

CURRICULUM VITAE



INFORMAZIONI PERSONALI

Nome	LUCA LUSVARGHI
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Nationalità	Italiana
Data di nascita	10/05/1972

CARRIERA ACCADEMICA

Periodo	Dal 31/11/2015 – tempo presente (07-07-2019)
Ruolo Accademico	Professore Associato di Scienza e Tecnologia dei Materiali – SSD ING-IND/22 Abilitato a livello nazionale alla Prima Fascia (Professore Ordinario) nel SSD ING-IND/22 dal 01-12-2017 fino al 01-12-2023
Compiti principali e attività di ricerca	<ul style="list-style-type: none">• <u>Attività didattica</u>: dall'AA 2010-2011, è titolare del corso “Ingegneria delle Superfici e dei Ricoprimenti” (6 crediti) e dall'AA 2014-2015, è titolare del corso “Caratterizzazione strumentale dei Materiali” (6 crediti), entrambi tenuti agli studenti della Laurea Magistrale in Ingegneria dei Materiali; dal AA2019-2020, sarà titolare del corso di “Tribologia” (6 crediti) tenuto agli studenti della Laurea Triennale in Ingegneria Meccanica, curriculum materiali (6 crediti).• <u>Attività di tutoraggio</u>: dal 2003, è stato correlatore di 23 e relatore di 77 tesi di laurea triennali e magistrali in Ingegneria dei Materiali e Meccanica; è stato correlatore/relatore di 9 tesi di dottorato e ha partecipato a varie commissioni di dottorato come componente della commissione (in Finlandia, Francia ed Italia).• <u>Attività di ricerca</u>: Dal 2000, la sua ricerca è focalizzata su tematiche di ingegneria di superficie. In particolare, la sua attività scientifica si è concentrata su tecniche di deposizione quali la termospruzzatura, in vuoto (PVD, CVD) e sui processi di diffusione per applicazioni ad alta temperatura. I suoi interessi riguardano l'ottimizzazione dei parametri di processo delle tecniche di ingegneria delle superfici e la caratterizzazione microstrutturale, meccanica, tribologica e la valutazione della resistenza alla corrosione di rivestimenti spessi, sottili e di superfici modificate. Negli ultimi anni, ha portato avanti studi incentrati su: rivestimenti resistenti all'usura e/o alla corrosione per la protezione di componenti meccanici e la sostituzione del cromo duro (ossidi duri termospruzzati (allumina, cromia, allumina-titanio), cermets con leganti tradizionali e a base ferro e leghe metalliche (nickel, cobalto e recentemente ferro) depositate HVOF e HVOF, rivestimenti sottili a base carbonio (DLC) via

sistemi ibridi PECVD/PVD e coating spessi ottenuti tramite cold spraying); caratterizzazione di film sottili e spessi, con anche uso del Focused Ion Beam per analizzare rivestimenti ibridi multistrato; rivestimenti termospruzzati di ferriti come assorbitori di radiazione elettromagnetica nell'intervallo delle microonde; deposizione e caratterizzazione di rivestimenti ceramici e bioattivi (idrossiapatite, biovetri) di diverse composizioni tramite termospruzzatura da sospensione/soluzione al plasma (SPS/SPPS) e HVOF da sospensione (HVSFS); processi di diffusione per la protezione di superleghe di nichel dall'ossidazione e dalla corrosione ad alta temperatura. In particolare, negli ultimi anni ha affrontato: la tematica della sostituzione di Co e W (includere dalla Commissione Europea nella lista della Critical Raw Materials a partire dal 2011) in rivestimenti per la protezione di componenti meccanici; la simulazione FEM di impatti (termospruzzatura) e delle proprietà termomeccaniche e tribologiche di film e coatings.

