1. Record Nr. UNINA9910792484703321

Autore	Fung Y.C
Titolo	Biomechanics [[electronic resource]] : Circulation / / by Y.C. Fung
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Springer, , 1997
ISBN	1-4757-2696-1
Edizione	[2nd ed. 1997.]
Descrizione fisica	1 online resource (XVIII, 572 p.)
Disciplina	570
Soggetti	Life sciences Biomathematics Human physiology Life Sciences, general Mathematical and Computational Biology Human Physiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	1 Physical Principles of Circulation -- 2 The Heart -- 3 Blood Flow in Arteries -- 4 The Veins -- 5 Microcirculation -- 6 Blood Flow in the Lung -- 7 Coronary Blood Flow -- 8 Blood Flow in Skeletal Muscle -- Author Index.
Sommario/riassunto	The theory of blood circulation is the oldest and most advanced branch of biomechanics, with roots extending back to Huangti and Aristotle, and with contributions from Galileo, Santori, Descartes, Borelli, Harvey, Euler, Hales, Poiseuille, Helmholtz, and many others. It represents a major part of humanity's concept of itself. This book presents selected topics of this great body of ideas from a historical perspective, binding important experiments together with mathematical threads. The objectives and scope of this book remain the same as in the first edition: to present a treatment of circulatory biomechanics from the stand- points of engineering, physiology, and medical science, and to develop the subject through a sequence of problems and examples. The name is changed from Biodynamics: Circulation to Biomechanics: Circulation to unify the book with its sister volumes, Biomechanics: Mechanical Properties of Living Tissues, and Biomechanics: Motion, Flow, Stress, and Growth. The major changes made in the new edition

		are the following: When the first edition went to press in 1984, the question of residual stress in the heart was raised for the first time, and the lung was the only organ analyzed on the basis of solid morphologic data and constitutive equations. The detailed analysis of blood flow in the lung had been done, but the physiological validation experiments had not yet been completed.

2.	Record Nr.	UNINA9911004771403321
	Titolo	Pulp and paper chemistry and technology . Volume 3 Paper chemistry and technology / / edited by Monica Ek, Goran Gellerstedt, Gunnar Henriksson
	Pubbl/distr/stampa	Berlin, : Walter de Gruyter, 2009
	ISBN	9786612456930 9781523116508 1523116501 9781282456938 1282456938 9783110213447 3110213443
	Descrizione fisica	1 online resource (408 p.)
	Collana	Pulp and Paper Chemistry and Technology ; ; Volume 3
	Classificazione	VN 5500
	Altri autori (Persone)	EkMonica GellerstedtGoran HenrikssonGunnar
	Disciplina	676/.2 676.23
	Soggetti	Wood-pulp Papermaking - Chemistry
	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	Frontmatter -- Contents -- 1. Structure of the Fibre Wall -- 2. Structure and Properties of Fibres -- 3. Interactions between Fibres and Water and the Influence of Water on the Pore Structure of Wood Fibres

-- 4. Chemistry of the Fibre Surface -- 5. Fibre Suspensions -- 6. Water and Material Balances in the Paper Mill -- 7. Industrial Beating/Refining -- 8. The Short Circulation -- 9. Polyelectrolyte Adsorption onto Cellulose Fibres -- 10. Web Forming -- 11. Grammage Variability -- 12. Wet Pressing -- 13. Drying of Paper -- 14. Sizing -- 15. Calendering -- 16. Pigment Coating -- Backmatter

Sommario/riassunto

This four volume set covers the entire spectrum of pulp and paper chemistry and technology from starting material to processes and products including market demands. This work is essential for all students of wood science and a useful reference for those working in the pulp and paper industry or on the chemistry of renewable resources. Volume 3 provides an overview of paper production and the ways in which the chemistry of starting materials and processes influence its quality and properties. The work treats fundamental properties of the fibre wall and the consolidation of fibres during pressing and drying, surface chemistry of fibres and their influence on the interaction between fibres/paper and other materials, mechanisms behind the adsorption of polyelectrolytes to fibres and fillers, acid and alkaline sizing of paper, basic fluid mechanical behavior of fibre suspensions, web forming, web pressing and web drying in a modern paper machine, calendaring and coating of paper.