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## Carbon dots from renewable resources: A review on precursor choices and potential applications(Book Chapter)

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### Abstract

In recent years, carbon dots have received immense attention not only due to their exciting structural, morphological as well as physicochemical properties but also because of the versatility in their fabrication and manipulation toward various applications. Traditionally, they have been synthesized using different carbon-rich precursors that are originated from petroleum resources. Emerging concerns in utilizing petroleum resources that include limited availability, poor cost stability, greenhouse gas effect and climate change that significantly impacted the synthesis of carbon dots from renewable feedstocks. The key advantages of utilizing renewable precursors as a carbon source in synthesizing carbon dots are their abundance and wider options for source selection. Recently, several renewable resource-based materials have been effectively utilized for the synthesis of carbon dots. Thus, the present chapter is ultimately aimed to summarize their recent developments, current potential applications, and emerging opportunities. © Springer Nature Singapore Pte Ltd 2020.

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