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Abstract:We have measured the evolution of the THz spectrum of iron(II) spin crossover compounds within the low-spin/high-spin thermal hysteresis loop in the 0.6-6 THz frequency range. This study enabled to follow both the variations of the refractive optical index and absorption during the spin state transition. Marked absorptions centered ~2 – 3 THz and ∼5 THz shifting with the spin state are revealed. Our work provides a means to store optically information and to read it out in the THz domain and also offers indications about the structural evolution occurring during the spin state transition.
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