

# Curriculum Vitae

## INFORMAZIONI PERSONALI

Nome LUISA  
Cognome SCIORTINO  
E-mail luisa.sciortino@unipa.it

## RICERCHE FINANZIATE

### Attività finanziate su linee di sincrotrone come main proposer

- "XPS of Al/Si<sub>3</sub>N<sub>4</sub> and Al/polyimide filters for high-energy resolution detectors in astrophysical mission as ATHENA" Main proposer: Dr. L. Sciortino at BACH@ELETTRA Proposal number 20180369 26 Novembre - 1 Dicembre 2018
- "XAS of Al/polyimide and Si<sub>3</sub>N<sub>4</sub> filters for high-energy resolution detectors in astrophysical missions as ATHENA" Main proposer: Dr. L. Sciortino at BEAR@ELETTRA Proposal number 20170078 15-19 Novembre 2017
- XRD "Structure of Nitrogen- and Sulphur- doped Carbon dops through Pair Distribution Function Analysis" Main Proposer: Dr. L. Sciortino at ID22@ESRF Proposal number SC-4353 9-10 Novembre 2016
- "Study of crystalline structure of luminescent N-doped Carbon dot as a function of N/Catomic ratio" Main proposer: Dr. L. Sciortino at MCX@ELETTRA, the italian synchrotron. Proposal number 20155076. 17-20 Febbraio 2016
- XANES e EXAFS "Local Structure of Iron in Fe(BTC) metallorganic framework" Main proposer: L. Sciortino at XAFS@ELETTRA, the italian synchrotron. Proposal number 20130414. 22-25 Agosto 2013

### Attività finanziate su linee di sincrotrone come co-proposer

- "Elucidating the structure of Nitrogen- and Sulphur- doped fluorescent carbon nanodots via Pair Distribution Function analysis" Co-proposer: Dr. L. Sciortino; Main proposer: Dr. F. Messina, Università degli studi di Palermo at XDS@LNLS the brazilian synchrotron. Proposal number 20160136 20-23 26-28 Luglio 2016
- XPS "Study of Carbon Dots (CDs) in liquid environment by X-ray Photoelectron Spectroscopy" Co-proposer: Dr. L. Sciortino Main proposer: Dr. Alexandra Mocellin, University of Brasilia at PGM@LNLS the brazilian synchrotron. Proposal number 20150019. 27-Giugno 2016
- "Debye function whole pattern modelling of Cobalt/cobal oxide core shell nanoparticles" Co-proposer: Dr. L. Sciortino; Main proposer: Dr. A. Longo, ESRF at ID22@ESRF, the european synchrotron. Proposal number HC 2327. 3-6 Giugno 2016
- "XAS measurements disclose the details of the process of decomposition of Cucarboxylatebased MOF Basolite C300 upon exposure to air" Co-proposer: Dr. L. Sciortino; Main proposer: Dr. G. Buscarino, Università degli studi di Palermo at BM08@ESRF, the european synchrotron. Proposal number MA 2949. 20-25 Aprile 2016
- XAS e XPS High spectral resolution X-ray transmission of thin cryogenic filters for the high energyspace mission ATHENA at BACH@ELETTRA, the italian synchrotron. Co-proposer: Dr. L. Sciortino; Main proposer: Prof. M. Barbera, Università degli studi di Palermo Proposal number 220150287. 17-22 Novembre 2015
- "Local structure and dynamics in novel niobates and tungstates proton conductors" Coproposer: Dr. L. Sciortino; Main proposer: Dr. F. Giannici, Università degli studi di Palermo at BM01B@ESRF, the european synchrotron. Proposal number CH3128. 2-9 Marzo 2010
- "The structural mechanism of CO oxidation assisted by gold nanoparticles" Coproposer: Dr. L. Sciortino; Main proposer: Dr. A. Longo, ESRF at BM08@ESRF, the european synchrotron. Proposal number CH-3061, 27 Ottobre - 2 Novembre 2010
- "In situ SAXS and EXAFS characterization of superaggregates of Co/Ni monometallic and bimetallic nanoperticles under magnetic field" Co-proposer: Dr. L. Sciortino; Main proposer: Dr. A. Longo, ESRF at BM26B@ESRF, the european synchrotron. Proposal number CH2765, 30 Gennaio - 3 Febbraio 2009

### Altre attività finanziate

- TEM "Influence of Nitrogen and Sulphur doping on the structure of fluorescent Carbon nanodots" Co-proposer: Dr. L. Sciortino; Main proposer: Dr. F. Messina, Università degli studi di Palermo at KIT Proposal number 2016-016-013649.

