

The Global Market for Advanced Materials & Technologies for Energy Production, Storage & Harvesting

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Abstracts

Advanced materials innovation is greatly improving energy production. The development of new materials for high capacity and sustainable advanced energy storage, generation and harvesting technologies is key to the implementation of renewable solutions for energy networks. The Global Market for Advanced Materials & Technologies for Energy Production, Storage & Harvesting covers recent advancements in Batteries, Supercapacitors, Fuel Cells, Photovoltaics, Energy Harvesting and Wind Turbines including technologies, materials, markets, applications, revenues, and companies.

Materials and technologies covered include:

Li-ion batteries and variations, current market and recent activity covering advanced materials innovations.

Solid-state thin-film batteries.

Flexible, stretchable, rollable and bendable batteries.

Supercapacitors.

Chemical energy storage-Power-to-gas (PtG) and Power-to-liquid (PtL).

Thermal energy storage (phase change materials, reversible thermochemical reactions).

Fuel cells (PEM, solid oxide)

Advanced composites for wind turbine blades.

Anti-corrosion coatings for offshore installations.

Photovoltaic technologies (thin-film, flexible, DSCC, organic, perovskite, inorganic silicon PV alternatives, tandem PV, concentrated solar power, agrivoltaics, Floating PV, BIPV).

Energy harvesting including marine energy harvesting.

Materials that generate electricity from vibration.

Report contents include:

In-depth analysis of advanced materials and technologies for Batteries, Supercapacitors, Fuel Cells, Photovoltaics, Energy Harvesting and Wind Turbines.

Market trends and future outlook.

Global revenues, by market and technologies, historical and estimated to 2033.

More than 500 company profiles. Companies profiled include Nanoramic, NAWA Technologies, Nano One Materials, Birla Carbon, Brilliant Matters, Epishine, Heliatek, Salient Energy, Enerpoly, Skeleton Technologies, Ioxus, Yunasko, Ilika, UniEnergy Technologies, Amprius, TFP Hydrogen, Aquacycl, QD Solar, Onyx Solar, Brite Solar, Ciel & Terre, Vast Solar, Sunew, Ocean Harvesting Technologies and Nowi Energy.