- Attività gestionale di progetti (management): dal 2005, ha partecipato come collaboratore scientifico e project leader di più di 15 progetti regionali, nazionali ed internazionali. Tra i progetti europei, ha preso parte come collaboratore scientifico al MATERA-EU6-ERA-NET-4302-31/2006/26 ("New generation microwave ferrite thick films for absorbers" (2007-2008)); è stato WP leader e coordinatore locale nel progetto EU FP7-NMP-2012-SMALL-6 HYDROBOND ID 310531 ("New cost/effective superHYDROphobic coatings with enhanced BOND strength and wear resistance for application in large wind turbine blades" (2013-2016)); ha contribuito attivamente al progetto EU LIFE - LIFE12 ENV/IT/000678 - "Recycling of thermal spray waste in sintered products - LIFE ReTSW-SINT" (2013-2016).

Attività come reviewer di riviste: dal 2005, svolge attività di reviewer di numerose riviste scientifiche internazionali, quali: Journal of the European Ceramic Society, Surface and Coatings Technology, Tribology Letters, Applied Surface Science, Journal of Thermal Spraying Technology, Surface Engineering.

Attività come Editor di riviste: 2016-2020 - Editor della rivista internazionale Surface and Coatings Technology, quartile 1

Afferenza

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Periodo
Ruolo Accademico

Da dicembre 2008 fino al 30/11/2015
Ricercatore Universitario, SSD ING-IND/22
Abilitato al ruolo di Professore Associato fino al 2020 (ASN del 2012 e del 2013)
Università degli Studi di Modena e Reggio Emilia

Periodo
Ruolo Accademico
Afferenza

2005 – November 2008
Tecnico Laureato
Università degli Studi di Modena e Reggio Emilia

Periodo
Ruolo Accademico
Afferenza

2004
Assegnista di Ricerca
Università degli Studi di Modena e Reggio Emilia

FORMAZIONE

Periodo	2001 – 2003
Università	Università degli Studi di Modena e Reggio Emilia
Title	Dottorato in Ingegneria dei Materiali
Periodo	Anni accademici 1991/1992 – 1997/1998
Università	Università degli Studi di Modena e Reggio Emilia
Laurea	Laurea in Fisica (vecchio ordinamento)
Votazione Finale	110/110 e Lode
Periodo	1986-1991
Scuola Superiore	Liceo Classico Sperimentale
Titolo	Maturità Classico-Linguistica
Votazione Finale	60/60

PUBBLICAZIONI

Al momento della stesura di questo Curriculum Vitae, 06-11-2018, è autore e co-autore di **144** pubblicazioni su riviste internazionali in lingua inglese e con referaggio anonimo. Secondo il database di Scopus, l'h-index è 31 e ha ricevuto 3094 citazioni. *Tra le pubblicazioni più rilevanti e recenti:*

- 1) G. Bolelli, S. Popa, P. Puddu, P. Krieg, M. Lassinanti Gualtieri, L. Lusvarghi, A. Killinger, R. Gadow, Suspension HVOF spraying of TiO₂ using a liquid-fuelled torch, Surface and Coatings Technology, Volume 349, 15 September 2018, Pages 677–694
- G. Bolelli, V. Cannillo, R. Gadow, L. Lusvarghi, A. Killinger, T. Manfredini, P. Müller, Properties of Al₂O₃ coatings by High Velocity Suspension Flame Spraying (HVSFS): effects of injection systems and torch design, Surface and Coatings Technology, Volume 270, 25 May 2015, Pages 175-189
- A. Joulia, G. Bolelli, E. Gualtieri, L. Lusvarghi, S. Valeri, M. Vardelle, S. Rossignol, A. Vardelle, Comparing the Deposition Mechanisms in Suspension Plasma Spray (SPS) and Solution Precursor Plasma Spray (SPPS) deposition of Yttria-Stabilised Zirconia (YSZ), Journal of the European Ceramic Society, Volume 34, Issue 15, December 2014, Pages 3925-3940
- D. Lisjak, G. Bolelli, L. Lusvarghi, M. Bégard, M. Bruehl, K. Bobzin, P. Lintunen, U. Kanerva, M. Pasquale, M. Drogenik, Magnetic phase formation in CoTi-substituted Ba hexaferrite coatings prepared with atmospheric plasma spraying, Journal of the American Ceramic Society, 93 [9] (2010), 2579–2584
- M. Barletta, A. Gisario, L. Lusvarghi, G. Bolelli, G. Rubino, On the combined use of scratch tests and CLA profilometry for the characterization of polyester powder coatings: influence of scratch load and speed, Applied Surface Science, 254, (2008), 7198–7214

CONFERENCES

Al momento della stesura di questo Curriculum Vitae, 06-11-2018, ha presentato come presenting author o come co-autore di più di **185** lavori (poster e presentazioni orali, invited include) a conferenze nazionali ed internazionali. Ha pubblicato più di **25** lavori in Atti di Congresso anzionali ed internazionali.

