

***Non-equilibrium lattice dynamics of one-dimensional In chains on Si(111) upon ultrafast optical excitation***

T. Frigge, B. Hafke, T. Witte, **B. Krenzer**, M. Horn-von Hoegen  
*Structural Dynamics* **5**, 025101 (2018)

***Nanoscale interfacial heat transport of ultrathin epitaxial hetero films: Few monolayer Pb(111) on Si(111)***

T. Witte, T. Frigge, B. Hafke, **B. Krenzer**, M. Horn-von Hoegen  
*Applied Physics Letters* **110**, 243103 (2017)

***Optically excited structural transition in atomic wires on surfaces at the quantum limit***

T. Frigge, B. Hafke, T. Witte, **B. Krenzer**, C. Streubühr, A. Samad Syed, V. Mikšić Trontl, I. Avigo, P. Zhou, M. Ligges, D. von der Linde, U. Bovensiepen, M. Horn-von Hoegen, S. Wippermann, A. Lücke, S. Sanna, U. Gerstmann, W. G. Schmidt  
*Nature* **544**, 207 (2017)

***Two-dimensional interaction of spin chains in the Si(553)-Au nanowire system***

B. Hafke, T. Frigge, T. Witte, **B. Krenzer**, J. Aulbach, J. Schäfer, R. Claessen, S. C. Erwin, M. Horn-von Hoegen  
*Physical Review B* **94**, 161403 (2016)

***Nanoscale thermal transport in selforganized epitaxial Ge nanostructures on Si(001)***

T. Frigge, B. Hafke, V. Tinnemann, T. Witte, **B. Krenzer**, M. Horn-von Hoegen  
*Semiconductor Science and Technology* **30**, 105027 (2015)

***Nanoscale heat transport from Ge hut, dome and relaxed clusters on Si(001) measured by ultrafast electron diffraction***

T. Frigge, B. Hafke, V. Tinnemann, **B. Krenzer**, M. Horn-von Hoegen  
*Applied Physics Letters* **106**, 053108 (2015)

***Hysteresis proves that the In/Si(111) (8x2) to (4x1) phase transition is first-order***

F. Klasing, T. Frigge, B. Hafke, S. Wall, **B. Krenzer**, A. Hanisch-Blicharski, M. Horn-von Hoegen  
*Physical Review B* **89**, 121107 (2014)

***Comment on 'Atomistic picture of charge density wave formation at surfaces' reply***

T. Frigge, S. Wall, **B. Krenzer**, St. Wippermann, S. Sanna, F. Klasing, A. Hanisch-Blicharski, M. Kammler, W. G. Schmidt, M. Horn-von Hoegen  
*Physical Review Letters* **111**, 149602 (2013)

***Ultra-fast electron diffraction at surfaces: From nanoscale heat transport to driven phase transitions***

A. Hanisch-Blicharski, A. Janzen, **B. Krenzer**, S. Wall, F. Klasing, A. Kalus, T. Frigge, M. Kammler, M. Horn-von Hoegen  
*Ultramicroscopy* **127**, 2 (2013)



**Dr. BORIS KRENZER**  
Beratung in Forschung & Entwicklung

Vogelbeerweg 21  
D-40880 Ratingen  
Telefon +49 2102 149 909 4  
Mobil +49 151 403 053 98  
mail@boris-krenzer-beratung.de  
www.boris-krenzer-beratung.de

**An atomistic picture of charge density wave formation at surfaces**

S. Wall, **B. Krenzer**, St. Wippermann, S. Sanna, F. Klasing, A. Hanisch-Blicharski, M. Kammler, W. G. Schmidt, M. Horn-von Hoegen  
*Physical Review Letters* **109**, 186101 (2012)

**Heat transport through interfaces with and without misfit dislocation arrays**

A. Hanisch-Blicharski, **B. Krenzer**, S. Wall, A. Kalus, T. Frigge, M. Horn-von Hoegen  
*Journal of Materials Research* **27**, 2718 (2012)

**Ultrafast timeresolved electron diffraction of strongly driven phase transitions on silicon surfaces**

S. Möllenbeck, A. Hanisch-Blicharski, P. Schneider, M. Ligges, P. Zhou, M. Kammler, **B. Krenzer**, and M. Horn-von Hoegen  
*MRS Symposium Proceedings* **1230E**, MM03-09 (2010)

**Transient cooling of ultrathin epitaxial Bi(111)-films on Si(111) upon femtosecond laser excitation studied by ultrafast reflection high energy electron diffraction**

A. Hanisch-Blicharski, **B. Krenzer**, S. Möllenbeck, M. Ligges, P. Zhou, M. Kammler, M. Horn-von Hoegen  
*MRS Symposium Proceedings* **1172**, T04-08 (2009)

**Phonon confinement effects in ultrathin epitaxial bismuth films on silicon studied by time-resolved electron diffraction**

**B. Krenzer**, A. Hanisch-Blicharski, P. Schneider, Th. Payer, S. Möllenbeck, O. Osmani, M. Kammler, R. Meyer, M. Horn-von Hoegen  
*Physical Review B* **80**, 024307 (2009)

**Epitaxial Bi(111) films on Si(001): Strain state, surface morphology, and defect structure**

H. Hattab, E. Zubkov, A. Bernhart, G. Jnawali, C. Bobisch, **B. Krenzer**, M. Acet, R. Möller, M. Horn-von Hoegen  
*Thin Solid Films* **516**, 8227 (2008)

