Prof. Dr. Knut Urban, Jülich

List of publications

Part 1: Original papers in refereed journals
Part 2: Books and Book Chapters
Part 3: Papers in conference proceedings (including invited lectures)
Part 1: Original papers in refereed journals

1970

1 K. Urban
Lawinendurchbruch in plastisch verformtem Germanium bei 4,2 K

2 K. Urban
voids in nickel after electron irradiation

1971

3 K. Urban
Growth of defect clusters in thin nickel foils during electron irradiation (I)
Phys. stat. sol. (a), 761 (1971).

4 K. Urban, M. Wilkens
Growth of defect clusters in thin nickel foils (II); temperature dependence of the growth rate of interstitial loops
Phys. stat. sol. (a) 6, 173 (1971).

1972

5 H.G. Heide, K. Urban
A novel specimen stage permitting high-resolution electron microscopy at low temperatures

6 K. Urban
Direct observation of the formation of point-defect clusters in nickel during electron irradiation below annealing stage I
Phys. stat. sol. (a) 49, Kl (1972).
1973

7 K. Urban
Application of high-voltage electron microscopy to low-temperature radiation damage studies in metals
J. of Microscopy 97, 121 (1973).

1974

8 K. Urban, A. Seeger
Radiation-induced diffusion of point defects during low-temperature electron irradiation

1975

9 K. Urban, W. Jäger
Observation of point-defect cluster formation in cooper during low-temperature electron irradiation
Phys. stat. sol. (b) 68, Kl (1975).

1977

10 W. Jäger, K. Urban
The formation of clusters of atomic defects during annealing of copper electron-irradiated at low temperature

11 N. Yoshida, K. Urban
Direct evidence for a very low atom displacement threshold energy around the $<110>$ directions in copper

1978
12 P. Rapps, K.H. Katerbau, H. Mughrabi, K. Urban, M. Wilkens
Electron diffraction in crystalline specimens containing a high density of lattice defects
Phys. stat. sol. (a) 47, 479 (1978).

13 K. Urban
Hochspannungselektronenmikroskopie

1979

14 K. Urban, N. Yoshida
The effect of electron diffraction channelling on the displacement of atoms in electron-irradiated crystals

15 F. Phillipp, B. Saile, H. Schmid, K. Urban
Energy and orientation dependence of atom displacement in bcc metals studied by high-voltage electron microscopy

16 K. Urban
Radiation-induced processes in experiments carried out in situ in the high-voltage electron microscope

17 M. Kiritani, K. Urban
Submicroscopic defects in metals and their influence on HVEM in-situ experiments
Kristall und Technik 14, 1413 (1979).

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18 N. Yoshida, K. Urban
An investigation of the temperature dependence of the threshold energy for atom displacement in electron-irradiated copper
19 W. Jäger, W. Frank, K. Urban
High-voltage electron-microscope investigation of point-defect agglomerates in irradiated copper during in-situ annealing
Radiation Effects 46, 47 (1980).

1981

20 K. Urban, N. Yoshida
The threshold energy for atom displacement in irradiated copper studied by high-voltage electron microscopy

21 K. Urban
Ion damage in silicon crystals inside an electron microscope

22 H. Takahashi, K. Urban
A study of point-defect mobility in Ag-Cu by high-voltage electron microscopy

1982

23 M. Kiritani, K. Urban, N. Yoshida
Formation of submicroscopic vacancy clusters and irradiation-induced refining in metals by electron irradiation at high temperatures

24 K. Urban, G. Martin
Precipitate coarsening induced by point-defect recombination in alloys under irradiation
Acta Metallurgica 30, 1209 (1982).

1983
25  W. Zag, K. Urban  
Temperature dependence of the threshold energy for atom displacement in irradiated molybdenum  

1984

26  S. Banerjee, K. Urban, M. Wilkens  
Order-disorder transformation in Ni$_4$Mo under electron irradiation in a high-voltage electron microscope  
*Acta Metallurgica Award (best paper of the year 1984).*

27  S. Banerjee, K. Urban  
Kinetics of order-disorder transformation in alloys under electron irradiation  

28  F. Phillipp, K. Urban, M. Wilkens  
Electron diffraction in porous silicon  

1985

29  K. Urban  
Determination of long-range order parameter in alloys by means of electron diffraction in the electron microscope  

30  J. Mayer, K. Urban  
Spinodal ordering in Ni$_4$Mo  

31  J. Mayer, K. Urban  
Observation of Ni$_8$Mo ordered phase in Ni-Mo alloys  
Phys. stat. sol. (a) 90, 469 (1985).
32  K. Urban, N. Moser, H. Kronmüller  
Phase transitions between the quasicrystalline, crystalline and amorphous phases in Al-14at%Mn  

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33  K. Urban, P. Kramer, M. Wilkens  
Quasikristalle  
Physikalische Blätter 42, 373 (1986).

