# Resonances in Electron Scattering by Molecules

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**Synopsis** Resonances in electron scattering by molecules, Efimov states, multiple scattering approximation, Faddeev-Yakubovsky equations.

The methods of the quantum theory few-body scattering based on the Faddeev-Yakubovsky equations [1] in momentum and configuration space are present [1,2].

Scattering states properties of three-body resonantly interacting particles are considered and are shown to be independent of a form of two-body forces, being determined only presence of resonances. The resonances produce an effective long range interaction between three particles [3].

This methods are applied to the calculation of the dissociative electron attachment to hydrogen and hydrogen-halide diatomic initial rovibrational exiting molecules $H_2$, $N_2$, $Li_2$, $Na_2$, $HCl$, $DCl$, $HBr$, $DBr$, $HJ$, $DJ$.

The results of this calculations are compered with available experimental data [5] and other calculation [2-4].

## References

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