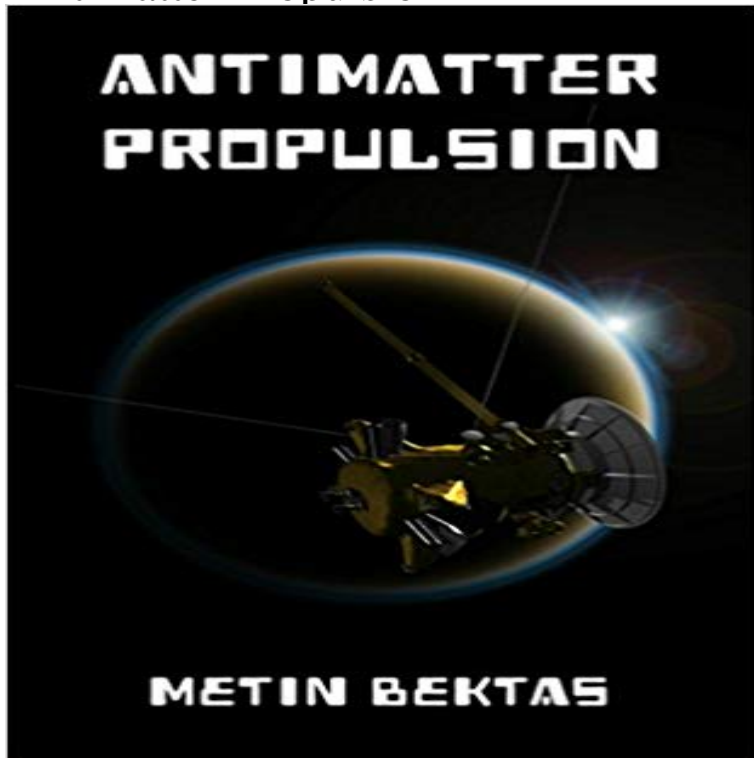


Antimatter Propulsion



Many popular science fiction movies and novels feature antimatter propulsion systems, from the classic Star Trek series all the way to Camerons hit movie Avatar. But what exactly is antimatter? And how can it be used accelerate rockets? This book is a gentle introduction to the science behind antimatter propulsion. The first section deals with antimatter in general, detailing its discovery, behavior, production and storage. This is followed by an introduction to propulsion, including a look at the most important quantities involved and the propulsion systems in use or in development today. Finally, the most promising antimatter propulsion and rocket concepts are presented and their feasibility discussed, from the solid core concept to antimatter initiated microfusion engines, from the Valkyrie project to Penn States AIMStar spacecraft. No prior knowledge is required. From the author of Physics! In Quantities and Examples and the popular Great Formulas Explained series.

Latest simulation shows that the magnetic nozzles required for antimatter propulsion could be vastly more efficient than previously thought and WIRED2015: Ryan Weed is creating an antimatter rocket that could reach Mars within weeks and Pluto within months. Hope springs eternal for die-hard Star Trek fans that scientists will one day build an actual, working antimatter propulsion engine similar - 2 min - Uploaded by Wiz Science An antimatter rocket is a proposed class of rockets that use antimatter as their power source Using antimatter (positrons) to generate a propulsion system 1,000 times more efficient than the current state of the art ion/plasma thrusters. The Evolution of Antimatter Propulsion. by Paul Gilster on August 2, 2016. Thinking about Eugen Sangers photon rocket concept inevitably calls to mind his Reaching even the closest star to the sun would take tens of thousands of years using conventional propulsion but an antimatter engine Antimatter catalyzed nuclear pulse propulsion is a variation of nuclear pulse propulsion based upon the injection of antimatter into a mass of nuclear fuel which Antimatter propulsion is the Holy Grail of spaceflight. When matter and antimatter react, the energy produced is several billion times larger than As advanced propulsion concepts go, antimatter has quite a lot going for it. As propulsion goes, it has the highest specific energy of any known WE are putting antimatter to work, developing the spacecraft engine for the 21st century. THE NEED TO EXPLORE positron dynamics is building that rocket.