

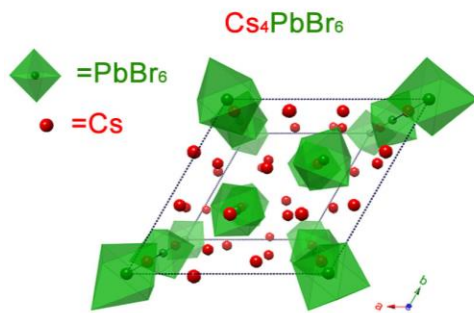
Zero-Dimensional Cs₄PbBr₆ Perovskite

Technical Data Sheet

Zero-D powder

Zero-Dimensional Perovskite, powder,
520 nm peak emission

Cs₄PbBr₆ is Zero-Dimensional Perovskite. It adopts the Bergerhoff–Schmitz-Dumont crystal type structure, in which metal-halide octahedra are spatially confined. Cs₄PbBr₆ shows an outstandingly high photoluminescence comparable with 3D Dimensional Perovskites crystals and



close to Perovskite Quantum Dots. QUANTUM SOLUTIONS is the pioneer in the synthesis of the pure form of this material. Quality control is provided by the modern equipment: UV-vis-IR spectrometer, a fluorescence spectrometer with broadband and integrating sphere capability, Transmission electron spectroscopy and Diffractometer.

Application fields

Cs₄PbBr₆ narrow emission peaks, high PLQY in powders form and exceptional stability make this material very promising for light-to-light conversion technologies. This material can be used in QD backlight for LCD, as a remote phosphors for lighting applications etc.

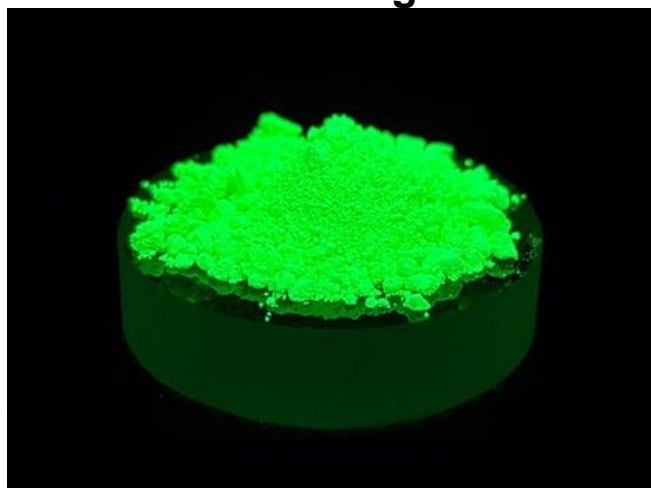
Features

- High efficient and stable luminescence powder materials for optoelectronic applications.
Low lead content.
- Bright luminescent color, narrow fluorescence band and high photoluminescence quantum yield in powder form.

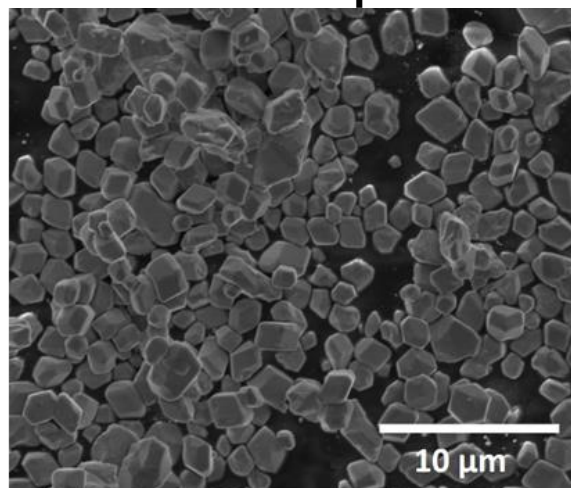
Specification

Catalog Number	Zero-D powder
Type	Cs_4PbBr_6
Appearance	Yellow-green powder
Emission peak	$520 \pm 5 \text{ nm}$
FWHM	$\leq 25 \text{ nm}$
PLQY	$> 40 \%$
Particle size	0.5 - 6 μm (average: 2 μm)
Solubility	Heptane – good DMSO – poor Hexane – no Acetone – no Water - degrade

**Photo of Zero-D Perovskite
under UV light**



**SEM image of Zero-D
Perovskite powder**



Notes for handling

Shelf Life 1 year. Store temperature 2-25 °C. Do not freeze. Store in DARK, in sealed packaging or in a glovebox under N₂.

Packing

Glass vials of 5 – 10 mL.



QUANTUM SOLUTIONS

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