

Maria Roberta Cimberle

Curriculum vitae et studiorum

Sono nata ad Ancona il 18/05/1946.

Mi sono laureata in fisica presso l'Università degli studi di Genova nel dicembre del 1970.

Dal 1/2/1972 al 1/4/1974 ho goduto di una borsa di addestramento didattico e scientifico del Consiglio Nazionale delle Ricerche, svolgendo la mia attività presso l'Unità di ricerca "Fisica dei metalli e Fisica molecolare" del Gruppo Nazionale di Struttura della Materia (GNSM) con sede presso l'Istituto di Fisica dell' Università di Genova.

Dal 1/4/1974 sono stata dipendente del Consiglio Nazionale delle Ricerche con la qualifica di collaboratore tecnico professionale, afferendo al Laboratorio LAFAM di Pisa, ma distaccata presso l'Unità di ricerca "Fisica dei metalli e Fisica molecolare" del GNSM presso l'Istituto di Fisica dell' Università di Genova,

Dal 1/6/1988 sono inquadrata nella decima qualifica funzionale del profilo di ricercatore.

Dal 22/11/1991 sono stata assegnata al Centro di Studio di Fisica delle Superfici e Basse temperature (CFSBT), con sede presso il Dipartimento di Fisica dell' Università degli studi di Genova dove sono stata responsabile del reparto "Superconduttività e Basse Temperature" e dei progetti di ricerca "Fenomeni Macroscopici Quantistici" ('91-'98), "Proprietà fisiche nello stato normale e superconduttore" ('99-'01), "Superconduttività ad alta Tc e fenomeni dissipativi del reticolo dei flussioni" ('01-02).

Dal 31/12/2001 sono inquadrata nella qualifica di Dirigente di Ricerca. Dal 2002, a seguito della ristrutturazione del CNR, il Centro di si è trasformato in Sezione di Genova dell'Istituto dei Materiali per Elettronica e Magnetismo (IMEM) con sede a Parma, e sono stata responsabile della linea di ricerca "Preparazione di materiali innovativi e loro caratterizzazione strutturale e fisica

Attualmente afferisco alla Commessa Magnetismo dell'Istituto IMEM.

La mia attività professionale si è svolta all'interno del Dipartimento di Fisica dell'Università di Genova (Laboratorio di Criogenia) ed è stata fondamentale rivolta allo studio di problemi di fisica dello stato solido, affrontati con i metodi sperimentali della fisica delle basse temperature.

Responsabilità scientifica di specifici progetti

Ho partecipato quale responsabile dell' Unità operativa "Centro di Studio delle Superfici e delle Basse Temperature" a:

Progetto Strategico del C.N.R. "Materiali Superconduttori ad alta Temperatura Critica" (1987/1988)

Progetto Finalizzato "Tecnologie Superconduttive e Criogeniche", Sottoprogetto 2 "Materiali Superconduttori e Criogenici" (1989/1992).

Progetto Speciale CNR " Engineering, Synthesis and optimization of new high Tc superconductors" (1997/1998).

Ho partecipato quale responsabile dell' Unità operativa "Centro di Studio delle Superfici e delle Basse Temperature" e successivamente della "Sezione di Genova dell'Istituto IMEM" a:

Progetto triennale: "Applicazioni della Superconduttività ad alta Tc" Sottoprogetto: "Film di materiali Superconduttori Innovativi" (Legge 95/95 5%) (1999/ 2004).

Sono stata Coordinatore Nazionale del progetto FIRB a sportello "Sintesi e Caratterizzazione di Perovskiti Superconduttive e Magnetiche" (2002-2004)

Elenco delle Pubblicazioni su riviste nazionali ed internazionali

- 1 M.R.Cimberle, G. Bobel, C. Rizzuto
Deviations from Matthiessen's rule at low temperatures: an experimental comparison between various metallic alloy system
Adv. in Physics 23, n.4 (1974) 639
- 2 G. Bobel, M.R.Cimberle, F. Napoli, C. Rizzuto
Deviations from Matthiessen's rule in Li and K. A comparison with other metals
J. Low Temp. Phys 23, (1976) 103
- 3 S. Parodi, M. Pala, P.Russo, A. Zunino, C. Balbi, A. Albini, F. Valerio, M.R. Cimberle, L. Santi
D.N.A. damage in liver, kidney, bone marrow and spleen of rats and mice treated with commercial and purified aniline as determined by alkaline elution essay and sister chromatid exchange induction
Cancer Research 42, (1982) 2277
- 4 M.R. Cimberle, P. Bottino, V. Valerio
Decomposition of Benzo(a)Pyrene deposited on glass fiber filters and exposed to sunlight
Chemosphere 12, n.3, (1983) 317
- 5 V. Valerio, M.R. Cimberle, G.A. Tozzi, P. Bottino, D. Ugolini, A. Frigerio
Chemical and photochemical degradation of Polycyclic Aromatic Hydrocarbons in the atmosphere
The science of total environment 37, (1984) 169
- 6 R.Bracco, E.Canessa, M.R.Cimberle, C.Ferdeghini, M.Putti, A.S.Siri
Quantum Hall Effect observation in commercial Mosfets and effects of thermoelectric power
Il Nuovo Cimento 9, (1987) 289
- 7 F. C. Matacotta, E. Olzi, M.R.Cimberle, C.Ferdeghini, A. S. Siri, C. Rizzuto
I materiali superconduttori ad alta temperatura
Fisica e Tecnologia X, n. 1 (1987) 59
- 8 E.Babic, M.R.Cimberle, C.Ferdeghini, G.Gallinaro, C.Rizzuto, A.S.Siri, R. Masini, F.C.Matacotta, E.Olzi, G.Costa, M.Ferretti, G.L.Olcese
Systematic measurements of critical current and other parameters in YBa₂Cu₃ cuprates
Modern Physics Letters B 1, n.5&6 (1987) 225
- 9 G.A. Costa, M. Ferretti, G.L. Olcese, M.R. Cimberle, C. Ferdeghini, G.L. Nicchiotti, A.S. Siri, C.Rizzuto
Synthesis of YBa₂ Cu₃ O_{7-x} polycrystalline superconductors from Ba peroxide: first physico -chemical characterization
Journal of Crystal Growth 85, (1987) 623

