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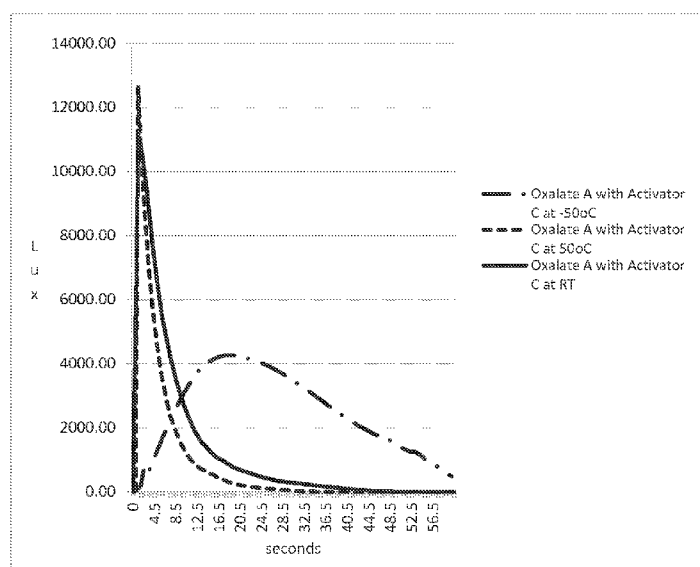
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[Continued on next page]

(54) Title: BROAD TEMPERATURE PERFORMANCE CHEMILUMINESCENT SYSTEMS AND METHODS

Figure 1



(57) Abstract: In some embodiments, the present invention is a chemiluminescent system, including: an oxalate system, including: (a) at least one oxalate ester, (b) at least one first solvent selected from the group consisting of alkyl benzoates, dialkyl phthalates, trialkyl acetylacrylates, 2-acetyloxy isobutyrate, paraffinic liquids, isoparaffinic liquids, toluene, nitroethane, and a combination thereof, (c) at least one second solvent selected from the group consisting of: dialkyl malonates, dialkyl dialkylmalonates, dialkyl arylalkylmalonates, dialkyl succinates, dialkyl glutarates, dialkyl adipates, dialkyl pimelates, dialkyl polyalkylmalonates and a combination thereof, (d) at least one fluorescer, and (e) at least one inorganic salt, and an activator system, including: (a) at least one peroxide, (b) at least one third solvent, (c) at least one fourth solvent, and (d) at least one catalyst.



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