

University of Groningen

Engineering complex oxide interfaces for oxide electronics

Roy, Saurabh

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2015

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Roy, S. (2015). *Engineering complex oxide interfaces for oxide electronics*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Propositions

accompanying the dissertation

ENGINEERING COMPLEX OXIDE INTERFACES FOR OXIDE ELECTRONICS

1. Complex oxide and multiferroic thin film materials represent an important technology for emerging memory and logic applications. The key challenge lies in optimizing the growth and analyzing their device response.
2. Interfaces of complex oxides allow a further degree of freedom to tailor device performances. For ultra-thin films, their influence is stronger than the bulk contribution.
3. The nanoscale probing technique of ballistic electron emission microscopy (BEEM) has a great potential to unravel many secrets of interfaces.
4. In research, every idea needs to be explored with equal interest.
5. Upscaling the pulsed laser deposition (PLD) technique for controlled thin film growth with nanoscale precision is a major roadblock in using complex oxides for industrial applications.
6. A key ingredient in research is patience. It is not simply the ability to wait, rather how matured we get as we wait.
7. Collaborations introduce researchers to newer ideas, which are instrumental for an in-depth understanding and furthering of science.
8. The greatest sin is to think yourself weak. - *Swami Vivekananda* -
9. Believe in yourself! Have faith in your abilities! Without a humble but reasonable confidence in your own powers you cannot be successful or happy. - *Norman Vincent Peale* -

Saurabh Roy