- 10 G.A. Costa, M. Ferretti, G.L. Olcese, M.R. Cimberle
Vacuum annealing influence on the superconducting properties of the YBa₂Cu₃O_{7-y} oxides
Vuoto XVII, n. 3 (1987) 146
- 11 M.R.Cimberle, C.Ferdeghini, F.C.Matacotta, E.Olzi, C.Rizzuto, A.S.Siri
Resistive and current carrying properties of YBCO superconductors
Physica Scripta 37, (1988) 922
- 12 M.R.Cimberle, C.Ferdeghini, G.L.Nicchiotti, M.Putti, A.S.Siri, C.Rizzuto, G.A.Costa, M.Ferretti, G.L.Olcese, F.C.Matacotta, E.Olzi
Magnetization measurements on tubular samples of YBa₂ Cu₃O_{7-y}
Superconductor Science and Technology 1, (1988) 30
- 13 G.A.Costa, M.Ferretti, M.L.Fornasini, G.L.Olcese, M.R.Cimberle, C.Ferdeghini, G.L.Nicchiotti, M.Putti, C.Rizzuto, A.S.Siri
YBa₂Cu₃O_{7-x} superconducting oxides obtained by melting
Physica C 153, (1988) 397
- 14 G.A.Costa, M.Ferretti, G.L.Olcese, V.Calzona, M.R.Cimberle, C.Ferdeghini, M.Putti, A.Siri
On the melt processed YBa₂ Cu₃ O_{7-x} physico-chemical characterization
Solid State Communication 68, (1988) 923
- 15 V. Calzona, M.R. Cimberle, C.Ferdeghini, M.Putti, A.S.Siri
Comportamento in campo magnetico di ossidi superconduttori sinterizzati
Vuoto 18, n.3 (1988) 263
- 16 M.R.Cimberle, C.Ferdeghini, A.S.Siri
A simple and very sensitive set-up for superconductivity magnetization measurements on tubular samples
Cryogenics 29, (1989) 69
- 17 M.R.Cimberle, C.Ferdeghini, M.Putti, A.S.Siri
Electrical transport measurements in low mobility two dimensional electron gases: effect of thermoelectric power
Journal of Modern Physics B 3, (1989) 327
- 18 V.Calzona, M.R.Cimberle, C.Ferdeghini, M.Putti, A.S.Siri
A.C.susceptibility and magnetization of high T_c superconductors: critical state model for the intergranular region
Physica C 157, (1989) 425
- 19 V.Calzona, M.R.Cimberle, C.Ferdeghini, M.Putti, A.S.Siri, R.Vaccarone
Supercurrent lengthscale in sintered YBCO and critical state model
Physica C 162-164, (1989) 369
- 20 V.Calzona, M.R.Cimberle, C.Ferdeghini, F.Pupella, M.Putti, C.Rizzuto, A.Siri, R.Vaccarone

- Critical state in high T_c superconductors: magnetization and creep of intergranular region
Cryogenics 30, (1990) 569
- 21 V. Calzona, M.R. Cimberle, C. Ferdeghini, M. Putti, C. Rizzuto, A.S. Siri
Observation of phonon-fluxon scattering in $YBa_2Cu_3O_7$ through thermal diffusivity measurements
Europhysics Letters 13, (1990) 181
- 22 V. Calzona, M.R. Cimberle, C. Ferdeghini, M. Putti, A.S. Siri
Critical current density in sintered $YBa_2Cu_3O_{7-y}$: a comparison between different kinds of measurements and problem in their interpretation
Measurements Science and Technology 1, (1990) 1356
- 23 A. Bosacchi, S. Franchi, P. Allegri, V. Avanzini, M.R. Cimberle, C. Ferdeghini, M. Onorato, A.S. Siri, V. Calzona, M. Putti, V. Lacquaniti, A. Steno
Preparation of high mobility Ga As/ Ga Al As heterostructure and observation of Fractional Quantum Hall Effect
Vuoto20, (1990) 555
- 24 V. Calzona, M.R. Cimberle, C. Ferdeghini, A. Iorio, M. Putti, C. Rizzuto
Magnetization decay and pinning energy in a BSCCO single crystal: a comparison between different methods of measurement
Superconductor Science and Technology 5, S448 (1992) 451
- 25 V. Calzona, M.R. Cimberle, C. Ferdeghini, M. Putti, A.S. Siri
Fully automated apparatus for thermal diffusivity measurements on HTSC in high magnetic field
Review of Scientific Instruments 64, n.3 (1993) 766
- 26 V. Calzona, M.R. Cimberle, C. Ferdeghini, G. Grasso, A. Iorio, F. Licci, M. Putti, C. Rizzuto, A.S. Siri
Flux lines dynamics in YBCO and BSCCO single crystal: thermal activation theory interpretation of magnetization measurements
Superconductor Science and Technology 6, (1993) 46
- 27 V. Calzona, M.R. Cimberle, C. Ferdeghini, G. Grasso, F. Licci, M. Putti, C. Rizzuto, A.S. Siri
A.C. susceptibility of a YBCO single crystal in an extended frequency range interpreted by numerical solution of the continuity equation for the magnetic field.
Il Nuovo Cimento 15, (1993) 511
- 28 V. Calzona, M.R. Cimberle, C. Ferdeghini, E. Giannini, G. Grasso, F. Licci, M. Putti, A.S. Siri
Dissipation behavior of YBCO single crystal studied through magnetization and magnetization decay measurements
Superconductor Science and Technology 6, (1993) 771
- 29 V. Calzona, M.R. Cimberle, C. Ferdeghini, G. Grasso, D.V. Livanov, D. Marre', M. Putti, A.S. Siri, G. Balestrino, E. Milani

