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## A nanoelectronic array structure based on two types of molecular switches

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**Abstract:** This paper introduces an array structure based on hybrid integration of conventional Silicon technology (CMOS) and molecular electronics, known as CMOL, in which the advantage of two types of molecular switches are used in implementing low power and high speed nanoelectronic (CMOL) circuits. The molecular switches are programmable through the application of specific voltage levels. The proposed structure reduces the power consumption significantly along with the time delay compared to previous CMOL designs, based on ITRS projected parameters of CMOS 45 nm node.