

Adsorption by Carbons

Eduardo J. Bottani and Juan M.D.

Tascón

Elsevier Science 2008 776pp

ISBN: 978-0-08-044464-2

\$210 / £140 / €155

The first book to address the interplay between carbonaceous materials and adsorption- includes important environmental applications, such as the removal of volatile organic compounds from polluted atmospheres. Covers both gas-solid and liquid-solid adsorption.



Nanostructured Materials Volume 1

Edited by Gerhard Wilde

Elsevier Science 2009 384pp

ISBN: 978-0-08-044965-4

\$125 / £90.00 / €99

This book focuses on functional aspects of nanostructured materials that have a high relevance to immediate applications, such as catalysis, energy harvesting, energy storage, optical properties and surface functionalization via self-assembly. Additionally, there are chapters devoted to massive nanostructured materials and composites and covering basic properties and requirements of this new class of engineering materials. Especially the issues concerning stability, reliability and mechanical performance are mandatory aspects that need to be regarded carefully for any nanostructured engineering material.



Materials for Advanced Packaging

Edited by Daniel Lu and C.P. Wong

Springer 2009 724pp

ISBN: 978-0-387-78218-8

\$110 / £80.00 / €86.95

Significant progress has been made in advanced packaging in recent years. Several new packaging techniques have been developed and new packaging materials have been introduced. Materials for Advanced Packaging provides a comprehensive review on the most recent developments in advanced packaging technologies.



Expert



Graduate



Undergraduate



Talking Nano – 6 DVD Video Set

Overall an excellent overview with something for almost everyone – a very good set of presenters who are not only leaders in the field but also good communicators

Professor Harold Kroto | *Chemistry and Biochemistry Department, The Florida State University* | kroto@chem.fsu.edu

'A Brief Intro to Nano' by Tim Miller – Tim Miller discusses the range of the 'NanoWorlds'. Good analogies library, analogue storage and good analysis of "Prey" type emotive issues. I liked the pine cone/ pine tree observation. I also use a Venn diagram to delineate the breadth of Nanoscience, so it must be good!

'Don Eigler and his Dog Argon: Moving Atoms' by Don Eigler - Don Eigler is one of the key pioneers of

the field and has a nice and easy engaging style, with simple visuals and nice explanations of nanoscale techniques. I liked the sticky atoms nice simple concept.

He gave a good explanation of microscopy and I shall probably use it in teaching undergraduates about microscopy. After watching this DVD, one comes away feeling that one has "seen" the nanoworld.

'Guiding Light with Nanowires' by Eric Mazur - Nice and easy style of lecture given by an engaging

personality who keeps the audience's attention. It is a good presentation for a lay public on total internal refraction with nice effective examples (eg blood cells 100th the thickness of a human hair) and I liked the example of guiding light from Boston to San Francisco. Nice simple graphics and examples of refraction and the critical angle. Lying on your back underwater and seeing all-the-world was a nice, and for me, a new idea. I liked the stumble-upon section in pulling very thin fibres to highlight the importance of accidental discoveries and serendipities in scientific advances.

'George Whitesides: Perspectives on Nanotechnology' by George Whitesides - One of

the leading scientists in the field gives a somewhat more academic delivery. More detailed and more complicated information aimed at a somewhat more expert scientific audience which wants to know where things are going from someone at the cutting-edge.

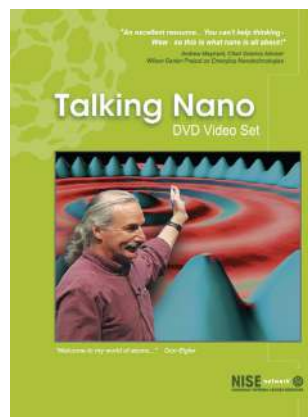
George Whitesides discusses many state-of-the-art issues such as electronic materials and functional structures. Some interesting statistics are presented.

Nice analogy comparing the image of the original transistor to today's world wide web. This DVD presents an important general discussion of societal factors comparative aims, cancer research regarding choice and risk benefits and efficiency.

'The Amazing Nano Brothers Juggling Show' by Dan and Joel - The Nano brothers was good fun and entertaining with good analogies (eg magnification, electron bonding) in their way of showing young

people that everything is made of atoms. I really liked the way they juggled in the dark to show electrons bonding in molecules. It was superb! I liked it and I suspect kids would too, and they would take away something memorable and useful. Something for everyone.

'Nanotechnology and the consumer' by David Rejeski -David Rejeski's lecture was the most interesting. I did not expect to be as interested in it as the others but to my surprise I felt it was the best and



Museum of Science, Boston - Carol Lynn Alpert, et al.

Talking Nano - 6 DVD Video Set

\$34.99 | £24 | €28

More information at www.talkingnano.net

arguably the most important. He overviewed many of the key issues and especially the socio-economic factors surrounding nanoscience and his assessment of the hazards kept my attention throughout. The most important aspect was that he made use of a wide range of statistically significant data and explained it well. I would say it was the most important overview of the field and should be seen by as many journalists as possible so that the media are well-informed with up-to-date and expert advice. It is a very good teaching presentation for scientists as well as for the public. I rate it as one of the most important science/society presentations I have heard, and very well presented too.

If I have a complaint it is that I thought the container was very oddly designed (separate holders for each DVD) and this could be improved in the next run.