

## Highly doped alkaline earth nanofluorides synthesized from ionic liquids.

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### Czasopismo

Optical Materials

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34

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### Streszczenie

Bulk alkaline earth fluorides co-doped with optically active ions are prominent materials for luminescent applications. However, for phosphor materials the changeover to the nanoscale is a tightrope walk between achieving desirable features of small particles such as reduced light scattering and unwanted drawbacks such as a high surface defect concentration which is likely to result in quenching of luminescence. A new preparation route via ionic liquids allows obtaining pure and oxygen-free alkaline earth fluorides co-doped with  $\text{Eu}^{3+}$  and  $\text{Gd}^{3+}$  on the nanoscale with excellent quantum cutting abilities.

### Słowa kluczowe

Alkaline earth fluorides, Quantum cutting, Ionic liquids, morphology, nanoparticles

### Adres publiczny

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### Strona internetowa wydawcy

<http://www.elsevier.com>