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Towards high-powered remote WLED based on flexible white-luminescent polymer composite films containing S, N co-doped graphene quantum dots

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# **ACCEPTED MANUSCRIPT**

#### Towards high-powered remote WLED based on flexible

### white-luminescent polymer composite films containing S, N co-doped

#### graphene quantum dots

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## Abstract

In this article, a new application of using S, N co-doped graphene quantum dots (S, N-GQDs) as ideal color converters in solid-state white light-emitting diode (WLED) is reported. To this end, the S, N-GQDs with an average diameter of ~4.46 nm are obtained by a hydrothermal approach using citric acid and thiourea as source materials. The PL spectra of S, N-GQDs show an excitation-independent behavior in the range of 300–380 nm. Under UV illumination, the S, N-GQDs display intense blue-light with the quantum

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