- Fluctuation conductivity and magnetoconductivity in 2212 phase BiSrCaCuO epitaxial films
Solid State Communications 87, (1993) 397
- 30 V.Calzona, M.R.Cimberle, C.Ferdeghini, G.Grasso, M.Putti, A.S.Siri
A new technique to obtain a fast thermocouple sensor for thermal diffusivity measurements in an extended temperature range
Review of Scientific Instruments 64, (1993) 12
- 31 E.Bellingeri, M.R.Cimberle, R.Eggenhoffner, C.Ferdeghini, G.A.Costa, E.Kaiser, R.Masini, E.Signorelli
Synthesis and properties of Hg-based High Tc Superconductors.
Il Nuovo Cimento 16D, (1994) 1659
- 32 Adly H. El-Sayed, E.Bellingeri, V.Calzona, M.R.Cimberle, R.Eggenhoffner, C.Ferdeghini, G.Grasso, D.Marre', M.Putti, A.S.Siri, G.A.Costa, E.Kaiser, R.Masini
Synthesis and properties of superconducting HgBaCuO from a single step low temperature solid state reaction
Superconductor Science and Technology 7, (1994) 36
- 33 A.H.El Sayed, V.Calzona, M.R.Cimberle, R.Eggenhoffner, C.Ferdeghini, G.Grasso, D.Marre', M.Putti, A.S.Siri, G.A.Costa, E.Kaiser, R.Masini
Study of superconducting HgBaCuO from one step low temperature reaction
Solid State Communications 89, (1994) 425
- 34 V.Calzona, M.R.Cimberle, C.Ferdeghini, G.Grasso, D.Marre', M.Putti, A.S.Siri
Transport properties in HTSC materials in mixed state
Il Nuovo cimento 16D, (1994) 1827
- 35 V.Calzona, M.R.Cimberle, C.Ferdeghini, D.Marre', M.Putti, A.S.Siri, R.Flukiger, G.Grasso
Observation of thermoelectric and thermomagnetic effects in Bi₂ Sr₂ Ca₂ Cu₃ Ox-Ag tapes
Physica C 235-240, (1994) 3113
- 36 V.Calzona, M.R.Cimberle, C.Ferdeghini, R.Flukiger, G.Grasso, D.Marre',
Magnetic characterization of pressed Ag-sheated BSCCO (2223) tape
Cryogenic 34, (1994) 801
- 37 V.Calzona, M.R.Cimberle, C.Ferdeghini, G.Grasso, D.Marre', M.Putti, C.Rizzuto, A.S.Siri
Apparatus for thermal diffusivity measurements in an extended temperature range
Cryogenic 34, (1994) 457
- 38 V.Calzona, M.R.Cimberle, C.Ferdeghini, D.Marre', M.Putti
Thermomagnetic and thermoelectric effects in the mixed state: analysis of the thermal angle
Physica C 246, (1995) 169
- 39 V.Calzona, M.R.Cimberle, C.Ferdeghini, R.Flukiger, E.Giannini, G.Grasso, D.Marre', M.Putti, A.S.Siri

On the magnetic behaviour of BSCCO (2223) Ag-tapes
Physica C 251, (1995) 61

- 40 M.R.Cimberle, C.Ferdeghini, D.Marre', M.Putti, A.S.Siri, G.Grasso, R.Flukiger
Transport properties of Bi(2223) textured tapes in mixed state
Physical Review B 52, (1995) 9727
- 41 M.R.Cimberle, C.Ferdeghini, E.Giannini, D.Marre', M.Putti, C.Rizzuto, A.S.Siri,
F.Canepa, P.Manfrinetti, A.Palenzona, A.A.Varlamov
Normal state magnetoresistivity of polycrystalline HoNi₂B₂C
Solid State Communications 99, (1996) 209
- 42 S.Castellazzi, M.R.Cimberle, C.Ferdeghini, E.Giannini, G.Grasso, D.Marrè, M.Putti,
A.S.Siri
Thermal conductivity of BSCCO (2223) tape: discussion on origin of the peak
Physica C 273, (1997) 314
- 43 A.Andreone, C.Aruta, M.R.Cimberle, E.Cogliati, C.Ferdeghini, F.Fontana,
E.Giannini, P.Guasconi, M.Iavarone, P.Manfrinetti, P.Manini, D.Marrè, A.Palenzona,
M.Putti, M.Salluzzo, A.S.Siri, R.Vaglio
In situ deposition of superconducting borocarbides
Il Nuovo Cimento D 19 (1997) 995
- 44 M.R.Cimberle, F.Federici, C.Ferdeghini, E.Giannini, G.Grassano, D.Marrè, M.Putti,
A.S.Siri, A.Varlamov.
Analysis of crossover phenomena in the paraconductivity of YBCO thin films
obtained by laser ablation
Il Nuovo Cimento D 19 (1997) 1223
- 45 M.Amirfeiz, M.R.Cimberle, C.Ferdeghini, E.Giannini, G.Grassano, D.Marrè,
M.Putti, A.S.Siri.
Magnetoresistivity and Hall resistivity of a YBCO thin film in a tilted magnetic field.
Il Nuovo Cimento D 19 (1997) 1237
- 46 M.R.Cimberle, C.Ferdeghini, E.Giannini, D.Marrè, M.Putti, I.Pallecchi, C.Salvo,
A.S.Siri.
Magnetization in the mixed state of superconducting thin films.
Il Nuovo Cimento D 19 (1997) 1245
- 47 M.R.Cimberle, C.Ferdeghini, R.Flukiger, E.Giannini, G.Grasso, D.Marrè,
I.Pallecchi, M.Putti, A.S.Siri.
Magnetic characterization of multifilamentary BSCCO(223)-Ag tapes.
Il Nuovo Cimento D 19 (1997) 1259
- 48 M.R.Cimberle, C.Ferdeghini, E.Giannini, D.Marrè, M.Putti, A.S.Siri, F.Federici,
A.Varlamov.
Crossover between Aslamov-Larkin and short wavelength fluctuation regimes in high-
temperature –superconductor conductivity experiments.
Phys. Rev. B 55 (1997) R14745
- 49 M.Amirfeiz, M.R.Cimberle, C.Ferdeghini, E.Giannini, G.Grassano, D.Marrè, M.Putti,

