

Electronic Supplementary Information (ESI)

**Multispectral Upconversion Nanoparticles
for Near Infrared Encoding of Wearable Devices**

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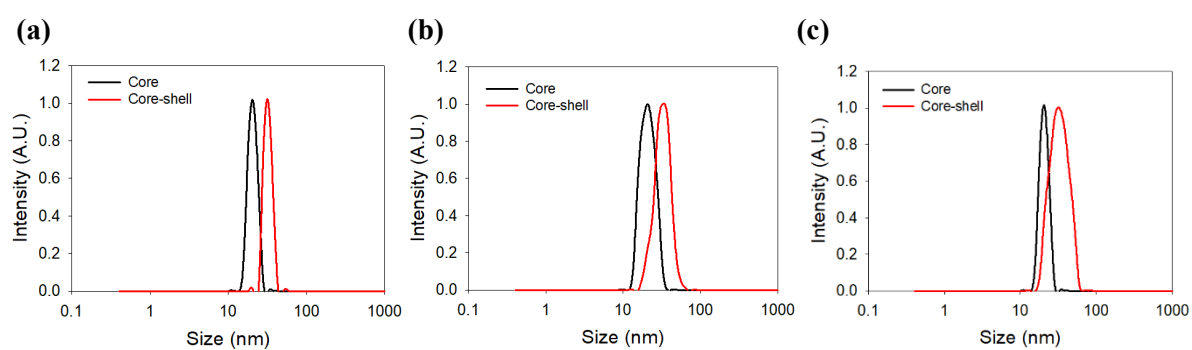


Figure S1. Dynamic light scattering analysis for the particle size of (a) rUCNPs, (b) gUCNPs, and (c) bUCNPs.

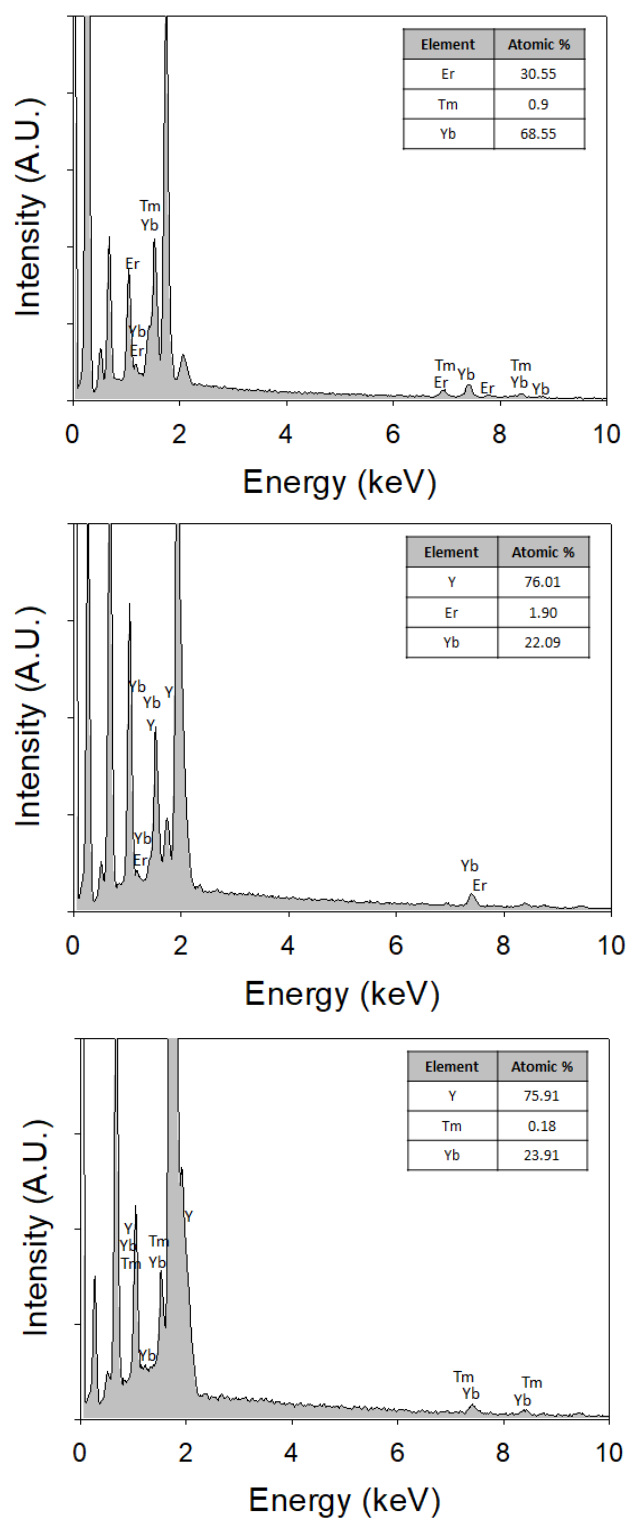


Figure S2. EDS spectra of (a) rUCNPs (b) gUCNPs and (c) bUCNPs.

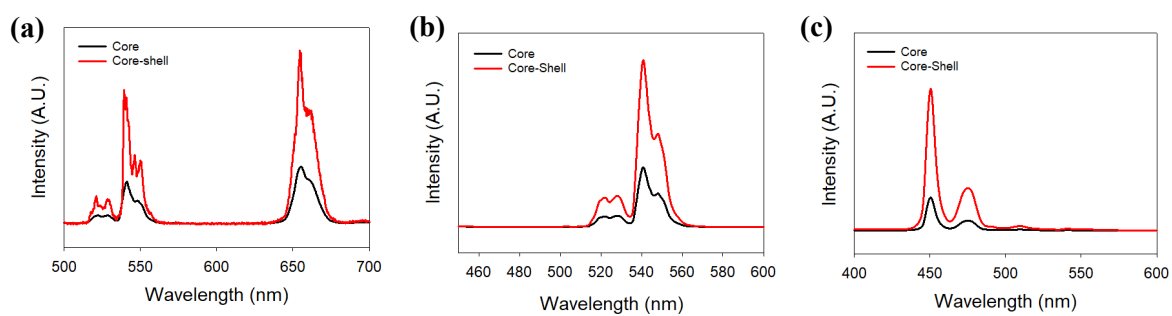


Figure S3. The photoluminescence intensity of core and core-shell (a) rUCNPs, (b) gUCNPs and (c) bUCNPs.

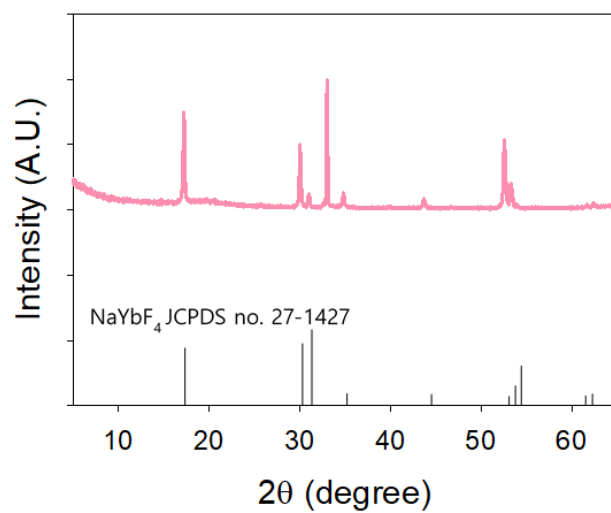


Figure S4. XRD patterns of the NaYbF₄:Er,Tm.