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Applications of Molecular Recognition in Chemistry

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Message from the Guest Editors

Molecular recognition refers to specific molecule interactions, crucial in understanding biochemical phenomena. Chemist Jean-Marie Lehn coined the term in his 1987 publication "Supramolecular Chemistry." Since then, the field rapidly expanded, receiving Nobel Prizes in 1987, 2001, and 2016. Originating from fundamental research, molecular recognition applies widely and remains at the forefront of scientific inquiry.

Applied research focuses on three areas. First, studying biomolecules advances life sciences and drug discovery. Second, molecular machines benefit from molecular recognition, enabling foundational technologies. Third, material development creates sensors and catalysts with molecular recognition.

These fields integrate with adjacent disciplines like AI, quantum tech, computation, nanotech, and microscopy. This enables observing, measuring, and controlling molecules at a molecular level. As we mark 35 years since the proposal, we explore the future and challenges in molecular recognition through a dedicated Special Issue, highlighting cutting-edge research.

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Guest Editors



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Special Issue



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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