Name: Abdelkader Kara
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(a) Professional Preparation

A list of the individual's undergraduate and graduate education and postdoctoral training as indicated below:

ISEN	Lille, France	Physics	MS, 1982
University of Lille	Lille, France	Major	PhD 1985

(b) Appointments

Professor, University of Central Florida, Department of Physics 2017 – present: Materials and Nano-Materials Science
Associate Professor, University of Central Florida, Department of Physics 2007-2017: Computational Materials and Nano-Materials Science
Research Associate Professor, University of Central Florida, Department of Physics: 2006-2007: Computational Materials and Nano-Materials Science
Research Associate Professor, Kansas State University 2005-2006: Computational Materials and Nano-Materials Science
Research Assistant Professor, Kansas State University:2000-2205, Computational Materials and Nanomaterials science
Research Associate, Kansas State University 1994-2000: Computational Materials and Nano-Materials Science
Post-Doctoral, University of Louisville, Louisville, KY, USA 1992 - 1994
Post-Doctoral, University of Liverpool, Liverpool, UK, United Kingdom 1989 - 1992
Post-Doctoral, Iowa State University, Ames, IA, USA 1986 - 1989
Post-Doctoral, Penn State University, State College, PA, USA 1985 - 1986

(c) Products *[this section may be titled **Publications** if only publications are listed]*

(i) List up to five (5) publications/products that are the **most current** ones related to your field

1. J. Chang, G. Wang, C. Li, Y. He, Y. Zhu, W. Zhang, M. Sajid, A. Kara, M. Gu, Y. Yang. Rational design of septenary high-entropy alloy for direct ethanol fuel cells. Joule, 7, 587, **2023.** https://www.cell.com/joule/pdf/S2542-4351(23)00081-8.pdf

2. W. Malone, A. Kara. Predicting adsorption energies and the physical properties of H, N, and O adsorbed on transition metal surfaces: A machine learning study. Surf. Sci. 731, 122252, **2023.** https://www.sciencedirect.com/science/article/abs/pii/S0039602823000067

3. N. Zaman, G. Roberts, J. von der Heyde, A. Kara. Small Bimetallic Clusters Agn-1M (M= Au, Co, Cu, Ni, Pd, Pt; n= 3, 9, 15): Density Functional Theory and Genetic Algorithm. Surf. Sci. 733, 122290, **2023.** https://www.sciencedirect.com/science/article/abs/pii/S0039602823000432

4. Y. Kaddar, W. Zhang, H. Enriquez, Y. J Dappe, A. Bendounan, G. Dujardin, O. Mounkachi, A. El Kenz, A. Benyoussef, A. Kara, H. Oughaddou. Dirac Fermions in Blue Phosphorene Monolayer. Adv. Funct. Mat. 2213664, **2023.**

https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.202213664
5. M. Jabrane, M. El Hafidi, Moulay Y. El Hafidi, A. Kara. Loss of C4 rotational symmetry in pristine and functionalized FePc on reactive metals: Rh (111) and Ru (0001). Chem. Phys. 572, 111944, **2023.**
https://www.sciencedirect.com/science/article/abs/pii/S030101042300126X

(ii) List up to five (5) other significant publications/products.
1. S Moussadeq, M Jabrane, A Benbella, I Matrane, M Badawi, S Lebègue, A Kara, M Mazroui. Insight into the Effect of Alloying on the Adsorption of Benzene on Ag (100) Surface: DFT calculations. Surf. Sci. 122321, **2023.**
2. I. Serifi, N. B. Kanga, L. B. Drissi, A. Kara, E. H. Saidi. [PDF] from wiley.com Electron–Phonon Superconductivity in Boron-Based Chalcogenide (X= S, Se) Monolayers. Annalen der Physik 535, 2200539, **2023.**
https://www.sciencedirect.com/science/article/abs/pii/S0039602823000742
3. E. Neziri, W. Zhang, A. Smogunov, A. J. Mayne, A. Kara, Y. J. Dappe, H. Oughaddou. Structural properties of Bi/Au(110). Nanotechnology 34, 235601, **2023.**
https://iopscience.iop.org/article/10.1088/1361-6528/acbf55/meta
4. M. Jabrane, M. El Hafidi, M. Y. El Hafidi, M. Sajid, A. Kara. Effects of monolayer and bilayer silica films on Fe-Phthalocyanine adsorption properties. Euro. Phys. J. App. Phys. 98, 7, **2023.** https://epjap.epj.org/articles/epjap/abs/2023/01/ap220273/ap220273.html
5. A. Kara, H. Enriquez, A. P. Seitsonen, LCLW Voon, S. Vizzini, B. Aufray, H. Oughaddou. A review on silicene—new candidate for electronics. Surface Science Reports 67, 1, **2012**.
https://www.sciencedirect.com/science/article/abs/pii/S0167572911000483

(d) Graduate teaching experience
Introduction to Solid State Physics. Computational Methods for Materials. Introduction to Nanoscience.

(e) Graduate students mentored (to completion, if applicable)
- M. Sajid, PhD, 2022. W. Malone, PhD 2019. J. Matos, PhD, 2015. J. Westover, MS, 2014.
- I. Benabdallah, PhD, 2019. F. Torres Davila, PhD, 2019. A. Sibari, PhD, 2019. Z. Hooshmand, PhD, 2019. Z. Kerrami, PhD, 2019.
- List total number of graduate students mentored on thesis/dissertation committees over the course of your career: 20.

(f) Other synergistic activities related to Graduate Education
1. Contributing to the development of Studio Mode teaching materials.
2. Contributing to the development of teaching methods for a Universal Design of Learning.
3. Founder and Co-Chair of the "Euro-Med Conference on Materials and Renewable Energies" Series: Morocco 2011, France 2013 and Morocco 2015, 2017, 2019, 2022.
4. Active referee for several national and international journals.
5. Co-organizer of several national and international workshops on Computational Nanomaterials.