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Research: Designing sensor platforms for bioanalytes through supramolecular chemistry and fluorescence spectroscopy

1. Vidya R. Singh and Prabhat K. Singh. "A Supramolecule based Fluorescence Turn-on and Ratiometric Sensor for ATP in Aqueous Solution", Journal of Material Chemistry B, 2020, 8, 1182-1190, "HOT Paper".

2. Vidya R. Singh, Jotiram N. Malegaonkar, Siddhanath V. Bhosale and Prabhat K. Singh, "An ATP responsive fluorescent supramolecular assembly based on polyelectrolyte and AIE active tetraphenylethylene derivative", Organic and Biomolecular Chemistry, 2020, 18, 8414-8423.

3.Vidya R. Singh and Prabhat K Singh, "A novel supramolecule based fluorescence turn-on and ratiometric sensor for highly selective detection of Glutathione over Cystein and Homocystein", Microchimica Acta, 2020 187, 631.

4. Bhanushree Gupta, Vidya R Singh, Surbhi Verma, Neha Meshram, Leena Dhruw, Rahul Sharma, Kallol K. Ghosh, Ramesh C. Gupta, Nutraceuticals in hunting, sporting and performance enhancing activities, Neutraceuticals for veterinary medicine, Chapter 45, Springer

5. Vidya R. Singh, Shrishti P. Pandey and Prabhat K Singh, "A Polyelectrolyte based supramolecular assembly for ratiometric sensing of ATP with very high discrimination from Pyrophosphate", Journal of Molecular Liquids, 328, 115314, 2021.

6. Vidya R. Singh and Prabhat K Singh, "Poly(styrene-sulfonate) hosted Thioflavin-T aggregates: A turn-on and ratiometric sensing platform for ATP