Tra le più recenti pubblicazioni in Atti di Congresso, si segnalano:

- 1) C. Giolli, A. Scrivani, G. Rizzi, F. Borgioli, G. Bolelli, L. Lusvarghi, "Failure mechanism of thermal fatigue of thermal barrier coatings systems", Proceedings of the International Thermal Spray Conference and Exposition 2008, ISBN: 978-3-87155-979-2, CD, pg. 460-467, Maastricht, Holland, 2-4 giugno 2008
- 2) G. Bolelli, J. Rauch, V. Cannillo, A. Killinger, L. Lusvarghi, R. Gadow, "Comparison between APS, HVOF and High-Velocity Suspension Flame Spraying (HVSFS)-deposited Al₂O₃ coatings", Proceedings of the International Thermal Spray Conference and Exposition 2008, ISBN: 978-3-87155-979-2, CD, pg. 657-662, Maastricht, Holland, 2-4 giugno 2008
- 3) G. Bolelli, V. Cannillo, L. Lusvarghi, R. Gadow, A. Killinger, J. Rauch, E. Bemporad, M. Sebastiani, "Deposition of TiO₂ Coatings: Comparison between High Velocity Suspension Flame Spraying (HVSFS), Atmospheric Plasma Spraying and HVOF-spraying", Proceedings of the International Thermal Spray Conference and Exposition 2009, ISBN: 978-1-61503-004-0, CD, pg. 207-212, Las Vegas, USA, 4-7/05/2009 – 2009 Best Paper Award
- 4) C. Giolli, A. Giorgetti, A. Scrivani, B. Bonferroni, G. Bolelli, F. Bozza, L. Lusvarghi, A. Fossati, M. Di Ferdinando, G. E. Kim, Milling and cryo-milling affecting MCrAlY high temperature oxidation mechanism, Proceedings of the International Thermal Spray Conference and Exposition 2011, DVS-Berichte Volume 276, ISBN 978-3-87155-268-7, pg. 270-275, Hamburg, Germany, 27-29/09/2011.
- 5) G. Bertolissi, C. Chazelas, G. Bolelli, L. Lusvarghi, M. Vardelle, A. Vardelle, Precipitate formation and evolution in solution precursor plasma spraying, Proceedings of the International Thermal Spray Conference and Exposition 2011, DVS-Berichte Volume 276, ISBN 978-3-87155-268-7, pg. 1397-1402, Hamburg, Germany, 27-29/09/2011.

COLLABORAZIONI NAZIONALI ED INTERNAZIONALI

Ha instaurato molte collaborazioni a livello nazionale ed internazionale. Tra I Centri di Ricerca e I team di Ricerca e Sviluppo con cui sono state attivate o sono in atto collaborazioni, si segnalano:

- Dipartimento di Fisica, Università di Modena – Prof. Sergio Valeri
- Dipartimento di Ingegneria Meccanica, Università di Tor Vergata, Roma – Prof. Massimiliano Barletta
- Dipartimento di Ingegneria Chimica, Materiali e Ambiente, Università "La Sapienza", Roma – Prof. Teodoro Valente
- Dipartimento di Ingegneria Meccanica, Università di Roma 3 – Prof. Edoardo Bemporad
- Dipartimento di chimica, materiali e ingegneria chimica "Giulio Natta" – Prof. Luigi De Nardo
- Center for Thermal Spray Research, University of Stony Brook, USA – Prof. Sanjay Sampath
- Josef Stefan Institute, Slovenia – Dr. Darja Lisjak
- VTT Technical Research Centre of Finland, Finlandia – Dr. Tomi Suhonen
- Tampere University of Technology, Department of Materials Science, Finlandia – Prof. Petri Vuoristo
- Institute for Manufacturing Technologies of Ceramic Components and Composites, Università di Stoccarda, Germania – Prof. Andreas Killinger

