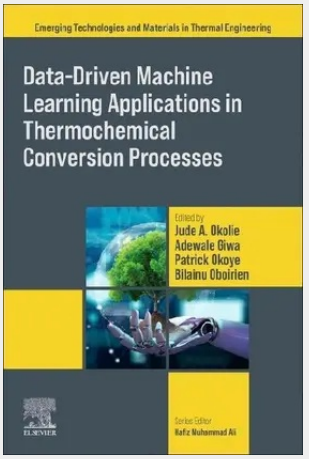
Okolie / Giwa / Okoye

Data-Driven Machine Learning Applications in Thermochemical Conversion Processes



Data-Driven Machine Learning Applications in Thermochemical Conversion Processes delves into the prospect of machine learning applications to optimize and enhance advanced thermochemical conversion processes, which are essential for converting biomass into energy and other valuable products. This book covers ML applications in higher heating value (HHV) predictions, catalyst screening, prediction of biofuels properties, material discovery and screening, as well as advancing emerging thermochemical conversion process technologies. Providing an in-depth examination of how big data analytics and ML models can be harnessed to predict system performance, understand complex reaction mechanisms, and accelerate development of innovative conversion technologies, as well as focusing on both theoretical and practical aspects, this book will be a welcome reference for researchers, engineers, and practitioners.

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