

## DEPARTMENT OF CHEMISTRY

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### Research Publications

#### Research Papers Published in International Journals:

1. Vijay Luxami, **Akul Sen Gupta** and Kamaldeep Paul, Dansyl-antipyrine dyad as fluorescent sensor for  $\text{Cu}^{2+}$  and  $\text{F}^-$ , Sequential XNOR logic operation, *New J. Chem.*, 2014, **38**, 2841-2846.
2. **Akul Sen Gupta**, Kamaldeep Paul and Vijay Luxami\*, Ratiometric fluorescent chemosensor for fluoride ion based on inhibition of excited state intramolecular proton transfer, *Spectrochim. Acta, Part A*, 2015, **38**, 67-72.
3. **Akul Sen Gupta**, Kamaldeep Paul and Vijay Luxami\*, Benzimidazole based ratiometric chemosensor for detection of  $\text{CN}^-$  and  $\text{Cu}^{2+}$  ions in protic/aqueous system: Elaboration as XOR logic operation, *Inorg. Chim. Acta.*, 2016, **443**, 57-63.
4. **Akul Sen Gupta**, Aparna garg, Kamaldeep Paul and Vijay Luxami\*, Differential sensing of fluoride and cyanide ions by using Dicyano substituted benzimidazole probe, *J. Lumin.*, 2016, **173**, 165-170.
5. **Akul Sen Gupta**, Kamaldeep Paul and Vijay Luxami\*, A fluorescent probe with "AIE + ESIPT" characteristics for  $\text{Cu}^{2+}$  and  $\text{F}^-$  ions estimation, *Sens. Actuators B: Chem.*, 2017, **246**, 653-661.
6. **Akul Sen Gupta**, Kamaldeep Paul and Vijay Luxami\*, ESIPT Coupled RAHB Probe for Estimation of Cyanide in Human Blood Serum/Plasma like Solutions using Chemodosimetric Approach, *Chemistry Select*, 2017, **2**, 800-804.
7. **Akul Sen Gupta**, Kamaldeep Paul and Vijay Luxami\*, A new 'Turn-on' PET-CHEF based fluorescent sensor for  $\text{Al}^{3+}$  and  $\text{CN}^-$  ions: applications in real samples, *Anal. Methods*, 2018, **10**, 983-990.
8. **Akul Sen Gupta**, Gulshan Kumar, Kamaldeep Paul and Vijay Luxami\*, BINOL-based differential chromo-fluorescent sensor and its application in miniaturized 1-2/4-2 bit encoders and decoders, *New J. Chem.*, 2018, **42**, 2491-2497.