

### **Description of Additional Supplementary Files**

**Supplementary Movie 1.** This movie demonstrates the ML performance of five individual fibers composed of PDMS, EF, and DS used in a fabric-type ML sensor. Each ML fibers are subjected to strain up to its maximum elastic range. The movie visually illustrates that the elastic range follows the order PDMS < DS < EF. At maximum elasticity, each sensor exhibits bright ML emission, and EF and DS maintaining high brightness even under high elastic conditions