

- | | |
|-------------------------|--|
| 1. Record Nr. | UNIORUON00022704 |
| Autore | GOODWIN, Janet R. |
| Titolo | Alms and Vagabonds : Buddhist Temples and Popular Patronage in Medieval Japan / Janet R. Goodwin |
| Pubbl/distr/stampa | Honolulu, : University of Hawaii Press, 1994 viii, 181 p. ; 20 cm |
| ISBN | 08-248-1547-5 |
| Classificazione | GIA VII B |
| Soggetti | BUDDHISMO - GIAPPONE - PERIODO KAMAKURA (1185-1333) |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| ----- | |
| 2. Record Nr. | UNIORUON00130056 |
| Titolo | Prehistoric Hunter-Gatherers : the emergence of cultural complexity / edited by Douglas Price T., James A. Brown |
| Pubbl/distr/stampa | Orlando, : Academic Press, 1985 |
| ISBN | 01-256-4750-6 |
| Descrizione fisica | XVIII, 450 p. ; 23 cm |
| Classificazione | GEN E XIV |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |

3. Record Nr.	UNINA9910876871203321
Autore	Zhang Chuanfang
Titolo	Transition Metal Carbides and Nitrides (MXenes) Handbook : Synthesis, Processing, Properties and Applications
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2024 ©2024
ISBN	9781119869528 1119869528 9781119869504 1119869501
Edizione	[1st ed.]
Descrizione fisica	1 online resource (781 pages)
Altri autori (Persone)	NaguibMichael
Disciplina	546.6
Soggetti	MXenes Transition metal compounds
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Title Page -- Copyright Page -- Contents -- List of Contributors -- Preface -- Part I The Introduction -- Chapter 1 Introduction to the MXene Handbook -- References -- Part II Guidelines on MXenes Synthesis, Characterizations and Processing -- Chapter 2 Synthesis of MXene Precursors - Tips and Tricks -- 2.1 Structure and Composition of MXene Precursors -- 2.1.1 MAX Phases (Nitrides/Carbides/Alloys) and o-MAX Phases -- 2.1.2 i-MAX Phases -- 2.1.3 Mo ₂ Ga ₂ C and Zr/Hf-based Carbides -- 2.2 Synthesis of MXene Precursors - Including Good "Tips" and Guidelines -- 2.2.1 MAX Phases (Nitrides/Carbides/Alloys) and o-MAX Phases -- 2.2.1.1 Preparation for Synthesis -- 2.2.1.2 Synthesis, Techniques, and Conditions -- 2.2.1.3 Preparation of Powders for MXene Synthesis -- 2.2.2 i-MAX Phases -- 2.2.3 Mo ₂ Ga ₂ C and Zr/Hf-based Carbides -- References -- Chapter 3 Guidelines on Fluorine-based Synthesis of MXenes -- 3.1 Introduction -- 3.2 M-A vs. M-X Bonding Roles in Fluorine-based Synthesis -- 3.3 Interactions of Fluorine with A-group Elements within Precursor Phases -- 3.4 Effect of Precursor Structure on Fluorine-based MXene Synthesis -- 3.5 Diversity of Fluorine-based Etchants in MXene Synthesis -- 3.6