- A.S.Siri.
Angular dependence of magnetoresistivity and Hall effect in a YBCO thin film.
Physica C 28 (1997)
- 50 M.R.Cimberle, C.Ferdeghini, P.Guasconi, D.Marre', M.Putti, A.S.Siri, F.Canepa, P.Manfrinetti, A.Palenzona
In situ deposition of superconducting borocarbides by pulsed laser ablation technique.
Physica C 282-287 (1997) 573
- 51 M.R.Cimberle, C.Ferdeghini, G.Grassano, D.Marrè, M.Putti, A.S.Siri.
Failure of scaling in materials with low Γ value.
Physica C 282-287 (1997) 1183
- 52 M.R.Cimberle, A.Diaspro, C.Ferdeghini, E.Giannini, G.Grassano, D.Marrè, I.Pallecchi, M.Putti, R.Rolandi, A.S.Siri.
RHEED/AFM analysis YBCO epitaxial thin films grown by laser MBE.
Physica C 282-287 (1997) 679
- 53 M.Putti, M.R.Cimberle, A. Canesi, C. Foglia, A.S.Siri.
Thermopower measurements of high-temperature superconductors: Experimental artifacts due to applied thermal gradient and a technique for avoiding them.
Physical Rev B 58, (1998) 12344
- 54 A. Canesi, M.R.Cimberle, C.Ferdeghini, A. Diaspro, P.Guasconi, S. Gariglio, D.Marre', M.Putti, A.S.Siri, F.Canepa, P.Manfrinetti, A.Palenzona
In situ deposition of ErNi₂B₂C thin films by pulsed laser ablation technique.
Physica C 299 (1998) 15
- 55 F. Canepa, S. Cirafici, F. Merlo, M. Pani, L. Carpaneto, M.R. Cimberle
Physical Properties of ErFe₄Ge₂
J. of Alloys and Compounds 266 (1998) 26
- 56 M.R. Cimberle, C. Ferdeghini, G.Grasso, C. Rizzuto, A.S. Siri, R. Flukiger and F. Marti
Determination of the intragrain critical current density of the Bi(2223) phase inside Ag-sheated tapes
Supercond. Sci. Technol. 11 (1998) 837
- 57 M. Putti, M.R. Cimberle, C.Ferdeghini, G. Grassano, D. Marrè, A.S.Siri, A. Varlamov, L. Corraera
Paraconductivity of YBCO thin film with different anisotropy factors.
Physica C 314 (1999) 247
- 58 C.Ferdeghini, F. Canepa, M. R. Cimberle, S. Gariglio, G. Grassano, D. Marrè, F. Napoli, M. Putti
Magnetoresistivity of DyNi₂B₂C thin film
Intermetallic 7 (1999) 1389
- 59 M. R. Cimberle, C.Ferdeghini, G. Grassano, D. Marrè, M. Putti, A. S. Siri, F. Canepa

Deposition of c-oriented borocarbides thin films by laser ablation technique
IEEE Transaction on Appl. Supercond.9 (1999) 1727

- 60 G.Grasso, M. R. Cimberle, C.Ferdeghini, A.S. Siri
Temperature dependence of the intragrain critical current density in polycrystalline Ag-sheated Bi(2223) tapes
IEEE Transaction on Appl. Supercond.9 (1999) 2659
- 61 C. Ferdeghini, F. Canepa, A. Canesi, M.R. Cimberle, G. Grassano, D. Marrè, M.Putti
Deposition of borocarbides thin films by pulsed laser ablation: growth parameters and physical characterization technique
Journal of Modern Physics B 13 (1999) 1049
- 62 M. R. Cimberle, A. Canesi, C. Ferdeghini, G. Grasso
Determination of the critical current density of Bi(2223) Ag tapes from magnetic measurements: peculiarities and problems in the interpretation
Supercond. Sci. Technol. 12 (1999) 460
- 63 G. Grasso, M.R. Cimberle, P. Guasconi, I. Pallecchi, C. Ferdeghini
Texture development studies in Ag-sheated Bi-2223 tapes
Supercond. Sci. Technol. 12 (1999) 1108
- 64 F. Canepa, P. Manfrinetti, A. Palenzona, S. Cirafici, F. Merlo, M.R. Cimberle
Thermodynamic, electric and magnetic properties of PR $\text{Nd}_7\text{Co}_6\text{Al}_7$ intermetallic compound.
Journal Alloys and Compounds 291 (1999) 33
- 65 M.R. Cimberle, C.Ferdeghini, G. Grasso, M. Putti, I. Pallecchi, A.S. Siri
Magnetic study of texture in multifilamentary $(\text{Bi,Pb})_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+x}$ tapes: evidence for anisotropic orientation
Appl. Phys. Lett. 76 (2000) 85
- 66 F. Canepa, P. Manfrinetti, A. Palenzona, S. Cirafici, F. Merlo, M.R. Cimberle
Ferromagnetic interactions in $\text{Nd}_7\text{Co}_6\text{Al}_7$
Intermetallics 8 (2000) 267
- 67 M. Putti, M.R. Cimberle, C. Ferdeghini, G. Grasso, D. Livanov, A. Varlamov
Magnetoconductivity measurements in Bi(2223) tape: evidence of critical fluctuations.
Physica C 341-348 (2000) 1925
- 68 M.R. Cimberle, C. Ferdeghini, G. Grasso, P. Guasconi, I. Pallecchi and M. Putti
Texture development studies in Ag- sheated BSCCO tapes by magnetic measurements
Physica C 341-348 (2000) 505
- 69 G.Grassano, M.R. Cimberle, C. Ferdeghini, M. Iavarone, R. Di Capua, R. Vaglio, F. Canepa
Superconducting Properties of $\text{LuNi}_2\text{B}_2\text{C}$ films and junctions, Physica C 341-348 (2000) 757

