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Altri autori (Persone)	SankaranarayananDhivya WongWai Leong GuptaM (Manoj)
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Nota di contenuto	Introduction to Magnesium -- Metal Matrix Composites -- Synthesis Techniques for Magnesium Based Composites -- Magnesium Based Composites -- Review of Characteristics of Magnesium Nanocomposites -- Machinability of Magnesium Composites -- Weldability of Magnesium Composites -- Coatings for Magnesium and Composites.
Sommario/riassunto	The book provides a detailed study and review on magnesium composites and includes recent studies on nanoparticulate reinforced magnesium composites, metastable composites and syntactic composites highlighting the improvement in properties compared with conventional micron-size ceramic-reinforced magnesium composites. It provides a comprehensive review on magnesium composites focusing on the addition of nanoreinforcements, which can substantially improve the properties of magnesium without the negative effect of reduced ductility and increased weight that are typically associated with the

addition of micron size reinforcements. Magnesium is the lightest structural metal and has tremendous potential to replace aluminum leading to improved weight savings and machinability. Compared to polymer composites, magnesium composites can be repaired using existing metal repair techniques whereas polymer composites require sophisticated non-destructive testing techniques to detect underlying cracknetwork and extensive removal of materials to repair the damaged component. Due to increasing emphasis on light weighting to reduce carbon emissions and with the recent approval of magnesium usage for aircraft seats in 2015 the amount of work with magnesium metals and alloys and thereby this research area expanded significantly. Showcases the ability of magnesium alloys/composites to serve weight critical applications to reduce carbon emissions; Use of bubble charts to illustrate the improvement in properties with the use of (nano) reinforcements; Provides a comprehensive database of information related to advanced magnesium composites.