Resource Summary Report

Generated by SPARC SAWG on Sep 14, 2026

GROMACS

RRID:SCR_014565
Type: Tool

Proper Citation

GROMACS (RRID:SCR_014565)

Resource Information

URL: http://www.gromacs.org

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Description: Software package created to perform molecular dynamics. Molecular dynamics package mainly designed for simulations of proteins, lipids, and nucleic acids. Can also be used for research on non-biological systems, such as polymers.

Synonyms: Gromacs

Resource Type: simulation software, software application, software resource, software toolkit

Defining Citation: PMID:26620784, DOI:10.1016/0010-4655(95)00042-E

Keywords: simulation, molecular dynamics, software package, software toolkit, biochemical, molecule, protein, lipid, nucleic acid, bond interaction, bio.tools

Funding: European Research Council ;
Nvidia ;
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Swedish Foundation for Strategic Research ;
Swedish National Infrastructure for Computing ;
Swedish Research Council

Availability: Free, Available for download

Resource Name: GROMACS

Resource ID: SCR_014565

Alternate IDs: biotools:gromacs, OMICS_05081

Alternate URLs: https://bio.tools/gromacs, https://sources.debian.org/src/gromacs/, https://github.com/gromacs/gromacs

License: GNU Lesser General Public License version 2.1

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Ratings and Alerts

No rating or validation information has been found for GROMACS.

No alerts have been found for GROMACS.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 9367 mentions in open access literature.

Listed below are recent publications. The full list is available at SPARC SAWG .

Ding XW, et al. (2027) Evolution of alcohol oxidase for improved methanol bioconversion and formaldehyde tolerance. Synthetic and systems biotechnology, 15, 22.

Zhang X, et al. (2026) Synergistic mechanical and therapeutic modulation of engineered tumor cell-derived microparticles for enhanced cancer treatment. Cell reports. Medicine, 7(2), 102591.

Parnandi VA, et al. (2026) A small Candida glabrata protein promotes hyphal growth in C. albicans during mixed-species invasive candidiasis. Current biology : CB, 36(1), 1.

Furukawa K, et al. (2026) Mitochondrial fission during mitophagy requires both inner and outer mitofissins. EMBO reports, 27(4), 853.

Xiao W, et al. (2026) Metabolite-gated vascular contractility switch: OXGR1 activation mechanism enables agonist therapy for rosacea erythema. Cell, 189(7), 1990.

Lei G, et al. (2026) Experimental evolution to thermal stress indicates climate resilience in a cosmopolitan arthropod. eLife, 15.

Yan L, et al. (2026) The Erlin1/2 complex is a dynamic scaffold for membrane microdomain assembly on the endoplasmic reticulum. Molecular cell, 86(7), 1362.

Cortolezzis Y, et al. (2026) RPA hyperphosphorylation hinders the resolution of R-loops and G-quadruplex-associated R-loops during RAS-driven senescence. Nucleic acids research, 54(7).

Azadi A, et al. (2026) Encapsulation of colistin using hyaluronic acid and PVA-PSS polymeric nanocarriers for enhanced drug delivery: a molecular dynamics simulation study. Scientific reports, 16(1).

Pinto CS, et al. (2026) Actin arginylation alters myosin engagement and F-actin patterning despite structural conservation. The Journal of cell biology, 225(1).

Tyagi M, et al. (2026) Arc mediates intercellular tau transmission via extracellular vesicles. Cell, 189(15), 4706.

Choo SMT, et al. (2026) Exploring the role of zolpidem in alleviating cognitive and motor impairments in chronic cerebral hypoperfusion: a rat model study with in vivo and in silico insights. Experimental animals, 75(1), 23.

Steffensen KE, et al. (2026) Actin's functional "switch": Constraining C-terminal conformational flexibility disrupts functionally important communication networks. The Journal of biological chemistry, 302(6), 111446.

Oliveira NFB, et al. (2026) Improving the Estimation of pKa Values for All Titratable Amino Acids at the Water/Membrane Interface. The journal of physical chemistry. B, 130(16), 4270.

Grasso R, et al. (2026) A Computational Modeling for Reconfigurable Biosensors. BioNanoScience, 16(4), 248.

Rahman K, et al. (2026) In-silico identification of anti-cholera phytochemicals from Indian medicinal plants. PloS one, 21(2), e0342058.

Wang C, et al. (2026) Coacervate droplets as pH-regionalized protocells. Nature communications, 17(1).

Edwards AN, et al. (2026) Investigating the Effect of Isoelectric Points on the Gas-Phase Stability of Native-like Proteins Analyzed in Positive- versus Negative-Ion Mode by IMS-MS. Analytical chemistry, 98(6), 4518.

Yin Y, et al. (2026) Ampere-level CO2 electroreduction to multi-carbon oxygenates in acidic electrolyte through surface microenvironment reconstruction. Nature communications, 17(1).

Yang Z, et al. (2026) Electrolyte chemistry of adaptive hydrogen bonded domains for high voltage lithium metal batteries. Nature communications, 17(1).