

## Surface-Hardened Al-Ce Alloys and Methods of Making the Same

### Disclosure Number

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### Technology Summary

Aluminum-cerium alloys which can be surface treated are important for certain applications where wear resistance is important. Through novel surface refining techniques it is possible to create a very hard surface morphology while maintaining a ductile bulk system. In addition the surface morphology is stable during long term high-temperature exposure; an important property for materials which will be exposed to high wear scenarios. This invention includes surface-hardened aluminum-cerium alloys and methods of making the same.

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