



www.sciencedirect.com

## select your interest

Medicine and Dentistry

Medical Engineering & Physics

[browse top 25 archive](#)

Current: April to June 2011

[show my alerts](#)

**sign up now!** for the e-mail alerts

e-mail address



You can sign-up to receive our free Top 25 email alerts. When you register, you can choose to receive alerts by subject or journal, and can subscribe to up to 10 alerts at once.

**log in**

e-mail address

password



remember me on this computer

[forgotten password?](#)

[not registered? Sign up today!](#)

Tell other people about this service

[Contact Top 25 Team](#) [About the Top 25](#) [Sitemap](#)

## Top 25 Hottest Articles

Medicine and Dentistry > [Medical Engineering & Physics](#)

**April to June 2011**

[RSS](#) [Blog This!](#) [Print](#) [Show condensed](#)



**1. Mechanical properties and the hierarchical structure of bone**

*Medical Engineering & Physics, Volume 20, Issue 2, March 1998, Pages 92-102*  
Rho, J.-Y.; Kuhn-Spearing, L.; Zioupos, P.

[Cited by SciVerse Scopus \(358\)](#)

**2. Body fluid volumes measurements by impedance: A review of bioimpedance spectroscopy (BIS) and bioimpedance analysis (BIA) methods**

*Medical Engineering & Physics, Volume 30, Issue 10, December 2008, Pages 1257-1269*  
Jaffrin, M.Y.; Morel, H.

[Cited by SciVerse Scopus \(12\)](#)

**3. Direct measurement of human movement by accelerometry**

*Medical Engineering & Physics, Volume 30, Issue 10, December 2008, Pages 1364-1386*  
Godfrey, A.; Conway, R.; Meagher, D.; O'Laighin, G.

[Cited by SciVerse Scopus \(28\)](#)

**4. Prosthetic aortic heart valves: Modeling and design** • Review article

*Medical Engineering & Physics, Volume 33, Issue 2, March 2011, Pages 131-147*  
Mohammadi, H.; Mequanint, K.

**5. Robot assisted treadmill training: Mechanisms and training strategies** • Review article

*Medical Engineering & Physics, Volume 33, Issue 5, June 2011, Pages 527-533*  
Hussain, S.; Xie, S.Q.; Liu, G.

**6. Needle insertion into soft tissue: A survey**

*Medical Engineering & Physics, Volume 29, Issue 4, May 2007, Pages 413-431*  
Abolhassani, N.; Patel, R.; Moallem, M.

[Cited by SciVerse Scopus \(74\)](#)

**7. Hazards, risks and safety of diagnostic ultrasound** • Review article

*Medical Engineering & Physics, Volume 30, Issue 10, December 2008, Pages 1338-1348*  
Duck, F.A.

[Cited by SciVerse Scopus \(5\)](#)

**8. The use of computational fluid dynamics in the development of ventricular assist devices** • Review article

*Medical Engineering & Physics, Volume 33, Issue 3, April 2011, Pages 263-280*  
Fraser, K.H.; Taskin, M.E.; Griffith, B.P.; Wu, Z.J.

[Cited by SciVerse Scopus \(1\)](#)

**9. Methods for gait event detection and analysis in ambulatory systems** • Review article

*Medical Engineering & Physics, Volume 32, Issue 6, July 2010, Pages 545-552*  
Rueterborries, J.; Spaich, E.G.; Larsen, B.; Andersen, O.K.

[Cited by SciVerse Scopus \(1\)](#)

**10. The electrochemical oxide growth behaviour on titanium in acid and alkaline electrolytes**

*Medical Engineering & Physics, Volume 23, Issue 5, June 2001, Pages 329-346*  
Sul, Y.-T.; Johansson, C.B.; Jeong, Y.; Albrektsson, T.

