






PERSONAL INFORMATION

Giuseppe Barbieri



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Sex Male | Date of birth 17/12/1972 | Nationality Italian

PREFERRED JOB

Research and development in new materials and technologies for the sustainability of the transport & Energy Power Plants

WORK EXPERIENCE

From July 2015 to now

Head of Laboratory SSPT- PROMAS-MATPRO
 Development of new MATerials by chemical & physical PROcesses
 ENEA CR ENEA CASACCIA Via Anguillarese 301, 00123 Santa Maria di Galeria (RM)

From January 2015 to now

Acting Technical Director of CALEF Consortium

From March 2013 to Now

President of CALEF Consortium
 ENEA CR ENEA TRISAIA SS 106 Ionica Km 419+500, 75026 Rotondella (MT) –Italy-
 ▪ The consortium is participate of several Public and private companies, it is a no profit with the main objective to introduce new welding technologies and materials promoting innovation for the fabrication processes of the SMEs.

From April 1999 to June 2015

Researcher / Research Manager
 ENEA CR ENEA CASACCIA Via Anguillarese 301, 00123 Santa Maria di Galeria (RM)
 ▪ Researcher in the New Materials and Technologies Department responsible for writing and managing project related to, the application of new materials and welding technologies for lightweight vehicles.
 ▪ Workgroup technical leader for laser welding (4-12 people), involved in several research projects granted by Government funding ,
 ▪ Designer and developer of new structural architecture for lightweight components for fast ferries and freight coach of hi speed trains.
 ▪ Project manager for the project “ Reducing energy consumption in the transportation sector”, leading a team of over 30 people for the research and developing of new recyclable materials (metallic, polymeric) and new components for the electric propulsion of vehicles with improved energetic efficiency.
 ▪ Member of the work group for the Italian’s Cluster of Transport

From January 2009 to 2016

Member of Committee for Safeguarding of Impartiality
 RINA Service S.p.A. Via Corsica 12 – 16128- Genova (Italy) www.rina.org
 ▪ I represent ENEA, as governmental authority, in the Committee for Safeguarding of Impartiality (CSI) of RINA certification body in compliance with international standard ISO 17021. I am an official observer for the technical committee "Personal and Industrial Products" .

Business or sector Research and Development / Certification of personal and Industrial Product

EDUCATION AND TRAINING

From Jan. 2004 to Dec. 2004

Master International Welding Engineer

Istituto Italiano della Saldatura (member of European Welding Federation) www.iis.it

- Welding coordinator with specific skills in the design and manufacturing of welded components/equipment with several kind of materials and welding technologies.

From Nov. 1997 to Oct. 2001

Ph.D Mechanical Engineer

Polytechnic of Bari (Italy) www.poliba.it

- Global characterization by steady flow bench and local Laser Doppler Velocimetry speed measurements on High performance Internal Combustion Engine for evaluate the best positions of the intake / exhaust valves.

From Oct. 1990 to July 1997

Graduate in Mechanical Engineer EQF: 110/110 & IODE

Calabria University (Italy) www.unical.it

- Design with unconventional materials, Materials Science & technologies, Internal Combustion Engine.

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B	B	B	B	B

English

Communication skills

- Excellent communication skills gained through my experience as technical leader of several projects conducted together with ENEA colleagues and external people from industrial partners. All results and activities are thoroughly and routinely reported and communicated at scheduled/regular internal meeting within the team and at workshops and conference.

Organisational / managerial skills

- I participate to several work group for writing new project proposals , and organize the new projects or service activities using the managerial system of ENEA or, if necessary, developing specific spread sheets for process planning and control. Some of these skills proved to be fundamental to leading work groups.

Computer skills

- Excellent command of Microsoft Office™ tools; proficient user of 3D CAD software like Autocad, Solid Works , Pro E, Basic use of FEM software like ANSYS 11 and good command of Minitab Design Of Experiment and statistical analysis software.

Driving licence

- B (Italian driving license for "car")

Projects *Research projects jointly with the Italian Ministry of University and Education & Ministry of Economy and EU:*

NEXTOWER from 2016 to Now; (www.h2020-nextower.eu) the scope is to introduce a set of innovative materials to boost the performance of atmospheric air-based concentrated solar power (CSP) systems to make them commercially viable. In particular, tower systems are appealing for the great environmental compatibility and offer tremendous potential for efficient (electrical and thermal) power generation. Yet, their industrial exploitation has been so far hindered by limitations in the materials used both for the central receiver - the core component - and for thermal storage. CALEF Consortium has in charge the WP5

with one of the most critical tasks of the entire NEXTOWER project, which is the responsibility of the design and assembly of the energy storage system made available by the solar receiving system. This complex system, renamed "SOLEAD", represents an absolute innovation because for the first time it will replace, in the field of solar energy production, technology based on molten salts with that of molten lead, representing at the same time an important technological fallout of the experience gained by ENEA in the field of nuclear constructions.

GEMMA from 2017 to Now; (H0220 - <http://www.eera-jpnm.eu/gemma/>) Task Leader of "Generation IV Materials Maturity"; The task T2.1 "Preparation of welds of reference steels, and delivery of specimens" is one of the most important task with the procurement of material in compliance with RCC MR supervision of SS AISI 316 welding of the test coupons made by GTAW and SAW of thick plate (30 to 75 mm) and development and realization of welded test coupons made by SS 15 15 Ti.

CLEBJOINT from 2016 to Now; (PRIN 2015) *Responsible of Contract as Sub unit of the Principal Investigator Politechnic of Bari.* The Project has the final target to develop a fully validation of a welding technology for dissimilar welds between Ti alloys and Ni super alloys. The welding process investigated are Electron Beam and Laser Beam of Ti 6 Al 4v to Inconel 625/IN718.

Reducing energy consumption in the Welding Industrial Processes - Framework ENEA-MSE- 2015-2018. The project are studying a qualification of an Ecolabel for Welding Machines and in general for Industrial Welding Processes to give a comparative instrument and a guide for the choice of the right equipment, material, process and parameter to reduce the direct and indirect energy consumption for the production of goods by welding in the manufacturing industries.

ITALY 2020 from 2014 to 2016; Framework CLUSTER "Trasporti su gomma": Team leader of OR2.4: New material and new technologies for light weight structures to reduce emission and carbon footprint.

SIFEG from 2013 to 2014; Framework INDUSTRIA 2015: Responsible Contract Manager of ENEA-TRAIN activities, leading a team of over 12 people for whole activities. About my specific technical work, the objective was to reengineering a railway freight coach to reduce the weight and increase competitiveness by using new aluminium alloys & innovative laser Wobling technology and new power system managing.



Projects *Research projects jointly with the Italian Ministry of University and Education & Ministry of Economy and EU:*

LASERALLUMINIO from 2012 to 2015; *Framework INDUSTRIA 2015*: Project manager and leading a team of over 8 people. The project objective is developing an innovative laser welding workstation to allow high quality and productivity joining process of large aluminium extruded profiles for applications in different sector like shipbuilding, railway coach and structural components.

MATTER: Materlai Testing & Rules (FP7 2011-2014): Project manager of Work Package "Welding and Manufacturing" for updating design rules for GEN IV Nuclear Power Plants. In particular, the WP objectives are involved in studies and qualification of welding technologies and filler materials for ferritic-martensitic creep resistant steel (P91) and austenitic stainless steel (AISI 316 LN).

Reducing energy consumption in the transportation sector - Framework ENEA-MSE-2008-2012. The project objective was to improve the efficiency Well to Wheel for the vehicles through both: the developing of technologies an materials for lightweight material, and the developing of new electronic device (battery manage Systems, recharge systems, standardized battery) for a full penetration of the electric propulsion.

ALAS from 2005 to 2008 (Fully-Submerged Foil Hydrofoil), this project was to develop two full-scale prototypes each equipped with a fully submerged foil system for improved performance and passenger comfort versus the conventional surface piercing hydrofoils. Also, this will allow the vessel to operate in more adverse weather conditions as well reduce the resistance allowing greater speeds with the same installed power. The objective of my work was to develop the design and welding processes of the submerged Wing.

SINAVE from 2002 to 2006 (Sistema Innovativo di Trasporto Intermodale basato sull'impiego di Navi Veloci) - this project aimed to develop an intermodal transport system based on the use of fast ships. The objectives of my work were to investigate new materials (Steel, Aluminium, Titanium and Foams) for lightweight structures for the fast ship and for the special containers systems developed for the exchange ground highway- sea highway

Enviroaliswhat –from 2004 to 2007 this project was to develop a revolutionary vessel that combines the advantages of a Swath (Small-Waterplane-Area Twin-Hull) with those of a fully-submerged type hydrofoil as it will be equipped with a system of foils able to provide both dynamic support and stabilization. The objective of my work was to develop laser and laser hybrid welding of Structural Transition Joint between Aluminium alloy and Steel.

PALES from 1999- to 2001 (Lightweight sandwich panels for hi speed freight coach and Car deck for Fast Ferries) The target was the development of new methods for designing light modular structures, welded together with innovative laser and/or electron beam technique, thereby allowing the use of lighter materials for transport by train/ship.

Main Publications

[HTTPS://WWW.SCOPIUS.COM/AUTHID/DETAIL.URI?AUTHORID=24365897900&EID=2-S2.0-84930068710](https://www.scopus.com/authid/detail.uri?authorid=24365897900&eid=2-S2.0-84930068710)

G. ANGELLA, G. BARBIERI, R. DONNINI, R. MONTANARI, A. VARONE
Welding of IN792 DS Superalloy by High Energy Density Techniques
DOI: 10.4028/WWW.SCIENTIFIC.NET/MSF.884.166
IN BOOK: LIQUID METALS AND ALLOYS: FROM STRUCTURE TO INDUSTRIAL APPLICATIONS, CHAPTER: VOL. 884, PUBLISHER: TRANS TECH PUBLICATION, EDITORS: F. BONOLLO; R. MONTANARI, PP.166-177

BARBIERI G., COGNINI F., MONCADA M., RINALDI A., LAPI G.
Welding of automotive aluminum alloys by laser wobbling processing
MATERIALS SCIENCE FORUM 879, PP. 1057-1062

BARBIERI, G., SOLTANI, P., KACIULIS, S., MONTANARI, R., VARONE, A.
IN792 DS superalloy: Optimization of EB welding and post-welding heat treatments
MATERIALS SCIENCE FORUM 879, PP. 175-180

R. MONTANARI, A. VARONE, G. BARBIERI, P. SOLTANI, A. MEZZI, S. KACIULIS
Welding of IN792 DS superalloy by electron beam by EDS and XPS
SURFACE AND INTERFACE ANALYSIS · FEBRUARY 2016 IMPACT FACTOR: 1.25 · DOI: 10.1002/SIA.5946

G. BARBIERI, F. COGNINI, G. LAPI, F. VIVIO
Mechanical Behavior of Aluminum Sandwiches Made by Laser Welding
Procedia Engineering, DOI:10.1016/j.proeng.2015.06.256 Volume 109, 2015, Pages 427–434

BARBIERI G., COSTANZA G., MONTANARI R.
LIBRO: **Schiume metalliche: tecniche di produzione, proprietà e applicazioni**
EDITORE **Associazione Italiana Metallurgia**
STAMPATO **Gennaio 2014** ISBN **978-88-85298-98-9**

FARAJI A. H., GOODARZI M., SEYEDEIN S.H., BARBIERI G., MALETTA C.
Numerical modeling of heat transfer and fluid flow in hybrid laser–TIG welding of aluminum alloy AA6082
The International Journal of Advanced Manufacturing Technology
DOI 10.1007/s00170-014-6589-6 Volume 75, Issue 9, December 2014,

BARBIERI, G., COGNINI, F., MONCADA, M., MORABITO, G.
Welding of high-resilience martensitic stainless steel for hydrodynamic components in innovative seacraft: a comparison of traditional and HDE technologies
Welding International , DOI: 10.1080/09507116.2012.753308 , Volume 29, Issue 1, January 2013, Pages 40-53

BARBIERI G., MONCADA M., SGAMBATI A.
EBW of AA 6061 T651 aluminium alloy cold plates for the space guinea pig living unit cooling system
Welding International , DOI:10.1080/09507116.2011.592693, Volume 26, Issue 5, May 2012, Pages 360-369

G. BARBIERI, A. RINALDI, AND ALL
The Mechanical Behavior of Aluminum Foam-based Composite Beams Made as One-Piece or by Welding Joining of Two Pieces
Proceedings of ASST 2012 Aluminium Surface Science & Technology, Sorrento 27-31 May 2012 ISBN 978-88-907318-0-8;

C. MALETTA, A. FALVO, F. FURGIUELE, G. BARBIERI, M. BRANDIZZI
Fracture Behaviour of Nickel-Titanium Laser Welded Joints.
DOI: 10.1007/s11665-009-9351-8 Journal of Materials Engineering and Performance
Volume 18, Issue 5-6, August 2009, Pages 569-574

Patent **“DISPOSITIVO PER SALDATURA LASER”** BARBIERI G., PETRIGLIANO G., DE BONIS R., PUTIGNANO E., SATRIANO A. A. RM2011A000189 APRILE 2011 (RIF. ENEA 726)

“DISPOSITIVO PER SALDATURA LASER” BARBIERI G., PETRIGLIANO G., ALBA M. B., DE BONIS R., PUTIGNANO ENZO RM2010A000347 GIUGNO 2010 (RIF. ENEA 710)

Complete list of the publications:

- 2017 G. ANGELLA, G. BARBIERI, R. DONNINI, R. MONTANARI, A. VARONE
Welding of IN792 DS Superalloy by High Energy Density Techniques
 DOI: 10.4028/WWW.SCIENTIFIC.NET/MSF.884.166
 IN BOOK: LIQUID METALS AND ALLOYS: FROM STRUCTURE TO INDUSTRIAL APPLICATIONS, CHAPTER: VOL. 884, PUBLISHER: TRANS TECH PUBLICATION, EDITORS: F. BONOLLO; R. MONTANARI, PP.166-177
- BARBIERI G., COGNINI F., MONCADA M., RINALDI A., LAPI G.
Welding of automotive aluminum alloys by laser wobbling processing
 MATERIALS SCIENCE FORUM 879, PP. 1057-1062
- BARBIERI, G., SOLTANI, P., KACIULIS, S., MONTANARI, R., VARONE, A.
IN792 DS superalloy: Optimization of EB welding and post-welding heat treatments
 MATERIALS SCIENCE FORUM 879, PP. 175-180
- R. MONTANARI, A. VARONE, G. BARBIERI, P. SOLTANI, A. MEZZI, S. KACIULIS
Welding of IN792 DS superalloy by electron beam by EDS and XPS
 SURFACE AND INTERFACE ANALYSIS · FEBRUARY 2016 IMPACT FACTOR: 1.25 · DOI: 10.1002/SIA.5946
- 2016 BARBIERI G., CESARONI M., CIAMBELLA L., COSTANZA G., MONTANARI R.
Influence of welding parameters on microstructure of welded joints SMAW/GTAW steel X10 CrMoVNb 9-1 (P91)
 METALLURGIA ITALIANA VOLUME 107, ISSUE 3, 1 MARCH 2015, PAGES 37-45
- 2015 A. TATÌ; P. AVERSA, G. BARBIERI, R. TAMBORRINO, V. A.M. LUPRANO
Controllo di saldature laser in lega di titanio di bassi spessori con tecnica TOFD
 PROVE NON DISTRUTTIVE MONITORAGGIO E DIAGNOSTICA NUMERO 4 DICEMBRE 2015 PUBBLICAZIONE AIPND ISSN 1721-7075
- G. LAPI, R. MONTANARI, M.E. TATA, G. BARBIERI, S.K. BALIJEPALLI, S. KACIULIS
Investigation of skin-core joints in aluminium foam sandwich panels by EDS and XPS
 SURFACE INTERFACE ANALYSIS DECEMBER 2015 DOI: 10.1002/SIA.5900
- BARBIERI G., F. COGNINI, F.VIVIO G LAPI
Mechanical Behavior of Aluminum Sandwiches Made by Laser Welding
 PROCEDIA ENGINEERING 109:427-434 · DECEMBER 2015 DOI: 10.1016/J.PROENG.2015.06.256
- 2013 G. BARBIERI, F. COGNINI, M. MONCADA, G. MORABITO
Welding of high-resilience martensitic stainless steel for hydrodynamic components in innovative seacraft: a comparison of traditional and HDE technologies
 WELDING INTERNATIONAL MARZO 2013 DOI:10.1080/09507116.2012.753308
- 2012 BARBIERI G., COSTANZA G., MONTANARI R.
 LIBRO: **Schiume metalliche: tecniche di produzione, proprietà e applicazioni**
 EDITORE **Associazione Italiana Metallurgia**
 STAMPATO **Gennaio 2014** ISBN 978-88-85298-98-9

- 2011: BALIJEPALLI S.K, BARBIERI G., KACIULIS S., LAPI G.,MONTANARI R., TATA M.E.
Realizzazione e caratterizzazione di strutture sandwich di acciaio con core in schiuma di Al
Conference Proceedings of 35° Convegno Nazionale AIM 5-7 Novembre 2014
In press on Rivista Metallurgia Italiana Febbraio 2015
- BARBIERI G., CESARONI M., CIAMBELLA L., COSTANZA G., MONTANARI R.
Influenza dei parametri di saldatura sulla microstruttura di giunti saldati SMAW/TIG di acciaio di acciaio X10 CrMoVNb9-1 (P91)
Conference Proceedings of 35° Convegno Nazionale AIM 5-7 Novembre 2014
In press on Rivista Metallurgia Italiana Marzo 2015
- BARBIERI, G.,COGNINI, F.,MONCADA, M.
Laser welding of aluminum foam sandwich panels [Saldatura laser di pannelli sandwich in schiuma di alluminio]
Rivista Italiana della Saldatura, Volume 65, Issue 1, January 2013, Pages 43-53
- BARBIERI, G.,COGNINI, F.,MONCADA, M.
Saldatura laser di pannelli sandwich in schiuma di alluminio
CONVEGNO IIS 21 Giugno 2012 Fiera LAMIERA (Bologna)
- BARBIERI, G.,COGNINI, F.,MONCADA, M.
Processi di giunzione di pannelli AFS: tecnologie di saldatura High Density Energy
Giornata di Studio Schiuma Metalliche, Associazione Italiana Metallurgia 24 maggio 2012 Milano
- BARBIERI G., TATI' A.,MONCADA M., DE ANGELIS U.
Controllo e Caratterizzazione di Sandwich Compositi in Schiuma Metallica e di loro Giunti Saldati
Conference Proceedings of PnD 2011; Florence 2011 Oct 26-28, Florence, Italy (AIPnD 2011).
Available on NDT.net
- BARBIERI G., COGNINI F., MONCADA M., DE ANGELIS U., BERNARDO F
Sviluppo e qualificazione di procedimenti di saldatura per pannelli AFS
Conference Proceedings 6GNS Giornate Nazionali della saldatura Genova, 26-27 Maggio 2011
- BARBIERI G., BERNARDO F
Saldatura laser delle leghe di titanio: attrezzature per la saldatura Open Air
Conference Proceedings 6GNS Giornate Nazionali della saldatura Genova, 26-27 Maggio 2011
- BARBIERI G., COGNINI F., MONCADA M., MORABITO G.
Saldatura di acciai inossidabili martensitici ad elevata resilienza per componenti idrodinamici di imbarcazioni innovative: confronto fra tecnologie tradizionali e tecnologie HDE
Conference Proceedings 6GNS Giornate Nazionali della saldatura Genova, 26-27 Maggio 2011
- 2009: ARMENTO A, BARBIERI G., BERNARDO F, LAROCCA
Applicazione della metodologia DoE alla saldatura laser di leghe di titanio.
LAMIERA, vol. 01/09; p. 44-54, ISSN: 0391-5891
- BARBIERI G., COGNINI F., DE BONIS R., PUTIGNANO, E.
Saldatura laser di componenti idraulici in acciai inox a elevata resistenza per l'industria aeronautica
LAMIERA, vol. 11/09; p. 60 -69, ISSN: 0391-5891
- BARBIERI G., MONCADA M, SGAMBATI A.
Saldatura EBW di cold plates in lega di alluminio AA6061 T651 per il sistema di raffreddamento dell'unità abitativa per cavie spaziali
RIVISTA ITALIANA DELLA SALDATURA , vol. 04/09; p. 435-443, ISSN: 0035-6794
- BARBIERI G., MONCADA M, SGAMBATI A.
EBW of aluminum alloy AA6061 T651 cold plates for the space payload cooling system.
Conference Proceedings EUROJOIN 7 Seventh European Congress on Joining Technology.
Venezia, 21-22 Maggio 2009 →

- 2008 BARBIERI G., BRANDIZZI M, DEL RE M.D, PALUMBO G, TRICARICO L, SORGENTE D.
Saldabilità con fascio elettronico di lamiere alluminio/magnesio.
 lamiere alluminio-magnesio. LAMIERA, vol. 6, p. 90-99, ISSN: 0391-5891
- BARBIERI G., COGNINI F., MONCADA M.
Saldatura EBW di 4 differenti tipologie di contatti a radiofrequenza per il "Large Hadron Collider"(LHC) del CERN.
 RIVISTA ITALIANA DELLA SALDATURA , vol. 02/08; p. 231-239, ISSN: 0035-6794
- BARBIERI G., ARMENTO A, BERNARDO F, BRANDIZZI M.
Realizzazione di un'unità di carico innovativa per il trasporto navale veloce.
 APPLICAZIONI LASER, vol. giugno luglio 2008; p. 42-47, ISSN: 1973-7238
- BARBIERI G., BRANDIZZI M, DEL RE M. D, PALUMBO G, SORGENTE D, TRICARICO L.
Studio del comportamento meccanico di giunti in leghe di alluminio/magnesio ottenuti con saldatura al fascio elettronico.
 LAMIERA, vol. 08/08; p. 50-59, ISSN: 0391-5891
- 2007 BARBIERI G., C. CAPPABIANCA, M. MONCADA, F.VERRE, M. ALBA, E. PUTIGNANO, R. DEBONIS
Messa a punto di un processo di saldatura laser su lamiere di acciaio S 460 NL (UNI EN 10113-2) per applicazioni nella cantieristica navale e controllo RX mediante l'elaborazione delle immagini.
 CONFERENZA NAZIONALE SULLEPROVE NON DISTRUTTIVE MONITORAGGIO E DIAGNOSTICA. MILANO, 11-12-13 Ottobre, ISBN/ISSN: 978-88-89758-03-8
- 2002 G. DAURELIO, BARBIERI G., S. LUSSI, A.M. SPERA (2002).
Leghe di Alluminio : Tecnologie di saldatura a confronto.
 LAMIERA, vol. Maggio, ISSN: 0391-5891
- BARBIERI G. (2002).
Sviluppo di applicazioni industriali con saldatura LASER: saldatura di pannelli strutturali leggeri per applicazioni nel settore delle costruzioni navali e ferroviarie
 IL LASER NELLA SALDATURA E NEL TAGLIO CONVEGNO IIS FIERA LAMIERA.
 BOLOGNA, 23/05/2002

Public Reports

- 2007 CARMIGNANI B, TOSELLI G, VISPAPELLI D, BONIFAZIO M, DE MAIO U, MINGHETTI T, PANZANI G, SANGIORGI S, TRESTINI D, TIMPARANO M, BARBIERI G., COGNINI F
IGNITOR Project :Numerical simulation of the Welds for the Components of Plasma Chamber of IGNITOR Fusion Machine : Technical Report 6
 Rapporto tecnico ENEA RT/2007/33/FIM ISSN/0393-3016
- 2009 CARMIGNANI B, TOSELLI G, CLAI G., MUSMECIA A, VISPAPELLI D, TRESTINI D., DE MAIO U., RICCI A., SANGIORGI S, BARBIERI G., COGNINI F., VERRE F., MOLLICA D.
IGNITOR Project Numerical simulation of the Welds for the Components of Plasma Chamber of IGNITOR Fusion Machine : Technical Report 7
 Rapporto tecnico ENEA RT/2009/07/FIM ISSN/0393-3016

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Public Reports
2011

G. Barbieri, F. Cognini, M. Massimo, L. Pilloni
Sviluppo delle apparecchiature e del protocollo di qualifica meccanica per pannelli AFS
Rapporto tecnico RDS/2011/202 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/risparmio-di-energia-elettrica-nei-trasporti/rds-202.pdf

G. Barbieri, F. Cognini, M. Moncada, P. Colucci, M.B. Alba
Sviluppo di procedimenti di saldatura laser ed EBW per pannelli AFS
Rapporto tecnico RDS/2011/203 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/risparmio-di-energia-elettrica-nei-trasporti/rds-203.pdf

G. Barbieri, F. Padella
Test di schiumatura e definizione dei parametri e degli apparati necessari alla produzione di schiume
Rapporto tecnico RDS/2011/204 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/risparmio-di-energia-elettrica-nei-trasporti/rds-204.pdf

2012 G. Barbieri, F. Cognini, M. Moncada
Processi di fabbricazione di profilati estrusi rinforzati con schiuma metallica
Rapporto tecnico RDS/2012/098 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/risparmio-di-energia-elettrica-nei-trasporti/2011/098-rds-pdf

G. Barbieri, F. Cognini, G. De Santis
Procedimenti e progettazione di apparecchiature prototipali per la produzione di precursori per schiume metalliche ed AFS
Rapporto tecnico RDS/2012/099 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/risparmio-di-energia-elettrica-nei-trasporti/2011/099-rds-pdf

M. Moncada, G. Barbieri, A. Tati, U. De Angelis
Sviluppo di metodologie di controllo NDT su componenti saldati e correlazione con le caratteristiche meccaniche
Rapporto tecnico RDS/2012/101 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/risparmio-di-energia-elettrica-nei-trasporti/2011/101-rds-pdf

G. Barbieri, M. Schwarz
Tecnologie di scale-up del processo di produzione di materiali ibridi metallo polimero basati su sfere/grani cavi
Rapporto tecnico RDS/2012/105 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/risparmio-di-energia-elettrica-nei-trasporti/2011/105-rds-pdf

2013 G. Barbieri, F. Cognini, M. Moncada, F. Padella, D. Mirabile Gattia, U. De Angelis, G. De Santis
Ottimizzazione dei parametri di compattazione ed estrusione di precursori originali per schiume di alluminio
Rapporto tecnico RDS/2013/098 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/elettromobilita/2012/rds-2013-098.pdf

G. Barbieri, F. Cognini, M. Moncada, A. Tati
Tecniche di saldatura ad elevata efficienza per il settore ferroviario.
Rapporto tecnico RDS/2013/100 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/elettromobilita/2012/rds-2013-100.pdf

2014 BARBIERI G.
Results of the P91 weldability analysis D. 6.3
Recommendation for the codes requirement on welding consumables and process for 316SS and P91 D 6.4
<http://www.matterfp7.it/Layout/matter/index.asp?page=/Upload/Moduli/wbdms/public/login.asp&target=contenitore&tit1=Public%20documentation>

2016 G. Barbieri, F. Cognini, G. Di Girolamo, D. Mirabile Gattia, M. Moncada
Valutazione dell'efficienza energetica delle tecnologie di saldatura Electron Beam, Laser e arco ad elettrodo infusibile
Rapporto tecnico Rds/PAR2015/067 http://www.enea.it/it/Ricerca_sviluppo/documenti/ricerca-di-sistema-elettrico/adaptive-enea-2015-2017/processi-e-macchinari-industriali/rds_par2015-067.pdf