Abstract Submitted
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Ferroelectricity of Perovskites under Pressure[1] IGOR KORNEV, L. BELLAICHE, Physics Department, University of Arkansas, P. BOUVIER, LEPMI, CNRS, France, P.-E. JANOLIN, B. DKHIL, SPMS, CNRS-UMR8580, France, J. KREISEL, LMGP, ENSPG, INPG, France — *Ab-initio* simulations and experimental techniques are combined to reveal that, unlike commonly accepted for more than 30 years, perovskites and related materials *enhance* their ferroelectricity as hydrostatic pressure increases above a critical value [1]. This unexpected high-pressure ferroelectricity is different in nature from conventional ferroelectricity because it is driven by an original electronic effect rather by long-range interactions. [1]. Igor A. Kornev, L. Bellaiche, P. Bouvier, P.-E. Janolin, B. Dkhil, and J. Kreisel, Phys. Rev. Lett. 95, 196804 (2005)

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