

Peer-reviewed journal articles

1)-Optical trapping and optical force positioning of two-dimensional materials

Donato M.G.; Messina E.; Foti A.; Smart T.J.; Jones P.H.; Iati M.A.; Saija R.; Gucciardi P.G.; Marago O.M. SUBJECT Optical forces SUBJECT Optical tweezers SUBJECT layered materials SUBJECT boron nitride SUBJECT molybdenum sulfide SUBJECT tellurium sulfide
Nanoscale (Print) 10 (2018): 1245–1255.
<https://dx.doi.org/10.1039/c7nr06465a>

2)-Catalytic activity of silicon nanowires decorated with gold and copper nanoparticles deposited by pulsed laser ablation

Casiello M.; Picca R.A.; Fusco C.; D'Accolti L.; Leonardi A.A.; Lo Faro M.J.; Irrera A.; Trusso S.; Cotugno P.; Sportelli M.C.; Cioffi N.; Nacci A. SUBJECT Au nanoparticles; Caryl-N coupling; Cu nanoparticles; Si nanowires; reduction of nitroarenes
Nanomaterials (Basel) 8 (2018): 78–96.
<https://dx.doi.org/10.3390/nano8020078>

3)-Assessment of trans-scleral iontophoresis delivery of lutein to the human retina.

Lombardo, Marco; Villari, Valentina; Micali, Norberto; Roy, Pierre; Sousa, Sara H; Lombardo, Giuseppe SUBJECT scleral iontophoresis SUBJECT Traman SUBJECT luteina
Journal of biophotonics (Internet) 11 (2018).
<https://dx.doi.org/10.1002/jbio.201700095>

4)-Water-driven segmental cooperativity in polyvinyl butyral

Carini G.; Bartolotta A.; Carini G.; D'Angelo G.; Federico M.; Di Marco G. SUBJECT Polyvinyl butyral Water sorption Mechanical and dielectric relaxations Activation entropy
European Polymer Journal 98 (2018): 172–176.
<https://dx.doi.org/10.1016/j.eurpolymj.2017.11.016>

5)-Hydrogen mean force and anharmonicity in polycrystalline and amorphous ice

Parmentier; A.; Andreani; C.; Romanelli; G.; Shephard; J. J.; Salzmann; C. G.; Senesi; R. SUBJECT potential of mean force SUBJECT neutron Compton profile SUBJECT nuclear quantum effects SUBJECT path integral representation SUBJECT anharmonicity SUBJECT INELASTIC NEUTRON-SCATTERINGS SUBJECT INTEGRAL MOLECULAR-DYNAMICSS SUBJECT KINETIC-ENERGY SUBJECT TRIPLE POINTS SUBJECT CONDENSED MATTER SUBJECT LOW-TEMPERATURES SUBJECT WATERS SUBJECT DENSITY SUBJECT SYSTEMS SUBJECT PHASE
FRONTIERS OF PHYSICS 13 (2018).
<https://dx.doi.org/10.1007/s11467-017-0724-4>

6)-Electrospun Conjugated Polymer/Fullerene Hybrid Fibers: Photoactive Blends, Conductivity through Tunneling-AFM, Light Scattering, and Perspective for Their Use in Bulk-Heterojunction Organic Solar Cells

Yang Z.; Moffa M.; Liu Y.; Li H.; Persano L.; Camposeo A.; Saija R.; Iati M.A.; Marago O.M.; Pisignano D.; Nam C.-Y.; Zussman E.; Rafailovich M. SUBJECTFIELD-EFFECT TRANSISTORS; PHOTOVOLTAIC PROPERTIES; POLYMER NANOFIBERS; OPTICAL-PROPERTIES; EMITTING-DIODES; QUANTUM DOTS; THIN-FILMS; MORPHOLOGY; NANOWIRES; EFFICIENCY

Journal of physical chemistry. C. (Online) 122 (2018): 3058–3067.

