

2003

High-resolution potential mapping in semiconductor nanostructures by cross-sectional scanning tunneling microscopy and spectroscopy

S. Modesti, D. Furlanetto, M. Piccin, S. Rubini, A. Franciosi
Applied Physics Letters 82, 1932 (2003)

Atomic resolution compositional analysis by scanning transmission electron microscopy high-angle annular dark-field imaging

E. Carlino, S. Modesti, D. Furlanetto, M. Piccin, S. Rubini, A. Franciosi
Applied Physics Letters **83**, 662 (2003)

High Spatial Resolution TEM studies of GaAs/ZnSe interfaces grown by different MBE procedures.

E. Carlino, D. Furlanetto, A. Colli and A. Franciosi
Inst. Phys. Conf. Ser. 180, 183-186 (2003), in Microscopy of Semiconducting Materials 2003, A.G. Cullis and P.A. Midgley, Eds.

High Spatial Resolution TEM studies of semiconductor heterostructures.

E. Carlino, S. Modesti and A. Franciosi
Proceedings 6th Multinational Congress on Electron Microscopy. Pula (KR) June 2003.
Ed: Croatian society for electron microscopy – Zagreb.

Synchrotron XPS study of the NO-CO reaction on Pt(100)

E.D.L. Rienks, J.W. Bakker, A. Baraldi, S.A.C. Carabineiro, S. Lizzit, C.J. Weststrate and B. Nieuwenhuys,
Surf. Sci. **532**, 120 (2003).

The reduction of NO on Pt(100) by H₂ and CO studied with synchrotron x-ray photoelectron spectroscopy

E.D.L. Rienks, J.W. Bakker, A. Baraldi, S.A.C. Carabineiro, S. Lizzit, C.J. Weststrate and B. Nieuwenhuys,
J. Chem. Phys. **119**, 6245 (2003).

Gallium(010) surface reconstruction: a LEED structural analysis of the (1x1) room temperature and R45° low temperature structures

S. More, E.A. Soares, M.A. Van Hove, S. Lizzit, A. Baraldi, Ch. Grutter, J.H. Bilgram and Ph. Hofmann,
Phys. Rev. **B 68**, 75414 (2003).

Multilayer relaxation from surface core level shift: the Be(0001) case

A. Baraldi, S. Lizzit, K. Pohl, Ph. Hofmann and S. de Gironcoli,
Europhys. Lett. **64** 364 (2003).

Core level spectroscopy and reactivity of coadsorbed K+O layers on reconstructed Rh(110) surfaces

S. Gunther, H. Marbach, R. Imbihl, A. Baraldi, S. Lizzit and M. Kiskinova,
J. Chem. Phys. **119**, 12503 (2003).

Core Level Spectra of Amorphous Carbon Nitride

J.M. Ripalda, E. Román, L. Galán, I. Montero, S. Lizzit, A. Baraldi, G. Comelli, G. Paolucci and A. Goldoni,
J. Chem. Phys. **118**, 3748 (2003).

Real Time XPS of Surface Reactions

A. Baraldi, G. Comelli, S. Lizzit, M. Kiskinova and G. Paolucci,
Surf. Sci. Rep. **49**, 169 (2003).

Second-Layer Surface Core-Level Shift on Rh(111)

A. Baraldi, S. Lizzit, A. Novello, G. Comelli and R. Rosei,
Phys. Rev. **B. 67**, 205404 (2003).

Adsorption of CO₂ and Coadsorption of H and CO₂ on Potassium-Promoted Cu(115),

J. Onsgaard, S.V. Hoffmann, P. Møller, P.J. Godowski, J.B. Wagner, G. Paolucci,
A. Baraldi, G. Comelli, A. Groso,
ChemPhysChem **4**, 466 (2003).

Analysis of the Angular Distribution of Soft-x-ray Photoelectrons: a Tool for Surface Structure Determination

F. Bondino and G. Comelli,
J. Electr. Spectr. Relat. Phenom. **129**, 171 (2003).

Molecular Orientation of CN Adsorbed on Pd(110)

F. Bondino, E. Vesselli, A. Baraldi, G. Comelli, A. Verdini, A. Cossaro, L. Floreano, A. Morgante,
J. Chem. Phys. **118**, 10735 (2003).

Structural Characterization of the Adlayers NO Adsorption on Rh(100).

F. Bondino, G. Comelli, A. Baraldi, E. Vesselli, R. Rosei, A. Goldoni, S. Lizzit, C. Bungaro, S. de Gironcoli and S. Baroni,
J. Chem. Phys **119**, 12525 (2003).

NO adsorption on Rh(100). II. Stability of the Adlayers

F. Bondino, G. Comelli, A. Baraldi, E. Vesselli and R. Rosei,
J. Chem. Phys **119**, 12534 (2003).

Bonding of Gold Nano-Clusters to Oxygen Vacancies on Rutile TiO₂ (110)

E. Wahlströhm, N. Lopez, R. Schaub, P. Thorstrup, A. Rønnau, C. Africh, E. Laesgaard, J.K. Nørskov, and F. Besenbacher,
Phys. Rev. Lett. **90**, 026101 (2003).

Time evolution of the local slope during Cu(110) ion sputtering

Boragno C, Buatier F, Costantini G, A. Molle, D. de Sanctis, U. Valbusa, F. Borgatti, R. Felici, S. Ferrer;
Physical Review **B 68**, 094102, (2003)

Structure properties of nanostructured Fe films grown on c(2 x 2) N/Cu(100) self-organised surface

P. Finetti, F. Borgatti, R. Felici, R. Gunnella, S. D'Addato,
Applied Surface Science **212** (2003) 85-91

Magnetization dynamics of surfaces and few-monolayer films

Giorgio Rossi, Fausto Sirotti, and Giancarlo Panaccione;

Thin Solid Films **428**, 87, (2003)

Short and long range ordered surface structures of segregated species on Fe(100)

J. Fujii, M. Galaktionov, L. Giovanelli, G. Panaccione, F. Bondino, I. Vobornik, and G. Rossi;

Thin Solid Films (2002) 428, 30, (2003)

Influence of Impurities on the Density of States at the Fermi Level in the c(6x4)-C60/Ag(100) two-dimensional superstructure;

I. Vobornik, I. Avramova, L. Giovanelli, G. Panaccione, J. Fujii, S. Vobornik, C. Cepek, M. Sancrotti, G. Rossi; E-MRS 2002 Conference proceedings,
Nuclear Instruments and Methods in Physics Research **B 200**, 1-4 (2003)

*Short and long range ordered surface structures of segregated species on Fe(100),*J. Fujii, M. Galaktionov, L. Giovanelli, G. Panaccione, F. Bondino, I. Vobornik, and G. Rossi,

Thin Solid Films **428**, 30, (2003).

Influence of impurities on the density of states at the Fermi level in the c(6x4)-C₆₀/Ag(100) two-dimensional superstructure

I. Vobornik, I. Avramova, L. Giovanelli, G. Panaccione, J. Fujii, C. Cepek, M. Sancrotti and G. Rossi

Nucl. Instr. and Meth. in Phys. Res. B **200** (2003) 1-4

In situ growth and thermal treatment of nanostructured carbon produced by supersonic cluster beam deposition: an electron spectroscopy investigation

E. Magnano, C. Cepek, M. Sancrotti, F. Siviero, S. Vinati, C. Lenardi, P. Piseri, E. Barborini, and P. Milani

Phys. Rev. B **67**, 125414 (2003)

Thermal reactions at the interface between Si and C nanoparticles: nanotube self-assembling and transformation into SiC

R. Larciprete, S. Lizzit, C. Cepek, S. Botti, and A. Goldoni

Surf. Sci. **532-535**, 886 (2003)

Metallic phases of a C₇₀ single layer adsorbed on Cu(1 1 1) doped with sodium

T. Pardini, C. Cepek, R. Larciprete, L. Sangaletti, S. Pagliara, R. Gotter, L. Floreano, A. Verdini, A. Morgante, F. Parmigiani and A. Goldoni

Surf. Sci. **532-535**, 892 (2003)

Temperature-Dependent Interaction of C₆₀ with Ge(111)-c(2X8)

G. Bertoni, C. Cepek, and M. Sancrotti

Appl. Surf. Sci. **212-213**, 52 (2003)

Molecular orientation of C₆₀ on Pt(111) determined by X-ray photoelectron diffraction

L. Giovanelli, C. Cepek, L. Floreano, E. Magnano, M. Sancrotti, R. Gotter, A. Morgante, A. Verdini, A. Pesci, L. Ferrari, and M. Pedio; Appl. Surf. Sci. **212-213**, 57 (2003)

Thermally Induced Changes in Cluster-assembled Carbon Nanocluster Films Observed via Photoelectron Spectroscopy

E. Magnano, C. Cepek, M. Sancrotti, F. Siviero, S. Vinati, C. Lenardi, E. Barborini, P. Piseri, P. Milani; Appl. Surf. Sci. **212-213**, 879 (2003)

M. Bertolo, A. Bianco, G. Cauvero, A. Goldoni, R. Larciprete, S. La Rosa, S. Lizzit, A.A. Zakharov, I. Lindau, I. Vobornik and R. Yoshizaki, "Photoemission spectromicroscopy study of a Bi₂Sr₂CaCu₂O_{8+x} single crystal", J. Phys. IV France **104**, 487 (2003)

Improved microwave Hall effect measurements method

E. Prati, S. Faralli, M. Martinelli, G. Annino, G. Biasiol, and L. Sorba,

[Rev. Sci. Instr. 74, 154 \(2003\)](#).

AFM anodization studied by spectromicroscopy

M. Lazzarino, S. Heun, B. Ressel, K. C. Prince, P. Pingue, and C. Ascoli,

[Nucl. Instr. and Meth. In Phys. Res. B 200, 46 \(2003\)](#).

High-performance planar light-emitting diodes

M. Cecchini, V. Piazza, F. Beltram, M. Lazzarino, M. B. Ward and A. J. Shields, H. E. Beere and D. A. Ritchie,

[Appl. Phys. Lett. 82, 636 \(2003\)](#).

Nonlinear quasiparticle tunneling between fractional quantum Hall edges

S. Roddaro, V. Pellegrini, F. Beltram, G. Biasiol, L. Sorba, R. Raimondi, and G. Vignale,
[Phys. Rev. Lett. 90, 046805 \(2003\)](#).

Rabi splitting of intersubband cavity polaritons

D. Dini, R. Köhler, A. Tredicucci, G. Biasiol, L. Sorba, and F. Beltram,
[Phys. Rev. Lett. 90, 116401 \(2003\)](#).

PTFE nanoemulsions as ultralow-k dielectric materials

P. Machetta, M. Lazzarino, S. Carrato, C. Schmidt, G. Canil, V. Kapeliouchko, T. Poggio
and A. Sanguineti,
[Material Sci. Semicon. Proc. 5, 285 \(2003\)](#).

“Auger electron- photoelectron coincidence experiments in Ar and Kr

P. Bolognesi, M. Coreno, A. De Fanis, A. Huetz, S. Rioual, B. Rouvellou and L. Avaldi,
in Correlation and polarization in photonic, electronic and atomic collisions, G.F. Hanne,
L. Malegat and H. Schmidt-Böcking Eds., New York 2003 ,
AIP Conf. proceedings **697**, p. 119.