- 70 D. V. Livanov, A.A. Varlamov, M. Putti, M.R. Cimberle, C. Ferdeghini
Evidence of critical fluctuations from magnetoconductivity data in $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+x}$
phase,
European Journal of Physics B 18 (2000) 401
- 71 G.Grassano, M.R. Cimberle, D.Marre', I.Pallecchi, M.Putti, W.Ramadan,
A.S.Siri,C.Ferdeghini, A.Andreone, A.Cassinese, R.Di Capua, L.Gianni, M. Iavarone,
F.Miletto, F.Ricci, U.Scotti di Uccio,R.Vaglio, F.Canepa,
Superconducting properties of $\text{LuNi}_2\text{B}_2\text{C}$ films, International Journal of Modern
Physics B, 14 (2000) 2743
- 72 C.Ferdeghini, M.R.Cimberle, G.Grasso, A.Malagoli, P.Guasconi, I.Pallecchi,
Study of the texturing in BSSCO-Ag tapes through magnetic measurements,
International Journal of Modern Physics B, 14 (2000) 3159
- 73 M.R. Cimberle, C. Ferdeghini, G. Grasso, P. Guasconi, A. Malagoli
Texture development during the Bi(2223)/Ag multifilamentary tape processing
IEEE Trans. of Appl. Supercond., 2 (2001) 2987
- 74 M. R. Cimberle, C. Ferdeghini, M. Putti, A. S. Siri
Magnetic and transport properties of the Bi-2223 phase inside Ag-sheated tapes
Studies on High Temperature Superconductors Vol. 35/36 (2001) edited by Anant
Narlikar Nova Science Publisher
- 75 Putti, M.R.Cimberle, C.Ferdeghini, G.Grasso, A.Manca, W Goldacker,
Study of Bi(2223)tapes with low thermal conductivity, IEEE Trans. of Appl
Supercond., 2 (2001) 3285
- 76 G.Grasso, A.Malagoli, C.Ferdeghini, S.Roncallo,V.Braccini, A.S.Siri, M.R.Cimberle,
Large transport critical currents in unsintered MgB_2 superconducting tapes, Applied
Physics Letters, 79 (2001) 230
- 77 M.R. Cimberle, M.Novak, P. Manfrinetti, A. Palenzona, Magnetic Study of
powdered and sintered MgB_2 samples prepared by different procedures
Studies of High Temperature Superconductors Edited by Anant Narlikar, Nova
Science Publisher vol. 37 (2001)
- 78 M.R. Cimberle, M.Novak, P. Manfrinetti, A. Palenzona, Magnetic characterization of
sintered MgB_2 samples: effect of the substitution or "doping" with Li, Al and Si.
Supercond. Sci. Technol. 15 (2001) 43
- 79 C. Artini, M.M. Carnasciali, G.A. Costa, M. Ferretti, M.R. Cimberle, M. Putti, R.Masini,
Synthesis and characterisation of superconducting $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ Physica C 377
(2002) 431
- 80 Masini, C. Artini, M.R. Cimberle, G.A. Costa, M.M. Carnasciali, M. Ferretti, Synthesis
Effects on the Magnetic and Superconducting Properties of $\text{Ru Sr}_2\text{GdCu}_2\text{O}_8$ in
"Ruthenate and rutheno-cuprate materials: theory and experiments", Springer Verlag
LNP series, editors: C. Noce, A. Vecchione, M. Cuoco, A. Romano, Vol. 603 (2002)
222-238