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34  J. Mayer, K. Urban, J. Härle, S. Steeb  
Electron irradiation of quasicrystalline Al-16at%V  
Zeitschrift für Naturforschung 42a, 113 (1987).

35  J. Mayer, K. Urban, J. Fidler  
Phase transitions between the quasicrystalline, crystalline and amorphous phases in Al-16at%V  

36  A. Csanady, P.B. Barna, J. Mayer, K. Urban  
Preparation of Al-based icosahedral thin films by high-temperature vapour deposition  
Scripta metal. 21, 1535 (1987).

37  A. Csanady, K. Urban, J. Mayer, P.B. Barna  
Crystalline and quasicrystalline phases formed by interdiffusion in evaporated Al-Mn thin films  

1988

Direct production of crystalline superconducting thin films of YBa$_2$Cu$_3$O$_7$ by high-pressure oxygen sputtering

39 P.B. Barna, G. Radnoczi, A. Csanady, K. Urban
Nucleation and growth of icosahedral quasicrystalline thin films during high-temperature vapour deposition

40 K. Urban, M. Bauer, J. Mayer
Structural relationships between the quasicrystalline and the amorphous state in alloys

41 J. Eckert, H. Schultz, K. Urban
Glass-forming ranges in transition metall Zr alloys prepared by mechanical alloying

42 J. Eckert, L. Schultz, E. Hellstern, K. Urban
Glass-forming range in mechanically alloyed Ni-Zr and the influence of the milling intensity
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1989

Epitaxial multilayers of YBa$_2$Cu$_3$O$_7$ and PrBa$_2$Cu$_3$O$_7$ as a possible basis for superconducting electronic devices

Formation of highly textured Bi-Sr-Ca-Cu-O superconducting thick films by a rapid melting process

45 S. Banerjee, U.D. Kulkarni, K. Urban
Initial Stages of Ordering in Ni$_3$Mo - Thermal and Irradiation Ordering Experiments

46 S. Ranganathan, A. Singh, J. Mayer, K. Urban
Electron diffraction patterns from the Al-Mn decagonal phase

47 Z. Zhang, K. Urban
Transmission electron microscope observations of dislocations and stacking faults in a decagonal Al-Cu-Co alloy

48 Z. Zhang, K. Urban
Quasicrystalline phases in Al-Cu-Co alloy

49 Z. Zhang, K. Urban
Dislocations and planar faults in decagonal Al-Cu-Co

50 J. Eckert, L. Schultz, K. Urban
Formation of quasicrystals by mechanical alloying

1990

51 J. Mayer, A. Csanady, K. Urban
Determination of the angles between the quasicrystal zone axes of the decagonal phase in Al-Mn alloys

52 G. Cox, K.H. Graf, D. Szynka, U. Poppe, K. Urban
Observation of point defects and microfaceting on GaAs (110) surfaces by scanning tunneling microscopy

A study of the microstructure of epitaxial heterostructures of YBa$_2$Cu$_3$O$_7$ and PrBa$_2$Cu$_3$O$_7$

54 C.L. Jia, B. Kabius, H. Soltner, U. Poppe, K. Urban
On a new phase with a body-centered structure in YBa$_2$Cu$_4$O$_7$ thin films

Effects of 173MeV Xe-ion irradiation on epitaxial YBa$_2$Cu$_3$O$_7$ films

56 K. Urban
Hochauflösende Elektronenmikroskopie

57 L.C. Qin, K. Urban
Electron diffraction and lattice image simulations with the inclusion of HOLZ reflections

58 Z. Zhang, M. Wollgarten, K. Urban
Analysis of dislocations in icosahedral Al-Cu-Fe alloy by transmission electron microscopy

59 J. Eckert, L. Schultz, K. Urban
Glass formation and extended solubilities in mechanically alloyed Co-transition metal alloys

Surface impedance measurements on sputtered YBa$_2$Cu$_3$O$_7$ films and first experimental results on a high-$T_c$ patch antenna

