1. Record Nr. UNINA9910951901403321

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Titolo	Total Hip Replacement (THR) : Effect of Inclination and Anteversion Angle on the Performance of Epoxy-UHMWPE Acetabular Cup / / by Muhammad Faris bin Abd Manap, Solehuddin Shuib, Ahmad Zafir Romli
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	9789819609758 9819609755
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (116 pages)
Collana	SpringerBriefs in Applied Sciences and Technology, , 2191-5318
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Disciplina	610.153
Soggetti	Medical physics Biomedical engineering Biomechanics Biomaterials Mathematics - Data processing Medical Physics Biomechanical Analysis and Modeling Computational Mathematics and Numerical Analysis Biomedical Engineering and Bioengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. THE EFFECT OF INCLINATION AND ANTEVERSION ANGLE ON THE PERFORMANCE OF EPOXY-UHMWPE ACETABULAR CUP -- Chapter 2. METAL-ON-METAL TOTAL HIP REPLACEMENT AND SAFE ZONE ORIENTATION OF ACETABULAR CUP -- Chapter 3. FINITE ELEMENT ANALYSIS (FEA) OF METAL-ON-POLYMER (MoP) AND ACETABULAR CUP MATERIAL -- Chapter 4. NUMERICAL AND MATHEMATICAL MODELLING FOR ACETABULAR CUP ORIENTATION -- Chapter 5. EXPERIMENTAL WORK OF EPOXY-UHMWPE MATERIALS -- Chapter 6. ANALYTICAL RESULTS OF SAFE ZONE ORIENTATION -- Chapter 7. FINITE ELEMENT ANALYSIS (FEA) STATIC STRUCTURAL ANALYSIS -- Chapter 8. EXPERIMENTAL WORK OF EPUHMWPE MATERIALS -- Chapter 9. THE

PERFORMANCE OF EPOXY-UHMWPE AT DIFFERENT INCLINATION AND ANTEVERSION ANGLE.

Sommario/riassunto

This book highlights the critical challenges faced in total hip replacement (THR) procedures, particularly concerning the performance and longevity of acetabular components. Despite advancements in implant technology, issues such as improper orientation and material failure continue to result in complications, including dislocation and wear. Recognizing the need for more reliable solutions, this book explores the optimization of safe zone orientation and the development of composite materials, specifically focusing on metal-on-polymer (MoP) implants. By investigating these factors through numerical analysis, finite element analysis (FEA), and experimental studies, the book seeks to enhance implant performance, reduce failure rates, and ultimately improve patient outcomes in THR surgeries.