

### **electron density function**

The electron probability distribution function,  $\rho$ , defined as

$$\rho(\mathbf{r}) = n \int |\psi^*[\mathbf{r}(1), \mathbf{r}(2) \dots \mathbf{r}(n)] \psi[\mathbf{r}(1), \mathbf{r}(2) \dots \mathbf{r}(n)]| d\mathbf{r}(2) \dots d\mathbf{r}(n)$$

where  $\psi$  is an electronic wave-function and integration is made over the coordinates of all but the first electron of  $n$ . The physical interpretation of the electron density function is that  $\rho d\mathbf{r}$  gives the probability of finding an electron in a volume element  $d\mathbf{r}$ , *i.e.*, electron density in this volume.

1999, 71, 1937