



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 5949

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di** Fisica Aldo Pontremoli

Scientist- in - charge: Prof. Fratesi

[Name and surname]

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	Ma
Name	Shuangying

### PRESENT OCCUPATION

Appointment	Structure
CEMES-CNRS	Postdoctoral researcher

### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
PhD	condensed matter physics	Xiangtan University	2016
Master	computational physics	Xiangtan University	2013
Bachelor	physics	Xihua University	2009
language training	German	Heidelberg language school	2017
Specialization			
Degree of medical specialization			
Degree of European specialization			



## REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date registration	of	Association	City

## FOREIGN LANGUAGES

Languages	level of knowledge
English	Fluent
German	A2/1
Chinese	Proficient

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2016	Xiangtan University 21st Graduate Student President's Award of Excellence

## TRAINING OR RESEARCH ACTIVITY

Sep. 2022 – Dec. 2023: Postdoc, CEMES, CNRS, France
Oct. 2021 – Aug. 2022: Teaching physics, Chengdu University, China
May 2021 – Sep. 2021: Postdoc, CEMES, CNRS, France
Sep. 2019 – Apr. 2021: Postdoc, CEA/SACLAY, France
Aug. 2016 – Jan. 2019: Postdoc, Stuttgart University & InnovationLab, Germany
Sep. 2013 – Jun. 2016: PhD student, Condensed Matter Physics, Xiangtan University, China
Sep. 2011 – Jul. 2013: Master student, Physics, Xiangtan University, China
Sep. 2009 – Jul. 2011: Insurance agent, Pacific Insurance Agency
Sep. 2005 – Jun. 2009: Bachelor student, Physics, Xihua University, China

## PROJECT ACTIVITY

Year	Project
2022-2023	Ô-GST Projec (as a participant)
2019-2021	CONCEPTS AND TOOLS IN MOLECULAR SPINTRONICS (as a participant)
2016-2019	Designprinzipien in der organischen Elektronik: Heterogenitäten im Volumen und an Phasengrenzen (Interphase) (as a participant)
2013-2016	Nucleation and growth mechanism of metal nanoclusters on the surface of graphene Mole templates (as a participant)



## PATENTS

Patent

## CONGRESSES AND SEMINARS

Date	Title	Place
2023	ePCM Workshop	ST company, Grenoble, France
2023	2nd Scientific Days of the GDR CHALCO Research, Development and Innovation	Bordeaux, France
2021	Magnetic Molecules on Surfaces	CEA, Paris, France
2018	The Symposium on Theoretical Chemistry (STC)	Paderborn, Germany
2018	Statusseminar: "Organische Elektronik-Grundlagen der Technologie und Anwendungsszenarien"	köln, Germany
2018	CP2K User Tutorial: "Computational Spectroscopy"	Paderborn, Germany
2018	International Workshop "Insight from Band Structures"	Max Planck Institute for Solid State Research, Germany
2017	The Symposium on Theoretical Chemistry (STC)	Basel, Switzerland
2017	DPG Spring Meetings	Dresden, Germany
2016	The Annual Meeting of Physics and Symposium of Hunan Province	Hunan, China
2015	The 1st Conference on Condensed Matter Physics	Beijing, China
2014	The International Workshop on Dislocation Dynamics	Shanghai, China
2013	The 12th International Conference on Condensed Matter Theory and Computational Materials Science	Guangzhou, China

## PUBLICATIONS

Books
[title, place, publishing house, year ...]
[title, place, publishing house, year ...]
[title, place, publishing house, year ...]

