

LINE LISTS FOR LiF AND LiCl IN THE $X^1\Sigma^+$ STATE

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Alkali-containing molecules are expected to be present in the atmospheres of exoplanets such as rocky super-Earths^a as well as in cool dwarf stars.^b Line lists for LiF and LiCl in their $X^1\Sigma^+$ ground states have been calculated using LeRoy's LEVEL program.^c The potential energy functions, including the effects of the breakdown of the Born-Oppenheimer approximation, are obtained by direct fitting the experimental infrared vibration-rotation and microwave pure rotation data with extended Morse oscillator potentials using LeRoy's dPotFit program.^d The transition dipole matrix elements and line intensities were obtained with LEVEL using a dipole moment function from a high level *ab initio* calculation.

^aPhil. Trans. R. Soc. A **372**, 20130087 (2014)

^bAstrophys. J. **519**, 793 (1999)

^cJ. Quant. Spectrosc. Radiat. Transfer **186**, 167 (2017)

^dJ. Quant. Spectrosc. Radiat. Transfer **186**, 179 (2017)