

## **ATOM-SCALE ELECTRONIC PROCESSES**

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The control of electronic processes is becoming possible not only at the level of a single atom but moreover inside a single atom or inside a single molecule, i.e. with a spatial resolution ( $\approx 50$  pm) smaller than the atomic or molecular size, by using a low temperature STM. Charge injection into a single atom or molecule can activate specific functions such as a reversible bistable movement. We will show that the bistable dynamics can be modified by varying the precise localisation of the charge injection inside the atom or the molecule. This demonstrates that charge injection into a nanoscale device needs to be performed with a very high precision at the atomic-scale for a reliable operation of its electronic properties. However, this opens new perspectives in molecular electronics for controlling the intrinsic performances of a single molecule.