- 81 C. Ferdeghini, V. Ferrando, V. Braccini, M. Putti, M.R. Cimberle, D. Marrè, P. Manfrinetti, A. Palenzona, M. Putti Angular dependence of magnetoresistivity in c-oriented MgB_2 thin film Eur. Phys. J. B 30 (2002) 147
- 82 C. Artini, M.M. Carnasciali, G.A. Costa, M. Ferretti, M.R. Cimberle, R. Masini, Synthesis and Physical properties of $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ Int. J. Mod. Phys B 17, Nos. 4,5 & 6 (2003) 855
- 83 C. Artini, G.A. Costa, E. Magnone, M.R. Cimberle, R. Masini, Synthesis and characterization of superconducting MgCNi_3 Int. J. Mod. Phys B 17, Nos. 4,5 & 6 (2003) 819
- 84 M.R. Cimberle, M. Cuoco, C. Noce, A. Vecchione, M. Gombos, C. Artini, S. Pace, Weak ferromagnetic fluctuations in $\text{GdSr}_2\text{RuCu}_2\text{O}_8$ compound Int. J. Mod. Phys B 17, Nos. 4,5 & 6 (2003) 602
- 85 C. Ferdeghini, V. Braccini, E. Bellingeri, M.R. Cimberle, V. Ferrando, G. Grasso, A. Malagoli, P. Manfrinetti, D. Marrè, M. Modica, A. Palenzona, I. Pallecchi, L. Pellegrino, M. Putti, W. Ramadan, S. Roncallo, A. Tumino and A.S. Siri, Some aspects of material preparation in Magnesium diboride: thin films growth and tapes fabrication, International Journal of Modern Physics B, 17 Nos. 4,5 & 6 (2003) 400
- 86 M.R. Cimberle, R. Masini, C. Ferdeghini, C. Artini, G. Costa Physical characterization of $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ sintered samples: an analysis of the magnetic measurements performed by SQUID magnetometer Supercond Sci and Tech. 16 (2003) 726
- 87 F. Cordero, M. Ferretti, M.R. Cimberle, R. Masini Formation and mobility of oxygen vacancies in $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ Phys. Rev. B 67 (2003) 144519
- 88 M.R. Cimberle, R. Masini, E. Gilioli, C. Artini, G. Costa, M. Ferretti, P. Mele, A. Martinelli Dependence of structural and physical properties of Ru-1212 compound on the thermal treatment and oxygen content Physica C 408-410 (2004) 187
- 89 P. Tedesco, A. Lascialfari, A. Rigamonti, I. Zucca, A. Vecchione, M. Gombos, S. Pace, M. Ferretti, M.R. Cimberle Cu NMR-NQR spectra and relaxation in Rutheno-Cuprate $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ J. Mag.Mag.Mater. 272-276 (2004) e147
- 90 M.R. Cimberle, R. Masini, E. Gilioli, C. Artini, F. Cordero, M. Ferretti, P. Mele, A. Martinelli Variations in structural and physical properties of $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ samples submitted to annealing and deoxygenation procedures J. Mag.Mag.Mater. 272-276 (2004) e1047
- 91 A. Martinelli, C. Artini, M.R. Cimberle, G.A. Costa, M. Ferretti, R. Masini, P. Mele, Orthorhombic lattice deformation of $\text{GdSr}_2\text{RuCu}_2\text{O}_8$ from high-resolution transmission electron microscopy and x-ray powder diffraction analysis Phys. Rev B 69 (2004) 052507
- 92 C. Artini C., Ubaldini A., Firpo F., Carnasciali M.M., Bruzzone G., Costa G.A., Masini R., Cimberle M.R., Tropeano M. "Synthesis and characterization of superconducting $\text{RuSr}_2\text{Gd}_{1.4}\text{Ce}_{0.6}\text{Cu}_2\text{O}_{10}$ " Applied Superconductivity 2003. Proc. of the 6th EUCAS, Sorrento 2003 IoP Conf. Ser. No 181. Eds. A. Andreone et al. Bristol: IoP 2004, 1167-1173

- 93 Ummarino G.A., Calzolari A., Baghero D., Gonnelli R.S., Stepanov V.A., Masini R., Cimberle M.R. "Point-contact study of gap amplitude and symmetry in RuSr₂GdCu₂O₈" Applied Superconductivity 2003. Proc. of the 6th EUCAS, Sorrento 2003 IoP Conf. Ser. No 181. Eds. A. Andreone et al. Bristol: IoP 2004, 1146-1153
- 94 P. Manfrinetti, M.R. Cimberle, Multiple magnetic transitions in R₃CoGe₂ compounds (R = Ce, Pr and Nd) J. Mag. Mater. 270 (2004) 43
- 95 M.R. Cimberle, M. Tropeano, M. Ferretti, A. Martinelli, C. Artini, G.A. Costa Effect of disorder on the passage from bulk superconductivity to spin glass behaviour in RuSr₂GdCu₂O₈ Supercond. Sci. Technol. 18 (2005) 454
- 96 Martinelli, M. Ferretti, C. Castellano, C. Mondelli, D. Martín y Marero, M.R. Cimberle, M. Tropeano (La,Ca)(Mn,M)O₃ (M=Ni, Cr) compounds investigated by means of XRPD and DC magnetic measurements Journal of the European Ceramic Society 25/12 (2005) 3037
- 97 A. Martinelli, M. Ferretti, C. Castellano, C. Mondelli, D. Martín y Marero, M.R. Cimberle, M. Tropeano Structure and magnetic properties of (Pr_{0.55}Ca_{0.45})(Mn_{1-y}Cr_y)O₃ (y = 0.00, 0.03, 0.06) Journal of the European Ceramic Society 25/12 (2005) 3041
- 98 C. Castellano, F. Cordero, O. Palombo, R. Cantelli, M.R. Cimberle, M. Tropeano, A. Martinelli, M. Ferretti Local structure and magnetic properties of Mn substituted manganites studied by EXAFS and Dc magnetic measurements Solid State Communications 136 (2005) 244
- 99 A. Martinelli, M. Ferretti, M.R. Cimberle Synthesis of ternary Phases in the C-Mg-Ni System by Combustion International Journal of Self-propagating High Temperature Synthesis 14, (2005) 321
- 100 D. Gozzi, A. Latini, G. Capannelli, F. Canepa, M. Napolitano, M.R. Cimberle, M. Tropeano Synthesis and magnetic characterization of Ni nanoparticles and Ni nanoparticles in multiwalled carbon nanotubes J. Alloys Comp. 419 (2006) 32
- 101 A. Martinelli, M. Ferretti, C. Castellano, C. Mondelli, M.R. Cimberle, M. Tropeano, C. Ritter Effect of Cr substitution on the crystal and magnetic structure of (Pr_{0.55}Ca_{0.45})MnO₃: a neutron powder diffraction investigation Phys. Rev. B 73 (2006) 064423
- 102 Polichetti, M.G. Adesso, D. Zola, A. Vecchione, M. Gombos, R. Ciancio, R. Fittipaldi, M.R. Cimberle, S. Pace Magnetic history dependence of the AC susceptibility of GdSr₂RuCu₂O_z Phys. Stat. Sol.(c) 3, (2006) 3061
- 103 A. Guarino, R. Fittipaldi, A. Nigro, M. Gombos, A. Vecchione, R. Ciancio, S. Pace, M.R. Cimberle, M. Tropeano, D. Zola, M. Polichetti Structural and magnetic characterization of Gd Sr₂RuCu₂O₈ films deposited by d.c. sputtering Phys. Stat. Sol.(c) 3, (2006) 3073
- 104 M.R. Cimberle, R. Masini, F. Canepa, G. Costa, A. Vecchione, M. Polichetti, R. Ciancio Ferromagnetic nanoclusters observed by ac and dc magnetic measurements in Ru-Gd(1212) samples Phys. Rev. B 73 (2006) 214424

