

Overview of Recent and Ongoing Research at the NIST EBIT

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Abstract. Ongoing and recent work at the NIST EBIT is presented for research applicable to fusion and basic science. Transition wavelengths have been generated for tokamak applications in order to be able to better characterize the core and divertor plasmas and infer plasma rotation and ion temperatures. Studied ions include fusion diagnostic elements such as krypton and xenon and possible intrinsic impurity elements such as tungsten, tantalum, hafnium, and gold. Furthermore, basic science work has included studies of precision QED effects in few electron ions, which will be presented as well.

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