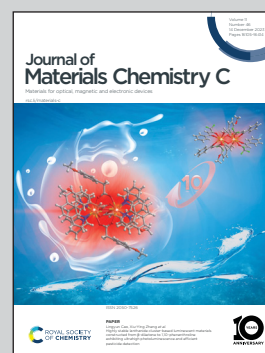


Showcasing collaborative research on mechanoluminescence ratiometric thermometry from the research group of Professor Yanmin Yang and Dr Leipeng Li at Hebei University and Professor Dengfeng Peng at Shenzhen University, China.

Application convenient and energy-saving mechano-optics of Er^{3+} -doped $\text{X}_2\text{O}_2\text{S}$ ($\text{X} = \text{Y}/\text{Lu}/\text{Gd}$) for thermometry

Er^{3+} -doped $\text{X}_2\text{O}_2\text{S}$ ($\text{X} = \text{Y}/\text{Lu}/\text{Gd}$) with mechanoluminescence could be used for energy-saving and ratiometric type temperature sensing upon stimulation of external force, depending on the $^2\text{H}_{11/2} \rightarrow ^4\text{I}_{15/2}$ and $^4\text{S}_{3/2} \rightarrow ^4\text{I}_{15/2}$ transitions of Er^{3+} .

As featured in:



See Leipeng Li, Dengfeng Peng, Yanmin Yang *et al.*, *J. Mater. Chem. C*, 2023, **11**, 16143.