

Abstract Submitted
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Galilean thermodynamics of a multicomponent fluid and its induced electromagnetic fields SYLVAIN BRECHET, JEAN-PHILIPPE ANSERMET, EPFL — The phenomenological theory of irreversible processes in fluid systems has been successfully applied to new research fields, for example spintronics and spincaloritronics (arXiv:1011.2323). We include the electromagnetic interaction into the thermodynamic description of a multicomponent fluid. Our analysis is performed in the Galilean limit of electromagnetism. The tensorial part of the Onsager relations accounts in particular for multiferroic effects.

Sylvain Brechet
EPFL

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