Study on the Virtual Reality System for Manipulating Atoms

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ABSTRACT

ABSTRACT This paper mainly discusses a moving atom technique using the scanning probe microscopy based in the molecular dynamics, and then a virtual reality system for manipulating atoms is constructed. The application may provide the teaching, experiment and research reference without the constraints real environment. In the article according to theory of and the empirical datum of the references mathematical model for manipulating atoms is developed. The Borland C++ Builder is programmed to simulate the atomic motiog. Finally through the CAD software such as TrueSpace and Pro/E, and Vimtek EON Studio, the virtual reality platform system for manipulating atoms is constructed. The virtual reality system for manipulating atoms can enable the user to be allowed to controls the atomic movement and achieve the control training and visualization. Key Words : virtual reality, molecular dynamics, scanning probe microscopy

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