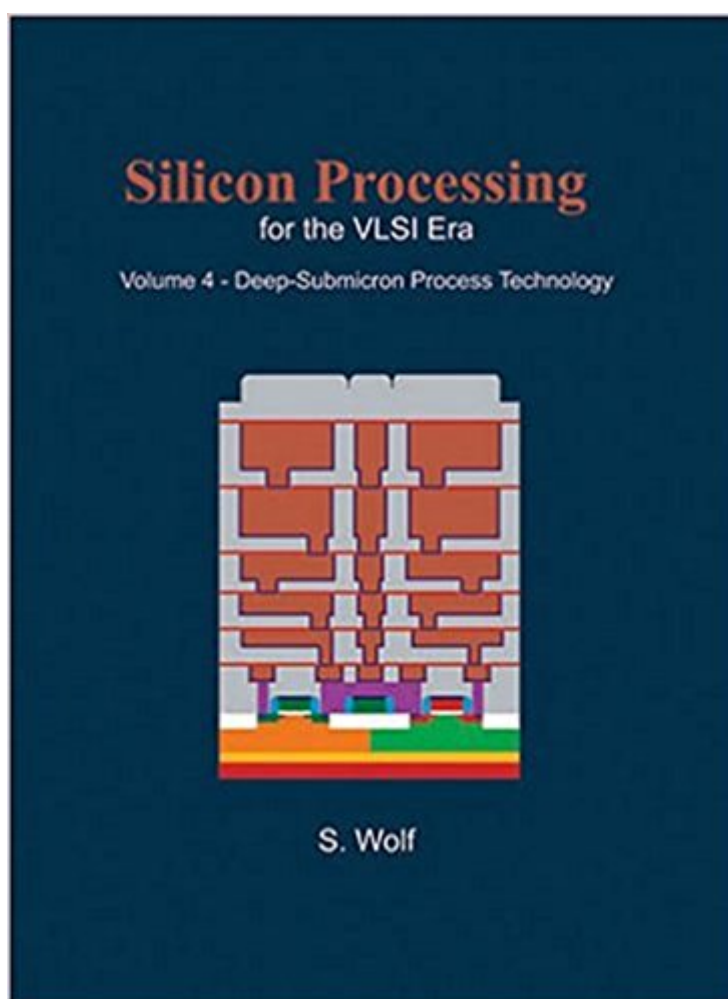The book was found

Silicon Processing For The VLSI Era, Vol. 4: Deep-Submicron Process Technology

Synopsis

Book by Wolf, Stanley

Book Information

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Customer Reviews

Book by Wolf, Stanley

This book provides a great amount of information on a field where there isn't much information to be found. It is easy to read and very descriptive - highly recommended.It is a 2002 book though, talking about a field which evolves too quickly. Some of the "future" things the book talks about have already happened or the industry decided to move in a different direction, but in general this is not much a problem.

This well written reference book is highly recommended to anyone interested in the technology used to manufacture deep-submicron MOSFETs, i.e., MOSFETs requiring lithography in the 1/4 to 1/8-micron range. The first chapter nicely identifies several practical problems that appeared during the evolution of the MOSFET to ULSI, and the remainder of the book discusses processing solutions to those problems.Major processing topics include thin gate oxides, self-aligned silicides, high- and low-k dielectrics, double and triple level metal interconnects, dual damascene copper interconnects, copper seed and electroplating technology, deep uv photoresists and tools, chemical-mechanical planarization, and processing issues unique to 300-mm wafers. State of the

art CMOS topics including super-steep retrograde channel doping, punchthrough-control implants, source/drain engineering, shallow trench isolation, and more are used to illustrate the integration of deep-submicron processes into manufacturing. Increasing use of Si-Ge heterojunction bipolar transistors and silicon-on-insulator is anticipated and discussed.This up-to-date book is one of a kind. It is simply required reading for those in the business.

This book collects the hot issues on the very recent deep submicron (less than 0.18um) semiconductor process technology, such as EUV lithography, high and low k materials, CMP, and 300mm wafer. It seems to provide a good guideline to anyone who wonders what it is going on in the semiconductor process industry.

Ordered on Thurdays night and get it within 3 business days.Product is what has promised. I would purchase other products in the future.

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