

Commentary by the Winner of the 14th *Journal of Oleo Science* Impact Award

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We are honored to announce that our publication in the *Journal of Oleo Science* (Xu Han, Shanghao Li, Zhili Peng, Abdul-Rahman Obeed Al-Yuobi, Abdulaziz Saieh Omar Bashammakh, M. S. El-Shahawi, Roger M. Leblanc, Interactions between Carbon Nanomaterials and Biomolecules, *Journal of Oleo Science*, 2016, 65, 1-7) has been recognized by the journal as the winner of the 14th *Journal of Oleo Science* Impact Award.

The interaction between biomolecules and carbon-based nanomaterials offers an excellent chance for chemists and material scientists to dig into the field of nanobiotechnology. A myriad of new discoveries related to their interaction have been made in biosensing and drug delivery in the past decades. From the viewpoint of different carbon-based nanomaterials, recent developments and practical biomedicine applications were briefly summarized in the article. For example, carbon dots (CDs) do not only exhibit protein fibrillation inhibition ability but also a great potential in practical applications such as bioimaging. The conjugation between fullerene and biomolecules also attracts much

attention. In addition, carbon nanotubes (CNTs) are usually employed for the design of biosensing system. The high sensitivity from CNTs-based nanobioelectronics gains high popularity. Graphene was recently discovered. However, graphene itself and derivatives such as graphene oxide have become the hot topics in the area of biotechnology. Researches regarding the interaction between these graphene-based materials and biomolecules harvested much in the past decades. Although carbon-based materials in nano scale show unique properties, challenges including biocompatibility and cost efficiency, coexist with opportunities. More novel sightings still need to be discovered.

In the end, I'd like to acknowledge the great efforts devoted by my collaborators (Abdul-Rahman Obeed Al-Yuobi, Abdulaziz Saieh Omar Bashammakh and M. S. El-Shahawi) and former graduate students (Xu Han, Shanghao Li and Zhili Peng). In addition, I'd like to thank the financial support of the National Science Foundation under Grant 1355317.

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