- Surface Engineering Institute (IOT), Università di Aachen, Germania – Prof. Kirsten Bobzin
- Institute for Materials and Processes in Energy Systems, Forschungszentrum Jülich, Germania – Prof. Robert Vassen
- IKTS Fraunhofer Institute, Dresda, Germania – Dr. Michael-Lutz Berger
- Department of Mechanical Engineering, Indian Institute of Technology, Kharagpur, India – Prof. P.P. Bandyopadhyay
- Laboratori SPCTS, ENSIL, Università di Limoges, Limoges, Francia – Prof. Lech Pawlowski, Prof. Armelle Vardelle, Dr. Alain Denoirjean
- Laboratori LERMPS, Université de Technologie de Belfort-Montbéliard , Francia – Prof. Ghislain Montavon
- CEA Le Ripault, Laboratoire de Projection Thermique, Francia – Dr. Erick Meillot
- University West, Trollhattan, Svezia – Dr. Christophe Lyphout, Prof. Per Nylen
- Centre de Projaccio Termica (CPT), University of Barcellona, Spagna – Prof. J. M. Guilemany
- Instituto de Tecnología Cerámica (ITC), Universitat Jaume I, Spagna – Prof. E. Sanchez
- Faculty of mechatronics and mechanical engineering, Kielce University of Technology – Dr. W. Zorawski
- National Institute of Materials Science (NIMS), Sengen, Japan – Prof. S. Kuroda
- Helmut Schmidt University, Hamburg, Germany – Prof. T. Klassen

Inoltre, si segnala la collaborazione con numerose ditte del territorio (Emilia Romagna), nazionali ed europee coinvolte in progetti di ricerca a fini pubblicativi, problem solving e progetti di tipo collaborative (es.: progetti EU).