*“Angular distribution of the fluorescence of helium doubly photo- excited states
converging on the $He^+(N=2)$ ionization threshold”*

J. G. Lambourne, F. Penent, P. Lablanquie, R.I. Hall, M. Ahmad, M. Zitnik, K. Bucar, P.
Hammond, S. Stranges, R. Richter, M. Alagia and M. Coreno,
J. Phys. B: At. Mol. Opt. Phys. **36** (2003) 4351-4359.

“Detailed observations of photo-accessible triplet doubly excited states in helium”,

J. G. Lambourne, F. Penent, P. Lablanquie, R.I. Hall, M. Ahmad, M. Zitnik, K. Bucar, P.
Hammond, S. Stranges, R. Richter, M. Alagia and M. Coreno,
J. Phys. B: At. Mol. Opt. Phys. **36** (2003) 4339-4350.

*“Coherence of nondegenerate states studied by Auger electron-photoelectron
coincidence experiments in Kr”*,

S. Rioual, B. Rouvellou, A. Huetz and L. Avaldi,
Phys. Rev. Lett. **91** (2003) 173001.

A procedure to extract the complex amplitudes of He photodouble ionisation from experimental data

P. Bolognesi, A.S. Kheifets, I. Bray, L. Malegat, P. Selles, A.K. Kazansky and L. Avaldi, *J. Phys. B: At. Mol. Opt. Phys.* **36** (2003) L241-248

Photoabsorption cross section and ion yield spectra of helium double excitation resonances

K.C. Prince, R. Richter, M. de Simone, M. Alagia, M. Coreno, *Phys. Rev. A.* **68** (2003) 044701.

*A theoretical study of the $^1B_1(O1s \rightarrow *)$ and $^1A_1(O1s \rightarrow 3s)$ excited states of formaldehyde*

A. B. Trofimov, E. V Gromov, H. Köppel, J. Schirmer, K. C. Prince, R. Richter, M. de Simone and M. Coreno, *J. Phys. B: At. Mol. Opt. Phys.* **36** (2003) 3805-3816.

The Gas Phase PhotoEmission Beamline at ELETTRA

M. Alagia, L. Avaldi, M. Coreno, R. Camilloni, C. Furlani, K. C. Prince, R. Richter, M. de Simone, G. Stefani, S. Stranges, *Sync. Rad. News* **16** (2003) 19. Unrefereed.

Size-dependent oxidation in iron oxide core-shell nanoparticles.

L. Signorini, L. Pasquini, L. Savini, R. Carboni, F. Boscherini, E. Bonetti, A. Giglia, M. Pedio, N. Mahne, S. Nannarone, *Phys. Rev. B* **68** (2003), 195423

Coordination of B and P in Borophosphosilicate glasses

R. Carboni, G. Pacchioni, M. Fanciulli, A. Giglia, M. Pedio, N. Mahne, S. Nannarone, and F. Boscherini, *Appl. Phys. Lett.* **83**, 4312 (2003).

Molecular Orientation of C₆₀ on Pt(111) Determined by X-Ray Photoelectron Diffraction

L. Giovanelli, C. Cepek, L. Floreano, E. Magnano, M. Sancrotti, R. Gotter, A. Morgante, A. Verdini, A. Pesci, L. Ferrari, and M. Pedio *Applied Surface Science*, **212-213**, 57 (2003)

Strong correlations in the electronic structure of Sr₂FeMoO₆

Sugata Ray, Priya Mahadevan, Ashwani Kumar, D.D. Sarma, R. Cimino, M. Pedio, L. Ferrari and A. Pesci, *Phys. Rev. B* **67**, 085109 (2003).

Hydrogen chemisorption on III-V semiconductor surfaces

S. Nannarone, M. Pedio *Surface Science Report* **51** (1-8): 1-149 2003

Nano-optical elements fabricated by e-beam and x-ray lithography

E. M. Di Fabrizio, D. Cojoc, S. Cabrini, L. Businaro, M. Altissimo, L. Vaccari, F. Romanato, R. Malureanu, B. Kaulich, T. Wilhein, J. Susini
Proc. SPIE Vol. **5225**, p. 113-125, Oct. 2003

α -Si:H BASED TWO-DIMENSIONAL PHOTONIC CRYSTALS

E. Bennici, F. Giorgis, C.F. Pirri, R. Rizzoli, P. Schina, L. Businaro, E. Di Fabrizio,
Physica E, Volume **16**, Issues 3-4, pp. 539-543, March 2003

Fabrication of 3D metallic photonic crystals by X-ray lithography

F. Romanato, L. Businaro, M. Tormen, L. Vaccari, S. Cabrini, P. Candeloro, R. Kumar, E. Di Fabrizio
Microelectronic Engineering, Vol. **67-68**, pp.479-486, 2003

Nanofabrication of high index contrast two-dimensional photonic crystal Waveguides

M.T. Todaro, T. Stomeo, V. Vitale, M. De Vittorio, A. Passaseo R. Cingolani, E. Di Fabrizio
Microelectronic Engineering, Vol. **67-68**, pp. 670-675, 2003

Novel diffractive optics for X-ray beam shaping

E. Di Fabrizio, S. Cabrini, D. Cojoc, F. Romanato, M. Altissimo, B. Kaulich, R. Kumar, T. Wilhein, J. Susini, M. De Vittorio, E. Vitale, G. Gigli, R. Cingolani
Microelectronic Engineering, Vol. **67-68**, pp. 87-95, 2003.

Diffractive optical elements for differential interference contrast x-ray microscopy;

E. Di Fabrizio, D. Cojoc, S. Cabrini, B. Kaulich, J. Susini, P. Facci, T. Wilhein, ;
ESRF Highlights 2003, **126-127**, (2003).

Twinmic: A European twin Microscope station combining full-field imaging and scanning microscopy

B. Kaulich, D. Bacescu, D. Cocco, E. Di Fabrizio
J. Phys. IV, Vol. **104**, p.103 (2003)

Diffractive optical elements for differential interference contrast x-ray microscopy;

E. Di Fabrizio, D. Cojoc, S. Cabrini, B. Kaulich, J. Susini, P. Facci, T. Wilhein, ;
Optics Express, **11**, 2278-2288, (2003).

Resonant second-harmonic generation in a GaAs photonic crystal waveguide

A.M. Malvezzi, G. Vecchi, M. Patrini, G. Guizzetti, L.C. Andreani, F. Romanato, L. Businaro, E. Di Fabrizio, A. Passaseo, M. De Vittorio
Phys. Rev. **B 68**, 161306 (2003)

Design and fabrication of new optics for X-ray microscopy and material science;
E. Di Fabrizio, D. Cojoc, S. Cabrini, B. Kaulich, T. Wilhelm, J. Susini, ;
J. Phys. IV, **104**, 177-183, (2003).

Fabrication of Diffractive Optical Elements On-Fiber for Photonic Applications by Nanolithography;
M. Prasciolu, P. Candeloro, R. Kumar, L. Businaro, E. Di Fabrizio, D. Cojoc, S. Cabrini, C. Liberale, V. Degiorgio, ;
Jap.J.Appl.Phys., **42** (6), 4177-4180, (2003).

Shaping X-rays by diffractive coded nano-optics;
E. Di Fabrizio E, Cabrini S, D. Cojoc, Romanato F, Businaro L, Altissimo M, Kaulich B, Wilhelm T, Susini J, De Vittorio M, Vitale E, Gigli G, Cingolani R, ;
Microelectronic Engineering, **67-68**: 87-95, (2003).

Linear optical properties and photonic mode dispersion in GaAs/AlGaAs photonic crystal slabs
M. Patrini, M. Galli, M. Agio, L.C. Andreani, D. Bajoni, G. Guizzetti, L. Businaro, E. Di Fabrizio, F. Romanato, A. Passaseo
Physica E, **17**, 418, (2003)

Fresnel Zone Plates for Imaging and Focusing of Thermal and Cold Neutrons
Sacchetti, M. Altissimo, C. Petrillo, E. Di Fabrizio, S. Colleoni, and F. Ott
Neutron News, Volume **14** Number 2 (2003)

Spin-wave frequency discretization in submicron rectangular prisms
P. Candeloro, L. Businaro, E. Di Fabrizio, G. Gubbiotti, A. Gerardino, R. Zivieri, M. Conti, G. Carlotti
J. Appl. Phys. Vol. **93** (10) 7595, 15 May 2003

X-Ray Lithography Patterning of Magnetic Materials and Their Characterization
P. Candeloro, M. Conti, R. Kumar, E. Di Fabrizio, G. Gubbiotti, A. Gerardino, R. Zivieri, O. Donzelli G. Carlotti
J. Appl. Phys. VOL 42 (6) (2003), Pp 3802.

Design and fabrication of diffractive optical elements for photonic applications by means of nanolithography;
M. Prasciolu, S. Cabrini, L. Businaro, D. Cojoc, C. Liberale, R. Kumar, E. Di Fabrizio, V. Degiorgio G.Gigli, D.Pisignano, R.Cingolati, ;
Microelectronic Engineering, **67-68**, 169-174, (2003).

Design and fabrication of on-fiber diffractive elements for fiber-waveguide coupling by means of e-beam lithography
M. Prasciolu, D. Cojoc, S. Cabrini, L. Businaro, P. Candeloro, M. Tormen, R. Kumar, C. Liberale, V. Degiorgio, A. Gerardino et al.
Microelectronic Engineering, Volumes **67-68**, Jun 2003, Pages 169-174

Characterisation of adaptive optic pyramid wavefront sensors fabricated by deep X-ray lithography

F. Pérennès, M. Ghigo, S. Cabrini

Microelectronic Engineering, vol. **67-68**, pp 566-573, (2003)

X-ray and electron-beam lithography of three-dimensional array structures for photonics;

F. Romanato, D. Cojoc, E Di Fabrizio, M. Galli M, D. Bajoni, ;+

Journal of Vacuum Science & Technology B (JVST B), **21** (6), 2912-2917, (2003).

Differential interference contrast X-ray microscopy with twin zone plates at ESRF beamline ID21

T. Wilhein, B. Kaulic, E. Di Fabrizio

J. Phys. IV, Vol. **104**, p.535 (2003)

Fiber-to-rectangular waveguide optical coupling by means of diffractive elements;
M. Prasciolu, D. Cojoc, S. Cabrini, L. Businaro, C. Liberale, V. Degiorgio, E. M. Di Fabrizio, ;

ATOM2002, Int. Conference, Bucharest, 2002, SPIE Vol. **5227**, 132-138, (2003).

High-resolution complex structures for two-dimensional photonic crystals realized by x-ray diffraction lithography

L. Businaro, F. Romanato, P. Candeloro, E. Di Fabrizio, M. Patrini, M. Galli, C. Andreani, A. Passaseo, and M. De Vittorio

J. Vac. Sci. Technol. **B 21**, 748 (2003)

Linear optical properties and photonic mode dispersion in GaAs/AlGaAs photonic crystal slabs

M. Patrini, M. Galli, M. Agio, L. C. Andreani, D. Bajoni, G. Guizzetti, L. Businaro, E. Di Fabrizio, F. Romanato and A. Passaseo

PhysicaE, Volume **17**, Pages 418-419, 2003

Diffractive optical elements: design and fabrication at TASC-INFM;

E. Di Fabrizio, D. Cojoc, S. Cabrini, L. Businaro, A. Gerardino, F. Romanato, M. Altissimo, L. Vaccari, ;

ATOM2002, Int. Conference, Bucharest, 2002, SPIE Vol. **5227**, 178-186, (2003).

