

## 물질의 광학적 두께에 따른 EMP-simulation을 통한 광특성 대조

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### The Comparison of Optical Properties with Different Optical Thickness of Materials by EMP-simulation

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**Abstract** : ZnS/Na<sub>3</sub>AlF<sub>6</sub>/ZnS/Cu multi-layered thin film were simulated by EMP. EMP is a comprehensive software package for the design and analysis of optical thin film. ZnS and Na<sub>3</sub>AlF<sub>6</sub> was selected as a high refractive index material and low refractive index material And Cu was selected as mid reflective material. Optical properties including color effect were systematically studied in terms of different low refractive index materials thickness. Na<sub>3</sub>AlF<sub>6</sub> were changed 0.25, 0.5, 0.75, 1.0λ. The thin film showed 0.25λ : blue, purple / 0.5λ : yellow / 0.75λ : blue, purple, red / 1.0λ : yellow, green, blue, purple. It was because by different optical thickness of Na<sub>3</sub>AlF<sub>6</sub>. The maximum of optical interference by refractive layer.