

- vertically aligned carbon nanotubes for Li-ion batteries. *Adv Mater* 2012;24:2592–7.
- [3] Tarascon JM, Armand M. Issues and challenges facing rechargeable lithium batteries. *Nature* 2001;414:359–67.
  - [4] Poizot P, Laruelle S, Grugeon S, Dupont L, Tarascon JM. Nano-sized transition-metal oxides as negative-electrode materials for lithium-ion batteries. *Nature* 2000;407:496–9.
  - [5] Taberna PL, Mitra S, Poizot P, Simon P, Tarascon JM. High rate capabilities  $\text{Fe}_3\text{O}_4$ -based Cu nano-architected electrodes for lithium-ion battery applications. *Nat Mater* 2006;5:567–73.
  - [6] Cui ZM, Jiang LY, Song WG, Guo YG. High-yield gas-liquid interfacial synthesis of highly dispersed  $\text{Fe}_3\text{O}_4$  nanocrystals and their application in lithium-ion batteries. *Chem Mater* 2009;21:1162–6.
  - [7] Maier J. Nanoionics: ion transport and electrochemical storage in confined systems. *Nat Mater* 2005;4:805–15.
  - [8] Chen Y, Xia H, Lu L, Xue JM. Synthesis of porous hollow  $\text{Fe}_3\text{O}_4$  beads and their applications in lithium ion batteries. *J Mater Chem* 2012;22:5006–12.
  - [9] Chen JS, Zhang YM, (David) Lou XW. One-pot synthesis of uniform  $\text{Fe}_3\text{O}_4$  nanospheres with carbon matrix support for improved lithium storage capabilities. *ACS Appl Mater Interfaces* 2011;3:3276–9.
  - [10] Zhang WM, Wu XL, Hu JS, Guo YG, Wan LJ. Carbon coated  $\text{Fe}_3\text{O}_4$  nanospindles as a superior anode material for lithium-ion batteries. *Adv Funct Mater* 2008;18:3941–6.
  - [11] Muraliganth T, Murugan AV, Manthiram A. Facile synthesis of carbon-decorated single-crystalline  $\text{Fe}_3\text{O}_4$  nanowires and their application as high performance anode in lithium ion batteries. *Chem Commun* 2009;7360–2.
  - [12] Yuan SM, Li JX, Yang LT, Su LW, Liu L, Zhou Z. Preparation and lithium storage performances of mesoporous  $\text{Fe}_3\text{O}_4$ @C microcapsules. *ACS Appl Mater Interfaces* 2011;3:705–9.
  - [13] Zhu T, Chen JS, (David) Lou XW. Glucose-assisted one-pot synthesis of  $\text{FeOOH}$  nanorods and their transformation to  $\text{Fe}_3\text{O}_4$ @carbon nanorods for application in lithium ion batteries. *J Phys Chem C* 2011;115:9814–20.
  - [14] Wu P, Du N, Zhang H, Yu JX, Yang DR. Carbon nanocapsules as nanoreactors for controllable synthesis of encapsulated iron and iron oxides: magnetic properties and reversible lithium storage. *J Phys Chem C* 2011;115:3612–20.
  - [15] Yang ZC, Shen JG, Archer LA. An in situ method of creating metal oxide-carbon composites and their application as anode materials for lithium-ion batteries. *J Mater Chem* 2011;21:11092–7.
  - [16] Piao YZ, Kim HS, Sung YE, Hyeon T. Facile scalable synthesis of magnetite nanocrystals embedded in carbon matrix as superior anode materials for lithium-ion batteries. *Chem Commun* 2010;46:118–20.
  - [17] Yoon T, Chae C, Sun YK, Zhao X, Kung HH, Lee JK. Bottom-up in situ formation of  $\text{Fe}_3\text{O}_4$  nanocrystals in a porous carbon foam for lithium-ion battery anodes. *J Mater Chem* 2011;21:17325–30.
  - [18] Kang E, Jung YS, Cavanagh AS, Kim GH, George SM, Dillon AC, et al.  $\text{Fe}_3\text{O}_4$  nanoparticles confined in mesocellular carbon foam for high performance anode materials for lithium-ion batteries. *Adv Funct Mater* 2011;21:2430–8.
  - [19] Wang JZ, Zhong C, Wexler D, Idris NH, Wang ZX, Chen LQ, et al. Graphene-encapsulated  $\text{Fe}_3\text{O}_4$  nanoparticles with 3D laminated structure as superior anode in lithium ion batteries. *Chem Eur J* 2011;17:661–7.
  - [20] Zhou GM, Wang DW, Li F, Zhang LL, Li N, Wu ZS, et al. Graphene-wrapped  $\text{Fe}_3\text{O}_4$  anode material with improved reversible capacity and cyclic stability for lithium ion batteries. *Chem Mater* 2010;22:5306–13.