Safety Considerations and Protocols -- 3.7 Conclusion --
Acknowledgments -- References -- Chapter 4 Guidelines Low-temperature (LT) F-free Synthesis of MXenes -- 4.1 Introduction -- 4.2 Electrochemical Etching Method -- 4.2.1 Producing Carbide-derived Carbons by Electrochemical Etching -- 4.2.2 Electrochemical Etching of MAX into 2D MXenes -- 4.3 Chloride Ion Hydrothermal Etching Method -- 4.4 Halogen Etching Method -- 4.5 Alkali Etching Method -- 4.5.1 Alkali Etching Under Low Concentration -- 4.5.2 Alkali Etching Under High Concentration -- 4.5.3 Organic Alkali Etching -- 4.6 Other F-free Etching Methods -- References.
Chapter 5 Guidelines for the Molten Salt Etching of MXenes -- 5.1 Introduction -- 5.2 Reactive Molten Salt Synthesis of MXenes -- 5.2.1 One-Component Lewis Salt Molten Salt (LAMS) for Etching -- 5.2.2 Multicomponent Salts Containing Lewis Salts for Etching -- 5.2.3 Parameters Influencing Molten Salt Etching -- 5.3 Inert Molten Salt Synthesis of MXenes -- 5.4 Surface Terminations of MXenes Regulated by Molten Salt -- 5.5 Electrochemical Etching of MAX in Molten Salt -- 5.6 Interconversion of MXene and MAX in Molten Salt -- 5.6.1 From MAX to New MAX -- 5.6.2 From MAX to New Terminated MXene -- 5.6.3 From MXene to MAX -- 5.7 Limitations and Outlook -- References -- Chapter 6 Guidelines on the Intercalation of Ions and Molecules in MXenes -- 6.1 Introduction -- 6.2 The 002 Peak and the Interlayer Spacing in MXenes -- 6.3 Ion Exchange Properties and Its Dependence on MXene Synthesis Conditions -- 6.4 Why Do Cations Intercalate MXene Multilayers? -- 6.5 Anions and MXene -- 6.6 Types of Ion/Molecules that Intercalate Between MXene Layers -- 6.6.1 Inorganic Ions -- 6.6.2 Organic Molecules -- 6.7 Complexity of Ion Intercalation in MXenes -- 6.8 Cation Exchange Capacity -- 6.9 Hydration and Dehydration of MXene Multilayers -- 6.10 General Guidelines for Ion Intercalation in MXenes and Possible Pitfalls -- 6.11 Summary -- References -- Chapter 7 MXene Thermal and Chemical Stability and Degradation Mechanism -- 7.1 Introduction -- 7.2 Surface Chemistry and Chemical Modification of MXenes -- 7.3 MXene Chemical Stability and Degradation in Aqueous Solutions -- 7.3.1 MAX Phase Synthesis -- 7.3.2 Etchant -- 7.3.3 Storage Environment -- 7.3.4 Additives -- 7.3.5 Annealing -- 7.4 MXene Thermal Stability -- 7.4.1 Elimination of MXene Surface Functional Groups -- 7.4.2 Transformations of MXene Skeleton Structure -- 7.5 Conclusions and Outlook -- References.
Chapter 8 Guidelines on MXene Handling and Storage Strategies -- 8.1 Introduction -- 8.2 The Degradation of MXene -- 8.2.1 Understanding the Degradation Process of MXenes -- 8.2.1.1 The Degradation of Wet MXene -- 8.2.1.2 Oxidation of Dry MXene -- 8.2.2 Characterizing the Oxidation of MXenes -- 8.2.2.1 Monitoring the Oxidation Process -- 8.2.2.2 Characterizing Extent of MXene Oxidation -- 8.2.3 Parameters Influencing Oxidation Rate -- 8.2.3.1 MAX Phase Quality and synthetic methods of Synthesis -- 8.2.3.2 Aqueous Environment -- 8.2.3.3 Air or Oxygen -- 8.2.3.4 Temperature -- 8.2.3.5 UV Light -- 8.3 Preventing the Oxidation of MXene -- 8.3.1 Defect Control During MXene Synthesis -- 8.3.2 Storing MXene in Solvents -- 8.3.2.1 Isolation of Water -- 8.3.2.2 Isolation of Oxygen or Air -- 8.3.2.3 Antioxidants -- 8.3.2.4 Low Temperature -- 8.3.2.5 Surface Modification -- 8.3.3 Coating Protection -- 8.4 Summary and Outlook -- References -- Chapter 9 Beyond Single-M MXenes: Synthesis, Properties, and Applications -- 9.1 Introduction -- 9.1.1 Synthesis of MAX -- 9.2 Random (Disordered) Solid Solutions -- 9.2.1 Properties and Applications of Random Solid Solutions -- 9.2.2 High-Entropy MXenes -- 9.3 Ordered MXenes -- 9.3.1 Out-of-Plane Ordered o-MXenes --

