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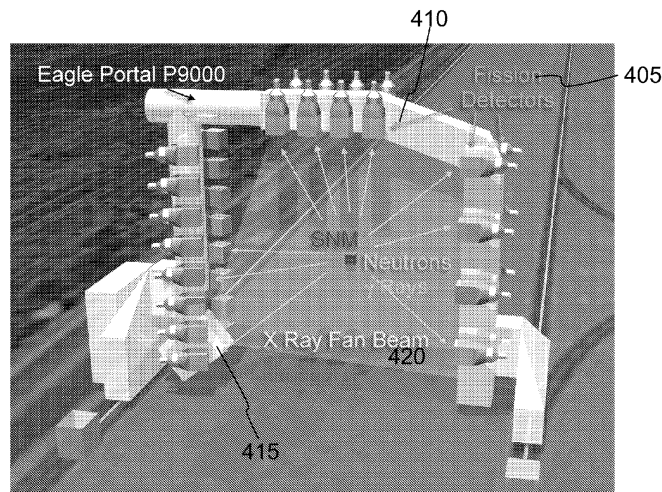
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(54) Title of the Invention: **Systems and methods for detecting nuclear material**
Abstract Title: **Systems and methods for detecting nuclear material**

(57) The present specification discloses a system for detecting nuclear material based on at least one source of probing radiation and the radiation signatures generated from interrogating an object under inspection. In addition, the present specification describes a threshold-activation detector capable of detecting prompt neutrons, via the activation, after the source's blinding radiation has stopped. The threshold-activation detector can be manufactured from liquid fluorocarbons that allow for the detection of beta radiation and gamma rays.



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FIG. 4A

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