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(57) Abstract :
ABSTRACT: Title: A Method for Investigating Metal-Ligand Complexes in Biological Systems The present disclosure proposes a method for investigating metal-ligand complexes in biological systems, which investigates metal ion speciation and amino acid complexation in biological systems for catalyzing new breakthroughs in fields such as biomedicine, pharmacology, and environmental science. The method integrates pH metry and MINIQUAD computer programming for investigating metal ion speciation and amino acid complexation in biological systems. The method integrates multiple spectroscopic and separation techniques, enabling a more thorough understanding of complex interactions. The method provides high-resolution data, which can distinguish subtle differences in metal-ligand complexes, leading to more accurate and nuanced characterizations. The method develops tools like streamlined data analysis and modelling, facilitating the interpretation of intricate speciation patterns and binding mechanisms. The method investigates metal-ligand complexes, which can contribute to a better understanding of environmental impacts and ecosystem health.

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