1035-05-232   **Yuehua Bu** (`yhbu@zjnu.cn`), Department of Mathematics, Zhejiang Normal University, Jinhua, Zhejiang 321004, Peoples Rep of China, **Ko-Wei Lih*** (`makwlih@sinica.edu.tw`), Institute of Mathematics, Academia Sinica, Taipei, 11529, Taiwan, and **Weifan Wang** (`wwf@zjnu.cn`), Department of Mathematics, Zhejiang Normal University, Jinhua, Zhejiang 321004, Peoples Rep of China. *Adjacent vertex distinguishing edge-colorings of planar graphs with girth at least six.*

An adjacent vertex distinguishing edge-coloring of a graph G is a proper edge-coloring of G such that any pair of adjacent vertices are incident to distinct sets of colors. The minimum number of colors required for an adjacent vertex distinguishing edge-coloring of G is denoted by $\chi'_a(G)$. We prove that $\chi'_a(G)$ is at most the maximum degree plus 2 if G is a planar graph without isolated edges whose girth is at least 6. This gives new evidence to a conjecture proposed in Z. Zhang, L. Liu, J. Wang, *Adjacent strong edge coloring of graphs*, Appl Math Lett 15(2002), 623-626. (Received August 21, 2007)