Electronic Supplementary Material (ESI) for New Journal of Chemistry.

A novel sensitive and selective chemosensor for fluorescent detection of Zn^{2+} in cosmetics creams based on covalent post functionalized Al-MOF

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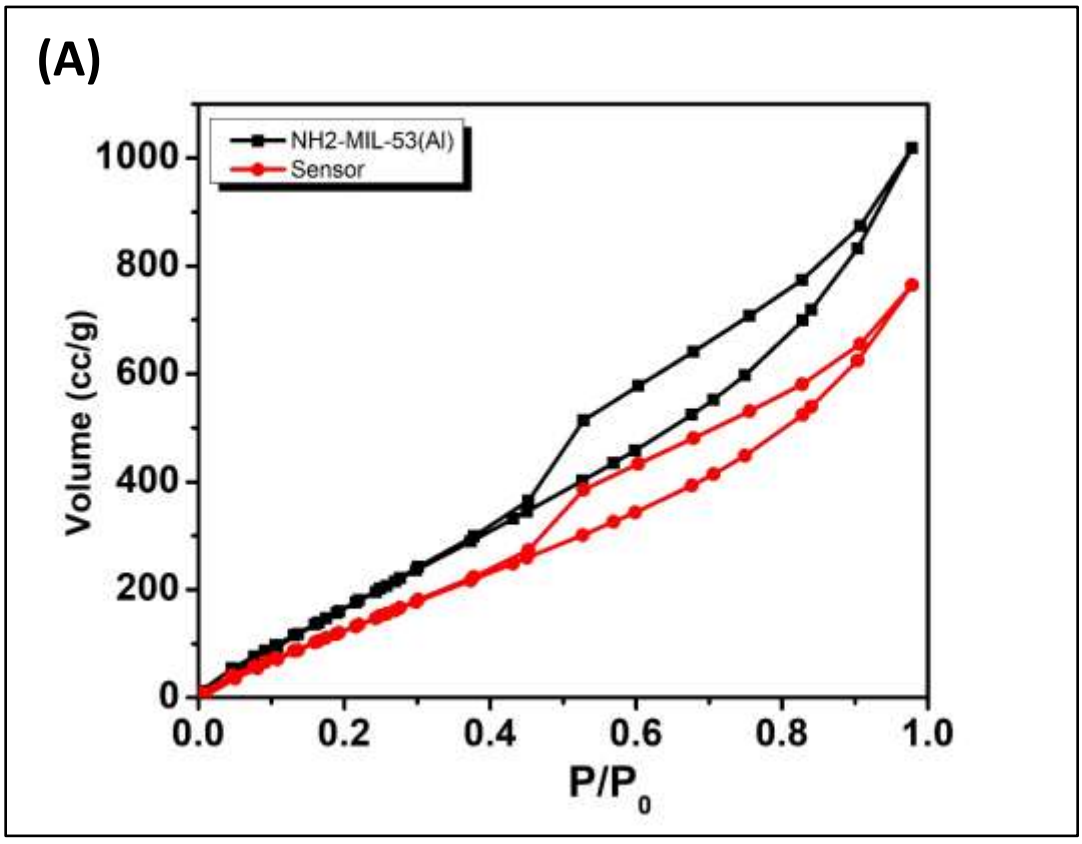

