



## INTRODUCTION

The **ScienceDirect TOP25 Hottest Articles** is a **free** quarterly service from ScienceDirect. When you subscribe to the **ScienceDirect TOP25**, you'll receive an e-mail every three months listing the ScienceDirect users' 25 most frequently downloaded journal articles, from any selected journal among more than 2,000 titles in the ScienceDirect database, or from any of 24 subject areas.

Now you can keep track of the latest trends in your speciality and find out what your colleagues are reading. A simple click on any of the listed articles will take you to the journal abstract, and of course, you have the option to download any article straight to your desktop, depending on your access rights.

Read more about [how the TOP25 is generated](#) and what it reflects.



**HOTTEST  
ARTICLES**  
ON ScienceDirect

Check out the ScienceDirect TOP25 Hottest Articles within your area of interest.

**Subject Area:**

**Journal:**

With these drop-down menus, the ScienceDirect TOP25 Hottest Articles are selected. Please refine your selection if necessary. To see the overall TOP25 within a certain subject area or journal, please select 'all subjects' or 'all journals' from the drop-down menus.

## TOP25 articles within the journal: Materials Chemistry and Physics

- 1. Preparation of an Ag-TiO<sub>2</sub> photocatalyst coated on activated carbon by MOCVD • Article**  
*Materials Chemistry and Physics, Volume 91, Issue 1, 1 May 2005, Pages 73-79*  
 Zhang, X.; Zhou, M.; Lei, L.
- 2. Template synthesis and characterization of well-aligned nitrogen containing carbon nanotubes • Article**  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 291-295*  
 Maiyalagan, T.; Viswanathan, B.
- 3. Large-area carbon nanotubes film synthesized for field emission display by special CVD equipment and the field emission properties • Article**  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 473-477*  
 Xinghui, L.; Changchun, Z.; Weihua, L.; Fanguang, Z.; Changhui, T.
- 4. Synthesis, characterization and application of SnS<sub>x</sub> (x=1, 2) nanoparticles • Article**  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 557-566*  
 Gou, X.L.; Chen, J.; Shen, P.W.
- 5. Vertically well-aligned ZnO nanowires generated with self-assembling polymers • Article**  
*Materials Chemistry and Physics, Volume 94, Issue 1, 1 November 2005, Pages 29-33*  
 He, Y.; Sang, W.; Wang, J.; Wu, R.; Min, J.
- 6. Efficient phase transfer of hydrophobic CdSe quantum dots: From nonpolar organic solvent to biocompatible water buffer • Article**  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 310-313*  
 Feng, L.; Kong, X.; Chao, K.; Sun, Y.; Zeng, Q.; Zhang, Y.
- 7. Synthesize of porous TiO<sub>2</sub> thin film of photocatalyst by charged microemulsion templating • Article**  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005,*

