

CONTENTS

Journal of the Korean Society for Advanced Composite Structures
Vol. 14, No. 6 December, 2023

- Stress-Strain Model based on the Compressive Fracture Energy of Concrete Columns Laterally Confined with Fe-SMA Spirals
Ji, Sangwon · Hong, Kinam
- Characteristics of Biochar based on its Carbonization Degree
Ruziev, Jamshid · Lee, Ji-Yun · Lee, Su-Jeong · Kim, Woo-Suk
- Development of an SB4-grade Separated Concrete Median Barrier using a Collision Analysis Model
Joo, Bongchul · Hong, Kinam · Ji, Sangwon · Han, Mincheol
- Experimental Study on the Composite Behavior of GFRP Plates and Concrete using Various Shear Keys
Kim, Yongjae · Shin, Jeongryol · Lee, Anho · Moon, Doyoung
- Evaluation of the Nonlinear Structural Performance of Pier Columns under Cycling Transverse Loads using Hollow Rebars
Son, Byung-Jik · Noh, Myung-Hyun · Lee, Sang-Youl
- Application of Road Base Materials Using Asphalt Concrete Recycled Aggregates
Lim, Heeseob · Cho, Hyeongkyu
- Evaluation of Structural Behavior and hydraulic Characteristics of Polyvinyl Chloride Pipes Buried Underground
Kim, Seungwook · Yoo, Chanho · Choi, Wonchang · Kim, Sun-Hee
- Experiment Study of Road Base Materials Properties Using Recycled Aggregates with Additives Type and Mix Method
Lim, Heeseob · Choi, Yuseung · Cho, Hyeongkyu
- Surrogate Model-Based Global Sensitivity Analysis of Multi-Ply Bellows Expansion Joint Subjected to Structural Uncertainty under Monotonic Loading
Son, Hoyoung · Jeon, Bub-Gyu · Yu, Jin-Seok · Ju, Bu-Soeg
- Article Structure
- Ethics bill

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$$E_{11} = E_f V_f + E_m V_m$$

$$V_f = \frac{\frac{w_f}{\rho_f}}{\left\{ \frac{w_f}{\rho_f} + \frac{w_m}{\rho_m} \right\}}$$

$$V_m = 1 - V_f$$

$$E_{22} = \frac{1}{\left\{ \frac{V_f}{E_f} + \frac{V_m}{E_m} \right\}}$$

$$G_{12} = \frac{1}{\left\{ \frac{V_f}{G_f} + \frac{V_m}{G_m} \right\}}$$

$$\sigma = \begin{pmatrix} \sigma_1 \\ \sigma_2 \\ \tau_{12} \end{pmatrix} = \begin{bmatrix} Q_{11} & Q_{12} & Q_{16} \\ Q_{21} & Q_{22} & Q_{26} \\ Q_{61} & Q_{62} & Q_{66} \end{bmatrix} \begin{pmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \gamma_{12} \end{pmatrix}$$

$$\begin{matrix} N_x \\ N_y \\ N_z \\ M_x \\ M_y \\ M_z \end{matrix} = \begin{bmatrix} A_{11} & A_{12} & A_{16} & B_{11} & B_{12} & B_{16} \\ A_{21} & A_{22} & A_{26} & B_{21} & B_{22} & B_{26} \\ A_{61} & A_{62} & A_{66} & B_{61} & B_{62} & B_{66} \\ B_{11} & B_{12} & B_{16} & D_{11} & D_{12} & D_{16} \\ B_{21} & B_{22} & B_{26} & D_{21} & D_{22} & D_{26} \\ B_{61} & B_{62} & B_{66} & D_{61} & D_{62} & D_{66} \end{bmatrix} \begin{pmatrix} \varepsilon_x \\ \varepsilon_y \\ \varepsilon_z \\ \kappa_x \\ \kappa_y \\ \kappa_z \end{pmatrix}$$

$$A_{ij} = \sum_{n=1}^N \int_{z_n}^{z_{n+1}} \bar{Q}_{ij} dz$$

$$B_{ij} = \sum_{n=1}^N \int_{z_n}^{z_{n+1}} \bar{Q}_{ij} z dz$$

$$D_{ij} = \sum_{n=1}^N \int_{z_n}^{z_{n+1}} \bar{Q}_{ij} z^2 dz$$

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Aims and Scope

The Journal of the Korean Society for Advanced Composite Structures (J. Korean Soc. Adv. Comp. Struc.) is devoted to the advancement and dissemination of scientific knowledge regarding the physical, mechanical, analytical, and applied aspects for composite materials, structures, and related academic disciplines. It is an international English journal published by the Korean Society for Advanced Composite Structures (KOSACS), and covers all the scientific and technological aspects of chemistry, physics, mechanics, packing, safety, engineering, analysis, manufacturing, testing, construction, and application of composite materials and structures. The Journal is published in February, April, June, August, October and December each year.

ISO abbreviation of journal title

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