Supplementary Information

Figure S1. Capacitance measurement.

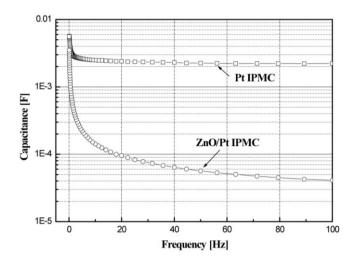


Figure S2. Electro-mechanical property of **(a)** Pt IPMC and **(b)** IPMZC: the out potential (blue) and corresponding displacement result (black) in applied current input (-200 to 200 mA).

Actuation Response

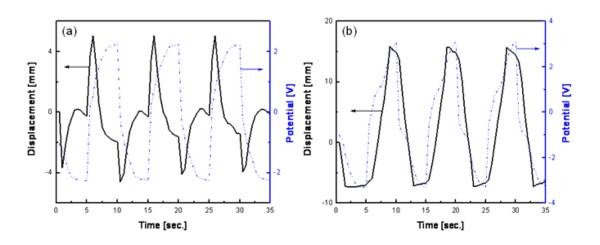


Figure S3. Mechano-optical property of IPMZC: PL intensity (PLI) at the curvature of 50.25/m.

