

Supporting

1. UV-WLED parameters: using model SMD 2835 370nm LED chip, power 0.2W, forward voltage 2.8-3.8V, current 60mA, luminous area 9.8mm², luminous angle 120°. The spectral pattern of electroluminescence with currents from 60 mA.

2. Discussing the EL results with current literature

sample	CIE	CCT	R _a	
GaN chip+ Rb ₃ Na(Li ₃ SiO ₄) ₄ :8%Eu ²⁺	(0.283,0.313)	8743K	-	¹
415nmLED+BaScO ₂ F:Bi ³⁺ ,K ⁺ +Sr ₃ SiO ₅ :Eu ²⁺	(0.3480,0.3343)	4811K	85	²
UV chip(395nm)+BaMgAl ₁₀ O ₁₇ :Eu ²⁺ +Cs ₂ Hf _{1-x} Te _x Cl ₆	(0.3272,0.3367)	5741K	81.9	³
UV chip+ Cs ₄ MnBi ₂ Cl ₁₂ + BaMgAl ₁₀ O ₁₇ :Eu ²⁺	(0.35,0.36)	4510K	82	⁴
Lu ₃ Al ₅ O ₁₂ :Ce ³⁺				
UV chip(370nm)+ Sr ₅ (PO ₄) ₃ Cl:Eu ²⁺	(0.32,0.27)	6250K	82	This work
SrLa ₂ Sc ₂ O ₇ :Bi ³⁺				
UV chip(370nm)+ Sr ₅ (PO ₄) ₃ Cl:Eu ²⁺	(0.34,0.30)	4879K	91.3	This work
SrLa ₂ Sc ₂ O ₇ : Bi ³⁺ ,Li ⁺				

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