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**Erica Flapan** (elf04747@pomona.edu), **Emille Davie Lawrence\*** (edlawrence@usfca.edu) and **Robin Wilson** (robinwilson@cpp.edu). *Topological Symmetry Groups of the Heawood Graph.*

The study of graphs embedded in  $S^3$  has been motivated by chemists' need to predict molecular behavior. The symmetries of a molecule can explain many of its chemical properties, however we draw a distinction between rigid and flexible molecules. Flexible molecules may have symmetries that are not merely a combination of rotations and reflections. Such symmetries prompted the concept of the *topological symmetry group* of a graph in  $S^3$ . We will discuss recent work on the classification of all groups which arise as the topological symmetry group for some embedding of the Heawood graph in  $S^3$ . (Received September 24, 2018)