

1. Record Nr.	UNINA9910557338203321
Autore	Di Rienzo Marco
Titolo	Wearable and Nearable Biosensors and Systems for Healthcare
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 online resource (226 p.)
Soggetti	Humanities Social interaction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>Biosensors and systems in the form of wearables and "nearables" (i.e., everyday sensorized objects with transmitting capabilities such as smartphones) are rapidly evolving for use in healthcare. Unlike conventional approaches, these technologies can enable seamless or on-demand physiological monitoring, anytime and anywhere. Such monitoring can help transform healthcare from the current reactive, one-size-fits-all, hospital-centered approach into a future proactive, personalized, decentralized structure. Wearable and nearable biosensors and systems have been made possible through integrated innovations in sensor design, electronics, data transmission, power management, and signal processing. Although much progress has been made in this field, many open challenges for the scientific community remain, especially for those applications requiring high accuracy. This book contains the 12 papers that constituted a recent Special Issue of Sensors sharing the same title. The aim of the initiative was to provide a collection of state-of-the-art investigations on wearables and nearables, in order to stimulate technological advances and the use of the technology to benefit healthcare. The topics covered by the book offer both depth and breadth pertaining to wearable and nearable technology. They include new biosensors and data transmission techniques, studies on accelerometers, signal processing, and</p>

cardiovascular monitoring, clinical applications, and validation of commercial devices.

2. Record Nr.	UNINA9910557372603321
Autore	Torsæter Ole
Titolo	Application of Nanoparticles for Oil Recovery
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 online resource (145 p.)
Soggetti	Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>The oil industry has, in the last decade, seen successful applications of nanotechnology in completion systems, completion fluids, drilling fluids, and in improvements of well constructions, equipment, and procedures. However, very few full field applications of nanoparticles as an additive to injection fluids for enhanced oil recovery (EOR) have been reported. Many types of chemical enhanced oil recovery methods have been used in fields all over the world for many decades and have resulted in higher recovery, but the projects have very often not been economic. Therefore, the oil industry is searching for a more efficient enhanced oil recovery method. Based on the success of nanotechnology in various areas of the oil industry, nanoparticles have been extensively studied as an additive in injection fluids for EOR. This book includes a selection of research articles on the use of nanoparticles for EOR application. The articles are discussing nanoparticles as additive in waterflooding and surfactant flooding, stability and wettability alteration ability of nanoparticles and nanoparticle stabilized foam for CO₂-EOR. The book also includes articles on nanoparticles as an additive in biopolymer flooding and studies on the use of nanocellulose as a method to increase the viscosity of injection water. Mathematical</p>

models of the injection of nanoparticle-polymer solutions are also presented.
