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Comparison of molecular energies calculation using simulated quantum algorithm and classical computer methods JOSEPH LESNIAK, Department of Electrical and Computer Engineering, Wichita State University, ELIZABETH BEHRMAN, Department of Physics, Wichita State University, MELVIN ZANDLER, Department of Chemistry, Wichita State University, PREETHIKA KUMAR, Department of Electrical and Computer Engineering, Wichita State University — Very few quantum algorithms are currently useable today. When calculating molecular energies, using a quantum algorithm takes advantage of the quantum nature of the algorithm and calculation. A few small molecules have been used to show that this method is possible. This method will be applied to larger molecules and compared to classical computer methods.

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