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(54) **VOLTAGE ADJUSTMENT BASED ON
MEMORY DEVICE TEMPERATURE
PROFILING**

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(57) **ABSTRACT**

A data storage system includes, a memory device including a virtual block, non-transitory computer readable media storing instructions thereon, and at least one processor. The instructions, when executed by the at least one processor, cause the at least one processor to: measure a program temperature associated with the virtual block; measure a read temperature associated with the virtual block; determine, based at least in part on the measured program temperature and the measured read temperature, a cross-temperature condition; and based on the determined cross-temperature condition, determine an adjusted voltage. The adjusted voltage includes one or more of: an adjusted pass through voltage, an adjusted bit line bias voltage, or an adjusted source line voltage.

