

## **Functional integral theory of chemisorption**

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The microscopic model of chemisorption for hydrogen-like atoms at simple metal surfaces is generalized. The functional representation of the thermodynamical potential and the temperature Green functions are obtained. Some specific approximation schemes for calculation of the functional integrals are discussed. The method of functional integration is proposed to study the exchange and correlative interaction in the scope of quantum theory of chemisorption for hydrogen-like atoms. Charged and magnetic states of hydrogen at simple metal with square surface lattice are calculated.