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Penumadu

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(54) **POLYMER COMPOSITE BASED THERMAL NEUTRON DETECTORS**

(71) Applicant: **University of Tennessee Research Foundation**, Knoxville, TN (US)

(72) Inventor: **Dayakar Penumadu**, Knoxville, TN (US)

(73) Assignee: **University of Tennessee Research Foundation**, Knoxville, TN (US)

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G01T 1/10 (2006.01)
G01T 3/06 (2006.01)

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CPC ***G01T 3/06*** (2013.01)

(58) **Field of Classification Search**
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See application file for complete search history.

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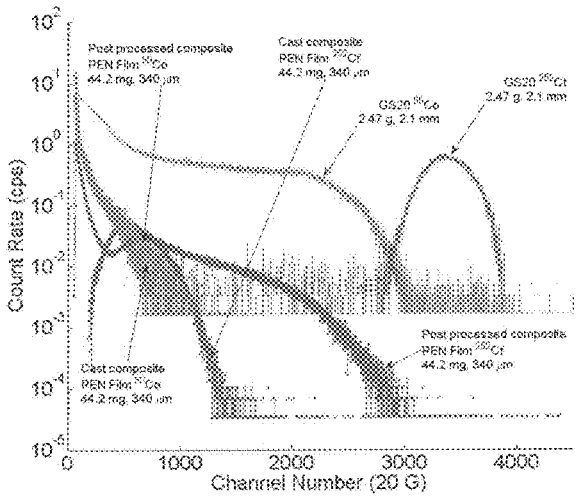
Primary Examiner — Kiho Kim
(74) *Attorney, Agent, or Firm* — Jenkins, Wilson, Taylor & Hunt, P.A.

(57) **ABSTRACT**

Polymer composite neutron detector materials are described. The composite materials include an aromatic polymer matrix, such as an aromatic polyester. Distributed within the polymer matrix are neutron capture agents, such as ^{6}LiF nanoparticles, and organic or inorganic luminescent fluors. The composite materials can be formed into stretched or unstretched thin films, fibers or fiber mats.

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