<https://dx.doi.org/10.1021/acs.jpcc.7b11188>

7)-Iron and lithium-iron alkyl phosphates as nanostructured material for rechargeable batteries

Parola, Valeria La; Liveri, Vincenzo Turco; Todaro, Lorena; Lombardo, Domenico; Bauer, Elvira Maria; Dell'Era, Alessandro; Dell'Era, Alessandro; Longo, Alessandro; Longo, Alessandro; Caschera, Daniela; de Caro, Tilde; Toro, Roberta Grazia; Calandra, Pietro SUBJECTHybrid materials SUBJECTLithium ion batteries SUBJECTTri n-butyl phosphates

Materials letters (Gen. ed.) 220 (2018): 58–61.

<https://dx.doi.org/10.1016/j.matlet.2018.02.112>

8)-Transient viscous response of the human cornea probed with the Surface Force Apparatus

Zappone, Bruno; Patill, Navinkumar J.; Lombardo, Marco; Lombardo, Giuseppe SUBJECTVisco-elastic behaviour SUBJECTcornea tissue SUBJECTSFA

PloS one 13 (2018).

<https://dx.doi.org/10.1371/journal.pone.0197779>

9)-Non-invasive optical method for real-time assessment of intracorneal riboflavin concentration and efficacy of corneal cross-linking

Lombardo, Giuseppe; Villari, Valentina; Micali, Norberto L.; Leone, Nancy; Labate, Cristina; De Santo, Maria P.; Lombardo, Marco SUBJECTCorneal cross-linking SUBJECTFluorescence SUBJECTRiboflavin SUBJECTTheranostics SUBJECTUV-A device

Journal of biophotonics (Print) 11 (2018).

<https://dx.doi.org/10.1002/jbio.201800028>

10)-PEGylate porphyrin-gold nanoparticles conjugates as removable pH-sensor nano-probes for acidic environments

Mineo, Placido G.; Abbadessa, Antonio; Rescifina, Antonio; Mazzaglia, Antonino; Nicosia, Angelo; Scamporrino, Andrea A. SUBJECTGold nanoparticles SUBJECTNano-sensors SUBJECTpH-sensor SUBJECTPorphyrin SUBJECTTD-DFT calculations

Colloids and surfaces. A, Physicochemical and engineering aspects (Print) 546 (2018): 40–47.

<https://dx.doi.org/10.1016/j.colsurfa.2018.02.061>

11)-Optical Aggregation of Gold Nanoparticles for SERS Detection of Proteins and Toxins in Liquid Environment: Towards Ultrasensitive and Selective Detection

Foti, Antonino; D'Andrea, Cristiano; Villari, Valentina; Micali, Norberto; Donato, Maria Grazia; Fazio, Barbara; Marago, Onofrio M.; Gillibert, Raymond; de la Chapelle, Marc Lamy; Gucciardi, Pietro G.SUBJECTSERSSUBJECTbiosensorSUBJECTgold nanoparticlesSUBJECTaptamersSUBJECTtoxinsSUBJECThemeproteinSUBJECTOptical forcesSUBJECTOptical tweezersSUBJECTOptical patterningSUBJECTcolloids
Materials (Basel) 11 (2018).

<https://dx.doi.org/10.3390/ma11030440>

12)-Nanoscale Discrimination between Toxic and Nontoxic Protein Misfolded Oligomers with Tip-Enhanced Raman Spectroscopy

D'Andrea, Cristiano; Foti, Antonino; Cottat, Maximilien; Banchelli, Martina; Capitini, Claudia; Barreca, Francesco; Canale, Claudio; de Angelis, Marella; Relini, Annalisa; Marago, Onofrio M.; Pini, Roberto; Chiti, Fabrizio; Gucciardi, Pietro G.; Matteini, PaoloSUBJECTAlzheimer's diseaseSUBJECTamyloidSUBJECTbiomoleculesSUBJECTnanoscaleSUBJECTTERS
Small (Weinh., Print) 14 (2018).

