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Electrospray ionization mass spectrometry: A useful tool in coordination chemistry

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Electrospray ionization mass spectrometry (ESI-MS) is known as one of the most powerful techniques in analytical and bioanalytical chemistry. The use of ESI-MS in the study of large, thermally fragile molecules was popularized by J B Fenn, who was awarded the Nobel Prize in chemistry in 2002 for his work on ESI-MS. Since then, ESI-MS has become a popular analytical tool in biomacromolecules in biological science. While ESI-MS is widely used in the study of the chemistry of biomolecules, it has also been a useful tool in the field of coordination and organometallic chemistry. This presentation aims to provide an overview on the application of ESI-MS in the study of the solution chemistry of coordination compounds. Some examples will be presented to illustrate how ESI-MS can be used to probe various inorganic chemical reactions such as the cyclometalation reaction and ligand substitution reaction.

Biography

Kian-Eang Neo has completed his PhD degree from the National University of Singapore in 2010. He joined Universiti Tunku Abdul Rahman (UTAR) Malaysia and is currently an Assistant Professor of Chemical Science. He has served as the Head of Department of Chemical Science, UTAR. His research interest covers various aspects of Inorganic Chemistry and Green Chemistry, which includes the study of inorganic/bioinorganic chemical reactions using electrospray mass spectrometry.

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