Contents

1 RESEARCH METHODOLOGY

2 ENERGY STORAGE

2.1 Batteries

2.1.1 Current market for batteries

2.1.2 Market drivers

2.1.2.1 Battery market megatrends

2.1.2.2 Global battery market 2015-2033, billions USD

2.1.3 Advanced materials for batteries

2.1.4 Flexible and stretchable batteries for electronics

2.1.5 Li-ion batteries and variations

2.1.5.1 Technology description

2.1.5.1.1 Types of Lithium Batteries

2.1.5.2 Anodes

2.1.5.2.1 Materials

2.1.5.2.2 Silicon anodes

2.1.5.3 Cathodes

2.1.5.3.1 Materials

2.1.5.3.1.1 LCO and LFP

2.1.5.3.1.1.1 Lithium Cobalt Oxide(LiCoO₂) — LCO

2.1.5.3.1.1.2 Lithium Iron Phosphate(LiFePO₄) — LFP

2.1.5.3.1.2 Layered oxide (NMC, NCA) and LMO

2.1.5.3.1.2.1 Lithium Manganese Oxide (LiMn₂O₄) — LMO

2.1.5.3.1.2.2 Lithium Nickel Manganese Cobalt Oxide (LiNiMnCoO₂) — NMC

2.1.5.3.1.2.3 Lithium Nickel Cobalt Aluminum Oxide (LiNiCoAlO₂) — NCA

2.1.5.4 Binders and conductive additives

2.1.5.4.1 Materials

2.1.5.5 Separators

2.1.5.5.1 Materials

2.1.5.6 Li-ion battery Market players

2.1.5.7 Lithium-metal batteries

2.1.5.7.1 Technology description

2.1.5.7.2 Applications

2.1.5.7.3 Product developers

2.1.5.8 Lithium-sulphur batteries

2.1.5.8.1 Technology description

- 2.1.5.8.2 Product developers
- 2.1.5.9 Lithium titanate and niobate batteries
 - 2.1.5.9.1 Technology description
 - 2.1.5.9.2 Product developers
- 2.1.5.10 Sodium-ion (Na-ion) Batteries
 - 2.1.5.10.1 Technology description
 - 2.1.5.10.2 Cathode Materials
 - 2.1.5.10.3 Anode Materials
 - 2.1.5.10.4 Aqueous rechargeable sodium ion batteries (ASIBs)
 - 2.1.5.10.5 Markets
 - 2.1.5.10.6 Product developers
- 2.1.5.11 Aluminium-ion batteries
 - 2.1.5.11.1 Technology description
 - 2.1.5.11.2 Product development
- 2.1.5.12 Global market to 2033 (revenues)
- 2.1.6 Solid-state thin-film batteries
 - 2.1.6.1 Features and advantages
 - 2.1.6.2 Technical specifications
 - 2.1.6.3 Types
 - 2.1.6.4 Microbatteries
 - 2.1.6.4.1 Introduction
 - 2.1.6.4.2 Materials
 - 2.1.6.4.3 Applications
 - 2.1.6.4.4 3D designs
 - 2.1.6.4.4.1 3D printed batteries
 - 2.1.6.5 Bulk type solid-state batteries
 - 2.1.6.6 Shortcomings and market challenges for solid-state thin film batteries
 - 2.1.6.7 Market players
 - 2.1.6.8 Global market to 2033, by types and markets (revenues)
 - 2.1.6.8.1 Solid-state batteries segment
- 2.1.7 Flexible batteries (including stretchable, rollable, bendable and foldable)
 - 2.1.7.1 Technical specifications
 - 2.1.7.1.1 Approaches to flexibility
 - 2.1.7.2 Flexible electronics
 - 2.1.7.2.1 Flexible materials
 - 2.1.7.3 Flexible and wearable Metal-sulfur batteries
 - 2.1.7.4 Flexible and wearable Metal-air batteries
 - 2.1.7.5 Flexible Lithium-ion Batteries
 - 2.1.7.5.1 Electrode designs

- 2.1.7.5.2 Fiber-shaped Lithium-Ion batteries
- 2.1.7.5.3 Stretchable lithium-ion batteries
- 2.1.7.5.4 Origami and kirigami lithium-ion batteries
- 2.1.7.6 Flexible Li/S batteries
 - 2.1.7.6.1 Components
 - 2.1.7.6.2 Carbon nanomaterials
- 2.1.7.7 Flexible lithium-manganese dioxide (Li–MnO₂) batteries
- 2.1.7.8 Flexible zinc-based batteries
 - 2.1.7.8.1 Components
 - 2.1.7.8.1.1 Anodes
 - 2.1.7.8.1.2 Cathodes
 - 2.1.7.8.2 Challenges
 - 2.1.7.8.3 Flexible zinc-manganese dioxide (Zn–Mn) batteries
 - 2.1.7.8.4 Flexible silver–zinc (Ag–Zn) batteries
 - 2.1.7.8.5 Flexible Zn–Air batteries
 - 2.1.7.8.6 Flexible zinc-vanadium batteries
- 2.1.7.9 Fiber-shaped batteries
 - 2.1.7.9.1 Carbon nanotubes
 - 2.1.7.9.2 Types
 - 2.1.7.9.3 Applications
 - 2.1.7.9.4 Challenges
- 2.1.7.10 Transparent batteries
 - 2.1.7.10.1 Components
- 2.1.7.11 Degradable batteries
 - 2.1.7.11.1 Components
 - 2.1.7.11.2 Energy harvesting combined with wearable energy storage devices
- 2.1.8 Printed batteries
 - 2.1.8.1 Technical specifications
 - 2.1.8.1.1 Components
 - 2.1.8.1.1.1 Design
 - 2.1.8.1.2 Key features
 - 2.1.8.1.3 Printable current collectors
 - 2.1.8.1.4 Printable electrodes
 - 2.1.8.1.5 Materials
 - 2.1.8.1.6 Applications
 - 2.1.8.1.7 Printing techniques
 - 2.1.8.1.8 Applications
 - 2.1.8.2 Lithium-ion (LIB) printed batteries
 - 2.1.8.3 Zinc-based printed batteries

- 2.1.8.4 3D Printed batteries
 - 2.1.8.4.1 3D Printing techniques for battery manufacturing
 - 2.1.8.4.2 Materials for 3D printed batteries
 - 2.1.8.4.2.1 Electrode materials
 - 2.1.8.4.2.2 Electrolyte Materials
- 2.1.9 Redox Flow Batteries
 - 2.1.9.1 Technology description
 - 2.1.9.2 Markets
 - 2.1.9.3 Product developers
- 2.1.10 ZN-based batteries
 - 2.1.10.1 Technology description
 - 2.1.10.1.1 Zinc-Air batteries
 - 2.1.10.1.2 Zinc-ion batteries
 - 2.1.10.1.3 Zinc-bromide
 - 2.1.10.1.4 Product developers
- 2.1.11 Company profiles 179 (214 company profiles)
- 2.2 Supercapacitors
 - 2.2.1 Technology description
 - 2.2.1.1 Electrostatic double-layer capacitors (EDLC)
 - 2.2.1.2 Pseudocapacitors
 - 2.2.1.2.1 Pseudocapacitive materials
 - 2.2.1.2.2 Performance
 - 2.2.1.3 Hybrid capacitors
 - 2.2.1.4 Advantages and disadvantages
 - 2.2.2 Electrolytes
 - 2.2.3 Conductive hydrogels
 - 2.2.4 Flexible and stretchable supercapacitors
 - 2.2.4.1 Flexible wearable supercapacitors
 - 2.2.4.2 Paper supercapacitors
 - 2.2.4.3 Flexible printed circuits
 - 2.2.4.4 Micro-supercapacitors
 - 2.2.4.5 Materials
 - 2.2.4.5.1 Graphene
 - 2.2.4.5.2 Carbon nanotubes
 - 2.2.4.5.3 Nanodiamonds
 - 2.2.4.5.4 Carbon nanofibers
 - 2.2.4.5.5 Carbon aerogels
 - 2.2.4.5.6 Graphene aerogels
 - 2.2.4.5.7 Cellulose nanocrystal aerogels

- 2.2.4.5.8 Carbon nano-onions
- 2.2.4.5.9 MXenes
- 2.2.4.5.10 Metal Organic Frameworks (MOF)
- 2.2.4.5.11 Diamond
- 2.2.4.5.12 Other 2D materials
- 2.2.5 Printed supercapacitors
 - 2.2.5.1.1 Electrode materials
 - 2.2.5.1.2 Electrolytes
- 2.2.6 Markets for supercapacitors
 - 2.2.6.1 Automotive
 - 2.2.6.2 Transportation
 - 2.2.6.3 Power grid
 - 2.2.6.4 Industrial
- 2.2.7 Company profiles 415 (34 company profiles)
- 2.3 Chemical energy storage
 - 2.3.1 Power-to-gas (PtG)
 - 2.3.2 Power-to-liquid (PtL)
 - 2.3.3 Benefits of e-fuels
 - 2.3.4 Feedstocks
 - 2.3.4.1 Hydrogen electrolysis
 - 2.3.4.2 CO2 capture
 - 2.3.5 Production
 - 2.3.6 Electrolysers
 - 2.3.6.1 Commercial alkaline electrolyser cells (AECs)
 - 2.3.6.2 PEM electrolysers (PEMEC)
 - 2.3.6.3 High-temperature solid oxide electrolyser cells (SOECs)
 - 2.3.7 Direct Air Capture (DAC)
 - 2.3.7.1 Technologies
 - 2.3.7.2 Markets for DAC
 - 2.3.7.3 Costs
 - 2.3.7.4 Challenges
 - 2.3.7.5 Companies and production
 - 2.3.7.6 CO2 capture from point sources
 - 2.3.8 Costs
 - 2.3.9 Market challenges
 - 2.3.10 Companies
- 2.4 Thermal energy storage
 - 2.4.1 Sensible heat storage
 - 2.4.2 Latent heat storage

- 2.4.3 Reversible thermochemical reactions
- 2.4.4 Phase change materials
 - 2.4.4.1 Markets
 - 2.4.4.2 Properties of Phase Change Materials (PCMs)
 - 2.4.4.3 Types
 - 2.4.4.3.1 Organic/biobased phase change materials
 - 2.4.4.3.1.1 Advantages and disadvantages
 - 2.4.4.3.1.2 Paraffin wax
 - 2.4.4.3.1.3 Non-Paraffins/Bio-based
 - 2.4.4.3.2 Inorganic phase change materials
 - 2.4.4.3.2.1 Salt hydrates
 - 2.4.4.3.2.2 Metal and metal alloy PCMs (High-temperature)
 - 2.4.4.3.2.1.1 Advantages and disadvantages
 - 2.4.4.3.3 Eutectic mixtures
 - 2.4.4.3.4 Encapsulation of PCMs
 - 2.4.4.3.4.1 Macroencapsulation
 - 2.4.4.3.4.2 Micro/nanoencapsulation
 - 2.4.4.3.5 Nanomaterial phase change materials
 - 2.4.4.4 Global revenues, 2019-2033
 - 2.4.4.4.1 By type
 - 2.4.4.4.2 By market
 - 2.4.5 Companies 484 (51 company profiles)
- 2.5 Advanced Battery Analytics

3 FUEL CELLS

- 3.1 Introduction
- 3.2 Fuel cell technologies
 - 3.2.1 Proton exchange membrane (PEM) (PEMFC)
 - 3.2.1.1 High temperature PEMFC (HT-PEMFC)
 - 3.2.1.2 Components, materials and producers
 - 3.2.2 Solid oxide fuel cells
 - 3.2.2.1 Electrolytes
 - 3.2.3 Other fuel cell types
- 3.3 Markets and applications
 - 3.3.1 Electric vehicles market
- 3.4 Market players
- 3.5 Global market to 2033, by markets (revenues)
- 3.6 Company profiles 546 (41 company profiles)

4 PHOTOVOLTAICS

- 4.1 Global Solar PV market
- 4.2 Thin film and Flexible Solar Cells
 - 4.2.1 Dye sensitized solar cells
 - 4.2.1.1 DSSC materials
 - 4.2.2 Organic Photovoltaics
 - 4.2.2.1 Organic PV materials
 - 4.2.3 Perovskite solar cells
 - 4.2.3.1 Introduction
 - 4.2.3.2 Material components
 - 4.2.3.3 Energy harvesting
 - 4.2.3.4 Thin film perovskite solar cells
 - 4.2.3.4.1 Technology description
 - 4.2.3.4.2 Markets and applications
 - 4.2.3.4.3 Product developers
 - 4.2.3.5 Tandem perovskite PV
 - 4.2.3.5.1 Technology description
 - 4.2.3.5.2 Markets and applications
 - 4.2.3.5.3 Product developers
 - 4.2.4 Inorganic silicon PV alternatives
 - 4.2.4.1 Cadmium Telluride (CdTe)
 - 4.2.4.2 Copper Indium Gallium Selenide (CIGS)
 - 4.2.4.3 Gallium Arsenide
 - 4.2.4.4 Amorphous Silicon
 - 4.2.4.5 Copper Zinc Tin Sulfide (CZTS)
 - 4.2.5 Tandem photovoltaics
 - 4.2.6 Metamaterials
 - 4.2.7 Deposition Methods
- 4.3 Market players
- 4.4 Concentrated solar power
 - 4.4.1 Technology description
 - 4.4.2 Commercialization
- 4.5 Agrivoltaics
 - 4.5.1 Technology description
 - 4.5.2 Commercialization
- 4.6 Building Integrated Photovoltaics (BIPV)
 - 4.6.1 Photovoltaic glazing

- 4.6.2 Dye-sensitized solar cells (DSSCs)
- 4.6.3 Organic solar cells (OSCs)
- 4.6.4 Perovskite solar cells (PSCs)
- 4.6.5 Quantum dot solar cells (QDSCs)
- 4.6.6 Copper zinc tin sulphide solar cells (CZTS)
- 4.7 Floating photovoltaics (FPV)
- 4.8 Global market for PV solar cells to 2033, by technology (revenues)
- 4.9 Company profiles 622 (97 company profiles)

5 ENERGY HARVESTING

- 5.1 Energy harvesting in sensors and smart buildings
 - 5.1.1 Piezoelectric materials
 - 5.1.2 Thermoelectric materials
- 5.2 Energy harvesting for powering smartwatches
 - 5.2.1 Conductive and stretchable yarns
 - 5.2.2 Conductive polymers
 - 5.2.2.1 PDMS
 - 5.2.2.2 PEDOT: PSS
- 5.3 Automotive
- 5.4 Metamaterials
- 5.5 Powering E-textiles
 - 5.5.1 Supercapacitors
 - 5.5.2 Batteries
 - 5.5.3 Energy harvesting
 - 5.5.3.1 Photovoltaic solar textiles
 - 5.5.3.2 Energy harvesting nanogenerators
 - 5.5.3.3 TENGs
 - 5.5.3.4 PENGs
 - 5.5.3.5 Radio frequency (RF) energy harvesting
- 5.6 Marine energy harvesting
- 5.7 Company profiles 720 (56 company profiles)

6 WIND TURBINES

- 6.1 Advanced composites
- 6.2 Corrosion-resistant coatings for offshore installations
- 6.3 Companies

7 REFERENCES

List Of Tables

LIST OF TABLES

Table 1. Market drivers for use of advanced materials and technologies in batteries.

Table 2. Battery market megatrends.

Table 3. Advanced materials for batteries.

Table 4. Li-ion battery anode materials.

Table 5. Li-ion battery cathode materials.

Table 6. Properties of Lithium Cobalt Oxide.

Table 7. Properties of Lithium Iron Phosphate

Table 8. Properties of Lithium Manganese Oxide

Table 9. Properties of Lithium Nickel Manganese Cobalt Oxide (NMC).

Table 10. Properties of Lithium Nickel Cobalt Aluminum Oxide

Table 11. Li-ion battery Binder and conductive additive materials.

Table 12. Li-ion battery Separator materials.

Table 13. Li-ion battery market players.

Table 14. Li-metal battery developers

Table 15. Lithium-sulphur battery product developers.

Table 16. Properties of Lithium Nickel Cobalt Aluminum Oxide

Table 17. Product developers in Lithium titanate and niobate batteries.

Table 18. Comparison of Sodium ion vs Lithium Ion Batteries.

Table 19. Markets for Sodium-ion batteries.

Table 20. Product developers in sodium-ion batteries.

Table 21. Market segmentation and status for solid-state batteries.

Table 22. Shortcoming of solid-state thin film batteries.

Table 23. Solid-state thin-film battery market players.

Table 24. Flexible battery applications and technical requirements.

Table 25. Flexible Li-ion battery prototypes.

Table 26. Electrode designs in flexible lithium-ion batteries.

Table 27. Summary of fiber-shaped lithium-ion batteries.

Table 28. Types of fiber-shaped batteries.

Table 29. Components of transparent batteries.

Table 30. Components of degradable batteries.

Table 31. Main components and properties of different printed battery types.

Table 32. Applications of printed batteries and their physical and electrochemical requirements.

Table 33. 2D and 3D printing techniques.

Table 34. Printing techniques applied to printed batteries.

Table 35. Main components and corresponding electrochemical values of lithium-ion printed batteries.

Table 36. Printing technique, main components and corresponding electrochemical values of printed batteries based on Zn–MnO₂ and other battery types.

Table 37. Main 3D Printing techniques for battery manufacturing.

Table 38. Electrode Materials for 3D Printed Batteries.

Table 39. Redox flow batteries product developers.

Table 40. ZN-based battery product developers.

Table 41. 3DOM separator.

Table 42. Chasm SWCNT products.

Table 43. Battery performance test specifications of J. Flex batteries.

Table 44. Pros and cons of supercapacitors.

Table 45. Properties and applications of conductive hydrogels.

Table 46. Hydrogels in supercapacitors.

Table 47. Applications of advanced materials in supercapacitors, by advanced materials type and benefits thereof.

Table 48. Graphene in supercapacitors-Market age, applications, Key benefits and motivation for use, Graphene concentration.

Table 49. Comparative properties of graphene supercapacitors and lithium-ion batteries.

Table 50. Market and applications for carbon nanotubes in supercapacitors.

Table 51. Market overview for nanodiamonds in supercapacitors.

Table 52. Nanodiamonds in supercapacitors. Market age, applications, Key benefits and motivation for use, concentration

Table 53. Other 2D materials for supercapacitors.

Table 54. Methods for printing supercapacitors.