<https://dx.doi.org/10.1002/sml.201800890>

13)-Interpenetrating Polymer Network Microgels in Water: Effect of Composition on the Structural Properties and Electrosteric Interactions

Micali N.; Bertoldo M.; Buratti E.; Nigro V.; Angelini R.; Villari V.SUBJECTcolloidal propertiesSUBJECTelectrosteric interactionsSUBJECTmicrogelSUBJECTNMR spectroscopySUBJECTpolymer network
ChemPhysChem (Print) 19 (2018): 2894–2901.

<https://dx.doi.org/10.1002/cphc.201800707>

14)-Low cost tips for tip-enhanced Raman spectroscopy fabricated by two-step electrochemical etching of 125 μ m diameter gold wires

Foti, Antonino; Barreca, Francesco; Fazio, Enza; D'Andrea, Cristiano; Matteini, Paolo; Marago, Onofrio Maria; Gucciardi, Pietro GiuseppeSUBJECTamyloidSUBJECTenhanced spectroscopySUBJECTgold tipsSUBJECTplasmonicsSUBJECTTERS
Beilstein journal of nanotechnology 9 (2018): 2718–2729.

<https://dx.doi.org/10.3762/bjnano.9.254>

15)-Optical force decoration of 3D microstructures with plasmonic particles

Donato, M. G.; Rajamanickam, V. P.; Foti, A.; Gucciardi, P. G.; Liberale, C.; Marago, O. M.SUBJECTOptical forcesSUBJECTplasmonicsSUBJECTSERSSUBJECTOptical tweezers
Optics letters 43 (2018): 5170–5173.

<https://dx.doi.org/10.1364/OL.43.005170>

16)-Photoelectrochemical and spectrophotometric studies on dye-sensitized solar cells (DSCs) and stable modules (DSCMs) based on natural apocarotenoids pigments

Calogero, Giuseppe; Barichello, Jessica; Citro, Ilaria; Mariani, Paolo; Vesce, Luigi; Bartolotta, Antonino; Di Carlo, Aldo; Di Marco, GaetanoSUBJECTDye-sensitized solar cellsSUBJECTPhotoelectrochemical modulesSUBJECTSolar energySUBJECTNatural dyesSUBJECTAchioteSUBJECTBixin

Dyes and pigments 155 (2018): 75–83.

<https://dx.doi.org/10.1016/j.dyepig.2018.03.021>

17)-Laser-generated bismuth nanoparticles for applications in imaging and radiotherapy

Torrise, L.; Silipigni, L.; Restuccia, N.; Cuzzocrea, S.; Cutroneo, M.; Barreca, F.; Fazio, B.; Di Marco, G.; Guglielmino, S.SUBJECTBismuthSUBJECTNanoparticlesSUBJECTContrast mediumSUBJECTRadiotherapySUBJECTX-ray images

Journal of physics and chemistry of solids 119 (2018): 62–70.

<https://dx.doi.org/10.1016/j.jpics.2018.03.034>

18)-Multi-analytical study of Roman frescoes from Villa dei Quintili (Rome, Italy)

Crupi, Vincenza; Fazio, Barbara; Fiocco, Giacomo; Galli, Giuliana; La Russa, Mauro Francesco; Licchelli, Maurizio; Majolino, Domenico; Malagodi, Marco; Ricca, Michela; Ruffolo, Silvestro Antonio; Venuti, ValentinaSUBJECTMicro-Raman spectroscopySUBJECTFT-IR spectroscopySUBJECTSEM-EDXSUBJECTPOMSUBJECTRoman decorated plastersSUBJECTPigments

Journal of Archaeological Science: Reports 21 (2018): 422–432.

<https://dx.doi.org/10.1016/j.jasrep.2018.08.028>

19)-Ultrasensitive Label- and PCR-Free Genome Detection Based on Cooperative Hybridization of Silicon Nanowires Optical Biosensors

Leonardi, Antonio Alessio; Lo Faro, Maria Jose; Petralia, Salvatore; Fazio, Barbara; Musumeci, Paolo; Conoci, Sabrina; Irrera, Alessia; Priolo, FrancescoSUBJECTbiosensorSUBJECTnanowiresSUBJECTPCR-freeSUBJECTDNA cooperative hybridizationSUBJECTsiliconSUBJECTphotoluminescenceSUBJECTHepatitis B virus

ACS sensors Online 3 (2018): 1690–1697.