**Zeitaufgelöste Elektronenbeugung**

**B. Krenzer**  
*Essener Unikat* **32**, Physik: Energieumwandlungen an Oberflächen, Uni Duisburg-Essen, (2008)

**Nanopattern formation by a periodic array of interfacial misfit dislocations in Bi(111)/Si(001) heteroepitaxy**

G. Jnawali, H. Hattab, C. Bobisch, A. Bernhart, E. Zubkov, F.-J. Meyer zu Heringdorf, R. Möller, **B. Krenzer**, M. Horn-von Hoegen  
*MRS Symposium Proceedings* **1059**, 1059-KK07-07 (2008)

**Heat transport in nanoscale heterosystems: a numerical and analytical study**

**B. Krenzer**, A. Hanisch, A. Duvenbeck, B. Rethfeld, M. Horn-von Hoegen  
*Journal of Nanomaterials* **2008**, 590609 (2008)



**Dr. BORIS KRENZER**  
Beratung in Forschung & Entwicklung

Vogelbeerweg 21  
D-40880 Ratingen  
Telefon +49 2102 149 909 4  
Mobil +49 151 403 053 98  
mail@boris-krenzer-beratung.de  
www.boris-krenzer-beratung.de

***Thermal response of epitaxial thin Bi films on Si(001) upon femtosecond laser excitation studied by ultrafast electron diffraction***

A. Hanisch, **B. Krenzer**, T. Pelka, S. Möllenbeck, M. Horn-von Hoegen  
*Physical Review B* **77**, 125410 (2008)

***Lattice-matching periodic array of misfit dislocations: Heteroepitaxy of Bi(111) on Si(001)***

G. Jnawali, H. Hattab, F.-J. Meyer zu Heringdorf, **B. Krenzer**, M. Horn-von Hoegen  
*Physical Review B* **76**, 035337 (2007)

**A pulsed electron gun for ultrafast electron diffraction at surfaces**

A. Janzen, **B. Krenzer**, O. Heinz, P. Zhou, D. Thien, A. Hanisch, F.-J. Meyer zu Heringdorf, D. von der Linde, M. Horn-von Hoegen  
*Review of Scientific Instruments* **78**, 013906 (2007)

***Lattice accommodation of epitaxial Bi(111) films on Si(001) studied with SPA-LEED and AFM***

G. Jnawali, H. Hattab, **B. Krenzer**, M. Horn-von Hoegen  
*Physical Review B* **74**, 195340 (2006)

***Ultrafast electron diffraction at surfaces after laser excitation***

A. Janzen, **B. Krenzer**, P. Zhou, D. von der Linde, M. Horn-von Hoegen  
*Surface Science* **600**, 4094 (2006)

***Thermal boundary conductance in heterostructures studied by ultrafast electron diffraction***

**B. Krenzer**, A. Janzen, P. Zhou, D. von der Linde, M. Horn-von Hoegen  
*New Journal of Physics* **8**, 190 (2006)

***Long-period surface structure stabilized by Fermi surface nesting: Cu(001)-(√20×√20)R26.6°-In***

T. Nakagawa, H.W. Yeom, E. Rotenberg, **B. Krenzer**, S.D. Kevan, H. Okuyama, M. Nishijima, T. Aruga  
*Physical Review B* **73**, 075407 (2006)

***Indium √7 × √3 on Si(111): A nearly free electron metal in two dimensions***

E. Rotenberg, H. Koh, K. Rosnagel, H.W. Yeom, J. Schäfer, **B. Krenzer**, M.P. Rocha, S.D. Kevan  
*Physical Review Letters* **91**, 246404 (2003)

***Dual nature of a charge-density-wave transition on In/Cu(001)***

T. Nakagawa, H. Okuyama, M. Nishijima, T. Aruga, H.W. Yeom, E. Rotenberg, **B. Krenzer**, S.D. Kevan  
*Physical Review B* **67**, 241401(R) (2003)

***Mesoscopic-scale growth of oxygen-rich films on Ru(0001) investigated by photoemission electron microscopy***

A. Böttcher, **B. Krenzer**, H. Conrad, H. Niehus  
*Surface Science* **504**, 42 (2002)



**Dr. BORIS KRENZER**  
Beratung in Forschung & Entwicklung

Vogelbeerweg 21  
D-40880 Ratingen

Telefon +49 2102 149 909 4  
Mobil +49 151 403 053 98

mail@boris-krenzer-beratung.de  
www.boris-krenzer-beratung.de

***Mesosopic-scale pattern formation induced by oxidation of Ru(0001)***

A. Böttcher, **B. Krenzer**, H. Conrad, H. Niehus  
*Surface Science* **466**, L811 (2000)

***The formation of carbonate on Ag(110) studied by high-resolution EELS***

L. Constant, **B. Krenzer**, W. Stenzel, H. Conrad, A. M. Bradshaw  
*Surface Science* **427-428**, 262 (1999)

***A high resolution electron energy loss spectroscopy study of the Fermi-resonance of CO<sub>2</sub> adsorbed on a Ag(110)/CO<sub>3</sub> layer***

**B. Krenzer**, L. Constant, H. Conrad  
*Journal of Chemical Physics* **111**, 1288 (1999)

***Carbonate formation by reacting CO<sub>2</sub> with an O<sub>2</sub> layer on Ag(110) studied by high resolution electron energy loss spectroscopy***

**B. Krenzer**, L. Constant, H. Conrad  
*Surface Science* **443**, 116 (1999)



**Dr. BORIS KRENZER**

Beratung in Forschung & Entwicklung

Vogelbeerweg 21  
D-40880 Ratingen

Telefon +49 2102 149 909 4  
Mobil +49 151 403 053 98

mail@boris-krenzer-beratung.de  
www.boris-krenzer-beratung.de