- Pages 508-515  
Zhang, W.j.; He, Y.q.; Qi, Q.
8. **Preparation of  $\text{LiMn}_2\text{O}_4$  by two methods for lithium ion batteries** • Article  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 461-465*  
Wu, H.M.; Tu, J.P.; Yuan, Y.F.; Li, Y.; Zhao, X.B.; Cao, G.S.
  9. **A novel simplified method for preparing ZnO nanoneedles via  $\text{H}_2\text{O}_2$  pre-oxidation** • Article  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 539-543*  
Gui, Y.; Xie, C.
  10. **Super-hydrophilic amorphous titanium dioxide thin film deposited by cathodic electrodeposition** • Short communication  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 251-254*  
Karuppuchamy, S.; Jeong, J.M.
  11. **Room temperature growth of CuO nanorod arrays on copper and their application as a cathode in dye-sensitized solar cells** • Article  
*Materials Chemistry and Physics, Volume 93, Issue 1, 1 September 2005, Pages 35-40*  
Anandan, S.; Wen, X.; Yang, S.
  12. **RETRACTED: Ti-Si oxide composite spheres with hollow interior fabricated by emulsion/interface technique employing Ti ionic liquid** • Article  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 487-494*  
Zhao, J.; Zhao, X.; Liu, Y.; Tao, N.; Bala, H.; Zhang, H.; Jiang, Y.; Yu, K.; Zhu, Y.; Deng, Y.; Yang, H.; Wang, Z.
  13. **Electroless deposition of nickel on the surface of silicon carbide/aluminum composites in alkaline bath** • Article  
*Materials Chemistry and Physics, Volume 94, Issue 1, 1 November 2005, Pages 159-164*  
Li, L.B.; An, M.Z.; Wu, G.H.
  14. **Fabrication and characteristics of ZnO thin films with an Al/Si (10) substrates** • Article  
*Materials Chemistry and Physics, Volume 93, Issue 1, 1 September 2005, Pages 170-173*  
Ye, Z.; Yuan, G.; Li, B.; Zhu, L.; Zhao, B.; Huang, J.
  15. **Preparation and photocatalytic activity of Fe-doped mesoporous titanium dioxide nanocrystalline photocatalysts** • Article  
*Materials Chemistry and Physics, Volume 93, Issue 1, 1 September 2005, Pages 159-163*  
Zhou, M.; Yu, J.; Cheng, B.; Yu, H.
  16. **Enhanced wear resistance and micro-hardness of polystyrene nanocomposites by carbon nanotubes** • Article  
*Materials Chemistry and Physics, Volume 94, Issue 1, 1 November 2005, Pages 109-113*  
Yang, Z.; Dong, B.; Huang, Y.; Liu, L.; Yan, F.Y.; Li, H.L.
  17. **Structure, thermal and mechanical properties of in situ Al-based metal matrix composite reinforced with  $\text{Al}_2\text{O}_3$  and TiC submicro particles** • Article  
*Materials Chemistry and Physics, Volume 93, Issue 1, 1 September 2005, Pages 109-116*  
Yu, P.; Mei, Z.; Tjong, S.C.
  18. **Self-assembly of CdS: from nanoparticles to nanorods and arrayed nanorod bundles** • Article  
*Materials Chemistry and Physics, Volume 93, Issue 1, 1 September 2005, Pages 65-69*  
Zhang, H.; Yang, D.; Ma, X.; Ji, Y.; Li, S.; Que, D.

- 19. Effect of amine groups in the synthesis of Ag nanoparticles using aminosilanes • Article**  
*Materials Chemistry and Physics, Volume 94, Issue 1, 1 November 2005, Pages 148-152*  
Frattini, A.; Pellegrini, N.; Nicastro, D.; Sanctis, O.d.
- 20. Deposition and electrocatalytic properties of platinum on well-aligned carbon nanotube (CNT) arrays for methanol oxidation • Article**  
*Materials Chemistry and Physics, Volume 92, Issue 2-3, 1 August 2005, Pages 548-553*  
Tang, H.; Chen, J.; Yao, S.; Nie, L.; Kuang, Y.; Huang, Z.; Wang, D.; Ren Z.
- 21. Synthesis and characterization of Ag/PVA nanocomposite by chemical reduction method • Article**  
*Materials Chemistry and Physics, Volume 93, Issue 1, 1 September 2005, Pages 117-121*  
Khanna, P.K.; Singh, N.; Charan, S.; Subbarao, V.V.V.S.; Gokhale, R.; Mulik, U.P.
- 22. Preparation and characterization of bifunctional oxidative and acidic catalysts Nb<sup>20</sup>5/TS-1 for synthesis of diols • Article**  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 443-449*  
Prasetyoko, D.; Ramli, Z.; Endud, S.; Nur, H.
- 23. Short carbon fiber reinforced electrically conductive aromatic polydisulfide/expanded graphite nanocomposites • Article**  
*Materials Chemistry and Physics, Volume 93, Issue 1, 1 September 2005, Pages 122-128*  
Song, L.N.; Xiao, M.; Li, X.H.; Meng, Y.Z.
- 24. Improved production of ZnS blue phosphor powder • Article**  
*Materials Chemistry and Physics, Volume 93, Issue 2-3, 1 October 2005, Pages 481-486*  
Ozawa, L.; Makimura, M.; Itoh, M.
- 25. Electrodeposition of Ni-Fe-Co alloy nanowire in modified AAO template • Article**  
*Materials Chemistry and Physics, Volume 91, Issue 2-3, 1 June 2005, Pages 417-423*  
Saedi, A.; Ghorbani, M.



Do you want to search in other fields of interest?  
Just go to the [top of the page](#) and use the drop-down menus to select another TOP25.