61 J. Eckert, L. Schultz, K. Urban
Phase transitions and quasicrystal formation in Al-Cu-Mn induced by ball milling

62 C.L. Jia, B. Kabius, H. Soltner, U. Poppe, K. Urban
Interfacial defects in heterostructures of YBa$_2$Cu$_3$O$_7$ and PrBa$_2$Cu$_3$O$_7$ on SrTiO$_3$ substrate
63 P.B. Barna, A. Csanady, G. Radnoczi, K. Urban, U. Timmer
Quasicrystalline structure formation in thin films

64 J. Eckert, L. Schultz, K. Urban
Progress of quasicrystal formation during mechanical alloying in Al-Cu-Mn and the influence of the milling intensity

65 J. Eckert, L. Schultz, K. Urban
Compositional dependence of quasicrystal formation in mechanically alloyed Al-Cu-Mn

1991

66 J. Eckert, L. Schultz, K. Urban
Synthesis of Ni-Ti and Fe-Ti alloys by mechanical alloying: Formation of amorphous phases and extended solid solutions

67 Z. Zhang, N.C. Li, K. Urban
A quasicrystalline transition state in an annealed Al$_{65}$Cu$_{20}$Fe$_{15}$ alloy
J. Mater. Res. 6, 366 (1991)

68 J. Eckert, L. Schultz, K. Urban
Amorphization reaction during mechanical alloying: influence of the milling conditions

69 R. Wittmann, P. Löbl, E. Lüscher, G. Fritsch, M. Wollgarten, K. Urban
Electrical resistivity and crystallization behaviour of icosahedral Al$_{51}$Cu$_{12.5}$Mg$_{36.5}$

70 R. Wittmann, K. Urban, M. Schandl, E. Hornbogen
Mechanical properties of single-quasicrystalline AlCuCoSi
Microstructure of epitaxial YBa$_2$Cu$_3$O$_7$ films on step edge SrTiO$_3$ substrates

Observation of crystal dislocations in GaAs

Scanning tunneling microscopy of crystal dislocations in gallium arsenide

74 J. Eckert, L. Schultz, K. Urban
Comparison of glass-formation by mechanical alloying and solid-state interdiffusion in Ni-Zr composites

75 J. Eckert, L. Schultz, K. Urban
Comparison of solid-state amorphization by mechanical alloying or interdiffusion in Ni-Zr

76 J. Eckert, L. Schultz, K. Urban
Formation of quasicrystalline and amorphous phases in mechanically alloyed Al-based and Ti-Ni-based alloys

77 M. Wollgarten, D. Gratias, Z. Zhang, K. Urban
On the determination of the Burgers vector of quasicrystal dislocations by transmission electron microscopy

78 J. Eckert, L. Schultz, K. Urban
Interdiffusion reaction, phase sequence, and glass formation in Ni-Zr composites
79 H. Watanabe, B. Kabius, K. Urban, B. Roas, S. Klaumünzer, G. Saemann-Ischenko
The influence of 173 MeV Xe-ion irradiation on the microstructure of YBa$_2$Cu$_3$O$_7$ thin films

80 B. Grushko, K. Urban
Solidification of Al$_{65}$Cu$_{20}$Co$_{15}$ and Al$_{65}$Cu$_{15}$Co$_{20}$ alloys

81 B. Grushko, K. Urban, Ch. Freiburg
An Al$_3$Ni$_2$-type phase in the Al-Cu-Co system

82 C.L. Jia, H. Soltner, B. Kabius, U. Poppe, K. Urban
A study of antiphase boundaries and "223" planar faults in epitaxial YBa$_2$Cu$_3$O$_7$ films by high resolution electron microscopy

83 H. Watanabe, B. Kabius, K. Urban, B. Roas, S. Klaumünzer, G. Saemann-Ischenko
The Influence of 173 MeV 129Xe Ion Irradiation on the Superconducting Properties and on the Microstructure of YBa$_2$Cu$_3$O$_7$ Thin Films
Physica C, 175, 75 (1991)

Millimeter and submillimeter wave surface impedance of YBa$_2$Cu$_3$O$_7$ thin films with reduced low temperature absorption
Physica C 185-189, 1777 (1991)