- 105 A. Calzolari, D. Daghero, R.S. Gonnelli, G.A. Ummarino, V.A. Stepanov, R. Masini, M.R. Cimberle, M. Ferretti *J. Phys. Chem Solids* 67 (2006) 597
- 106 A. Martinelli, M. Ferretti, C. Castellano, M.R. Cimberle, M. Tropeano, C. Mondelli Effect of Cr substitution on the crystal and magnetic structure of $(\text{Pr}_{0.55}\text{Ca}_{0.45})\text{MnO}_3$ *Advances in Science and Technology* 52 (2006) 93
- 107 C. Castellano, A. Martinelli, M.Ferretti, M.R. Cimberle, R. Cantelli, F. Cordero Local structure and dynamic properties of Mn substituted manganites studied by EXAFS and anelastic spectroscopy *Advances in Science and Technology* 52 (2006) 110
- 108 A. Martinelli, M.R. Cimberle Evolution of the structure, microstructure and physical properties of $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ as a function of the thermal treatment *Zeitschrift für Kristallographie* 222 (2007) 459
- 109 M.R. Cimberle, R. Masini, , F. Canepa, G.Costa, C. Artini, A. Vecchione, M. Polichetti, M. Gombos, M.G. Adesso, Superparamagnetic behavior of ferromagnetic nanoclusters in $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ and $\text{RuSr}_2\text{Gd}_{1.6}\text{Cu}_{0.4}\text{O}_{10}$ samples observed by ac and dc magnetic measurements *J. Magn. and Magn. Mat* 316(2007) e529
- 110 F.Canepa, S.Cirafici, M.Napoletano, M.R.Cimberle Ageing effect on the magnetocaloric properties of Gd, $\text{Gd}_5\text{Si}_{1.9}\text{Ge}_{2.1}$ and of the eutectic composition $\text{Gd}_{76}\text{Cd}_{24}$. Atti di "Second IIF-IIR International Conference on Magnetic Refrigeration at Room Temperature" Portoroz, Slovenia, 11-13 April 2007
- 111 C.Castellano, M.Ferretti, A.Martinelli, M.R. Cimberle EXAFS study of the local order and structure in Cu doped manganites *Journal of Superconductivity and Novel Magnetism* 20 (2007) 511
- 112 A. Martinelli, M. Ferretti, C. Castellano, M.R. Cimberle, C. Mondelli, C. Ritter, Crystal and magnetic structure of Cr and Ni substituted $\text{La}_{0.50}\text{Ca}_{0.50}\text{MnO}_3$ *J. Phys.: Condens. Matter* 20 (2008) 145210
- 113 C. Castellano, M.R. Cimberle, M. Ferretti, A. Martinelli and R. Masini Effect of nanometric grain size on the magnetic properties of $\text{La}_{0.63}\text{Ca}_{0.37}\text{MnO}_3$ and $\text{La}_{0.25}\text{Ca}_{0.75}\text{MnO}_3$ manganites nanoparticles *Proceeding of the ICM 2007 (International Conference on Magnetic Materials 11-16 December 2007 Kolkata, India)* (2008) 64
- 114 A. Martinelli, M. Ferretti, C. Castellano, M.R. Cimberle, C. Mondelli and C. Ritter Crystal and magnetic structure of Cr and Ni substituted $\text{La}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$ *J. Phys.: Condens. Matter* 20 (2008) 145210
- 115 C.Tarantini, M.R.Cimberle, U.Gambardella, E.Lehmann, P.Manfrinetti, A. Palenzona, M.Putti, C.Ferdeghini Magnetization decays in neutron irradiated MgB_2 bulks *Journal of Applied Physics* 104 (2008) 013902
- 116 F. Canepa, S. Cirafici, M. Napoletano, M.R. Cimberle, L.Tagliafico, F. Scarpa Ageing effect on the magnetocaloric properetis of Gd, $\text{Gd}_5\text{Si}_{1.9}\text{Ge}_{2.1}$ and on the eutectic composition $\text{Gd}_{75}\text{Cd}_{25}$ *J. Phys. D: Appl.Phys.*41 (2008) 155004

