DESCRIPTION

Discussions of the basic structural, nanotechnology, and system engineering principles, as well as an introductory overview of essential concepts and methods in biotechnology, will be included. Text is presented side-by-side with extensive use of high-quality illustrations prepared using cutting edge computer graphics techniques. Includes numerous examples, such applications in genetic engineering. Represents the only available introduction and overview of this interdisciplinary field, merging the physical and biological sciences. Concludes with the authors' expert assessment of the future promise of nanotechnology, from molecular "tinkertoys" to nanomedicine. David Goodsell is author of two trade books, Machinery of Life and Our Molecular Nature, and Arthur Olson is the world's leader in molecular graphics and nano-scale representation.

ABOUT THE AUTHOR

David S. Goodsell is an Associate Professor in the Department of Molecular Biology at the Scripps Research Institute, where he divides his time equally between research and science education. His research combines computer graphics and computational chemistry to study the basic mechanisms of protein structure and function. He is currently developing computational models of drug resistance in HIV, seeking new drugs that will be effective in the face of the rapid mutation of the virus. Science education is also a major focus of Goodsell's work, with projects such as the "Molecule of the Month" at the Protein Data Bank (www.pdb.org) and his illustrated books "The Machinery of Life," winner of the 1999 Vesalius Trust Frank Netter Award, and "Our Molecular Nature," which explores biological molecules and their diverse roles within living cells.
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