1080-53-61 **Biao Wang*** (biao.wang@ccsu.edu), Department of Mathematics, Central Connecticut State University, New Britain, CT 06050. *Quasi-Fuchsian 3-manifolds that contain arbitrarily many incompressible minimal surfaces.*

Let Γ be a Kleinian group, if its limit set Λ_Γ is a Jordan curve other than a circle, which is invariant under Γ, and if each component of the region of discontinuity of Γ is also invariant under Γ, then Γ is called a quasi-Fuchsian group. Topologically, the orbit space $M = \mathbb{H}^3/\Gamma$ is a complete hyperbolic 3-manifold, called a quasi-Fuchsian 3-manifold, which is diffeomorphic to $S \times \mathbb{R}$, here S is a finite type Riemann surface with negative Euler characteristic. In this notes, we assume that S is a closed surface with genus ≥ 2.

Each quasi-Fuchsian 3-manifold M contains a (compact) convex core, therefore M always contains at least one incompressible minimal surface by the works of Meeks-Yau and Sacks-Uhlenbeck. On the other hand, M. Anderson also proved that M only contains finitely many incompressible minimal surfaces.

In this notes, we try to construct a family of quasi-Fuchsian 3-manifolds that contain at least 2^N incompressible minimal surfaces for any given positive integer N. We use the minimal (spherical) catenoids in $\mathbb{H}^3$ as the barrier surfaces to get distinct minimal surfaces. (Received December 29, 2011)