1. Record Nr. UNINA9910808185903321

Titolo	Active-matrix organic light-emitting display technologies / / by Shuming Chen [and four others]
Pubbl/distr/stampa	Sharjah, United Arab Emirates : , : Bentham Science Publishers Ltd., , [2014] ©[2014]
ISBN	1-68108-120-2
Descrizione fisica	1 online resource (211 p.)
Collana	Frontiers in Electrical Engineering, , 2452-1442 ; ; Volume 1
Disciplina	621.381522
Soggetti	Light emitting diodes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	CONTENTS; PREFACE ; LIST OF CONTRIBUTORS ; Introduction to Organic Light-Emitting Display Technologies ; INTRODUCTION; DEVELOPEMNT HISTORY OF OLEDS; BASIC PHYSICS OF OLEDS; Charge Carriers Injection; Charge Carriers Transportation ; Exciton Formation and Recombination ; Light Extraction from Devices ; FABRICATION AND CHARACTERIZATION OF OLEDS; APPLICATION OF OLEDS; Flat Panel Display; Solid-state Lighting; CONFLICT OF INTEREST; ACKNOWLEDGMENTS; REFERENCES; White Organic Light-Emitting Diodes for Display and Lighting Application ; WOLEDS FOR FULL COLOR DISPLAYS; WOLEDS FOR SOLID-STATE LIGHTING APPROACHES TO WHITE LIGHT EMISSIONMulti-emissive Layers; Single-emissive Layer; WOLEDs with Fluorescent-phosphorescent Hybrid Emitters ; Tandem WOLEDs; Side by Side WOLEDs; Color Converted WOLEDs; Excimer/Exciplex WOLEDs; CONFLICT OF INTEREST; ACKNOWLEDGMENTS; REFERENCES; Light Outcoupling Technologies ; INTRODUCTION; LIGHT DISTRIBUTION IN OLED; EXTERNAL EXTRACTION STRUCTURES; Truncated Square-pyramid Luminaire; Scattering Film; Sand-blasting Substrate; Microlens Array; INTERNAL EXTRACTION STRUCTURES; Internal Scattering Layer; Photonic Crystal Structure; Metal Nanoparticles; CONCLUSION CONFLICT OF INTERESTACKNOWLEDGEMENTS; REFERENCES;

Encapsulation Technologies ; INTRODUCTION; DARK SPOTS FORMATION MECHANISM; REQUIREMENT AND MEASUREMENT OF THE PERMEATION RATES; TRADITIONAL ENCAPSULATION TECHNOLOGY; THIN FILM ENCAPSUTION TECHNOLOGY; Si3N4/SiO2 Multilayer; Organic/Inorganic Multilayer; Atomic Layer Deposited (ALD) Film; CONCLUSION; CONFLICT OF INTEREST; ACKNOWLEDGEMENTS; REFERENCES; Thin Film Transistor Technology ; INTRODUCTION; HISTORY OF THIN FILM TRANSISTORS; HYDROGENATED AMORPHOUS SILICON TFT TECHNOLOGY; LOW TEMPERATURE POLYCRYSTALLLINE SILICON TFT TECHNOLOGY
SPC TechnologyMIC Technology; ELA Technology; Bridge Grain Technology; METAL OXIDE SEMICONDUCTOR TFTS; Zinc Oxide TFTs; Amorphous Oxide Semiconductors and TFTs; Zinc Tin Oxide; Indium Gallium Oxide; Indium Gallium Zinc Oxide; GaN TFTs; MoS2 TFTs; SUMMARY ; CONFLICT OF INTEREST; ACKNOWLEDGEMENTS; REFERENCES; Driving Schemes and Design Considerations for AMOLED ; CIRCUIT FUNDAMENTALS ; Resistor-Capacitor Circuit; Charging and Discharging RC Circuit; Capacitive Parasitics; TFT CIRCUIT CONSIDERATIONS; Operational Region; Transistor as a Switch; Transistor as a Current Source or Current Drain
On ResistanceApproximation of TFT with an equivalent resistance; DESIGN CONSIDERATIONS FOR ACTIVE-MATRIX BACKPLANE; Brightness; Display Timing; Pixel Storage Capacitance; Design Expression; TFT CIRCUIT DESIGN TECHNIQUES; Bootstrap Circuit; CIRCUIT COMPENSATION AND LAYOUT DESIGN; CHALLENGE IN AMOLED DISPLAYS; Aging of OLED and TFT ; Threshold Voltage Shift; 2T1C Pixel Configuration; THRESHOLD VOLTAGE COMPENSATED AMOLED PIXEL; 3T1C Pixel Configuration; 4T1C Pixel Configuration; 5T2C Pixel Configuration; 6T1C Pixel Configuration; 6T1C Pixel Configuration with biased discharge method
CONFLICT OF INTEREST