85 X.F. Zhang, B. Kabius, K. Urban
A TEM study of BiSrCaCuO superconducting thin films on SrTiO$_3$ substrates

1992
Low-resistivity epitaxial YBa$_2$Cu$_3$O$_7$ thin films with improved microstructure and reduced microwave losses

87 X.F. Zhang, B. Kabiuss, K. Urban, P. Schmitt, L. Schultz, G. Saemann-Ischenko
Electron microscope investigation of twins in BiSrCaCuO superconducting thin films on (001) SrTiO$_3$ substrates

88 H. Soltner, C.L. Jia, B. Kabiuss, U. Poppe, P. Swiatek, K. Urban
Microstructure of heteroepitaxial YBa$_2$Cu$_3$O$_7$/SrTiO$_3$ multilayer thin films

89 M. Luysberg, W. Jäger, K. Urban, M. Schänzer, N.A. Stolwijk, H. Mehrer
Defect formation during Zn diffusion into GaAs

90 P. Schloßmacher, K. Urban, H. Rüfer
Dislocations and precipitates in gallium arsenide

91 M. Wollgarten, Z. Zhang, K. Urban
Diffraction contrast of quasicrystal dislocations in the transmission electron microscope

92 P.B. Barna, A. Csanady, U. Timmer, K. Urban
Nucleation, growth and structure of Al-Mn quasicrystalline thin films prepared by high-temperature vapour deposition

93 M. Lentzen, D. Gerthsen, A. Förster, K. Urban
Growth mode and strain relaxation during the initial stage of In$_x$Ga$_{1-x}$As growth on GaAs (001)
94  X.Z. Liao, K.H. Kuo, H. Zang, K. Urban
Transformation of the Al-Cu-Co decagonal quasicrystal to a new orthorhombic approximant

95  Ph. Ebert, G. Cox, U. Poppe, K. Urban
The electronic structure of the InP (110) surface studied by scanning tunneling microscopy and spectroscopy

96  B. Grushko, R. Wittmann, K. Urban
Solidification of Al\textsubscript{65-x}Cu\textsubscript{20}Co\textsubscript{15}Si\textsubscript{x} alloys

Microwave surface resistance of epitaxial YBa\textsubscript{2}Cu\textsubscript{3}O\textsubscript{7} thin films measured at 18.7 GHz by a dielectric resonator technique

98  D.M. Herlach, F. Gillessen, T. Volkmann, M. Wollgarten, K. Urban
Phase selection in undercooled quasicrystal forming Al-Mn alloy melts

The microstructure of epitaxial YBa\textsubscript{2}Cu\textsubscript{3}O\textsubscript{7} films on steep steps in LaAlO\textsubscript{3} substrates

100  H. Zhang, K. Urban
Radiation-induced transformation from the decagonal quasicrystalline phase to a CsCl-type phase in Al-Cu-Co-Si alloy

101  P. Schloßmacher, M. Otte, K. Urban, H. Rüfer
Identification of Zn-As-phases in Zn-doped LEC GaAs
102 A. Thust, K. Urban
A high-speed image matching technique for computer simulation in high-resolution electron microscopy

103 G. Cox, Ph. Ebert, U. Poppe, M. Simon, K. Urban
Dislocation reaction on p-doped GaAs(011) observed by scanning tunneling microscopy

104 Ph. Ebert, G. Cox, U. Poppe, K. Urban
A STM study of the InP (110) surface

105 M. Luysberg, D. Gerthsen, K. Urban
High-resolution electron microscopy of dislocation dipoles in plastically deformed InP

106 H. Watanabe, B. Roas, B. Kabius, K. Urban
Effect of 173 MeV Xe-Ion Irradiation in YBa$_{2}$Cu$_{3}$O$_{7}$
Japan Inst. Metals, 56 (1992)

1993

107 A. Csanady, P.B. Barna, K. Urban, U. Timmer
Formation and Stability of Al-Mn quasicrystalline thin films prepared by high temperature successive deposition

108 K. Urban, M. Wollgarten, D. Gratias, Z. Zhang
Electron microscopy of dislocations in quasicrystals

109 K. Urban, M. Wollgarten, D. Gratias, Z. Zhang
Electron Microscopy of Dislocations in Quasicrystals
110  Ph. Ebert, K. Urban
Phosphorous vacancies and adatoms on GaP(110) surfaces studied by scanning tunneling microscopy