Resonant second-harmonic generation and mode dispersion in photonic crystal waveguides

Andreani LC, Guizzetti G, Patrini M, Vecchi G, Malvezzi AM, Businaro L, Romanato F, Di Fabrizio E, Passaseo

PHYSICA STATUS SOLIDI B-BASIC RESEARCH **238** (3): 428-431 AUG 2003

Second-harmonic generation measured on a GaAs photonic crystal planar waveguide

Andreani LC, Cattaneo F, Guizzetti G, Malvezzi AM, Patrini M, Vecchi G, Romanato F, Businaro L, Di Fabrizio E, Passaseo A, De Vittorio M
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, **17** (1-4): 402-405 APR 2003

Spherical-based approach to design diffractive optical elements: usefulness and limitations;

D. Cojoc, E. Di Fabrizio, S. Cabrini, L. Businaro, ;
ATOM2002, Int. Conference, Bucharest, 2002, SPIE Vol. **5227**, 123-132, (2003).

Nanotechnology for optoelectronic applications:

E. Di Fabrizio, D. Cojoc, S. Cabrini, M. Prasciolu;
SPIE vol **5227**, 2003.

Approximative and rigorous approaches to design diffractive gratings in the resonance domain;

R. Malureanu, D. Cojoc, M. Altissimo, L. Businaro, S. Cabrini, E. Di Fabrizio, ;
ATOM2002, Int. Conference, Bucharest, 2002, SPIE Vol. **5227**, 147-154, (2003).

Gaussian beam-shaping using the ray tracing approach;

L. Dragnea, D. Cojoc, O. Iancu, ;
ATOM2002, Int. Conference, Bucharest, 2002, SPIE Vol. **5227**, 155-163, (2003).

Card validation using an optoelectronic module based on optical correlation ;

R Swider, G. Croitoru, D. Cojoc, ;
SPIE Vol. **5227**, 115-122, (2003).

Light emission tuning of In_{0.5}Ga_{0.5}As/In_{0.05}Ga_{0.95}As quantum dots by a two-dimensional photonic crystal

Vitale, V.; Todaro, M.T.; Stomeo, T.; Margapoti, E.; Passaseo, A.; De Giorgi, M.; De Vittorio, M.; et. al.
Microelectronic Engineering, Vol. **67-68**, Pages: 832 – 837 – 2003

Approximative and Rigorous Approaches to Design Diffractive Gratings in the Resonance Domain

R. Malureanu, D. Cojoc, S. Cabrini, M. Altissimo, L. Businaro, E. Di Fabrizio
Proc. SPIE Vol. **5227**, p. 147-154 ,Sep 2003

Fabrication through silicon micromachining of 3D scanner for optical determination of the ear canal IFMBE

M. Prasciolu, S. Cabrini, D. Cojoc, R. Malureanu, R. Kumar, L. Businaro and E. Di Fabrizio
Proceedings, Volume 6, Nov. 2004, MEDICON and HEALTH TELEMATICS 2004 “X Mediterranean Conference on Medical and Biological Engineering”

Design and Fabrication of Microturbine Rotors for Small Power Generation,

B. Marmiroli, F. Pérennès, A. Turchet, A. Gosparini, P. Miotti, M. Tajmar, M. Lang, E. Di Fabrizio,

Proceedings of CANEUS 2004- Conference on micro-nano technologies for aerospace applications, Monterey (California), 1-5/11/04, AIAA 2004-6710, pp 42-48.

Bi-proellant Micro-Rocket Engine,

P. Miotti, M. Tajmar, C. Guraya, F. Pérennès, B. Marmiroli, A. Soldati, M. Campolo, C. Kappenstein, R. Brahmi, M. Lang,

Proceedings of CANEUS 2004- Conference on micro-nano technologies for aerospace applications, Monterey (California), 1-5/11/04, AIAA 2004-6707, pp 17-28.

Design and fabrication of lenses on the top of an optical fibre for efficient fibre-to-waveguide coupling by means of Focus Ion Beam (FIB) lithography

F. Schiappelli, R. Kumar, M. Prasciolu, D. Cojoc, S. Cabrini, M. De Vittorio, A. Gerardino, V. Degiorgio and E. Di Fabrizio

Proceedings MNE03, Oct 2003, pp. 166-167

Characterisation of adaptive optic pyramid wavefront sensors fabricated by deep X-ray lithography,

F. Pérennès, M. Ghigo, S. Cabrini,

Micro and Nano Engineering Conference 2002 (MNE02), Lugano 17-19 Sept, Microelectronic Engineering, vol. **67-68**, pp 566-573, (2003)

Alternative Lithography, Kluwer Academic / Plenum Publishers, New York, 2003.

Massimo Tormen Due capitoli del libro

Chapters on Microcontact Printing Techniques

-

Size effect on local magnetic moments in ferrimagnetic molecular complexes: an XMCD investigation.

G. Champion, M.-A. Arrio, Ph. Saintavit, M. Zacchigna, M. Zangrando, M. Finazzi, F. Parmigiani, F. Villain, C. Mathonière, C. Cartier dit Moulin

Chem. Mon.**134** (2003), 277-284

Investigation of orbital ordering in La_{7/8}Sr_{1/8}MnO₃ by means of x-ray linear dichroism at the

Mn L edge

K.Kuepper, A. Takács, T. Crainic, M. Neumann, F. Bondino, M. Zangrando, M. Zacchigna, K.C.

Prince, V.R. Galakhov, M. Matteucci, F. Parmigiani, Ya.M. Mukovskii, A. Winiarski
ELETTRA Highlights 2003-2004, 37-41

-

Giant resonant photoemission at the Mn 2p-3d absorption threshold of Cd_{1-x}MnxTe

L. Sangaletti, S. Pagliara, F. Parmigiani, A. Goldoni, A. Morgante, L. Floreano, V. Aguekian

Phys. Rev. B **67** (2003) 233201

A quantitative determination of short range ordering in $In_xGa_{1-x}As_{1-y}Ny$
G. Ciatto, F. D'Acapito, L. Grenouillet, H. Mariette, D. De Salvador, R. Carboni, L. Floreano, R. Gotter, S. Mobilio, and F. Boscherini
Phys. Rev. B Rapid Comm. **68** (2003) 161201(R)

Surface to bulk charge transfer at an alkali metal/metal oxide interface
R. Lindsay, E. Michelangeli, B.G. Daniels, M. Polcik, A. Verdini, L. Floreano, A. Morgante, J. Muscat, N.M. Harrison, G. Thornton
Surf. Sci. Lett. **547** (2003) L589

The molecular orientation of C60 on Pt(111) at room temperature and the high temperature graphitization
L. Giovanelli, C. Cepek, L. Floreano, E. Magnano, M. Sancrotti, R. Gotter, A. Morgante, A. Verdini, A. Pesci, L. Ferrari, and M. Pedio
Appl. Surf. Sci. **212-213** (2003) 57

Sodium doping of a C70 single layer adsorbed on Cu(111) surface
T. Pardini, C. Cepek, R. Larciprete, L. Sangaletti, S. Pagliara, L. Floreano, A. Verdini, A. Morgante, F. Parmigiani and A. Goldoni
Surf. Sci. **532-535** (2003) 892

Molecular orientation of CN adsorbed on Pd(110)
F. Bondino, E. Vesselli, A. Baraldi, G. Comelli, A. Verdini, A. Cossaro, L. Floreano, and A. Morgante
J. Chem. Phys. **118** (2003) 10735

Quantum size effects in the low temperature layer-by-layer growth of Pb on Ge(001)
L. Floreano, D. Cvetko, F. Bruno, G. Bavdek, A. Cossaro, R. Gotter, A. Verdini, A. Morgante
Prog. Surf. Sci. **72** (2003) 135. cond-mat/0211341

Angle resolved Auger-photoelectron coincidence spectroscopy (AR-APECS) of the Ge(100) surface
R. Gotter, A. Ruocco, M.T. Butterfield, S. Iacobucci, G. Stefani, and R.A. Bartynski
Phys. Rev. B **67** (2003) 033303

-

High resolution potential mapping in semiconductor nanostructures by cross-sectional scanning tunneling microscopy and spectroscopy
S. Modesti, D. Furlanetto, M. Piccin, S. Rubini and A. Franciosi
Appl. Phys. Lett **82**, 2592 (2003).

Controlling the native stacking fault density in II-VI/III-V heterostructures

A. Colli, E. Pelucchi and A. Franciosi
Appl. Phys. Lett **83**, 81 (2003).

*Atomic resolution composition analysis by scanning transmission electron microscopy
high-angle annular dark-field imaging*

E. Carlino, S. Modesti, D. Furlanetto, M. Piccin, S. Rubini and A. Franciosi
Appl. Phys. Lett **83**, 662 (2003).

*High spatial resolution TEM studies of ZnSe/GaAs (001) interfaces grown by different
MBE procedures*

E. Carlino, D. Furlanetto, A. Colli and A. Franciosi
Microscopy of Semiconducting Materials 2003, Institute of Physics Conference Series
180, 183 (2003).

2004

Microscopic mechanism of self-compensation in Si delta-doped GaAs

S. Modesti, R. Duca, P. Finetti, G. Ceballos, M. Piccin, S. Rubini, and A.
Franciosi
Physical Review Letters **92**, 086104 (2004)

Layer-by-layer growth of lead on Ge(111) at low temperatures

L. Grill, D. Cvetko, L. Petaccia, F. Ratto and S. Modesti
Surface Science **562**, 7 (2004)

Local Interface composition and native stacking fault density in ZnSe/GaAs(001)
heterostructures,

A. Colli, E. Carlino, E. Pelucchi, V. Grillo and A. Franciosi,

J. Appl. Phys., **96** (5) 2004 p. 2592

A novel method for the focus assessment in atomic resolution STEM HAADF experiments

V. Grillo and E. Carlino

Proceeding of 13th European Electron Microscopy Conference EMC 2004 1 p. 121-
Antwerpen (B) Eds. D. Schryvers & J-P Timmermans Published by Belgium Microscopy
Society

Chiraltem, Circular Dichroism in the TEM

P. Schattschneider, E. Carlino, H. Lichte, P. Novák, J. Zweck, C. Hébert, J. Bernardi

Proceeding of 13th European Electron Microscopy Conference EMC 2004 1 p. 381-
Antwerpen (B) Eds. D. Schryvers & J-P Timmermans Published by Belgium Microscopy
Society

Bioactivity of TiN-coated Titanium Implants,

S. Pisanec, L. Colombi Ciacchi, E. Vesselli, G. Comelli, O. Sbaizero, S. Meriani and A.
De Vita

Acta Mater. **52**, 1237 (2004).

Atomic Hydrogen Interaction with Ru($10\bar{1}0$),

E. Vesselli, A. Baraldi, G. Comelli and R. Rosei,

J. Chem. Phys. **120**, 8216 (2004).

A Spectroscopic Link between Surface Structure and Local Chemical Reactivity,

A. Baraldi, S. Lizzit, G. Comelli, M. Kiskinova, R. Rosei, K. Honkala and J.K. Nørskov
Phys. Rev. Lett. **93**, 046101 (2004).

Ethanol Decomposition: C-C Cleavage Selectivity on Rh(111),

E. Vesselli, A. Baraldi, G. Comelli, S. Lizzit and R. Rosei,

ChemPhysChem. **5**, 1133 (2004).

*Coverage-Dependent Hydrogen Adsorption Site Determination on Rh(100) by means of
High-Resolution Core-Level Spectroscopy,*

E. Vesselli, A. Baraldi, F. Bondino, G. Comelli, M. Peressi and R. Rosei,

Phys. Rev. **B 70**, 115404 (2004).