<https://dx.doi.org/10.1021/acssensors.8b00422>

20)-Low Cost Fabrication of Si NWs/CuI Heterostructures

Lo Faro, Maria Jose; Leonardi, Antonio Alessio; Morganti, Dario; Fazio, Barbara; Vasi, Ciro; Musumeci, Paolo; Priolo, Francesco; Irrera, AlessiaSUBJECTsilicon nanowiresSUBJECTheterostructuresSUBJECTCuISUBJECTsilicon

Nanomaterials (Basel) 8 (2018).

<https://dx.doi.org/10.3390/nano8080569>

21)-TiO₂-SiO₂-PDMS nanocomposite coating with self-cleaning effect for stone material: Finding the optimal amount of TiO₂

Crupi, Vincenza; Fazio, Barbara; Gessini, Alessandro; Kis, Zoltan; La Russa, Mauro F.; Majolino, Domenico; Masciovecchio, Claudio; Ricca, Michela; Rossi, Barbara; Ruffolo, Silvestro A.; Venuti, ValentinaSUBJECTTitanium dioxideSUBJECTNanostructured coatingsSUBJECTPhotocatalyticsSUBJECTNeutron radiographySUBJECTSR-RamanSUBJECTCultural heritage

Construction & building materials 166 (2018): 464–471.

<https://dx.doi.org/10.1016/j.conbuildmat.2018.01.172>

22)-Tailoring the oxygen content of graphene oxide by IR laser irradiation

Silipigni, L.; Fazio, M.; Fazio, B.; Cutroneo, M.; Torrisi, L.SUBJECTGRAPHITE OXIDE; REDUCTION

Applied physics. A, Materials science & processing (Print) 124 (2018).

<https://dx.doi.org/10.1007/s00339-018-1956-z>

23)-Gold nanoparticles produced by laser ablation in water and in graphene oxide suspension

Torrisi, L.; Cutroneo, M.; Silipigni, L.; Barreca, F.; Fazio, B.; Restuccia, N.; Kovacik, L.SUBJECTLaser ablation in waterSUBJECTgrapheneSUBJECTgraphene oxideSUBJECTgold nanoparticles

Philosophical magazine (2003, Print) 98 (2018): 2205–2220.

<https://dx.doi.org/10.1080/14786435.2018.1478147>

24)-Production and biotechnological potentialities of extracellular polymeric substances from sponge-associated Antarctic bacteria

Caruso C.; Rizzo C.; Mangano S.; Poli A.; Di Donato P.; Finore I.; Nicolaus B.; Di Marco G.; Michaud L.; Lo Giudicea A.SUBJECTextracellular polymeric substancesSUBJECTbiofilmSUBJECTbiotechnological potentialSUBJECTWinogradskyella

Applied and environmental microbiology (Online) (2018).

<https://dx.doi.org/10.1128/AEM.01624-17>

25)-SERS amplification by ultra-dense plasmonic arrays on self-organized PDMS templates

Repetto, Diego; Giordano, Maria Caterina; Foti, Antonino; Gucciardi, Pietro Giuseppe; Mennucci, Carlo; de Mongeot, Francesco BuatierSUBJECTPolydimethylsiloxane (PDMS)SUBJECTSoft lithographySUBJECTPlasmonic nanostructureSUBJECTSurface-enhanced Raman spectroscopy (SERS)SUBJECTOptical dichroism

Applied surface science 446 (2018): 83–91.

