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Publications

Journals

- Saadati, Maryam and Akhavan, Omid and Fazli, Hossein, "Single-Layer MoS₂-MoO₃-x Heterojunction Nanosheets with Simultaneous Photoluminescence and Co-Photocatalytic Features", catalysis, Vol. 11, NO. 11, 2021
- Taherkhani, Ali and Fazli, Hossein and Taherkhani, Farid, "Application of Janus Magnetic Nanoparticle Fe₃O₄@ SiN functionalized with beta-cyclodextrin in thymol drug delivery procedure: An in vitro study", Applied Organometallic Chemistry, Vol. 35, NO. 11, 2021
- Kargar, Faezeh and Emadi, Saeed and Fazli, Hossein, "Dimerization of A β 40 inside dipalmitoylphosphatidylcholine bilayer and its effect on bilayer integrity: Atomistic simulation at three temperatures", Proteins: Structure, Function, and Bioinformatics, Vol. 88, NO. 11, 2020
- Lee, EY and Leforestier, A and Di Domizio, J and Curk, T and Abbaspour, L and Berezhnoy, N and Fazli, H and Nordenskiöld, L and Dobnikar, J and Gilliet, M and others, "NETs generate structured antimicrobial peptide-nucleosome immune complexes with inter-DNA spacings optimal for TLR9 activation", Journal of Investigative Dermatology, Vol. 139, NO. 5, 2019
- Emamyari, Soheila and Fazli, Hossein, "Single-Chain



Conformational Characteristics of Comb-Like Polyelectrolytes: Molecular Dynamics Simulation Study", Macromolecular Research, Vol. 27, NO. 1, 2019

- Taheri, Fereshteh Samadi and Fazli, Hossein and Doi, Masao and Habibi, Mehdi, "Granular chain escape from a pore in a wall in the presence of particles on one side: a comparison to polymer translocation", *Soft Matter*, Vol. 14, NO. 26, 2018
- Emamyari, Soheila and Fazli, Hossein, "Polymer translocation through a nanopore in the presence of chaperones: A three dimensional MD simulation study", *Computational Condensed Matter*, Vol. 13, NO. 7, 2017
- Mohammadi, Maryam and Fazli, Hossein and Karevan, Mehdi and Davoodi, Jamal, "The glass transition temperature of PMMA: A molecular dynamics study and comparison of various determination methods", *European Polymer Journal*, Vol. 91, NO. 7, 2017
- Kargar, Faezeh and Emadi, Saeed and Fazli, Hossein, "The molecular behavior of a single β -amyloid inside a dipalmitoylphosphatidylcholine bilayer at three different temperatures: An atomistic simulation study: A β interaction with DPPC: Atomistic simulation", *Proteins: Structure, Function, and Bioinformatics*, Vol. 85, NO. 7, 2017
- Khalilian, Hamidreza and Fazli, Hossein, "Obstruction enhances the diffusivity of self-propelled rod-like particles", *The Journal of Chemical Physics*, Vol. 145, NO. 16, 2016
- Nikoofard, Narges and Fazli, Hossein, "A flexible polymer confined inside a cone-shaped nano-channel", *Soft Matter*, Vol. 11, NO. 24, 2015
- Emamyari, Soheila and Kargar, Faezeh and Sheikh-Hasani, Vahid and Emadi, Saeed and Fazli, Hossein, "Mechanisms of the self-assembly of EAK16-family peptides into fibrillar and globular structures: molecular dynamics simulations from nano-



to micro-seconds", European Biophysics Journal, Vol. 44, NO. 4, 2015

- Emamyari, Soheila and Fazli, Hossein, "All-atom molecular dynamics study of EAK16 peptide: the effect of pH on single-chain conformation, dimerization and self-assembly behavior", European Biophysics Journal, Vol. 43, NO. 4, 2014
- Emamyari, Soheila and Fazli, Hossein, "pH-dependent self-assembly of EAK16 peptides in the presence of a hydrophobic surface: coarse-grained molecular dynamics simulation", Soft matter, Vol. 10, NO. 24, 2014
- Nikoofard, Narges and Khalilian, Hamidreza and Fazli, Hossein, "Directed translocation of a flexible polymer through a cone-shaped nano-channel", The Journal of Chemical Physics, Vol. 139, NO. 7, 2013
- Fazli, H and Emadi, S and Emamyari, S and Sheikh-Hasani, V and Kargar, F, "Multi-scale Molecular Dynamics Simulations and Experimental Study of Peptides Self-assembly: A Way to a Better Understanding of Peptides and Proteins Self-assembly and Amyloid Formation", Physical Review E, Vol. 85, NO. 6, 2012
- Pezeshkian, Weria and Nikoofard, Narges and Norouzi, Davood and Mohammad-Rafiee, Farshid and Fazli, Hossein, "Distribution of counterions and interaction between two similarly charged dielectric slabs: Roles of charge discreteness and dielectric inhomogeneity", Physical Review E, Vol. 85, NO. 6, 2012
- Nikoofard, Narges and Fazli, Hossein, "Electric-field-driven polymer entry into asymmetric nanoscale channels", Physical Review E, Vol. 85, NO. 2, 2012
- Mohammadinejad, Sarah and Golestanian, Ramin and Fazli, Hossein, "Chiral structure of F-actin bundle formed by multivalent counterions", Soft Matter, Vol. 8, NO. 13, 2012



- Nikoofard, Narges and Fazli, Hossein, "Free-energy barrier for electric-field-driven polymer entry into nanoscale channels", Physical Review E, Vol. 83, NO. 5, 2011
- Sakha, Farzaneh and Fazli, Hossein, "Three-dimensional Brownian diffusion of rod-like macromolecules in the presence of randomly distributed spherical obstacles: Molecular dynamics simulation", The Journal of chemical physics, Vol. 133, NO. 23, 2010
- Baratlo, Majid and Fazli, Hossein, "Brushes of flexible, semiflexible, and rodlike diblock polyampholytes: Molecular dynamics simulation and scaling analysis", Physical Review E, Vol. 81, NO. 1, 2010
- Fazli, Hossein and Mohammadinejad, Sarah and Golestanian, Ramin, "Salt-induced aggregation of stiff polyelectrolytes", Journal of Physics: Condensed Matter, Vol. 21, NO. 42, 2009
- Mohammadinejad, Sarah and Fazli, Hossein and Golestanian, Ramin, "Orientationally ordered aggregates of stiff polyelectrolytes in the presence of multivalent salt", Soft Matter, Vol. 5, NO. 7, 2009
- Baratlo, M and Fazli, H, "Molecular dynamics simulation of semiflexible polyampholyte brushes--The effect of charged monomers sequence", The European Physical Journal E, Vol. 29, NO. 2, 2009
- Fazli, Hossein and Golestanian, Ramin, "Aggregation kinetics of stiff polyelectrolytes in the presence of multivalent salt", Physical Review E, Vol. 76, NO. 4, 2007
- Fazli, H and Golestanian, R and Hansen, PL and Kolahchi, MR, "Rod-like polyelectrolyte brushes with mono-and multivalent counterions", EPL (Europhysics Letters), Vol. 73, NO. 3, 2005
- Fazli, Hossein and Golestanian, Ramin and Kolahchi,



Mohammad R, "Orientational ordering and dynamics of rodlike polyelectrolytes", Physical Review E, Vol. 72, NO. 1, 2005

- Kolahchi, Mohammad R and Fazli, Hossein, "Behavior of a Josephson-junction array with golden mean frustration", Physical Review B, Vol. 62, NO. 13, 2000