Two-Step Reaction on a Strained, Nano-scale segmented Surface,

C. Africh, F. Esch, W.X. Li, M. Corso, B. Hammer, R. Rosei and G. Comelli

Phys. Rev. Lett. **93**, 126104 (2004).

{selected for the September 27, 2004 issue of Virtual Journal of Nanoscale Science &
Technology}

A Surface Core Level Shift Study of Hydrogen Interaction with Rh(111),
K.J. Weststrate, A. Baraldi, L. Rumiz, S. Lizzit, G. Comelli and R. Rosei,
Surf. Sci. **566-568**, 486 (2004).

Calorimetry at surfaces using high-resolution core level photoemission,
S. C. Santucci, A. Goldoni, R. Larciprete, S. Lizzit, M. Bertolo, A. Baraldi, and C.
Masciovecchio,
Phys. Rev. Lett. **93**, 106105 (2004).

*Gas phase transport during the spreading of MoO₃ on Al₂O₃ support surfaces - a
photoelectron spectromicroscopy study,*
S. Günther, F. Esch, L. Gregoratti, A. Barinov, M. Kiskinova, E. Taglauer, H. Knözinger,
J. Phys. Chem. **B 108**, 14223 (2004).

*Sum rules for resonant inelastic x-ray scattering: Explicit form and angular dependence
in perpendicular geometry*

F. Borgatti, G. Ghiringhelli, P. Ferriani, G. Ferrari, G. van der Laan, C.M. Bertoni
Physical Review **B 69** (2004) 134420

X-Ray absorption and reflectivity studies of MnF₂ initial growth on CaF₂/Si(111)
L. Pasquali, G. Selvaggi, M. Montecchi, A.G. Banskchikov, A.K. Kaveev, S.M. Sutturin,
N.S. Sokolov, F. Borgatti, B. Doyle, A. Giglia, N. Mahne, M. Pedio, S. Nannarone
12th Int. Symp. "Nanostructures: Physics and Technology", St Petersburg, Russia, June
21–25, 2004, © 2004 Ioffe Institute

Magnetization profile at Fe/GaAs(001)4x6 interface;
L. Giovanelli, J. Fujii, M. Galaktionov, G. Panaccione, M. Fabrizioli, M. Hochstrasser,
C.H. Back, P.L. Gastelois, C.S. Tian, and G. Rossi,
Physica B **345**, 177 (2004).

Reply to the Comment:

C. Cepek,¹ I. Vobornik,¹ A. Goldoni,² E. Magnano, G. Selvaggi, J. Kroger, G.
Panaccione, G. Rossi, and M. Sancrotti
Physical Review Letters **93**, 119702 (2004)

*Magnetic Order in a submicron patterned permalloy film studied by resonant x-ray
scattering,*

C.Spezzi, M. Fabrizio, P. Candeloro, E. Di Fabrizio, G. Panaccione, M. Sacchi,
Phys. Rev. **B69** 224412 (2004).

Magnetic field and temperature dependence of an AFM-defined quantum point contact,
G. Mori, M. Lazzarino, D. Ercolani, G. Biasiol, and L. Sorba,
[J. Vac. Sci. Technol. B 22, 570 \(2004\).](#)

Two-dimensional electron gas formation in undoped $In_{0.75}Ga_{0.25}As/In_{0.75}Al_{0.25}As$ quantum wells,
F. Capotondi, G. Biasiol, I. Vobornik, L. Sorba, F. Giazotto, A. Cavallini, and B. Fraboni
[J. Vac. Sci. Technol. B 22, 702 \(2004\).](#)

Quasi-particle Tunneling between Fractional Quantum Hall Edges,
S. Roddaro, V. Pellegrini, F. Beltram, G. Biasiol, L. Sorba, R. D'Agosta, R. Raimondi,
and G. Vignale,
[Physica E 22, 185 \(2004\).](#)

Deep levels in MBE grown AlGaAs/GaAs heterostructures,
A.Cavallini, B.Fraboni, F.Capotondi, L. Sorba, and G. Biasiol,
[Microelectron. Engin. 73-74, 954 \(2004\).](#)

Magnetotransport in high-g factor, low-density two-dimensional electron systems confined in $In_{0.75}Ga_{0.25}As/In_{0.75}Al_{0.25}As$ quantum wells,
W. Desrat, F. Giazotto, V. Pellegrini, F. Beltram, F. Capotondi, G. Biasiol, L. Sorba, and D.K. Maude,
[Phys. Rev. B 69, 245324 \(2004\).](#)

Interedge strong-to-weak scattering evolution at a constriction in the fractional quantum Hall regime,
S. Roddaro, V. Pellegrini, F. Beltram, G. Biasiol, and L. Sorba,
[Phys. Rev. Lett. 93, 046801 \(2004\).](#)

Electron-phonon coupling in the two phonon mode ternary alloy $Al_{0.25}In_{0.75}As/Ga_{0.25}In_{0.75}As$ quantum well,
C. Faugeras, G. Martinez, F. Capotondi, G. Biasiol, and L. Sorba,
[Europhys. Lett. 67, 1031 \(2004\).](#)

The double photoionization of HCl: An ion–electron coincidence study
M. Alagia, F. Biondini, B. G. Brunetti, P. Candori, S. Falcinelli, M. Moix Teixidor, F. Pirani, R. Richter, S. Stranges, and F. Vecchiocattivi,
J. Chem. Phys. **121** (2004) 10508.

Experimental observation of initial-state effects in photo-double-ionization of Ne 2s
P. Bolognesi, R. Flammini, A. Kheifets, I. Bray, and L. Avaldi
Phys. Rev. **A70** (2004) 62715

X-ray-emission-threshold-electron coincidence spectroscopy

J. Södeström, M. Alagia, R. Richter, S. Stranges, M Agäker, M Ström, S Sorensen and J E Rubensson

J. Electron Spectr. Relat. Phenom. **141** (2004) 161

Photodouble ionization beyond the helium case

P. Bolognesi, M. Coreno, G. Alberti, R. Richter, R. Sankari and L Avaldi

J. Electron Spectr. Relat. Phenom. **141** (2004) 105

The photodouble ionisation of helium and heavier rare gases,

P. Bolognesi, L. Avaldi, I. Bray, R. Camilloni, M. Coreno, K. Kazansky, A.S. Kheifets, L. Malegat, P. Selles, G. Turri, M. Zitnik,

Phys. Scripta **T110** (2004) 62

Complete characterization of the Ar 2p_{3/2} photoionization via Auger-electron-photoelectron coincidence experiments

P Bolognesi, A. De Fanis, M Coreno and L Avaldi,

Phys. Rev. **A70** (2004) 22701 1-5

Photo-double ionization of argon at 20 and 40 eV excess energy,

P Bolognesi, M Zitnik, L Malegat, P Selles, G Turri, M Coreno, R Camilloni and L Avaldi,

J. Phys. B: At. Mol. Opt. Phys. **37** (2004) 2285-2302

Low-lying electronic states of HBr²⁺

M. Alagia, B. G. Brunetti, P. Candori, S. Falcinelli, M. M. Teixidor, F. Pirani, R. Richter, S. Stranges, and F. Vecchiocattivi,

J. Chem. Phys. **120** (2004) 6985-6991.

Threshold-photoelectron-spectroscopy-coincidence study of the double photoionization of HBr

M. Alagia, B. G. Brunetti, P. Candori, S. Falcinelli, M. M. Teixidor, F. Pirani, R. Richter, S. Stranges, and F. Vecchiocattivi,

J. Chem. Phys. **120** (2004) 6980-6984.

The UHV Experimental Chamber For Optical Measurements (Reflectivity and Absorption) and Angle Resolved Photoemission of the BEAR Beamline at ELETTRA,

L. Pasquali, A. De Luisa, S. Nannarone,

AIP Conference Proceedings **705**, 1142 (2004)

The BEAR beamline at ELETTRA,

S. Nannarone, F. Borgatti, A. DeLuisa, B.P. Doyle, G.C. Gazzadi, A. Giglia, P. Finetti, N. Mahne, L. Pasquali, M. Pedio, G. Selvaggi, G. Naletto, M.G. Pelizzo, G. Tondello,

AIP Conference Proceedings **705**, 450 (2004)

Photon reflectivity distributions from the LHC beam screen and their implications on the arc beam vacuum system,

N. Mahne, V. Baglin, I.R. Collins, A. Giglia, L. Pasquali, M. Pedio, S. Nannarone, R. Cimino,

Applied Surface Science **235**, 221–226 (2004)

Initial stages of MBE growth and formation of CaF₂/Si(001) high-temperature interfaces,

N.S. Sokolov, S.M. Sutorin, V.P. Ulin, L. Pasquali, G. Selvaggi, S. Nannarone,

Applied Surface Science **234**, 480-486 (2004)

Efficiency of gratings in the conical diffraction mounting for an EUV time-compensated monochromator,

L. Poletto, S. Bonora, M. Pascolini, F. Borgatti, B. Doyle, A. Giglia, N. Mahne, M. Pedio, S. Nannarone,

to be published on SPIE Proc. Vol. 5534, 144 (2004) (Not refereed)

X-Ray absorption and reflectivity studies of MnF₂ initial growth on CaF₂/Si(111),

L. Pasquali, G. Selvaggi, M. Montecchi, A.G. Banskchikov, A.K. Kaveev, S.M. Sutorin, N.S. Sokolov, F. Borgatti, B. Doyle, A. Giglia, N. Mahne, M. Pedio, S. Nannarone,

Proceedings of 12th Int. Symp. “Nanostructures: Physics and Technology”, St Petersburg, Russia, June 21–25, pag. 48 (2004) (Not refereed)

H-induced Si-rich 3C-SiC(100) 3x2 surface metallization

D'angelo M, Enriquez H, Silly MG, Decke V, Aristov VY, Soukiassian P, Ottavianni C, Pedio M, Perfetti P

SILICON CARBIDE AND RELATED MATERIALS 2003, PRIS 1 AND 2 MATERIALS SCIENCE FORUM. 457-460: 399-402 Part 1&2 2004

Mg K-edge XANES of sepiolite and palygorskite,

M. Sánchez del Río, M. Suarez, E. Garcia Romero, L. Alianelli, R. Felici, P. Martinetto, E. Dooryhée, C. Reyes-Valerio, F. Borgatti, B. Doyle, A. Giglia, N. Mahne, M. Pedio, S. Nannarone,

Nuclear Instruments and Methods A 2004

Sum rules for resonant inelastic x-ray scattering: Explicit form and angular dependence in perpendicular geometry,

F. Borgatti, G. Ghiringhelli, P. Ferriani, G. Ferrari, G. van der Laan, and C. M. Bertoni - Phys. Rev. **B 69**, 134420 (2004)

Sm Magnetism in the Layered Compound SmMn₂Ge₂,

A. Barla, J.P. Sanchez, B. Malaman, B.P. Doyle and R. Rüffer,

Phys. Rev. **B 69**, 220405(R) (2004)

Pressure-Induced Magnetic Order in Golden SmS,

A. Barla, J. P. Sanchez, Y. Haga, G. Lapertot, B. P. Doyle, O. Leupold, R. Ruffer, M. M. Abd-Elmeguid, R. Lengsdorf, and J. Flouquet
Phys. Rev. Lett. **92**, 066401 (2004)

-

Magnetic anisotropy of NiO epitaxial thin films on Fe(001)

