Supporting Information for

Arrays of TiO_2 nanospheres monolayer on GaN-based LED for the improvement of light extraction

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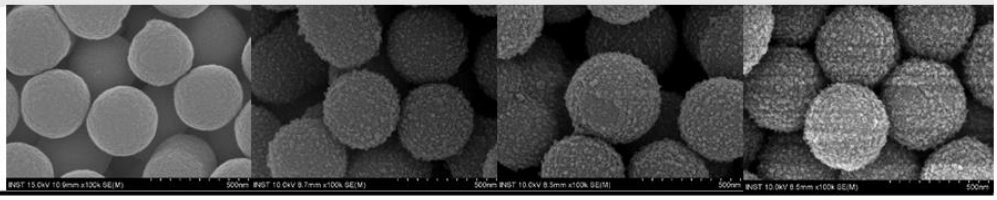
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Table S1. Summary of synthesized TiO_2 nanospheres sizes according to amount of the injected DIW.

DIW	108 µl	102.6 µl	97.2 µl	**91.8 µl**
Diameter	~350 nm	~390 nm	~490 nm	~420 nm
SEM image				

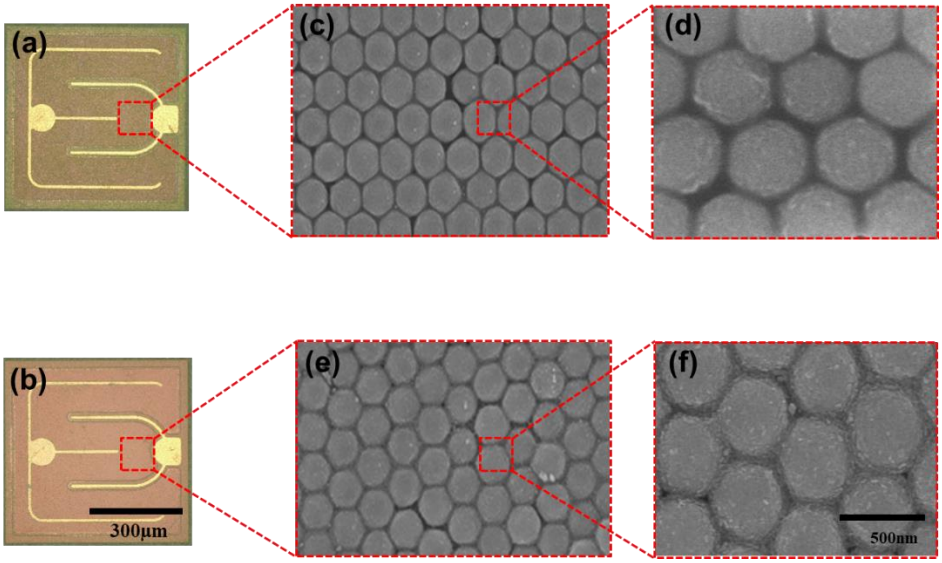


Figure S1. (a) and (b) Optical microscope image of the TiO_2 nanosphere arrays on blue LED chip with Am- and An-TiO_2 nanosphere. (c, d) and (e, f) show the SEM images of 500nm size Am- and An-TiO_2 nanosphere arrays on p-GaN substrate, respectively.

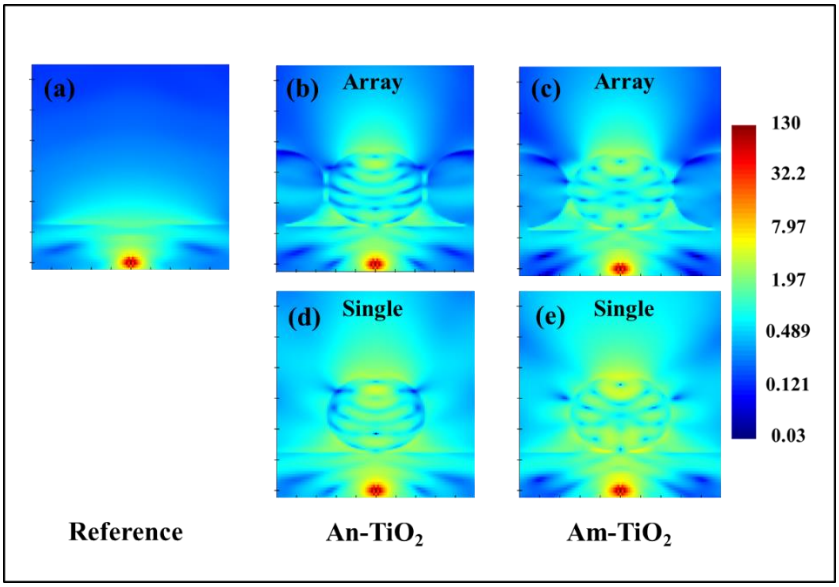


Figure S2. (a-c) FDTD simulation results of compares cross sections of the power field for general planar LED and LEDs with Anatase-, Amorphous-TiO_2 sphere array (d, e) Anatase, Amorphous-TiO_2 single sphere cross section image.