9.3.2 In-Plane Ordered i-MXenes -- 9.4 Outlook -- Acknowledgments -- References -- Chapter 10 Structural Confirmation and Morphological Investigation of MXenes -- 10.1 Summary and Outlook -- References -- Chapter 11 MXene Surface Terminations -- 11.1 Introduction -- 11.2 Termination Controlled Properties -- 11.3 Chemical Etching -- 11.4 Molten Salt Etching -- 11.5 Termination Site Preference -- 11.6 MXene Surface Termination Saturation -- 11.7 Thermal Stability of Terminations -- 11.8 Post Processing of Terminations -- 11.9 Summary -- References -- Chapter 12 Delamination and Surface Functionalization of MXenes. 12.1 Introduction -- 12.2 Effect of Preparation Routes on the Surface Terminations of MXenes -- 12.2.1 HF Etching -- 12.2.2 Fluoride-Containing Solution Etching -- 12.2.3 Fluoride-Free Etching -- 12.3 Intercalation and Delamination of Single and Few-Layer MXenes -- 12.3.1 Metal Cation and Inorganic Intercalants -- 12.3.2 Organic-Base Molecules -- 12.3.3 Ultrasonication and Physical Delamination -- 12.3.4 Dispersibility and Stability of Delaminated MXene Flakes -- 12.4 Other Methods for Delamination and Surface Engineering -- 12.4.1 Hydrothermal-Assisted Intercalation (HAI) -- 12.4.2 Microwave-Assisted Delamination -- 12.4.3 Freeze-and-Thaw (FAT)-Assisted Method -- 12.4.4 Low-Temperature Plasma Techniques -- 12.5 Summary and Outlooks -- References -- Chapter 13 Solution Processing of MXenes for Printing, Wet Coating, and 2D Film Formation -- 13.1 Introduction -- 13.2 Preparing Stable MXene Dispersions -- 13.3 Tuning the Rheological Properties of MXene Dispersions -- 13.4 Ink Formulation and Printing of MXenes -- 13.5 2D Printing of MXenes -- 13.6 Wet Coating of MXenes -- 13.7 Summary and Outlook -- References -- Chapter 14 Three-Dimensional (3D) Printing of MXenes -- 14.1 Introduction -- 14.2 MXene Inks for DIW -- 14.2.1 Rheological Properties of DIW Inks -- 14.2.2 Additive-Free MXene Inks -- 14.2.3 Multicomponent MXene Inks -- 14.3 3D Printing of MXene-based Devices -- 14.4 Conclusion -- Acknowledgments -- References -- Chapter 15 Assembling of MXenes from Liquid to Solid, Including Liquid Crystals, Fibers -- 15.1 Introduction -- 15.2 1D Macroscopic MXene Fibers -- 15.2.1 Neat MXene Fibers -- 15.2.2 MXene Composite Fibers -- 15.2.2.1 Coated MXene Composite Fibers -- 15.2.2.2 Spun MXene Composite Fibers -- 15.2.2.3 Biscrolled MXene Composite Fibers -- 15.3 2D Macroscopic MXene Films -- 15.3.1 Neat MXene Films -- 15.3.1.1 Lamellar Structure. 15.3.1.2 In-Plane Nanochannel Structure -- 15.3.1.3 Porous Structure -- 15.3.2 MXene-based Composite Films -- 15.3.2.1 MXene-Inorganics Composite Films -- 15.3.2.2 MXene-Organics Composite Films -- 15.4 3D MXene Assemblies, Including Hydrogels and Aerogels -- 15.4.1 3D MXene Assemblies with Crumpled Structures -- 15.4.2 Template-assisted 3D MXene Assemblies -- 15.4.3 MXene-Inorganics Hydrogels and Aerogels -- 15.4.3.1 Cation-Crosslinked Hydrogels -- 15.4.3.2 GO-assisted MXene Hydrogels and Aerogels -- 15.4.3.3 Other MXene-Inorganics Hybrid Assemblies -- 15.4.4 MXene-Organics Composite Hydrogels and Aerogels -- 15.4.4.1 Organic Molecule Crosslinked MXene Hydrogels -- 15.4.4.2 MXene-Polymer Composite Hydrogels -- 15.5 Summary -- Acknowledgments -- References -- Part III Guidelines on Obtaining MXenes Properties -- Chapter 16 Insights into the Properties of MXenes and MXene Analogs from Atomistic Simulation -- 16.1 Introduction -- 16.2 Computational Methods -- 16.3 Structures of MXenes and MXene Analogs -- 16.4 Predicted Structures and Thermodynamic Stabilities -- 16.4.1 Structure Prediction -- 16.4.2 Stability Prediction -- 16.5 Electronic Properties -- 16.6 Energy Storage Properties -- 16.6.1 Rechargeable Metal-Ion

Batteries -- 16.6.2 Supercapacitors -- 16.6.3 Ion Mobility -- 16.7 Insights from Molecular Dynamics -- 16.7.1 Ab initio Molecular Dynamics and Approximate Quantum Chemical Simulations -- 16.7.2 Reactive and Classical Force Field Simulations -- 16.8 Summary and Future Opportunities -- Acknowledgments -- References -- Chapter 17 MXenes' Optical and Optoelectronic Properties and Related Applications -- 17.1 Introduction -- 17.2 Plasmonic Properties -- 17.3 Plasmonic Applications -- 17.4 Ultrafast Carrier Dynamics -- 17.5 Nonlinear Optical Properties -- 17.6 Nonlinear Optical Applications -- 17.7 Optoelectronic Properties. 17.8 Optoelectronic Applications.

Sommario/riassunto

The book 'Transition Metal Carbides and Nitrides (MXenes) Handbook' provides a comprehensive overview of the emerging class of materials known as MXenes. Edited by Chuanfang Zhang and Michael Naguib, it delves into the synthesis, processing, properties, and diverse applications of MXenes. The handbook is structured in a manner that guides researchers through the intricacies of MXene synthesis, including precursor preparation and etching methods, while also addressing the thermal and chemical stability of these materials. It is aimed at materials scientists and engineers, offering insights into the potential of MXenes in various technological applications. The book also discusses the degradation mechanisms, handling, and storage strategies for MXenes, making it a valuable resource for advancing research in the field.

4. Record Nr.	UNIORUON00021974
Autore	FERRO, Paola
Titolo	Esercizi di soggettazione e classificazione : due tecniche di indicizzazione a confronto / Paola Ferro, Anna Rita Zanobi
Pubbl/distr/stampa	Milano, : Editrice Bibliografica, 1995
ISBN	88-7075-397-2
Descrizione fisica	131 p. ; ill. ; 24 cm
Classificazione	BIBLIOTECONOMIA
Altri autori (Persone)	ZANOBI, Anna Rita
Soggetti	CATALOGAZIONE A SOGGETTO
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia