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Autore	Yang Nianjun
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Nota di contenuto	Nanoelectrochemistry of adsorption-coupled electron transfer at carbon electrodes / Shigeru Amemiya -- The capacitance of graphene : from model systems to large-scale devices / Pawin lamprasertkun and Robert A.W. Dryfe -- Graphene and related materials as anode materials in li ion batteries : science and practicality / Sandeep Kumar Marka, Veera Venkata Harish Peruswamula and Venkata Satya Siva Srikanth Vadali -- Nanocarbon materials towards textile-based electrochemical energy storage devices / Qiyao Huang, Dongrui Wang, Zijian Zheng -- 1D and 2D flexible carbon matrix materials for lithium-sulfur batteries / Tianyi Wang, Yushu Liu, Dawei Su, Guoxiu Wang -- Conductive diamond for electrochemical energy applications / Siyu Yu, Nianjun Yang, Xin Jiang, Wenjun Zhang, and Shetian Liu -- Electrocatalysis at nanocarbons : model systems and applications in energy conversion / James A. Behan, Carlota Dominguez, Paula E. Colavita -- Metal-organic frameworks based porous carbons for oxygen reduction reaction electrocatalysts for fuel cell applications / Shaofang Fu, Junhua Song, Chengzhou Zhu, Dan Du, and Yuehe Lin -- Diamond electrodes for the electrogenerated chemiluminescence / Andrea Fiorani, Irkham, Giovanni Valenti, Yasuaki Einaga, Francesco

Paolucci -- Decoration of advanced carbon materials with metal oxides for photoelectrochemical applications / Ya-nan Zhang, Huijie Shi, Yuqing Chen, Rongrong Cui, and Guohua Zhao.

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Sommario/riassunto

"Electrochemistry is an extensively utilized field of chemistry that integrates chemicals and electric fields. A well-designed electrode material is the key of electrochemistry. The connection of electrochemistry with carbon materials such as graphite, diamond, carbon fibers has been a long history. The discoveries new carbon materials such as fullerene, graphene, carbon nanotubes, graphene nanoribbon, carbon dots, and graphdiyne in past decades have triggered more research advances with respect to their electrochemical preparation, characterization and applications"--

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