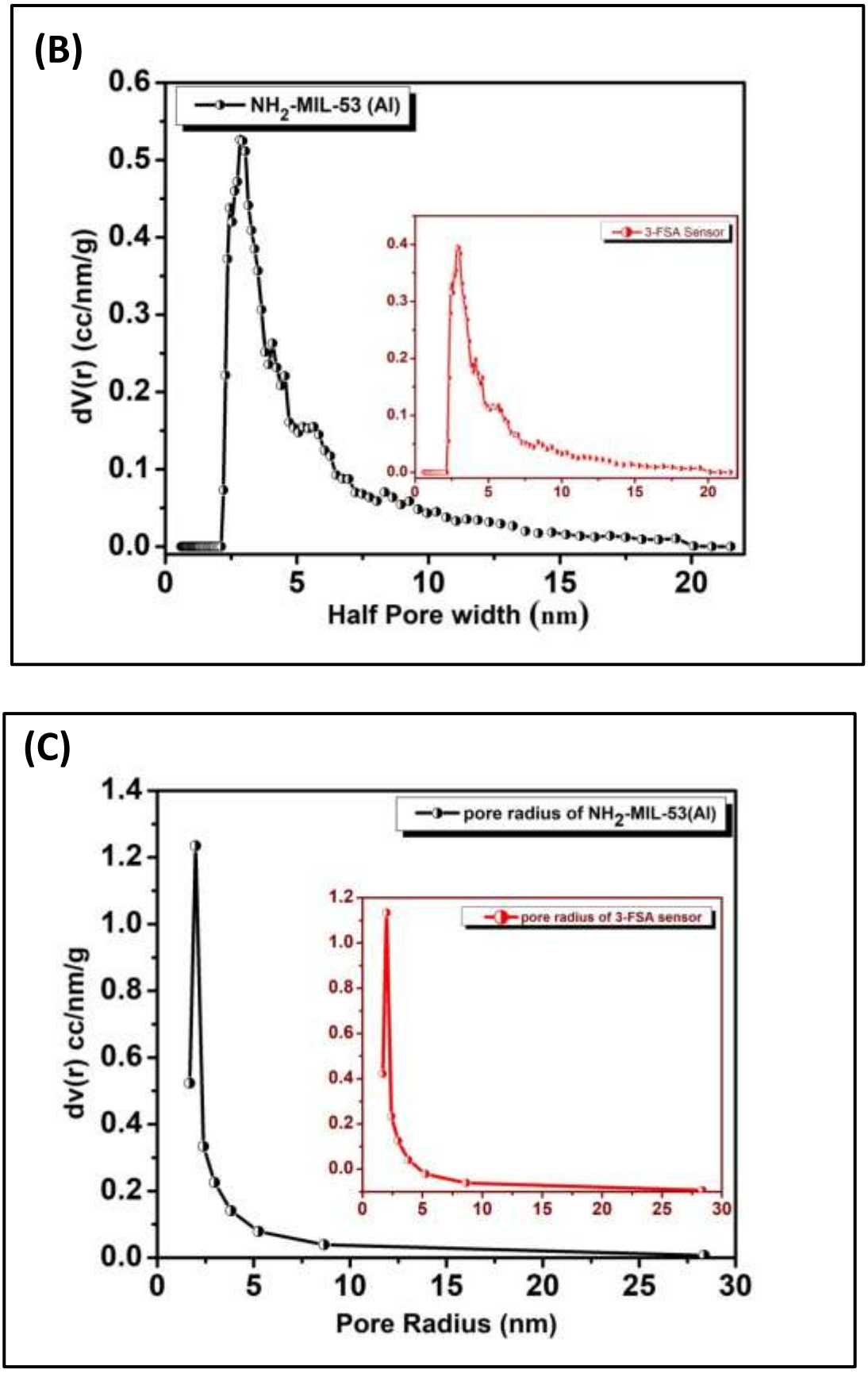

Fig. S1 Nitrogen adsorption isotherms (A) pore size distribution with DFT method (B) and with BJH desorption method (C) of NH_2-MIL-53(Al) and 3-FSA sensor.

