1. Record Nr. UNINA9910712814403321

Autore	Prill Robert C.
Titolo	A facility designed to monitor the unsaturated zone during infiltration of tertiary-treated sewage, Long Island, New York / / by R.C. Prill, E.T. Oaksford, and J.E. Potorti
Pubbl/distr/stampa	Syosset, New York : , : U.S. Geological Survey, , 1979
Descrizione fisica	1 online resource (iv, 14 pages) : illustrations, map
Collana	Water-resources investigations ; ; 79-48
Soggetti	Sewage - Purification - New York (State) - Long Island Sewage - Purification New York (State) Long Island
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references (pages 14).

2. Record Nr. UNINA9910826008703321

Titolo	Advances in powder metallurgy : properties, processing and applications / / edited by Isaac Chang and Yuyuan Zhao
Pubbl/distr/stampa	Oxford : , : Woodhead Publishing, , 2013
ISBN	1-62870-368-7 0-85709-890-X
Descrizione fisica	1 online resource (xix, 604 pages) : illustrations
Collana	Woodhead publishing series in metals and surface engineering ; ; number 60
Disciplina	671.37
Soggetti	Powder metallurgy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"ISSN: 2052-5559."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Advances in powder metallurgy : Properties, processing and applications; Copyright; Contents; Contributor contact details; Woodhead Publishing Series in Metals and Surface Engineering; Part I Forming and shaping of metal powders; 1Advances in atomisation techniques for the formation of metal powders; 1.1 Introduction; 1.2 Atomisation techniques; 1.3 Problems and advances in gas atomisation; 1.4 Problems and advances in water atomisation; 1.5 Centrifugal atomisation; 1.6 Other atomisation techniques; 1.7 Conclusion; 1.8 References; 2Forming metal powders by electrolysis 2.1 Background of electrometallurgy and powder metallurgy2.2 Principle and main technological prospects for the FFC Cambridge process; 2.3 Production of metal powders by the FFC Cambridge process; 2.4 Direct route from oxide precursors to alloyed powders; 2.5 Conclusions and future trends; 2.6 Acknowledgement; 2.7 References; 3Mechanochemical synthesis of nanocrystalline metal powders; 3.1 Introduction; 3.2 Mechanochemical processing; 3.3 The process; 3.4 Grain size and process variables; 3.5 Displacement reactions; 3.6 Consolidation; 3.7 Powder contamination; 3.8 Conclusions; 3.9 References 4Plasma synthesis of metal nanopowders4.1 Introduction; 4.2 Potential benefits and applications of metal nanopowders; 4.3 Electrical arc discharge synthesis of metal nanopowders; 4.4 Conclusions; 4.5

References; 5Warm compaction of metallic powders; 5.1 Introduction; 5.2 Warm compaction process; 5.3 Properties of warm compacted parts; 5.4 Materials and applications; 5.5 Future trends and concluding remarks; 5.6 References; 6Developments in metal injection moulding (MIM); 6.1 Introduction to metal injection moulding; 6.2 Powders for metal injection moulding
6.3 Binders for metal injection moulding6.4 Mixing and feedstock analysis; 6.5 Injection moulding; 6.6 Binder removal (debinding); 6.7 Sintering; 6.8 Post-sintering; 6.9 Applications and design; 6.10 Conclusion; 6.11 References; Part II Materials and properties; 7Advanced powder metallurgy steel alloys; 7.1 Introduction; 7.2 Composition of advanced pressed and sintered steel components; 7.3 Manufacturing routes for sintered steel components; 7.4 Properties, microstructures and typical products; 7.5 Powder injection moulded steel components; 7.6 Powder metallurgy tool steels
7.7 Trends in ferrous powder metallurgy7.8 Acknowledgements; 7.9 Further reading; 7.10 References; 8Powder metallurgy of titanium alloys; 8.1 Introduction; 8.2 Powders; 8.3 Near net shapes; 8.4 Additive layer manufacturing and powder injection molding; 8.5 Spraying and research-based processes; 8.6 Future trends; 8.7 Acknowledgements; 8.8 References; 9Metal-based composite powders; 9.1 Introduction; 9.2 Metal-based composite powder production; 9.3 Copper- and aluminium-based composite powder systems; 9.4 Other metal-based composite powders; 9.5 Applications; 9.6 Future trends; 9.7 References 10Porous metals: foams and sponges

Sommario/riassunto

Powder metallurgy (PM) is a popular metal forming technology used to produce dense and precision components. Different powder and component forming routes can be used to create an end product with specific properties for a particular application or industry. Advances in powder metallurgy explores a range of materials and techniques used for powder metallurgy and the use of this technology across a variety of application areas.Part one discusses the forming and shaping of metal powders and includes chapters on atomisation techniques, electrolysis and plasma synthesis of metallic nanopow