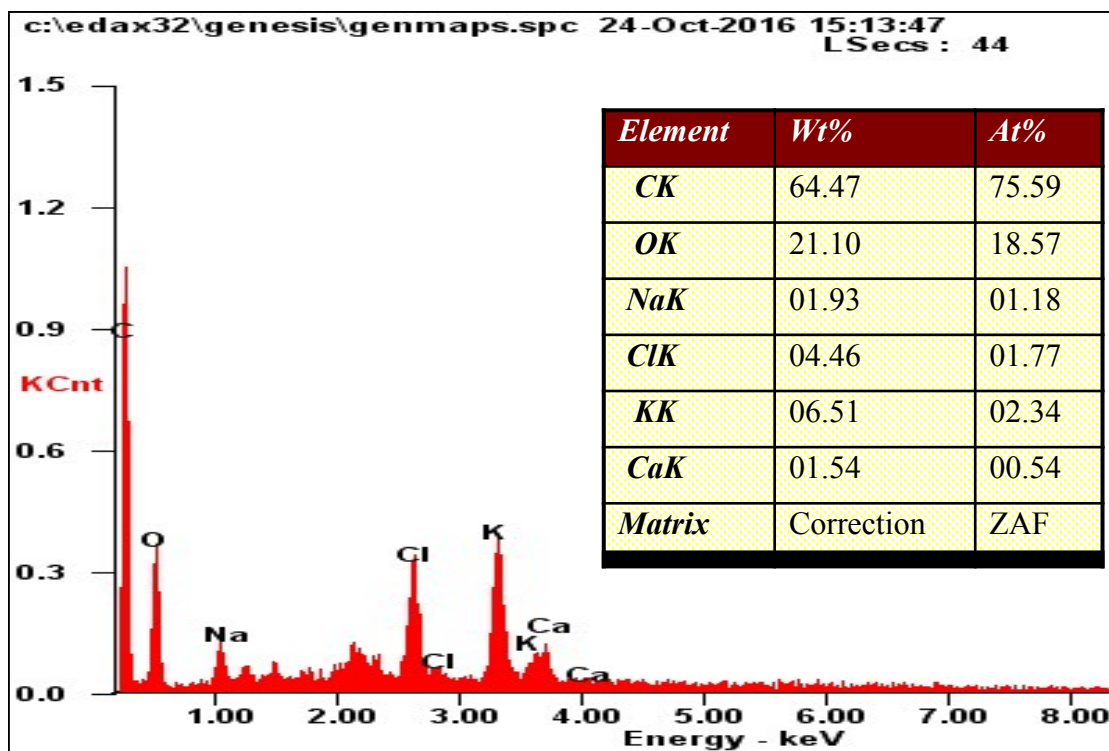


Figure S1. EDX analysis from HR-SEM measurement.

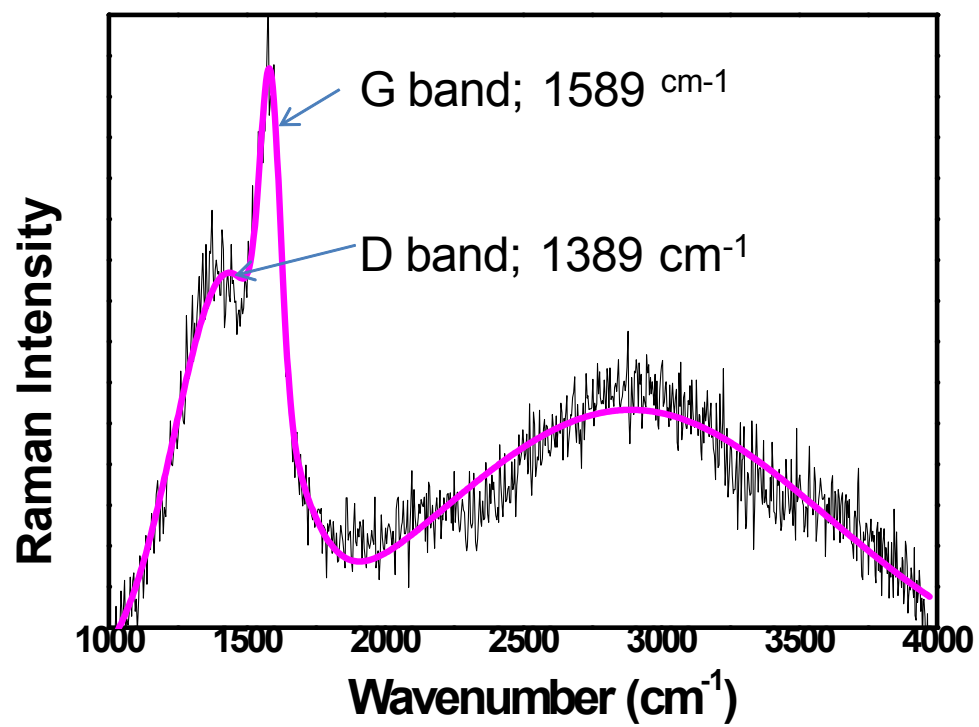


Figure S2: Raman spectrum of CDs.