  - [21] Zhang M, Lei DN, Yin XM, Chen LB, Li QH, Wang YG, et al. Magnetite/graphene composites: microwave irradiation synthesis and enhanced cycling and rate performances for lithium ion batteries. *J Mater Chem* 2010;20:5538–43.
  - [22] Baek S, Yu SH, Park SK, Pucci A, Marichy C, Lee DC, et al. A one-pot microwave-assisted non-aqueous sol-gel approach to metal oxide/graphene nanocomposites for Li-ion batteries. *RSC Adv* 2011;1:1687–90.
  - [23] Li BJ, Cao HQ, Shao J, Qu MZ. Enhanced anode performances of the  $\text{Fe}_3\text{O}_4$ -Carbon-rGO three dimensional composite in lithium ion batteries. *Chem Commun* 2011;47:10374–6.
  - [24] Li BJ, Cao HQ, Shao J, Qu MZ, Warner JH. Superparamagnetic  $\text{Fe}_3\text{O}_4$  nanocrystals@graphene composites for energy storage devices. *J Mater Chem* 2011;21:5069–75.
  - [25] Ban CM, Wu ZC, Gillaspie DT, Chen L, Yan YF, Blackburn JL, et al. Nanostructured  $\text{Fe}_3\text{O}_4$ /SWNT electrode: binder-free and high-rate Li-ion anode. *Adv Mater* 2010;22:E145–9.
  - [26] Sun XM, Li YD. Colloidal carbon spheres and their core/shell structures with noble-metal nanoparticles. *Angew Chem Int Ed* 2004;43:597–601.
  - [27] Sevilla M, Fuertes AB. Chemical and structural properties of carbonaceous products obtained by hydrothermal carbonization of saccharides. *Chem Eur J* 2009;15:4195–203.
  - [28] Ryu J, Suh YW, Suh DJ, Ahn DJ. Hydrothermal preparation of carbon microspheres from mono-saccharides and phenolic compounds. *Carbon* 2010;48:1990–8.
  - [29] Sun XM, Li YD. Ag@C core/shell structured nanoparticles: controlled synthesis, characterization, and assembly. *Langmuir* 2005;21:6019–24.
  - [30] Yu SH, Cui X, Li L, Li K, Yu B, Antonietti M. From starch to metal/carbon hybrid nanostructures: hydrothermal metal-catalyzed carbonization. *Adv Mater* 2004;16:1636–40.
  - [31] Zhong ZY, Ho J, Teo J, Shen SC, Gedanken A. Synthesis of porous  $\alpha\text{-Fe}_2\text{O}_3$  nanorods and deposition of very small gold particles in the pores for catalytic oxidation of CO. *Chem Mater* 2007;19:4776–82.
  - [32] Parks GA. The isoelectric points of solid oxides, solid hydroxides, and aqueous hydroxo complex systems. *Chem Rev* 1965;65:177–98.
  - [33] Yu DH, Aihara M, Antal Jr MJ. Hydrogen production by steam reforming glucose in supercritical water. *Energy Fuels* 1993;7:574–7.
  - [34] Wang DW, Li F, Liu M, Lu GQ, Cheng HM. 3D aperiodic hierarchical porous graphitic carbon material for high-rate electrochemical capacitive energy storage. *Angew Chem Int Ed* 2008;47:373–6.
  - [35] Wu ZS, Ren WC, Wen L, Gao LB, Zhao JP, Chen ZP, et al. Graphene anchored with  $\text{Co}_3\text{O}_4$  nanoparticles as anode of lithium ion batteries with enhanced reversible capacity and cyclic performance. *ACS Nano* 2010;4:3187–94.
  - [36] Zhou GM, Wang DW, Yin LC, Li N, Li F, Cheng HM. Oxygen bridges between NiO nanosheets and graphene for improvement of lithium storage. *ACS Nano* 2012;6:3214–23.
  - [37] Obrovac MN, Dahn JR. Implications of finite-size and surface effects on nanosize intercalation materials. *Phys Rev B* 2000;61:6713–9.
  - [38] Van der Ven A, Wagemaker M. Effect of surface energies and nano-particle size distribution on open circuit voltage of Li-electrodes. *Electrochem Commun* 2009;11:881–4.
  - [39] Delmer O, Balaya P, Kienle L, Maier J. Enhanced potential of amorphous electrode materials: case study of  $\text{RuO}_2$ . *Adv Mater* 2008;20:501–5.
  - [40] Prosini PP, Lisi M, Zane D, Pasquali M. Determination of the chemical diffusion coefficient of lithium in  $\text{LiFePO}_4$ . *Solid State Ionics* 2002;148:45–51.