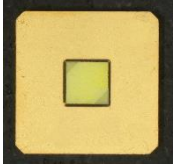


EPOCH (MGC)

Unrivaled New Phosphor for the Brightest White-Light

Applications

- ✓ **Automobile Headlight**
- ✓ **Projector**
- ✓ **Solid-state Illumination**



EPOCH-Neo (MGC) Device



What's EPOCH? EPOCH is the BEST Phosphor

EPOCH is a melt growth composite (MGC) consisted of single crystalline Ce:YAG phosphor and light guide. Two materials are continuously tangled with each other without any organic binder, air space, nor boundary layer. Yellow light emitted from Ce:YAG, which is excited by blue LEDs and LDs, is effectively guided via transparent light guide. Thus, white light emission is obtained in the most efficient way.

EPOCH DEVICE consists of EPOCH and a heat sink, specially designed by the expertise of OXIDE for superior heat dissipation. EPOCH has high thermal conductivity and thus EPOCH DEVICE can withstand high power irradiation of blue LD.

Advantages

- ✓ **High Thermal Conductivity**
- ✓ **Ultra-High Brightness**
- ✓ **High Durability**

Characteristics of Phosphors

| Ce:YAG structure | Single Crystal | EPOCH |
|-----------------------------|----------------|----------------|
| Color coordinates (x, y) | (0.417, 0.556) | (0.426, 0.550) |
| Luminous efficacy (lm/W) | < 100 | > 100 |
| Thermal conductivity (W/mK) | 13 | ~20 |
| Heat resistance | strong | strong |

OXIDE

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Tel: +81-551-26-0022, Fax: +81-551-26-0033



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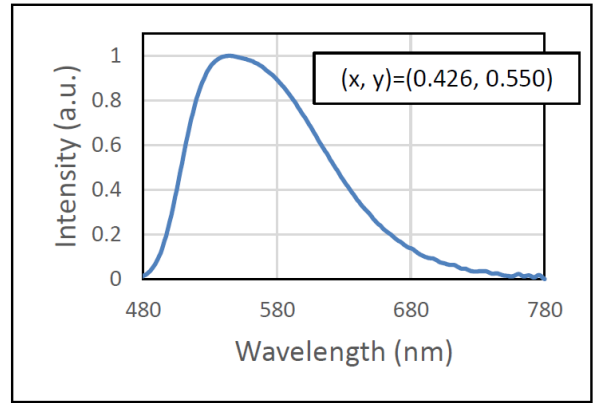
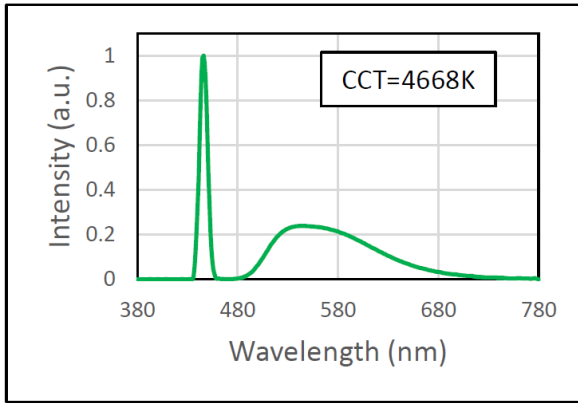


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Oxide Yamanashi

Photoluminescence of EPOCH



Excitation wavelength : 452 nm

Principle of EPOCH-Neo Phosphor

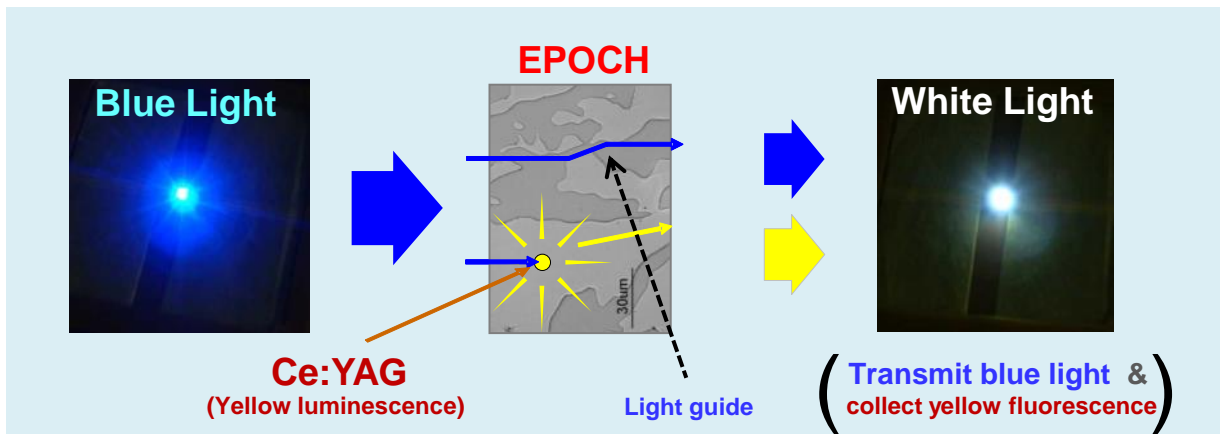
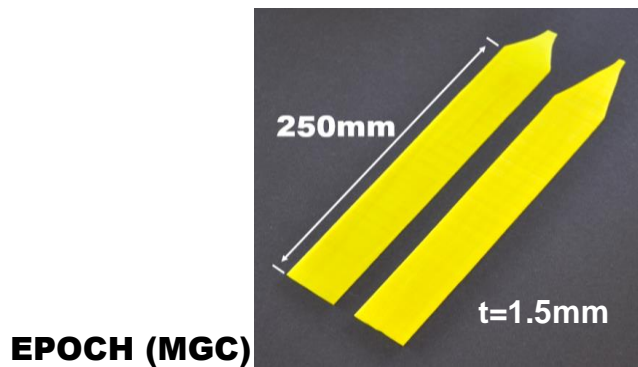


Image of Phosphor Ingot (Ribbon Type)



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