



PERSONAL INFORMATION

Name, Surname	Alessandra Alberti
Address	Zona Industriale strada VIII, n°5, 95121, Catania, Italy
House number, street name, postcode, city, country	
Telephone	0039 095 5968214
Fax	0039 095 5968321
E-mail	alessandra.alberti@imm.cnr.it
Website	https://scholar.google.it or https://www.researchgate.net/home for more information
Nationality	Italy
Place and Date of birth	Saronno (Va, Italy) 02/09/1972

WORK EXPERIENCE

Se dipendente CNR indicare:	N. MATRICOLA CNR: 8186 QUALIFICA: SENIOR RESEARCHER
Dates (from – to)	From 02-01-2001 to 2020 Researcher From 2021 to present Senior Researcher
Name and address of employer	CNR-IMM, zona industriale strada VIII n°5, 95121, Catania, Italy
Type of business or sector	Research field
Occupation or position held	Researcher
Main activities and responsibilities	Material scientist, leading the following laboratories: <ul style="list-style-type: none"> a) Magnetron-Sputtering deposition with facilities dedicated to the growth of metals, oxides and nitrides: Ni, Ti, Al, Ni/Co-silicides, TiO₂, ZnO:Al, NiO, Al₂O₃, TiN, AlN. Actual focus on mesoporous materials for hybrid photovoltaics and sensors applications; and on advanced metallization for Si and SiC/GaN -based devices by thin layers (comprised silicidation) b) Perovskite laboratory with in-vacuum sublimation equipment for thin film growth and implementation in solar cell devices. Current focus on single cation and semi-transparent Perovskites c) Advanced characterization by High Resolution X-Ray Diffraction (XRD) and X-Ray Reflectivity (XRR) to investigate the structure of poly, single-crystalline, nano- and multi-layered materials.
Dates (from – to)	From 11-1998 to 07-1999
Name and address of employer	STMicroelectronics, Stradale Primosole 50, 95121, Catania, Italy
Type of business or sector	Research field
Occupation or position held	Consultant
/ Main activities and responsibilities	Novel strategies to improve the thermal stability of thin CoSi ₂ layers on Si

EDUCATION AND TRAINING

Dates (from – to)	From 1996 to 1999
Name and type of organization providing education and training	University of Catania, Physics Department
Principal subjects, occupational skills covered	Formation and thermal stability of polycrystalline CoSi ₂ layers
Title of qualification awarded	Ph.D cum laude
Level in National classification	
Dates (from – to)	From 12-1998 to 07-1999
Name and type of organization providing education and training	Forschungszentrum in Jülich, Germany
Principal subjects, occupational skills covered	visiting scientist
Title of qualification awarded	stage during the Ph.D
Dates (from – to)	23-07-1996
Name and type of organization providing education and training	University of Catania, Physics Department

Principal subjects, occupational skills covered Title of qualification awarded Level in National classification	student Master's degree cum laude
RESEARCH ACTIVITIES	<ul style="list-style-type: none"> Scientific projects/activities on Dye-Sensitised Solar cells (DSC) and hybrid Perovskites Solar Cells (PSC), representing the new breakthrough in the field of renewable energies. Scientific projects/activities on the growth, characterization and application of advanced oxides and nitrides Scientific projects/activities in the field of Power Devices and Flexible Electronics for smart disposable systems. Long lasting experience of collaboration with STMicroelectronics in the field of power devices, resulting as principal investigator of Italian and USA patents on new metallization schemes/strategies and advanced materials. <p>Some International collaborations: Tohoku University of Yokohama and Tokyo University (prof. Tsutomu Miyasaka), Japan; CNRS-LMGP and Minatec in Grenoble, France; Synchrotron Radiation Facilities (SOLEIL, ESRF), France.</p> <p>She is author of more than 110 papers published on international peer-reviewed scientific journals, most of which as first, contact or last (coordinating) author; she has been tutoring master's degree students and post doc-positions, and she is referee of JCR journals (e.g. Nature, Nature Communication, Advanced Energy Materials, Energy and Environmental Science).</p>
Recent Scientific Activities.	<ul style="list-style-type: none"> Deposition, structure, stability and integration of hybrid and inorganic perovskites for Perovskite Solar Cells (PSC) Study of physical methods to grow hybrid perovskites layers New sputtering deposition strategies to grow porous up-scalable oxide layers at low temperatures for photovoltaics (DSC, PSC) Advanced Oxides for gas sensing Advanced metallization schemes on semiconductors for power devices
Patents	<p>1) Alessandra Alberti, Emanuele Smecca, Antonino La Magna, Stefano perugini, Michele Abbiati, Italian patent filed on 29/01/2021; application (n°102021000001898) METODO ED APPARATO PER LA DEPOSIZIONE DI UNO STRATO DI PEROVSKITE SU UN SUBSTRATO;</p> <p>2) International patent filed on 28/01/2022 N. PCT/IB2022/050763, Data deposito: Principal Investigator</p> <p>3) Alessandra ALBERTI, Lucio RENNA, Leonardo GERVASI, Emanuele SMECCA, Salvatore SANZARO, Clelia Carmen GALATI, Antonello SANTANGELO, Antonino LA MAGNA, MOx-BASED GAS SENSOR AND MANUFACTURING METHOD THEREOF US patent US-20190128830 Granted date:22/12/2020 Principal Investigator</p> <p>4) A. Alberti, P. Badala', A. Santangelo, Integrated circuits with backside metalization and production method thereof, (2017). http://www.google.com/patents/US9728411. US patent US9728412 B2, Granted date: 08/08/2017 Principal Investigator</p> <p>5) A. Alberti, P. Badala', A. Santangelo, Circuiti integrati con retro-metallizzazione e relativo metodo di produzione, It Patent No.: 0001402530 ; Granted date: 13/09/2013 Principal Investigator</p> <p>6) A. Alberti, F. La Via, S.Ravesi Procedimento per incrementare la stabilità termica di siliciuri su silicio It Patent No: IT1331476; granted date :13/12/2005 Principal Investigator</p>

1. Formation of CsPbI₃ γ-Phase at 80 °C by Europium-Assisted Snowplow Effect
Alessandra Alberti, Emanuele Smecca, Ioannis Deretzis, Giovanni Mannino, Corrado Bongiorno, Salvatore Valastro, Salvatore Sanzaro, Giuseppe Fiscaro, Ajay Kumar Jena, Youhei Numata, Zhanglin Guo, Corrado Spinella, Tsutomu Miyasaka, Antonino La Magna, Adv. Energy Sustainability Res., 2100091, 1-14, 2021
2. Two-step MAPbI₃ deposition by low-vacuum proximity-space-effusion for high-efficiency inverted semitransparent perovskite solar cells
Smecca, E., Valenzano, V., Valastro, S., Deretzis, I., Mannino, G., Malandrino, G., Accorsi, G., Colella, S., Rizzo, A., La Magna, A., Listorti, A., Alberti, A.
Journal of Materials Chemistry A, 9 (30), pp. 16456-16469, 2021.
3. Simulations of the ultra-fast kinetics in Ni-SiC ternary systems under laser irradiation
Sanzaro, S., Bongiorno, C., Badalà, P., Bassi, A., Deretzis, I., Enachescu, M., Franco, G., Fiscaro, G., Vasquez, P., Alberti, A., La Magna, A. Materials, 14 (16), art. no. 4769., 2021
4. Optical behaviour of γ-black CsPbI₃ phases formed by quenching from 80 °C and 325 °C
Valastro, S., Mannino, G., Smecca, E., Sanzaro, S., Deretzis, I., Magna, A.L., Jena, A.K., Miyasaka, T., Alberti, A.
JPhys Materials, 4 (3), art. no. 034011, 2021.
5. Exploring the structural competition between the black and the yellow phase of cspbi₃
Deretzis, I., Bongiorno, C., Mannino, G., Smecca, E., Sanzaro, S., Valastro, S., Fiscaro, G., Magna, A.L., Alberti, A.
Nanomaterials, 11 (5), art. no. 1282, 2021
6. CsPbBr₃, MAPbBr₃, and FAPbBr₃ bromide perovskite single crystals: Interband critical points under dry n₂ and optical degradation under humid air
Giovanni Mannino, Ioannis Deretzis, Emanuele Smecca, Filippo Giannazzo, Salvatore Valastro, Giuseppe Fiscaro, Antonino La Magna, Davide Ceratti*, and Alessandra Alberti*
Journal of Physical Chemistry C, 125 (9), pp. 4938-4945, 2021.
7. Inter-diffusion, melting and reaction interplay in Ni/4H-SiC under excimer laser annealing
By: Sanzaro, S (Sanzaro, Salvatore)[1]; Bongiorno, C (Bongiorno, Corrado)[1]; Badala, P (Badala, Paolo)[2]; Bassi, A (Bassi, Anna)[2]; Franco, G (Franco, Giovanni)[2]; Vasquez, P (Vasquez, Patrizia)[2]; Alberti, A (Alberti, Alessandra)[1]; La Magna, A (La Magna, Antonino)[1]
APPLIED SURFACE SCIENCE, 539, 148218, 2021
8. Improved Electrical and Structural Stability in HTL-Free Perovskite Solar Cells by Vacuum Curing Treatment
By: Valastro, S (Valastro, Salvatore)[1, 2]; Smecca, E (Smecca, Emanuele)[1]; Sanzaro, S (Sanzaro, Salvatore)[1]; Giannazzo, F (Giannazzo, Filippo)[1]; Deretzis, I (Deretzis, Ioannis)[1]; La Magna, A (La Magna, Antonino)[1]; Numata, Y (Numata, Youhei)[3]; Jena, AK (Jena, Ajay Kumar)[3]; Miyasaka, T (Miyasaka, Tsutomu)[3]; Gagliano, A (Gagliano, Antonio)[2] ...More,
ENERGIES, 13 , 3953(2020)
9. Title: Full Efficiency Recovery in Hole-Transporting Layer-Free Perovskite Solar Cells With Free-Standing Dry-Carbon Top-Contacts
Author(s): Valastro, S (Valastro, Salvatore); Smecca, E (Smecca, Emanuele); Sanzaro, S (Sanzaro, Salvatore); Deretzis, I (Deretzis, Ioannis); La Magna, A (La Magna, Antonino); Numata, Y (Numata, Youhei); Jena, AK (Jena, Ajay Kumar); Miyasaka, T (Miyasaka, Tsutomu); Gagliano, A (Gagliano, Antonio); Alberti, A (Alberti, Alessandra)
Source: FRONTIERS IN CHEMISTRY Volume: 8, 200, 2020
10. Title: Temperature-Dependent Optical Band Gap in CsPbBr₃, MAPbBr₃, and FAPbBr₃ Single Crystals
Author(s): Mannino, G (Mannino, Giovanni); Deretzis, I (Deretzis, Ioannis); Smecca, E (Smecca, Emanuele); La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra); Ceratti, D (Ceratti, Davide); Cahen, D (Cahen, David)
Source: JOURNAL OF PHYSICAL CHEMISTRY LETTERS, 11 2490-2496 2020
11. Title: Ni/4H-SiC interaction and silicide formation under excimer laser annealing for ohmic contact
Author(s): Badala, P (Badala, Paolo); Rascuna, S (Rascuna, Simone); Cafra, B (Cafra, Brunella); Bassi, A (Bassi, Anna); Smecca, E (Smecca, Emanuele); Zimbone, M (Zimbone, Massimo); Bongiorno, C (Bongiorno, Corrado); Calabretta, C (Calabretta, Cristiano); La Via, F (La Via, Francesco); Roccaforte, F (Roccaforte, Fabrizio); Saggio, M (Saggio, Mario); Franco, G (Franco, Giovanni); Messina, A (Messina, Angelo); La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra)
Source: MATERIALIA Volume: 9, 100528, 2020
12. Title: Local Order and Rotational Dynamics in Mixed A-Cation Lead Iodide Perovskites
Author(s): Fiscaro, G (Fiscaro, Giuseppe); La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra); Smecca, E (Smecca, Emanuele); Mannino, G (Mannino, Giovanni); Deretzis, I (Deretzis, Ioannis)
Source: JOURNAL OF PHYSICAL CHEMISTRY LETTERS Volume: 11 Issue: 3 Pages: 1068-1074 DOI: 10.1021/acs.jpclett.9b03763
Published: FEB 6 2020
13. Title: New Synthetic Route for the Growth of alpha-FeOOH/NH₂-Mil-101 Films on Copper Foil for High Surface Area Electrodes
Author(s): Monforte, F (Monforte, Francesca); Urso, M (Urso, Mario); Alberti, A (Alberti, Alessandra); Smecca, E (Smecca, Emanuele); Mirabella, S (Mirabella, Salvo); Bongiorno, C (Bongiorno, Corrado); Mannino, G (Mannino, Giovanni); Condorelli, GG (Condorelli, Guglielmo Guido)
Source: ACS OMEGA Volume: 4 Issue: 20 Pages: 18495-18501 DOI: 10.1021/acsomega.9b01840 Published: NOV 12 2019
14. Title: Temperature Investigation on 3C-SiC Homo-Epitaxy on Four-Inch Wafers
Author(s): Anzalone, R (Anzalone, Ruggero); Zimbone, M (Zimbone, Massimo); Calabretta, C (Calabretta, Cristiano); Mauceri, M (Mauceri, Marco); Alberti, A (Alberti, Alessandra); Reitano, R (Reitano, Riccardo); La Via, F (La Via, Francesco)
Source: MATERIALS Volume: 12 Issue: 20 Article Number: 3293 DOI: 10.3390/ma12203293 Published: OCT 2019
15. Title: Fast and Efficient Sun Light Photocatalytic Activity of Au₂ZnO Core-Shell Nanoparticles Prepared by a One-Pot Synthesis
Author(s): Spitaleri, L (Spitaleri, Luca); Nicotra, G (Nicotra, Giuseppe); Zimbone, M (Zimbone, Massimo); Contino, A (Contino, Annalinda); Maccarrone, G (Maccarrone, Giuseppe); Alberti, A (Alberti, Alessandra); Gulino, A (Gulino, Antonino)
Source: ACS OMEGA Volume: 4 Issue: 12 Pages: 15061-15066 DOI: 10.1021/acsomega.9b01850 Published: SEP 17 2019
16. Title: Bimodal Porosity and Stability of a TiO₂ Gig-Lox Sponge Infiltrated with Methyl-Ammonium Lead Iodide Perovskite
Author(s): Sanzaro, S (Sanzaro, Salvatore); Zontone, F (Zontone, Federico); Grosso, D (Grosso, David); Bottein, T (Bottein, Thomas); Neri, F (Neri, Fortunato); Smecca, E (Smecca, Emanuele); Mannino, G (Mannino, Giovanni); Bongiorno, C (Bongiorno, Corrado); Spinella, C (Spinella, Corrado); La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra)
Source: NANOMATERIALS Volume: 9 Issue: 9 Article Number: 1300 DOI: 10.3390/nano9091300 Published: SEP 2019
17. Title: Nanostructured TiO₂ Grown by Low-Temperature Reactive Sputtering for Planar Perovskite Solar Cells
Author(s): Alberti, A (Alberti, Alessandra); Smecca, E (Smecca, Emanuele); Sanzaro, S (Sanzaro, Salvatore); Bongiorno, C (Bongiorno, Corrado); Giannazzo, F (Giannazzo, Filippo); Mannino, G (Mannino, Giovanni); La Magna, A (La Magna, Antonino); Liu, MN (Liu, Maning); Vivo, P (Vivo, Paola); Listorti, A (Listorti, Andrea); Calabro, E (Calabro, Emanuele); Matteocci, F (Matteocci, Fabio); Di Carlo, A (Di Carlo, Aldo)
Source: ACS APPLIED ENERGY MATERIALS Volume: 2 Issue: 9 Pages: 6218-6229 DOI: 10.1021/acsam.9b00708 Published: SEP 2019
18. Title: Nitrogen doped spongy TiO₂ layers for sensors application
Author(s): Smecca, E (Smecca, Emanuele); Sanzaro, S (Sanzaro, Salvatore); Grosso, D (Grosso, David); Bottein, T (Bottein, Thomas); Mannino, G (Mannino, Giovanni); Condorelli, GG (Condorelli, Guglielmo Guido); La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra)
Source: MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING Volume: 98 Pages: 44-48 DOI: 10.1016/j.mssp.2019.03.012
Published: AUG 1 2019
19. Title: Hybrid perovskites for photovoltaics: Story, challenges and opportunities
Author(s): Alberti, A (Alberti, Alessandra); Smecca, E (Smecca, Emanuele); Sanzaro, S (Sanzaro, Salvatore); Mannino, G (Mannino, Giovanni); Deretzis, I (Deretzis, Ioannis); La Magna, A (La Magna, Antonino)
Source: RIVISTA DEL NUOVO CIMENTO Volume: 42 Issue: 7 Pages: 301-366 DOI: 10.1393/ncr/i2019-10161-5 Published: JUL 2019
20. Title: Morphological and electrical properties of Nickel based Ohmic contacts formed by laser annealing process on n-type 4H-SiC
Author(s): Rascuna, S (Rascuna, S.); Badala, P (Badala, P.); Tringali, C (Tringali, C.); Bongiorno, C (Bongiorno, C.); Smecca, E (Smecca, E.); Alberti, A (Alberti, A.); Di Franco, S (Di Franco, S.); Giannazzo, F (Giannazzo, F.); Greco, G (Greco, G.); Roccaforte, F (Roccaforte, F.);

Saggio, M (Saggio, M.)
Source: MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING Volume: 97 Pages: 62-66 DOI: 10.1016/j.mssp.2019.02.031
Published: JUL 2019

21. Title: Simulation of the Growth Kinetics in Group IV Compound Semiconductors
Author(s): La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra); Barbagiovanni, E (Barbagiovanni, Erik); Bongiorno, C (Bongiorno, Corrado); Cascio, M (Cascio, Michele); Deretzis, I (Deretzis, Ioannis); La Via, F (La Via, Francesco); Smecca, E (Smecca, Emanuele)
Source: PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE Volume: 216 Issue: 10 Special Issue: SI Article Number: 1800597 DOI: 10.1002/psa.201800597 Published: MAY 22 2019

22. Title: Pb clustering and PbI2 nanofragmentation during methylammonium lead iodide perovskite degradation
Author(s): Alberti, A (Alberti, Alessandra); Bongiorno, C (Bongiorno, Corrado); Smecca, E (Smecca, Emanuele); Deretzis, I (Deretzis, Ioannis); La Magna, A (La Magna, Antonino); Spinella, C (Spinella, Corrado)
Source: NATURE COMMUNICATIONS Volume: 10 Article Number: 2196 DOI: 10.1038/s41467-019-09909-0 Published: MAY 16 2019

23. Title: Barrier inhomogeneity in vertical Schottky diodes on free standing gallium nitride
Author(s): Roccaforte, F (Roccaforte, F.); Giannazzo, F (Giannazzo, F.); Alberti, A (Alberti, A.); Spera, M (Spera, M.); Cannas, M (Cannas, M.); Cora, I (Cora, I.); Pecz, B (Pecz, B.); Iucolano, F (Iucolano, F.); Greco, G (Greco, G.)
Source: MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING Volume: 94 Pages: 164-170 DOI: 10.1016/j.mssp.2019.01.036
Published: MAY 2019

24. Title: Heterogeneous growth of continuous ZIF-8 films on low-temperature amorphous silicon
Author(s): Monforte, F (Monforte, Francesca); Mannino, G (Mannino, Giovanni); Alberti, A (Alberti, Alessandra); Smecca, E (Smecca, Emanuele); Italia, M (Italia, Markus); Motta, A (Motta, Alessandro); Tudisco, C (Tudisco, Cristina); Condorelli, GG (Condorelli, Guglielmo G.)
Source: APPLIED SURFACE SCIENCE Volume: 473 Pages: 182-189 DOI: 10.1016/j.apsusc.2018.12.060 Published: APR 15 2019

25. Title: Properties of Al2O3 thin films deposited on 4H-SiC by reactive ion sputtering
Author(s): Fiorenza, P (Fiorenza, P.); Vivona, M (Vivona, M.); Di Franco, S (Di Franco, S.); Smecca, E (Smecca, E.); Sanzaro, S (Sanzaro, S.); Alberti, A (Alberti, A.); Saggio, M (Saggio, M.); Roccaforte, F (Roccaforte, F.)
Source: MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING Volume: 93 Pages: 290-294 DOI: 10.1016/j.mssp.2019.01.017
Published: APR 2019

26. Title: Nitrogen Soaking Promotes Lattice Recovery in Polycrystalline Hybrid Perovskites
Author(s): Alberti, A (Alberti, Alessandra); Deretzis, I (Deretzis, Ioannis); Mannino, G (Mannino, Giovanni); Smecca, E (Smecca, Emanuele); Giannazzo, F (Giannazzo, Filippo); Listorti, A (Listorti, Andrea); Colella, S (Colella, Silvia); Masi, S (Masi, Sofia); La Magna, A (La Magna, Antonino)
Source: ADVANCED ENERGY MATERIALS Volume: 9 Issue: 12 Article Number: 1803450 DOI: 10.1002/aenm.201803450 Published: MAR 27 2019

27. Title: Porous Gig-Lox TiO2 Doped with N-2 at Room Temperature for P-Type Response to Ethanol
Author(s): Smecca, E (Smecca, Emanuele); Sanzaro, S (Sanzaro, Salvatore); Galati, C (Galati, Clelia); Renna, L (Renna, Lucio); Gervasi, L (Gervasi, Leonardo); Santangelo, A (Santangelo, Antonello); Condorelli, GG (Condorelli, Guglielmo Guido); Grosso, D (Grosso, David); Bottein, T (Bottein, Thomas); Mannino, G (Mannino, Giovanni); La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra)
Source: CHEMOSENSORS Volume: 7 Issue: 1 Article Number: 12 DOI: 10.3390/chemosensors7010012 Published: MAR 12 2019

28. Title: Stability and Degradation in Hybrid Perovskites: Is the Glass Half-Empty or Half-Full?
Author(s): Deretzis, I (Deretzis, Ioannis); Smecca, E (Smecca, Emanuele); Mannino, G (Mannino, Giovanni); La Magna, A (La Magna, Antonino); Miyasaka, T (Miyasaka, Tsutomu); Alberti, A (Alberti, Alessandra)
Source: JOURNAL OF PHYSICAL CHEMISTRY LETTERS Volume: 9 Issue: 11 Pages: 3000-3007 DOI: 10.1021/acs.jpclett.8b00120
Published: JUN 7 2018

29. Title: Innovative spongy TiO2 layers for gas detection at low working temperature
Author(s): Alberti, A (Alberti, A.); Renna, L (Renna, L.); Sanzaro, S (Sanzaro, S.); Smecca, E (Smecca, E.); Mannino, G (Mannino, G.); Bongiorno, C (Bongiorno, C.); Galati, C (Galati, C.); Gervasi, L (Gervasi, L.); Santangelo, A (Santangelo, A.); La Magna, A (La Magna, A.)
Source: SENSORS AND ACTUATORS B-CHEMICAL Volume: 259 Pages: 658-667 DOI: 10.1016/j.snb.2017.12.069 Published: APR 15 2018

30. Title: Pervasive infiltration and multi-branch chemisorption of N-719 molecules into newly designed spongy TiO2 layers deposited by gig-lox sputtering processes
Author(s): Sanzaro, S (Sanzaro, Salvatore); Fazio, E (Fazio, Enza); Neri, F (Neri, Fortunato); Smecca, E (Smecca, Emanuele); Bongiorno, C (Bongiorno, Corrado); Mannino, G (Mannino, Giovanni); Puglisi, RA (Puglisi, Rosaria Anna); La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra)
Source: JOURNAL OF MATERIALS CHEMISTRY A Volume: 5 Issue: 48 Pages: 25529-25538 DOI: 10.1039/c7ta07811k Published: DEC 28 2017

31. Title: Revealing a Discontinuity in the Degradation Behavior of CH3NH3PbI3 during Thermal Operation
Author(s): Alberti, A (Alberti, Alessandra); Deretzis, I (Deretzis, Ioannis); Mannino, G (Mannino, Giovanni); Smecca, E (Smecca, Emanuele); Sanzaro, S (Sanzaro, Salvatore); Numata, Y (Numata, Youhei); Miyasaka, T (Miyasaka, Tsutomu); La Magna, A (La Magna, Antonino)
Source: JOURNAL OF PHYSICAL CHEMISTRY C Volume: 121 Issue: 25 Pages: 13577-13585 DOI: 10.1021/acs.jpcc.7b04196 Published: JUN 29 2017

32. Title: First Evidence of CH3NH3PbI3 Optical Constants Improvement in a N-2 Environment in the Range 40-80 degrees C
Author(s): Mannino, G (Mannino, Giovanni); Alberti, A (Alberti, Alessandra); Deretzis, I (Deretzis, Ioannis); Smecca, E (Smecca, Emanuele); Sanzaro, S (Sanzaro, Salvatore); Numata, Y (Numata, Youhei); Miyasaka, T (Miyasaka, Tsutomu); La Magna, A (La Magna, Antonino)
Source: JOURNAL OF PHYSICAL CHEMISTRY C Volume: 121 Issue: 14 Pages: 7703-7710 DOI: 10.1021/acs.jpcc.7b00764 Published: APR 13 2017

33. Title: Multi-Scale-Porosity TiO2 scaffolds grown by innovative sputtering methods for high throughput hybrid photovoltaics
Author(s): Sanzaro, S (Sanzaro, Salvatore); Smecca, E (Smecca, Emanuele); Mannino, G (Mannino, Giovanni); Bongiorno, C (Bongiorno, Corrado); Pellegrino, G (Pellegrino, Giovanna); Neri, F (Neri, Fortunato); Malandrino, G (Malandrino, Graziella); Catalano, MR (Catalano, Maria Rita); Condorelli, GG (Condorelli, Guglielmo Guido); Iacobellis, R (Iacobellis, Rosabianca); De Marco, L (De Marco, Luisa); Spinella, C (Spinella, Corrado); La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra)
Source: SCIENTIFIC REPORTS Volume: 6 Article Number: 39509 DOI: 10.1038/srep39509 Published: DEC 21 2016

Title: From PbI2 to MAPbI(3) through Layered Intermediates
Author(s): Pellegrino, G (Pellegrino, Giovanna); D'Angelo, S (D'Angelo, Stefania); Deretzis, I (Deretzis, Ioannis); Condorelli, GG (Condorelli, Guglielmo Guido); Smecca, E (Smecca, Emanuele); Malandrino, G (Malandrino, Graziella); La Magna, A (La Magna, Antonino); Alberti, A (Alberti, Alessandra)
Source: JOURNAL OF PHYSICAL CHEMISTRY C Volume: 120 Issue: 35 Pages: 19768-19777 DOI: 10.1021/acs.jpcc.6b03798 Published: SEP 8 2016

Some Funded
Projects

1. Role: project leader
Project frame: Progetto finanziato da Eureka! Venture Capital
Official Document: contratto di ricerca prot CNR-IMM n° 0009794/2021
From: 23-12-2021: 21 months
Project Title: PEROVskite Solar Key-enabling technology 1.0 (PerovSKY)
Founded by: FEI through Eureka! Venture
Project Leader: CNR
Partner in kind: Kenosistec srl

2. Role: task leader
n. protocollo lettera di incarico a ratifica n°2711
Project frame: Progetto Europeo H2020-ICT-2019-2
Official Document: contratto 8718183
From: 01-01-2020: 36 months

Project Title: Modeling Unconventional Nanoscaled Device FABrication called MUNDfAB
 Founded by: H2020
 Project Leader: FRAUNHOFER

3. Role: task leader
 Project frame: PON National Italy project
 Official Document:
 CUP_ B88D19000160005)
 From: 04-2019: 30 months
 Project Title: Tecnologia per celle solari bifacciali ad alta Efficienza a 4 terminali per "utility scale", called BEST4U
 Founded by: MIUR
 Partners: Coordinated by Enel Greenpower