Articles in reviews
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1. Shuangying Ma, Wenlan Liu, Andreas Köhn, Adsorption Geometries and Electronic Properties of a Dipolar Phosphonate-based Monolayer on NiO Surface, *Journal of Physical Chemistry C*, 126 (2022) 5793
2. Eloïse Rahier, Sijia Ran, Nicolas Ratel Ramond, Shuangying Ma, Lionel Calmels, Sabyasachi Saha, Cristian Mocuta, Daniel Benoit, Yannick Le Friec, Minh Anh Luong\*, and Alain Claverie\*, Crystallization of Ge-Rich GeSbTe Alloys: The Riddle Is Solved, *ACS Applied Electronic Materials*, 4 (2022) 2682
3. Yuping Liu, Shuangying Ma, Marina Rosebrock, Pascal Rusch, Yvo Barnscheidt, Chuanqiang Wu, Pengfei Nan, Frederik Bettels, Zihua Lin, Taoran Li, Binghui Ge, Nadja C. Bigall, Herbert Pfnür, Fei Ding; Chaofeng Zhang, Lin Zhang, Tungsten Nanoparticles Accelerate Polysulfides Conversion: A Viable Route toward Stable Room-Temperature Sodium-Sulfur Batteries. *Advanced Science*, 9 (2022) 2105544
4. Yuping Liu, Shuangying Ma, Lifeng Liu, Julian Koch, Marina Rosebrock, Taoran Li, Frederik Bettels, Tao He, Herbert Pfnür, Nadja-C. Bigall, Armin Feldhoff, Fei Ding, and Lin Zhang\*, Nitrogen doping improves simultaneously the immobilization and catalytic effects of transition metal dichalcogenide in Li-S batteries. *Advanced Functional Materials* 30 (2020) 2002462
5. Wenlan Liu, Lars Müller, Shuangying Ma, Stephen Barlow, Seth R. Marder, Wolfgang Kowalsky, Andreas Köhn\*, and Robert Lovrincic, The Origin of the  $\pi$ - $\pi$  Spacing Change Upon Doping of Semiconducting Polymers. *Journal of Physical Chemistry C* 122 (2018) 27983
6. Sebastian Hietzschold, Sabina Hillebrandt, Florian Ullrich, Jakob Bombsch, Valentina Rohnacher, Shuangying Ma, Wenlan Liu, Andreas Köhn, Wolfram Jaegermann, Annemarie Pucci, Wolfgang Kowalsky, Eric Mankel, Sebastian Beck, and Robert Lovrincic, Functionalized Nickel Oxide Hole Contact Layers: Work Function versus Conductivity. *ACS Appl. Mater. Interfaces* 9 (2017) 39821
7. ShuangYing Ma, Meng Zhang, L. Z. Sun\*, K. W. Zhang\*, High-Temperature Behavior of Monolayer Graphyne and Graphdiyne. *Carbon* 99 (2016) 547-555
8. ShuangYing Ma, Chaoyu He, L. Z. Sun\*, Haiping Lin, Youyong Li, and K. W. Zhang\*, Stability of two-dimensional PN monolayer sheets and their electronic properties. *Physical Chemistry Chemical Physics* 17 (2015) 32009-32015
9. ShuangYing Ma, L. Z. Sun\*, and K. W. Zhang\*, Prediction of two planar carbon allotropes with large meshes. *Physical Chemistry Chemical Physics* 18 (2016) 1172
10. ShuangYing Ma, L. Z. Sun\*, and K. W. Zhang\*, Two-Dimensional Tricycle Arsenene with a Direct Gap. *Physical Chemistry Chemical Physics* 18 (2016), 8723
11. Peiran Zhang, ShuangYing Ma\*, L. Z. Sun\*, Hydroxylated graphyne and graphdiyne: First-principles study. *Applied Surface Science* 361 (2016) 206-212
12. ShuangYing Ma, C.X. Zhang, Junjie He, Pan Zhou, K.W. Zhang\*, Chaoyu He, L.Z. Sun\*, Stable configurations and electronic structures of hydrogenated graphyne. *Computational Materials Science* 91 (2014) 274-278
13. Junjie He, ShuangYing Ma, Pan Zhou, CX Zhang, Chaoyu He, LZ Sun\*, Magnetic Properties of Single Transition-Metal Atom Absorbed Graphdiyne and Graphyne Sheet from DFT+U Calculations. *Journal of Physical Chemistry C* 116 (2012) 26313
14. Lang Xiang, Shuang Ying Ma, Fang Wang and Kaiwang Zhang\*, Nanoindentation models and Young's modulus of few-layer graphene: a molecular dynamics simulation study. *Journal of Physics D: Applied Physics* 48 (2015) 39
15. Xiang Lang, Wu Jian, Ma Shuang-Ying, Wang Fang and Zhang Kai-Wang\*, Nanoindentation Models of Monolayer Graphene and Graphyne under Point Load Pattern Studied by Molecular Dynamics. *Chinese Physics Letters* 32 (2015) 9
16. T Zhao, C Y He, S Y Ma, K W Zhang\*, X Y Peng\*, G F Xie and J X Zhong, A new phase of phosphorus: the missed tricycle type red phosphorene. *Journal of Physics: Condensed Matter* 27 (2015) 265301
17. Junjie He, Pan Zhou, N. Jiao, S. Y. Ma, K. W. Zhang, R. Z. Wang, L. Z. Sun\*, Magnetic Exchange Coupling and Anisotropy of 3d Transition Metal Nanowires on Graphyne. *Scientific Reports* 4 (2014) 4014



18. L Wang, MA Shuang ying, C Guo, Y Cao, CHEN Xiao hong*, Study on Potential Energy Functions and Spectrum Constants of $VF_n$ ( $n=0,1,2$ ). Journal of Sichuan Normal University 35(2) (2012) 258
19. Shuangying Ma, Wenlan Liu, Andreas Köhn, Adsorption Geometries and Electronic Properties of Dipolar thiol-containing Monolayers on Au(111) Surface. (submitted)
20. Spin-state Regulation of Spin-crossover Molecule Adsorbing on Graphene: A First-principles Study. (to be submitted)
21. Ab initio molecular dynamics simulations of N-doped $Ge_2Sb_2Te_5$ . (in preparation)

Congress proceedings
[title, structure, place, year]
[title, structure, place, year]
[title, structure, place, year]

OTHER INFORMATION


Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

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Place and date: Toulouse, 10/11/2023