M. Finazzi, M. Portalupi, A. Brambilla, L. Duò, G. Ghiringhelli, F. Parmigiani, M. Zacchigna,
M. Zangrando, F. Cicacci
Physical Review B **69** (2004), 014410

A polarized high-brilliance and high-resolution soft x-ray source at ELETTRA: the performance of beamline BACH

M. Zangrando, M. Finazzi, M. Zacchigna, D. Cocco, R. Rochow, F. Parmigiani
Review of Scientific Instruments **75**, (2004), 31-36

ComIXS on BACH: a compact soft x-ray spectrometer operating at Elettra

D. Cocco, M. Zangrando, M. Matteucci, F. Bondino, M. Platè, M. Zacchigna, F. Parmigiani, B. Nelles, K.C. Prince
AIP Conference Proceedings (SRI 2003) **705** (2004), 873-876

Doping-dependence of the electronic structure of La_{1-x}NaxMnO₃ by resonant x-ray emission and x-ray absorption spectroscopy

F. Bondino, M. Platè, M. Zangrando, M. Zacchigna, D. Cocco, A. Comin, I. Alessandri, L. Malavasi, F. Parmigiani
J. Phys. Chem. **108** (2004), 4018-4023

X-Ray magnetic circular dichroism on vanadium molecular derivatives

J.-L. Gallani, J.-P. Kappler, A. Derory, P. Ohresser, P. Turek, M. Zangrando, M. Zacchigna, F. Parmigiani, E. Gorecka, A. Krowczynski
Eur. Phys. J. B – Cond. Mat. **38**, (2004), 43-48

Chemical effects at the buried NiO/Fe(001) interface

M. Finazzi, A. Brambilla, L. Duò, G. Ghiringhelli, M. Portalupi, F. Ciccacci, M. Zacchigna, M. Zangrando
Phys. Rev. B **70** (2004), 235420

Magnetic anisotropy of NiO epitaxial thin films on Fe(001)

A. Brambilla, M. Portalupi, M. Finazzi, G. Ghiringhelli, L. Duò, F. Parmigiani, M. Zacchigna,
M. Zangrando, F. Ciccacci
J. Magn. Mater. **1221-1222**, (2004), 272-276

-

Stoichiometry-related Auger lineshapes in titanium oxides: Influence of valence band profile and of Coster-Kronig processes

P. Le Fevre, J. Danger, H. Magnan, D. Chandesris, J. Jupille, S. Bourgeois, M.-A. Arrio, R. Gotter, A. Verdini, and A. Morgante
Phys. Rev. B **69** (2004) 155421

Selectivity of Auger decays to the local surface environment

M.I. Trioni, S. Caravati, G.P. Brivio, **L. Floreano, F. Bruno, A. Morgante**
Phys. Rev. Lett. **93** (2004) 206802

Copper-phthalocyanine induced reconstruction of Au(110)

Cossaro, D. Cvetko, G. Bavdek, L. Floreano, R. Gotter, A. Morgante, F. Evangelista, A. Ruocco
J. Phys. Chem. B **108** (2004) 14671

Relevance of the core hole alignment to Auger-photoelectron pair angular distributions in solids, in Correlation Spectroscopy of Surfaces, Thin Film and Nanostructures

G. Stefani, R. Gotter, A. Ruocco, F. Offi, F. Da Pieve, A. Verdini, A. Liscio, S. Iacobucci, H. Yao and R.A. Bartynski
J. Kirschner and J. Berakdar (Wiley-VCH, Weinheim, 2004), p. 222

Impact of bulk reduction on TiO₂(100)/K

R. Lindsay, E. Michelangeli, B.G. Daniels, M. Polcik, A. Verdini, L. Floreano, A. Morgante, G. Thornton
Surf. Sci. **566-568** (2004) 921

Electronic properties of the Mn-CdTe(110) interface probed by resonant photoemission at the Mn 2p-3d absorption threshold

L. Sangaletti, S. Pagliara, I. Dimitri, F. Parmigiani, A. Goldoni, **L. Floreano, A. Morgante**, V. Aguekian
Surf. Sci. **566-568** (2004) 508

High Resolution X-Ray Photoelectron Spectroscopy of 3-Mercaptopropionic Acid Self-Assembled Films

G. Gonella, O. Cavalleri, S. Terreni, D.Cvetko, L. Floreano, A. Morgante, M. Canepa and R. Rolandi
Surf. Sci. **566-568** (2004) 638

Photoelectron-Auger electron coincidence study for condensed matter

G. Stefani, R. Gotter, A. Ruocco, F. Offi, F. Da Pieve, S. Iacobucci, A. Morgante, A. Verdini, A. Liscio, H. Yao, and R.A. Bartynski
J. Electron. Spectrosc. Related Phenom. **141** (2004) 149

High resolution X-ray photoelectron spectroscopy of L-Cysteine self-assemble films
O. Cavalleri, G. Gonella, S. Terreni, M. Vignolo, L. Floreano, A. Morgante, M. Canepa,
R. Rolandi
Phys. Chem. Chem. Phys. **6** (2004) 4042

Surfactant-like effect and dissolution of ultrathin Fe films on Ag(001)
S. Terreni, A. Cossaro, G. Gonella, L. Mattera, L. Duò, F. Ciccacci, D. Cvetko, L.
Floreano, A. Morgante, A. Verdini, and M. Canepa
Phys. Rev. B **70** (2004) 115420, [cond-mat/0401142](#)

Temperature driven reversible breakdown of pseudomorphism in ultrathin Fe/Cu₃Au films
F. Bisio, S. Terreni, G. Gonella, L. Floreano, A. Morgante, M. Canepa, L. Mattera
Phys. Rev. Lett. **93** (2004) 106103

The pseudomorphic to bulk fcc phase transition of thin Ni films on Pd(100)
G.A. Rizzi, A. Cossaro, M. Petukhov, F. Sedona, G. Granozzi, F. Bruno, D. Cvetko, A.
Morgante, L. Floreano
Phys. Rev. B **70** (2004) 045412, [cond-mat/041221](#).

Copper-Phthalocyanine ultra thin films grown onto Al(100) surface investigated by synchrotron radiation
A. Ruocco, F. Evangelista, A. Attili, M.P. Donzello, M.G. Betti, L. Giovanelli, R. Gotter
J. Electron Spectrosc. Related Phenom. **137-140** (2004) 165

Resonant photoemission from Cd_{0.82}Mn_{0.18}Te single crystals at the Mn 2p->3d absorption threshold
L. Sangaletti, S. Pagliara, F. Parmigiani, A. Goldoni, **L. Floreano, A. Morgante, V. Aguekian**
J. Electron Spectrosc. Related Phenom. **137-140** (2004) 553.

High Resolution XPS of the S2p core level region of the L-Cysteine/gold interface
O. Cavalleri, G. Gonella, S. Terreni, M. Vignolo, P. Pelori, L. Floreano, A. Morgante, M.
Canepa, and R. Rolandi,
J. Phys. Cond. Matter **16** (2004) S2477

Experimental evidence for extreme surface sensitivity in Auger-photoelectron coincidence spectroscopy (APECS) from solids
A. Liscio, R. Gotter, A. Ruocco, S. Iacobucci, A. Danese, R. A. Bartynski and G. Stefani
J. Electron Spectrosc. Related Phenom. **137-140** (2004) 505

-

Structural and electronic properties of wide band gap Zn_{1-x}Mg_xSe alloys

E. Pelucchi, S. Rubini, B. Bonanni, A. Franciosi, A. Zau, M. Peressi, A. Baldereschi, D. De Salvador, M. Berti, A. Drigo, F. Romanato
J. Appl. Phys. **95**, 4184 (2004).

Microscopic Mechanisms of Self-Compensation in Si d-doped GaAs
S. Modesti, R. Duca, P. Finetti, G. Ceballos, M. Piccin, S. Rubini and A. Franciosi
Phys. Rev. Lett. **92**, 086104-1 (2004).

Structural and electronic properties of wide band gap Zn_{1-x}Mg_xSe alloys
E. Pelucchi, S. Rubini, B. Bonanni, A. Franciosi, A. Zau, M. Peressi, A. Baldereschi, D. De Salvador, M. Berti, A. Drigo, F. Romanato
Appl. Phys. **95**, 4184 (2004).

Conference Proceedings

L. Poletto, S. Bonora, M. Pascolini, F. Borgatti, B. Doyle, A. Giglia, N. Mahne, M. Pedio, S. Nannarone
Efficiency of gratings in the conical diffraction mounting for an EUV time-compensated monochromator SPIE Proc. Vol. 5534 (2004), 144-153

S. Nannarone, F. Borgatti, A. DeLuisa, B.P. Doyle, G.C. Gazzadi, A. Giglia, P. Finetti, N. Mahne, L. Pasquali, M. Pedio, G. Selvaggi, G. Naletto, M.G. Pelizzo, G. Tondello

The BEAR beamline at ELETTRA
AIP Conference Proceedings 705 (2004), 450

Fast and Efficient Procedure to Grow Single- and Multi-Wall Carbon Nanotubes
G. Bertoni, C. Cepek, F. Romanato, C.S. Casari, A. Li Bassi, C.E. Bottani, and M. Sancrotti
Carbon **42/2**, 440-443 (2004)

Epitaxial growth of MgB₂(0001) thin films on magnesium single-crystal via MBE
C. Cepek, R. Macovez, M. Sancrotti, L. Petaccia, R. Larciprete, S. Lizzit and A. Goldoni
Appl. Phys. Lett. **85**, 976 (2004)

Electron transfer from Gd ions to the C cage in endohedral Gd@C₈₂ probed by resonant photoemission spectroscopy
S. Pagliara, L. Sangaletti, C. Cepek, F. Bondino, R. Larciprete and A. Goldoni

Phys. Rev. B **70**, 035420 (2004)

Ultra-high-vacuum epitaxial growth of MgB₂(0001) thin films on Mg(0001) via MBE
R. Macovez, C. Cepek, M. Sancrotti, A. Goldoni, L. Petaccia, R. Larciprete & S. Lizzit
J. Phys.: Condens. Matter **16**, S3451-S3458 (2004)

Cepek et al., Reply

C. Cepek, I. Vobornik, A. Goldoni, E. Magnano, G. Selvaggi, J. Kroger, G. Panaccione, G. Rossi, and M. Sancrotti
Phys. Rev. Lett. **93**, 119702 (2004)

One-dimensional chains of C₆₀ molecules on Cu(221)

A. Tamai, W. Auwärter, C. Cepek, F. Baumberger, T. Greber, J. Osterwalder
Surf. Sci. **566-568**, 633-637 (2004)

The effects of cold plasma treatments on LDPE wettability and curing kinetic of a polyurethane adhesive

S. Bronco, M. Bertoldo, E. Taburoni, C. Cepek, M. Sancrotti
Macromolecular Symposia **218**, 71-80 (2004)

X-Ray lithography for 3D microfluidic application

F. Romanato, M. Tormen, L. Businaro, L. Vaccari, T. Stomeo, A. Passaseo and E. Di Fabrizio
MICROELECTRONIC ENGINEERING, Vol. **73-74**, pp. 870-875, 2004

Focusing x-rays with simple prism arrays,

W. Jark, F. Pérennès, M. Matteucci, L. Mancini, F. Montanari, L. Rigon, G. Tromba, A. Somogyi, R. Tucoulou, S. Bohic,
Journal of Synchrotron radiation, vol. **11**, p248-253 (2004).

