Report on Several On-Going Low Energy Nuclear Reaction Projects at NRL

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The Surface Modification Branch at NRL has pursued low energy nuclear reaction (LENR) research for several years with small amounts of funding from laboratory funds. Our interest is to repeat or clarify experiments already in the literature or those conveyed to us by private communication, rather than to perform new experiments in LENR. Experiments examined are of two classes. The first consists of experiments that entail very low counting rates; specifically a.) duplication and extension of proposed d-d-d fusion by Kasagi et al., and b.) duplication of d-d fusion events recently reported by Keeney-Jones at a fall APS meeting. The second includes the examination of material from an experiment that generated heat. NRL is modifying its unique trace element accelerator mass spectrometry (TEAMS) system to search for isotope shifts in Pd and impurities in the Pd. Progress on these investigations will be reported.

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