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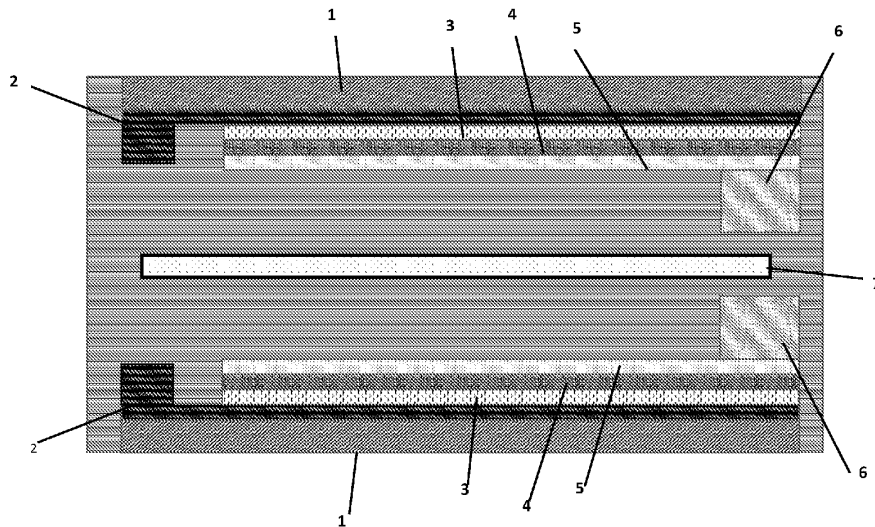


Figure 1

(57) Abstract: An electrical generator system including a radionuclide material (7); and a sandwich structure, the sandwich structure including: [0001] a layer of an n-type semiconductor material (5); [0002] a layer of intrinsic n-type semiconductor material (4); [0003] a layer of p-type semiconductor material (3); and [0004] metal electrodes (2,6), one of the electrodes 6 being in direct contact with said n-type semiconductor material and another electrode 2 being in contact with the p-type semiconductor material, forming metal-semiconductor junctions therebetween; wherein radiation emissions received from said radionuclide material are converted into electrical energy at said metal-semiconductor junctions; and [0005] electrical contacts connected to said electrodes which facilitate the flow of said electrical energy when connected to a load.

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