Single-site heterogeneous catalysts contain active sites that behave uniformly because of their functional isolation and well-defined structures. They are discernable using quantitative measurements of catalytic behavior in the form of turnover rates, normalized per active site, that are independent of the spatial density or proximity of such sites. We explore this concept by studying chabazite (CHA) zeolites, which are crystalline oxides comprised of symmetry-equivalent lattice sites. We discuss synthetic methods to control the proximity of active sites in CHA zeolites, and show how site proximity influences catalysis, given a mechanism for sites to communicate. In the context of Brønsted acid catalysis on H-form CHA zeolites, methanol conversion is practiced industrially to produce chemicals (alkenes, aromatics) and transportation fuels (gasoline), and turnover rate enhancements at paired sites reflect catalytic communication between sites positioned at sub-nanometer (