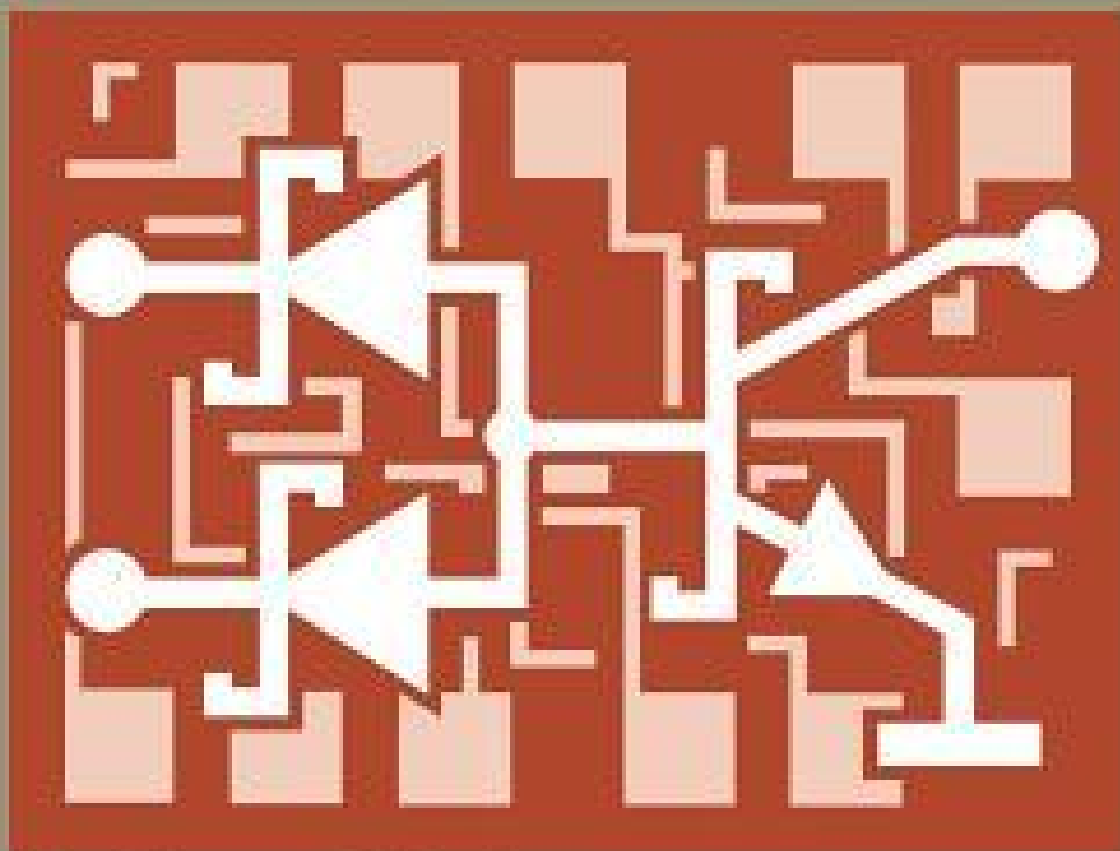


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Halbleiter-Elektronik **13**

H.-M. Rein · R. Ranfft

Integrierte  
Bipolarschaltungen



Springer-Verlag

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# Integrierte Bipolarschaltungen (Halbleiter Elektronik)

Hans-Martin Rein

Will guy heute ein Buch über integrierte Schaltungen schreiben, das einen relativ beschränkten Umfang haben soll, so steht guy vor einer speedy unlosbaren Aufgabe. Die tiefere Ursache hierfür liegt darin, dass diese Halbleiterbausteine einem rapiden Entwicklungsprozess unterworfen sind und dass sich ihr Anwendungsbereich immer weiter ausdehnt. Eine Folge davon ist, dass es bereits heute eine Fülle von Schaltungen gibt, deren Spektrum z. B. in der Digitaltechnik von einfachen Gatterbausteinen bis zu kompletten Mikrocomputern reicht. Um auch nur die wichtigsten Schaltungen behandeln zu können, musste guy deshalb ein umfangreiches Werk über elektronische Schaltungstechnik schreiben, wobei Integrierte Bipolarschaltungen (Halbleiter Elektronik) noch die Gefahr besteht, dass es in wenigen Jahren veraltet ist. Ähnlich gelagert sind die Probleme auf der technologischen Seite, wo zahlreiche Verfahren (mit all ihren Kombinationsmöglichkeiten und Varianten) bekannt sind, die zur Herstellung integrierter Schaltungen verwendet werden. Hinzu kommt das umfangreiche Gebiet der Entwurfstechnik (System-, Schaltungs- und Strukturentwurf), die heute durch Rechneranwendung intensiv unterstützt wird und die u. a. enjoyable dierte Kenntnisse über Realisierungsmöglichkeiten, Modelle und Theorie integrierter Schaltungselemente voraussetzt. Wegen der angedeuteten Problematik wurde innerhalb der Buchreihe "Halbleiter-Elektronik" das Gebiet der integrierten Schaltungen in einen Band über integrierte MOS-Schaltungen von H. Weiss und K. Horninger und den vorliegenden Band über integrierte Bipolarschaltungen aufgeteilt. Dennoch mussten wir uns aus den genannten Gründen weitgehend auf die Behandlung der Grundlagen beschränken, wobei allerdings auf wichtige Neuerungen nicht verzichtet

## Integrierte Bipolarschaltungen Halbleiter Elektronik

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