<https://dx.doi.org/10.1016/j.apsusc.2018.02.163>

26)-Biomaterial Amorphous Laser through Light-Scattering Surfaces Assembled by Electrospun Fiber Templates

Maria Moffa; Andrea Camposeo; Vito Fasano; Barbara Fazio; Maria Antonia Iatì; Onofrio M
Maragò; Rosalba Saija; Heinz-Christoph Schröder; Werner EG Müller; Dario
PisignanoSUBJECTOptical materialsSUBJECTLight scatteringSUBJECTnanofabrication
Laser & photonics reviews (Internet) 12 (2018): 1700224-1–1700224-9.
<https://dx.doi.org/10.1002/lpor.201700224>

Other publications (journals without peer review, book reviews, etc.)

1)-Contrasting microscopic interactions determine the properties of water/methanol solutions

Carmelo Corsaro; Francesco Mallamace; Sebastiano Vasi; Sow-Hsin Chen; H. Eugene Stanley; Domenico Mallamace
SUBJECTaqueous solutions
SUBJECTHydrophobicity
SUBJECTNMR
SUBJECTHydrophilicity
Water and Water Systems, Erice (TP), 22/07/2016, 31/07/2016
<http://www.cnr.it/prodotto/i/377866>

info:cnr-pdr/source/autori:Carmelo Corsaro, Francesco Mallamace, Sebastiano Vasi, Sow-Hsin Chen, H. Eugene Stanley, Domenico Mallamace/congresso_nome:Water and Water Systems/congresso_luogo:Erice (TP)/congresso_data:22/07/2016, 31/07/2016/anno:2018/pagina_da:/pagina_a:/intervallo_pagine:

2)-NMR investigation of degradation processes of ancient and modern paper at different hydration levels

Domenico Mallamace; Sebastiano Vasi; Mauro Missori; Francesco Mallamace; Carmelo Corsaro
SUBJECTancient paper
SUBJECTdegradation
SUBJECTNMR
SUBJECTHydration
SUBJECTsolvent dynamics
Water and Water Systems, Erice (TP), 22/07/2016, 31/07/2016
<http://www.cnr.it/prodotto/i/377867>

info:cnr-pdr/source/autori:Domenico Mallamace, Sebastiano Vasi, Mauro Missori, Francesco Mallamace, Carmelo Corsaro/congresso_nome:Water and Water Systems/congresso_luogo:Erice (TP)/congresso_data:22/07/2016, 31/07/2016/anno:2018/pagina_da:/pagina_a:/intervallo_pagine:

3)-Sorafenib loaded SLN magnetically targeting hepatoma

Nicoletta Depalo (a); Fabio Vischio(a); Rosa Maria Iacobazzi(e); Silvia Villa(c); Fabio Canepa(c); Elisabetta Fanizza(a,d); Valentino Laquintana(b); Maria Principia Scavo(e); Angela Lopedota(b); Annalisa Cutrignelli(b); Marinella Striccoli(a); Angela Agostiano(a,d); Massimo Franco(b); Maria Lucia Curri(a); Nunzio Denora(b)
SUBJECThepatoma
SUBJECTdrug delivery
SUBJECTnanoparticles
SUBJECTsorafenib
Proceeding 11th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, Granada - Spagna, 19-21/03/2018
<http://www.cnr.it/prodotto/i/393058>

info:cnr-pdr/source/autori:Nicoletta Depalo (a); Fabio Vischio(a) ; Rosa Maria Iacobazzi(e); Silvia Villa(c); Fabio Canepa(c); Elisabetta Fanizza(a,d); Valentino Laquintana(b); Maria Principia Scavo(e); Angela Lopedota(b); Annalisa Cutrignelli(b); Marinella Striccoli(a); Angela Agostiano(a,d); Massimo Franco(b); Maria Lucia Curri(a); Nunzio Denora(b)/congresso_nome:Proceeding 11th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology/congresso_luogo:Granada - Spagna/congresso_data:19-21/03/2018/anno:2018/pagina_da:/pagina_a:/intervallo_pagine:

4)-Innovative Silicon Nanowires based Platforms for Bio-sensing

C. D'Andrea¹; JM. Lo Faro²; AA. Leonardi^{2, 3; 4}; S. Trusso²; M. De Angelis¹; M. Banchelli¹; L. Torsi⁵; F. Priolo^{3; 4; 6}; R. Pini¹; A. Irrera²; P. Matteini¹SUBJECTsilicon nanowiresSUBJECTBiosensingSUBJECTSERSSUBJECTc-reactive proteinSUBJECTAmyloid oligomers

Europt(r)ode XIV conference on optical chemical sensors and biosensors, Napoli, 25-28/03/2018

<http://www.cnr.it/prodotto/i/396053>

info:cnr-pdr/source/autori:C. D'Andrea¹, JM. Lo Faro², AA. Leonardi^{2,3,4}, S. Trusso², M. De Angelis¹, M. Banchelli¹, L. Torsi⁵, F. Priolo^{3,4,6}, R. Pini¹, A. Irrera² and P. Matteini¹/congresso_nome:Europt(r)ode XIV conference on optical chemical sensors and biosensors/congresso_luogo:Napoli/congresso_data:25-28/03/2018/anno:2018/pagina_da:/pagina_a:/intervallo_pagine:

5)-Tip-Enhanced Raman Spectroscopy Analysis of Amyloid Oligomers

Cristiano D'Andrea¹; Antonino Foti²; Maximilien Cottat¹; Martina Banchelli¹; Claudia Capitini³; Francesco Barreca⁴; Claudio Canale⁵; Marella De Angelis¹; Annalisa Relini⁶; Onofrio. M. Maragò²; Roberto Pini¹; Fabrizio Chiti³; Pietro G. Gucciardi²; Paolo Matteini¹SUBJECTTip enhanced raman spectroscopySUBJECTTERSSUBJECTAmyloid oligomersSUBJECTneurodegenerative disease

Plasmonica 2018 - International workshop on plasmonics, Firenze, 04-06/07/2018

<http://www.cnr.it/prodotto/i/396068>

info:cnr-pdr/source/autori:Cristiano D'Andrea¹, Antonino Foti², Maximilien Cottat¹, Martina Banchelli¹, Claudia Capitini³, Francesco Barreca⁴, Claudio Canale⁵, Marella De Angelis¹, Annalisa Relini⁶, Onofrio. M. Maragò², Roberto Pini¹, Fabrizio Chiti³, Pietro G. Gucciardi², and Paolo Matteini¹/congresso_nome:Plasmonica 2018 - International workshop on plasmonics/congresso_luogo:Firenze/congresso_data:04-06/07/2018/anno:2018/pagina_da:/pagina_a:/intervallo_pagine:

6)-Thermo-mechanical and physical characterization of polyolefin based films for photovoltaic cells

A. Visco; G. Di Marco; C. Scolaro; D. Iannazzo; L. TorrisiSUBJECTadhesivesSUBJECTpolyolefinsSUBJECTsolar cellsSUBJECTlap shear testsSUBJECTthermal characterization

9th International Conference on "Times of Polymers and Composites"; : From Aerospace to Nanotechnology, pp. 20145-1–20145-4, Ischia, 17-21/7/ 2018

<https://dx.doi.org/10.1063/1.5046007>

info:cnr-pdr/source/autori:A. Visco, G. Di Marco, C. Scolaro, D. Iannazzo and L. Torrisi/congresso_nome:9th International Conference on "Times of Polymers and Composites"; :

From Aerospace to Nanotechnology/congresso_luogo:Ischia/congresso_data:17-21/7/
2018/anno:2018/pagina_da:20145-1/pagina_a:20145-4/intervallo_pagine:20145-1-20145-4

7)-Rapporto Tecnico: Studio di fattibilità impianto geotermico per Acquapark di Tramutola (PT)

G. DI BELLA; A. SAPIENZA; S. VASTA; G. LUPÒ; R. CARUSO; G. LOMBARDOSUBJECTgeotermiaSUBJECTpompa di

caloreSUBJECTpiscinaSUBJECTacquapark

2018

<http://www.cnr.it/prodotto/i/398050>