111  M. Wollgarten, H. Lakner, K. Urban
Planar decagonal phase precipitates in icosahedral AlPdMn quasicrystals

112  C. L. Jia, A. Thust, G. Jakob, K. Urban
Chemically sensitive imaging of (YBa$_2$Cu$_3$O$_7$)$_m$/(PrBa$_2$Cu$_3$O$_7$)$_n$ superlattices by means of high-resolution electron microscopy

113  N. Klein, U. Poppe, N. Tellmann, H. Schultz, W. Evers, U. Dähne, K. Urban
Microwave surface resistance of epitaxial YBa$_2$Cu$_3$O$_7$ films: Studies on oxygen deficiency and disordering

114  M.X. Dai, K. Urban
Twins in icosahedral Al-Cu-Fe

115  B. Grushko, R. Wittmann, K. Urban
Investigation of Al-Cu-Co decagonal phase with low copper content

116  Ph. Ebert, M.G. Lagally, K. Urban
Scanning-tunneling-microscope tip-induced migration of vacancies on GaP(110)

Structural and compositional characterization of (YBa$_2$Cu$_3$O$_7$)$_m$/(PrBa$_2$Cu$_3$O$_7$)$_n$ superlattices by means of high-resolution electron microscopy
118  C.L. Jia, K. Urban
Structure of grain boundaries in YBa$_2$Cu$_3$O$_7$ thin film step-edge junctions

Formation of void/Ga-precipitate pairs during Zn diffusion into GaAs: the competition of two
thermodynamic driving forces

120  M. Wollgarten, K. Urban
Comment on "Convergent-beam electron diffraction study of the Burgers vector of dislocations in
icosahedral Al-Cu-Fe alloy"

121  T. Amrein, M. Seitz, D. Uhl, L. Schultz, K. Urban
Thin film Bi$_2$Sr$_2$CaCu$_2$O$_{8+\delta}$ Josephson junctions and direct current superconducting quantum
interference devices on (001) SrTiO$_3$ bicrystals

122  T. Amrein, B. Kabius, J. Burger, G. Saemann-Ischenko, L. Schultz, K. Urban
Microstructure investigations of the epitaxial growth of ultrathin Bi$_2$SrCaCu$_2$O$_{x}$ superconducting
films on (001) SrTiO$_3$ substrates

123  M. Wollgarten, M. Beyss, K. Urban, H. Liebertz, U. Köster
Direct evidence for plastic deformation of quasicrystals by means of a dislocation mechanism

124  D. Holland-Moritz, D.M. Herlach, K. Urban
Observation of the undercoolability of quasicrystal-forming alloys by electromagnetic levitation
Josephson junctions, interconnects and crossovers on the basis of chemically treated edges of epitaxial heterostructures including YBa$_2$Cu$_3$O$_{7-x}$

126 A. Thust, M. Lentzen, K. Urban
Non-linear reconstruction of the exit plane wave function from periodic high-resolution electron microscopy images

Variation of the oxygen content in YBa$_2$Cu$_3$O$_7$ films deposited by high oxygen pressure DC-sputtering

128 Ph. Ebert, K. Urban
Step smoothing and surface vacancy reactions in InP (110) and GaP(110) observed by scanning tunneling microscopy

129 N. Klein, N. Tellmann, H. Schulz, K. Urban, S.A. Wolf, V.Z. Kresin
Evidence of two-gap s-wave superconductivity in YBa$_2$Cu$_3$O$_{7-x}$ from microwave surface impedance measurements

1994

130 K. Urban, M. Wollgarten
Dislocation and Plasticity of Quasicrystals

131 B. Grushko, R. Wittmann, K. Urban
Structural variations and transformation behaviour of the Al$_{68}$Cu$_{11}$Co$_{21}$ decagonal phase
Temperature dependence of the millimeterwave conductivity of YBa$_2$Cu$_3$O$_7$ and Bi$_2$Sr$_2$Ca$_1$Cu$_2$O$_8$ thin films at 300 GHz

133  Ph. Ebert, K. Urban, M. Lagally
Charge state dependent structural relaxation of anion vacancies on InP(110) and GaP(110) surfaces

134  K. Urban, D. Holland-Moritz, D.M. Herlach, B. Grushko
The undercooling and phase formation behaviour of melts of quasicrystal-forming alloys

135  H. Zhang, Z. Zhang, K. Urban
A study of dislocations in AlCuCoSi decagonal quasicrystals by means of high-resolution electron microscopy

