P.W.H. Lemmens, *Pólya Theory of Hypercubes*, Geometriae Dedicata **64:** 145–155, 1997.

Abstract. The cycle index polynomial is described for the action of the full isometry group of the n-dimensional hypercube on its q-dimensional cells. This group action is interpreted as $C_2^n \cdot S_n$ acting on the set of unit basis vectors in $\mathbf{R}^n$ and their opposites. A kind of generating function that yields all these polynomials at once is obtained by Möbius inversion. The same technique is applied to the simpler case of the n-dimensional simplex.

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Further information may be obtained from http://www.wkap.nl/