

Abstract Submitted
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Kinetics and Lumped Parameter Model of Tardive Excess Thermal Power MITCHELL SWARTZ, JET Thermal Products, Wellesley, MA — The time-integral of tardive excess thermal power (TETP) was previously misnamed "heat after death"¹. We have examined the kinetics of tardive excess thermal power (TETP) which occurs after driving, fully loaded, activated, spiral wound cold fusion Phusor cathodes (Pd/D₂O/Pt;^{2,3}) at their optimal operating point⁴. TETP, after input electrical power produced an excess power (compared to an ohmic joule control) of 165+/-15 percent [excess power \approx 1.3 Watts], had kinetics suggestive of two distinct sources or physical active regions within the lattice⁵. An electrical engineering TETP model had good correlation. The active palladium lattice has a deuteron-loading capacitance of \approx 64 micromoles per volt*. The lattice admittance for the TETP reactions (\approx 7 picomoles/[sec-volt*]) is dwarfed by the admittance for outgassing deuteron loss (\approx 15 nanomoles/[sec-volt*]).

¹Pons, S., Fleischman, M., Trans Fusion Tech, 26, 4T, Part 2, p. 87 (1994).

²Swartz. M., G. Verner, Proc. ICCF-10 (2004).

³Swartz. M., Proc.ICCF-10 (2003).

⁴Swartz, M., Fusion Technology, 31, 63-74 (1997).

⁵Swartz. M., G. Verner, ICCF-11 (2004).

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