Table 55. Electrode Materials for printed supercapacitors.

Table 56. Electrolytes for printed supercapacitors.

Table 57. Main properties and components of printed supercapacitors.

Table 58. Markets for supercapacitors.

Table 59. Applications of e-fuels, by type.

Table 60. Overview of e-fuels.

Table 61. Benefits of e-fuels.

Table 62. Main characteristics of different electrolyzer technologies.

Table 63. Advantages and disadvantages of DAC.

Table 64. DAC companies and technologies.

Table 65. Markets for DAC.

Table 66. Cost estimates of DAC.

Table 67. Challenges for DAC technology.

Table 68. DAC technology developers and production.

Table 69. Market challenges for e-fuels.

Table 70. Power to gas (PtG) and power to liquids (PtL) companies.

Table 71. Properties of PCMs.

(b) Table 72. PCM Types and properties.

Table 73. Advantages and disadvantages of organic PCMs.

Table 74. Advantages and disadvantages of organic PCM Fatty Acids.

Table 75. Advantages and disadvantages of salt hydrates

Table 76. Advantages and disadvantages of low melting point metals.

Table 77. Advantages and disadvantages of eutectics.

Table 78. Global revenues for phase change materials, 2019, by type.

Table 79. Global revenues for phase change materials, 2020, by type.

Table 80. Global revenues for phase change materials, 2019-2032, by market, conservative estimate (millions USD).

Table 81. Global revenues for phase change materials, 2019-2032, by market, high estimate (millions USD).

Table 82. CrodaTherm Range.

Table 83. Comparison of fuel cell technologies.

Table 84. SOFC and PEMFC comparison.

Table 85. Other fuel cell types.

Table 86. Markets and applications for fuel cells.

Table 87. Main market players in fuel cells.

Table 88. Product developers in thin film perovskite photovoltaics.

Table 89. Product developers in tandem perovskite photovoltaics.

Table 90. Technologies generating electricity in smart buildings.

Table 91. Types of flexible conductive polymers, properties and applications.

Table 92. Comparison of prototype batteries (flexible, textile, and other) in terms of area-specific performance.

Table 93. Anti-corrosion coatings for offshore installations.

Table 94. Companies developing advanced composites and coatings for wind power.

List Of Figures

LIST OF FIGURES

- Figure 1. Annual sales of battery electric vehicles and plug-in hybrid electric vehicles.
- Figure 2. Costs of batteries to 2030.
- Figure 3. Global battery market 2015-2033, billions USD.
- Figure 4. Flexible batteries on the market.
- Figure 5. Examples of flexible electronics devices.
- Figure 6. Lithium-ion cell.
- Figure 7. Silicon anode value chain.
- Figure 8. Li-ion electric vehicle (EV) battery.
- Figure 9. Li-cobalt structure.
- Figure 10. Li-manganese structure.
- Figure 11. Saturnose battery chemistry.
- Figure 12. Revenues for Li-ion batteries and variations 2021-2033, by market, billions USD.
- Figure 13. ULTRALIFE thin film battery.
- Figure 14. Examples of applications of thin film batteries.
- Figure 15. Capacities and voltage windows of various cathode and anode materials.
- Figure 16. Traditional lithium-ion battery (left), solid state battery (right).
- Figure 17. Bulk type compared to thin film type SSB.
- Figure 18. Revenues for thin film, flexible and printed batteries 2021-2033, by market, millions USD (excluding thin film solid-state batteries).
- Figure 19. The global market for solid-state batteries, 2018-2033, millions USD.
- Figure 20. Ragone plots of diverse batteries and the commonly used electronics powered by flexible batteries.
- Figure 21. Flexible, rechargeable battery.
- Figure 22. Various architectures for flexible and stretchable electrochemical energy storage.
- Figure 23. Types of flexible batteries.
- Figure 24. Flexible label and printed paper battery.
- Figure 25. Materials and design structures in flexible lithium ion batteries.
- Figure 26. Flexible/stretchable LIBs with different structures.
- Figure 27. Schematic of the structure of stretchable LIBs.
- Figure 28. Electrochemical performance of materials in flexible LIBs.
- Figure 29. a–c) Schematic illustration of coaxial (a), twisted (b), and stretchable (c) LIBs.
- Figure 30. a) Schematic illustration of the fabrication of the superstretchy LIB based on an MWCNT/LMO composite fiber and an MWCNT/LTO composite fiber. b,c)

Photograph (b) and the schematic illustration (c) of a stretchable fiber-shaped battery under stretching conditions. d) Schematic illustration of the spring-like stretchable LIB. e) SEM images of a fiber at different strains. f) Evolution of specific capacitance with strain. d–f)

Figure 31. Origami disposable battery.

