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AI's role in enhancing the capabilities of Chemists

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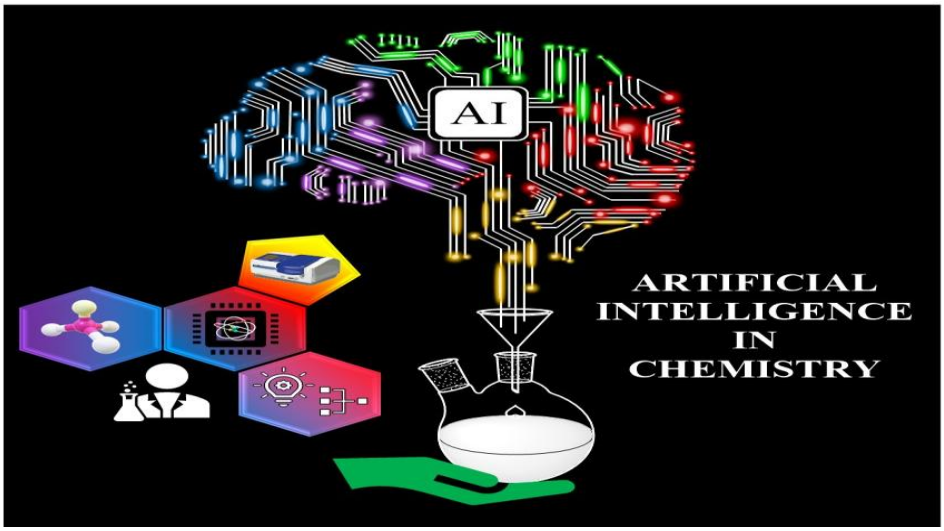
ABSTRACT

Artificial Intelligence (AI) has surpassed human intelligence and is emerging as a momentous change in the discipline of synthetic chemistry. AI techniques are assisting chemists in exploring the vast theoretical space of chemical synthesis. This perspective discusses the modifications and transformations that have been achieved in the synthesis of any molecule after the emergence of AI. The significance of AI in combination with Deep Learning and Artificial Neural Networks in chemical synthesis has also been explained using examples. The role of AI in finding retrosynthetic pathways, predicting complex reactions, and synthesis of chemical moieties and drugs has been highlighted.



KEYWORDS:

Artificial Intelligence • Neural Networks • Synthetic Methods • Machine Learning • Computational