

1. Record Nr.	UNINA9910141330603321
Titolo	Functionalization of semiconductor surfaces [[electronic resource] /] / edited by Franklin (Feng) Tao, Steven L. Bernasek
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, 2012
ISBN	1-280-58968-X 9786613619518 1-118-19980-4 1-118-19977-4 1-118-19978-2
Edizione	[1st edition]
Descrizione fisica	1 online resource (456 p.)
Classificazione	TEC021000
Altri autori (Persone)	TaoFeng <1971-> BernasekS. L (Steven L.)
Disciplina	541/.377
Soggetti	Semiconductors - Surfaces Semiconductors - Materials
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 and index.
Nota di contenuto	Introduction / Franklin (Feng) Tao, Yuan Zhu, and Steven L. Bernasek -- Surface analytical techniques / Ying Wei Cai and Steven L. Bernasek -- Structures of semiconductor surfaces and origins of surface reactivity with organic molecules / Yongquan Qu and Keli Han -- Pericyclic reactions of organic molecules at semiconductor surfaces -- Keith T. Wong and Stacey F. Bent -- Chemical binding of five-membered and six-membered aromatic molecules / Franklin F. Tao and Steven L. Bernasek -- Influence of functional groups in substituted aromatic molecules on the selection of reaction channel in semiconductor surface functionalization / Andrew V. Teplyakov -- Covalent binding of polycyclic aromatic hydrocarbon systems / Dr. Yong Kian Soon and Professor Xu Guo-Qin -- / Young Hwan Min, Hangil lee, Do Hwan Kim, and Sehun Kim -- Ab initio molecular dynamics studies of conjugated dienes on semiconductor surfaces / Mark E. Tuckerman and Yanli Zhang -- Formation of organic nanostructures on semiconductor surfaces / Zakir Hossain and Maki Kawai -- Formation of organic monolayers through wet chemistry / Damien Aureau and Yves J. Chabal

-- Chemical stability of organic monolayers formed in solution / Leslie E. O'Leary, Erik Johansson, and Nathan S. Lewis -- Immobilization of biomolecules at semiconductor interfaces / Robert J. Hamers -- Perspective and challenge / Franklin (Feng) Tao and Steven L. Bernasek.

Sommario/riassunto

"This book presents both fundamental knowledge and latest achievements of this rapidly growing field in the last decade. It presents a complete and concise picture of the state-of-the-art in the field, encompassing the most active international research groups in the world"--
