# JAHN-TELLER AND PSEUDO JAHN-TELLER INTERACTIONS IN METAL TRIMERS

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Over the last 15 years, a number of metal trimers have been studied spectroscopically. Because of their high symmetry, they possess many doubly degenerate electronic states that underlie Jahn-Teller or pseudo Jahn-Teller interactions or both. Most trimer spectra were recorded at vibrational resolution and the analyses relied on vibronic level patterns to agree with a standard description of linear and quadratic Jahn-Teller coupling.

High resolution spectroscopy including a rotational analysis has only been applied to alkali trimers so far. Many more details about the coupling between electronic and nuclear motion could be obtained and Jahn-Teller and pseudo Jahn-Teller effects could unambiguously been distinguished. The current state of our understanding of these vibronic interactions in metal trimers will be reviewed in this talk. Moreover, the most recent results involving the influence of anharmonicity of the potential on the pseudorotational barrier will be discussed.