Record Nr. UNINA9910337912903321 Testing and Characterization of Asphalt Materials and Pavement **Titolo** Structures: Proceedings of the 5th GeoChina International Conference 2018 - Civil Infrastructures Confronting Severe Weathers and Climate Changes: From Failure to Sustainability, held on July 23 to 25, 2018 in HangZhou, China / / edited by Kun Zhang, Ronggiao Xu, Shih-Huang Chen Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-319-95789-9 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (VII, 172 p. 78 illus., 55 illus. in color.) Sustainable Civil Infrastructures, , 2366-3405 Collana Disciplina 620,196 Soggetti Geotechnical engineering Engineering geology Engineering—Geology **Foundations** Hydraulics Geotechnical Engineering & Applied Earth Sciences Geoengineering, Foundations, Hydraulics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia 1. Fuel Resistance Asphalt Binder: Mixing procedure and Fuel damage Nota di contenuto resistance -- 2. Evaluating the thermal characteristics of rubberized asphalt by applying the object-based approach -- 3. Effect of Anti-Stripping Agents on Asphalt Binder-Aggregate Systems Performance Using a Mechanistic Approach -- 4. Stiffening Thin Orthotropic Deck

Structures With Thermoset Epoxy Asphalt For Improved Fatigue Resistance -- 5. Changes in chemical fingerprints of asphalt binders due to aging and chemical modification -- 6. Asphalt Mixtures That Disipatetes Energy - Comparison Of Conventional And Newly

Developed Mixtures -- 7.Study on Moisture Susceptibility of Foamed Warm Mix Asphalt -- 8.Effect of Different Adding Methods of Nano-TiO2 on Photocatalytic Degradation of Automobile Exhaust on Asphalt

Mixture -- 9.Evaluating the Effect of Solar Radiations on the Performance of Asphalt Concrete Pavements -- 10.Effect of overloaded vehicles on whole life cycle cost of flexible pavements -- 11.Practical pavement design approach subjected to seepage conditions -- 12. Study on shrinkage of ordinary concrete under different temperatures and humidity -- 13.Representing Collected Road Condition Data with Chernoff Faces for Evaluation of Pavement Conditions -- 14.Reflective Cracking in Composite Pavements -A Case Study -- 15.Optimization Of Gravel Road Blading.

Sommario/riassunto

This book presents new studies dealing with the attempts made by the scientists and practitioners to address contemporary issues in pavement engineering such as aging and modification of asphalt binders, performance evaluation of warm mix asphalt, and mechanical-based pavement structure analysis, etc.. Asphalt binder and mixture have been widely used to construct flexible pavements. Mechanical and Chemical characterizations of asphalt materials and integration of these properties into pavement structures and distresses analysis are of great importance to design a sustainable flexible pavement. This book includes discusses and new results dealing with these issues. Papers were selected from the 5th GeoChina International Conference 2018 – Civil Infrastructures Confronting Severe Weathers and Climate Changes: From Failure to Sustainability, held on July 23 to 25, 2018 in HangZhou, China.