

1. Record Nr.	UNINA9910164340303321
Autore	Tarascon Jean-Marie
Titolo	Energy: Electrochemical Storage and Sustainable Development : Inaugural Lecture delivered on Thursday 9 December 2010 // Jean-Marie Tarascon
Pubbl/distr/stampa	Paris, : Collège de France, 2017
ISBN	2-7226-0283-0
Altri autori (Persone)	CorvolPierre TarasconJean-Marie
Soggetti	Environmental Studies History & Philosophy Of Science sustainable development nanotechnology green chemistry energy environment lithium-ion battery
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	The storage and conversion of energy is one of the major scientific challenges of the decades to come, with high stakes for the environment. What new materials will allow for more efficient and "cleaner" batteries to be developed? Jean-Marie Tarascon reviews these issues and their implications for our future and that of the planet. In particular, he discusses lithium-ion technology, the contribution of nanotechnologies, and current research using bio-inspired methods to develop innovations su...

2. Record Nr.	UNINA9910254622103321
Autore	Barreira Alexandre
Titolo	Structure Formation in Modified Gravity Cosmologies // by Alexandre Barreira
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-33696-7
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XVIII, 218 p. 59 illus. in color.)
Collana	Springer Theses, Recognizing Outstanding Ph.D. Research, , 2190-5053
Disciplina	530.11
Soggetti	Gravitation Cosmology Classical and Quantum Gravitation, Relativity Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Linear Perturbations in Galileon Gravity Models -- The Observational Status of Galileon Gravity After Planck -- Spherical Collapse in Galileon Gravity -- N-body Simulations and Halo Modelling in Galileon Gravity Cosmologies -- Nonlinear Structure Formation in Nonlocal Gravity -- Lensing by Clusters and Voids in Modified Gravity Potentials -- Summary, Conclusions and Future Work.
Sommario/riassunto	This unique thesis covers all aspects of theories of gravity beyond Einstein's General Relativity, from setting up the equations that describe the evolution of perturbations, to determining the best-fitting parameters using constraints like the microwave background radiation, and ultimately to the later stages of structure formation using state-of-the-art N-body simulations and comparing them to observations of galaxies, clusters and other large-scale structures. This truly groundbreaking work puts the study of modified gravity models on the same footing as the standard model of cosmology. Since the discovery of the accelerating expansion of the Universe, marked by the awarding of the 2011 Nobel Prize in Physics, there has been a growing interest in understanding what drives that acceleration. One possible explanation lies in theories of gravity beyond Einstein's General Relativity. This thesis addresses all aspects of the problem, an approach that is crucial

to avoiding potentially catastrophic biases in the interpretation of upcoming observational missions. .
