1152-55-67   **Natalia Cadavid-Aguilar*** (`ncadavia@gmail.com`), Instituto Politécnico Nacional 2508, Gustavo A. Madero, San Pedro Zacatenco, 07360 Ciudad de México, Mexico, and **Jesús González Espino Barros** (`jesus@math.cinvestav.mx`), Instituto Politécnico Nacional 2508, Gustavo A. Madero, San Pedro Zacatenco, 07360 Ciudad de México, Mexico. *On the effective topological complexity of Σ_g, $g \geq 2$.*

Let Σ_g be embedded in $\mathbb{R}^3$ so that Σ_g is invariant under reflections in the xy-, yz-, and xz-planes. Let σ stand for the "antipodal" (orientation-reversing) involution on Σ_g given by $\sigma(x, y, z) = (-x, -y, -z)$. If we consider Σ_g with a left action of $\mathbb{Z}_2 = \langle \sigma \rangle$, then our main result says that there is a monotonic sequence of effective topological complexities for orientable surfaces respect to $\mathbb{Z}_2$-action as follows

$$3 \leq \mathrm{TC}^\sigma(\Sigma_2) \leq \mathrm{TC}^\sigma(\Sigma_3) \leq \mathrm{TC}^\sigma(\Sigma_4) \leq \cdots \leq 4.$$