

List of publications

Original Journal Articles:

- A1 A. Wacker and E. Schöll: *Oscillatory instability in the heterostructure hot-electron diode*, Applied Physics Letters **59**, 1702–1704 (1991) DOI: 10.1063/1.106223
- A2 A. Wacker and E. Schöll: *Spatio-temporal dynamics of vertical charge transport in a semiconductor heterostructure*, Semiconductor Science and Technology **7**, 1456–1463 (1992) DOI: 10.1088/0268-1242/7/12/006
- A3 A. Wacker and E. Schöll: *Spiking in an Activator-Inhibitor Model for Elements with S-Shaped Negative Differential Conductivity*, Zeitschrift für Physik **B 93**, 431–436 (1994) DOI: 10.1007/BF01314246
- A4 A. Wacker: *Dynamical behavior in a quantum-dot structure*, Physical Review B **49**, 16785–16488 (1994) DOI: 10.1103/PhysRevB.49.16785
- A5 F. Prengel, A. Wacker, and E. Schöll: *Simple model for multistability and domain formation in semiconductor superlattices*, Physical Review B **50**, 1705–1712 (1994); erratum **52**, 11518 (1995) DOI: 10.1103/PhysRevB.50.1705
- A6 S. Bose, A. Wacker, and E. Schöll: *Bifurcation scenarios of spatio-temporal spiking in semiconductor devices*, Physics Letters **A 195**, 144–150 (1994) DOI: 10.1016/0375-9601(94)90087-6
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- A10 A. Wacker and E. Schöll: *Criteria for stability in bistable electrical devices with S- or Z-shaped current-voltage characteristics*, Journal of Applied Physics **78**, 7352–7357 (1995) DOI: 10.1063/1.360384
- A11 A. Wacker, S. Bose, and E. Schöll: *Transient spatio-temporal chaos in a reaction-diffusion model*, Europhysics Letters **31**, 257–262 (1995) DOI: 10.1209/0295-5075/31/5-6/002
- A12 G. Schwarz, A. Wacker, F. Prengel, E. Schöll, J. Kastrup, H.T. Grahn, and K. Ploog: *The influence of imperfections and weak disorder on domain formation superlattices*, Semiconductor Science and Technology **11**, 475–482 (1996) DOI: 10.1088/0268-1242/11/4/003
- A13 F.-J. Niedernostheide, H.-J. Schulze, S. Bose, A. Wacker, and E. Schöll: *Spiking in a semiconductor device: Experiments and comparison with a model*, Physical Review E **54**, 1253–1260 (1996).
- A14 R. Stasch, R. Hey, M. Asche, A. Wacker, and E. Schöll: *Temperature persistent bistability and threshold switching in a single barrier heterostructure hot-electron diode*, Journal of Applied Physics **80**, 3376–3380 (1996).
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- A16 J. Kastrup, R. Hey, K.H. Ploog, H.T. Grahn, L.L. Bonilla, M. Kindelan, M. Moscoso, A. Wacker, and J. Galán: *Electrically tunable GHz oscillations in doped GaAs-AlAs superlattices*, Physical Review B **55**, 2476–2488 (1997).
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- A30 A. Amann, A. Wacker, L. L. Bonilla, and E. Schöll: *Dynamic scenarios of multi-stable switching in semiconductor superlattices*, Physical Review E **63**, 66207-1–8 (2001).
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- A36 A. Wacker: *Gain in quantum cascade lasers and superlattices: A quantum transport theory*, Physical Review B **66**, 085326-1–7 (2002). DOI: 10.1103/PhysRevB.66.085326
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Book Chapters:

B2, B3, and B6 are not present in Web of Science and Researcher ID

- B1 E. Schöll and A. Wacker: *Oscillatory Transport Instabilities and Complex Spatio-Temporal Dynamics in Semiconductors*, pp. 21–45 in *Nonlinear Dynamics and Pattern Formation in Semiconductors and Devices*, edited by F.-J. Niedernostheide (Springer, Berlin, 1995). **DOI:** 10.1007/978-3-642-79506-0_2
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