

Development of color powder having luster without loud glitter that is based on the mystery of Morpho butterfly

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Morpho butterfly's blue is known as a typical structural color, which attracts interest due to metallic luster from a biological body. However, the blue by interference having high reflectance (>~60%) contradicts single color in too wide angle. The key of this mystery is nanostructure having nano-disorder preventing the rainbow color. According to this principle, we have developed a new type of color powder having luster without loud glitter by emulating the 3D nanostructures. Also we have developed a quite simple process to fabricate the *Morpho*-powder and film based on a new principle.