LINGUE CONOSCIUTE

Italiano, lingua nativa

English, molto buono

French, molto buono

Publicazioni

LISTA COMPLETA DELLE PUBBLICAZIONI SU RIVISTE INTERNAZIONALI

IN LINGUA INGLESE SOTTOPOSTE A PROCESSO DI PEER-REVIEW

- 1) F. Bondioli, A.M. Ferrari, L. Lusvarghi, T. Manfredini, C. Siligardi, C. Meneghini, S. Mobilio, "The structure of ZrO₂ phases and devitrification processes in a Ca-Zr-Si-O based glass-ceramic: a combined A-XRD and XAS study", *Journal of Applied Crystallography* 37/7-6, (2004) 890-900.
- 2) G. Bolelli, V. Cannillo, L. Lusvarghi, T. Manfredini, C. Siligardi, C. Bartuli, A. Loreto, T. Valente, "Plasma-Sprayed Glass-Ceramic Coatings on Ceramic Tiles: microstructure, chemical resistance and mechanical properties", *Journal of European Ceramic Society* 25/11, (2005) 1835-1853.
- 3) F. Bondioli, A.M. Ferrari, L. Lusvarghi, T. Manfredini, S. Nannarone, L. Pasquali, G. Selvaggi, "Synthesis and characterization of praseodymium-doped ceria powders by Microwave-Hydrothermal (MH) Route", *Journal of Materials Chemistry* 15/10, (2005) 1061-1066.
- 4) G. Bolelli, L. Lusvarghi, T. Manfredini, C. Siligardi, "Influence of the manufacturing process on the crystallization behavior of a CZS glass system", *Journal of Non-Crystalline Solids* 351/30-32, (2005) 2537-2546.
- 5) G. Ghermandi, R. Cecchi, P. Laj, L. Lusvarghi, S. Zappoli, D. Ceccato, "Internal/External mixing of aerosol particles elemental composition retrieved from MicroPIXE and PIXE", *Nuclear Instruments and Methods B* 240/1-2, (2005) 313-320.
- 6) G. Bolelli, V. Cannillo, L. Lusvarghi, S. Riccò, "Mechanical and tribological properties of electrolytic hard chrome and HVOF-sprayed coatings", *Surface and Coatings Technology* 200/9, (2006) 2995-3009.
- 7) F. Bondioli, V. Cannillo, L. Lusvarghi, M. Montorsi, M. Avella, M. E. Enrico, M. Malinconico, "Modeling of ceramic particles filled polymer-matrix nanocomposites", *Composites Science and Technology* 66/7-8, (2006) 1030-1037.
- 8) A. Corradi, L. Lusvarghi, M.R. Rivasi, C. Siligardi, P. Veronesi, G. Marucci, M. Annibali, G. Ragazzo, "Waste treatment under microwave irradiation", in "*Advances in Microwave and Radio Frequency Processing*", M. Willert-Porada (Ed.), Springer-Verlag, (2006) 341-348, ISBN: 3-540-43252-3.
- 9) G. Bolelli, C. Lugli, L. Lusvarghi, T. Manfredini, V. Cannillo, "Plasma-sprayed graded ceramic coatings on refractory materials for improved chemical resistance", *Journal of European Ceramic Society* 26/13, (2006) 2561-2579.
- 10) G. Bolelli, V. Cannillo, L. Lusvarghi, T. Manfredini, "Glass-alumina composite coatings by plasma spraying. Part I: microstructural and mechanical characterization", *Surface and Coatings Technology* 201/1-2, (2006) 458-473.
- 11) G. Bolelli, V. Cannillo, L. Lusvarghi, T. Manfredini, M. Montorsi, "Glass-alumina composite coatings by plasma spraying. Part II: microstructure-based modeling of mechanical properties", *Surface and Coatings Technology* 201/1-2, (2006) 474-486.
- 12) G. Bolelli, V. Cannillo, L. Lusvarghi, T. Manfredini, "Wear behaviour of thermally sprayed ceramic oxide coatings", *Wear* 261/11-12, (2006) 1298-1315.
- 13) G. Bolelli, R. Giovanardi, L. Lusvarghi, T. Manfredini, "Corrosion resistance of HVOF-sprayed coatings for hard chrome replacement", *Corrosion Science* 48/11, (2006) 3375-3397.
- 14) G. Bolelli, L. Lusvarghi, "Heat Treatment Effects on the Tribological Performance of HVOF-Sprayed Co-Mo-Cr-Si Coatings", *Journal of Thermal Spray Technology* 15/4, (2006) 802-810.
- 15) G. Bolelli, L. Lusvarghi, "Tribological properties of HVOF as-sprayed and heat treated Co-Mo-Cr-Si coatings", *Tribology Letters* 25/1, (2007) 43-54.
- 16) G. Bolelli, L. Lusvarghi, T. Manfredini, C. Siligardi, "Devitrification behaviour of plasma sprayed glass coatings", *Journal of European Ceramic Society* 27/2-3, (2007) 623-628.
- 17) C. Bartuli, L. Lusvarghi, T. Manfredini, T. Valente, "Thermal spraying to coat traditional ceramic substrates: case studies", *Journal of European Ceramic Society* 27/2-3, (2007) 1615-1622.
- 18) V. Cannillo, L. Lusvarghi, T. Manfredini, M. Montorsi, C. Siligardi, A. Sola, "Glass-ceramic Functionally Graded Materials produced with different methods", *Journal of European Ceramic Society* 27/2-3, (2007) 1293-1298.
- 19) V. Cannillo, L. Lusvarghi, C. Siligardi, A. Sola, "Characterization of glass-alumina functionally graded coatings obtained by plasma spraying", *Journal of European Ceramic Society* 27/4, (2007) 1935-1943.
- 20) V. Cannillo, L. Lusvarghi, C. Siligardi, A. Sola, "Prediction of the elastic properties profile in glass-alumina functionally graded materials", *Journal of European Ceramic Society* 27/6, (2007) 2393-2400.
- 21) G. Bolelli, L. Lusvarghi, T. Manfredini, F. Pighetti Mantini, R. Polini, E. Turunen, T. Varis, S. P. Hannula, "Comparison between Plasma- and HVOF-sprayed ceramic coatings. Part 1: microstructure and mechanical properties", *International Journal of Surface Science and Engineering* vol.1 n.1, (2007) 38-61.
- 22) G. Bolelli, L. Lusvarghi, T. Manfredini, F. Pighetti Mantini, E. Turunen, T. Varis, S. P. Hannula, "Comparison between Plasma- and HVOF-sprayed ceramic coatings. Part 2: tribological behaviour", *International Journal of Surface Science and Engineering* vol.1 n.1, (2007) 62-79.
- 23) M. Barletta, G. Bolelli, S. Guarino, L. Lusvarghi, "Development of matte finishes in electrostatic (EFB) and conventional hot

- dipping (CHDFB) fluidized bed coating process”, *Progress in Organic Coatings* 59/1, (2007) 54-68.
- 24) M. Barletta, L. Lusvarghi, F. Pighetti Mantini, S. Guarino, “Epoxy-based thermosetting powder coatings: surface levelling, scratch adhesion and wear resistance”, *Surface and Coatings Technology* 201/16-17, (2007) 7479-7504.
- 25) M. Barletta, G. Bolelli, V. Cannillo, L. Lusvarghi, M. Montorsi, F. Pighetti Mantini, Microstructural and tribological comparison of HVOF-sprayed and post-treated M-Mo-Cr-Si (M=Co,Ni) alloy coatings, *Wear*, 263/7-12, (2007) 1394-1413.
- 26) G. Bolelli, L. Lusvarghi, T. Manfredini, E. Parsini, C. Siligardi, BAS, CMAS and CZAS glass coatings deposited by plasma spraying, *Journal of European Ceramic Society* 27/16, (2007) 4575-4588.
- 27) G. Bolelli, L. Lusvarghi, F. Pighetti Mantini, F. Casadei, M. Barletta, Microstructural and Tribological Characterization of As-Sprayed and Heat-Treated HVOF Deposited Ni Alloys, *Surface Engineering* 23/5, (2007) 355-372.
- 28) M. Barletta, G. Bolelli, A. Gisario, L. Lusvarghi, Mechanical strength and wear resistance of protective coatings applied by Fluidized Bed (FB), *Progress in Organic Coatings* 61/2-4, (2008) 262-282.
- 29) M. Barletta, L. Lusvarghi, F. Pighetti Mantini, G. Rubino, Surface appearance and mechanical strength of multi-layer polymeric films, *Progress in Organic Coatings* 61/2-4, (2008) 249-261.
- 30) G. Bolelli, V. Cannillo, L. Lusvarghi, F. Pighetti Mantini, E. Gualtieri, C. Menozzi, A FIB study of sharp indentation testing on plasma-sprayed TiO₂, *Materials Letters* 62/10-11, (2008) 1557-1560.
- 31) M. Montorsi, L. Lusvarghi, C. Siligardi, C. Vernia, Sintering and crystallization of CaO-Al₂O₃-ZrO₂-SiO₂ glasses containing different amount of glasses, *Journal of the American Ceramic Society* 91 [3], (2008) 990-995.
- 32) V. Cannillo, L. Lusvarghi, C. Siligardi, A. Sola, Effects of different production techniques on glass-alumina functionally graded materials, *Ceramics International*, 34, (2008) 1719-1727
- 33) G. Bolelli, L. Lusvarghi, V. Cannillo, A. Killinger, R. Gadow, J. Rauch, Investigation of HVFSFS deposited glass coatings, *Materials Letters*, 62/17-18, (2008) 2772-2775.
- 34) V. Cannillo, L. Lusvarghi, F. Pierli, A. Sola, Production and characterization of plasma sprayed TiO₂-hydroxyapatite functionally graded coatings, *Journal of European Ceramic Society*, 28/11, (2008) 2161-2169.
- 35) G. Bolelli, V. Cannillo, R. Giovanardi, L. Lusvarghi, Electrochemical evaluation of the corrosion resistance of some thermally sprayed coatings, *International Journal of Surface Science and Engineering*, Vol. 2, Nos. 3/4, (2008) 222-239.
- 36) G. Bolelli, L. Lusvarghi, F. Pighetti Mantini, F. Pitacco, H. Volz, Enhanced tribological properties of PECVD DLC coated thermally sprayed coatings, *Surface and Coatings Technology*, 202/18, (2008) 4382-4386.
