

## IN THIS ISSUE:

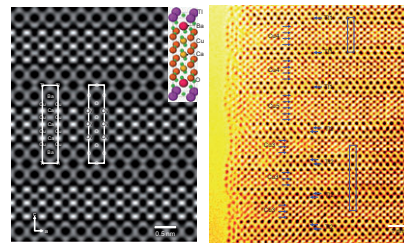
Takeo Oku

### Direct structure analysis of advanced nanomaterials by high-resolution electron microscopy

DOI 10.1515/ntrev-2012-0018  
Nanotechnol Rev 1 (2012):  
389–425

**Review:** HREM image of  $\text{TlBa}_2\text{Ca}_3\text{Cu}_4\text{O}_{11}$  taken with the incident beam parallel to the a-axis together with a structure model after image processing.

**Keywords:** atomic structure; boride; boron nitride; high-resolution electron microscopy; inorganic materials; nanostructured materials; oxide.



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### Tailoring nanostructured catalysts for electrochemical energy conversion systems

DOI 10.1515/ntrev-2012-0013  
Nanotechnol Rev 1 (2012):  
427–453

**Review:** Novel materials and supports such as graphene are being widely studied; this review mainly explores the synthesis, the surface electrochemical reactions and the use of nanoparticles to convert efficiently chemical energy into electricity.

**Keywords:**  $\mu$ DMFC; electrochemistry; LFFC; Li-air battery; nanoparticles; nucleation; PEMFC; synthesis.

