



## Binary rototranslational hyper-Rayleigh spectra of H<sub>2</sub>-He gas mixture

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Auteur	Godet, Jean-Luc [1], Bancewicz, Tadeusz [2], Głaz, Waldemar [3], Maroulis, George [4], Haskopoulos, Anastasios [5]
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Résumé en anglais	<p>The collision-induced rototranslational hyper-Rayleigh spectra of gaseous H<sub>2</sub> - He mixture are computed and discussed in the binary regime. As the input data we use our ab initio computed H<sub>2</sub> - He collision-induced first dipole hyperpolarizability tensor <math>\Delta \beta (R)</math>. Both the vector and the septor part of the H<sub>2</sub> - He hyper-Rayleigh spectra are evaluated at room temperature (<math>T = 295</math> K). The spectra are calculated assuming the full quantum computations based on the Schrödinger equation of the relative translational motion in the isotropic H<sub>2</sub> - He potential as well as using semiclassical methods.</p>
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