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A Tetrafluoroborate-Based Perovskite with Multiferroic Properties Above Room Temperature

Functional materials with multiferroic properties above room temperature can be used to make

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Multiple-state memory

Computing circuits

But designing such materials has been challenging

Structure of a new material obtained that shows multiferroic properties (co-existing ferroelectric and ferroelastic states) above room temperature

Adding a polar organic cation to a ← tetrafluoroborate-based perovskite system

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Ferroelastic state at below 455 K with disordered cations

> This system provides clues for the development of advanced multiferroic materials for use in next-generation flexible devices

Room-temperature ferroelectric and ferroelastic orders coexisting in a new tetrafluoroborate-based perovskite Zhang et al (2021) | Chemical Science | DOI: 10.1039/d1sc01345a

Chemical Science









Ferroelectric state at below 311 K with ordered cations



