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Semisimple reflection Hopf algebras of dimension sixteen.

For each nontrivial semisimple Hopf algebra H of dimension 16 over \mathbb{C} , the smallest dimension inner-faithful representation of H acting on an AS regular algebra A of dimension 2 or 3, homogeneously and preserving the grading, is determined. Each invariant subring A^H is determined. When A^H is also AS regular (and thus providing an instance where the conclusion of a generalization of the Chevalley-Shephard-Todd Theorem holds) we say that H is a reflection Hopf algebra for A . (Received January 29, 2019)