1116-37-1461 **Wenxia Li*** (wxli@math.ecnu.edu.cn), 500 Dongchuan Road, Minghan, Dept. of Math., East China Normal University, Shanghai, Shanghai 200241, Peoples Rep of China. *ON the Hausdorff dimension of unique Beta expansions.* Preliminary report.

We fix a positive integer M, and we consider expansions in arbitrary real bases $q > 1$ over the alphabet $\{0, 1, \dots, M\}$. We denote by $\mathcal{U}_q$ the set of real numbers having a unique expansion. Completing many former investigations, we give a formula for the Hausdorff dimension $D(q)$ of $\mathcal{U}_q$ for each $q \in (1, \infty)$. Furthermore, we prove that the dimension function $D : (1, \infty) \to [0, 1]$ is continuous, and has a bounded variation. Moreover, it has a Devil's staircase behavior in (q', ∞), where q' denotes the Komornik–Loreti constant: although $D(q) > D(q')$ for all $q > q'$, we have $D' < 0$ a.e. in (q', ∞). (Received September 20, 2015)