Microscopy of biological sample through advanced diffractive optics from visible to X-ray wavelength regime;

E. Di Fabrizio, D. Cojoc, V. Emiliani, S. Cabrini, M. Coppey-Moisan, E. Ferrari, V. Garbin, M. Altissimo, ;
Microscopy Research and Technique, **65** (4-5): 252-262, (2004)

Production of identical pyramid wavefront sensors for multi-conjugate adaptive optic systems using the LIGA process;

Perennes F, Ghigo M, Tormen M, S. Cabrini;
Microsystem Technologies-Micro-And Nanosystems-Information Storage And Processing Systems **10** (6-7): 552-555 OCT 2004

X-ray lithography for micro- and nano-fabrication at ELETTRA for interdisciplinary applications;

Di Fabrizio E, Fillipo R, Cabrini S, et al.

Journal Of Physics-Condensed Matter **16** (33): S3517-S3535 Sp. Iss. SI AUG 25 2004

Dynamic multiple beads manipulation on x-y-z directions;

D. Cojoc, V. Emiliani, E. Ferrari, V. Garbin, E. Di Fabrizio, ;
Optical Trapping and Optical Micromanipulation Conference, Denver USA,
SPIE Vol **5514** 126-136 (2004)

Advantages and disadvantages in using oil immersed microscope objectives for optical trapping

R. Malureanu, E. Ferrari, E. Di Fabrizio
Proc. SPIE Vol. **5514**, p. 742-746, Oct 2004

Design of two-dimensional photonic-crystal mirrors for InGaAs QW laser applications;

Stomeo T, Todaro MT, Visimberga G, et al.
Microelectronic Engineering **73-74**: 377-382 (2004)

Optical trapping and micromanipulation in microchannels with various configurations

D. Cojoc, E. Ferrari, V. Garbin, A. Carpentiero, R. Malureanu, I. I. Mokhun, O. V. Angelsky, E. Di Fabrizio
Proc. SPIE Vol. **5514**, p. 82-90, Oct 2004

Orbital angular momentum of inhomogeneous electromagnetic field produced by polarized optical beams;

I.Mokhun, A.Mokhun, Ju.Viktorovskaya, D.Cojoc, O.Angelsky, E. Di Fabrizio, ;
Optical Trapping and Optical Micromanipulation Conference, Denver USA,,
SPIE Vol **5514** 652-662 (2004)

Design and implementation of optical tweezer arrays using diffractive optical elements

D. Cojoc, E. Ferrari, S. Cabrini, R. Malureanu, M. B. Danailov, A. Carpentiero, M. Prasciolu, R. Kumar, L. Businaro, E. M. Di Fabrizio
Proc. SPIE Vol. **5477**, p. 281-292, June 2004

Multiple optical trapping by means of diffractive optical elements

D. Cojoc, V. Emiliani, E. Ferrari, R. Malureanu, S. Cabrini, R. Zacharia and E. Di Fabrizio
Jpn. J. Appl. Phys. **43**, p. 3910-3915, June 2004

Dynamic multiple optical trapping by means of diffractive optical elements.

D. Cojoc, S. Cabrini, E. Ferrari, R. Malureanu, E. Di Fabrizio
Microelectronic Engineering Vol. **73-74**, p 927-932, June 2004

Two-dimensional photonic crystal waveguide obtained by e-beam direct writing of SU8-2000 photoresist; ,

M. De Vittorio, M.T. Todaro, T. Stomeo, R. Cingolani, D. Cojoc, E. Di Fabrizio, *Microelectronic Engineering*, **73-74**: 388-391 (2004).

Evidence for interdot coupling in an array of micrometric Fe dots

S. D'Addato, P. Vavassori, D. Bisero, M. Liberati, F. Feri, E. Di Fabrizio, S. Valeri., *Journal of Magnetism and Magnetic Materials* Volume: **272-276**, Supplement, May, 2004, pp. E1373-E1375

X-ray lithography for Micro & Nano Fabrication at Elettra for Interdisciplinary Applications;

E. Di Fabrizio, F. Romanato, S. Cabrini, R. Kumar, F. Perennes, M. Altissimo L. Businaro, D. Cojoc, L. Vaccari, M. Prasciolu, P. Calendero, ; *Journal of Physics: Condensed Matter*, **16** (33): S3517-S3535 (2004).

Design and fabrication of DOE-microlens with continuous relief fabricated on-top of optical fibre by focused ion beam for fibre-to-waveguide coupling;

F. Schiappelli, R. Kumar, M. Prasciolu, D. Cojoc, S. Cabrini, R. Proietti, V. Degiorgio and E. Di Fabrizio, ; *Jap. J. Appl. Phys.* **1 43** (6B): 3772-3778 (2004).

Efficient fiber-to-waveguide coupling by a lens on the end of the optical fiber fabricated by focused ion beam milling;

F. Schiappelli, R. Kumar, M. Prasciolu, D. Cojoc, S. Cabrini, M. De Vittorio, G. Visimberga, A. Gerardino, V. Degiorgio and E. Di Fabrizio, ; *Microelectronic Engineering*, **73-74**: 397-404 (2004).

3D patterning by means of nanoimprinting, X-ray and two-photon lithography;

Tormen M, Businaro L, Altissimo M, et al. *Microelectronic Engineering* **73-74**: 535-541 (2004)

Structural and electronic properties of wide band gap Zn_{1-x}Mg_xSe alloys

Pelucchi E, Rubini S, Bonanni B, Franciosi A, Zaoui A, Peressi M, Baldereschi A, De Salvador D, Berti M, Drigo A, Romanato F
JOURNAL OF APPLIED PHYSICS **95** (8): 4184-4192 APR 15 2004

Strain induced effects on the transport properties of metamorphic InAlAs/InGaAs quantum wells

F. Capotondi, G. Biasiol, D. Ercolani, V. Grillo, E. Carlino, F. Romanato, L. Sorba
Thin Solid Films, Vol **484/1-2** pp 400-407

Three-dimensional micro&nano-structuring by combination of nanoimprint and x-ray lithography

M. Tormen, M. Altissimo, F. Romanato, L. Businaro, S. Cabrini, P. Candeloro, E. M. Di Fabrizio
J. Vac. Sci. Technol. **B 22**, 766 (2004)

Zone Plate for thermal neutron focusing: design, fabrication and first experimental tests
M. Altissimo, C. Petrillo, F. Sacchetti, F. Ott and E. Di Fabrizio
MicroElectronic Engineering 2004. Volume: **73-74**, June, 2004, pp. 644-650

Electromagnetically Actuated Surface Micromachined Free Standing Torsion Beam Micromirror Made by Electroplated Nickel;
M. Prasciolu, A. Carpentiero, R. Kumar, D. Cojoc, S. Cabrini, L. Businaro, F. Romanato, E. Di Fabrizio, D. Recchia, G. Parmigiani, ;
Jap.J.Appl.Phys. **43**, 418-423, (2004).

Synchrotron radiation induced fluorescence spectroscopy of SF₆,
J. Alvarez Ruiz, E. Melero-Garcia, A. Kivimäki, M. Coreno, P. Erman, E. Rachlew, and R. Richter
J. Phys. B: At. Mol. Opt. Phys. **38**, 387-398 (2005)

Head-to-head domain-wall phase diagram in mesoscopic ring magnets,
M. Kläui, C. A. F. Vaz, J. A. C. Bland, L. J. Heyderman, F. Nolting, A. Pavlovskaja, E. Bauer, S. Cherifi, S. Heun, and A. Locatelli:
Appl. Phys. Lett. **85** (2004) 5637 – 5639.

Angle-Resolved Photoemission and Characterization of Ordered MgB₂ Films Epitaxially Grown on Mg(0001)
C. Cepek, R. Macovez, M. Sancrotti, A. Goldoni, R. Larciprete, L. Petaccia, S. Lizzit
Congresso **AIV 17** inserito nell'ambito del Congresso IVC 16 Venezia Lido, 28 giugno – 2 Luglio 2004

C₆₀ on single-crystal surfaces: molecular orientations revealed by X-ray photoelectron diffraction
C. Cepek
42nd IUVESTA Workshop 'Electron Scattering in Solids: From Fundamental Concepts to Practical Applications', Debrecen, Hungary on July 4-8, 2004

2005

Composition of Ge(Si) islands in the growth of Ge on Si(111) by x-ray spectromicroscopy
F. Ratto, F. Rosei, A. Locatelli, S. Cherifi, S. Fontana, S. Heun, P.-D. Szkutnik, A. Sgarlata, M. De Crescenzi, and N. Motta:
J. Appl. Phys. **97** (2005) 043516.

Energetically driven reorganization of a modified catalytic surface under reaction conditions

A. Locatelli, C. Sbraccia, S. Heun, S. Baroni, and M. Kiskinova:
J. Am. Chem. Soc. **127** (2005) 2351 – 2357.

GaAs oxide desorption under extreme ultraviolet photon flux
D. Ercolani, M. Lazzarino, G. Mori, B. Ressel, L. Sorba, A. Locatelli, S. Cherifi, A. Ballestrazzi, and S. Heun:
Adv. Funct. Mater. **15** (2005) 587 – 592.

Selective metal electrodeposition through doping modulation of semiconductor surfaces
C. Scheck, P. Evans, R. Schad, G. Zangari, L. Sorba, G. Biasiol, and S. Heun.,
Appl. Phys. Lett. **86** (2005) 133108.

Photoemission electron microscopy of individual single-walled carbon nanotubes
S. Suzuki, Y. Watanabe, Y. Homma, S. Fukuba, A. Locatelli, and S. Heun:
J. Electron Spectrosc. Relat. Phenom. **144 – 147** (2005) 357 – 360.

LEEM and XPEEM studies of C-AFM induced surface modifications of thermally grown SiO₂,
S. Heun, S. Kremmer, D. Ercolani, H. Wurmbauer, and C. Teichert:
J. Electron Spectrosc. Relat. Phenom. **144 – 147** (2005) 1163 – 1166.

Magnetic domain walls in T-shaped permalloy microstructures,
T. Haug, C. H. Back, J. Raabe, S. Heun, and A. Locatelli:
Appl. Phys. Lett. **86** (2005) 152503.

Behavior of SiO₂ nanostructures under intense extreme ultraviolet illumination
S. Heun, S. Kremmer, D. Ercolani, H. Wurmbauer, and C. Teichert:
J. Appl. Phys. **97** (2005) 104333.

Synthesis of gold nanocrystals in concurrently polymerizing organic/inorganic hybrid films
M. Epifani, E. Carlino, D. Furlanetto, C. Giannini, P. Imperatore
Jour. Mater. Res. **20** (5) 1287 (2005)

Atomic resolution quantitative composition analysis by scanning TEM Z-contrast experiments
E. Carlino, V. Grillo
Physical Review **B71** (2005) in press

InAsN/GaAs(N) QUANTUM-DOT AND InGaNaNs/GaAs QUANTUM-WELL EMITTERS: A COMPARISON.
G. Bais, A. Cristofoli, F. Jabeen, M. Piccin, E. Carlino, S. Rubini, F. Martelli, and A. Franciosi
Appl. Phys. Lett. **86**, 233107 (2005)

Ethanol Auto-Thermal Reforming on Rhodium Catalysts and Initial Steps Simulation on Single Crystals under UHV Conditions,

E. Vesselli, G. Comelli, R. Rosei, S. Freni, F. Frusteri and S. Cavallaro,
Appl. Cat. A **281**, 139 (2005).

Structural and Kinetic Effects on a Simple Catalytic Reaction: Oxygen Reduction on Ni(110),

E. Vesselli, L. De Rogatis, A. Baraldi, G. Comelli, M. Graziani, and R. Rosei,
J. Chem. Phys. **122**, 1 (2005).

Unexpected Behaviour of the Surface Composition of PtRh Alloys During Chemical Reaction,

A. Baraldi, D. Giacomello, L. Rumiz, M. Moretuzzo, S. Lizzit, F. Buatier de Mongeot, G. Paolucci, G. Comelli, R. Rosei, B.E. Nieuwenhuys, U. Valbusa, and M.P. Kiskinova
J. Am. Chem. Soc. **127**, 5671 (2005).

