

Modeling & Simulation of a Gas Discharge LENR Prototype

#Bob Higgins¹, Dennis G. Letts²
¹Accuiti Science & Engineering, USA
²Industrial Heat, USA
Email: bob.higgins@accuiti.com



Experimental results from a stainless-steel LENR prototype reactor in a large thermal mass Seebeck calorimeter are modeled to accurately simulate experimental results. The well-known SPICE simulator is used for this work, where thermal properties of the apparatus are converted to lumped electrical circuits for simulation. Lumped electrical analogues for thermal components allow well developed electrical simulation technologies to quickly solve time domain thermal problems. Once the thermal model for a system is extracted, the simulation is accurate enough to detect possible experimental errors and inconsistencies. In addition, the unknown excess heat can be readily de-embedded from the typically long time constant of the calorimeter, enabling better time alignment of the excess heat response to the inputs that may have been the proximate cause for the effect.