136  C.L. Jia, R. Dömel, K. Urban
Determination of the interfacial structure of YBaCuO/SrRuO thin-film heterostructures

137  J.W. Seo, B. Kabius, C.L. Jia, H. Soltner, U. Poppe, K. Urban
HREM investigation of (110) oriented YBaCuO thin films deposited on (110) SrTiO$_3$ substrates

138  C. L. Jia, Y. Xu, M. Beyss, F. Peter, K. Urban
The nature of the superconducting phase in yttrium palladium boride carbide

139  B. Kabius, J.W. Seo, T. Amrein, M. Siegel, K. Urban, L. Schultz
Grain boundary structure of thin films of YBa$_2$Cu$_3$O$_7$ and Bi$_2$Sr$_2$CaCu$_2$O$_8$ on bicrystalline substrates

140  C.L. Jia, K. Urban
Structure of grain boundaries in YBaCuO thin film step-edge junctions
Interface Science 1, 291 (1994).
141 R. Würschum, B. Grushko, K. Urban, H.-E. Schäfer
Free volumes in the quasicrystalline decagonal AlCuCo phase and in the adjacent crystalline phases studied by positron lifetime measurements

142 B. Grushko, K. Urban
A comparative study of decagonal quasicrystalline phases

In-situ production of epitaxial Ba$_{1-x}$K$_x$BiO$_3$ thin films by high-oxygen pressure RF sputtering 

Properties of Josephson edge junctions prepared with Br-ethanol etching

145 Y.Y. Divin, U. Poppe, J.-W. Seo, B. Kabius, K. Urban
Epitaxial YBaCuO thin films with tilted c-axis orientation

146 D. Holland-Moritz, D.M. Herlach, B. Grushko, K. Urban
Phase selection in undercooled melts of Al-Cu-Co and Al-Cu-Fe quasicrystal-forming alloys

C-axis orientation dependent vortex images in epitaxial thin films of YBaCuO

1995

148 U. Dähne, Y. Goncharov, N. Klein, N. Tellmann, G. Kozlov, K. Urban
Frequency and temperature dependence of the millimeter wave conductivity of epitaxial YBa$_2$Cu$_3$O$_7$- films
149 M. Feuerbacher, B. Baufeld, R. Rosenfeld, M. Bartsch, G. Hanke, M. Beyss, M. Wollgarten, U. Messerschmidt, K. Urban
Intrinsic deformation properties of icosahedral Al-Pd-Mn single-quasicrystals

150 M. Wollgarten, M. Bartsch, U. Messerschmidt, M. Feuerbacher, R. Rosenfeld, M. Beyss, K. Urban
In-situ observation of dislocation motion in icosahedral Al-Pd-Mn single-quasicrystals

151 R. Rosenfeld, M. Feuerbacher, B. Baufeld, M. Bartsch, U. Messerschmidt, M. Wollgarten, G. Hanke, M. Beyss, K. Urban
Study of plastically deformed icosahedral AlPdMn single-quasicrystals by transmission electron microscopy
Phil. Mag. Lett. 72, 6, 375 (1995)

152 Ph. Ebert, M. Heinrich, M. Simon, K. Urban, M. Lagally
Formation of anion vacancies by Langmuir evaporation from InP and GaAs(110) surfaces at low temperatures

153 M. Heinrich, Ph. Ebert, M. Simon, K. Urban, M. Lagally
Temperature-dependent vacancy concentrations on InP(110) surfaces

Proximity effect in All-Oxide Edge Type Junctions prepared with Br-ethanol etching

Application of Josephson edge-type junctions prepared with etching or cleaning

Correlation of YBaCuO step-edge junction characteristics with microstructure
157  C.L. Jia, K. Urban, X. Jiang  
Heteroepitaxial diamond films on silicon (001): Interface structure and crystallographic relations between film and substrate  

Noise properties of direct current SQUIDs with quasiplanar YBa$_2$Cu$_3$O$_7$ Josephson Junctions  

Evidence of Point Defect Supersaturation during Zn Diffusion in InP Single Crystals  

The Influence of Phosphorous, Arsenic and Antimony Vapor Ambients on the Diffusion of Zinc into Gallium Arsenide  

161  C.L. Jia, M.I. Faley, U. Poppe, K. Urban  
Effect of chemical and ion-beam etching on the atomic structure of interfaces in YBa$_2$Cu$_3$O$_7$/PrBa$_2$Cu$_3$O$_7$ Josephson junctions  

