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**Casey D. McGrath\*** (casey\_mcgrath@redlands.edu) and **Joanna Bieri** (joanna\_bieri@redlands.edu). *Characteristics of Non-Symmetric Edge Flames in Micro-Channels*. Preliminary report.

The characteristics and dynamics of non-symmetric edge flames created from the unequal supply of fuel and oxidizer are studied in the confined channel of a micro-combustor. Upon entering the fuel and oxidizer are separate, but after flowing past a splitter plate that divides the channel initially they are free to mix and ignite. The resulting flame has a tribrachial structure with a curved premixed leading edge and a diffusion flame tail. The structure and position of the flame can change dramatically, which is often caused when the stoichiometry of the reactants is unbalanced. Thus far, the research has indicated extinction points for these non-symmetric edge flames and has given a better understanding of how size and shape are affected by different mixture ratios – under fuel rich and fuel lean conditions. Stability is also affected, and many times non-symmetric flames will have a specific range of flow speeds at which the flame can be sustained and at which it will be unstable. Instability ranges from blow-off, where the flame will completely extinguish, to oscillations around a point through time. Future work will continue the stability analysis, as well as include a more in-depth investigation of the reaction strength of certain flames and the effect of heat losses. (Received September 25, 2012)