

Inorganic and physical chemistry

From atoms and molecules, to supramolecular and nanoscale assemblies; from the gas phase to liquids and crystals, and matter under extreme conditions: this page highlights some of the most exciting works in physical chemistry and inorganic chemistry, aiming to explain the fundamental properties of matter, its response to non-equilibrium conditions, the dynamics of chemical reactivity and bonding behavior.



Featured articles

Understanding water behaviour on 2D material interfaces through single-molecule motion on h-BN and graphene

Water interactions with 2D materials shape sensing and fluid control. Here, the authors show that water diffuses on hexagonal boron nitride with distinct rotational dynamics and lower friction than on graphene, revealing substrate effects on interfacial water.

Phillip Seiler, Anthony J. R. Payne ... Anton Tamtögl

Article | [Open Access](#) | 25 Nov 2025 | [Nature Communications](#)

