

# Editoria - agosto 2019

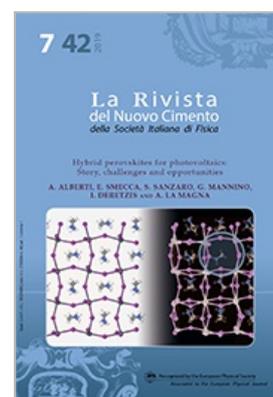
📅 30-08-2019 ↗ <http://www.primapagina.sif.it/article/998>

## La Rivista del Nuovo Cimento Vol. 42 N. 7 (2019)

### Hybrid perovskites for photovoltaics: Story, challenges and opportunities

A. Alberti, E. Smecca, S. Sanzaro, G. Mannino, I. Deretzis, A. La Magna

Photovoltaic technologies based on hybrid perovskites have been a breakthrough in the field, competing with the consolidated silicon counterparts. The progress of the electrical performance has indeed created high expectation in the market uptake. On the other hand, their low structural stability, primary of the  $\text{MAPbI}_3$ , risks to severely retard their dissemination. The review describes the path from the early stage to the recent development of photoactive hybrid perovskites, highlighting limits and strengths. The focus is primarily on structural aspects and optical response of the material under conditions that mimic its operation, to enlighten the origin of the limited perovskite durability. Protocols are provided for predictive or comparative evaluation of the attitude of materials to defect formation. These protocols can be also applied to validate novel stabilisation strategies. All in all, these features frame the exceptionality of hybrid perovskites in their crystal-liquid duality.



## EPL – Highlights from the previous volumes

### A new time scale emerges for crystalline clusters

by J. Bergholtz, N.J. Wagner

### Topological insulator in an atomic liquid

by Gia-Wei Chern

### Is there memory for the memoryless?

by E.S. Nascimento, W.A.M. Morgado

### Extruding the vortex lattice: Two reacting dislocation populations

by J.S. Watkins, N.K. Wilkin

EPL Highlights are published in the first issue of each volume, *i.e.* four times a year, as well as in Europhysics News (EPN).



## EPJ E – Topical Review

## Liquid-liquid criticality in the dielectric constant and refractive index: A perspective

*P. Losada-Pérez*

The critical region in the phase diagram of condensed matter systems such as fluids or fluid mixtures is characterized by the anomalous behaviour of specific thermodynamic properties. In a new review article published in EPJE, Patricia Losada-Pérez describes recent progress in the understanding of the behaviour of two intimately related properties, the dielectric constant  $\epsilon$  and the refractive index  $n$ , when approaching the liquid-liquid critical point in binary liquid mixtures.

## EPJ D – Call for papers

### EPJ D Special Issue: Atomic Cluster Collisions (2019)

Editors: *A. Verkhovtsev, P. de Vera, N.J. Mason, A. V. Solov'yov*

The authors are asked to submit their work in the usual form of an original contribution to the European Physical Journal D, indicating their wish to appear in the Topical issue "Atomic Cluster Collisions (2019)" and also choosing which of the editors in charge they wish to be receiving their contribution. Web submission is encouraged via:

<https://articlestatus.edpsciences.org/is/epjd>.

Submission Deadline: 30 December 2019