Figure 32. Zn–MnO₂ batteries produced by Brightvolt.

Figure 33. Charge storage mechanism of alkaline Zn-based batteries and zinc-ion batteries.

Figure 34. Zn–MnO₂ batteries produced by Blue Spark.

Figure 35. Ag–Zn batteries produced by Imprint Energy.

Figure 36. Transparent batteries.

Figure 37. Degradable batteries.

Figure 38. Wearable self-powered devices.

Figure 39. Various applications of printed paper batteries.

Figure 40. Schematic representation of the main components of a battery.

Figure 41. Schematic of a printed battery in a sandwich cell architecture, where the anode and cathode of the battery are stacked together.

Figure 42. Manufacturing Processes for Conventional Batteries (I), 3D Microbatteries (II), and 3D-Printed Batteries (III).

Figure 43. 24M battery.

Figure 44. 3DOM battery.

Figure 45. AC biode prototype.

Figure 46. Ampcera's all-ceramic dense solid-state electrolyte separator sheets (25 μm thickness, 50mm x 100mm size, flexible and defect free, room temperature ionic conductivity ~1 mA/cm).

Figure 47. Amprius battery products.

Figure 48. All-polymer battery schematic.

Figure 49. All Polymer Battery Module.

Figure 50. Resin current collector.

Figure 51. Ateios thin-film, printed battery.

Figure 52. 3D printed lithium-ion battery.

Figure 53. Blue Solution module.

Figure 54. TempTraq wearable patch.

Figure 55. Exide Batteries Lead Acid Battery.

Figure 56. Schematic of a fluidized bed reactor which is able to scale up the generation of SWNTs using the CoMoCAT process.

Figure 57. Cymbet EnerChip

Figure 58. E-magy nano sponge structure.

Figure 59. SoftBattery.

- Figure 60. Roll-to-roll equipment working with ultrathin steel substrate.
- Figure 61. 40 Ah battery cell.
- Figure 62. FDK Corp battery.
- Figure 63. 2D paper batteries.
- Figure 64. 3D Custom Format paper batteries.
- Figure 65. Fuji carbon nanotube products.
- Figure 66. Gelion Endure battery.
- Figure 67. Portable desalination plant.
- Figure 68. Grepow flexible battery.
- Figure 69. Nanofiber Nonwoven Fabrics from Hirose.
- Figure 70. Hitachi Zosen solid-state battery.
- Figure 71. Ilika solid-state batteries.
- Figure 72. ZincPoly technology.
- Figure 73. TAeTTOOz printable battery materials.
- Figure 74. Ionic Materials battery cell.
- Figure 75. Schematic of Ion Storage Systems solid-state battery structure.
- Figure 76. ITEN micro batteries.
- Figure 77. LiBEST flexible battery.
- Figure 78. 3D solid-state thin-film battery technology.
- Figure 79. Lyten batteries.
- Figure 80. Cellulomix production process.
- Figure 81. Nanobase versus conventional products.
- Figure 82. Nanotech Energy battery.
- Figure 83. Hybrid battery powered electrical motorbike concept.
- Figure 84. NBD battery.
- Figure 85. Schematic illustration of three-chamber system for SWCNH production.
- Figure 86. TEM images of carbon nanobrush.
- Figure 87. EnerCerachip.
- Figure 88. Cambrian battery.
- Figure 89. Printed battery.
- Figure 90. Prieto Foam-Based 3D Battery.
- Figure 91. Printed Energy flexible battery.
- Figure 92. ProLogium solid-state battery.
- Figure 93. QingTao solid-state batteries.
- Figure 94. Saku? Corporation 3Ah Lithium Metal Solid-state Battery.
- Figure 95. SES Apollo batteries.
- Figure 96. Sionic Energy battery cell.
- Figure 97. Solid Power battery pouch cell.
- Figure 98. TeraWatt Technology solid-state battery

