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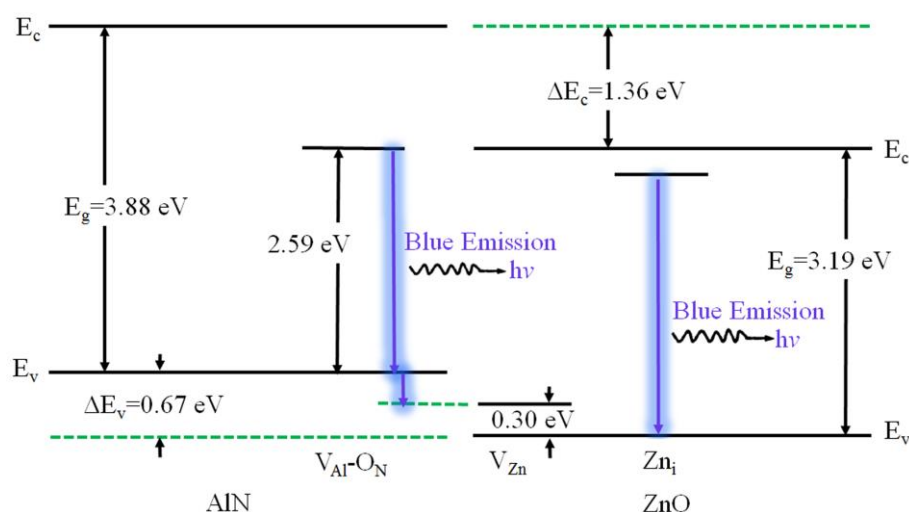
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Defect-related photoluminescence emission from annealed ZnO films deposited on AlN substrates

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Graphical Abstract



Highlights

- ZnO film is deposited on AlN substrates based on both have individual excellent optical properties.
- Electron transitions from V_{Al-O_N} defect energy level in AlN to the Zn vacancies deep levels in ZnO induce blue emission.
- Excellent blue emissions are obtained due to the synergistic effect between ZnO and AlN.

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