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Patricia Bauman (bauman@math.purdue.edu) and **Daniel Phillips***
(phillips@math.purdue.edu). *Properties of minimizers to the Maier-Saupe energy for liquid
crystals*. Preliminary report.

We prove regularity properties and determine bounds for local minimizers to an energy derived from Maier–Saupe theory that is used to characterize order in nematic liquid crystal materials. (Received January 20, 2014)