

Magnolia Patents

No.	Patent No.	Date	Title
43	11,817,524	Nov. 14, 2023	Concentrator photovoltaic subassembly and method of constructing the same
42	11,674,851	Jun. 13, 2023	High-performance microbolometer using VOx, CNT and graphene for longwave infrared (LWIR) applications
41	11,609,122	Mar. 21, 2023	Silicon nitride-carbon nanotube-graphene nanocomposite microbolometer IR detector
40	11,509,140	Nov. 22, 2022	Solar augmenter
39	11,404,643	Aug. 2, 2022	Ultraviolet, infrared and terahertz photo/radiation sensors using graphene layers to enhance sensitivity
38	11,380,808	Jul. 5, 2022	High efficiency quantum dot sensitized thin film solar cell with absorber layer
37	11,374,187	Jun. 28, 2022	Graphene enhanced SiGe near-infrared photodetectors and methods for constructing the same
36	11,367,800	Jun. 21, 2022	Optically-thin III-V solar cells and methods for constructing the same
35	11,340,108	May 24, 2022	Infrared radiation detectors using bundled-VXOY or amorphous silicon nanoparticles nanostructures and methods of constructing the same
34	11,177,400	Nov. 16, 2021	Concentrator photovoltaic subassembly and method of constructing the same
33	10,983,010	Apr. 20, 2021	Silicon nitride-carbon nanotube-graphene nanocomposite microbolometer IR detector
32	10,937,914	Mar. 2, 2021	Thermal detectors using graphene and oxides of graphene and methods of making the same
31	10,847,976	Nov. 24, 2020	Solar augmenter
30	10,788,364	Sep. 29, 2020	Infrared radiation detectors using bundled-V _x O _y or amorphous silicon nanoparticles nanostructures and methods of constructing the same
29	10,790,399	Sep. 29, 2020	High efficiency quantum dot sensitized thin film solar cell with absorber layer
28	10,593,883	Mar. 17, 2020	Ultraviolet, infrared and terahertz photo/radiation sensors using graphene layers to enhance sensitivity
27	10,345,143	Jul. 9, 2019	Infrared radiation detectors using bundled-vxoy or amorphous silicon nanoparticles nanostructures and methods of constructing the same
26	10,302,498	May 28, 2019	Silicon nitride-carbon nanotube-graphene nanocomposite microbolometer IR detector
25	10,297,700	May 21, 2019	Thermal detectors using graphene and oxides of graphene and methods of making the same
24	10,281,617	May 7, 2019	Highly durable hydrophobic antireflection structures and method of manufacturing the same
23	10,283,657	May 7, 2019	Broadband photovoltaic sheets and method of constructing the same

22	10,090,424	Oct. 2, 2018	Roll-to-roll solution process method for fabricating CIGS solar cells and system for the same
21	10,062,793	Aug. 28, 2018	High efficiency quantum well waveguide solar cells and methods for constructing the same
20	10,020,772	Jul. 10, 2018	Portable solar array
19	9,945,720	Apr. 17, 2018	Infrared radiation detectors using bundled-vxoy or amorphous silicon nanoparticles nanostructures and methods of constructing the same
18	9,947,824	Apr. 17, 2018	Solar cell employing nanocrystalline superlattice material and amorphous structure and method of constructing the same
17	9,935,220	Apr. 3, 2018	High efficiency quantum dot sensitized thin film solar cell with absorber layer
16	9,851,257	Dec. 26, 2017	Silicon nitride-carbon nanotube-graphene nanocomposite microbolometer IR detector
15	9,677,946	Jun. 13, 2017	Infrared radiation detectors using carbon nanotubes-silicon vanadium oxide and or amorphous silicon nanoparticles-CNT nanocomposites and methods of constructing the same
14	9,614,108	Apr. 4, 2017	Optically-thin chalcogenide solar cells
13	9,590,133	Mar. 7, 2017	Thin film solar cells on flexible substrates and methods of constructing the same
12	9,543,456	Jan. 10, 2017	Multijunction solar cell employing extended heterojunction and step graded antireflection structures and methods for constructing the same
11	9,525,136	Dec. 20, 2016	Ultraviolet, infrared and terahertz photo/radiation sensors using graphene layers to enhance sensitivity
10	9,400,343	Jul. 26, 2016	Highly durable hydrophobic antireflection structures and method of manufacturing the same
9	9,196,766	Nov. 24, 2015	Thermal detectors using graphene and oxides of graphene and methods of making the same
8	8,981,207	Mar. 17, 2015	High efficiency quantum dot sensitized thin film solar cell with absorber layer
7	8,969,711	Mar. 3, 2015	Solar cell employing nanocrystalline superlattice material and amorphous structure and method of constructing the same
6	8,921,687	Dec. 30, 2014	High efficiency quantum well waveguide solar cells and methods for constructing the same
5	8,916,825	Dec. 23, 2014	Ultraviolet, infrared and terahertz photo/radiation sensors using graphene layers to enhance sensitivity
4	8,895,838	Nov. 25, 2014	Multijunction solar cell employing extended heterojunction and step graded antireflection structures and methods for constructing the same
3	8,865,506	Oct. 21, 2014	Roll-to-roll solution process method for fabricating CIGS solar cells and system for the same
2	8,455,828	Jun. 4, 2013	Infrared radiation detectors using bundled carbon nanotubes and methods of constructing the same
1	8,436,305	May 7, 2013	Infrared radiation sensing device using a carbon nanotube and polymer composition and method of making the same