NH₃ adsorption and decomposition on Ir(110): a combined temperature programmed desorption and high resolution fast photoelectron spectroscopy study,

C.J. Weststrate, E.D.L. Rienks, J.W. Bakker, C.P. Vinod, B.E. Nieuwenhuys A. Baraldi, L. Petaccia, and S. Lizzit,
J. Chem. Phys. **122**, 184705 (2005).

Comment on: "Momentum-Dependent Energy Losses in Core Level Photoemission Spectra of Poorly Conducting Metals",

Ph. Hofmann, G. Zampieri, L. Petaccia, S. Lizzit and A. Baraldi,
Phys. Rev. Lett. **94**, 209703 (2005).

Annealing temperature dependence of C₆₀ on silicon surfaces: bond evolution and fragmentation as detected by NEXAFS;

M. Pedio, F. Borgatti, A. Giglia, N. Mahne, S. Nannarone, S. Giovannini, C. Cepek, E. Magnano, G. Bertoni, E. Spiller, M. Sancrotti, L. Giovanelli, L. Floreano, R. Gotter, A. Morgante;
Physica Scripta **T115** (2005), 695

Orientation tendency of PLD carbon films as a function of substrate temperature: a NEXAFS study

E. Cappelli, S. Iacobucci, C. Scilletta, R. Flammioni, S. Orlando, G. Mattei, P. Ascarelli, F. Borgatti, A. Giglia, N. Mahne, S. Nannarone
Diamond and related materials **14** (2005), 959-964

Electronic properties of a pure and sodium-doped C₇₀ single layer adsorbed on Al polycrystalline surface

T. Pardini, C. Cepek, R. Larciprete, L. Sangaletti, S. Pagliara, R. Gotter, L. Floreano, A. Verdini, A. Morgante, F. Parmigiani, and A. Goldoni

Journal of Chem. Phys. **122**, 054704 (2005)

Annealing Temperature Dependence of C₆₀ Molecules on Silicon Surfaces: Bond evolution and Fragmentation as Detected by Nexafs

M.Pedio, F.Borgatti, A.Giglia, N.Mahne, S.Nannarone, S.Giovannini, C.Cepek, E.Magnano, G.Bertoni, E. Spiller, M. Sancrotti, L. Giovanelli, L. Floreano, R.Gotter, A.Morgante

Physica Scripta. Vol. **T115**, 695–698, 2005

C K-Edge NEXAFS of 6H-SiC and 3C-SiC Systems

M. Pedio, A. Giglia, S. Nannarone, S. Giovannini, C. Cepek, F. Boscherini, R. Carboni, M. Benfatto, S. Della Longa

Physica Scripta. Vol. **T115**, 308–311, 2005

Nanostructured TiO₂ films with 2 eV optical gap

Barborini, A.M.Conti, I.N.Kholmanov, P.Piseri, A.Podestà, P.Milani, C.Cepek, O.Sakho, R.Macovez, M.Sancrotti

In press on Advanced Materials (2005)

Magnetic and Electronic Properties of a Pt/Co Bilayer on Pt(111),

Giovanelli, M. De Santis, G. Panaccione, F. Sirotti, I. Vobornik, L. Larciprete, S. Egger, G. Rossi,

Journal of Magn. Magn. Mat. **288**, 236 (2005).

Body-Center-Cubic Ni and Its Magnetic Properties

C.S. Tian, D. Qian, D. Wu, R.H. He, Y.Z. Wu, W.X. Tang, L.F. Ying, Y.S. Shi, G.S. Dong, X.F. Jin, X.M. Jiang, F.Q. Liu, H.J. Qian, K. Sun, L.M. Wang, G. Rossi, Z.Q. Qiu, and J. Shi,

Phys. Rev. Lett. **94**, 137210 (2005)

Interface magnetization profiling by X-ray magnetometry of marker impurities on Fe/GaAs(001)-4x6,

L. Giovanelli, M. Fabrizioli, C.-S. Tian, P. L. Gastelois, J. Fujii, G. Panaccione, G. Rossi and C. H. Back

Applied Physics Letters, *in press* (2005).

Role of the Fermi surface gapping and nesting in a surface phase transition in Sn/Cu(100)

J. Martinez-Blanco, V. Joco, H. Ascolani, A. Tejada, C. Quiros, G. Panaccione, T. Balasubramanian, P.Segovia and E.G. Michel,

Phys.Rev. **B** Rapid Communication, in press (2005)

Layer selective spectroscopy on Fe/GaAs(100): influence of the interface on the magnetic properties,

L. Giovanelli, M. Fabrizioli, C.-S. Tian, P. L. Gastelois, J. Fujii, G. Panaccione, G. Rossi and C. H. Back

Phys Rev. **B**, in press (2005)

Looking 100 Å deep into spatially inhomogeneous dilute systems with hard x-ray photoemission,

C. Dallera, L. Duò, G. Panaccione, G. Paolicelli, B. Cowie, J. Zegenhagen, and L. Braicovich;
Appl. Phys. Lett. **85**, 4532 (2004).

Bulk Sensitive Photoemission: first results of VOLPE project at ESRF;

G. Paolicelli, G. Cautero, M. Cautero, A. Fondacaro, M. Grioni, P. Lacovig, B. Krastanov, G. Monaco, F. Offi, P. Pittana, M. Sacchi, R. Sergo, G. Stefani, R. Tommasini, P. Torelli and G. Panaccione;

Journal of Electron Spectroscopy and Related Phenomena **144**, 963 (2005).

Experimental setup for high energy photoemission using synchrotron radiation,

P. Torelli, M. Sacchi, G. Cautero, M. Cautero, B. Krastanov, P. Lacovig, P. Pittana, R. Sergo, R. Tommasini, A. Fondacaro, F. Offi, G. Paolicelli, G. Stefani, M. Grioni, R. Verbeni, G. Monaco and G. Panaccione;

Review Scientific Instruments **76**, 023909 (2005).

High Energy Photoemission in Silver: resolving d and sp contributions in valence band spectra.,

G. Panaccione, G. Cautero, M. Cautero, A. Fondacaro, M. Grioni, P. Lacovig, G. Monaco, F. Offi, G. Paolicelli, M. Sacchi, N. Stojic, G. Stefani, R. Tommasini, P. Torelli

Journal Physics C: Condensed Matter **17**, 2671 (2005).

Quantifying the effective attenuation length in high energy photoemission experiments

M. Sacchi, P. Torelli, C. Spezzani, F. Offi, A. Fondacaro, G. Paolicelli, G. Stefani, G. Cautero, M. Cautero, M. Grioni, G. Monaco, M. Fabrizioli, R. Delaunay, and G. Panaccione,

Phys. Rev. **B71**, 155117 (2005)

Hard X-Ray photoemission spectroscopy: sensitivity to depth, chemistry and orbital character, C. Dallera L. Duò, L. Braicovich, A. Palenzona, G. Panaccione, G. Paolicelli, B. Cowie, J. Zegehagen.,

Nuclear Instruments and Methods A, in press

High Resolution HAXPES and status of the VOLPE project

G. Panaccione, G. Cautero, A. Fondacaro, M. Grioni, P. Lacovig, G. Monaco, F. Offi, G. Paolicelli, M. Sacchi, G. Stefani, P. Torelli,

Nuclear Instruments and Methods A, in press

Electrically Detected Electron Spin Resonance in Low Density Two Dimensional Electron Gas in GaAs/AlGaAs Single Quantum Wells

E. Prati, M. Fanciulli, A. Kovalev, J. Caldwell, C.R. Bowers, F. Capotondi, G. Biasiol, and L. Sorba,

[IEEE Trans. Nanotech. 4, 100 \(2005\).](#)

Chemical composition of GaAs oxides grown by local anodic oxidation: a spatially resolved Auger study

M. Lazzarino, M. Padovani, G. Mori, L. Sorba, M. Fanetti, and M. Sancrotti,

[Chem. Phys. Lett. 402, 155 \(2005\).](#)

Nanometric artificial structuration of semiconductor surfaces for crystalline growth

J. Eymery, G. Biasiol, E. Kapon, and T. Ogino,

[C. R. Physique. 6, 105 \(2005\).](#)

GaAs Oxide Instability Under Extreme Ultraviolet Photon Flux

D. Ercolani, M. Lazzarino, G. Mori, B. Ressel, L. Sorba, A. Locatelli, S. Cherifi, A. Ballestrazzi, and S. Heun,

[Adv. Func. Mater. 15, 588 \(2005\).](#)

Selective metal electrodeposition through doping modulation of semiconductor surfaces,

C. Scheck, P. Evans, R. Schad, G. Zangari, L. Sorba, G. Biasiol, and S. Heun,

[Appl. Phys. Lett. 86, 133108 \(2005\).](#)

Scattering mechanisms in undoped $In_{0.75}Ga_{0.25}As/In_{0.75}Al_{0.25}As$ Two-Dimensional Electron Gases,

F. Capotondi, G. Biasiol, D. Ercolani and L. Sorba,

[J. Crystal Growth 278, 538 \(2005\).](#)

Anticrossings of spin-split Landau levels in an InAs two-dimensional electron gas with spin-orbit coupling,

W.Desrat, F.Giazotto, V.Pellegrini, M.Governale, F.Beltram, F.Capotondi, G.Biasiol, and L.Sorba,

[Phys. Rev. B 71, 153314 \(2005\).](#)

LEEM and XPEEM studies of C-AFM induced surface modifications of thermally grown SiO_2 ,

S. Heun, S. Kremmer, D. Ercolani, H. Wurmbauer, and C. Teichert,

[J. Electr. Spectr. and Rel. Phen., 144-147, 1163 \(2005\).](#)

Spin susceptibility of two dimensional hole gases in GaAs/AlGaAs heterostructures,

M. Kumar, G. Mori, F. Capotondi, G. Biasiol, and L. Sorba,

[Solid State Commun. 135, 57 \(2005\).](#)

Strain induced effects on the transport properties of metamorphic InAlAs/InGaAs quantum wells

F. Capotondi, G. Biasiol, D. Ercolani, V. Grillo, E. Carlino, F. Romanato, and L. Sorba, [Thin Solid Films 484, 400 \(2005\)](#).

Synchrotron radiation induced fluorescence spectroscopy of SF₆,

J. Alvarez Ruiz, E. Melero Garcia, A. Kivimaki, M. Coreno, P. Erman, E. Rachlew, R. Richter,
J. Phys B: At. Mol. Opt. Phys. **38** (2005) 387.

Core-shell photoabsorption and photoelectron spectra of gas-phase pentacene: Experiment and theory,”

Michele Alagia, Chiara Baldacchini, Maria Grazia Betti, Fabio Bussolotti, Vincenzo Carravetta, Ulf Ekström, Carlo Mariani, and Stefano Stranges,
J. Chem. Phys. **122**, 124305 (2005).

