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(71) Applicant: **CYALUME TECHNOLOGIES** [US/US]; 96 Windsor Street, West Springfield, MA 01089 (US).

(72) Inventors: **CRANOR, Earl**; Longmeadow, MA (US). **JACOB, Linda**; Woodbridge, CT (US). **TAYLOR, Patrick**; Holyoke, MA (US).

(74) Agent: **SCHINDLER, Barry, J.**; Greenberg Traurig, LLP, 200 Park Avenue, P.O. Box 677, Florham Park, NJ 07932 (US).

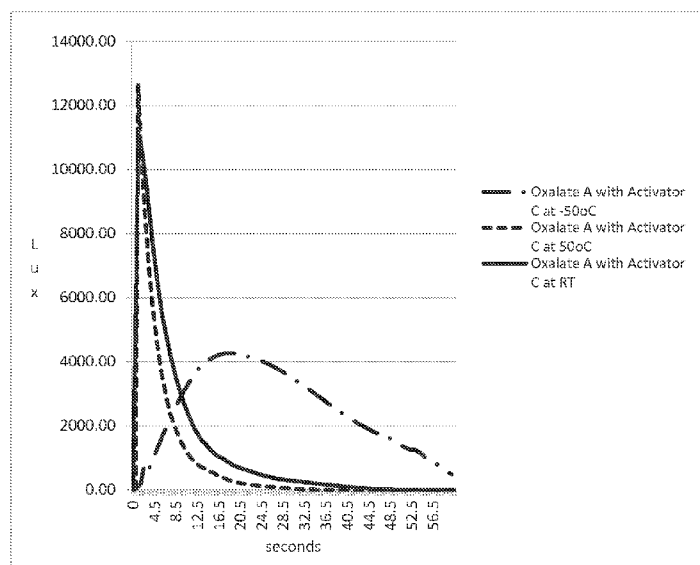
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[Continued on next page]

(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 fluorophore, 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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