## PUBBLICAZIONE

- A real-space approach to the analysis of stacking faults in close-packed metals: G (r) modelling and Q-space feedback A. Longo, F. Giannici, L. Sciortino, A. Martorana *Acta Crystallographica Section A: Foundations and Advances*, **2020**, 76, 1.
  
- ATHENA X-IFU thermal filters development status toward the end of the instrument phase-A M. Barbera, U. Lo Cicero, L. Sciortino, F. D'Anca, G. Lo Cicero, G. Parodi, S. Sciortino, G. Rauw, G. Branduardi-Raymont, S. Varisco, S. Ferruggia Bonura, A. Collura, R. Candia, G. Di Cicca, P. Giglio, A. Buttacavoli, F. Cuttaia, F. Villa, M. Cappi, T. Lam Trong, J.M. Mesnager, P. Peille, R. den Hartog, J. W. den Herder, B. Jackson, D. Barret, L. Piro *Proc. of SPIE*, **2018**, 10699.
  
- Tailoring the Emission Color of Carbon Dots through Nitrogen-Induced Changes of Their Crystalline Structure L. Sciortino, A. Sciortino, R. Popescu, R. Schneider, D. Gerthsen, S. Agnello, M. Cannas, F. Messina *The Journal of Physical Chemistry C*, **2018**, 122, 34 19897-19903.
  
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- A Temperature-Dependent X-Ray Absorption Characterization of Test Filters for the ATHENA Mission X-IFU Instrument L. Sciortino, U. Lo Cicero, S. Ferruggia Bonura, E. Magnano, S. Nannarone, K. Koshmak, M. Barbera *Journal of Low Temperature Physics*, **2018**, 1-6.
  
- Thermal modelling of the ATHENA X-IFU filters L. Sciortino, U. Lo Cicero, S. Ferruggia Bonura, F. D'Anca, A. Buttacavoli, E. Puccio, M. Barbera *Proc. of SPIE*, **2018**, 10699.
  
- Electroplated bismuth absorbers for planar NTD-Ge sensor arrays applied to hard x-ray detection in astrophysics S. Ferruggia Bonura, D. Gulli, M. Barbera, A. Collura, L. Sciortino, D. Spoto, M. Todaro, E. Puccio, N. Montinaro, S. Varisco, M. Santamaria, F. Di Franco, A. Maniscalco, A. Zaffora, L. Botta, U. Lo Cicero *High Energy, Optical, and Infrared Detectors for Astronomy VIII. International Society for Optics and Photonics*, **2018**, 10709
  
- Structural modelling and mechanical tests supporting the design of the ATHENA X-IFU thermal filters and WFI optical blocking filter G. Parodi, F. D'Anca, U. Lo Cicero, L. Sciortino, M. Rataj, S.

Polak, A. Pilch, N. Meidinger, K. Dittrich, J. Hartwig, V. Samain, A. Collura, S. Ferruggia Bonura, A. Buttacavoli, M. Barbera *Proc. of SPIE*, **2018**, 10699.

- ATHENA WFI optical blocking filters development status toward the end of the instrument phase-A M. Barbera, U. Lo Cicero, L. Sciortino, F. D'Anca, G. Parodi, M. Rataj, S. Polak, A. Pilch, N. Meidinger, S. Sciortino, G. Rauw, G. Branduardi Raymont, T. Mineo, E. Perinati, P. Giglio, A. Collura, S. Varisco, R. Candia *Proc. of SPIE*, **2018**, 10699.

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- Nitrogen-doped carbon dots embedded in a SiO<sub>2</sub> monolith for solid-state fluorescent detection of Cu<sup>2+</sup> ions L. Sciortino, F. Messina, G. Buscarino, S. Agnello, M. Cannas, F.M. Gelardi *Journal of Nanoparticle Research*, **2017**, 19, 6, 228.

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