

Chapter 48

Structure of domain boundaries: binary oxides: TiO₂ (anatase)

J. Wollschläger

See Table 48.1.

Table 48.1 TiO₂ (anatase)

Miller index	Superstructure	Major experimental techniques	Supporting experimental techniques	Sample preparation	Results	Ref.	Fig.
					Remarks		
(001)	(4 × 1)	STM	LEED XPS	OPA-MBE on SrTiO ₃ :Nb at 550 °C, 2 × 10 ⁻⁵ TorrO ₂	APDB of (4 × 1) aligned parallel to [010] and BV = (0,n,0)	[01Lia]	

Symbols and abbreviations

Short form	Full form
STM	scanning tunneling microscopy
LEED	low-energy electron diffraction
XPS	X-ray photoelectron spectroscopy
OPA-MBE	oxygen plasma-assisted molecular beam epitaxy
APDB	antiphase domain boundary

References

[01Lia] Liang, Y., Gan, S., Chambers, S.A., Altman, E.I.: Phys. Rev. **B63**, 235402 (2001)

J. Wollschläger (✉)
 Fachbereich Physik, Universität Osnabrück, Osnabrück, Germany
 e-mail: jwollsch@uos.de

© Springer-Verlag GmbH Germany 2018
 G. Chiarotti, P. Chiaradia (eds.), *Physics of Solid Surfaces, Subvolume B*,
https://doi.org/10.1007/978-3-662-53908-8_48