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| Autore                  | Seetharaman Sankaranarayanan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Titolo                  | Magnesium-based nanocomposites : advances and applications / / Sankaranarayanan Seetharaman, Sravya Tekumalla, Manoj Gupta                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| Descrizione fisica      | 1 online resource (various pagings) : illustrations (some color)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Collana                 | IOP ebooks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Disciplina              | 620.1/18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Soggetti                | Nanocomposites (Materials)<br>Magnesium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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6. The tribological behaviour of magnesium nanocomposites -- 6.1. Introduction -- 6.2. Wear mechanisms in magnesium nanocomposites -- 6.3. Evaluation of sliding wear properties -- 6.4. Wear response of magnesium nanocomposites -- 6.5. Summary

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9. Machinability of magnesium-based nanocomposites -- 9.1. Introduction -- 9.2. Machinability of magnesium-based nanocomposites -- 9.3. Summary

10. Wet corrosion and biocompatibility of magnesium nanocomposites -- 10.1. Introduction -- 10.2. The mechanism in magnesium and magnesium alloys -- 10.3. Evaluation of corrosion resistance -- 10.4. Wet corrosion of magnesium nanocomposites -- 10.5. The biocompatibility of magnesium nanocomposites -- 10.6. Summary

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## Sommario/riassunto

Magnesium-Based Nanocomposites: Advances and applications covers the most recent advances in the processing and properties of magnesium-based nanocomposites, a class of lightweight sustainable materials with the potential to be revolutionary energy-saving materials with a range of beneficial applications. It provides a complete picture of the materials, including their multi-faceted design and applications in technology, electronics, medicine, and the automotive and aerospace industries. The book will enable researchers and engineers, irrespective of their discipline, to better exploit the benefits of magnesium-based nanocomposites for multiple applications that can contribute significantly to the safe health of humans and the planet. It also acts as a guide for tailoring materials for targeted applications, and as useful supplementary reading for advanced courses on composites and nanocomposites.

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