4. Role: participant
 Project frame: European project Ecsel (Electronic Components and Systems for European Leadership)
 Official Document: project CUP B68D1900015000; lettera di incarico prot. 5638-110tt.19
 CUP B68D19000150005
 From: 01-04-2019: 36 months
 Project Title: Metrology Advances for Digitised Electronic Components and Systems Industry 4.0 con acronimo "MADEin4" (GRANT AGREEMENT N. 826589)
 Founded by: EU
 Project Leader: STMicroelectronics

5. Role: italian project leader
 Project frame: Italy-Japan Bilateral Project between CNR and JSPS.
 Official Document:
 CUP_ B56C18001070005
 Official documents
 @ <https://www.cnr.it/en/bilateral-agreements/project/2983/design-of-organo-halide-perovskite-light-absorbers-of-high-stability-and-durability-through-atomistic-engineering-of-the-lattice-structure>;
 From: 01-2018: 24 months (first year)+ 1 Y
 Project Title: Design of organo-halide perovskite light absorbers of high stability and durability through atomistic engineering of the lattice structure
 Founded by: CNR
 Partners: Toin University of Yokohama, Japan: prof. Tsutomu Miyasaka, dr. Youhei Numata
 Funding IT: 16000 euro

6. Role: RESPONSABILE di UNITA' OPERATIVA CNR-IMM (partner representative)
 Project frame: national project
 Official document: Tipologia: lettera di incarico a ratifica; Protocollo IMM numero 0010228, data 12/12/2013
 From 01/01/2012:42 months
 Project Title:: Elettronica su Plastica per Sistemi "Smart disposable"; acronimo: PLAST_Ics Founded by :PON02_00355_3416798, Codici CUP: B61C12000750005
 Partners: Consiglio Nazionale delle Ricerche, Istituto di Microelettronica e Microsistemi (CNR IMM); Consorzio Interuniversitario Nazionale delle Biostrutture e Biosistemi (INBB); Università degli Studi di Catania (UNICT); Università degli Studi di Messina (UNIME); Università degli Studi di Palermo (UNIPA); STMicroelectronics S.r.l.; Consorzio Catania Ricerche (CCR)

7. Role: RESPONSABILE SCIENTIFICO di UNITA' OPERATIVA CNR-IMM
 Project frame: national project
 Official Document: Tipologia: lettera di incarico a ratifica; Protocollo IMM numero: 0010231; Data: 12/12/2013; con decorrenza dal 23 maggio 2011;
 From 23 maggio 2011: durata progetto:42 months
 Periodo di attività: Dal: 01/01/2011 Al: 30/06/2014
 Project title: Energia da Fonti Rinnovabili-Fotovoltaico OrgAnico/Ibrido di Terza Generazione; acronimo: EFOR-CABIR
 Founded by: MIUR-CNR: Progetto per l'innovazione e lo sviluppo del mezzogiorno L. 191/2009 art. 2 comma 44
 CUP: B51J10001290001
 Partners: DSFTM, CNR-IMM, CNR-Nano, CNR-INO, CNR-NNL, CNR-IPCF, CNR-ISM, CNR-ISTM, CNR-ICCOM, CNR-ISM, CNR-ICB

8. Role: COORDINAMENTO ATTIVITA' ELEMENTARE RI4.5
 Project frame: national project
 Official Document: Tipologia: lettera di incarico a ratifica; Protocollo IMM numero: 0010229; Data: 12/12/2013
 From gennaio 2012: 42 months
 Project Title: Tecnologie per l'ENERGIA e l'Efficienza Energetica; acronimo: ENERGETIC
 Founded by: PON MIUR; Numero contratto: PON02_00665 - PON02_00355_3391233;
 CUP B61C12000860005
 Partners: Distretto Tecnologico Sicilia Micro e Nano Sistemi: tra cui figurano: Consiglio Nazionale delle Ricerche, Istituto di Microelettronica e Microsistemi (CNR IMM) Università di Catania (UniCt), Università di Palermo (UniPa), CNR-IPCF, Università di Messina (UniMe); STMicroelectronics

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Catania, 01-02-22

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