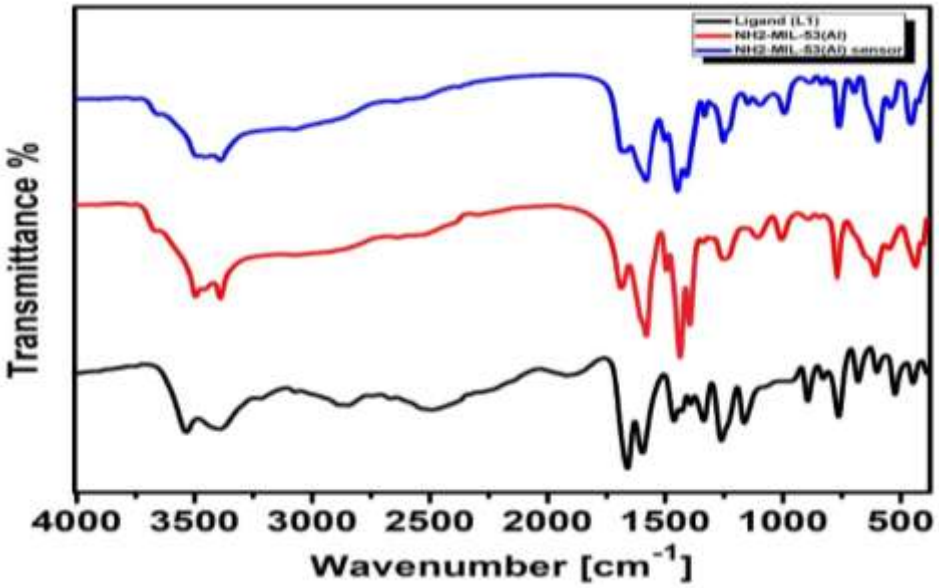

Fig. S2: FT-IR spectra of the NH_2-MIL-53(Al), 3-FSA and 3-FSA sensor.

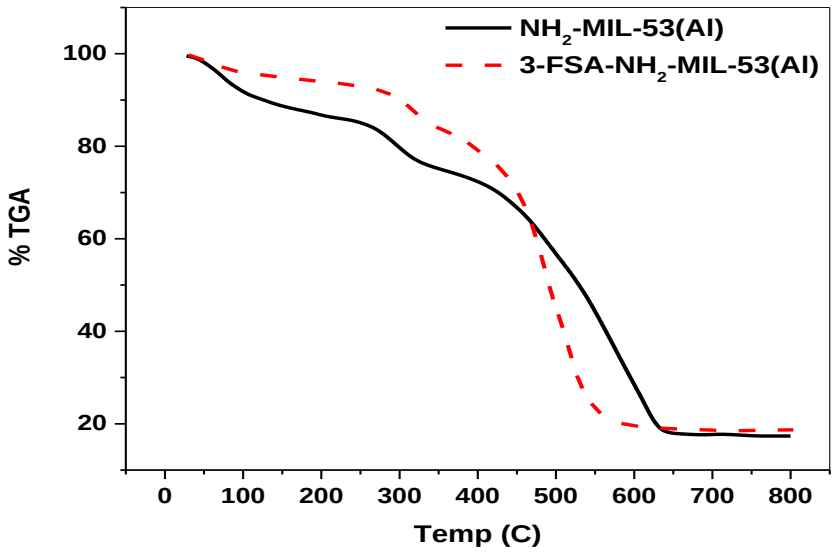

Fig. S3: TGA curve of the NH_2-MIL-53(Al) and 3-FSA and 3-FSA sensor.

