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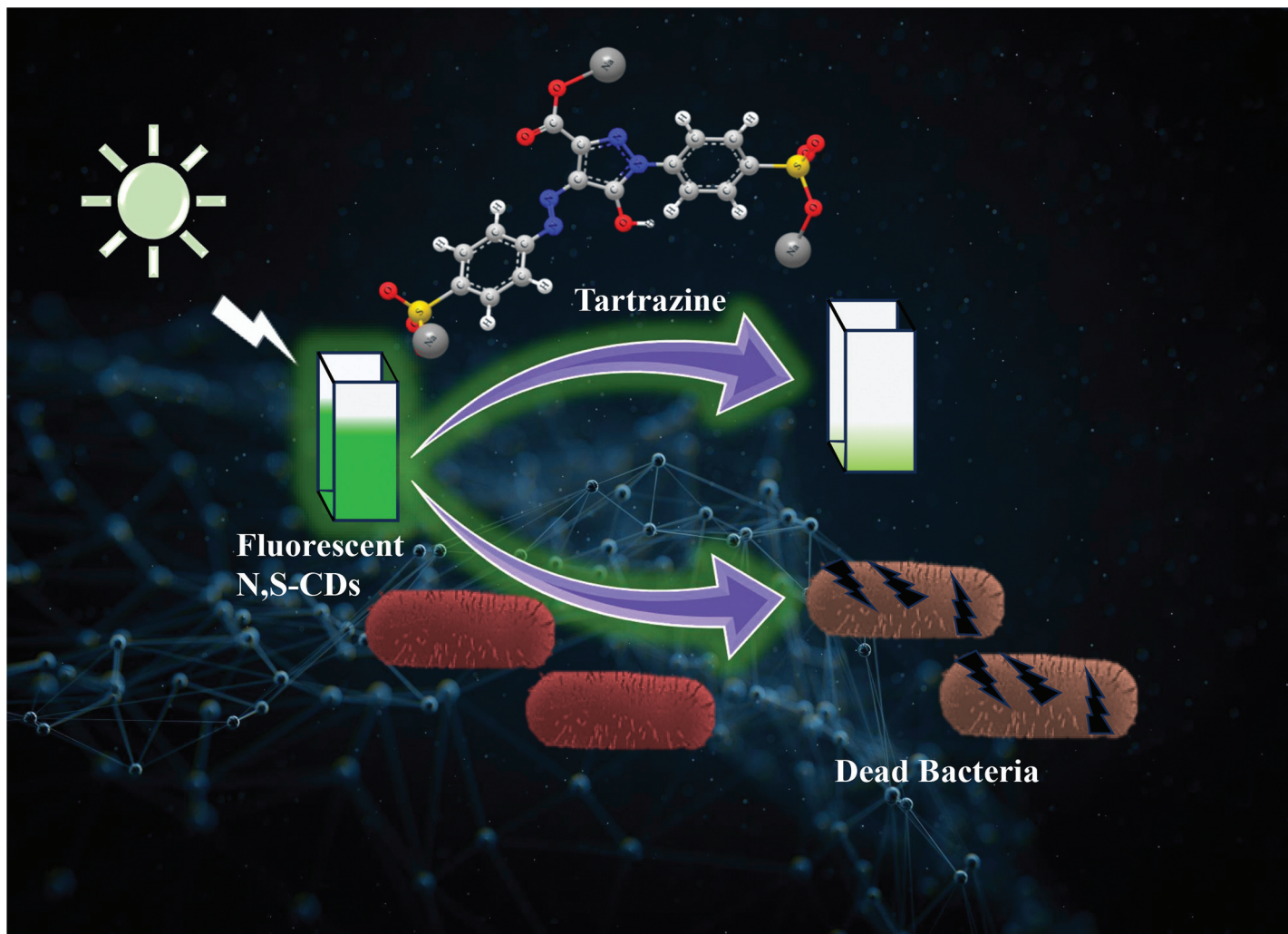
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Showcasing research on carbon dots from Dr Ashis Kumar Jena's laboratory for food adulterants detection and development of antibacterial agents at Maharaja Sriram Chandra Bhanja Deo University, Baripada, Odisha, India.

Green synthesis of N,S-doped carbon dots for tartrazine detection and their antibacterial activities

Fluorescent N,S-doped carbon dots (N,S-CDs) were synthesized by hydrothermal treatment of Gandha Prasari (GP) leaves. These N,S-CDs were used for selective detection of food adulterant tartrazine with a limit of detection of 0.18 μM . The probe was further explored for the real-time sensing of tartrazine in honey and soft drinks. In addition, the N,S-CDs acted as a nano bactericide against both Gram-positive bacteria (*S. aureus*) and Gram-negative bacteria (*E. coli* and *P. aeruginosa*) in the absence of light stimulation and H_2O_2 .

As featured in:



See Ashis Kumar Jena, Swagatika Sahu *et al.*, *Analyst*, 2023, **148**, 5597.