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وب سایت:

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Education

- Ph.D: , Chemistry-Physical Chemistry
- M.Sc: Amirkabir University of Technology, Chemistry-Physical Chemistry, 1384→1386
- B.Sc: , Chemistry-Applied Chemistry, 1380→1384

Research Interests

- Soft Condensed Matter
- Computational chemistry
- Biochemistry

Professional Experiences

- , 1400→1401
- , 1399→1400
- , 1398→1399

Industry Collaborations

- شبیه سازی دینامیک مولکولی دارو رسانی کنترل شده توسط نانو لوله های کربنی اصلاح شده برای درمان سرطان
1399

Journal Papers

- Is there a granular potential?
Josh M. Gramlich, Mahdi Zarif, Richard K. Bowles
Soft Matter, Vol.19, pp. 1373-1383, 2023
- Molecular dynamics insight of interaction between the functionalized-carbon nanotube and cancerous cell membrane in doxorubicin delivery
Azadeh Kordzadeh, Mahdi Zarif, Sepideh Amjad-Iranagh

■ **Effect of temperature, pH, and terminal groups on structural properties of carbon nanotube-dendrimer composites: A coarse-grained molecular dynamics simulation study**

Sajjad Kavyani, Sepideh Amjad-Iranagh, Mahdi Zarif
JOURNAL OF MOLECULAR LIQUIDS, Vol.363, 2022

■ **Doxorubicin and Imatinib co-drug delivery using non-covalently functionalized carbon nanotube: Molecular dynamics study**

Abdolhalim Torrik, Shamim Zaerin, Mahdi Zarif
JOURNAL OF MOLECULAR LIQUIDS, Vol.362, 2022

■ **Inherent structure landscape of hard spheres confined to narrow cylindrical channels**

Mahdi Zarif, Raymond J. Spiteri, Richard K. Bowles
PHYSICAL REVIEW E, Vol.104, 2021

■ **Dimeric colloidal inclusion in a chiral active bath: Effective interactions and chirality-induced torque**

Abdolhalim Torrik, Ali Naji, Mahdi Zarif
PHYSICAL REVIEW E, Vol.104, 2021

■ **Confinement-induced alternating interactions between inclusions in an active fluid**

Mahdi Zarif, Ali Naji
PHYSICAL REVIEW E, Vol.102, 2020

■ **Mapping diffusivity of narrow channels into one dimension**

Mahdi Zarif, Richard K. Bowles
PHYSICAL REVIEW E, Vol.101, 2020

■ **TiO₂ nano-particle effect on the chemical and physical properties of Ni-P-TiO₂ nanocomposite electroless coatings**

Sepideh Amjad-iranagh, Mahdi Zarif
Journal of Nanostructures, Vol.10, pp. 415-423, 2020

■ **Effect of side branch on gas separation performance of triptycene based PIM membrane: A molecular simulation study**

Ehsan Ghasemnejad-Afshar, Sepideh Amjad-Iranagh, Mahdi Zarif, Hamid Modarress
POLYMER TESTING, Vol.83, 2020

■ **Adsorption and encapsulation of the drug doxorubicin on covalent functionalized carbon nanotubes: A scrutinized study by using molecular dynamics simulation and quantum mechanics calculation**

Azadeh Kordzadeh, Sepideh Amjad-Iranagh, Mahdi Zarif, Hamid Modarress
JOURNAL OF MOLECULAR GRAPHICS and MODELLING, Vol.88, pp. 11-22, 2019

■ **Effective interactions between inclusions in an active bath**

Mahdi Zarif, Ali Naji
The Journal of Chemical Physics, Vol.147, 2017

■ **Inherent structures, fragility, and jamming: Insights from quasi-one-dimensional hard disks**

Mahdi Zarif, S. S. Ashwin, Richard K. Bowles
PHYSICAL REVIEW E, Vol.91, 2015

■ **Helical Defect Packings in a Quasi-One-Dimensional System of Cylindrically Confined Hard Spheres**

Mahdi Zarif, Richard K. Bowles
PHYSICAL REVIEW LETTERS, Vol.115, 2015

■ **Molecular dynamic simulation of Ca²⁺ ATPase interacting with lipid bilayer membrane**

Samaneh Davoudi, Sepideh Amjad-Iranagh, Mahdi Zarif
IET Nanobiotechnology, Vol.9, pp. 85-94, 2015

■ **Inherent Structure Landscape Connection between Liquids, Granular Materials, and the Jamming Phase Diagram**

S. S. Ashwin, Mahdi Zarif, Richard K. Bowles

■ **Fragile-Strong Fluid Crossover and Universal Relaxation Times in a Confined Hard-Disk Fluid**

Mahdi Zarif, S. S. Ashwin, Richard K. Bowles
PHYSICAL REVIEW LETTERS, Vol.109, 2012

Conference Papers

■ **Is there a Granular Potential**

Josh Gramlich, Mahdi Zarif, Richard Bowles
Canadian Chemistry Conference and Exhibition 2022

■ **The role of topological defects in the properties of a quasi-one-dimensional confined hard sphere fluid**

Mahdi Zarif, Richard K. Bowles
27 th International Conference on Statistical Physics (StatPhys27), Vol.27

■ **The inherent structure landscape of a quasi-one-dimensional confined hard sphere fluid.**

Richard bowles, Mahdi Zarif
102nd Canadian Chemistry Conference and Exhibition

■ **بررسی اثر دندریمر پلی آمیدو آمین بر روی عملکرد دادرورسانی نانو لوله های بورنیتریدی**

محمد نبی خان، مهدی ظریف

هفدهمین همایش ملی و دومین همایش بین المللی بیوشیمی فیزیک ایران، صفحات: ۱ – ۱

■ **برهم کنش های ذرات کلوییدی محبوس در کانال با سیال خودران کایرال**

عبدالعلیم طریک، مهدی ظریف

یازدهمین کنفرانس فیزیک آماری، ماده چگال نرم و سیستم های پیچیده ۱۳۹۹، صفحات: ۱ – ۴

■ **Mapping diffusivity of narrow channels into one-dimension**

مهدی ظریف

هشتمین کنفرانس شیمی نظری و محاسباتی ایران، نسخه ۸، صفحات: ۶ – ۷

■ **ساختارهای فشرده در سیستم کرات سخت محبوس شده**

مهدی ظریف

صفحات: ۱ – ۴، the ۱۶th Iranian national congress of chemical engineering،

M.Sc. Theses

■ **simulation of boron nitride nanotubes with molecular dynamics**

Zahra Ghavi
2022

■ **Molecular dynamics simulation of PEG-PCL-PEI triblock copolymer in micelle self-formation**

Mohsen Mohammadzadeh zare
2021

■ **Molecular dynamics-like interaction of drug and carbon nanotubes as an intelligent drug carrier system**

Shamim Zaerin
2021

