

Abstract Submitted
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Age old antipodes united: stable *and* low-work-function surfaces are generic M.A. UIJTTEWAAL, G.A. DE WIJS, R.A. DE GROOT, Radboud University Nijmegen/Electronic Structure of Materials — Both a low work function and a stable surface are crucial for the application of cathodes in *e.g.* microwave ovens, organic photoconductors and displays as CRTs and OLEDs. Until recently they were considered antipodes. In previous work[1] we showed a stable low-work-function surface to be realised for the compound BaAl₄ and even predicted that stable, low-work-function surfaces would be generic for metals with polar surfaces. Now, *ab initio* calculations confirm the prediction for the compounds CaAl₄, BaAuIn₃ and LaB₆.

[1] M.A. Uijttewaal, G.A. de Wijs, R.A. de Groot, R. Coehoorn, V. van Elsbergen, and C. H. L. Weijtens, *Chem. Mater.* **17**, 3879 (2005)

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