1. Record Nr. UNINA9910420950803321

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| Titolo | DNA Nanotechnology : From Structure to Functionality / / edited by Chunhai Fan, Yonggang Ke |
| Pubbl/distr/stampa | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020 |
| ISBN | 3-030-54806-6 |
| Edizione | [1st ed. 2020.] |
| Descrizione fisica | 1 online resource (IX, 406 p.) |
| Collana | Topics in Current Chemistry Collections, , 2367-4075 |
| Disciplina | 572.86 |
| Soggetti | Nanotechnology<br>Biotechnology<br>Biomaterials<br>Nucleic acids<br>Nanoscience<br>Nucleic Acid<br>Nanophysics |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | Towards Active Self-assembly through DNA Nanotechnology -- Tailoring DNA self-assembly to build hydrogels -- DNA-Programmed Chemical Synthesis of Polymers and Inorganic Nanomaterials -- Engineering Functional DNA-Protein Conjugates for Biosensing, Biomedical, and Nanoassembly Applications -- DNA-Scaffolded Proximity Assembly and Confinement of Multienzyme Reactions -- Directional assembly of nanoparticles by DNA shapes: towards designed architectures and functionality -- Oligonucleotide-Polymer Conjugates: From Molecular Basic to Practical Application -- Biotechnological and Therapeutic Applications of Natural Nucleic Acid Structural Motifs -- DNA driven Nanoparticle Assemblies for Biosensing and Bioimaging -- Aptamer-functionalized DNA Nanostructures for Biological Applications -- High-performance biosensing based on autonomous enzyme-free DNA circuits -- DNA strand displacement reaction: a powerful tool for discriminating single nucleotide variants. |
| Sommario/riassunto | The series Topics in Current Chemistry Collections presents critical |

reviews from the journal Topics in Current Chemistry organized in topical volumes. The scope of coverage is all areas of chemical science including the interfaces with related disciplines such as biology, medicine and materials science. The goal of each thematic volume is to give the non-specialist reader, whether in academia or industry, a comprehensive insight into an area where new research is emerging which is of interest to a larger scientific audience. Each review within the volume critically surveys one aspect of that topic and places it within the context of the volume as a whole. The most significant developments of the last 5 to 10 years are presented using selected examples to illustrate the principles discussed. The coverage is not intended to be an exhaustive summary of the field or include large quantities of data, but should rather be conceptual, concentrating on the methodological thinking that will allow the non-specialist reader to understand the information presented. Contributions also offer an outlook on potential future developments in the field. 

2. Record Nr. UNINA9910960900103321

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| Titolo | GIS applications in agriculture . Volume two Nutrient management for energy efficiency / / edited by David E. Clay, John F. Shanahan |
| Pubbl/distr/stampa | Boca Raton, FL, : CRC Press, 2011<br>Boca Raton, Fla. : , : CRC Press, , 2011 |
| ISBN | 0-429-14541-1<br>1-4200-9271-5 |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (464 p.) |
| Collana | GIS applications in agriculture |
| Altri autori (Persone) | ClayDavid (David E.)<br>ShanahanJohn Francis <1955-> |
| Disciplina | 631.8/1 |
| Soggetti | Agriculture - Remote sensing<br>Geographic information systems<br>Agricultural mapping<br>Agriculture - Data processing<br>Plants - Nutrition |
| 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 | Front Cover; Contents; Series Preface; Preface; Editors; Contributors; Chapter 1: Energy and Climate Implications for Agricultural Nutrient Use Efficiency; Chapter 2: Nutrient Management for Improved Energy Efficiency; Chapter 3: Using Precision Farming to Overcome Yield-Limiting Factors in Southern Brazil Oxisols: A Case Study; Chapter 4: Collecting and Analyzing Soil Spatial Information Using Kriging and Inverse Distance; Chapter 5: Integration of USDA-NRCS Web Soil Survey and Site Collected Data<br>Chapter 6: Space, Time, Remote Sensing, and Optimal Nitrogen Fertilization Rates: A Fuzzy Logic ApproachChapter 7: Digital Northern Great Plains and Zone Mapping Application for Precision Agriculture; Chapter 8: Spatial Variability of Field Machinery Use and Efficiency ; Chapter 9: Precision Manure Application Requirements; Chapter 10: Case Study for Improving Nutrient Management Efficiency by Optimizing the Plant Population; Chapter 11: Soil Water Status Maps for Variable Rate Irrigation |

Chapter 12: Maximizing Nutrient Efficiency through the Adoption of Management Practices That Maintain Soil Organic Carbon: CalcChapter 13: Predictive Mapping of Soil Organic Carbon: A Case Study Using Geographically Weighted Regression Approach; Chapter 14: Tillage and Crop Residue Effects on Soil Carbon Turnover Using the Michaelis-Menten Approach; Chapter 15: Geospatial Management of Andean Technology by the Inca Empire; Chapter 16: Calculating Energy Efficiency of Applying Fresh and Composted Manure to Soil
Chapter 17: Quantifying Greenhouse Gas (CO2, CH4, and N2O) Fluxes from Soil in a PastureChapter 18: Improved Nitrogen and Energy-Use Efficiency Using NIR-Estimated Soil Organic Carbon and N Simulation Modeling; Chapter 19: Computing Wheat Nitrogen Requirements from Grain Yield and Protein Maps; Chapter 20: Review of Low- and High-Technology Nitrogen Management Approaches for Improved Nitrogen Use Efficiency; Chapter 21: Use of GIS-Based Site-Specific Nitrogen Management for Improving Energy Efficiency; Chapter 22: Geographic Information and the Management of Animal Manure
Chapter 23: Spatial Ramifications of Crop Selection: Water Quality and Biomass EnergyChapter 24: Estimating Soil Productivity and Energy Efficiency Using the USDA Web Soil Survey, Soil Productivity Index Calculat; Back Cover

Sommario/riassunto

We are entering a new era in production agronomics. Agricultural scientists the world over call for the development of techniques that simultaneously increase soil carbon storage and reduce agriculture's energy use. In response, site-specific or precision agriculture has become the focus and direction for the three motivating forces that are changing agriculture today: the expanding capacity of personal computers, the molecular biology revolution, and the recent developments in information technology such as the increasing use of geographical information systems (GIS).Using ma