Recent advances in atomic and molecular physics at the new synchrotron and free-electron laser sources

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Recent years have witnessed a tumultuous development in the field of electronic structure and dynamics of isolated atomic and molecular species, mainly stimulated by the advent of new and more powerful light sources. I will review some of the latest breakthroughs which have taken place at the most recently operational synchrotron and free electron laser sources, together with the new research prospects now foreseeable.