1. Record Nr. UNINA9910795455803321

Autore	Liu Yue
Titolo	Carbon fibre reinforced polymer (CFRP) cables for orthogonally loaded cable structures : advantages and feasibility / / vorgelegt von Yue Liu
Pubbl/distr/stampa	Berlin, Germany : , : Logos Verlag Berlin, , 2015
ISBN	3-8325-9444-2
Descrizione fisica	1 online resource (xiii, 234 pages)
Disciplina	791
Soggetti	Cable structures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	PublicationDate: 20151028
Sommario/riassunto	Long description: With the advantages of high strength, lightweight, no corrosion and excellent fatigue resistance, Carbon Fibre Reinforced Polymer (CFRP) cables have the potential to replace steel cables in a broad range of applications. The ideal structures for such cables are highly pre-tensioned cable systems that are loaded orthogonally to their cable axes. This type of structures with CFRP cables, such as cable net facades, spoked wheel cable roofs and stressed-ribbon bridges, can be built economically with large or small spans. This book is the first in the world to demonstrate the advantages of using CFRP cables in orthogonally loaded cable structures, including detailed analyses of mechanical properties and economic efficiencies. Furthermore, in order to solve the anchorage problem which hinders the application of CFRP cables, two new CFRP cable anchorages, especially suitable for orthogonally loaded cable structures, are proposed in this book. In addition, a prototype of CFRP spoked wheel cable roof built by the author is presented to show the feasibility of CFRP orthogonally loaded cable structures based on the present technology; a novel design, i.e. the CFRP Continuous Band Winding System, is also conceptually introduced, so as to show a feasible form of CFRP orthogonally loaded cable structures in the future. This book is written to encourage the use of CFRP cables and show that CFRP cable structures are feasible and have advantages over steel cable structures. It will be read by researchers of structural engineering and by consulting engineers.

2. Record Nr. UNINA9910149756503321

Titolo	Cosmic Frontiers: Scientists Seek Clues to the Universe's Greatest Mysteries
Pubbl/distr/stampa	Diversion Books
ISBN	1-62681-844-4
Descrizione fisica	1 online resource (214 p.)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Explore the mysteries of the cosmos with this captivating anthology from Science News.Since Edwin Hubble discovered the great distance to Andromeda, our conception of the universe has grown dramatically. No longer bound by the confines of the Milky Way, astronomers and physicists began to study areas of the cosmos much further from home. Our new knowledge and technology have provided us with answers to many astronomical puzzles, but they have also opened the door to countless questions.This extensive collection of articles from Science News delves deep into the mysteries of the universe. Tackling topics from the Big Bang to black holes, and the elusive material known as dark matter, it answers questions and explores still-developing theories. Cosmic Frontiers is perfect for anyone with an interest in the history and fate of our universe.Since 1921, Society for Science & the Public has facilitated global understanding of important scientific discoveries and issues. Since the first publication of the Science News-Letter in 1922, they have grown their audience to millions of readers each year. Now, Science News exposes new readers to thrilling concepts and innovative theories in Cosmic Frontiers.