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(71) Applicant: **MATERION CORPORATION** [US/US];
6070 Parkland Boulevard, Mayfield Heights, Ohio 44124
(US).

(72) Inventors: **ZENG, Qi**; c/o Materion Corporation, 6070
Parkland Boulevard, Mayfield Heights, Ohio 44124 (US).
GARDINIER, Katharine S.; c/o Materion Corporation,
6070 Parkland Boulevard, Mayfield Heights, Ohio 44124
(US). **VANHEERDEN, David Peter**; c/o Materion Corpo-
ration, 6070 Parkland Boulevard, Mayfield Heights, Ohio
44124 (US). **WAGNER, Jens**; c/o Materion Corporation,
6070 Parkland Boulevard, Mayfield Heights, Ohio 44124
(US).

(74) Agent: **WARNER, Kathryn Anne** et al.; Cozen O'Connor,
1200 19th Street NW, 3rd floor, Washington, District of Co-
lumbia 20036 (US).

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(54) Title: AL-SC ALLOYS AND SPUTTERING TARGETS AND PROCESSES FOR CONSOLIDATING

(57) Abstract: A process for producing an aluminum-scandium alloy sputtering target, the process comprising: atomizing Sc_xAl_{1-x} to form a powder, wherein x ranges from 0.05 and 0.5; and consolidating the powder to form a target having a microstructure character-
ized by an average grain size of at most 50 microns. An aluminum-scandium alloy sputtering target comprising one or more Al-Sc
intermetallic phases including Al-Sc intermetallic grains, wherein an average Al-Sc intermetallic grain size is at most 50 microns.

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