

Laser annealing has been developed to enhance heavy carbonaceous materials HCM from chemical byproducts, but their random and polydisperse structure hinders uniform properties. This study proposes using block copolymer-based hydrocarbon materials with low poly disperse index (PDI) for efficient laser annealing in thin films. By incorporating RF resin, we maximize carbonization efficiency and preserve nanostructure, showing potential for high-performance electronic device applications.