The resonant 4d photoemission spectrum of atomic cesium

M. Alagia, L. Avaldi, M. Coreno, M. de Simone, R. Richter, S. Stranges and M. Tabrizchi,
J. Electron Spectr. Relat. Phenom. **144-7** (2005) 67

Photoabsorption and resonant photoemission in the region of Ne 1s double excitations

K.C. Prince, L. Avaldi, R. Sankari, R. Richter, M. de Simone and M. Coreno,
J. Electron Spectr. Relat. Phenom. **144-7** (2005) 43

A new system for photon induced fluorescence spectroscopy applied to the study of doubly excited states of helium,

M. Coreno, M. de Simone, M. Danailov, R. Richter, A. Kivimäki, M. Zitnik, K.C. Prince,
J. Electron Spectr. Relat. Phenom. **144-7** (2005) 39

Core level ionization dynamics in small molecules studied by x-ray-emission threshold-electron coincidence spectroscopy,

Michele Alagia, Robert Richter, Stefano Stranges, Marcus Agåker, Magnus Ström, Johan Söderström, Conny Sätze, Raimund Feifel, Stacey Sorensen, Alberto De Fanis, Kiyoshi Ueda, Reinhold Fink, and Jan-Erik Rubensson,
Phys. Rev. A **71** (2005) 012506

Desorption dynamics of oxide nanostructures fabricated by local anodic oxidation nanolithography,

G. Mori, M. Lazzarino, D. Ercolani, L. Sorba, A. Locatelli, and S. Heun,
J. Appl. Phys. (in press).

Desorption of SiO₂ nanostructures under intense EUV illumination,
S. Heun, S. Kremmer, D. Ercolani, H. Wurmbauer, and C. Teichert
J. Appl. Phys. (in press).

Low cost transparent SU-8 membrane mask for deep X-ray lithography,
S. Cabrini, F. Pérennès, B. Marmioli, A. Olivo, A. Carpentiero, R. Kumar, P. Candeloro
and E. Di Fabrizio,
Microsystem Technologies, **11** (4-5) 370-373 (2005).

Focused ion beam lithography for two dimensional array structures for photonic applications;

S. Cabrini, A. Carpentiero, R. Kumar, L. Businaro, P. Candeloro, M. Prasciolu, A. Gosparini, C. Andreani, M. De Vittorio, T. Stomeo, E. Di Fabrizio;
Microelectronic Engineering **78-79** (2005) 11-15

Rapid prototyping of two-dimensional photonic crystal devices by a dual beam focused ion beam system

T. Stomeo, G. Visimberga, M.T. Todaro, A. Passaseo, R. Cingolani, M. De Vittorio, S. Cabrini, A. Carpentiero, E. Di Fabrizio;
Microelectronic Engineering **78-79** (2005) 417-421

SnO₂ sub-micron wires for gas sensors;

P. Candeloro, A. Carpentiero, S. Cabrini, E. Di Fabrizio, E. Comini, C. Baratto, G. Faglia, G. Sberveglieri, A. Gerardino;
Microelectronic Engineering **78-79** (2005) 178-184

Laser trapping and micro-manipulation using optical vortices;

D. Cojoc, V. Garbin, E. Ferrari, L. Businaro, F. Romanato, E. Di Fabrizio
Microelectronic Engineering, **78-79**, 125-131 (2005).

Low-temperature synthesis of ZnSe nanowires and nanosaws by catalystassisted molecular-beam epitaxy;

A. Colli, S. Hofmann, A. C. Ferrari, C. Ducati, F. Martelli, S. Rubini, S. Cabrini, A. Franciosi, J. Robertson;
Applied Physics Letters **86**, 153103 (2005)

Biological samples micro-manipulation by means of optical tweezers;

E. Ferrari, V. Emiliani, D. Cojoc, V. Garbin, M. Zahid, C. Durieux, M. Coppey-Moisan, E. Di Fabrizio ;
Microelectronic Engineering, **78-79**, 575-581 (2005).

Wave front engineering for microscopy of living cells;

V. Emiliani, D. Cojoc, E. Ferrari, V. Garbin, C. Durieux, M. Coppey-Moisan, E. Di Fabrizio, ;
Optics Express, **13** (5): 1395-1405, (2005).

Electronic and centre of mass transitions driven by Laguerre–Gaussian beams,
A. Alexandrescu, E. Di Fabrizio, D. Cojoc,
J. Opt. B: Quantum Semiclass. Opt. **7** 87-92 (2005)

Fabrication of refractive X-ray focusing lenses by Deep X-ray lithography,
F. Pérennes, M. Matteucci, W. Jark, B. Marmioli,
Microelectronic Engineering **78-79**, 79-87 (2005). Elsevier.

Functionalized SU-8 patterned with X-ray lithography,
S. Balslev and F. Romanato,
Journal of Vacuum Science and Technology **B** 2005, in press

Synthesis and characterization of praseodymium-doped ceria powders by Microwave-Hydrothermal (MH) Route
F. Bondioli, A.M. Ferrari, L. Lusvardi, T. Manfredini, S. Nannarone, L. Pasquali, G. Selvaggi, *Journal of Materials Chemistry* **15**, 1061-1066 (2005).

C K-edge NEXAFS of 6H-SiC and 3C-SiC systems M. Pedio, A. Giglia, S. Nannarone, S. Giovannini, C. Cepek, F. Boscherini, R. Carboni, M. Benfatto, S. Della Longa, *Physica Scripta*. Vol. T115, **308-311** (2005).

Multiple scattering analysis of O K-edge NEXAFS in iron oxides,
S. Giovannini, F. Boscherini, R. Carboni, L. Signorini, L. Pasquini, E. Bonetti, M. Pedio, A. Giglia, S. Nannarone, M. Benfatto, S. Della Longa,
Physica Scripta **T115**, 424-427 (2005).

Annealing temperature dependence of C₆₀ on silicon surfaces: bond evolution and fragmentation as detected by NEXAFS,
M. Pedio, F. Borgatti, A. Giglia, N. Mahne, S. Nannarone, S. Giovannini, C. Cepek, E. Magnano, G. Bertoni, E. Spiller, M. Sancrotti, L. Giovanelli, L. Floreano, R. Gotter, A. Morgante,
Physica Scripta **T115**, 695, (2005)

Self-absorption correction strategy for fluorescence-yield soft x-ray near edge spectra,
R. Carboni, S. Giovannini, G. Antonioli, F. Boscherini,
Physica Scripta **T115**, 986 (2005).

Orientation tendency of PLD carbon films as a function of substrate temperature: a NEXAFS study
E. Cappelli, S. Iacobucci, C. Scilletta, R. Flammini, S. Orlando, G. Mattei, P. Ascarelli, F. Borgatti, A. Giglia, N. Mahne, S. Nannarone,
Diamond and related materials **14**, 959-964 (2005)

The beam position monitor of BEAR beam line,

A. Giglia, N. Mahne, M. Pedio, Stefano Nannarone, M. G. Pelizzo, G. Naletto, P. Zambolin,

Review of Scientific Instrument, in press

Crystal fields, exchange and conduction electron polarization in SmAl₂,

A. Barla, J.P. Sanchez, F. Givord, J.X. Boucherle, B.P. Doyle and R. Ruffer,

Phys. Rev. **B 71**, 012407 (2005)

Pressure driven collapse of the magnetism in the Kondo insulator UniSn,

A. Barla, J. P. Sanchez, A. Aksungur, R. Lengsdorf, J. Plessel, B. P. Doyle, R. Ruffer, T. Takabatake, and M. M. Abd-Elmeguid

Phys. Rev. **B 71**, 020402 (2005)

Valence and magnetic instabilities in Sm compounds at high pressures,

A. Barla, J-P. Sanchez, J. Derr, B. Salce, G. Lapertot, J. Flouquet, B.P. Doyle, O.

Leupold, R. Ruffer, M.M. Abd-Elmeguid and R. Lengsdorf,

J. Phys. Condens. Matter, in press

-

Resonant induced divalent Eu states in EuF₃ ultrathin layer

J. Szade, W. Burian, Z. Celinski, T. O'Keevan, M. Zangrando, F. Bondino, E. Magnano

Surf. Sci. **580**, (2005), 163-166

Dichroic O 1s photoabsorption and resonant X-ray scattering in haematite (Fe₂O₃)

K.C. Prince, F. Bondino, M. Zangrando, M. Zacchigna, K. Kuepper, M. Neumann, F. Parmigiani

J. Electron Spec. and Rel. Phen. **144-147** (2005), 719-722

-

Electronic properties of the ordered metallic Mn:Ge(111) interface

L. Sangaletti, D. Ghidoni, S. Pagliara, A. Goldoni, A. Morgante, L. Floreano, A. Cossaro

Phys. Rev. B in press.

Displacive phase transition at the 5/3 monolayer of Pb on Ge(001),

D. Cvetko, F. Ratto, A. Cossaro, G. Bavdek, A. Morgante, and L. Floreano

Phys. Rev. B in press

Annealing Temperature Dependence of C₆₀ on Silicon Surfaces Bond Evolution and Fragmentation as Detected by NEXAFS

M. Pedio, F. Borgatti, A. Giglia, N. Mahne, S. Nannarone, S. Giovannini, C. Cepek, E. Magnano, G. Bertoni, E. Spiller, M. Sancrotti, L. Giovanelli, L. Floreano, R. Gotter, A. Morgante

Physica Scripta **T115** (2005) 695.

Emission-Depth Selective Auger Photoelectron Coincidence Spectroscopy

W.S.M. Werner, W. Smekal, H. Stori, H. Winter, G. Stefani, A. Ruocco, F. Offi, R. Gotter, A. Morgante, F. Tommasini
Phys. Rev. Lett. **94** (2005) 38302

Electronic properties of a pure and sodium-doped C70 single layer adsorbed on Al polycrystalline surface

T. Pardini, C. Cepek, R. Larciprete, L. Sangaletti, S. Pagliara, R. Gotter, L. Floreano, A. Verdini, A. Morgante
J. Chem. Phys. **122** (2005) 054704

-

Epitaxial Al/GaN and Au/GaN Junctions on as-grown GaN(0001)1x1 Surfaces

D. Orani, M. Piccin, S. Rubini, E. Pelucchi, B. Bonanni, A. Franciosi, A. Passasseo, R. Cingolani and A. Khan
Physica Status Solidi(a) **202**, 804 (2005)

Low-temperature synthesis of ZnSe nanowires and nanosaws by catalyst-assisted molecular beam epitaxy

A. Colli, S. Hofmann, A. C. Ferrari, C. Ducati, F. Martelli, S. Rubini, S. Cabrini, A. Franciosi, J. Robertson
Appl. Phys. Lett. **86**, 153103 (2005)

Selective growth of ZnSe and ZnCdSe nanowires by molecular beam epitaxy

A. Colli, S. Hoffman, A.C. Ferrari, F. Martelli, S. Rubini, C. Ducati, A. Franciosi and J. Robertson
Nanotechnology **16**, S139 (2005).

InAsN/GaAs(N) quantum dots and InGaAsN/GaAs quantum well emitters: a comparison

G. Bais, A. Cristofoli, F. Jabeen, M. Piccin, E. Carlino, S. Rubini, F. Martelli and A. Franciosi
Appl. Phys. Lett. **86**, 233107 (2005)

In-N and N-N correlation in InGaAsN quantum wells

R. Duca, G. Ceballos, C. Nacc, D. Furlanetto, P. Finetti, S. Modesti, A. Cristofoli, G. Bais, M. Piccin, S. Rubini, F. Martelli and A. Franciosi
Phys. Rev. B, accepted