K. Gabriel Xu

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Dr. Kunning Xu is currently an Assistant Professor of Mechanical and Aerospace Engineering at UAH. His primary research focuses is applications of low-temperature plasmas and electromagnetics. His projects include in-space plasma micropropulsion systems, plasma-assisted combustion, atmospheric-pressure plasma generation of nanomaterials, and plasma treatment of tissue. His thesis work focused on the research areas of space systems and plasma propulsion. His past research developed a new design for magnetic field shape in Hall effect thrusters. Dr. Xu is a member of AIAA, ASME, and AVS.

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RELEVANT PUBLICATIONS:

1. Xu, K. G., "Plasma Sheath Behavior and Ionic Wind Effect in Electric Field Modified Flames," *Combustion and Flame*, 2013. (In Review).
2. Xu, K. G., Walker, M. L. R., "Effect of External Cathode Azimuthal Position on Hall Effect Thruster Plume." *Journal of Propulsion and Power*. (Accepted)
3. Kolasinski, K. M., Harlow, W., Xu, K. G., "Optimum Antenna Design for Microplasma Generation." 2013 IEEE Pulsed Power & Plasma Science Conference, San Francisco, CA, 2013.
4. Xu, K., Dao, H., Walker, M. L. R., "Potential Contour Shaping and Sheath Behavior with Wall Electrodes and Near-Wall Magnetic Fields in Hall Thrusters." *Physics of Plasmas*, Vol. 19, No. 10, 2012.
5. Xu, K., Walker, M. L. R., "Plume Characterization of an Ion Focusing Hall Thruster." *Journal of Propulsion and Power*, Vol. 28, No. 5, 2012.
6. Xu, K., Walker, M. L. R., "Technique to Collimate Ions in a Hall Effect Thruster Discharge Chamber," *Journal of Propulsion and Power*, Vol. 27, Number 3, 2011.
7. Xu, K., and Walker, M.L.R., "High-Power, Null-Type, Inverted Pendulum Thrust Stand," *Review of Scientific Instruments*, 80, 2009.