[Cited by SciVerse Scopus \(189\)](#)

**11. Fabrication and characterization of nano-composite scaffold of PLLA/silane modified hydroxyapatite**

- Medical Engineering & Physics, Volume 32, Issue 4, May 2010, Pages 391-397*  
Wang, X.; Song, G.; Lou, T.
12. **In vivo measurements of the elastic mechanical properties of human skin by indentation tests**  
*Medical Engineering & Physics, Volume 30, Issue 5, June 2008, Pages 599-606*  
Paillet-Mattel, C.; Bec, S.; Zahouani, H.  
[Cited by SciVerse Scopus \(28\)](#)
13. **Current development in non-invasive glucose monitoring** • Review article  
*Medical Engineering & Physics, Volume 30, Issue 5, June 2008, Pages 541-549*  
Ferrante do Amaral, C.E.; Wolf, B.  
[Cited by SciVerse Scopus \(15\)](#)
14. **Experimental and modelling investigation of surface EMG spike analysis**  
*Medical Engineering & Physics, Volume 33, Issue 4, May 2011, Pages 427-437*  
Gabriel, D.A.; Christie, A.; Inglis, J.G.; Kamen, G.
15. **A review of electrical impedance techniques for breast cancer detection** • Review article  
*Medical Engineering & Physics, Volume 25, Issue 2, March 2003, Pages 79-90*  
Zou, Y.; Guo, Z.  
[Cited by SciVerse Scopus \(64\)](#)
16. **Drug-eluting stents for coronary artery disease: A review** • Review article  
*Medical Engineering & Physics, Volume 33, Issue 2, March 2011, Pages 148-163*  
Martin, D.M.; Boyle, F.J.
17. **Rigid and flexible spinal stabilization devices: A biomechanical comparison**  
*Medical Engineering & Physics, Volume 33, Issue 4, May 2011, Pages 490-496*  
Galbusera, F.; Bellini, C.M.; Anasetti, F.; Ciavarrò, C.; Lovi, A.; Brayda-Bruno, M.
18. **Biomechanics and physiology in active manual wheelchair propulsion**  
*Medical Engineering & Physics, Volume 23, Issue 10, December 2001, Pages 713-733*  
van der Woude, L.H.V.; Veeger, H.E.J.; Dallmeijer, A.J.; Janssen, T.W.J.; Rozendaal, L.A.  
[Cited by SciVerse Scopus \(57\)](#)
19. **A practical gait analysis system using gyroscopes**  
*Medical Engineering & Physics, Volume 21, Issue 2, March 1999, Pages 87-94*  
Tong, K.; Granat, M.H.  
[Cited by SciVerse Scopus \(97\)](#)
20. **3D pulsatile flow in a curved tube with coexisting model of aortic stenosis and coarctation of the aorta**  
*Medical Engineering & Physics, Volume 33, Issue 3, April 2011, Pages 315-324*  
Keshavarz-Motamed, Z.; Kadem, L.
21. **Investigation to predict patellar tendon reflex using motion analysis technique**  
*Medical Engineering & Physics, Volume 33, Issue 4, May 2011, Pages 407-410*  
Tham, L.K.; Osman, N.A.A.; Lim, K.S.; Pinguan-Murphy, B.; Abas, W.A.B.W.; Zain, N.M.
22. **Welding methods for joining thermoplastic polymers for the hermetic enclosure of medical devices** • Review article  
*Medical Engineering & Physics, Volume 32, Issue 7, September 2010, Pages 690-699*  
Amanat, N.; James, N.L.; McKenzie, D.R.  
[Cited by SciVerse Scopus \(4\)](#)
23. **A human knee joint model considering fluid pressure and fiber orientation in cartilages and menisci**  
*Medical Engineering & Physics, Volume 33, Issue 4, May 2011, Pages 497-503*  
Gu, K.B.; Li, L.P.
24. **Tribology and total hip joint replacement: Current concepts in mechanical simulation** • Review article  
*Medical Engineering & Physics, Volume 30, Issue 10, December 2008, Pages 1305-1317*  
Affatato, S.; Spinelli, M.; Zavalloni, M.; Mazzega-Fabbro, C.; Viceconti, M.  
[Cited by SciVerse Scopus \(9\)](#)
25. **Materials for urinary catheters: a review of their history and development in the UK** • Review article  
*Medical Engineering & Physics, Volume 27, Issue 6, July 2005, Pages 443-453*  
Lawrence, E.L.; Turner, I.G.  
[Cited by SciVerse Scopus \(22\)](#)