162  K. Tillmann, D. Gerthsen, A. Förster, K. Urban  
Growth morphology and misfit relaxation of MBE-grown In$_{0.6}$Ga$_{0.4}$As on GaAs(001)  

163  K. Tillmann, D. Gerthsen, P. Pfundstein, A. Förster, K. Urban  
Structural transformations and strain relaxation mechanisms on In$_{0.6}$Ga$_{0.4}$As islands grown by molecular beam epitaxy on GaAs(001) substrates  

164  J.W. Seo, B. Kabius, U. Dähne, A. Scholen, K. Urban  
TEM investigation of grain boundaries in YBa$_2$Cu$_3$O$_7$ thin films grown on bicrystal substrates  
1996

165  Y.Y. Divin, H. Schulz, U. Poppe, N. Klein, K. Urban, P.M. Shadrin, I.M. Kotelyanskii, E.A. Stepanitsov
YBa$_2$Cu$_3$O$_{7-x}$ thin-film Josephson junctions on 2x12° bicrystal (110) NdGaO$_3$ substrates

166  M. Lentzen, K. Urban
Reconstruction of the projected crystal potential from a periodic high-resolution electron microscopy
exit plane wave function

167  Ph. Ebert, Xun Chen, M. Heinrich, M. Simon, K. Urban, M. Lagally
Direct determination of the interaction between vacancies on InP(110) surfaces

Thermal formation of Zn-dopant vacancy-defect complexes on InP(110) surfaces

169  M. Heinrich, C. Domke, Ph. Ebert, K. Urban
Charged steps on III-V compound semiconductor surfaces

170  Ph. Ebert, B. Engels, P. Richard, K. Schroeder, S. Blügel, C. Domke, M. Heinrich, K. Urban
Contribution of surface resonances to STM images: (110) surfaces of III-V-compound semiconductors

171  Ph. Ebert, M. Heinrich, K. Urban, K.-J. Chao, A.R. Smith, C.K. Shih
Temperature dependent compensation of Zn-dopant atoms by vacancies in III-V semiconductor
surfaces

172  C. Domke, Ph. Ebert, M. Heinrich, K. Urban
Microscopic identification of compensation mechanisms in Si-doped GaAs
173 Ph. Ebert, M. Feuerbacher, N. Tamura, M. Wollgarten, K. Urban
Evidence for a Cluster-Based Structure of AlPdMn Single-Quasicrystals.

174 Y.Y. Divin, H. Schulz, U. Poppe, N. Klein, K. Urban, V.V. Pavlovskii
Millimeter-wave Hilbert-transform spectroscopy with high Tc Josephson junctions

175 M. Feuerbacher, M. Weller, J. Diehl, K. Urban
Mechanical spectroscopy of Al-Pd-Mn quasicrystals

176 M. Weller, M. Feuerbacher, J. Diehl, K. Urban
Phason Relaxation Mechanisms in Al-Pd-Mn Single-Quasicrystals
J. Phys. (France) 6, C8-239 (1996)

177 S. Suzuki, Y. Waseda, N. Tamura, K. Urban
Selective Ion Sputtering and Initial Oxidation in Al-Pd-Mn Single Quasicrystals

178 N. Tamura, M. Beyss, K. Urban
Triacantahedral growth morphology in icosahedral Zn-Mg-Y alloy

Determination of segregation, elastic strain and thin-foil relaxation in In$_x$Ga$_{1-x}$As islands on GaAs(001) by high-resolution transmission electron microscopy

180 N. Klein, A. Scholen, N. Tellmann, C. Zuccaro, K. Urban
Properties and applications of HTS-shielded dielectric resonators: a state-of-the-art report

181 C.L. Jia, M. Grove, R. Dittmann, K. Urban
The Atomic structure of the interface of Au on (001) YBa$_2$Cu$_3$O$_7$
1997

182 J. Gebauer, R. Krause-Rehberg, C. Domke, Ph. Ebert, K. Urban
Identification and Quantification of Defects in Highly Si-Doped GaAs by Positron Annihilation and Scanning Tunneling Microscopy

183 H. Schulz, U. Poppe, N. Klein, K. Urban, Y.Y. Divin, I.M.Kotelyanskii

Hilbert-Transform Spectral Analysis of Millimeter- and Submillimeter-Wave Radiation with High-T$_c$ Josephson Junctions

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