

## Positions and Widths of Anticrossings for Potassium Rydberg Stark States

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**Abstract:** The B-spline expansion technique is applied to study the anticrossings for potassium Rydberg states in a static electric field. The results of our calculation indicate that the anticrossings are caused mainly by the core interaction or by the fine structure interaction. Our results for the positions and the widths of the anticrossings are in good agreement with experimental data.

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Key words: B-splines, model potential, anticrossing, Rydberg atom, Stark state

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