- 37) G. Bolelli, L. Lusvarghi, R. Giovanardi, A comparison between corrosion resistances of some HVOF-sprayed metal alloy coatings, *Surface and Coatings Technology*, 202/19, (2008) 4793-4809.
- 38) G. Bolelli, L. Lusvarghi, M. Barletta, E. Turunen, T. Varis, C. L. Azanza-Ricardo, M. Leoni, P. Scardi, Residual stresses in HVOF sprayed ceramic coatings, *Surface and Coatings Technology*, 202/19, (2008), 4810-4819
- 39) G. Bolelli, L. Lusvarghi, M. Barletta, Heat treatment effects on the corrosion resistance of some HVOF-sprayed metal alloy coatings, *Surface and Coatings Technology*, 202/19, (2008) 4839-4847.
- 40) S. Yugeswaran, V. Selvarajan, P. Dhanasekaran, L. Lusvarghi, Transferred arc plasma processing of mullite-zirconia composite from natural bauxite and zircon sand, *Vacuum*, 83, (2008) 353-359.
- 41) M. Barletta, A. Gisario, L. Lusvarghi, G. Bolelli, G. Rubino, On the combined use of scratch tests and CLA profilometry for the characterization of polyester powder coatings: influence of scratch load and speed, *Applied Surface Science*, 254, (2008) 7198-7214.
- 42) V. Cannillo, L. Lusvarghi, F. Pierli, A. Sola, In-vitro behaviour of titania-hydroxyapatite functionally graded coatings, *Advances in Applied Ceramics*, 107/5, (2008) 259-267.
- 43) G. Bolelli, L. Lusvarghi, M. Montecchi, F. Pighetti Mantini, F. Pitacco, H. Volz, M. Barletta, HVOF Sprayed WC-Co as Hard Interlayer for DLC Films, *Surface and Coatings Technology*, 203, (2008) pp. 699-703.
- 44) A. Fregoni, N. Parenti, F. Pitacco, L. Lusvarghi, A new way for the aesthetical enhancement of ceramic materials: decorative PVD (Physical Vapour Deposition) films, *International Ceramics Journal*, October 2008, 57 – 62.
- 45) M. Barletta, G. Rubino, S. Guarino, G. Bolelli, L. Lusvarghi, A. Gisario, Fast regime – Fluidized Bed Machining (FR-FBM) of Atmospheric Plasma Spraying (APS) TiO₂ coatings, *Surface and Coatings Technology*, 203, (2008) 855-861.
- 46) M. Barletta, G. Rubino, G. Bolelli, L. Lusvarghi, Fast Regime - Fluidized Bed Machining (FR-FBM) of thermally sprayed coatings, *Journal of Thermal Spray Technology*, 17(5-6), (2008) 796-804.
- 47) M. Barletta, A. Gisario, G. Rubino, L. Lusvarghi, Influence of scratch load and speed in scratch tests of bilayer powder coatings, *Progress in Organic Coatings*, 64, (2009) 247-258.
- 48) G. Bolelli, J. Rauch, V. Cannillo, A. Killinger, L. Lusvarghi, R. Gadow, Microstructural and tribological investigation of High Velocity Suspension Flame Sprayed (HVFSFS) Al₂O₃ coatings, *Journal of Thermal Spray Technology*, 18(1), (2009) 35-49.
- 49) G. Bolelli, J. Rauch, V. Cannillo, A. Killinger, L. Lusvarghi, R. Gadow, Properties of High Velocity Suspension Flame Sprayed (HVFSFS) TiO₂ coatings, *Surface and Coatings Technology*, 203, (2009) 1722-1732.
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