1041-55-98 **Ethan S. Devinatz*** (devinatz@math.washington.edu), Department of Mathematics, Box 354350, University of Washington, Seattle, WA. *Finiteness properties of certain homotopy fixed point spectra.*

Let G be a closed subgroup of the nth Morava stabilizer group S_n, and let E_n^{hG} denote the continuous homotopy fixed point spectrum of Devinatz and Hopkins. We conjecture that, for "most" G, $\pi_*(E_n^{hG} \wedge X)$ is of essentially finite rank—this will be defined—whenever X is a $K(n-2)_*$-acyclic finite spectrum annihilated by p. This implies in particular that $\pi_*(L_{K(n)}X)$ is of essentially finite rank. We show that this conjecture is true when G is a topologically cyclic group whose generator is non-torsion in the quotient of the p-Sylow subgroup of S_n by its center. We also show that any appropriate G in S_2 contains an open subnormal subgroup U such that $\pi_*(E_2^{hU} \wedge M)$ is of essentially finite rank, where M is the mod (p) Moore spectrum. Finally, we indicate a strategy for establishing the conjecture in general. (Received August 11, 2008)