

Electronic Supplementary Information†

A Semiconducting Supramolecular novel Ni(II)-Metallogel derived from 5-aminoisophthalic acid low molecular weight gelator: An Efficient Schottky Barrier Diode Application†

Baishakhi Pal,^{a,1} Subhendu Dhibar,^{*b,1} Ritam Mukherjee,^b Subham Bhattacharya,^c Partha Pratim Ray,^{*a} and Bidyut Saha^{*b}

^aDepartment of Physics, Jadavpur University, Jadavpur, Kolkata-700032, India; *E-mail: parthap.ray@jadavpuruniversity.in; Tel: +91 3324572844 (P. P. Ray).

^bColloid Chemistry Laboratory, Department of Chemistry, The University of Burdwan, Golapbag, Burdwan-713104, West Bengal, India *E-mail: sdhibar@scholar.buruniv.ac.in, Tel: +91-7001575909 (S. Dhibar); *E-mail: bsaha@chem.buruniv.ac.in, Tel: +91-9476341691 (B. Saha).

^cDepartment of Chemistry, Kazi Nazrul University, Asansol-713303, West Bengal, India.

† BP and SD should be treated as joint first authors.

Stability of the Ni@5AIA metallogel in different pH media:

We conducted experiments to evaluate the stability of Ni@5AIA metallogel in different pH environments, including an acidic medium using hydrochloric acid (HCl) solution and an alkaline medium using potassium hydroxide (KOH) solution. In the acid medium experiments, we varied the pH of the gel by adding HCl solution ranging from 6.21 to 2.37. During these tests, we observed that the stability of the Ni@5AIA metallogel was compromised at a pH of 2.37. Similarly, in the alkaline medium experiments, we examined the gel's stability using KOH solution with pH ranging from 6.21 to 13.20. Our observations revealed that the gel lost its stability at a pH of 13.20.

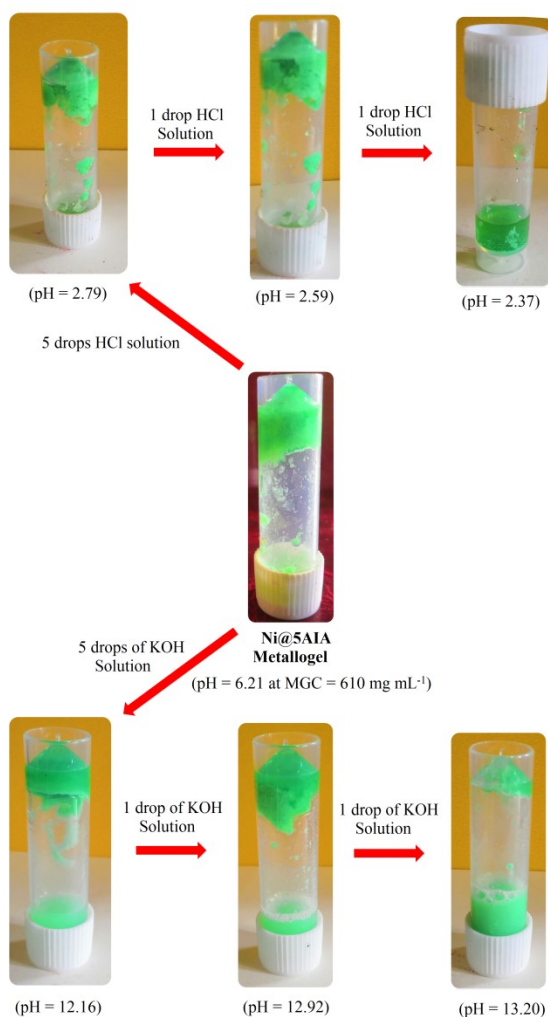


Fig. S1. Stability studies of the Ni@5AIA metallogel in different pH media.