- 117 A. Martinelli, M. Ferretti, P. Manfrinetti, A. Palenzona, M. Tropeano, M. R. Cimberle, C. Ferdeghini, R. Valle, M. Putti, A.S. Siri Synthesis, crystal structure, microstructure, transport and magnetic properties of SmFeAsO and SmFeAs(O_{0.93}F_{0.07}) Supercond. Sci. Technol. 21 095017 (2008)
- 118 M. Tropeano, C. Fanciulli, C. Ferdeghini, D. Marrè, A.S. Siri, M. Putti, A. Martinelli, M. Ferretti, A. Palenzona, M.R. Cimberle, C. Mirri, S. Lupi, R. Sopracase, P. Calvani, A. Perucchi Transport and infrared properties of SmFeAs(O_{1-x}F_x): from SDW to superconducting ordering, Supercond. Sci. Technol. 22 (2009) 034004
- 119 C. Castellano, M. Ferretti, A. Martinelli, M.R. Cimberle Effect of Cr-substitution on the structural and magnetic properties of (Ho_{0.50}Ca_{0.50})MnO₃ J. of Alloys and Compounds 478 (2009) 479
- 120 M. Tropeano, C. Fanciulli, F. Canepa, M.R. Cimberle, C. Ferdeghini, G. Lamura, A. Martinelli, M. Putti, M. Vignolo, A. Palenzona Effect of the chemical pressure on superconductivity and SDW in pure and 15%F doped La_{1-y}Y_yFeAsO compounds. Phys.Rev. B 79 (2009) 174523
- 121 M.R. Cimberle, F. Canepa, M. Ferretti, A. Martinelli, A. Palenzona, A.S. Siri, C. Tarantini, M. Tropeano, C. Ferdeghini Magnetic characterization of undoped and 15%F doped LaFeAsO and SmFeAsO compounds J. Magn. and Magn. Mat. 321(2009) 3024
- 122 E. Bellingeri, R. Buzio, A. Gerbi, D. Marrè, S. Congiu, M.R. Cimberle, M. Tropeano, A.S. Siri, A. Palenzona, C. Ferdeghini High quality epitaxial FeSe_{0.5}Te_{0.5} thin films grown on SrTiO₃ substrates by Pulsed Laser Deposition Supercond. Sci. Technol. 22 (2009) 105007
- 123 A. Martinelli, A. Palenzona, M. Tropeano, C. Ferdeghini, M.R. Cimberle, C. Ritter Neutron powder diffraction investigation of the structural and magnetic properties of La(1-y)Y_y FeAsO Phys. Rev. B 80 (2009) 214106
- 124 Campiglio, M. Campione, F. Canepa, C. Canevali, M.R. Cimberle, C. Fanciulli, L. Miozzo, M. Moret, A. Papagni, S. Rizzato, A. Sassella, Magnetic behaviour of polyfluoroacridine-based organic molecular materials Eur.Phys. J B 73 (2010) 495
- 125 M Putti , I Pallecchi , E Bellingeri , M R Cimberle , M Tropeano , C Ferdeghini , A Palenzona , C Tarantini , A Yamamoto , J Jiang , J Jaroszynski , F Kametani , D Abaimov , A Polyanskii , J D Weiss , E E Hellstrom , A Gurevich , D C Larbalestier , R Jin , B C Sales , A S Sefat , M A McGuire , D Mandrus , P Cheng , Y Jia , H H Wen , S Lee and C B Eom New Fe-based superconductors: properties relevant for application Supercond. Sci. Technol 23 (2010) 034003
- 126 Bellingeri, I. Pallecchi, R. Buzio, A. Gerbi, D. Marrè, M.R. Cimberle, M. Tropeano, M. Putti A. Palenzona, C. Ferdeghini T_c=21K in epitaxial FeSe_{0.5}Te_{0.5} thin films with biaxial compressive strain APL 96 (2010) 102512
- 127 A. Martinelli, A. Palenzona, M. Tropeano, C. Ferdeghini, M. Putti, M.R. Cimberle, T.D. Nguyen, M. Affronte, C. Ritter From antiferromagnetism to superconductivity in Fe_{1+y}Te_{1-x}Se_x (0≤x≤0.20): Neutron powder diffraction analysis Phys.Rev.B 81 (2010) 094115
- 128 M. Tropeano, I Pallecchi, M R Cimberle, C Ferdeghini, G Lamura, M Vignolo, A Martinelli,

- A. Palenzona and M. Putti Transport and superconducting properties of Fe-based superconductors: $\text{SmFeAs}(\text{O}_{1-x}\text{F}_x)$ versus $\text{Fe}_{1+y}(\text{Te}_{1-x}\text{Se}_x)$ Supercond. Sci. Technol. 23 (2010) 054001
- 130 M. Tropeano, M.R.Cimberle, C. Ferdeghini, G. Lamura, A. Martinelli, A.Palenzona, I. Pallecchi, A. Sala, I. Sheikin, F. Bernardini, M. Monni, S.Massidda M. Putti Isoelectronic Ru substitution at the iron site in $\text{Sm}(\text{Fe}_{1-x}\text{Ru}_x)\text{As}_{0.85}\text{F}_{0.15}$ and its effects on structural, superconducting, and normal state properties Phys. Rev. B 81 (2010) 184504
- 131 S. Sanna, R. De Renzi, T. Shiroka, Nanoscopic coexistence of magnetic and superconducting states within the FeAs layers of $\text{CeFeAsO}_{1-x}\text{F}_x$ Phys.Rev.B 82(2010) 060508
- 132 Bellingeri, I.Pallecchi, R.Buzio, A.Gerbi, D.Marrè, M.R.Cimberle, M.Tropeano, M.Putti, A. Palenzona, S. Kaciulis, C.Ferdeghini Critical temperature enhancement by biaxial compressive strain in $\text{FeSe}_{0.5}\text{Te}_{0.5}$ thin films Journal of Superconductivity and Novel Magnetism 24 (2011) 35
- 133 A.Martinelli, M.Ferretti, M.R.Cimberle, C.Ritter The crystal and magnetic structure of Ti-substituted LaCrO_3 Mat. Res. Bull. 46 (2011) 190
- 134 Eisterer, R. Raunicher, H. W. Weber, E. Bellingeri, M. R. Cimberle, I. Pallecchi, M. Putti and C. Ferdeghini Anisotropic critical currents in $\text{FeSe}_{0.5}\text{Te}_{0.5}$ films and the influence of neutron irradiation Supercond. Sci. Technol. 24 (2011) 065016
- 135 A. Martinelli, M Ferretti, C Castellano, M R Cimberle, R Masini and C Ritter, Neutron powder diffraction investigation on the crystal and magnetic structure of $(\text{Ho}_{0.50+x}\text{Ca}_{0.50-x})(\text{Mn}_{1-x}\text{Cr}_x)\text{O}_3$ J. Phys.: Condens. Matter 23 (2011) 416005
- 136 T. Shiroka, G. Lamura, S. Sanna, G. Prando, R. De Renzi, M. Tropeano, M. R. Cimberle, A. Martinelli, C. Bernini, A. Palenzona, R. Fittipaldi, A. Vecchione, P. Carretta, A. S. Siri, C. Ferdeghini, and M. Putti, Long- to short-range magnetic order in fluorine-doped CeFeAsO Phys. Rev. B 84 (2011) 195123

