

Abstract Submitted  
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**Three-body recombination of two-dimensional ultracold polar molecules**<sup>1</sup> FATIMA ANIS, B.D. ESRY, Dept. of Physics, Kansas State University — In the wake of enormous ongoing efforts on both experimental and theoretical fronts for creating and understanding the behavior of ultracold dipolar gases, we have studied the recombination of three dipoles in two dimensions. We first derived the recombination rate expressions for three particles restricted to two dimensions and compared these analytical results with numerical calculations performed within the hyperspherical formalism. We extended this analysis to three dipoles in two dimensions for both bosonic and fermionic species. The comparison between analytical and numerical results will be presented for this case as well.

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