"This book provides a complete guide, from physical principles of device operation through fabrication and testing, using real system examples. It gives non-specialists access to what may be the most important next step in information technology."

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"The book covers everything one would need to design, lay out, simulate, and fabricate an actual silicon chip for processing, detecting, and modulating light signals. The book's focus on the practical side of chip implementation means that it is quite different, and frankly more useful, for chip designers than other photonics books."

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A. P. Knights, *McMaster University*

From design and simulation through to fabrication and testing, this hands-on introduction to silicon photonics engineering equips students with everything they need to begin creating foundry-ready designs.

Acquire practical understanding and experience
In-depth discussion of real-world issues and fabrication challenges ensures that students are fully equipped for future careers in industry, designing complex integrated systems-on-chip.

Cut design time and development cost
Step-by-step tutorials, straightforward examples, and illustrative source code fragments guide students through every aspect of the design process, and provide a practical framework for developing and refining key skills.

Industry-ready expertise
Providing both guidance on how a process design kit (PDK) is constructed and how to best utilize the types of PDKs currently available, this text will enable students to understand the design process for building even very complex photonic systems-on-chip.

Accompanied by additional online resources to support students, this is the perfect learning package for senior undergraduate and graduate students studying silicon photonics design, and academic and industrial researchers involved in the development and manufacture of new silicon photonics systems.

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Online Resources
www.cambridge.org/chrostowski

- Source code examples and tutorials
- Generic Process Design Kit (PDK)
- Software and parts lists for automated probe station implementation

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ISBN 978-1-107-08545-9

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Cover design: Andrew Ward