



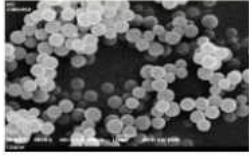


Phosphor For LED

Product	CE	Color Coordinates x, y (±0.02)	D50 Index	Peak Wl (nm)
 SeVGA Sulfide Vibrant Garnet Activator	WG367	0.367	0.574	530
	WG374	0.374	0.573	531
	WG386	0.386	0.566	537
	WG396	0.398	0.564	544
 LuAG LuAG Garnet Activator	WL346	0.346	0.598	530
	WL358	0.358	0.581	535
	WL373	0.373	0.572	540
 YAG YAG Garnet Activator	WY418	0.418	0.554	545
	WY424	0.424	0.547	549
	WY436	0.436	0.544	553
	WY444	0.444	0.538	555
 Garnet Garnet Activator	WD457	0.457	0.527	562
	WD466	0.466	0.521	564

Nano Phosphor Powder



Composition YAG, LuAG
Particle Size 450~550nm
Peak Wavelength 510~550nm

Ceramic Phosphor Plate

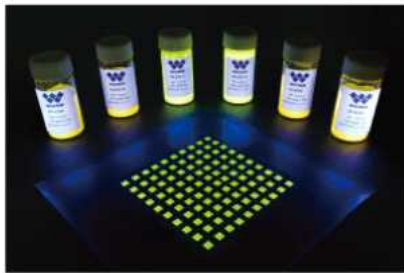


Composition YAG, LuAG with additives
Theoretical Density 98%
Thickness 100~1000 MICRO
Form circle, square, donut, etc

 **WOOSUK**

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WOOSUK Advanced materials Div.

Since 2012, Woosuk started in manufacturing inorganic materials and we are focusing to develop new advanced technologies and to introduce various products continuously.

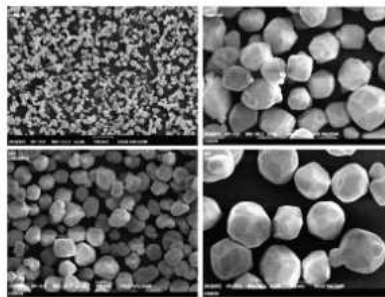
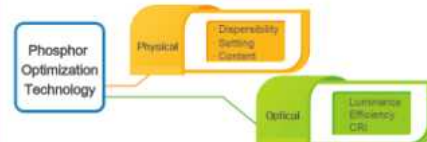
Woosuk is renowned as a role model of inorganic material industry for its achievement in providing great quality products and new advanced materials in the market.

Woosuk Advanced Material Department devoted itself to the fields of inorganic material Phosphor by continuous researching and development. Supporting technology by analysis equipments facilitate not only producing high quality Nano Phosphor but its application of Ceramic Plate.

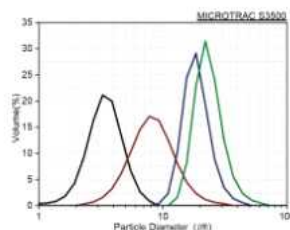
If there is ever anything that we can do better meet your needs, we continue to develop and introduce new advanced materials.

Garnet-based Phosphor Powder

Customized Phosphor powders are available



	Size Distribution	D ₁₀	D ₅₀	D ₉₀
Fine Size	Number [μm]	0.3	0.4	0.5
	Volume [μm]	0.6	3.3	5.5
	Size Distribution	D ₁₀	D ₅₀	D ₉₀
Small Size	Number [μm]	3.1	5.1	6.0
	Volume [μm]	4.8	7.4	11.4
	Size Distribution	D ₁₀	D ₅₀	D ₉₀
Standard	Number [μm]	8.8	12.3	16.9
	Volume [μm]	10.8	15.0	21.8
	Size Distribution	D ₁₀	D ₅₀	D ₉₀
Big Size	Number [μm]	15.0	19.6	26.1
	Volume [μm]	17.3	23.0	33.1

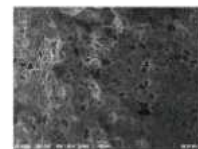


Ceramic Phosphor Plate

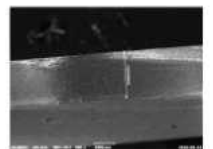
According to our unique advanced technology of mixing & sintering materials, introducing the nano-sized garnet phosphor(YAG, LuAG Doped with activators) materials.

Technical Characteristics

- High crystallized
- High uniformity
- Low and quick sintering temperature
- Intimacy with inorganic chemical additive
- Granule for high density & low porosity ceramics



Sintered YAG surface



Polished YAG product

Applications

- Conformal coating for LED
- Converting ceramics for LED
- Converting ceramics for laser

