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Descrizione fisica	1 online resource (562 p.)
Altri autori (Persone)	HutchingsIan M MartinGraham (Graham Dagnall)
Disciplina	620.1/06
Soggetti	Microfluidics Microfabrication Ink-jet printing Three-dimensional printing Coating processes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction to inkjet printing for manufacturing -- Fundamentals of inkjet technology -- Dynamics of piezoelectric print-heads -- Fluids for inkjet printing -- When the drop hits the substrate -- Manufacturing of Micro-Electro-Mechanical (MEMS) -- Conductive tracks and passive electronics -- Printed circuit board fabrication -- Active electronics -- Flat-panel Organic Light-Emitting Diode (OLED) displays : a case study -- Radiofrequency Identification (RFID) manufacturing : a case study -- Biopolymers and cells -- Tissue engineering : a case study -- Three-dimensional digital fabrication -- Current inkjet technology and future directions.

Whilst inkjet technology is well-established on home and small office desktops and is now having increasing impact in commercial printing, it can also be used to deposit materials other than ink as individual droplets at a microscopic scale. This allows metals, ceramics, polymers and biological materials (including living cells) to be patterned on to substrates under precise digital control. This approach offers huge potential advantages for manufacturing, since inkjet methods can be used to generate structures and functions which cannot be attained in other ways. Beginning with an ov

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