- Figure 99. Different types of ultracapacitors.
- Figure 100. Supercapacitor schematic.
- Figure 101. Schematic illustration of EDLC.
- Figure 102. Schematic of supercapacitors in wearables.
- Figure 103. (A) Schematic overview of a flexible supercapacitor as compared to conventional supercapacitor.
- Figure 104. Stretchable graphene supercapacitor.
- Figure 105. Applications of graphene in supercapacitors.
- Figure 106. Graphene aerogel.
- Figure 107. Structure diagram of Ti₃C₂T_x.
- Figure 108. Main printing methods for supercapacitors.
- Figure 109. Graphene battery schematic.
- Figure 110. PtL production pathways.
- Figure 111. Process steps in the production of electrofuels.
- Figure 112. Mapping storage technologies according to performance characteristics.
- Figure 113. Production process for green hydrogen.
- Figure 114. E-liquids production routes.
- Figure 115. Fischer-Tropsch liquid e-fuel products.
- Figure 116. Resources required for liquid e-fuel production.
- Figure 117. Schematic of Climeworks DAC system.
- Figure 118. Levelized cost and fuel-switching CO₂ prices of e-fuels.
- Figure 119. Cost breakdown for e-fuels.
- Figure 120. Thermal energy storage materials.
- Figure 121. Phase Change Material transient behaviour.
- Figure 122. PCM mode of operation.
- Figure 123. Classification of PCMs.
- Figure 124. Phase-change materials in their original states.
- Figure 125. Global revenues for phase change materials, 2019-2032, by market, conservative estimate (millions USD).
- Figure 126. Solid State Reflective Display (SRD) schematic.
- Figure 127. Transtherm PCMs.
- Figure 128. HI-FLOW Phase Change Materials.
- Figure 129. Cr?do ProMed transport bags.
- Figure 130. PEM fuel cell schematic.
- Figure 131. PEMFC assembly and materials.
- Figure 132. Toyota Mirai 2nd generation.
- Figure 133. Hyundai NEXO.
- Figure 134. Global market for fuel cells to 2033, by markets (revenues).
- Figure 135. Solar PV module production by technology, 2011-2021.

- Figure 136. Efficiency of different solar PV cell types.
- Figure 137. Dye sensitized solar cell schematic.
- Figure 138. Metamaterial solar coating.
- Figure 139. Thin film and flexible solar cell Deposition Methods.
- Figure 140. Thin film and flexible solar cells players.
- Figure 141. The Sun Rock building, Taiwan.
- Figure 142. Photovoltaic solar cells.
- Figure 143. Classification of BIPV products.
- Figure 144. Global market for PV solar cells to 2033, by technology (revenues).
- Figure 145. Hikari building incorporating SunEwat Square solar glazing.
- Figure 146. Elegante solar glass panel.
- Figure 147. Certainteed Apollo-2 solar shingles roof.
- Figure 148. Triple insulated glass unit for the Stadtwerke Konstanz energy cube in Germany.
- Figure 149. Moscow building incorporating Hevel's BIPV product.
- Figure 150. Mitrex solar facade layers.
- Figure 151. Solar Brick by Mitrex
- Figure 152. QDSSC Module.
- Figure 153. DragonScales technology.
- Figure 154. Photovoltaic integration in facade at the Gioia 22 skyscraper, in Milan.
- Figure 155. S6 flexible solar module.
- Figure 156. Ubiquitous Energy windows installed at the Boulder Commons in Colorado.
- Figure 157. Energy harvesting technologies.
- Figure 158. Energy harvesting solutions in smart buildings.
- Figure 159. TE module schematic.
- Figure 160. Utilization of TE materials in exterior walls for energy generation, heating and cooling.
- Figure 161. Conductive yarns.
- Figure 162. SEM image of cotton fibers with PEDOT:PSS coating.
- Figure 163. Textile-based car seat heaters.
- Figure 164. Micro-scale energy scavenging techniques.
- Figure 165. Schematic illustration of the fabrication concept for textile-based dye-sensitized solar cells (DSSCs) made by sewing textile electrodes onto cloth or paper.
- Figure 166 . 3D print piezoelectric material.

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