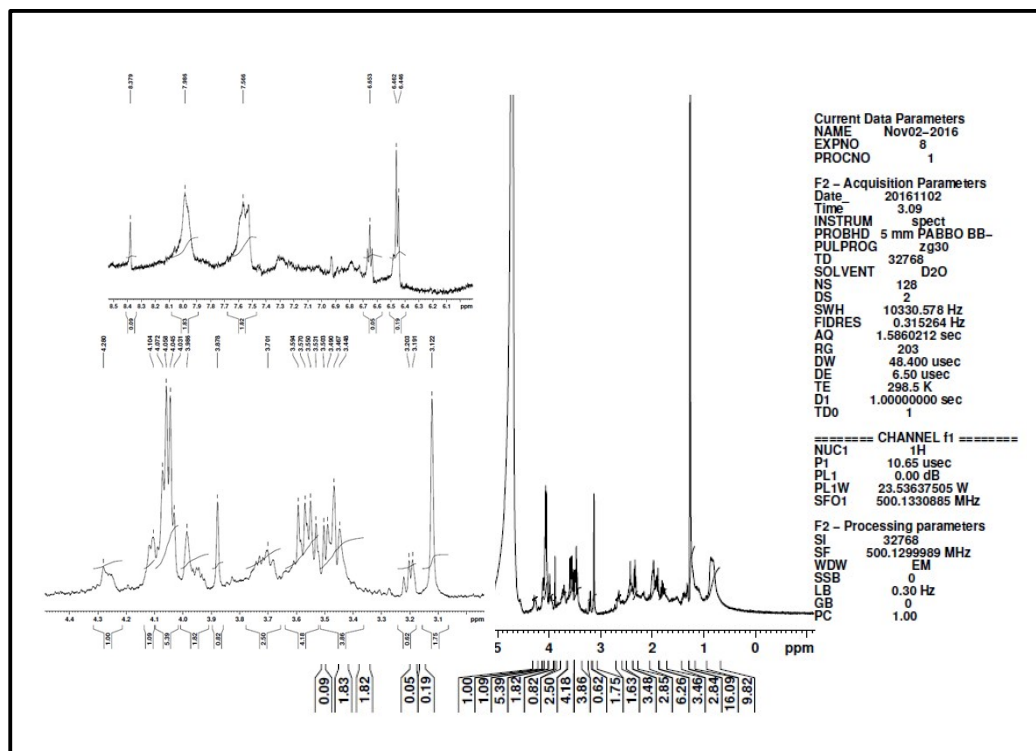


Figure S3. ¹H NMR spectrum of Carbon dots measured in D₂O solvent.

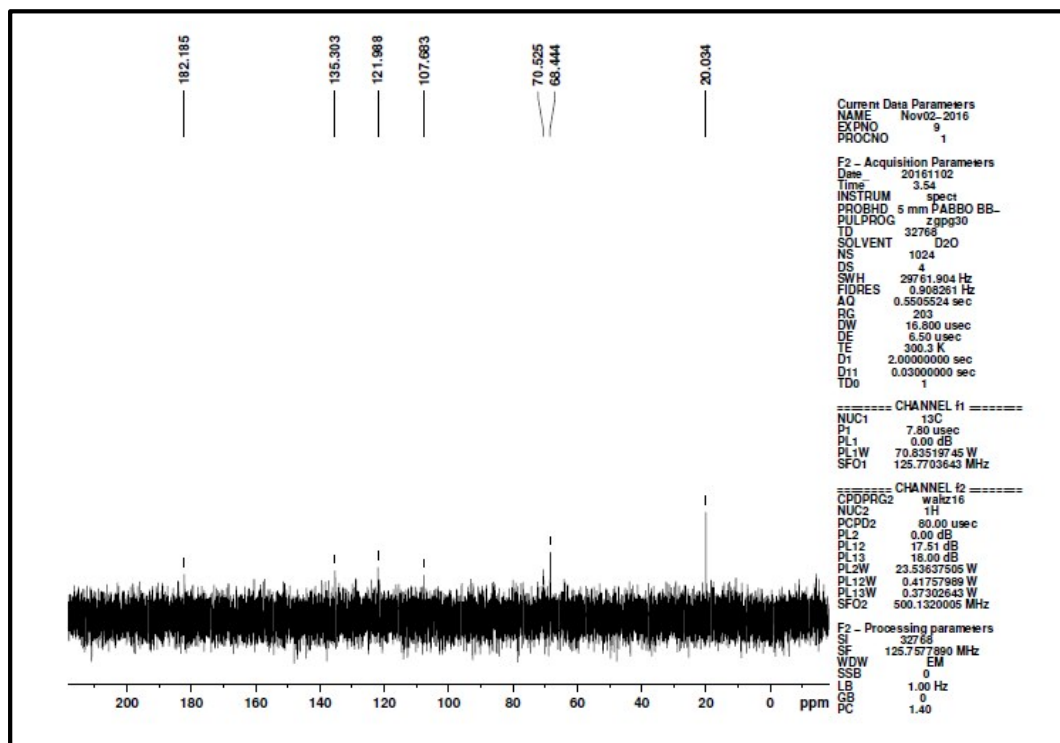


Figure S4. ¹³C NMR spectrum of Carbon dots measured in D₂O solvent.