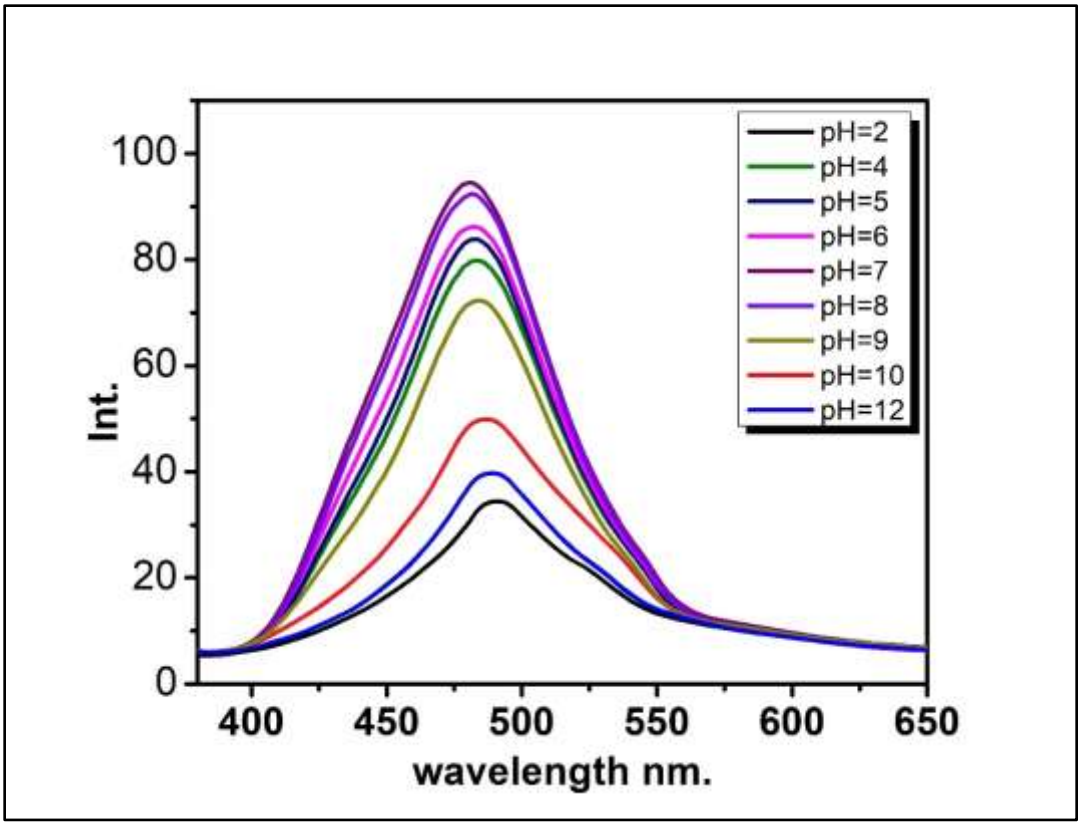

Fig. S4. Emission spectrum for the 3-FSA sensor with different pH at λ_{ex}=380 nm.

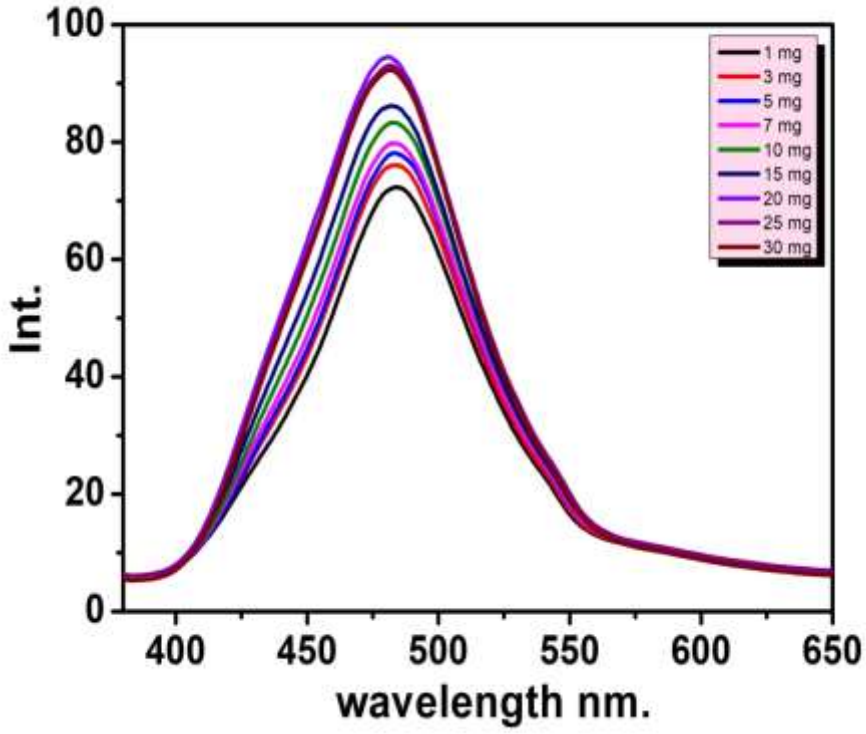

Fig. S5: Influence of 3-FSA sensor amount on the emission intensity of the sensor.

Table S1: List of some cosmetic creams commonly used in Egypt.

S/N	Sample code	Name of creams	Name of manufacturer	Quantity in pack	Zn (g) in (1 gram)
01	01CC	Hipanthen plus cream	Pixel Pharmaceuticals & Cosmetics, Egypt	60 gm	0.016
02	02CC	Procto- lidocine	Amriya Pharm.IND, Egypt	20 gm	0.0289
03	03CC	Lidocaine ointment	Zuche Pharmaceuticals Private Limited, India	15 gm	0.04
04	04CC	Zincosil	Misr comp. for Pharmaceuticals, Egypt	20 gm	0.06
05	05CC	Zira gel	BORG Pharmaceuticals IND, Egypt	20 gm	0.000356
06	06CC	Insect Bite gel	Pharaonia Pharmaceuticals, Egypt	20 gm	0.00356