



UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA

HORIZON EUROPE  
PROJECTS FUNDED AT THE UNIVERSITY OF PADOVA

### **ION-MAN - Rational design of polymerized IONic liquid electrolytes for MultivAlenT ion batteries**

Lithium ion (Li<sup>+</sup>) batteries, smaller and lighter than their predecessors, have changed the world. The technology behind them, which garnered the 2019 Nobel Prize in Chemistry, has enabled modern portable electronics like laptops and mobile phones and supported the introduction of electric vehicles. Batteries based on multivalent ions such as the magnesium ion (Mg<sup>2+</sup>) can overcome challenges faced by Li<sup>+</sup> regarding energy density, safety, cost and carbon footprint. With the support of the Marie Skłodowska-Curie Actions programme, the ION-MAN project will address the key barrier to rechargeable magnesium batteries (RMBs). ION-MAN will develop high-performing Mg-conducting electrolytes for RMBs based on polymerised ionic liquids by harnessing an integrated, multi-technique approach and advanced characterisation tools.

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**Find out more:** <https://cordis.europa.eu/project/id/101068538>