

NYAG (GARNET) PRODUCT FAMILY



Intematix yellow and green NYAGs (Garnets) are among the highest efficiency phosphors in the industry. While the high brightness, thermal stability and reliability make yellow NYAGs a standard in phosphor-converted LEDs, the green NYAGs offer many of the same benefits. These features make NYAG ideal for every application from mobile devices to general lighting. With the addition of green NYAG to the portfolio, higher efficiency warm white lighting is now possible. Intematix NYAG is available in different particle size ranges so you can choose the size that best fits your deposition process and packaging requirements.

Features

- High efficiency, >95%
- Uniform particle morphology
- Choice of yellow and green wavelengths, 531-566nm
- Resistant to heat and humidity

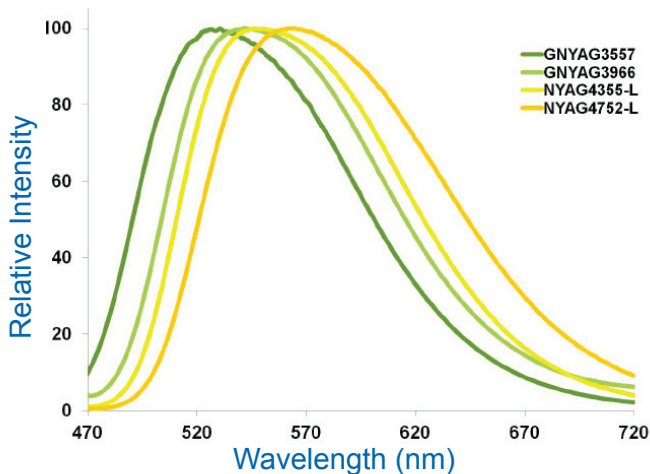
Benefits

- High lumens/watt for cool white
- High yield LED package manufacturing
- New green enables efficient warm white with shorter wavelength red
- Proven solution for both backlighting and general lighting

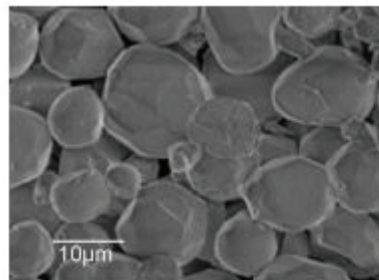
Applications

- Display Backlighting
 - TV and monitor
 - Tablet PC and mobile display
- General Lighting
 - LED retrofit lamp
 - Commercial / industrial
 - Street lighting
- Automotive Lighting
 - Head lamps, Daytime Running Lamps (DRL)
 - Back-up lamps

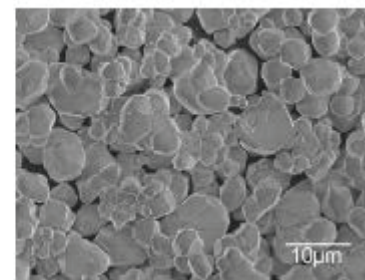
Extensive Spectral Distribution



Superior Particle Morphology



Large particle, 13 μ m



Small particle, 8 μ m

Intematix NYAG Phosphor Product Line

Large particle NYAGs for high power LEDs

Product	Peak Wavelength	Color Point		Particle Size
	λ_p (nm)	CIE _x	CIE _y	D50V (μ m)
NYAG4056-01-13	542	0.403	0.559	13.5
NYAG4156-L	543	0.400	0.560	11
NYAG4255-01-13	545	0.418	0.554	13
NYAG4355-L	551	0.426	0.548	13.5
NYAG4354	554	0.433	0.543	13
NYAG4454-L	558	0.444	0.536	13.5
NYAG4454-EL	560	0.448	0.533	14
NYAG4653-L	563	0.458	0.526	12.5
NYAG4752-L	566	0.465	0.521	13

Small particle NYAGs for small packages or conformal deposition

NYAG3757-01-08	538	0.368	0.567	8
NYAG4156-S	544	0.403	0.558	8
NYAG4255-01-B08	545	0.417	0.554	8.5
NYAG4355-01-B08	550	0.426	0.548	8.5
NYAG4355-ES	551	0.425	0.548	6
NYAG4454-03-B08	558	0.444	0.536	8.5
NYAG4653-S	562	0.458	0.526	8

Green NYAG for 80 CRI Lighting

GNYAG3557-01-11	526	0.345	0.569	11
GNYAG3657-01-11	531	0.361	0.568	11
GNYAG3757-01-11	534	0.371	0.566	11
GNYAG3856-01-13	538	0.380	0.564	13
GNYAG3956-01-11	540	0.394	0.562	11
GNYAG4056-01-11	543	0.403	0.558	11